Capital Program Committee Meeting

November 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. Samuelsen
- V. Tessitore
- N. Zuckerman

Capital Program Committee Meeting

2 Broadway, 20th Floor Board Room New York, NY 10004 Tuesday, 11/29/2022 12:45 - 2:00 PM ET

1. SUMMARY OF ACTIONS

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2. PUBLIC COMMENTS PERIOD

3. APPROVAL OF MINUTES – OCTOBER 24, 2022

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4. 2022 – 2023 COMMITTEE WORK PLAN

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5. C&D CAPITAL PROGRAM UPDATE

Progress Report on Signals and Train Control - Page 11 IEC Project Review on Signals and Train Control - Page 18 IEC Summary of Systems Business Unit - Page 43 IEC Project Review on Bus Radio System - Page 44

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Committee Safety Report - Page 52

7. UPDATE ON SMALL BUSINESS DEVELOPMENT PROGRAM - Presentation at Meeting

8. UPDATE M/WBE, DBE, and SDVOB PARTICIPATION on CAPITAL PROJECTS M/WBE, DBE, and SDVOB Participation - Page 54

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CONSTRUCTION & DEVELOPMENT COMMITTEE ACTIONS SUMMARY for NOVEMBER 2022

Responsible Department	Vendor Name	Total Amount	Summary of Action
Contracts	Elevated Accessibility Enhancements	\$965,257,102	MTA Construction and Development requests Board approval to award a publicly advertised and competitively solicited Public-Private Partnership contract (A37140) for the design, construction, financing and maintenance of elevators and other ADA improvements at selected New York City Transit Subway Stations.
Contracts	Citnalta/Scalamandre Joint Venture	\$114,571,000	MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited contract (6478) for design-build services for ADA improvements to nine Long Island Rail Road Stations.
Contracts	DeFoe Corporation	\$108,173,500	MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited contract (RK-93) for design-build services to reconstruct the Randall's Island ramps of the Robert F. Kennedy Bridge.
Contracts	Judlau Contracting, Inc.	\$106,398,530	MTA Construction and Development requests Board approval to award a publicly advertised and competitively solicited contract (A37145) for design and construction of accessibility upgrades at the Borough Hall Station and the award of a long-term elevator maintenance contract.
Contracts	Modern Elevator Innovations	\$ 2,358,680	MTA Construction & Development requests Board approval to award a long-term elevator maintenance contract connected to Contract A37145.
Contracts	MUT	\$ 91,794,000	MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited contract (6382) for design-build services for a new railroad bridge and two new mainline tracks in Hall Interlocking.
Contracts	Skanska USA Civil Northeast Inc.	\$ 74,470,000	MTA Construction and Development requests Board approval to award a publicly advertised and competitively solicited contract (A37693) for design-build services for circulation improvements at Grand Central – 42nd Street Station.
Contracts	CRC Associates Inc.	\$ xx,xxx,xxx	MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited contract (C52146) to provide a laser intrusion detection system in thirteen underwater subway tubes and twenty-nine stations.
Contracts	J-Tack LLC	\$ 48,299,000	MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited contract (E30645) for design-build services for escalator replacements at two stations.
Contracts	Power Resources International, Inc.	\$ 13,255,286	MTA Construction and Development requests Board approval to award a publicly advertised and competitively solicited contract (6359) for design-build services for the replacement of Babylon and Hillside motor generators.

CONSTRUCTION & DEVELOPMENT COMMITTEE ACTIONS SUMMARY for NOVEMBER 2022

Contracts	J-Tack LLC	\$ 7,358,420	MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited contract (131618) for design-build services for the replacement of timber ties on the Moodna Viaduct,	
Contracts	Schindler Elevator Corporation	\$ 7,063,032	MTA Construction & Development requests Board approval to award a modification (No. 25) to Contract VM014 for the maintenance of all of the elevators and escalators at the new Grand Central Madison Terminal for a period of up to seven months from the commencement of revenue service.	

