



**Metropolitan Transportation Authority**

# Capital Program Oversight Committee Meeting

## April 2016

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### Committee Members

T. Prendergast, Chair

F. Ferrer

R. Bickford

A. Cappelli

S. Metzger

J. Molloy

M. Pally

J. Sedore

E. Watt

C. Wortendyke

N. Zuckerman

# **Capital Program Oversight Committee Meeting**

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

**Monday, 4/18/2016  
1:15 - 2:15 PM ET**

## **1. PUBLIC COMMENTS PERIOD**

## **2. APPROVAL OF MINUTES March 21, 2016**

*- Minutes from March '16 - Page 3*

## **3. COMMITTEE WORK PLAN**

*- 2016-2017 CPOC Work Plan - Page 6*

## **4. NYCT, LIRR, MNR NEW FARE PAYMENT SYSTEM UPDATE**

*- Progress Report on New Fare Payment System - Page 8*

*- IEC Project Review on New Fare Payment System - Page 15*

## **5. NYCT SANDY RECOVERY & RESILIENCY DIVISION UPDATE**

*- Progress Report on Sandy Recovery & Resiliency - Page 20*

*- IEC Project Review on South Ferry Terminal Complex - Page 43*

## **6. MTACC SECOND AVENUE SUBWAY MONTHLY UPDATE**

*- Progress Report on Second Avenue Subway - Page 47*

*- IEC Project Review on Second Avenue Subway - Page 54*

*- Second Avenue Subway Appendix - Page 57*

## **7. CAPITAL PROGRAM STATUS**

*- Commitments, Completions and Funding Report - Page 58*

## **8. EXECUTIVE SESSION**

Date of next meeting: Monday, May 23, 2016 at 1:45 PM

**MINUTES OF MEETING**  
**MTA CAPITAL PROGRAM OVERSIGHT COMMITTEE**  
**March 21, 2016**  
**New York, New York**  
**1:15 P.M.**

MTA CPOC members present:

Hon. Thomas Prendergast  
Hon. Fernando Ferrer  
Hon. Robert Bickford  
Hon. Susan Metzger  
Hon. John Molloy  
Hon. Mitchell Pally  
Hon. Carl Wortendyke

MTA CPOC members not present:

Hon. Alan Cappelli  
Hon. James Sedore  
Hon. Vincent Tessitore  
Hon. Neal Zuckerman

MTA Board members present:

Hon. Andrew Albert  
Hon. Polly Trottenberg

MTA Staff Present:

Craig Stewart  
Michael Wetherell

MTACC Staff Present:

Uday Durg  
Bill Goodrich  
Michael Horodniceanu  
Anil Parikh

Independent Engineering Consultant Staff Present:

Patrick Askew  
Joe DeVito  
Kent Haggas  
Philip Stummvoll

\* \* \*

Chairman Prendergast called the March 21, 2016 meeting of the Capital Program Oversight Committee to order at 1:30 P.M.

**Public Comments Period**

There was one public speaker in the public comments portion of the meeting: Mr. Murray Bodin.

**Meeting Minutes**

Upon motion duly made and seconded, the CPOC members approved the minutes to the previous meeting held on February 22, 2016.

### **Committee Work Plan**

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

Before introducing the presentations listed in the agenda, Chairman Prendergast cited a discussion from the morning's NYCT Committee meeting about conditions found at the Hudson Yards/34<sup>th</sup> Street Station. He then directed the Independent Engineering Consultant to do a review of that project, about which there will be a report to the Board.

### **MTACC Report on Second Avenue Subway**

Mr. Parikh reported that the project is scheduled to meet the December 2016 Revenue Service Date and that the project is on budget. In its Project Review, the IEC agreed that the project is on budget, but with respect to schedule, following its preliminary review of an updated summary schedule, the IEC noted several items of concern: the testing period for major station equipment has been compressed to 3-4 months, as compared to the 10-month period in the original contracts; the testing of all 3 new stations is concurrent, which maximizes the demand on construction management and NYCT staff; there appears to be limited allowance for test failure and retesting activities; and escalator/elevator completions at 72<sup>nd</sup> Street are close to impacting RSD. Further, the IEC identified the following schedule risks that were cited in the IEC's December 2015 report but which, according to the IEC, have yet to be effectively mitigated: continuation of late design changes, together with no significant reduction of the current backlog; and testing of the fire alarm system being complicated by the need to accommodate the delayed completion of the entrances at the 72<sup>nd</sup> Street Station. 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.

### **MTACC Report on East Side Access**

Mr. Goodrich reported that the project is on schedule for a December 2022 Revenue Service Date and that the project remains within its \$10.178 billion budget. In its Project Review, the IEC confirmed MTACC's budget and schedule figures. Following a number of IEC Observations on the project, the IEC expressed concern that the absence of a current Integrated Project Schedule (IPS) hampers demonstrating both progress and a complete review of any potential changes. Finally, citing its recommendation from the December 2015 CPOC, the IEC recommended that the IPS be revised to include accepted resource-loaded contractor schedules to show the new completion dates for Manhattan/Systems and Harold work, which will allow proper monitoring of ESA status. 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.

### **MTACC Report on Cortland Street #1 Line**

Mr. Durg reported that project Substantial Completion is August 2018 and that the project budget remains \$158 million, excluding risk reserve. In its Project Review, the IEC concurred with the budget figure cited by the agency, but expressed concern that the current budgeted contingency of \$4.8 million is not adequate to support the construction budget, given the project's current risk profile, and given that there are currently a number of un-negotiated change orders. With respect to schedule, the IEC stated that in order to meet the project completion date of August 2018, PANYNJ must turn over the PATH North Temporary Access space by June 2017, and that the lack of a formal commitment from PANYNJ to do so presents a risk to MTACC building the Vesey Street Entrance within the required timeframe. 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 and Completions**

Mr. Stewart reported that in 2016 agencies plan to commit a total of \$6.6 billion dollars, including 41 major commitments. He then stated that the MTA is reporting on seven (7) major commitments: five were committed on time or early and two have slipped from February to March due to finalizing approvals and budget changes. These two slips largely explain the MTA's overall \$880M YTD shortfall. By year end, the MTA forecasts meeting its annual commitment goal of \$6.6 billion. With respect to completions, the agencies plan a total of \$4.6 billion in 2016, including 43 major completions. Agencies completed \$232 million through February, versus a \$346 million year-to-date goal. By year end, the MTA forecasts meeting its annual completion goal of \$4.6 billion.

### **Quarterly Traffic Light Report**

Mr. Stewart brought the Committee's attention to the Traffic Light Reports for the 4<sup>th</sup> Quarter 2015 and invited Committee Members' questions, of which there was none.

### **Quarterly Capital Change Order Report (for information only)**

Mr. Stewart brought the Committee's attention to the Quarterly Capital Change Order Report for the 4<sup>th</sup> Quarter 2015 and invited Committee Members' questions, of which there was none.

### **Adjournment**

Upon motion duly made and seconded, Chairman Prendergast adjourned the March 21, 2016 meeting of the MTA Capital Program Oversight Committee at 2:20 PM.

Respectfully submitted,  
Michael Jew-Geralds  
Office of Construction Oversight



## **2016-2017 CPOC Committee Work Plan**

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I. Recurring Agenda Items

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

II. Specific Agenda Items

May 2016

LIRR Capital Programs Update

- Jamaica Capacity Improvements
- Main Line Double Track

MNR Capital Programs Update

- Harmon Shop Replacement
- Hudson Line Sandy Restoration

MTACC Monthly Second Avenue Subway Update

June 2016

Quarterly MTACC Capital Program Update

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

LIRR and MNR Update on Positive Train Control (PTC)

Quarterly Change Order Report

Quarterly Traffic Light Reports

July 2016

NYCT Capital Program Update

MTACC Monthly Second Avenue Subway Update

September 2016

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 2016

LIRR and MNR Capital Programs Update  
LIRR and MNR Update on Positive Train Control (PTC)  
MTACC Monthly Second Avenue Subway Update  
Update on Capital Program Security Projects (in Exec Session)

November 2016

NYCT Capital Program Update  
NYCT, LIRR, MNR Update on New Fare Payment System  
MTACC Monthly Second Avenue Subway Update

December 2016

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

January 2017

NYCT Capital Program Update  
MTACC Monthly Second Avenue Subway Update  
Update on Minority, Women and Disadvantaged Business Participation

February 2017

B&T Capital Program Update  
LIRR and MNR Update on Positive Train Control (PTC)  
MTACC Monthly Second Avenue Subway Update

March 2017

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

April 2017

NYCT Capital Program Update  
MTACC Monthly Second Avenue Subway Update  
Update on Capital Program Security Projects (in Exec Session)

*Capital Program Oversight Committee*

*April 18, 2016*

# **New Fare Payment System Update**

Long Island Rail Road  
Metro-North Railroad  
New York City Transit



# Today's Presentation

## **Update on Agency Plans and Progress**

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- This will be an update to our joint presentation to CPOC in October 2015.
- Status report on current/planned next generation fare payment system-related initiatives at NYCT, LIRR, and MNR:

NYC Transit – Replacement for MetroCard System

LIRR/MNR – Mobile Ticketing  
– Long Term Strategy Study



## NYC Transit – MetroCard Replacement

### Primary Objectives Remain Intact

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- An **integrated, reliable, and convenient** fare payment and collection system.
- Adoptable by **other MTA agencies and transit systems** in the NY region.
- Accept payment media **already in the hands of customers** (like contactless credit/debit cards and smartphones) but **also serving those without**.
- Customers **pay fares by tapping** a contactless bankcard, smartphone, or an MTA-issued smartcard against an electronic reader.
- A **new back-end system** that supports financial functions, payments processing, and other back-office functions.
- Enhance the customer experience with an **on-line customer account management** function and **mobile device application**.



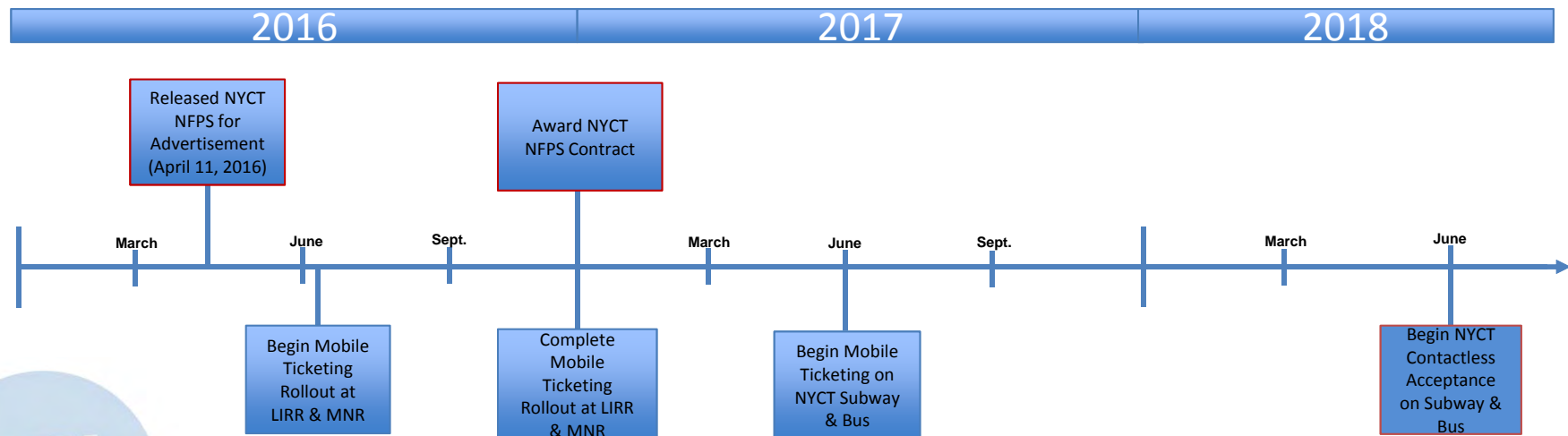
# NYC Transit – New Fare Payment System

## What has changed?

### **Accelerated Introduction of the New Fare Payment System & Mobile Ticketing Initiatives**

- Initial rollout of NFPS now in mid-2018 from prior plans in mid-2020
- Begin Mobile Ticketing for both LIRR & MNR in mid-2016

