



**Metropolitan Transportation Authority**

# **Capital Program Committee Meeting**

## **September 2022**

---

### 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. Mihaltses

J. Samuelson

V. Tessitore

N. Zuckerman

# **Capital Program Committee Meeting**

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

**New York, NY 10004**

**Monday, 9/19/2022**

**12:45 - 2:00 PM ET**

## **1. SUMMARY OF ACTIONS**

*C&D September Summary of Actions - Page 3*

## **2. PUBLIC COMMENTS PERIOD**

## **3. APPROVAL OF MINUTES – JULY 25, 2022**

*CPC Committee Minutes - Page 4*

## **4. 2022 – 2023 COMMITTEE WORK PLAN**

*CPC Committee Work Plan - Page 10*

## **5. MTA C&D CAPITAL PROGRAM UPDATE**

*Progress Report on LIRR Business Unit - Page 12*

*IEC Project Review on Jamaica Capacity Improvement-Phase 1 - Page 16*

*IEC Project Review on Queens Interlocking - Page 21*

*Progress Report on MNR Business Unit - Page 27*

*IEC Project Review on Harmon Shop Replacement Phase V Stage 2 - Page 30*

## **6. C&D SAFETY REPORT**

*Committee Safety Report - Page 35*

## **7. CAPITAL PROGRAM STATUS**

*Commitments, Completions, and Funding Report - Page 37*

## **8. QUARTERLY TRAFFIC LIGHT REPORT**

*Second Quarter 2022 Traffic Light Report - Page 55*

## **9. C&D PROCUREMENTS**

*C&D Procurements - Page 97*

**CONSTRUCTION & DEVELOPMENT  
COMMITTEE ACTIONS  
SUMMARY for SEPTEMBER 2022**

Responsible Department	Vendor Name	Total Amount	Summary of Action
Contracts	Multiple Consultants	\$30,000,000 Est. Aggregate	MTA Construction and Development requests Board approval to award 13 competitively solicited All Agency Discretionary Contracts (D81691 – D81703) utilizing New York State certified Minority-Owned Business Enterprises, Women-Owned Business Enterprises and Service-Disabled Veteran-Owned Businesses to perform architectural and engineering design, project management, and inspection services on an as-needed basis.
Contracts	George S. Hall, Inc.	\$73,666,488	MTA Construction and Development requests Board approval to award to award a publicly advertised and competitively solicited contract (VS250) for the interim maintenance of East Side Access facility assets.
Contracts	Tracks Unlimited, LLC	\$ 2,350,000	MTA Construction and Development requests Board approval to award a modification to Contract T-80280 for installation of a new drainage system at the Princes Bay station.
Contracts	Tutor Perini Corporation	\$ 4,367,204	MTA Construction and Development requests the Board ratify a modification to Contract CS179 to compensate the Contractor for working extended shifts and to include an incentive for completing work along the Project's Right of Way no later than September 11, 2022.
Contracts	Siemens Industry, Inc.	\$ 1,690,000	MTA Construction and Development requests the Board ratify a modification to Contract S-48004-1 to develop a customizable animated track map displaying real-time train location information from New York City Transit's B-Division on the large screen display in the Rail Control Center.

MINUTES OF MEETING  
MTA CAPITAL PROGRAM COMMITTEE  
July 25, 2022  
New York, New York  
12:45 P.M.

CPC members present:

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

CPC members not present:

Hon. Michael Fleischer  
Hon. David Mack  
Hon. John Samuelsen  
Hon. Vincent Tessitore, Jr.  
Hon. Neal Zuckerman

MTA staff present:

David Cannon  
Fredericka Cuenca  
Evan Eisland  
Barney Gray  
Michael Jew-Geralds  
John McCarthy  
Tim Mulligan  
Mark Roche  
Michael Shiffer  
Jamie Torres-Springer  
Michele Woods

Independent Engineering Consultant staff present:

Joe Devito  
Elizabeth King

\* \* \*

Chairman Lieber called the July 25, 2022 meeting of the Capital Program Committee to order at 1:30 P.M.

### Public Comments Period

There were four public speakers in the public comments portion of the meeting: Marc Winthrop, Private Citizen; Bradley Brashears; PCAC; Jason Anthony, Amazon Labor Union; Andy Pollack, Passengers United.

### Meeting Minutes

The minutes of the meeting held on June 27, 2022 were approved (with noted correction).

### CPC Work Plan

There were no changes to the CPC Work Plan.

---

***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 the following issues to be taken up in today's meeting: a preview of the Capital Plan Amendment, which will go to the full Board this week; update on the progress of the Twenty-Year Needs Assessment, leading to the next Five-Year Capital Program; and an update on the Stations Program Business Unit, including efforts underway to making 95% of the subway system accessible by 2055, while continuing work in the areas of rehabilitation and component replacement as part of the MTA's critical State of Good Repair (SGR) Program, as well as the recently announced "Stations Refresh" initiative with NYCT. President Torres-Springer completed his remarks by citing the release in the last month of an RFP for the design of Penn Station Reconstruction, as well as a briefing today to the Finance Committee on a negotiated expansion of the MTA's Transit Wireless arrangement, which puts the MTA on a path to expand wireless cell signal service to all tunnels throughout the system, as well as wifi to the rest of the above-ground stations in the system.

## C&D Capital Program Updates

### **Capital Plan Amendment**

Following an introduction by President Torres-Springer, which touched on progress to date on the 2020 - 2024 Capital Program, as well as several cost containment initiatives underway, Mr. Mulligan provided a preview of the Capital Plan Amendment slated for action by the full Board later this week. While seen as a “best practice” from the standpoint of transparency, the Amendment also reflects certain changes, including the effect of inflation and other market conditions, scope adjustments, the acceleration of several projects, and the effect that issues such as the COVID-19 pandemic, ridership and the delivery of rolling stock have had on MTA’s forecasting. Mr. Mulligan reported that the Plan Amendment includes funds for new projects and accelerations, progress on expansion projects, and measures intended to adapt to changing conditions and needs, as well as the resequencing of signal modernization -- with emphasis on reliability and equity in CBTC. Noting that the overall size of the Capital Plan changes very little under this Amendment (i.e., a proposed increase of \$108M out of a \$55.4B total), he then outlined changes related to the Plan’s funding portfolio. Importantly, competitive grant monies – beyond those as-of-right grants that have already been accounted for -- will be sought and, upon successfully competing for them, will round out the funding picture. Mr. Mulligan completed his presentation with a comparison of changes among agencies, as spelled out in the Amendment.

### **Twenty-Year Needs Assessment**

Ms. Cuenca prefaced her update on the MTA’s Twenty-Year Needs process by stressing that it is being conducted as a more uniform, robust and data-driven approach to the planning process - in accordance with the recommendations of the 2019 Crowe audit. In addition, there is a strong focus on improving the data being used and strengthening the link between Operational and Capital decisions, as well as a commitment to transparency within the MTA and with external stakeholders. She then outlined the steps that comprise the planning process itself: asset assessment and project evaluation; the data from which leads to prioritization and sequencing of investments; which, in turn is captured in the 20-Year Needs Assessment to be published in September 2023; and ultimately leading to the development of the Five-Year Capital Program the following year. While the primary focus of the planning process has always been and will continue to be to plan for the needs of the existing system, Ms. Cuenca noted that there also needs to be an awareness of how the network should change in the future and how to allocate limited expansion resources in the most strategic manner. She outlined the principles by which expansion projects will be identified -- including expanding the reach of the network itself and serving changing travel patterns. She then cited an extensive list of potential expansion and enhancement projects, all of which will be evaluated as part of the comparative evaluation process, which is designed to consider the relative costs and benefits of each, as well as geographic distribution and equity-based distribution of benefits. Ms. Cuenca concluded her presentation by noting that “stakeholder conversations”, aimed at examining the data gathered for each potential project, will take place in mid-2023, and will ultimately be reflected in the Twenty-Year Needs Assessment.

### **Stations Program Business Unit**

Mr. Gray provided an overview of the Stations Business Unit, which currently includes 194 active

projects, 60 of which are in construction, at a total budget of \$10B. He then noted that since his last presentation to the CPC, in January 2022, 5 projects have been completed – all of them within budget – for a total value of \$588M. Since that time, a total of 23 elevators at 10 stations have been completed. Mr. Gray then noted the increase in planned commitments for the 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2022, totaling nearly \$3B for the year, as well as the steep trajectory of construction activity from the inception of C&D, through the next several years. He then expressed confidence that with the use of several strategies, including budling projects into larger contracts and alternative procurement strategies such as design-build, the challenges posed by this increased level of work both this year and in the years to come will be met. With accessibility being a primary focus of the Stations Business Unit, Mr. Gray reported that fully 23 stations have been made accessible since 2020, with 13 more planned for this year and an additional 18 slated for 2023. He then detailed progress on three large Stations projects currently underway: 149<sup>th</sup> Street/Grand Concourse & Tremont Avenue (\$163M; 50% complete); ADA Package 1 (\$324M; 45% complete); ADA Package 2 (\$471M; 7% complete). Mr. Gray concluded his presentation by highlighting the following recently completed ADA projects, all of which were completed within budget, and aside from a two-month delay on one of the projects, Livonia Avenue, they were finished on schedule: ADA 170<sup>th</sup> Street (\$62M); ADA & Reconstruction: Times Square Shuttle (\$253M); ADA Livonia Avenue (\$89M).

In its Project Review of the Tremont Ave & 149<sup>th</sup> St Stations project, the IEC cited a risk of a 3-month delay from July to October 2023 due to the late supply of power by Con Ed to the Electrical Distribution Room at 149<sup>th</sup> Street, noting that increased manpower and work shifts are necessary to accelerate productivity and recover lost time. Regarding the 8-Station ADA Package 1 project, the IEC reported that Stations Program personnel are working to recover schedule to bring the project to its original Substantial Completion date of July 2023, which will require the contractor to accelerate work activities. In the absence of a recovery plan, the IEC forecasts a delay of up to six months due to issues with National Grid utility relocation work. The IEC then noted that ADA Package 2 and 68<sup>th</sup> St./Hunter College remain on time, and that all four monitored projects are reporting as being on budget, with which the IEC concurs. According to the IEC, risks, which must be continually mitigated so projects do not incur delay, remain due to utility relocation, elevator and structural steel supply chain issues, as well as contractor resource availability. The IEC then noted that as work moves into inspection, testing and commissioning, NYCT support becomes critical in bringing elevators on-line for public use. It is the IEC's understanding that sufficient forces are in place for the current workload and plans are being progressed for the added support staff needed when Package 2 ramps up installations. With respect to the Traffic Light Report (TLR), the IEC noted that the Stations Business Unit (BU) is performing well overall, and of the 65 station projects being reported in the June Quarterly TLR, 95% remain on time and on budget with only one project, a non-public facing project, experiencing delay. The IEC then provided several observations regarding the recent MTA ADA court settlement, referring to it as a “huge leap forward” towards full ADA accessibility, which combined with required funding, provides a framework to allow the MTA to reimagine capital plan delivery on a grand scale. The IEC noted that planning is underway at C&D as is industry outreach for additional qualified firms, and in addition to a potential increase in competition among Elevator and Escalator (E&E) manufacturers

and installers, the MTA is also looking forward to opportunities such as economy of scale pricing, more bundling of work to maximize efficient project delivery and inclusion of long-term maintenance agreements in construction contracts, which could potentially result in a higher quality initial installation. The IEC then pointed out that construction at the scale being considered will pose challenges to the MTA, such as resource availability, competition for track time as well as that of management, and coordination of a large program across multiple geographic locations. In the IEC's opinion, close coordination with E&E manufacturing and installation firms is crucial to minimize impact of supply chain issues. The IEC then noted that a third-party utility agreement has been secured with Con Ed on one ADA project was awarded in January and is being incorporated into subsequent design packages; other utility stakeholder agreements are in progress but need to be accelerated significantly to keep this program on track. The IEC concluded its remarks by noting that machine room-less type elevators are now being utilized MTA-wide to deliver ADA accessibility more efficiently, often reducing the excavation in space-constrained locations while providing speedier and more energy-efficient units with fewer parts requiring maintenance. These and other innovative approaches being considered by C&D to delivering the Stations program will aid the Stations BU in achieving planned results.

#### Procurement Actions

David Cannon, Vice President ("VP"), Contracts, MTA Construction & Development Company ("C&D") reported there were seven procurement actions being brought to the Capital Program Committee this month, six of which are in the competitive section and one in the ratification section. VP Cannon then presented the items.

Upon a motion duly made and seconded, the Capital Program Committee voted the following procurement actions be brought before the full MTA Board and recommended their approval:

1. The award of a publicly advertised and competitively solicited contract (A46030) to Skanska Railroad Joint Venture (a joint venture consisting of Skanska USA Civil Northeast, Inc. and Railroad Construction Company, Inc.) for improvements on the Flushing Line in the amount of \$199,955,000 and a duration of 980 calendar days.
2. The award of a publicly advertised and competitively solicited contract (E30641) to Skanska USA Civil Northeast, Inc. for design-build services to replace seventeen (17) escalators at six (6) subway stations located in the Bronx, Brooklyn, and Manhattan in the amount of \$114,970,000 and a duration of 1,447 calendar days.
3. The award of a publicly advertised and competitively solicited contract (QM-36 B/C) to E-J Electric Installation Company for design-build services for the replacement and relocation of the Queens Midtown Tunnel refueling station and Queens Service Building switchgear for the amount of \$25,450,000 and a duration of two (2) years and two (2) months.
4. The award of three (3) modifications (Numbers 41, 42 and 43) to the Rutgers Tube Rehabilitation contract (P36444) with TC Electric/J-Track JV (a joint venture consisting of TC Electric LLC. and

J-Track LLC) to address deterioration and corrosion of electrical systems in the 53<sup>rd</sup> St. Tube for a total cost of \$5,378,820.

5. The ratification of a modification (No. 11) to the Component Replacement of High-Tension Switchgear at Seven Locations contract (P-37600) with Voltamps Electrical Contractor for the replacement of the existing transformer and rectifier equipment at the 41<sup>st</sup> Street Substation in Queens for a total cost of \$3,775,000.

A copy of the Resolution and the Staff Summaries for the above items are filed with the records of the Capital Program Committee Meeting of this date.

### Adjournment

Upon motion duly made and seconded, Chairman Lieber adjourned the July 25, 2022 meeting of the MTA Capital Program Committee at 2:27 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

**October**

Overall Capital Program

- Infrastructure
- OMNY

**November**

Overall Capital Program

- Signals and Train Control
- Systems

Minority, Women and Disadvantaged Business Participation

Small Business Development Program

**December**

Overall Capital Program

- B&T

Security Projects

Quarterly Traffic Light Report

**January**

Overall Capital Program

- Integrated Megaprojects

**February**

Overall Capital Program

- Stations

**March**

Overall Capital Program

- Railroads

OMNY

Quarterly Traffic Light Report

**April**

Overall Capital Program

- Infrastructure

Minority, Women and Disadvantaged Business Participation

**May**

Overall Capital Program

- Signals & Train Control
- Systems
- Rolling Stock

**June**

Overall Capital Program

- Integrated Megaprojects

Security Projects

Quarterly Traffic Light Report

**July**

Overall Capital Program

- Stations

**September**

Overall Capital Program

- Railroads

OMNY

Quarterly Traffic Light Report

## MTA Capital Program Committee Update

### Long Island Rail Road Business Unit Projects

September 2022

MTA Construction & Development's (C&D) last report to the Capital Program Committee (CPC) for Long Island Rail Road (LIRR) projects was in February 2022. Since this last report, C&D has successfully awarded two noteworthy projects through August 2022 (Babylon Interlocking & 2022 Track Program), totaling \$141.5 million. In the final third of the year, the plan is to commit another two major Design-Build contracts, ADA Stations Package I in the amount of \$132.0 million, and the Hall Interlocking Expansion in the amount of \$82.7 million (3<sup>rd</sup> party amount).

C&D has also been able to complete six projects since the February 2022 meeting with a value of \$73.1 million. These included Richmond Hill Substation, Jamaica Capacity Improvements-Phase II Design, Penn Station Masters Office, and the Huntington Station East Pedestrian Overpass.

In summary, our overall performance year to date is as follows:

- 11 projects completed
- \$279 million committed
- Primary factors affecting performance include Force Account availability given the needs for other priority projects such as Grand Central Madison and LIRR Main Line Expansion (Third Track), staffing, and higher than forecast bid prices.

#### 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 LIRR Service to Grand Central Madison; (2) increase Jamaica Station/Interlocking(s) capacity/speed for increased 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. A large portion of Phase 1 included new interlockings on the outskirts of Jamaica Station to provide operational flexibility and enable the construction of Phase 2.*

#### **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 enables more frequent Brooklyn bound train connections.

PROJECT STATUS	Original	Forecast
<b>JCI Phase 1 Program - Substantial Completion</b>	Oct 2021	Q4 2022
<b>Budget</b>	\$301.7 M	\$321.7 M
The project is approximately 92% complete.		

The Jamaica Station complex is officially Grand Central Madison ready and able to handle the 40% increase in service. In addition, 22 of the 24 switches to be installed under JCI Phase 1 have been completed. Since the last CPC meeting, the LIRR Track Department has completed the removal of the old 65 and 115 Switches and installed a new 65 Switch. The new Beaver interlocking was successfully cutover into service during two weekends in August. The remaining crossover track and 3<sup>rd</sup> rail 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 Third Track, East Side Access, Main Line Double Track and Positive Train Control.

**JAMAICA CAPACITY IMPROVEMENTS – PHASE 2**

Phase 2 construction will span several Capital Programs 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 (shaving 3-4 minutes of commute time in each direction)
- 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)

While JCI Phase 2 is currently in the final stages of design, the project is advancing with the recent advertisement of the Hall Interlocking Expansion Design-Build contract.

PROJECT STATUS	Original	Forecast
<b>JCI Phase 2 Hall Expansion - Substantial Completion</b>	Sept 2026	Sept 2026
<b>Budget</b>	\$135.0 M	\$150.0 M
The project is in Procurement.		

The Hall Interlocking Expansion comprises Stage 3 and Stage 4 (Hall) and includes the eastward extension of existing E-Yard tracks via the construction of a new bridge over 150<sup>th</sup> Street. The work also involves replacing/modifying existing retaining walls, modifications to existing Guy Brewer Blvd bridge structures, associated track/3<sup>rd</sup> rail

modifications, and SOGR. Ultimately, this project will enable the creation of two additional parallel routes within Hall Interlocking (new tracks E2 and E3) which is critical to the overall master plan of JCI Phase 2. Studies are also in progress to determine how C&D can stage the project to enable an earlier completion.

**Queens Interlocking**

*Queens Interlocking is a critical junction point at the west end of the Main Line Third Track and Hempstead Branch, which is also the location of the new Elmont Station. The interlocking's existing switch arrangement required modification to support the new Elmont Station and the increase traffic flow through the area due to East Side Access and the Main Line Expansion.*

PROJECT STATUS	Current	Forecast
Substantial Completion	Jan 2025	Jan 2025
Budget	\$155.0 M	\$155.0 M
The project is approximately 16% complete.		

Current status of the project:

- **Phase 1:** Completed on schedule in October 2021 to support the MTA’s commitment to provide service to UBS Arena on opening day. This work facilitated the concurrent construction of Elmont Station. The work consisted of:
  - Relocation of existing signal, communication and power systems to allow platforms and the pedestrian overpass to be constructed.
  - Relocation of 113 Crossover and 164 Switch to support the new Elmont Station's platform construction, this included extensive resurfacing of Queens 2 & 3 Interlockings.
  - Modernization of two of seven track switches in Belmont Yard and allowing them to be remote controlled. This increases the frequency and reliability of train service for Belmont and UBS Arena.
- **Phase 2:** In progress / 2022 commitment to support Grand Central Madison service and UBS Arena.
  - LIRR F/A is currently on schedule to meet the Phase 2 commitment to support the future Grand Central Madison service plan.
  - LIRR F/A completed the removal of the old 221 Crossover on July 10, 2022.
  - The new Bellerose ladder track (4 switches) is scheduled to be installed over four consecutive weekends after Labor Day 2022. LIRR Signal is continuing to install conduit and prepare for the new switches. Pre-testing of various tracks commenced and will continue through to cutover. The temporary signal system cutover is scheduled for the weekend October 29-30, 2022.
  - Completion of the Bellerose ladder will support regular commuter service to Elmont Station.
- **Phase 3:**
  - A contract to provide new signal equipment for the 5 interlockings and Belmont Yard was awarded to Hitachi in December 2021.

- Preliminary Design for the Park and Belmont interlockings is anticipated in October 2022 with the first signal hut delivery expected in July 2023.
- Upgrading old signal systems will increase reliability, redundancy, and expandability.
- New switches will improve operational flexibility and reliability supporting Main Line routes around Hempstead Branch tracks.

# September 2022 CPC Independent Engineering Consultant Project Review

## Jamaica Capacity Improvement- Phase 1



MCKISSACK

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 major 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.



MTA Independent Engineering Consultant

# Jamaica Capacity Improvement Phase 1

## Schedule Review

- Substantial completion (SC) of Phase 1, which includes the remaining track, switch and signal work, is forecast by the project team for 4<sup>th</sup> Quarter 2022. This projection has not changed 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 92% complete with major accomplishments since last report including; cutover of the Beaver interlocking, installed new and removed old switches to support stream-lining of Lower Montauk freight route.
- Based on review of the remaining schedule activities, the IEC finds completion of project is dependent upon if resources and outages are available for Union Interlocking switch planned work.
- In the opinion of the IEC, the potential of the Union Interlocking switch being placed in service during the latter portion of Q4 2022 could result in the associated signal cutover being pushed out a quarter.

# Jamaica Capacity Improvement Phase 1

## Budget Review

- The original project Budget of \$301.6M remains with an Estimate at Completion (EAC) of \$321.7M, a \$20M increase since last report.
  - A budget modification is in process to fund this shortfall which is largely due to FA labor cost increases.
  - A major portion of this project's contingency funding, in the amount of \$35M, was used to fund the JCI phase 2 design.
- The IEC concurs with the project EAC of \$321.6M however, there is a potential that the EAC may be impacted further pending resolution of the claim associated with Platform F.

# Jamaica Capacity Improvement Phase 1

## Risks

The project 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 and FA is ready to implement the remaining work at Union Interlocking.
  - In the opinion of the IEC, this mitigation is reasonable however, the risk remains high until the other major LIRR projects complete their targeted milestones for this calendar year.
- Claim for Platform F.
  - A claim has been submitted by the Platform F contractor and remains under review by LIRR and MTAHQ legal. While there has been no significant change in the status of the resolution of this claim, the PMT continues to anticipate minimum cost impact.
  - The impact of this mitigation is difficult to assess because of the status of the claim.
- Real-estate negotiations for obtaining final easements to place signal equipment.
  - Proper planning, meetings and bi-weekly workshops to ensure all necessary documentation is available and accurate.
  - In the opinion of the IEC, this mitigation is a sound approach however, it may still require time to obtain the easements.

# September 2022 CPC Independent Engineering Consultant Project Review

## Queens Interlocking



MTA Independent Engineering Consultant

# Queens Interlocking

## Scope

The scope of work for the Queens Interlocking project addresses the following needs:

- Expanded service needs from East Side Access and LIRR Expansion
  - Support the new UBS Arena service plans, which include service to a new Elmont Station and Belmont Yard (with expanded East and West bound service).
- The track layout between the Main Line and the Hempstead Branch need to be modified to:
  - Provide Mainline (ML) access from the East-Bound platform (connecting Track 4 to Track 2).
  - Provide WB platform access from the Hempstead Branch (connecting Track 2 to Track 3).
- In addition, the obsolete Signal System will be replaced along with several major scope items including:
  - Replacement/relocation of four (4) high speed crossovers, to allow the installation of 3 new crossovers (known as Elmont ladder) to service the new Elmont Station.
  - Third rail modifications to support the new track and switch layout.
  - New microprocessor-controlled signal system with Reduced-Aspect Signaling.
  - Installing new crossover to provide East-Bound ML service.
  - Replacing all the existing Belmont Yard switches.

