



**Metropolitan Transportation Authority**

# **Capital Program Committee Meeting**

## **April 2023**

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### Committee Members

J. Lieber, Chair

S. Soliman, Vice Chair

A. Albert

J. Barbas

G. Bringmann

N. Brown

S. Chu

M. Fleischer

R. Glucksman

D. Jones

B. Lopez

D. Mack

H. Mihaltzes

J. Samuelson

V. Tessitore

N. Zuckerman

# Capital Program Committee Meeting

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

Monday, 4/24/2023  
12:45 - 2:00 PM ET

1. **SUMMARY OF ACTIONS - none this month**
2. **PUBLIC COMMENTS PERIOD**
3. **APPROVAL OF MINUTES – March 27, 2023**  
*CPC Committee Minutes - Page 3*
4. **2023 – 2024 COMMITTEE WORK PLAN**  
*CPC Committee Work Plan - Page 7*
5. **C&D CAPITAL PROGRAM UPDATE**  
*C&D Progress Report on Infrastructure Projects - Page 9*  
*IEC Project Review on Coney Island Yard Long Term Flood Mitigation - Page 15*  
*IEC Project Review on 207th Street Yard and Shop Flood Mitigation - Page 20*  
*IEC Project Review on 207th Street Sewer Replacement - Page 26*  
*IEC Project Review on Bus Radio System - Page 31*
6. **UPDATE ON MTA NEW FARE PAYMENT SYSTEM (NFPS) / OMNY**  
*MTA Update on OMNY - Page 39*  
*IEC Project Review on OMNY - Page 41*
7. **C&D SAFETY REPORT**  
*Committee Safety Report - Page 47*
8. **CAPITAL PROGRAM STATUS**  
*Commitments, Completions, and Funding Report - Page 50*
9. **C&D PROCUREMENTS - none this month**

MINUTES OF MEETING  
MTA CAPITAL PROGRAM COMMITTEE  
March 27, 2023  
New York, New York  
12:45 P.M.

CPC members present:

Hon. Janno Lieber  
Hon. Andrew Albert  
Hon. Gerard Bringmann  
Hon. Norman Brown  
Hon. Sammy Chu  
Hon. Randolph Glucksman  
Hon. David Jones  
Hon. Blanca Lopez  
Hon. Haeda Mihaltses  
Hon. Sherif Soliman

CPC members not present:

Hon. Jamey Barbas  
Hon. Michael Fleischer  
Hon. David Mack  
Hon. John Samuelsen  
Hon. Vinnie Tessitore  
Hon. Neal Zuckerman

MTA staff present:

Lew Deara  
Evan Eisland  
John McCarthy  
Tim Mulligan  
Mark Roche  
Steve Plochochi  
Ziona Rubin  
Jamie Torres-Springer  
Anthony Tufano  
Andrew Wilson  
Michele Woods

Independent Engineering Consultant staff present:

Joe DeVito  
Elizabeth King

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Chairman Lieber called the February 21, 2023 Capital Program Committee Meeting to order at 1:02 P.M.

Public Comments Period

There were two Public Speakers during the Public Comments Period: Jason Anthony; Charlton D'Souza.

## Meeting Minutes

The minutes of the meeting held on February 21, 2023 were approved, with one noted clarification.

## CPC Work Plan

There was one change to the CPC Work Plan: the discussion on OMNY will be moved to the April CPC Meeting.

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***Details of the following presentations, and Committee Members' comments and questions with respect thereto, are included in the video recording of the meeting, produced by the MTA and maintained in MTA's records.***

## President's Report

President Torres-Springer noted today's key agenda item, C&D's newly formed Railroads Business Unit (BU), which will apply lessons learned from, among other projects, the recently completed LIRR 3rd Track Program. He then provided brief status updates on the following: the Interborough Express (IBX) Project which, as currently conceived, would be the MTA's first light rail project; an innovative contract approach, known as the "Horizontal Contract", to provide structural repairs throughout the subway system, which -- rather than being tied to specific locations -- is designed to opportunistically piggyback on outages associated with other projects; and "Generational Investments" in the Railroad Network, including LIRR Double Track and 3<sup>rd</sup> Track, improvements to the vast Jamaica infrastructure and the Harold Interlocking, and the Grand Central Madison Project, as well as embarking on Generational Investments at MNR, including MNR Penn Station Access, and major structural rehabilitation on the Park Avenue Viaduct and the Grand Central Trainshed. President Torres-Springer then introduced Anthony Tufano, who will be leading the new integrated Railroads BU, while drawing on the expertise and leadership of Andrew Wilson and Ziona Rubin, who will remain VP's of LIRR and MNR, respectively.

## Update on C&D's Railroads Business Unit

Mr. Tufano outlined his vision for creating and managing the new united Railroads Business Unit (BU). Acknowledging that LIRR and MNR are "operationally different" from one another, he noted that the projects that each railroad delivers are very similar, which he plans to take advantage of. To achieve C&D's core aim of delivering projects on time and on budget, matrixed teams -- composed of personnel not just from Project Management but from Operations as well -- will be co-located at the project site so decisions can be made "on the fly" (as proved critical to the success of the 3<sup>rd</sup> Track Project). Further, Mr. Tufano noted that under his leadership, the Railroads BU will unify guidelines, practices, procedures, and will streamline reporting, including Key Performance Indicators (KPI's) to evaluate performance through the course of the project, and to make changes as required. He then enumerated specific lessons learned from the 3<sup>rd</sup> Track Project, which will be brought to the new Railroads BU, including: use of Design-Build project delivery, which takes advantage of innovative approaches by the contractor, as well as allowing for optimal risk allocation; bundling multiple contracts, which not only provides for streamlined project management, but optimizes the use of outages; and an extremely robust community engagement program, including civic associations and elected officials, which mitigates the risk of delay stemming from issues arising from the local community. Mr. Tufano then noted that at LIRR there are currently active projects with a total value of \$5B and a total value of \$4B at MNR. Mr. Tufano concluded his presentation by highlighting details from several key projects currently underway at each railroad.

In its Project Review of the Railroads BU, the IEC reported on the following projects, each of which, based on

the IEC's cost analysis, are within the prescribed budgeted amounts:

- Park Avenue Viaduct: The design-builder, Halmar International, is using an innovative installation technique in replacing the viaduct spans, which reduces the anticipated project schedule from 60 to 39 months, saving both time and money and returning the full railroad structure to service much sooner, making it possible to advance the follow-on phases sooner, thereby reducing customer impact and neighborhood disruption. The IEC notes that lessons learned from LIRR 3<sup>rd</sup> Track and Atlantic Avenue Viaduct projects are being incorporated into this project; and the Project Management Team has been effectively managing the Design-Builder in their application of best practices. In addition, as with 3<sup>rd</sup> Track, the project is making notable outreach efforts with internal and external stakeholders, public officials, and area civic groups.
- Jamaica Capacity Improvements, Phase 1: Essential in meeting the Grand Central Madison opening day commitment, this project has achieved Substantial Completion (SC); the remaining work to project closeout, scheduled for early 2024, is dependent upon real estate acquisitions as well as Force Account and track outage availability.
- Jamaica Capacity Improvements, Phase 2: Hall Interlocking Expansion, the first of many projects in this phase, was awarded in Dec 2022. Given the recent project start, the IEC will provide a comprehensive analysis at the next Railroad BU CPC meeting as the project activities will have advanced significantly.
- Queens Interlocking: Since the last report in September, the IEC forecasts a potential delay from January to April 2025 partially due to installing a temporary signal system coordinated with the Grand Central Madison and Elmont Station openings. This has impacted the completion of the permanent signal system work starting in early 2024, which is on the critical path. The IEC believes there are opportunities for schedule recovery through resequencing activities which precede the testing and commissioning work.
- MNR Harmon Shop: As reported by C&D, SC of the last phase of the Harmon Shop Program has slipped 6 months, from April to October 2023 primarily due to an extended design process for an owner-requested safety improvement to the high voltage railcar testing equipment. To minimize the impact of the delay in opening the facility, C&D is implementing a 3-phase approach to its occupancy, placing the 1st floor storage area in service in May, the 2nd floor office space in July and 1st floor shop repair space in October of this year. While the IEC sees this phased move-in as prudent as it provides early benefit to areas of the facility, the number of outstanding activities makes achieving October SC challenging. However, the project's mitigation plan should be effective given that work is scheduled on a single shift and additional shifts are available if necessary.

### Procurement Actions

Steve Plochochi, Senior Vice President, Contracting Services of MTA Construction & Development Company ("C&D"), reported that C&D had six procurement actions being brought to the Capital Program Committee this month. Senior Vice President Plochochi then presented the items.

Upon a motion duly made and seconded, the Capital Program Committee voted to bring the following procurement action before the full MTA Board and recommended the following:

- Award of six publicly advertised and competitively solicited indefinite quantity contracts to three firms (two contracts will be awarded to each firm, one state-funded and one federally funded), Forte-FOS JV (Contracts C31392A & C31393A), Paul J. Scariano, Incorporated (Contracts C31392B & C31393B) and Restani Construction Corporation (Contracts C31392C & C31393C) for the design, construction and repair of structural steel, concrete, masonry, and other miscellaneous components in the five boroughs of New York City with a total estimated aggregate amount of \$300 million over a thirty-six month contract term.

Refer to the staff summary and documentation filed with the records of this meeting for the details of this item, and refer to the video recording of the meeting, produced by the MTA and maintained in MTA records, for Board members' and C&D representatives' comments.

Adjournment

Upon motion duly made and seconded, Chairman Lieber adjourned the March 27, 2023 Capital Program Committee Meeting at 1:40 PM.

Respectfully submitted,  
Michael Jew-Gerals  
Office of Construction Oversight



## 2023-2024 Capital Program Committee Work Plan

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I. Recurring Agenda Items

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

II. Specific Agenda Items

**May**

Overall Capital Program

- Rolling Stock
- Systems

**June**

Overall Capital Program

- Signals & Train Control
- Minority, Women and Disadvantaged Business Participation

Quarterly Traffic Light Report

**July**

Overall Capital Program

- Integrated Megaprojects

**September**

Overall Capital Program

- Stations

Quarterly Traffic Light Report

**October**

Overall Capital Program

- Railroads
- OMNY

**November**

Overall Capital Program

- Infrastructure
- Systems
- Security Projects

## **December**

Overall Capital Program

- B&T
- Small Business Development Program
- Minority, Women and Disadvantaged Business Participation

Quarterly Traffic Light Report

## **January**

Overall Capital Program

- Integrated Megaprojects

## **February**

Overall Capital Program

- Stations

## **March**

Overall Capital Program

- Railroads

Quarterly Traffic Light Report

## **April**

Overall Capital Program

- Infrastructure
- Systems
- OMNY
- Security Projects



## MTA Capital Program Committee Update Infrastructure Projects

April 2023

MTA Construction & Development's last report to the Capital Program Committee on NYC Transit Infrastructure projects was in October 2022. Infrastructure projects include Superstorm Sandy Recovery & Resiliency efforts; line and electrical equipment; bus depots, shops and yards; line structures and facilities; power; and systems and security. The Infrastructure Business Unit focuses on two primary investment themes:

### **Resiliency and Sustainability**

Through our Resiliency and Sustainability projects, we are creating a greener system that is also better prepared for extreme weather conditions. In 2022, we completed the new Clifton Maintenance Shop on Staten Island to protect against future climate risks. Two key projects awarded in 2022 were the new Jamaica Bus Depot with full electrification and the Rockaway Line Resiliency Bundle. All three of these projects utilized the design-build (DB) delivery method to take advantage of best value and contractor ingenuity.

### **Core Infrastructure / State-of-Good Repair**

State-of-good repair projects for our core infrastructure is critical to safe and efficient system operations. In 2022, we made major investments in line structure rehabilitation of approximately \$400 million – including the adoption of a new painting process that will deliver longer life to our assets.

