



Metropolitan Transportation Authority

# Capital Program Oversight Committee Meeting

## January 2015

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### Committee Members

T. Prendergast, Chair

F. Ferrer

A. Albert

R. Bickford

A. Cappelli

S. Metzger

J. Molloy

M. Pally

A. Saul

J. Sedore

V. Tessitore

I. Weinshall

C. Wortendyke

# **Capital Program Oversight Committee Meeting**

**347 Madison Avenue - 5th Fl. Board Room**

**New York, NY 10017**

**Tuesday, 1/20/2015**

**1:45 - 2:45 PM ET**

## **1. PUBLIC COMMENTS PERIOD**

## **2. APPROVAL OF MINUTES DECEMBER 15, 2014**

*- Minutes from December 2014 - Page 3*

## **3. COMMITTEE WORK PLAN**

*- 2015 - 2016 CPOC Committee Work Plan - Page 6*

## **4. NYCT CAPITAL PROGRAM UPDATE**

*- NYCT 2014 Capital Program Review - Page 8*

*- Sandy Recovery and Resiliency Update - Page 19*

*- Appendix - Risk Assessment - Page 36*

*- IEC South Ferry Project Review - Page 39*

## **5. NYCT, LIRR, & MNR UPDATE ON NEW FARE PAYMENT SYSTEM**

*- All Agency New Fare Payment System Update - Page 43*

*- IEC New Fare Payment System Project Review - Page 55*

## **6. UPDATE ON MINORITY, WOMEN AND DISADVANTAGED BUSINESS PARTICIPATION**

*- MWDBE participation to CPOC Jan - Dec 2014 - FEDERAL - Page 60*

*- MWDBE participation to CPOC Jan - Dec 2014 - STATE - Page 61*

## **7. CAPITAL PROGRAM STATUS**

*- Commitments, Completions & Funding Report - Page 62*

Date of next meeting: Monday, February 23, 2015 at 1:15 PM

**MINUTES OF MEETING**  
**MTA CAPITAL PROGRAM OVERSIGHT COMMITTEE**  
**December 15, 2014**  
**New York, New York**  
**1:45 P.M.**

MTA CPOC members present:

Hon. Thomas Prendergast, Chairman  
Hon. Fernando Ferrer  
Hon. Andrew Albert  
Hon. Robert Bickford  
Hon. Susan Metzger  
Hon. John Molloy  
Hon. Mitchell Pally  
Hon. James Sedore  
Hon. Carl Wortendyke

MTA CPOC members not present:

Hon. Alan Cappelli  
Hon. Andrew Saul

MTA Board members present:

Hon. Ira Greenberg  
Hon. Vincent Tessitore  
Hon. Iris Weinshall

MTA staff present:

Craig Stewart  
Michael Wetherell

LIRR staff present:

Chris Calvagna

MTACC staff present:

Uday Durg  
Bill Goodrich  
Michael Horodniceanu  
Shawn Kildare  
Anil Parikh

NYCT staff present:

Dilip Kumar Patel  
Fred Smith

Independent Engineering Consultant staff present:

Kurt Egger  
Gerry Gardvits  
Kent Haggas  
Darlene Rivera

\* \* \*

Chairman Prendergast called the December 15, 2014 meeting of the Capital Program Oversight Committee to order at 1:45 P.M.

## **Public Comments Period**

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

## **Meeting Minutes**

Upon motion duly made and seconded, the CPOC members approved the minutes to the previous meeting held on November 17, 2014.

## **Committee Work Plan**

Mr. Stewart stated that there were no changes to the CPOC Work Plan. He then explained that the CPOC Work Plan has been revised to cite specific presentations planned for the coming quarter and broader program areas for the balance of the 12-month look-ahead.

## **New York City Transit Report on Stations Division**

Mr. Patel provided an overview of the 2010-2014 NYCT Stations Division, including Component projects in 126 stations, Renewal projects in 38 stations, ADA Accessibility projects in 9 stations, and Elevator and Escalator projects taking place in 13 stations. Further details of the presentation by Mr. Patel, and Committee Members' comments and questions with respect thereto are included in the video recording of the meeting maintained in MTA's records.

## **LIRR and MNR Update on Positive Train Control**

Mr. Calvagna provided an update on the Positive Train Control (PTC) initiative, stating that the project is on schedule for the Improved Implementation Plan (as detailed in the last presentation to CPOC in September 2014), and is within the \$976 million budget. In its Project Review, the IEC reported that it is in general agreement with the agencies' presentation, but voiced concern that the development risks with adapting the ACSES II System could impact the 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.

## **MTACC Report on 7-Line Extension**

Mr. Kildare reported that the contractor shows a delay in completing its work according to the acceleration agreement, and projects the completion date to be in the 2<sup>nd</sup> Quarter of 2015. He then reported that 99% of overall construction required for revenue service has been completed. In its Project Review, the IEC stated that the overall project budget remains at \$2.42 billion and forecasts an estimate at completion of \$2.41 billion. In addition, the IEC forecasts a revenue service date no earlier than April 2015. 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 Second Avenue Subway**

Mr. Parikh reported that the project continues to be on schedule to meet the December 2016 revenue service date, and that the project is on budget. In its Project Review, the IEC reported that revisions to the project's schedule logic that were recommended in March are expected by the end of December. The IEC is undertaking a comprehensive review of the schedule and reserves judgment on the project's reported 84 days of schedule contingency until the review is completed.

In addition, the IEC concurred that the project is on budget. 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. The IEC then cited its concerns regarding the following: Manhattan civil work, which is on the project critical path; Systems work, which takes over the critical path after completion of the Manhattan civil work; and work associated with the Harold Interlocking. 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 through November, the MTA planned 48 major commitments, 24 of which have been committed. On a dollar basis, agencies have committed \$4.0 billion through November, compared to a \$6.1 billion YTD goal. In the same period, the MTA planned a total of 41 major project completions, 25 of which have been achieved. Dollar-wise, agencies have completed \$3.7 billion through November, versus \$5.4 billion YTD goal.

### **Quarterly Traffic Light Report**

Mr. Stewart brought the Committee's attention to the Traffic Light Reports for the 3<sup>rd</sup> Quarter 2014 and invited Committee Members' questions, of which there was none.

### **Adjournment**

Upon motion duly made and seconded, Chairman Prendergast adjourned the December 15, 2014 meeting of the MTA Capital Program Oversight Committee at 2:50 P.M.

Respectfully submitted,  
Michael Jew-Geralds  
Office of Construction Oversight

## 2015-2016 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

#### February 2015

##### LIRR and MNR Capital Programs Update

- Quarterly Positive Train Control (PTC)

##### MNR

- Capital Program Overview
  - Track Program
  - Harmon Shop Phase V, Stage I
  - Hudson Line Power and Communications & Signals

##### LIRR

- Capital Program Overview
  - Track Program
  - Mainline Double Track
  - Jamaica Capacity Improvements

#### March 2015

##### Quarterly MTACC Capital Program Update

- Cortlandt Street Station
- East Side Access
- No. 7-Line Extension
- Second Avenue Subway

##### Update on Capital Program Security Projects (in Exec Session)

##### Quarterly Change Order Report

##### Quarterly Traffic Light Report

#### April 2015

##### NYCT Capital Program Update

- Signals and Train Control Division
  - CBTC Flushing Line
  - CBTC Queens Boulevard Line
  - Culver Line CBTC Integrated Test Facility
  - Signals Dyre Ave. Line
- Systems and Security Division
  - ISIM-B
  - VHF Radio
  - Bus Command Center and Bus Radio System
- Update on Track Program

May 2015

B&T Capital Program Update  
Quarterly LIRR/MNR Positive Train Control (PTC) Update

June 2015

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

July 2015

NYCT Capital Program Update  
NYCT, LIRR, MNR Update on New Fare Payment System  
Quarterly LIRR/MNR Quarterly Positive Train Control (PTC) Update  
Update on Minority, Women and Disadvantaged Business Participation  
Update on Small Business Development Programs

September 2015

Quarterly MTACC Capital Program Update  
Update on Capital Program Security Projects (in Exec Session)  
Quarterly Change Order Report  
Quarterly Traffic Light Report

October 2015

NYCT Capital Program Update

November 2015

LIRR and MNR Capital Programs Update

- Quarterly Positive Train Control (PTC)

December 2015

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

January 2016

NYCT Capital Program Update  
NYCT, LIRR, MNR Update on New Fare Payment System  
Update on Minority, Women and Disadvantaged Business Participation

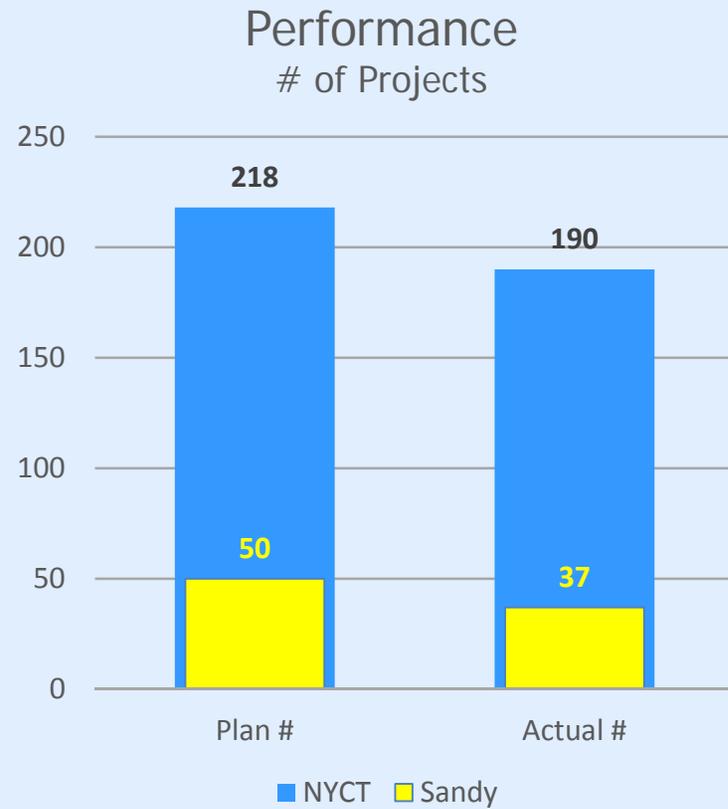
# NYCT 2014 Capital Program Review

Frederick E. Smith, P.E.  
Chief Engineer & Senior Vice President  
Capital Program Management

January 2015



# 2014 Commitment Performance



## Major 2014 Commitments

<input type="checkbox"/> Sandy Repairs: South Ferry Station Complex	\$310m
<input type="checkbox"/> Renewal of 6 Sea Beach Line Stations and Retaining Walls	\$255m
<input type="checkbox"/> 34th St Interlocking / 6th Avenue	\$170m
<input type="checkbox"/> W. 4th St Interlocking / 6th Avenue	\$155m
<input type="checkbox"/> Purchase 276 Standard Buses (New Flyer)	\$152m
<input type="checkbox"/> Station Renewal of 7 Stations / Culver	\$133m
<input type="checkbox"/> Sandy Repairs: St. George Interlocking	\$120m
<input type="checkbox"/> Sandy Repairs: Cranberry Tubes	\$99m
<input type="checkbox"/> PA/CIS 89 Stations Cabinets	\$40m