# Queens Interlocking

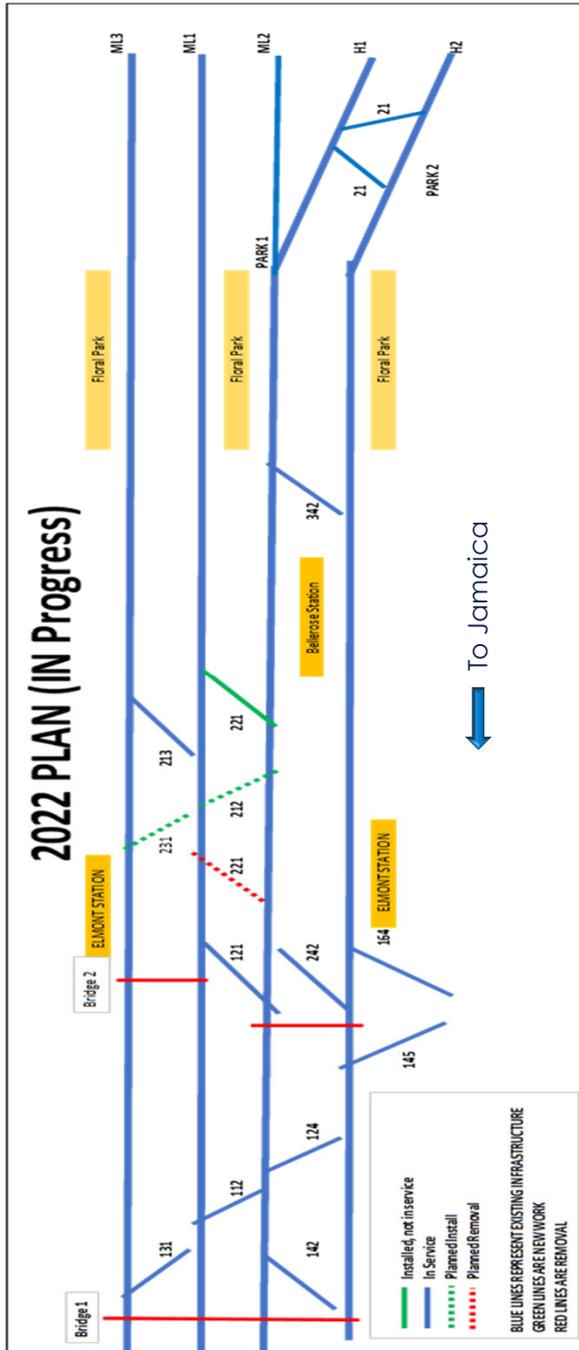
## Schedule Review

Milestone	Plan	Forecast	IEC Forecast
Construction Start	11/2020	11/2020(A)	
Substantial Completion	01/2025	01/2025	03/2025

- The project Substantial Completion (SC), which includes the remaining track, switch and signal work, is forecast for January 2025.
- The project is now 16% complete overall and is on schedule with the planned work for 2022.
  - Installation of the new Elmont ladder switches 231 & 212, shown in diagram on page 4, are scheduled for September and October 2022.
  - LIRR Signals is on schedule to cutover the temporary signal system for Elmont station flexibility for October 2022.
- Many of the public benefit improvements such as, the Belmont Yard and passenger service to Elmont station will be available for operational use by year end 2022.
- Based on the review of the remaining critical activities the IEC finds a potential delay to SC to 1<sup>st</sup> quarter 2025, driven by design, installation, testing and commissioning of Queens 2 signal system starting in early 2024.
  - The IEC believes the incorporation of detail activities in the schedule could help in the early identification of opportunities for mitigation.

# Queens Interlocking

## Schedule Review(continued)



Installed new 221 in Jan 22,

Remove old 221 crossover, 221W - 5/14 and 221E - 5/21 Complete

212W - 9/10

231E - 9/17 (Switch is adjacent to 231W, 231E and 212W will be completed prior to their corresponding switches to ensure proper alignment.

212E - 9/24

231W - 10/1

Note: 221, 231 and 212, go in service in October with Signal System cutover.

For Reference - 3TML Deliverables

\* Nassau 3/Divide 1 Cutover 3/19 - 20/2022

\* Park 1 & Park 2 cutover completed July 2022



MTA Independent Engineering Consultant

# Queens Interlocking

## Budget Review

- ▣ The IEC performed an analysis of completed work, change orders, Force Account (FA) Labor, remaining contingency and other cost categories and finds the project budget and Estimate at Completion (EAC) is \$155M, and it is our opinion that this is sufficient to complete the current scope of work.



MTA Independent Engineering Consultant

# Queens Interlocking

## Risks

The project risks and corresponding mitigations include the following:

- Force account resources for Mainline and Yard track and signal work competes with other major LIRR projects.
  - FA work is coordinated with internal and external groups in order to achieve timely completion.
  - Executed Belmont Yard work early to relieve schedule pressure.
- The timely completion of track and signal installations
  - The Project Management Team (PMT) has advanced the purchase of equipment and many switches are on-site.
- While the project has successfully scheduled many of the switch installations to date, due to the level of on-going projects, the required outages may be unavailable when necessary.
  - Continue to take advantage of all piggyback track outage opportunities associated with other major LIRR projects.
- Successful cutover of new signal system.
  - Increase the frequency of technical meetings with the signal contractor to resolve issues in advance of the scheduled work.
- In the opinion of the IEC, the risks continue to be well managed and have proved effective to date.

## MTA Capital Program Committee Update

### Metro-North Railroad Business Unit Projects

September 2022

MTA Construction & Development's (C&D) last report to the Capital Program Committee on Metro-North Railroad (MNR) projects was submitted in February 2022. A summary of our performance on these projects for 2022 is as follows:

- C&D has awarded 9 contracts worth \$46.5 million.
- C&D has reached substantial completion on 11 construction projects and completed 1 inspection and feasibility project worth \$261.9 million. Four in-house projects were also completed worth \$51.1 million.
- Primary factors affecting performance of active projects are: Con-Ed (power/substations), over-prescribed access to ROW, internal resource availability, and material supply chain issues. Mitigation measures to minimize these factors are in place: Con-Ed issues are being mitigated via executive level meetings, access/outages and internal resources availability are being mitigated by prioritizing projects with conflicting demands, and material supply delays are being mitigated, when possible, by buying materials as early as possible and storing on or off site.

This document summarizes the progress on two significant projects: Harmon Shop Replacement and the Park Avenue Viaduct 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
<b>Substantial Completion</b>	April 2023	June 2023
<b>Project Budget</b>	\$439.6 M	\$439.6 M
<b>The project is approximately 75% complete.</b>		

The project scope is the demolition and reconstructing of the 250,000 square foot Main Shop and its storeroom, as well as replacement of the facility's heavy equipment including truck hoists, railcar hoists, overhead cranes, and lifts.

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 save 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.

Financial forecasts for the project have not changed since the last report, but we have revised the projected substantial completion date from April 2023 to June 2023 to reflect material supply chain issues.

Since the last report, the Factory Acceptance Testing of six major systems (hoists to lift the railcars for maintenance) have been completed. The installation of the yard tracks on the north side of the Main Shop has been completed and returned to service for railcar storage.

**Park Avenue  
Viaduct  
Replacement  
Phase 1**

The Park Avenue Viaduct (PAV) replacement project will replace the existing 130-year-old railroad viaduct from East 115th Street to East 123rd Street, along Park Avenue in Harlem. These spans are just to the south of the station at 125th Street. The project encompasses the entire replacement of the existing viaduct including foundations, structure, tracks, and power, as well as communications and signals. As reported at previous CPC meetings, the viaduct has reached the end of its useful life with extensive and ongoing repairs needed to keep the structure in a state of good repair.

This section of the viaduct is an elevated steel structure which carries four third-rail powered tracks over Park Avenue. All trains from the Hudson, Harlem and New Haven lines use the viaduct to enter Grand Central Terminal. Approximately 750 trains per day traverse the viaduct – it is one of the most critical MNR assets.

While the viaduct is critical for MNR transportation, the space under the viaduct serves as a well utilized space for community and public use, most notably for various tenant purposes, including community events and parking. Initial steps have been taken and agreements have been reached with the City of New York to assist with the temporary relocation of tenants under the viaduct during construction.

The PAV replacement project will also provide multiple improvements to the community, including improving the lighting under the PAV to increase safety in the neighborhood; significantly improving the aesthetics of the community by replacing the existing painted brown structure with a welcoming new, light gray, galvanized steel structure which will brighten the neighborhood; an arts and design component; and will maintain service to the Harlem 125<sup>th</sup> street station, which is the 3<sup>rd</sup> busiest station for MNR. Since our last report, the project team has completed the environmental documentation with the FTA and we have also completed new easements and agreements with the City of New York. The Federal grant was also approved.

Procurement for this design-build project is underway with an RFP issued on August 30th, with an award anticipated before the end of this year. The procurement includes an option to add further spans to the north of the 125th Street station as this would result in minimizing the whole-life cost. The award of these spans will be dependent on the cost proposals from the shortlisted bidders.

On site construction work is expected to commence in Q3 of 2023 with completion in 2028. Over the next few months, as we work closely with the proposers during procurement, our intent is to facilitate innovative ideas to enable the best balance of cost, schedule, and potential impact to riders.

The Project Management Consultant (PMC) contract was awarded in December 2021 to WSP to provide services for preliminary engineering, procurement phase support, as well as construction inspection, project management and supervision support. This PMC contract was one of the first that combined substantial preconstruction and construction services, aimed at minimizing project interfaces, and reducing overall project costs. The PMC contract includes performance incentives and disincentives.

# September 2022 CPC Independent Engineering Consultant Project Review

## Harmon Shop Replacement Phase V Stage 2

### Metro North Railroad



MTA Independent Engineering Consultant

# MNR Harmon Shop Replacement

## Phase V Stage 2

**The Harmon Shop Replacement project is a 20-year, multi-phase upgrade and modernization program for the shop and yard that is in the final phase and stage (Phase V, Stage 2) which was awarded in October 2018 with Substantial Completion in April 2023.**

PREVIOUS PHASES COMPLETED (2001 – 2021)	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
	Phase V (Stage 1)	Design and construction of Consist Shop and EMU Annex Building

### Current Phase and Stage

Phase V, Stage 2 consists of the demolition of Building 6 maintenance facility, construction of a state-of-the-art Running Repair and Support Shop (RRSS) and second floor connector bridge between RRSS and Electrical Multi Units (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 (SC)	April 2023
MNR Forecasted SC	June 2023
IEC February 2022 Report SC	July 2023
Current IEC Forecasted SC	July 2023
Percent Complete	75%

- The project team's forecasted substantial completion has moved from April 2023 to June 2023 due to HVAC and Public Address equipment deliveries.
  - The project team is working with the D-B to recover the eight weeks.
- The previously reported potential eight-month (April 2022-December 2022) moratorium delay was successfully mitigated by the project team.
- Based on a review of the remaining schedule activities, the IEC's forecast of July 2023 SC remains the same.

# MNR Harmon Shop Replacement

## Phase V Stage 2

### **Budget Review**

- ▣ The project Budget and Estimate at Completion (EAC) remain \$439.6M.
- ▣ The IEC's review of the project expenditures, executed, negotiated, pending change orders and remaining contingency, indicates that the project EAC remains at or within budget.

# MNR Harmon Shop Replacement

## Phase V Stage 2

### Risks and Mitigations

The project team has been successful in mitigating the major risks to date. The below, typical risks occur often on projects of this type and need constant attention by project team.

- Supply chain disruptions, procurement and delivery of equipment.
  - Working with D-B to expedite submittal approval and procuring critical items as soon as possible.
- Testing and commissioning of new shop equipment.
  - Continuous review of submissions to identify and implement improvements to the equipment test plan.
  - Performance of remaining FATs as soon as possible to allow time for any potential rework.
- In the IEC's opinion, the project team has implemented a detailed commissioning plan and submittal review process. The plan and review process have been effective to date, and their sustained implementation should serve to mitigate the risks. However, there is little time for any rework in the plan.

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

BLS TRIR reduced 2.40 (2021) to 2.00 (2022)

BLS LTIR reduced 1.50 (2021) to 1.30 (2022)



**SAFETY NARRATIVE**

**INCIDENTS (Month of JULY)**

- Eight (8) Lost Time Incidents (Revised total from previous report)
- Three (3) Recordable Incidents

**INCIDENTS (Month of AUGUST) Five (5) Lost Time and Five (5) Recordable**

- **LOST TIME – Infrastructure – 2; Bridges & Tunnels – 2; LIRR – 1**  
(Details can be found in the specific BU Safety Summaries)
- **RECORDABLE – Infrastructure – 3; Bridges & Tunnels – 1; 3<sup>rd</sup> Track – 1**  
(Details can be found in the specific BU Safety Summaries)

**INSPECTIONS & AUDITS: INTERNAL – 119 EXTERNAL – 682 (208 Third-Party Safety Consultants; 474 OCIP Visits)**

- Negative Observation(s):
  - Negative Findings identified through the various inspections include Housekeeping, General Safety & Organization, and Barricades & Enclosures.
  - For August, the leading incident types included Caught Between (40%) with Falls, Strain/Sprain, and Struck By's (20% each).
- Positive Observation(s):
  - Positive Findings identified through the various inspections include Tools (Hand & Power), Ladders & Stairs, Fire Protection, and Electrical.
  - Safety continues to work with the various Business Units and individual projects to ensure that all teams recognize their roles in promoting and fostering positive safety culture.

**LONG-TERM TRENDS:**

- The significant increase in reported incidents for the previous month and the lower reported work hours continue to drive higher reported incidence rates.
- The calculated LTIR has increased by 9.9%, and the TRIR has increased by 5.2% from the previous month.
- The current YTD LTIR remains 10% lower than last year's reporting period, and the YTD TRIR is 1.6% higher.
- Calculated work hours remain 21% lower than last year's reporting period.

**ACTIONS:**

- Strategic Items
  - **Safety** - VP of Safety working with DSO to meet with PMC/CCM consultant companies with the aim of performance assessment.
  - **Safety** - Advertised for several critical positions within Safety, the Business Units. Interviews have commenced for the selection of Safety candidates.
  - **Safety** – Continuing to identify and work with project teams and BU Leadership to ensure that the required labor hour reporting is being provided consistently to ensure accurate calculation of the Lost Time and Recordable Incidence Rates.

- **Safety** - Continues working with procurement on an RFP for independent 3rd party Safety Inspectors to augment the current staffing shortages.
- **AECOM Safety Assessment Initiative** - The initiative continues to progress. The Digital Solution component of the initiative continues to progress, and the process continues moving to the next phase. Drafts of the proposed Vendor requirements and Demo Scripts have been provided for review and comment.
- **B&T** - 8/15 - 84 BT BU staff attended Safety Moment "Silica & Angle Grinder Hazards & Controls."
- **B&T** - 253 BT BU contractors' workers took part in "Hand Tool Safety" Toolbox Talks and reviewed the recent Laceration Injury Safety Alert.
- **Signals** - C&D Safety held a meeting with the CMO of S-48010 and OCIP Representatives on 8/1/2022 to address the recent Safety Issues on OCIP Reports. There have been no OCIP Safety Findings for 11 visits during August.
- **MNR** – GC at Croton Harmon Shop has added a second full-time safety engineer to assist on the Harmon Shop Project. On 8/15/22, they held a subcontractor outreach program as part of their corrective action plan due to the number of incidents.
- **Harold Regional – 8/5/2022** – Safety observations lead GC to inspect all slings on site. Damaged slings were discarded, and new slings were bought and are currently in use for operations.
- **ESA** – Safety Updating ESA Emergency Notification Protocol to include C&D Significant Unusual Incident Notification

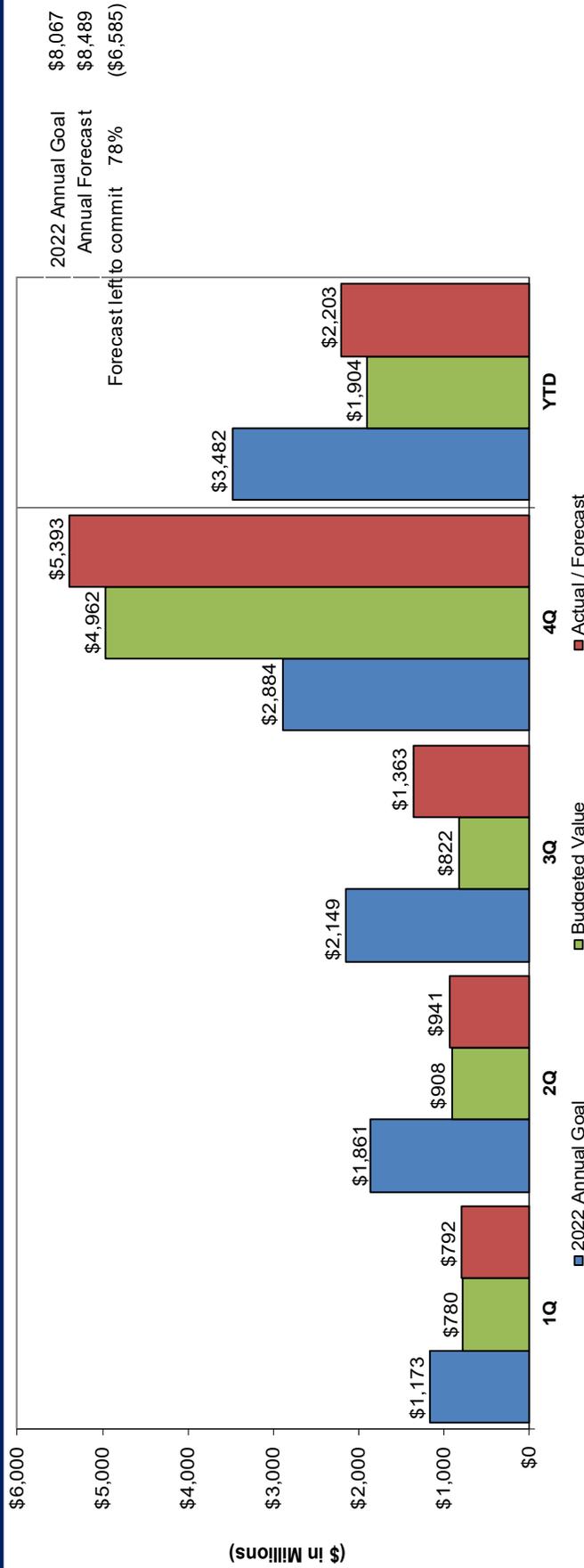
---

# **MTA Capital Program Commitments & Completions**

**through  
August 31, 2022**

**Capital Projects – Commitments – August 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.

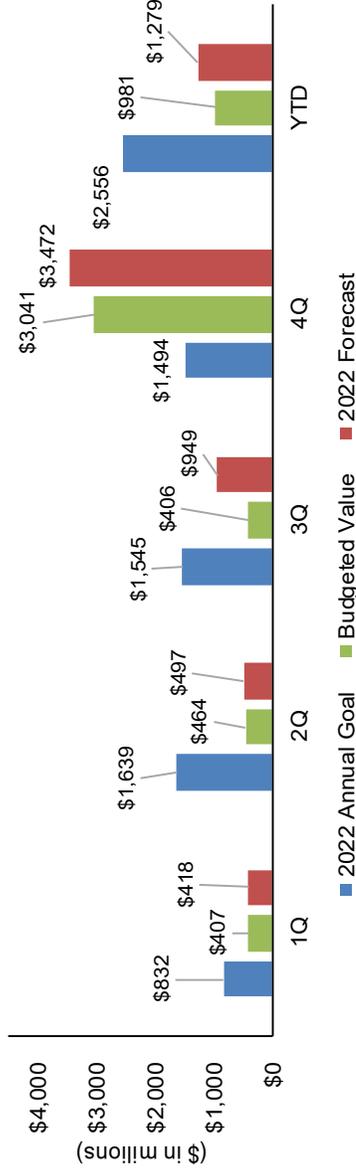
**Commitments Summary**

In 2022 the MTA plans to commit nearly \$8.1 billion worth of capital projects. Through August the MTA has committed \$2.2 billion versus a \$3.5 billion year-to-date goal. By year end the MTA projects committing \$8.5 billion (105%) of its annual goal, over 50% of which is projected for the 4<sup>th</sup> quarter. Major commitments for the first half of the year which have delays are identified and explained on the following pages.

**NYCT/MTA Bus Capital Projects – Commitments – August 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	\$2,556
2022 Forecast	\$418	\$497	\$949	\$3,472	\$1,279
Budgeted Value	\$407	\$464	\$406	\$3,041	\$981



**Q2 Schedule Variances**

Project	Commitment	Actual	Forecast	Project	Commitment	Goal	Forecast
<b>5 NYCT/MTA Bus Amber Commitments</b>							
<b>Amber delays are within 2 months of goal.</b>							
<i>Line Structures</i>							
E. 180th St ROW Bundle / WPR, Dyre	Construction	Mar-22 \$ 175.0	May-22 (A) \$ 169.2	Sandy Mitigation: Rockaway Line	Construction	Jun-22 \$ 177.7	Dec-22 \$ 467.1
The award was delayed to address proposer concerns by removing negative rail work from the project scope as well as introducing B&T practices for structural painting into new specifications for use by NYCT.							
<i>Facilities</i>							
Tiffany Central Warehouse	Construction	Feb-22 \$ 58.4	Mar-22 (A) \$ 58.4	Sandy Mitigation: Substation Hardening	Construction	Jun-22 \$ 102.2	Dec-22 \$ 102.2
The award was rescheduled due to additional time needed to respond to questions and comments received from the proposers, which required technical changes to the contract documents.							
<b>4 NYCT/MTA Bus Red Commitments</b>							
<b>Red delays are beyond 2 months of goal.</b>							
<i>Superstorm Sandy Restoration and Mitigation</i>							
Rockaway Line Resiliency and Viaduct Rehabilitation packages and the South Channel Bridge repair package, originally planned as 3 separate contracts, are now being bundled into 1 contract package to ensure better coordination, minimize outages, and minimize risk to the projects and impacts to the public. The RFQ for the combined package was issued on 7/15 and the project is now scheduled for late 2022 award. The budget has changed to reflect the latest estimate.							
Submission of proposals was delayed to allow time to respond to proposer questions and make associated technical changes to the contract documents.							

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

### Schedule Variances

Project	Commitment	Goal	Forecast
---------	------------	------	----------

**5 NYCT/MTA Bus Amber Commitments (continued)**

Amber delays are within 2 months of goal.

*Line Structures*

E 180th St ROW Bundle / WPR, Dyre	Construction	Mar-22	May-22 (A)
		\$ 175.0	\$ 169.2

The award was delayed to address proposer concerns by removing negative rail work from the project scope as well as introducing B&T practices for structural painting into new specifications for use by NYCT.

Overcoating: Jamaica Line

Construction	Jun-22	Dec-22
	\$ 257.4	\$ 258.0

Award is delayed due to the need to re-advertise the contract following cancellation of initial bids (low bidder and second low bidder were deemed unresponsive).

*Stations*

Flushing Line Contract 1: Station	Construction	Jun-22	Sep-22
		\$ 285.2	\$ 285.2

The RFP was issued in February and the contract was approved by the Board in July. The initial delay was in the development of the package. The award was delayed due to additional time needed for contract review.

**4 NYCT/MTA Bus Red Commitments (continued)**

Red delays are beyond 2 months of goal.

*Power*

Upgrade SCADA System (BMT) & Backup PCC	Construction	Apr-22	Aug-22 (A)
		\$ 58.7	\$ 62.8

The award was delayed due to additional time needed to respond to questions and comments received from proposers, which required technical changes to the contract documents and more recently to resolve issues relating to insurance requirements. The project was awarded on 8/2/2022. The budget has been adjusted to reflect the latest estimate.

*Stations*

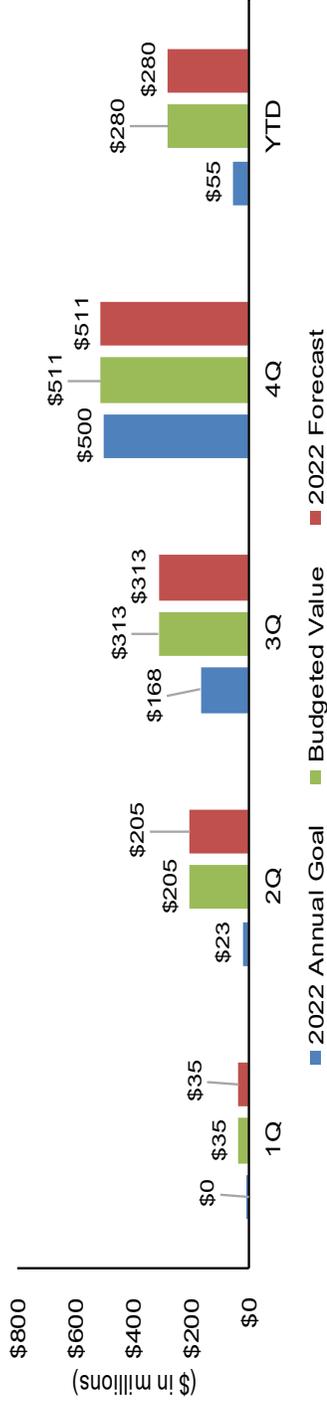
Flushing Line: Contract 2 Station Renewals & Component Rehab	Construction	Jun-22	Dec-22
		\$ 249.0	\$ 375.5

Budget change reflects the refined construction estimate. Award is delayed due to the new advertisement schedule.

