



Metropolitan Transportation Authority

Capital Program Oversight Committee Meeting

February 2017

Committee Members

F. Ferrer, Acting Chair

I. Greenberg

S. Metzger

J. Molloy

M. Pally

J. Samuelson

L. Schwartz

P. Trottenberg

J. Vitiello

P. Ward

C. Wortendyke

N. Zuckerman

Capital Program Oversight Committee Meeting

**2 Broadway, 20th Floor Board Room
New York, NY 10004**

**Tuesday, 2/21/2017
1:15 - 2:15 PM ET**

1. PUBLIC COMMENTS PERIOD

2. APPROVAL OF MINUTES JANUARY 23, 2017

- Minutes from January '17 - Page 3

3. COMMITTEE WORK PLAN

- 2017 - 2018 CPOC Committee Work Plan - Page 6

4. B&T CAPITAL PROGRAM UPDATE

- Progress Report on B&T Capital Program - Page 8

- IEC Project Review on Verrazano-Narrows Bridge Upper Deck Replacement & RFK Bridge Bronx Plaza Rehabilitation - Page 43

- IEC Project Review on Hugh Carey Tunnel Restoration & Queens Midtown Tunnel Restoration - Page 48

5. LIRR and MNR POSITIVE TRAIN CONTROL UPDATE

- Progress Report on PTC - Page 53

- IEC Project Review on PTC - Page 69

6. UPDATE ON MINORITY, WOMEN AND DISADVANTAGED BUSINESS PARTICIPATION

- MTA-Wide MWDBE Awards - Page 73

7. CAPITAL PROGRAM STATUS

- 2017 Commitment & Completion Goals - Page 78

- Commitments, Completions and Funding Report - Page 81

Date of next meeting: Monday, March 20, 2017 at 1:45 PM

MINUTES OF MEETING
MTA CAPITAL PROGRAM OVERSIGHT COMMITTEE
January 23, 2017
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 Vitiello
Hon. Carl Wortendyke
Hon. Neal Zuckerman

MTA CPOC members not present:

Hon. John Samuelsen
Hon. Lawrence Schwartz
Hon. Polly Trottenberg
Hon. Peter Ward

MTA Board members present:

Hon. Andrew Albert
Hon. Veronica Vanterpool

MTA staff present:

Craig Stewart
Michael Wetherell

NYCT staff present:

John Higgins
Frank Jezycki
Branko Kleva
John O'Grady
Steve Plochochi

Independent Engineering Consultant staff present:

Mark Cosmedy
Joe DeVito
Mohammad Mohammadinia
Cesar Silva
Richard Trabucco

* * *

Chairman Prendergast called the January 23, 2017 meeting of the Capital Program Oversight Committee to order at 1:55 P.M.

Public Comments Period

There were three public speakers in the public comments portion of the meeting: Murray Bodin; Jason Pineiro; and Omar Vera.

Meeting Minutes

Upon motion duly made and seconded, the CPOC members approved the minutes to the previous meeting held on December 12, 2016.

Committee Work Plan

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

NYCT Bus Procurement Update

Mr. Higgins updated the Committee on NYCT's Bus Procurement Program, including overall goals of the Program, and budgets and delivery schedules of the various bus types, as well as NYCT's Propulsion Technology Strategy (which includes All Electric Buses), and an overview of Driver Visibility Improvements, Improved Safety Technology and Improved Customer-Facing Amenities. In its Project Review, the IEC cited the current awarded contracts as being on schedule, with no significant budget-related issues. The IEC then noted that the Bus Procurement Program appears to be well managed, and finally, the IEC commended NYCT for its efforts to implement important new initiatives that improve passenger safety and reduce emissions, and for its efforts to introduce new generation hybrid and electric buses, and new technologies. Further details of the presentations, and Committee Members' comments and questions with respect thereto are included in the video recording of the meeting maintained in MTA's records.

NYCT Subway Car Program Update

Mr. Jezycki updated the Committee on the NYCT Subway Car Fleet, including an overview and delivery schedule of the \$614 million R188 Project, the \$741 million R179 Project, and the \$3.2 billion R211 Project. In its Project Review of the R188s, the IEC stated that the project is on budget and that it has remained on schedule since the IEC's last report in January 2016. With respect to the R179s, the IEC noted that the project budget was increased to offset the cost of consultant construction administration for program delays associated with welding and truck casting issues that occurred earlier in the program. In its Schedule Review, the IEC stated that the carbuilder's schedule has slipped an additional 6 months since the last IEC report, and that the project is currently 24 months late. In addition, the IEC stated that the carbuilder has submitted a Recovery and Mitigation Plan to NYCT and if successfully executed, the IEC believes that a portion of the recent 6-month slip may be recovered. Finally, while the carbuilder plans to ramp up production to one car per day (from the current production rate of one car every four days), it is the IEC's opinion that, considering the carbuilder's performance to date, the carbuilder may be unable to achieve the full production rate. In addition, the IEC cited its concerns that the supply chain may be unable to support the carbuilder's aggressive ramp-up schedule and that such a plan would require NYCT to accept cars at a rate that may be difficult to maintain on an uninterrupted ongoing basis. In its Project Review of the R211s, the IEC stated that the current budget is \$3.2 billion and that the project is currently in the RFP stage, with an award date that has been shifted from early 2017 to mid-2017. Further details of the presentations, and Committee Members' comments and questions with respect thereto, are included in the video recording of the meeting maintained in MTA's records.

NYCT Sandy Recovery & Resiliency Division

Mr. Kleva updated the committee on the NYCT Sandy Recovery and Resiliency Program, including the South Ferry Station Reconstruction; under-river tunnels (including the Canarsie Tunnel Program of Projects); Myrtle Avenue Line Viaduct and Bridge; St. George Interlocking Terminal/Yard; and the Clifton Shop Design-Build Project. In its Project Review on the South Ferry Station Complex, the IEC reported that the project is on budget, expenditures to date reflect the actual percentage of project completion, and that in the IEC's opinion, the remaining project contingency is sufficient to reach substantial completion. In its Project Review on the Canarsie Tunnel Rehab, the IEC observed that a key predecessor activity to begin the Canarsie tunnel

shutdown is the completion of the Myrtle Avenue Viaduct project. In its Project Review on the Myrtle Avenue Line, the IEC stated that the award amount was approximately \$10 million more than the engineer's estimate, partly due to the negotiated schedule needed to maintain the milestone dates. With respect to the schedule, the IEC noted that the contract was awarded approximately two months later than planned and to meet critical project milestones, NYCT negotiated a more compact schedule with the contractor. In its Project Review on the Clifton Repair Shop, the IEC stated that the project is on budget and that the project contingency is sufficient to reach substantial completion. In addition, the IEC observed that controlling scope and ensuring that the design and review process is done on a timely basis are key factors to maintaining the project schedule. Further details of the presentations, 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 & Completions and Funding

Mr. Stewart reported that in 2016 agencies planned to commit a total of \$6.6 billion dollars, including 41 major commitments. He then stated that through year-end, \$5 billion or 77% of the total goal value was achieved. The shortfall was caused by commitments that slipped beyond 2016 in part due to the late approval of the 2015-2109 Capital Plan. A total of fourteen major commitments have been delayed into 2017. Notable slips include NYCT's delayed Canarsie Tube award (\$883 million); 207th Street Shops & Yards Sandy work (\$223 million) and Sandy mitigation work at nine NYCT stations. East Side Access' Mid-Day Storage Yard commitment (\$266 million) was also delayed to 2017. The MTA planned a total of \$4.6 billion in project completions in 2016, including forty-three "major" completions. In 2016, the MTA substantially completed \$2.8 billion of its \$4.6 billion goal with thirty-two of the forty-three major completions achieved. In addition, Second Avenue Subway Phase 1 achieved revenue service. The four SAS Phase 1 station contracts have a total 2016 value of \$1.3 billion, bringing our completions to \$4.1 billion or 89% of goal.

Adjournment

Upon motion duly made and seconded, Chairman Prendergast adjourned the January 23, 2017 meeting of the MTA Capital Program Oversight Committee at 3:00 PM.

Respectfully submitted,
Michael Jew-Geralds
Office of Construction Oversight



2017-2018 CPOC Committee Work Plan

I. Recurring Agenda Items

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

II. Specific Agenda Items

March

Quarterly MTACC Capital Program Update
Quarterly Change Order Report
Quarterly Traffic Light Reports

April

NYCT Capital Program Update

- Capital Program Overview
- Signals and Train Control Division
- Systems and Security Division

Update on Capital Program Security Projects (in Executive Session)

May

LIRR Capital Program Update

- Jamaica Capacity Improvements
- Main Line Double Track

MNR Capital Program Update

- Harmon Shop Replacement
- Hudson Line Sandy Restoration

NYCT, LIRR, MNR Update on New Fare Payment System

June

Quarterly MTACC Capital Program Update
LIRR and MNR Update on Positive Train Control (PTC)
Quarterly Change Order Report
Quarterly Traffic Light Reports

July

NYCT Capital Program Update

September

Quarterly MTACC Capital Program Update
Update on Minority, Women and Disadvantaged Business Participation
Update on Small Business Development Program
Quarterly Change Order Report
Quarterly Traffic Light Reports

October

LIRR and MNR Capital Programs Update
LIRR and MNR Update on Positive Train Control (PTC)
Update on Capital Program Security Projects (in Executive Session)

November

NYCT Capital Program Update
NYCT, LIRR, MNR Update on New Fare Payment System
CPOC Committee Charter Review

December

Quarterly MTACC Capital Program Update
Quarterly Change Order Report
Quarterly Traffic Light Reports

January

NYCT Capital Program Update

February

B&T Capital Program Update
LIRR and MNR Update on Positive Train Control (PTC)
Update on Minority, Women and Disadvantaged Business Participation

Annual CPOC Capital Program Update

Joe Keane, P.E.

Vice President and Chief Engineer

MTA – Bridges and Tunnels

FEBRUARY 21, 2017



Bridges and Tunnels

Joe Keane, P.E.