MINUTES OF MEETING MTA CAPITAL PROGRAM COMMITTEE

October 24, 2022 New York, New York 2:15 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

Evan Eisland

Dana Hecht

Robert Laga

Amy Linden

John McCarthy

Tim Mulligan

Brian Murphy

Mark Roche

Jamie Torres-Springer

Michele Woods

Independent Engineering Consultant staff present:

Joe Devito

Elizabeth King

* * *

Chairman Lieber called the October 24, 2022 meeting of the Capital Program Committee to order at 2:20 P.M.

Public Comments Period

There were two public speakers in the public comments portion of the meeting: Jason Anthony and Andy Pollack.

Meeting Minutes

The minutes of the meeting held on September 19, 2022 were approved.

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 provided brief comments on the following topics, several of which were then discussed in more detail later in the meeting: opening of LIRR Third Track; opening of Elmont-UBS Arena Station; East Harlem Job Fair; and 10 Years Since Superstorm Sandy and the resultant repair and resiliency investments undertaken.

C&D Capital Program Update on the Infrastructure Business Unit

Ms. Hecht provided an update on the Infrastructure Business Unit (BU), which oversees 275 active projects with a total budget of \$9B. She then noted that year-to-date in 2022 the BU has achieved commitments of \$344M, and 17 projects have achieved Substantial Completion (SC). She then commented on eight Sandyrelated projects that are in design, construction, or have been completed. She then provided status updates on the following major Capital Program projects: Coney Island Yard, with a \$520M budget, slated for SC in March 2023; 207th Street Yard, with a \$637M budget and slated for SC in January 2024; 207th Street Yard Sewer Relocation, with a \$163M budget and slated for SC in April 2024; and Mainline Track Signaling with a \$150M budget and slated for SC in August 2023. Also highlighted were the 26 Substation projects, which are currently in procurement. In its Project Review of the Coney Island Yard, the IEC reported that the project is 90% complete, and forecast for SC in March 2023. The project Estimate at Completion (EAC) is \$521M. In its Project Review of the 207th Street Yard, the IEC noted that the project is 81% complete, with a budget and EAC of \$633M. The IEC performed an analysis of completed work and all cost categories and finds the project budget and EAC to be sufficient to complete the project's current scope of work. Regarding Schedule, the IEC agrees with C&D's forecast SC date of January 2024, a recovery of 4 months since last report, which the IEC attributed to the cooperative spirit among C&D, NYCT Operations, and contractors in overcoming challenges faced by this project. The IEC completed its Project Review by noting that all flood protection and resiliency work is planned to be completed by June 2023, 7 months ahead of SC. In its Project Review of the 207th Street Sewer Project, the IEC reported that the project stands at 45% complete, with a budget of \$152M and an EAC of \$163M, significantly reduced from last report by improving the project's scheduled completion. With respect to Schedule, the IEC noted that actions taken by C&D to minimize delay have improved the project completion date by 9 months since last report, from January 2025 to April 2024. In its Project Review of the Coney Island Yard, the IEC reported that overall, the project is 90% complete, with a current budget and EAC of \$521M. Regarding Schedule, since last report, replacement of cables that were damaged during the installation of flood mitigation wall sheeting caused a three-month impact to the schedule. While the flood protection and resiliency work are on track for completion by December 2022, the overall project Substantial Completion is now forecast for March 2023.

New Fare Payment System (OMNY) Update

Ms. Linden began by describing the growth in OMNY market share. She continued with the new fare payment firsts for OMNY, noting that there are approximately 4600 retail locations with more than 31,000 OMNY cards sold. She went on to describe the software deliverables in 2022 and forecast deliverables for 2023 and 2024. Ms. Linden noted that the current budget is \$772M and the current vendor Substantial Completion (SC) dates, while currently under negotiation, are as follows: NYCT -- 2Q 2024; Railroads -- 2Q 2025; and overall SC --4Q 2025. Citing key risks and mitigation strategies, Ms. Linden then ended the presentation by noting significant milestones achieved. In its Project Review, the IEC stated that the project is 49% complete and on budget at \$772M. The IEC noted that the project has achieved the on-time introduction of contactless payments to NYCT subway and bus systems, as well as the launch of the MTA's Fare-Capping Program, with the introduction of Reduced Fare and Paratransit being imminent. However, since its last report, the IEC noted that the project has experienced delays to key milestones such as installation of NYCT Configurable Vending Machines and OMNY Revenue System, as well as introduction of OMNY to the Commuter Railroads, which impacts project SC. The IEC schedule analysis found that 33 months are required to complete the remaining Commuter Railroad work from start of Final Design Review. Assuming both an approved re-baselined schedule and execution of pending change orders by 1Q 2023, the IEC forecasts NYCT work to be completed by 3Q 2024, and overall project SC achieved in 4Q 2025, which is a 14-month delay since its last report in January 2022. The IEC then provided the observation that the contractor's quality control process needs continuous improvement to meet timely project deliverables, including reliable functioning software, to provide the best possible customer experience. The IEC concluded its remarks by noting that the OMNY PMO is closely monitoring testing of hardware and software to ensure the product delivered is functioning as intended.

