



Metropolitan Transportation Authority

Capital Program Committee Meeting

February 2022

Committee Members

J. Lieber, Chair
N. Zuckerman, Vice Chair
A. Albert
J. Barbas
N. Brown
M. Fleischer
R. Glucksman
R. Herman
D. Jones
K. Law
R. Linn
D. Mack
H. Mihaltses
J. Samuelson
V. Tessitore

Capital Program Committee Meeting

2 Broadway, 20th Floor Board Room

New York, NY 10004

Tuesday, 2/22/2022

12:00 - 1:30 PM ET

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**CONSTRUCTION & DEVELOPMENT
COMMITTEE ACTIONS and PRESENTATIONS
SUMMARY for FEBRUARY 2022**

Responsible Department	Vendor Name	Total Amount	Summary of Action
Contracts	Banton Construction Company	\$15,250,879.63	MTA Construction & Development requests the Board ratify Contract Modifications 30, 42, 43, 45, 46 and 47 to the Hudson Line Wayside Communications and Signal System Infrastructure Improvements contract (82133) to address various direct costs and impacts to schedule
Contracts	Ducci Electrical Contractors, Inc.	\$2,735,955.40	MTA Construction & Development requests the Board ratify Contract Modifications 40 and 41 to the Harlem Line Wayside Communications and Signal System Infrastructure Improvements contract (82137) to address the cost of added work and the delay associated with the added work itself.

MINUTES OF MEETING
MTA CAPITAL PROGRAM COMMITTEE
January 24, 2022
New York, New York
12:00 P.M.

CPC members present (**Attended remotely*):

Hon. Janno Lieber
Hon. Andrew Albert*
Hon. Jamey Barbas
Hon. Norman Brown
Hon. Randolph Glucksman*
Hon. David Jones*
Hon. Kevin Law
Hon. Robert Linn
Hon. David Mack*
Hon. Neal Zuckerman

Board members present:

Hon. Victor Calise
Hon. Haeda B. Mihaltses

CPC members not present:

Hon. Michael Fleischer
Hon. Rhonda Herman
Hon. John Samuelsen
Hon. Vincent Tessitore, Jr.

MTA staff present:

Evan Eisland
Barney Gray
Amy Linden
John McCarthy
Tim Mulligan
Steve Plochochi
Mark Roche
Tom Savio
Jamie Torres-Springer

Independent Engineering Consultant staff present:

Joe Devito

* * *

Chairman Lieber called the January 24, 2022 meeting of the Capital Program Committee to order at 12:36 P.M.

Public Comments Period

There were three public speakers in the public comments portion of the meeting: Charlton D'Souza, Passengers United, regarding miscellaneous issues; Jason Anthony, Amazon Labor Union, regarding miscellaneous issues; and Bradley Brashears, PCAC, regarding MTA Capital Program Dashboard.

Meeting Minutes

Upon motion duly made and seconded, the minutes to the meeting held on December 13, 2021 were approved.

CPC Work Plan

There were no changes to the CPC Work Plan, and upon motion duly made and seconded, the CPC Work Plan was approved.

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 Opening Remarks

In his opening remarks President Torres-Springer provided highlights of the 2021 Capital Program, including Initiations, with a total value of over \$8 billion (notably including the award of the Penn Station Access Project and numerous Subway Station Accessibility Projects), as well as Project Completions totaling \$4 billion. He then outlined Planned Major Completions for 2022, including East Side Access, Hudson Line Repairs and Resiliency, LIRR Expansion (aka Third Track), and the Queens Blvd. West and Culver Line CBTC projects. In addition, President Torres-Springer noted that he will be providing a more detailed Capital Program presentation to the full Board two days hence.

C&D Capital Program Update

Mr. Gray provided an overview of the Stations Business Unit, which comprises 173 active projects – nearly 50% of which are ADA-related. He then cited recent contract completions and awards, as well as ADA Program Goals, and highlights of the ADA 149th Street Complex & Tremont Avenue Station, and the ADA 8 Station Project. He completed his presentation by citing several challenges facing the Stations Business Unit, including attracting and retaining staff, expanding the knowledge base of staff and the contracting community in light of the mandate to deliver projects using the Design-Build project delivery method, and increasing the pool of contractors -- given current market conditions of the industry. In its Project Review of ADA 149th Street Complex & Tremont Avenue Station, the IEC stated that overall, the project is on budget at \$170M and is currently 33% complete, having experienced a minor schedule slip. With respect to budget, the IEC finds that there is sufficient contingency to cover potential change orders, expenditures and cost risks. In terms of schedule, the slip is primarily due to Con Ed's delay in completing

critical field work at both stations. In addition, ongoing issues with the Tremont Avenue elevators, and repairs to the 149th Street headhouse are of some concern to the IEC. It is the IEC's opinion that without full mitigation, beneficial use of the new elevators at Tremont Avenue and 149th Street could slip one month or more. Top project risks include: availability of sufficient subcontractor and force account resources to support multiple elevator installations in 2022; potential delays to the procurement of long-lead items, specifically the three 149th Street elevators; and coordination with third party stakeholders, specifically Con Ed. The IEC finds that the actions being taken by the project team to address these risks are reasonable and should result in effective mitigation. In its Project Review of the ADA 8 Station Project, the IEC noted that the project is on budget at \$282M, and is currently 35% complete, but has been confronted with challenges to the schedule. Regarding budget, based on its analysis of completed work, change orders, TA Labor, soft costs and other potential costs, the IEC is forecasting the Estimate at Completion (EAC) to be \$313M, which would fall within the overall budget when program reserves are considered. With regard to schedule, the IEC notes that with continued focus on contractor mitigation measures, beneficial use of 7 of the 8 stations should be achieved ahead of the overall project completion date. However, agreement with National Grid on critical project work adjacent to its 20" high-pressure gas transmission line at Lorimer Street Station remains outstanding. The contractor has submitted a recovery schedule, which is under review by C&D; once the IEC has validated this schedule, the IEC will offer a definitive forecast. However, should a full mitigation not be achieved, the IEC finds a 3-to-5-month delay possible. Top risks to the project schedule include: continued delay at Lorimer Station due to the National Grid embargo; resolution of real estate easement agreements at Beach 67th St and Lorimer; and obtaining remaining property owner letters of consent for building monitoring. Mitigations for all schedule risks are being finalized by C&D.

OMNY Program Update

Ms. Linden noted that the project is approximately half-way through the design-build phase of OMNY and the strategy to launch in phases (beginning with the ability to accept bank-issued debit and credit cards rather than waiting to also launch an MTA-issued Transit Card) is already showing positive results. Since December 2020 -- when installation of OMNY readers on-board all buses and in all subway stations was completed -- OMNY usage has increased to almost one-fourth of NYC Transit rides taken. She then cited many new features that were rolled out in 2021, including: adding acceptance of new bank card types; the introduction of OMNY cards (both sales and "re-loads") for availability in retail stores; soft-launching the Reduced Fare Program; development of a retail locator feature on the OMNY website; and making OMNY available on AutoGates for increased accessibility to the Transit system. Ms. Linden then outlined the remainder of the planned OMNY features in 2022, beginning with Paratransit and reduced-fare riders in the first half of this year, as well as making functionality available to support all special programs, including Fair Fares, and student passes and non-revenue ridership such as police and other first responders toward the latter part of this year into next year. She then noted that while the project is on budget (change orders that are currently being analyzed and negotiated with the vendor notwithstanding), the project has been met with schedule challenges, which are being mitigated where possible, as well as those stemming from deficiencies to the vendor's global software quality control process. Substantial Completion for NYCT is currently projected for Q1 2024 and for LIRR and MNR, Q3 2024. Ms. Linden concluded her presentation by citing project risks and corresponding mitigation strategies being undertaken by the project. In its Project Review of the OMNY Program, the IEC stated that the project is 45% complete and on budget at \$772M, but has had some schedule slippage, as cited in the OMNY Program presentation. Regarding budget, while the IEC has reviewed project costs and finds there is sufficient funding available to allow the

project to remain on budget as now planned, several change orders are expected to be awarded in Q2 2022, which may add to the project cost. With respect to schedule, several key milestones have been achieved, including Phases 1 and 2 (subway and bus installations), which were completed on schedule; Phases 3, 4 and 5, including delivery of Commuter Railroad Ticketing, Configurable Vending Machines (CVMs), OMNY Revenue System (ORS), and the OMNY Mobile App remain to be executed. The Top Cost and Schedule Risks are stakeholder-driven scope changes, for which the OMNY team has identified and implemented mitigation measures. The IEC then observed that while the contractor has been asked to make needed improvements to address deficiencies in quality control, the IEC remains concerned that contractor software issues could impact customer experience if they persist. Finally, the IEC noted that the project team and the contractor are working diligently to deliver the Fare Capping pilot by this February, a key MTA priority.

Procurement Actions

Mr. Plochochi presented the C&D procurement, and upon motion duly made and seconded, the Board:

Approved the award of a publicly advertised, competitively solicited Personal Service contract (C81439) to O.R. Colan Associates, LLC for real estate relocation services for Phase 2 of the Second Avenue Subway Project for the not-to-exceed amount of \$11,052,964 and a seventy-two (72) month duration.