In 2022, C&D Infrastructure successfully awarded 28 contracts, valued at approximately \$2.38 billion, an increase of over \$1.6 billion from 2021. In 2022 C&D Infrastructure also achieved substantial completion on 21 construction projects, valued at approximately \$685 million.

In 2023, Infrastructure's commitment goal is approximately \$1.3 billion. This includes rehabilitation of 12 substations and various circuit breaker houses, painting of our elevated structures, resiliency improvements at 2 yards, and HVAC and equipment replacements at 5 bus depots (Castleton, Jackie Gleason, Gun Hill, Kingsbridge and Ulmer Park).

We also intend to reach substantial completion on capital projects worth \$2.0 billion this year. Overall, we will continue to advance our portfolio of 275 existing construction and design projects valued at approximately \$9 billion.

This document summarizes the progress made on three significant ongoing projects Coney Island Yard Complex - Long-Term Flood Mitigation; 207 St Yard Flood Mitigation & Sandy Repairs, Sewer Relocation, and Mainline Signal Repairs; and Bus Radio System Replacement

**Coney Island Yard**

During Superstorm Sandy, millions of gallons of water flooded the yard, damaging the tracks and signals and corroding the electrical system. This project provides flood mitigation and drainage improvements to protect the yard from future storm events.

This yard is the largest in MTA’s transit system covering approximately 100 acres and can house 800 subway cars. The yard serves the West End (D), Brighton (B, Q), Culver(F), Crosstown (G), and Sea Beach (N) Lines. The site also contains an historic Traction Motor House and Guard house.

PROJECT STATUS	Current	Forecast
Substantial Completion	April 2023	June 2023
Budget	\$520.6 M	\$524.4 M
The project is approximately 98% complete.		

The project is nearing completion with perimeter flood protection fully in-place. Contractual Substantial Completion has changed since the last report, with the forecast now projected in the second quarter of 2023. The delay in Substantial Completion is due to the long-lead time for procuring signal equipment to repair damage signal equipment that occurred during construction, as well as additional time required to schedule remaining outages and complete acceptance and testing of various components including the cable bridge negative bus. The entire perimeter flood protection for the complex has been installed. The budget increase of \$3.8 million (an increase of less than 1% of the total budget) addresses additional support and contingency for repairs to the signal system, rerouting of power duct banks, and schedule impacts of commissioning and supply chain issues.

**Flood Protection**

Over two miles of perimeter flood protection (12,200 linear feet) has been installed to protect the Coney Island Yard Complex. This entails installation of steel sheeting , jet grout and concrete wall system. Nine flood doors have also been installed and tested. This activity was completed in first quarter of 2023.

**Drainage Work**

Providing perimeter walls alone is not sufficient protection to ensure that the yard remains functional in a storm event. Because of the proximity to the ocean, the permeability of the ground, and the potential for a major rain event, the project has also upgraded the overall drainage system and introduced a pumping/outfall system to remove water. Since our last report to CPC in October 2022, 760 linear feet of additional drainage piping has been installed bringing the project to 98% completion. In total, nearly 20,000 linear feet of drainage pipe and structures have been installed to date. Both the new east outfall and rehabilitated west outfalls are now in service. Drainage work and pump testing was accomplished first quarter of 2023.

**Power Work**

A New power cable bridges were constructed to support the traction power network and communications networks. Prior to Sandy, the power network cables were buried underground and were severely damaged during the storm requiring replacement. Elevating the cables, via the bridge, maximizes protection against future storms and provides ready access for future maintenance with minimal disruptions to yard operations.

Since our last report, 7,000 linear feet of power cable and 9,500 linear feet of communication cables (including fiber optic) have been installed. Overall, over 400,500 linear feet

(approximately 95%) of power and communication cables have been pulled to date, and the process of cutting over from existing to new cable feeds is underway. Cable pulls, testing, cutovers, and contact rail gap jumper cable installation will continue through the end of the second quarter of 2023.

**Circuit Breaker Houses**

Rehabilitation of four Circuit Breaker Houses (CBHs) were added as a Change Order to the original Sandy project to minimize follow-on yard disruption after the Sandy project and to enable a more optimum use of outages and staging. This work is currently at 95% completion and will be complete in the second quarter of 2023. The addition of this scope saved time and money by eliminating procurement and mobilization costs.

**207th Street Yard & 200-207 St Mainline Sandy Repairs**

NYCT’s 207 St Yard is the main storage yard for the rolling stock on the A and C lines, and also includes the maintenance shop for the ABCD lines and the the overhaul facility for the 1-7 lines. Like the Coney Island Yard, in 2012, Superstorm Sandy storm surge flooded the 43-acre 207 St Yard, and the site needed critical repairs to its rail operation and additional flood protection.

The project includes three separate construction contracts being jointly managed and coordinated by a single unified project management team:

- 207 St Yard Flood Protection and Signal Repairs - includes construction of a new flood wall on the river side of the yard, as well as upgrades to facilities, including building two new signal relay buildings, and replacing track, signals, and traction power cabling within the yard.
- 207 St Yard Sewer Relocation - he relocates the existing NYC DEP sewer line from beneath the yard to a new location outside of the yard footprint. This addresses the risk of backflow flooding via the sewer, as occurred during Superstorm Sandy.

200-207 St Mainline Track & Signal Repairs – modernizes the interlockings, tracks, switches, and signals on the A Line from north of the Dyckman St Station to the 207 St Yard. Bundling the management of all three contracts ensures that all outages, access, and work are integrated and that the overall disruption to the operations of this constrained yard are kept to a minimum.

Project Status: Substantial Completion and Budget			
Scope	Current	Forecast	Percentage Complete
Yard Flood Mitigation & Signal Repairs	Nov 2023 \$633M	Nov 2023 \$637M	92%
Sewer Relocation	Feb 2024 \$152M	June 2024 \$163M	63%
Mainline Signal Repairs	Aug 2023 \$150M	Aug 2023 \$150M	80%
<b>Total</b>	<b>\$935M</b>	<b>\$950M</b>	

Two of the three contracts remain on schedule. The sewer relocation contract had been experiencing significant delays due to the presence of new outdoor dining structures, however, with the close coordination of the NYC Department of Sanitation (DSNY) loosening access embargoes, the project has almost recovered its original substantial completion date of

February 2024. Budget increases reflect added costs for change orders, TA Labor, consultant construction management (CCM), and utilities.

#### **Flood Protection**

The project team has constructed more than 95% of the perimeter flood wall. Remaining work on the flood wall was delayed due to field issues at the Con Edison and 9<sup>th</sup> Avenue gate area requiring a design modification. These issues have been resolved and work has resumed. The installation of the flood gates for the portal and yard entrances is progressing. The ILC Dover FlexGates at the portals were damaged as they were being installed delaying their completion. Work will resume in the second quarter 2023.

#### **Signal/Track/ Power Work**

The structure of the two new signal buildings has been erected and architectural, utilities, painting, and systems work continues. Track, switch, and traction power work in the yard is nearing completion (95% complete). The majority of the signal equipment has been delivered, installed and tested. All remaining signal equipment will be installed during the signal cutover/in-service, which is tentatively scheduled to start late April 2023, however this is at risk due a recent Siemens design issue which could negatively impact the current substantial completion date. Breakdown, pre-operational, and failover testing are complete at both buildings.

#### **Sewer & Utility Relocation**

The sewer interceptor and associated systems relocation portion of the project includes relocation of existing NYC Department of Environmental Protection interceptors from inside the yard onto NYC streets by micro-tunneling operations. Work progress has been slowed by the presence of sidewalk dining seating that did not exist when the project was originally designed and procured, adjacent property owner access issues denying access to its building, coordination with NYC Department of Sanitation, cement shortage affecting jet grouting work, and utility relocations, resulting in delays to substantial completion. The outreach to community and government officials have been positive and have helped minimize the delay in project schedule. Most significantly, the project team worked with DSNY to extend the access embargo and was able to reduce the delay for the micro-tunneling portion of the work, keeping the project close to its original substantial completion date.

#### **Mainline Track and Interlockings**

The project was awarded on December 30, 2021, with a duration of 581 days. This aggressive schedule is a result of the innovative A+B bidding being utilized to encourage a focus on schedule along with the cost of the project. The project is on schedule with field progress being 80% completed: Track work is 88% complete (8,395LF of 9495LF); Special Work Portion work is 78% complete; Traction Power work is 80% complete; and Signal work is 50% complete. Significant general order activities have been scheduled and coordinated for the second quarter of 2023. The schedule for this project is extremely aggressive and will require the full commitment of the MTA to provide the necessary GOs, flaggers, and work trains on the critical path.

**Bus Radio System** NYCT Department of Buses (DOB) has more than 6000 buses and non-revenue vehicles utilizing an antiquated radio communications system that is more than 30 years old. This project will provide a new digital radio system for state-of-the-art communications between the fleet the newly constructed Bus Command Center (BCC) and 35 new base radio sites constructed as part of this contract. The new base radio sites are constructed in the Bronx, Brooklyn, Manhattan, Queens, Staten Island, New Jersey, and Yonkers for complete coverage of the MTA bus service area.

The new system will greatly enhance MTA’s ability to manage and operate the fleet of buses, as the system not only provides voice communications but also enables data communications, the implementation of a new computer aided dispatch system and the fit-out of the new Bus Command Center. Once fully operational, the new system will provide substantially improved real-time data to improve overall bus performance and bus fault tracking.

PROJECT STATUS	Current	Forecast
<b>Substantial Completion</b>	Jan 2021	August 2024
<b>Budget</b>	\$ 267 M	\$330 M
<b>The project is approximately 70% complete.</b>		

This project continues to face challenges, and the latest projected completion date is August 2024. Since our last report in November 2022, the project has progressed slowly because of contractor design issues requiring resolution of contractual coverage areas and the need for additional bus radio installers. Parsons has recently completed the pilot test of 200 buses that demonstrates acceptable performance.

New challenges include radio coverage gaps to meet contractually required radio signal standards. MTA and Parsons are currently investigating the most viable and expedient solution which could include cellular back up service or additional radio sites. MTA C&D, Buses and Parsons continue to work together mitigate this delay.

While further testing is in progress, the primary activity on the project has been the advancement of work at the 36 radio base sites and the determination of overall signal performance across each borough and the training of new installers.

**Bus Command Center**

The Bus Command Center is completed with all equipment installed and has been operational since February 2022. Over 600 buses have been upgraded with new radio equipment and are in service and operated from the new facility. This includes buses in Staten Island, Brooklyn and the Bronx.

**Radio Sites**

32 of the 36 contractual stations are functional as of this report, with all anticipated to be substantially complete in 2023. Permit issues at the Kearny, NJ site are being resolved and construction is scheduled to begin in late April. Designs are underway for two supplemental base stations in Staten Island for coverage gap issues.

**Pilot Test and Bus Radio Installation**

Pilot testing on 200 buses in Staten Island was completed on October 23, 2022. The contractor commenced retrofitting of the remaining 6000+ buses on November 1, 2022. Production installation is underway, and the contractor has completed over 600 buses to date. A new installation trainer was recently brought on board. The number of installers graduating from this training program has recently improved and this has resulted in a consistent increase in the current installation rate. A full complement of trained installers is anticipated to be available in July 2023.

**Bus Prototyping**

Parsons continues to prepare manuals for the installation of the new radio in all the different types of buses. Each bus requires its own bespoke manual and its approval by DOB is required to ensure overall compliance.