Procurement Actions

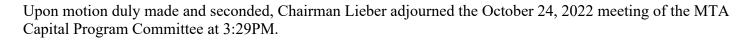
David Cannon, Vice President, Contracts, MTA Construction & Development Company ("C&D") reported there were three procurement actions being brought to the Capital Program Committee this month, all of which are in the competitive section. Vice President Cannon then presented the items.

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 the following:

- Adoption of a resolution declaring competitive bidding impractical or inappropriate for all MTA design/build contracts through the end of 2025 and determined that it is in the public interest to issue competitive Requests for Proposals ("RFPs") for such contracts pursuant to New York State Public Authorities Law Section 1265-a(4)(f) and Section 1209(9)(f) and the MTA All Agency General Contract Procurement Guidelines.
- Award of a publicly advertised and competitively solicited contract to El Sol Contracting/ES II Enterprises JV for design-build services for the rehabilitation of the main spans of the Cross Bay Veterans Memorial Bridge and repairs at the Marine Parkway-Gil Hodges Memorial Bridge in the lump sum amount of \$33,665,000 and for a duration of twenty-five months.
- Award of a modification to the Rutgers Tube Rehabilitation contract (P36444) with TC Electric/J-Track JV for the installation of switchgear equipment at Sutton Place for the cost of \$1,997,500.

Refer to the staff summaries and documentation filed with the records of this meeting for the details on these items.

Adjournment



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

December

Overall Capital Program

B&T

Security Projects
Quarterly Traffic Light Report

<u>January</u>

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

<u>June</u>

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

October

Overall Capital Program

Infrastructure

November

Overall Capital Program

- Signals and Train Control
- Systems

Minority, Women and Disadvantaged Business Participation Small Business Development Program



MTA Capital Program Committee Update Signals & Train Control and Systems Projects

November 2022

MTA Construction & Development's (C&D) last report to the Capital Program Committee on Signals and Train Control projects was in April 2022.

The Signals & Train Control Business Unit (S&TC) includes Communication Based Train Control (CBTC) projects such as Queens Blvd (QBL) West, QBL East, Culver and 8 Av, car upgrades, interlocking and switch replacements, replacement and enhancement of signal systems' reliability and maintainability, Rail Control Center (RCC) upgrades, technology initiatives, and Superstorm Sandy recovery and resiliency.

The summary below details the S&TC's 2022 performance:

- Successfully awarded two contracts valued at approximately \$33 million
- Achieved substantial completion of seven construction projects totaling \$655 million
- Three projects are currently in procurement valued at \$694 million
- 29 active contracts in design and construction valued at approximately \$7.4 billion, 15 of which are in construction and seven of which are CBTC and car installations

The Signals and Train Control Business Unit is focused on changes to improve CBTC's Reliability, Availability, and Maintainability (RAM) on existing and future lines by incentivizing maintenance support in contract awards, strengthening internal tracking of performance, and simplifying the design through a CBTC centric approach. We are also meeting with management of CBTC suppliers on a daily basis to resolve outstanding performance issues and have elevated the topic to executive management at the MTA.

The most significant event since the last report is the substantial completion of the wayside work on the QBL-West project (QBL-W). We also continue to progress toward award of the first design build CBTC project, the Crosstown CBTC project along with its related PMC contract, by the end of 2022.

