



Metropolitan Transportation Authority

Capital Program Oversight Committee Meeting

November 2015

Committee Members

T. Prendergast, Chair

F. Ferrer

R. Bickford

A. Cappelli

S. Metzger

J. Molloy

M. Pally

J. Sedore

V. Tessitore

C. Wortendyke

N. Zuckerman

Capital Program Oversight Committee Meeting

2 Broadway, 20th Floor Board Room

New York, NY 10004

Monday, 11/16/2015

1:15 - 2:15 PM ET

1. PUBLIC COMMENTS PERIOD

2. APPROVAL OF MINUTES OCTOBER 26, 2015

- Minutes from October '15 - Page 3

3. COMMITTEE WORK PLAN

- 2015-2016 CPOC Work Plan - Page 6

4. LIRR AND MNR UPDATE ON ROLLING STOCK

- LIRR and MNR Progress Report on Rolling Stock - Page 8

- IEC's Project Review on M-9 Railcar Procurement - Page 25

5. LIRR CAPITAL PROGRAMS UPDATE

- LIRR Progress Report - Page 30

- IEC's Project Review on Main Line Double Track - Page 50

- IEC's Project Review on Jamaica Capacity Improvements - Page 54

6. MNR CAPITAL PROGRAMS UPDATE

- MNR Progress Report - Page 57

- IEC's Project Review on Hudson Line Sandy Restoration - Page 80

- IEC's Project Review on Harmon Shop Replacement - Page 84

7. CAPITAL PROGRAM STATUS

- Commitments, Completions, and Funding Report - Page 88

Date of next meeting: Monday, December 14, 2015 at 1:45 PM

MINUTES OF MEETING
MTA CAPITAL PROGRAM OVERSIGHT COMMITTEE
October 26, 2015
New York, New York
1:45 P.M.

MTA CPOC members present:

Hon. Thomas Prendergast
Hon. Fernando Ferrer
Hon. Susan Metzger
Hon. John Molloy
Hon. Mitchell Pally
Hon. James Sedore
Hon. Carl Wortendyke

MTA CPOC members not present:

Hon. Robert Bickford
Hon. Alan Cappelli
Hon. Vincent Tessitore
Hon. Neal Zuckerman

MTA Board members present:

Hon. Andrew Albert
Hon. Ira Greenberg
Hon. Polly Trottenberg

MTA staff present:

Jessie McKinney
Craig Stewart
Michael Wetherell

NYCT staff present

Mark Bienstock
John O'Grady
Nidhish Patel

LIRR staff present:

Mark Young

MNR staff present:

Delana Glenn

Independent Engineering Consultant staff present:

Chris Adams
Joe DeVito
Lou Gelsomino
Calvin Gordon
Darlene Rivera

* * *

Chairman Prendergast called the October 26, 2015 meeting of the Capital Program Oversight Committee to order at 1:20 P.M.

Public Comments Period

There were no public speakers in the public comments portion of the meeting.

Meeting Minutes

Upon motion duly made and seconded, the CPOC members approved the minutes to the previous meeting held on September 21, 2015.

Committee Work Plan

Mr. Stewart announced that there were no changes to the CPOC Work Plan.

NYCT Update on Signals and Train Control Division

Mr. Patel first provided an update on the Signals and Train Control Division's CBTC Flushing Line: the project's substantial completion is scheduled for the third quarter of 2017, delayed from the second quarter 2017, as last reported to CPOC. While the current budget remains \$550 million, Mr. Patel noted that additional funds of approximately \$20 million are required. He then provided an update on the Culver Line CBTC Integrated Test Facility, stating that the project substantial completion is scheduled for December 2015, delayed from July 2015, as last reported to CPOC. In addition, he reported that the project remains within the \$101 million budget. Mr. Patel then highlighted several other projects, all of which are currently on schedule and within budget, with the exception of the Union Turnpike and 71st Avenue interlockings on the Queens Boulevard Line (the substantial completion of which are delayed from April 2017 to the third quarter of 2017). In its Project Review, the IEC stated that it is in general agreement with project information as provided in NYCT's report. Further details of this presentation, and Committee Members' comments and questions with respect thereto are included in the video recording of the meeting maintained in MTA's records.

NYCT Update on Systems and Security Division

Mr. Bienstock reported on the VHF Radio System Upgrades which, while currently 55 days behind schedule, remains within its \$221 million budget. He then updated the Committee on the Bus Command Center, with a projected cost of \$77 million and a scheduled June 2017 substantial completion date, as well as the Bus Radio System, with a projected cost of \$225-\$300 million and a scheduled November 2020 substantial completion date. Finally, Mr. Bienstock provided an overview of the Help Point System, the Passenger Station Local Area Network, and the Integrated Service Information and Management Program on the B Division. In its Project Reviews of the VHF Radio, the Bus Radio System, the Bus Command Center, and the Integrated Service Information and Management Program on the B Division, the IEC stated that it is in general agreement with project information as provided in NYCT's report. Further details of this presentation, and Committee Members' comments and questions with respect thereto are included in the video recording of the meeting maintained in MTA's records.

NYCT, LIRR and MNR Update on New Fare Payment System

Mr. McKinney provided an update on the NYCT New Fare Payment System, including agency plans and progress, details on MetroCard replacement strategies, and the current System roll-out schedule. Mr. Young and Ms. Glenn then provided updates on the LIRR and MNR on-board and mobile ticketing initiatives, as well as the Commuter Railroads' long-term strategy study. In its Project Review of the NYCT program, the IEC confirmed that the NFPS schedule duration is reasonable based on past experiences with similar types of open payment systems and that subway station local area networks are on schedule to be completed by the 4th quarter of 2017. Further details of the presentation, and Committee Members' comments and questions with respect thereto are included in the video recording of the meeting maintained in MTA's records.

MTA Capital Program Commitments and Completions

Mr. Stewart brought the Committee's attention to the MTA Capital Program Commitments and Completions Report and invited Committee Members' questions, of which there was none.

Executive Session

Upon motion duly made and seconded, Chairman Prendergast adjourned the public CPOC meeting at 2:10 PM to go into Executive Session.

Adjournment

Upon motion duly made and seconded, Chairman Prendergast adjourned the Executive Session, reconvened the public session and then immediately adjourned the October 26, 2015 meeting of the MTA Capital Program Oversight Committee

Respectfully submitted,
Michael Jew-Geralds
Office of Construction Oversight



2015-2016 CPOC Committee Work Plan

I. Recurring Agenda Items

Approval of the Minutes
Committee Work Plan
Commitments/Completions and Funding Report

II. Specific Agenda Items

December 2015

Quarterly MTACC Capital Program Update

- Cortlandt Street Station
- East Side Access
- Second Avenue Subway

Quarterly Change Order Report

Quarterly Traffic Light Reports

January 2016

NYCT Capital Program Update

- Stations Program Update
- Rolling Stock Update

Update on Minority, Women and Disadvantaged Business Participation

February 2016

B&T Capital Program Update

- RFK Bridge
- Verrazano-Narrows Bridge

LIRR and MNR Update on Positive Train Control (PTC)

March 2016

Quarterly MTACC Capital Program Update

Quarterly Change Order Report

Quarterly Traffic Light Reports

April 2016

NYCT Capital Program Update

NYCT, LIRR, MNR Update on New Fare Payment System

May 2016

LIRR and MNR Capital Programs Update

June 2016

Quarterly MTACC Capital Program Update

LIRR and MNR Update on Positive Train Control (PTC)

Quarterly Change Order Report

Quarterly Traffic Light Reports

July 2016

NYCT Capital Program Update

Update on Minority, Women and Disadvantaged Business Participation

September 2016

Quarterly MTACC Capital Program Update

Quarterly Change Order Report

Quarterly Traffic Light Reports

October 2016

LIRR and MNR Capital Programs Update

LIRR and MNR Update on Positive Train Control (PTC)

November 2016

NYCT Capital Program Update

NYCT, LIRR, MNR Update on New Fare Payment System

LIRR/MNR Rolling Stock Procurements

**CPOC
November 2015**



**MTA Long Island Rail Road
MTA Metro-North Railroad**

LIRR M-9 Mock Up



LIRR M-9 Mock Up



MTA Long Island Rail Road
MTA Metro-North Railroad



M-9/M-9A Car Procurement

LIRR: 416 M-9/M-9A Cars		
M-9 Base	92	M-3 Replacement: $92+88 = 180$
M-9 1st Option	88	
M-9 2nd Option	76	ESA Fleet Augmentation: $76+160=236$
M-9A*	160	
Total	416	

* Separate Procurement

MNR M-9 Car Quantities
Option for between 140-170 M-9 Cars



M-9/M-9A Car Procurement

M-9 Current Contract Values (92 LIRR Base Order Cars):

- Initial Estimate at Completion: \$375M
- Current Estimate at Completion: \$377M

M-9 Schedule

- Contract Award: Deliveries commence September 2017
- Current Schedule: Deliveries commence January 2018
- B-End Change Order granted a 3 ½ month schedule extension

M-9 LIRR Options (164 Cars): \$500M (2015-2019 Capital Program)

M-9A LIRR (160 Cars): \$707M



LIRR/MNR M-9 Procurement Progress-to-Date

- Initial Design Reviews (IDR) Completed: December 2014
- 1st Stage Mock up review Held: April 2015
- Interim Mock-up Review Held: June 2015
- Final Mock-up Review Held: July 2015
- Final Design Reviews (FDR) Commenced: September 2015
- Structural Testing Commenced: September 2015
- Carbody Passed Structural Testing: October 2015
- Preliminary Design Reviews (PDR) Completed: November 2015

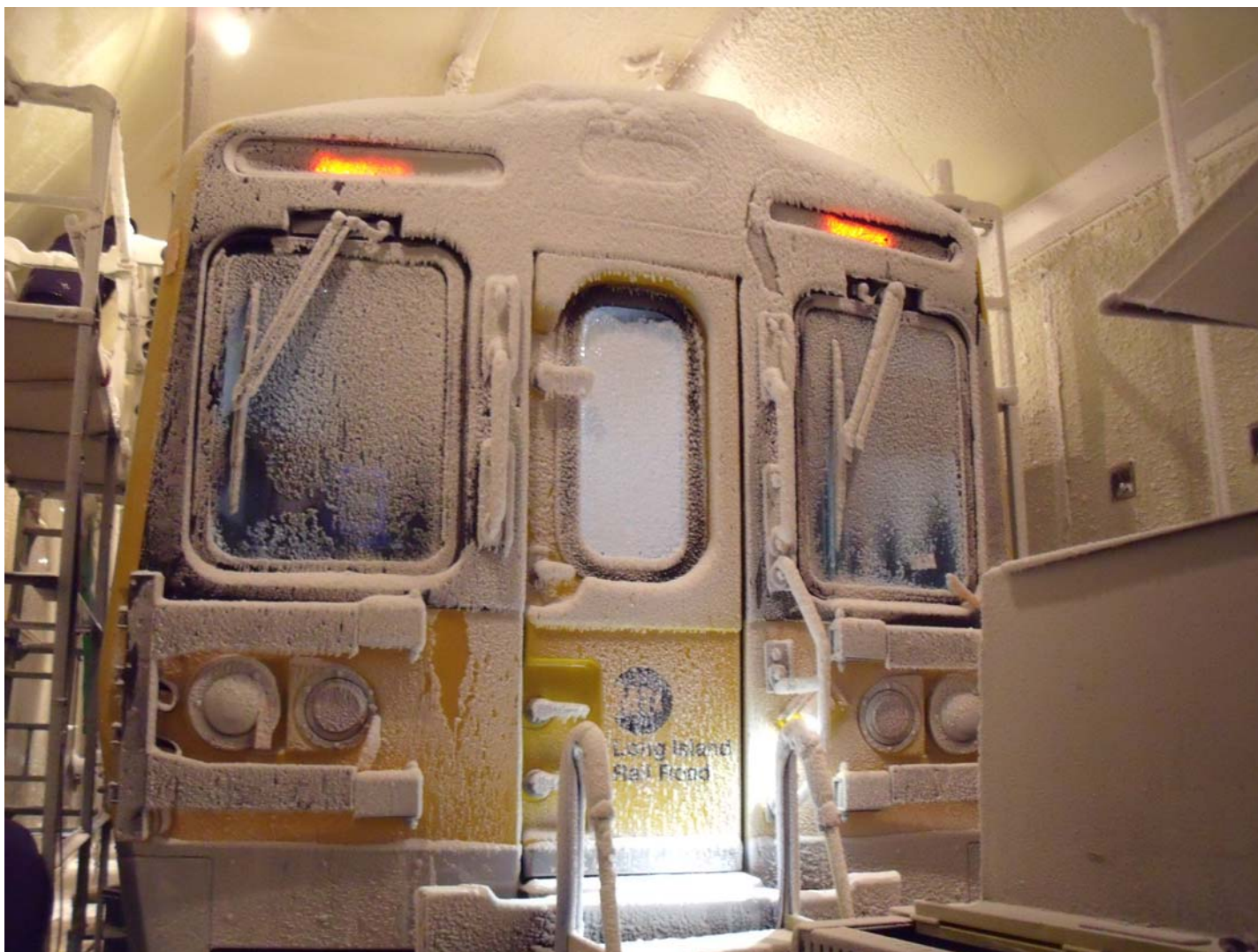


M-9 Carbody Structural Testing



MTA Long Island Rail Road
MTA Metro-North Railroad

Kawasaki Climate Chamber



MTA Long Island Rail Road
MTA Metro-North Railroad

M-9 Mock Up Interior



MTA Long Island Rail Road
MTA Metro-North Railroad

LIRR/MNR M-9 Procurement 12 Month Look-Ahead

12 month Look-Ahead:

- Final Design Reviews: Sept 2015 to 2nd qtr 2016
- Truck Structural Testing: Dec 2015 to 2nd qtr 2016
- System Qualification Tests: Dec 2015 to 3rd qtr 2016
- First Article Inspections: Jan 2016 to 3rd qtr 2016



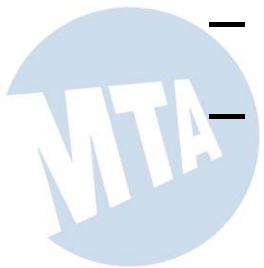
Carbody Structure Change Order (CO)

- As a result of the Bridgeport incident, a CO was issued on June 3, 2015 to make the M-9 Car more crashworthy and absorb more energy at the car's B-End.
 - Schedule: 3 ½ month extension of time
 - Total Cost, 92 Car Base Order: \$242,000



M-9 Car Improvements

- The M-9 Car design incorporates the following Improvements as Compared to the M-7 Car:
 - Delivered Positive Train Control (PTC) Equipped
 - Full CCTV Package
 - Multimedia Screens
 - 4 to 6 Additional Seats per Married Pair
 - Electrical Outlets at each Row
 - Powered B End Door
 - LED Lighting
 - Superior Ride Quality
 - WiFi Ready



Open Issues

Weight:

- Specification contained an ambitious weight requirement
- Weight considerations are part of every design review

Overhead Equipment Lockers:

- No overhead equipment lockers accepted
- Enlarged floor to ceiling lockers necessary to accommodate all electrical equipment
- Improved maintenance access, preserves luggage space

CCTV:

- Contract requirements do not meet recent contract for existing fleet
- Contract change under discussion to match recent camera contract



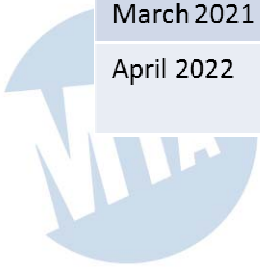
Reduction of Sole Source Parts in the Aftermarket

- To reduce Sole Source Procurements in the aftermarket, KRC is required to make commercially reasonable efforts to design cars so that at least 40% of generally purchased parts are “Commercial-Off-the-Shelf” products or available from multiple sources
- With the assistance of a consultant, Kawasaki has exceeded the goal with a potential value of 53%
- Efforts continue to increase this percentage

LIRR and MNR M-9 and M-9A Key Milestones

	LIRR M-9	LIRR M-9A	MNR M-9
September 2013	Award contract for 92 LIRR Base Cars		
March 2017		Award Contract for 160 LIRR ESA Cars	
January 2017	Start Pilot Car Testing		
February 2017	Exercise 1 st Option for 88 LIRR Cars		Exercise Option for 140-170 Cars
July 2017	Complete Pilot Testing (14 Cars)		
January 2018	Start Delivery of Base Order Production Cars (12 Cars/month)		
August 2018	Complete Delivery of 92 LIRR Base Order Cars		
September 2018	Start Delivery of 1 st Option for 88 LIRR Cars Exercise 3 rd Option for 76 LIRR Cars		
March 2019	Complete Delivery of the 180 th LIRR M-9 Car		
April 2019			Start Delivery of 140-170 MNR Cars
March 2020		Start Pilot Car Testing	Complete Delivery of 140 MNR Cars*
September 2020		Complete Pilot Car Testing	
April 2020	Start Delivery of 76 LIRR Option Cars for ESA		
October 2020	Complete delivery of 76 LIRR Option Cars		
March 2021		Start delivery of 160 M-9A Cars	
April 2022		Complete delivery of 160 M-9A Cars	

MTA Long Island Rail Road
MTA Metro-North Railroad



Metro-North M-8 Car Procurement



- \$1.1 billion contract with Kawasaki Rail Car.
- Funded by the State of Connecticut and Metro-North
- 405 M-8 cars; 380 in married pair configuration and 25 single cars
- Provides service on New Haven Line and Shore Line East
- Allows for retirement of M-2, M-4 and M-6 car fleets

MTA Long Island Rail Road
MTA Metro-North Railroad



Metro-North M-8 Car Procurement



- All Cars Delivered as of June 30, 2015
- MDBF has been increasing and is currently at 290,315 YTD
- Customer reaction has been extremely positive
- Shore Line East Testing has begun with Initial Test completed- October 20, 2015
- Currently Working with CDOT/Amtrak to commence M8 Qualification Testing to include ACSES/PTC on SLE Territory in 1st QTR 2016
- Progress Continues on Field Modification Implementation with emphasis on Critical ones such as Auxiliary Power Supply (APS) and Pantograph

MTA Long Island Rail Road
MTA Metro-North Railroad



November 2015 CPOC IEC Project Review



M-9 Rail Car Procurement



November 16, 2015

Schedule Review

- Accepted change orders have extended the original schedule to deliver the first cars by 3 ½ months.
- The IEC is concerned that further pending changes to the car design may result in additional schedule slippage.



Budget Review

- The EAC for the base order program has increased by \$2.4M to \$377M and the current program cost contingency appears to be fully committed.
- Pending change for increased CCTV coverage may increase costs
- LIRR has requested \$8.9M in additional cost contingency for the full program in the 2015-2019 Capital Budget



Observations

- **Vehicle Weight**
 - The Railroads are working with the Carbuilder to resolve the overweight issues with the car design.
- **Equipment Locker**
 - The Railroads and the Carbuilder are working to resolve the final location for an equipment locker which may alter the interior seating configuration.
- **Replacement Parts**
 - Project appears to be on track to exceed the program goal of 40% Commercial-Off-The-Shelf (COTS) requirements for generally purchased replacement parts.



Critical Milestones

- The Railroads need to resolve the car weight issues before the conclusion of Final Design meetings in February 2016
- All reports from the Final Design Review need to be accepted by August 2016 in order to avoid impacting the fabrication of the pilot cars for testing.



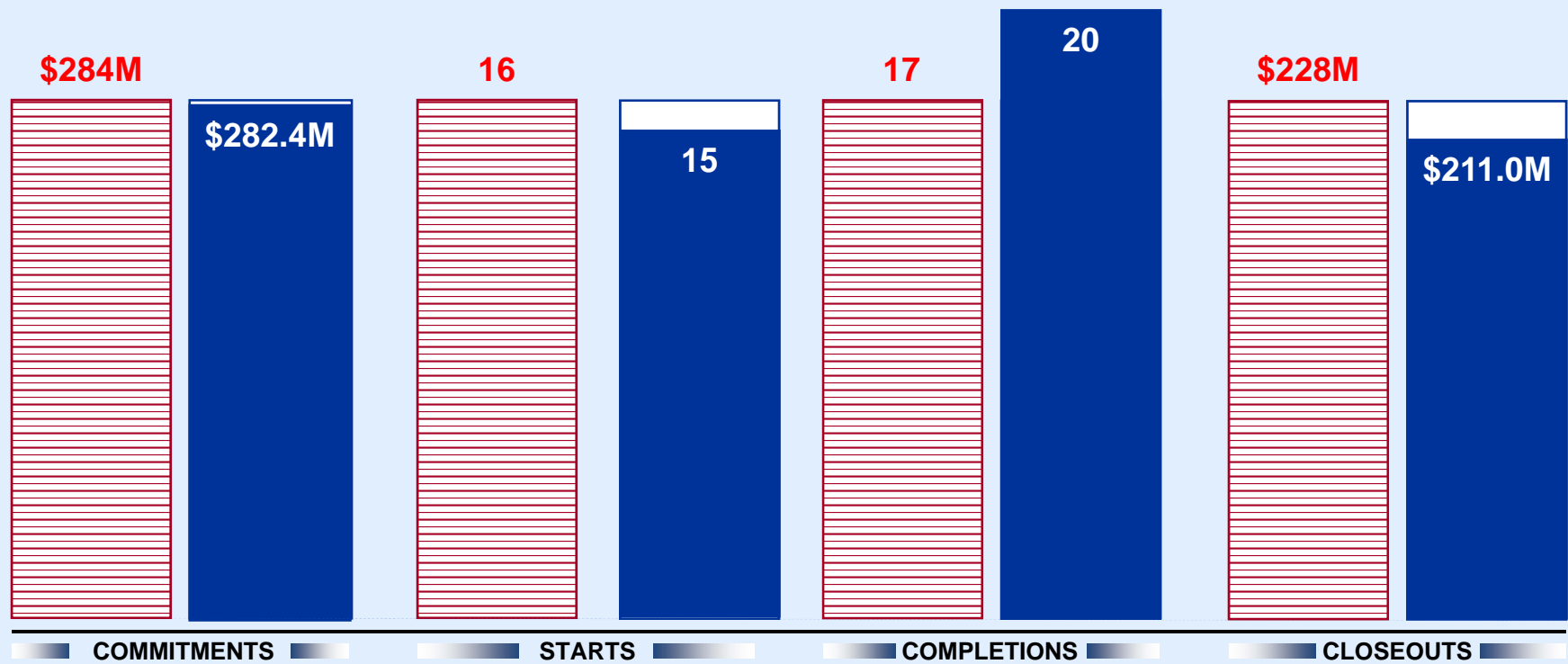
Capital Program Oversight Committee

Long Island Rail Road Capital Program Overview



November 2015

2015 LIRR Capital Program Goals



2015 PLAN



ACTUAL as of October 31, 2015

MTA Long Island Rail Road



Significant Milestones



Double Track Project

Start of Track Work

Despite major growth and increased service demands following the 1987 electrification of the Ronkonkoma Branch, the Main Line remains largely a single track operation, with 12.6 of the 17.9 Miles between Farmingdale and Ronkonkoma still single track.

Phase I - MLDT West of Central Islip to Ronkonkoma

MLDT Phase 1 (\$138M) is underway with scope to provide a Second Track from Ronkonkoma to West of Central Islip:

- Award of **Design/Build** Contract Dec 2013(Actual)
- Completion of Civil and Site Work Feb 2016
- Track and Systems Installation Aug 2015(Actual) – Feb 2017



Phase 2 - MLDT Farmingdale to West of Central Islip

MLDT Phase 2 (\$250M) is pending approval of the 2015-2019 Capital Program. Scope consist of Second Track from West Islip to Farmingdale:

- Award of **Design/Build** Contract Oct 2016
- Completion of Civil and Structural Work Nov 2018
- Track and Systems Installation Nov 2017 – Dec 2019



JAMAICA CAPACITY IMPROVEMENTS PHASE I

Completion of Johnson Ave. Yard - Stage 1 South Yard and Lead Track

Johnson Yard Reconfiguration - Design-Build Construction

- Stage 1 – South Yard and Lead Track - Actual Completed - 8/23/15
- Stage 2 - North Yard and Final Tie-in – Scheduled Completion – 6/20/2016

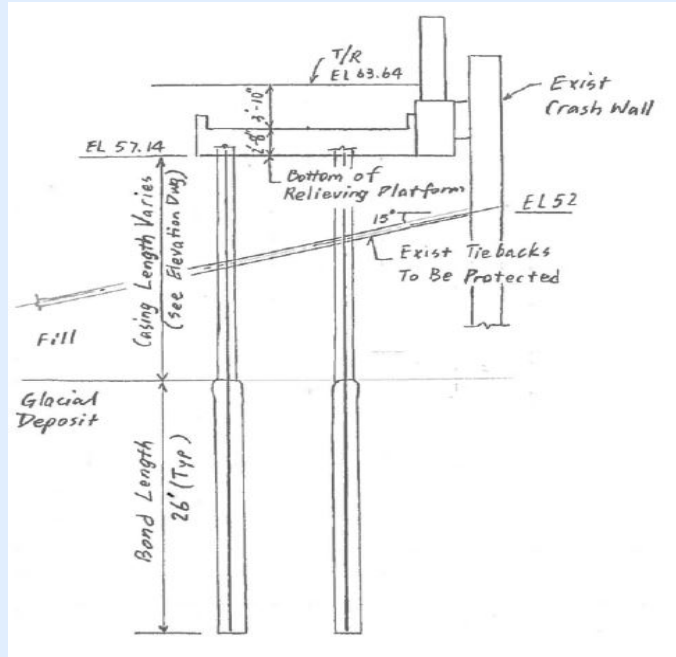
Station Platform F & Associated Track Work

- Platform F Construction
 - Advertise - Q4 2015
 - Forecast Completion - Q4 2018
- Track Work
 - FTA Buy-America Waiver for Critical Track Turnout
 - Waiver received on 8/27/15
- Long-Lead Track Switch Delivery and F/A Track Work
 - Start – Anticipated Q1-2016

Budget: \$301.65M



Milestone Reached: 28-Day Yard Shutdown of Johnson Ave Yard for Reconfiguration Lead Track