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

LIRR Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$0	\$23	\$168	\$500	\$55
2022 Forecast	\$35	\$205	\$313	\$511	\$280
Budgeted Value	\$35	\$205	\$313	\$511	\$280



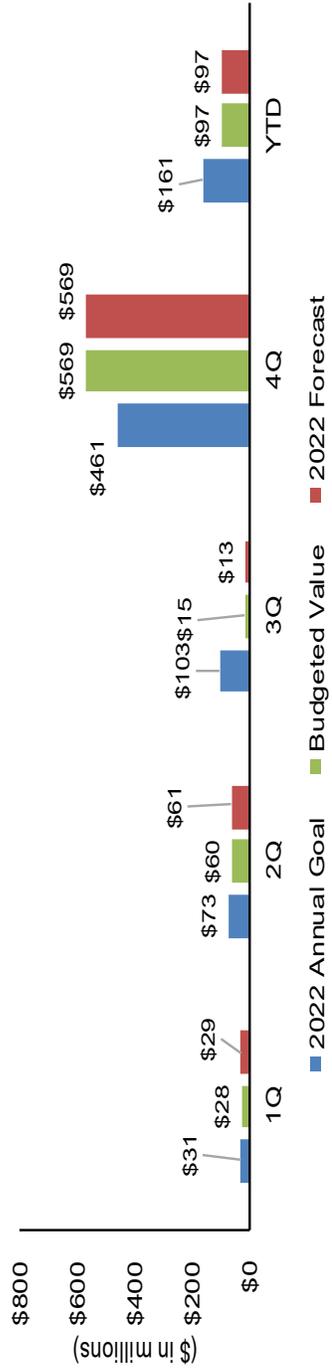
Q2 Schedule Variances

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

**MNR Capital Projects – Commitments – August 2022 – Budget Analysis and Schedule Variances**

**MNR Budget Analysis**

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$31	\$73	\$103	\$461	\$161
2022 Forecast	\$29	\$61	\$13	\$569	\$97
Budgeted Value	\$28	\$60	\$15	\$569	\$97



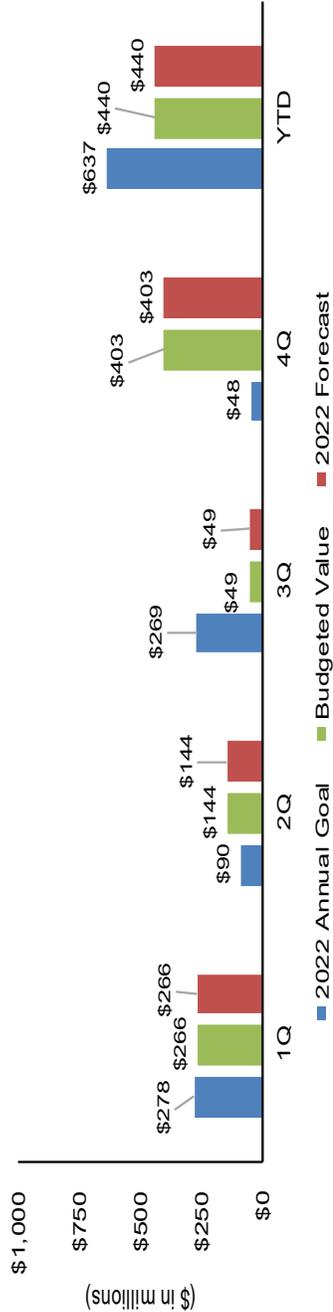
**Q2 Schedule Variances**

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

**MTA Network Expansion Projects – Commitments – August 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	\$637
2022 Forecast	\$266	\$144	\$49	\$403	\$440
Budgeted Value	\$266	\$144	\$49	\$403	\$440



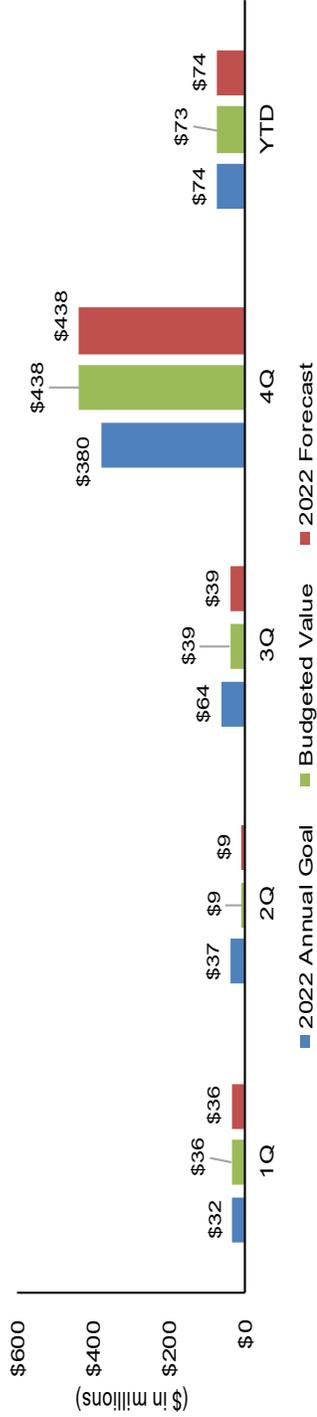
**Q2 Schedule Variances**

Project	Commitment	Goal	Actual
<b>1 Network Expansion Amber Commitments</b>			
<b>Amber delays are within 2 months of goal.</b>			
<b>East Side Access</b>			
Interim Maintenance Contract	Construction	Mar-22	Apr-22 (A)
		\$32.6	\$20.8
The award was delayed due to additional time required for final contract negotiations. A reduction in scope resulted in a reduced award value.			

**B&T Capital Projects – Commitments – August 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	\$74
2022 Forecast	\$36	\$9	\$39	\$438	\$74
Budgeted Value	\$36	\$9	\$39	\$438	\$73



**Q2 Schedule Variances**

Project	Commitment	Goal	Forecast
<b>1 B&amp;T Red Commitment</b>			
<b>Red delays are beyond 2 months of goal.</b>			
<i>Line Structures</i>			
Relocation of QMT Refueling Station and QSB Switchgear	Construction	Jun-22	Jul-22 (A)
		\$ 28.9	\$ 28.9
Procurement schedule has been adjusted to allow sufficient time for bidder proposals.			

### Capital Projects – Completions – August 2022

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	
Goal	2	1	4	3	3	4	1	4	3	7	5	14	2
Total	53												
Jan-22	1												
Feb-22									1				
Mar-22			3		1				1				
Apr-22				2					1			2	
May-22					2								
Jun-22						3		1					
Jul-22													
Aug-22							1						
Sep-22													
Oct-22													
Nov-22													
Dec-22													

**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

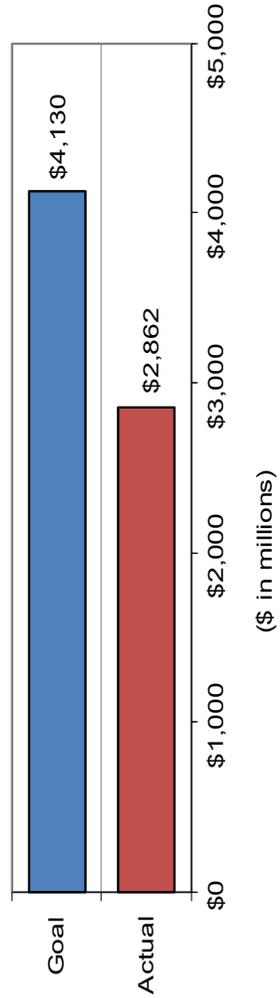
### Completions Summary

In 2022 the MTA plans to complete \$9.2 billion of projects. Through August, the MTA has completed \$2.9 billion versus a \$4.1 billion year-to-date goal. The shortfall is mostly due to delays of several major completions, all are identified on the following pages. Most of these delayed completions are anticipated to be achieved later in the year. However, two are projected for post 2022 completion in addition to several subprojects within NYCT's overall 2022 Track and Switch program with about \$250 million in value.

The MTA forecasts achieving 88% its overall \$9.2 billion completions goal by year's end.

### Budget Analysis

2022 Annual Goal \$9,234  
 Annual Forecast \$8,128  
 Forecast left to complete 65% (\$5,266)

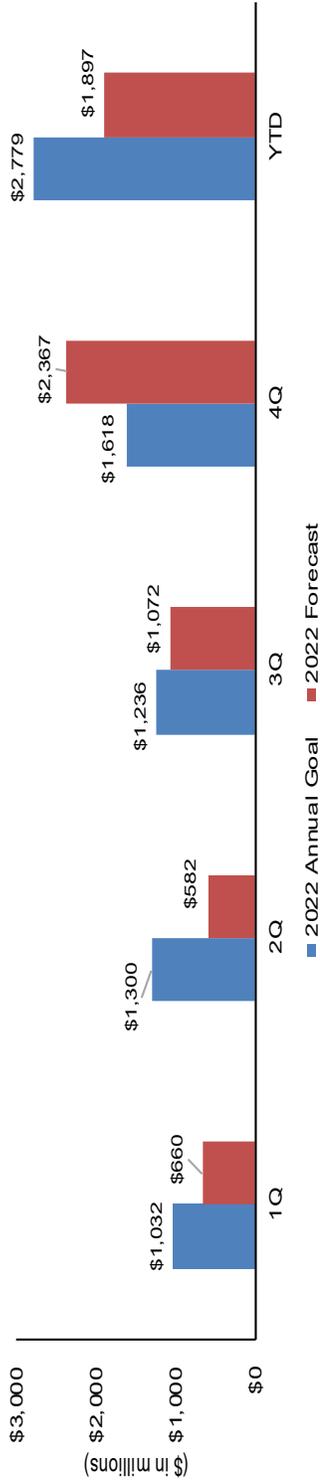


**NYCT/MTA Bus Capital Projects – Completions – August 2022 – Budget Analysis and Schedule Variances**

**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	\$2,779
2022 Forecast	\$660	\$582	\$1,072	\$2,367	\$1,897

2022 Goal (Rolling Stock)	\$185	\$287	\$80	\$407	\$472
Forecast (Rolling Stock)	\$99	\$86	\$226	\$407	\$185



**Schedule Variances**

Project	Completion	Goal	Actual	Project	Completion	Goal	Forecast
<b>5 NYCT/MTA Bus Amber Completions (1 new item)</b>							
<b>Amber delays are within 2 months of goal.</b>							
<i>Power</i>							
New Substation: Harrison Pl/Canarsie	Construction	Feb-22 \$ 51.3	Apr-22 (A) \$ 51.3	Power Upgrade: Rail Control Center, Power Control Center -	Construction	Feb-22 \$ 63.4	Sep-22 \$ 63.4
The schedule change reflected the delayed completion of equipment wiring and breaker energization.				The completion date reflects the additional time required to review and complete punch list work, including an additional work order for upgrades and a generator monitoring system.			
Stations				New Substations at New Dorp and Clifton	Construction	Apr-22 \$ 50.4	Dec-22 \$ 50.3
The completion delay reflected the additional time required to complete steel repairs and station painting.				The substantial completion has been moved to December 2022 due to delays in scheduling extended track outage which require three-day weekends for final cable connections and track signal circuit testing by SRTQA/TAP.			
<i>Signals &amp; Communications</i>							
CBTC QBL West Ph.1/Siemens	Construction			CBTC QBL West Ph.1/Siemens	Construction	Jun-22 \$ 214.6	Dec-22 \$ 214.6
Substantial completion has been delayed due to carborne hardw are/firmw are testing.				Substantial completion has been delayed due to carborne hardw are/firmw are testing.			

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

### Schedule Variances

Project	Completion	Goal	Forecast
---------	------------	------	----------

**8 NYCT/MTA Bus Red Completions (continued)**  
**Red delays are beyond 2 months of goal.**

<b>Hybrid-Electric Standard Buses (Nova)</b> Bus delivery schedules have been delayed due to supply chain issues with the final bus delivery anticipated for December 2022. <b>Shops &amp; Yards</b> 207th St. Maintenance & Overhaul Shop Roof & Component Repair Substantial completion has been delayed due to material and labor shortages.	Bus Purchase Construction Construction	Apr-22 \$ 253.9 Jul-22 \$ 57.6	Dec-22 \$ 253.9 Dec-22 \$ 57.6
--	--	---	---

**5 NYCT/MTA Bus Amber Completions (continued)**  
**Amber delays are within 2 months of goal.**

<b>Signals</b> CBTC Queens Blvd West - 50th St. to Union Turnpike: Phase 1 - Thales Substantial completion has been delayed due to zone control capacity issues.	Construction	Jun-22 \$ 52.1	Aug-22 (A) \$ 52.1
<b>MTA Bus</b>			
257 Express Buses	Bus Purchase	Nov-22 \$ 166.7	Dec-22 166.7

Delay due to supply chain issues which are impacting bus deliveries.

**Stations**  
**Replace 8 Traction Elevators (New Item)**  
 Completion has been delayed to complete punchlist work. Budget change reflects the latest estimate.

<b>Line Structures</b> Overcoating: Broadway - End of Line / Myrtle Substantial completion has been delayed due to additional time required to complete overcoating. The project's steel repair scope has been reported as 100% complete.	Construction Construction	Jun-22 \$ 54.8	Oct-22 \$ 54.8
---	------------------------------	-------------------	-------------------

**Track Program**  
 Mainline Track and Switch - Various Lines  
 Several individual track projects totalling \$254 million are now forecast for completion after 2022 due to various schedule changes to coordinate the track program with other ongoing work.

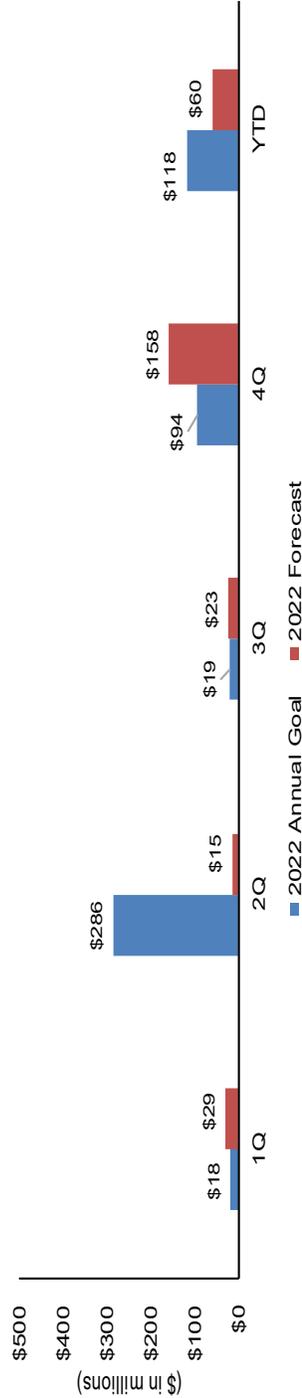
Dec-22 \$ 554.9	Dec-22 \$ 583.4
--------------------	--------------------

## LIRR Capital Projects – Completions – August 2022 – Budget Analysis and Schedule Variances

### LIRR Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$18	\$286	\$19	\$94	\$118
2022 Forecast	\$29	\$15	\$23	\$158	\$60

2022 Goal (Rolling Stock)	\$0	\$198	\$0	\$0	\$198
Forecast (Rolling Stock)	\$0	\$0	\$0	\$0	\$0



### Schedule Variances

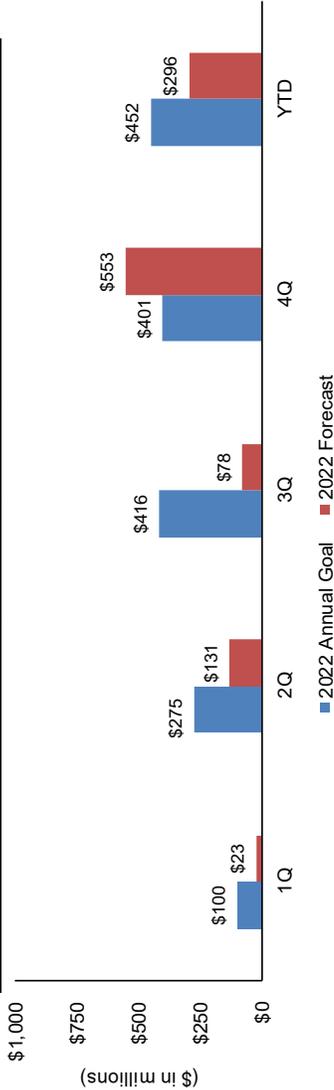
Project	Completion	Goal	Forecast	Project	Completion	Goal	Forecast
<b>3 LIRR Red Completions (0 new this month)</b> Red delays are beyond 2 months of goal.							
<i>Rolling Stock</i>							
M9 Fleet Procurement	Fleet Purchase	Jun-22	Sep-23				
		\$197.8	\$197.8				
The schedule delay is a result of the LIRR holding Kawasaki responsible for correcting various workmanship issues prior to Conditional Acceptance. 44 cars will be accepted in 2023 to complete the order.							
<i>Other Track Improvements</i>							
Jamaica Capacity Improvements - Phase I	Construction	Jun-22	Dec-22				
		\$48.9	\$48.9				
The original track outage to install a critical switch was rescinded. The next available outage will be in the 4th quarter of 2022.							
<i>Stations</i>							
Fare Collection Program	Construction	Jun-22	Nov-24				
		\$20.6	\$20.6				
Delay due to previously undeveloped project requirements (numbering about 800) that have now been defined and will require substantially more time to address.							
<b>1 LIRR Amber Completion (1 new this month)</b> Amber delays are within 2 months of goal.							
<i>Power</i>							
	Substation Components (New Item)	Construction	Aug-22	Oct-22			
		\$	12.3	\$	12.3		
Due to a test failure at West Hempstead, the beneficial use date of the Transformers project has been pushed back to October when the transformer is corrected and retested.							

**MNR Capital Projects – Completions – August 2022 – Budget Analysis and Schedule Variances**

**MNR Budget Analysis**

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$100	\$275	\$416	\$401	\$452
2022 Forecast	\$23	\$131	\$78	\$553	\$296

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



**Schedule Variances**

Project	Completion	Goal	Forecast
---------	------------	------	----------

**1 Metro-North Amber Completions**

Amber delays are within 2 months of goal.

*Communications*

New York Infrastructure Replacement	Construction	Apr-22 \$44.4	Jun-22 (A) \$44.4
-------------------------------------	--------------	------------------	----------------------

Before the Dense Wave Division Multiplexing (DWDM) equipment could be put online, the deficiencies identified by Mitsubishi (HVAC unit manufacturer) needed to be rectified and completion consequently delayed.

**2 Metro-North Red Completions (1 new this month)**

Red delays are beyond 2 months of goal.

*Power*

86th / 110th Substations	Construction	Mar-22 \$30.3	Sep-22 \$30.3
--------------------------	--------------	------------------	------------------

This project is delayed due to completion of an asset study, completion of the removable panel air filter system, and equipment testing which has extended the overall project completion date to September 2022.

*Stations*

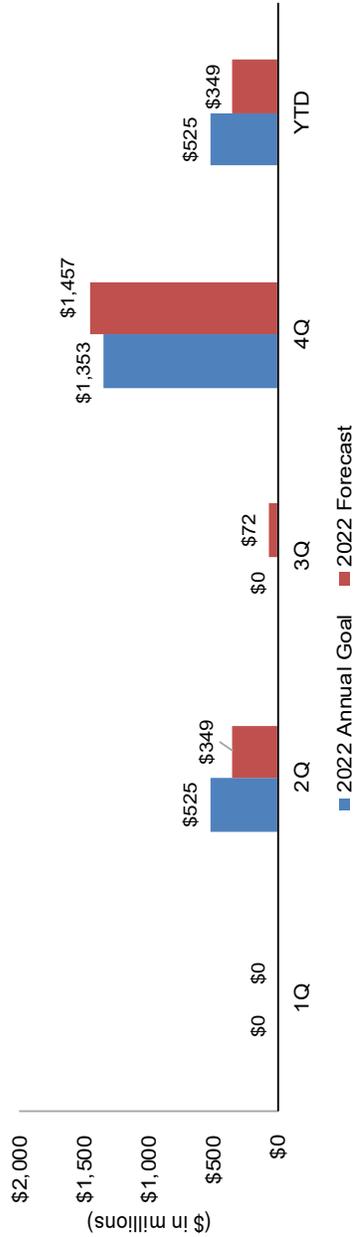
GCT/East Side Access Unified	Construction	Jun-22 \$33.3	Nov-22 \$33.3
Trash Facility (New Item)			

Additional scope was added [Painting of Facility and Epoxy Flooring] which extends the completion to November

**MTA Network Expansion Projects – Completions – August 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	\$525
2022 Forecast	\$0	\$349	\$72	\$1,457	\$349



**Schedule Variances**

Project	Completion	Goal	Forecast
---------	------------	------	----------

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

Red delays are delayed more than 2 months of goal.

*East Side Access*

Systems Package 2 - Tunnel	Construction	Apr-22	Sep-22
Systems - CS086		\$72.0	\$72.0

Additional completion scope including wiring/cabling, testing, and PTC work was added to CS086 which extends substantial completion to September.

**System Package 4 – Traction**

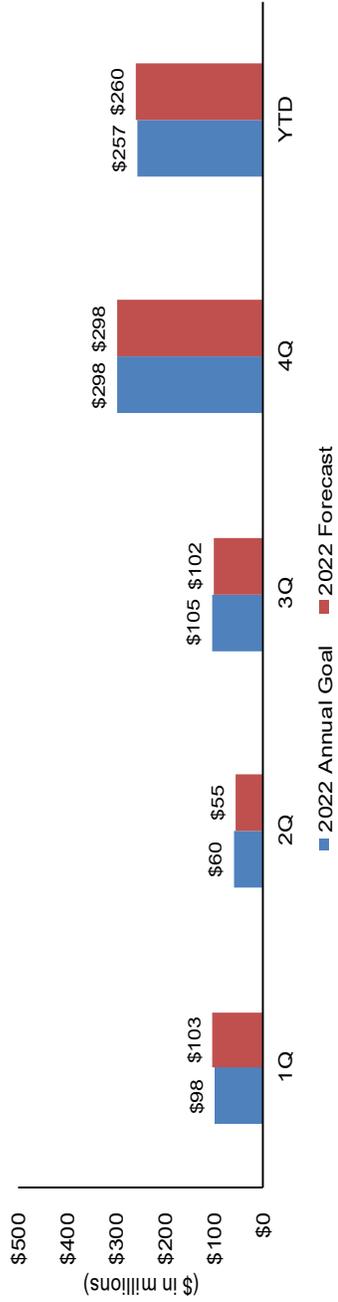
Power CS084 (New Item)	Construction	Jun-22	Oct-22
		\$104.1	\$104.1

Delays continue due to ongoing acceptance testing. Completion was previously forecast for September, but has been moved up to October.

**B&T Capital Projects – Completions – August 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	\$257
2022 Forecast	\$103	\$55	\$102	\$298	\$260



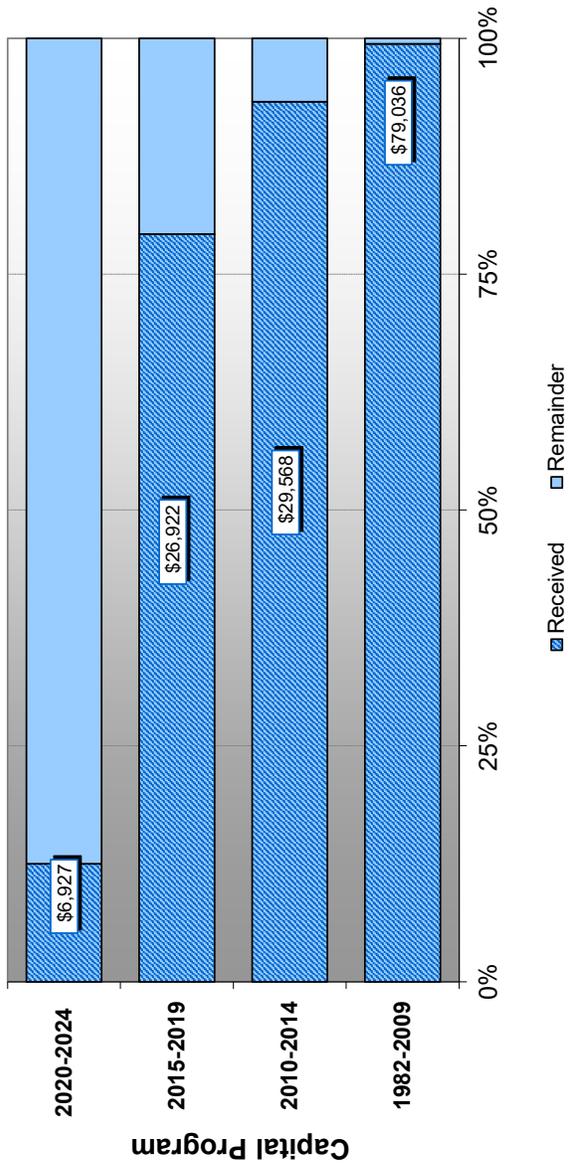
**Schedule Variances**

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

---

# Status of MTA Capital Program Funding

**Capital Funding (August 2022)**  
\$ in millions



**Capital Funding Detail (August 2022)**

\$ in millions

	Funding Plan		Receipts	
	Current	Thru June	Jul/Aug	Received to date
<b>2010-2014 Program</b>				
Federal Formula, Flexible, Misc	\$5,786	\$5,781	\$ -	\$5,781
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)	11,701	10,647	-	10,647
Other (Including Operating to Capital)**	1,271	1,124	5	1,129
B&T Bonds	2,022	1,864	-	1,864
Hurricane Sandy Recovery				
<i>Insurance Proceeds/Federal Reimbursement</i>	6,697	6,697	-	6,697
PAYGO	171	171	-	171
<i>Sandy Recovery MTA Bonds</i>	659	225	-	225
<i>Sandy Recovery B&amp;T Bonds</i>	230	23	-	23
<b>Total</b>	<b>31,697</b>	<b>29,564</b>	<b>5</b>	<b>29,568</b>

	Funding Plan		Receipts	
	Current	Thru June	Jul/Aug	Received to date
<b>2015-2019 Program</b>				
Federal Formula, Flexible, Misc	\$6,898	\$5,604	\$ -	\$5,604
Federal High Speed Rail	\$122	\$122	-	\$122
Federal Core Capacity	100	-	-	-
Federal New Start	500	-	-	-
Federal Security	18	15	-	15
State Assistance	9,091	7,096	-	7,096
City Capital Funds	2,669	2,052	-	2,052
MTA Bonds	8,398	8,175	-	8,175
Asset Sales/Leases	803	315	-	315
Pay-as-you-go (PAYGO)**	2,156	1,572	-	1,572
Other	271	68	-	68
B&T Bonds & PAYGO/Asset Sale	2,942	1,902	-	1,902
<b>Total</b>	<b>33,969</b>	<b>26,922</b>	<b>-</b>	<b>26,922</b>

	Funding Plan		Receipts	
	Current	Thru June	Jul/Aug	Received to date
<b>2020-2024 Program</b>				
Capital from Central Business District Tolling	\$15,000	\$ -	\$ -	\$ -
Capital from New Revenue Sources	10,000	1,349	-	1,349
MTA Bonds and PAYGO	9,754	202	-	202
Other Contribution	528	-	-	-
Federal Formula	7,488	2,799	2,038	4,837
State of New York	3,100	-	-	-
City of New York	3,007	146	40	186
Federal New Start (SAS Ph2)	2,905	-	-	-
Federal Flexible	275	51	-	51
Federal Other	28	15	12	28
Federal Security	30	10	-	10
B&T Bonds	3,327	266	-	266
<b>Total</b>	<b>55,442</b>	<b>4,837</b>	<b>2,090</b>	<b>6,927</b>

# Second Quarter 2022 TLR Summary

- Overall, a total of 430 projects were reviewed this quarter:
  - 53 in Design
  - 11 in Post-Design to Construction
  - 366 in Construction
  
- Of these:
  - 316 (73%) were designated Green
  - 37 ( 9%) were designated Red
  - 77 (18%) triggered variances in prior quarters

Of the 37 projects that triggered a Key Performance Indicator (KPI) this quarter, 31 were for Schedule variances 4 were for Cost and 2 were for both Schedule and Cost. Of the 37 projects, 26 are in Construction, 5 are in Procurement and 6 are in Design.