8 Av Line CBTC

\$48006 \$32400 M44436 \$48013-1 \$48013-2 \$48015 \$48016 \$87055 The project will provide CBTC from 59 St in Manhattan through High St in Brooklyn. The program also includes providing CBTC equipment to the existing R-179 vehicles and CBTC equipment to support the manufacturing of the R-211 vehicles. The 8 Av line has three services (A, C, E) and carries more than 710,000 daily riders (pre-COVID).

PROJECT STATUS	Original	Revised	Forecast	
Substantial Completion	January 2025	January 2025	October 2025	
Budget	\$735M	\$828M*	\$823.2M	
The project is approximately 73% complete				

The project is approximately 73% complete

* Revised to include additional scope for Flushing signal removal and R-211 option

This project builds on the technology introduced in previous CBTC projects, notably the CBTC interoperability achieved on the QBL-W line, and, for the first time, introduced axle counters, in lieu of track circuits, to improve reliability and reduce maintenance and related life-cycle costs. Axle counters will also allow CBTC testing before the cutovers, reducing the cutover duration and associated risks.



Additional work orders were given for Flushing decommissioned signal equipment removal and for additional CBTC equipment to be installed on the additional R-211 trainsets that have just been ordered under the Kawasaki contract option.

The project is approximately 73% complete, based on payments. The prime contractor (LK Comstock) continues to work diligently with the C&D project team to resolve project issues as they arise.

Current activities include:

- Installation of wayside equipment continues, including radio equipment, fiber optic cable and the messenger wire that the cable hangs on, axle counter heads, transponders, and antennas
- Trackwork and switch replacement continues
- R-179 CBTC equipment being installed on the vehicles per plan; vehicle testing and acceptance ongoing
- R-211 Integration testing on the prototype car continues; CBTC equipment being installed on cars as they are being manufactured by Kawasaki
- A detailed axle counter implementation plan has been developed so that axle counters can be placed in service when the Solid State Interlocking (SSI) is cutover in 2023

Factors that may affect future project performance:

- R-211 vehicle production schedule revision impacts the 8 Av cutover and inservice schedule. The CBTC cutover sequence has been revised with NYCT Department of Subway's (DOS) support to mitigate schedule impact
- There are some technical dependencies from the QBL-W CBTC project (i.e. Siemens Data Communications System (DCS) radio issues and Thales R-160 inservice testing) that need to be resolved
- The project is experiencing concurrent delays linked to COVID, equipment delivery and car availability. Discussions are ongoing with the contractor to negotiate an extension of time

Queens Blvd Line West CBTC (QBL-W)

S48004-11 S48004-2 S48005 The project provides CBTC from Union Turnpike in Queens through 50 St/8 Av on the 53 St line and 21 St/Queensbridge on the 63 St Line. The project includes equipping 335 R-160 units with CBTC equipment. It also encompasses development and implementation of the technical foundation of the B-Division Automatic Train Supervision (ATS) that will allow centralized operation similar to ATS-A at the RCC. QBL-W is the first interoperable CBTC project implemented for NYCT, allowing trains with CBTC to run on the same line at the same time with carborne and wayside CBTC equipment from different suppliers (Siemens and Thales). This project will also provide the ATS for the B Division (ATS-B). Three separate contracts were awarded to deliver the project.



PROJECT STATUS	Original	Forecast
In Service CBTC	March 2021	February 2022 (actual)
Budget	\$663.1M	\$734.5M
LK Comstock (installer): 95% complete		

Siemens: 98% complete Thales: 96% complete

The project has already placed CBTC into service on all sections, with the last section having been placed into operation February 2022.

ATS-B is in-service, however the completion of some features prevents the transfer of operation to ATS-B at the RCC.

The team continues performance monitoring fleet stability and maintainability which are currently well below expectation. Siemens has deployed several software upgrades to correct this situation with mixed results, including deployment that had to be aborted due to regression. The performance is still far below contract requirements. Further updates to Siemens software will be necessary in 2023 in multiple waves to continue to address shortfalls in availability and reliability targets. This situation has been escalated within Siemens management. Daily meetings occur between the MTA and Siemens to monitor the corrective actions. Siemens management from Germany and France meets with MTA executive management monthly and will continue to meet until performance issues have been addressed.