A copy of the Resolution and the Staff Summary for the above item is filed with the records of the Capital Program Committee Meeting of this date.

Adjournment

Upon motion duly made and seconded, Chairman Lieber adjourned the January 24, 2022 meeting of the MTA Capital Program Committee at 1:24 PM.

Respectfully submitted,
Michael Jew-Geralds
Office of Construction Oversight



2022-2023 CPC Committee Work Plan

I. Recurring Agenda Items

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

II. Specific Agenda Items

March

Overall Capital Program

- B&T
- Infrastructure

Quarterly Traffic Light Report

April

Overall Capital Program

- Signals and Train Control

Minority, Women and Disadvantaged Business Participation

May

Overall Capital Program

- Integrated Megaprojects

June

Overall Capital Program
Rolling Stock
OMNY
Security Projects
Quarterly Traffic Light Report

July

Overall Capital Program

- Stations

September

Overall Capital Program

- Railroads

Quarterly Traffic Light Report

October

Overall Capital Program

- Infrastructure

November

Overall Capital Program

- Signals and Train Control

Minority, Women and Disadvantaged Business Participation

Small Business Development Program

December

Overall Capital Program

- Integrated Megaprojects

OMNY

Security Projects

Quarterly Traffic Light Report

January

Overall Capital Program

- Stations

February

Overall Capital Program

- Railroads

MTA Board & Capital Program Oversight Committee Update

LIRR Business Unit Projects

February 2022

MTA Construction & Development's last report to the Capital Program Committee for Long Island Rail Road (LIRR) Projects was in September 2021. Since this last report, C&D has successfully awarded eight noteworthy contracts through January 2022, totaling \$101.2M. Five projects were part of the MTA's Small Business Development Program, valued at \$12.6M. The total commitment value for 2021 was \$345.4M, of this \$242.0M were Construction Commitments and \$7.5M were Design Commitments.

C&D has also been able to complete four projects since the September 2021 meeting with a value of \$113.1M. These included Wreck Lead Bridge, Hicksville North Siding, 2021 Track Program and Purchase of Track Construction Equipment.

This document summarizes the progress of two major projects:

ADA Stations Package I *This Design-Build project will bring nine additional LIRR stations into ADA compliance. Upon completion of this project, 88% of LIRR Stations will be ADA accessible.*

Contract #6478

PROJECT STATUS	Original	Forecast
Notice of Award (Forecast)	September 2022	TBD
The project is in Procurement.		

The LIRR ADA Stations Package 1 project is currently in the preconstruction phase with design, construction documentation and third-party coordination underway. It is anticipated that the contract to commence construction will be awarded in Q4 2022.

The project encompasses ADA upgrades at Amityville, Copiague, Lindenhurst, Massapequa Park, Locust Manor, St. Albans and Laurelton stations.

Building on the success of other recent awards for LIRR stations, C&D is bundling all of these stations in to a single Design-Build contract to enable the project team and contractors to gain efficiencies of scale and repetition.

Jamaica Capacity Improvements Phases 1 & 2

JAMAICA CAPACITY IMPROVEMENTS PROGRAM OF PROJECTS

The Jamaica Capacity Improvements (JCI) Program of Projects represents LIRR's Master Plan for the future of Railroad operations through Jamaica. This Plan for Jamaica was developed to address the complex Jamaica Infrastructure needed to: (1) support ESA LIRR Service to Grand Central Terminal; (2) increase Jamaica Station/Interlocking(s) capacity for increased in train service from all three west end City Terminals and future growth; and (3) result in a state of good repair to Jamaica's aged infrastructure. The overall JCI effort is separated into two major Phases.

JAMAICA CAPACITY IMPROVEMENTS – PHASE 1

JCI Phase 1 is funded by the 2010-2014 Capital Program. The project includes the construction of a new platform and associated infrastructure required to support future shuttle service between Jamaica Station and the Atlantic Branch Stations. The creation of the new Platform "F" at the south side of the station will eliminate train routing conflicts in Jay Interlocking. Currently, Manhattan bound trains must wait for Atlantic Branch bound trains to cross through the interlocking completely before proceeding west. The new platform's service will also reduce dwell time associated with current Brooklyn bound train connections.

PROJECT STATUS	Original	Forecast
JCI Phase 1 Program Substantial Completion*	Oct. 2021	Q4 2022
Budget	\$301.6 M	\$301.6 M
The project is approximately 90% complete.		

The Jamaica Station complex is now considered officially ESA ready. In addition, 21 of the 24 switches to be installed under JCI Phase 1 have been completed.

Since the last CPC meeting, the new MET Interlocking crossover was fully cutover and placed in service; Johnson Yard was fully signalized and interlocked; and the major signal equipment was delivered and installed at Beaver Interlocking.

A Small Business Mentor Project (SBMP) contractor was utilized to provide structural platforms for the new signal system at Beaver Interlocking. The SBMP was awarded in March 2021 and has since reached Substantial Completion. The new Beaver interlocking is forecast to be fully cutover for service in the 2nd Quarter of 2022. The remaining Union-87 crossover track, 3rd rail and signal infrastructure work is scheduled to be completed this year.

The JCI Phase 1 project has been delayed due to diversion of LIRR in-house forces/resources to other priority projects, including Mainline Expansion 3rd Track, East Side Access and Positive Train Control.

JAMAICA CAPACITY IMPROVEMENTS – PHASE 2

Jamaica Capacity Improvements – Phase 2 construction will span approximately four Capital Programs (2020-2039) and will result in a complete realignment/reconstruction of the Jamaica Interlockings, Station Tracks, and associated railroad infrastructure. This will vastly improve the track configurations and train throughput in the Jamaica area by providing the following elements/objectives:

- More “parallel routes” into and out of Jamaica
- Universal access to all station platforms from any existing branch approach
- Lengthening of platforms A – E to fully accommodate 12-car consists
- Higher speed switches and reduced travel time
- Increased train capacity in peak hours
- Higher level of reliability, and improved recovery during a Disruption
- Upgraded track, signal, power and communications infrastructure to a State of Good Repair (SOGR)

JCI Phase 2 is currently in the final stages of design and is preparing construction documentation to enable further construction activities to commence in 2022. Studies are also in progress to determine how C&D can stage the project to enable earlier completion.

February 2022 CPC Independent Engineering Consultant Project Review

Jamaica Capacity Improvement-Phase 1



MTA Independent Engineering Consultant

Jamaica Capacity Improvement Phase 1

Scope

The scope of work for the Jamaica Capacity Improvement Phase 1 project is comprised of 3 third-party contracts along with significant force account work. Major work elements include the following:

- Construction of a new Jamaica Platform (Platform F) for Brooklyn-to-Jamaica Service, the removal / installation of switches and realignment of track and demolition and installation of third rail infrastructure, reconfiguration of Johnson Avenue Train Yard (completed).
- All critical infrastructure modifications to ensure Jamaica station is ready for East Side Access Opening day have been completed.
- Construction of freight bypass track [south bypass] and modifications to the existing signal system remains.

Jamaica Capacity Improvement Phase 1

Schedule Review

- Substantial completion (SC) of Phase 1, which includes the remaining track, switch and signal work, is forecast for 4th Quarter 2022. This is a 4 to 6-month delay since the last report. The level of work to complete major LIRR projects and competition for Force Account (FA) resources continues to exert schedule pressure.
- The project is now 90% complete with major accomplishments since last report including placement of all Beaver interlocking huts, and final cutover of Metropolitan interlocking.
- Based on review of the remaining schedule activities, the IEC finds completion of project is dependent upon if resources and outages are available.

Budget Review

- The original project Budget and EAC of \$301.6M have not changed.
 - The project is reassessing project cost to finalize their EAC.
 - The delay due to the unavailability of FA shouldn't impact EAC.
- The IEC forecasts that there is a potential that EAC may be impacted due the resolution of a claim associated with Platform F.

Jamaica Capacity Improvement Phase 1

Risks

The project top schedule and cost risks and corresponding mitigations include the following:

- ▣ Force account availability for track and signal installations.
 - ▣ The Project Management Team (PMT) has advanced all preparatory track and signal work to take advantage of any opportunities for FA availability to implement the remaining work at Union Interlocking.
 - ▣ In the opinion of the IEC, this mitigation is reasonable based on the FA demands.
- ▣ Claim for Platform F.
 - ▣ A claim has been submitted by the Platform F contractor and remains under review by LIRR and MTAHQ legal. The PMT has demonstrated confidence in their analysis performed in response to the claim and anticipates minimum cost impact.

Observation

- ▣ FA track and signal resources are not aligned with the high staffing level needed to execute the upcoming capital program work as planned.

**February 2022 CPC
Independent Engineering Consultant
TLR LIRR Business Unit Review**

Summary of the LIRR Business Unit



MTA Independent Engineering Consultant

TLR Summary of the LIRR Business Unit

- In the latest Traffic Light Report (TLR), the IEC reviewed 34 LIRR projects* in the Core and Sandy Capital Programs, for both Cost and Schedule Performance.
 - 24 (71%) were Green
 - 9 (26%) Previously Red, having triggered a variance in a prior quarter
 - 1 (3%) Red
- 6 projects were in design, 1 in procurement and 27 in construction.
- One project, the Willets Point Station Reconstruction and EIC (Extraordinary Interior Cleaning) Operation Relocation, triggered a 4-month schedule variance due to forecast delivery delays of a pre-fabricated storage building. Subsequent to December's report, the delay was extended 16 months due to unresolved supply chain issues further impacting deliveries.
- Difficulties with fabrication, material and equipment deliveries due to global supply chain issues was cited in 10 of the 47 total MTA system-wide TLR reds reported this quarter. If not mitigated, this problem may continue to impact schedules in 2022.