OVERVIEW

- **Status of 2010-2014 and 2015-2019 Capital/Sandy Programs**
- **Major Construction Completions**
- **Recent Major Construction Awards**
- **Tunnel Program Update**
- **Verrazano-Narrows Bridge Program Update**
- **Robert F. Kennedy Bridge Program Update**
- **Rehabilitation of the Marine Parkway Bridge**
- **Open Road Tolling (ORT) Update**

STATUS OF CAPITAL/SANDY PROGRAM COMMITMENTS

Core Capital Program:

2010-2014 Program Commitments:

- Total Program: \$2,076M
- Committed to Date: \$1,900M or (92% of Total)

2015-2019 Program Commitments:

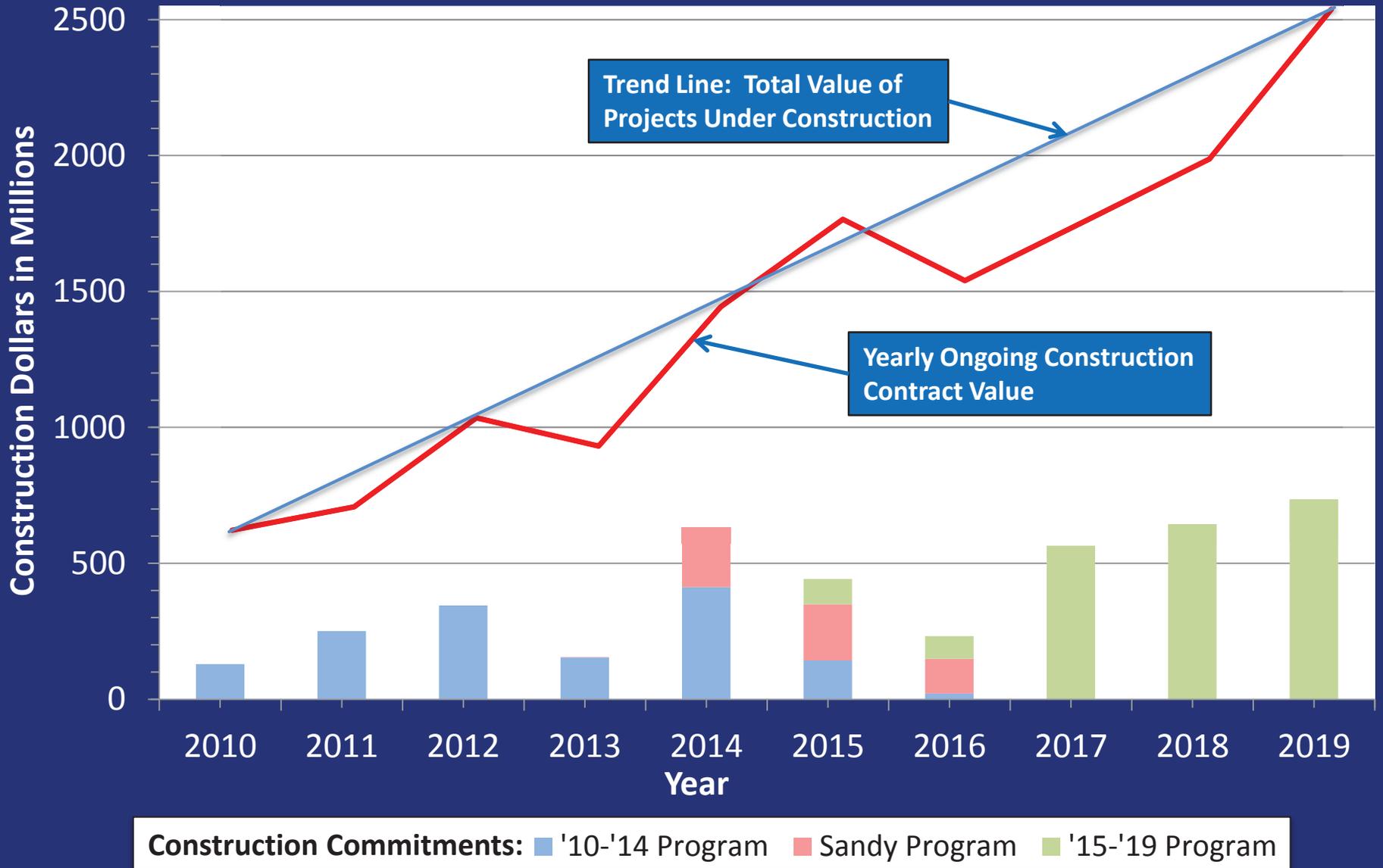
- Total Program: \$2,856M
- Committed to Date: \$319M or (11% of Total)

Sandy Program Commitments:

- Planned to Date: \$661M
- Committed to Date: \$661M or (100% of total)



CONSTRUCTION COMMITMENTS & ONGOING CONSTRUCTION TREND



STATUS OF CAPITAL/SANDY PROGRAM COMMITMENTS

2016 Commitments:

- Planned: \$152M
- Actual: \$330M (217% of Planned)

- Breakdown of Actual Commitments
 - Core Capital Program
 - 2010-2014 Program Commitments: \$21.1M
 - 2015-2019 Program Commitments: \$180.5M
 - Sandy Program Commitments: \$128.6M

2017 Commitments:

- Planned: \$490M

STATUS OF CAPITAL/SANDY PROGRAM COMPLETIONS

2010-2014 Program Completions: Approximately 31% of the Program (\$2,076M) projects have been completed.

2016 Completions:

- **Planned:** \$149M (10 Completions)
- **Actual:** \$161.3M (11 Completions)

- **Major 2016 Completions:**
 - HH-88A – Replace Upper and lower Plaza and South Bound Approach at the Henry Hudson Bridge - Phase I and II (\$50.2M)
 - VN-87 – Design-Build Substation #1 Rehabilitation at the Verrazano Narrows Bridge (\$16.6M)
 - MP-21 – Design-Build Rehabilitation of Rockaway Point Blvd Overpass at the Marine Parkway Bridge (\$11.1M)
 - RK-65R3 – Design Build Training Facility at the Robert F. Kennedy Bridge (\$17.3M)

2017 Completions:

- **Planned:** \$528M (11 Completions)

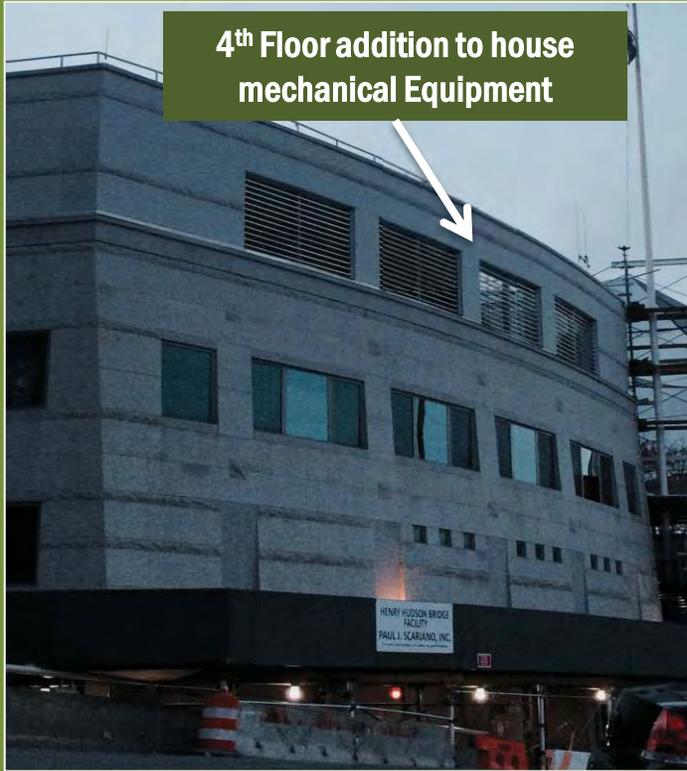


MAJOR CONSTRUCTION COMPLETIONS



Bridges and Tunnels

MAJOR COMPLETION AT THE HENRY HUDSON BRIDGE: RECONSTRUCTION OF THE HENRY HUDSON BRIDGE TOLL PLAZAS: PHASE TWO



4th Floor addition to house mechanical Equipment



New ORT Gantry

Work Accomplished:

- Relocation of utilities from maintenance garage to new 4th floor addition HHB Service Building
- Installation of ORT Plaza and Gantries and demolition of existing toll booths

Project Schedule & Budget:

- Awarded: December 2014
- Substantial Completion: December 2016
- Construction Budget and Schedule: \$34.4M with a duration of 18 months
- Schedule was extended 6 months to include upper and lower level toll booth demolition (accelerated from HH-88 Phase II). Toll booths were demolished after ORT tolling was initiated in November 2016

Bridges and Tunnels



MAJOR COMPLETION AT THE VERRAZANO-NARROWS BRIDGE: NEW SUBSTATION (DESIGN-BUILD)

New 5 kV Substation

New 1500 kW Generator



New 5 kV Substation
equipment



Scope of Work:

- Design-Build Project to construct a new High Voltage Switchgear Substation and Backup Generator

Project Schedule & Budget:

- Awarded: February 2014
- Substantial Completion: June, 2016
- Design-Build Budget and Schedule: \$12M with a duration of 27 months
- Project completed on budget and on schedule

Bridges and Tunnels



MAJOR COMPLETION AT THE MARINE PARKWAY BRIDGE: REHABILITATION OF ROCKAWAY POINT BLVD. AND JACOB RIIS PEDESTRIAN OVERPASS (DESIGN-BUILD)

Scope of Work:

- Deck replacement and structural rehabilitation of Rockaway Point Blvd Overpass
- Repairs to Jacob Riis Pedestrian Overpass

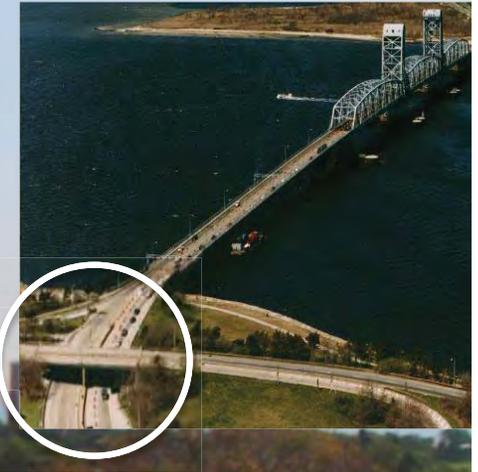
Rockaway Point Blvd.
Overpass

Project Schedule & Budget:

- Awarded: January 2015
- Substantial Completion: June 2016
- Design-Build Budget and Schedule: \$8.5M (Capital) with a duration of 20 months
- Project completed on budget and on schedule



Bridges and Tunnels



MAJOR COMPLETION AT THE ROBERT F. KENNEDY BRIDGE: B&T TRAINING FACILITY (DESIGN-BUILD)



Scope of Work:

- Design-Build Project to construct a 15,000 sq. ft. Multi-Functional Operations Center

Project Schedule & Budget:

- Awarded: June 2014
- Substantial Completion: June, 2016
- Design-Build Budget and Schedule: \$13.1M with a duration of 18 months
- Project completed within budget and six months time extension due to site conditions.



TUNNEL PROGRAM UPDATE



RESTORATION OF THE HUGH L. CAREY TUNNEL

Scope of Work:

- Complete reconstruction of tunnel interior finishes
- Replacement/upgrade of Electrical, Communication, Mechanical and Life Safety Systems including the Fire Standpipe
- Reconstruction of the Brooklyn Toll Plaza which is realigned with ORT work

Project Schedule & Budget:

- Awarded: December 2014
- Original Construction Budget and Schedule: \$296.1M with a duration of 48 months
- Revised Construction Budget and Schedule: \$328.3M with a duration of 39 months
 - Changes to tunnel finishes
 - 9 month accelerated schedule for early completion in March 2018
- Project is 48% complete
 - 1st major milestone: Completion of west tube on schedule for March 2017.
 - Project on schedule for overall completion by March 2018



RESTORATION OF THE QUEENS MIDTOWN TUNNEL

Scope of Work:

- Complete reconstruction of tunnel interior finishes
- Replacement/upgrade of Electrical, Communication, Mechanical and Life Safety Systems including the Fire Standpipe
- Reconstruction of the Brooklyn Toll Plaza which is realigned with ORT work

Project Schedule & Budget:

- Awarded: April 2015
- Original Construction Budget and Schedule: \$245.5M with a duration of 48 months
- Revised Construction Budget and Schedule: \$276.5M with a duration of 39 months
 - Changes to tunnel finishes
 - 9 month acceleration
- Project is 31% complete
 - North tube is 57% complete and on schedule for completion in July 2017
 - Project on schedule for overall completion by July 2018