Automatic Train Operation (ATO) is planned to be placed in service Q1 2023. Thales R-160 trains are still in testing and required carborne-radio interface issues to be addressed jointly by Thales and Siemens. The demonstration of R-160 trains by Thales is an important milestone necessary to build confidence in the software of multiple suppliers in an interoperable environment.

As reported in April 2022, overall project costs will exceed the budget primarily due to (1) late award of the installer contract in 2017; (2) required coordination between other MTA contracts, including piggybacking opportunities; (3) late equipment from suppliers in part due to Covid delays; and (4) insufficient initial allocation of Force Account (FA) and Transit Authority Labor (TAL) funds. C&D will report on final cost projections once the effectiveness of the current software updates has been determined.

Culver Line CBTC

5-47009 S-32398 S-32399 M-44431 S-87055

Culver Line signal modernization will improve reliability and resiliency of service between W 8 St and Church Av in Brooklyn by modernizing signals, upgrading interlocking systems and equipment facilities, and making needed station improvements. The new signaling system will employ CBTC and add three new signal facilities at Ditmas Av, Bay Pkwy, and Avenue X. This project will improve service along 4.7 route miles of subway track for 12 subway stations. This project includes significant special track work on the elevated structure.

Unlike the QBL line, which includes separate contracts for suppliers and installers, this project adopted a single combined contract for the installer and supplier. Tutor Perini was

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selected in 2019 as the primary contractor and installer, with Siemens as their CBTC supplier for signaling and CBTC technology.

PROJECT STATUS	Original	Forecast	
Substantial Completion	August 2022	August 2024	
Budget	\$482M	\$469.3M	
The project is approximately 83% complete			

Recent accomplishments:

- Avenue X signal building placed in service
- Breakdown testing at Ditmas Av relay room completed
- Fire alarm subsystem testing completed at Ditmas Av

Ongoing activities:

- Breakdown testing at Bay Pkwy
- Continue building subsystem testing for Ditmas Av and Bay Pkwy signal buildings

The project includes the use of special ties that have an extended life but require special processing with an overall lead time of 18 months. This was not properly surveyed, and significant rework is needed. The contractor has placed the Avenue X solid state interlocking in service and is in process of re-fabricating the special ties that will be installed in 2023 and 2024. Unfortunately, for the other interlocking at Ditmas Ave, the special track work needs to be completed before the signal modernization can be undertaken. This has resulted in a projection of a 24-month delay.

C&D has worked with the NYCT DOS to find solutions and mitigate the impact of the special track work on the 100-year-old elevated structure. Installation of Avenue X Special Work Portion (SWP) will be done after completion and delivery of associated division work required to place the SSI and CBTC in service. Installation of new track at Ditmas SWP is required before the CBTC in-service date.

As a result of the reworking of the trackwork at Ditmas Avenue, and due to the long lead time for fabrication of new Fiber-reinforced Foamed Urethane (FFU) ties, the project schedule forecasts a 26-month delay. This rework is currently disputed and has been filed for arbitration.

Queens Blvd Line East CBTC (QBL-E)

S48010 S48017 S87055 The project will provide CBTC systems from north of Union Turnpike to 179 St Station on the QBL (Hillside Av) Line (F). The new signal system shall be CBTC with SSI and ATS. Axle Counter Systems (ACS) shall replace track circuits north of Union Turnpike Station to 179 St Station.

Under this project the following four interlockings will be modernized:

- 179 St
- 169 St
- Parsons Blvd (Hillside Av)
- Briarwood

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PROJECT STATUS	Forecast		
Substantial Completion	O2 2026		
Budget	\$542.6M		
EJ Electric (installer): 10% complete - awarded December 2021 Mitsubishi (CBTC supplier): 15% complete - awarded December 2021 Siemens (DCS): award in-progress			

Two separate contracts have been awarded to deliver the project: installer and CBTC supplier. The DCS is in negotiation. It can be noted that MTA has sufficient spares to advance the work and mitigate late long lead items deliveries.