*Projects may also be identified as project tasks



MTA Independent Engineering Consultant

MTA Board & Capital Program Committee Update: C&D MNR

February 2022

MTA Construction & Development's last report to the Capital Program Committee on Metro-North Railroad (MNR) projects was submitted in September 2021. Since then, C&D's MNR Business Unit (BU) has successfully awarded 17 contracts worth \$294.4 M.

Since January 2021, the Metro-North Railroad Business Unit reached substantial completion on 21 contracts and made significant progress on many more projects.

This document summarizes the progress on four significant initiatives: Harmon Shop Replacement, Park Avenue Viaduct Interim Repairs and Design-Build, Communication and Signal Improvements (Harmon to Poughkeepsie Signal Phase I and Harlem Wayside Communication and Signal Improvements,) and the Dobbs Ferry Culvert replacement.

Harmon Shop Phase 5 Stage 2 *This Design-Build project will replace MNR's 100+ year old maintenance facility in Croton-on-Hudson. The Harmon shop, along with its supporting facilities, are the largest electric car maintenance facility for MNR rolling stock.*

PROJECT STATUS	Current	Forecast
Substantial Completion	April 2023	April 2023
Budget	\$439.6 M	\$439.6 M
The project is approximately 56% complete.		

Forecasts have not changed since the last report. The project is on schedule and on budget.

The Phase 5, Stage 2, portion of this project scope is to demolish and reconstruct the 250,000 sq ft Main Shop and its storeroom, as well as replacing the facility's heavy equipment including truck hoists, railcar hoists, overhead cranes and lifts, etc.

C&D is repositioning several buildings/structures within the facility to streamline workflow efficiency by allowing materials to be prepped, assembled into components, installed onto the cars, and finally inspected and tested more efficiently. This includes the construction of a new overpass to connect the new Running Repair and Support Shop with the Wheel Shop for more direct transportation of parts and components.

The project also entails replacing shop equipment with newer and more efficient technology, allowing MNR in-house forces to perform a larger percentage of component overhauls and saving on the premium cost of shipping the components out to a third-party vendor for repair and maintenance. Factory acceptance testing of the new equipment is on-going.

Park Avenue Viaduct Interim Repairs *The Park Avenue Viaduct Interim Repair project retrofits parts of the 129-year-old Park Avenue Viaduct, which carries 98% of all MNR trains – all trains arriving and departing from Grand Central Terminal. The project is a precursor to a more extensive project for the replacement of substantial sections of the viaduct.*

PROJECT STATUS	Original	Forecast
Substantial Completion	May 2022	January 2022
Budget	\$10.3 M	\$10.3 M
The project is approximately 100% complete.		

Since the last CPC meeting, the Park Avenue Viaduct Interim Repair project has been completed, on budget and ahead of schedule. All repairs to the viaduct structure, including the installation of retrofit brackets on the fascia columns along the Park Avenue Viaduct between E 115 St and E 123 St, and between E 128 St and E 132 St have been installed.

C&D has also commenced the preliminary engineering to replace the viaduct between E 115 St and E 132 St, under a separate, follow-up contract. The Program Management/Preliminary Engineering Consultant contract was awarded in December 2021. This project will replace the entire viaduct including foundations.

Communication & Signal Improvements on Harlem and Hudson Lines

C&D is overseeing two different projects to replace outdated Communication & Signal equipment across the Metro-North network, with more powerful and resilient equipment. Both projects will replace and modernize the existing communication cables to serve the Positive Train Control (PTC) system, communications and signal systems, security system, customer service public address and ticket vending machines. The Hudson Express Cable project will also replace the signal power cable.

Harlem Wayside Communication & Signal Improvements		
PROJECT STATUS	Current	Forecast
Substantial Completion	June 2022	November 2022
Budget	\$86.8 M	\$110.7 M
The project is approximately 87% complete.		

Harmon to Poughkeepsie Signal Phase I		
PROJECT STATUS	Current	Forecast
Substantial Completion	December 2023	April 2024
Budget	\$100.9 M	\$167.6 M
The project is approximately 57% complete.		

As reported in the last CPC meeting in September 2021, C&D took over responsibility for these projects from Metro-North. Since our last report C&D has worked with Metro-North to set these projects on a more defined path, to improve access for contractor crews, increase access times, increase confidence in support staff availability and provide an integrated schedule across all project stakeholders.

Over the last few months, C&D has also engaged with the constructors on each project to seek to resolve outstanding commercial issues and to build a common plan to complete the projects. While some further planning work remains to be completed to determine more detailed track access availability, C&D has determined that further budget and time will be needed to reach substantial completion. Latest forecasts for schedule and budget are reported in the tables above.

Dobbs Ferry Culvert

The Dobbs Culvert project replaced critically damaged culvert washed out during Hurricane IDA on September 1, 2021.

PROJECT STATUS	Original	Forecast
Substantial Completion	ASAP	February 2022
Budget	\$7.7 M	\$7.7 M
<i>The project is approximately 77% complete (Infrastructure only, cutover and commissioning will follow).</i>		

C&D is constructing a new culvert structure carrying 4 Tracks. Notice to Proceed was issued to SE3 on September 20, 2021.

To date, we have replaced the existing structure under 3 of the tracks. The new structure under the 4th track is under construction and is scheduled for completion at the end of February.

Skanska/ECCO III (JV) is performing the work via a Design-Build project, with HNTB providing the design and MNR the restoration of the track. The team has been performing well and is on track to complete the replacement in record time (4-1/2 months)

February 2022 CPC Independent Engineering Consultant Project Review

Harmon Shop Replacement Phase V Stage 2

Metro North Railroad



McKISSACK

MTA Independent Engineering Consultant

MNR Harmon Shop Replacement Phase V Stage 2

The Harmon Shop Replacement project is a multi-phase, 20-year replacement and modernization program that is in the final phase (Phase V) which was awarded in October 2018 with Substantial Completion in April 2023.

PREVIOUS PHASES COMPLETED (2001 – 2013)	Phase I	Yard Infrastructure
	Phase II	MoW Bldg, Communication Building, Material Distribution Center
	Phase III	Wheel True Facility, Coach and Locomotive Shops
	Phase IV	Priority roof repairs to Building #6

Current Phase and Stage

The project is in the final phase and stage (Phase V, Stage 2) of the two-stage, Phase V contract. This stage consists of the demolition of the remaining west portion of the equipment maintenance facility, construction of a state-of-the-art Running Repair and Support Facility (RRSS) and second floor connector bridge between RRSS and EMU Annex.

- Phase V was awarded to the design-build team Skanska-ECCO III (SE3) in two separate contracts – Stage 1 and Stage 2.



MNR Harmon Shop Replacement

Phase V Stage 2

Schedule Review

Contractual Substantial Completion	April 2023
Last Reported Substantial Completion (9/21)	May 2023
Current Substantial Completion (Mitigated)	July 2023
Percentage of Completion	56%

- During this reporting period, the project experienced a 7-week critical path delay due to the repair of damaged yard track components.
 - This delay impacted the start of construction in the yard under this contract and pushed its scheduled completion into a work moratorium beginning in April 2022. This would have caused additional delay.
 - The project team has mitigated this potential additional delay by working with MNR Operations to permit the North-Yard work to be completed during the moratorium period.
- In the IEC's opinion, there may be additional opportunities for mitigation of the 7 weeks through increasing work shifts and/or crews.

MNR Harmon Shop Replacement

Phase V Stage 2

Budget Review

The project Budget and Estimate at Completion (EAC) are \$439.6 M.

The IEC's review of the project expenditures, executed, negotiated, pending change orders and remaining contingency, indicates that the project remains within budget.



MCKISSACK

MTA Independent Engineering Consultant

MNR Harmon Shop Replacement

Phase V Stage 2

Risks and Mitigations

- The top risk is the Testing and Commissioning (T&C) of the new shop equipment may take longer than currently planned in the schedule.
 - Early implementation of the more robust commissioning plan developed by project team from experiences in Stage 1 T&C.
 - Ensuring that all FATs are successfully completed as early as possible, and the equipment are placed-in-service early to provide time for any potential rework.
- Secondary risk is the potential soil remediation and unknown underground utilities in the North Yard.
 - Budgeted allowances for unforeseen utilities and underground conditions were included in the contract in addition to the significant number of borings and soundings that were conducted early in the project to accurately define the site and thus reduce the subsurface unknowns.

IEC Observations

- There are not many opportunities to mitigate the impact of current critical activities in the North Yard due to work sequencing and limited space. There may be when the work relocates to the South-Yard.
- The IEC finds the actions by the project team are reasonable and should be effective in mitigating the above risks.

