



Metropolitan Transportation Authority

# Capital Program Oversight Committee Meeting

## May 2019

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### Committee Members

P. Foye, Chair

N. Zuckerman, Vice Chair

A. Albert

N. Brown

S. Feinberg

D. Jones

M. Lynton

D. Mack

S. Metzger

J. Samuelson

V. Tessitore

# **Capital Program Oversight Committee Meeting**

**2 Broadway, 20th Floor Board Room**

**New York, NY 10004**

**Monday, 5/20/2019**

**2:00 - 3:30 PM ET**

## **1. PUBLIC COMMENTS PERIOD**

## **2. APPROVAL OF MINUTES APRIL 15, 2019**

*- Minutes from April '19 - Page 3*

## **3. COMMITTEE WORK PLAN**

*- 2019 - 2020 CPOC Committee Work Plan - Page 6*

## **4. UPDATE M/WBE, DBE, and SDVOB PARTICIPATION on CAPITAL PROJECTS**

*- M/WBE, DBE, and SDVOB Participation - Page 8*

## **5. UPDATE ON OMNY MTA's NEW FARE PAYMENT SYSTEM**

*- Update on OMNY - Page 10*

*- IEC Project Review on OMNY - Page 19*

## **6. LIRR CAPITAL PROGRAM UPDATE**

*- Progress Report on LIRR Capital Program - Page 23*

*- IEC Project Review on Morris Park Locomotive Shop and Employee Facility - Page 42*

*- IEC Project Review on Mid Suffolk Yard - Page 46*

*- IEC Project Review on Jamaica Capacity Improvements - Page 50*

## **7. MNR CAPITAL PROGRAM UPDATE**

*- Progress Report MNR Capital Program - Page 54*

*- IEC Project Review on Hudson Line Sandy Restoration/Resiliency - Page 75*

*- IEC Project Review on Harmon Shop Replacement - Page 78*

## **8. CAPITAL PROGRAM STATUS**

*- Commitments, Completions, and Funding Report - Page 82*

**MINUTES OF MEETING**  
**MTA CAPITAL PROGRAM OVERSIGHT COMMITTEE**  
**April 15, 2019**  
**New York, New York**  
**2:00 P.M.**

MTA CPOC members present:

Hon. Patrick Foye  
Hon. Andrew Albert  
Hon. Norman Brown  
Hon. Sarah Feinberg  
Hon. Richard Mack  
Hon. Susan Metzger

MTA Board members present:

Hon. Randolph Glucksman  
Hon. Kevin Law

MTA CPOC members not present:

Hon. David Jones  
Hon. Michael Lynton  
Hon. David Mack  
Hon. John Samuelson  
Hon. Vincent Tessitore  
Hon. Neal Zuckerman

MTA staff present:

Ronnie Hakim  
Janno Lieber  
Tom Savio

MTACC staff present:

Tim Gianfrancesco  
Eve Michel  
Mark Roche  
Rob Troup

Independent Engineering Consultant staff present:

Joe DeVito  
Kent Haggas  
Mohammad Mohammadinia  
Dianne Rinaldi  
Darlene Rivera

\* \* \*

Chairman Foye called the April 15, 2019 meeting of the Capital Program Oversight Committee to order at 1:40 P.M, and provided opening remarks on the nature of the CPOC Committee itself, which he said is intended to “oversee capital projects, their delivery and execution -- and success or failure -- and suggest reforms”, adding that there is no more critically required mission at the MTA than this one right now. He then welcomed the new members of the CPOC Committee: Sarah Feinberg; Michael Lynton; and David Mack, citing the rare combination of experience that they will bring to the work of the committee. The Chairman then outlined key challenges that the MTA faces with respect to Capital Program execution, as well as several broad strategies to address these challenges; he also called on the CPOC Committee to live up to its mission (of overseeing major capital projects) more robustly, demanding excellent performance from both vendors and the MTA’s own project teams.

### **Public Comments Period**

There were two public speakers in the public comments portion of the meeting: Jason Pineiro and Omar Vera.

### **Meeting Minutes**

Upon motion duly made and seconded, the CPOC members approved the minutes to the previous meeting held on March 25, 2019; Chairman Foye recused himself from the vote.

### **Committee Work Plan**

Mr. Savio noted one change to the Work Plan: the update on MWDBE Participation, which was originally scheduled for this month, will instead be presented at the May CPOC.

### **East Side Access Project Update**

Mr. Lieber began the presentation by highlighting overall project progress since the April 2018 presentation to CPOC, in which a detailed analysis of the project from a budget and schedule standpoint was made. The results of that review indicated that issues that had plagued the project for years were threatening to further prolong the schedule and explode the budget. That earlier review concluded with a recommitment to the December 2022 Revenue Service Date, which Mr. Janno characterized *then and now* as “accomplishable”, albeit while acknowledging the costs associated with solving the problems that were enumerated in the review. Before turning the presentation over to Mr. Troup, Mr. Lieber provided project performance details, including several Key Performance Indicators (KPI’s), as well as financial and schedule indicators. Mr. Troup concluded the presentation with the 90-day Look-ahead and a review of Key Milestones and Issues. In its oral remarks, the IEC stated that cost agreements for the Systems and Manhattan Concourse contracts fall within the projected contingencies established in the April 2018 Replan. With respect to schedule, the IEC confirmed that the program schedule includes the revised milestones captured in the agreements, and maintains a 10-month program contingency, but that the early completion of systems testing relies on a compressed 16-month incremental testing duration, which will be a challenge for a project of this scope and complexity. The IEC then noted that additional resources and work shifts, as well as enhanced coordination, are essential to progress the work, given the increased amount of concurrent testing activities planned. In addition, the IEC remarked that a resource-loaded schedule is required to further assess the risk associated with systems testing and validate the program contingency remaining in order to meet the December 2022 Revenue Service date. The IEC concluded its oral remarks with the following recommendation: to effectively progress the incremental testing work, the project team and the Systems contractor must fill key positions that have been vacant for over a year, including Lead System Integrator and System Technical Manager, as soon as possible. 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 Second Avenue Subway Phase 2 Update**

Mr. Gianfrancesco provided a project update in the following areas: Federal Funding (with a funding agreement goal of fourth quarter, 2020); Design Process (with completion of Design-Build documents slated for the end of the third quarter, 2019); and the Value Engineering/Cost Containment approach to reusing, instead of demolishing, the existing subway tunnel for the new 116<sup>th</sup> Street Station -- a measure that will yield very significant savings for the project. In its oral remarks, the IEC observed that the project has maintained its goal of completing the federal funding process in the fourth quarter of 2020 by completing the key submission of required documents to the FTA last month and by setting a schedule for completing a readiness review for starting engineering in mid-year. The IEC then remarked that the proposal to fully reuse the existing tunnel for the new station at 116<sup>th</sup> St demonstrates the project’s commitment to cost containment. 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.

### **Penn Station Access Project Update**

Ms. Michel highlighted the major features of the project, including providing transportation links to several communities and the region. Among the recent project accomplishments, Ms. Michel cited the MTA/Amtrak Memorandum of Understanding, the MTA Board having approved the General Engineering Contract (GEC), and the Notice to Proceed (NTP) that has been issued to the GEC consultant. In its oral remarks, the IEC commented that the execution of a design phase agreement with Amtrak -- as required by the MOU -- is critical to completing near-term design tasks. The IEC concluded its remarks by stating that the project team must work aggressively to secure this and other third-party agreements that are required to complete the work associated with this program. 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.

### **LIRR Expansion Project Update**

In his Overall Summary, Mr. Roche stated that the project remains under budget and on schedule. He then cited Current Construction Activity highlights, including installation of Support of Excavation (SOE) at Covert Avenue, raising track and excavating a new under-grade crossing at Urban Avenue, excavation and SOE at Cherry Lane Bridge, and excavating new foundations at the Harrison Avenue parking structure in Mineola. He then pointed out a recent modification to the project schedule which will allow work associated with grade crossing eliminations at Willis Avenue and School Street to be advanced. Mr. Roche concluded his presentation with a review of numerous performance indicators and risk mitigation measures that are currently being employed by the project. In its oral remarks, the IEC stated that it has reviewed the project schedule and agrees with the project logic. The IEC noted that a significant increase in contractor resources are required to accomplish planned work in 2019, including the installation of the 18,000 linear feet of retaining wall, and crossing eliminations at Urban and Covert Avenues, but stated that in the opinion of the IEC, the agency is taking appropriate steps to mitigate these risks. Regarding cost, the IEC commented that based on the IEC's review of the project's construction cost, soft costs and remaining contingency, the IEC concurs that the project is within 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.

### **MTA Capital Program Commitments & Completions and Funding**

Citing the Capital Program Commitments & Completions and MTA Capital Program Funding Reports in the CPOC Agenda, Ms. Hakim indicated that through March 2019, the agencies made three out of the four planned major commitments, as well as made three out of four major completions, and by year end the MTA forecasts meeting its 2019 goals.

### **Adjournment**

Upon motion duly made and seconded, Chairman Foye adjourned the April 15, 2019 meeting of the MTA Capital Program Oversight Committee at 3:12 PM.

Respectfully submitted,  
Michael Jew-Gerals  
Office of Construction Oversight



## 2019-2020 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

**June**

NYCT Capital Program Update

- Signals and Train Control Division
- Systems and Security Division

Quarterly Change Order Report  
Quarterly Traffic Light Reports

**July**

MTACC Capital Program Update  
Update on Capital Program Security Projects (in Executive Session)

**September**

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

**October**

LIRR Capital Program Update  
MNR Capital Program Update  
LIRR and MNR Joint Update on Rolling Stock  
LIRR and MNR Update on Positive Train Control (PTC)

**November**

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

**December**

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

**January**

NYCT Capital Program Update  
NYCT Rolling Stock Procurement Program

**February**

B&T Capital Program Update

**March**

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

**April**

MTACC Capital Program Update

**May**

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

# Metropolitan Transportation Authority Department of Diversity and Civil Rights

M/WBE, DBE, and SDVOB Participation on  
Capital Projects

May 20, 2019



# MWDBE and SDVOB Participation on MTA Capital Projects with Goals

❑ **Federal Participation Goal: 18%**

(First half of the Federal Fiscal Year 2019 (October 2018 to March 2019))

- ❑ Total Awards: \$387M\*
- ❑ Total DBE Awards: \$77M (20%)
- ❑ Total Payments: \$316M
- ❑ Total DBE Payments: \$85M (27%)

❑ **New York State MBE Participation Goal: 15%\*\***

(NYS Fiscal Year 2018-2019 (April 2018 to March 2019))

- ❑ Total Awards: \$1.03B
- ❑ Total MBE Awards: \$140M (14%)
- ❑ Total Payments: \$1.6B
- ❑ Total MBE Payments: \$182M (12%)

❑ **New York State WBE Participation Goal: 15%\*\***

(NYS Fiscal Year 2018-2019 (April 2018 to March 2019))

- ❑ Total Awards: \$1.03B
- ❑ Total WBE Awards: \$87M (8%)
- ❑ Total Payments: \$1.6B
- ❑ Total WBE Payments: \$143M (9%)

❑ **Service Disabled Veteran-Owned Business Participation Goal: 6%**

(NYS Fiscal Year 2018-2019 (April 2018 to March 2019))

- ❑ Total Awards: \$387M
- ❑ Total SDVOB Awards \$10M (3%)
- ❑ Total Payments: \$205M
- ❑ Total SDVOB Payments: \$2.1M(1%)

\*Report is based on original contract amount provided by MTA Agencies for third-party design and construction contracts (excluding rolling stock and signals).