### **Consolidated Timeline**



# Commuter Railroads

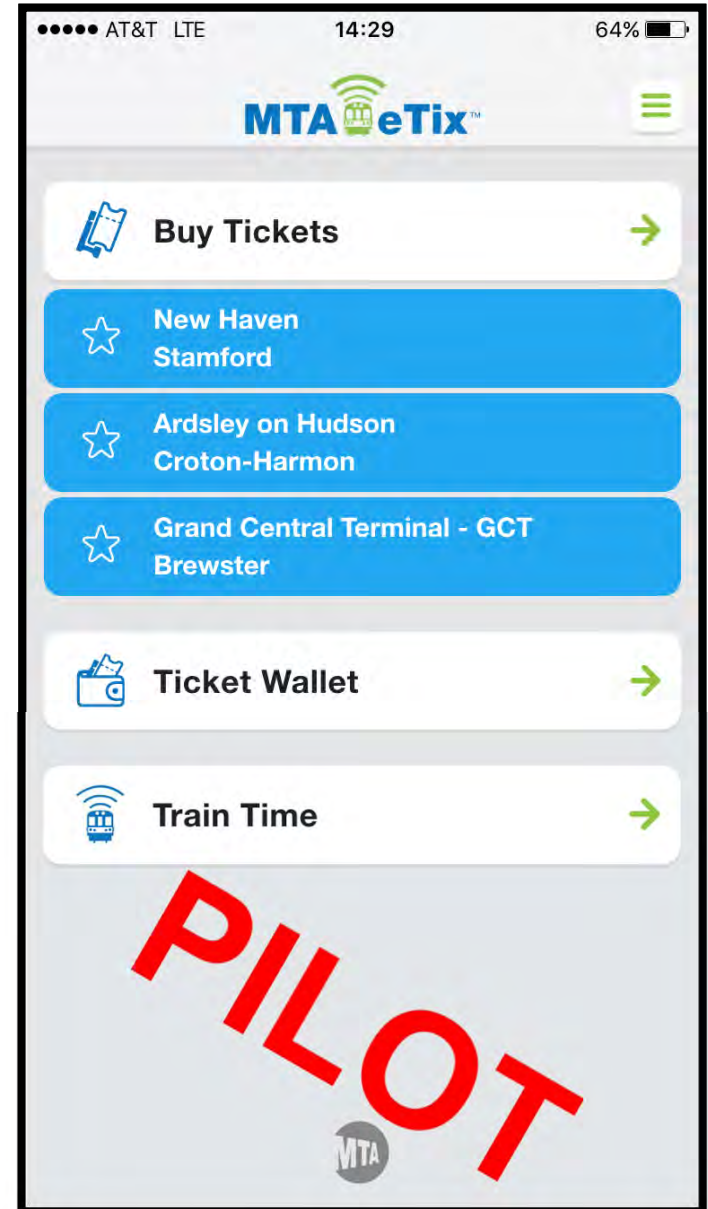
## Mobile Ticketing

### Product Features

- Mobile App for customer purchase of tickets with smartphones
- App will be available in both Apple and Android stores
- Developed using seamless interface with Train Time
- Integration with Bank processing protocols and requirements
- App also allows for onboard validation of tickets

### Current project timeline

- April - Pilot with 100-150 customers on Upper Hudson Line (Metro-North) and Port Washington Branch (LIRR)
- June - System wide rollout begins



# Commuter Railroads

## Long Term Strategy Study

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- The railroads have engaged a consultant to assist in the development of a long term fare payment strategy, which will serve as the foundation for the RR's future system and will shape upcoming capital investments in new ticket selling infrastructure.
- The study was launched in April 2015 and the four base tasks will be completed by April 2016.

Documentation of Current Condition

Completed - June 2015

Peer Review

Completed - June 2015

Long-Term Strategy Study

Completed - March 2016

Implementation and Migration Plan

On Schedule to Be Completed - April 2016

Technical Scope of Work (optional)

On Schedule - July 2016 Launch



# Commuter Railroads

## **Long Term Strategy Study**

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- The railroads will introduce a new ticket selling and fare collection program that offers the following:
  - wide-ranging fare payment features and expanded customer service
  - new and additional joint fare media options for customers
  - interoperability by allowing customers to maintain a single account across the MTA family
- The Program will be cost effective as demonstrated by the completion of the business case analysis.
- The program will be synchronized with NYCT's Metrocard replacement program.
  - Joint procurement of ticket selling machines
  - Common back-end



# **April 2016 CPOC IEC Project Review**



## **New Fare Payment System**

**April 18, 2016**



# Schedule Review

- There is a risk that June 2018 initial rollout milestone may not be met; activities critical to meet this milestone are:
  - Contract award by December 2016.
  - Systems need to be in place to process financial transactions.
  - Fully tested hardware and software within 18 months will need to be operational.
  - Bus and subway validators will need to be manufactured and installed.



# Budget Review

In the IEC's opinion the project budget, including increases to address recent scope and schedule modifications, appears to be adequate at this time.



## Comment

The NFPS Strategy to use 3<sup>rd</sup> party fare media is sound and adopts lessons learned from deployment of 2<sup>nd</sup> generation contactless systems in other major cities.



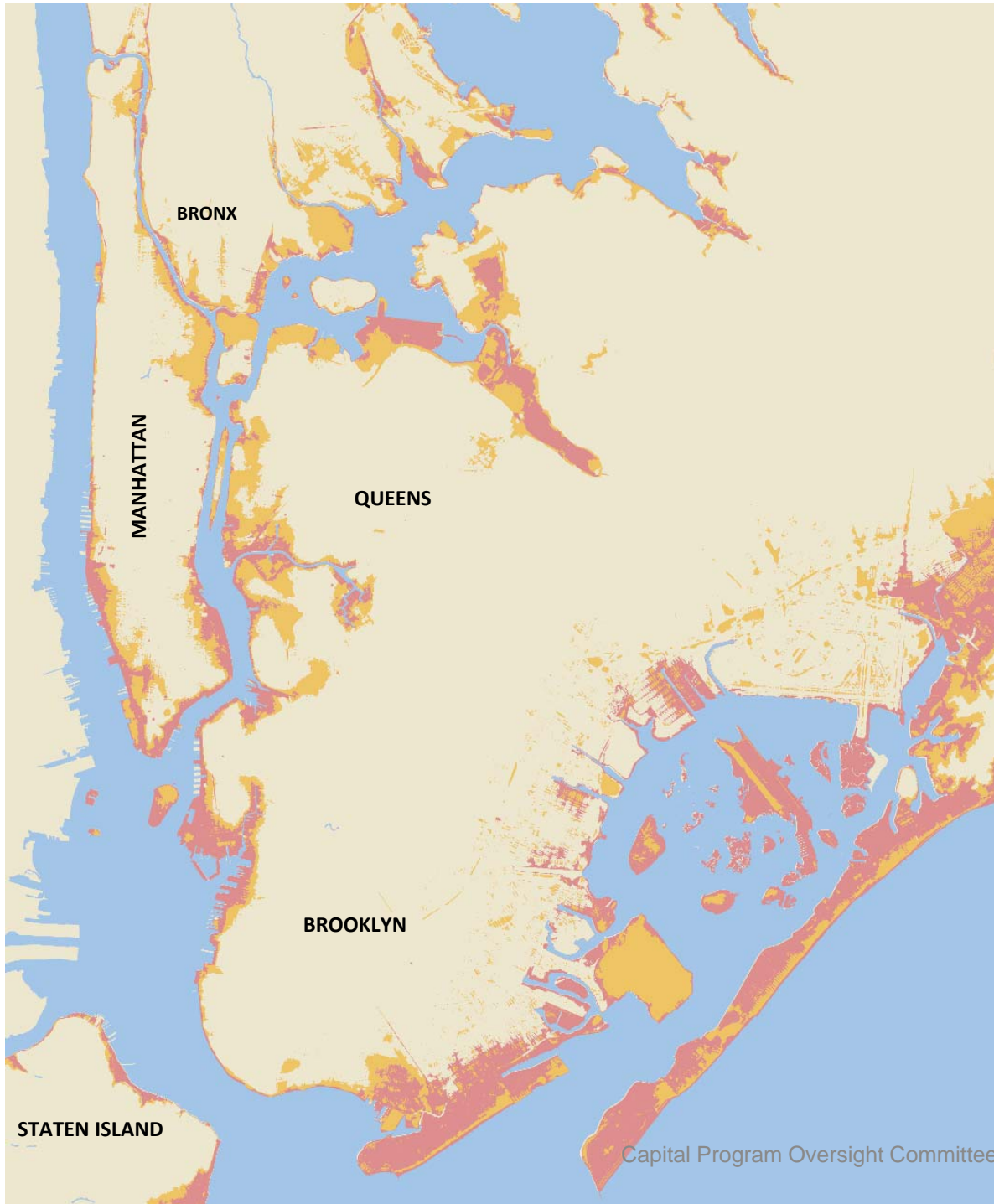
# Commuter Rail

- Mobile Ticketing
  - MNR and LIRR will achieve simultaneous launch of the mobile ticketing applications.
- Schedule
  - assuming the pilot is successful the schedule to commence a system wide roll out for mobile ticketing in June 2016 is reasonable as the design, development, and procurement has been completed over the last 18 months.
- Budget
  - The mobile ticketing programs are fully funded out of the railways operating budgets. The budget for the long term Technical Scope of Work still to be determined.



**New York City Transit  
Sandy Recovery & Resiliency Division  
Capital Program Oversight Committee – April 2016**





## MTA VULNERABLE ASSETS

- **9 Under River Tunnels**
- **32 Stations**
- **31 Fan Plants**
- **4 Yards**
- **4 Bus Depots**
- **29 Power Substations**
- **17 Circuit Breaker Houses**
- **78 Pump Rooms**
- **66 Signal Rooms**
- **St. George Terminal**
- **Clifton Shop & Yard**
- **3 Critical Facilities**
- **5,600 Ingress Points**



## Stations

Repair of storm damaged station assets, with integrated resiliency elements

- **South Ferry Station Reconstruction**



## Under-River Tunnels

Repair storm damaged tunnels, with integrated resiliency elements

- **Canarsie Tunnels**



## Yards, Terminals & Shops

Repair flooded yards, terminals and shops, combining resiliency measures into repairs

- **St. George Interlocking – Terminal / Yard**
- **Clifton Shop – Design / Build**