**April 2023 CPC  
Independent Engineering Consultant  
Project Review**

**Coney Island Yard  
Long Term Flood Mitigation**

**MTA C&D Infrastructure**



*MTA Independent Engineering Consultant*

# Coney Island Yard Long Term Flood Mitigation

## Scope of Work

- Super Storm Sandy flooded and damaged the Coney Island Yard with saltwater. The original scope of this project is to provide long-term resiliency against future flooding, and major project elements include:
  - Construction of a 4,000 linear foot bridge which elevates power and communication cable above trains.
  - Construction of a 12,000 linear foot perimeter protection wall approximately 12 to 15 feet above and 30 feet below grade.
  - Construction of approximately 20,000 linear foot of new pipe to provide drainage.
  - Construction of two new pump stations to manage peak flow of a 100-year storm.
  - The contract was revised in September 2021 to include replacement of DC Circuit Breaker House (CBH), which was in poor condition.



MTA Independent Engineering Consultant



# Coney Island Yard Long Term Flood Mitigation

## Schedule

- ▣ NTP was issued March 2018 to Tully Construction with a Substantial Completion (SC) date of September 2022, which is a 54-month project duration. The contract was revised to April 2023 SC, due to the signal cable change order.
- ▣ Since last report, the project is forecast to be delayed further as the contractor is experiencing challenges in obtaining material and equipment for the new signal system, resulting in a project substantial completion of June 2023.
- ▣ The majority of the flood protection and resiliency work (protection wall, cable bridge, flood gates and associated flood barrier equipment) was completed in December 2022 with minor testing left to complete.
- ▣ Based on our analysis on the remaining work to complete the signal system, the IEC concurs with June 2023 SC. The completion of the following items are key elements in meeting June 2023 forecast.
  - ▣ The fabrication, testing, and installation of the new replacement signal system is taking longer than planned as equipment delivery delays are being experienced.
  - ▣ The testing and commissioning of a malfunctioning tower sump pump.
  - ▣ Completion of the flood barrier equipment testing.



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MTA Independent Engineering Consultant

# Coney Island Yard Long Term Flood Mitigation

## Budget

	Program Budget \$	C&D Estimate at Completion	IEC Estimate at Completion
At Award	\$514.3M	\$514.3M	\$514.3M
Current Status	\$524.4M	\$524.4M	\$524.4M

- ▣ The C&D budget & EAC has increased by \$3.8M since last report due to additional cost of signal system repairs.
- ▣ The IEC performed a review of the project's costs, contingency, work in place, pending change orders and risks. The IEC's analysis of the budget and Estimate at Completion of \$524.4M which is still within C&D's budget.
  - ▣ Increase in Estimate at Completion is largely due to the cost of the damaged signal cable and furnish, design and install of new replacement signal system which is largely covered by the project risk reserve.

# Coney Island Yard Long Term Flood Mitigation

## Risks and Mitigations

- ▣ Resolution of a malfunctioning Tower sump pump may take longer than expected as this is a long lead item.
  - ▣ C&D and the contractor are working to explore several solutions where the pump may not require complete replacement.
- ▣ Installation, testing and commissioning of the New Signal system may take longer than forecast.
  - ▣ C&D and the contractor are working with the yardmaster and operations planning to revise the outage plan and allow for installation of the permanent signal cable work and testing and commissioning of the new system.
- ▣ The IEC believes these are the last major risks and overall, the risk of moderate impact and mitigations are reasonable.

## Observation

- ▣ Based on the size and complexity of the Coney Island Yard facility, the project team has done a tremendous job of implementing storm resilient protection, while under full yard operations, to ensure effective delivery of service for our customers.

# April 2023 CPC Independent Engineering Consultant Project Review

## 207<sup>th</sup> Street Yard and Shop Flood Mitigation

MTA C&D Infrastructure



MTA Independent Engineering Consultant

# 207<sup>th</sup> Street Yard and Shop Flood Mitigation

## Scope of Work

- 207<sup>th</sup> Street Yard sustained extensive brackish water damage during Super Storm Sandy. This water from the Harlem River flooded the yard and consequently the 200<sup>th</sup> Street and 207<sup>th</sup> Street interlockings located on the 8<sup>th</sup> Avenue 'A' line.
- Major project elements include:
  - Construction of two new Relay Room Buildings, five new Central Instrumentation Houses and one enclosure to house new equipment for signals, equipment racks and auxiliary systems.
    - Design, furnish, install, test and place in-service new signal system and auxiliary support systems throughout the 207<sup>th</sup> Street Yard, and modify tie-ins (interfaces) with the main line.
  - Installation of a perimeter protection wall and deployable gates to protect the yard and portal from future tidal surges.
  - Repair or replace track and interlocking system damaged by Super Storm Sandy.
  - Provide temporary crew quarters for yard personnel to accommodate services and personnel affected by the work under this contract.
  - Replace yard traction power components.

# 207<sup>th</sup> Street Yard and Shop Flood Mitigation

## Schedule

- ▣ NTP was issued in September 2018 to Walsh Construction. The original contract Substantial Completion (SC) was November 2023, a 62-month project duration.
- ▣ The project is 92% complete with 88% of the time elapsed.
- ▣ All flood protection and resiliency work are expected to be completed by the upcoming storm season.
- ▣ The project team is forecasting a SC of January 2024, no change since last report.
  - ▣ The latest schedule illustrates Building A and Building B to be in service by July 2023.
  - ▣ This resequencing has allowed the project to concentrate their resources on completing critical Building A work.
- ▣ The IEC believes January 2024 SC could be challenging. This is based on the achieving the following completion dates and overcoming risks outlined later in this report.
  - ▣ All Portal Gate work will be completed in July 2023.
  - ▣ Data Network and CCTV System will be completed by June 2023.
  - ▣ 215th St Flood Wall work completed by May 2023.
  - ▣ Once Buildings are commissioned, minor track work and removal of decommissioned equipment still remain.

# 207<sup>th</sup> Street Yard and Shop Flood Mitigation

## Budget

	Program Budget	C&D Estimate at Completion	IEC Estimate at Completion
At Award	\$633.5M	\$633M	\$633M
Current Status	\$633.5M	\$643M	\$643M

- The IEC performed a review of the project contingency, work in place, soft costs, change orders and risks for remaining work. The IEC's Estimate at Completion is \$643M, which concurs with the project team, has not changed since last report.

# 207<sup>th</sup> Street Yard and Shop Flood Mitigation

## Risks and Mitigations

- There is a risk of a delay to the final cutover and commissioning of the Signal System due to the pending approval of the design and performance requirement in the contract specifications for the Solid-State Interlocking (SSI).
  - The Signal contractor has submitted a report for MTA C&D to review which includes proposed changes to ensure the SSI will meet performance and reliability requirements.
  - The IEC believes the lack of an approved solution by May 2023 could have an impact to the schedule.
- Relay Room A potable water supply (needed for building occupancy) may be delayed due to need for DEP approval for proposed connections to the city watermain.
  - The contractor has excavated test pits to identify any interferences and to locate potential routes for connection to the city water supply line.
  - The project has submitted options to DEP for their consideration.
  - The IEC finds C&D has taken the proper steps to mitigate this risk.
- Planned track outages which require work trains and flagging may not occur when needed or take longer than anticipated.
  - Contractor issues a weekly 6-week construction look ahead to coordinate track work. CM/CCM and contractor have worked with the yardmaster and Operations Planning to develop an outage schedule.
  - The IEC agrees with the steps taking to mitigate the above respective risk.





# 207<sup>th</sup> Street Yard and Shop Flood Mitigation

## Risk and Mitigations (continued)

- Integration of phone network system with current NYCT legacy system could take longer than planned due to the time required to address issues and find solutions.
  - The contractor has proposed a workaround plan that allows the use of the new equipment while a design solution is developed.
  - The IEC agrees this step will help mitigate the above respective risk and close coordination with the user group is required.



MTA Independent Engineering Consultant

# April 2023 CPC Independent Engineering Consultant Project Review

## 207<sup>th</sup> Street Sewer Replacement

### MTA C&D Infrastructure



MTA Independent Engineering Consultant

# 207<sup>th</sup> Street Sewer Replacement

## Scope of Work

- 207<sup>th</sup> Street Yard sustained extensive water damage during Super Storm Sandy from the brackish water of the Harlem River. This project will relocate NYC-owned sewers, which backed up into 207<sup>th</sup> Street Yard as well as outside the property.
- Major project elements include:
  - Removing and relocating the existing New York City Department of Environmental Protection (NYCDEP) regulator, diversion chamber, tide gates, and internal sanitary service connections in the yard.
  - Construct new project elements (manholes for the relocated sewer).
  - Installation of reinforced sewer lines and backflow prevention valves.

# 207<sup>th</sup> Street Sewer Replacement

## Schedule

- ▣ NTP was issued in December 2019 to C.A.C. Industries. The contract Substantial Completion (SC) date is February 2024, a 50-month project duration.
- ▣ The project is 63% complete with 78% of the time elapsed.
- ▣ As a result of issues obtaining an access agreement with the building owner adjacent to Pit 3, the construction of Pits 1, 2, 3 and micro tunneling pits 4 through 1 were delayed. The contractor's SC date has moved from April 2024 to November 2024 since last report, however the project has not accepted this schedule.
  - ▣ Project Team is working with the contractor to review the sequence and duration for remaining work and improve the forecast for SC.
- ▣ The IEC reviewed the latest contractor's schedule and finds that the schedule does not reflect the current look-ahead plan.
  - ▣ It's our opinion that the contractor can improve the schedule and can complete the work by June 2024. The IEC has taken into consideration that major construction activities such as manhole/regulator construction and pipe jacking can be done concurrently at multiple locations.



# 207<sup>th</sup> Street Sewer Replacement

## Budget

	Program Budget	C&D Estimate at Completion	IEC Estimate at Completion
At Award	\$152.4M	\$152.4M	\$152.4M
Current Status	\$152.4M	\$ 163M	\$163M

- ▣ The IEC performed a review of the project expenditures including force account labor, contingency, work in place, change orders, risk to remaining work, other soft costs, and forecasts the Estimate at Completion is \$163M.
- ▣ A budget modification is in process for the inclusion of a CCM and associated cost with the utility work.

# 207<sup>th</sup> Street Sewer Replacement

## Risk and Mitigation

- While significant progress has been made, there remains a risk of encountering differing site conditions, which could impact construction operations like excavation and pipe jacking.
  - Contractor continues to excavate additional test pits and borings as needed along the sewer project alignment.
  - There amount of borings and excavations left to complete is significantly reduced thereby reducing risk impact.
- There is a risk of delay due to completing the work for a NYCDEP Regulator, as it is scheduled at the same time as the Flood Gate work under 207<sup>th</sup> Yard contract.
  - C&D is coordinating activities by reviewing detail schedule for both contracts, prioritizing critical work and proactively working with NYCDEP for planned inspections of completed work.
- The IEC finds the Project Team has taken appropriate measures to mitigate the above risks.

# April 2023 CPC Independent Engineering Consultant Project Review

## Bus Radio System

MTA C&D Infrastructure



MTA Independent Engineering Consultant

# Bus Radio System

## Scope of Work

- Bus Radio System (BRS) is a Design Build project that replaces the NYCT and MTA Bus analog bus radio system. The BRS contract award amount of \$202M was issued to Parsons Transportation Group, with Notice to Proceed in March 2016 and Substantial Completion (SC) date of January 2021.
- BRS is a fully integrated digital bus radio system that provides for voice and data communications for all NYCT and MTA Bus operators and field supervisors.
- Project includes:
  - Installation of 34 base stations throughout the five boroughs, Yonkers and Kearny, New Jersey
  - Installation of two Mobile Base Stations (MBS) in Yukon and Meredith bus depots.
  - Outfitting approximately 6,000 buses and 250 non-revenue vehicles with new radio equipment.
  - Provision of a fully equipped Transition Center (TC).
  - Microwave equipment installation at the Rail Control Center (RCC).
  - Outfitting the new Bus Command Center (BCC) with bus dispatch consoles and radio equipment hardware and software to support voice and data communications between the BCC and individual or groups of buses.
  - Full integration and testing of all base stations, buses, and the BRS network.