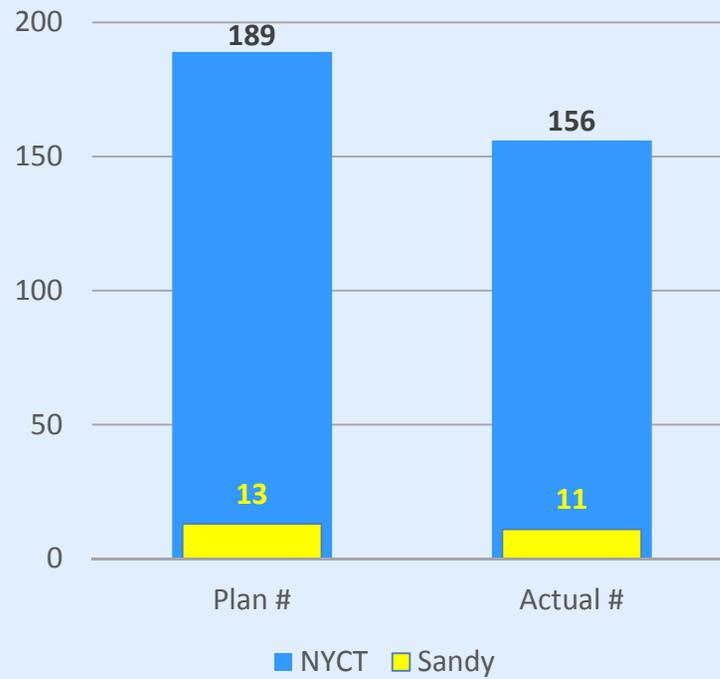


# 2014 Completions Performance

### Performance Value \$ billion



### Performance # of Projects



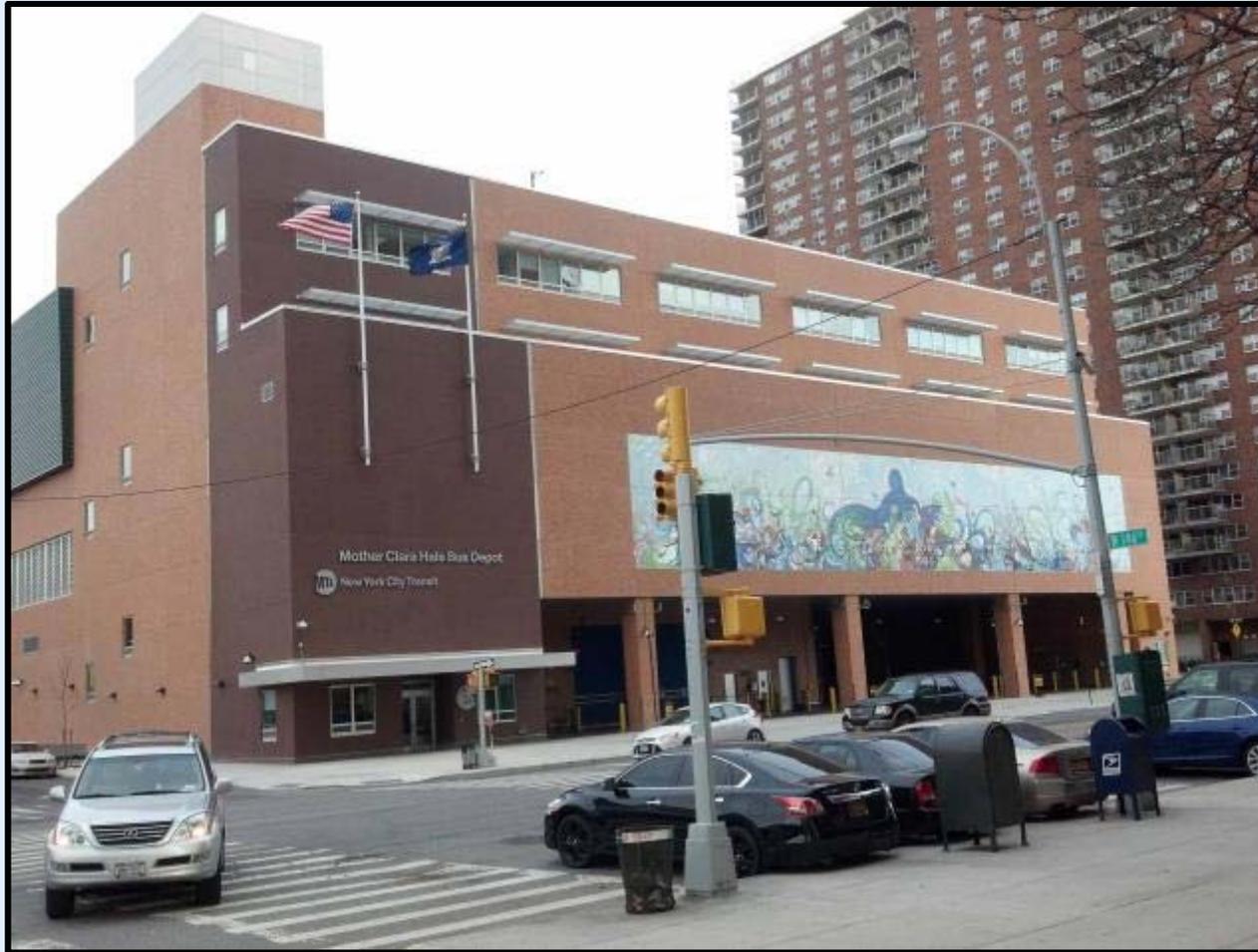
# Major 2014 Completions

<input type="checkbox"/> Clara Hale Depot Reconstruction	\$255m
<input type="checkbox"/> Church Ave Interlocking / Culver	\$192m
<input type="checkbox"/> Purchase of 28 Diesel-Electric Locomotives	\$109m
<input type="checkbox"/> Viaduct Rehab & Overcoating: Rockaway & Far Rockaway	\$45m
<input type="checkbox"/> Station Renewal of 5 Stations / Myrtle	\$40m
<input type="checkbox"/> Sandy Repairs: Signal Equip Replacement - Montague Tube	\$30m
<input type="checkbox"/> Overcoating: Portal To End of Line / Pelham	\$28m
<input type="checkbox"/> Signal Key-by Circuit Modifications: Phase 2	\$28m
<input type="checkbox"/> Station Time Improvements, Phase 2 / Lex	\$28m



# Mother Clara Hale Depot

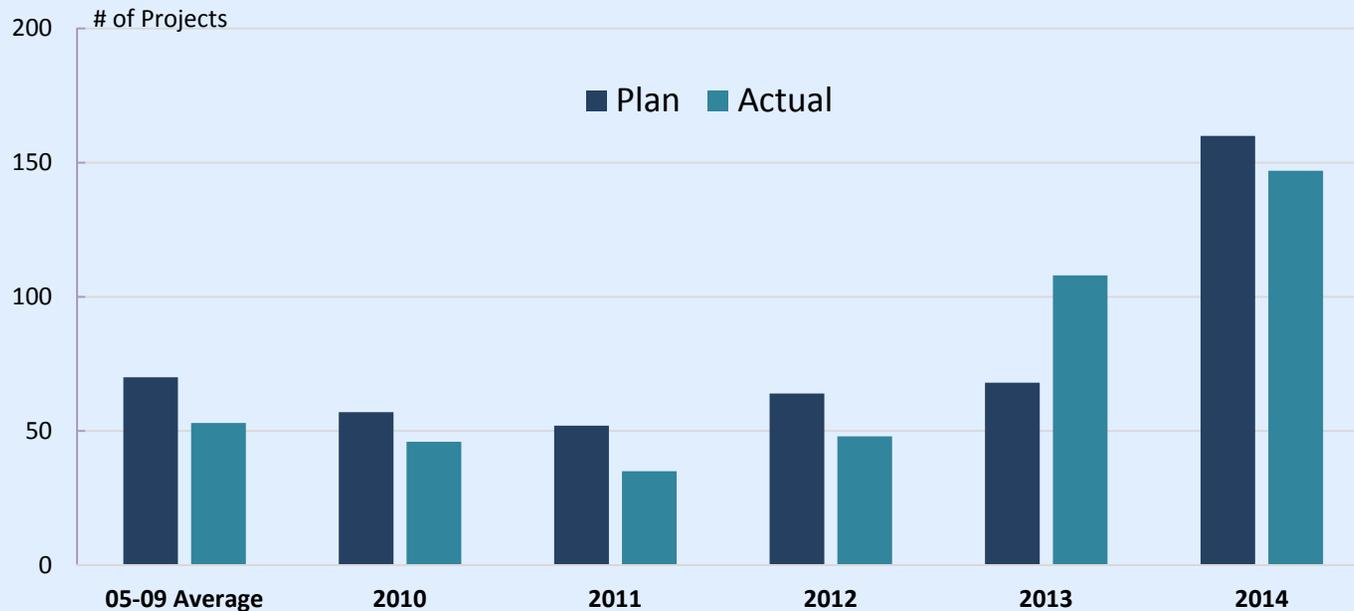
(Completed October 2014)



# Montague Tunnel Demolition



# Volume of Construction Contracts Is Escalating



	05-09 Average	2010	2011	2012	2013	2014
<b># Projects Planned</b>	<b>70</b>	<b>57</b>	<b>52</b>	<b>64</b>	<b>68</b>	<b>160</b>
<b>Achieved</b>	<b>53</b>	<b>46</b>	<b>35</b>	<b>48</b>	<b>108</b>	<b>147</b>
<b>% Achieved</b>	<b>77%</b>	<b>81%</b>	<b>67%</b>	<b>75%</b>	<b>159% *</b>	<b>92%</b>

\* Includes not previously planned mentor, component work and Sandy projects



# 2010-2014 CPM Completions

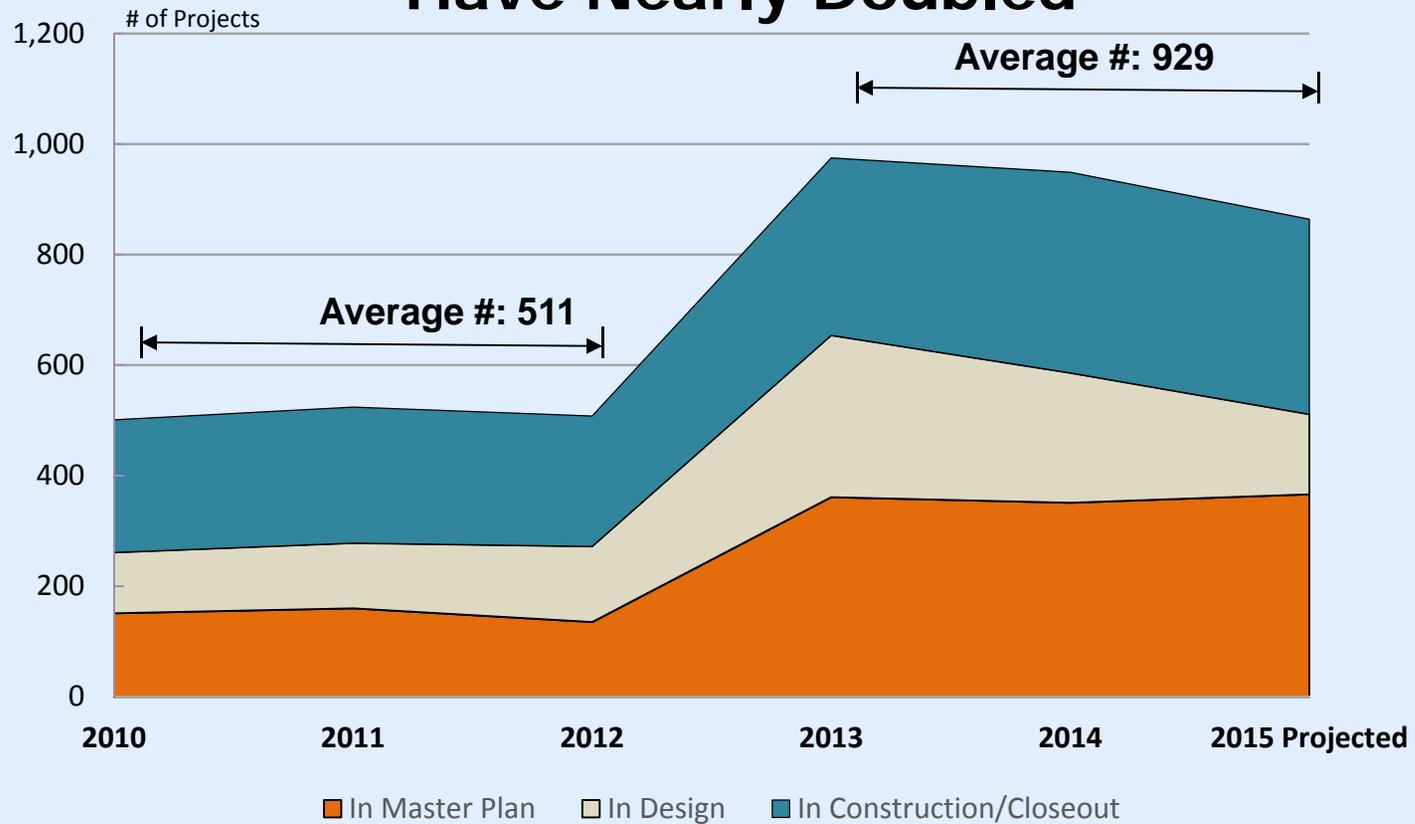
## Total \$6.3 billion



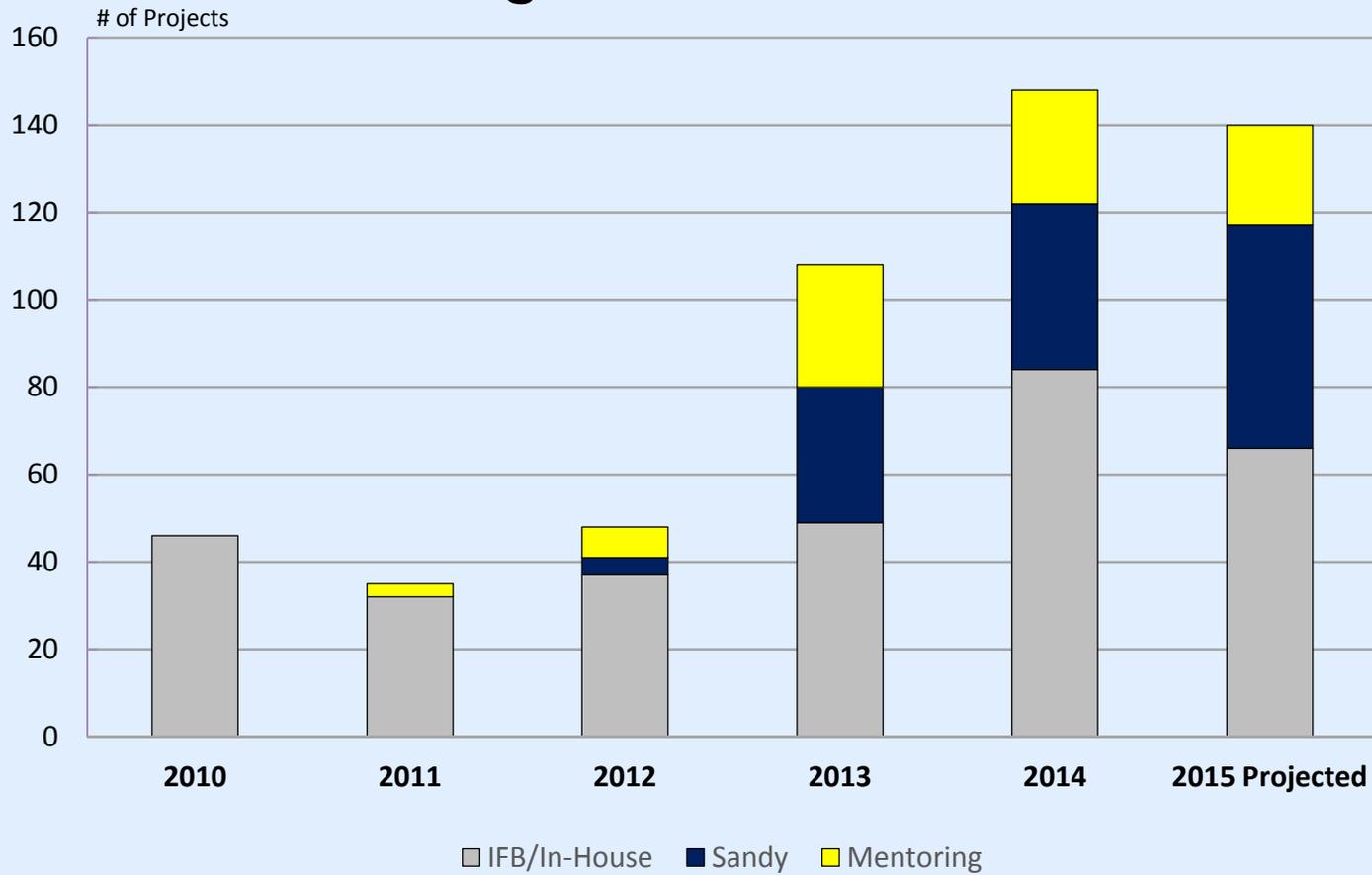
	05-09 Average	2010	2011	2012	2013	2014
<b># Projects Planned</b>	<b>70</b>	<b>54</b>	<b>94</b>	<b>98</b>	<b>57</b>	<b>96</b>
<b>Achieved</b>	<b>59</b>	<b>33</b>	<b>72</b>	<b>78</b>	<b>55</b>	<b>88</b>
<b>% Achieved</b>	<b>77%</b>	<b>61%</b>	<b>77%</b>	<b>80%</b>	<b>96%</b>	<b>92%</b>