\*\*Report includes MTA Bridges and Tunnels' major maintenance projects funded from operating budget.



The logo for OMNY, featuring the word "OMNY" in a stylized, white, sans-serif font with a double-line effect, set against a black background.

# MTA's New Fare Payment System

Capital Program Oversight Committee

May 2019



# Today's OMNY Presentation

- Update to the November 2018  
Capital Program Oversight Committee Briefing
  - Recap of the OMNY design-build project
  - Current status
  - Six-month look-ahead
  - Risks
  - Q&A session



# OMNY System Timeline Phased Approach

Customers begin using contactless open payment media

Contactless open payment available on all buses and subways

Upon completion, retire MetroCard & current LIRR/MNR systems

## 1 - Staged Initial Deployment

Initial launch at select subway stations/buses

Start acceptance of contactless open payments & new self-service options



18 months from NTP

**May 2019**

## 2 - Complete Contactless Open Payments Roll Out

Complete roll out of contactless open payments on Subway/Bus



35 months from NTP

**Oct. 2020**

## 3 - Expanded Payment Options Available

Introduce contactless MTA Transit card & eTix 2.0

Roll out new Retail Network



39 months from NTP

**Feb. 2021**

## 4 - In-System Sales

Deploy new vending machines across NYCT, MNR and LIRR



52 months from NTP

**Mar. 2022**

## 5 - Project Complete

Removal of legacy sales equipment

69 months from NTP

**Jul. 2023**



# OMNY System Program Status

- **On Schedule: May 31**
  - Subway: Lexington Av line (4 5 6 service) from 42 St-Grand Central to Atlantic Av-Barclays Center
  - Buses: all Staten Island bus routes
- **Total Budget: \$644.7M. Expended: \$85.4M**
- **% Complete: 13.2%**



# OMNY System Program Status

## ■ Highlights:

- Successfully established the OMNY brand (“One Metro New York”)
- Completed Phase 1 system integration testing
- Installed over 1,200 OMNY readers on buses and subway turnstiles
- Completing 8-week controlled pilot test of OMNY system with over 1,100 employees and 300 other testers



# OMNY System Program Status

## Highlights:

- Established OMNY Customer Call Center
- Launched [OMNY.info](https://www.omny.info) website to the public
- Initiated change management actions in partnership with NYCT
  - Wayfinders and Staten Island Bus Operators trained
- Completed preliminary design reviews for Phase 2

The image shows a screenshot of the OMNY website at the top, featuring a navigation bar with 'About OMNY™', 'Help', 'Register', and 'Sign In' buttons. Below the navigation is a hero section with a photo of a hand tapping a smartphone on a fare reader. The text reads: 'Coming soon: faster and more convenient trips with OMNY' and 'Introducing OMNY – the MTA's new contactless fare payment system. Say hello to tap and go.'

Below the screenshot is a graphic titled 'Modernizing the way you travel with OMNY'. It features an icon of a hand tapping a card on a reader. To the right, three contactless cards are shown: 'BANK Credit Card', 'BANK Debit Card', and 'BANK Prepaid Card', all with the number '1234 5678 9109 8765'. To the right of the cards is a smartphone displaying a digital wallet with the same card number and a Wi-Fi symbol. Below the graphic, there are three sections: 'You can tap and go in two ways:', 'Tap your contactless card' (with subtext: 'Tap your contactless credit, debit, or reloadable prepaid card at an OMNY reader and be on your way. Learn more about contactless cards >'), and 'Tap your smart device' (with subtext: 'Use a digital wallet with your mobile phone or wearable to tap and go. Learn more about digital wallets >').



# OMNY System Six-Month Look-Ahead

- Complete the six-month public pilot
- Continue subway LAN infrastructure construction
- Continue to deploy OMNY reader kits for buses and subways
- Continue roll-out of OMNY readers in stations and on buses



# OMNY System Six-Month Look-Ahead

- Launch OMNY mobile app with trip planning
- Award Paratransit and All-Door Boarding work orders
- Long Island Rail Road & Metro-North Railroad
  - Complete review of business rules
  - Complete PDR for onboard sales and validation device
- Conduct design reviews for:
  - SBS Pilot (onboard validation device)
  - Virtual OMNY card for mobile app
  - Configurable vending machine
  - Customer service point-of-sale device



# OMNY System Risks

- System
  - Variance in performance of contactless cards
  - Potential software/hardware anomalies
  - Network communications
  - Volume stress test
- Customer experience
  - Market penetration of contactless cards
  - Changing customer habits and expectations
  - New transit transaction model (TTM)



**Solution:** Six-month public pilot to stabilize system and fine-tune customer messaging

# May 2019 CPOC IEC Project Review

OMNY (One Metro New York)



# Budget and Schedule Review

## □ Budget

- Project remains on budget.
- All-Door Boarding and Paratransit change orders are under review.

## □ Schedule

- The IEC's review of contractor schedule shows that project remains on track for each phase through to substantial completion.
- The IEC believes that the risks to the project are being mitigated effectively to avoid schedule delays.



# Risk Review

Several risks could have adverse impact on customer experience:

- ❑ Open payment transactions are sometimes slower. There is a risk that OMNY transactions may not achieve the required throughput at high volume stations.
- ❑ There are many contactless bank card manufacturing and personalization facilities worldwide, and performance of all cards has not been the same. Therefore, some bank cards may not be accepted due to system design variances or other reasons.
- ❑ OMNY is an account based system, and customers will no longer see confirmation of fares charged at the point of entry.



# Observations and Recommendation

## ■ Observations

- Ad-hoc testing of equipment and software, by the project team, has proven beneficial to finding unknown variances.
- Project could benefit from agile design process.

## ■ Recommendation

- Governance agreement should be finalized to formalize the way of working between MTA agencies.