# Bus Radio System

## Schedule

- ▣ Original contract awarded in March 2016 with a 58-month duration to complete by January 2021.
- ▣ Contractor forecasts completion in August 2024 due to slow progress in build out of systems and bus radio installation issues. C&D has not accepted the latest schedule update and is driving the contractor to complete the project before the contractor forecast date.
- ▣ The IEC forecasts substantial completion no earlier than August 2024, which is a 3-month delay since last report due to slower-than-planned ramp up in bus installation production.

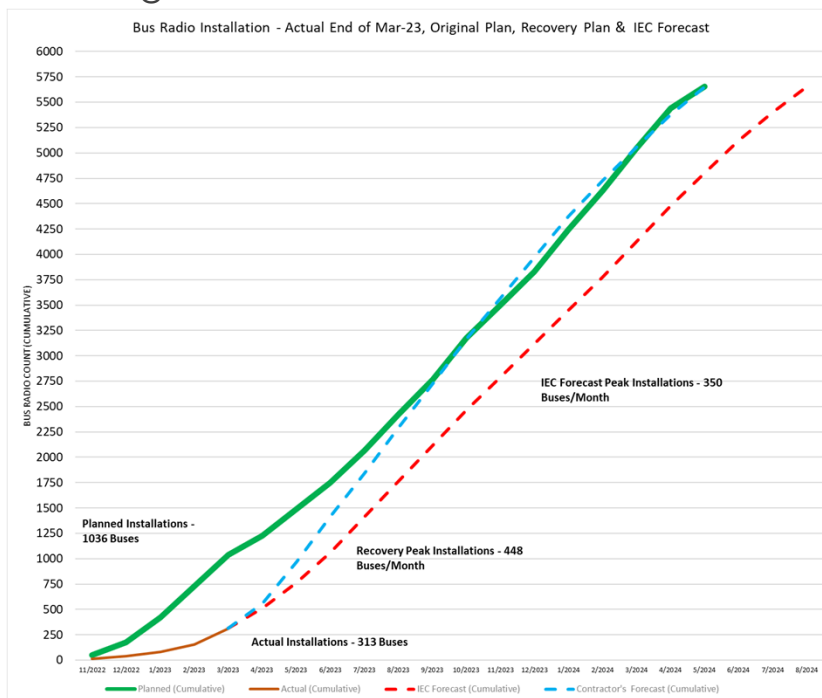


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# Bus Radio System

## Bus Radio installation

- Bus installation commenced on November 1, 2022 after completion of Pilot test. While production installation is improving, it has not achieved the 350 per month production level needed to complete bus installation originally planned.
- Contractor has provided a recovery plan which requires up to 450 installations per month to finish in May 2024.
- Contractor recently instituted a training program, done in a facility which is more suitable and efficient than training on a bus as previously done. This reduces training time and could provide 6 new bus installers every 2 weeks.
- The IEC believes it will be a challenge for the contractor to achieve their recovery plan, and it is more reasonable to expect a 350-bus per month installation rate and therefore the IEC forecasts bus installation completion in August 2024. See chart below:



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# Bus Radio System

## Radio Base Stations

- 34 sites originally planned:
  - 32 locations are complete with final testing and closing of punch list items in progress.
  - 2 remaining locations are in early stages of construction (Kearny, New Jersey, expected to complete by February 2024, Todt Hill tower expected to complete by September 2023.)
- 1 microwave network site in Rail Command Center (RCC), originally planed, is complete.
- 2 new Mobile Base Stations (MBS) in Yukon and Meredith bus depots required to provide needed radio coverage in Staten Island.
- A complete coverage testing on all bus routes may be required to identify potential need for additional MBS or base stations.



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# Bus Radio System

## Budget

- Current total budget is \$294M, with the project's Estimate at Completion (EAC) of \$330M to cover additional Force Account and Construction Manager costs due to delays.
- The IEC forecasts an EAC of \$360M which is a \$10M increase since last report due to potential time impact delays, potential change orders, risk on remaining work, and potential contractor claims.
- Budget reconciliation with EAC is required to address shortfall.



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# Bus Radio System

## Top Risks and Mitigations

- Risk – Due to lack of trained and certified bus installers, bus installation production may further delay project completion.
  - Mitigation – Contractor is providing an effective training and certification program to meet the installation recovery plan.
  - The IEC supports contractor's new training program. However, the current training program, which is critical to meeting the production schedule, is driven by availability of new recruits to maintain the required number of installers. Therefore, the contractor should make available and maintain a sufficient level of trained installers.
- Risk – Bus radio coverage and interference issues require resolution by the contractor and may impact schedule.
  - Mitigation – The contractor will install MBS equipment in Yukon and Meredith bus depots for coverage in Staten Island. Contractor is also suggesting adding a cellular backup to the network as a mitigation for interference.
  - In the IEC's opinion, above measures mitigate the risk. However, addition of a cellular back up, while addressing inefficiencies in coverage and interference, may require design review and integration.
- Risk – System reliability and performance issues that require resolution by the contractor may impact project schedule.
  - Mitigation – Continued close coordination by all stakeholders to analyze issues, find root causes, and agree on corrective actions.
  - In the IEC's opinion, above measures are effective in mitigating the risk, however, issues arising under full system load and stress testing could require further design modification.



# Bus Radio System

## Observation

- Department of Buses (DOB) is making sufficient buses, installation locations, and resources available to enable the contractor to meet their installation plan.



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**DRAFT/CONFIDENTIAL: This working paper is to be used for internal deliberative purposes only.**

## MTA Board & Capital Program Committee Update New Fare Payment System (NFPS) / OMNY

The New Fare Payment System (NFPS) provides for the replacement of the MetroCard fare collection system used by New York City Transit (NYCT) and other non-MTA agencies, as well as the legacy fare collection systems of Metro-North Railroad (MNR) and the Long Island Rail Road (LIRR), with a state-of-the-art contactless fare collection system. The new system was branded in 2019 as “One Metro New York” or “OMNY”. This is a multi-year design-build program being designed with open architecture and is an account-based system that accepts open payments made with contactless credit and debit bank cards, as well as digital wallets in smartphones and watches (known as open loop media) at transit point-of-entry gates. The system will also accept certain MTA-issued cards (known as closed loop media) for fare payment and non-revenue access to MTA services.

The program aims to replace all front-end and back-end legacy fare collection equipment and software, and the multiple independent back offices and data centers of NYCT, LIRR and MNR will be replaced with a single scalable back office comprised of a transaction processing platform supported by two fully redundant load-balanced data centers. NYCT’s point-of-entry gates (i.e., turnstiles, HEETs, AutoGates) will be retained with new electronics layered in by the NFPS System Integrator.

The last report to the Capital Program Committee (CPC) for the NFPS/OMNY Program was on October 24, 2022. Since the previous report, OMNY growth has continued, with over 40% of subway and bus trips now taken using OMNY. Since inception, over 800 million taps have been processed. However, despite OMNY’s success and adoption by customers, the program continues to experience resourcing challenges as MTA and Cubic simultaneously operate and continue to build out the OMNY system. To best position OMNY for continued success going forward, management of the project is being transitioned to MTA Construction & Development, consistent with other large, complex MTA megaprojects.

### *Current status of the program:*

The OMNY project remains on budget. A comprehensive schedule re-baselining exercise is currently underway between MTA and the vendor, Cubic, which will result in revised milestones and a revised Substantial Completion date.

PROJECT STATUS	Original	Current
<b>Substantial Completion</b>	July 2023	Q4 2025*
<b>Budget**</b>	\$645M	\$772M
*Revised milestones and substantial completion dates are to be determined via the ongoing project re-baselining		
**Current Budget reflects (i) the addition of planned funding reserves that had been excluded at contract award and (ii) the addition of OMNY equipment procurements for LIRR and MNR.		
The project is approximately 52% complete in terms of expended budget.		

While OMNY is operational for subways and buses, the program is still in an implementation phase for the closed-loop features, MetroCard Affiliates delivery, various stakeholder requested enhancements, and the overhaul of the railroad’s legacy fare collection systems. An independent assessment of the fare collection strategy at the Railroads is currently underway which will inform a refined OMNY scope for LIRR and Metro-North.

**MTA Board & Capital Program Committee Update**  
**New Fare Payment System (NFPS) / OMNY**  
**April 2023**

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*Accomplishments since October 2022:*

- Chatbot launch for Reduced Fare enrollment with bank cards/digital wallets
- Reduced Fare service locations for bank card/digital wallet enrollment:
  - 3 Stone Street
  - Five (5) Mobile Sales Vans
  - Nine (9) Customer Service Centers in stations (w/3 more installed, 3 more to be built)
- With limited marketing, over 20,000 reduced fare customers have enrolled to use their own bank card or digital wallet with their reduced fare benefit.
- Increased Reduced Fare (RF) customer usage: RF customers are using their digital wallets at a 60% rate which is almost the same rate as Full Fare customers who are at a 68% rate.

*Upcoming Major Activities for 2Q 2023:*

- Launch pilot for the OMNY B2B portal with two transit benefit providers
- Launch pilot for Paratransit with the new AAR ID card and OMNY payment method
- Re-baselined NFPS project schedule for NYCT and Affiliate deliverables
- Begin rollout of OMNY vending machines for NYCT

*Major Program Risks:*

- Vendor quality control issues continue to affect software releases and updates
- OMNY scope at LIRR and Metro-North not yet finalized, resulting in cost cost and schedule uncertainty
- Potential changes to the contract scope due to MTA stakeholder initiatives
- Resource limitations, both within MTA and at Cubic, impact project delivery and service timeframes



# April 2023 CPC Independent Engineering Consultant Project Review

## OMNY MTA New Fare Payment System



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# OMNY

## Scope of Work

OMNY is a Design/Build project that is being deployed in phases, and replaces MTA's Subway, Bus and Commuter Railroad fare systems. Contract was awarded to Cubic Transportation Systems in November 2017, with an award amount of \$554M and a Substantial Completion (SC) date of July 2023.

OMNY is an open architecture account-based system that will accept contactless credit and debit cards, mobile payment, and MTA issued contactless cards.

- Major project elements include:
  - Integration of MTA fare systems, supporting flexible fare policy; i.e., flat fare for Subway and Bus, zone-based fare for Commuter Railroads, supporting a single customer account across agencies to provide a seamless customer experience.
  - One back-office for processing fares and managing fare system for Commuter Railroad, Subway and Bus.
  - A fully integrated OMNY Revenue System (ORS).
  - Configurable Vending Machines (CVMs) for NYCT, MNR and LIRR with streamlined operational and customer interface features and functionality.
  - Paratransit support using OMNY Account payment.
  - A full featured mobile app with a link to My MTA app for trip planning.

# OMNY

## Schedule (NYCT & Commuter Railroads)

### Completed work

- ▣ Subway and Bus validator installations and Open Payment rollout.
- ▣ Fare Capping.
- ▣ Paratransit (to be deployed).
- ▣ Reduced Fare (deployed for open payment customers).

### Remaining work (NYCT)

- ▣ CVM / ORS status:
  - ▣ QA testing in contractor facility in February 2023.
    - ▣ Defects found and are being corrected.
  - ▣ Stage Testing in MTA facility planned in April 2023.
    - ▣ Correction of defects is progressing, and it is the IEC's opinion that this date can be met.
  - ▣ CVM Installation planned to start in June 2023 in limited number of stations, followed by full rollout in August 2023 to complete installation by October 2024.
- ▣ OMNY Mobile App.
  - ▣ Planned to rollout with full functionality, with rollout schedule under discussion.
- ▣ IEC forecasts NYCT work will be completed in 4Q 2024 per current CVM installation plan, however the numerous change orders which are still to be negotiated may impact the completion date.