# Active Construction Projects Have Nearly Doubled



## Both Sandy & Mentor Projects Are Adding to Volume of Contracts

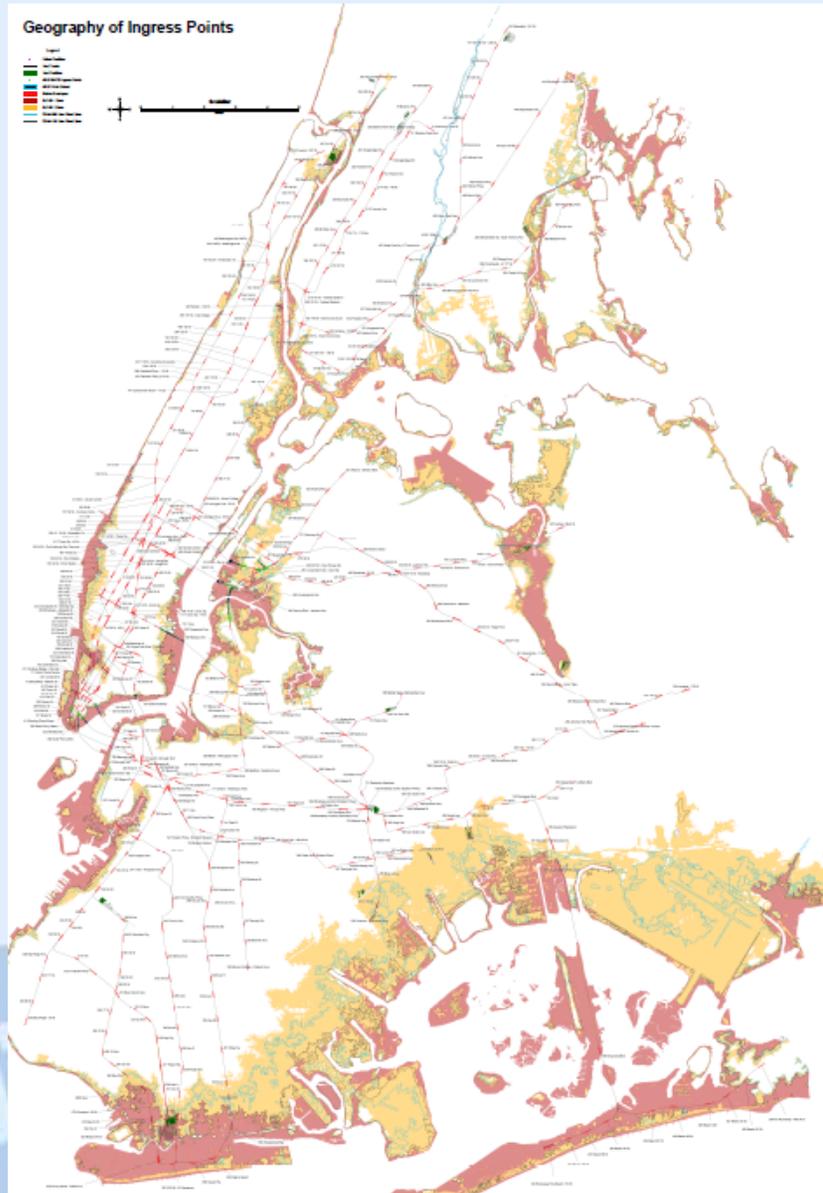




# New York City Transit **Sandy Recovery & Resiliency**

**CAPITAL PROGRAM OVERSIGHT COMMITTEE – JANUARY 2015**

# NYCT – Sandy Recovery and Resiliency



## 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**
- **5600 Ingress Points**

# NYCT – Sandy Recovery and Resiliency



RECOVERY



Resiliency



Under-River Tunnels



Yards, Terminals & Shops



Stations



# Resiliency Methods

RSA- Stair Cover



Marine Door



Flood Logs for Station Entrance



Mechanical Closure Device



Conduit Duct Sealing



Louvers & Other Openings



Water-Tight Doors



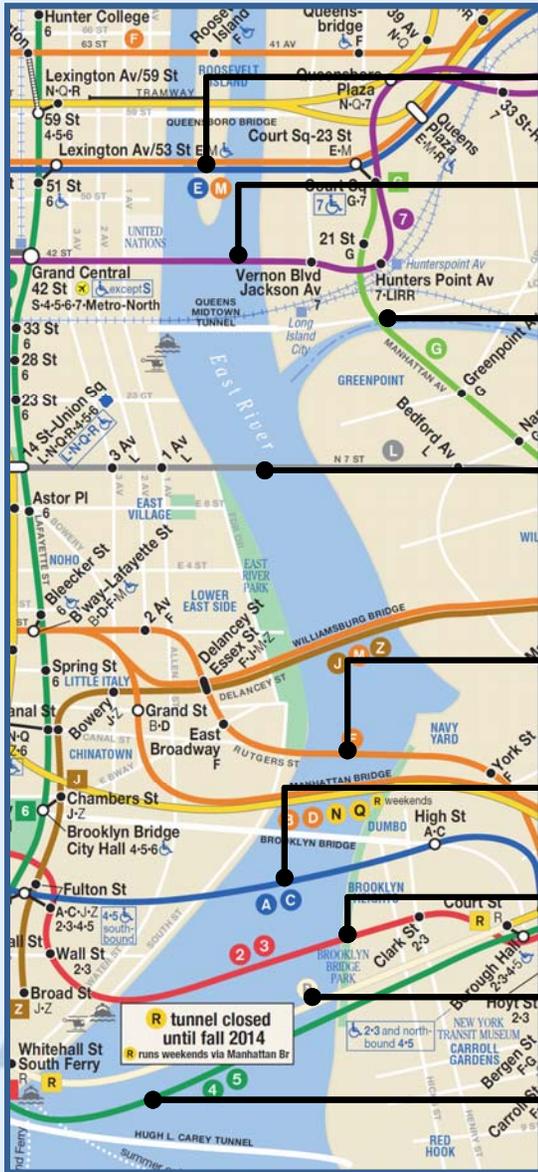
Flex Gate Testing



Manholes Mitigation



# NYCT – Sandy Recovery and Resiliency



53<sup>rd</sup> Street Tube



Steinway Tube



Greenpoint Tube



Canarsie Tube



Rutgers Street Tube



Cranberry Street Tube



Clark Street Tube



Montague Street Tube



Joralemon Street Tube



## TUNNELS

### 4 In Construction

- Montague
- Greenpoint
- Steinway
- Cranberry

### 1 In Procurement

- 53<sup>rd</sup> Street

### 4 In Design

- Joralemon
- Clark
- Rutgers
- Canarsie



## Under-River Tunnels

Montague Tube



Greenpoint Tube



- **4** under-river tunnel projects (*Montague, Greenpoint, Steinway, Cranberry*) are in construction, **3** will be completed in the first half of 2015
  - *Cranberry* awarded in December 2014 with 27 months construction duration
  - G line (*Greenpoint*) opened to public September 2, 2014
  - R Line (*Montague*) opened to public September 14, 2014
- **2** tunnel projects (*53<sup>rd</sup> Street, Joralemon*) will be awarded in 2015
- **3** tunnel projects (*Clark, Rutgers, Canarsie*) are planned for award in 2016

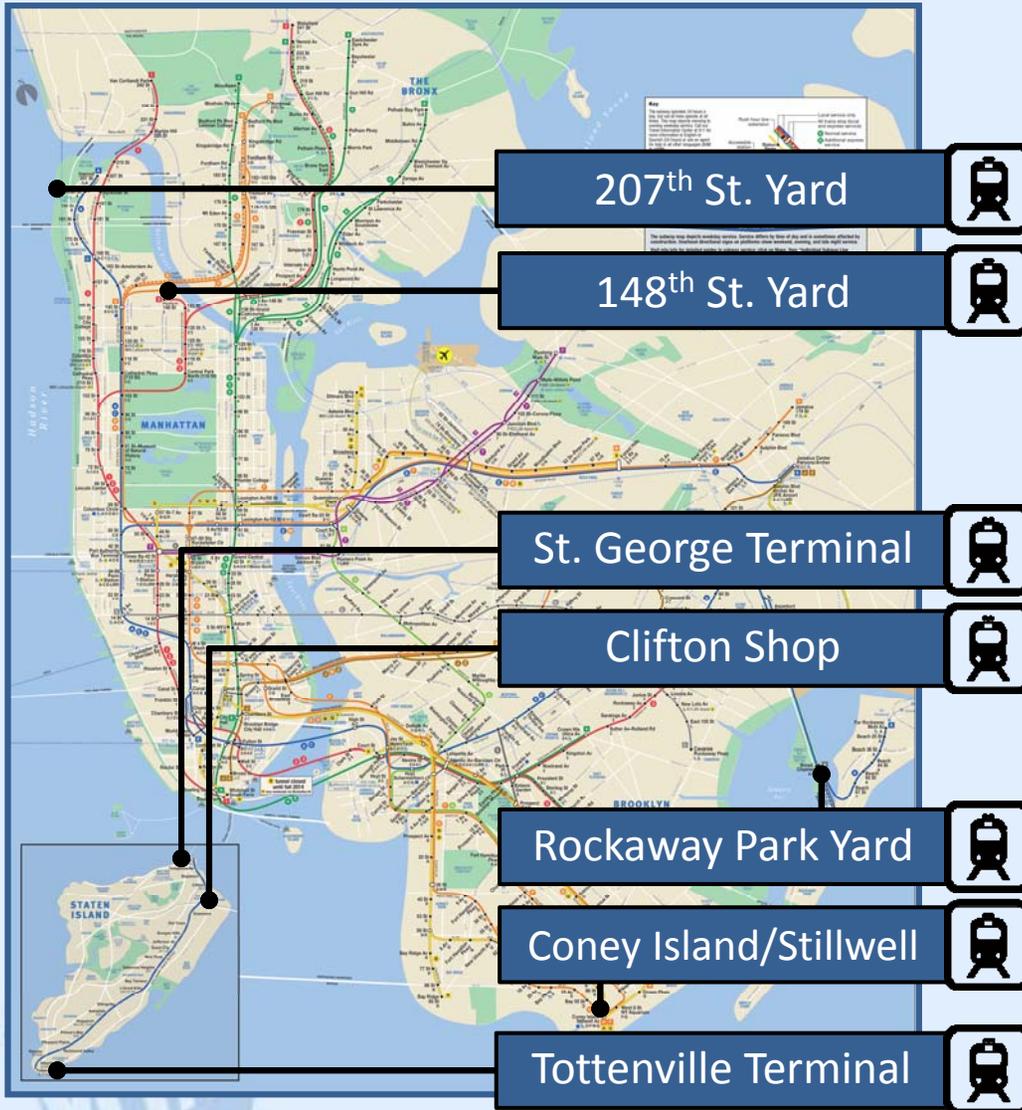
# Under River Tunnel: *Status*

Project	Design Completions	Construction Awards	Total Cost
Greenpoint	June 2013 A	July 2013 A	\$93M
Montague	June 2013 A	July 2013 A	\$259M
Steinway	August 2013 A	October 2013 A	\$23M
Cranberry	January 2014 A	December 2014 A	\$100M
53 <sup>rd</sup> Street	98%	1 <sup>st</sup> Q - 2015 F	\$70M - \$90M*
Joralemon	85%	3 <sup>rd</sup> Q - 2015 F	\$60M - \$80M*
Clark Street	98%	1 <sup>st</sup> Q - 2016 F	\$75M - \$100M*
Rutgers	90%	1 <sup>st</sup> Q - 2016 F	\$50M - \$75M*
Canarsie	50%	4 <sup>th</sup> Q - 2016 F	\$300M - \$375M*

\* Conceptual Construction Estimates



# NYCT – Sandy Recovery and Resiliency



## YARDS, TERMINALS & SHOPS

### 4 in Construction

- Stillwell Ave. Terminal
- Coney Island Yard Perimeter Protection – Near Term
- St. George Terminal
- Rockaway Park Yard Cables

### 5 In Design

- 207<sup>th</sup> St. Yard Cables
- 148<sup>th</sup> St. Yard Cables
- Coney Island Yard Protection
- 207<sup>th</sup> St. Yard Protection
- 148<sup>th</sup> St. Yard Protection



## Yards, Terminals & Shops

Coney Island Yard  
Perimeter Protection



St. George Terminal



### In-Construction

- **Stillwell Terminal Facilities and Police District #34:** Awarded in December 2013
- **Coney Island Yard Perimeter Protection – Near Term:** Awarded in July 2014 including a 5-year service contract
- **St. George Terminal & Signal Tower B Recovery:** Awarded in September 2014 in coordination with 2 private projects for NY Wheel & Empire Outlets
- **Rockaway Yard Power Cable contract:** Awarded in December 2014

# Yards, Terminals & Shops: *Status*

Project	Design	Construction Awards	Total Cost
<b>Stillwell Ave. Facilities &amp; PO #34</b>	July 2013 A	December 2013 A	<b>\$15M</b>
<b>Coney Island Yard-Near Term</b>	April 2014 A	July 2014 A	<b>\$13M</b>
<b>St. George Terminal</b>	November 2013 A	September 2014 A	<b>\$119M</b>
<b>Rockaway Park Yard Cables</b>	July 2014 A	December 2014 A	<b>\$14M</b>
<b>148<sup>th</sup> St. Yard</b>	50%	4 <sup>th</sup> Q - 2015 F	<b>\$125M - \$175M*</b>
<b>207<sup>th</sup> St. Yard</b>	50%	1 <sup>st</sup> Q - 2016 F	<b>\$125M - \$175M*</b>
<b>Coney Island Yard</b>	20%	2 <sup>nd</sup> Q - 2016 F	<b>\$400M - \$500M*</b>
<b>Rockaway Park Yard</b>	2%	3 <sup>rd</sup> Q - 2017 F	<b>\$150 - \$225M*</b>

\* Conceptual Construction Estimates



# NYCT – Sandy Recovery and Resiliency



## STATIONS

### 1 In Construction

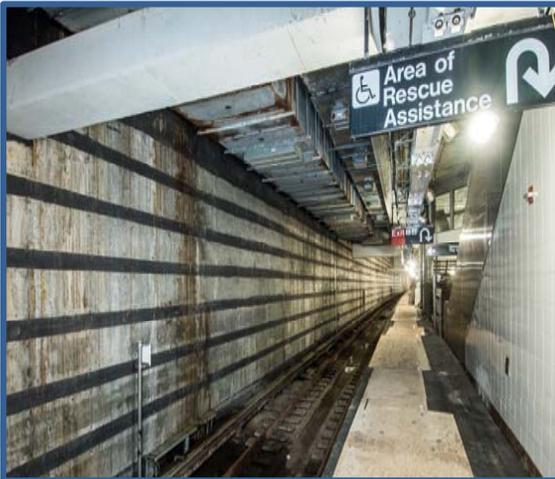
- South Ferry Station Complex

### 1 In Design

- Astoria Hoyt Avenue Station  
Roof & Canopies  
*Coordinated with Stations ADA  
Accessibility project*



## Stations: *South Ferry Complex*



### Completed:

- **Near-Term Flood Mitigation:** 3 Entrances
- **Advance Removal Contract**

### In-Construction:

- **Station Complex/Signal/Track:** Awarded November 26, 2014
- **Construction Duration:** 31 months
- **Contract agreement with FTA**
- **Risk Assessment:** Detail Risk Assessment Findings are contained in the MTA Capital Program Oversight Committee Meeting Book.