- For every designated Red project, C&D has prepared a brief variance report that summarizes the problems encountered and the corrective actions taken this quarter.

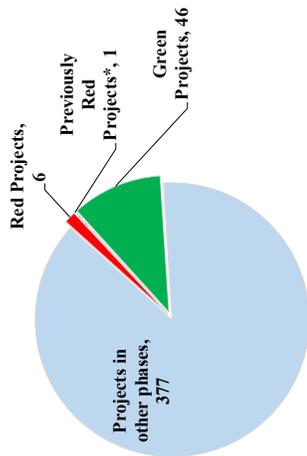


## 2<sup>nd</sup> Quarter 2022 Traffic Light Report on the MTA Capital Program

### A total of 430 Projects were Reviewed for the 2<sup>nd</sup> Quarter 2022

The 430 active projects include 53 projects in Design, 11 in Post-Design to Construction Award, 366 in Construction

53 of 430 Projects in Design

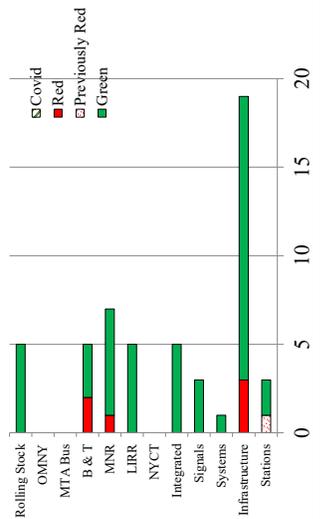


\* see Terms and Definitions page

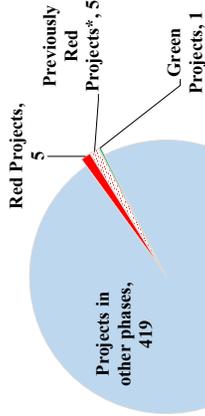
**Second Quarter 2022:** 53 projects were reviewed in this phase with 46 designated green, 1 as previously red, and 6 red. The root causes of the 6 red projects were MTA Resource support for required surveys and scope changes during design.

**First Quarter 2022:** 22 projects were reviewed in this phase with 20 designated green and 2 as previously red.

53 Projects in Design



11 of 430 Projects in Post-Design to Construction Award

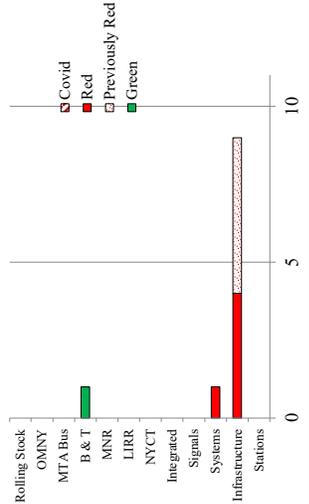


\* see Terms and Definitions page

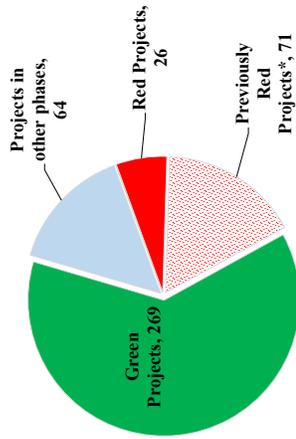
**Second Quarter 2022:** 11 projects were reviewed in this phase with 6 designated as green, 5 previously red, and 5 red. All 5 red projects, will be done via one contract and the root cause of the delay in award is the decision to bundle these projects with additional locations.

**First Quarter 2022:** 9 projects were reviewed in this phase with 6 designated as green, 2 previously red, and 1 red.

11 Projects in Post-Design to Construction Award



366 of 430 Projects in Construction

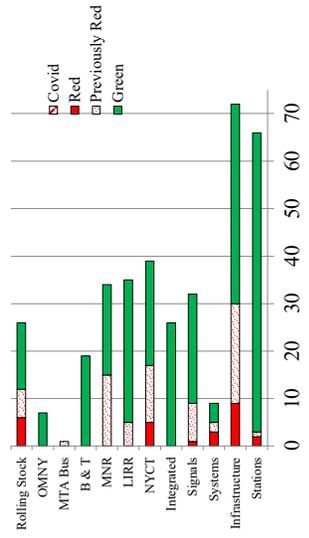


\* see Terms and Definitions page

**Second Quarter 2022:** 366 projects were reviewed in this phase with 269 designated green, 71 previously red, and 26 red. The 26 red projects had root causes of contractor performance, MTA resource support, unforeseen site conditions, track access, and scope change.

**First Quarter 2022:** 311 projects were reviewed in this phase with 216 designated green, 66 previously red, and 29 red.

366 Projects in Construction



## Project Terms and Definitions 2<sup>nd</sup> Quarter 2022 Traffic Light Report

The following Terms and Definitions are used to identify a project's Traffic Light color designation using variances from quarter to quarter and are based on two performance indicators: cost and schedule. A project is designated a "**green light project**" when no performance indicator has exceeded the Traffic Light Report thresholds. A project is designated a "**red light project**" when one or more of the two indicators exceed a specified threshold. Variance reports are required for all qualified red light projects. Included in these reports are one-page project summaries (on pink paper stock) of issues associated with each project showing a **red** indicator and how the issues are being resolved. \*A project is designated a "**previous red project**" after one or more performance indicators had triggered a red in a previous quarter(s). A "**previous red project**" may revert back to green after two consecutive quarters if the performance indicator(s) have not worsened.

Project Terms and Definitions	
<b>Projects in Design: 53</b>	
	Green: Indices less than 110% and index movement of less than 10%.
	Red: Cost Index - An EAC increase of 10% (or index movement of 10% or more since the last Traffic Light Report).
	Red: Schedule Variance - An increase of 3 months or more to substantial completion since the last Traffic Light Report.
	Previous Red: Previously indicated as <b>red</b> with no new substantial change since the last TLR / A project in design that has been designated as Previous Red may be returned to Green when it has been in compliance with the two performance indicators for two consecutive quarters.
<b>Projects in Post Design to Construction Award Phase: 11</b>	
	Green: Phase Duration less than either the default of 128 calendar days for all agencies or the agency entered duration.
	Red: Phase Duration is greater than either the default 128 calendar days or the agency entered duration.
	Previous Red: Previously indicated as red with no new substantial change since the last TLR. Project may be returned to Green when it has been in compliance with two performance indicators for two consecutive quarters.
<b>Projects in Construction: 366</b>	
	Green: Indices less than 110% and index movement of less than 10%. Other indices not exceeding those criteria specified in index formulas and criteria.
	Red: Cost Index - An increase of 10% (or index movement of 10% or more since the last TLR).
	Red: Schedule Variance - An increase of 3 months or more to substantial completion since the last TLR.
	Previous Red: Previously indicated as <b>red</b> with no new substantial change since the last TLR / A project in construction that has been designated as Previous Red may be returned to Green when it has been in compliance with the two performance indicators for two consecutive quarters.

## Project Terms and Definitions

### 2<sup>nd</sup> Quarter 2022 Traffic Light Report

#### **Projects impacted by Covid-19 (Temporary TLR Criteria): 0**

Projects in this category have triggered one or more reporting variances that are impacted by the Covid-19 pandemic. The Key Performance Indicators have exceeded one or more of the TLR thresholds this quarter, however, a project issue has been directly attributed to Covid-19. The issues may include the implementation of safety protocols, new work rules and occupancy restrictions, travel limitations, reduced personnel availability, funding delays, etc. Covid-19 is a temporary imposition on the MTA's Capital Program and therefore a temporary TL has been developed for these projects.

 **Red Lined: Cost Index** - An increase of 10% (or index movement of 10% or more since the last TLR).

 **Red Lined: Schedule Variance** - An increase of 3 months or more to substantial completion since the last TLR.

 **Previous Red:** Previously indicated as Red Lined with no new substantial change since the last TLR / A project in design, procurement or construction that has been designated Previous Red may be returned to Green when it has been in compliance with the two performance indicators for two consecutive quarters.

#### **Projects in Planning:**

➤ Projects in Planning are reviewed but not displayed in the TLR until the project reaches the design phase but continue to be maintained in the TLR project database for reporting purposes.

#### **Completed Projects:**

➤ Completed projects are removed from the TLR the quarter AFTER Substantial Completion is achieved.

#### **Report Index Formulas and Criteria:**

➤ **Cost Index** = Total Project EAC / Current Approved Budget.  
(Note: Current Budget is not Budget at Award)

➤ Cumulative Cost Variance = 3 consecutive quarters with a total cost index increase that cumulatively exceeds the TLR threshold of 10% over 3 quarters.

➤ **Schedule Variance** = Number of months of change in schedule since the last TLR.

➤ Cumulative Schedule Variance = 3 consecutive quarters with a total change in schedule that cumulatively exceeds the TLR threshold of 3 months or more.

➤ The TLR includes projects in CPOC's Risk-Based Monitoring Program which are listed at the end of the report.

➤ Only projects with budgets of \$7M or greater are included in the current quarter's TLR. Projects with budgets below \$7M are not displayed in the current report but will be maintained in the TLR database. If the current budget increases above the \$7M minimum threshold, the projects will return to an active status.

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Stations - ADA Accessibility Program - Projects in Construction</b>									
<b>68th Street - Hunter College</b>									
T7041324	ADA: 68 St-Hunter College LEX	Construction	\$145,243,219	7	1.00	■	0	■	ⓐ
T8041225	Platform Components: 68 St. - Hunter College LEX	Construction	\$6,231,878	0	1.00	■	0	■	ⓐ
T8050244	Mainline Track Replacement 2021 / Hunter College	Construction	\$4,014,497	0	1.00	■	0	■	ⓐ
<b>ADA 149th Street</b>									
T7041315	ADA: 149 Street-Grand Concourse Complex	Construction	\$110,353,807	38	1.00	■	0	■	ⓐ
T7041338	ADA: Tremont Ave BXC	Construction	\$52,469,753	61	.96	■	0	■	ⓐ
<b>ADA 14th Street Complex</b>									
T7041251	Platform Components: 5 Locs CNR	Construction	\$3,781,498	1	1.00	■	0	■	ⓐ
T70412L2	Platform Components: 14 St 6 AV	Construction	\$8,079,176	1	1.00	■	0	■	ⓐ
T7041330	ADA: 14th St 6th AV/7th Av Complex DES	Construction	\$4,602,092	2	1.06	■	0	■	ⓐ
T7041346	ADA: 6 Av CNR	Construction	\$54,965,307	1	.92	▼	0	■	ⓐ
T7041347	ADA: 14 St 6AV	Construction	\$28,339,956	1	.95	■	0	■	ⓐ
T7041348	ADA: 14 St BW7	Construction	\$51,290,498	1	1.00	■	0	■	ⓐ
T8041221	Station Ventilators CNR	Construction	\$2,054,470	1	1.00	■	0	■	ⓐ
T8041229	Platform Components: 6 Avenue / Canarsie	Construction	\$32,806,122	1	1.00	■	0	■	ⓐ
T8041230	Platform Components: 14th Street / 6 Ave	Construction	\$5,042,631	1	1.00	■	0	■	ⓐ
T8041304	ADA: 6 Ave / Canarsie	Construction	\$33,373,926	1	1.00	■	0	■	ⓐ
T8041305	ADA: 14 St / Broadway/ 7th Ave	Construction	\$29,873,986	1	1.00	■	0	■	ⓐ
T8070312	LSCR P 8th Ave CNR	Construction	\$34,975,533	1	1.00	■	0	■	ⓐ
<b>ADA Package 2</b>									
T6041323	ADA: 8th Ave/Sea Beach (Southbnd Ph2)	Construction	\$9,396,251	0	.94	■	0	■	ⓐ
T7041213	Renewal: Woodhaven Blvd JAM	Construction	\$56,787,497	0	.99	■	0	■	ⓐ

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Stations - ADA Accessibility Program - Projects in Construction</b>									
<b>ADA Package 2 - cont'd</b>									
T7041314	ADA: Court Square XTN (Elevator Phase)	Construction	\$24,549,717	0	1.02	■	0	■	G
T7041316	ADA: Woodhaven Boulevard JAM	Construction	\$39,075,927	0	1.00	■	0	■	G
T7041327	ADA & Station Improvements: Westchester Sq PEL	Construction	\$90,153,940	0	1.00	■	0	■	G
T7041335	ADA: Queensboro Plaza FLS	Construction	\$74,204,872	0	.99	■	0	■	G
T8040708	Replace 5 Elevators at 2 Locations JAM	Construction	\$39,582,746	0	.96	■	0	■	G
T8041232	Station Renewal: Woodhaven Boulevard/PEL	Construction	\$24,396,207	0	1.00	■	0	■	G
T8041329	ADA: Woodhaven Blvd/JAM	Construction	\$27,496,852	0	1.00	■	0	■	G
T8041330	ADA & Station Improvements: Westchester Sq/PEL	Construction	\$32,417,241	0	1.00	■	0	■	G
T8041345	ADA: 181 St 8AV	Construction	\$44,552,872	0	.91	▼	0	■	G
T8050246	ML Track Replacement: Westchester Square /Pelham	Construction	\$1,192,000	0	1.00	■	0	■	G
<b>ADA Package A</b>									
S8070101	Station Components: New Dorp / SIR	Construction	\$2,316,923	61	1.00	■	0	■	G
S8070108	ADA: New Dorp SIR	Construction	\$34,715,249	41	1.00	■	0	■	G
S8070110	Components: New Dorp SIR	Construction	\$1,398,318	39	1.00	■	0	■	G
T8041215	Design: Station Components DES	Construction	\$3,872,158	39	1.00	■	60	▲	G
T8041231	Components: Metropolitan Ave XTN	Construction	\$3,059,485	39	1.00	■	0	■	G
T8041303	ADA: Dyckman St (NB) BW7	Construction	\$20,283,883	41	1.00	■	0	■	G
T8041317	ADA: Grand St CNR	Construction	\$27,221,551	41	1.00	■	0	■	G
T8041319	ADA: 7th Ave CUL	Construction	\$44,727,413	41	1.00	■	0	■	G
T8041327	ADA: Lorimer St CNR	Construction	\$59,191,049	41	1.00	■	0	■	G
T8041328	ADA: Metropolitan Ave XTN	Construction	\$47,004,005	41	1.00	■	0	■	G
T8041332	ADA: East 149th St PEL	Construction	\$38,676,891	41	1.00	■	0	■	G

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Stations - ADA Accessibility Program - Projects in Construction</b>									
<b>ADA Package A - cont'd</b>									
T8041337	ADA: Beach 67th St FAR	Construction	\$41,662,144	41	1.00	■	0	■	G
<b>All Other Stations Projects</b>									
T7041331	ADA: Livonia Ave CNR	Construction	\$87,290,194	95	1.00	■	1	▲	G
<b>All Other Stations Projects</b>									
<b>Circulation Enhancements - Flushing / Main Street Station</b>									
T7041422	Station Capacity Enhancements: Main St FLS	Construction	\$54,568,753	12	1.00	■	0	■	G
T8041213	Station Components: Main St / FLS	Construction	\$3,787,559	12	1.00	■	0	■	G
<b>Component Repairs - 8th Ave Line</b>									
T7070356	Additional Design - 14th St Corridor	Construction	\$1,729,561	1	1.00	■	0	■	G
T8060518	Tunnel Lighting, 8 Ave	Construction	\$19,081,185	1	1.00	▲	0	■	G
T8060519	Fan Fiber, 8 Ave	Construction	\$18,181,640	1	1.00	▲	0	■	G
T8070329	Line Structure Repairs, 8 Ave	Construction	\$80,852,991	1	1.00	▲	0	■	G
<b>Grand Central Station Bundle</b>									
T7041402	Access Improvements: Grand Central, Phase 2	Construction	\$23,000,549	9	1.00	■	0	■	G
T8040713	Replace 8 Escalators: Grand Central - 42 St / FLS	Construction	\$86,543,005	9	1.00	■	0	■	G
T8041226	Station Ventilators: Grand Central / FLS	Construction	\$17,617,057	9	1.00	■	0	■	G
<b>Replacement of 12 Escalators</b>									
T7040707	Replace 6 Escalators / Various (Bx/M)	Construction	\$47,874,503	5	1.01	■	0	■	G
T7040707	Replace 1 Escalator at Intervale / WPR	Construction	\$7,484,500	5	1.00	■	0	■	G
T7040713	Replace 5 Escalators / Various (Bk/M)	Construction	\$33,704,007	4	.99	■	0	■	G
<b>Replacement of 3 Elevators - Grand Central Station</b>									
T6040706	Replace 2 Hydraulic Elevators at GCT LEX	Construction	\$17,213,187	65	1.00	■	0	■	G
T7040714	Replace 1 Hydraulic Elevator: Grand Central FLS	Construction	\$6,861,795	65	1.00	■	-5	▼	G

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Construction &amp; Development Stations</b>									
<b>All Other Stations Projects</b>									
<b>Replacement of 8 Escalators</b>									
T7040708	Replace 2 Escalators: Pelham Pkwy WPR	Construction	\$15,770,603	27	1.00	■	0	■	G
T7040709	Replace 6 Escalators / Various	Construction	\$46,244,598	44	1.00	■	0	■	G
<b>All Other Stations Projects</b>									
ET040339	Sandy Mitigation: 138 St - Gr Concourse / JER (Ven Battery A)	Construction	\$8,091,329	70	.92	■	3	▲	R
ET060332	Sandy Resiliency: 3 Pump Rooms (53rd St Tube)	Construction	\$26,826,382	25	1.62	■	6	▲	R
T7040701	Replace 11 Hydraulic Elevators / Various	Construction	\$73,783,585	100	1.00	■	0	■	G
T7040703	Replace 8 Traction Elevators / Various	Construction	\$56,259,072	65	1.02	■	0	■	G
T7160729	RTO Facility Repair: 3 Avenue-138 Street PEL	Construction	\$15,233,825	96	.99	■	3	▲	R
T8040711	4 Escalators at 2 Locs Dekalb 4Av & 181 St BXC	Construction	\$49,143,107	10	.99	■	0	■	G
T8041210	Water Condition Remedy: Various Locations	Construction	\$27,258,650	3	.98	■	0	■	G
T8160711	EFR Consolidation: 2 Ave / 6Ave	Construction	\$17,916,657	0	1.00	■	0	■	G
T7041322	ADA: 95 St 4AV	Design	\$56,855,611	40	1.62	▲	1	▲	R
T8040716	Replace 6 Esc and 2 Stairs (Sut Blvd ARC/W4 8AVE)	Design	\$67,782,558	0	.00	■	2	▲	G
T8040717	Replace 19 Elevators at Various Locations	Design	\$154,162,696	0	.00	■	0	■	G
<b>Infrastructure</b>									
<b>207th Street Yard Rehab</b>									
ET100210	Power Cable Replacement- 207th Street Yard	Construction	\$42,710,741	68	1.00	■	0	■	R
ET100218	Sandy Repairs: 207th St Yard Signals	Construction	\$298,232,916	67	1.00	■	0	■	G
ET100219	Sandy Repairs: 207 St Yard Track	Construction	\$62,722,733	99	1.03	■	0	■	G
ET100220	Sandy Repairs: 207 St Yard Switches	Construction	\$30,984,884	96	.62	■	0	■	G
ET100310	Long Term Perimeter Protection: 207th St Yard	Construction	\$171,975,110	65	1.04	■	0	■	G
ET100312	Sandy Mitigation: 207th Street Yard Portal	Construction	\$54,881,539	78	2.02	■	0	■	G

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Construction &amp; Development Infrastructure</b>									
<b>Bus Radio System</b>									
T6120403	Replace Bus Radio System	Construction	\$220,780,970	66	.99	■	0	■	R
U6030226	Bus Radio System	Construction	\$32,307,283	66	1.01	■	0	■	R
U7030211	Bus Radio System - MTA Bus Share	Construction	\$39,516,593	66	1.00	■	0	■	R
<b>Central Substation Bundle</b>									
T6090217	Reconstruct 6 Negative Manholes- Ctrl Subs/ 6 Ave.	Construction	\$2,633,989	100	1.21	▲	0	■	R
T7090203	Substation Rnwl & New Rectifier: Centr SS 6AV	Construction	\$48,306,502	88	1.11	▲	0	■	R
T8090405	Rebuild Ducts: Central Platform	Construction	\$7,951,855	96	1.08	▲	0	■	R
<b>Clifton Shop</b>									
S7070111	Relocate HQ to Clifton Shop	Construction	\$9,127,751	92	.99	■	0	■	R
ES070211	Flood Repairs- Clifton Shop (Long-Term)	Construction	\$34,890,731	92	1.00	■	0	■	R
ES070302	SIR Mitigation: Clifton Shop / Yard	Construction	\$163,351,392	92	1.00	■	0	■	R
<b>Clifton Shop Track and Switch</b>									
S7070103	SIR Mainline Track Replacement	Construction	\$48,173,758	99	.98	■	0	■	G
S7070113	SIR Clifton Yard Track and Switch Replacement	Construction	\$16,916,973	90	.97	■	0	■	G
S8070109	SIR Mainline (2021)	Construction	\$34,357,067	5	.97	■	0	■	G
S8070109	Track and Switch Rehab: SIR Mainline (Addtl Work)	Construction	\$15,459,150	100	1.00	■	0	■	G
<b>Component Repairs - Concourse Line</b>									
T8070318	LSCR 161 -192 Sts BXC	Construction	\$127,988,147	5	1.00	■	0	■	G
T8070319	Vents 161 - 192 Sts BXC	Construction	\$11,715,519	3	1.00	■	0	■	G
T8080640	Antenna Cable Concourse Line (IND)	Construction	\$9,758,422	11	1.00	■	0	■	G
<b>Flood Mitigation - Coney Island Yard</b>									
ET100211	Power Cable/Comm. Equipmt. Repl- Coney Island Yard	Construction	\$163,512,094	85	.99	■	0	■	R
ET100307	Coney Island Yd: Long Term Perimeter Protection	Construction	\$552,689,329	85	1.58	▲	0	■	R