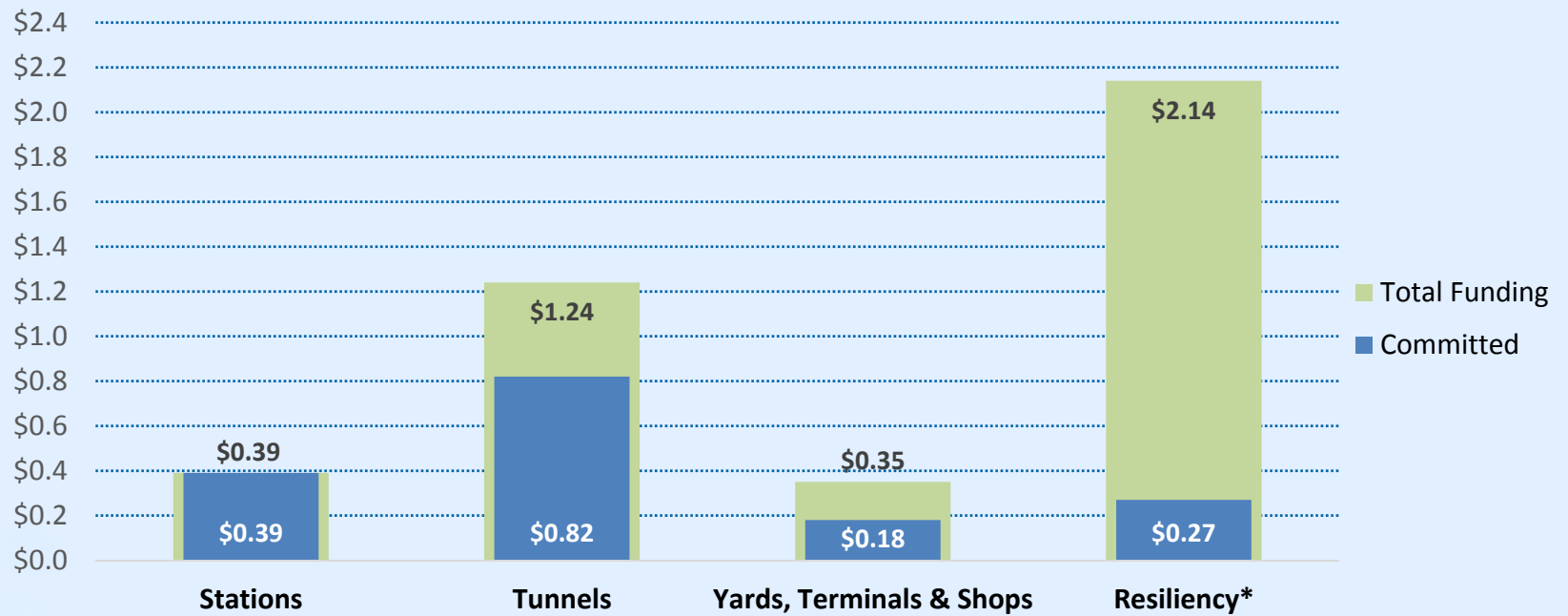
## Competitive Resiliency

11 initiatives to protect against future flooding and recover more quickly



## Commitments

### Performance (\$ billion)



\* Competitive Resiliency funding allocation became available in September 2014



## 2016 Commitments

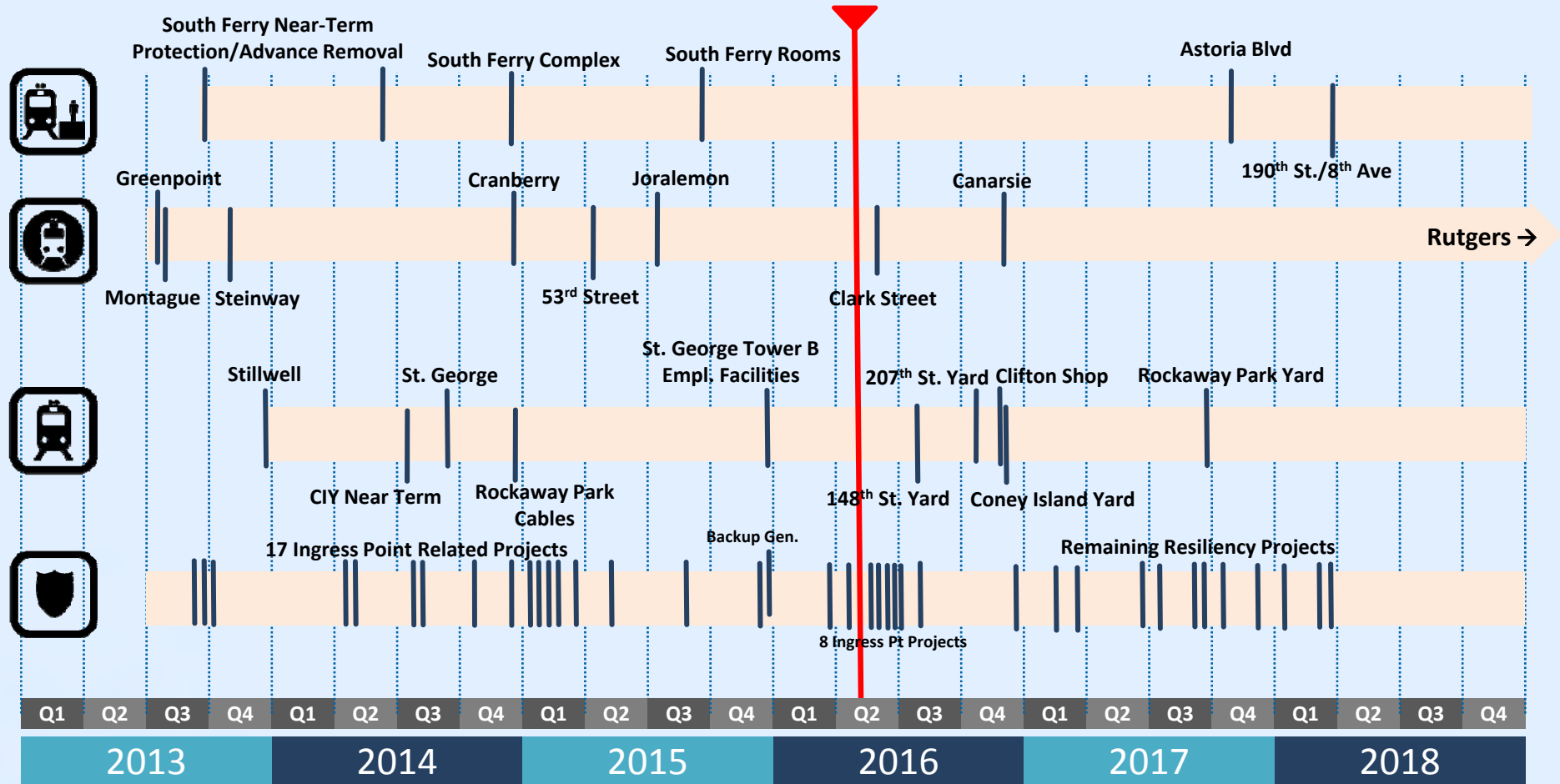
### Projects

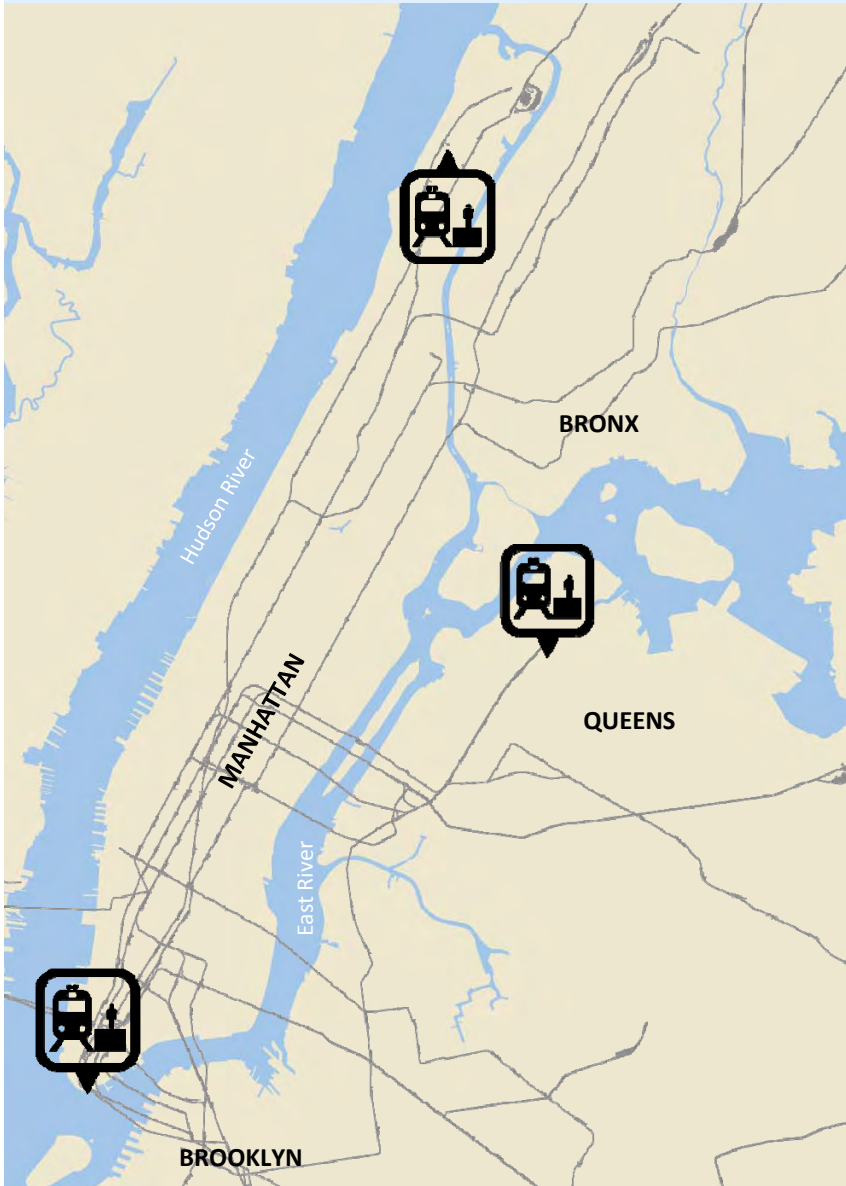
### Awards

<input type="checkbox"/> Ingress Point Protection Project	1 Qtr
<input type="checkbox"/> 3 Above Grade Fan Plant Protection Projects	2 Qtr
<input type="checkbox"/> 3 Street Level Entrance Protection Projects	2 Qtr
<input type="checkbox"/> Clark Street Tube Rehabilitation	2 Qtr
<input type="checkbox"/> Street Level Entrance Protection Project	3 Qtr
<input type="checkbox"/> Far Rockaway Depot Rehabilitation	3 Qtr
<input type="checkbox"/> 148 <sup>th</sup> Street Yard Flood Protection, Portal & Power Cable	3 Qtr
<input type="checkbox"/> 207 <sup>th</sup> Street Yard Flood Protection, Portal & Power Cable	4 Qtr
<input type="checkbox"/> Clifton Shop Reconstruction (Design/Build)	4 Qtr
<input type="checkbox"/> Canarsie Tube Program of Projects	4 Qtr
<input type="checkbox"/> Coney Island Yard Flood Protection & Power/Comm. Cables	4 Qtr



## Timeline of Awards





## STATIONS

### Projects Completed

- Reopening South Ferry Loop Station
- Near Term Protection of South Ferry
- Removal of debris/destroyed assets at South Ferry

### Projects in Construction

- **South Ferry Station Reconstruction**

### Projects in Design

- Astoria Blvd Canopies
- 190<sup>th</sup> Street/8<sup>th</sup> Avenue Repairs



## South Ferry Station Reconstruction

**Award: November 2014**

**Duration: 31 months**

**Substantial Completion: June 2017**

**Project Cost: \$343.9 million**

**Risk informed contract agreement with FTA**

- Grouting and waterproofing successfully completed in September 2015
- Track and diamond crossover completed in December 2015
- Resiliency measures at three station entrances to be complete by 2016 hurricane season
- Entrance #1 scheduled to open in August 2016
- Systems installation underway
- Station finishes installation underway
- Revisions to communication system underway



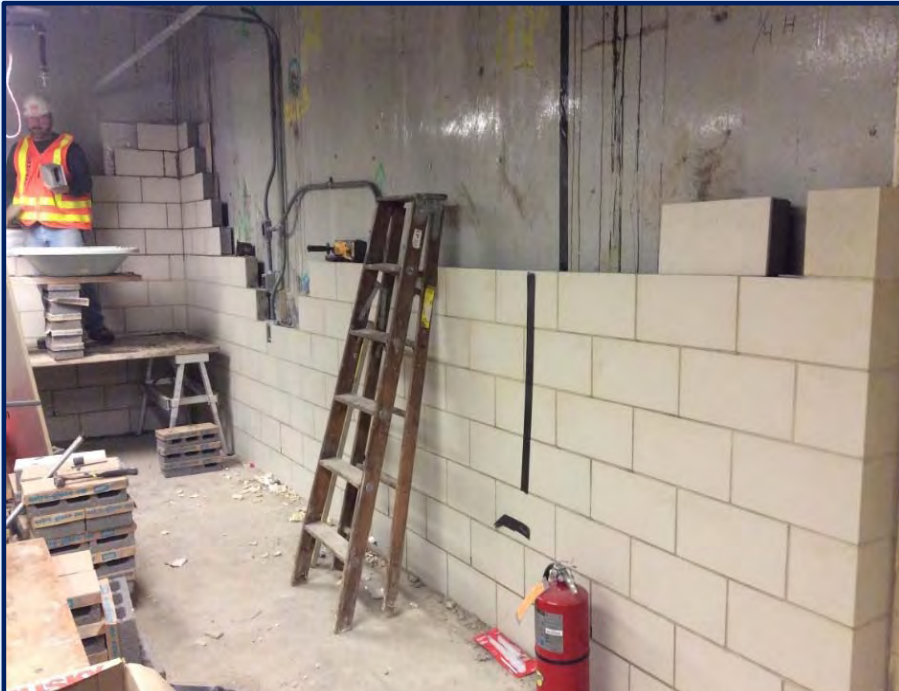
Installing diamond crossover



Delivery of canopy structure



## South Ferry Station Reconstruction



Installing masonry units at South Ferry Station crew facility

### **Two Small Business Contracts (SBFP) – South Ferry Station Rooms**

- Contract 1: Rehabilitation of crew rooms in South Ferry concourse
- Contract 2: Rehabilitation of facilities at Whitehall Street Station mezzanine