# Capital Program Oversight Committee

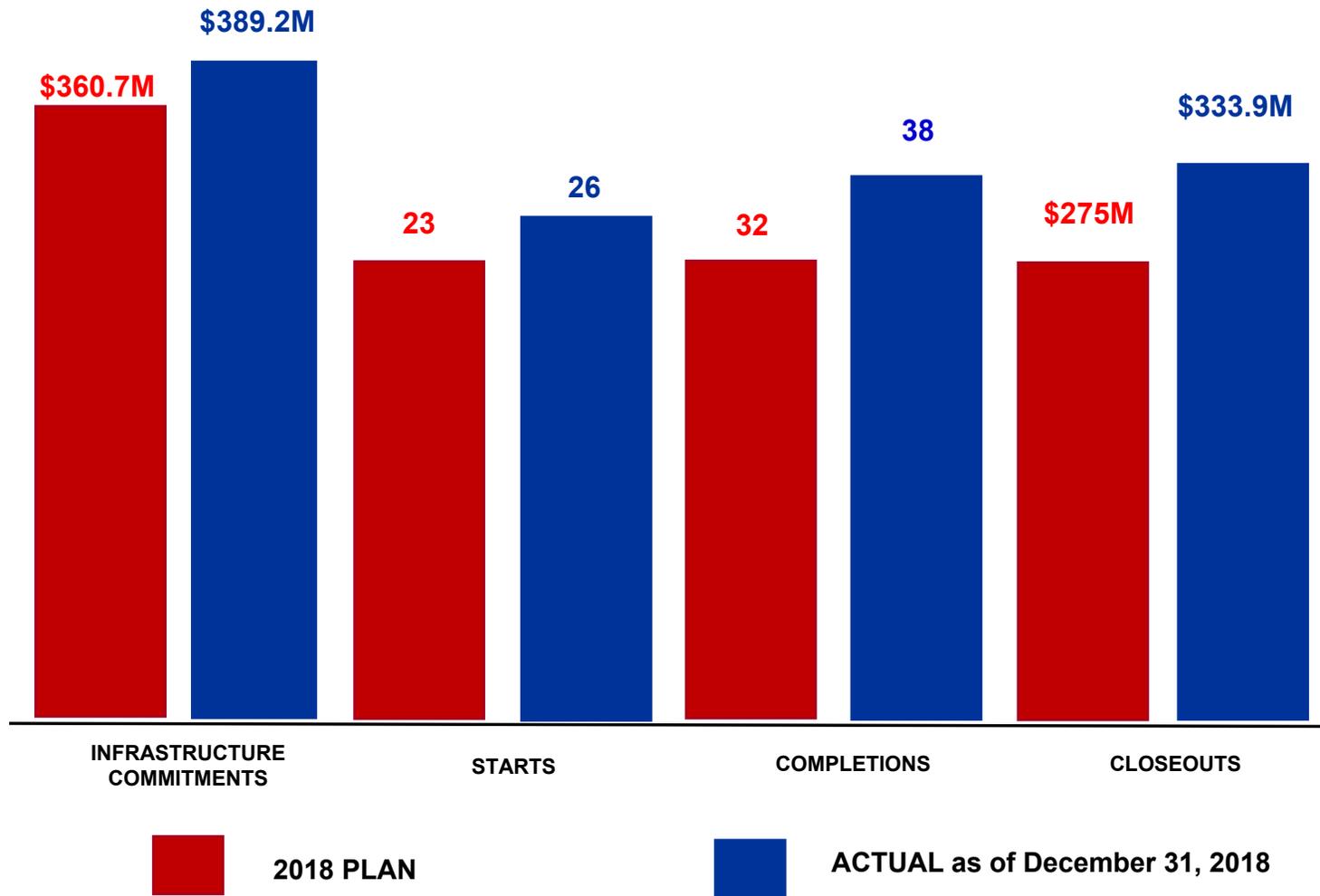
Major Projects - Status

May 2019

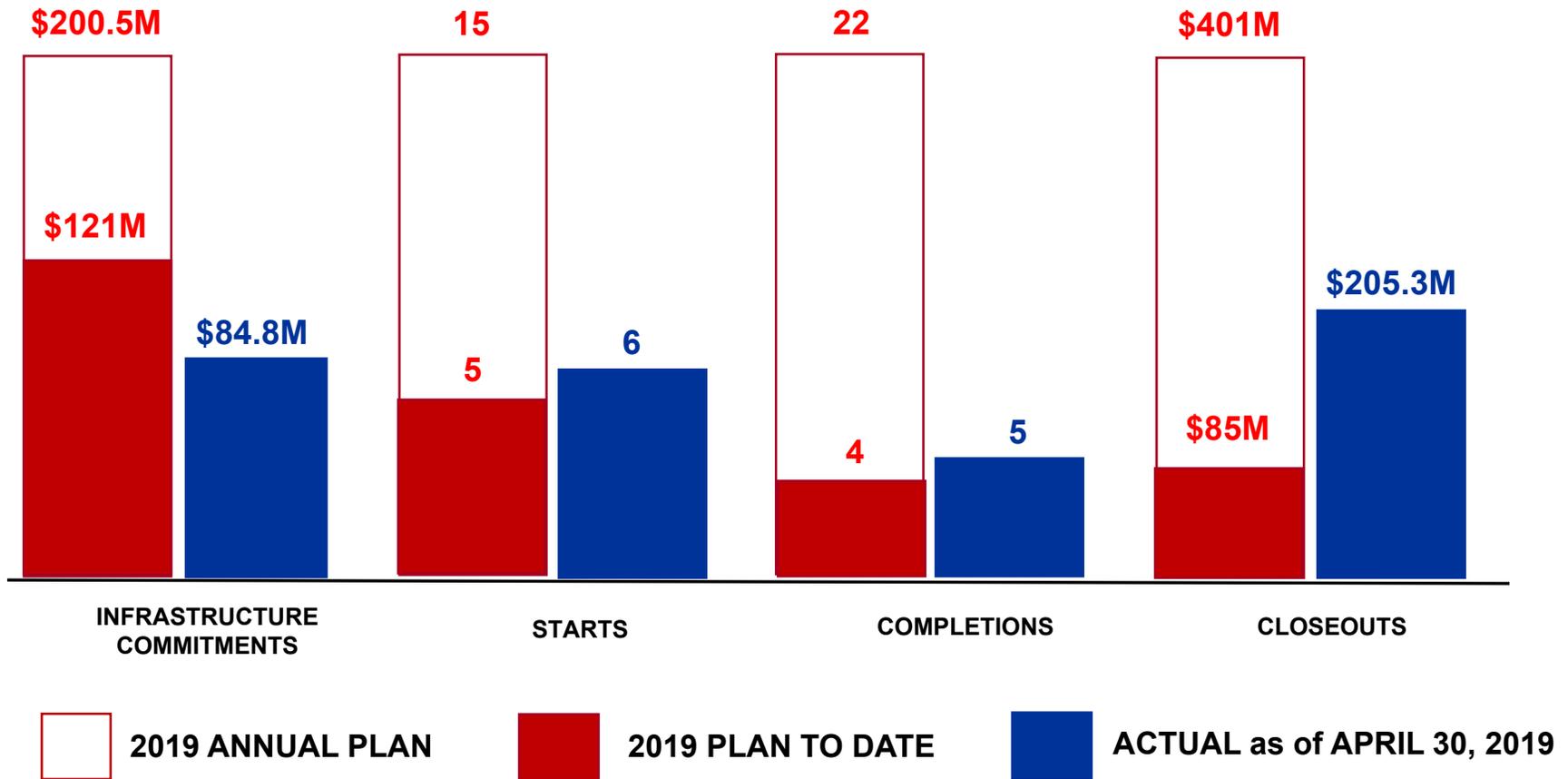
Long Island Rail Road



# 2018 LIRR Capital Program Goals



# 2019 LIRR Capital Program Goals



# Morris Park Locomotive Shop



New Shop Rendering



# Morris Park Locomotive Shop

## □ Schedule

- DB Award: Dec 2017 (A)
- Beneficial Use: 1<sup>st</sup> Q 2020 (F)

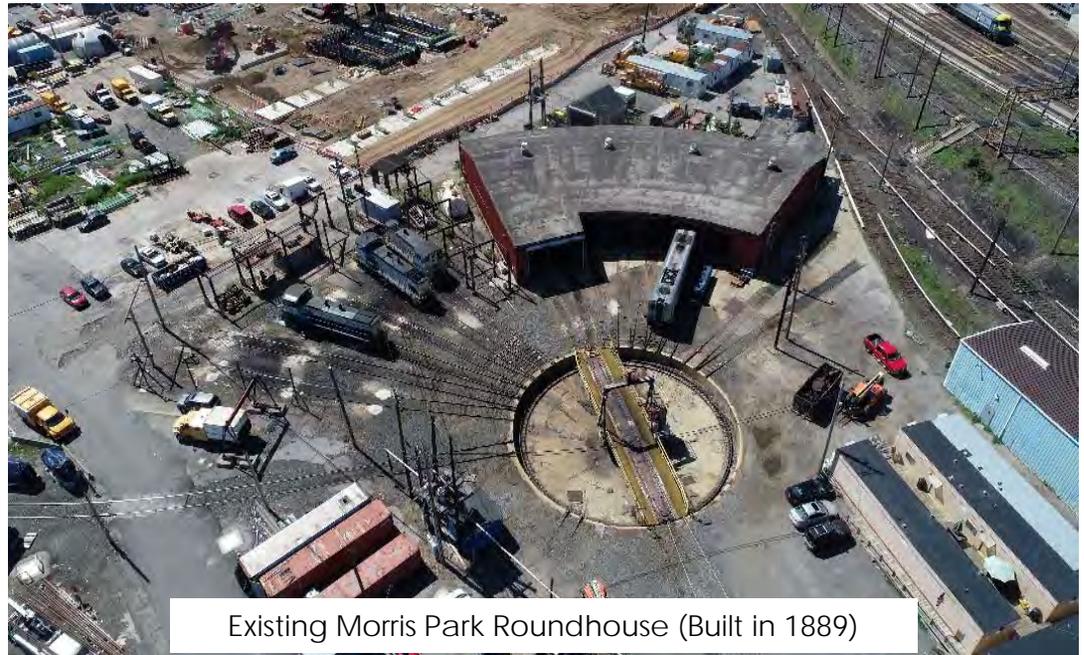
## □ Budget: \$102.3M

## □ EAC: \$101.9M

## □ Percent Complete: 46%

## □ Risk Management - Top Risks as of April 2019:

- Low City Water Pressure
- Long Lead Shop Equipment Delays (Schedule)
- 3<sup>rd</sup> Party Contractor interface with LIRR Force Account for track and LIRR systems tie-ins



Existing Morris Park Roundhouse (Built in 1889)

# Morris Park Locomotive Shop



New Shop and Facility Aerial



# Morris Park Locomotive Shop



Structural Steel – South Elevation



# Morris Park Locomotive Shop

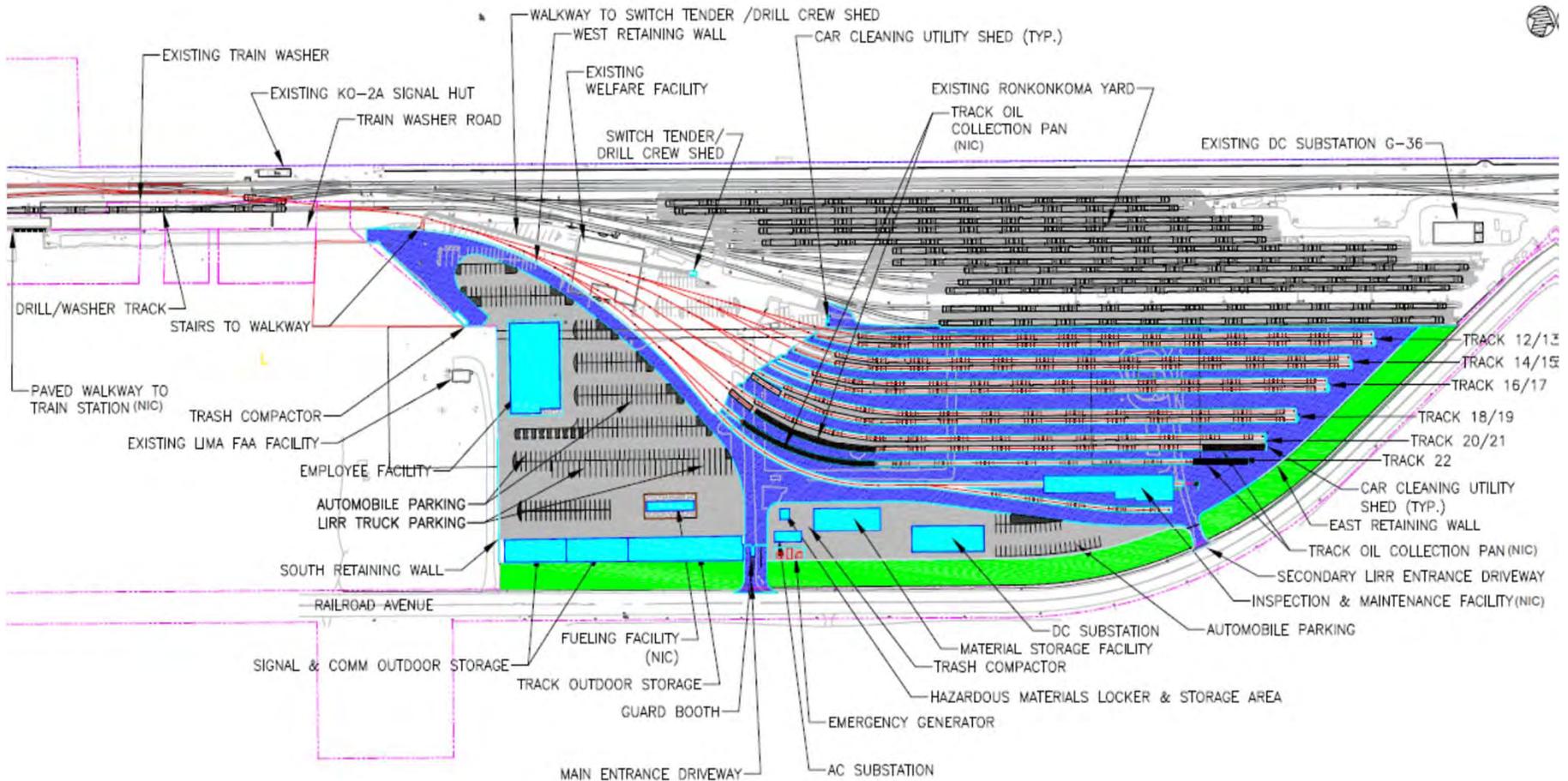


Yard Track Sub-ballast Installation



Lead Track Switch Installation

# Mid-Suffolk Yard



# Mid-Suffolk Yard

- **Schedule:**
  - DB Award: December 2017 (A)
  - Beneficial Use: 4<sup>th</sup> Q 2020 (F) (Prev. 1Q 2020)
  
- **Budget: \$128M**
  
- **EAC: \$136M**
  
- **Percent Complete: 41%**
  
- **Risk Management - Top Risks as of April 2019:**
  - PSEG Power Feeders for DC Traction Power Substation (Schedule & Budget)
  - AC substation to provide permanent power to the Employee Facility and yard lighting (Schedule)
  - Long Lead Special Trackwork