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ▬ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Construction &amp; Development Infrastructure</b>									
<b>Flood Protection - Rockaway Line</b>									
ET070310	Rockaway ROW Debris Shielding	Post Des to Const Awd	\$30,884,842	30	1.71	▬	6	▲	R
ET070311	Sandy Mit. New Crossover at Beach 105th St. / RKY	Post Des to Const Awd	\$85,541,632	30	1.44	▬	6	▲	R
ET070312	Rockaway Line Long Term Protection	Post Des to Const Awd	\$34,552,879	30	12.54	▬	6	▲	R
ET070313	Rockaway Park Yard Compressor Room (ROW)	Post Des to Const Awd	\$13,501,273	30	1.73	▼	6	▲	R
<b>Hardening of 24 Substations</b>									
ET090307	Hardening of Substations at 24 Locations	Post Des to Const Awd	\$98,063,572	30	.99	▬	0	▬	R
ET090313	Hardening Substations: W. Broadway & Murray St.	Post Des to Const Awd	\$1,238,943	30	1.23	▬	0	▬	R
ET090314	Hardening Substations: Tudor City	Post Des to Const Awd	\$1,238,943	30	1.23	▬	0	▬	R
<b>Line Structure Overcoat Painting - West End Line</b>									
T7070348	Overcoat: 79 St - 24 Ave / West End DES	Design	\$351,150	0	1.00	▬	0	▬	G
T7070349	Overcoat: 24th Ave - Stillwell Terminal WST DES	Design	\$351,150	0	1.00	▬	0	▬	G
T8070313	Overcoat: 24th Ave - Stillwell Terminal West End	Design	\$2,091,453	16	1.00	▬	0	▬	G
T8070313	Overcoat: 79 St - 24 Ave / West End	Design	\$1,090,705	16	1.00	▬	0	▬	G
<b>New Substations at New Dorp and Clifton Stations</b>									
S7070106	New Power Substation: New Dorp	Construction	\$24,976,307	97	1.02	▬	0	▬	R
S7070107	New Power Substation: Clifton	Construction	\$30,646,073	97	1.00	▬	0	▬	R
<b>Replace Supervisory Vent Controls - Various Locs</b>									
T7060503	Replace Supervisory Vent Controls - Var Locs	Construction	\$30,081,512	66	1.00	▬	4	▲	R
T8060507	Replace Supervisory Vent Controls - 2 Locs / FLS	Construction	\$5,800,000	73	1.00	▬	4	▲	R
<b>Resiliency Improvements at Westchester and Corona Yards</b>									
ET100315	Sandy Mitigation: Resiliency Improvements at Westchester Yard	Design	\$77,715,821	5	1.00	▬	0	▬	G
ET100315	Sandy Mitigation: Resiliency Improvements at Corona Yard	Design	\$17,165,058	30	1.00	▬	0	▬	G

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ▬ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Construction &amp; Development Infrastructure</b>									
<b>SIRTOA Station Components</b>									
S8070101	Station Components: Various Locations	Design	\$34,294,362	30	1.00	▬	8	▲	R
S8070103	Overcoat 6 SIR Bridges	Design	\$13,717,903	9	1.00	▬	8	▲	R
S8070103	Rehabilitate Garretson Ave. Bridge	Design	\$10,763,878	9	1.00	▬	8	▲	R
<b>Steinway Tunnel Portal Resiliency</b>									
ET060338	Sandy Resiliency: 2 Pump Rooms (Steinway Tube)	Post Des to Const Awd	\$8,127,587	0	.54	▼	0	▬	R
ET070308	Sandy Mitigation: Steinway Portal	Post Des to Const Awd	\$30,570,151	100	1.53	▲	0	▬	R
<b>Structural Component Repairs - Jamaica Line</b>									
T70502A3	Myrtle Av Line (U69 Plates)	Construction	\$406,037	0	1.00	▬	0	▬	G
T8050241	Jamaica Direct Fixation	Construction	\$57,676,945	0	1.00	▬	0	▬	G
T8050242	63rd Street Direct Fixation	Construction	\$107,035,991	1	.99	▬	0	▬	G
T8070326	Jamaica Structural Repairs	Construction	\$2,195,062	0	1.00	▬	0	▬	G
T8070327	63 St Structural Repairs	Construction	\$1,559,591	0	1.00	▬	0	▬	G
T8090211	Jamaica Line: 84C Contact Rail	Construction	\$3,566,446	0	1.00	▬	0	▬	G
T8090212	Jamaica Line Negative Side Feeders	Construction	\$429,285	0	1.00	▬	0	▬	G
T8090213	63 St 84C Contact Rail	Construction	\$9,545,612	0	1.00	▬	0	▬	G
T8090214	63 St Negative Side Feeders	Construction	\$946,040	0	1.00	▬	0	▬	G
<b>Structural Rehab and Overcoat Painting at 180th Street</b>									
T7070301	Struct Rehab/Overcoating - E 180 St Abut WPR	Construction	\$71,168,090	0	1.01	▼	0	▬	G
T7070310	Overcoat: 17 Bridges & Flyover at E 180 St.DYR	Construction	\$64,271,432	0	1.00	▲	0	▬	G
T8070341	Demolition of Abandoned Structures	Construction	\$774,323	0	1.00	▬	0	▬	G
<b>Structural Repairs - Eastern Parkway Line</b>									
T7070323	LSCRIP: Brooklyn (EPK)	Construction	\$82,731,099	62	.99	▬	0	▬	G
T8070311	Plenum Plate Demo & Struct. Rehab EPK	Construction	\$497,251	99	1.00	▬	0	▬	G

**2nd Quarter 2022 Traffic Light Report  
Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
▼ = Index decrease: Trending indicates condition improving since last quarterly report  
▬ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Infrastructure</b>									
<b>Structural Repairs - Rockaway Viaduct</b>									
T7070305	Struct Repair: Over land Section RKY DES	Design	\$2,612,361	90	1.00	▬	0	▬	G
T7070346	Replace Elec/Mech Equip - S Channel Bridge RKY DES	Design	\$4,950,357	85	1.94	▬	0	▬	G
T8070323	Repl of Elect/Equip: S. Channel Bridge	Design	\$2,837,242	85	.00	▬	0	▬	G
T8070324	Rehab Hammels Wye	Design	\$118,994,315	90	.00	▬	0	▬	G
T8070325	Elev Structure Repairs: Over-Land Sections	Design	\$54,380,421	90	140.92	▲	0	▬	G
<b>Substation Component Replacement Bundle</b>									
T7090206	Replace HT Switchgear - Various Locs	Construction	\$30,476,773	95	1.00	▬	16	▲	R
T8090216	Replace Transformer and Associated Equip - 41 St Substation	Construction	\$9,143,698	0	.00	▬	16	▲	R
<b>Tiffany Warehouse Mitigation</b>									
ET160312	Sandy Mitigation: Tiffany Central Warehouse	Construction	\$25,049,789	10	1.00	▬	0	▬	G
T7160723	Tiffany Warehouse Exterior Wall Structural Repair	Construction	\$18,652,541	1	1.00	▬	0	▬	G
T7160727	Roof Replacement: Tiffany Central Warehouse	Construction	\$18,881,566	6	1.02	▬	0	▬	G
<b>All Other Infrastructure Projects</b>									
ET070209	Sandy Repairs: Rockaway Line Wrap Up	Construction	\$48,978,971	20	.98	▬	0	▬	G
ET090304	Mitigation: Montague Substations - Various Locs	Construction	\$9,200,874	63	.90	▬	0	▬	R
ET100314	Sandy Mitigation: 207th Street Sewers	Construction	\$149,074,924	33	1.05	▬	0	▬	R
ET160310	Sandy Mitigation: Consolidated Revenue Facility	Construction	\$11,366,424	20	1.00	▬	0	▬	G
T6120323	Flatbush & Ulmer Park: Window Replacement	Construction	\$9,312,141	7	1.00	▬	0	▬	G
T6160717	Livingston Plaza Repairs	Construction	\$24,481,308	98	.49	▬	1	▲	R
T7060506	Rehab Forsyth St Vent Plant	Construction	\$93,548,145	55	1.03	▬	0	▬	R
T7070316	Overcoat: Broadway - End of Line MYR	Construction	\$58,258,534	57	.99	▬	1	▲	G
T7090202	Substation Renewal: Av Z CUL	Construction	\$32,170,967	91	.99	▬	0	▬	R
T7090223	New Substation: Harrison PI CNR	Construction	\$52,773,517	99	.89	▬	0	▬	R

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Construction &amp; Development Infrastructure</b>									
<b>All Other Infrastructure Projects - cont'd</b>									
T7100402	207th St Maint & OH Shop Roof & Component Repl	Construction	\$59,951,102	77	1.00	■	5	▲	R
T7100403	DCE Shop Components Ph 2: 239 St, Concourse, ENY	Construction	\$49,622,886	100	1.00	■	0	■	R
T7120306	Generator: Yukon Depot	Construction	\$11,816,772	66	1.00	■	2	▲	R
T7120307	Roof, Office, HVAC; Fresh Pond Depot	Construction	\$15,166,684	42	1.00	■	0	■	G
T7120321	East New York Depot Windows and Façade	Construction	\$18,061,652	53	1.00	■	5	▲	R
T7160716	RCC and PCC Power Upgrade	Construction	\$63,370,962	98	1.00	■	2	▲	R
T8060505	Rehab Deep Wells & Control Upgrade Nostrand Line	Construction	\$22,695,247	14	1.01	■	0	■	G
T8060506	Rehab Fan Plant Damper Systems - 7 Locations	Construction	\$33,771,531	35	1.00	■	0	■	G
T8060514	Fan Plant SCADA Head-End Upgrade	Construction	\$18,757,610	5	1.00	■	0	■	G
T8060517	Deep Wells Back-flushing - Lenox Line	Construction	\$11,688,810	25	.96	■	0	■	G
T8090207	Negative Cables:4th Ave Line - 36St to Pacific Ph3	Construction	\$55,250,241	5	1.13	■	0	■	G
T8100412	Livonia Maint Shop Phase I	Construction	\$21,955,333	30	1.00	■	0	■	G
T8160705	Livingston Plz Elec, Mechanical, Generator Phase B	Construction	\$68,986,582	15	.99	■	0	■	G
T8160706	EMD Facility: Hoyt-Schermerhorn FUL	Construction	\$14,001,893	57	1.00	■	2	▲	R
U7030209	Rehab and Facility Upgrade: College Point	Construction	\$9,364,126	89	1.00	■	0	■	G
ET040340	Sandy Mitigation: Outstanding Street Level Opening	Design	\$1,642,326	0	.16	▲	0	■	G
ET060327	Existing Pump Room Enhancements	Design	\$22,636,885	5	.56	■	0	■	G
ET090244	Traction Power Repairs: Various Locations	Design	\$137,179,696	5	.99	■	0	■	G
ET090315	Sandy Mitigation: Deployable Substations DES	Design	\$1,027,211	5	.02	▼	0	■	G
T8100405	Yard Fencing/Lighting/Misc. Investments	Design	\$11,452,161	11	1.07	■	0	■	G
<b>Systems</b>									
ET040317	Upgrade Emergency Booth Comm System (EBCS)	Construction	\$77,368,275	76	.98	■	3	▲	R
T6100454	207th St. OH Shop: Boiler Upgrades & Site Remed	Construction	\$14,308,216	90	1.11	▲	6	▲	R

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Construction &amp; Development Systems</b>									
T6160611	Replace Fire Alarm Systems at 13 Locations	Construction	\$27,529,906	89	.99	■	0	■	G
T7080602	Upgrade Async Network to SONET, Rings A and C	Construction	\$30,961,649	81	1.00	■	6	▲	R
T7080603	PBX Upgrade	Construction	\$48,564,396	95	1.17	■	0	■	R
T8080605	Antenna Cable Replacement: Manhattan Bridge	Construction	\$10,499,529	36	2.78	■	0	■	G
T8080615	Liftnet Transition to Ethernet; Ph. 2 - Package 1	Construction	\$8,903,483	35	1.00	■	0	■	G
T8080641	Asynch Fiber Optic Network Ring F	Construction	\$27,039,952	20	1.00	■	0	■	G
T8080642	PACIS Electronics Replacement - Canarsie Line	Construction	\$7,544,786	80	1.00	■	0	■	R
T8080602	Upgrade/Replace PBX-2 at Jay St	Design	\$7,890,932	2	1.00	■	0	■	G
ET090310	Sandy Mitigation: Back-up Power Control Center	Post Des to Const Awd	\$13,435,530	95	.79	■	3	▲	R
<b>Signals / Train Controls</b>									
<b>200th and 207th Street Interlocking Repairs</b>									
ET050217	Sandy Repairs: ML Track 200-207 St/8AVE	Construction	\$46,785,995	10	1.00	■	0	■	G
ET050218	Sandy Repairs: ML Switches 200-207 St/8AVE	Construction	\$33,765,637	10	1.00	■	0	■	G
ET080207	Signals: 200 St - 207 St / 8th Ave	Construction	\$70,473,438	10	1.01	■	0	■	G
<b>CBTC - 8th Ave Line</b>									
T7080304	CBTC: 8AV (59 St - High St)	Construction	\$215,478,312	54	1.00	■	0	■	G
T7080304	CBTC: 8AV (59 St - High St)	Construction	\$4,100,000	54	1.00	■	0	■	G
T7080335	Interlocking Modernization: 30 St & 42nd St / 8AV	Construction	\$258,942,470	66	1.00	■	0	■	G
T7080344	2019 M/L Switch Repl: 10 Switches CBTC 8AV	Construction	\$27,563,382	66	1.00	■	0	■	G
T8080313	CBTC: Flushing Line Equipment Removals	Construction	\$19,813,812	98	1.00	■	0	■	R
<b>CBTC - Crosstown Line</b>									
T7080347	CBTC: Crosstown Line and 3 Interlockings DES	Design	\$643,823	77	1.00	▼	0	■	G
T8080323	CBTC: Crosstown Line & 3 Interlockings	Design	\$485,939,400	77	.00	■	0	■	G

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Construction &amp; Development Signals / Train Controls</b>									
<b>CBTC - Culver Line</b>									
T7080307	Interlocking Modernization: Ditmas CUL	Construction	\$132,282,546	83	1.00	■	0	■	R
T7080332	CBTC: CUL (Church Av to W8 St)	Construction	\$128,766,541	83	1.03	■	0	■	R
T7080333	Interlocking Modernization: Ave X CUL	Construction	\$181,193,203	83	.96	■	0	■	R
T7080343	2018 M/L Switch Repl: 7 Switches CBTC CUL	Construction	\$39,929,364	83	1.01	■	0	■	R
<b>CBTC - QBL East</b>									
T8050321	Queens Blvd East Track/Switch	Construction	\$22,147,497	5	1.00	■	0	■	G
T8080317	SigMod: Queens Blvd and East 3 Interl. - Furnish	Construction	\$98,808,870	9	1.00	■	0	■	G
T8080318	SigMod: Queens Blvd and East 3 Interl. - Install	Construction	\$413,731,790	5	1.01	■	0	■	G
<b>CBTC - QBL West</b>									
T50803QB	CBTC QBL Phase 1	Construction	\$52,087,896	91	1.00	■	0	■	R
T6080319	CBTC: Queens Blvd Ln West Ph 1	Construction	\$69,371,400	91	1.00	■	0	■	R
<b>ISIM-B Module 3</b>									
T6080661	ISIM-B Module 3A: RCC Build Out	Construction	\$25,405,019	90	1.00	■	0	■	R
T7080614	ISIM-B Module 3: Rail Traffic Systems	Construction	\$82,947,705	70	1.00	■	0	■	G
T7080614	ISIM-B Module 3: Rail Traffic Systems	Construction	\$8,749,000	70	1.00	■	0	■	G
<b>All Other Signals / Train Controls Projects</b>									
T7080301	CBTC: QBL West Ph2 (50 St - Union Tpke)	Construction	\$471,239,306	92	1.11	■	0	■	G
T7080324	Code Cable Replacement BW7	Construction	\$41,314,985	71	1.00	■	1	▲	R
T7080326	Life Cycle Replacement of Code Systems	Construction	\$51,725,537	77	1.00	■	0	■	G
T7080327	Life Cycle Mod - Speed Enforcement Systems	Construction	\$65,429,183	38	1.00	■	0	■	G
T7080342	CBTC: 8AV Equip 316 R179 Cars (73 units)	Construction	\$36,910,323	20	1.00	■	0	■	G
T7080342	CBTC: 8AV Equip 460 R211 Cars (92 units)	Construction	\$36,654,101	29	1.00	■	0	■	G
T7080342	CBTC: 8AV Equip 112 R160 Cars (26 units)	Construction	\$11,900,000	40	1.00	■	0	■	G

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ▬ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Construction &amp; Development</b>									
<b>Signals / Train Controls</b>									
<b>All Other Signals / Train Controls Projects - cont'd</b>									
T7080349	Signal Quality Enhancements (SAP)	Construction	\$18,195,000	79	1.00	▬	0	▬	G
T8080314	Single Chip UWB Interoperability (Proof of Concept) - Siemens	Construction	\$21,731,996	80	1.00	▬	0	▬	G
T8080314	Single Chip UWB Interoperability (Proof of Concept) - Thales	Construction	\$13,415,259	80	1.00	▬	0	▬	G
T8080316	CBTC: GEC Services	Construction	\$18,286,076	21	1.00	▬	0	▬	G
T8080326	CBTC: Equip 640 R211 Option 1 Cars (128 units)	Construction	\$14,411,606	0	1.00	▬	0	▬	G
ET100222	Sandy Repairs: Culver Yard (Signals/Track/Switches)	Design	\$278,460,000	2	1.00	▬	0	▬	G
<b>NYCT</b>									
T6040401	MetroCard-Electronic Components Replacement	Construction	\$16,340,035	89	1.00	▬	-1	▼	R
T8040404	Wide Turnstiles: Procurement/Installation	Construction	\$25,018,512	43	1.00	▬	0	▬	G
T8041223	Station Ventilators Ph 21 - 4 Locs/ Manh & BX	Construction	\$10,260,856	40	1.00	▬	0	▬	G
T8041235	Station Ventilators Ph 20 - 4 Locations MHTN	Construction	\$10,478,119	0	1.00	▬	0	▬	G
T8050206	Mainline Track Replacement 2020 / 8th Avenue	Construction	\$24,326,224	95	1.17	▲	0	▬	R
T8050207	Mainline Track Replacement 2020 / Broadway-7th Ave	Construction	\$34,109,977	95	.96	▬	1	▲	R
T8050208	Mainline Track Replacement 2020 / Flushing	Construction	\$59,886,344	76	1.00	▬	17	▲	R
T8050209	Mainline Track Replacement 2020 / Lexington	Construction	\$27,318,000	98	1.24	▬	2	▲	R
T8050210	Mainline Track Replacement 2020 / Brighton	Construction	\$15,212,679	69	1.00	▬	0	▬	R
T8050211	Mainline Track Replacement 2020 / Jamaica	Construction	\$28,061,426	63	1.00	▬	8	▲	R
T8050214	Mainline Track Replacement 2020 / Astoria	Construction	\$21,026,790	69	1.00	▬	0	▬	R
T8050227	Mainline Track Replacement 2021 / 11th st.Cut	Construction	\$19,926,544	56	1.00	▬	0	▬	R
T8050230	Mainline Track Replacement 2021 / Concourse	Construction	\$15,611,732	57	1.00	▬	0	▬	R
T8050231	Mainline Track Replacement 2021 / Bway-7th	Construction	\$19,656,471	91	.72	▼	3	▲	R
T8050232	Mainline Track Replacement 2021 / Jamaica	Construction	\$27,039,948	29	1.00	▬	9	▲	R
T8050234	Mainline Track Replacement 2021 / Jerome	Construction	\$8,621,107	53	1.00	▬	0	▬	G

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Construction &amp; Development</b>									
<b>NYCT</b>									
T8050235	Mainline Track Replacement 2021 / Flushing	Construction	\$29,054,120	12	1.00	■	13	▲	R
T8050237	Mainline Track Replacement 2021 / Lenox - WPR	Construction	\$8,079,477	0	1.00	■	0	■	R
T8050240	Mainline Track - 2021 Support Costs	Construction	\$14,428,518	20	1.01	■	0	■	G
T8050243	Mainline Track Replacement 2021 / Lexington	Construction	\$17,622,746	90	.92	■	-1	▼	R
T8050245	2021 Track Force Account	Construction	\$35,000,000	90	1.00	■	0	■	G
T8050247	Mainline Track Replacement 2022 / 6th Ave-Culver	Construction	\$25,964,750	48	1.00	■	10	▲	G
T8050248	Mainline Track Replacement 2022 / 8th Avenue	Construction	\$26,264,960	64	1.00	■	2	▲	G
T8050249	Mainline Track Replacement 2022 / 7th Avenue	Construction	\$16,042,944	12	1.00	■	0	■	G
T8050250	Mainline Track Replacement 2022 / Brighton	Construction	\$32,977,292	2	1.00	■	0	■	G
T8050251	Mainline Track - 2022 / Support Costs	Construction	\$25,038,541	5	1.00	■	0	■	G
T8050252	Mainline Track Replacement 2022 / Myrtle	Construction	\$9,224,812	62	1.00	■	0	■	G
T8050254	Mainline Track Replacement 2022 / Astoria	Construction	\$18,591,811	32	1.00	■	0	■	G
T8050258	Mainline Track Replacement 2022 / Liberty	Construction	\$23,698,058	0	1.00	■	0	■	G
T8050263	Mainline Track Replacement 2022 / Culver	Construction	\$17,098,309	16	1.00	■	0	■	G
T8050306	Mainline Track Switches 2020 / Queens	Construction	\$7,531,710	5	1.00	■	0	■	G
T8050310	Mainline Track Switches 2020 / White Plains Rd	Construction	\$16,350,168	98	.77	▼	1	▲	R
T8050320	Mainline Track Switches- 2021 Support Costs	Construction	\$12,179,185	2	1.00	■	0	■	G
T8050322	Mainline Switches - 2022 DES/EFA	Construction	\$15,713,385	0	1.00	■	0	■	G
T8050324	Mainline Track Switches 2022 / 8th Avenue	Construction	\$32,639,912	62	1.00	■	0	■	G
T8050325	Mainline Track Switches 2022 / Jamaica	Construction	\$8,150,156	84	1.00	■	0	■	G
T8070320	Rehab of Emergency Exits	Construction	\$7,500,000	94	1.00	■	0	■	R
T8070330	LSCRP: Repair of Priority Column Bases/JER&WPR	Construction	\$7,470,786	32	1.00	■	0	■	G

**2nd Quarter 2022 Traffic Light Report  
Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
▼ = Index decrease: Trending indicates condition improving since last quarterly report  
■ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Construction &amp; Development</b>									
<b>NYCT</b>									
T8070334	Rehab of Emergency Exits - 2022	Construction	\$12,507,676	4	1.00	■	0	■	G
<b>LIRR</b>									
<b>Babylon Interlocking</b>									
L70502LH	Babylon Interlocking Renewal	Construction	\$32,639,998	1	1.00	■	8	▲	G
L8050201	Babylon Interlocking Renewal & New Sidings	Construction	\$91,860,713	1	1.11	■	0	■	G
<b>Long Island City Yard Resiliency</b>									
EL0602ZL	Long Island City Yard Restoration - Phase 3B	Construction	\$6,999,074	0	1.00	■	0	■	G
EL0603ZS	Long Island City Yard Resiliency - Wall and Pumping System	Construction	\$26,562,327	5	1.01	■	0	■	G
EL0603ZU	Long Island City Yard - Construction	Construction	\$2,381,000	5	1.00	■	0	■	G
L606016J	Long Island City Yard - Phase 3B Core	Construction	\$15,200,000	5	1.03	■	0	■	G
<b>All Other LIRR Projects</b>									
EL0303ZH	Emergency Management Equipment Mitigation	Construction	\$28,949,776	63	.96	■	0	■	R
EL0602ZD	West Side Storage Yard Restoration	Construction	\$43,986,089	64	1.00	■	0	■	G
L60304TU	Jamaica Capacity Improvements - Phase One	Construction	\$301,653,239	91	1.00	■	0	■	R
L70204VZ	Elmont Station	Construction	\$106,050,000	93	1.00	■	0	■	G
L70502LN	Babylon to Patchogue Signal Improvements	Construction	\$45,610,421	16	.99	■	0	■	G
L70701XB	Substation Components	Construction	\$36,820,000	65	1.00	■	0	■	G
L70701XU	Substation Repl Pkg 2: Construction	Construction	\$27,687,990	25	1.14	■	0	■	R
L8020417	Tactile Strips - Various Locations	Construction	\$12,800,000	34	2.28	■	0	■	G
L8020418	Mets-Willets EIC Relocation	Construction	\$28,866,050	18	1.00	■	0	■	R
L8020419	Northport Station Improvements	Construction	\$20,450,750	0	1.94	■	0	■	G
L8020701	GCT Facility Needs	Construction	\$18,480,971	1	1.02	■	0	■	G
L8030101	Construction Equipment	Construction	\$39,993,523	16	.99	■	0	■	G