RESTORATION OF THE HUGH L. CAREY AND QUEENS MIDTOWN TUNNELS

Tile Restoration/
Updated Finish

LED Lighting

Fire Resistant
Ceiling Panels

New Bench Wall

New Catwalk



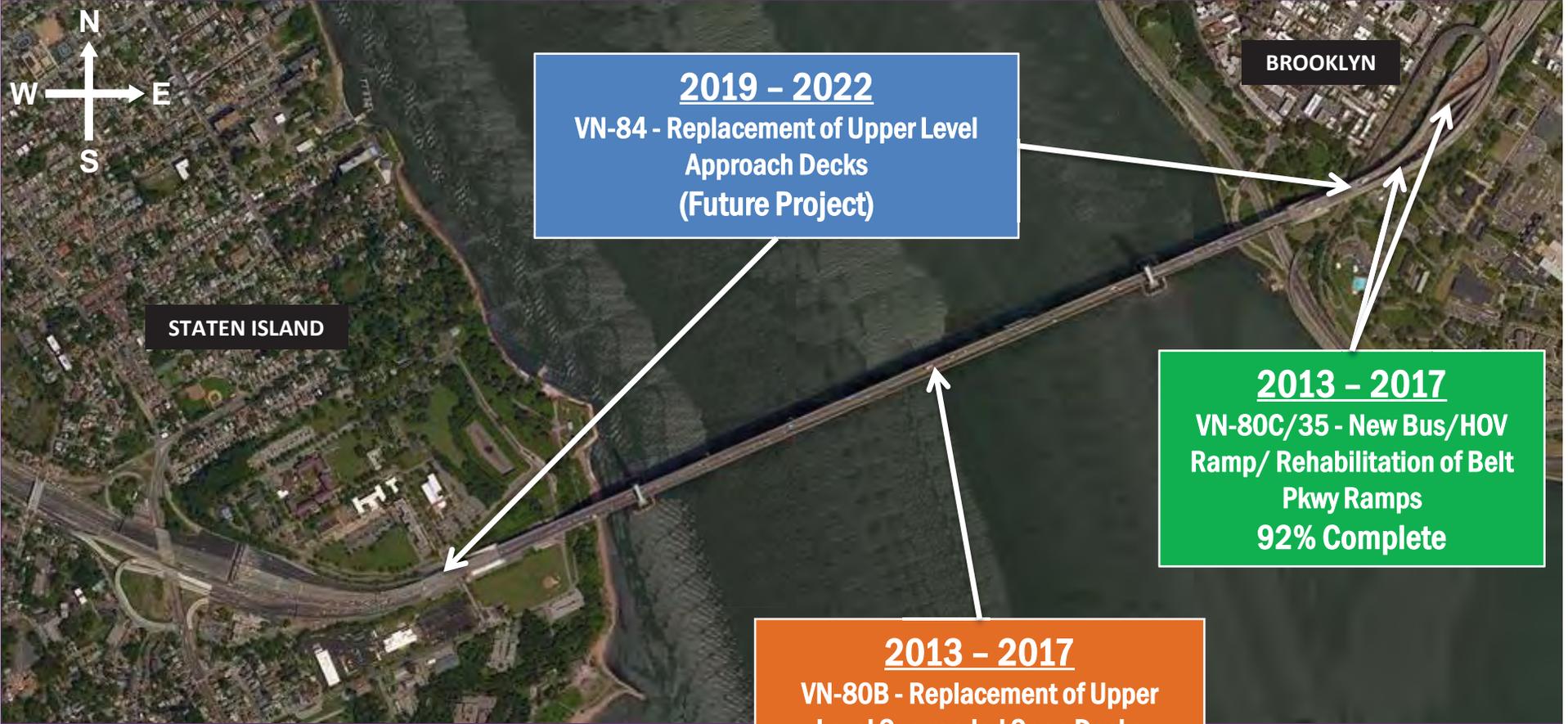
Bridges and Tunnels

VERRAZANO-NARROWS BRIDGE (VNB) PROGRAM UPDATE



Bridges and Tunnels

VERRAZANO-NARROWS FACILITY PROGRAM UPDATE



2019 - 2022
VN-84 - Replacement of Upper Level Approach Decks (Future Project)

2013 - 2017
VN-80C/35 - New Bus/HOV Ramp/ Rehabilitation of Belt Pkwy Ramps
92% Complete

2013 - 2017
VN-80B - Replacement of Upper Level Suspended Span Decks
91% Complete



ONGOING PROJECTS AT THE VERRAZANO NARROWS BRIDGE: REPLACEMENT OF THE UPPER LEVEL DECK

Scope of Work:

- Deck Replacement
- Reconfigure deck to accommodate Bus/HOV Lane (7th lane)
- New LED roadway lighting and sign structures

Project Schedule & Budget:

- Awarded: November 2012
- Construction Budget and Schedule: \$248M with a duration of 60 months
- Project is 91% complete and is on budget and several months ahead of schedule
 - Final deck panel was installed in November 2016
 - Stage 4 paving was completed in January 2017 and 6 lanes of traffic restored



ONGOING PROJECTS AT THE VERRAZANO NARROWS BRIDGE: NEW BUS/HOV RAMP CONNECTING TO GOWANUS EXPRESSWAY



Scope of Work:

- Construct a new reversible Bus/HOV Ramp to Upper Level
- Steel repairs and concrete rehabilitation of the Belt Parkway Ramps

Project Schedule & Budget:

- Awarded: December 2013
- Construction Budget and Schedule: \$91.9M with a duration of 42 months
- Project is 92% complete and is on budget and on schedule
 - Early completion of Bus/HOV Ramp in Dec. 2016 was achieved.

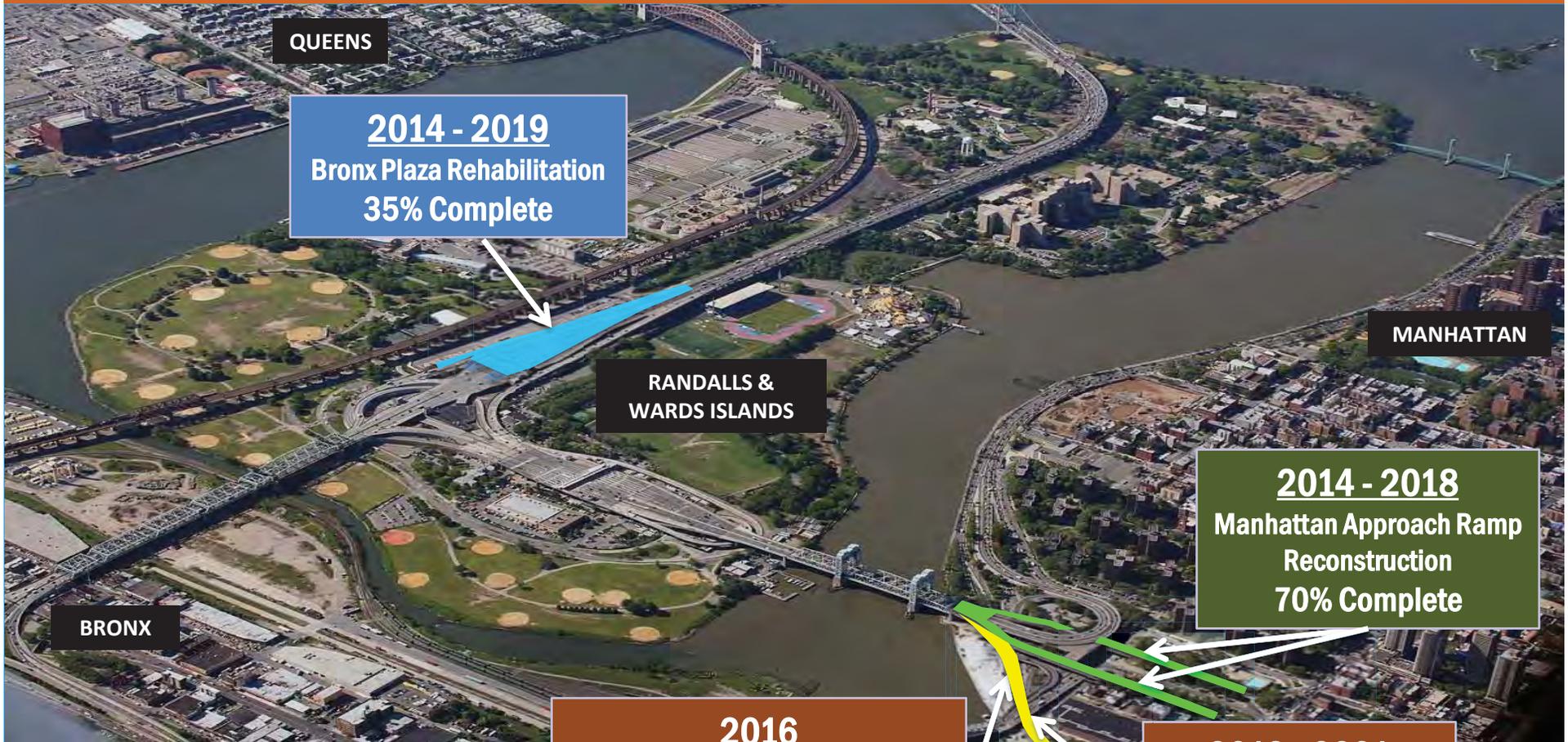


Bridges and Tunnels

ROBERT F. KENNEDY BRIDGE (RFK) PROGRAM UPDATE



ROBERT F. KENNEDY FACILITY PROGRAM UPDATE



QUEENS

2014 - 2019
Bronx Plaza Rehabilitation
35% Complete

MANHATTAN

RANDALLS &
WARDS ISLANDS

BRONX

2014 - 2018
Manhattan Approach Ramp
Reconstruction
70% Complete

2016
MOU with NYCDOT for
Foundations of New Harlem River
Drive (HRD) North Ramp
Construction

2019 - 2021
New HRD North Ramp
Construction
(Design-Build)



ORT GANTRY LOCATIONS AT THE RFK



ONGOING PROJECTS AT THE ROBERT F. KENNEDY BRIDGE: BRONX PLAZA RECONSTRUCTION

Updated Scope of Work:

- Replace roadway deck and upgrade supporting structure
- Project realigned to facilitate ORT implementation
- Utility and lighting upgrades
- Construction stages realigned to facilitate ORT implementation – 9 month reduction in traffic impacts



Project Schedule & Budget:

- Awarded: December 2014
- Construction Budget and Schedule: \$218M (Capital) with a duration of 54 months
- Project is 35% complete and is on budget and anticipated to finish on or ahead of schedule

ONGOING PROJECTS AT THE ROBERT F. KENNEDY BRIDGE: REHABILITATION OF THE MANHATTAN APPROACH RAMPS

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Ongoing: reconstruction of On-Bound Ramp Deck

Completed: New off-bound Ramp opened to traffic 3 months ahead of schedule

Stub for New HRD Direct Connector Ramp

Project Schedule & Budget:

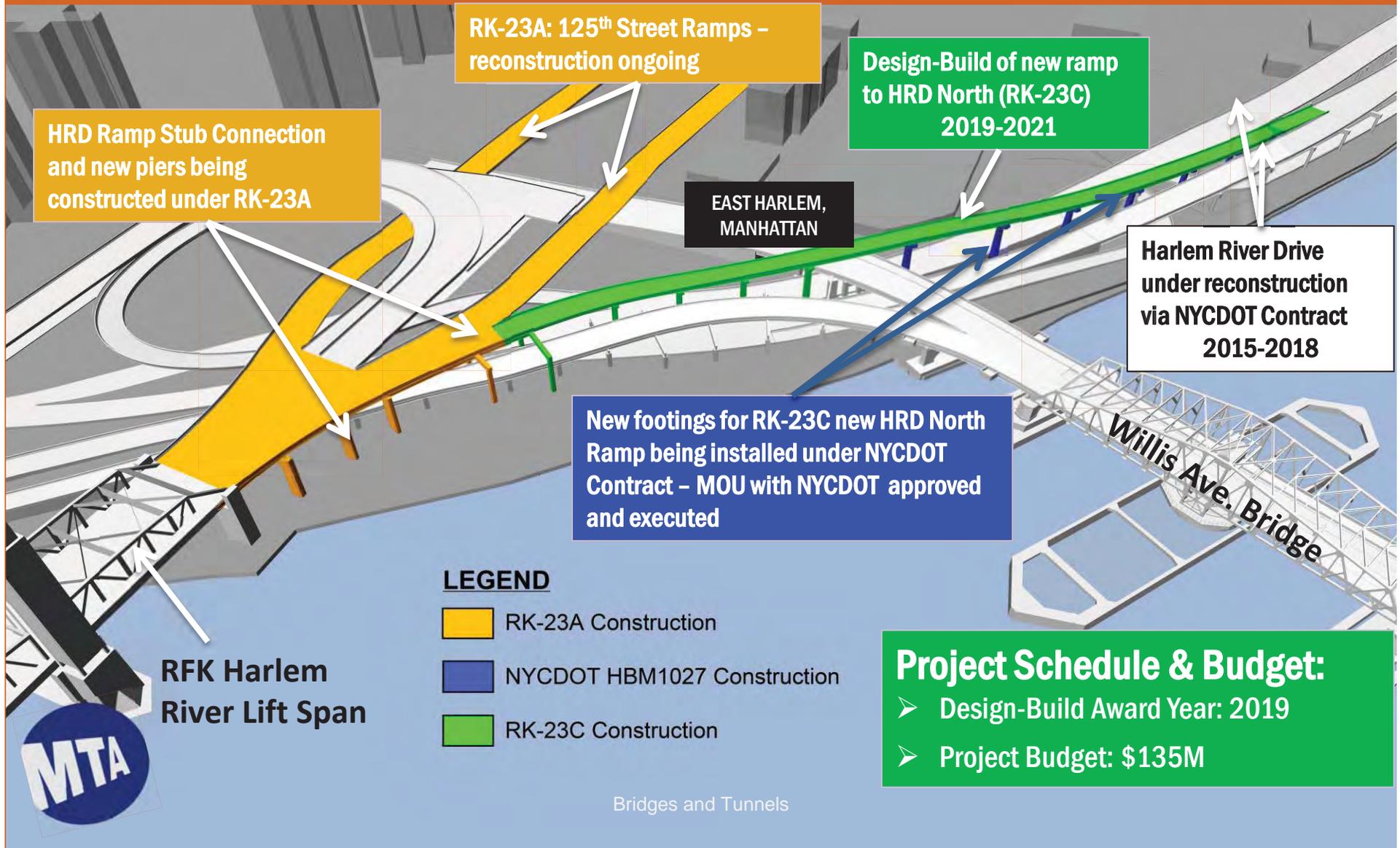
- Awarded: December 2014
- Construction Budget and Schedule: \$68.5M (Capital) with a duration of 31 months
- Project is 70% complete and is on budget and is ahead of schedule

Scope of Work:

- Structural replacement and rehabilitation
- Construct connection stub for new proposed Harlem River Drive Ramp
- Utility upgrades (new LED roadway lighting and fire standpipe)



ONGOING AND UPCOMING PROJECTS AT THE ROBERT F. KENNEDY BRIDGE: RECONSTRUCTION OF MANHATTAN APPROACH RAMPS AND NEW HARLEM RIVER DRIVE (HRD) NORTH RAMP



REHABILITATION OF THE MARINE PARKWAY BRIDGE



MARINE PARKWAY BRIDGE: ELECTRICAL/MECHANICAL REHABILITATION OF THE LIFT SPAN AND MISCELLANEOUS STEEL REPAIRS AND PAINTING



Miscellaneous Steel Repairs and Painting

Lift Span Mechanical and Electrical Rehabilitation

Project Schedule & Budget:

- Awarded: December 2015
- Construction Budget and Schedule: \$77.6M (Capital) with a duration of 36 months
- Project is 30% complete and is on budget and on schedule

Scope of Work:

- Electrical and Mechanical Rehabilitation of the Lift Span
- Miscellaneous Steel Repairs and Painting



MP-03/MP-16 VIDEO



Bridges and Tunnels

OPEN ROAD TOLLING (ORT) IMPLEMENTATION



ORT IMPLEMENTATION – STATUS AT EACH FACILITY (AS OF FEBRUARY 2017)

B&T Facility	ORT Implementation Date	Construction Progress
Henry Hudson Bridge	November 2016	Substantially complete.
Hugh L Carey Tunnel	January 2017	Substantially complete
Queens Midtown Tunnel	January 2017	Substantially complete
Robert F Kennedy Bridge	Summer 2017	Construction underway.
Cross Bay Bridge	Spring 2017	Construction underway.
Marine Parkway Bridge	Spring 2017	Construction underway.
Verrazano Narrows Bridge	Summer 2017	Construction underway.
Throgs Neck Bridge	Fall 2017	Fabrication underway.
Bronx Whitestone Bridge	Fall 2017	Construction underway.



ORT PROGRESS AT THE HENRY HUDSON BRIDGE

Bridge Upper and Lower Level Toll Gantries

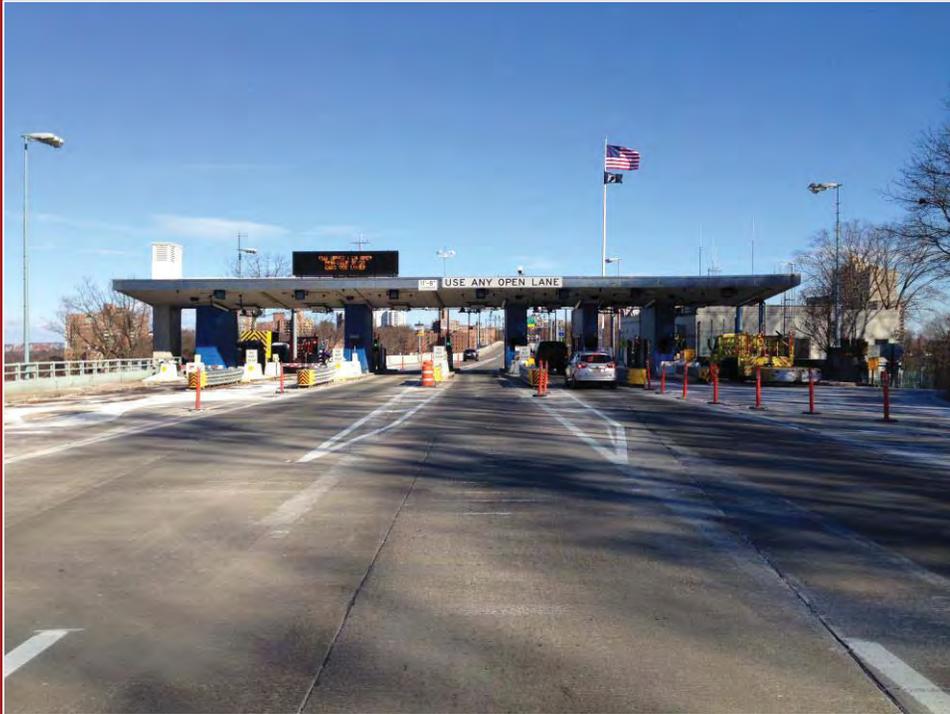
Project Schedule

- Gantry Installation Complete
- ORT tolling Initiated on 11/20/2016
- Toll booth demolition completed on 12/22/2017

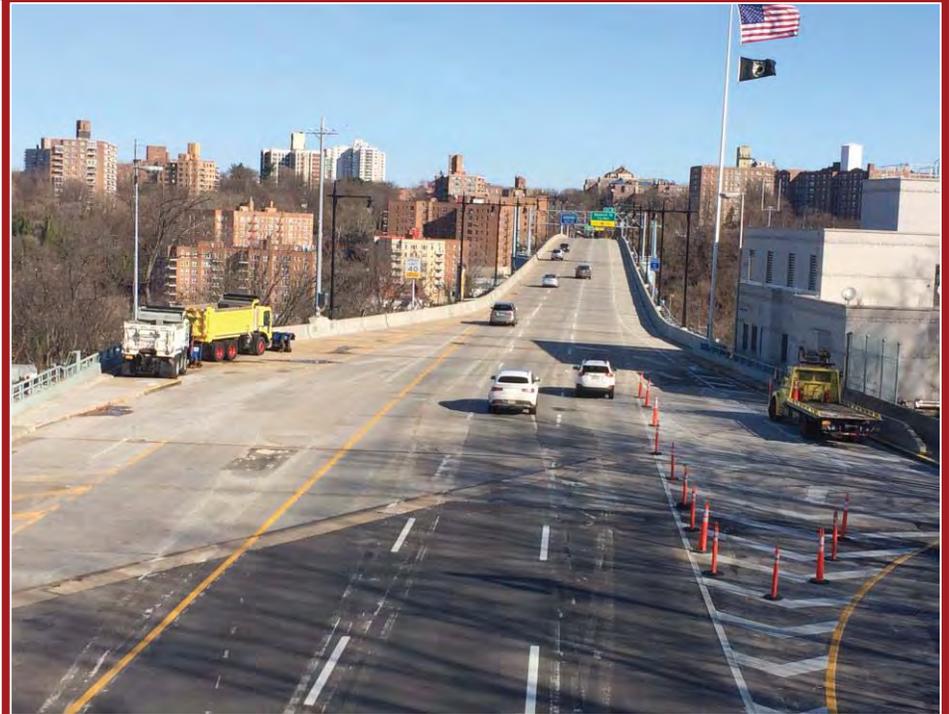


Bridges and Tunnels

ORT PROGRESS AT THE HENRY HUDSON BRIDGE



Upper Level Toll Plaza Pre-Demolition



Upper Level Toll Booth Demolition Completed



ORT PROGRESS AT THE HUGH L. CAREY TUNNEL

Project Schedule

- Gantry Installation Complete
- ORT Tolling initiated on 1/4/2017
- Toll booth demolition completed on 1/23/2017



QUESTIONS & DISCUSSION



February 2017 CPOC IEC Project Review



Bridge Program
Verrazano-Narrows Bridge
&
Robert F. Kennedy Bridge



Verrazano-Narrows Bridge VN-80B Replacement of the Upper Level Deck Schedule Review

- The project is ahead of schedule. All of the orthotropic deck panels have been delivered and installed on the bridge.
- The permanent lane closure on the bridge ended in January 2017, nearly 10 months early.
- Open Road Tolling implementation does not affect the schedule.

Budget Review

- The project is on budget.
- Currently there is sufficient contingency money to complete the project.



Verrazano-Narrows Bridge VN-80B Replacement of the Upper Level Deck

Observations

All of the project risks have been appropriately mitigated by the agency.

The IEC recognizes the work of B&T and the project team for completing the work requiring permanent lane closures ahead of schedule minimizing the impact to the travelling public.



Robert F. Kennedy Bridge RK-65A Bronx Plaza Rehabilitation

Schedule Review

- The project is currently on schedule. The project team was able to mitigate some early delays.
- The project was temporarily halted to allow for some redesign for implementing Open Road Tolling (ORT). A revised scope of work and staging plan was developed resulting in no delay to the overall schedule.

Budget Review

- The project is currently within budget.



Robert F. Kennedy Bridge RK-65A Bronx Plaza Rehabilitation

Risk Observations

- Potential cost and schedule risks associated with unforeseen conditions found during structure demolition have not been realized during the stages completed so far.
- Potential schedule risks associated with delays in reviewing shop drawings and RFIs have not been realized partly due to weekly conference calls to resolve outstanding comments and circulation of a weekly submittal and RFI priority list.