# Mid-Suffolk Yard



New Support / Employee Facility



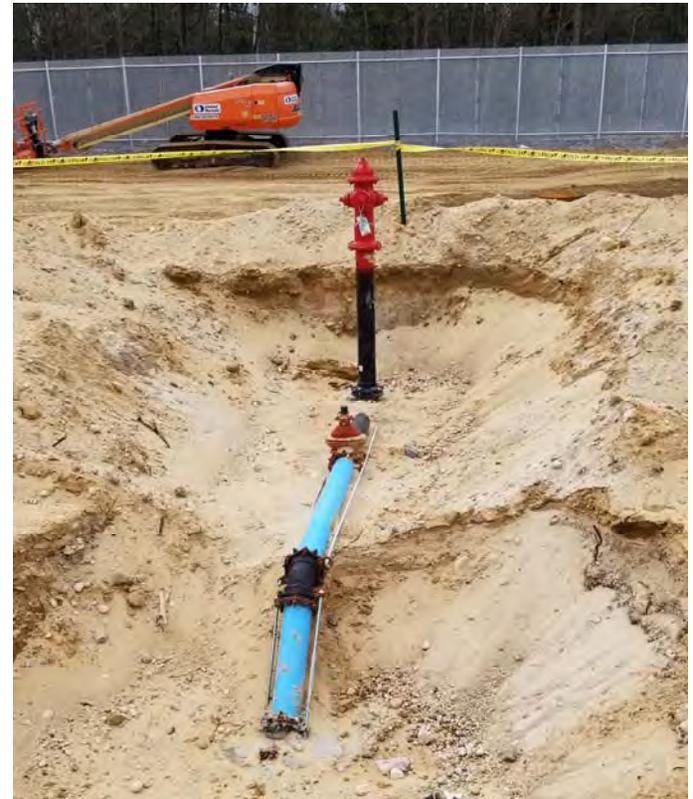
# Mid-Suffolk Yard



New Support / Employee Facility, 1<sup>st</sup> Floor



Material Storage Building



East End Fire Hydrant

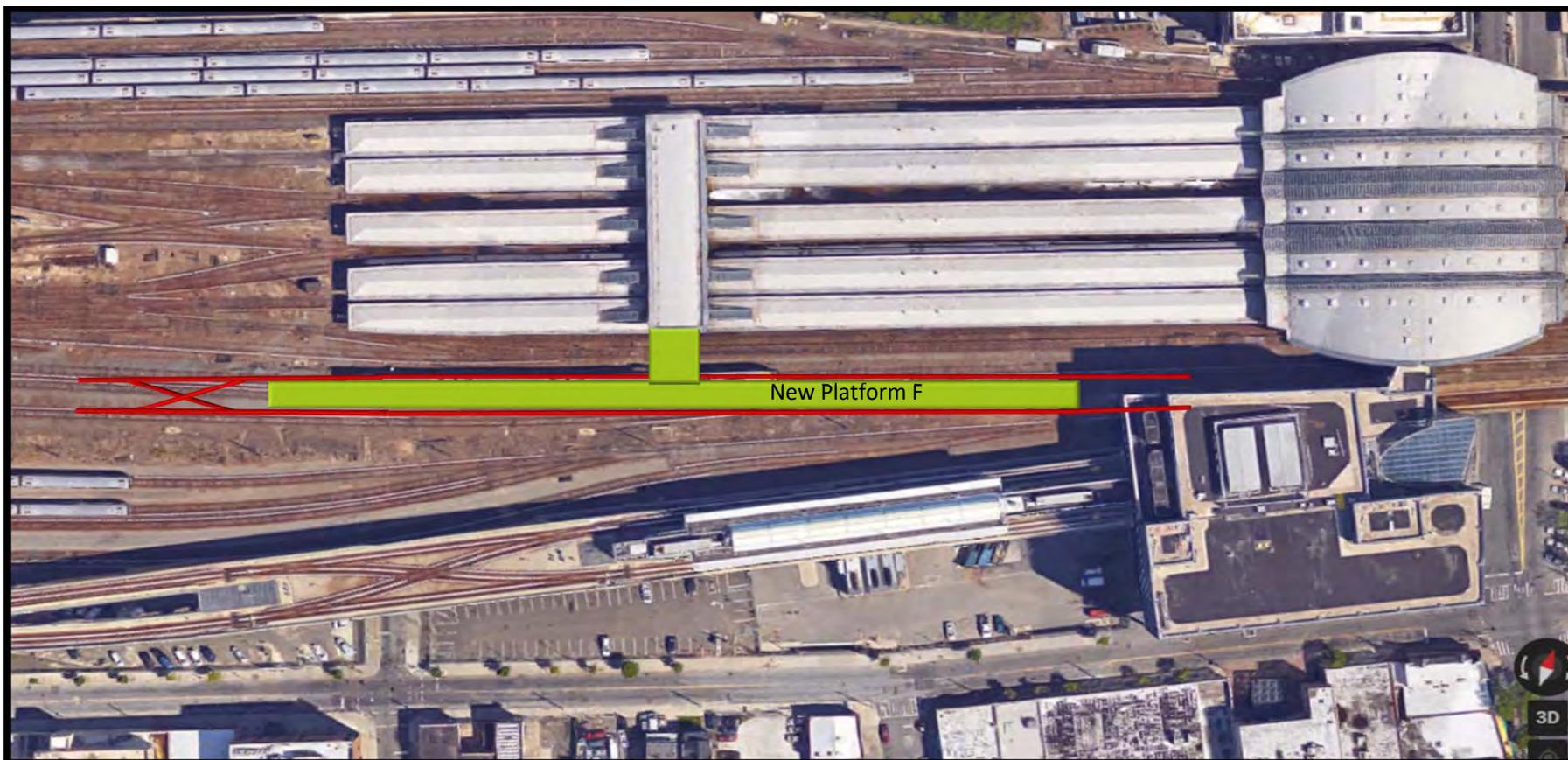
# Mid-Suffolk Yard



Yard Sitework Underway – Looking East



# Jamaica Capacity Improvements - Phase I



# Jamaica Capacity Improvements - Phase I

- **Schedule:**
  - Platform F Construction (3rd Party)
    - Award: September 2016 (A)
    - Completion: 4th Qtr 2019 (F) (Prev. 3Q 2019)
  - Track & Infrastructure for Platform F (3<sup>rd</sup> Party & Force Account)
    - Completion: 3rd Qtr 2020 (F)
  - Universal Crossovers (Force Account): Union, Metropolitan and Beaver
    - Completion: 3rd Qtr 2021 (F)
  
- **Budget: \$301.6M**
- **EAC: \$301.6M**
- **Percent Complete: 54%**
  
- **Risk Management - Top Risks as of April 2019:**
  - 3rd Party Contractor and LIRR Force Account Coordination
  - Force Account Availability
  - 3rd Party Material Availability



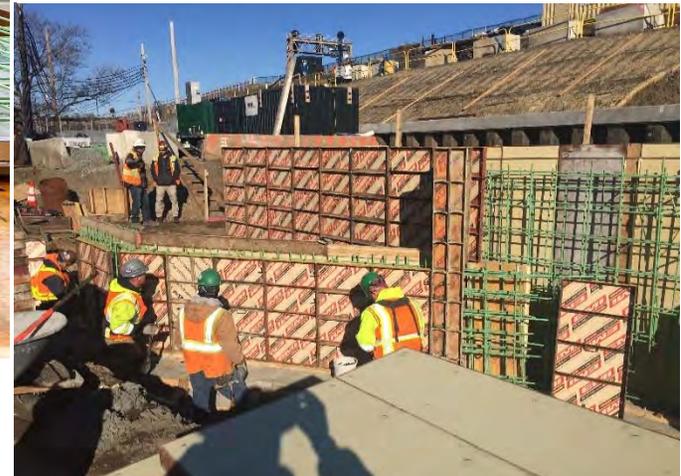
# Jamaica Capacity Improvements - Phase I



Westerly Bridge Extension to Platform F



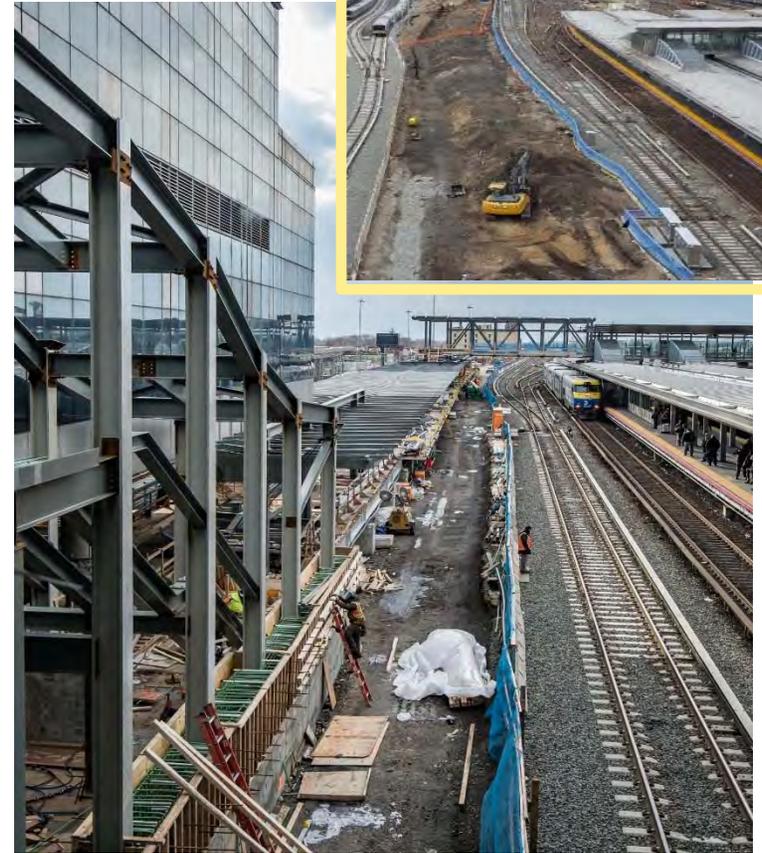
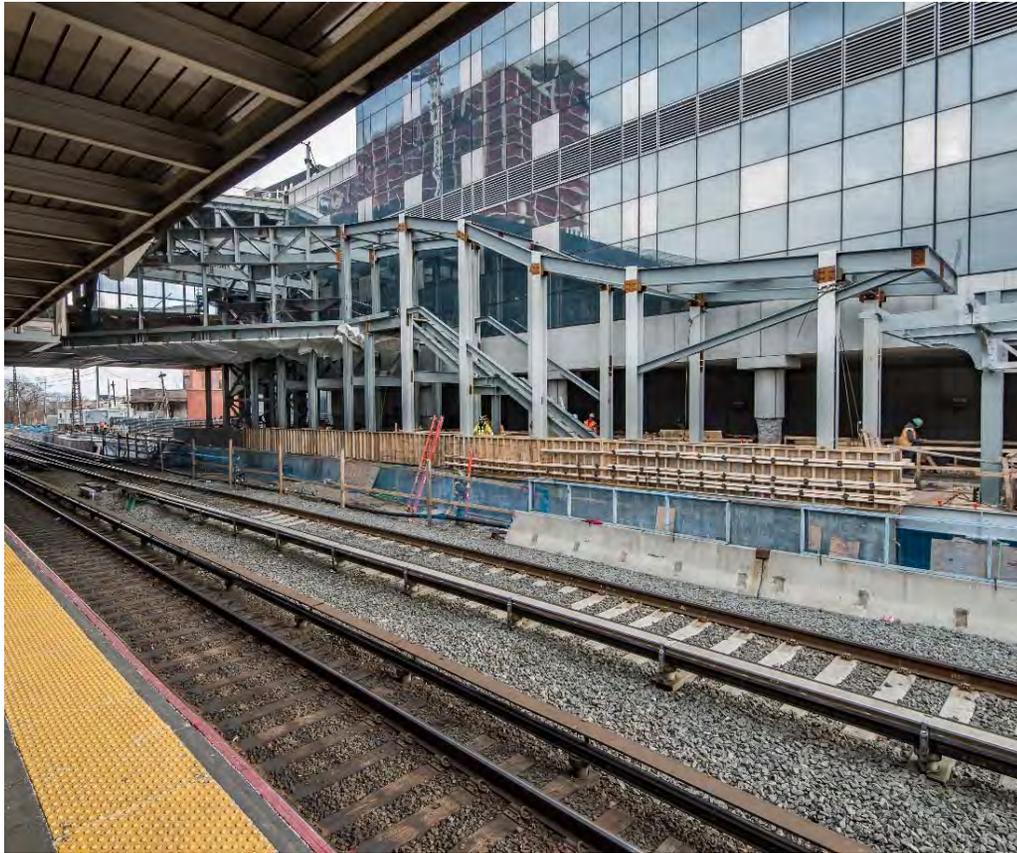
Canopy Steel and Future Waiting Room



Johnson Yard Retaining Wall Extension



# Jamaica Capacity Improvements - Phase I



Platform F Portal Bridge Connector



# Jamaica Capacity Improvements - Phase I



New Color Light Signals in Dunton Interlocking.