**Construction Awards: September 2015**

**Duration: 12 months each**

**Substantial Completion: September 2016**




**Project Costs: \$6.3 million total**





## 9 Tunnels Damaged

## Projects Completed

- Montague 
- Greenpoint 
- Steinway 

## Projects In Construction

- Cranberry
- 53<sup>rd</sup> Street
- Joralemon

## Projects In Procurement

- Clark Street 23

## Projects In Design

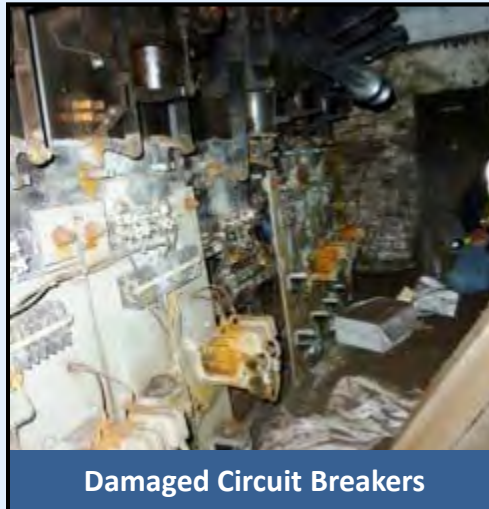
- Canarsie 
- Rutgers 



## Canarsie Tunnels – Storm Damage



Exposed Cables



Damaged Circuit Breakers



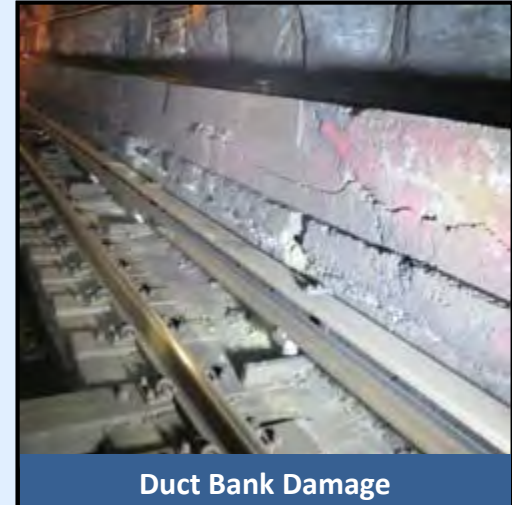
Damaged Manhole/Cables



Temporary Repair of Duct Bank



Exposed Ducts/Cables



Duct Bank Damage



## Canarsie Tunnels – Program of Projects





## Canarsie Tunnels – Repairs

### Major Scope Items:

- Reconstruction of 7 mi. of duct bank
- Replacement of 56 mi. of power, communication and signal cables
- Reconstruction of 2.7 mi. of track
- Replacement of 2 circuit breaker houses (CBH)
- Repair of 2 fan plants
- Rehabilitation of 1 pump room
- Construction of 1 new substation
- Integration of resiliency measures
- Risk Assessment workshop held from April 6 to April 8, 2016





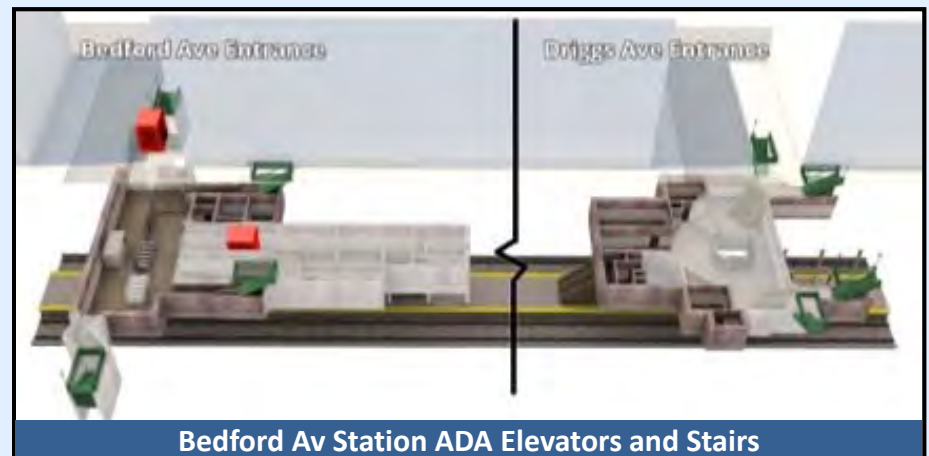
## Canarsie Tunnels – ADA & Station Access Improvements

### First Avenue Station

- New ADA elevator on each side of street at Avenue A
- 2 new street stairs per side
- Temporary access shaft for tube debris removal

### Bedford Avenue Station

- ADA elevators at Bedford Av entrance
- At both Bedford Av and Driggs Av control areas, additional street stairs, expanded platform stairs, and expanded mezzanine





## Canarsie Tunnels – Next Steps

- Outreach to affected communities regarding service outage and alternate service options
- Evaluate results of Risk Assessment
- Incorporate service outage decision into RFP
- Issue RFP, evaluate proposers and select contractor
- Work with NYCDOT and EDC to finalize alternate service plans
- Key dates
  - 4<sup>th</sup> Quarter 2016: contract award
  - 1<sup>st</sup> Quarter 2019: tunnel shutdown begins





## YARDS, TERMINALS & SHOPS

### Projects Completed

- Coney Island Yard Near Term Perimeter Protection
- Stillwell Terminal
- Rockaway Park Yard Cables

### Projects in Construction

- **St. George Interlocking–Terminal/Yard**

### Projects in Procurement

- **Clifton Shop – Design / Build**

### Projects in Design

- 148<sup>th</sup> Street Yard
- 207<sup>th</sup> Street Yard
- Coney Island Yard
- Rockaway Park Yard



## St. George Interlocking – Terminal / Yard

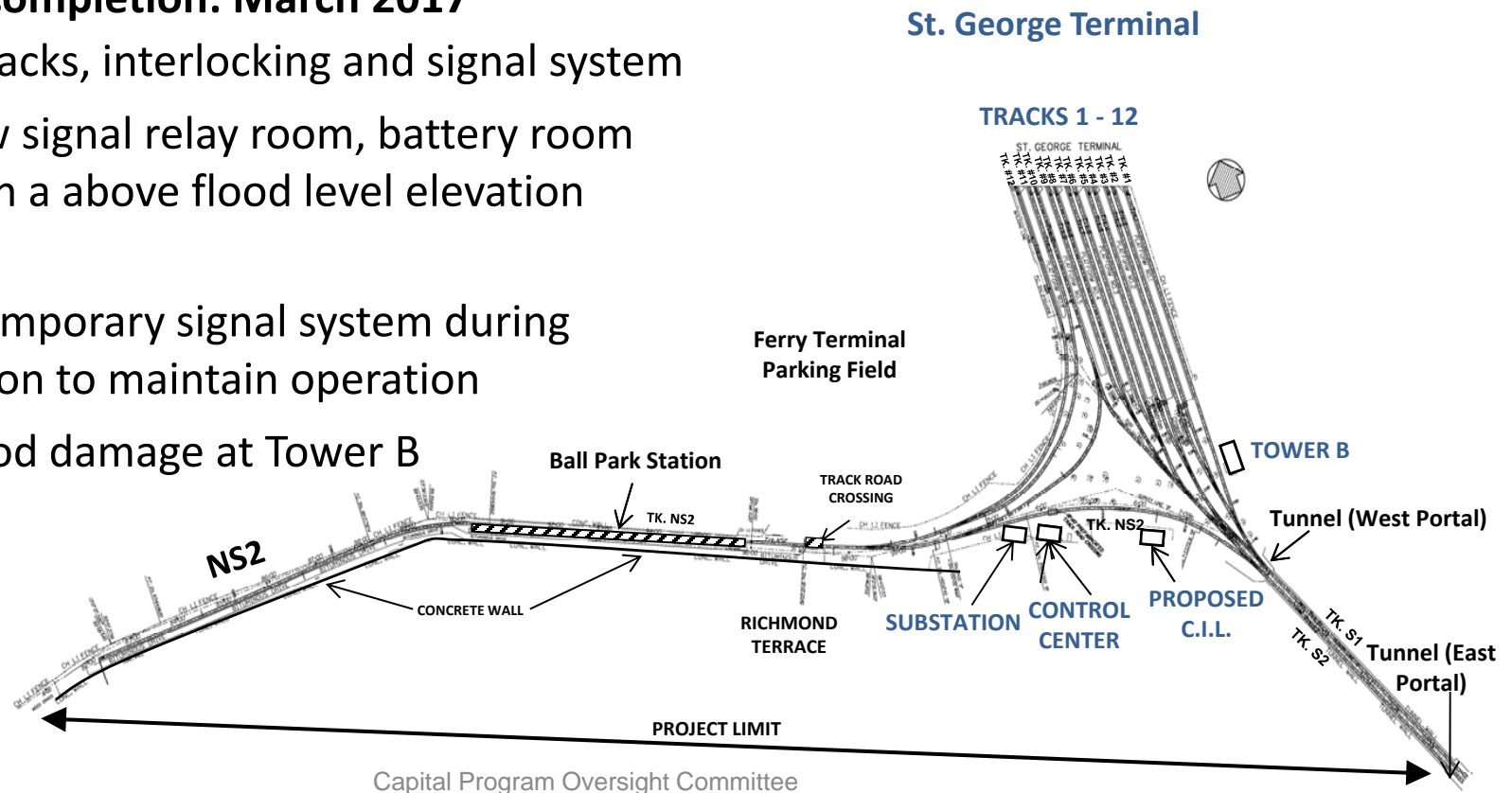
**Construction Award: September 2014**

**Contract Duration: 30 months**

**Project Cost: \$120.1 Million**

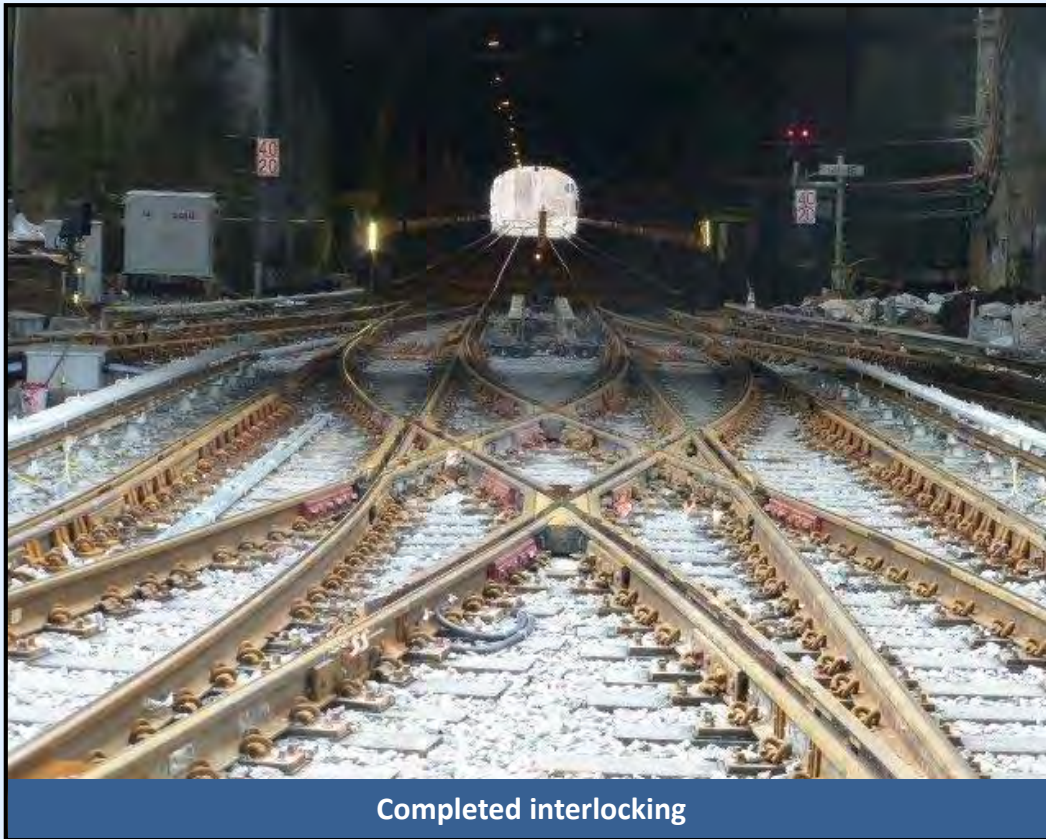
**Substantial Completion: March 2017**

- Replace tracks, interlocking and signal system
- Install new signal relay room, battery room and Hut on a above flood level elevation platform
- Provide temporary signal system during construction to maintain operation
- Repair flood damage at Tower B