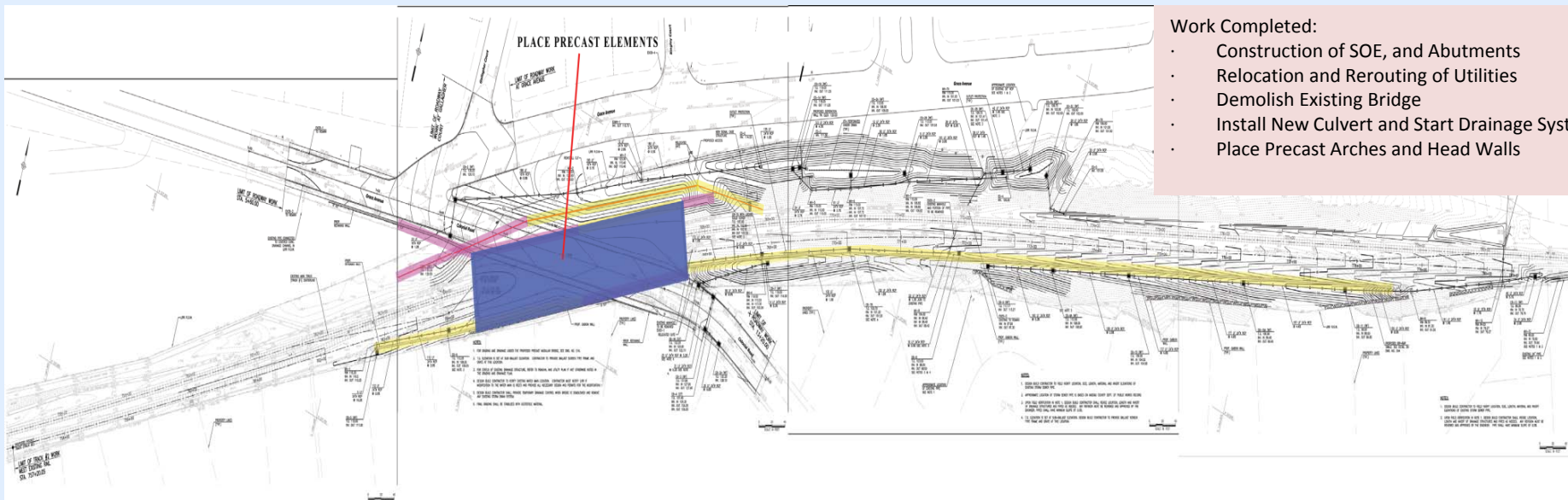


Relieving Platform needed to support new Track Profile



COLONIAL ROAD BRIDGE

Installation of Arch Structure



Work Completed:

- Construction of SOE, and Abutments
- Relocation and Rerouting of Utilities
- Demolish Existing Bridge
- Install New Culvert and Start Drainage System
- Place Precast Arches and Head Walls

Colonial Rd Bridge

- **Design/Build Award**
- **Colonial Road Closure**
- **Bridge Reconstruction**
- **Construction Completion**

Oct 2014(Actual)

Mar 2015(Actual)

Arch Installation – w/e's 8/22/15 & 9/26/15 (Actual)

Road Opening - Apr 2016

Jun 2016

Budget: \$19.8M

MTA Long Island Rail Road



ELLISON AVENUE BRIDGE REPLACEMENT

Bridge Installation

SCOPE:

- Replacement of Ellison Avenue Bridge, a roadway bridge, above LIRR Main Line Branch between Carle Place and Westbury Stations.
- Bridge is being constructed in compliance with NYSDOT waiver with Vertical Clearance for 19'-6" to support future freight operations.

STATUS:

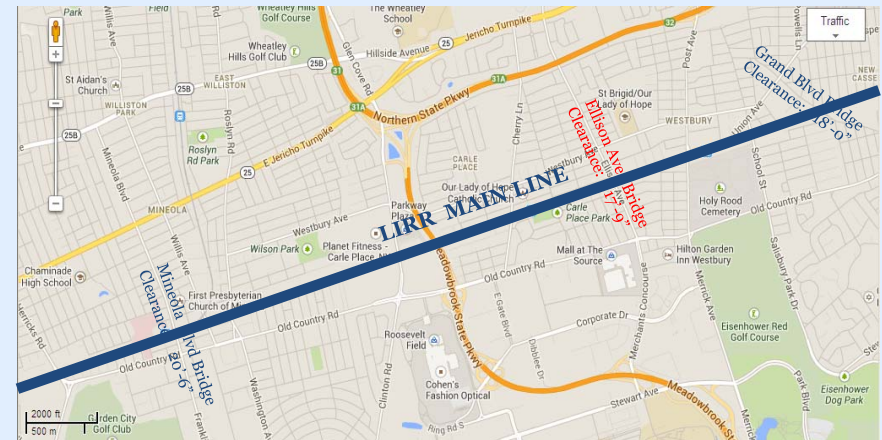
- **Design/Build** contract awarded December, 2014
- Ellison Avenue Bridge demolished May 16-17, 2015
- New pre-stressed concrete bridge beam installation was completed the weekend of October 24-25, 2015

FORECAST SCHEDULE:

- Ellison Avenue roadway re-opening: April 2016
- Construction Completion: June 2016

BUDGET : \$17.5M

Ellison Avenue Bridge



MTA Long Island Rail Road



MASSAPEQUA STATION IMPROVEMENTS

Station Opening

- Ceremonial Ribbon Cutting - July 23, 2015
- Replacement of the station platform.
- Replacement of existing escalator, platform waiting rooms, signage, platform canopies, and other station elements.
- Construction of a new elevator.

Budget: \$20.52M



MTA Long Island Rail Road

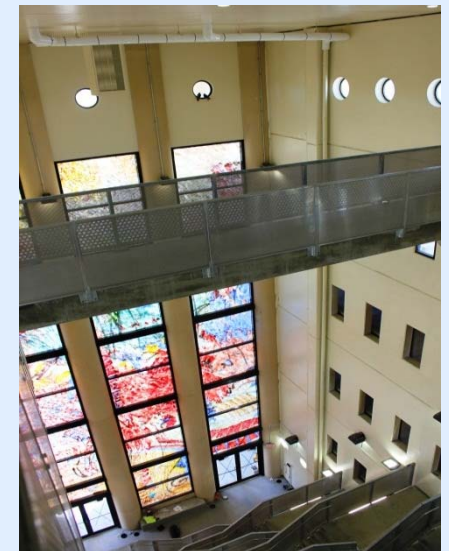
WYANDANCH PARKING FACILITY

Project Synopsis:

- The LIRR Wyandanch Parking Facility opened in August 2015 and provides 500 additional parking spaces for commuters using the Wyandanch Railroad Station.
- Construction was performed under a **Design-Build** Contract which allowed several elements of the construction to progress prior to having a complete design.
- The Parking Facility also complements the Town of Babylon's "Wyandanch Rising" a Transit Oriented Development (TOD)

Budget: \$29M

Opening of Parking Facility



MTA Long Island Rail Road

Small Business Mentor Program



From inception to date, the LIRR has awarded over 35 SBMP. Tier 1, Tier 2 and Federal Mentor Program contracts totaling \$34.3M:

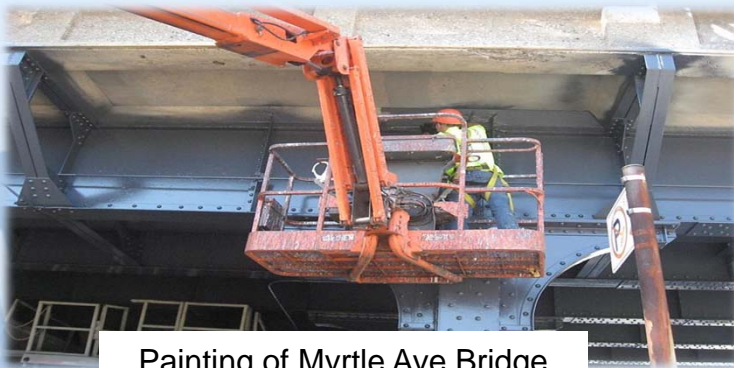
▪ State Tier 1:	Goal-\$17M	Actual-\$18M
▪ State Tier 2:	Goal-\$4.5M	Actual-\$1.5M
▪ Federal:	Goal-\$11M	Actual-\$14.8M
Total:	Goals \$32.5	Actuals \$34.3



HR Building Exterior Rehabilitation



Kew Gardens Parking Lot Rehabilitation



Painting of Myrtle Ave Bridge



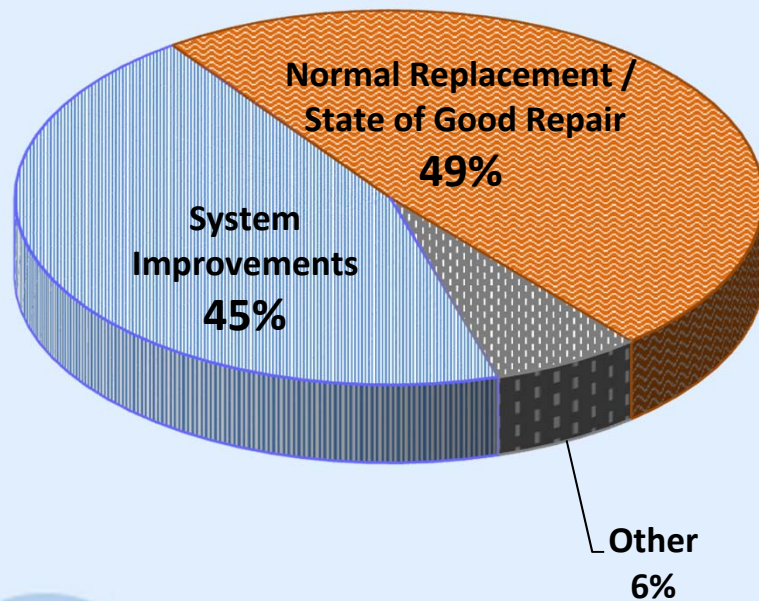
Sheridan Shop PVC Roof

SOGR and Normal Replacement Infrastructure and Systems

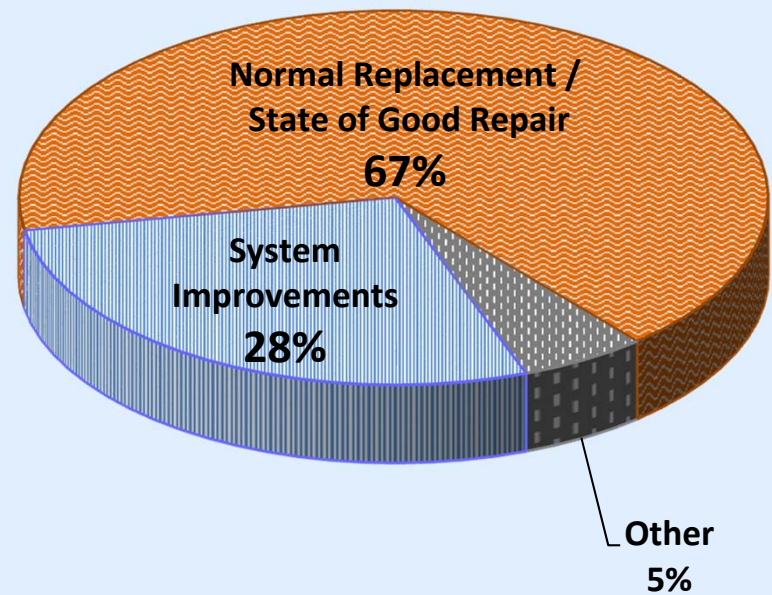


CAPITAL PROGRAM FOCUSED ON EXISTING INFRASTRUCTURE

Current 2010-2014 Program



Proposed 2015 – 2019 Program



ANNUAL TRACK PROGRAM

Cyclical Track Renewal



Budget: \$65M

ELEMENT OF WORK	2015	
	Goal	Actual as of 10/31/15
Wood Ties (ea)	12,080	12,087
Concrete Ties (ea)	16,779	15,910
Grade Crossing Renewal (ea)	18	16
Switch Replacement (ea)	9	4
Continuous Welded Rail (CWR) (Linear Feet)	101,376	139,641
Surfacing (miles)	80	63.3
Field Welds (ea)	800	936
Surface Interlocking Switches	40	72

ATLANTIC BRANCH BLOCK TIE REPLACEMENT

SCOPE:

- Design and Construction for the replacement of 21,500 damaged and deteriorated block ties on Tracks 1 and 2 in the Atlantic Branch Tunnel to maintain a state of good repair.

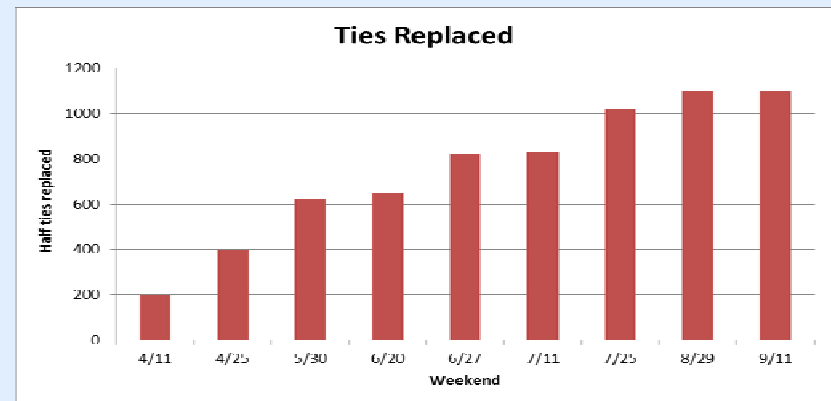
LIRR Estimated 49 weekends to complete the project
Trending to complete the project in 40 weekends
(approx. \$1M in savings)

SCHEDULE:

- Design Completed October 2014
- 3P Construction Schedule
 - Awarded December 2014
 - Start March 2015
 - Completion July 2016

Budget: \$29.4M

Ties Replaced	
Track 1	Track 2
6,540	9,062
Planned to date	13,410
Actual to date	15,602



POWER SUBSTATIONS

Hillside



Installation of pre-fabricated modular substations in Hillside and Kew Gardens using LIRR Forces.

Budget: \$26.12M

Kew Gardens



BU October 2015

POWER THIRD RAIL, NEGATIVE REACTORS AND MOTOR GENERATORS



Projects Completed in 2015 consisted of the following:

- Replacement of 446,000 linear feet of Third Rail Protection Board and brackets system-wide
- Replacement of 20 Negative Reactors system-wide
- Replacement of 4 Signal Motor Generators and associated PLC equipment

Budget: \$4M



BU Achieved April 2015

SIGNAL NORMAL REPLACEMENT

Project Beneficial Use was achieved in June 2015

The Signal State of Good Repair Program is an annual Capital Program funded project. The project provides for life cycle replacement and rehabilitation of assets that are approaching or have past their design life cycles.