Realignment/Resurfacing of Track 10 by LIRR Forces



# Jamaica Capacity Improvements – Phase II

## ■ Schedule:

- Design Award: December 2017(A)
- Design Completion: June 2021 (F)
- Construction Start: TBD (est. 2020)

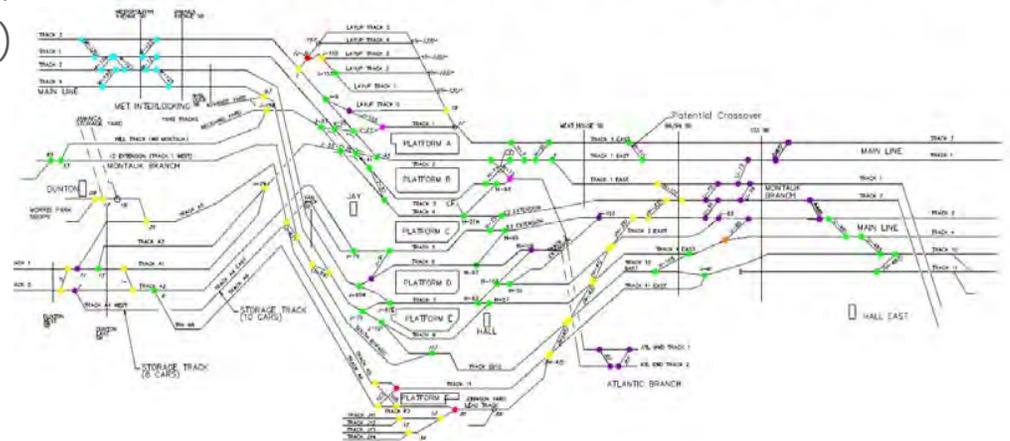
## ■ Design Budget:

- Design & LIRR Support: \$77.5M
- Current EAC: \$77.5M
- Design Percent Complete: 20%

## ■ Project Update:

- Survey, data collection, and preliminary design activities continue
- Designer has completed the Design Brief and 30% Design documents for Stages 3-8, as well as the Design-Build procurement documents for the E-Yard Extension Project.

*Jamaica Configuration at Completion of JCI Phase - II*



# May 2019 CPOC IEC Project Review

Morris Park Locomotive Shop



# Schedule Review

- The project substantial completion has been delayed from January 2020 to March 2020 due to a change in the drop table/ turn table subcontractor.
  
- The new contractor is working to reduce some of this delay by:
  - Working additional shifts
  - Scheduling multiple deliveries and testing, instead of waiting for larger batches of equipment to be ready for shipment



# Budget Review

- Based on the IEC's budget review, percent complete to date compares favorably to total expenditures, remaining contingency and overall budget.



# Risk

- As of April 2019 top project risks are:
  - Long-lead equipment fabrication and installation
  - Contractor coordination with agency and Force Account services, regarding track and switch installation
  - Low water pressure in the surrounding neighborhood affecting fire sprinkler system service is currently being evaluated by the Designer of Record
  
- In the opinion of the IEC, appropriate mitigation measures are being taken. However, the project has consumed all float and any further delay will impact both beneficial use and substantial completion.



# May 2019 CPOC IEC Project Review

Mid Suffolk Yard



# Budget and Schedule Review

## □ Budget

- Based on a review of the project's construction, soft costs and cost contingency, and known project issues, the IEC notes the EAC increase is necessary to cover the cost associated with PSE&G and LIRR communication work.
- The new EAC was due to an unforeseen condition and newly identified in-house communication scope however, the budget increase and current available contingency are sufficient for the project work moving forward.

## □ Schedule

- The IEC's review of the project CPM schedule shows that there is a 6 month delay to the substantial completion date, since last report.
- The project management team continues to work towards mitigating the utility installation delays however, beneficial use and substantial completion may be impacted further.



# Risk Management

- Top project risks are as follows:
  - Delay in PSE&G providing power to the new DC Substation, as well as the new AC substation.
  - Long Lead Track Equipment.
- As a mitigation measure for the PSE&G risk, the project has enlisted senior LIRR management into discussions with the utility.



# Observations

- The IEC's review of the current critical path items suggest attention is needed in the following areas:
  - The existing employee building, all site demolition, west retaining wall, and backfill operations have to be done by March 2020 in order for the site to be ready to install the main line track/turnouts on schedule.
  - In order to avoid a further delay to beneficial use, availability of Force Account labor to support work associated with PSE&G providing power for the new DC Substation and new AC substation is essential.



# May 2019 CPOC IEC Project Review

Jamaica Capacity Improvements – Phase I



# Schedule & Budget Review

## □ Schedule

- The project substantial completion is tied to signal procurement, installation, testing and commissioning, which remains on schedule for completion in October 2021.
- The milestone for Platform F completion by the contractor has been delayed by two months since last reported at CPOC in October 2018.

## □ Budget

- Based on the IEC's review of the project's construction cost, soft costs and project reserves, the IEC concurs with the agency that the project is within budget.

# Risk

- The LIRR PM team performs continuous reviews of risks and their mitigations to manage key risk areas, such as:
  - Coordination between 3<sup>rd</sup> Party and Force Account crews
  - Force Account availability
  - Long lead material procurement, such as: tempered glass, escalator, and structural steel



# Recommendation

- If the elevator and escalator at Platform F are commissioned by the 4<sup>th</sup> Quarter of 2019, but do not go into beneficial use until the 3<sup>rd</sup> Quarter of 2020 as planned, the IEC recommends that the agency purchase additional warrantee coverage for a “break-in” period, before maintenance is turned over to the LIRR.



# Capital Program Oversight Committee

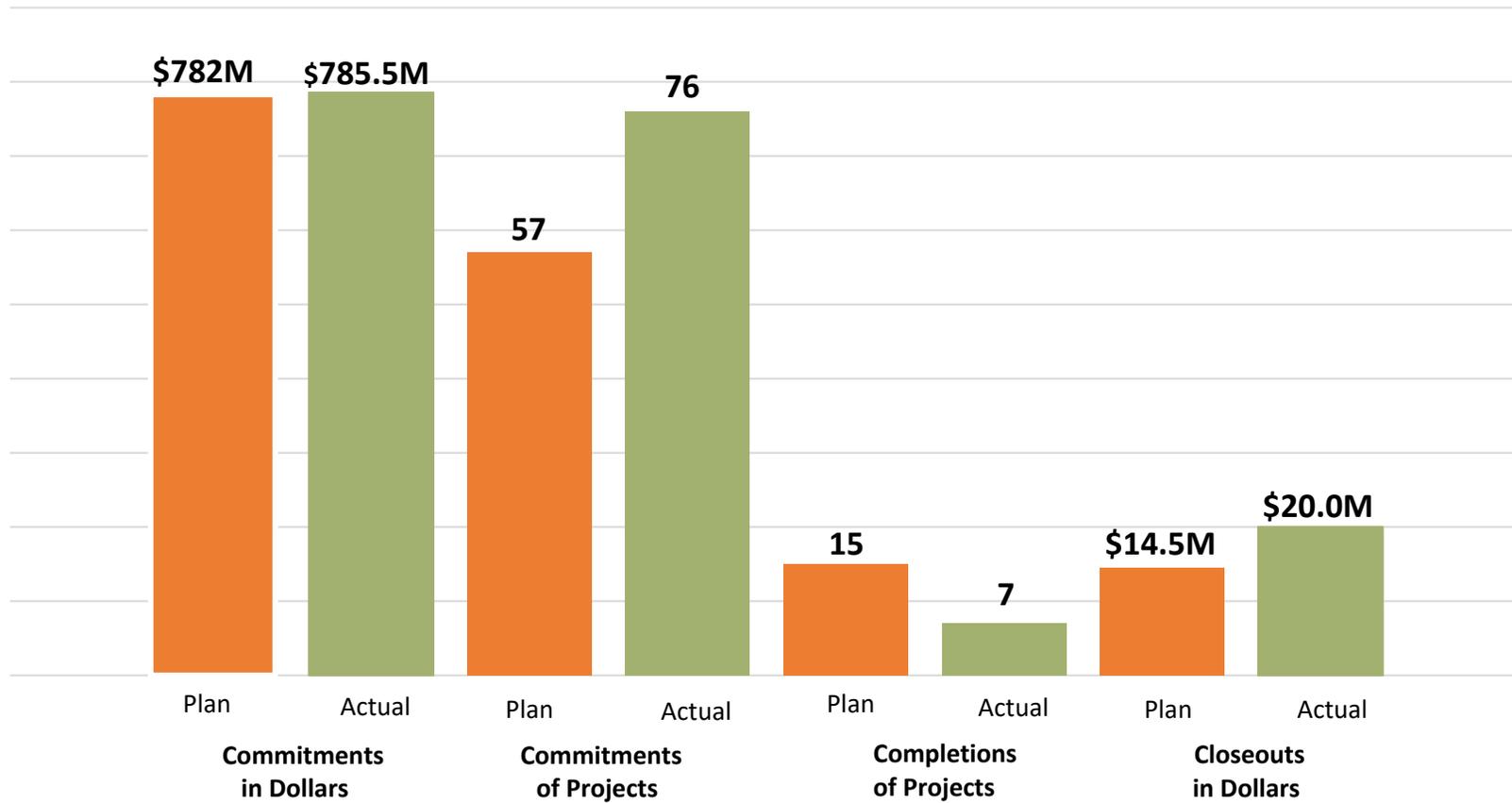
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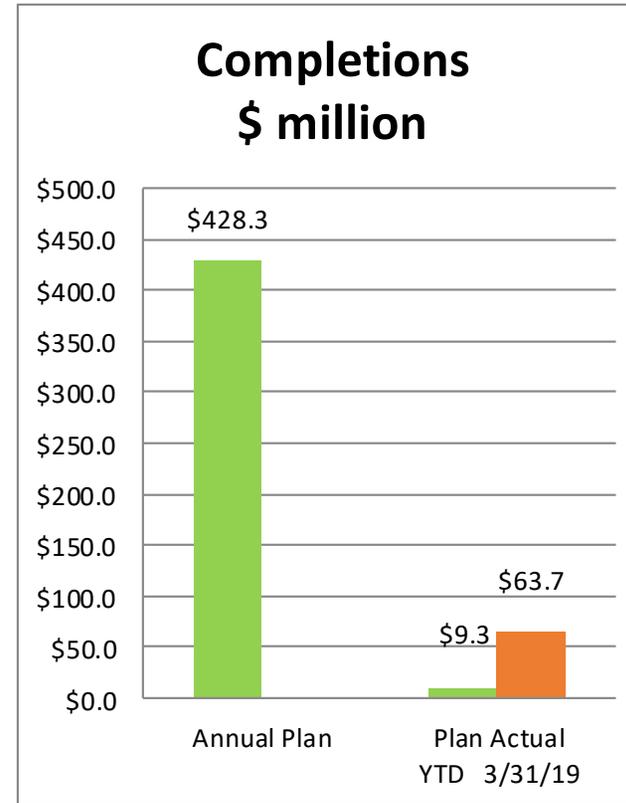
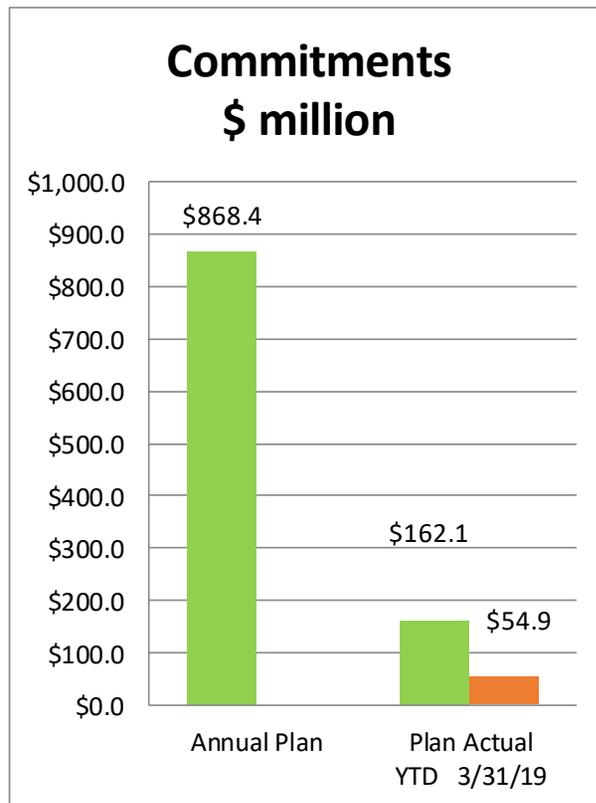