### Remaining work (Commuter Railroads)

- ▣ Railroad Mobile Ticketing, CVM, Ticket Office Machine (TOM), and ORS are remaining.
- ▣ Contractor's schedule is under review as part of a re-baselining by C&D which will include impact of change orders.

# OMNY

## Budget

- Current total budget is \$772M, with final project costs yet to be determined due to potential impact of change orders and re-baselining of the schedule.



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# OMNY

## Top Risks and Mitigations

- ▣ **Risk:** There has been a significant delay in OMNY implementation for Commuter Railroads, with a risk of further delay due to scope that is not yet finalized.
  - ▣ **Mitigation:** C&D Project Management and Commuter Railroads are evaluating the long-term ticketing strategy.
  - ▣ The IEC concurs with this action.
- ▣ **Risk:** Delay in resolution of NYCT change orders is impacting SC.
  - ▣ **Mitigation:** Change in OMNY PMO management structure and C&D strategic review to rectify internal processes.
- ▣ **Risk:** OMNY PMO resource availability impacts project schedule.
  - ▣ **Mitigation:** C&D is implementing a new organizational structure for the OMNY program, and C&D Project CEO has begun to fill all approved vacancies.
  - ▣ The IEC concurs with this action.



# OMNY

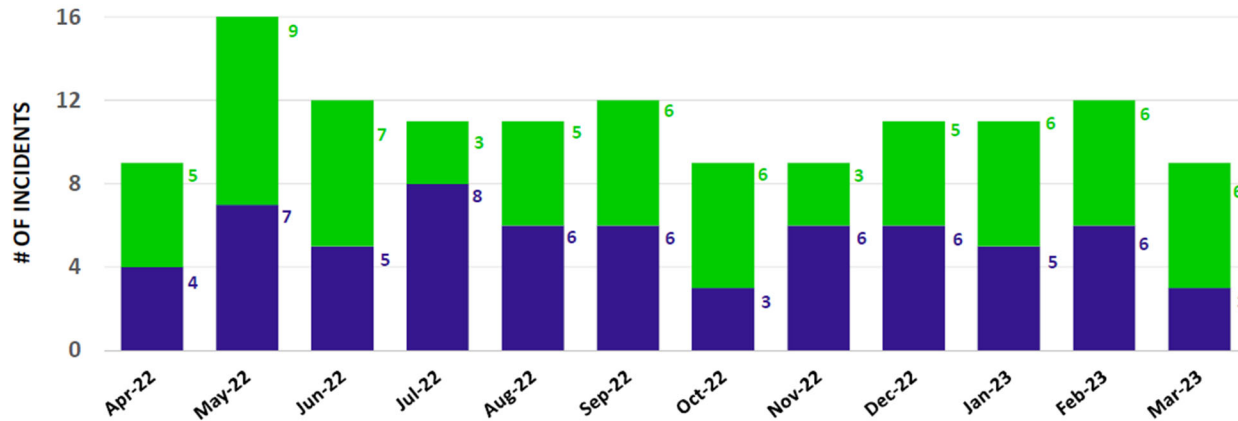
## Concerns

- Subway and Bus validator defects continue to consume project team, operations and contractor resources.
  - Campaign to replace Subway Validators due to Electrostatic Discharge (ESD) issues, that would occur during extreme cold weather, were completed in January 2023.
  - Campaign to replace Bus Validators to prevent cracking of Bus Validator housing and brackets has not yet started. A technical solution to address this systemic defect has been identified but the contractor is challenging sole responsibility for costs.
- Contractor's quality control process continues to be an issue for operation of a reliable functioning back-office software. A review of contractor's network management and quality control processes may be required to ensure product is functioning as intended.

## Observations

- The IEC estimates potential savings of \$5M a year if new OMNY cards and tickets are purchased directly from card and ticket manufacturers by Operations (with support from PMO).
- Commuter Railroads must continually extend their contracts for station, ticket office equipment, and e-Tix due to delays in the OMNY program.

**LOST TIME INCIDENT (LT) & RECORDABLE INCIDENT (REC)**



**Lost Time** – A work-related incident (injury or illness) to an employee that results in a loss of productive work time and the employee is unable to perform regular job duties  
**Recordable** - An injury or illness that results in restricted work or transfer to another job, medical treatment beyond first aid, loss of consciousness

**SAFETY NARRATIVE**

**MARCH UPDATE:**

- **18 safety incidents were reported in March 2023, including:**
  - 3 lost time incidents
  - 6 recordable incidents
- **Reported lost time incidents in March 2023 decreased by 50% vs. February 2023**
- **Leading lost-time and recordable incident types for March 2023 were Caught In Between (33%), Burns (22%), Slip/Trip/Fall (11%), Spain/Strain (11%), Debris in Eyes (11%), and Environmental (11%).**

**YEAR-TO-DATE TRENDS:**

<b>Hazards 2023</b>	<b>Lost Time</b>	<b>Recordable</b>	<b>First Aid</b>	<b>Notification Only</b>	<b>Grand Total</b>	<b>% to Grand Total</b>
<b>Slip, Trip, Fall</b>	4	4	5	4	<b>17</b>	<b>27%</b>
<b>Struck By/Against</b>	1	6	6	4	<b>17</b>	<b>27%</b>
<b>Other</b>	4	2	1	5	<b>12</b>	<b>19%</b>
<b>Sprain/Strain</b>	3	2	1	3	<b>9</b>	<b>15%</b>
<b>Caught in Between</b>	1	4	0	1	<b>6</b>	<b>10%</b>
<b>Electrical</b>	1	0	0	0	<b>1</b>	<b>2%</b>
<b>Totals</b>	<b>14</b>	<b>18</b>	<b>13</b>	<b>17</b>	<b>62</b>	<b>100%</b>

- **LOST TIME INCIDENT TRENDS:** 14 lost time incidents have been reported YTD (through March 31, 2023), an increase of 8% (or 1 incident) vs. the same reporting period in 2022. This year's (through March 31, 2023) top injury types associated with lost time incidents are Slips/Trips/Falls and Strain/Sprains which accounted for 7 out of the 14 (50%) reported incidents.
- **RECORDABLE INCIDENT TRENDS:** 18 recordable incidents have been reported YTD (through March 31, 2023), an increase of 100% (or 9 incidents) vs. the same reporting period in 2022. This year's (through March 31, 2023) top injury type associated with recordable incidents is Struck By/Against (33%)

- **SERIOUS INCIDENTS:** 2023 Total – 2
  - **ELECTRICAL SHOCK** - 1
  - **ENVIRONMENTAL** - 1

## INSPECTIONS & AUDITS:

- **MARCH INSPECTIONS:**
  - **INTERNAL** – 291
  - **EXTERNAL** – 639 ( 104 Third-Party Safety Consultants; 535 OCIP Visits)
- **YTD TOTAL # OF INSPECTIONS:**
  - **INTERNAL** – 667
  - **EXTERNAL** – 1,653 ( 223 Third-Party Safety Consultants; 1,430 OCIP Visits)
- **MARCH NEGATIVE OBSERVATION(S)** – Negative Findings identified through the various inspections include Housekeeping, Site/Public Protection, Fall Protection, Stairs & Ladders, and PPE.
- **MARCH POSITIVE OBSERVATION(S)** - Positive Findings identified through the various inspections include Supervision/Organization, General Safety, Tools (Hand & Power), Electrical, Fire Protection, and Safety Programs (HASP, SWPs & GHS).

## INVESTIGATIONS & LESSONS LEARNED:

- **NUMBER OF INVESTIGATIONS for MARCH – 2**
  - **C-48704 – Lost Time- 3/28/23 - Carbon Monoxide** - Worker passed out and fell from a 2-tier pipe scaffold. ER Blood work revealed elevated levels of carbon monoxide. The worker was kept in the hospital while recovering. Associated work with demolition was suspended in the area, and the DB conducted additional environmental monitoring. Based on the testing results by an independent 3<sup>rd</sup> party, the SWP and supporting equipment layout/configuration were revised. Subsequent testing determined that corrective actions were sufficient, and work resumed. Additional testing has shown no elevated levels of CO after implementing the corrective actions recommended by the 3<sup>rd</sup> party consultant, PMC and CD Safety.
  - **CBX-001 - HRJV Hi-Rail Equipment Derailment - 03-29-23 at I-95 South (EXIT 8C)** - Verde High Rail truck derailed off the track exiting the work station at end of a shift. HRJV investigated the incident (03/29/23-Evening 3<sup>rd</sup> shift) and gathered all information for the incident reports. The Hi-Rail equipment was removed from service to be inspected by AMTRAK. AMTRAK inspected the vehicle at the Adams Facility and it failed. A report has not been provided to the PMT. HRJV conducted an internal equipment inspection and determined the root cause was equipment failure. A Lessons Learned is being developed by HRJV and will be submitted to the PMT by 4/18/2023.

## MTA C&D SAFETY STRATEGIC INITIATIVES:

- Staffing remains a high priority in filling critical organizational roles within Safety Oversight and the Business Units. CD Safety Oversight continues to support the Business Units in reviewing and selecting qualified candidates to fill these critical roles/positions. The availability of suitable candidates continues to be challenging as Contractors and PMCs also need qualified personnel to staff their projects.
- VP Safety Oversight continues outreach initiatives with outside Contractors and Construction groups. The Monthly & Quarterly Outreach meetings with the various PMC/CCM consultant companies are ongoing and include discussions on possible areas for additional collaboration.
- Independent Third-Party Safety Inspection Consultant – The Independent Safety consultant is tasked with ongoing monitoring of contractor compliance with applicable federal (such as OSHA, EPA), state and local regulations, approved Construction Health and Safety Plan (CHASP) and the specific requirements of the contract.
  - The Consultant has assembled the Independent 3<sup>rd</sup> party Safety Inspection teams. Inspections are expected to begin in April, with the teams visiting various NYCT projects. C&D Safety Oversight assists with the coordination between the inspection teams and Project CEOs to identify active projects and worksites.



- AECOM Safety Assessment Initiative – Initiative to perform a multiphase project to audit, evaluate, recommend and implement a new MTA C&D Safety Management System (SMS). The primary focus is improving safety at construction sites and capital improvement projects around operating MTA rail transit, bridge, tunnel facilities, including an IT platform selection and data management application.
  - Presentations were made to Senior Leadership to discuss the overall findings and the proposed path forward with a phased implementation approach. Meetings presenting the safety plan and approach have also been held with the BU Leads, selected PMC companies, and Contractors and have been well received. Comments were solicited and will be reviewed and discussed with AECOM when received. The Digital Solution component of the initiative continues moving forward. Stakeholders are reviewing and finalizing the SOW and supporting documents/appendices prior to finalizing the RFP.