Budget: \$15M

Project Completed in 2015		
SIGNAL NORMAL REPLACEMENT SCOPE		
Asset	Quantity (Approved Scope)	Actual Completed
Batteries	80	80
Batteries & Enclosures	18	18
Switch Machines	60	60
Signal Position Lights	29	29
Signal Cable(Kft.)	78	79.8
Equipment Cases	8	9
Relays	30	39
Grade crossing gate Mechanisms	20	21
TC Green Cable Locations**	33	39

** Scope was modified in 2015 to include TC Green cable.



Battery replacement



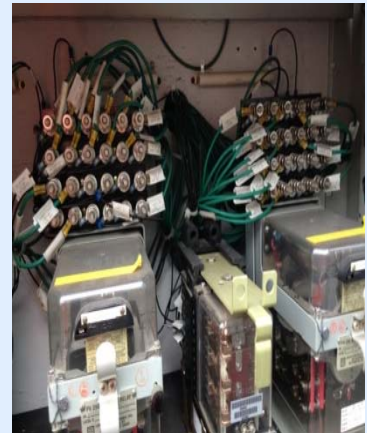
Switch Machines



Signal



Case Equipment

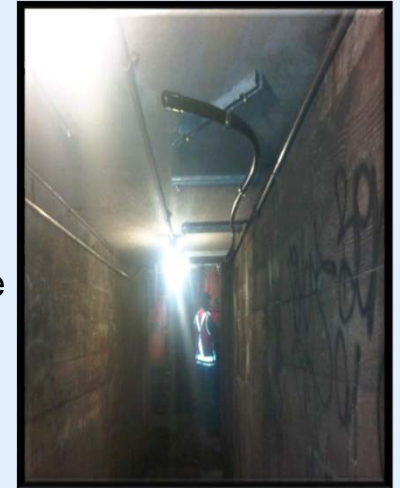


TC Green

ATLANTIC AVENUE TUNNEL COMMUNICATIONS CABLE REPLACEMENT 2010-2015

Project reached Beneficial Use in May 2015

- The existing copper cables are past their useful life and required substantial maintenance to mitigate troubles and service outages.
- The purpose of this project is to install/upgrade existing cables and life safety equipment for communications from within Atlantic Avenue Tunnel to Jamaica:
 - To completely replace the communications infrastructure throughout the entire tunnel.
 - Replace copper with fiber whenever possible.
 - Provide local drops to Life safety equipment and call boxes.
 - Replace existing obsolete life safety equipment and monitoring equipment.
 - Install new call boxes at all exit hatches.



Cable Installation

Budget: \$5.1M



New Phone



New Enclosure



Site Simulation Testing

November 2015 CPOC IEC Project Review



Main Line Double Track

November 16, 2015



Main Line Double Track Project

- **Schedule:**
 - The IEC concurs with the agency's explanation of the schedule delays on the Main Line Double Track Phase 1.
 - Some schedule delays may be partially mitigated based on the availability of the Automated Track Installation contractor.



Main Line Double Track Project

- **Budget:**
 - The expenditures to date reflect the correct percentage of project completion.
 - The IEC awaits the LIRR's revised project cost estimate, in order to review the potential impact of various project delays on the total project budget and contingency.



Main Line Double Track Project

- **Phase 1 IEC Recommendation:**
 - The IEC recommends an internal Risk Assessment update to review the impacts of automated track installation, implementation RAS, and conflicting operational needs, on the project cost and schedule.
- **Phase 2 Risk Assessment Workshop:**
 - The IEC expects to facilitate and participate in a risk assessment workshop, with the agency, during the second quarter of 2016, to identify the risks and opportunities of the Main Line Double Track Phase 2.



November 2015 CPOC IEC Project Review



Jamaica Capacity Improvements – Phase I

November 16, 2015



Schedule & Budget Review

Jamaica Capacity Improvements (JCI) – Phase I

- **Schedule:** The JCI – Phase I project, and the associated ESA readiness projects, are on schedule to be completed prior to the target date for ESA opening day service.
 - The Johnson Yard design/build contract is proceeding well. The 28-day outage, during which a substantial amount of work was done, was completed on time.
- **Budget:** Currently, the project is on budget and the expenditures to date reflect the percent of project completion.

The IEC concurs with the progress reported by the LIRR.



IEC Observations

To date, the IEC is satisfied with the agency's continuous risk mitigation efforts. Some recent examples are as follows:

- **Procurement of Long Lead Items:** Buy America issues resulted in a delay in switch procurement. However, LIRR was able to limit the impact to the schedule by obtaining an FTA waiver for one switch and by procuring a combination of BA-compliant and temporary non-BA compliant switches.
- **Track Outage Unavailability:** LIRR has done long-term outage planning using integrated schedules. They have successfully updated the schedules allowing them to maintain the completion dates.
- **Coordination Between Design/Build Contractor and Force Account Crews:** Work coordination meetings are periodically held to avoid conflicts. The Johnson Yard construction has been proceeding with no major conflicts.



Capital Program Oversight Committee

MTA Metro-North Railroad Capital Program Highlights

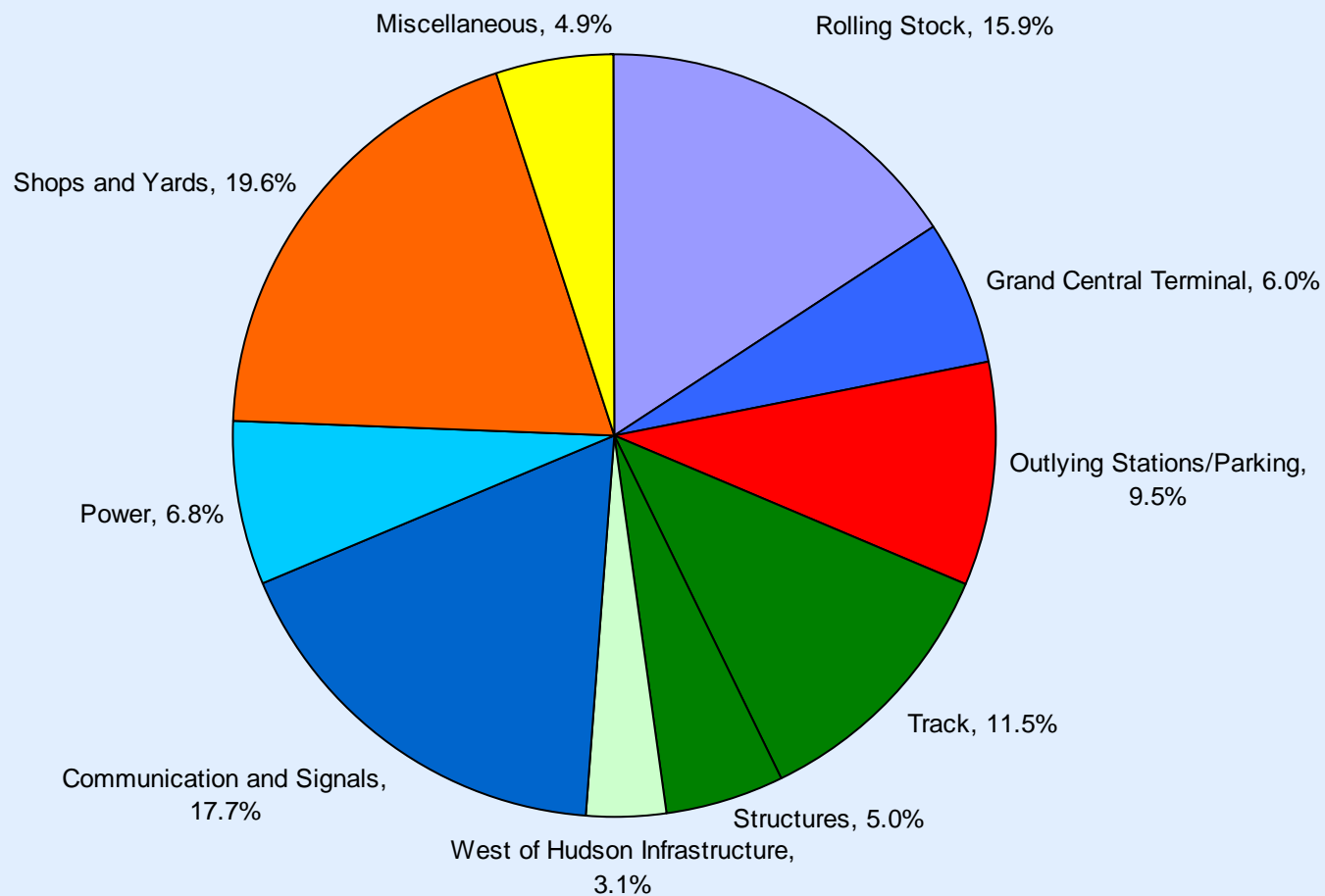
John E. Kennard
Vice President
Capital Programs