**February 2022 CPC
Independent Engineering Consultant
TLR MNR Business Unit Review**

Summary of the MNR Business Unit



MTA Independent Engineering Consultant

TLR Summary of the MNR Business Unit

- ▣ In the latest Traffic Light Report (TLR), the IEC reviewed 36 MNR projects* in the Core and Sandy Capital Programs, for both Cost and Schedule Performance.
 - ▣ 17 (47%) were Green
 - ▣ 8 (22%) were previously Red, having triggered a variance in a prior quarter
 - ▣ 7 projects comprised of 11 tasks (31%) are Red
- ▣ 3 projects were in design and 33 in construction.
- ▣ All the variances this quarter are related to schedule delays of 3 months or greater.
- ▣ The variances represent 11 tasks associated with 7 individual projects.
- ▣ This quarter features 2 projects that have triggered multiple variances in prior TLR's and share common problems.
 - ▣ The Harmon to Poughkeepsie Signal Systems project triggered a 9-month delay and project data reflects an additional delay next quarter due to continued problems installing communication/signal cables and equipment. The project has had prior variances in the TLR due to unforeseen rock removal, insufficient in-house support and track access, design changes and contractor deficiencies. Substantial completion is forecast for April 2024.
 - ▣ The Hudson Power, Communication and Signals Infrastructure Restoration project triggered a 9-month delay. The project has been impacted by in-house Track, Power, Communication and Signal Department staffing shortages, priority work on other projects, as well as low productivity from the contractor. Multiple variances have been triggered in prior TLR's and substantial completion is forecast for September 2022.

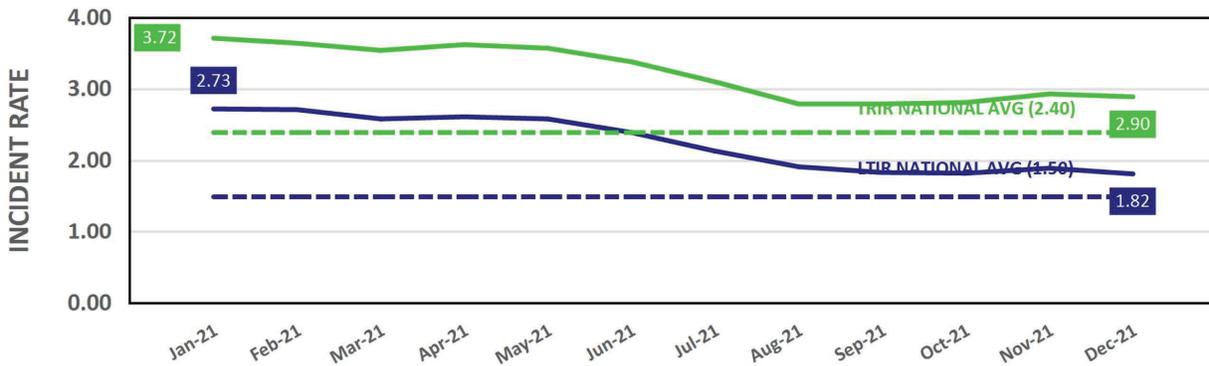
*Projects may also be identified as project tasks

TLR Summary of the MNR Business Unit

- Common Challenges:
 - Reassigned force account staff to higher priority projects.
 - Limited availability of track outages.
 - Contractor deficiencies.
 - Coordination with third party utilities and in-house resources. (track, power, communications and flagging).
- Mitigations:
 - Monitor competing projects to ensure staffing resources are allocated to the project as soon as they become available.
 - Secure priority track access.
 - Improve communication/coordination with utilities and contractors.
 - Recognize opportunities to gain back schedule delays.
- Mitigation efforts have been actively managed by MNR with some success to date, but the challenges remain.
- The IEC recognizes the difficulties rectifying ongoing project issues that have been prevalent on some of MNR's long-term power, communication and signal infrastructure projects.
- MNR force account track and signal support resources are not aligned with the high staffing levels needed to execute the ongoing capital program work as planned.

SAFETY SUMMARY

TOTAL RECORDABLE INCIDENT RATE (TRIR) & LOST TIME INCIDENT RATE (LTIR)



SAFETY NARRATIVE

INCIDENTS (MONTH OF DECEMBER) – SIX (6) Lost Time and THREE (3) Recordables

- There were 6 Lost Time Incidents: Infrastructure – Three (3), B&T, ESA and 3TC all having one (1) each.
- There were three (3) Recordable Incidents: Signals & Train Control, ESA and 3TC all having one (1) each.
- For 2021 there were 88 Lost Time and 52 Recordable injuries.
- This represents a drop from 2021 of 42% for Lost Time Incidents and 12% for Recordable Incidents.

INVESTIGATIONS:

- C-34838 – 207th St Yard had 3 LT which appear to be the result of worker inattentiveness to their surroundings/environment.
- ESA and 3rd Track - Lost Time injuries were also the result of worker inattentiveness to their surroundings/environment.
- The B&T was a Struck By Incident; Contractor performing rivet busting, employee was struck in face by a ricocheting rivet

AUDITS: INTERNAL – 176 EXTERNAL – 320

- Top Safety Issues identified include Housekeeping, Fall Protection, Fire Protection/Prevention, Site Security and General Safety.
- Positive Findings include Electrical Safety, MPT and Supervision.

TRENDS:

- Trending for all of C&D overall has improved for 2021 vs 2020.
- The top 3 trades with reported LT in 2021 were Electrician (26), Laborer (20) and Ironworker (15).
- The top 3 accident/incident types resulting in LT are STF (37), Struck By (18) and Strain/Sprain (14).
- Infrastructure, Stations, Track & Signals, 3rd Track and B&T all had very good trending for 2021 vs. 2020.
- Penn Gateway, ESA and MNR all had fair to poor trending year over year.

ACTIONS:

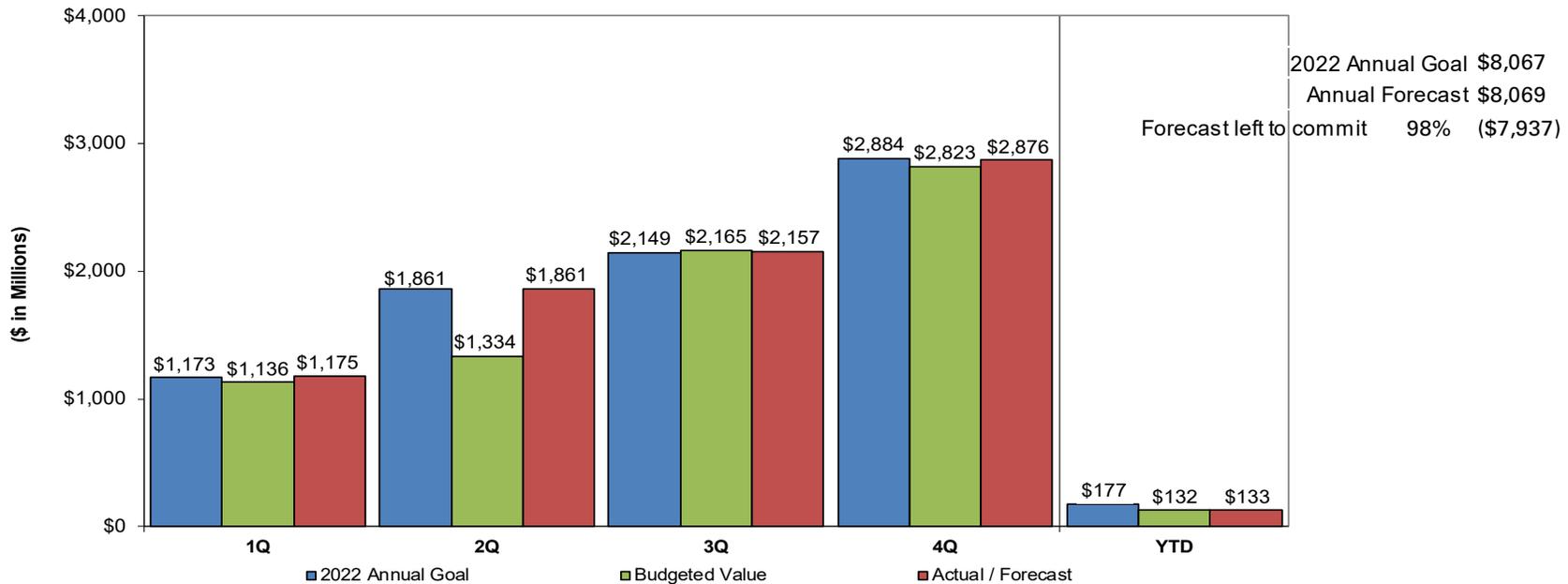
- Chief of Safety Management participated in a BTEA Safety Committee Meeting informing participants of the changes to the Safety Requirements now under MTA C&D and new Division 1 Safety Requirements.
- All Agencies, Business Units, and Integrated Projects continue working with PMTs to have contractors follow Safety Protocols. Whether it be Safety Rollbacks, Safety Standdowns, or meeting with specific contractors, Safety Management throughout the various C&D Business Units continues to emphasize to the PMT's the need for them to be active participants in ensuring the continued safety compliance and oversight of their respective projects.
- The AECOM Safety Assessment Initiative continues to move forward. The various BU Leads were advised of the initiative in late January. Virtual Kickoff meetings between the AECOM team and PMT's were held for the first two projects to be reviewed (C-34838, 207th St Yd. and C-34836, CIY). Initial and follow-up site visits will be arranged with schedules provided to Senior Management for their participation.