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>LIRR</b>									
<b>All Other LIRR Projects - cont'd</b>									
L8030102	Various Right of Way Projects	Construction	\$10,000,000	5	1.00	■	0	■	G
L8030105	Queens Interlocking	Construction	\$155,000,000	14	2.18	▲	0	■	R
L8030107	2022- Annual Track Program	Construction	\$82,000,000	24	1.00	■	0	■	G
L8040107	Cherry Valley Rd Bridge Replacement (Hempstead)	Construction	\$40,800,000	1	1.81	■	0	■	G
L8050103	Fiber Optic Network	Construction	\$10,000,000	0	1.00	■	0	■	G
L8050204	Centralized Train Control	Construction	\$30,000,000	0	1.00	■	0	■	G
L8050205	Positive Train Control	Construction	\$41,000,000	0	1.30	■	0	■	G
L8050205	Signal Replacement and Interlocking Improvements	Construction	\$19,693,456	49	.98	■	0	■	G
L8050207	Positive Train Control (ESA)	Construction	\$33,000,000	0	1.00	■	0	■	G
L8060105	Mid Suffolk Yard Phase 2	Construction	\$30,000,000	0	5.71	■	0	■	G
L8070102	Atlantic Avenue Tunnel Lighting	Construction	\$10,000,000	2	1.00	■	0	■	G
L8070102	Yard Lighting & Amenities	Construction	\$8,000,000	0	1.00	■	0	■	G
L8070103	Station & Building Electrical Systems and Platform	Construction	\$8,000,000	0	1.00	■	0	■	G
L8070103	Signal Power & Power Pole Line Replacement	Construction	\$8,000,000	20	1.00	■	0	■	G
L8070104	3rd Rail - Protection Board & Aluminum Rail	Construction	\$27,000,000	2	1.00	■	0	■	G
L8070104	3rd Rail - 2000 MCM Feeder Cable Upgrade	Construction	\$13,000,000	1	1.00	■	0	■	G
L8070106	Substation Component Renewal	Construction	\$20,000,000	0	1.93	■	0	■	G
EL0402ZA	East River Tunnel Signal Sys & Infra Restoration	Design	\$179,871,202	90	1.00	■	0	■	G
L70304WU	JCI PH 2 -Signals - 3P Design	Design	\$42,490,000	68	1.06	■	0	■	G
L80204DD	ADA Accessibility and Components 24 Stations DES	Design	\$14,218,350	25	.96	▲	0	■	G
L8060401	Rehabilitation of Employee Facilities	Design	\$19,016,286	5	1.03	■	0	■	G
L8070101	Substation Replacements	Design	\$20,950,000	2	.26	■	0	■	G

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ─ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Construction &amp; Development</b>									
<b>MNR</b>									
<b>86th and 110th Street Substations</b>									
M6050103	H&H Power (86th St / 110th St)	Construction	\$18,754,481	99	1.01	─	0	─	R
M7050113	H&H Power (86th St / 110th St)	Construction	\$13,933,442	99	1.20	─	0	─	R
<b>Bridge Rehabilitation - Highland and Willet Ave</b>									
M7030203	Willet Ave Bridge	Construction	\$18,803,320	97	1.02	─	-1	▼	G
M7030203	Highland Ave Bridge	Construction	\$15,601,618	97	.97	─	-1	▼	G
<b>Customer Service Initiative</b>									
M7020211	Customer Communication-Systems	Construction	\$12,702,514	94	.95	─	2	▲	R
M7080113	Customer Communication-CM	Construction	\$12,658,667	93	.99	─	2	▲	R
<b>Harlem River Lift Bridge Structural Repairs</b>									
M7030203	Harlem River Lift Bridge - Fender Construction	Construction	\$17,831,765	75	.92	─	0	─	G
M7030209	Harlem River Lift Bridge	Construction	\$9,577,878	75	.92	─	0	─	G
<b>Hudson Line Power, Communication, and Signal Restoration</b>									
EM040205	Comm & Signal Infrastructure Restoration-Ph. 1 & 2	Construction	\$110,496,673	84	1.12	─	0	─	R
EM040301	Power and Signals Mitigation Phase 1	Construction	\$31,555,909	84	1.13	─	0	─	R
EM040302	Hudson Line Power and Signal Resiliency	Construction	\$38,373,937	84	1.09	─	0	─	R
EM050206	Power Infrastructure Restoration-Ph. 1 & 2	Construction	\$175,178,255	84	.99	─	0	─	R
EM050210	Power Infrastr Restoration-Remote Terminal Houses	Construction	\$770,036	84	.60	─	0	─	R
<b>All Other MNR Projects</b>									
EM050208	Power Infrastructure Restoration-Substations	Construction	\$47,362,479	97	1.03	─	2	▲	R
EM050209	Power Infrastructure Restoration-HRLB	Construction	\$8,209,735	100	.98	─	0	─	R
M6050101	Substation Bridge 23 - Construction	Construction	\$41,452,052	98	.99	─	2	▲	R
M7020101	GCT Trainshed Rehabilitation - Priority Repairs	Construction	\$32,362,658	76	.91	─	1	▲	G
M7020204	Harlem Line Station Improvements	Construction	\$20,243,271	15	.93	─	0	─	G

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Construction &amp; Development</b>									
<b>MNR</b>									
<b>All Other MNR Projects - cont'd</b>									
M7020217	Purdy's Elevator Improvements	Construction	\$7,471,208	15	.91	■	0	■	G
M7030109	Purchase MoW Equipment	Construction	\$19,807,994	66	1.00	■	0	■	G
M7030303	F/A Undergrade Bridge Rehabilitation West of Hudson	Construction	\$9,340,315	47	1.03	■	0	■	G
M7040102	Harmon to Poughkeepsie SignalSystem	Construction	\$150,052,520	58	1.48	■	0	■	R
M7040112	Harlem Wayside Comm & Signal Improvements	Construction	\$72,793,590	85	1.39	■	0	■	R
M7050101	Replace MA's in Signal Substations	Construction	\$22,668,445	53	.93	■	0	■	G
M7050104	Harlem & Hudson Power Rehabilitation	Construction	\$13,296,001	80	.88	■	0	■	G
M7050105	Harlem and Hudson Power Improvements	Construction	\$31,984,490	82	1.37	■	0	■	R
M7060101	Harmon Shop Replacement - Phase V	Construction	\$426,557,053	69	.98	■	0	■	G
M8020201	Upper H&H Stations Priority Repairs	Construction	\$35,720,490	4	.95	▼	0	■	G
M8020208	North White Plains Station Rehab	Construction	\$11,683,340	30	.96	■	0	■	G
M8030103	Mainline Turnouts 2021	Construction	\$11,400,000	75	1.00	■	0	■	G
M8030103	2020 Mainline Turnouts/Switch Renewal	Construction	\$8,347,000	90	.92	■	0	■	G
M8030107	MoW Equipment	Construction	\$22,163,177	0	.92	■	0	■	G
M8030108	2020 Cyclical Track Program	Construction	\$19,260,000	42	1.00	■	0	■	G
M8030110	2021 Cyclical Track Program	Construction	\$21,000,000	75	1.00	■	0	■	G
M8030302	West of Hudson Track Program - Pt Jervis Line	Construction	\$12,128,999	0	.76	■	0	■	G
M7020101	GCT Trainshed - Sector 2 Design	Design	\$29,064,500	76	1.11	■	3	▲	R
M7060103	Brewster YD Improvements - Design	Design	\$5,129,117	87	.68	■	0	■	G
M7060104	West of Hudson Yard Improvements - Passing Sidings	Design	\$6,415,924	30	.82	■	0	■	G
M8020103	GCT Building Component Repairs/Replacements	Design	\$56,544,038	35	1.12	■	0	■	G
M8030105	Rebuild Marble Hill Retaining Wall - Phase 1	Design	\$1,708,911	20	.11	■	0	■	G

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ─ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Construction &amp; Development</b>									
<b>MNR</b>									
<b>All Other MNR Projects - cont'd</b>									
M8030201	Park Avenue Viaduct Replacement	Design	\$512,610,309	0	1.36	─	0	─	G
M8050101	Repl. MA's in Signal Substations	Design	\$20,253,074	10	1.01	─	0	─	G
<b>B&amp;T</b>									
<b>BW Bridge Structural Rehab and Painting</b>									
D801BW14	Miscellaneous Structural Rehabilitation	Construction	\$24,218,719	12	.87	─	0	─	G
D807BWPT	BW Facility-Wide Painting Program	Construction	\$8,480,507	12	.85	─	0	─	G
<b>RFK Bridge Sidewalk Connection and Fender Upgrades</b>									
D702RK23	HRLS Sidewalk Connection at RFK Bridge	Construction	\$21,977,632	12	.95	─	0	─	G
D801RK83	RFK Bridge Lift Span Fender Upgrades	Construction	\$28,567,314	11	.87	─	0	─	G
<b>RFK Bridge Structural Rehab</b>									
D701RK19	Seismic/Wind Retrofit & Structural Rehab Ph1	Construction	\$49,485,748	99	.87	─	0	─	G
D701RK70	Miscellaneous Structural Rehabilitation	Construction	\$29,038,619	81	.82	─	0	─	G
D707RK70	Paint Suspended Span/Bronx Truss Steel	Construction	\$2,184,294	81	.53	─	0	─	G
<b>RFK Bridge Suspended Span Retrofit, Anchorage Rehab, and Painting</b>									
D801RK19	Suspended Span Retrofit	Design	\$134,439,225	70	.98	─	6	▲	R
D807RK19	Zone/Maintenance Painting of Suspended Spans	Design	\$34,200,000	70	.90	─	6	▲	R
<b>TN Bridge Orthotropic Deck Replacement</b>									
D702TN49	Replacement of Grid Decks on Suspended Span	Construction	\$285,208,704	73	.90	─	0	─	G
D707TN49	Painting of Suspended Span	Construction	\$17,644,527	73	.82	─	0	─	G
<b>All Other B&amp;T Projects</b>									
D701TN53	Approach Viaduct Seismic Retrofit/Structural Rehab	Construction	\$194,564,528	50	.86	─	0	─	G
D701VN32	Steel Repair & Concrete Rehabilitation	Construction	\$35,882,100	97	.85	─	0	─	G
D702VN84	Reconstruction of VN Approach Ramps - Phase1	Construction	\$190,429,595	88	.85	─	0	─	G
D801HH36	Dyckman Street Substations Upgrade	Construction	\$43,616,910	12	.87	─	0	─	G

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Construction &amp; Development</b>									
<b>B&amp;T</b>									
<b>All Other B&amp;T Projects - cont'd</b>									
D801RK70	Structural Repairs/Flag Repairs	Construction	\$57,518,670	99	.92	■	0	■	G
D804MPO9	Electrical Rehabilitation (Elevator)	Construction	\$21,692,766	25	.86	■	0	■	G
D806VNX1	Install Safety Fencing on Both Levels of the VNB	Construction	\$36,380,463	67	.83	■	0	■	G
D807MPPT	MP Facility-Wide Painting Program	Construction	\$15,928,677	77	.76	■	0	■	G
D807RKPT	RK Facility-Wide Painting Program - Phase 1	Construction	\$16,248,128	81	.27	■	0	■	G
D804AW73	Rehab/Replace Facility Monitoring & Safety Sy	Design	\$32,676,178	5	.90	■	0	■	G
D807TNPT	TN Facility-Wide Painting Program - Phase 2	Design	\$56,954,397	0	.90	■	0	■	G
D807VNPT	VN Facility-Wide Painting Program	Design	\$142,871,594	20	.79	■	0	■	G
ED010307	BWB Mitigation - Flood Wall & Other	Post Des to Const Awd	\$9,635,150	30	1.16	■	0	■	G
<b>MTA Bus</b>									
U7030207	Storerooms and Depot Reconfiguration: LaGuardia	Construction	\$7,418,500	41	1.00	■	0	■	R
<b>Cross Agency</b>									
<b>Integrated Projects</b>									
<b>PSNY 33rd Street Corridor</b>									
T7041350	Additional elevator 34 St BW7 PSNY-33rd	Construction	\$16,541,862	35	1.00	■	0	■	G
T8040707	Replace 3 Hydraulic Elevators: 34th BW7 PSNY-33rd	Construction	\$21,586,064	50	1.00	■	0	■	G
T8041219	Leak Remediation 34 St BW7 PSNY-33rd	Construction	\$2,405,903	30	1.00	■	0	■	G
T8080613	Comm Room 318A 34 St BW7 PSNY-33rd	Construction	\$1,479,645	18	1.00	■	0	■	G
L70206EG	PSNY-33rd Corridor (Phase 2 Construction)	Construction	\$435,879,160	65	1.00	■	0	■	G
L8020604	PSNY-33rd Phase 2 LIRR 20-24 Plan Contribution	Construction	\$18,806,909	40	1.00	■	0	■	G
<b>Penn Station Access</b>									
G7110107	Penn Station Access D/B Stations	Construction	\$281,385,133	11	1.00	■	0	■	G
G7110112	Penn Station Access Demolition & 3P Utilities	Construction	\$23,000,000	11	1.00	■	0	■	G

**2nd Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Cross Agency Integrated Projects</b>									
<b>Penn Station Access - cont'd</b>									
G8110103	Penn Station Access Construction Management	Construction	\$105,414,457	0	1.00	■	0	■	G
G8110114	Penn Station Access Other Design and Indirects	Construction	\$697,251,450	11	1.00	■	0	■	G
G8110114	Penn Station Access Systems	Construction	\$186,074,700	11	1.00	■	0	■	G
G8110114	Penn Station Access Catenary	Construction	\$150,931,200	11	1.00	■	0	■	G
G8110114	Penn Station Access Pelham Bridge, Drainage, & Site Improvements	Construction	\$141,344,200	11	1.00	■	0	■	G
G8110114	Penn Station Access Trackwork	Construction	\$98,949,900	11	1.00	■	0	■	G
G8110114	Oak, Co-Op City, DC Substations & 3rd Rail	Construction	\$90,024,900	11	1.00	■	0	■	G
G8110114	Penn Station Access Bronx River, Bronxdale, & Eastchester Bridges	Construction	\$69,371,400	11	1.00	■	0	■	G
G8110114	Penn Station Access Design, CP215, & Annex Substations	Construction	\$11,812,500	11	1.00	■	0	■	G
G8110114	Penn Station Access Catenary (Design)	Construction	\$10,395,000	11	1.00	■	0	■	G
G8110114	Penn Station Access Van Nest, Bowery Bay, NR Substations	Construction	\$4,354,100	11	1.00	■	0	■	G
<b>Second Ave Subway Phase 2</b>									
G7100101	SAS 2 PE, Design & Environmental	Design	\$199,094,903	79	.97	■	0	■	G
G7100101	SAS 2 Consultant Environmental Services	Design	\$2,342,188	79	1.00	■	0	■	G
G7100105	SAS Consult and in-house Construction Management	Design	\$41,787,962	88	1.04	■	0	■	G
G7100107	SAS 2 Prelim Const/Utilities	Design	\$270,000,000	88	1.00	■	0	■	G
G7100198	SAS 2 Real Estate	Design	\$39,782,833	88	.99	■	0	■	G
<b>Third Track Expansion Project</b>									
G7130103	D-B Construction Contract Base	Construction	\$1,442,649,697	0	1.00	■	0	■	G
G7130104	D-B Mobilization/Early Payments	Construction	\$148,631,408	0	1.00	■	0	■	G
G7130105	D-B Construction Contract Option	Construction	\$21,756,982	0	1.00	■	0	■	G
G7130105	D-B Construction Contract Option	Construction	\$964,179	0	1.00	■	0	■	G
G7130106	Parking Seed Money	Construction	\$15,750,000	0	1.00	■	0	■	G

**2nd Quarter 2022 Traffic Light Report  
Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
▼ = Index decrease: Trending indicates condition improving since last quarterly report  
■ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Cross Agency</b>									
<b>Integrated Projects</b>									
<b>Third Track Expansion Project - cont'd</b>									
G8130103	D-B Construction Contract	Construction	\$284,138,924	0	1.00	■	0	■	G
G8130112	Force Account Design	Construction	\$2,672,655	0	1.00	■	0	■	G
<b>OMNY</b>									
T6040405	New Fare Payment System, Phase 2	Construction	\$102,466,900	42	1.00	■	0	■	G
T7040401	New Fare Payment System, Phase 2	Construction	\$463,323,580	42	1.00	■	0	■	G
L70204UV	NEW FARE PAYMENT SYSTEM	Construction	\$8,920,000	0	1.00	■	0	■	G
L8020406	Fare Collection Program	Construction	\$61,402,521	0	1.75	■	29	▲	G
M6020207	New Fare Payment	Construction	\$2,280,618	95	.86	■	0	■	G
M7020208	New Fare Payment	Construction	\$6,276,879	95	1.00	■	0	■	G
M8020206	New Fare Payment Equipment	Construction	\$32,902,015	0	.98	■	0	■	G
<b>Rolling Stock</b>									
<b>Rail Cars</b>									
<b>MNR Cars</b>									
M7010101	Locomotive Purchase	Construction	\$291,750,993	23	1.13	■	0	■	R
M8010102	Locomotive Replacement	Construction	\$121,873,148	23	1.00	■	0	■	R
<b>Purchase of R211 B-Division Cars - Kawasaki</b>									
S7070101	SIR: Replace Car Fleet	Construction	\$257,484,699	10	1.00	■	0	■	G
T7010101	Purchase 440 B-Division Cars	Construction	\$1,402,231,935	13	1.00	■	0	■	G
T7010102	Purchase 20 Open Gangway Prototype Cars	Construction	\$79,905,106	10	1.00	■	0	■	G
<b>Purchase of R262 A-Division Cars</b>									
T7010105	Purchase 1178 A-Division Cars DES	Design	\$1,050,000	0	1.00	■	0	■	G
T8010101	A-Division Car Purchases	Design	\$1,500,000,000	0	1.00	■	0	■	G

**2<sup>nd</sup> Quarter 2022 Traffic Light Report**  
**Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Cross Agency Rolling Stock</b>									
<b>Rail Cars</b>									
<b>All Other Rail Car Projects</b>									
ET060317	Sandy Resiliency: Conversion of 2 Pump Trains	Construction	\$29,701,145	9	.98	■	0	■	G
T7130208	Purchase 12 3-Ton Crane Cars	Construction	\$32,794,585	33	1.00	■	0	■	G
T7130211	Purchase Locomotives	Construction	\$256,092,473	25	1.00	■	0	■	G
T7130215	Conversion of 10 R77E Locomotives	Construction	\$34,272,847	37	1.00	■	0	■	G
L70101ME	M-9 Procurement (110 Cars)	Construction	\$611,800,000	35	1.00	■	-3	▼	G
M7010102	M-8 Fleet Purchase	Construction	\$117,656,112	85	.99	■	0	■	R
<b>Buses</b>									
<b>Purchase of 135 Diesel Buses - Nova</b>									
U7030219	Purchase 25 Standard Diesel Buses	Construction	\$16,419,960	0	.97	■	0	■	G
U8030216	Purchase 25 Standard Diesel Buses	Construction	\$17,682,210	0	1.00	■	0	■	G
U8030217	Purchase 85 Standard Diesel Buses	Construction	\$61,917,132	0	1.00	■	0	■	G
<b>Purchase of 194 Hybrid and 139 Diesel Buses - New Flyer</b>									
T8030210	Purchase 84 Hybrid-Electric (New Flyer)	Construction	\$71,210,653	85	1.00	■	1	▲	G
T8030211	Purchase 139 Standard Diesel (New Flyer)	Construction	\$98,808,397	4	1.00	■	0	■	R
<b>Purchase of 291 Hybrid and 209 Diesel Buses - Nova</b>									
T7030203	Purchase 165 Standard Hybrid Buses (Nova)	Construction	\$146,174,452	86	.99	■	4	▲	R
T8030208	Purchase 126 Hybrid (Nova)	Construction	\$107,949,896	50	1.00	■	8	▲	R
T8030209	Purchase 209 Standard Diesel (Nova)	Construction	\$141,211,796	22	1.00	■	3	▲	R
<b>Purchase of 60 Battery Electric Buses - New Flyer</b>									
T7030216	Purchase 45 Standard Electric Buses	Construction	\$55,902,073	3	1.02	■	6	▲	R
T8030213	Purchase 15 Standard All-Electric Buses	Construction	\$17,264,987	0	1.00	■	6	▲	R

**2nd Quarter 2022 Traffic Light Report  
Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
▼ = Index decrease: Trending indicates condition improving since last quarterly report  
▬ = No Change since last quarterly report

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
<b>Cross Agency Rolling Stock Buses</b>									
<b>Purchase of 69 Express Buses - Prevost</b>									
T7030206	Purchase 50 Express Buses	Construction	\$34,002,485	58	1.00	▬	6	▲	R
T8030206	Purchase 19 Express Buses	Construction	\$14,270,653	83	1.00	▬	0	▬	G
<b>All Other Bus Projects</b>									
T6030227	On-Board Audio Visual (OBAV) System	Construction	\$11,528,223	1	1.04	▼	0	▬	G
T7030215	AVLM for Paratransit Vehicles	Construction	\$26,828,317	60	1.00	▬	0	▬	R
U7030202	Purchase 257 Express Buses	Construction	\$166,665,518	58	1.00	▬	1	▲	R
T8030215	Purchase 5 Standard Battery Elec Buses Test/Eval	Design	\$7,929,657	2	17.62	▬	0	▬	G
U8030205	Purchase 250 Express Buses	Design	\$175,900,000	0	.93	▬	0	▬	G
U8030218	289 Standard Diesel Buses	Design	\$215,847,600	0	719.49	▬	0	▬	G

## **Stations Business Unit Program Overview**

The Stations Business Unit currently oversees 203 active projects, including 57 projects in construction, with a budget of \$10.1B. Notable projects under construction include ADA at 149<sup>th</sup> St – Grand Concourse and Tremont Av on the 2,4,5, B, and D Lines, ADA at 68<sup>th</sup> Street / Hunter College on the 6 Line, and ADA Package 2, which includes ADA work at 8<sup>th</sup> Ave., Westchester Square, 181<sup>st</sup> St, Woodhaven Blvd, Court Square, and Queensboro Plaza stations; elevator replacement work at Marcy Ave. and Flushing Ave. stations; and state of good repair work at Westchester Square and Woodhaven Blvd stations.

The IEC's Traffic Light Report currently tracks 69 tasks (ACEPs) in the Stations Program. Of those, 2 tasks were flagged red, representing 2 projects. The report below describes why these project tasks (ACEPs) were flagged and what C&D is doing to remediate.

The BU is also seeking to identify and remediate issues at the program level by looking at lessons learned and how we can improve efficiency as more projects go into construction. The business unit and its project leaders have developed data tracking sheets to coordinate work and notify stakeholders of incoming work.

## **Stations BU Response to the IEC Traffic Light Report**

### **Individual project descriptions**

#### **ET040339: Sandy Mitigation: 138 St – Grand Concourse/Jerome Avenue Line (Vent Battery A) (Construction phase)**

##### **Trigger: Schedule**

This project is a Sandy mitigation project consisting of the repair of the ventilation structure and installation of mechanical closure devices (MCDs) to prevent future water infiltration. The vents are located in the Community Garden, at the 138<sup>th</sup> Street-Grand Concourse Station.

The substantial completion date was extended three months, from May 2022 to August 2022, due to a delay in material fabrication and component shortages on the supplier side and delays in acquiring required permits from various outside agencies.

The Contractor has received the materials and they are being installed. DOT and PARK permits have been issued. The team has been adjusting the work schedule to perform out-of-sequence work, working additional shifts, and adding more crews to expedite the installation and complete the project. After the reporting period, the project has been delayed an additional month and now is expected to be completed by the end of September 2022.

#### **ET060332: Sandy Resiliency: 3 Pump Rooms (53<sup>rd</sup> St Tube) (Construction phase)**

##### **Trigger: Schedule**

C&D Stations issued the 53<sup>rd</sup> Street Tube Project as a change order to the Rutgers Tube Contract in October 2020. This change order is to upgrade three tunnel pump room controls which span between the Lexington Avenue/53<sup>rd</sup> Street Station in Manhattan and the Court Square-23<sup>rd</sup> Street Station in Queens, upgrade all associated mechanical, electrical, and communication systems, and relocation of pump controls outside of the flood zone.

The six-month Schedule delay this quarter, from September 2022 to March 2023, was due to unforeseen conditions. The new electrical system to be installed requires a connection to the existing switchgear, which was

found to be in severely poor condition causing ConEd to refuse to reenergize the equipment until the switchgear is replaced, due to safety concerns. Replacement of the switchgear required additional time to design and procure the new switchgear.

Now that the design has been completed, significant deterioration and corrosion of the electrical systems feeding the fan plants, pump rooms, and related equipment at Nott Avenue, Roosevelt Island, and Sutton Place have been identified. Thus, additional change orders are being issued to address these concerns. Subsequent to the reporting period, the project duration was extended to accommodate the extra work, long lead time for material fabrication, the installation, and testing. The 53<sup>rd</sup> Street Tube's scope is expected to be completed in June 2023.

C&D Stations is working with the Design-Builder to use upcoming GOs effectively and to ensure their suppliers deliver materials on time. In addition, the team is coordinating with in-house forces to ensure that support services are available for testing.

### **Infrastructure Business Unit Program Overview**

The C&D Infrastructure Business Unit currently oversees 288 active projects with a budget of \$10B, including 95 projects in construction (\$4B). The IEC-Independent Engineering Consultant's Traffic Light Report currently tracks 100 tasks (ACEPs) in the C&D Infrastructure program. Of those, 7 projects with 16 tasks were flagged red.

- The C&D Infrastructure Business Unit is responsible for all infrastructure construction projects on the NYC Transit and SIR – Staten Island Railway network. This includes line structures (e.g., tunnels, bridges), line equipment (e.g., lighting, pumps, ventilation plants), power substations and cabling, shops and facilities that are essential to NYCT's and SIR's operation.
- Notable projects under construction include upgrading MTA's Bus Radio System, flood mitigation at the 207<sup>th</sup> Street Yard and the Coney Island Yard, rehabilitating the Forsyth Street Fan Plant, and rehabilitating HVAC systems at College Point.

### **Infrastructure BU Response to the IEC Traffic Light Report**

**ET070310: Rockaway ROW Debris Shielding (Procurement phase)**

**ET070311: Sandy Mitigation: New Crossover at Beach 105<sup>th</sup> St./Rockaway Line (Procurement phase)**

**ET070312: Rockaway Line Long-Term Protection (Procurement phase)**

**ET070313: Rockaway Park Yard Compressor Room (Procurement phase)**

**Trigger: Schedule**

These projects will provide flood protection for the Rockaway line right of way. The scope includes debris shielding, the creation of a terminal station at the 105<sup>th</sup> Street, hardening of critical assets and embankment stabilization along the right-of-way, and mitigation measures for the Rockaway Park Yard compressor room.