November 2015

MTA Metro-North Railroad



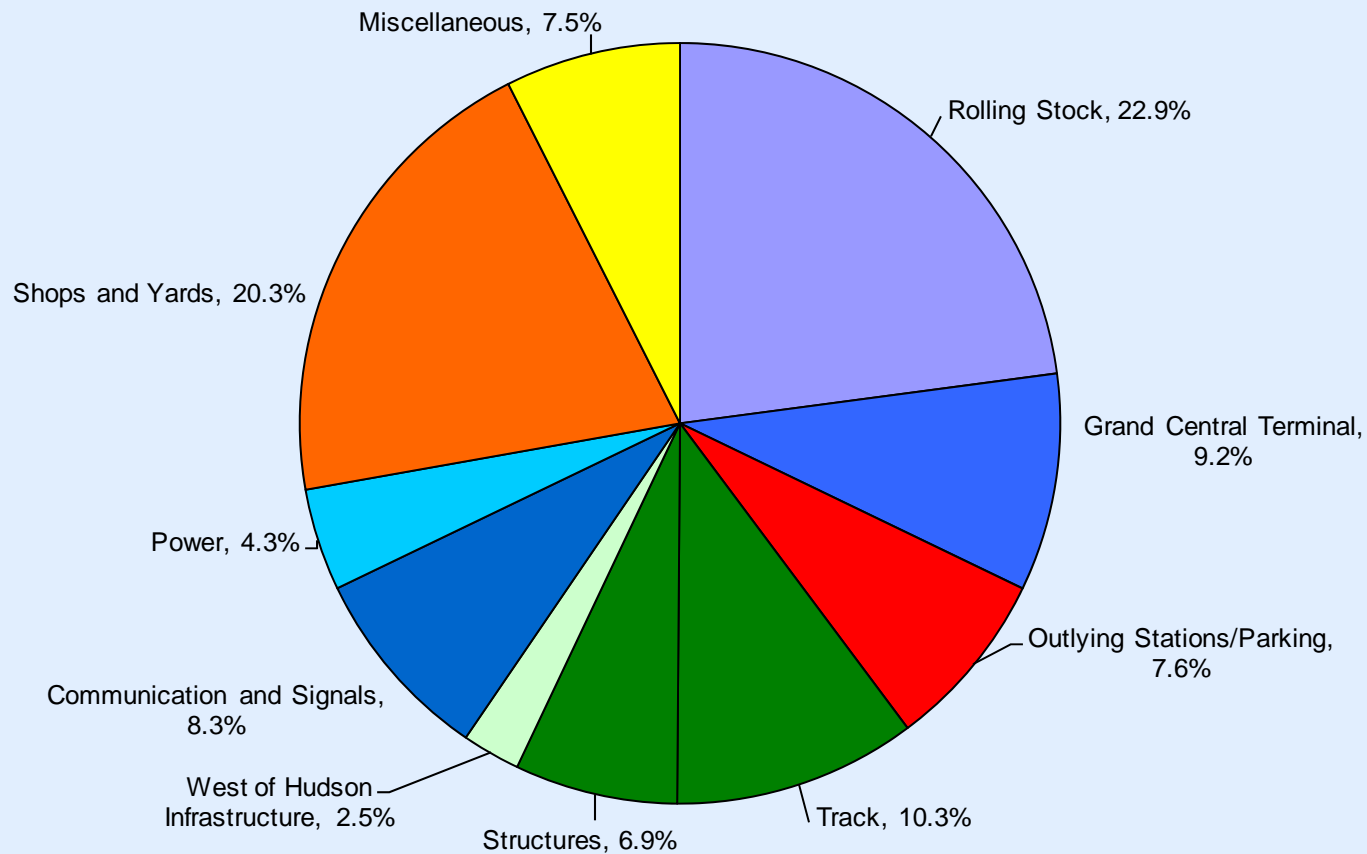
2010 – 2014 Capital Program = \$1.5B



MTA Metro-North Railroad



Proposed 2015 – 2019 Capital Program = \$2.3B

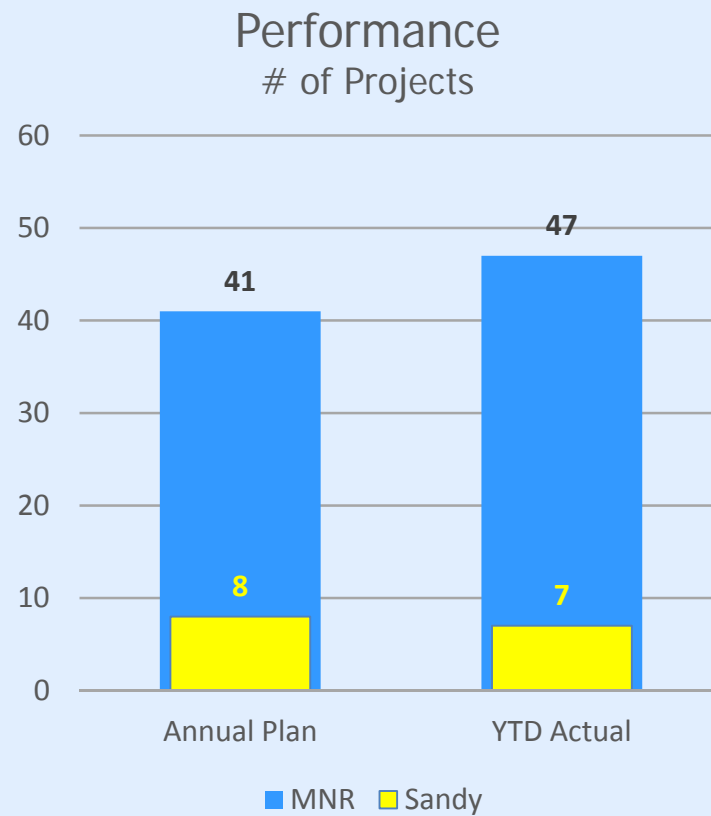
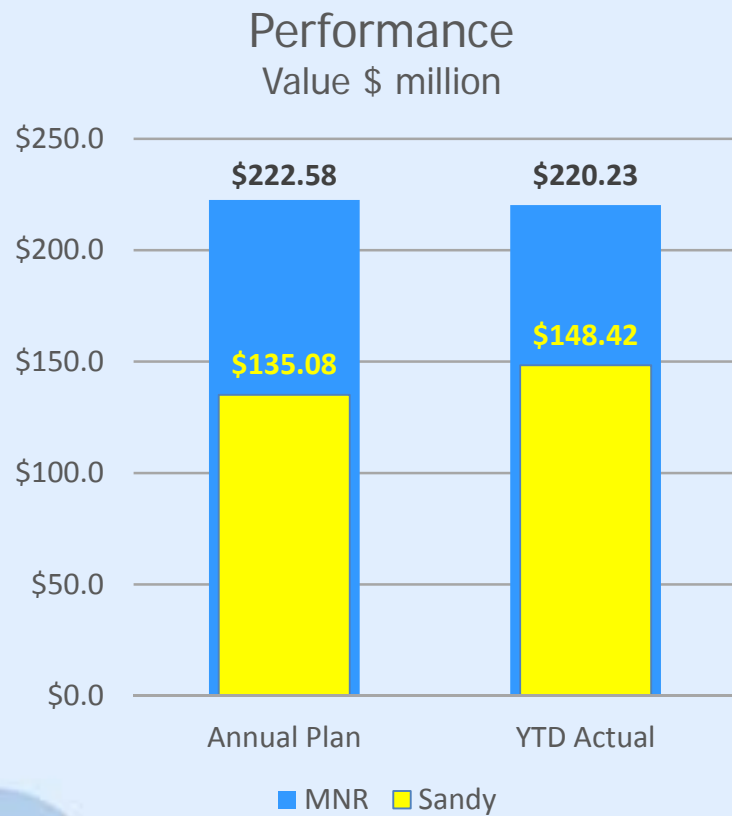


MTA Metro-North Railroad



2015 Commitment Performance

Actual through October 31, 2015



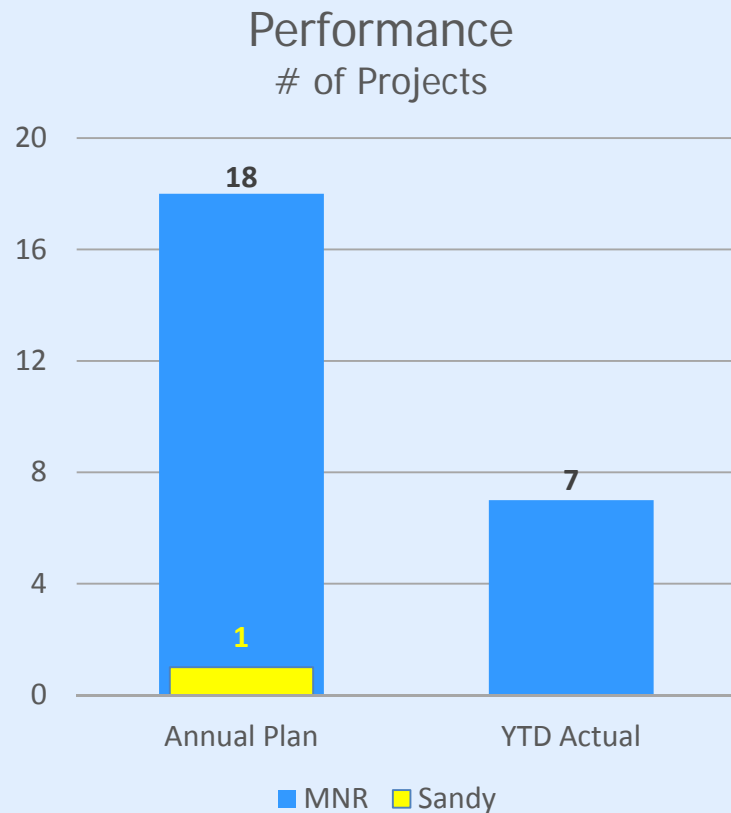
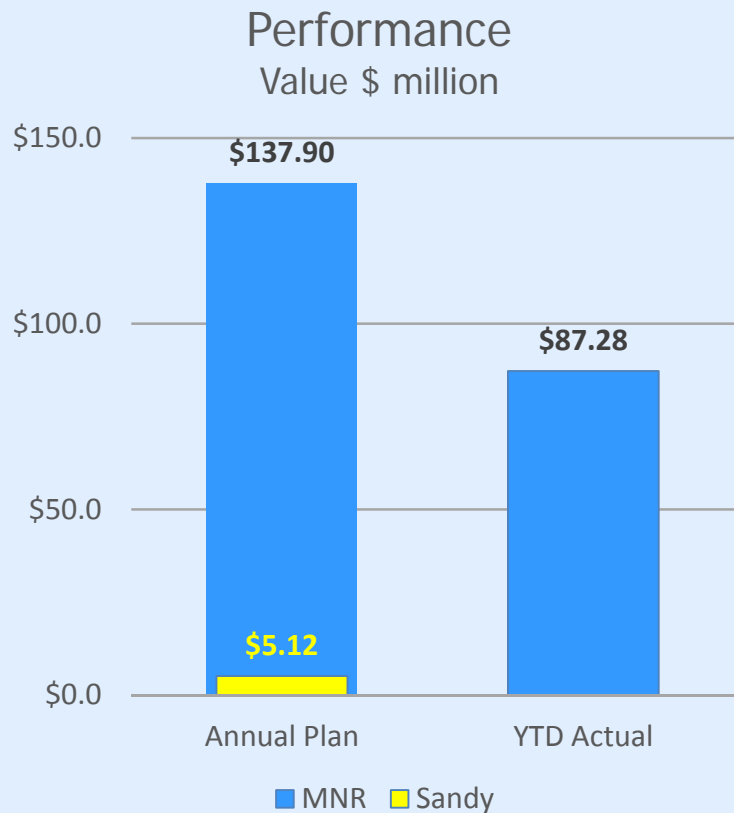
Major 2015 Commitments

Project	(\$ millions)
➤ Sandy Power/C&S Infrastructure Restoration Phase I	141.8
➤ GCT Utilities – Fire Suppression (forecast for 11/2015)	21.7
➤ Replace/Repair Undergrade Bridges Program	9.9



2015 Completions Performance

Actuals through October 31, 2015



Major 2015 Completions

Project	(\$ millions)
➤ M8 S-Cars; 23 Cars Acceptance	26.68
➤ North White Plains Parking Garage	41.80



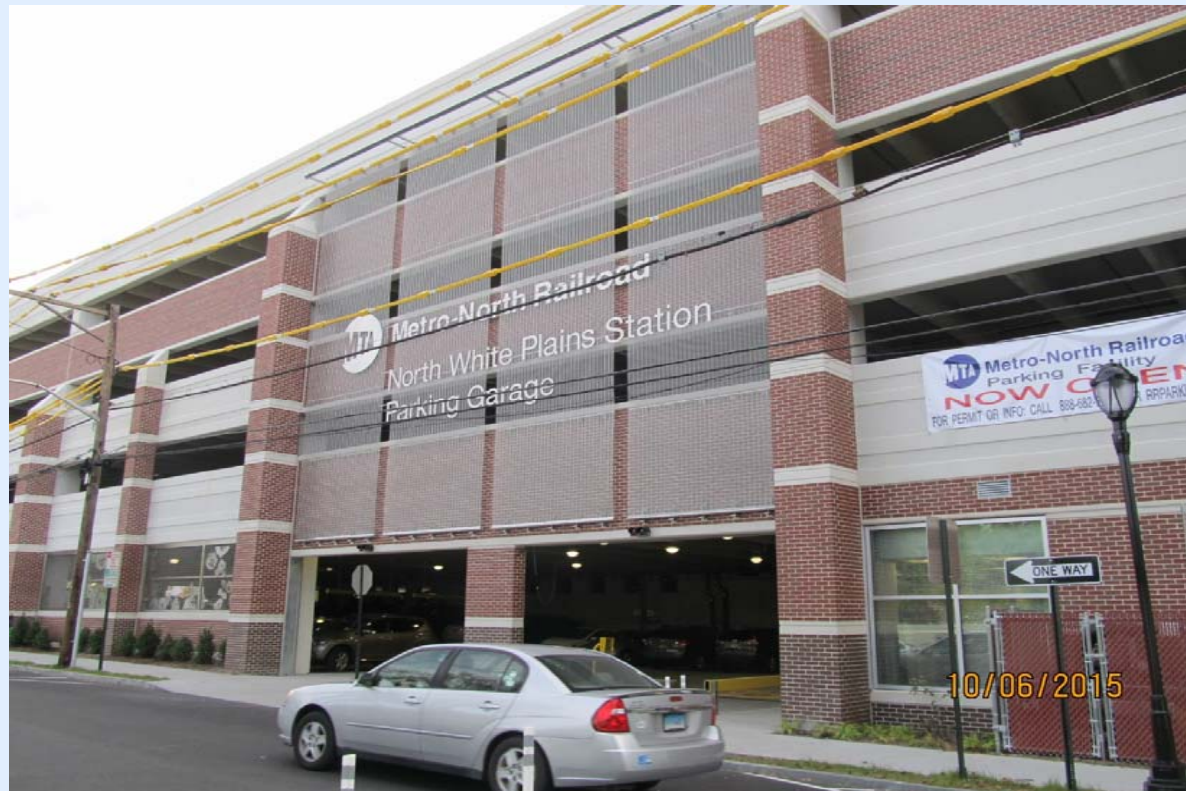
Major Completed Project

North White Plains Station Parking Garage



North White Plains Station Parking Garage

- \$41.8M Design-Build Project completed under budget and in a timely manner
- 500 parking space garage providing a net additional 391 parking spaces
- Permit and metered parking with ADA spaces, scooter parking and bicycle racks
- Sustainability elements incorporated into the project
- Pedestrian friendly improvements including new cross walks, new traffic signal and lighting



MTA Metro-North Railroad



Small Business Development Program



MTA Metro-North Railroad

7/2010 – 7/2015	Contract Value	Number of Projects
SBMP Tier 1	\$6.5M	14



Hartsdale Station Building Improvements
West Side of Building



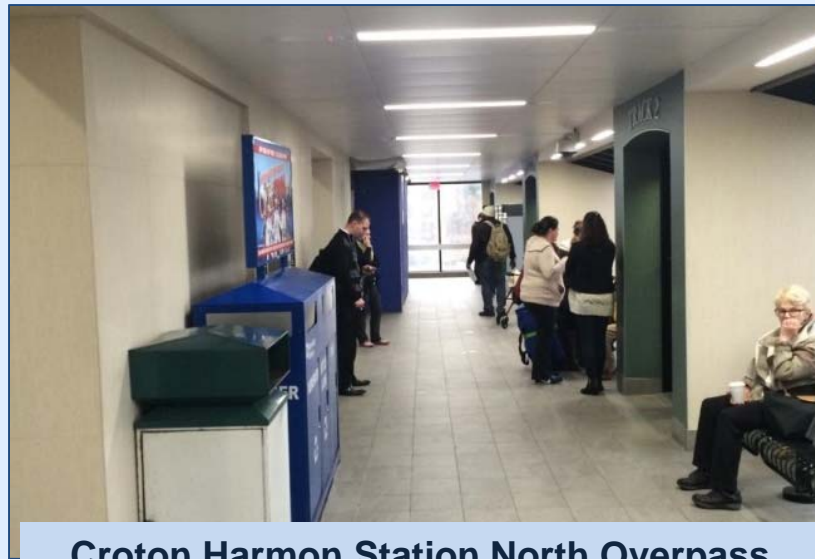
Mamaroneck Station - Bicycle Shelter
East View



Tarrytown Parking Lot
West View



7/2010 – 7/2015	Contract Value	Number of Projects
SBMP Tier 2	\$2.4M	1



Croton Harmon Station North Overpass
Renovated South Side



Small Business Development Program - Proposed

2015 – 2019	Commitment	Asset Categories
SBMP Tier 1 SMBP Tier 2 SBFP	\$39M	GCT, Stations, Parking, Structures, Power, Shops & Yards