## Stations: *South Ferry Complex*

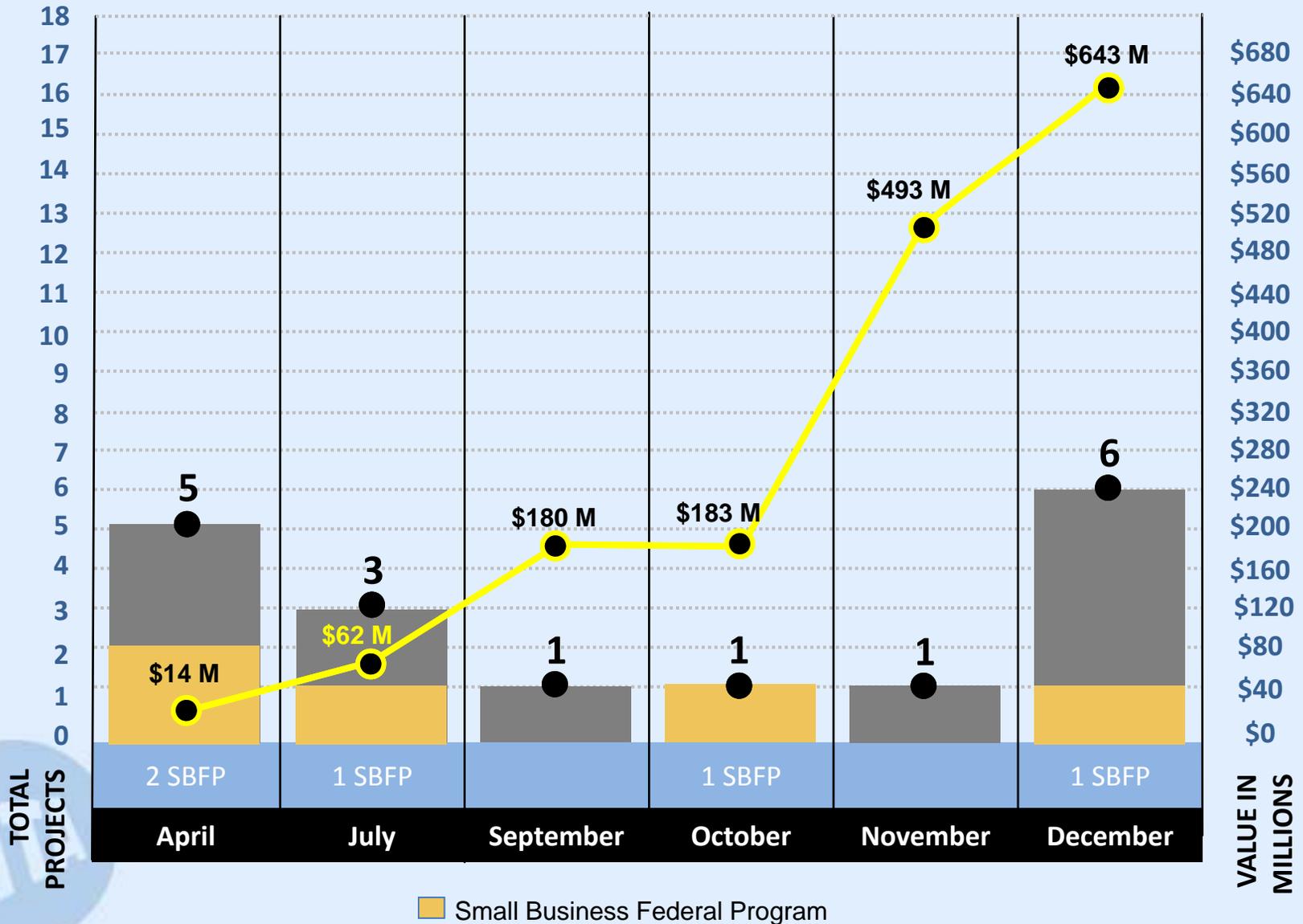
### Risk Assessment Brief

- Risk Assessment completed in November 2014
- Risk Results based on 80% probability of occurrence
- The Risk Informed project duration is 42.3 months, adding 11.3 months to the overall project base schedule of 31 months
- The Risk cost is assessed at \$42.3 million which includes 10% Bid Contingency for net Risk Reserve of \$22.9 million



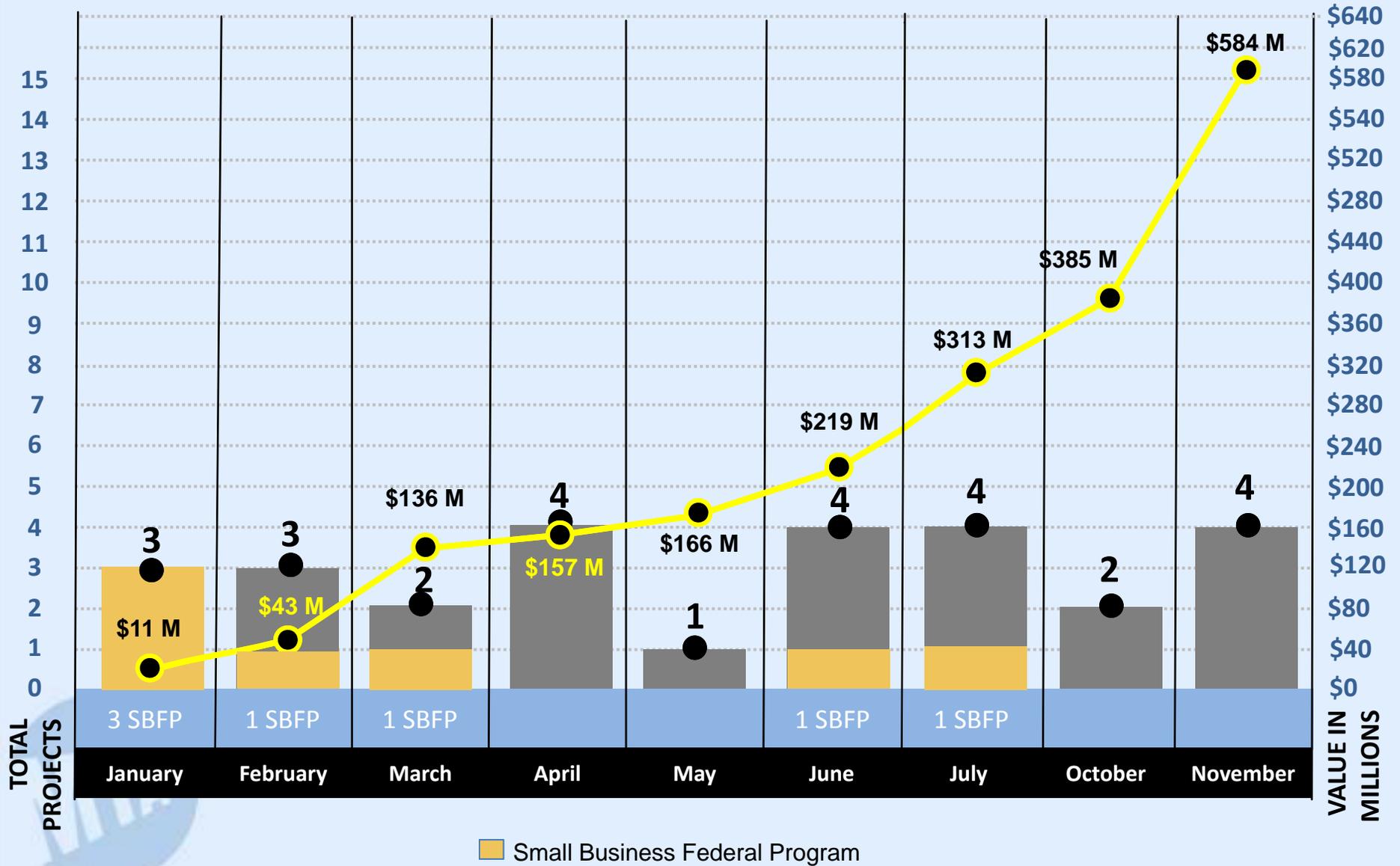
# 2014 Construction Award Milestones

17 Contracts / 5 SBFP / \$643M - Actual



# 2015 Construction Award Milestones

## 27 Contracts / 7 SBFP / \$584M - Projected



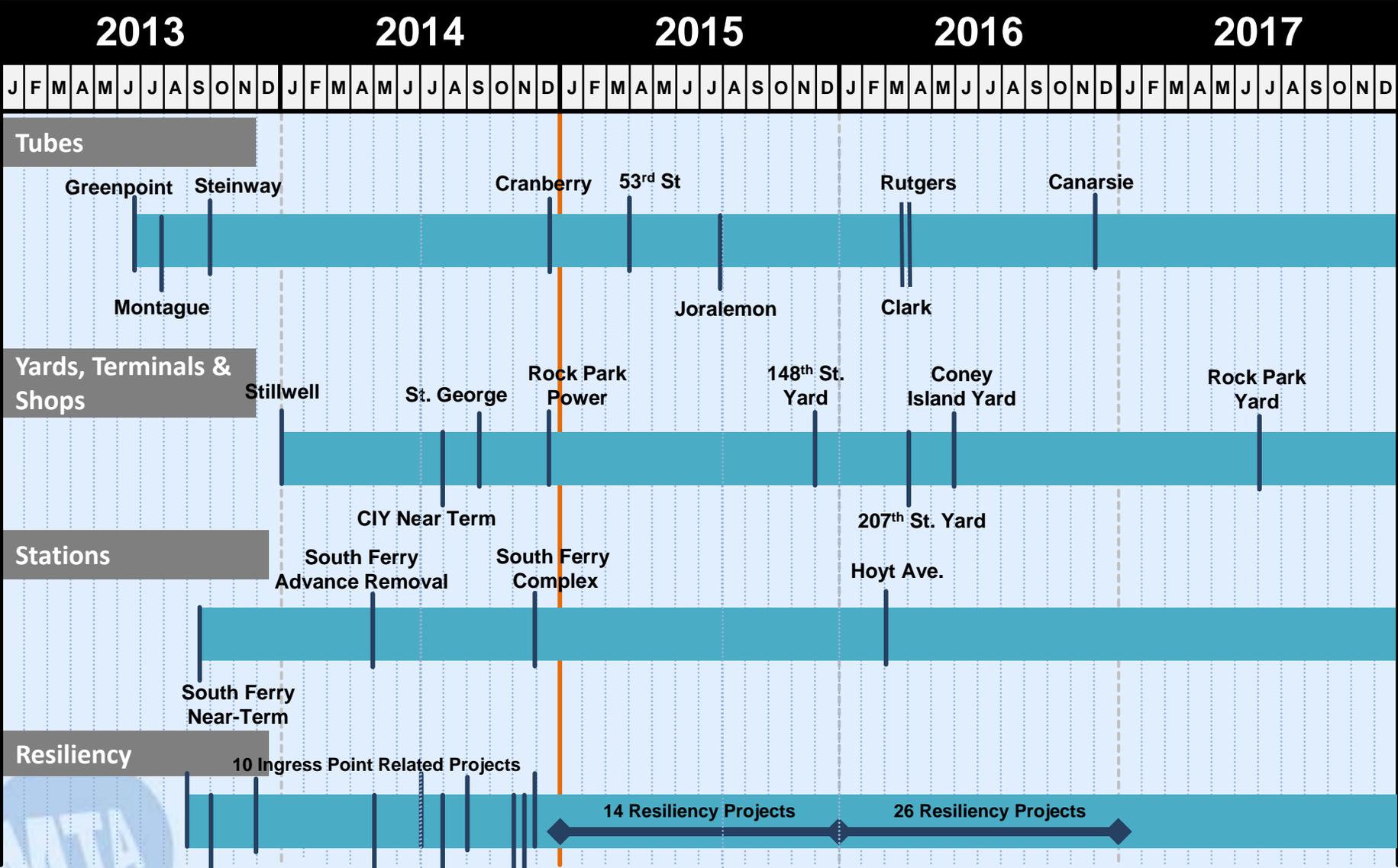
# NYCT – Sandy Recovery and Resiliency

## Consultant Services

Service	# of Contracts	Value
Design Services	30	\$104.1 M
Construction Management Services	12	\$104.4 M
Engineering Assessments	17	\$13.2 M
<b>TOTALS</b>	<b>59</b>	<b>\$221.7 M</b>



# Project Schedule: Construction Starts





MTA Agency: New York City Transit

Risk Assessment Workshop Dates: August 21, 2014

Project Name: Rehabilitation of the South Ferry Terminal Complex (Project A-37593)

Status of Project when Risk Assessment Was Performed: 100% Design

Project Description

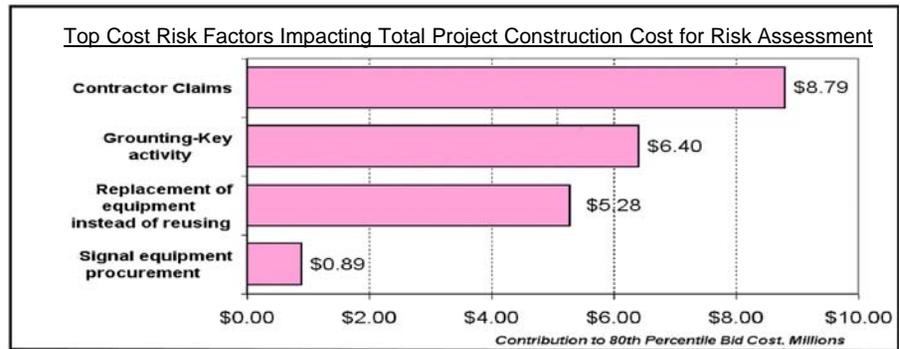
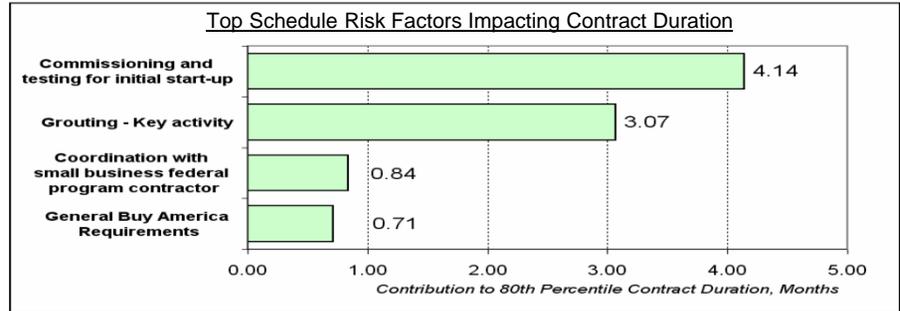
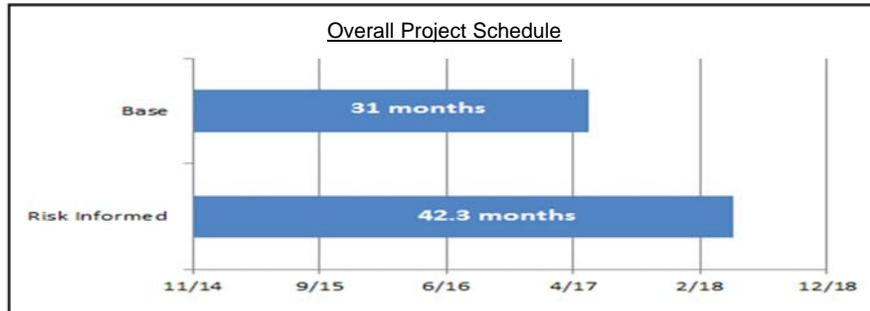
Contract A-37593 ("the project") involves removing of all damaged materials and equipment, mitigating water infiltration through leak prevention efforts, providing flood mitigation improvements, repairing track drainage, and restoring all systems and returning the South Ferry subway station to full operation. For the project, design work started in 2013 and it is related to contract A-37595, which involves advance removal, except for walls and slabs for critical structures, selective architectural finishes, grouting access, and doors. The contractor for the follow-up contract (A-37593) will be responsible for critical elements, such as signal relay, demolition and removal of damaged materials, extension of flood and grout program, and extension of site plan.