MTA Capital Program Commitments & Completions

**through
January 31, 2022**

Capital Projects – Commitments – January 2022

MTA-wide 2022 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

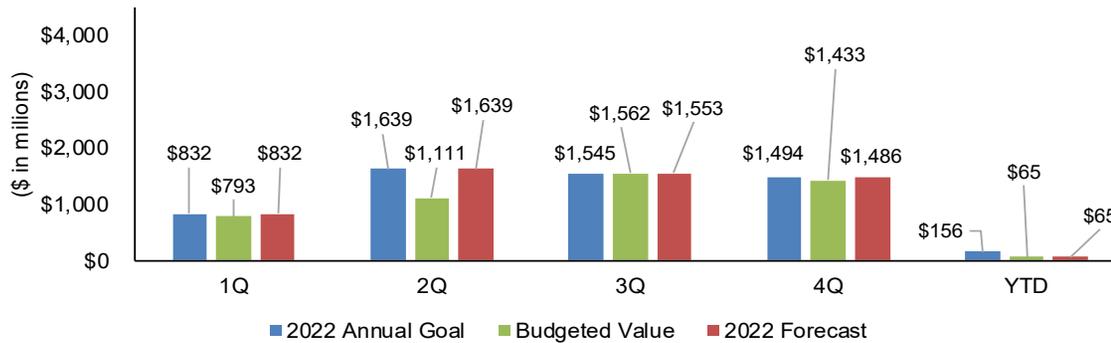
In 2022 the MTA plans to commit \$8.1B worth of capital projects. Through January, the MTA has committed \$133M vs a \$173M YTD goal. The January performance is mostly due three in-house track program awards that were rescheduled to February. By year end, the MTA forecasts meeting its \$8.1B goal.

In 2022 the MTA has proposed tracking 34 "major" commitments across the agencies and business units with a total value of \$5.9B. These represent about 73% of the total commitment plan's value. There are 15 major commitments at NYCT, 2 at MTA Bus, 5 at the LIRR, 4 at MNR, 3 at Expansion and 5 at B&T. At the end of each quarter in 2022 schedule variances will be reported on the following pages.

NYCT/MTA Bus Capital Projects – Commitments – January 2022 – Budget Analysis and Schedule Variances

NYCT and MTA Bus Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$832	\$1,639	\$1,545	\$1,494	\$156
2022 Forecast	\$832	\$1,639	\$1,553	\$1,486	\$65
Budgeted Value	\$793	\$1,111	\$1,562	\$1,433	\$65



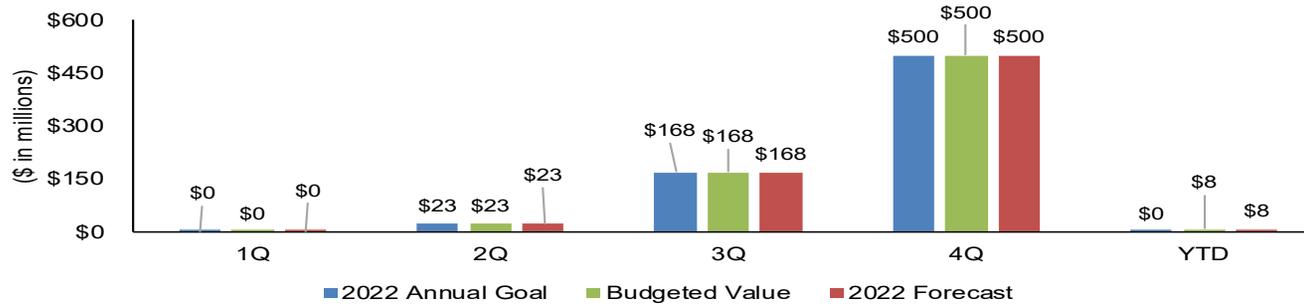
Schedule Variances

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

LIRR Capital Projects – Commitments – January 2022 – Budget Analysis and Schedule Variances

LIRR Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$0	\$23	\$168	\$500	\$0
2022 Forecast	\$0	\$23	\$168	\$500	\$8
Budgeted Value	\$0	\$23	\$168	\$500	\$8



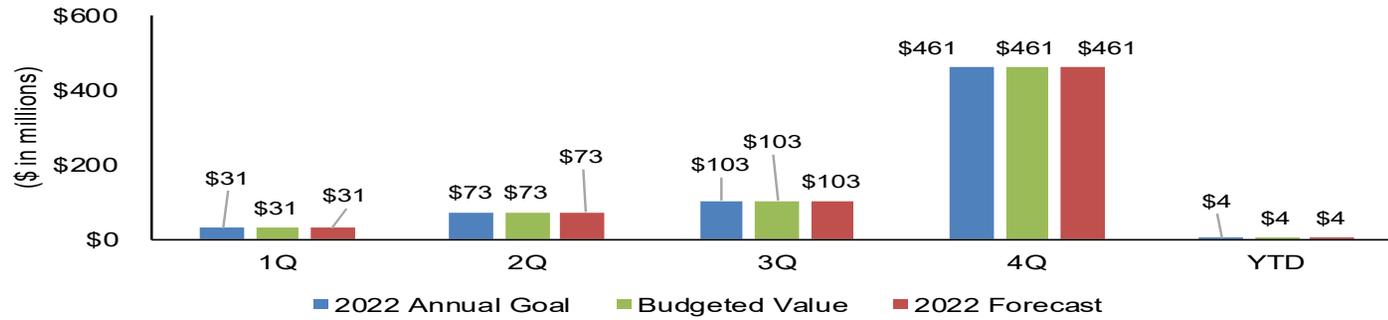
Schedule Variances

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

MNR Capital Projects – Commitments – January 2022 – Budget Analysis and Schedule Variances

MNR Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$31	\$73	\$103	\$461	\$4
2022 Forecast	\$31	\$73	\$103	\$461	\$4
Budgeted Value	\$31	\$73	\$103	\$461	\$4



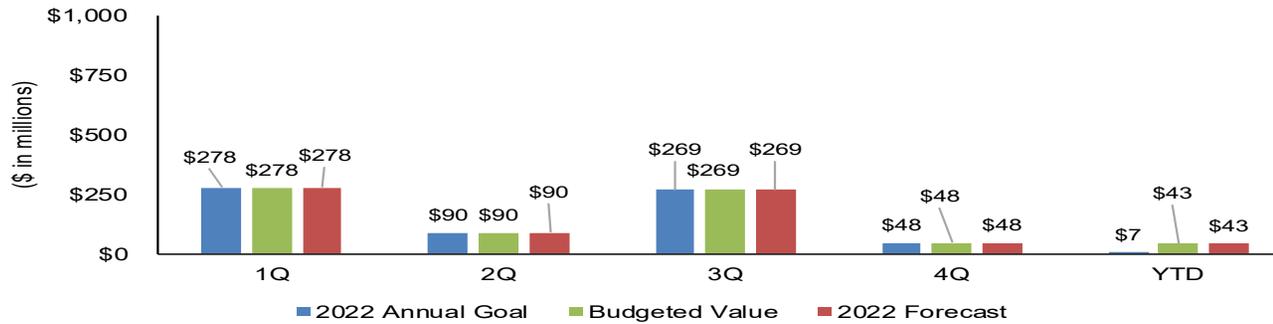
Schedule Variances

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

MTA Network Expansion Projects – Commitments – January 2022 – Budget Analysis and Schedule Variances

MTA Network Expansion Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$278	\$90	\$269	\$48	\$7
2022 Forecast	\$278	\$90	\$269	\$48	\$43
Budgeted Value	\$278	\$90	\$269	\$48	\$43



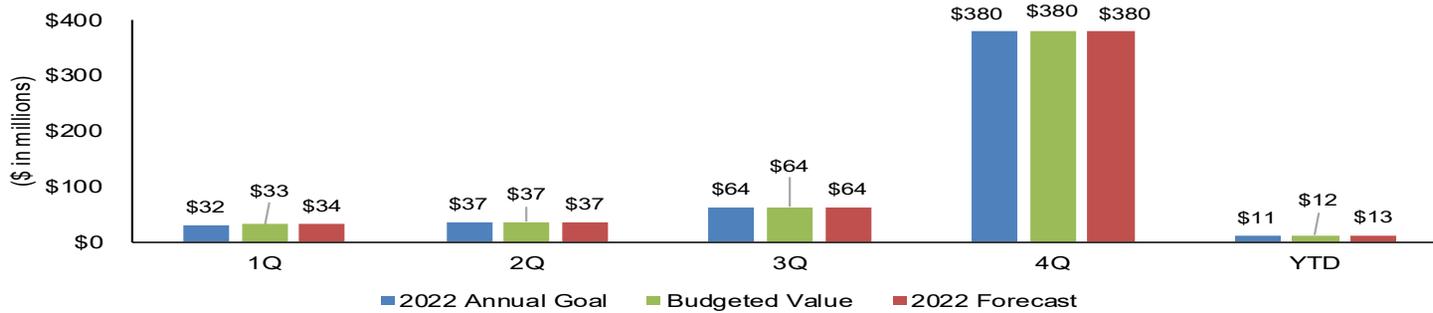
Schedule Variances

There are no major schedule slippages to report for Network Expansion.