February 2017 CPOC IEC Project Review



**BB-28/28S, BB-54
Hugh Carey Tunnel Restoration
&**

**QM-40/40S, QM-18
Queens Midtown Tunnel Restoration**



IEC BB-28/28S, BB-54 Review

- **Hugh Carey Tunnel Restoration (BB-28/28s, BB-54)**

Budget Review

- The project budget was revised due to an amendment that accelerates the schedule and includes revised work scope.
- The project is within budget and currently there is sufficient contingency to complete the project.

Schedule Review

- The project is currently on schedule to meet the revised schedule completion date of 3/31/18.



IEC QM-40/40S, QM18 Review

- **Queens Midtown Tunnel Restoration (QM-40/40s, QM-18)**

Budget Review

- The project budget was revised due to an amendment that accelerates the schedule and includes revised work scope.
- The project is within budget and currently there is sufficient contingency to complete the project.

Schedule Review

- The project is on schedule to meet the accelerated schedule completion date of 7/9/2018.



IEC Observations

- **BB28/BB54**
 - Completion of the integrated Field Acceptance Test is critical to commissioning activities.
- **QM-18/QM40**
 - Increased construction production is expected as fabrication of benchwall and catwalk is complete.



IEC Observations

- **BB28/BB54/QM-18/QM40**
 - B&T project management team developed production matrices that have allowed for effective tracking of field construction activities.
 - ORT activities are complete at both tunnels and had minimal impact on project activities.
 - Agency continues to effectively address community concerns as accelerated work has increased construction activities.



February 2017 CPOC LIRR/MNR PTC Project Update

February 21, 2017



PTC



Long Island Rail Road



Metro-North Railroad

Project Overview

Overall Status

Item	Comments
Schedule	Beneficial Use is December 2018
Cost	Current Budget is \$968M

Highlights

Progress (38% complete)

- Wayside and On-Board equipment deliveries and installations progressed.
- Office equipment at Back-Up Control Center locations installed at both Railroads.
- Subsystem designs progressed; Commenced Final Design Review (FDR).
- Software development for On-Board and Office subsystems progressed.
- Preliminary Pilot Testing for validation of transponder design and positioning continued.
- MNR implemented civil speed enforcement on the New Haven Line.
- LIRR received approvals for all antenna pole installations from FCC and Tribal Nations.
- MNR completed surveys and application process for antenna pole installations.
- Training of Railroad Forces continued.



Project Overview

Highlights (continued)

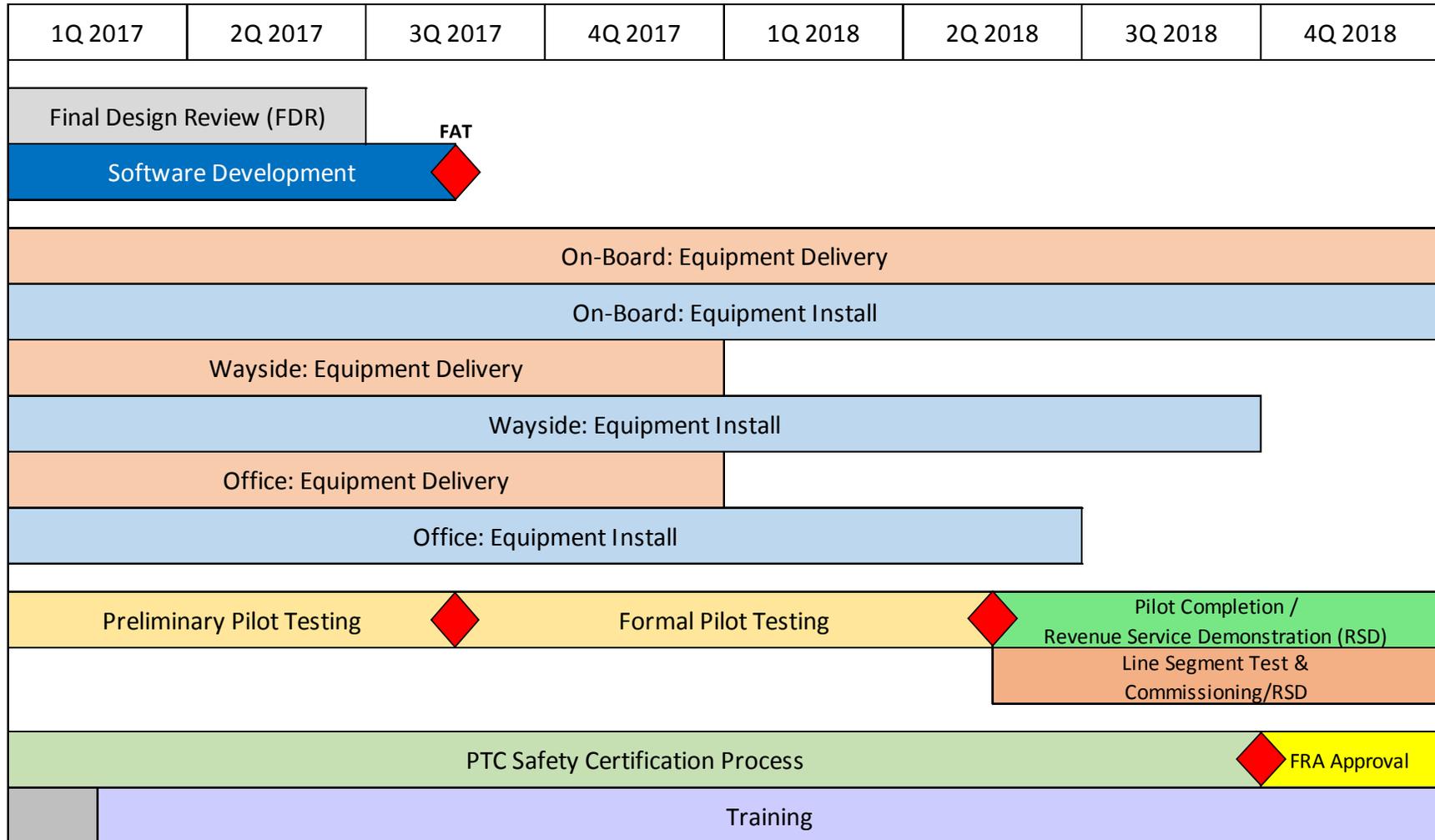
Progress (continued)

Equipment	LIRR		MNR	
	120 Day Target	120 Day Actual	120 Day Target	120 Day Actual
Transponders	600	605	500	405
Wayside Interface Units	24	24	15	11
Communication Cases	10	8	3	1
M7	61	62	36	38

120 Day Look Ahead

- Complete Subsystem Factory Acceptance Tests (FATs) and initiate Integrated System FAT
- Complete Software Final Design Reviews (FDRs)
- Complete development of On-Board and Office Software for FAT
- Continue deliveries and installation of On-Board and Wayside equipment
- Continue training of Railroad Forces
- Continue preliminary Pilot Testing (communications interface between train and wayside elements)

PTC Summary Schedule



Pilot Lines

MNR: Hudson and New Haven Lines

LIRR: Port Washington and Montauk ABS territory

PTC LIRR Installation Totals and Projections

PTC Equipment		Total per Oct '16 CPOC	Oct '16 - Jan '17	Feb '17 - May '17	June '17 - Sept '17	Oct '17 - Jan '18	Feb '18 - May '18	June '18 - Sept '18	Oct '18 - Dec '18	System Totals
Transponders	Planned		600	450	425	322	294			3067
	Actual	971	605							1576
WIUs	Planned		24	16	19	19	16	12		155
	Actual	49	24							73
C-Cases	Planned		10	24	28	28	20			108
	Actual	0	8							8
M7	Planned		61	79	88	96	78			418
	Actual	15	62							77
DE/DM	Planned		0	8	5	16	16			45
	Actual	0	0							0
C3	Planned		0	4	2	11	6			23
	Actual	0	0							0
E15 (DPM)	Planned		0	0	0	1	16	2		19
	Actual	0	0							0
NYAR (GP38)	Planned		0	0	0	0	4			4
	Actual	0	0							0
NYAR (E15)	Planned		0	0	0	0	2	2		4
	Actual	0	0							0
M9	Planned		0	0	39	27				66
	Actual	0	0							0
TC-82	Planned		0	1						1
	Actual	0	0							0

PTC MNR Installation Totals and Projections

PTC Equipment		Total per Oct '16 CPOC	Oct '16 - Jan '17	Feb '17 - May '17	June '17 - Sept '17	Oct '17 - Jan '18	Feb '18 - May '18	June '18 - Sept '18	Oct '18 - Dec '18	System Totals
Transponders	Planned		500	500	500	346				2873
	Actual	1122	405							1527
WIUs	Planned		15	18	18	18	13	13		104
	Actual	13	11							24
C-Cases	Planned		3	20	20	21	21	21		104
	Actual	0	1							1
M7	Planned		36	42	42	42				168
	Actual	4	38							42
M3A	Planned		0	8	8	8	16	16	13	69
	Actual	0	0							0
Cab Cars C12/19/21	Planned		0	1	4	4	4	4	2	19
	Actual	0	0							0
Cab Cars C34/38	Planned		0	1	4	4	8	8	8	33
	Actual	0	0							0
P32	Planned		0	0	4	4	8	8	7	31
	Actual	0	0							0
BL20	Planned		0	0	0	2	4	4	2	12
	Actual	0	0							0
BL14	Planned		0	0	0	0	0	0	2	2
	Actual	0	0							0
GP35	Planned		0	0	0	0	0	3	4	7
	Actual	0	0							0



Critical Milestones and Issues

Status	Activity	Date Needed	Issues
 Yellow	Final Design & Software Development	August 2017	<p><u>Issue:</u> Potential delays by the Contractor to finalize design and software development including the vital database.</p> <p><u>Impact:</u> If the design and software for FDR is not completed by the need date, the testing and contract completion will be delayed.</p> <p><u>Mitigation:</u> The Railroads are auditing the development process, participating in testing the Office & On-Board software prior to delivery, and identifying/focusing on specific requirements that are needed to achieve pilot implementation. The Railroads are accepting interim software builds to start testing PTC functionality earlier and a priority is being placed on completing requirements traceability matrix to mitigate risk of missing important functionality of office software and re-work. The Railroads are closely monitoring the Contractor’s software build plan against the Project CPM Schedule.</p>

Legend

	Red	Significant impacts with potential impacts on Revenue Service Date, Cost, or Customer Benefit Milestones.
	Yellow	Impacts which can lead to cost increases or schedule delays on individual milestones or contracts.
	Green	No Near Term Impact for Design, Procurement & Construction. Successful management of major activity to stay on schedule or budget.



Critical Milestones and Issues

Status	Activity	Date Needed	Issues
 Yellow	Site Acceptance Testing and Commissioning Plans/Procedures	August 2017	<p>Issue: Delays in the development of the complete suite of approved test plans and procedures required to fully test the integrated PTC system(s).</p> <p>Impact: Delays in the development of the test plans/procedures will delay the overall test program, reduce the necessary time to test and demonstrate complete PTC functionality and require multiple lines to be tested simultaneously putting a strain on track access and Railroad resources.</p> <p>Mitigation: The PTC Contractor and the Railroads are working closely to develop a detailed test strategy required to support full PTC deployment with the necessary Railroad support. Their test strategy will allow for an incremental phasing of functionality in alignment with their elongated system development process and to ensure the pilot testing is not impacted; The Railroads have also built a test track to minimize the amount of time required to test on live tracks; Railroads evaluating the possibility of taking tracks out of service to increase active test time; highlighting PTC as a priority project.</p>

Legend

	Red	Significant impacts with potential impacts on Revenue Service Date, Cost, or Customer Benefit Milestones.
	Yellow	Impacts which can lead to cost increases or schedule delays on individual milestones or contracts.
	Green	No Near Term Impact for Design, Procurement & Construction. Successful management of major activity to stay on schedule or budget.