Risk Assessment Findings

Based on 80% probability of occurrence, the Risk Informed Project duration is 42.3 months, adding 11.3 months to the overall project baseline schedule duration of 31 months. The Risk Informed estimate is \$329.3 million, which includes the baseline project cost of \$287 million and \$42.3 million risk cost which included 10% bid contingency and risk reserve of \$22.9M.

Risk Informed Cost and Schedule Results

\* Based on 80% probability of occurrence





## Summary of Major Risks &amp; Mitigations

Risks	Mitigation Measure	Resources Required	Time Frame for Mitigation
<b>Top Five Schedule Risks</b>			
Commissioning and testing for initial start-up	<ul style="list-style-type: none"> <li>▪Commissioning activities are included and coordinated in the schedule.</li> </ul>	<b>Contractor, Design Consultant, NYCT engineering and Consultant Construction Manager</b>	During construction
Grouting – key activity	<ul style="list-style-type: none"> <li>▪Actively leaking areas including signal relay room will be the first areas for the work</li> <li>▪Areas within the station that get surface applied waterproof coatings after grouting will need to be completed and accepted prior to conduit and equipment installations</li> </ul>	<b>Contractor, Design Consultant, NYCT engineering and Consultant Construction Manager</b>	During Construction
Coordination with small business federal program contractor	<ul style="list-style-type: none"> <li>▪Contractor- outreach</li> </ul>	<b>Design Consultant, NYCT engineering &amp; operations, Consultant Construction Manager</b>	Pre and Post award
General Buy America Requirements	<ul style="list-style-type: none"> <li>▪Schedule accounted for general delays during the contract related to Buy America</li> </ul>	<b>Contractor, Design Consultant, NYCT engineering &amp; operations, Consultant Construction Manager</b>	Pre and Post award
DBE/ WBE qualification	<ul style="list-style-type: none"> <li>▪Contractor- outreach</li> <li>▪Continuous monitoring of DBE/ WBE performance during construction</li> </ul>	<b>Contractor, Design Consultant, NYCT engineering &amp; operations, Consultant Construction Manager</b>	Pre and Post award



Top Five Cost Risks

Contractor claims	<ul style="list-style-type: none"> <li>Continuous inspections to identify areas of concerns</li> </ul>	<b>Contractor, Design</b> Consultant, NYCT engineering & operations, Consultant Construction Manager	During Construction
Grouting – key activity	<ul style="list-style-type: none"> <li>Actively leaking areas include signal relay room and that will be the first area for the work</li> <li>Areas within the station that get surface applied waterproof coatings after grouting will need to be completed and accepted prior to conduit and equipment installations</li> </ul>	<b>Contractor, Design</b> Consultant, NYCT engineering and Consultant Construction Manager	During Construction
Replacement of equipment instead of reusing	<ul style="list-style-type: none"> <li>For elevators, any issues should be identified 16-17 months into the project</li> </ul>	<b>Contractor, Design</b> Consultant, NYCT engineering and Consultant Construction Manager	During construction
Signal equipment procurement	<ul style="list-style-type: none"> <li>Bid included \$25M for signals work. Quantification based on this with 15% mark up on sub contractor's amount. Risk quantified based on 10% premium of base value</li> </ul>	<b>Contractor, Design</b> Consultant, NYCT engineering and Consultant Construction Manager	Pre and Post award
Commissioning and testing for initial start-up	<ul style="list-style-type: none"> <li>Commissioning activities are included and coordinated in the schedule.</li> </ul>	<b>Contractor, Design</b> Consultant, NYCT engineering and Consultant Construction Manager	During construction

# January 2015 CPOC IEC Project Review



## Sandy Recovery: South Ferry Station Complex



January 20, 2015

# Schedule & Budget Review

## Sandy Recovery: South Ferry Station Complex

- **Schedule:**
  - The Advanced Removal contract reached substantial completion, on schedule, before the award of the Station Rehabilitation contract.
  - The Station Rehabilitation contract was awarded in November 2014 with an expected substantial completion date of June 2017.
  - The contractor is mobilizing.
- **Budget:**
  - The project is currently on budget.
- The IEC will continue to monitor the project cost and schedule



# Findings

## Sandy Recovery: South Ferry Station Complex

- **Risk Workshop:**
  - A Post-Bid Risk Assessment Workshop was held in August 2014.
  - NYCT, FTA and IEC were active participants in developing the risk logs, including estimated cost & schedule impacts and mitigation strategies.



# Findings

## Sandy Recovery: South Ferry Station Complex

- **Risk Workshop Results:**

- The IEC is satisfied with the Risk Assessment process to date.
- Based on the 80<sup>th</sup> percentile results from the final risk assessment report, the appropriate cost and schedule contingencies were incorporated in the project budget and schedule.



*Capital Program Oversight Committee*  
*January 20, 2015*

# **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 May 2014.
- Status report on current/planned next generation fare payment system-related initiatives at NYCT, LIRR, and MNR:

NYCT – Replacement for MetroCard system

LIRR/MNR – On Board Ticket Issuing Machines

– Mobile Ticketing

– Long Term Strategy Study

- Interoperability Approach



# NYC Transit – MetroCard Replacement Project Purpose and Overview

- An **integrated, reliable, and convenient** fare payment and collection system.
- Adoptable by **other MTA agencies and transit systems** in the NY region.
- Customers **pay fares by tapping** a contactless bankcard, smartphone, or an MTA-issued smartcard against an electronic reader.
- Accept payment media **already in the hands of customers** (like contactless credit/debit cards and smartphones) but **also serving those without**.
- 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

## **Project Status**

---

### **Business Requirements Development Process – *Complete Feb 2015***

- Steering Committee of NYC Transit departmental representatives to accurately identify and capture business needs of the new system
- Developed Concept of Operations, Procurement and Finance Strategy
- Developed a functional specification (Scope of Work)
- Identified MetroCard system work needed until NFPS deployment

### **Industry Outreach – *Ongoing***

- Monitoring similar projects / Peer reviews
- Researching evolving/emerging technology
- Vendor Forum

### **Refined Schedule Estimates – *Complete***

### **Advertise RFP for System Supplier – *Feb/March 2015***

# NYC Transit – New Fare Payment System Scheduling / Process Timeframes

## Entering next phase of project:

Procurement process to obtain final design and equipment, software, services from system supplier

### •Near-Term: February 2015 – Vendor Forum

Feb/March 2015 – Approval Request for Advertising System Supplier RFP

### •Long-Term:

- Advertise RFP → Award Contract: 12-15 months (mid 2016)
- System Design (Conceptual, Preliminary and Final): 13 months
- Central Computer System (Back-End) development: 24 months
- Equipment Installations
  - Contactless readers – Buses/SBS: 15 months
  - Contactless readers – Subway: 8 months
  - Vending machines: 12 months

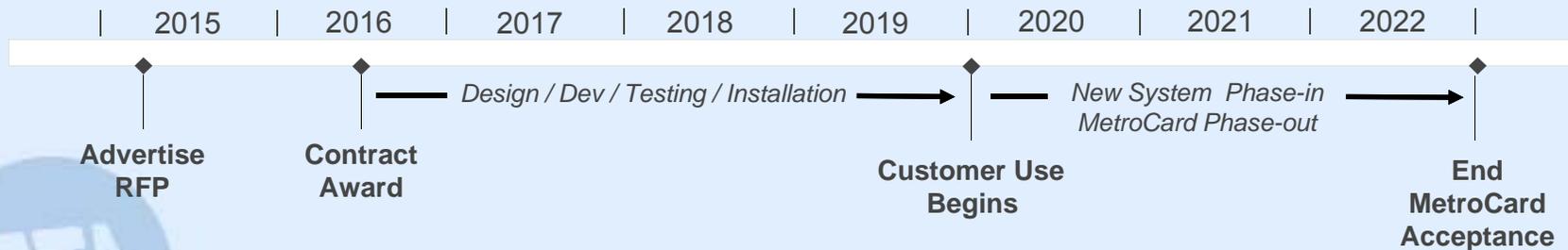


# NYC Transit – New Fare Payment System Scheduling / System Deployment

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## Customer Use:

<u>Phase</u>		<u>Months from Award</u>	
1	Contactless Acceptance on Buses	42	1Q 2020
2	Contactless Acceptance in Subways	48	3Q 2020
3a	MTA Card & Retail Network	60	3Q 2021
3b	Vending Machines	66-78	2022



# NYC Transit – New Fare Payment System Capital Program Investments

- Investments identified in 2010-2014 and 2015-2019 Capital Plans.
  - Total program investment = \$450 million
  - \$200 million in 2010-2014 Plan
  - \$250 million in 2015-2019 Plan
- Current Project Cost Estimate includes:
  - Design, manufacture, install, and support for equipment, software, and services that are part of NYC Transit's new fare payment system.



# NYC Transit – New Fare Payment System

## Previous IEC Recommendations

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- **Bar Codes**

- Recommendation: Consider test of barcode faregate readers in conjunction with LIRR/MNR Mobile Ticketing initiative.
- Status:
  - Working with Railroads' vendor on proof of concept test.
  - Scope of Work for test developed.
  - Testing began 4thQ 2014; ongoing.

- **SOGR Plan Revision**

- Recommendation: Extend SOGR investments for MetroCard system beyond 2019 as part of Project Planning.
- Status:
  - Identified work required to keep MetroCard system operational through full NFPS deployment.



# MTA Interoperability

## Study Conclusions and Plans

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- NYCT, LIRR, and MNR defined and prioritized the key components of interoperability for the region.
  - Single payment device
  - One account
  - One set of tools to plan trips and purchase fare value/media
  - Common customer service experience
- Short-term need: Replacement for current MetroCard joint ticket
  - Currently reviewing options as part of new fare payment system planning.
- Short-term need: Integrated system planning
  - Interoperability opportunities included in NYCT's New Fare Payment System requirements.
  - Mobile acceptance/application in NYCT's New Fare Payment System requirements.
  - Update of Railroads' comprehensive ticket-selling strategy w/emphasis on interoperability.



# Commuter Railroads Project Update

## On-Board Ticket Issuing Machines

Deploy handheld devices (iPhone 5's) to all train crews systemwide on both Railroads.

### **MNR Workplan:**

Initial Launch/Pilot of TIMs 2.0: October 15<sup>th</sup> – December 2014; - 72 new TIMs deployed.

- Pilot locations
- Completed Field testing – Sept through Oct 15<sup>th</sup>

Full Launch/rollout to other lines / line segments: January – June 2015.

Integration with Mobile Ticketing Validation function – January – April 2015

### **LIRR Workplan:**

- Eight special duty conductors currently are equipped with handheld devices (iPhone 4's).
- Complete testing of iPhone 5 devices and agree upon design, deployment strategy and work plan
- Launch Pilot #1 with limited number of conductors – 2 months after agreement to proceed
- Launch official roll-out of devices – 4 months after agreement to proceed
- Complete roll-out of devices to all train crews – 19 months after agreement to proceed

# Commuter Railroads Project Update

## Mobile Ticketing Current Status

Masabi was engaged by the railroads in April 2014 to develop a joint Mobile Ticketing application, which will enable customers to purchase tickets using mobile devices and allow for inspection onboard. The Mobile Ticketing application will be integrated with the existing Railroad's TrainTime Apps.

### Project Workplan

- Since Q2 2014 the railroads have worked with Masabi to review initial concepts and design for the mobile ticketing application. Topics covered have included screen layout, process flows, backend data transmission and security features.
- A series of focus groups were held in December 2014 to gauge initial customer feedback on a beta version of the application.
- The goal of the railroads is to accomplish the following tasks in 2015:
  - Complete product development and testing
  - Begin conductor and staff training
  - Initiate a pilot launch and begin systemwide rollout (completed 2016)
- The actual timing of these task completions is contingent upon the project team's resolution of critical issues and support from all stakeholders including agency operating departments and affected labor organizations.