**Metro-North Railroad**

# 2018 Metro-North's Capital Program Goals



# 2019 Metro-North Capital Program Goals Through March 31, 2019



# Major Projects

- Customer Service Initiatives (CSI)
- Station Improvement Initiative
- Superstorm Sandy Restoration/Resiliency – Hudson Line
  - Infrastructure Design-Build
  - Substation Replacement
- Harmon Shop Replacement – Phase V



# Customer Service Initiatives

Budget: \$220.0M

EAC: \$215.8M

Completion Date: January 2021

- The Customer Service Initiatives (CSI) program of work is a multi-phase project that includes upgrades to customer information systems at:
  - Grand Central Terminal
  - 19 Outlying passenger stations
  - Metro-North facilities, Security Systems
  
- Eight (8) contracts awarded December 2017.
  
- Project is on schedule and within budget.



# Customer Service Initiatives

## Status

### Highlights:

- GCT Head End (Central Control) delivered, installed and cutover of new system is ongoing.
- Cable plant installation ongoing; installation of platform displays and arrival departure displays planned to commence early 3<sup>rd</sup> quarter 2019.
- New GCT Big Boards installation commenced.
- Gate Boards installation anticipated to begin before end of 2<sup>nd</sup> quarter 2019 starting at lower level.
- Outlying Stations:
  - Installations of conduit, displays and cameras are ongoing with seven (7) locations to be completed by the end of 2019; nine (9) by the end of 2020; and the remaining three (3) in early 2021.
- Security head end is at 90% design; factory acceptance testing of station equipment is ongoing.



# Customer Service Initiatives

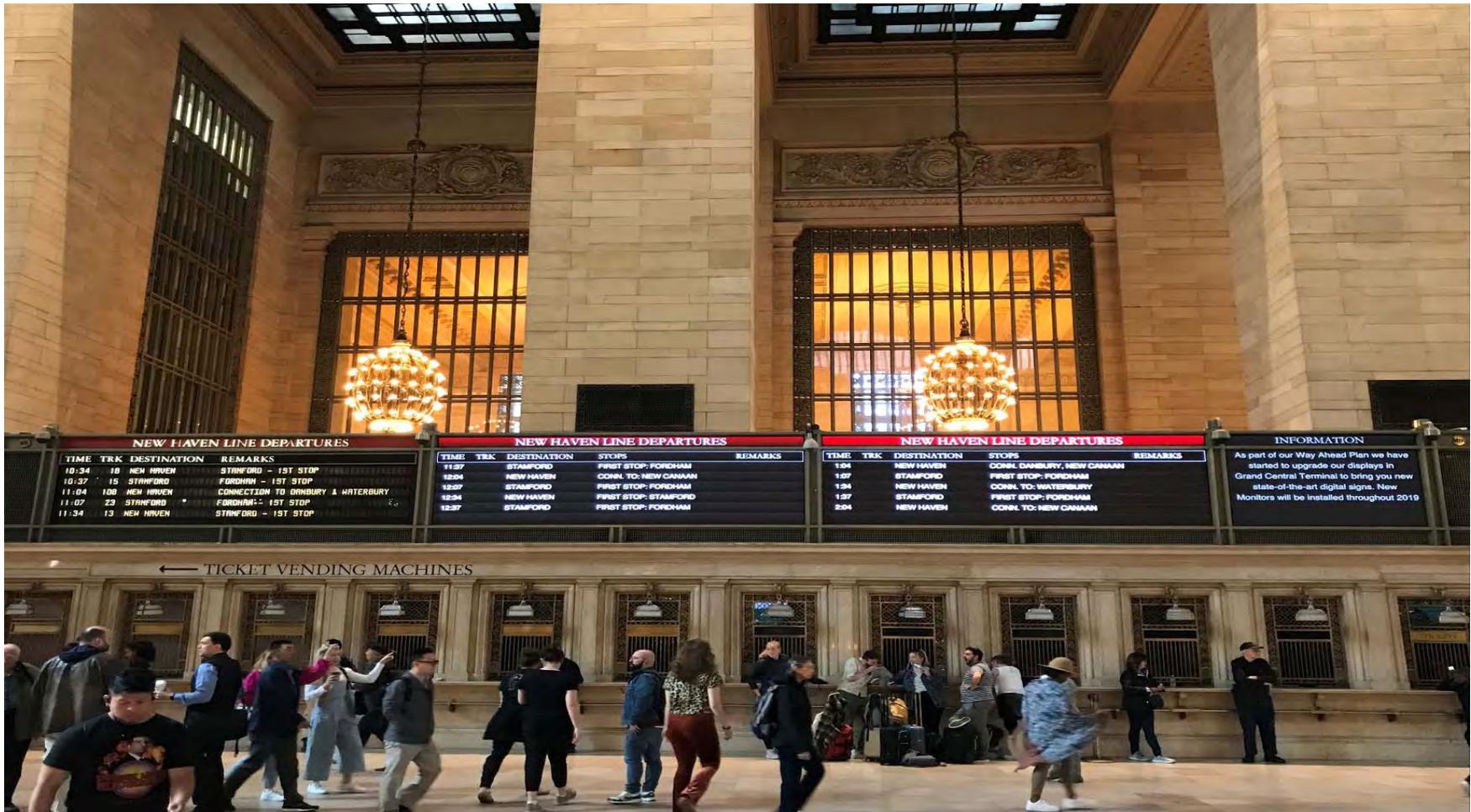


Head End equipment rack



Conduit and UPS's for Big Boards

# Customer Service Initiatives



Ongoing Big Boards and Information Board Replacement/Upgrade

# Station Improvement Initiative

The Station Improvement Initiative is a \$135.6 million investment awarded at the end of 2017 to Halmar:

Station	Budget	Completion
White Plains	\$91.3M	12/31/20
Crestwood	\$10.6M	10/31/19
Riverdale	\$9.5M	9/30/18 (A)
Port Chester	\$13.2M	2/28/19 (A)
Harlem-125 <sup>th</sup> St	\$11M	2/28/19 (A)

## Recent Deliverables:

- Port Chester: Kiss and Ride, Repaving of Parking Lot, Benches and Recycling Centers  
*Station Complete 1 Month Late due to Ramp Guardrail Fabrication Delay*
- Harlem-125<sup>th</sup> St: Restrooms, TVM Area, Shelter Art Glass, Benches and Recycling Centers, Plaza Lighting  
*Station Complete 1 Month Late due to TVM Dashboard Fabrication Delay*
- White Plains: Northern 3<sup>rd</sup> of Island Platform Renovated and Mott St. Stairs Reopened



**Project is on budget and schedule**

# Station Improvement Initiative Port Chester



Kiss & Ride Plaza and Canopy



Safer Raised Crosswalk



Repaved Parking Lot



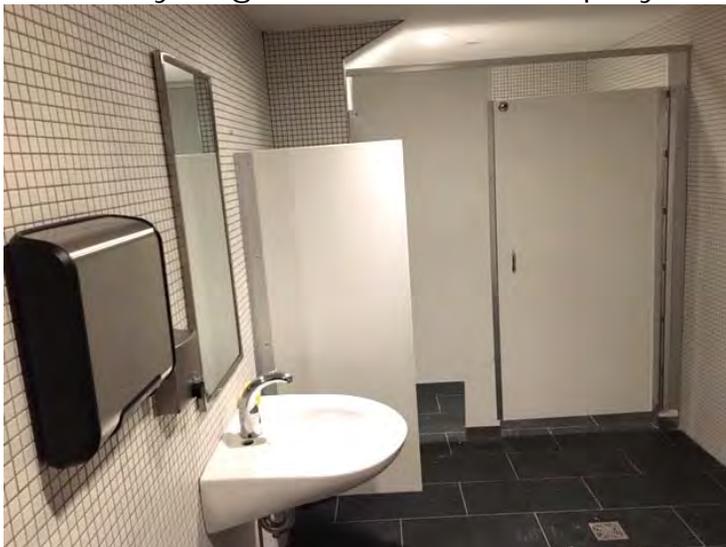
# Station Improvement Initiative Harlem-125<sup>th</sup> Street



Lobby: Digital Information Displays



Central Ticket Selling Facility



Restrooms



Wood Benches and Recycling Centers



# Station Improvement Initiative

## White Plains – Northern 3<sup>rd</sup> of Island Platform – Completed 4/1/19



Wood Ceiling, Lights & USB Benches



Stair Head House & Recycling Center



# Station Improvement Initiative

## Ongoing Work:

- ❑ **White Plains**
  - ❑ Island Platform Northern Interior – **Completion 5/31/19**
    - ❑ New Restrooms
    - ❑ Renovated Waiting Room/Expansion
  
- ❑ **Crestwood – Completion 10/31/19**
  - ❑ New Kiss and Ride Plaza with Canopy
  - ❑ Overpass Renovation
  - ❑ New Platform Shelter
  - ❑ Wi-Fi in Overpass and Kiss & Ride



Crestwood Kiss and Ride

## Upcoming Work:

- ❑ **White Plains**
  - ❑ Island Platform Southern Interior Renovation: - Completion 12/31/19
    - ❑ New ticket office, Expanded Waiting Room
  
- ❑ Lobby/Main Entrance Improvements – Completion 12/31/20



# Superstorm Sandy Restoration/Resiliency Infrastructure Design-Build – Hudson Line

Budget: \$337 M EAC \$337M % Complete Phase I - 83%; Phase II - 10% Completion: April 2021  
Design-Builder: Judlau/TC Electric JV

## Status

30 Mile Power/Communication & Signal Restoration CP5-CP35

Includes elevated equipment platforms and power and snowmelter replacements within all interlockings

Phase 1-Harmon to Greystone(16 miles)

- Substantial Completion of system infrastructure forecast May 2019
- Force Account commissioning Segment#1 Signal Power system April 2019

Phase 2 – Mott Haven to Greystone(14 miles)

- Phase 2 outages commenced May 6<sup>th</sup>
- Phase 2 final completion forecast is April 2021
- Approved for construction drawings are complete. System installations in areas which require no track outage are ongoing



# Superstorm Sandy Restoration/Resiliency Infrastructure Design-Build – Hudson Line

## ■ Overall Budget

### ■ Budget: \$337M

- Phase I Budget increased to account for Gannett Fleming contract to replace HAKS for CCM services
- Phase II budget impact approved for quantity adjustment increases based on approved construction drawings

## ■ Mitigation strategies implemented that will continue:

- Project team working jointly to determine system routing and installation details that maximize available outage windows while protecting service
- Examples include:
  - Piggybacking with maintenance projects on multiple track outages to allow opportunity to complete work in constrained sections of the railroad
  - Altering installation details to suit field constraints

Budget



# Superstorm Sandy Restoration/Resiliency Infrastructure Design-Build - Hudson Line



**Night Work:** Phase 1B – Hastings-on-Hudson North of CP19 Greystone - Crossing for track 2 Impedance bond conduits installation for traction power negative returns.