B&T Capital Projects – Commitments – January 2022 – Budget Analysis and Schedule Variances

B&T Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$32	\$37	\$64	\$380	\$11
2022 Forecast	\$34	\$37	\$64	\$380	\$13
Budgeted Value	\$33	\$37	\$64	\$380	\$12



Schedule Variances

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

Capital Projects – Completions – January 2022

Goal	Actual	MTA-wide 2022 Major Completions												Post 2022
		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	
Total	53	2	2	5	6	3	11	2	5	2	3	4	8	0
Jan-22	1	1												
Feb-22	2		2											
Mar-22	5			5										
Apr-22	6				6									
May-22	3					3								
Jun-22	11						11							
Jul-22	3	1						2						
Aug-22	5								5					
Sep-22	2									2				
Oct-22	3										3			
Nov-22	4											4		
Dec-22	8												8	

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

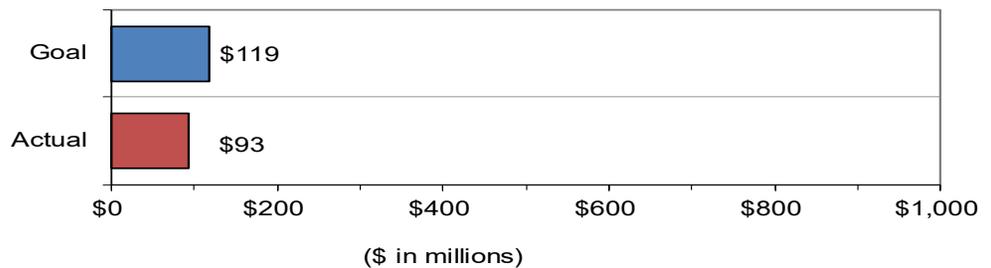
Completions Summary

In 2022 the MTA plans to complete \$9.2B of projects. Through January the MTA has completed \$93M vs a \$119M YTD goal. The January shortfall is due to several small completions at NYCT that are delayed until February. These were partly offset by an earlier than planned completion for MNR. By year end, the MTA forecasts meeting its \$9.2B goal.

In 2022 the MTA has proposed tracking 53 "major" completions across the agencies with a total value of \$6.78B, representing 73% of the total completion plan's value. There are 22 major completions at NYCT, 1 at MTA Bus, 5 at the LIRR, 13 at MNR, 6 at Expansion and 6 at B&T.

Budget Analysis

2022 Annual Goal	\$9,234	
Annual Forecast	100% of Annual Goal	(\$9,234)
Forecast left to complete	99%	(\$9,141)



NYCT/MTA Bus Capital Projects – Completions – January 2022 – Budget Analysis and Schedule Variances

NYCT and MTA Bus Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$1,032	\$1,300	\$1,236	\$1,618	\$104
2022 Forecast	\$1,032	\$1,300	\$1,236	\$1,618	\$67
2022 Goal (Rolling Stock)	\$185	\$287	\$80	\$407	\$0
Forecast (Rolling Stock)	\$185	\$287	\$80	\$407	\$0



Schedule Variances

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

LIRR Capital Projects – Completions – January 2022 – Budget Analysis and Schedule Variances

LIRR Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$18	\$286	\$19	\$94	\$12
2022 Forecast	\$18	\$286	\$19	\$94	\$12
2022 Goal (Rolling Stock)	\$0	\$198	\$0	\$0	\$0
Forecast (Rolling Stock)	\$0	\$198	\$0	\$0	\$0



Schedule Variances

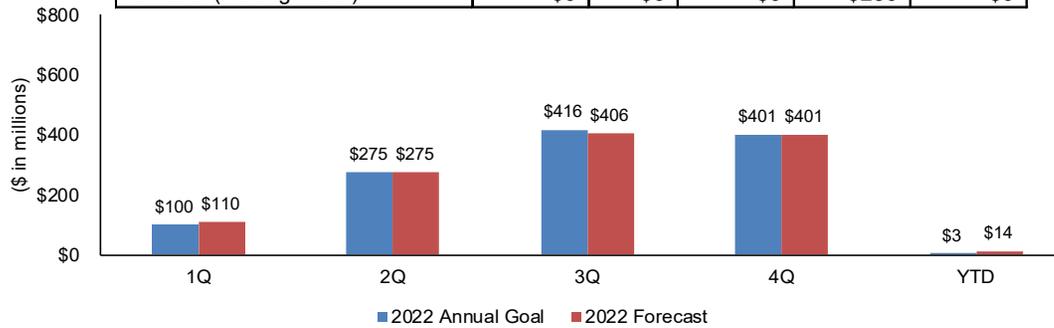
There are no major schedule slippages to report for the Long Island Rail Road.

MNR Capital Projects – Completions – January 2022 – Budget Analysis and Schedule Variances

MNR Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$100	\$275	\$416	\$401	\$3
2022 Forecast	\$110	\$275	\$406	\$401	\$14

2022 Goal (Rolling Stock)	\$0	\$0	\$0	\$230	\$0
Forecast (Rolling Stock)	\$0	\$0	\$0	\$230	\$0



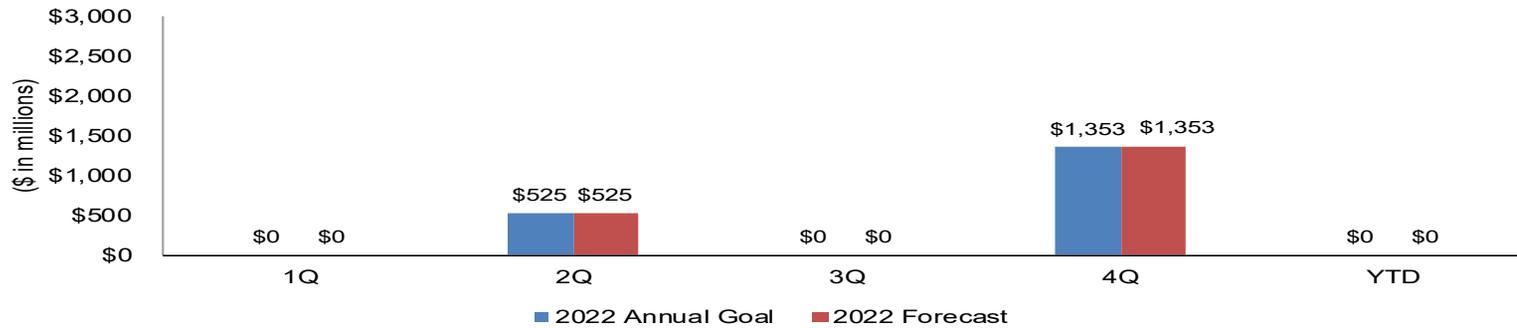
Schedule Variances

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

MTA Network Expansion Projects – Completions – January 2022 – Budget Analysis and Schedule Variances

MTA Network Expansion Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$0	\$525	\$0	\$1,353	\$0
2022 Forecast	\$0	\$525	\$0	\$1,353	\$0



Schedule Variances

There are no major schedule slippages to report for Network Expansion.

B&T Capital Projects – Completions – January 2022 – Budget Analysis and Schedule Variances

B&T Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$98	\$60	\$105	\$298	\$0
2022 Forecast	\$98	\$60	\$105	\$298	\$0



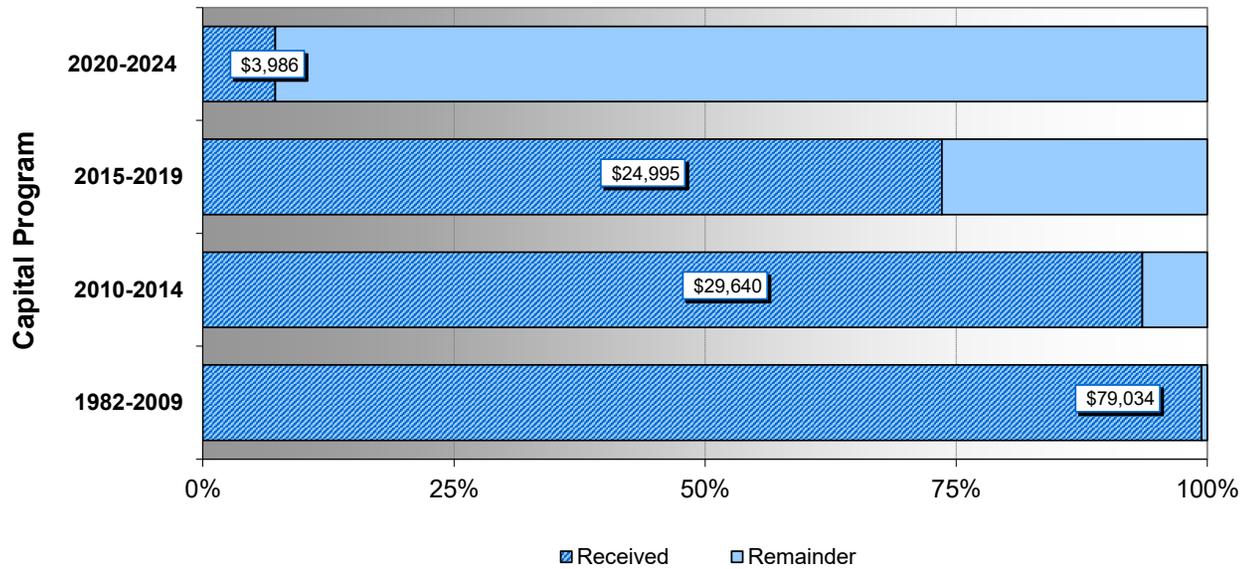
Schedule Variances

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

Status of MTA Capital Program Funding

Capital Funding (January 2022)