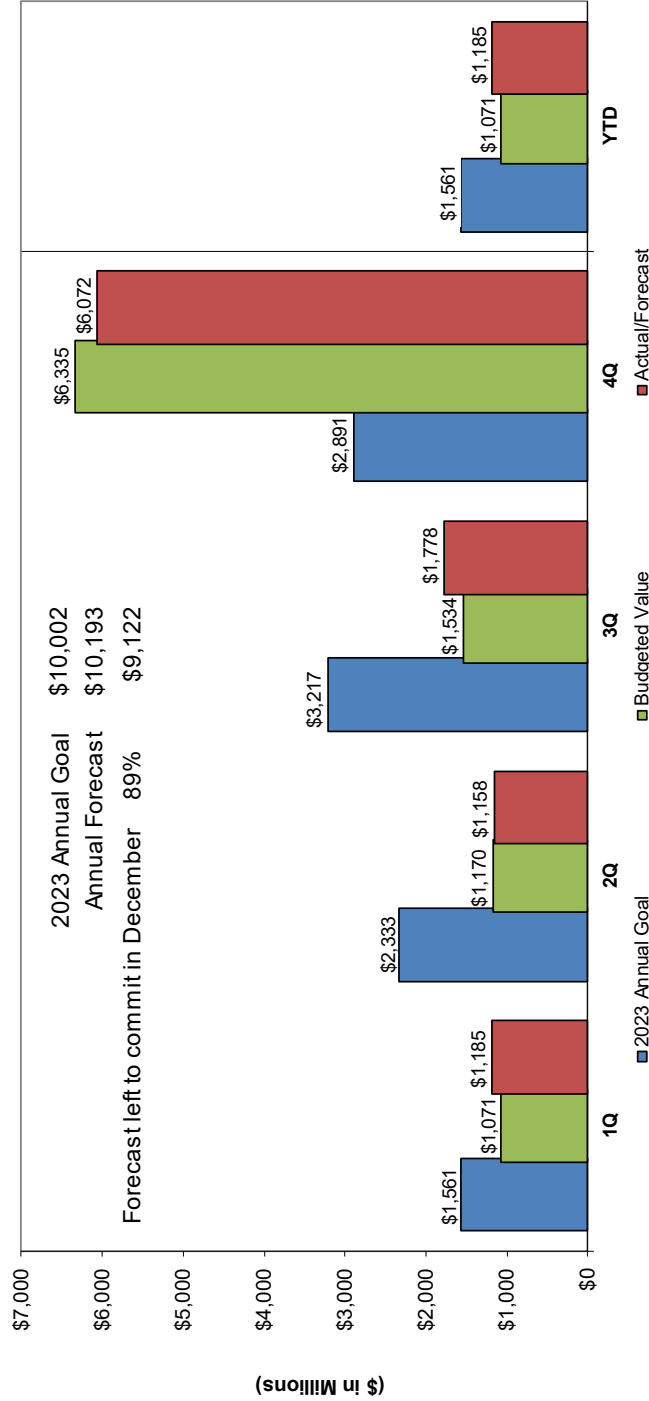
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# **MTA Capital Program Commitments & Completions**

**through  
March 31, 2023**

**Capital Projects – Commitments – March 2023**

**MTA-wide 2023 Commitments**



**Annual Goals:** Dollar and time-based programmatic milestones for the commitment of contracts established at the start of each year and which are achievable during the year.

**Actuals:** The value of the goals and any additional unplanned commitments as they are achieved during the year.

**Forecasts:** The updated estimates by quarter for remaining goals as well as any unplanned commitments that might occur during the year.

**Budget:** The budgeted value assumed in the capital program for the Actual and Forecasted commitments being tracked during the year.

**Commitments Summary**

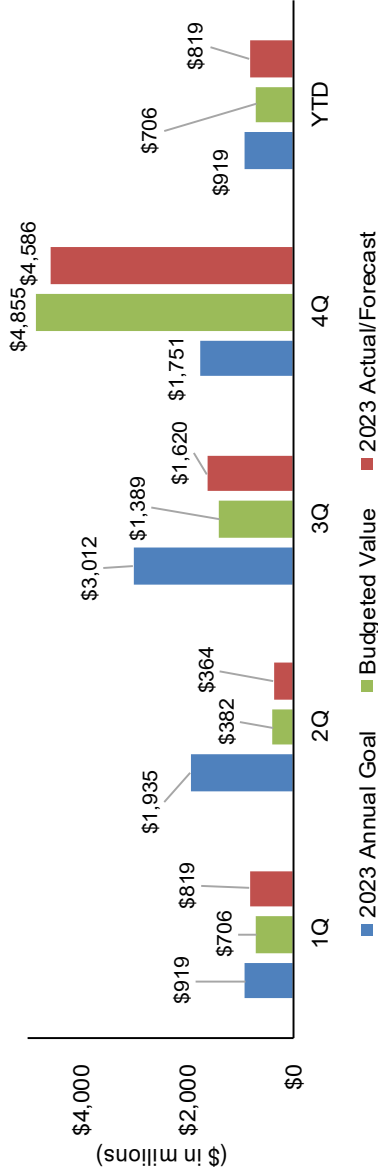
In 2023 the MTA plans to commit \$10 billion worth of capital projects. The MTA is tracking 38 "major" commitments across the agencies and business units. At the end of each quarter in 2023 any schedule variances will be reported on the following pages.

Through March, the MTA has committed \$1,185 million versus a \$1,561 million YTD goal and by year end the MTA expects to make its \$10 billion goal. The ~\$375 million shortfall in actual commitment versus the YTD annual goal is due to a few projects (Penn Reconstruction, LIRR Annual Track Program, and Lower Level Main Span Deck Rehab & Painting of Upper Level Suspended Span Steel for the Verrazano-Narrows Bridge) delayed beyond the first quarter. These are still expected to be committed later in the year.

**NYCT/MTA Bus Capital Projects – Commitments – March 2023 – Budget Analysis and Schedule Variances**

**NYCT and MTA Bus Budget Analysis**

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2023 Annual Goal	\$919	\$1,935	\$3,012	\$1,751	\$919
2023 Actual/Forecast	\$819	\$364	\$1,620	\$4,586	\$819
Budgeted Value	\$706	\$382	\$1,389	\$4,855	\$706



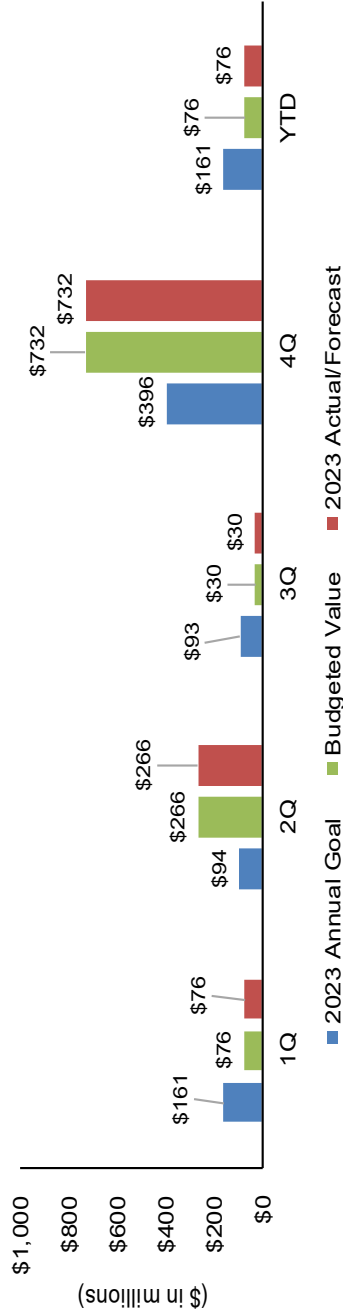
**Q1 Schedule Variances**

There are no major schedule slippages to report for NYCT and MTA Bus.

**LIRR Capital Projects – Commitments – March 2023 – Budget Analysis and Schedule Variances**

**LIRR Budget Analysis**

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2023 Annual Goal	\$161	\$94	\$93	\$396	\$161
2023 Actual/Forecast	\$76	\$266	\$30	\$732	\$76
Budgeted Value	\$76	\$266	\$30	\$732	\$76



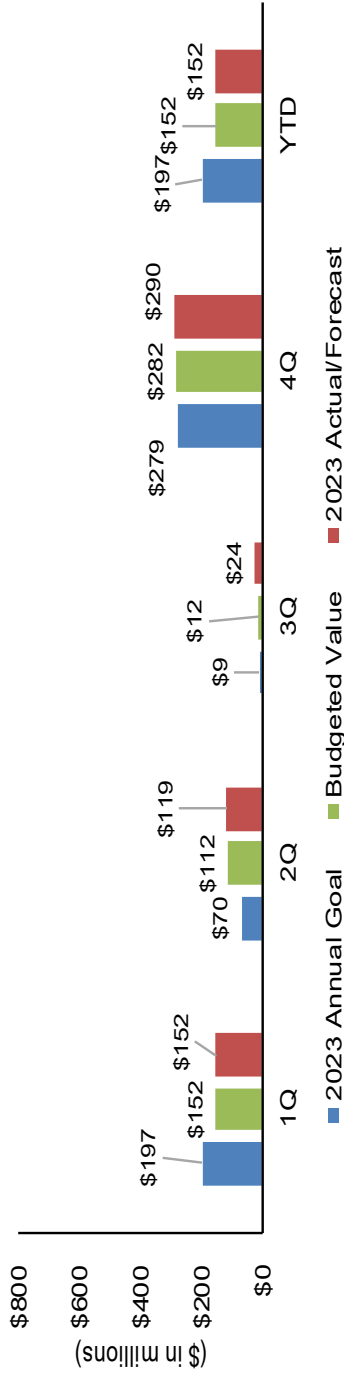
**Q1 Schedule Variances**

Project	Commitment	Goal	Act./Forec.
<b>1 LIRR Amber Commitment (1 new this quarter)</b>			
Amber delays are within 2 months of goal.			
Track			
2023 Annual Track Program	Construction	Mar-23	Apr-23
(New Item)		\$ 62.0	\$ 62.0
Delay in commitment was due to additional funding and budget reviews prior to the award which was made in early April.			

**MNR Capital Projects – Commitments – March 2023 – Budget Analysis and Schedule Variances**

**MNR Budget Analysis**

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2023 Annual Goal	\$197	\$70	\$9	\$279	\$197
2023 Actual/Forecast	\$152	\$119	\$24	\$290	\$152
Budgeted Value	\$152	\$112	\$12	\$282	\$152



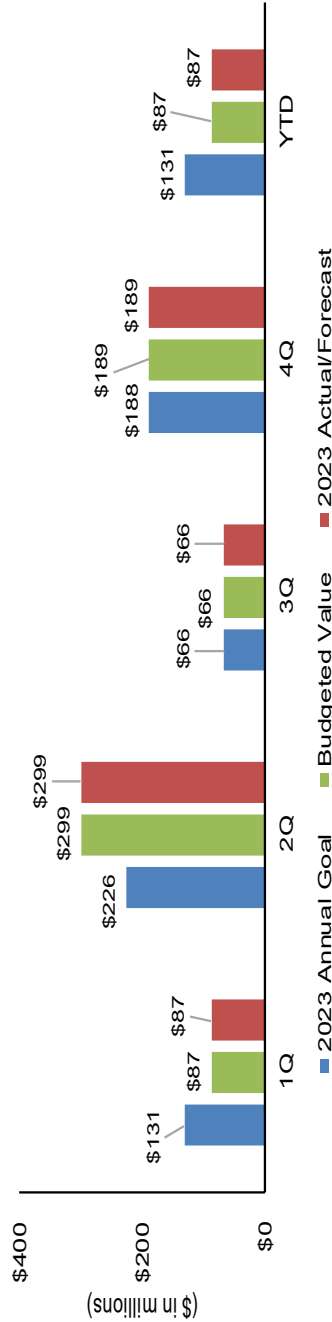
**Q1 Schedule Variances**

There are no major schedule slippages to report for Metro-North Railroad.

**MTA Network Expansion Projects – Commitments – March 2023 – Budget Analysis and Schedule Variances**

**MTA Network Expansion Budget Analysis**

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2023 Annual Goal	\$131	\$226	\$66	\$188	\$131
2023 Actual/Forecast	\$87	\$299	\$66	\$189	\$87
Budgeted Value	\$87	\$299	\$66	\$189	\$87



**Q1 Schedule Variances**

Project	Commitment	Goal	Act./Forec.
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**1 Network Expansion Amber Commitments (1 new this quarter)**

Amber delays are within 2 months of goal.