# Commuter Railroads Project Update

## Long Term Strategy Study

The Railroads plan to engage a third party to assist in the development of a long term fare payment strategy, which will serve as the foundation for a future system that is cost effective, customer convenient, operationally efficient, interoperable and revenue protective. The study will recommend capital investment to modernize fare collection systems and infrastructure for the next 20 years. There are four required phases to the project and one optional phase:

- Phase 1: Document current condition and cost of existing fare payment/collection system
- Phase 2: Conduct peer review with a focus on four specific project-related topics
- Phase 3: Identify strategy options and recommended approach
- Phase 4: Develop an implementation plan
- Phase 5 (Optional): Draft technical scope of work

### Workplan:

Phase	Start	Complete
Phase 1: Current Condition	March 2015	April 2015
Phase 2: Peer Review	March 2015	April 2015
Phase 3: Identify Strategy Options	April 2015	September 2015
Phase 4: Develop Plan	July 2015	January 2016
Phase 5: Draft TSOW	TBD	TBD



# January 2015 CPOC IEC Project Review



## New Fare Payment System

January 20, 2015



# Schedule Review

## **Extending the schedule for the program is realistic.**

- RFP, Review, award, design and testing phase now estimated to take 4½ years which is more in line with previous similar deployments.
- Fare Control Area network to be completed by December, 2017 has now been taken into consideration.
- Extending MetroCard SOGR protects NYCT fare collection process.



# Budget Review

**The NYCT current estimated program budget of \$450 million may not be adequate when full program costs have been finalized, such as:**

- Subway network estimates
- SOGR for MetroCard and Bus Operations farebox beyond 2019
- Vending Machine Configurations



# Recommendations

- CPM to finalize schedule and submit a firm budget for the provision of Access Nodes in the subway Fare Collection Areas.
- Carry out an independent review of the CPM estimate for the installation of Access Nodes in the Fare Control Areas.



# Recommendations Log

Recommendation	Agency Action	Status
<b>May 2014</b> Address barcode testing in faregate readers in conjunction with the upcoming LIRR/MNR mobile payment programs	NYCT working with Railroad's vendor on structuring a proof of concept test	CLOSED
<b>May 2014</b> Extend SOGR investments for MetroCard system beyond 2019 as part of the budget program	NYCT identified additional SOGR investments required to keep MetroCard system operational at current levels of performance until 2023	CLOSED



**DBE AWARDS ON MTA CAPITAL PROJECTS with GOALS  
JANUARY - DECEMBER 2014  
FEDERALLY FUNDED**

FEDERALLY FUNDED	FIRST QUARTER (JANUARY-MARCH) (in millions)			SECOND QUARTER (APRIL-JUNE) (in millions)			THIRD QUARTER (JULY-SEPTEMBER) (in millions)			FOURTH QUARTER (OCT.-DEC) (in millions)			2014 TOTALS (JANUARY-DECEMBER 2014) (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	\$ 639.0	\$ 141.0	22%	\$ 98.4	\$ 13.1	13%	\$ 131.0	\$ 31.6	24.2%	\$ 583.3	\$ 95.7	16.4%	\$ 1,451.6	\$ 281.4	19%
Professional Services							\$ 0.8	\$ 0.2	21.9%	\$ 34.5	\$ 9.6	27.7%	\$ 35.3	\$ 9.8	28%
Other										\$ -	\$ -	0%			
<b>TOTAL</b>	<b>\$ 639.0</b>	<b>\$ 141.0</b>	<b>22%</b>	<b>\$ 98.4</b>	<b>\$ 13.1</b>	<b>13%</b>	<b>\$ 131.8</b>	<b>\$ 31.8</b>	<b>24.1%</b>	<b>\$ 617.8</b>	<b>\$ 105.3</b>	<b>17.0%</b>	<b>\$ 1,487.0</b>	<b>\$ 291.2</b>	<b>20%</b>
Additional MWBE Participation:	Total Awards	Total MWBE Awards		Total Awards	Total MWBE Awards		Total Awards	Total MWBE Awards		Total Awards	Total MWBE Awards		Total Awards	Total MWBE Awards	
Construction	\$ 639.0	\$ 134.0		\$ 98.4	\$ 11.4		\$ 131.0	\$ 0.4		\$ 583.3	\$ 100.7		\$ 1,451.6	\$ 246.5	
Professional Services	\$ -	\$ -		\$ -	\$ -		\$ 0.8	\$ 0.2		\$ 34.5	\$ 3.4		\$ 35.3	\$ 3.6	
Other	\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -	
<b>Total</b>	<b>\$ 639.0</b>	<b>\$ 134.0</b>		<b>\$ 98.4</b>	<b>\$ 11.4</b>		<b>\$ 131.8</b>	<b>\$ 0.6</b>		<b>\$ 34.5</b>	<b>\$ 104.1</b>		<b>\$ 903.7</b>	<b>\$ 250.1</b>	

**MWBE AWARDS ON MTA CAPITAL PROJECTS with GOALS  
JANUARY - DECEMBER 2014  
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)			2014 TOTALS (JANUARY-DECEMBER 2014) (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: 10%															
Construction	\$ 21.2	\$ 3.8	17.8%	\$ 93.3	\$ 11.5	12.3%	\$ 84.6	\$ 8.4	9.9%	\$ 661.3	\$ 68.3	10.3%	\$ 860.4	\$ 91.9	10.7%
Professional Services	\$ 3.4	\$ 0.1	4.1%	\$ 4.7	\$ 0.6	11.6%	\$ 3.7	\$ 0.2	4.1%	\$ 41.7	\$ 5.2	12.4%	\$ 53.5	\$ 6.0	11.2%
Other	\$ 2.3	\$ 0.3	12.9%	\$ -	\$ -	0.0%	\$ -	\$ -		\$ -	\$ -		\$ 2.3	\$ 0.30	12.9%
MBE Participation on FTA-funded projects							\$ -	\$ -		\$ -	\$ -				
<b>TOTAL</b>	<b>\$ 26.9</b>	<b>\$ 4.2</b>	<b>16%</b>	<b>\$ 98.0</b>	<b>\$ 12.0</b>	<b>12%</b>	<b>\$ 88.3</b>	<b>\$ 8.56</b>	<b>10%</b>	<b>\$ 703.0</b>	<b>\$ 73.41</b>	<b>10.4%</b>	<b>\$ 916.2</b>	<b>\$ 98.2</b>	<b>11%</b>
WBE Participation Goal: 10%															
Construction	\$ 21.2	\$ 2.8	13.1%	\$ 93.3	\$ 20.8	22.3%	\$ 84.6	\$ 9.6	11.3%	\$ 661.3	\$ 63.5	9.6%	\$ 860.4	\$ 96.6	11.2%
Professional Services	\$ 3.4	\$ 1.6	47.1%	\$ 4.7	\$ 0.5	11.4%	\$ 3.7	\$ 0.1	3.2%	\$ 41.7	\$ 4.3	10.2%	\$ 53.5	\$ 6.5	12.2%
Other	\$ 2.3	\$ 0.2	10.0%				\$ -	\$ -		\$ -	\$ -	0%	\$ 2.3	\$ 0.23	10.0%
WBE Participation on FTA-funded projects							\$ -	\$ -		\$ -	\$ -				
<b>TOTAL</b>	<b>\$ 26.9</b>	<b>\$ 4.6</b>	<b>17%</b>	<b>\$ 98.0</b>	<b>\$ 21.3</b>	<b>22%</b>	<b>\$ 88.3</b>	<b>\$ 9.7</b>	<b>11.0%</b>	<b>\$ 703.0</b>	<b>\$ 67.7</b>	<b>9.6%</b>	<b>\$ 916.2</b>	<b>\$ 103.4</b>	<b>11%</b>
Additional DBE Participation:															
Construction	\$ 21.2	\$ 5.2		\$ 92.4	\$ 13.1		\$ 84.6	\$ 33.5		\$ 648.5	\$ 130.1		\$ 846.7	\$ 181.9	
Professional Services	\$ 3.4	\$ 1.7		\$ 2.6	\$ 0.4		\$ 3.9	\$ 0.4		\$ 41.3	\$ 8.8		\$ 51.2	\$ 11.3	
Other	\$ 2.3	\$ 0.5		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ 2.3	\$ 0.5	
<b>Additional DBE Participation Total</b>	<b>\$ 26.9</b>	<b>\$ 7.4</b>		<b>\$ 95.0</b>	<b>\$ 13.5</b>		<b>\$ 88.5</b>	<b>\$ 33.9</b>		<b>\$ 689.8</b>	<b>\$ 138.9</b>		<b>\$ 900.2</b>	<b>\$ 193.7</b>	

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# **MTA Capital Program Commitments & Completions**

## **through December 31, 2014**

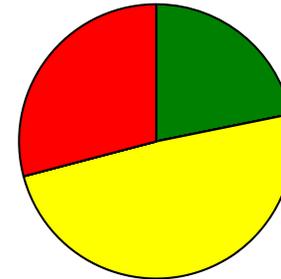
### Capital Projects – Major Commitments – December 2014

In 2014, the MTA planned 55 major commitments for a total of \$6.5 billion. By year end, 39 of the major commitments and \$5.8 billion (88%) of the overall goal were made. 27 of the total committed were late.

About \$1.3 billion of commitments slipped from 2014. Major slips include the purchase of 256 Articulated Buses, the Sandy restoration projects for the Rutgers, 53rd and Clark tubes, the MTA Police Department's Radio project and two East Side Access contracts (CM014B and CH057). The shortfall was partly offset by unplanned commitments during 2014, notably from East Side Access (\$0.6 billion in non goal commitments) and the early commitment of Metro-North's Harmon Shop design-build contract (\$251 million).

For major commitments overall in 2014, 22% were on-time and 69% were within budget. All 16 major commitments that slipped past year-end will continue to be tracked in 2015 as delayed 2014 goals. The increase of seven projects from November was due to the inclusion of NYCT, MTA Bus and MTACC commitments with December goals.

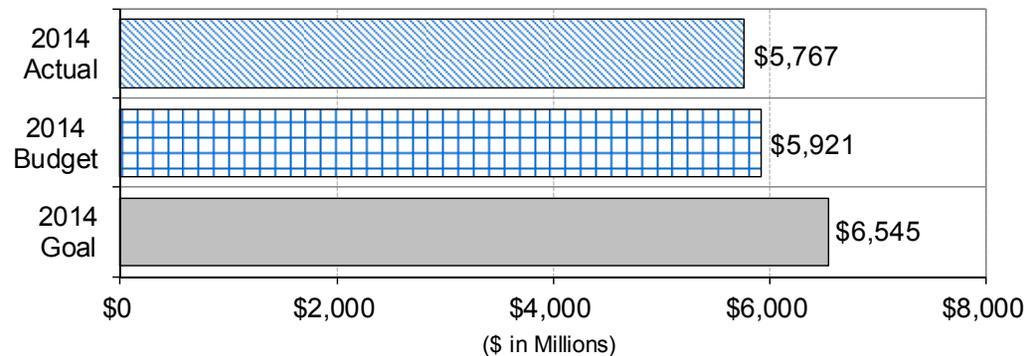
### Year-to-Date Major Commitments



	Count	Percent	Change from Prior Month
<b>GREEN</b> = Commitments made/forecast within Goal	12	22%	↑ 4
<b>YELLOW</b> = Commitments delayed beyond Goal (already achieved)	27	49%	↑ 11
<b>RED</b> = Commitments delayed beyond Goal (not yet achieved)	16	29%	↓ 8
<b>Total</b>	<b>55</b>	<b>100%</b>	<b>↑ 7</b>

### Budget Analysis

2014 Annual Goal \$6,545 (\$ in millions)  
 2014 Actual 88% of Annual Goal



### Year-to-Date Agency Breakdown

Agency	Prior month variance		
	GREEN	YELLOW	RED
<b>New York City Transit</b>			
	3	10	9
	+1 GREEN	+2 YELLOW	----
<b>Long Island Rail Road</b>			
	1	4	
	----	----	----
<b>Metro-North Railroad</b>			
	1	2	2
	----	+1 YELLOW	-1 RED
<b>Bridges and Tunnels</b>			
	6	6	
	+3 GREEN	+6 YELLOW	-6 RED
<b>Capital Construction Company</b>			
	1	3	2
	----	----	----
<b>MTA Bus Company</b>			
	2	2	
	----	+2 YELLOW	-1 RED
<b>MTA Police Department</b>			
	1		
	----	----	----

## Capital Projects – Major Commitments – December 2014 – Schedule Variances

*Actual Results Shaded*

Project	Commitment	Goal	Forecast	Project	Commitment	Goal	Forecast
<b>16 All-Agency Red Commitments (3 new this month)</b>				<b>Sandy Restoration</b>			
<b>NYCT</b>				<b>MNR</b>			
<b>Stations</b>				<b>Track</b>			
ADA: Phase 2; 57th Street/7th Ave	Construction Award	Nov-14 \$35.9M	Oct-15 \$43.4M	Rutgers and Cranberry Tubes	Construction Award	Jun-14 \$154.0M	Feb-16 \$165.0M
Delay reflects unforeseen field conditions that need to be incorporated and, consequently, extended design. Cost increase reflects changes to duct and elevator scope.				The Rutgers tube award has been moved to February, 2016 in order to minimize the impact to the public. Previously Rutgers and Cranberry were a single contract, but are now to be split into separate contracts. To allow for repackaging, the Cranberry award has consequently slipped to December, 2014. Project cost adjusted to reflect estimates of separated contracts.			
Sea Beach Line: 3 Stations and Retaining Walls	Construction Award	Nov-14 \$124.3M	Jan-15 \$111.8M	Clark Street Tube Restoration	Construction Award	Aug-14 \$77.4M	Feb-16 \$77.4M
Delay reflects extended advertisement in order to increase competition. Additional one month delay attributable to pending approval of DBE goals. Cost decrease reflects refined estimate.				Project has been rescheduled as a result of coordination with other tube projects due to several factors, including programmatic concerns, community impacts and service impacts.			
<b>Station Components: 6 Stations (Jamaica) - (New Item)</b>	Construction Award	Dec-14 \$37.8M	Jul-15 \$48.6M	53rd St. Tube	Construction Award	Nov-14 \$77.6M	Mar-15 \$87.2M
Delay and cost increase attributed to scope added to the project such as platform slabs, windscreens and girder repairs.				Award schedule slipped to March due to protracted advertisement and procurement period. Cost increased reflecting a refined estimate based on RTA.			
<b>Facilities</b>				<b>MTA Police Department</b>			
<b>HVAC Repair and Maint. for DCE Facilities Phase 2 - (New Item)</b>	Construction Award	Dec-14 \$53.6M	Jun-15 \$46.5M	<b>PD Communications</b>			
Project delayed to June 2015 while a review of impacts stemming from fleet HVAC considerations progresses. Cost decrease reflects refined estimates.				MTA Police Radio Project			
<b>Bus Replacement</b>				Design-Build Award			
Purchase 256 Articulated Buses	Purchase Award	Jun-14 \$245.5M	Dec-15 \$219.1M	Jul-14 \$90.3M			
NYCT will go to the January Board to reduce the number of articulated buses to 231. The December forecast reflects this delay. Cost decrease reflects the reduced number of buses.				Apr-15 \$90.3M			
<b>Depots</b>				A delay in starting the procurement process has pushed back the forecasted project award date. Continued delays have been attributable to the pace of the procurement process.			
Bus Command Center	Construction Award	Aug-14 \$50.9M	Jun-15 \$42.7M				
The project award has been delayed due to additional scope added to the contract, such as ADA compliance and electrical work, which require additional drawings and specifications. Additional addendum for scope addressing comments on structural and foundation design to delay project beyond year-end. Cost reflects Memorandum of Understanding with MTA Bus and refined engineer's estimate at advertisement.							