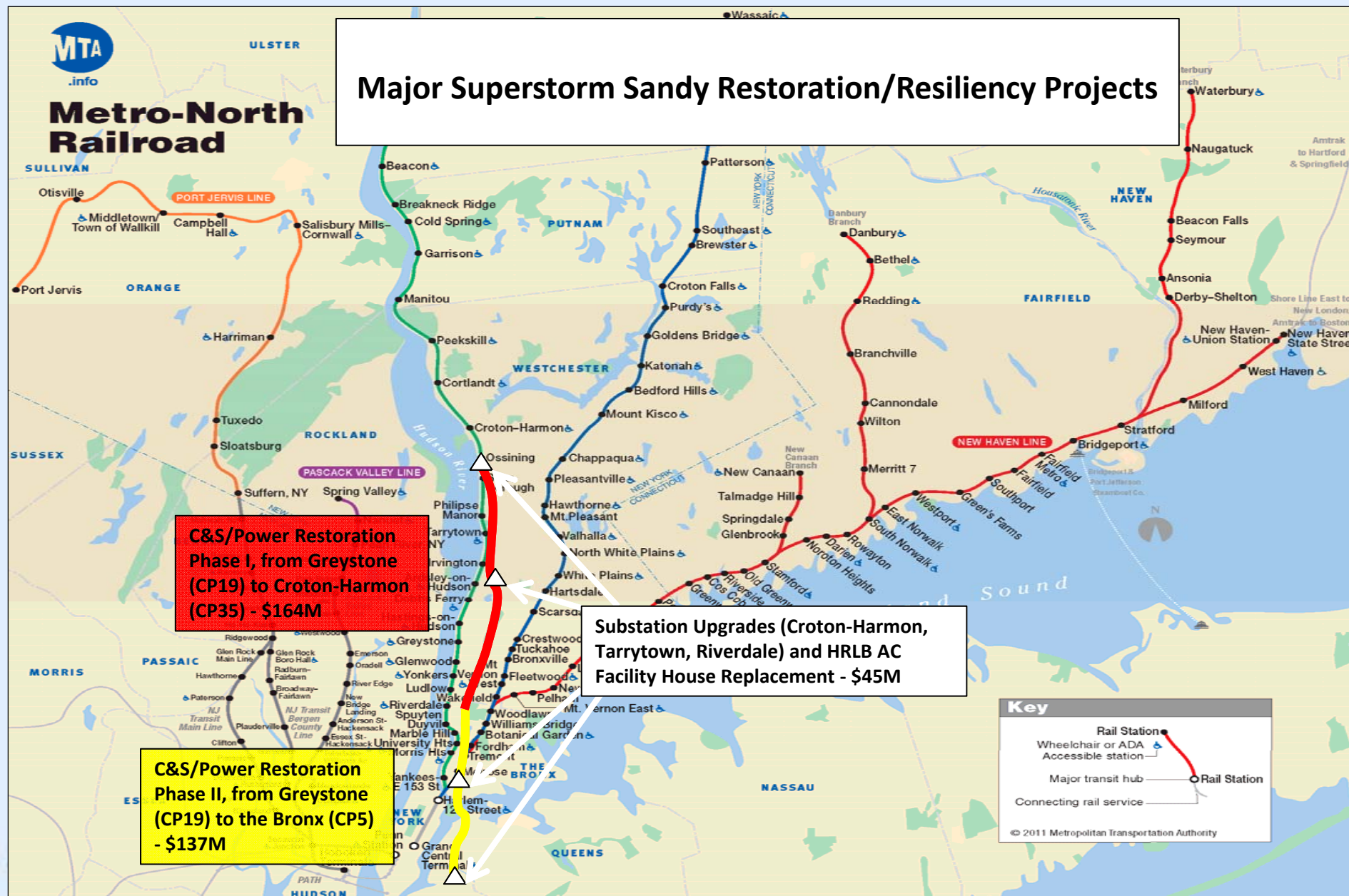
Metro-North Railroad

Major Project

Superstorm Sandy Restoration/Resiliency



MTA Metro-North Railroad



30 Mile Hudson Line Power and C&S Infrastructure Restoration (Phase I + Phase II): \$301 M



Work in progress – Installation of Cable Trough

Scope

- Replace 30+ miles flooded and damaged railroad infrastructure from the Bronx to Croton-Harmon (Phases I and II)
- 30 miles of communications and signal cable plant
- Traction power cables and components

Status

- Preliminary 30% Design completed: 9/2014
- Risk Assessment conducted
- Awarded Design-Build contract (Phase I 5/2015; scheduled completion date 6/2017)
- Construction underway on the initial portion from CP25 to 35
- An option for the Phase II is anticipated to be commence in 6/2017, scheduled completion date 7/2019

Sandy Hudson Line Restoration: Replace 3 Hudson Line Substations and Harlem River Lift Bridge AC Facility House(s): \$45 M



Work in progress – Substation foundation

Scope

- Replace 3 DC traction power substations: Riverdale (A-13), Tarrytown (A-25) and Croton-Harmon (A-33), and Hardening of (2) AC facility Substations at the Harlem River Lift Bridge
- Elevate substations to Advisory Based Flood Elevation + 4



Substation Replacement - Elevated (Tarrytown rendering)

Status

- Design completed: 7/2014
- DC substation award: 12/2014; scheduled completion date 12/2016
- Construction of 3 Hudson line DC substations ongoing
- Harlem River Lift Bridge AC Facility Houses replacement: completed in August 2015

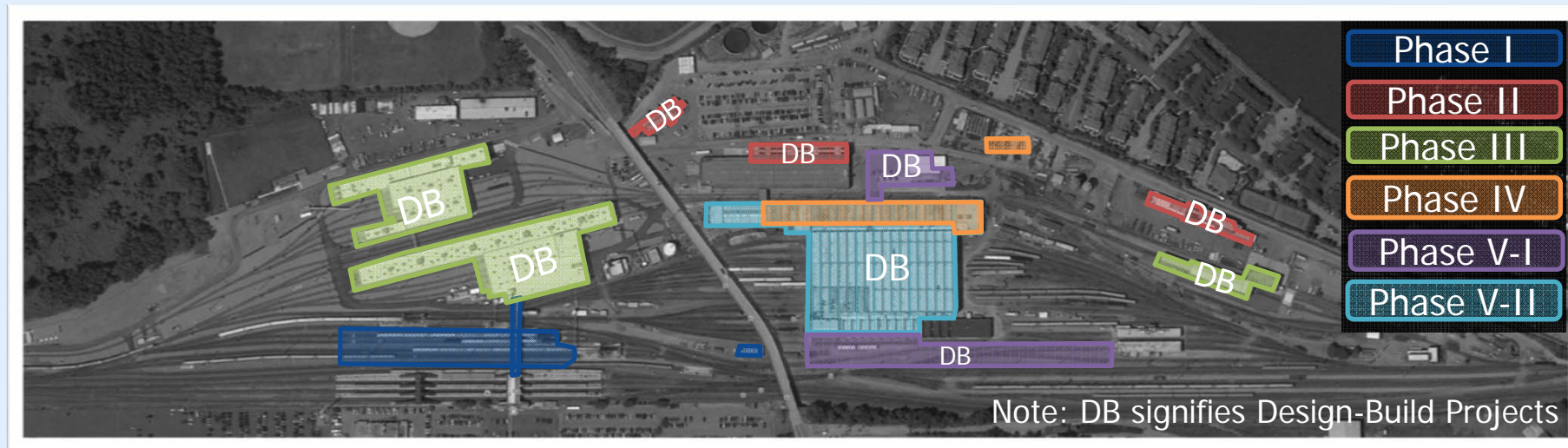
Major Project

Harmon Shop Replacement



MTA Metro-North Railroad

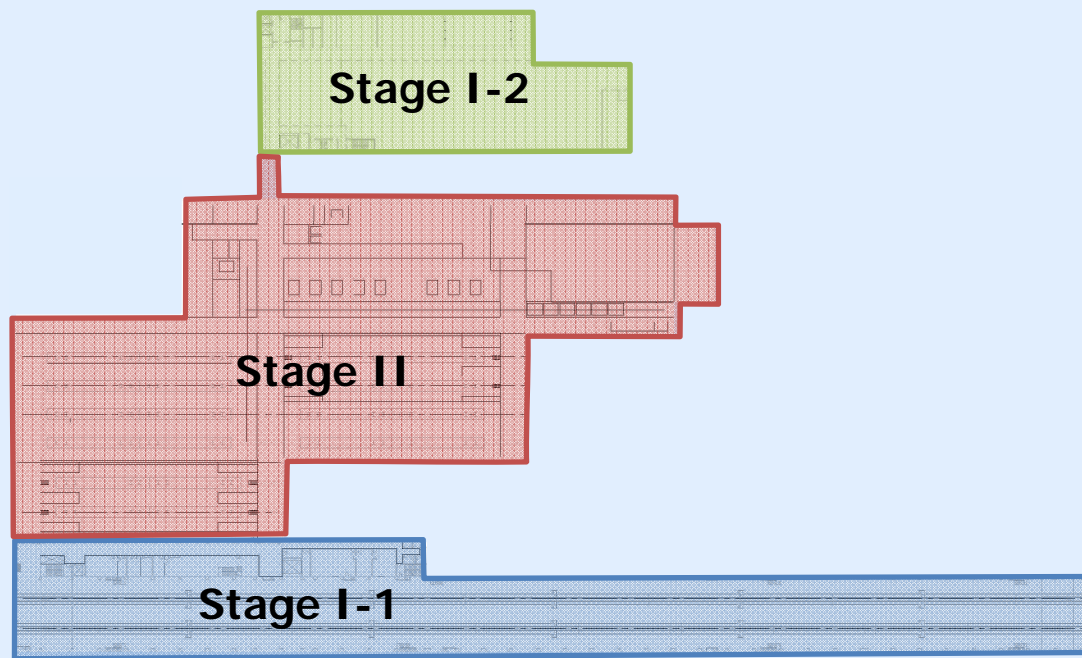
Harmon Shop Replacement



- Multi-phased, multi-program rebuilding of the Croton-Harmon Shops and Yards
- Since the 2000-2004 Capital Program through the 2015-2019 plan Metro-North will commit \$1.22 billion at this facility
- Earlier phases replaced the 20's Coach/Locomotive Servicing Yard, constructed a new Coach Shop, a new Locomotive Shop and a Wheel True Facility
- Phases have predominantly been advanced using a Design-Build approach
- Metro-North is currently in Phase V of the project

Scope: Phase V - Stages I and II

	Stage I-1:	Stage I-2:	Stage II:
Facility	Consist Shop Facility	EMU Annex	EMU Running Repair and Support Shops
Program	2010-14	2010-14 (Concurrent w/I-1)	2015-19
Complete	4 th Quarter 2017	4 th Quarter 2017	2 nd Quarter 2022
Major Areas	<ul style="list-style-type: none"> Two Ten-Car Consist Tracks Working Storeroom Lockers, Lunch Room 	<ul style="list-style-type: none"> Wheel and Axle Shop Machine, Carpentry, Sheet Metal, Tread Brake, Armature Shops, Plant Maint., Air Room, Compressor Repair Lockers, Lunch Room 	<ul style="list-style-type: none"> Ten Vehicle Repair Bays Truck, HVAC, Toilet Repair, Battery and Paint Shops, Clean Room Storeroom Training Department, Office Spaces



MTA Metro-North Railroad



Phase V - Stage I: Project Budget and Schedule

Current Budget	
3 rd Party Design-Build (JV: Skanska-ECCO)	\$245,013,556
3 rd Party Construction Management (AECOM)	\$10,700,000
Soft costs including Phase IV work (Priority Repairs)	\$59,877,050
Total Project (including soft costs)	\$315,590,606

Current Schedule			
Milestone	Award	Complete	
Preliminary Design Phase V, Stage I	12/21/12 (NTP)	12/19/13*	
Preliminary Design Phase V, Stage II	11/1/14 (NTP)	12/31/16	
Design-Build Phase V, Stage I	12/30/14	12/31/17	
• Final Design	1/1/15	12/1/15	
• Construction	4/1/15	12/31/17	

* Preliminary design continued to April 28, 2014, to add the EMU Annex scope, which was completed concurrently with the ongoing solicitation process.

NOTE: Risk Assessment Update completed. 80th percentile shows the potential for a 3 month delay and a corresponding \$7M increase to the D-B contract. MNR has implemented risk mitigation strategies such as

- Hiring an independent 3rd Party commissioning agent
- Closely monitor, with timely reviews of submittals
- Closely monitor the 4 week look ahead and CPM update schedules to encourage concurrent work to mitigate extended overhead costs

Phase V – Stage I Progress Photos



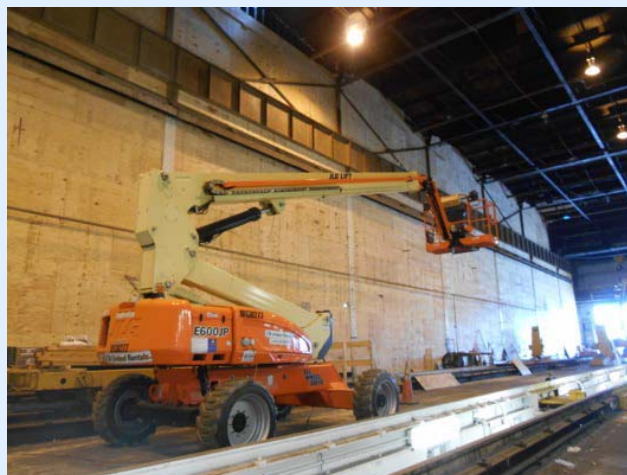
Demolished Recycling Facility Center



Demolished Recycling Facility Center (EMU Annex Site)



Demolished Blowshed Facility and Track Areas



Closure Wall Construction



Project Highlights

- Completed
 - Mobilization
 - Site Clearing/Track Removal
 - Blowshed and Recycling Facility Demolition
 - Closure Wall in Building #6
- Ongoing
 - East Side - Building #6 Demolition
 - Final Design of Consist Shop Facility and EMU Annex
- Upcoming
 - Foundations for Consist Shop Facility and EMU Annex
 - Structural Steel for Consist Shop Facility and EMU Annex



November 2015 CPOC IEC Project Review



Hudson Line Sandy Restoration

November 16, 2015



Schedule & Budget Review

Hudson Line Sandy Restoration/Resiliency

- **Schedule:** The Phase I contract was awarded on May 13, 2015, as previously forecast at the February 2015 CPOC. Each phase is scheduled for 25 months. The Phase II contract is anticipated to be awarded at the conclusion of Phase I.
- **Budget:** As reported by MNR, the negotiated cost for both phases was below the final engineer's estimate.