## St. George Interlocking – Terminal / Yard



Completed interlocking

- Diamond crossover and tracks 1-10 replaced and operational, achieving FTA milestone date of 02/17/2016
- 14 new track switches installed, and placed in-service
- All new traction power installed
- New platform edge rubbing boards installed on the 10 passenger platforms
- Completed pile foundation and platform for Signal Relay and Battery Rooms
- Continuing coordination with 3 private development projects: NY Wheel, Empire Outlets and Lighthouse
- Future Terminal resilience





## Clifton Shop (Design/Build)



Capital Program Oversight Committee



## Clifton Shop (Design/Build)

Located about 200 feet from the shore line, Superstorm Sandy damaged:

- Building façade & sheathing
- Communications & data systems
- Shop floor

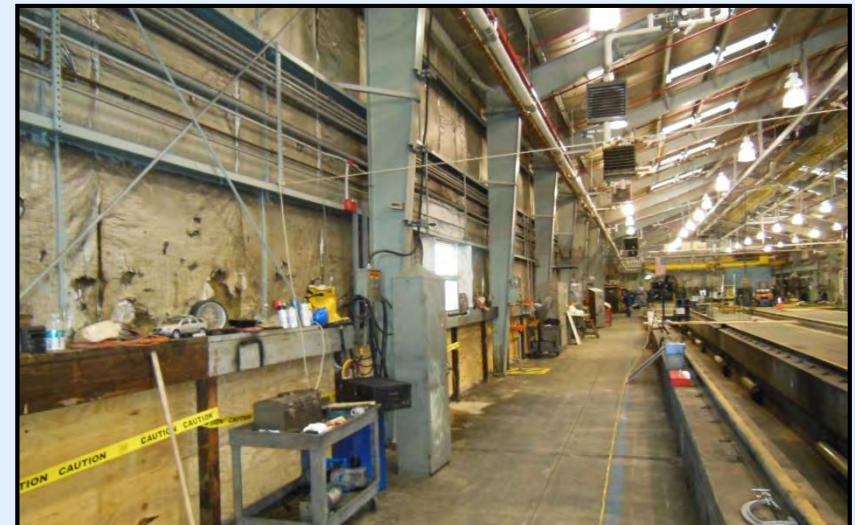
Built in 1971 and expanded in 1991.

The shop consists of 4 buildings:

- Paint Shop
- Diesel Shop
- Multiple Unit Equipment Shop
- Storage Facility



Façade damage



Interior Damage



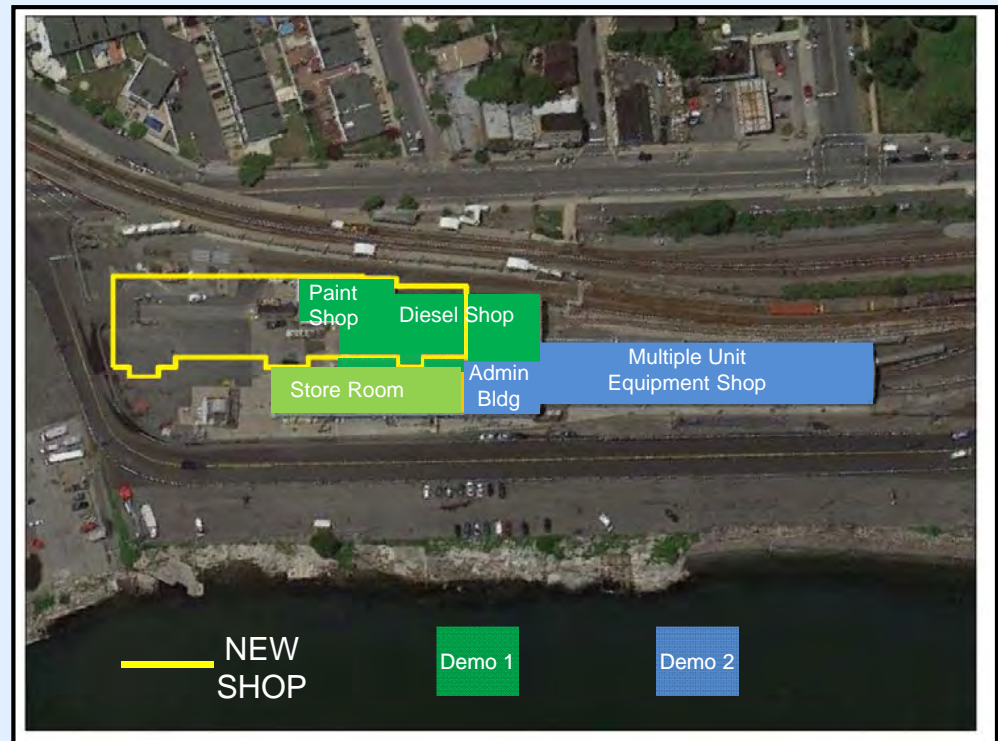
## Clifton Shop (Design/Build)

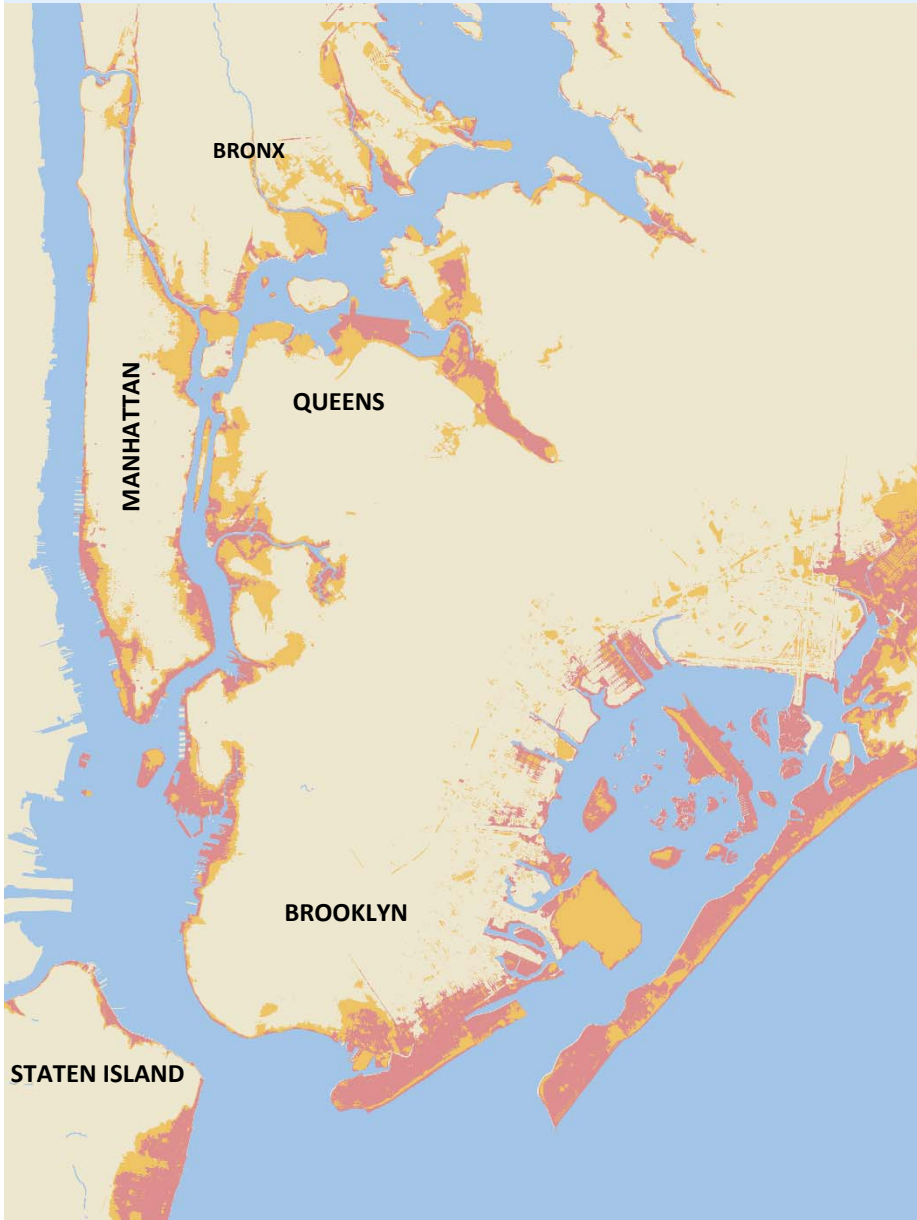
**Design/Build contract in procurement**

**Award: November 2016**

**Duration: 43 Months**

- 93,300 sq. ft over 3 stories + mezzanine
- 4-track repair & maintenance area on floor 1
- Utility rooms, offices and storage area on mezzanine, floors 2 & 3
- Resilient to SLOSH Category 2+3'
- Exterior walls are reinforced concrete up to 15' with back-up walls and insulated metal panels
- Steel framed superstructure
- Risk Assessment workshop held on February 25 and 26, 2016





## COMPETITIVE RESILIENCY INITIATIVES

1. Protection of Street-Level Openings
2. Protection of Tunnel Portals and Internal Tunnel Sealing
3. Hardening of Substations
4. Flood Mitigation in Yards
5. Pumping System Improvements
6. ROW Equipment Hardening
7. Internal Station Hardening
8. Critical Bus Depots
9. Rockaway Line Protection
10. Emergency Communications Enhancements
11. Critical Support Facilities



## Competitive Resiliency

- Over 40 Competitive Resiliency contracts
- 19 contracts completed or in construction including 12 SBFP contracts
- SBFP contracts address street level ingress points, with a total project value of \$35 million



Flex Gate Stair Cover Field Test

Photo: K. Sergeyev



Installation of MCDs in Vent Bays (SBFP) at Greenwich & Edgar Streets



Prototype Watertight Hatch

# **April 2016 CPOC IEC Project Review**



## **Sandy Recovery: South Ferry Station Complex**



**April 18, 2016**

# Budget Review

## Sandy Recovery: South Ferry Station Complex

- The project is on budget.
- Expenditures to date reflect the actual percentage of project completion.
- In the opinion of the IEC, the remaining project contingency is sufficient to reach substantial completion.



# Schedule Review

## Sandy Recovery: South Ferry Station Complex

- The contractor has met all contractual milestones to date, and is on track to complete station entrances and vent shaft before the contractual milestone of May 31, 2016.
- The contractor has cited 49 days of critical path delay, due to agency requested changes to the station communication system, in order to incorporate latest design standards.



# Major Risk

## Changes/upgrades in communication system

- **Risk/Issue:** As a result of late changes to the scope of work in the areas of CCTV, phone, wireless and PA systems, there is a delay risk to the project schedule.
- **Agency Mitigation:** NYCT is working with procurement, user groups, designer and contractor to expedite contract modifications, submittal reviews and approvals. Once all changes are finalized, the contractor will dedicate sufficient resources to aggressively attempt to mitigate schedule delays.
- **In the opinion of the IEC:** Based on the appropriate steps being taken by the agency, most delay risks as a result of changes to the communication system can be mitigated.