## Capital Projects – Major Commitments – December 2014 – Schedule Variances

*Actual Results Shaded*

### 16 All-Agency Red Commitments (3 new this month) (cont'd)

#### MTA Bus

##### Depots

Project	Commitment	Goal	Forecast
Bus Command Center	Construction Award	Aug-14 \$8.7M	Jun-15 \$14.2M

The project award has been delayed due to additional scope added to the contract, such as ADA compliance and electrical work, which require additional drawings and specifications. Cost reflects Memorandum of Understanding with NYCT and refined engineer's estimate at advertisement.

##### Sandy Restoration

Project	Commitment	Goal	Forecast
<b>Depot Rehabilitation at Far Rockaway - (New Item)</b>	Construction Award	Dec-14 \$25.0M	Dec-15 \$15.0M

The commitment slipped because the various design disciplines need additional time for compilation of technical specifications. Reduction in budget reflects a revision in the scope of work for the bus washer relocation.

#### MTACC

##### East Side Access

Project	Commitment	Goal	Forecast
GCT Concourse & Cavern Finishes (CM014B)	Construction Award	Jul-14 \$195.5M	Feb-15 \$324.7M

There has been an additional two month slip from December to February due to the extended procurement process. The initial delay was due to a change in the procurement methodology to an RFP process. Forecast value increased due to the decision to include option in base contract.

Project	Commitment	Goal	Forecast
Harold Structures Part 3D (CH057)	Construction Award	Aug-14 \$106.5M	Jul-15 \$122.5M

Award date has been updated to reflect adjustments to the overall Harold schedule and in order to allow for assessment of completed work and resource availability in the area of the Harold interlocking. Cost increase reflects repackaging process of Harold.

### 27 All-Agency Yellow Commitments (11 new this month)

#### NYCT

##### Signals & Communication

Project	Commitment	Goal	Forecast
34th Street Interlocking/ 6th Ave	Construction Award	Feb-14 \$226.9M	Apr-14 (A) \$170.0M

Delay was due to time needed to resolve a statement of adverse information (SAI) finding with a signals supplier. The budget variance is favorable due to a low bid.

Project	Commitment	Goal	Forecast
Passenger Station LAN: 30 Stations	Construction Award	Mar-14 \$28.1M	May-14 (A) \$26.5M

Project award was delayed 2 months as a result of bid period extension to address proposers' questions. The forecast cost decreased reflecting a low bid.

Project	Commitment	Goal	Forecast
West 4th Interlocking-6th Avenue	Construction Award	Jun-14 \$221.2M	Jul-14 (A) \$155.3M

Award delayed by a month to resolve concerns of a signals supplier meeting production schedule. Project cost decreased reflecting a favorable bid.

Project	Commitment	Goal	Forecast
<b>PA/CIS: Furnish &amp; Install Cabinets, 89 Stations - (New Item)</b>	Construction Award	Jun-14 \$44.8M	Dec-14 (A) \$39.5M

Project award was delayed due to extended qualification period of lowest bidder. There had been prior delays for packaging of scope and, later, a bid protest. Cost decrease was due to a good bid.

##### Stations

Project	Commitment	Goal	Forecast
Ozone Park - Lefferts Blvd Station Renewal and ADA Liberty	Construction Award	Apr-14 \$28.0M	May-14 (A) \$23.9M

Award delayed due to a review of a supplier which was required due to prior adverse finding. The supplier was cleared. Cost decreased due to good bid savings.

Project	Commitment	Goal	Forecast
Station Renewal: Culver Line, 7 Stations	Construction Award	Jun-14 \$106.1M	Sep-14 (A) \$132.8M

Delay and cost increase reflects additional scope, including component work at two additional locations. Additional delay caused by extended time needed for procurement sign-off.

## Capital Projects – Major Commitments – December 2014 – Schedule Variances

*Actual Results Shaded*

Project	Commitment	Goal	Forecast
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### 27 All-Agency Yellow Commitments (11 new this month) (cont'd)

#### Stations (cont'd)

<b>Sea Beach Line: 6 Stations and Retaining Walls - (New Item)</b>	Construction Award	Nov-14	Dec-14 (A)
		\$268.M	\$255.1M

Delay reflects extended advertisement in order to increase competition. The actual cost reflects recent bid opening.

#### Track & Switch

Track & Switch Program (18 Projects) - 1st QTR	Construction Start	Mar-14	May-14 (A)
		\$174.1M	\$173.3M

All but one of 18 projects was awarded in first quarter. Track work on White Plains Rd. (\$20M) rescheduled to May, 2014. Construction delayed due to issues related to track access.

#### Sandy Restoration

St. George Interlocking	Construction Award	Jul-14	Sep-14 (A)
		\$118.7M	\$119.9M

Project award was delayed due to addition of Tower B restoration work to contract. Cost increase reflects added scope.

South Ferry Station Complex	Construction Award	Jul-14	Nov-14 (A)
		\$221.3M	\$310.3M

Project delayed to resolve design coordination issues and regulatory requirements. Cost increase reflects added scope, including leak mitigation, circuit breaker house and relay room work, and an unfavorable bid.

#### LIRR

##### Track

2014 Annual Track Program	Construction Award	Apr-14	May-14 (A)
		\$50.9M	\$50.6M

The overall award slipped one month as a result of delays in processing the final track program commitments.

Jamaica Capacity Improvements	Construction Award	Feb-14	May-14 (A)
		\$56.6M	\$46.6M

Delay due to contract addenda, requests for extensions from vendors, evaluation of Means and Methods and Value Engineering opportunities. Actual value reflects good bid savings.

Project	Commitment	Goal	Forecast
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#### LIRR (cont'd)

##### Structures

Colonial Road Improvements Project (Bridge & Pocket Track)	Construction Award	Jul-14	Oct-14 (A)
		\$18.6M	\$26.1M

Award date re-forecast to allow for more detailed vendor evaluation during procurement. Cost increase reflects modified bridge type required to accommodate existing road alignment.

##### Stations

Escalator Program	Construction Award	Apr-14	Aug-14 (A)
		\$11.2M	\$11.2M

Delay due to contract addenda, requests for extensions from vendors, evaluation of Means and Methods and Value Engineering opportunities. Actual value reflects good bid savings.

#### MNR

##### Stations

GCT Trainshed/Tunnel Structure	Construction Award	Sep-14	Nov-14 (A)
		\$18.1M	\$13.6M

Due to additional design scope, construction start was delayed. Budget decrease reflects favorable bid.

##### Shops & Yards

<b>Harmon Shop Improvements - (New Item)</b>	Construction Award	Oct-14	Dec-14 (A)
		\$26.8M	\$28.6M

Delay was due to an extended procurement process and an adjustment to the start of support services to align with the design-build award (\$251M) executed in December 2014. The higher award value associated with the goal was for additional force account costs.

#### MTA Bus

##### Bus Projects

<b>45 Diesel Buses - (New Item)</b>	Purchase Award	Sep-14	Dec-14 (A)
		\$23.8M	\$23.8M

Delay was due to the NYS Comptroller undertaking a procurement review for this project.

<b>75 Articulated Buses - (New Item)</b>	Purchase Award	Sep-14	Dec-14 (A)
		\$61.6M	\$61.6M

Delay was due to the NYS Comptroller undertaking a procurement review for this project.

## Capital Projects – Major Commitments – December 2014 – Schedule Variances

*Actual Results Shaded*

Project	Commitment	Goal	Forecast
<b>27 All-Agency Yellow Commitments (11 new this month) (cont'd)</b>			
<b>MTACC</b>			
<i>East Side Access</i>			
System Package 1(CS179)	Construction Award	Feb-14 \$366.9M	Mar-14 (A) \$366.9M
Delay was due to additional time needed to finalize contract award documentation.			
System Package 3 (VS086)	Construction Award	Feb-14 \$21.8M	Jun-14 (A) \$21.8M
Delay was due to additional time needed to finalize contract award documentation.			
System Package 4 (CS084)	Construction Award	Jul-14 \$114.7M	Oct-14 (A) \$78.4M
Delay due to additional time needed to finalize contract award documentation and extension of bid period. Cost decrease due to good bid savings.			

### Bridges & Tunnels

#### Roadways & Decks

<b>Deck Replacement - Bronx Toll Plaza - RFK Bridge - (New Item)</b>	Construction Award	Oct-14 \$190.0M	Dec-14 (A) \$203.6M
Delay due to additional time required to answer bidder inquiries. Actual value reflects higher 3rd party award.			
<b>Paint Plaza and Approach Ramps - RFK Bridge - (New Item)</b>	Construction Award	Oct-14 \$16.5M	Dec-14 (A) \$14.3M
Delay due to additional time required to answer bidder inquiries. Savings reflect a favorable bid.			
<b>Replacement Brooklyn Plaza Structural Slab - Hugh L. Carey Tunnel - (New Item)</b>	Construction Award	Nov-14 \$23.7M	Dec-14 (A) \$12.7M
Award delayed due to MWDBE issues. Award value reflects a favorable bid.			
<i>Structures</i>			
<b>Rehab Walls, Roadway Firelines, Ceiling Repair - Hugh L. Carey Tunnel - (New Item)</b>	Construction Award	Nov-14 \$61.0M	Dec-14 (A) \$48.7M
Award delayed due to MWDBE Issues. Award value reflects a favorable bid.			

Project	Commitment	Goal	Forecast
<i>Sandy Restoration</i>			
<b>Restore Hugh L. Carey Tunnel - Structural - (New Item)</b>	Construction Award	Nov-14 \$167.1M	Dec-14 (A) \$86.5M
Award delayed due to MWDBE issues. Award value reflects a favorable bid.			
<b>Restore Hugh L. Carey Tunnel Utilities - (New Item)</b>	Construction Award	Nov-14 \$110.8M	Dec-14 (A) \$117.8M
Award delayed due to MWDBE issues. Award value reflects an unfavorable bid.			

## Capital Projects – Major Commitments – December 2014 – Budget Only\* Variances

*Actual Results Shaded*

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

Project	Commitment	Goal	Forecast
<b>6 All-Agency Budget Only Commitments (4 new this month)</b>			
<b>NYCT</b>			
<i>Stations</i>			
<b>Station Renewal of 6 Stations / New Lots - (New Item)</b>	Construction Award	Dec-14 \$63.7M	Dec-14 (A) \$80.7M
The cost increase reflects additional scope including added steel repair work on platform girders at all stations and the associated extension of project duration.			
<b>Bridges &amp; Tunnels</b>			
<i>Roadways &amp; Decks</i>			
Deck Replacement - Bronx Toll Plaza - Training Facility - RFK Bridge	Design/Build	Jun-14 \$11.8M	Jun-14 (A) \$13.1M
Increase in actual value reflects additional scope, including modifications to building design specifications in order to safely coordinate with ongoing construction projects at the bridge.			
<b>Replace Upper &amp; Lower Level Plaza &amp; Southbound Approach - Henry Hudson Bridge (New Item)</b>	Construction Award	Dec-14 \$23.5M	Dec-14 (A) \$19.2M
Budget decrease reflects reduced commitment value due to transfer of toll area gantry scope			
<i>Structures</i>			
<b>Miscellaneous Structural Repair- RFK Bridge - (New Item)</b>	Construction Award	Dec-14 \$12.0M	Dec-14 (A) \$2.6M
Budget forecast reflects a favorable bid, as well as a decrease in the capially funded portion of award. The net need was funded by the operating budget.			
<b>Miscellaneous Rehab- Manhattan Approach Ramps- RFK Bridge - (New Item)</b>	Construction Award	Dec-14 \$98.5M	Dec-14 (A) \$68.6M
Budget decrease reflects a favorable bid.			
<i>Sandy Restoration</i>			
Hugh Carey Tunnel- Structural	Construction Administration	May-14 \$11.7M	May-14 (A) \$8.5M
Decrease in actual value reflects good bid savings.			

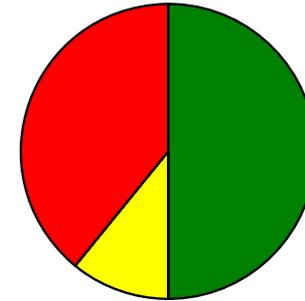
### Capital Projects – Major Completions – December 2014

In 2014, the MTA planned 46 major completions for a total of \$5.7 billion. By year end, 28 of the major completions and \$4.5 billion (78%) of the overall goal were achieved. Five of the total completed were late.

Overall, about \$1.3 billion in completions slipped out of 2014. These include the #7 Extension's Systems & Finishes contract (\$0.6 billion), East Side Access' Harold Structures Part 1 contract (\$0.3 billion) and the Fulton Transit Center Building (\$0.2 billion). Slips were partly offset by the early completions of three projects at B&T with \$131 million in total value.

For major completions overall in 2014, 50% were on-time and 78% were on budget. All post year-end delays of major completions will continue to be tracked in 2015 as delayed 2014 goals. The increase of five projects from November was due to the inclusion of NYCT, LIRR and MNR completions with December goals.