IEC Observations

- **Schedule:** The Notice to Proceed date was consistent with the results of the Risk Assessment. There is still a potential 2-month delay to project completion (Phases I and II). MNR mitigated the potential delay by including an additional two months to the design/builder's contract as each phase was extended to 25 months.

To date, the IEC is satisfied with the agency's continuous risk mitigation efforts.



Risk Mitigation Strategies

- **Risk** - Productivity of digging the 30 miles of duct bank trench
- **Mitigations:**
 - Use of mechanized methods where possible
 - Providing the design/builder with locations and mark-outs of utilities
 - Including a contract allowance for 1500 test pits and borings
- **Risk** - Productivity of installing Cable Trough
- **Mitigations:**
 - Encourage flexibility in location and design of system
 - An innovative construction method proposed by the design/builder has been investigated and approved
 - Contract includes over \$5M in contingency funds



November 2015 CPOC IEC Project Review



**Harmon Consist Shop Replacement
Phase V, Stage 1**

November 16, 2015



Schedule & Budget Review

Harmon Consist Shop Replacement Phase V-Stage 1

- **Schedule:** With approximately 25% of the design/build construction contract complete, the project is on schedule and the design/builder has achieved the early contract milestones.
- **Budget:** The project is currently on budget. There have been no additions to the contract thus far.

The IEC agrees with the agency's reporting of schedule and budget.



Risk Assessment Update

June 2015 Risk Update

A one-day risk-update workshop was held, which includes the additional Stage 2 EMU work and the information from the design/builder.

- **Schedule Results:**

- A potential delay of up to 3 months was identified, which includes additional time for completing building commissioning activities and for reviewing the design/builder's submittals.

- **Budget Results:**

- A potential increase in the design/build contract of up to \$7M was identified due to potential change orders and extended overhead costs associated with schedule delay.



Risk Mitigations

To prevent the potential schedule delay and cost overrun, MNR has taken a number of mitigation steps, some of which were included in MNR's presentation you just heard. In addition to those:

- MNR provides input to the IEC for monthly updates to the risk log to track risks and mitigations.
- MNR approved a design/builder proposed innovative construction method for installing foundations without using piles.
- There is a \$6M contingency fund to cover most of the potential increase.
- **To date the IEC is satisfied with the agency's continuous risk mitigation efforts**



MTA Capital Program Commitments & Completions

through October 31st, 2015

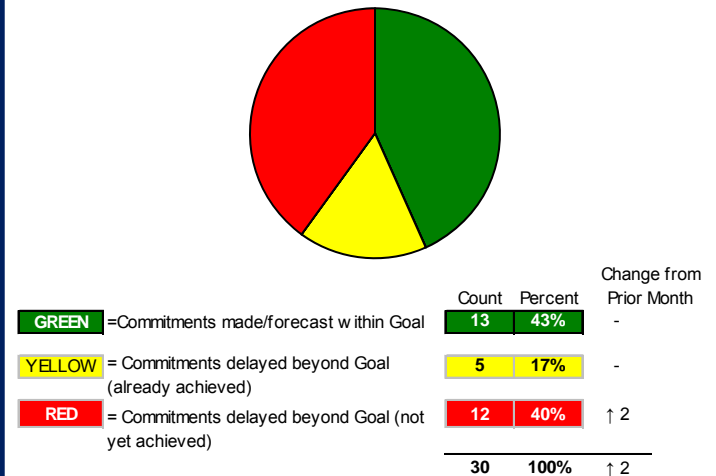
Capital Projects – Major Commitments – October 2015

34 major commitments are planned for 2015, totaling \$3.1 billion. Only projects funded in approved capital plans are included. Projects scheduled for the proposed 2015-19 plan will be added subsequent to plan approval. Through October, 30 major commitments are being reported. 12 commitments are delayed, five projects were delayed, but have since been awarded, and 13 commitments were made on time. Additional year-to-date commitments will be reported on as the year progresses.

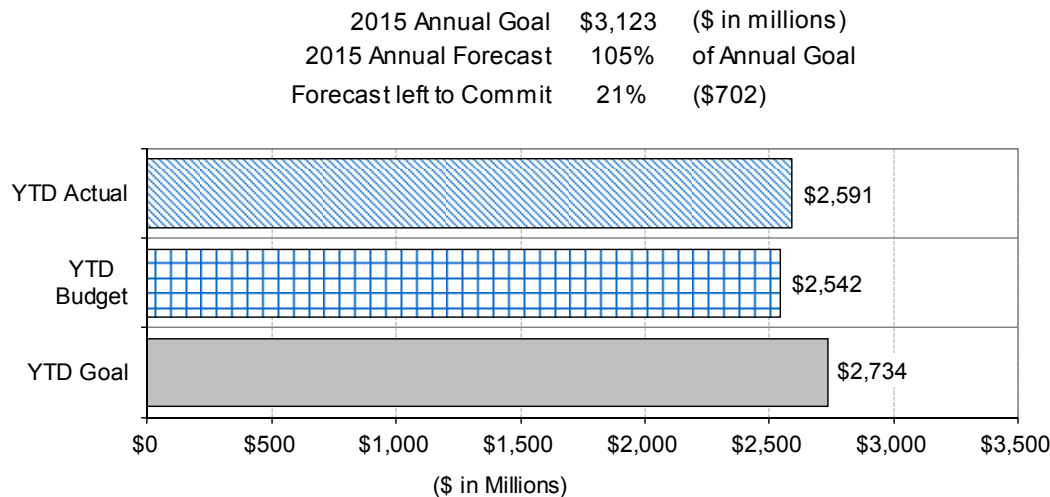
Through October, agencies have committed \$2.6 billion versus a \$2.7 billion YTD goal. The YTD shortfall is predominantly due to the aforementioned slips, most of which are expected to be achieved later in 2015.

By year end, the MTA forecasts committing 105% of its \$3.1 billion goal due in part to non-goal commitments from MTACC, NYCT and LIRR.

Year-to-Date Major Commitments



Budget Analysis



Year-to-Date Agency Breakdown

2015 Goals	Prior month variance		
	GREEN	YELLOW	RED
New York City Transit	5	3	3
Long Island Rail Road	3	4	+2 RED
Metro-North Railroad	1	1	
Bridges and Tunnels	4	4	
Capital Construction Company	1		
MTA Bus Company	1		
MTA Police Department			

Capital Projects – Major Commitments – October 2015 – Schedule Variances

Actual Results Shaded

Project	Commitment	Goal	Forecast
12 All-Agency Red Commitments (2 new this month)			
NYCT			
<i>Signals & Communications</i>			
Integrated Service Information & Management B- Div: Module 1	Construction Award	Jun-15 \$43.2M	Nov-15 \$55.5M
Delays continue due to scope and schedule revisions. Cost increase reflects a longer project duration (from 25 to 37 months) and an unfavorable bid.			
<i>Bus Depots</i>			
Bus Radio System - NYCT	Construction Award	Aug-15 \$215.0M	Jan-16 \$215.0M
Proposals are being evaluated by the Technical Committee. A Post-Proposal Addendum was issued to the vendors in October, revising the optional maintenance agreement, spare parts requirement and the price schedule. Award delayed due to protracted procurement duration.			
<i>Sandy Recovery and Resiliency</i>			
Sidewalk Vent Grating - 8 Stations	Construction Award	Jul-15 \$70.4M	Apr-16 \$46.1M
Award was recently re-scheduled to April 2016 reflecting a delay in advertisement. The cost decrease reflects the prioritization of the resiliency program, limiting the number of the critical facilities hardening to communication and signal rooms only.			
LIRR			
<i>Main Line Corridor Improvements</i>			
MLC - Hicksville Siding	Construction Award	Sep-15 \$25.7M	Dec-15 \$25.7M
Continuing delay due to the related Hicksville Station project, advanced with this project.			
MLC - Hicksville Station (New Item)	Construction Award	Oct-15 \$42.2M	Dec-15 \$42.2M
Delay due to extended time needed to review bids and options.			
<i>Sandy Recovery and Resiliency</i>			
Long Beach Substation Replacement	Construction Award	Jun-15 \$18.7M	Dec-15 \$18.7M
\$10.7M of the project was committed in March for in-house work. Commitment of the 3rd party construction (\$8M) has been delayed due to a design change.			
Long Beach Signal System (New Item)	Construction Award	Oct-15 \$9.0M	Nov-15 \$9.0M
The one month delay is due to extensive negotiations with the contractor.			

Project	Commitment	Goal	Forecast
B&T			
<i>RFK Bridge</i>			
Construction of New Harlem River Drive Ramp - RFK Bridge	Memorandum of Understanding	Jun-15 \$15.0M	Dec-16 \$15.0M
Delay to 2016 due to additional time required to negotiate and better coordinate with NYC DOT and their contractors.			
<i>Marine Parkway Bridge</i>			
Miscellaneous Steel Repairs & Structural Rehab - Marine Parkway	Construction Award	Jun-15 \$21.8M	Nov-15 \$21.8M
MPX-B was bid as one contract, thus more time was required to prepare procurement documents. Bids have been received.			
Roadway Structures Painting	Construction Award	Jun-15 \$17.0M	Nov-15 \$17.0M
MPX-B was bid as one contract, thus more time was required to prepare procurement documents. Bids have been received.			
Rehab of Programmable Logic Controller & Mechanical System	Construction Award	Jun-15 \$24.3M	Nov-15 \$24.3M
MPX-B was bid as one contract, thus more time was required to prepare procurement documents. Bids have been received.			
MTA Bus			
<i>Bus Projects</i>			
Bus Radio System - MTA Bus	Construction Award	Aug-15 \$58.5M	Jan-16 \$58.5M
Proposals are being evaluated by the Technical Committee. A Post-Proposal Addendum was issued to the vendors in October, revising the optional maintenance agreement, spare parts requirement and the price schedule. Award delayed due to protracted procurement duration.			

Capital Projects – Major Commitments – October 2015 – Schedule Variances

Actual Results Shaded

Project	Commitment	Goal	Forecast
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5 All-Agency Yellow Commitments (0 new this month)

NYCT

Track & Switches

2015 Track & Switch Program (11 Projects) - 1st Qtr	Construction Award	Feb-15 \$180.4M	May-15 (A) \$180.4M
The overall commitment was delayed due to the re-scheduling of Jerome Line track work until May (\$1M out of \$180.4M goal). All 10 other projects were committed on time.			

Signals & Communications

CBTC: Queens Boulevard Phase 1	Construction Award	Apr-15 \$213.6M	Aug-15 (A) \$235.7M
Delay was due to a protracted procurement period to complete negotiations with prospective bidders. Previously this commitment was reported as having been made in July following a Board action, but procurement activities delayed the final commitment to August. The increased cost was due to an unfavorable bid.			
CBTC: Equipment Supplier Interoperability	Construction Award	Apr-15 \$38.4M	Sep-15 (A) \$18.9M
The award was approved at the July Board meeting and the commitment month was reported as July. However, a delay in procurement activities delayed the notice to proceed until September. The project's cost decreased due to a lower negotiated price.			

MNR

Structures

Replace/Repair Undergrade Bridges	Construction Award	Apr-15 \$10.1M	May-15 (A) \$9.9M
Full award was delayed due to timing of the force account commitment.			

MTACC

Cortlandt Station

Cortlandt Station Reconstruction	Construction Award	Mar-15 \$110.0M	Apr-15 (A) \$116.0M
Budget increase reflects additional contingency for known additional work orders.			

Capital Projects – Major Commitments – October 2015 – Budget Only* Variances

Actual Results Shaded

*for variances of more than \$5 million or 10%

Project	Commitment	Goal	Forecast
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7 All-Agency Budget Only Commitments (0 new this month)

NYCT

Sandy Recovery and Resiliency

Joralemon Tube - Sandy Restoration	Construction Award	Jul-15 \$57.1M	Jul-15 (A) \$117.1M
Initial cost increase due to scope added to address unforeseen field conditions, resiliency measures, and construction phase costs not initially included in estimates. Subsequent cost increase attributable to unfavorable bids.			

B&T

Queens Midtown Tunnel

Tunnel Wall and Ceiling Repairs and Leak Control - QMT	Construction Award	Apr-15 \$62.0M	Apr-15 (A) \$36.8M
Cost decrease reflects a favorable bid as part of the QMT Mega-Contract.			
Restore QMT - Structural	Construction Award	Apr-15 \$100.1M	Apr-15 (A) \$87.6M
Cost decrease reflects a favorable bid as part of the QMT Mega-Contract.			
Restore Control/Comm System, CCTV, Traffic Signals - QMT	Construction Award	Apr-15 \$54.0M	Apr-15 (A) \$90.8M
Cost increase due to refined estimate and high bid for scope of work. The QMT Mega-contract, however, had an overall net decrease due to a favorable bid.			
Environmental Cleanup - QMT	Construction Award	Apr-15 \$24.1M	Apr-15 (A) \$7.5M
Cost decrease reflects a favorable bid as part of the QMT Mega-Contract.			

MNR

Sandy Recovery and Resiliency

Power/C & S Infrastructure Restoration Phase 1	Construction Award	May-15 \$117.4M	May-15 (A) \$141.8M
The original budget was based on a design concept. As the preliminary design progressed, estimates were refined resulting in an increase to the overall project budget.			