*Penn Station Access*

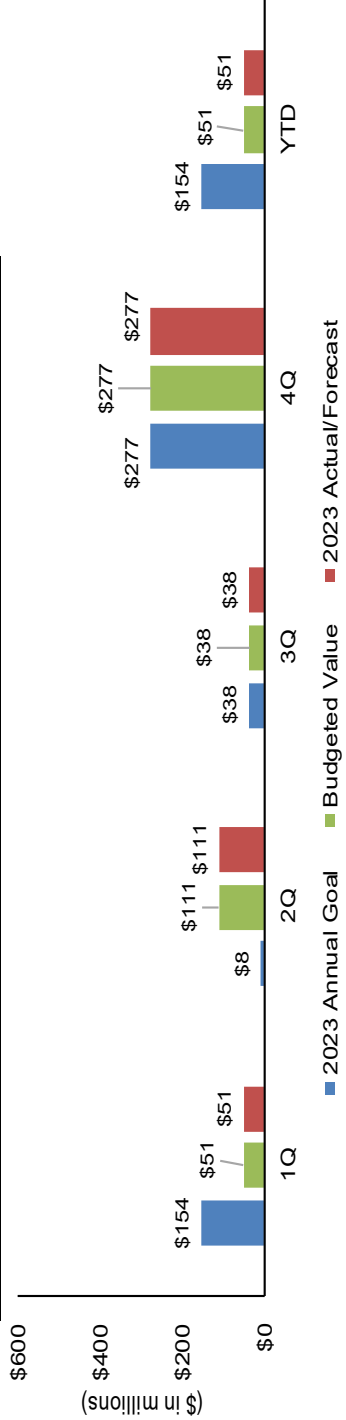
<b>Penn Reconstruction:</b>	Design	Mar-23	Apr-23
<b>Architectural &amp; Engineering</b>		\$	60.82
<b>Design Svcs - FXC WSP (New Item)</b>		\$	60.82

Delays due to ongoing negotiations with project partners Amtrak and NJ Transit.

**B&T Capital Projects – Commitments – March 2023 – Budget Analysis and Schedule Variances**

**B&T Budget Analysis**

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2023 Annual Goal	\$154	\$8	\$38	\$277	\$154
2023 Actual/Forecast	\$51	\$111	\$38	\$277	\$51
Budgeted Value	\$51	\$111	\$38	\$277	\$51



**Q1 Schedule Variances**

Project	Commitment	Goal	Act./Forec.
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**1 B&T Amber Commitments (1 new this quarter)**

Amber delays are within 2 months of goal.

Bridges

VN-81 Lower Level Main Span Deck Rehab & Painting of Upper Level Steel (New Item)	Construction	Feb-23	Apr-23
	\$	104.9	\$ 104.9

Schedule shifted because of pending approval of third party funding.



### Capital Projects – Completions – March 2023

Forecast	MTA-wide 2023 Major Completions												Post 2023
	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	
Goal	4	1	3	4	3	4	1	1	3	3	1	13	1
Total	42	4	1	6	6	2	2	2	1	3	3	10	1
Jan-23	4												
Feb-23		1			1								
Mar-23		1	2	4	1	2	1	1	3	3	1	1	1
Apr-23				4	1	1						1	1
May-23					1								
Jun-23						2							
Jul-23							1						
Aug-23								1					
Sep-23									3				
Oct-23										3			
Nov-23											1		
Dec-23												10	1

**BLUE** = Actual/Forecast earlier than Goal  
**GREEN** = Actual/Forecast matches Goal  
**AMBER** = Actual/Forecast within 2 months of Goal  
**RED** = Actual/Forecast beyond 2 months of Goal

### Completions Summary

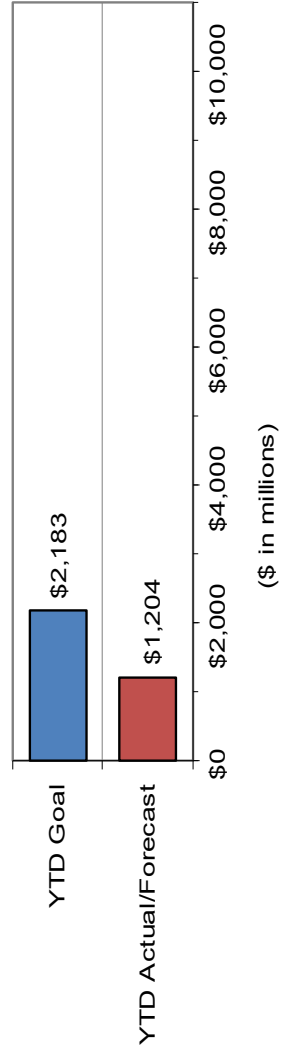
In 2023 the MTA plans to complete \$10.4 billion of projects. 42 Major completions are being tracked throughout the year.

Through March, the MTA has completed \$1,204 million versus its year to date goal of \$2,183 million. The shortfall is due mainly to the impact of delayed East Side Access contract completions which are expected to be achieved later this Spring. Overall, there are eight delayed major completions, all but one of which are expected to be achieved later in the year. Each is identified on the following pages.

By year end the MTA forecasts achieving 98% of its \$10.4 billion completions goal.

### Budget Analysis

2023 Annual Goal      \$10,408  
 Annual Forecast      \$10,172

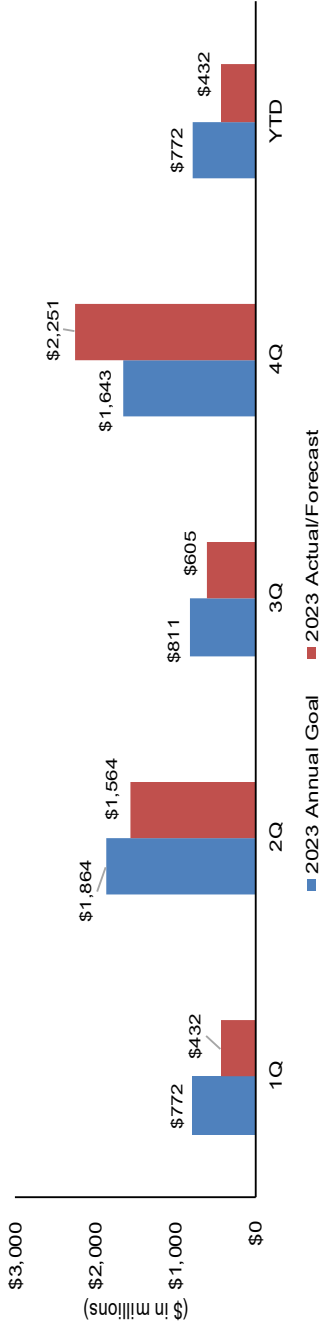


**NYCT/MTA Bus Capital Projects – Completions – March 2023 – Budget Analysis and Schedule Variances**

**NYCT and MTA Bus Budget Analysis**

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2023 Annual Goal	\$772	\$1,864	\$811	\$1,643	\$772
2023 Actual/Forecast	\$432	\$1,564	\$605	\$2,251	\$432

2023 Goal (Rolling Stock)	\$276	\$249	\$0	\$96	\$245
2023 Actual/Forecast (Rolling Stock)	\$276	\$249	\$0	\$964	\$276



**Schedule Variances**

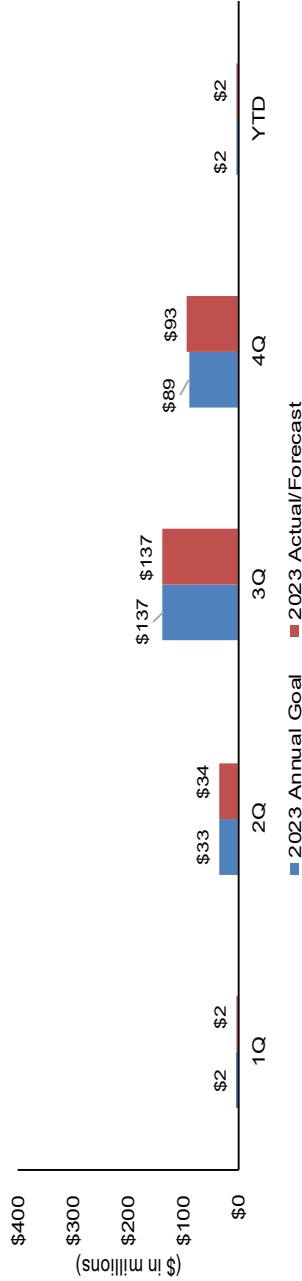
Project	Completion	Goal	Act./Forec.
<b>5 NYCT/MTA Bus Red Completions (1 new this month)</b>			
<b>Red delays are beyond 2 months of goal.</b>			
<i>Superstorm Sandy</i>			
Upgrade Emergency Booth Comm System	Construction	Mar-23 \$74.1	Dec-23 \$74.1
Change in project schedule reflects ongoing migration/integration work of the communication system and in-service durability testing.			
<i>Signals &amp; Communications</i>			
CBTC QBL West Ph.1 /Siemens	Construction	Apr-23 \$221.7	Dec-23 \$221.7
Change in project schedule due to the vendor's softw are-related reliability issues.			
<i>Stations</i>			
ADA: 8 Stations - Package A	Construction	Jul-23 \$276.2	Dec-23 \$276.2
Change in project schedule reflects delays in establishing utility relocation agreements, property access and easement agreements.			
<b>NYCT/MTA Bus Red Completions (continued)</b>			
<i>Line Equipment</i>			
Rehabilitate Forsyth St. Fan Plant (New Item)	Construction	Nov-23 \$87.7	Mar-24 \$87.7
Change in project schedule reflects delay due to complexity of excavation work.			
<i>MTA Bus</i>			
Storeroom Expansion - LaGuardia	Construction	Mar-23 \$7.4	Jun-23 \$7.4
The projects' revised completion date reflects the delivery delay of a critical disconnect switch.			
<b>1 NYCT/MTA Bus Amber Completions (0 new this month)</b>			
<b>Amber delays are within 2 months of goal.</b>			
Staten Island Railway	Construction	Apr-23 \$111.8	Jun-23 \$111.8
ML Track Rehab & Clifton Yard Sw itches	Construction	Apr-23 \$111.8	Jun-23 \$111.8
Change in project schedule reflects ongoing impact of track access and bus shuttles.			

**LIRR Capital Projects – Completions – March 2023 – Budget Analysis and Schedule Variances**

**LIRR Budget Analysis**

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2023 Annual Goal	\$2	\$33	\$137	\$89	\$2
2023 Actual/Forecast	\$2	\$34	\$137	\$93	\$2

2023 Goal (Rolling Stock)	\$0	\$0	\$115	\$0	\$0
2023 Actual/Forecast (Rolling Stock)	\$0	\$0	\$115	\$0	\$0



**Schedule Variances**

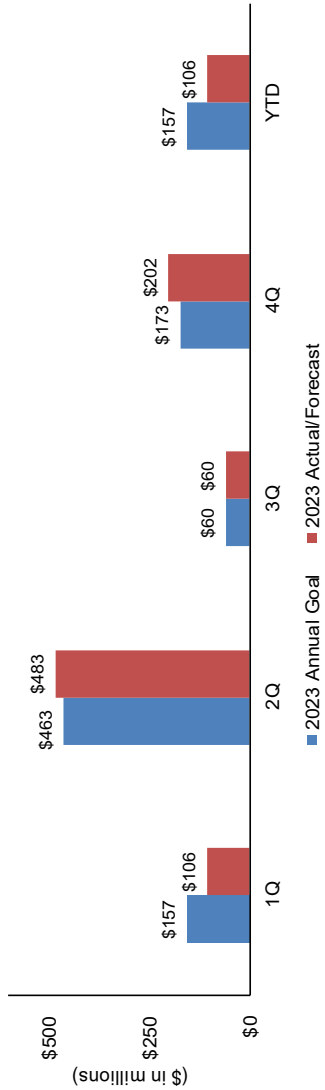
There are no major schedule slippages to report for the Long Island Rail Road.