\$ in millions



Capital Funding Detail (January 2022)

\$ in millions

	Funding Plan		Receipts	
	Current	Thru December	This month	Received to date
2010-2014 Program				
Federal Formula, Flexible, Misc	\$5,862	\$5,857	\$ -	\$5,857
Federal High Speed Rail	173	173	-	173
Federal New Start	1,278	1,278	-	1,278
Federal Security	89	89	-	89
Federal RRIF Loan	-	-	-	-
City Capital Funds	719	608	-	608
State Assistance	770	770	-	770
MTA Bus Federal and City Match	132	113	-	113
MTA Bonds (Payroll Mobility Tax)	11,625	10,647	-	10,647
Other (Including Operating to Capital)**	1,270	1,124	-	1,124
B&T Bonds	2,022	1,864	-	1,864
Hurricane Sandy Recovery				
<i>Insurance Proceeds/Federal Reimbursement</i>	6,697	6,697	-	6,697
<i>PAYGO</i>	171	171	-	171
<i>Sandy Recovery MTA Bonds</i>	659	225	-	225
<i>Sandy Recovery B&T Bonds</i>	230	23	-	23
Total	31,696	29,640	-	29,640

	Funding Plan		Receipts	
	Current	Thru December	This month	Received to date
2015-2019 Program				
Federal Formula, Flexible, Misc	\$6,681	\$5,528	\$ -	\$5,528
Federal High Speed Rail	\$122	\$122	-	\$122
Federal Core Capacity	100	-	-	-
Federal New Start	500	-	-	-
Federal Security	18	15	-	15
State Assistance	9,091	5,248	-	5,248
City Capital Funds	2,667	2,050	-	2,050
MTA Bonds	8,474	8,175	-	8,175
Asset Sales/Leases	943	315	-	315
Pay-as-you-go (PAYGO)**	2,156	1,572	-	1,572
Other	273	68	-	68
B&T Bonds & PAYGO/Asset Sale	2,942	1,902	-	1,902
Total	33,969	24,995	-	24,995

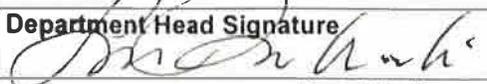
	Funding Plan		Receipts	
	Current	Thru December	This month	Received to date
2020-2024 Program				
Capital from Central Business District Tolling	\$15,000	\$ -	\$ -	\$ -
Capital from New Revenue Sources	10,000	461	-	461
MTA Bonds and PAYGO	9,785	202	-	202
Other Contribution	520	-	-	-
Federal Formula	7,435	2,799	-	2,799
State of New York	3,000	-	-	-
City of New York	3,007	120	7	127
Federal New Start (SAS Ph2)	2,905	-	-	-
Federal Flexible	275	51	-	51
Federal Other	71	71	-	71
Federal Security	10	10	-	10
B&T Bonds	3,327	266	-	266
Total	55,334	3,979	7	3,986

Contracts

**February 2022
Procurement Package**

PROCUREMENT

The Procurement Agenda this month includes eight actions for a proposed expenditure of \$18M

Subject Request for Authorization to Award a Procurement Actions					
Department Contracts					
Department Head Name & Title Stephen Plochochi, Senior Vice President					
Department Head Signature 					
Board Action					
Order	To	Date	Approval	Info	Other
1	Capital Program Committee	2/22/22	X		
2	Board	2/24/22	X		

Date: February 17, 2022			
Internal Approvals			
	Approval		Approval
	Deputy Chief Development Officer, Development 		President
	Deputy Chief Development Officer, Delivery 		Executive Vice President & General Counsel

Purpose

To obtain the approval of the Board to ratify procurement actions and, to inform the Capital Program Committee of these procurement actions.

Discussion

MTA Construction & Development proposes Ratifications in the following category:

Schedules Requiring Majority Vote

K. Ratification of Completed Procurement Actions

	<u># of Actions</u>	<u>\$ Amount</u>
	8	\$17,986,835.03
TOTAL	8	\$17,986,835.03

Budget Impact

The ratifications of these procurement actions will obligate capital funds in the amount listed. Funds are available in the capital budget for this purpose.

Recommendation

The procurement actions be ratified as proposed. (The items are included in the resolution of approval at the beginning of the Procurement Section.)

MTA Construction & Development

BOARD RESOLUTION

WHEREAS, in accordance with Sections 1265-a and 1209 of the Public Authorities Law and the All Agency Procurement Guidelines, the Board authorizes the award of certain non-competitive purchase and public works contracts, and the solicitation and award of request for proposals in regard to purchase and public work contracts; and

WHEREAS, in accordance with the All Agency Procurement Guidelines, the Board authorizes the award of certain non-competitive miscellaneous service and miscellaneous procurement contracts, certain change orders to purchase, public work, and miscellaneous service and miscellaneous procurement contracts;

WHEREAS, in accordance with Section 2879 of the Public Authorities Law and the All-Agency Guidelines for Procurement of Services, the Board authorizes the award of certain service contracts and certain change orders to service contracts.

NOW, the Board resolves as follows:

1. As to each purchase and public work contract set forth in annexed Schedule A, the Board declares competitive bidding to be impractical or inappropriate for the reasons specified therein and authorizes the execution of each such contract.
2. As to each request for proposals (for purchase and public work contracts) set forth in Schedule B for which authorization to solicit proposals is requested, for the reasons specified therein, the Board declares competitive bidding to be impractical or inappropriate, declares it is in the public interest to solicit competitive request for proposals and authorizes the solicitation of such proposals.
3. As to each request for proposals (for purchase and public work contracts set forth in Schedule C for which a recommendation is made to award the contract), the Board authorizes the execution of said contract.
4. As to each action set forth in Schedule D, the Board declares competitive bidding impractical or inappropriate for the reasons specified therein, and ratifies each action for which ratification is requested.
5. The Board authorizes the execution of each of the following for which Board authorization is required: i) the miscellaneous procurement contracts set forth in Schedule E; ii) the personal service contracts set forth in Schedule F; iii) the miscellaneous service contracts set forth in Schedule G; iv) the modifications to personal/miscellaneous service contracts set forth in Schedule H; v) the contract modifications to purchase and public work contracts set forth in Schedule I; vi) the modifications to miscellaneous procurement contracts set forth in Schedule J.
6. The Board ratifies each action taken set forth in Schedule K for which ratification is requested.

Schedule I: Modifications to Purchase and Public Work Contracts
Item Nos. 7 & 8

Vendor Name (& Location) Banton Construction Company (New Haven, CT.)
Description Hudson Line Wayside Communications and Signal System Infrastructure Improvements
Contract Term (including Options, if any) 43 Months
Option(s) included in Total Amount? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Procurement Type <input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Non-competitive
Solicitation Type <input type="checkbox"/> RFP <input type="checkbox"/> Bid <input checked="" type="checkbox"/> Other: Modification
Funding Source <input type="checkbox"/> Operating <input checked="" type="checkbox"/> Capital <input type="checkbox"/> Federal <input type="checkbox"/> Other:
Requesting Dept/Div & Dept/Div Head Name: Delivery/Mark Roche

Contract Number	AWO/Modification #
82133	30,42,43,45, 46 and 47
Original Amount:	\$ 51,099,329.60
Prior Modifications:	\$ 7,330,597.39
Prior Budgetary Increases:	\$ -0-
Current Amount:	\$ 58,429,926.99
This Request	\$ 15,250,879.63
% of This Request to Current Amount:	26%
% of Modifications (including This Request) to Original Amount:	44%

Discussion:

Contract 82133 (the “Contract”) is for the replacement of Metro-North Railroad’s existing express fiber optic cable from Control Post (“CP”) -33 to Division Post (MP-75.8). The Work also includes the engineering, building and furnishing of pre-wired signal houses and cases from CP-33 to CP-53.

The Modifications presented for ratification by the Board and discussed below, will address the various direct costs and the impacts to schedule incurred because of the need (i) to excavate and remove an amount of rock and other obstructions encountered in the project area that could not be anticipated before Contract award and that exceeded the amount budgeted for in the Contract and (ii) to use an alternate, more expensive process, for cable laying in certain project areas to avoid damage to existing fragile cables and interference with commuter train service. Specifically, Modifications 30 and 43 address costs associated with the removal of excess quantities of rock, Modifications 42, 46 and 47 address costs associated with the need to install cable into cable troughs, rather than using the less expensive cable plow method, in certain areas of the project and Modification 45 addresses the schedule impacts associated with this Work and other issues that have affected schedule during the period of September 17, 2021 to present, which will extend Substantial Completion and resolve any claim for Extended General Conditions costs through the revised Substantial Completion date of February 2, 2023. As discussed below in the section addressing Modification No. 45, the Contractor continues to assert a claim for the costs incurred as result of delays experienced prior to the period covered by Modification No. 45, which will be resolved separately.