# **Second Avenue Subway Update to Transit Committee/CPOC**

**April 18, 2016**



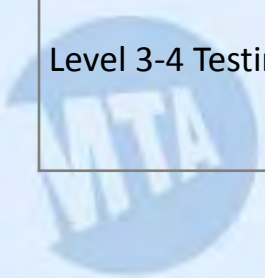
## SAS Status

- 63<sup>rd</sup> Street Station Contractor is testing and commissioning elevators, escalators, HVAC Systems and emergency tunnel ventilation fans. Level 3-4 Testing for all 63<sup>rd</sup> Street equipment is on target for 4/30/2016 completion.
- All Factory Acceptance Tests have been completed for the Project.
- Level 3-4 Test Procedures are on target with the Testing Schedule.
- Manpower is increasing to meet levels required in the acceleration agreements.
- Systems contractor is installing tracks, signals, communications and traction power. Track work is 94% complete (20,650 LF out of 22,000 LF).
- 72<sup>nd</sup> Street Finishes contractor is falling behind.



# SAS Issue/Milestone Status

Issue/Milestone	Target Date (as of Mar. 2016 CPOC)	Current Forecast Date	Change Since Last Report	Potential Impact on Revenue Service Date
<b>Lex. /63<sup>rd</sup> St Finishes Contract</b>				
Escalator Installation	3/31/2016	3/31/2016 A	Complete	Escalator installation is complete. Level 3-4 testing is ongoing.
Elevator Installation	3/18/2016	3/18/2016 A	Complete	Elevator installation is complete. Level 3-4 testing is ongoing.
Fire Life Safety Installation	3/31/2016	3/31/2016 A	Complete	Fire Life Safety installation is complete.
Level 3-4 Testing	4/30/2016	4/30/2016	On Target	



# SAS Issue/Milestone Status

Issue/Milestone	Target Date (as of Mar. 2016 CPOC)	Current Forecast Date	Change Since Last Report	Potential Impact on Revenue Service Date
<b>72<sup>nd</sup> St Finishes Contract</b>				
Permanent Power Energization	4/15/2016	4/30/2016	2 week loss of float	Loss of float is due to resolution of ConEd identified technical issues. No impact on RSD.
Escalator Installation	10/28/2016	10/28/2016	On Target	
Elevator Installation	9/1/2016	9/30/2016	4 week loss of float for Elevator	Working with contractor to bring elevator installation back to Target Date. No impact on RSD.
Tunnel Vent Fans	5/31/2016	6/15/2016	2 week loss of float at Ancillary 1	Tunnel Ventilation Fan installation at Ancillary 2 on target. Fan installation at Ancillary 1 will be completed by mid-June 2016.
HVAC Installation	5/31/2016	6/15/2016	2 week loss of float	Ancillary 2 is on target, but Ancillary 1 is trending to mid-June 2016. No impact on RSD.
Level 3-4 Testing	8/31/2016	8/31/2016	On Target	
Level 3 to 5 Testing Elevator/Escalator	11/30/2016	11/30/2016	On Target	

# SAS Issue/Milestone Status

Issue/Milestone	Target Date (as of Mar. 2016 CPOC)	Current Forecast Date	Change Since Last Report	Potential Impact on Revenue Service Date
<b>86<sup>th</sup> St Finishes Contract</b>				
Permanent Power Energization	4/30/2016	4/30/2016	On Target	
Elevator and Escalator Installation	6/1/2016	6/21/2016	3 week loss of float	Delays in machine room construction are shifting out installation. No impact to RSD.
Ancillary 1 and 2 Structures	4/30/2016	4/30/2016	On Target	
Level 3-4 Testing	8/1/2016	8/1/2016	On Target	



## SAS Issue/Milestone Status

Issue/Milestone	Target Date (as of Mar. 2016 CPOC)	Current Forecast Date	Change Since Last Report	Potential Impact on Revenue Service Date
<b>96<sup>th</sup> St Finishes Contract</b>				
Escalator Installation	5/15/2016	6/30/2016	6 week loss of float	7 out of 9 escalators will be installed by end of May 2016 and the remaining 2 will be installed by the end of June 2016. No impact on RSD.
Elevator Installation	7/13/2016	7/31/2016	2 week loss of float	Platform elevator will be installed by end of June and the street elevator will be installed by end of July. No impact on RSD.
Tunnel Vent Fans	6/21/2016	5/31/2016	On Target	
HVAC Installation	5/31/2016	5/31/2016	On Target	
Fire Life Safety Installation	6/13/2016	5/31/2016	On Target	
Level 3-4 Testing	8/1/2016	8/1/2016	On Target	

## SAS Issue/Milestone Status

Issue/Milestone	Target Date (as of Mar. 2016 CPOC)	Current Forecast Date	Change Since Last Report	Potential Impact on Revenue Service Date
<b>Systems Contract</b>				
Communication Systems Installation (Fire Alarm, PA/CIS)	8/31/2016	8/31/2016	On Target	
Communication Systems Installation (Police Radio)	10/15/2016	10/15/2016	On Target	
Traction Power Energization	7/11/2016	7/11/2016	On Target	
Track Work	5/15/2016	5/15/2016	On Target	
Signal Work	7/18/2016	7/18/2016	On Target	

**April 2016  
NYCT Committee & CPOC  
IEC Monthly Update**



**Second Avenue Subway**

**April 18, 2016**



# SAS April Update

The IEC observed that the March target dates for installations at the Lexington Ave/63<sup>rd</sup> Street Station were all met and that local testing is now underway. However, the IEC's review of current contractor forecasts for upcoming schedule milestones raised these concerns:

- Contractors' forecasts kept to schedule targets for only 70% of the interim tracking milestones identified at the March CPOC meeting.
- There is no improvement in the forecasted escalator and elevator completions for the 72<sup>nd</sup> Street Station, which remain close to impacting the target RSD.
- The testing schedule for major station equipment systems remains highly compressed which maximizes the demand on NYCT staff.



# SAS April Update

A review of project reports related to prior IEC concerns revealed:

- The work effort at the 72<sup>nd</sup> Street Station site has not reached the level necessary to support the accelerated schedule.
- Late design changes have continued through March and the backlog of changes may present a risk to the scheduled completion of the testing program.



# Recommendations Log

Recommendation	Agency Action	Status
<b>January 2016</b>  Expedite their efforts to complete the new integrated project schedule. This schedule should then be detailed with weekly checkpoints.	The Project approved all contract acceleration schedules in March 2016 (iterations of contractor acceleration schedules continued as acceleration agreements were finalized). The Project completed the new integrated project schedule mid March 2016 and continues to update monthly. Bi-weekly updates of the fragnet schedules are performed to status each contract.	COMPLETE
<b>January 2016</b>  Complete implementation of an augmented staffing plan for construction management as soon as practical.	As of mid-April 2016, the Project required five additional hires to complete augmentation of the staffing plan. The Project intends to have the staffing plan fully augmented by the end of April 2016.	IN-PROGRESS
<b>March 2016</b>  A clear target date for completion of the final testing and commissioning tasks for the 63 <sup>rd</sup> Street Station Entrances should be established.	The Project has set end of June 2016 as the target date for final testing and commissioning for the 63 <sup>rd</sup> Street Station.	COMPLETE

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# **MTA Capital Program Commitments & Completions**

## **through March 31<sup>st</sup>, 2016**



### Capital Projects – Major Commitments – March 2016

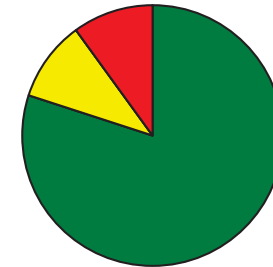
41 major commitments are planned for 2016. The total MTA commitments goal for 2016 is \$6.6 billion.

Through March, agencies are reporting on ten major commitments. Eight are on time or early. East Side Access' Grand Central Terminal Caverns award (a \$712 million forecast) was delayed beyond March, but awarded on April 11. NYCT's PSLAN 188 Stations award (a \$50 million actual) was late, but has now been committed.

Year to date, agencies have committed \$937 million versus a \$1.8 billion goal. The shortfall versus goal is mainly due to the aforementioned delay at East Side Access.

By year-end, the MTA forecasts committing 101% of its \$6.6 billion goal.

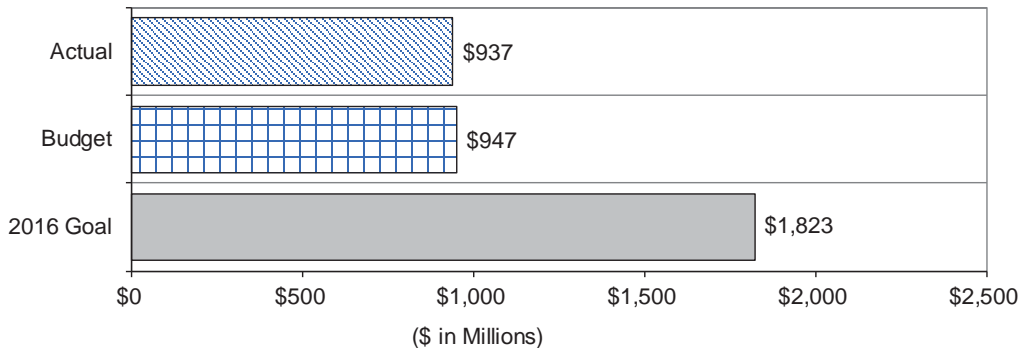
### Year-to-Date Major Commitments



<b>GREEN</b>	=Commitments made/forecast within Goal	Count	Percent	Change from Prior Month
		8	80%	↑ 3
<b>YELLOW</b>	= Commitments delayed beyond Goal (already achieved)	1	10%	↑ 1
<b>RED</b>	= Commitments delayed beyond Goal (not yet achieved)	1	10%	↓ 1
		10	100%	↑ 3

### Budget Analysis

2016 Annual Goal	\$6,600	(\$ in millions)
2016 Forecast	101%	of Annual Goal
Forecast left to Commit	86%	(\$5,725)



### Year-to-Date Agency Breakdown

2016 Goals	Prior month variance		
	GREEN	YELLOW	RED
<b>New York City Transit</b>			
4	+1 GREEN	+1 YELLOW	-1 RED
<b>Long Island Rail Road</b>			
4	+2 GREEN	----	----
<b>Metro-North Railroad</b>			
	----	----	----
<b>Bridges and Tunnels</b>			
	----	----	----
<b>Capital Construction Company</b>			
1	----	----	----
<b>MTA Bus Company</b>			
	----	----	----
<b>MTA Police Department</b>			
	----	----	----

## Capital Projects – Major Commitments – March 2016 – Schedule Variances

## Actual Results Shaded

Project	Commitment	Goal	Forecast
<b>1 All-Agency Red Commitments (0 new this month)</b>			
<b>MTACC</b>			
<i>East Side Access</i>			
<b>Grand Central Terminal Station Caverns &amp; Track (New Item)</b>	Construction Award	Feb-16 \$777.4M	Apr-16 \$712.0M
The delay was due to MTACC finalizing open issues prior to issuing a notice to proceed, which was issued in April. The award value reflects a favorable bid.			

Project	Commitment	Goal	Forecast
<b>1 All-Agency Yellow Commitments (1 new this month)</b>			
<b>NYCT</b>			
<b>Passenger Station LAN: 188 Stations (New Item)</b>	Construction Award	Feb-16 \$50.0M	Mar-16 (A) \$50.0M
Delayed because of additional time required to secure necessary approvals for budget changes and authorizations to approve the commitment.			

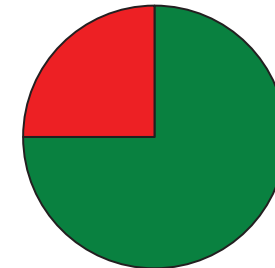
## Capital Projects – Major Completions – March 2016

43 major completions are planned for 2016. The total MTA annual completions goal is \$4.6 billion.

Through March, agencies are reporting on four major completions. Three were achieved on time and one is delayed: an East Side Access structures contract. Year to date, agencies have completed \$270 million versus a \$412 million goal. The shortfall was primarily due to the aforementioned East Side Access delay. One bus procurement was completed ahead of schedule resulting in a favorable rolling stock variance.