During the second quarter 2022, the construction award date was delayed six-months, from June 2022 to December 2022, due to the decision, by C&D Leadership, to bundle these projects with three from the Core Capital Program. A new Request for Qualification was issued July 2022. Project bundling is being done primarily for cost savings and efficiencies in project management.

**S8070101: Station Components - Various Locations (Design phase)**

**S8070103: Rehabilitate Garretson Avenue Bridge (Design phase)**

**S8070103: Overcoat Six SIR Bridges (Design phase)**

**Trigger: Schedule**

This bundled contract will perform station component repairs at seven Staten Island Railroad stations, overcoat painting and structural repairs on six bridges, and rehabilitate the Garretson Avenue Bridge.

During the second quarter 2022, the design completion dates slipped eight-months, from August 2022 to April 2023, due to design manpower shortage, late completion of master Project Requirements Design Criteria, and delivery method change from Design-Build to Design-Bid-Build. This required a complete re-design package for which the design budget will be assessed, and additional funding will be requested by year-end 2022, if needed.

**T6090217: Reconstruct 6 Negative Manholes-Central Sub Station - 6<sup>th</sup> Avenue Line (Construction phase)**

**T7090203: Substation Renewal & New Rectifier: Central Sub Station - 6<sup>th</sup> Avenue Line (Construction phase)**

**T8090405: Rebuild Ducts: Central Platform (Construction phase)**

**Trigger: Cost**

This bundled contract project's scope includes the repair and/or reconstruction of six negative manholes, renewal of the central substation, repair/replacement of the duct bank, and replacement of numerous feeder cables.

During the second quarter 2022, this bundle incurred a budgetary shortfall of approximately \$6M, due in part to overruns and added scope because of unforeseen site conditions which resulted in additional MTA resource support including Access & Protection (A&P), TA labor and Engineering Force Account. A budget modification will be circulated for approval September 2022.

**T7060503: Replace Supervisory Vent Controls – Various Locations (Construction phase)**

**T8060507: Replace Supervisory Vent Controls – 2 Locations (Construction phase)**

**Trigger: Schedule**

This bundled contract will replace the local supervisory control system, at 13 fan plant locations, with new modern hardware and transfer remote controls from the Power Control Center to the Rail Control Center in Manhattan, by installing Fiber Optic cables and equipment and using existing MTA Intranet network.

During the second quarter 2022, the Substantial Completion date was delayed four-months, from August 2022 to December 2022, due in part to the lack of fire watch support. In order to mitigate a further schedule slip, C&D Infrastructure has agreed with the MTA Maintenance of Way department for a modified fire watch and has the contractor working three shifts to reduce the number of days each fan plant is out of service, under the modified fire watch.

**T7090206: Replace High Tension Switchgear - Various Locations (Construction phase)**

**T8090216: Replace Transformer and Associated Equipment - 41 St. Substation (Construction phase)**

**Trigger: Schedule**

This bundled contract will perform component replacement of high-tension switchgear at seven substations and replace the transformer and rectifier at the 41<sup>st</sup> Street Substation. The project will modernize the switchgear and provide an adequate level of reliability to the electrical power system.

During the second quarter 2022, the Substantial Completion date was delayed 16 months, from October 2022 to February 2024, due to the addition of the 41<sup>st</sup> Street Substation scope. The substation failed due to normal wear and tear. The transformer and rectifier have to be replaced because of the Immediate Operating Need request from Maintenance of Way. Power from the 41<sup>st</sup> Street Substation is necessary for full Communication Based Train Control on the QBL line.

**T7100402: 207<sup>th</sup> St. Maintenance & Overhaul Shop Roof & Component Repair (Construction phase)**

**Trigger: Schedule**

This project's scope includes replacing the roof assembly, incidental mechanical work, facade, and drainage repairs at the 207<sup>th</sup> Street Maintenance and Overhaul Shop, in Manhattan.

During the second quarter 2022, the Substantial Completion date was delayed five-months, from July 2022 to December 2022, due to the inability by the contractor to procure roofing material because of supply chain issues.

**T7120321: East New York Depot Windows and Façade (Construction phase)**

**Trigger: Schedule**

This project will provide all labor, materials, tools and equipment necessary for the replacement of all the exterior window units and for the cleaning, repairing, and restoring the entire brick facade at the East New York Bus Depot. The work includes but is not limited to general construction, masonry, and minor electrical work.

During the second quarter 2022, the Substantial Completion date was extended five-months, from April 2022 to September 2022, due to unforeseen site conditions. During the window replacement and façade repair, additional asbestos was identified, the abatement was scheduled, and a budget modification for \$800K was approved in August 2022 to cover this additional work and time extension to September 2022. Subsequent to the reporting period, the contractor submitted another time extension request for asbestos work, to January 2023. After assessment, the project team has recommended a Substantial Completion date December 2022.

### Systems Business Unit Program Overview

The C&D Systems Business Unit currently oversees 86 active projects with a budget of \$2B, including 28 projects in construction (\$476M). The IEC-Independent Engineering Consultant's Traffic Light Report currently tracks 11 tasks (ACEPs) in the C&D Systems program. Of those, four projects were flagged red.

- The Systems Business Unit is responsible for the delivery of major customer facing programs: Help Points in all stations, Public Address/Customer Information Systems on the A Division, and Countdown Clocks on the B Division, OutFront Digital Screens in Stations, and Transit Wireless Wi-Fi Cellular Services in all subway stations, as well as the networking infrastructure needed to support them.
- Projects under construction include installing a new Enhanced Emergency Booth Communication System, upgrading SCADA system for emergency Power Control Center, resiliency for the Rail Control Center and Public Address upgrade – B Division.

### **Systems BU Response to the IEC Traffic Light Report**

#### **ET040317: Upgrade Emergency Booth Communication System (Construction phase)**

##### **Trigger: Schedule**

This project will upgrade the Emergency Booth Communication System (EBCS) and Mass Call in all stations agent booth locations to a faster and more reliable communication system.

During the second quarter 2022, the Substantial Completion date was delayed three-months, from August 2022 to November 2022, due to the preliminary installations not performing as designed. Approval from the key stakeholders for a limited commencement of the full roll out (FRO) phase in two station agent booths was granted in January 2022. However, the contractor, was not able to get the systems they installed in those booths to 100% functionality, so full rollout was paused. Stakeholders agreed to a limited restart of FRO in early June, starting out with only one booth per day and gradually ramping up. The contractor is currently cutting-over an average of around four booths per day. Also, remaining to be cutover, to the new Enhanced Emergency Booth Communication System, are over 4,000 Help Point Intercoms, over 200 analog Customer Assisted Intercoms, a few hundred elevator intercoms, and the integration of iPads in every booth.

Additionally, without maintenance training, provided by the contractor for the NYCT, the contractor was required to assume first-line maintenance responsibility, and their interim maintenance procedures took multiple rounds of review before being accepted by NYCT.

#### **ET090310: Sandy Mitigation: Back-up Power Control Center (Procurement phase)**

##### **Trigger: Schedule**

This project will design and build an Emergency Power Control Center to provide emergency BMT SCADA System control in the event the main Power Control Center is not functional or inaccessible.

During the second quarter 2022, the construction award date slipped three-months, from April 2022 to July 2022, due to prolonged negotiations with shortlisted contractors and insurance related issues with the contractor. During negotiations, additional cost savings measures were submitted which necessitated more time for review and evaluation by stakeholder/user groups. The insurance concerns have since been resolved and the contract was awarded in the beginning of August 2022.

**T6100454: 207<sup>th</sup> St. Overhaul Shop: Boiler Upgrades & Site Remediation (Construction phase)****Trigger: Cost and Schedule**

This project will upgrade the boiler system at the 207<sup>th</sup> Street Yard (in the Overhaul Shop: installation of an Electric Steam Generator and tankless Water Heaters with associated appurtenances and in the Boiler House: upgrades of two existing boilers) to comply with New York State Department of Environmental Conservation (NYSDEC) air emission regulations and permitting requirements. The project will also remediate soil that may have been contaminated with fuel oil, which leaked from the existing underground storage tank system, to comply with a mandate from NYSDEC.

During the second quarter 2022, the Substantial Completion date was delayed six-months, from June 2022 to December 2022, and had a budgetary shortfall of approximately \$1.5M due to unforeseen site conditions and coordination with ConEd for natural gas service provision. There have been change orders to this contract, which were required to address changing and growing requirements from ConEd, field conditions and most recently demands from the insurance company's inspector during the annual boiler recertification inspections.

**T7080602: Upgrade of Asynchronous Fiber Optic Network-SONET Rings A and C (Construction phase)****Trigger: Schedule**

This Project will upgrade the existing Fiber Optic Network equipment to a new technology, on the A and C Rings.

During the second quarter 2022, the Substantial Completion date was delayed six-months, from June 2022 to December 2022, due to the lack of in-house subject matter experts from the Electronic Maintenance Division (EMD). C&D and the contractor are working closely with EMD on alternate solutions.

**Signals and Train Controls Business Unit Program Overview**

The Signal Business Unit currently oversees 26 active projects, including 14 projects in construction, with a budget of \$2.8B. Notable projects under construction include CBTC QBL West, 8<sup>th</sup> Avenue, Culver and QBL East Line.

The IEC's Traffic Light Report currently tracks 35 tasks (ACEPs) in the Signals program. Of those, 1 task was flagged red, representing 1 project. The report below describes why this project was flagged, and what C&D is doing to remediate.

The BU is also seeking to identify and remediate issues at the program level, i.e., across projects.

**Signals and Train Controls BU Response to the IEC Traffic Light Report****Individual project description****T7080324: Code Cable Replacement – Broadway 7<sup>th</sup> Avenue Line (Construction phase)****Trigger: Schedule**

This project replaces the Programmable Logic Controllers (PLC) from copper cable to new armored fiber optic cable for the 7<sup>th</sup> Avenue subway line in Manhattan and the installation of PLCs and Fiber Distribution Panels.

Over the last two quarters, the project's Substantial Completion date has been extended a total of three-months, from April 2022 to July 2022, due to the cancellation and deferment of weekend General Order and TA Labor availability. Substantial Completion was achieved, after the reporting period, in August 2022. The cumulative delays did not have an impact on the budget.

## NYCT Department of Subways Response to the IEC Traffic Light Report

NYCT Department of Subways conducts a range of in-house capital work, including tracks and switches, as well as employee facilities. The IEC's Traffic Light Report flagged five Track project tasks (ACEP) in the NYCT DOS program.

NYCT schedules track work to take advantage of General Orders already obtained for other projects, a practice known as piggy-backing. This saves resources for the agency and reduces service disruptions for our customers. Unfortunately, this dependence on other projects' schedules makes the track program more vulnerable to schedule changes.

The description below describes why these track projects were flagged, and what NYCT is doing to remediate.

### Individual project descriptions

#### **T8050206: 2020 Mainline Track Replacement – 8<sup>th</sup> Avenue Line (Construction phase)**

##### **Trigger: Cost**

This project will reconstruct segments of mainline tracks that have reached the end of their useful life. Locations will be determined based on the latest condition survey. The project's work location is between the West 4<sup>th</sup> Street and 14<sup>th</sup> Street stations, along the 8<sup>th</sup> Avenue Line. In addition to the track scope, the signals, contact rails, and ballast will also be replaced as required.

During the second quarter 2022, the project's EAC increased approximately \$3.6M, due to insufficient MTA Resource Support and the addition of 70 track feet to the scope.

#### **T8050207: 2020 Mainline Track Replacement – Broadway-7th Ave Line (Construction phase)**

#### **T8050310: 2020 Mainline Switch Replacement – White Plains (Construction phase)**

##### **Trigger: Schedule**

These projects will reconstruct segments of mainline track and switched that have reached the end of their useful life. Locations were determined based on the latest condition surveys. The projects' work locations are along the Broadway / 7<sup>th</sup> Avenue and White Plains Lines. In addition to the track and switch scopes, the signals, contact rails, and ballast and the replacement of existing turnouts, track switches, switch valves, connecting rails, contact rails, ties, ballast, signal cables including positive and negative connections, and any associated signal equipment, will be replaced as required.

Both of these projects are Red for cumulative schedule delays, over multiple quarters, due to delayed inspections and completion of remaining punch list work because of limited staff. Track Engineering is currently in the process of hiring additional personnel.

#### **T8050211: 2020 Mainline Track Replacement – Jamaica Line (Construction phase)**

#### **T8050232: 2021 Mainline Track Replacement – Jamaica Line (Construction phase)**

##### **Trigger: Schedule**

Both projects will reconstruct segments of mainline tracks that have reached the end of their useful life. Locations will be determined based on the latest condition survey. There are multiple locations where work will be performed, along the Jamaica Line. In addition to the track scope, the signals, contact rails, and ballast will be replaced as required.

During the second quarter 2022, both projects' Substantial Completion dates were extended, eight and nine months respectively, due to limited track access. There is no more scheduled track access this year on the Jamaica Line, which requires bus service when General Orders are scheduled. As a result, the work as has been rescheduled for 2023 when track access opportunities will be available along this line.

**Metro-North Railroad Business Unit Program Overview**

The MNR Business Unit currently oversees 87 active projects, including 26 projects in construction, with a budget of approximately \$3B. Notable projects under construction include the Superstorm Sandy Power and Communication & Signals Restoration project, Harmon Shop Improvements, and the Grand Central Terminal Trainshed project.

The IEC's Traffic Light Report currently tracks 42 tasks (ACEPs) in the C&D Metro-North program. Two of those 42 tasks were flagged red, representing two projects. The description below describes why these project tasks were flagged, and what C&D is doing to mitigate them.

**Metro-North Railroad Response to the IEC Traffic Light Report****MNR BU project descriptions****M7020101: Grand Central Terminal Trainshed – Sector 2 (Design phase)****Trigger: Cost and Schedule**

The Grand Central Terminal (GCT) Trainshed is well past its useful life and is in various stages of deterioration. The Priority Repairs line of work is a part of the multi-phased, multi-project initiative to bring the GCT Trainshed to a state of good repair. In parallel with the Priority Repairs, the Trainshed work was divided into segments (aka "the Sectors") to be performed over successive Capital Programs.

During the second quarter of 2022, the design completion date was extended three months, from October 2023 to January 2024, due to expansion of scope. In addition to the schedule slip, a \$3M increase in the Estimated at Completion is a result of the added scope for the expanded Sector 2 design. In order to accelerate the sector-by-sector rehabilitation, Sector 2's work area has been expanded from the area between East 53<sup>rd</sup> and East 55<sup>th</sup> Street to the area between East 51<sup>st</sup> and East 57<sup>th</sup> Street. A supplemental agreement will be executed to cover the additional work associated with the design of the expanded sector and the production of bridging documents for solicitation of a Design-Build contractor. Due to the uncertain timeline for the award of the supplemental agreement, this date may be extended again in the future. The additional funding required for the supplemental agreement has been allocated from the Plan Amendment.

### **Bridges and Tunnels Business Unit Program Overview**

The Bridges & Tunnels Business Unit currently oversees 117 active capital projects. This includes 20 projects in construction, with a budget of \$1.2B. Notable projects under construction include: Replacement of Grid Decks on Suspended Span at the Throgs Neck Bridge, Reconstruction of Verrazzano-Narrows Approach Ramps – Phase 1, and Approach Viaduct Seismic Retrofit/Structural Rehab at the Throgs Neck Bridge.

The IEC's Traffic Light Report currently tracks 24 ACEPs in the 2015-2019 and 2020-2024 capital programs. Of those, two were flagged red, representing one project. The following describes why this project was flagged, and what is being done to remediate the issue.

### **Bridges and Tunnels BU Response to the IEC Traffic Light Report**

#### **Project Descriptions:**

**D801RK19: Suspended Span Retrofit - Robert F. Kennedy Bridge (Design phase)**

**D807RK19: Suspended Span Painting - Robert F. Kennedy Bridge (Design phase)**

**Trigger: Schedule**

This project's original scope entails the structural retrofit of the suspended spans to ensure structural integrity and meet current standards for seismic and wind performance, along with overcoat painting of the suspended span. During the design, the consultant recommended the replacement of the wind pins and stringer pins, as the pins are reaching the end of their service life and would require replacement in the near future. The design consultant also suggested the contract's scope include the dehumidification of the main cables, originally to be done in the 2025-2029 Capital Program, to ensure the main cable strength is preserved since these aerodynamic retrofits will result in an increase to the load being carried by the main cables.

This project had a six-month schedule delay, from April 2022 to October 2022, due to the incorporation of this additional scope. In adding the scope to this project, B&T will take advantage of the work platforms and permanent lane closures, which are required for the structural retrofit, to access the pins and perform the dehumidification of the main cables. Bundling the pin replacement work and cable dehumidification into the original RK-19 project scope is the most cost-effective way to address these needs, while minimizing project support costs associated with the additional scope and the impact on the driving public. Overall, the project remains on target as a 2023 design-build commitment.

**Bus Procurement Response to the IEC Traffic Light Report****Bus Procurement Project Descriptions****T7030206: Purchase of 50 Express Buses (Prevost) (Construction phase)****Trigger: Schedule**

The purpose of this project is for the purchase of 50 express buses to be operated by MTA NYC Transit. The buses will be used for the replacement of the over-aged fleet throughout the city that are beyond their useful life. The buses have been designed to operate in revenue service for a useful life of 12 years or 500,000 miles and will meet Environmental Protection Administration (EPA) emission standards as well as Americans with Disabilities Act (ADA) standards.

During the second quarter 2022, the Substantial Completion date was extended six-months, from June 2022 to December 2022, due in part to the bus manufacturer experiencing production delays and parts shortages. This contract includes 69 total buses, 19 of which were awarded to the contract as an option. The last of the option buses were delivered in May 2022. The delivery of these 50 buses is expected by the end of 2022.

**T7030203: Purchase 165 Standard Hybrid Buses (Nova) (Construction phase)****T8030208: Purchase 126 Standard Hybrid Buses (Nova) (Construction phase)****T8030209: Purchase 209 Standard Diesel Buses (Nova) (Construction phase)****Trigger: Schedule**

The purpose of this project is for the purchase of 165 standard hybrid buses with options for 126 standard hybrids and 209 standard diesel buses to be operated by MTA NYC Transit. The buses will be used for the replacement of the over-aged fleet throughout the city that are beyond their useful life. The buses will be designed to operate in revenue service for a useful life of 12 years or 500,000 miles and will meet EPA emission standards as well as ADA standards.

During the second quarter 2022, the Substantial Completion dates, for each of piece of this contract was delayed four, eight, and three months, respectively. All of the schedule delays are due to the bus manufacturer experiencing production delays and parts shortages. The current forecast delivery dates are August 2022, December 2022, and February 2023, respectively.

**T7030216: Purchase 45 Standard Electric Buses (New Flyer) (Construction phase)****T8030213: Purchase 15 Standard Electric Buses (New Flyer) (Construction phase)****Trigger: Schedule**

The purpose of this project is for the purchase of 60 standard battery electric buses to be operated by MTA NYC Transit throughout areas that have the supporting infrastructure for depot charging. The buses will be designed to operate in revenue service for a useful life of 12 years or 500,000 miles and will meet EPA emission standards as well as ADA standards.

During the second quarter 2022, the Substantial Completion dates, for this contract, were extended six-months from September 2023 to March 2024, due to anticipated parts shortages, which became apparent during the pre-production phase.



**Projects in CPC’s Risk-Based Monitoring Program  
(2<sup>nd</sup> Quarter 2022 Traffic Light Report – Period Ending June 30, 2022)**

The following projects in CPC’s Risk-based Monitoring Program are currently reported on by the responsible MTA Business Unit in accordance with the CPC Work Plan schedule and are continually monitored by the Independent Engineering Consultant. Monitored projects from multiple Capital Programs are included in the Quarterly Traffic Light Report. The list is subject to periodic review and adjustment by the MTA.

<b>Projects in CPC's Risk-Based Monitoring Program</b>			
<b>Capital Programs</b>			<b>Project</b>
<b>2010-14</b>	<b>2015-19</b>	<b>2020-24</b>	
<b>Integrated Capital Projects</b>			
	X		Second Avenue Subway - Phase 2
X	X		East Side Access & Regional Investments
	X		Penn Station Access
		X	Penn Station – 33 <sup>rd</sup> St Corridor
	X		LIRR Expansion Project – Mainline Third Track - Floral Park to Hicksville
<b>Signals and Communications</b>			
X			Communications Based Train Control - Queens Blvd. West- Phase 1
	X		Communications Based Train Control - Queens Blvd. West- Phase 2
		X	Communications Based Train Control – Queens Blvd East
	X		Communications Based Train Control – Culver Line
X	X		Integrated Service Information and Management B Division
X	X		Replace Bus Radio System
<b>Subway Car, Bus and Rolling Stock Procurement</b>			
X	X		New Subway Car Procurement
X	X		New Bus Procurement
X	X		Commuter Rail Road Rolling Stock Procurement
<b>Passenger Stations Program</b>			
	X		OMNY New Fare Payment System – Phase 2
	X		ADA 149 <sup>th</sup> St/Tremont Ave Stations
	X		ADA Accessibility Package A
		X	ADA Accessibility Package 2
		X	ADA 68 <sup>th</sup> St / Hunter College



**Projects in CPC’s Risk-Based Monitoring Program  
(2<sup>nd</sup> Quarter 2022 Traffic Light Report – Period Ending June 30, 2022)**

<b>Capital Program</b>			<b>Project</b>
<b>2010-14</b>	<b>2015-19</b>	<b>2020-24</b>	
<b>Shops and Yards</b>			
	X		Harmon Shop Replacement Phase V, Stage 2
	X		Morris Park Diesel Locomotive Shop
<b>Line Structures and Track</b>			
X			Jamaica Capacity Improvements Phase 1
<b>Bridges and Tunnels</b>			
	X		Throgs Neck Bridge Replace Suspended Span Deck
<b>Sandy Program</b>			
			Sandy Program Coney Island Yard Long Term Perimeter Protection
			Sandy Program 207 <sup>th</sup> Street Yard Long Term Perimeter Protection

**Contracts Department**  
Steve Plochochi, Senior Vice President

**PROCUREMENT PACKAGE**  
September 2022

PROCUREMENTS

The Procurement Agenda this month includes seventeen (17) actions for a proposed expenditure of \$112.1M.

<b>Subject</b> Request for Authorization to Award Various Procurement Actions					
<b>Contract Department</b> Steve Plochochi, Senior Vice President					
<b>Board Action</b>					
<b>Order</b>	<b>To</b>	<b>Date</b>	<b>Approval</b>	<b>Info</b>	<b>Other</b>
1	Capital Program Committee	9/19/22	X		
2	Board	9/21/22	X		

<b>Date:</b> September 16, 2022			
<b>Internal Approvals</b>			
	<b>Approval</b>		<b>Approval</b>
X	Deputy Chief Development Officer, Delivery	X	President
X	Deputy Chief Development Officer, Development	X	Executive Vice President & General Counsel

**Purpose**

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

**Discussion**

MTA Construction & Development proposes to award Competitive Procurements in the following categories:

<u>Schedules Requiring Majority Vote</u>	<u># of Actions</u>	<u>\$ Amount</u>
F. Personal Services Contracts	13	\$ 30,000,000
G. Miscellaneous Services Contracts	1	\$ 73,666,488
I. Modifications to Purchase and Public Work Contracts	1	\$ 2,350,000
SUBTOTAL	15	\$106,016,488

MTA Construction & Development proposes to award Ratifications in the following category:

<u>Schedules Requiring Majority Vote</u>	<u># of Actions</u>	<u>\$ Amount</u>
K. Ratification of Completed Procurement Actions	2	\$ 6,057,204
SUBTOTAL	2	\$ 6,057,204
TOTAL	17	\$112,073,692

**Budget Impact**

The approval of these procurement actions will obligate capital and operating funds in the amounts listed. Funds are available in the capital and operating budgets for this purpose.

**Recommendation**

The procurement actions be approved 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 2879, 1209 and 1265-a 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.

September 2022

**LIST OF COMPETITIVE PROCUREMENTS FOR BOARD APPROVAL**

**Procurements Requiring Majority Vote:**

- |                                      |                                      |                                      |
|--------------------------------------|--------------------------------------|--------------------------------------|
| <b>1 - 13. Multiple Consultants</b>  | <b>\$30,000,000 (Est. Aggregate)</b> | <b><u>Staff Summary Attached</u></b> |
| <b>Contract Nos. D81691 – D81703</b> |                                      |                                      |
| <b>36 Months</b>                     |                                      |                                      |

MTA Construction and Development request Board approval to award 13 competitively solicited All Agency Discretionary Contracts utilizing New York State certified Minority-Owned Business Enterprises, Women-Owned Business Enterprises and Service-Disabled Veteran-Owned Businesses to perform architectural and engineering design, project management, and inspection services on an as-needed basis.