Therefore, MTA Construction and Development (“C&D”) requests that the Board ratify Contract Modifications 30, 42, 43, 45, 46 and 47 described below.

Contract Modification No. 30

The principal method for laying the cable required for the project is through the use of a Cable Plow. A Cable Plow is a relatively inexpensive, efficient and environmentally sound way to install the cable by utilizing a plow that in single operation cuts a trench and lays a cable in the trench before the soil fills in the trench and covers the cable. However, before plowing operations can commence, preparation is required to identify subsurface obstructions that must be removed from the plow line. During these operations, a substantial amount of rock was encountered. The Contract provided for the removal of 1,353 cubic yards of rock, and provided a unit rate for removal of additional rock up to 115% of that amount. However, the total quantity of the required rock removal exceeds 115% of the base contract quantity, necessitating a negotiation for a unit cost for the removal of this excess rock.

The Contractor’s proposal was in the amount of \$2,262.10 per cubic yard. Following negotiations, the parties settled at \$1,800. Thus, this Modification provides for the removal of an additional 700 cubic yards of rock at a negotiated rate of \$1,800 per cubic yards, which equals a change order value of \$1,260,000.

Contract Modification No. 42

The Contract anticipates the use of a cable plow for approximately 52 miles of the cable installation. After award of the Contract, however, Metro-North determined that the cable plow could not be used within 5 feet of existing underground fiber cable bundles because of the risk that the plow would damage cables, shutting down the Hudson and Harlem line trains. Accordingly, the Contractor was required to use a different and more expensive method to install approximately 8,000 linear feet of cable. The alternative involved the installation of cable trough, which requires the excavation of a trench and the installation of metal conduit to contain the cable.

The Contractor's proposal was in the amount of \$174.37 per linear feet of cable. Following negotiations, a unit price of \$132 per linear foot was arrived at, which equals a change order value of \$1,056,000.

Contract Modification No. 43

In addition to the rock removal required to clear the path of the cable plow addressed in Contract Modification No. 30, rock removal is required for many operations on this project, including the installation of cable trough, pullboxes and underground conduit. As noted above, for bidding purposes, the Contract provided for 1,353 cubic yards of rock to be removed within the project limits. As also noted above, Modification No. 30 accounted for an additional 700 cubic yards of rock removal. However, in addition, after Contract award dozens of pullboxes were relocated outside the access roads to avoid damage from snow plows. This change resulted in additional trenching across the access roads which, in turn, resulted in additional rock removal. The cumulative total of additional rock removal required due to the trenching across the access roads, as well as for the installation of infrastructure (cable trough, conduit, pullboxes, etc.) resulted in an additional 105 cubic yards of rock removal (paid under Modification 36) and approximately 1,750 additional cubic yards of rock removal now required to complete the project. The additional quantities exceed 115% of Contract Modification No. 30 quantities, necessitating a negotiation for a unit cost for the removal of this excess rock.

The Contractor's proposal was in the amount of \$2,481.54 per cubic yard. A negotiated rate of \$2,000 per cubic yard, a rate higher than agreed to in Modification 30 to reflect higher equipment rental costs, was agreed to, which equals a change order value of \$3,500,000.

Contract Modification No. 45

This Contract has experienced delays. A time impact analysis ("TIA") prepared by MTA shows that, as result of events beyond the Contractor's control, including the Contractor's limited access to track outages as a result of competing Railroad projects, unavailability of Metro-North Railroad force account support, the addition of Federal Railroad Administration-mandated PTC requirements, and unforeseen site conditions, the Contractor was entitled to both Excusable Delay to the Substantial Completion Date of the Project and Impact Costs associated with that delay.

To address delays experience during the period September 17, 2021 to present, the Contractor submitted a cost proposal for 16.8 months of compensable time, with a per month cost of \$541,707.00, for a total in the amount of \$16,251,201.99 and for extended general conditions and home office overhead; and extended equipment costs in the amount of \$3,662,401.99, covering the period to the projected completion date of February 2, 2023. In negotiations, the Contractor agreed to drop the claim for home office overhead and extended equipment costs. The parties agreed to 16.8 months of compensable time (extended general conditions) at a rate of \$416,000 per month, for a total cost of \$6,988,800 and an extension of the Substantial Completion Date for the Contract to February 2, 2023. As noted above, the Contractor has also asserted a claim for delay impacts that were incurred during the original term of the Contract, before the period covered by this Modification and for Work unrelated to the other Modifications discussed here. This claim is not addressed in this Modification and will be negotiated subsequently in a separate Modification.

Contract Modification No. 46

This Modification addresses the cost of the trench excavation and backfill that was required to remove subsurface rock and boulders in advance of the cable plow that were in the way of the plow line. Because it was not possible to estimate the costs of the trench excavation and backfill work with any degree of certainty because the depth of rock/boulder was unknown and the method of removal (conventional excavation versus vacuum truck excavation) could not be determined in advance, these operations were tracked on a time and material basis and reconciled for accuracy to generate the change order value of \$1,113,717.38.

Contract Modification No. 47

Modification No 42 addresses the cost of additional trenching and backfill required to install new cable within 5 feet of existing fragile cables. This modification will pay for the trough installed in such areas where the cable installation method was changed from cable plow to cable trough.

The Contractor's proposal was in the amount of \$548.66 per cubic yard. Following negotiations, the parties settled at \$348.33. The estimated length of trough necessary to complete the work is 3,825 linear feet. A negotiated price of \$348.33 per linear foot results in a change order value of \$1,332,362.25.

Vendor Name (& Location) Ducci Electrical Contractors, Inc. (Farmington, CT)	
Description Harlem Line Wayside Communications and Signal System Infrastructure Improvements	
Contract Term (including Options, if any) 44 Months	
Option(s) included in Total Amount? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Procurement Type	<input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Non-competitive
Solicitation Type	<input type="checkbox"/> RFP <input type="checkbox"/> Bid <input checked="" type="checkbox"/> Other: Modification
Funding Source <input type="checkbox"/> Operating <input checked="" type="checkbox"/> Capital <input type="checkbox"/> Federal <input type="checkbox"/> Other:	
Requesting Dept/Div & Dept/Div Head Name: Delivery/Mark Roche	

Contract Number	AWO/Modification #
82137	40 and 41
Original Amount:	\$ 45,467,791.00
Prior Modifications:	\$ 14,145,303.76
Prior Budgetary Increases:	\$ -0-
Current Amount:	\$ 59,613,094.76
This Request	\$ 2,735,955.40
% of This Request to Current Amount:	5%
% of Modifications (including This Request) to Original Amount:	37%

Discussion:

This Contract provides for infrastructure improvements to the wayside communications and signal system, including the installation of new communications and signal cables on existing utility poles on Metro-North's Harlem Line south of Woodlawn Station to north of Southeast Station.

In March 2018, storms knocked down trees and caused extensive damage to existing utility poles on which the new communications and signal system cables were to be installed. With the existing poles on which the cable were to be installed under this Contract damaged or destroyed, a redesign of the Work was required, including the replacement of 271 utility poles, which was addressed in Modification No. 36. However, it has recently been determined that an additional 54 utility poles must be replaced, involving long lead times for the acquisition of materials. Moreover, installation of a number of the original 271 utility poles has been delayed by the unavailability of track outages that had to be allocated to higher priority projects. These developments have resulted in both delay to the project and additional cost. Modification No. 40 below addresses the delay associated with this work and Modification No. 41, below, addresses the cost of the added work itself.

MTA Construction and Development (“C&D”) requests that the Board ratify Contract Modification Numbers 40 and 41.

Contract Modification No. 40

C&D performed a Time Impact Analysis (“TIA”) that indicated that the Contractor is entitled to both Excusable Delay and Impact Costs. The Contractor requested a 280 day extension to the Substantial Completion Date of the Contract, to August 21, 2022 and Impact Costs of \$2,047,662.40. Negotiations were held and the parties agreed Impact Costs at a daily rate of \$6,700.00 for 210 days of Excusable Delay to Substantial Completion, extending the Substantial Completion Date from November 13, 2021 to June 10, 2022, and providing for Impact Costs totaling \$1,407,000.00. Based upon C&D’s TIA, the extension of time and Impact Costs are deemed to be fair and reasonable.

Contract Modification No. 41

For the cost of the additional fifty-four (54) utility poles as well as a number of bid item overruns for the related materials required to perform the additional replacement work and the Contractor’s rental of field offices for C&D consultants administering the work during the extended time, the parties agreed to a lump sum increase in Contract Price of \$1,328,955.40, which is considered to be fair and reasonable.

In connection with a previous contract awarded to Ducci Electrical Contractors, Inc. (“Ducci”), Ducci was found to be responsible notwithstanding significant adverse information (“SAI”) pursuant to the All-Agency Responsibility Guidelines and such responsibility finding was approved by the MTA Managing Director in consultation with the MTA General Counsel in April 2019. No new SAI has been found relating to Ducci and Ducci has been found to be responsible.