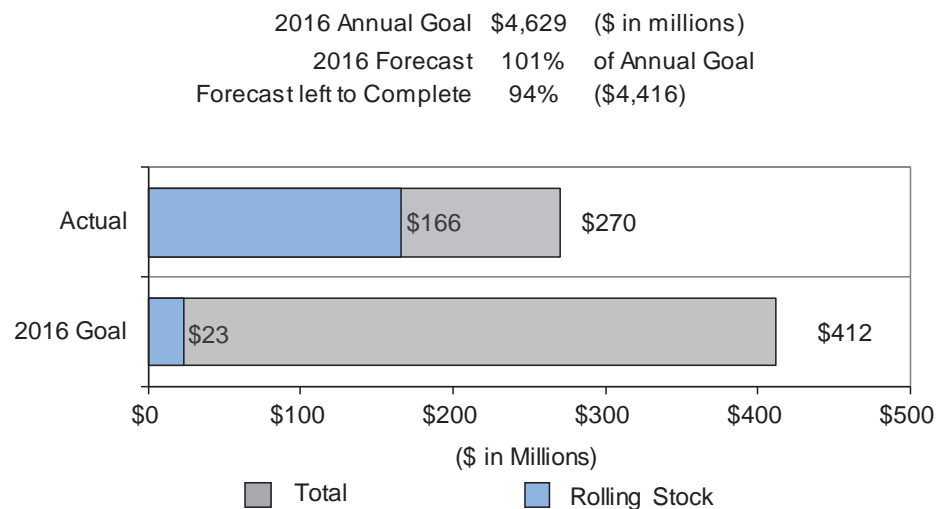
By year-end, the MTA forecasts achieving 101% of its \$4.6 billion goal. The higher forecast is partly impacted by cost increases from the Second Avenue Subway Phase 1 acceleration.

## Year-to-Date Major Completions



	Count	Percent	Change from Prior Month
<b>GREEN</b> = Completions made/forecast within Goal	3	75%	↑ 1
<b>YELLOW</b> = Completions delayed beyond Goal (already achieved)	0	-	-
<b>RED</b> = Completions delayed beyond Goal (not yet achieved)	1	25%	-
	4	100%	↑ 1

## Budget Analysis



## Year-to-Date Agency Breakdown

2016 Goals	Prior month variance		
	GREEN	YELLOW	RED
<b>New York City Transit</b>			
1	----	----	----
<b>Long Island Rail Road</b>			
	----	----	----
<b>Metro-North Railroad</b>			
1	+1 GREEN	----	----
<b>Bridges and Tunnels</b>			
	----	----	----
<b>Capital Construction Company</b>			
1	----	----	----
<b>MTA Bus Company</b>			
1	----	----	----
<b>MTA Police Department</b>			
	----	----	----

## Capital Projects – Major Completions – March 2016 – Schedule Variances

*Actual Results Shaded*

Project	Completion	Goal	Forecast
<b>1 All-Agency Red Completions (0 new this month)</b>			
<b>M TACC</b>			
<i>East Side Access</i>			
<b>Manhattan South Structures</b> <i>(New Item)</i>	Construction Completion	Feb-16 \$249.8M	Apr-16 \$249.8M
Two-month delay is due to additional time required to complete final remaining work.			

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# **MTA Capital Program Commitments & Completions Quarterly Report of Prior Years' Delays**



**Metropolitan Transportation Authority**

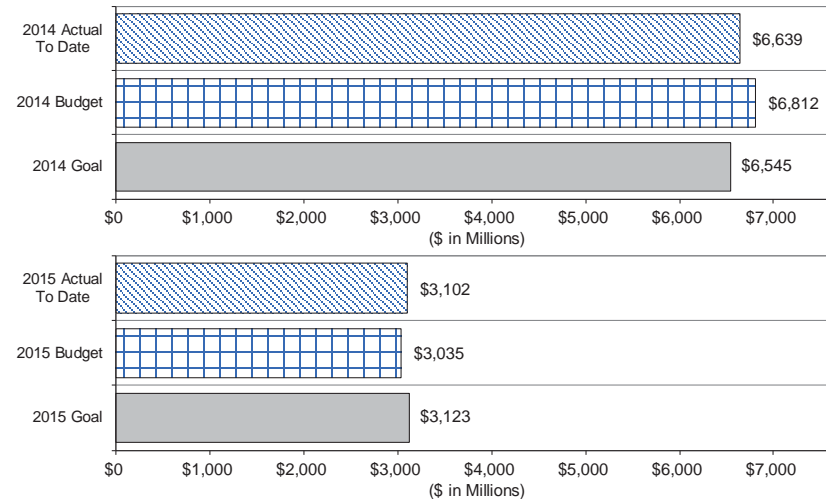
## Prior Years' Major Commitments – Quarterly Update: March 2016

The status of 2014 and 2015 major commitments delayed beyond 2015 continue to be tracked until committed and are reported to CPOC on a quarterly basis.

In 2014, agencies set a goal of 55 major commitments and an overall MTA commitment goal of \$6.5 billion. In 2014, 39 commitments totaling \$5.8 billion were made. Of the 16 major commitments that slipped beyond 2014, eight were committed in 2015, and eight slipped beyond 2015. Since the last report, a NYCT bus commitment was made.

In 2015, agencies set a goal of 34 major commitments and an overall MTA commitment goal of \$3.1 billion. In 2015, 25 major commitments totaling \$2.9 billion were made. Nine remaining major commitments slipped beyond 2015. Since the last report, the NYCT and MTA Bus portions of the new Bus Radio System were made.

## Budget Analysis



Actual		MTA-Wide Prior Years' Major Commitments																	Post 2016
		2014 G	2014 Y	2015 G	2015 Y	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16		
Goal		12	27	13	20	0	0	3	1	4	0	1	1	1	1	0	3	2	
Total	89	12	27		8			1	1	1			1		1		1	2	
2014	55																		
Jan-15	1			1															
Feb-15	3			2	1														
Mar-15	4			3	1														
Apr-15	7			4	3														
May-15	2			2															
Jun-15	6				5												1		
Jul-15	2			1						1									
Aug-15	2							2											
Sep-15	1									1									
Oct-15	2				1					1									
Nov-15	2				1							1							
Dec-15	2												1				1		

This chart tracks when all major commitments are forecast/achieved versus original goal, starting with those that were committed within 2014 and 2015, followed by those that slipped beyond 2015. Green represents projects that were achieved on-time, yellow represents projects that were delayed but have since been committed, and red represents projects that are still delayed. Projects that are red will become yellow when they are committed.

**GREEN** = Commitments made/forecast within Goal

**YELLOW** = Commitments delayed beyond Goal (already achieved)

**RED** = Commitments delayed beyond Goal (not yet achieved)

## Prior Year Major Commitments – March 2016 – Schedule Variances

## Actual Results Shaded

Project	Commitment	Goal	Forecast
<b>14 All-Agency Red Commitments</b>			
<b>NYCT</b>			
Sandy Repairs: Rutgers and Cranberry Tubes	Construction Award	Jun-14 \$154.M	Feb-22 \$165.M
This originally was a two-tube Sandy project. Due to operational planning issues, the two tubes were separated. The Cranberry tube contract awarded in December 2014 while the Rutgers tube was rescheduled to 2022 due to construction sequencing of the tubes. The project cost increase reflects unfavorable bids received for Cranberry Tube contract.			
Sandy: Clark St Tube	Construction Award	Aug-14 \$77.4M	May-16 \$123.4M
The Clark St Tube award was delayed due to schedule adjustments based on service and community impact as well as constructability and programmatic concerns.			
ADA: Phase 2: 57 Street - 7 Avenue / Broadway	Construction Award	Nov-14 \$35.9M	May-17 \$66.8M
Delay due in part to the an elevator relocation in the excavation area impacting existing ducts. In addition, alternatives providing ADA access to the 57th Street Station, impacting the design completion schedule and increasing project costs.			
HVAC Repair And Maintenance For DCE Facilities - Ph2	Construction Award	Dec-14 \$53.6M	Dec-16 \$53.6M
Delay due to additional time needed to complete specifications for the overhead crane at 207th Street and scope increase to include a new centralized HVAC SMS facility.			
Station Components: 4 Stations / Jamaica	Construction Award	Dec-14 \$37.8M	Apr-16 \$66.M
Current project schedule delay due to additional scope including new station component work at three stations, extending the design. Previous delay due to additional painting in 3 of the 4 stations. Project cost increased reflecting added scope and an unfavorable bid.			
Sandy Mitigation: Sidewalk Vent Grating/Covers/Manholes - 8 Stations	Construction Award	Jul-15 \$70.4M	May-16 \$45.9M
Current delay to May 2016 reflects a delay in advertisement. Contract award was previously rescheduled to incorporate design changes allowing for the greater usage of mechanical closure devices and for design document changes due to limiting critical facilities hardening to communication and signal rooms.			

Project	Commitment	Goal	Forecast
Sandy: 148th Yard Long-Term Perimeter Protection & Power Cable	Construction Award	Nov-15 \$135.1M	Jul-16 \$153.6M
Award continues to be delayed to accommodate MTA Real Estate property acquisition. Design was delayed further to proceed with 500-year storm design and provide Category 2 + 3 resiliency for tower.			
Work Train & Special Equipment: 54 Flat Cars	Purchase Award	Dec-15 \$33.5M	Dec-16 \$33.5M
Award rescheduled to December 2016 due to MTA funding constraints.			
Integrated Service Information & Management B-Div: Module 2	Construction Award	Dec-15 \$43.7M	Sep-16 \$63.7M
Award rescheduled to September 2016 due to MTA funding constraints. Cost increase mainly due to added PS LAN scope not originally included in the budget.			
<b>LIRR</b>			
MLC-Hicksville North Siding	Construction Award	Sep-15 \$25.7M	May-16 \$25.7M
Construction award delayed due to additional scope review during the design process and extended RFP process, including BAFO review.			
MLC-Hicksville Station	Construction Award	Oct-15 \$42.2M	May-16 \$42.2M
Construction award delayed due to additional scope review during the design process and an extended procurement process.			
<b>MNR</b>			
Power Infrastructure Restoration - 4 Substations	Construction Award	Oct-15 \$42.2M	Oct-16 \$49.2M
Construction services for the four substations was executed in December 2014. The only remaining commitment (\$3.3M) in the agreement with New York State Electric and Gas Company will commence with installation of the Brewster Feeders. The Brewster design was repackaged with Sandy substations work. This resulted in an increase in budget and scope to include resiliency.			

## Prior Year Major Commitments – March 2016 – Schedule Variances

## Actual Results Shaded

Project	Commitment	Goal	Forecast
<b>MTA Bus</b>			
Hurricane Sandy Depot Rehabilitation at Far Rockaway	Construction Award	Dec-14	Aug-16
		\$25.0M	\$15.0M
Delay due to finalizing a construction strategy and finalizing cost estimates.			
<b>B&amp;T</b>			
Construction of New Harlem River Drive Ramp - MOU (RK23)	Construction Award	Jun-15	Dec-16
		\$15.M	\$26.3M
Delay due to additional time required to negotiate and to improve coordination with NYC DOT and their contractors.			

## 3 All-Agency Yellow Commitments

### NYCT

<b>Purchase 231 Articulated Buses (New Item)</b>	Purchase Award	Jun-14	Mar-16 (A)
		\$245.5M	\$202.M
The procurement staff summary approved by the MTA Board in November, but the contract award was subject to State Comptroller review. Contract awarded in March.			
<b>Bus Radio System - NYCT (New Item)</b>	Construction Award	Aug-15	Mar-16 (A)
		\$215.M	\$187.3M
Procurement Staff Summary approved by MTA Board in February. Project Awarded in March. Project cost decrease reflects a favorable bid.			

### MTA Bus

<b>Bus Radio System - MTA Bus (New Item)</b>	Construction Award	Aug-15	Mar-16 (A)
		\$58.5M	\$58.5M
Procurement Staff Summary approved by MTA Board in February. Project Awarded in March. Project cost decrease reflects a favorable bid.			