Project	Commitment	Goal	Forecast
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LIRR

Track

2015 Track Program	Construction Award	Mar-15 \$25.0M	Mar-15 (A) \$65.0M
The goal assumed only a first half track commitment, but an additional \$40M was committed for the second half of 2015.			

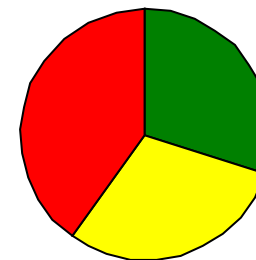
Capital Projects – Major Completions – October 2015

25 major completions are planned for 2015, totaling \$2.6 billion. Through October, 20 projects are being tracked. Eight projects are late, six projects were late, but have now been completed, and six projects were completed on time. Additional year-to-date completions will be reported on as the year progresses.

Through October, agencies completed \$1.5 billion versus a \$2.1 billion YTD goal. The YTD shortfall is mostly due to the eight late completions, most of which are expected to be completed by year-end.

By year-end, the MTA forecasts meeting 87% of its \$2.6 billion goal. The projected shortfall is mainly due to the forecast slip of Second Avenue Subway's contract completion for the 63rd Street station (\$225M), now forecast for 2016.

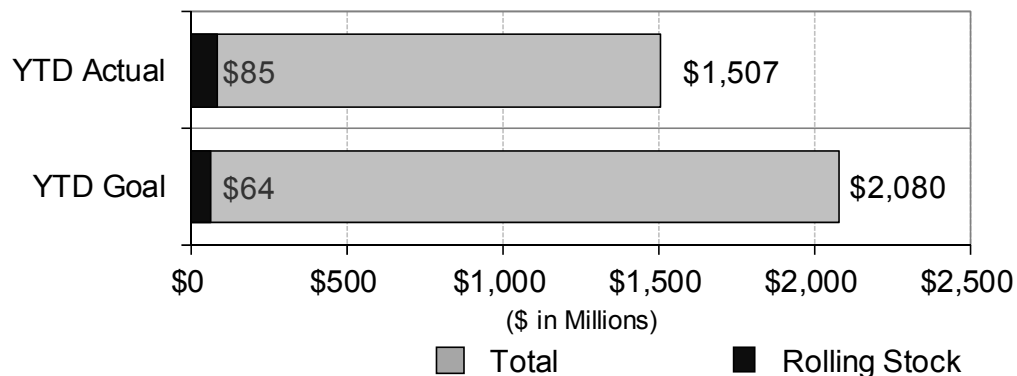
Year-to-Date Major Completions



	Count	Percent	Change from Prior Month
GREEN = Completions made/forecast within Goal	6	30%	-
YELLOW = Completions delayed beyond Goal (already achieved)	6	30%	? 4
RED = Completions delayed beyond Goal (not yet achieved)	8	40%	? 4
	20	100%	-

Budget Analysis

2015 Annual Goal	\$2,550	(\$ in millions)
2015 Annual Forecast	87%	of Annual Goal
Forecast left to Complete	32%	(\$706)



Year-to-Date Agency Breakdown

2015 Goals	Prior month variance		
	GREEN	YELLOW	RED
New York City Transit			
3	2	4	
	----	+1 YELLOW	-1 RED
Long Island Rail Road			
2	1	1	
	----	+1 YELLOW	-1 RED
Metro-North Railroad			
2	1		
	----	+1 YELLOW	-1 RED
Bridges and Tunnels			
1	1	1	
	----	+1 YELLOW	-1 RED
Capital Construction Company			
1			
	----	----	----
MTA Bus Company			
	----	----	----
MTA Police Department			
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Capital Projects – Major Completions – October 2015 – Schedule Variances

Actual Results Shaded

Project	Completion	Goal	Forecast
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8 All-Agency Red Completions (0 new this month)

NYCT

Buses & Depots

Bus Time Customer Information System	Construction	Apr-15 \$48.8M	Dec-15 \$47.5M
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Delay due to extension to allow for training of in-house forces. Cost decrease reflects refined estimate.

Track & Switches

2015 Track & Switch Program (13 Projects) - 2nd Qtr	Construction	Jun-15 \$149.6M	Dec-15 \$166.2M
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Delay due to availability of general orders for work on the Lexington, White Plains Road and Brighton Lines, also contributing to higher costs for completion.

Security

Electronic Security - Under River Tunnel Ph 2	Construction	May-15 \$31.0M	Dec-15 \$27.9M
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Initial delay due to contractor staffing constraints, incomplete power work and delayed site acceptance test procedures. Additional delay attributed to flagging support issues in 60th St. and Montague Tunnels.

Signals & Communications

CBTC Test Track Pilot - Culver Line	Construction	Jul-15 \$97.5M	Dec-15 \$97.6M
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Continued delay due to interoperability testing and pending software delivery.

LIRR

Signals & Communications

Centralized Train Control	Construction	Jun-15 \$12.9M	May-17 \$12.9M
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As a result of a re-evaluation of the Theater Operations, it was determined that a re-design of the Theater is necessary.

Project	Completion	Goal	Forecast
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MNR

Power

Harlem River Lift Bridge Cable/Breaker House /Controls	Construction	Aug-15 \$25.4M	Jun-16 \$25.4M
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Due to elevator subcontractor performance issues, the project completion date has slipped again and is now forecasted for June 2016.

MTACC

East Side Access

55th Street Vent Plant (CM013A)	Construction	Apr-15 \$58.9M	Dec-15 \$58.9M
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Delayed due to extreme cold temperatures, which hindered the productivity of shotcrete activities. Additional 5 month delay due to change in design of hoist system due to unknown site condition.

B&T

Bronx Whitestone Bridge

Necklace Lighting	Construction	Jul-15 \$12.5M	Nov-15 \$12.5M
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Delay due to severe winter weather conditions in addition to facility coordination and access issues.

Capital Projects – Major Completions – October 2015 – Schedule Variances

Actual Results Shaded

Project	Completion	Goal	Forecast
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6 All-Agency Yellow Completions (4 new this month)

NYCT

Signals & Communications

Duct Rehabilitation and Negative Cable - Steinway Tube (New Item)	Construction	Jul-15 \$49.7M	Sep-15 (A) \$51.7M
Delay due to limited availability of general orders in the Steinway Tube. Increased cost reflects the extended project duration.			

Sandy Recovery and Resiliency

Greenpoint Tube Equipment Restoration	Construction	Apr-15 \$37.7M	Aug-15 (A) \$37.7M
Initial delay was due to modification of fan plant remote control system. Additional three month delay due to issues with one of the pumps.			

LIRR

Power

Replace Hillside & Kew Gardens Substations (New Item)	Construction	Jun-15 \$25.5M	Oct-15 (A) \$25.5M
The delay was due to scheduling conflicts between Con Ed and LIRR.			

MNR

Rolling Stock

M-8 23 Cars Acceptance	Procurement	May-15 \$26.7M	Jun-15 (A) \$26.7M
Seventeen cars were accepted on-time. Remaining six were delayed to June 2015 due to additional car inspections.			

Stations

North White Plains Parking Garage (New Item)	Construction	Jun-15 \$41.8M	Oct-15 (A) \$41.8M
The delay was due to subcontractor performance issues.			

Project	Completion	Goal	Forecast
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8 All-Agency Red Completions (0 new this month) (cont'd)

B&T

Marine Parkway Bridge

Substructure & Underwater Scour Protection (New Item)	Construction	Jul-15 \$26.5M	Oct-15 (A) \$26.5M
Delay was due to unforeseen field conditions experienced during construction.			

Capital Projects – Major Completions – October 2015 – Budget* Variances

Actual Results Shaded

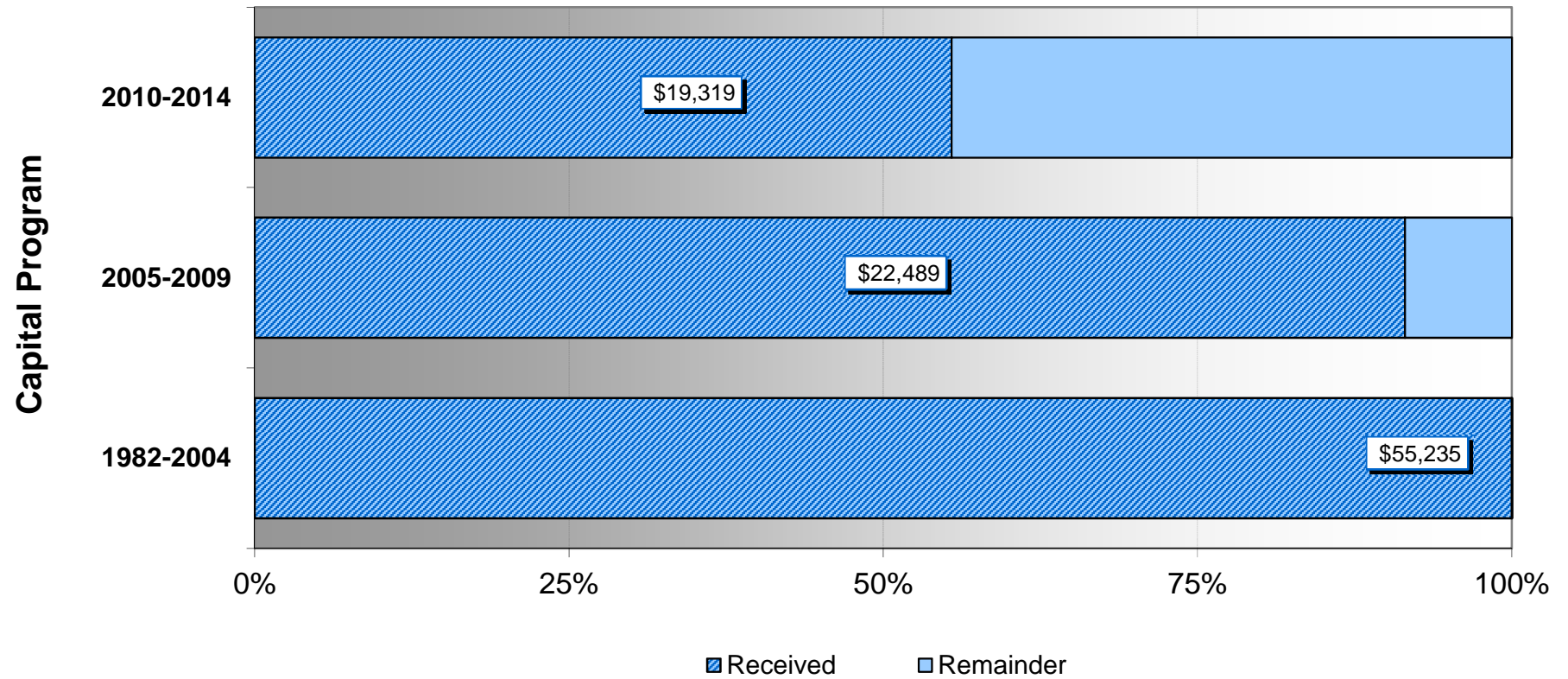
**for variances of more than \$5 million or 10%*

Project	Completion	Goal	Forecast
1 All-Agency Budget Only Completions (0 new this month)			
NYCT			
<i>Sandy Recovery and Resiliency</i>			
Repairs at Montague Tube	Construction	Mar-15 \$220.9M	Mar-15 (A) \$205.8M
Decrease in forecasted cost due to early completion of contract. Savings realized as part of the closeout process.			

Status of MTA Capital Program Funding

Capital Funding (October 31, 2015)

\$ in millions



Capital Funding Detail (October 31, 2015)

\$ in millions

2005-2009 Program

	Funding Plan	Receipts		
	<u>Current</u>	<u>Thru September</u>	<u>This month</u>	<u>Received to date</u>
Federal Formula and Flexible Funds	\$5,186	\$5,186	\$ -	\$5,186
Federal New Start	2,810	2,018	-	2,018
Federal Security	323	262	-	262
Federal Other	11	11	-	11
Federal ARRA - Stimulus	654	654	-	654
City of New York	418	409	-	409
City #7 Line Extension Funds	2,367	2,169	-	2,169
MTA Bus Federal and City Match	149	142	-	142
Asset Sales and Program Income	1,186	565	-	565
State Transportation Bond Act	1,450	1,064	-	1,064
MTA Bonds (Including LGA)	3,039	3,039	-	3,039
B&T Bonds	1,221	1,221	-	1,221
Bonds from New Sources	5,624	5,624	-	5,624
Other (Including Operating to Capital)	138	126	-	126
Total	24,576	22,489	-	22,489

2010-2014 Program

	Funding Plan	Receipts		
	<u>Current</u>	<u>Thru September</u>	<u>This month</u>	<u>Received to date</u>
Federal Formula, Flexible, Misc	\$5,835	\$5,485	\$129	\$5,614
Federal High Speed Rail	295	295	-	295
Federal Security	206	100	-	100
Federal RIFF Loan	-	-	-	-
City Capital Funds	778	378	180	558
State Assistance	770	150	-	150
MTA Bus Federal and City Match	132	68	1	69
MTA Bonds (Payroll Mobility Tax)	12,703	7,735	-	7,735
Other (Including Operating to Capital)	1,529	585	40.0	625
B&T Bonds	2,079	835	-	835
Hurricane Sandy Recovery				
<i>Insurance Proceeds/Federal Reimbursement</i>	9,431	3,177	-	3,177
PAYGO	160	160	-	160
<i>Sandy Recovery MTA Bonds</i>	758	-	-	-
<i>Sandy Recovery B&T Bonds</i>	175	-	-	-
Total	34,851	18,969	350	19,319