Critical Milestones and Issues

Status	Activity	Date Needed	Issues
 Yellow	Manufacturing and Delivery of On-Board and Wayside Equipment	June 2018	<p>Issue: Equipment manufacturing and deliveries of PTC equipment due to late designs.</p> <p>Impact: Delays of On-Board equipment deliveries will impact installations for all fleets impacting line segment testing, commissioning and acceptance. Delays in Wayside equipment deliveries will strain Railroad Force Account and require installations to be done in a shorter time in order to match the testing program.</p> <p>Mitigation: The Contractor is acquiring additional equipment suppliers and engineering support; Contractor developed a modular approach for certain elements of their On-Board design; Railroads agreed on new delivery flow of transponders and WIUs to allow installations to continue without all the completed programming; Contractor is ramping up to higher-than-planned production levels through mid-2017; LIRR has issued a change order to get fully wired and populated communications cases in order to expedite deliveries and relieve an already strained workforce.</p>

Legend

	Red	Significant impacts with potential impacts on Revenue Service Date, Cost, or Customer Benefit Milestones.
	Yellow	Impacts which can lead to cost increases or schedule delays on individual milestones or contracts.
	Green	No Near Term Impact for Design, Procurement & Construction. Successful management of major activity to stay on schedule or budget.



Critical Milestones and Issues

Status	Activity	Date Needed	Issues
 Yellow	PTC Commissioning on Port Jervis Line	Dec 2018	<p><u>Issue:</u> Delays in Cab Signal System Commissioning and PTC Design for MNR's Port Jervis Line.</p> <p><u>Impact:</u> PTC Commissioning Schedule on Port Jervis Line could go beyond December 2018.</p> <p><u>Mitigation:</u> MNR is actively working with NJ Transit to recover schedule delays for PTC design and delivery of equipment for installation by December 2018. MNR and NJT are having monthly Face-to-face meetings and weekly conference calls.</p>

Legend

	Red	Significant impacts with potential impacts on Revenue Service Date, Cost, or Customer Benefit Milestones.
	Yellow	Impacts which can lead to cost increases or schedule delays on individual milestones or contracts.
	Green	No Near Term Impact for Design, Procurement & Construction. Successful management of major activity to stay on schedule or budget.

PTC



Long Island Rail Road



Metro-North Railroad

LIRR PTC Photos



Isolator Plate Install in the Back-up Control Center (BCC)



PTC Office Cabinet Install in BCC



PTC Office Cabinet Final Install in BCC



C-Case Installation

PTC



Long Island Rail Road



Metro-North Railroad

MNR PTC Photos



Radio Case



Pole and Antenna Installation

PTC



Long Island Rail Road



Metro-North Railroad

Appendix (as of 1/31/2017)

LIRR Wayside Equipment Installation Tracking

LIRR Pilot 1 (Babylon to Patchogue)				
PTC Equipment	Target Quantity	Actuals to Date	Remaining	% Complete
Transponders	242	190	52	78.5%
Wayside Interface Unit Locations	17	17	0	100.0%
Communication Cases	7	2	5	28.6%
Poles / Antennas	7	7	0	100.0%
LIRR Pilot 2 (Port Washington to Harold)				
PTC Equipment	Target Quantity	Actuals to Date	Remaining	% Complete
Transponders	165	135	30	81.8%
Wayside Interface Unit Locations	8	8	0	100.0%
Communication Cases	8	4	4	50.0%
Poles / Antennas	8	8	0	100.0%
LIRR System Total				
PTC Equipment	Target Quantity	Actuals to Date	Remaining	% Complete
Transponders	3067	1576	1491	51.4%
Wayside Interface Unit Locations	155	73	82	47.1%
Communication Cases	109	8	101	7.3%
Poles / Antennas	109	16	93	14.7%

PTC



Long Island Rail Road



Metro-North Railroad

Appendix (as of 1/31/2017)

LIRR On-Board Equipment Installation Tracking

Car Type	Vehicles Total		LIRR Pilot 1 Location (Babylon to Patchogue)		LIRR Pilot 2 Location (Port Washington to Harold)	
	Planned	Actual	Planned	Actual	Planned	Actual
M7	418	77	NA	NA	4	4
DE / DM	45	0	4	0	NA	NA
C3	23	0	4	0	NA	NA
E15	19	0	6	0	NA	NA
NYAR	8	0	4	0	NA	NA
TC-82	1	0	NA	NA	NA	NA
M9	66	0	NA	NA	NA	NA
Totals	580	77	18	0	4	4

On-Board Partial Installation Tracking				
Train Type	Undercar Scanner Antenna	OBC / Completion	Roof Antenna	MCP
M7	95	68	89	72
DE / DM	2	2	2	0

PTC



Long Island Rail Road



Metro-North Railroad

Appendix (as of 1/31/2017)

MNR Wayside Equipment Installation Tracking

MNR Pilot 1 (Bridgeport to New Haven)

PTC Equipment	Target Quantity	Actuals to Date	Remaining	% Complete
Transponders	554	545	9	98.4%
Wayside Interface Unit Locations	10	10	0	100.0%
Communication Cases	10	0	10	0.0%
Poles / Antennas	10	8	2	80.0%

MNR Pilot 2 (Tarrytown to Croton Harmon)

PTC Equipment	Target Quantity	Actuals to Date	Remaining	% Complete
Transponders	208	208	0	100.0%
Wayside Interface Unit Locations	2	2	0	100.0%
Communication Cases	6	1	5	16.7%
Poles / Antennas	5	4	1	80.0%

MNR System Total

PTC Equipment	Target Quantity	Actuals to Date	Remaining	% Complete
Transponders	2873	1527	1346	53.2%
Wayside Interface Unit Locations	104	24	80	23.1%
Communication Cases	104	1	103	1.0%
Poles / Antennas	104	12	92	11.5%



Appendix (as of 1/31/2017)

MNR On-Board Equipment Installation Tracking

Car Type	Vehicles Total		MNR Pilot 1 Location (Bridgeport to New Haven)		MNR Pilot 2 Location (Tarrytown to Croton Harmon)	
	Planned	Actual	Planned	Actual	Planned	Actual
M7	168	42	NA	NA	4	4
Cab Car C34/38	33	0	1	0	1	0
Cab Car C12/19/21	19	0	1	0	1	0
M3	69	0	NA	NA	4	0
BL20	12	0	2	0	1	0
BL14	2	0	0	0	0	0
P32	31	0	2	0	2	0
GP35	7	0	1	0	1	0
M8 Car	190	0	4	0	NA	NA
Totals	531	42	11	0	14	4

On-Board Partial Installation Tracking

33 - Cab Car C34/38	29	Partials (OBC & Undercar Antenna)
31 - P32	29	Partials (OBC & Undercar Antenna)
12 - BL20	11	Partials (OBC & Undercar Antenna)
7 - GP35	3	Partials (OBC & Undercar Antenna)
190 - M8	190	Partials (OBC & Undercar Antenna)

February 2017 CPOC IEC Project Review



Positive Train Control



Project Status Review

Budget Review

- The budget remains at \$968M as last reported in October 2016.

Schedule Review

- The latest schedule update indicates the project remains on schedule. However, completion of PTC on the MNR West of Hudson Line is dependent on progress by New Jersey Transit.
- The subsystem final design reviews are in progress with the goal of design completion in the first half of 2017.
- A risk assessment update was conducted and the project team is implementing mitigations.



IEC Project Observations

- Delays in completing the Requirements Traceability Matrix (RTM) could impact design completion and development of test cases for system integration testing.
- Factory Acceptance Testing (FAT) is currently scheduled for April/May 2017. Successful completion of the FAT is critical for the validation of proper integration between various subsystems
- Prerequisites to commence formal integration testing at pilot installations include:
 - Successful completion of FAT,
 - Completion and validation of the vital data base for pilot lines



IEC Project Concerns

- The project team is accelerating equipment manufacturing and installation to mitigate design delays. The IEC remains concerned that progressing equipment manufacturing and installation prior to design completion increases the risk of rework especially for interfaces between various subsystems.