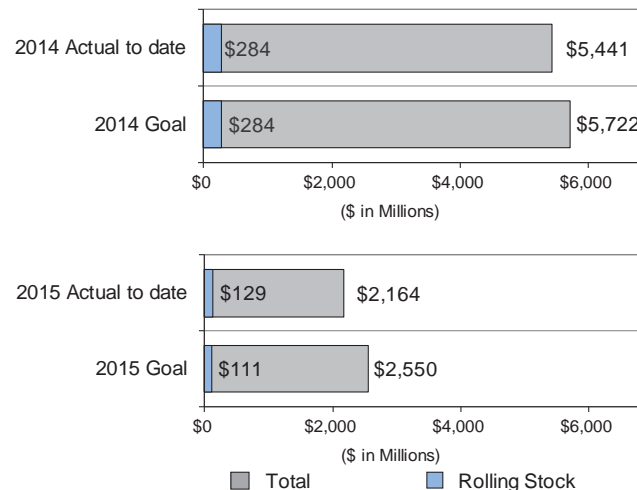
## Prior Years' Major Completions – Quarterly Update: March 2016

The status of 2014 and 2015 major completions delayed beyond 2015 continue to be tracked until completed and are reported to CPOC on a quarterly basis.

In 2014, agencies set a goal of 46 major completions and an overall MTA completions goal of \$5.7 billion. In 2014, \$4.5 billion was completed, including 28 major completions. Of the 18 major completions that slipped from 2014, nine were made in 2015 and nine slipped beyond 2015. Since the last report, ESA's Harold Structures contract (CH053) completed.

In 2015, agencies set a goal of 25 major completions and an overall MTA completions goal of \$2.6 billion. In 2015, 19 major completions totaling \$2.1 billion were made. The remaining six major completions slipped beyond 2015. Since the last report, a NYCT standard diesel bus purchase was completed.

## Budget Analysis



Actual		MTA-Wide Prior Years' Major Completions																Post 2016
		2014 G	2014 Y	2015 G	2015 Y	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	
Goal	71	23	5	8	20	1	1	0	4	2	4	0	0	0	0	0	0	3
Total	46	23	5		9		1		3	2	2							1
2014	46																	
Jan-15	1			1														
Feb-15	0																	
Mar-15	2			2														
Apr-15	3				3													
May-15	2				1				1									
Jun-15	4				3													1
Jul-15	4				4													
Aug-15	4			3							1							
Sep-15	0																	
Oct-15	0																	
Nov-15	0																	
Dec-15	5			2		1					1							1

This chart tracks when all major completions are forecast/achieved versus original goal, starting with those that were completed within 2014 and 2015, followed by those that slipped beyond 2015. Green represents projects that were achieved on-time, yellow represents projects that were delayed but have since been completed, and red represents projects that are still delayed. Projects that are red will become yellow when they are completed.

**GREEN** = Completions made/forecast within Goal

**YELLOW** = Completions delayed beyond Goal (already achieved)

**RED** = Completions delayed beyond Goal (not yet achieved)

## Prior Year Major Completions – March 2016 – Schedule Variances

## Actual Results Shaded

Project	Completion	Goal	Forecast
<b>13 All-Agency Red Completions</b>			
<b>NYCT</b>			
Station Rehab: Smith-9th Street & 4th Ave	Construction Completion	Jul-14 \$40.7M	Apr-16 \$44.2M
Project delay due to a broken water valve, completing as-built drawings, punch list work and required repairs on the broken drain lines and water service.			
2014 Track & Switch Program (4 Projects) - 3rd Qtr	Construction Completion	Sep-14 \$33.7M	May-16 \$36.5M
Delay due to remaining work at SSI Bergen Track Wrap-up. Project completion pending track access needed to complete the work. All other work has been completed.			
AVLM: Paratransit - 2,273 Vehicle	Purchase	Dec-14 \$35.8M	Jun-16 \$37.7M
Delays due to deployment of new servers to meet agency-wide operating system compliance and to prewire an additional 433 paratransit vehicles.			
Electronic Security - URT Phase 2	Construction Completion	May-15 \$31.1M	Apr-16 \$31.8M
The project was delayed due to lack of timely track access and shortage of flagging support services.			
PA/CIS at 45 Stations - Install Cable	Construction Completion	Dec-15 \$56.1M	Dec-17 \$56.1M
Project delayed due to slow progress of work. In-house forces were diverted to address other safety sensitive projects.			
<b>LIRR</b>			
F Circuit Breaker House	Construction Completion	Oct-14 \$7.2M	Feb-17 \$7.2M
Delay due to a reevaluation of the project's need to be informed by a power load study.			
Centralized Traffic Control	Construction Completion	Jun-15 \$12.9M	May-17 \$12.9M
Delay due a redesign of the theater as a result of a reevaluation of theater operations.			

Project	Completion	Goal	Forecast
Atlantic Ave Tunnel Lighting	Construction Completion	Nov-14 \$7.0M	Jun-16 \$7.0M
Delay due to asbestos concerns resulting in investigations, clearances, and requirements for high tension cable installation.			
<b>MNR</b>			
Harlem River Lift Bridge Cable/Breaker House /Controls	Construction Completion	Aug-15 \$25.4M	Jun-16 \$25.4M
Delay was due to performance issues with the elevator subcontractor.			
<b>MTACC</b>			
<b>East Side Access</b>			
GCT Concourse Finishes Early Work (CM014A)	Construction Completion	Apr-14 \$56.7M	Apr-16 \$58.1M
Delay due to substantial SCADA (supervisory control and data acquisition) redesign work, delivery of the medium voltage switchgear, a facility control room leak requiring mitigation, and productivity being lower than expected.			
<b>7 Line Extension</b>			
Systems, Finishes, and Core & Shell	Construction Completion	Oct-14 \$580.1M	Apr-16 \$596.3M
Revenue Service began September 13, 2015. Delay due to remaining punchlist items, while not required for opening, are required for substantial completion.			
<b>Second Avenue Subway</b>			
63rd St Station Upgrade (C3)	Construction Completion	Dec-15 \$208.9M	Jun-16 \$225.3M
Delay is due to the contractor productivity rate, which was less than expected. Additional contingency was added to the construction contract based on analysis of current and future additional work order needs.			
<b>MTAPD</b>			
MTAPD K-9	Construction Completion	Jul-14 \$15.0M	May-16 \$15.8M
Original delay due to unforeseen field conditions at the construction site, which also increased the cost. Continuing construction issues have delayed completion.			

## Prior Year Major Completions – March 2016 – Schedule Variances

*Actual Results Shaded*

Project	Completion	Goal	Forecast
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### 2 All-Agency Yellow Completions

#### NYCT

<b>Purchase 72 Standard Diesel Buses</b> <i>(New Item)</i>	Purchase	Dec-15	Jan-16 (A)
		\$41.8M	\$39.2M

All buses have been delivered and accepted. The last bus was damaged during transport and is being repaired. Project cost decreased due to lower negotiated price.

#### MTACC

##### East Side Access

<b>Harold Structures (Part 1)</b> <i>(CH053) (New Item)</i>	Construction Completion	Aug-14	Feb-16 (A)
		\$326.1M	\$311.5M

Delays were due to a cutover of the new duct bank, resource issues, and Amtrak's request for additional time. Budget adjustment reflects revised estimate to complete.

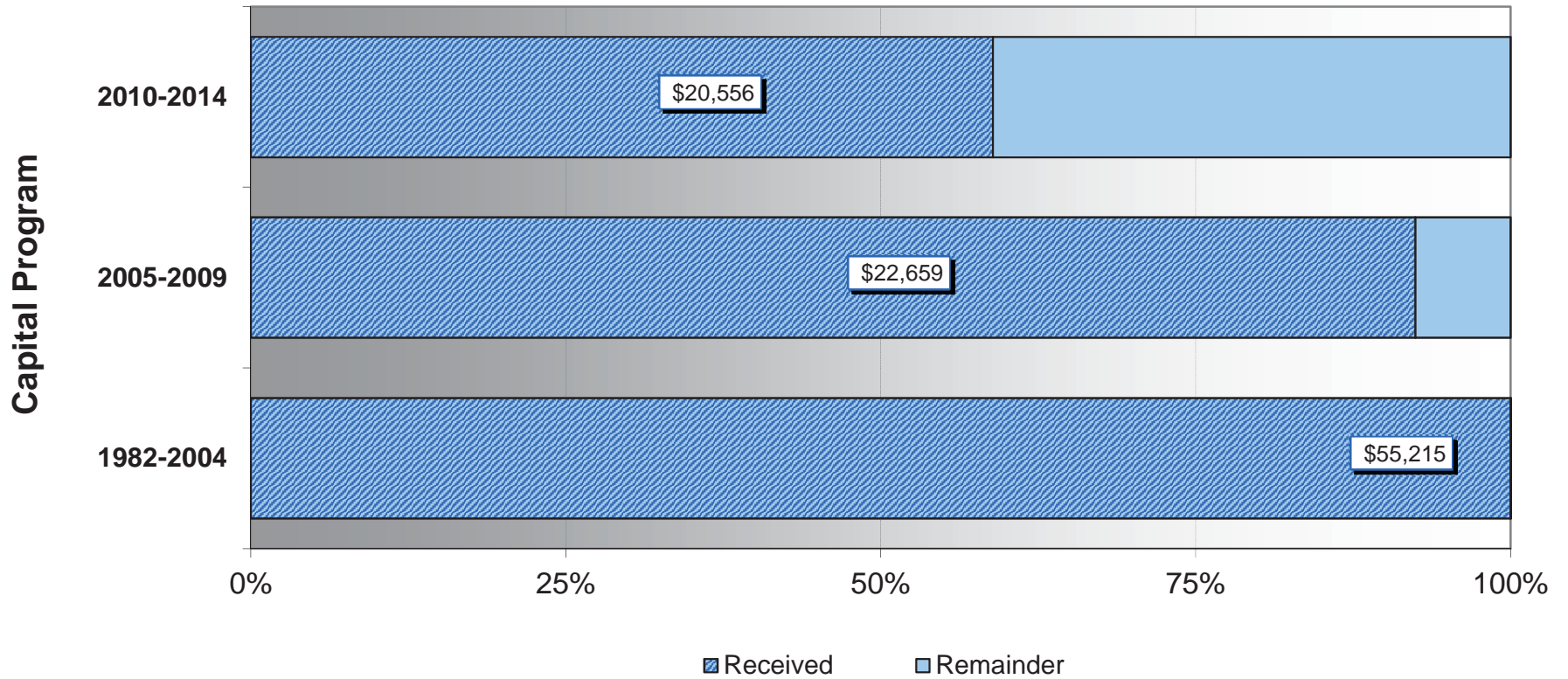
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## Status of MTA Capital Program Funding



## Capital Funding (March 31, 2016)

\$ in millions



## Capital Funding Detail (March 31, 2016)

\$ in millions

	Funding Plan	Receipts		
	<u>Current</u>	<u>Thru February</u>	<u>This month</u>	<u>Received to date</u>
<b>2005-2009 Program</b>				
Federal Formula and Flexible Funds	\$5,186	\$5,186	\$ -	\$5,186
Federal New Start	2,810	2,222	-	2,222
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	2,204	-	2,204
MTA Bus Federal and City Match	149	142	-	142
Asset Sales and Program Income	1,184	563	-	563
State Transportation Bond Act	1,450	1,064	-	1,064
MTA Bonds (Including LGA)	3,039	3,039	-	3,039
B&T Bonds	1,153	1,153	-	1,153
Bonds from New Sources	5,624	5,624	-	5,624
Other (Including Operating to Capital)	138	126	-	126
<b>Total</b>	<b>24,507</b>	<b>22,659</b>	<b>-</b>	<b>22,659</b>

	Funding Plan	Receipts		
	<u>Current</u>	<u>Thru February</u>	<u>This month</u>	<u>Received to date</u>
<b>2010-2014 Program</b>				
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	575	-	575
State Assistance	770	150	-	150
MTA Bus Federal and City Match	132	69	-	69
MTA Bonds (Payroll Mobility Tax)	12,703	8,419	5	8,424
Other (Including Operating to Capital)	1,535	642	-	642
B&T Bonds	2,111	1,292	-	1,292
Hurricane Sandy Recovery				
<i>Insurance Proceeds/Federal Reimbursement</i>	9,376	3,177	-	3,177
PAYGO	160	160	-	160
<i>Sandy Recovery MTA Bonds</i>	758	-	-	-
<i>Sandy Recovery B&amp;T Bonds</i>	230	59	-	59
<b>Total</b>	<b>34,889</b>	<b>20,551</b>	<b>5</b>	<b>20,556</b>