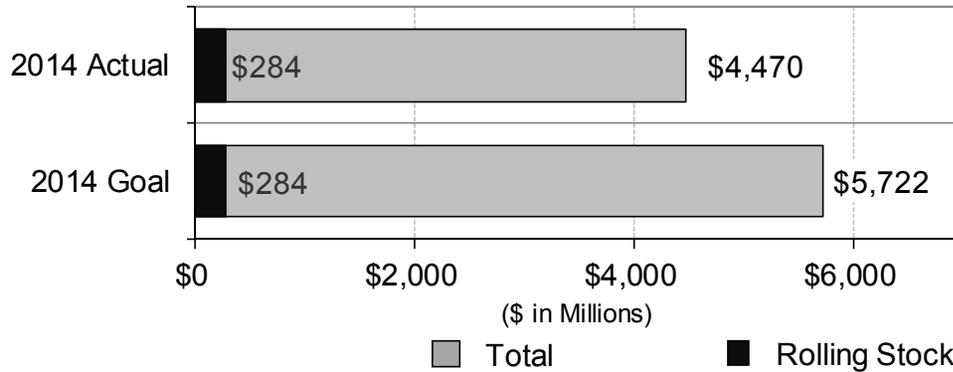
### Year-to-Date Major Completions



	Count	Percent	Change from Prior Month
<b>GREEN</b> = Completions made/forecast w within Goal	23	50%	↑ 2
<b>YELLOW</b> = Completions delayed beyond Goal (already achieved)	5	11%	↑ 1
<b>RED</b> = Completions delayed beyond Goal (not yet achieved)	18	39%	↑ 2
<b>Total</b>	<b>46</b>	<b>100%</b>	<b>↑ 5</b>

### Budget Analysis

2014 Annual Goal \$5,722 (\$ in millions)  
 2014 Actual 78% of Annual Goal



### Year-to-Date Agency Breakdown

Agency	Prior month variance		
	GREEN	YELLOW	RED
<b>New York City Transit</b>	8	3	6
<b>Long Island Rail Road</b>	3	2	
<b>Metro-North Railroad</b>	3	1	2
<b>Bridges and Tunnels</b>	4		
<b>Capital Construction Company</b>	5	1	5
<b>MTA Bus Company</b>	2		
<b>MTA Police Department</b>	1		

## Capital Projects – Major Completions – December 2014 – Schedule Variances

*Actual Results Shaded*

Project	Completion	Goal	Forecast
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### 18 All-Agency Red Completions (3 new this month; net increase of 2)

#### NYCT

##### Track & Switch

Track & Switch Program (19 Projects) - 2nd QTR	Construction	Jun-14 \$193.3M	Mar-15 \$189.1M
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2nd Quarter completions were impacted by scheduling conflicts, particularly on the 7th Ave and Concourse Lines. In addition, coordination for piggybacking opportunities for remaining work on the Myrtle Ave Line has resulted in delays. The value of the projects delayed beyond 2014 was \$24M of the \$193M goal. \$4M in savings comes mostly from savings in the 2013 Jamaica switches project.

Track & Switch Program (4 projects) 3rd Quarter	Construction	Sep-14 \$33.7M	Jun-15 \$36.5M
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Completion of work on the Jerome Line has been postponed due to track access and the availability of General Orders. These issues have increased the cost.

Track & Switch Program (6 projects) 4th Quarter - (New Item)	Construction	Dec-14 \$33.3M	Apr-15 \$33.3M
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With the exception of Yard Track and Switch, representing \$3M of the total project cost, the balance of work was completed in 2014.

##### Stations

Station Rehab: Smith-9th St & 4th Ave	Construction	Jul-14 \$40.7M	Mar-15 \$44.1M
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Due to work coordination issues, completion of rehab work is forecasted for September, excluding manuals, As-built drawings and other deliverables. NYCT forecasts Substantial Completion for 1st Qtr. 2015. Cost increase reflects extended project duration.

##### Line Structures

Culver Viaduct Rehab Ph 3	Construction	Oct-14 \$49.8M	Oct-15 \$63.M
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Delay attributed to a number of factors including additional steel and concrete needed due to unforeseen site conditions. Cost increase reflects additional quantities and additional scaffolding necessary to protect the public from work through project duration.

##### Buses

AVLM: Paratransit Vehicles - (New Item)	Procurement	Feb-14 \$35.8M	Dec-15 \$37.7M
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Delay and cost increase of \$2M due to pre-wiring of an additional 433 vehicles.

Project	Completion	Goal	Forecast
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#### LIRR

##### Power

F Circuit Breaker House	Construction	Oct-14 \$7.2M	Oct-15 \$7.2M
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Delay due to a re-evaluation of the project's need to be informed by a power load study.

##### Line Structures

Atlantic Avenue Tunnel Lighting	Construction	Nov-14 \$7.0M	Mar-15 \$7.0M
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An unforeseen issue in tunnel ducts requires additional abatement efforts.

#### MNR

##### Track

West of Hudson Track Program	Construction	Jul-14 \$21.2M	Jan-16 \$19.8M
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Work on this project has been delayed due to re-deployment of resources for other MNR priority projects. Budget decrease reflects revised cost to complete.

##### Revenue Cars

Acceptance of M8 Cars - (New Item)	Procurement	Dec-14 \$77.4M	Jan-15 \$77.4M
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Eighty-six of the eighty-eight were accepted in 2014 (\$75.7M). The remaining two cars forecasted for delivery in January 2015 (\$1.8M).

#### MTA Bus Company

##### Depots

Upgrade Parking Lot: JFK and Baisley Park	Construction	Jul-14 \$9.2M	Jan-15 \$9.2M
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Completion delayed due to requirement from Department of Environmental Protection to reconfigure the connection to the sewer main.

Relocate Fuel Tanks at Eastchester Depot	Construction	Sep-14 \$12.9M	Feb-15 \$13.5M
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Delay and cost increase attributed to additional scope, inclusive of demolition of bus washer due to unforeseen issue with depot wall. Additional delay due to contractor staffing issues.

## Capital Projects – Major Completions – December 2014 – Schedule Variances

*Actual Results Shaded*

Project	Completion	Goal	Forecast
<b>18 All-Agency Red Completions (3 new this month) (cont'd)</b>			
<b>MTACC</b>			
<i>East Side Access</i>			
GCT Concourse Finishes Early Work, CM014A	Construction	Apr-14 \$56.7M	May-15 \$56.7M
Delay is due to the need to re- design the Supervisory Control and Data Acquisition (SCADA) system and delays in delivery of medium voltage switchgear. Additional one month delay due to mitigation work for leak in facility control room that recently developed.			
Harold Structures Part 2A (CH054A)	Construction	Jun-14 \$80.0M	Apr-15 \$67.4M
Delay due to re- design of the 12 kV feeder duct bank and change order work for storm sewer construction. Budget reduced to reflect final approval of outstanding change orders.			
Harold Structures - Part 1(CH053)	Construction	Aug-14 \$326.1M	May-15 \$316.5M
Delays resulting from the cutover of the new duct bank and resource issues have impacted contract and have pushed substantial completion out of the year. Cost decrease due to final approved value of previously outstanding change order.			
<i>Fulton Center</i>			
Transit Center Building (4F)	Construction	Jun-14 \$241.7M	Dec-15 \$241.7M
Substantial completion of this contract has been delayed due to extended testing and commissioning and subsequent punchlist items. Security camera work added to contract has delayed substantial completion an additional 6 months.			
<i>#7 Extension</i>			
Systems, Finishes, and Core & Shell of Site A (Vent Building)	Construction	Oct-14 \$580.1M	Jun-15 \$580.1M
Contract completion has been delayed due to testing and commissioning of vent fans, inclined elevators and escalators.			
<b>MTA Police Department</b>			
<i>Facilities</i>			
K-9 Training Facility	Construction	Jul-14 \$15.0M	Apr-15 \$15.5M
Delay due to unforeseen field conditions at the construction site which have also increased the forecast value.			

Project	Completion	Goal	Forecast
<b>5 All-Agency Yellow Completions (1 new this month)</b>			
<b>NYCT</b>			
<i>Service Vehicles</i>			
Purchase 28 Diesel- Electric Locomotives	Purchase	May-14 \$109.3M	Jul-14 (A) \$109.3M
All 28 units have been tested and released for service. Delay was caused by late delivery and acceptance testing of several units.			
<i>Depots</i>			
Clara Hale Depot Reconstruction	Construction	Aug-14 \$246.4M	Oct-14 (A) \$254.4M
Delay due to scope modifications, as well as late delivery of Con Edison equipment, postponing initiation of electrical service. Additional delay attributable to access issues and availability of General Orders. Cost increase can be attributed to additional scope and increased support costs due to extended project duration.			
<i>Track</i>			
Track & Switch Program (9 Projects) - 1st QTR - (New Item)	Construction	Mar-14 \$58.5M	Dec-14 (A) \$62.5M
There was a delay because General Orders for some of the track work were not available until June 2014. Liberty and 6th Ave work had overruns due in part to the impact of delays.			
<b>MNR</b>			
<i>Structures</i>			
Moodna/Woodbury Viaducts Priority Repairs	Construction	Jun-14 \$9.0M	Oct-14 (A) \$9.0M
There was a delay due to additional rehabilitation work needed to address significant cracking discovered in areas of the concrete foundation on the Woodbury Viaduct.			
<b>MTACC</b>			
<i>East Side Access</i>			
44th Street Fan Plant and 245 Park Ave Entrance (CM004)	Construction	Feb-14 \$55.5M	Nov-14 (A) \$55.5M
The completion of this contract was delayed due to slower construction progress and coordination issues with ongoing utility work on the adjacent street. An additional one month delay was due to water intrusion mitigation and related work.			

**Capital Projects – Major Completions – December 2014 – Budget\* Variances**
*Actual Results Shaded*
*\*for variances of more than \$5 million or 10%*

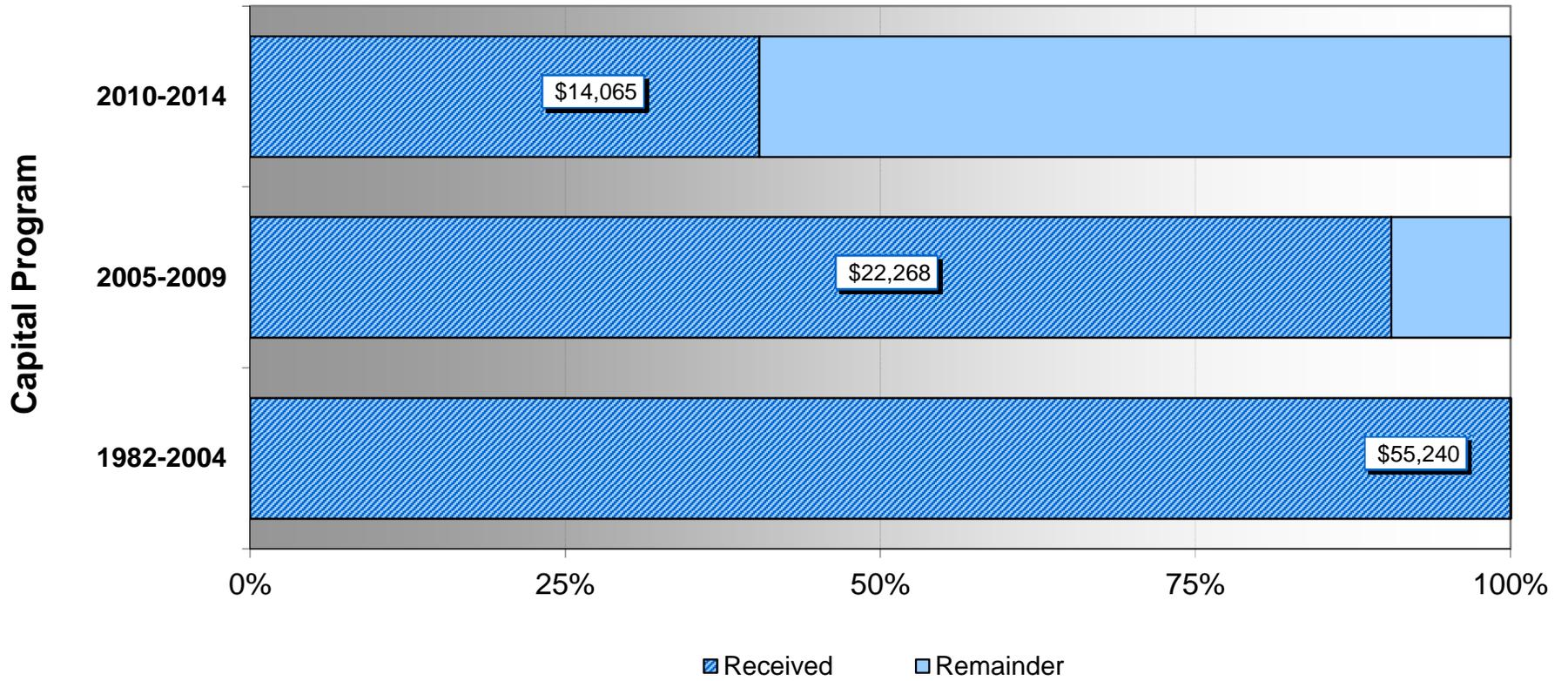
<b>Project</b>	<b>Completion</b>	<b>Goal</b>	<b>Forecast</b>
<b>1 All-Agency Budget Only Completions (0 new this month)</b>			
<b>MTACC</b>			
<i>East Side Access</i>			
Queens Bored Tunnel and Structures (CQ031)	Construction	Apr-14 \$801.6M	Apr-14 (A) \$777.0M
Budget decrease reflects the final contract value, including all approved change orders and scope transfers.			

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## Status of MTA Capital Program Funding

# Capital Funding (December 31, 2014)

\$ in millions



## Capital Funding Detail (December 31, 2014)

\$ in millions

	Funding Plan		Receipts	
	Current	Thru Nov	This month	Received to date
<b>2005-2009 Program</b>				
Federal Formula and Flexible Funds	\$5,186	\$5,186	\$ -	\$5,186
Federal New Start	2,810	1,832	-	1,832
Federal Security	325	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	2,114	-	2,114
MTA Bus Federal and City Match	149	142	-	142
Asset Sales and Program Income	1,207	586	-	586
State Transportation Bond Act	1,450	1,064	-	1,064
MTA Bonds (Including LGA)	3,039	3,039	-	3,039
B&T Bonds	1,221	1,221	-	1,221
Bonds from New Sources	5,624	5,624	-	5,624
Other (Including Operating to Capital)	135	123	-	123
<b>Total</b>	<b>24,597</b>	<b>22,268</b>	<b>-</b>	<b>22,268</b>

	Funding Plan		Receipts	
	Current	Thru Nov	This month	Received to date
<b>2010-2014 Program</b>				
Federal Formula, Flexible, Misc	\$5,835	\$4,610	\$ -	\$4,610
Federal High Speed Rail	295	295	-	295
Federal Security	206	100	-	100
Federal RIFF Loan	-	-	-	-
City Capital Funds	778	350	-	350
State Assistance	770	150	-	150
MTA Bus Federal and City Match	132	51	-	51
MTA Bonds (Payroll Mobility Tax)	12,703	5,536	163	5,699
Other (Including Operating to Capital)	1,507	418	-	418
B&T Bonds	2,079	634	-	634
Hurricane Sandy Recovery				
<i>Insurance Proceeds/Federal Reimbursement</i>	9,431	1,596	-	1,596
PAYGO	160	160	-	160
<i>Sandy Recovery MTA Bonds</i>	758	-	-	-
<i>Sandy Recovery B&amp;T Bonds</i>	175	-	-	-
<b>Total</b>	<b>34,830</b>	<b>13,902</b>	<b>163</b>	<b>14,065</b>