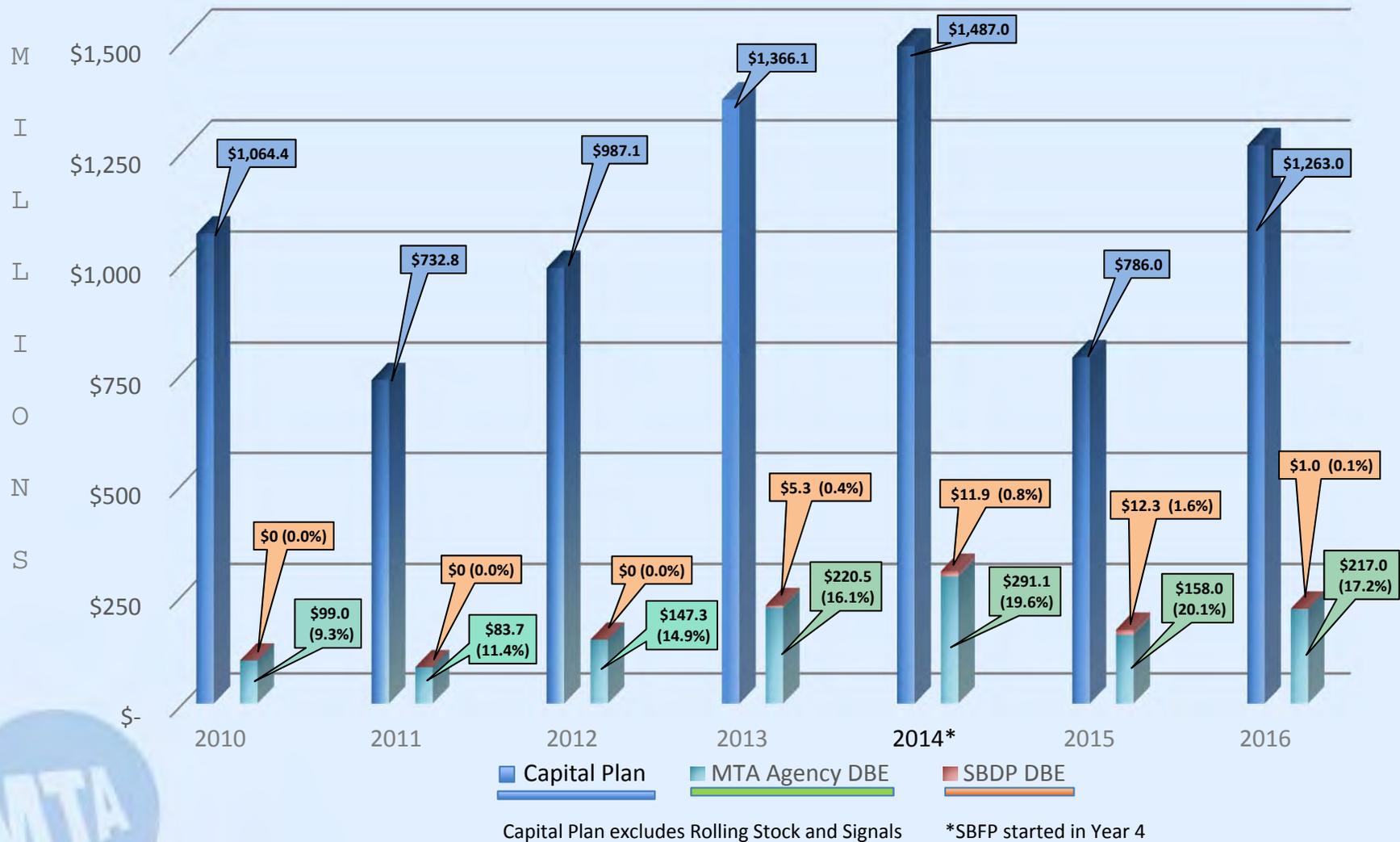


MTA-Wide MWDBE Awards

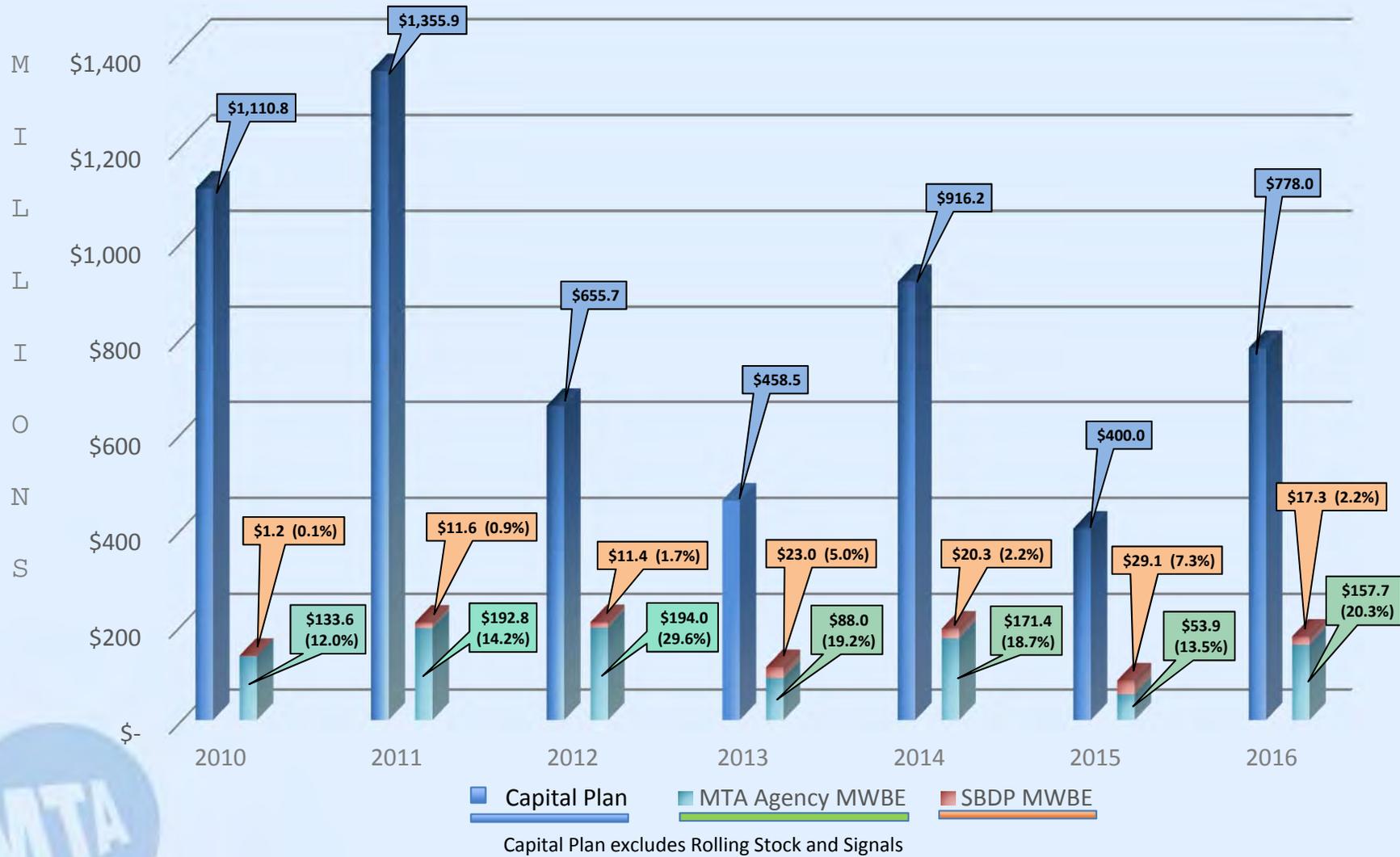


February 2017

MTA-Wide DBE Awards Through Prime & Subcontracts and SBDBP



MTA-Wide MWBE Awards Through Prime & Subcontracts and SBDP



**DBE AWARDS ON MTA CAPITAL PROJECTS with GOALS
JANUARY 2016 - DECEMBER 2016
FEDERALLY FUNDED**

FEDERALLY FUNDED	FIRST QUARTER (JANUARY-MARCH) (in millions)			SECOND QUARTER (APRIL-JUNE) (in millions)			THIRD QUARTER (JULY-SEPTEMBER) (in millions)			FOURTH QUARTER (OCTOBER-DECEMBER) (in millions)			2016 TOTALS (JANUARY- DECEMBER) (in millions)		
	Total Awards*	Total DBE Awards	DBE Participation (%)	Total Awards*	Total DBE Awards	DBE Participation (%)	Total Awards*	Total DBE Awards	DBE Participation (%)	Total Awards*	Total DBE Awards	DBE Participation (%)	Total Awards*	Total DBE Awards	DBE Participation (%)
DBE Participation Goal: 17%															
Construction	\$ 219	\$ 9	4%	\$ 636	\$ 127	20%	\$ 112	\$ 22	20%	\$ 296	\$ 59	20%	\$ 1,263	\$ 217	17%
Total	\$ 219	\$ 9	4%	\$ 636	\$ 127	20%	\$ 112	\$ 22	20%	\$ 296	\$ 59	20%	\$ 1,263	\$ 217	17%
Additional MWBE Participation:															
Construction	\$ 219	\$ 5		\$ 636	\$ 77		\$ 112	\$ 21		\$ 296	\$ 46		\$ 1,263	\$ 149	
Total	\$ 219	\$ 5		\$ 636	\$ 77		\$ 112	\$ 21		\$ 296	\$ 46		\$ 1,263	\$ 149	

* Total awards exclude rolling stock and signals.

**MWBE AWARDS ON MTA CAPITAL PROJECTS with GOALS
JANUARY 2016 - DECEMBER 2016
STATE FUNDED**

STATE FUNDED	FIRST QUARTER (JANUARY-MARCH) (in millions)			SECOND QUARTER (APRIL-JUNE) (in millions)			THIRD QUARTER (JULY-SEPTEMBER) (in millions)			FOURTH QUARTER (OCTOBER-DECEMBER) (in millions)			2016 TOTALS (JANUARY-DECEMBER) (in millions)		
	Total Awards*	Total MBE Awards	MBE Participation (%)	Total Awards*	Total MBE Awards	MBE Participation (%)	Total Awards*	Total MBE Awards	MBE Participation (%)	Total Awards*	Total MBE Awards	MBE Participation (%)	Total Awards*	Total MBE Awards	MBE Participation (%)
MBE Participation Goal: 15%															
Construction	\$ 46	\$ 7	15%	\$ 122	\$ 14	11%	\$ 120	\$ 19	16%	\$ 490	\$ 52	11%	\$ 778	\$ 92	12%
Total	\$ 46	\$ 7	15%	\$ 122	\$ 14	11%	\$ 120	\$ 19	16%	\$ 490	\$ 52	11%	\$ 778	\$ 92	12%
WBE Participation Goal: 15%															
Construction	\$ 46	\$ 6	13%	\$ 122	\$ 16	13%	\$ 120	\$ 14	12%	\$ 490	\$ 47	10%	\$ 778	\$ 83	11%
Total	\$ 46	\$ 6	13%	\$ 122	\$ 16	13%	\$ 120	\$ 14	12%	\$ 490	\$ 47	10%	\$ 778	\$ 83	11%
Additional DBE Participation:															
Construction	\$ 46	\$ 8		\$ 122	\$ 29		\$ 120	\$ 20		\$ 490	\$ 43		\$ 778	\$ 100	
Additional DBE Participation Total	\$ 46	\$ 8		\$ 122	\$ 29		\$ 120	\$ 20		\$ 490	\$ 43		\$ 778	\$ 100	

* Total awards exclude rolling stock and signals.

MTA Capital Program

2017 Commitment & Completion Goals



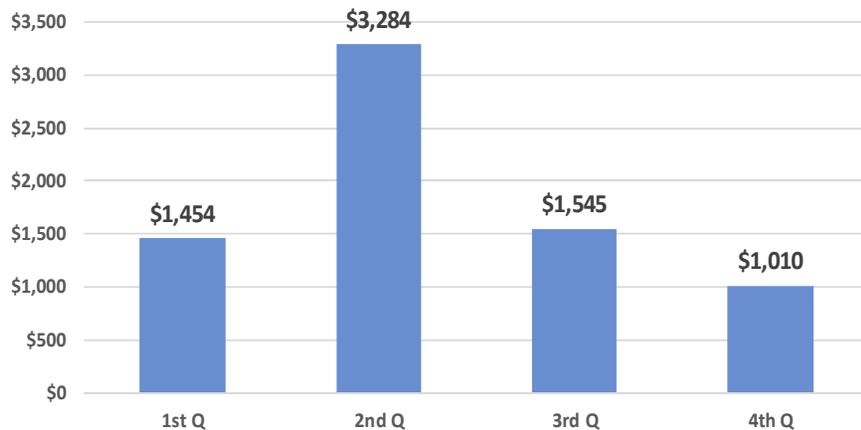
February 2017

2017 Commitment Goals

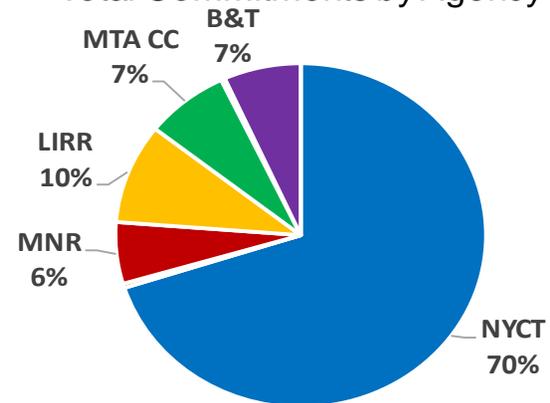
\$7.3 billion in planned commitments, including 51 major commitments falling into the following investment areas:

- Rolling Stock (Cars, Buses, & Service Vehicles) - \$2.4 billion
- Stations - \$1.1 billion
- Track - \$566 million
- Communications & Signals - \$557 million
- Network Expansion - \$481 million
- Sandy Restoration & Resiliency - \$243 million

2017 Commitment by Quarter



Total Commitments by Agency

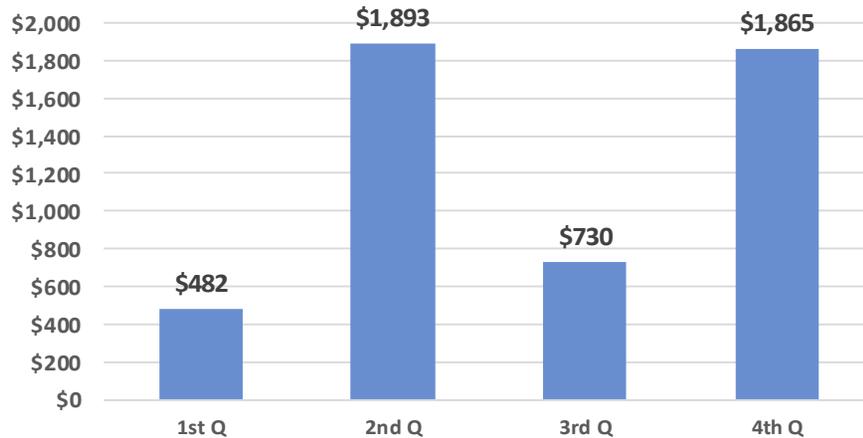


2017 Completion Goals

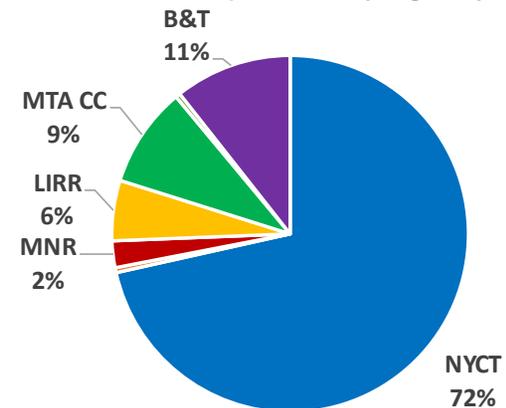
\$5.0 billion in planned completions, including 34 major completions falling into the following investment areas:

- Sandy Restoration and Resiliency - \$953 million
- Communications & Signals - \$924 million
- Track - \$859 million
- B&T - \$505 million
- Network Expansion - \$451 million
- Rolling Stock - \$386 million

2017 Completions by Quarter



Total Completions by Agency



MTA Capital Program Commitments & Completions

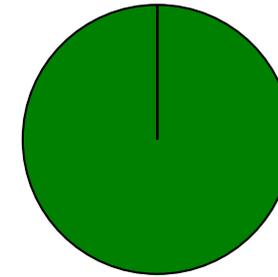
through January 31, 2017

Capital Projects – Major Commitments – January 2017

In 2017, agencies plan a total of \$7.3 billion in overall commitments. 51 major commitments are planned. The 51 commitments include 17 for NYCT, 10 for LIRR, four for MNR, 14 for B&T, three for MTACC, one for MTA Bus and two for the MTA Police Department. The \$7.3 billion largely reflects commitment goals at three agencies: NYCT (\$5.1 billion), LIRR (\$0.7 billion) and MTACC (\$0.5 billion).

Through January, agencies have committed \$389 million versus a \$479 million YTD goal. Two major commitments were made on time. By year-end, the MTA forecasts meeting its \$7.3 billion goal.

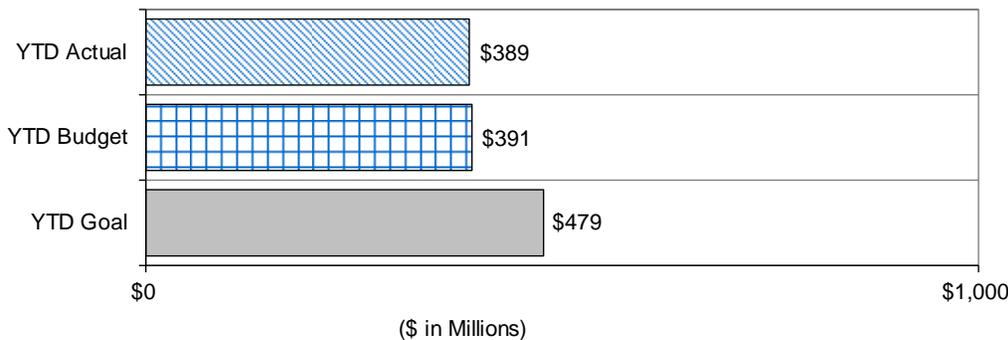
Year-to-Date Major Commitments



	Count	Percent	Change from Prior Month
GREEN = Commitments made/forecast w within Goal	2	100%	↑ 2
YELLOW = Commitments delayed beyond Goal (already achieved)	0	-	-
RED = Commitments delayed beyond Goal (not yet achieved)	0	-	-
	2	100%	↑ 2

Budget Analysis

2017 Annual Goal	\$7,292	(\$ in millions)
2017 Forecast	100%	of Annual Goal
Forecast left to Commit	95%	(\$6,901)



Year-to-Date Agency Breakdown

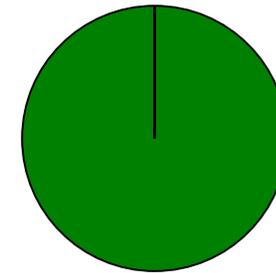
2017 Goals	Prior month variance		
	GREEN	YELLOW	RED
New York City Transit			
1	+1 GREEN	----	----
Long Island Rail Road			
	----	----	----
Metro-North Railroad			
1	+1 GREEN	----	----
Bridges and Tunnels			
	----	----	----
Capital Construction Company			
	----	----	----
MTA Bus Company			
	----	----	----
MTA Police Department			
	----	----	----

Capital Projects – Major Completions – January 2017

In 2017, agencies plan a total of \$5.0 billion in overall completions. 34 major completions are planned. The 34 completions include 14 for NYCT, seven for the LIRR, three for MNR, seven for B&T, two for MTACC and one for MTA Bus. The \$5.0 billion largely reflects completion goals at three agencies: NYCT (\$3.6 billion), B&T (\$0.5 billion) and MTACC (\$0.5 billion).

Through January, agencies have completed \$119 million versus a \$143 million YTD goal. Two major completions were achieved on time. By year-end, the MTA forecasts meeting or exceeding its \$5.0 billion goal.

Year-to-Date Major Completions



	Count	Percent	Change from Prior Month
GREEN = Completions made/forecast within Goal	2	100%	↑ 2
YELLOW = Completions delayed beyond Goal (already achieved)	0	-	-
RED = Completions delayed beyond Goal (not yet achieved)	0	-	-
	2	100%	↑ 2

Budget Analysis

2017 Annual Goal \$4,969 (\$ in millions)
 2017 Forecast 102% of Annual Goal
 Forecast left to Complete 98% (\$4,972)



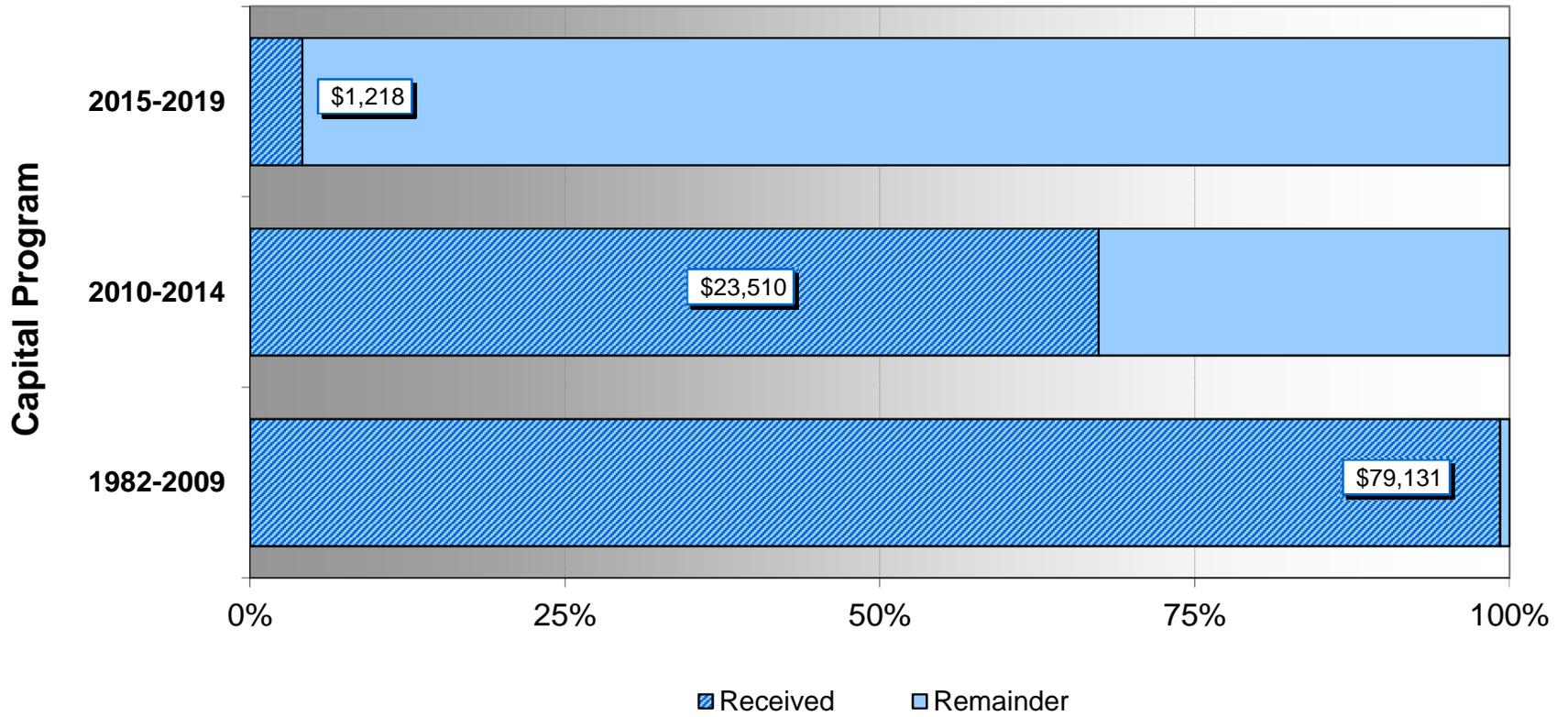
Year-to-Date Agency Breakdown

2017 Goals	Prior month variance		
	GREEN	YELLOW	RED
New York City Transit			
1	+1 GREEN	---	---
Long Island Rail Road			
1	+1 GREEN	---	---
Metro-North Railroad			
	---	---	---
Bridges and Tunnels			
	---	---	---
Capital Construction Company			
	---	---	---
MTA Bus Company			
	---	---	---
MTA Police Department			
	---	---	---

Status of MTA Capital Program Funding

Capital Funding (January 31, 2017)

\$ in millions



Capital Funding Detail (January 31, 2017)

\$ in millions

	Funding Plan	Receipts		
	Current	Thru December	This month	Received to date
2005-2009 Program	24,504	23,916	\$ -	23,916

	Funding Plan	Receipts		
	Current	Thru December	This month	Received to date
2010-2014 Program				
Federal Formula, Flexible, Misc	\$5,839	\$5,614	\$ -	\$5,614
Federal High Speed Rail	295	295	-	295
Federal Security	206	100	-	100
Federal RIFF Loan	-	-	-	-
City Capital Funds	774	607	-	607
State Assistance	770	150	-	150
MTA Bus Federal and City Match	132	102	1	103
MTA Bonds (Payroll Mobility Tax)	12,703	10,048	-	10,048
Other (Including Operating to Capital)	1,538	1,322	-	1,322
B&T Bonds	2,111	1,292	307	1,599
Hurricane Sandy Recovery				
<i>Insurance Proceeds/Federal Reimbursement</i>	9,376	3,423	-	3,423
PAYGO	160	160	-	160
<i>Sandy Recovery MTA Bonds</i>	758	-	-	-
<i>Sandy Recovery B&T Bonds</i>	230	59	30	89
Total	34,892	23,171	339	23,510

	Funding Plan	Receipts		
	Current	Thru December	This month	Received to date
2015-2019 Program				
Federal Formula, Flexible, Misc	\$6,275	\$55	\$33	\$87
Federal Core Capacity	100	-	-	-
Federal New Start	500	-	-	-
State Assistance	8,336	-	-	-
City Capital Funds	2,492	40	40	80
MTA Bonds	5,889	-	-	-
Asset Sales/Leases	600	-	-	-
Pay-as-you-go (PAYGO)	1,846	1,014	-	1,014
Other	562	36	-	36
B&T Bonds & PAYGO	2,856	-	-	-
Total	29,456	1,145	73	1,218