**South of Hastings – C&S cable trough.**



**Hastings - Sectionalizing switch & traction power system conduits.**

# Superstorm Sandy Restoration/Resiliency Substation Replacement

Budget: \$46M

EAC: \$46M

% Complete: 89%

Completion: Aug. 2019\*

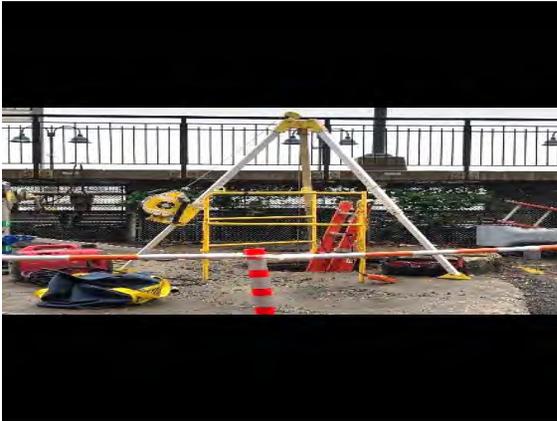
Contractor: Verde/ECCOIII

## Status

- Replace 3 damaged substations at Croton-Harmon, Riverdale and Tarrytown
  - Final commissioning & power cut-over, coordinated schedule feeder outage(s) with Con Edison
  - Completion: Riverdale/Tarrytown - May/June 2019  
Croton Harmon - August 2019
- Delay Incurred (\*)
  - SCADA simulator testing and program release (new build by Rockwell Collins)
  - Con Edison agreement signoff and acceptance of inspection checks/verification
  - Lead time for requests on scheduling feeder outage with Con Edison



# Superstorm Sandy Restoration/Resiliency Substation Replacement



**Riverdale - Installation of 15kv jumper cables for Con Edison's metering work.**

**Meter pan wire harness installation at Riverdale and Tarrytown Substations.**

**Riverdale - Manhole access for Con Edison's Phasing Inspection at Substation.**



**Con Edison's inspection at Tarrytown Substation**



**At Tarrytown and Riverdale Substations.**



# Harmon Shop – Design-Build Phase V – Stage I

Budget \$316M

EAC: \$316M

% Complete: 98%

Completion: 4th Qtr. 2019

## Status

### □ Consist and Electric Multiple Unit (EMU) Shops

- Project is within budget. Substantial Completion is now projected to be 4th Qtr. 2019. Project Team working with Safety and User Depts to mitigate project impacts.

### □ Commissioning & Closeout

#### □ Electric Multiple Unit (EMU) Shops

- Delays have resulted from detection of Carbon Monoxide (CO) at some gas fired shop equipment and building heating systems. Design-Builder is developing a root cause analyses of the failures and will perform all necessary corrections to mitigate the concerns. Issues will result in delay to employee occupancy of the facility.
- A separate CO detection system is also being designed for installation to supplement existing individual equipment CO detection sensors to enhance employee protection throughout the facilities.

#### □ Consist Shop

- Functional testing of the DC Bug and Stinger system for the powered movement of consist cars in and out of the shop was delayed. Review of the commissioning protocols of the building systems was initiated due to issues in the EMU Annex to insure safe completion of this building.



# Harmon Shop - Phase V – Stage I Progress Photos



Consist Shop Facility



EMU Annex



# Harmon Shop - Design-Build Phase V – Stage 2

Budget \$439M  
Contract \$365M

EAC: \$439M

Award: October 2018  
Completion: October 2022

## Status

- Replacement of Electric Car Repair Facility
  - The design-builder (D-B) Skanska-ECCO III, JV2 has mobilized its Stage 2 design development team and field management staff.
  - Completed the following: geotechnical borings to facilitate foundation design; design of electrical enclosures for early electrical cut-overs; design for the demolition of the remaining Building No. 6.
  - Continuing the following: Design development for the Running Repair and Support Shop (RRSS); design development for the Blow Shed; data collection to support the design.
  - Completion could be impacted by issues in Stage 1.
- Risk Assessment
  - Lessons learned from Stage 1 are being applied to the Stage 2 design development process with enhanced MNR on-board design reviews with the Engineer of Record and reviewing Commissioning Protocols



# May 2019 CPOC IEC Project Review

MNR Hudson Line Sandy  
Restoration/Resiliency



# Schedule and Budget Review

## □ Schedule

- The Phase I completion date is now one month later than previously reported due to a track outage moratorium and to issues with force account availability.
- Phase II and overall project completion is one month later than previously reported mostly due to a delayed start.
- In the IEC's opinion, while Phase I still has commissioning activities to complete, any delays that occur should not affect the Phase II schedule.

## □ Budget

- As previously forecast, the budget and EAC were increased since last CPOC due to quantity adjustments and additional construction management costs. Based on the IEC's review of the costs, there will likely be additional agency soft costs in Phase II due to the extended schedule and to an increase in force account personnel over the contractual allotment.



# Risk Management

## ■ Top Remaining Risks

- Productivity of installing the infrastructure
- Force account availability affects number of crews
- Track outage availability
- Extended schedule results in having additional overhead costs

## ■ Review of Risk Status

- Test pits being taken now help locate infrastructure more efficiently and in non-outage areas, increasing productivity.
- Force account needs on other projects, such as PTC, has resulted in a loss of work hours.
- On-time performance issues affected the track outage schedule. Outages will need coordination with MNR operations and other projects like PTC.
- The IEC forecasts that there will be additional MNR soft costs.



# May 2019 CPOC IEC Project Review

MNR Harmon Consist Shop Replacement  
Phase V, Stages 1 & 2



# Stage 1 Cost & Schedule Review

## □ Schedule

- The Stage 1 schedule has been extended due to the recent requirement for a carbon monoxide detection system. The IEC forecasts completion in the 4<sup>th</sup> quarter of 2019.
- Much of the current project delay is attributable to design changes in the EMU Annex building, changes in operational requirements and delays in obtaining permanent power in the Consist Shop.
- MNR is currently evaluating strategies to mitigate the carbon monoxide detection system delay.

## □ Budget

- The project is currently within budget. Based on the IEC's review of the current and pending change orders, it is likely the contingency will be depleted and additional budget required.
- The IEC forecasts that the soft costs will not exceed the budgeted amount.



# Stage 2 Cost & Schedule Review

- Demolition of the existing buildings is behind schedule:
  - Some shop equipment in the existing building needs to remain in place for operational necessities.
  - MNR personnel cannot be relocated from the existing buildings because the new buildings of Stage 1 are not ready to be occupied.
  - Based on the IEC's review of the schedule, the design/builder's proposed change to the foundation method and an alternate demolition plan should result in a time savings, which should mitigate some of the delay.
  
- There have been no Stage 2 change order requests to date.



# Stage 2 Risk Discussion

- The top Stage 2 schedule risks are:
  - Problems with building commissioning
  - Delays in the design/build submittal reviews
  - Issues with pile installation
  
- The top Stage 2 cost risks are:
  - Greater than anticipated number of change orders
  - Extended overhead due to project delay
  - Owner driven design changes
  
- The project team is using lessons learned from Stage 1 for mitigation strategies for the key Stage 2 project risks.



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# **MTA Capital Program Commitments & Completions**

## **through April 30, 2019**

### Capital Projects – Major Commitments – April 2019

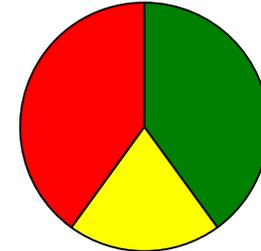
In 2019, agencies have a goal of \$5.6 billion in overall commitments. 37 major commitments are included; nineteen for NYCT, two for LIRR, four for MNR, six for B&T, one for MTACC, two for MTA Bus and three for MTA Police Department.

Through April, agencies have committed \$816 million versus a \$1.3 billion YTD goal. The shortfall is due in part to two major commitment slips and delays of non-major commitments, such as force account and support costs related to MTACC's projects as well as MNR rehabilitation projects. The two major commitments are explained on the following page. The YTD actual is \$31 million higher than the YTD budget mostly due to high bids for NYCT's Overcoating: Broadway Line project.

Two other major commitments were made on time or early and one major commitment was delayed but is now committed.

By year-end, the MTA forecasts meeting or exceeding its overall \$5.6 billion goal.

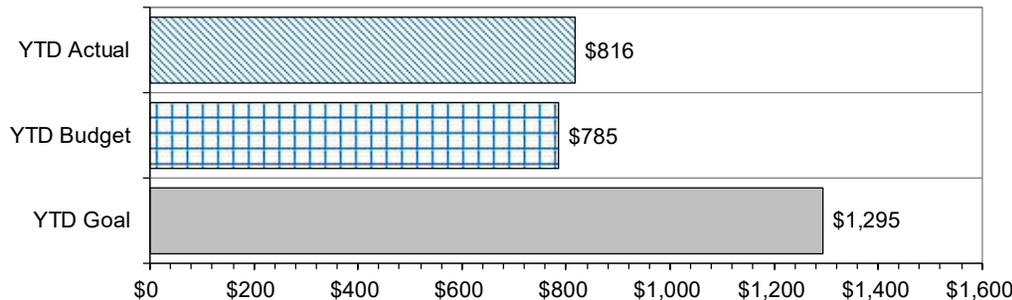
### Year-to-Date Major Commitments



	Count	Percent	Change from Prior Month
<b>GREEN</b> = Commitments made/forecast w/in Goal	2	40%	0
<b>YELLOW</b> = Commitments delayed beyond Goal (already achieved)	1	20%	0
<b>RED</b> = Commitments delayed beyond Goal (not yet achieved)	2	40%	+1
<b>Total</b>	<b>5</b>	<b>100%</b>	<b>+1</b>

### Budget Analysis

2019 Annual Goal	\$5,613	(\$ in millions)
2019 Forecast	109%	of Annual Goal
Forecast Left to commit	87%	(\$5,303)



### Year-to-Date Agency Breakdown

2019 Goals	Prior month variance		
	GREEN	YELLOW	RED
<b>New York City Transit</b>	1	1	+1 RED
<b>Long Island Rail Road</b>	1	1	---
<b>Metro-North Railroad</b>	1	---	---
<b>Bridges and Tunnels</b>	---	---	---
<b>Capital Construction Company</b>	---	---	---
<b>MTA Bus Company</b>	---	---	---
<b>MTA Police Department</b>	---	---	---

## Capital Projects – Major Commitments – April 2019 – Schedule Variances

Project	Commitment	Goal	Forecast
<b>2 All-Agency Red Commitments (1 New Item)</b>			
<b>NYCT</b>			
<i>Structures</i>			
<b>Station and Tunnel Priority Structural Defect Repairs, 1-8 Av/CNR (New Item)</b>	Construction Award	Apr- 19 \$43.8	Jul- 19 \$77.8
<p>Bid opening scheduled for May 2019 was postponed to re-examine the scope of work in light of the changed service plan of the Canarsie Tube.</p>			
<b>LIRR</b>			
<i>Rolling Stock</i>			
Work Locomotives	Construction Award	Mar- 19 \$32.2	Aug- 19 \$32.2
<p>An independent firm reviewed the procurement and recommended that work locomotives must not exceed requested braking horsepower to deliver the cleanest locomotives. The award has been rescheduled for vendors to revise their submissions.</p>			

**Capital Projects – Major Commitments – April 2019 – Schedule Variances**

Project	Commitment	Goal	Actual
<b>1 All-Agency Yellow Commitments</b>			
<b>MNR</b>			
<i>Structures</i>			
Overhead Bridge Program East of Hudson	Construction Award	Feb- 19 \$23.4	Mar- 19 (A) \$25.6
This award was delayed to March due to revisions made to the notice of award which resulted in a protracted approval process.			