**Schedule G. Miscellaneous Service Contracts**  
**(Staff Summaries required for items estimated to be greater than \$1M)**

- |   |                     |                                      |
|---|---------------------|--------------------------------------|
| <b>14. George S. Hall, Inc.</b>               | <b>\$73,666,488</b> | <b><u>Staff Summary Attached</u></b> |
| <b>Contract No. VS250</b>                     |                     |                                      |
| <b>Nine Months with Two Six Month Options</b> |                     |                                      |

MTA Construction and Development request Board approval to award a publicly advertised and competitively solicited contract for the interim maintenance of East Side Access facility assets.

**Schedule I. Modifications to Purchase and Public Work Contracts**  
**(Staff Summaries required for all items greater than \$1M)**

- |                                  |                     |                                      |
|----------------------------------|---------------------|--------------------------------------|
| <b>15. Tracks Unlimited, LLC</b> | <b>\$ 2,350,000</b> | <b><u>Staff Summary Attached</u></b> |
| <b>Contract No. T-80280.35</b>   |                     |                                      |

MTA Construction & Development requests Board approval to award a modification to the Contract for installation of a new drainage system at the Princes Bay station.

<b>Dept &amp; Dept Head Name:</b> Tom Abdallah, Vice President, Design Services, Delivery					
<b>Contracts Department:</b> Laura A. Smith, Chief Officer					
<b>Board Reviews</b>					
Order	To	Date	Approval	Info	Other
1	Capital Program Committee	9/19/22	X		
2	Board	9/21/22	X		
<b>Internal Approvals</b>					
Order	Approval	Order	Approval		
X	Deputy Chief, Development	X	President		
X	Deputy Chief, Delivery	X	Executive VP & General Counsel		

<b>SUMMARY INFORMATION</b>	
<b>Vendor Name</b> See the list below	<b>Contract Number</b> D81691-D81703
<b>Description</b> All Agency Discretionary Contract utilizing New York State certified Minority and Women-Owned Business Enterprises and Service-Disabled Veteran-Owned Businesses to Perform Architectural and Engineering Design, Project Management, and Inspection Services	
<b>Total Amount</b> \$30,000,000 Estimated Aggregate	
<b>Contract Term</b> 36 Months	
<b>Option(s) included in Total Amount?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<b>Renewal?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Procurement Type</b> <input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Non-competitive	
<b>Solicitation Type</b> <input checked="" type="checkbox"/> RFP <input type="checkbox"/> Bid <input type="checkbox"/> Other:	
<b>Funding Source</b> <input checked="" type="checkbox"/> Operating <input checked="" type="checkbox"/> Capital <input type="checkbox"/> Federal <input type="checkbox"/> Other	

**Purpose/Recommendation**

MTA Construction and Development ("C&D") requests Board approval to award 13 competitively solicited All Agency Discretionary Contracts utilizing New York State certified Minority-Owned Business Enterprises ("MBE"), Women-Owned Business Enterprises ("WBE") and Service-Disabled Veteran-Owned Businesses ("SDVOB") to perform architectural and engineering ("A&E") design, project management, and inspection services on an as-needed basis for a period of 36 months. These contracts will be "zero-dollar" based with no minimum guarantee on any assignments. The selected firms and their respective contracts are:

<u>Consultants</u>	<u>Contract Nos.</u>	<u>M/WBE</u>
1. AI Engineers, Inc. ("AIE")	D81691	MBE
2. Arora Engineers, Inc. ("Arora")	D81692	MBE
3. CSA Group NY Architects and Engineers, P.C. ("CSA")	D81693	MBE
4. Enovate Engineering and Land Surveying, PLLC ("Enovate")	D81694	WBE
5. EnTech Engineering, PC ("EnTech")	D81695	WBE
6. Garg Consulting Services, Inc. ("Garg")	D81696	MBE
7. Gedeon Engineering, PC dba Gedeon GRC Consulting ("Gedeon")	D81697	MBE
8. Infrastructure Engineering, Inc. P.C. ("IEI")	D81698	MBE
9. Kheops Architecture, Engineering & Survey, DPC ("Kheops")	D81699	MBE
10. KS Engineers, P.C. ("KSE")	D81700	MBE
11. Naik Consulting Group, P.C. ("Naik")	D81701	MBE
12. PACO Group, Inc. ("PACO")	D81702	MBE
13. Ronnette Riley Architect ("Ronnette")	D81703	WBE

## Discussion

C&D is seeking to award Contracts for a variety of services including: A&E design, consultant construction management, project management consultant, staff augmentation, and technical activities as required to support the capital program. The consultants will perform the above services for all phases of project planning, design, procurement, construction and closeout for various project delivery methodologies. Project facilities include, but are not limited to: tunnels, bridges, terminals, stations, rail, bus, operation and maintenance facilities, office buildings, and communication, power and signal infrastructures. Work under this contract series will be performed on an as-needed task order basis. Specific work requirements for a project will be defined in the scope of work for each task order that, in general, will be competed among the consultants and task order awards can be issued in up to \$1.5 million increments with a total aggregate budget amount of \$30 million.

Section 1265-a(2)(b) of the Public Authorities Law and Article V.B of the All-Agency Service Contract Procurement Guidelines permit MTA C&D to make awards to certified MWBEs and SDVOBs up to \$1.5 million without competitive sealed bidding or other formal competitive process. Such procurements may be set aside for MWBEs and SDVOBs in order to promote participation of those certified firms in MTA contracts, as mandated by Article 15-A of the Executive Law and to assist MTA with meeting its M/WBE and SDVOB goals. As set-asides, such procurements are not required to be publicly advertised. Under the proposed contracts, individual work assignments will be awarded through a competitive mini-Request for Proposal (“RFP”) process, among some or all firms in an amount not-to-exceed \$1.5 million. These Contracts will replace the previous Discretionary Contract series for similar services.

In August 2021, C&D Contracts began outreach to M/WBE and SDVOB firms with engineering and project management experience and sought recommendations from ethnic minority trade groups and associations. A pre-solicitation outreach meeting was held with 103 potential proposers on November 3, 2021 to inform the community about the RFP process, discuss potential upcoming projects, and to allow potential proposers to ask questions. On December 13, 2021, C&D Contracts issued notification of a one-step RFP requesting the submission of technical and cost proposals to 161 certified M/WBE and SDVOB firms with engineering and project management experience, and 23 professional and other organizations that represent or regularly notify M/WBEs and SDVOBs of procurement opportunities. The solicitation was also advertised in the Daily News, Engineering News-Record, Minority Commerce Weekly, New York State Contract Reporter, New York Construction Report, and on the C&D Website. A pre-proposal conference was held December 28, 2021 with 71 firms in attendance. On February 9, 2022, 63 firms submitted proposals.

The selection committee consisting of representatives from C&D Delivery and the MTA’s Department of Diversity and Civil Rights, reviewed the written technical proposals utilizing the selection criteria set forth below, listed in relative order of importance:

- Plan of Approach
- Experience in Relevant Areas
- Experience of Project Team/Key Personnel
- Management Approach
- Experience of Prime and Subconsultant Key Personnel
- Quality Assurance Plan
- Current Workload of Prime and Subconsultants
- Diversity Practices
- Other Relevant Matters

After review of all 63 proposals, the selection committee shortlisted 33 firms for oral presentations based on the RFP requirements and the above evaluation criteria. During oral presentations, firms demonstrated their strengths and amplified their technical proposals. Many firms brought their subconsultants to attend as well and provided examples of projects they had successfully completed together.

After review of the technical proposals and oral presentations, the selection committee met to discuss all of the presentations and to shortlist firms for negotiations. In addition, the cost proposals for all 13 firms were also reviewed by the selection committee. The following 13 firms were unanimously selected to be brought in for negotiations: AIE, Arora, CSA, Enovate, EnTech, Garg, Gedeon, IEL, Kheops, KSE, Naik, Paco, and Ronnette.

The 13 firms selected all provided strong written proposals, presented clear and concise oral presentations and responded well during the question-and-answer period. During the question-and-answer period the selected firms showed a command of how they would coordinate with various user groups, how they would address changes in scopes of work during a project and demonstrated the importance of safety protocols. The selected firms had staffing plans with teams of people available to mobilize quickly and displayed a variety of experience. C&D conducted several rounds of negotiations with all 13 firms and provided estimated total hours, the breakdown of hours for each title, and the cost for out-of-pocket expenses to ensure a fair and equitable evaluation of the cost. During negotiations with the firms,

discussions centered on direct labor rates and overhead rates for both the prime consultants and their proposed subconsultants. The overhead rates were reviewed by MTA Audit and adjusted pursuant to MTA Audit recommendations. Final negotiations were held with all 13 firms finalizing direct labor rates and confirming the audited overhead rates for each of the prime consultants and their proposed subconsultants.

Best and Final offers (“BAFOs”) were received from all 13 firms and evaluated against C&D’s in-house budget estimate based on hours distributed among various titles and overheads rates. Based on the evaluation of the initial and revised cost proposals, in-house estimate, and the competitive nature of the RFP, the BAFOs were determined to be fair and reasonable.

The 13 selected proposers presented detailed technical proposals and exhibited a comprehensive knowledge of A&E design services as well as project management. Moreover, each of the selected proposers demonstrated strong qualifications, vast experience, a thorough understanding of the various project requirements under individual task orders and a well-developed management and staffing approach to fulfilling potential scopes of work. All 13 firms provided teams capable of performing a variety of both design and project management task orders and providing staff to support the capital program. The selection committee unanimously voted to recommend all 13 firms for award.

The 13 selected firms include eight incumbent firms from the previous Discretionary Contract series and five new firms. The 13 prime consultants also proposed 65 distinct subconsultants of which 45 are certified firms (21 MBE, 13 WBE, 2 dual-certified M/WBE, 7 SDVOB and 2 dual-certified MBE/SDVOB firms).

All 13 firms were found to be responsible and financially qualified to perform these contracts.

**D/M/WBE Information**

The MTA Department of Diversity and Civils Right has established 0% M/WBE/SDVOB goals on this All-Agency Discretionary Contract. This procurement provides multiple professional service prime contracting opportunities for NYS certified M/WBE firms. The participation on these prime contracts will contribute toward MTA’s overall 30% M/WBE goal.

**Impact on Funding**

D81691 – D81703 will be 100% MTA funded. These Contracts are all “zero-dollar” based, and therefore funds will be provided on a task-order basis by the project requiring these services.

**Alternatives**

Solicit these task orders from non-M/WBE firms. Not recommended as this would eliminate the opportunity for M/WBE firms to gain vital prime contract experience and would diminish their ability to propose on additional prime opportunities in the future.

<b>Dept &amp; Dept Head Name:</b> East Side Access, Rob Troup, SVP and Sr. Program Executive					
<b>Contracts Department:</b> Sergey Leonidov, SVP and Deputy General Counsel					
<b>Board Reviews</b>					
Order	To	Date	Approval	Info	Other
1	Capital Program Committee	9/19/22	X		
2	Board	9/21/22	X		
<b>Internal Approvals</b>					
Order	Approval	Order	Approval		
X	Deputy Chief, Development	X	President		
X	Deputy Chief, Delivery	X	Executive VP & General Counsel		

<b>SUMMARY INFORMATION</b>	
<b>Vendor Name</b> George S. Hall, Inc.	<b>Contract Number</b> VS250
<b>Description</b> Interim Maintenance of the East Side Access Project Part 2	
<b>Total Amount</b> \$59,138,760 (Base Contract) \$ 7,263,864 (First Sixth Month Option) \$ 7,263,864 (Second Sixth Month Option)	
<b>Contract Term</b> Nine months with two six month options	
<b>Option(s) included in Total Amount?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
<b>Renewal?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>Procurement Type</b> <input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Non-competitive	
<b>Solicitation Type</b> <input checked="" type="checkbox"/> RFP <input type="checkbox"/> Bid <input type="checkbox"/> Other:	
<b>Funding Source</b> <input checked="" type="checkbox"/> Operating <input type="checkbox"/> Capital <input type="checkbox"/> Federal <input type="checkbox"/> Other	

**Purpose/Recommendation**

MTA Construction and Development (“C&D”) requests Board approval to a ward of a publicly advertised and competitively solicited contract for the interim maintenance of East Side Access (“ESA”) facility assets to George S. Hall, Inc. in the amount of \$59,138,760 and a duration of nine months. The Contract also includes two options, allowing for extensions of the Contract duration by six months each for a total of up to 12 months, to be exercised at the C&D’s sole discretion, at a cost of \$7,263,864 for each option.

**Discussion**

The Work under Contract VS250 (the “Contract”) is to perform interim maintenance services within the East Side Access Project territory, both before revenue service, while construction, testing and railroad training are ongoing, and after revenue service, until MTA awards a long-term maintenance contract and the systems are turned over to that contractor. This Contract includes operation of the Grand Central Madison Terminal (“GCMT”) building management and automatic temperature control systems, the chiller and steam plant and the tunnel ventilation systems, as well as preventative maintenance for the mechanical and plumbing, electrical, communication, fire protection, and security systems. The Contract also includes building maintenance for project facilities including but not limited to, the GCMT, the Yard Service Building in Queens, Ventilation Plants, and Tunnel and Wayside facilities.

A one-step Request for Proposal (“RFP”) was used to solicit this Contract. The Contract was advertised in the NYS Contract Reporter, NY Daily News, Minority Commerce Weekly and on the MTA Website. Notices were also sent to 20 firms, and 12 firms ordered and received the RFP package. Despite the outreach, only one proposal, from George S. Hall, Inc. (“GSH”), was received in response to the RFP. In order to ascertain why only one proposal was received, C&D contacted the 11 firms who received the RFP package and were advised that some of the firms did not have sufficient manpower to take on the entire scope of work, others were only interested in smaller portions of the work, additionally others felt the risk associated with the project was too big for their firms to take on and finally others simply indicated the scope of work was beyond their capabilities.

GSH’s technical proposal was opened and evaluated by a selection committee consisting of representatives from C&D utilizing pre-established selection criterion considering the following factors: management plan, preventive maintenance, service, operations, safety

and quality, diversity practices, preparedness for performing the work, financial qualification and overall cost. A technical working group, consisting of ESA design and construction management consultants, supported the selection committee. The selection committee determined that the technical proposal submitted by GSH was responsive and acceptable. The selection committee next opened GSH's price proposal which reflected a cost of \$46,234,583 for the base term and \$5,450,749 for each of the two option terms.

Negotiations were held with GSH focusing on scope clarification, maintenance and operations details, risk and indemnification language, insurance coverage and pricing. C&D then issued an addendum increasing the scope and the insurance requirements. GSH's BAFO reflected a final cost of \$59,138,760 for the base term and \$7,263,864 for each of the options. The BAFO reflects an increase over the initial cost proposal and is primarily due to the work added by addenda and the increased insurance requirements. The negotiated cost is considered to be fair and reasonable.

GSH has been found to be responsible.

**DBE/MBE/WBE/SDVOB Information**

The MTA Department of Diversity and Civil Rights has established 22.5% DBE Goal. The submitted DBE plan is under review.

GSH has not completed any MTA contracts with DBE/MBE/WBE goals, therefore, no assessment of their past performance can be determined at this time.

**Impact on Funding**

This contract will be funded in MTA's operating budget.

**Alternative**

The MTA does not have the internal resources available to perform these interim services so the alternative would be to issue modifications to the third-party contractors that provided the assets. Such modifications would result in significant time extensions and interfere with the orderly close out of these contracts.

**Schedule I Modifications to Purchase and Public Work Contracts**

Item Number 15

<b>Vendor Name (Location)</b> Tracks Unlimited, LLC (Mountainside, NJ)	<b>Contract Number</b> T-80280	<b>Modification Number</b> 35
<b>Description</b> Mainline Track Rehabilitation and Clifton Yard Track & Switch Reconfiguration in the Borough of Staten Island	<b>Original Amount:</b>	\$ 44,427,000
<b>Contract Term (including Options, if any)</b> December 28, 2018 – December 21, 2022	<b>Prior Modifications:</b>	\$ 40,209,744
<b>Option(s) included in Total Amt?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> n/a	<b>Prior Budgetary Increases:</b>	\$ 0
<b>Procurement Type</b> <input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Noncompetitive	<b>Current Amount:</b>	\$ 84,636,744
<b>Solicitation Type</b> <input type="checkbox"/> RFP <input type="checkbox"/> Bid <input checked="" type="checkbox"/> Other: Modification	<b>This Request:</b>	\$ 2,350,000
<b>Funding Source</b> <input type="checkbox"/> Operating <input checked="" type="checkbox"/> Capital <input type="checkbox"/> Federal <input type="checkbox"/> Other:	<b>% of This Request to Current Amount:</b>	2.8%
<b>Requesting Dept./Div., Dept./Div. Head Name:</b> Delivery/Mark Roche	<b>% of Modifications (including This Request) to Original Amount:</b>	95.8%

**Discussion:**

Contract T-80280 (the “Contract”) is for track rehabilitation on the Staten Island Railway (“SIR”) mainline and track and switch reconfiguration at the Clifton Yard. MTA Construction and Development (“C&D”) requests that the Board approve a modification to the Contract for the installation of a new drainage system at the Princes Bay station.

This Contract was awarded for the first of two phases of a project to replace track along the SIR mainline necessary to maintain a state of good repair and for the reconfiguration of track and switches at the Clifton Yard to align with the construction of the new Clifton Shop. As part of the project, the Contractor is to install new track in the vicinity of the Princes Bay station. This area of track is prone to frequent flooding, often requiring the termination of service in both directions. Five such flooding events occurred in 2021 resulting in SIR having to completely shut down service and provide bus support to service the southern side of the island. If the flooding condition is not addressed, service will continue to be interrupted and the life expectancy of the new roadbed and track will likely be impacted.

Under this modification the Contractor will replace four clogged catch basins and install over 1,200 linear feet of 12-inch drainage piping at depths from 4.5 feet to 10 feet that will facilitate proper drainage in the affected area. All work will be performed during weekend shutdowns. In further efforts to preserve schedule, the purchase of long lead items, i.e., pipe and catch basins, was addressed under Modification No. 37 to the Contract, which was issued in September 2022 for \$50,000.

The Contractor submitted a cost proposal of \$2,502,488. Negotiations resulted in the agreed lump sum price of \$2,350,000 which has been determined to be fair and reasonable.

SEPTEMBER 2022

**LIST OF RATIFICATIONS FOR BOARD APPROVAL**

**Procurements Requiring Majority Vote:**

**Schedule K. Ratification of Completed Procurement Actions (Involving Schedule E – J)**  
**(Staff Summaries required for all items)**

- |            |  |                    |                                      |
|------------|--|--------------------|--------------------------------------|
| <b>16.</b> | <b>Tutor Perini Corporation</b><br><b>Contract No. CS179.624</b> | <b>\$4,367,204</b> | <b><u>Staff Summary Attached</u></b> |
|------------|--|--------------------|--------------------------------------|

MTA Construction and Development requests the Board ratify a modification to the Contract to compensate the Contractor for working extended shifts and to include an incentive for completing work along the Project's Right of Way no later than September 11, 2022.

- |            |   |                    |                                      |
|------------|---|--------------------|--------------------------------------|
| <b>17.</b> | <b>Siemens Industry, Inc.</b><br><b>Contract No. S-48004-1.32</b> | <b>\$1,690,000</b> | <b><u>Staff Summary Attached</u></b> |
|------------|---|--------------------|--------------------------------------|

MTA Construction and Development requests the Board ratify a modification to the Contract to develop a customizable animated track map displaying real-time train location information from New York City Transit's ("NYCT") B-Division on the large screen display in the NYCT Rail Control Center.

<b>Vendor Name (&amp; Location)</b> Tutor Perini Corporation (Peekskill, New York)	<b>Contract Number</b> CS179	<b>Modification Number</b> 624
<b>Description</b> Systems Facilities Package No. 1 for the East Side Access Project	<b>Original Amount:</b>	\$ 333,588,000
<b>Contract Term (including Options, if any)</b> 75 Months	<b>Prior Modifications:</b>	\$ 202,700,491
<b>Option(s) included in Total Amount?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<b>Exercised Options:</b>	\$ 216,800,001
<b>Procurement Type</b> <input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Non-competitive	<b>Current Amount:</b>	\$ 753,088,492
<b>Solicitation Type</b> <input checked="" type="checkbox"/> RFP <input type="checkbox"/> Bid <input checked="" type="checkbox"/> Other: Modification	<b>This Request</b>	\$ 4,367,204
<b>Funding Source</b> <input type="checkbox"/> Operating <input checked="" type="checkbox"/> Capital <input checked="" type="checkbox"/> Federal <input type="checkbox"/> Other:	<b>% of This Request to Current Amount:</b>	0.6 %
<b>Requesting Dept/Div &amp; Dept/Div Head Name:</b> East Side Access, Rob Troup	<b>% of Modifications (including This Request) to Original Amount:</b>	62 %

**Discussion:**

Contract CS179 (the “Contract”) provides systems for the East Side Access project (the “Project”). MTA Construction and Development (“C&D”) requests that the Board ratify a modification to the Contract to compensate the Contractor for working extended shifts and to include an incentive for completing work along the Project’s Right of Way no later than September 11, 2022.

In an effort to accelerate the pace of the Work in order to meet the Project’s revenue service goal, C&D has agreed with the Contractor on unit rates for the premium-time cost differential of providing work crews for six 10-hour work shifts per week through October 22, 2022. In addition, the modification includes an incentive payment to the Contractor in the amount of \$500,000 for completing the work along the Project’s right-of-way by September 11, 2022. In order to maintain this critical schedule, the President approved a retroactive waiver and the Contractor was directed to proceed with performing Contract work utilizing 10 hour shifts Mondays through Saturdays and the Contractor completed the right-of-way work by September 11.

The Contractor submitted a cost proposal with unit rates for the premium time through October 22, 2022 totaling \$7,775,850. Negotiations resulted in the agreed upon rates in the not-to-exceed amount totaling \$4,367,204, inclusive of the incentive payment, which has been determined to be fair and reasonable.

In connection with previous contracts awarded to Tutor Perini Corporation, Tutor Perini Corporation was found to be responsible, notwithstanding significant adverse information (“SAI”) pursuant to the All-Agency Responsibility Guidelines and such responsibility findings were approved by the MTA Chairman/CEO in consultation with the MTA General Counsel in February 2017. No new significant adverse information has been found relating to Tutor Perini Corporation and Tutor Perini Corporation has been found to be responsible.

Vendor Name (Location) Siemens Industry, Inc. (New York, NY)
Description Communications-Based Train Control for Queens Boulevard West Phase I
Contract Term (including Options, if any) August 24, 2015 – March 24, 2021
Option(s) included in Total Amt? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Procurement Type <input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Noncompetitive
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

<b>Contract Number</b> S-48004-1	<b>Modification Number</b> 32
<b>Original Amount:</b>	\$ 156,172,932
<b>Prior Modifications:</b>	\$ 27,146,845
<b>Prior Budgetary Increases:</b>	\$ 0
<b>Current Amount:</b>	\$ 183,319,777
<b>This Request:</b>	\$ 1,690,000
<b>% of This Request to Current Amount:</b>	0.9%
<b>% of Modifications (including This Request) to Original Amount:</b>	18.5%

**Discussion:**

This Contract S-48004-1 (the “Contract”) provides carborne and wayside Communication Based Train Control (“CBTC”) equipment for the CBTC signaling project on the Queens Boulevard Line - West (“QBL”). MTA Construction and Development (“C&D”) requests that the Board ratify a modification to the Contract to develop a customizable animated track map displaying real-time train location information from New York City Transit’s (“NYCT”) B-Division on the large screen display in the NYCT Rail Control Center (“RCC”).

The development of a customizable track map for display of NYCT B-Division train locations at the RCC was originally included in Contract W-32789, which also provided for the installation of a large screen display at the RCC. Contract W-32789 was to carry out the third phase in the development of the integrated service information and management system for the B-Division (“ISIM-B”) to implement an advanced train-traffic management system which would provide situational awareness to dispatchers overseeing the B-Division through the collection and configuration of data from multiple existing sources for display at the RCC. ISIM-B was meant to be an interim train location solution until CBTC with Automatic Train Supervision (“ATS”) was installed on all lines in the B-Division.

However, in advance of full CBTC roll-out in the B-Division, the MTA decided to install ATS in the entire B-Division (“ATS-B”) through a modification to this Contract approved by this Board in March 2018. ATS provides more precise train location information in real-time. With the advancement of ATS installation throughout the B-Division, the MTA determined that skipping the interim phases where ISIM-B would be used for train location, was operationally preferred and cost effective. For those reasons, a modification was issued to Contract W-32789 deleting the work associated with the display of B-Division train location information at the RCC and taking the correspondent credit.

Pursuant to this modification to this Contract, the contractor will design, furnish, install, and test the ATS-B client Graphic User Interface application system to display data from the ATS-B system across the large screen displays. The display will consist of animated subway maps indicating real-time train operations with the data content from the entire B-Division. The contractor was directed to proceed with the work in April 2022.

The contractor submitted a cost proposal of \$1,815,236. Negotiations resulted in the agreed lump sum price of \$1,690,000 which has been determined to be fair and reasonable.

In connection with a previous contract awarded to Siemens, Siemens 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 Chairman and Chief Executive Office in consultation with the MTA General Counsel in August 2016. No new SAI has been found relating to Siemens and Siemens has been found to be responsible. A Contractor Compliance Program was put in place for Siemens in April 2018.