**MNR Capital Projects – Completions – March 2023 – Budget Analysis and Schedule Variances**

**MNR Budget Analysis**

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2023 Annual Goal	\$157	\$463	\$60	\$173	\$157
2023 Actual/Forecast	\$106	\$483	\$60	\$202	\$106

2023 Goal (Rolling Stock)	\$0	\$0	\$0	\$115	\$0
2023 Actual/Forecast (Rolling Stock)	\$0	\$0	\$0	\$115	\$0



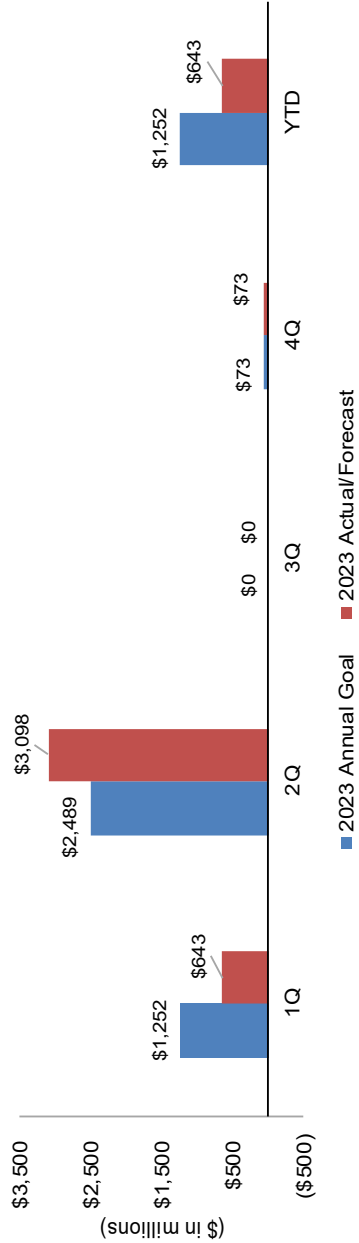
**Schedule Variances**

There are no major schedule slippages to report for Metro-North Railroad.

**MTA Network Expansion Projects – Completions – March 2023 – Budget Analysis and Schedule Variances**

**MTA Network Expansion Budget Analysis**

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2023 Annual Goal	\$1,252	\$2,489	\$0	\$73	\$1,252
2023 Actual/Forecast	\$643	\$3,098	\$0	\$73	\$643



**Schedule Variances**

Project	Completion	Goal	Act./Forec.	Project	Completion	Goal	Act./Forec.
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**1 Network Expansion Completion (0 new this month)**

Red delays are delayed more than 2 months of goal.  
East Side Access

GCT Concourse & Facilities Construction Feb-23 May-23

\$572.0 \$572.0

Delay to CM014B is driven by the completion and testing of a freight elevator followed by ceiling/flooring finishes. This delayed scope is not required for revenue service and has no impact on the riding public.

**1 Network Expansion Completion (1 new this month)**

Amber delays are within 2 months of goal.  
East Side Access

Concourse, Cavern & Facility  
Detailing Services CM030  
(New Item)

Construction Mar-23 May-23

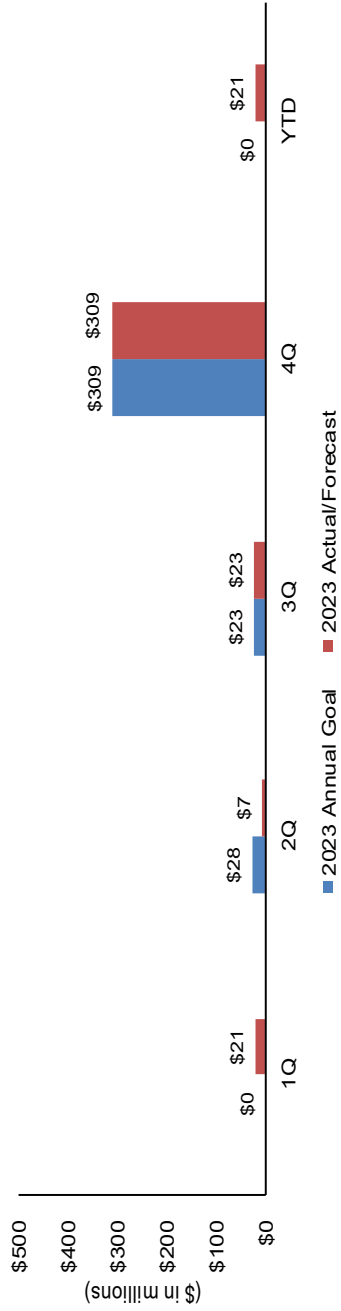
\$37.1 \$37.1

The CM030 contract which focuses on passenger facing and retail environment scope in the GCT Madison Ave concourse is delayed as additional contract change orders are being addressed.

**B&T Capital Projects – Completions – March 2023 – Budget Analysis and Schedule Variances**

**B&T Budget Analysis**

Summary Chart Data	1 Q	2 Q	3 Q	4 Q	YTD
2023 Annual Goal	\$0	\$28	\$23	\$309	\$0
2023 Actual/Forecast	\$21	\$7	\$23	\$309	\$21



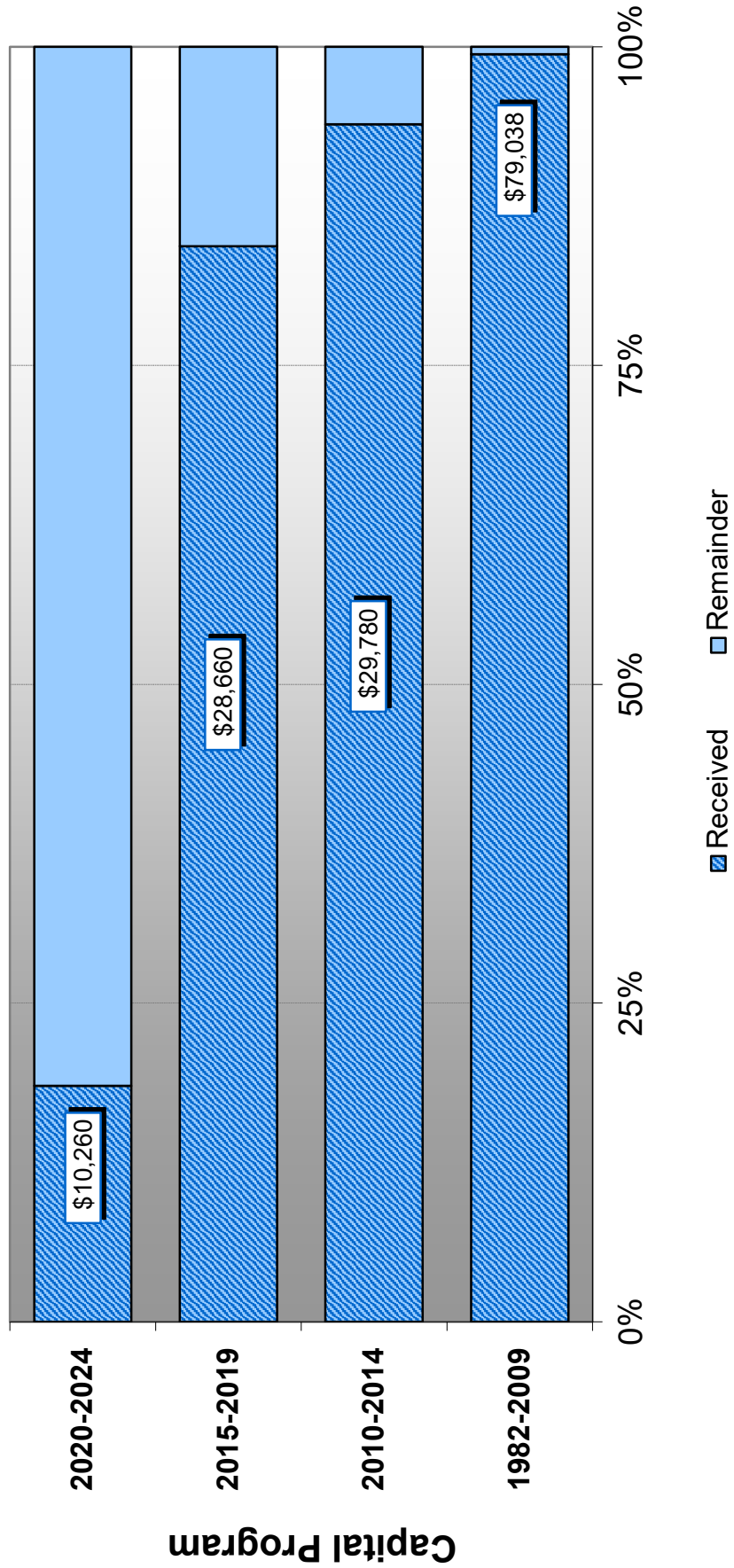
**Schedule Variances**

There are no major schedule slippages to report for MTA Bridges and Tunnels.

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# Status of MTA Capital Program Funding

**Capital Funding (March 2023)**  
\$ in millions





**Capital Funding Detail (March 2023)**

\$ in millions

	Funding Plan		Receipts	
	Current	Thru February	March	Received to date
<b>2010-2014 Program</b>				
Federal Formula, Flexible, Misc	\$5,794	\$5,790	\$ -	\$5,790
Federal High Speed Rail	173	173	-	173
Federal New Start	1,271	1,271	-	1,271
Federal Security	89	89	-	89
Federal RRIF Loan				
City Capital Funds	628	608	-	608
State Assistance	770	770	-	770
MTA Bus Federal and City Match	132	113	-	113
MTA Bonds (Payroll Mobility Tax)	11,701	10,698	-	10,698
Other (Including Operating to Capital)**	1,361	1,288	-	1,288
B&T Bonds	2,025	1,864	-	1,864
Hurricane Sandy Recovery				
<i>Insurance Proceeds/Federal Reimbursement</i>	6,698	6,697	-	6,697
<i>PAYGO</i>	171	171	-	171
<i>Sandy Recovery MTA Bonds</i>	658	225	-	225
<i>Sandy Recovery B&amp;T Bonds</i>	229	23	-	23
<b>Total</b>	<b>31,701</b>	<b>29,780</b>	<b>-</b>	<b>29,780</b>

	Funding Plan		Receipts	
	Current	Thru February	March	Received to date
<b>2015-2019 Program</b>				
Federal Formula, Flexible, Misc	\$6,898	\$5,724	\$ -	\$5,724
Federal High Speed Rail	122	122	-	\$122
Federal Core Capacity	100	-	-	\$ -
Federal New Start	500	-	-	\$ -
Federal Security	18	15	-	\$15
State Assistance	9,196	7,445	719	\$8,164
City Capital Funds	2,669	2,060	-	\$2,060
MTA Bonds	8,398	8,308	-	\$8,308
Asset Sales/Leases	806	315	-	\$315
Pay-as-you-go (PAYGO)**	2,156	1,961	-	\$1,961
Other	163	68	-	\$68
B&T Bonds & PAYGO/Asset Sale	2,942	1,925	-	\$1,925
<b>Total</b>	<b>33,969</b>	<b>27,941</b>	<b>719</b>	<b>28,660</b>

	Funding Plan		Receipts	
	Current	Thru February	March	Received to date
<b>2020-2024 Program</b>				
Capital from Central Business District Tolling	\$15,000	\$ -	\$ -	\$ -
Capital from New Revenue Sources	10,000	1,648	-	\$1,648
MTA Bonds and PAYGO	8,041	449	-	\$449
Other Contribution	542	-	-	\$ -
Federal Formula	8,865	6,226	-	\$6,226
State of New York	3,101	101	410	\$511
City of New York	3,007	1,087	-	\$1,087
Federal New Start (SAS Ph2)	2,905	-	-	\$ -
Federal Flexible	581	54	-	\$54
Federal Other	48	28	-	\$28
Federal Security	26	10	-	\$10
B&T Bonds	3,327	248	-	\$248
<b>Total</b>	<b>55,442</b>	<b>9,850</b>	<b>410</b>	<b>10,260</b>