### Capital Projects – Major Completions – April 2019

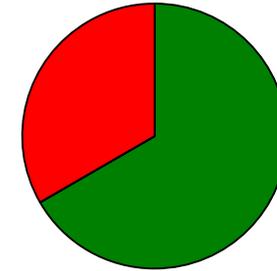
In 2019, agencies plan for a goal of \$3.4 billion in overall completions. 24 major completions are planned, including 14 for NYCT, four for LIRR, three for MNR, one for B&T, one for MTACC, and one for MTA Bus.

Through April, agencies have completed \$1.1 billion versus a \$1.3 billion YTD goal. The shortfall is mainly due to delays with major completions such as NYCT's Station Component: 4 Stations/Jamaica (\$87M) project and MNR's GCT Utilities (\$45M) project, explained on the following page.

Four other major commitments were made on time or early.

By year-end, the MTA forecasts meeting or exceeding its overall \$3.4 billion completion goal.

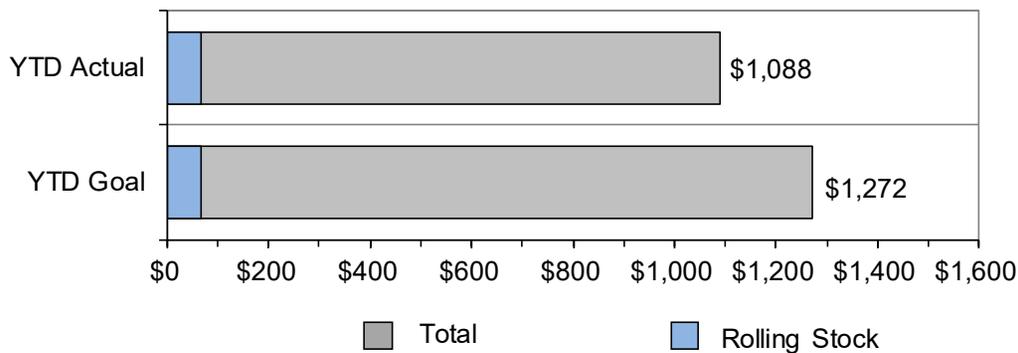
### Year-to-Date Major Completions



	Count	Percent	Change from Prior Month
<b>GREEN</b> = Completions made/forecast w/in Goal	6	100%	↑ 2
<b>YELLOW</b> = Completions delayed beyond Goal (all achieved)	2	33%	↑ 1
<b>RED</b> = Completions delayed beyond Goal (not yet achieved)	1	16.7%	↑ 1

### Budget Analysis

2019 Annual Goal	\$3,428	(\$ in millions)
2019 Forecast	104%	of Annual Goal
Forecast left to Complete	69%	(\$2,472)



### Year-to-Date Agency Breakdown

2019 Goals	Prior month variance		
	GREEN	YELLOW	RED
<b>New York City Transit</b>			
4	+1 GREEN	---	---
<b>Long Island Rail Road</b>			
---	---	---	---
<b>Metro-North Railroad</b>			
1	---	---	+1 RED
<b>Bridges and Tunnels</b>			
---	---	---	---
<b>Capital Construction Company</b>			
---	---	---	---
<b>MTA Bus Company</b>			
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<b>MTA Police Department</b>			
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## Capital Projects – Major Completions – April 2019 – Schedule Variances

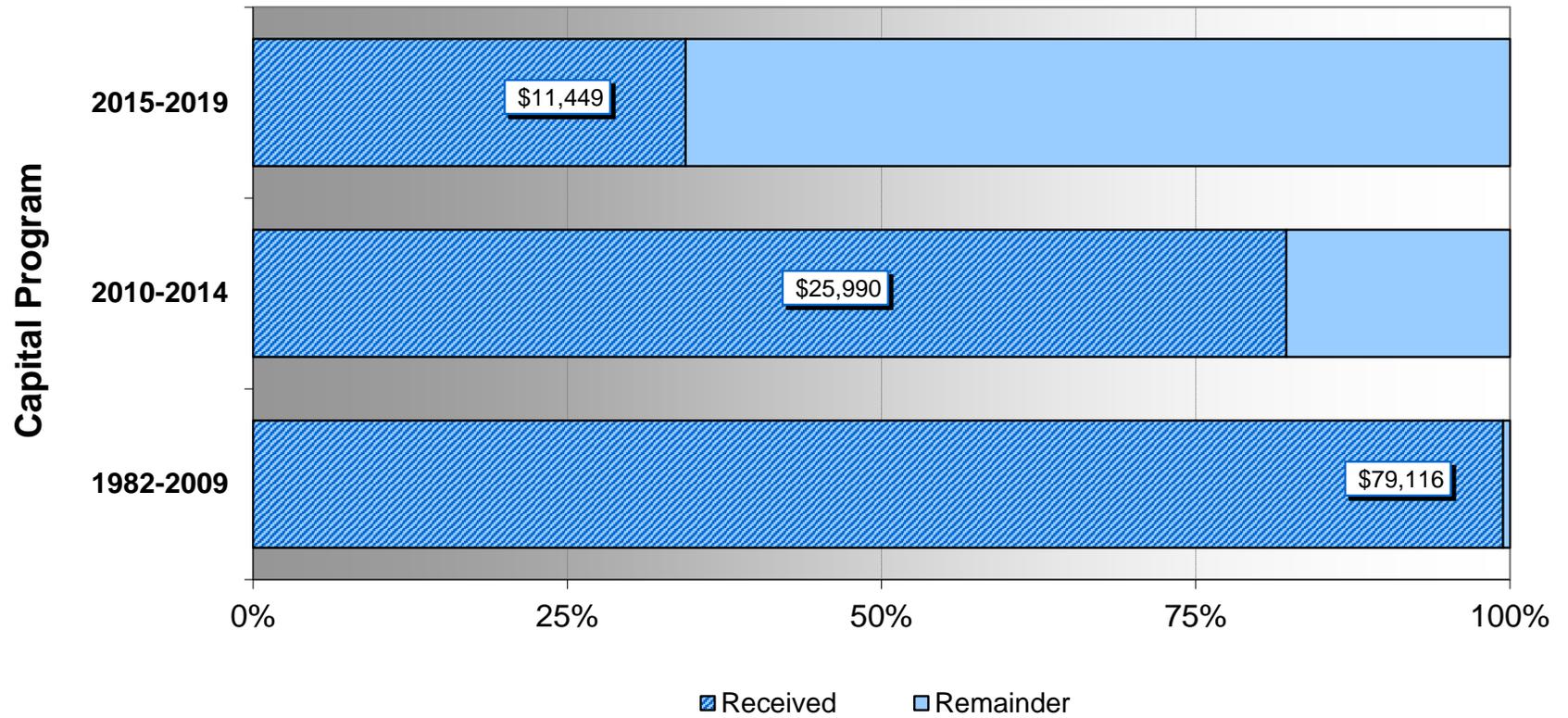
Project	Completion	Goal	Forecast
<b>2 All-Agency Red Completions (1 New Item)</b>			
<b>MNR</b>			
<i>Stations</i>			
<b>GCT Utilities (New Item)</b>	Construction	Apr- 19	Aug- 19
		\$44.7	\$51.0
<p>Field conditions required modification of fire pump controller cabinet. The current forecast for completion has moved to August 2019. The project cost has increased due in part to the inclusion of additional required fire safety systems.</p>			
<b>NYCT</b>			
<i>Passenger Stations</i>			
Station Component: 4 Stations / Jamaica	Construction	Feb- 19	Jun- 19
		\$87.0	\$94.5
<p>Project delay due to extension granted to the contractor to complete additional work. Project cost increased to repair 30 tons of steel after a detailed steel repair survey revealed significant amount of steel deterioration.</p>			

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# Status of MTA Capital Program Funding

# Capital Funding (April 2019)

\$ in millions



## Capital Funding Detail (April 30, 2019)

\$ in millions

	Funding Plan	Receipts		
	Current	March	This month	Received to date
<b>1992-1999 Program</b>	18,095	18,095	-	18,095
<b>2000-2004 Program</b>	21,668	21,668	-	21,668
<b>2005-2009 Program</b>	24,397	23,962	-	23,962

	Funding Plan	Receipts		
	Current	March	This month	Received to date
<b>2010-2014 Program</b>				
Federal Formula, Flexible, Misc	\$5,853	\$5,839	\$ -	\$5,839
Federal High Speed Rail	295	295	-	295
Federal New Start	1,257	1,257	-	1,257
Federal Security	189	100	1	101
Federal RIFF Loan	-	-	-	-
City Capital Funds	719	608	-	608
State Assistance	770	400	-	400
MTA Bus Federal and City Match	132	108	-	108
MTA Bonds (Payroll Mobility Tax)	11,483	9,403	-	9,403
Other (Including Operating to Capital)	1,345	1,238	1	1,239
B&T Bonds	2,026	1,812	-	1,812
Hurricane Sandy Recovery				
<i>Insurance Proceeds/Federal Reimbursement</i>	6,329	4,800	-	4,800
<i>PAYGO</i>	235	81	-	81
<i>Sandy Recovery MTA Bonds</i>	758	28	-	28
<i>Sandy Recovery B&amp;T Bonds</i>	230	18	-	18
<b>Total</b>	<b>31,620</b>	<b>25,987</b>	<b>2</b>	<b>25,990</b>

	Funding Plan	Receipts		
	Current	March	This month	Received to date
<b>2015-2019 Program</b>				
Federal Formula, Flexible, Misc	\$6,704	\$3,084	\$ -	\$3,084
Federal Core Capacity	100	-	-	-
Federal New Start	500	-	-	-
Federal Security	3	3	-	3
State Assistance	8,640	805	174	979
City Capital Funds	2,667	668	-	668
MTA Bonds	7,968	4,116	-	4,116
Asset Sales/Leases	1,017	318	-	318
Pay-as-you-go (PAYGO)	2,145	1,730	-	1,730
Other	592	-	-	-
B&T Bonds & PAYGO	2,936	553	-	553
<b>Total</b>	<b>33,273</b>	<b>11,275</b>	<b>174</b>	<b>11,449</b>