At Union Turnpike interlocking, full CBTC functionality shall be placed in service under this project (only the south end of Union Turnpike interlocking currently has CBTC functionality).

This project will further expand the interoperability demonstration from two to three CBTC suppliers, adding Mitsubishi to Siemens and Thales.

Since award, both Mitsubishi and EJ Electric continue to advance existing condition surveys and prepare and agree upon up front on a detailed cutover plan which is a key lesson learned from the previous projects. However, the integrated schedule has not been approved yet. It is critical to plan the job in detail including software releases and adequately address the coordination between the installer, CBTC supplier, and radio supplier. Resolving this issue is a priority for the MTA project team.



NYCT Bus Radio System

NYCT Department of Buses (DOB) has more than 6,000 buses and non-revenue vehicles utilizing an antiquated radio communications system that is more than 30 years old. This project will provide a new digital radio system for state-of-the-art communications between the fleet, the newly constructed Bus Command Center (BCC), and 37 new base radio sites (including newly added sites at Yukon and Meredith Bus Depots), constructed as part of this contract. The new base radio sites are constructed in the Bronx, Brooklyn, Manhattan, Queens, Staten Island, New Jersey, and Yonkers for complete coverage of the MTA bus service area.

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

PROJECT STATUS	Original	Forecast	
Substantial Completion	January 2021	December 2023	
Budget	\$267M	\$330M	
The project is approximately 69% complete			

Project Performance

In the past six months, since our last report to the committee on this project in March 2022, we are pleased to report noteworthy progress. While the overall percentage completion of the project has not advanced much, confidence in the project's overall performance has substantially improved and the project now has a clear trajectory to substantial completion.

Over the past six months the prime contractor (Parsons) has made significant strides to stabilize the new radio system technology, has provided confidence in the technology performance, has provided full transparency in fault diagnosis and resolution, and most significantly has successfully demonstrated, through a 30-day 200 bus pilot program, that the system is operable.

While there remain potential issues to be addressed as the scale of the new radio system grows, C&D is confident enough in the system to allow Parsons to begin the installation program across all 6,000+ buses in the fleet. Parsons commenced bus installation rollout in Brooklyn and is presently training personnel and working on logistics to ramp up to a program of bus installations simultaneously in 10 depots in early 2023.

At this point, the projected end date for full installation on all buses is dependent on the pace of installations which is being currently established in the field. Parsons recently submitted a revised project schedule forecasting a May 2024 completion date, which is predicated upon an expedient ramping up of bus installation teams. This schedule is under review by C&D and NYCT DOB but there remain major concerns that



Parsons and their installation company will not reach the required installation rate by the end of this year with potential for further delays ahead.

Bus Command Center (BCC)

The BCC is complete with all equipment installed and operational. The 220 buses that were upgraded with new radio equipment are being dispatched and operated from the new facility. This includes buses in Staten Island, Brooklyn, and the Bronx.

Radio Sites

Currently 34 of the 37 new base radio sites (including two supplemental base stations in Staten Island, currently in the design phase to address gap coverage) are under construction and are anticipated to be substantially complete in 2023. Although not yet deemed substantially complete, 30 are functional. Notable issues at the one site in Kearny, NJ remain to be resolved with details related to energy code, permits and equipment ordering taking too long to be addressed by Parsons.

Bus Prototyping

Parsons is in the process of preparing manuals for the installation of the new radio in all the different types of buses. Each bus requires its own bespoke manual and its approval by NYCT DOB is required to ensure overall compliance. Due to the lack of ramping up of installation teams, prototyping is also subject to delay.

November 2022 CPC Independent Engineering Consultant Project Review

Communications-Based Train Control (CBTC) Projects:

- 8th Avenue CBTC
- Queens Boulevard Line West CBTC
- Culver Line CBTC
- Queens Boulevard Line East CBTC

MTACD Signals & Train Control Business Unit



November 2022 CPC Independent Engineering Consultant Project Review

8th Ave Communications Based Train Control (CBTC) - Design, Furnish, & Install Program

MTACD Signals & Train Control Business Unit



Scope

The project scope consists of supply and installation of a Communication Based Train Control (CBTC) system on the 8th Ave Line from south of the 59th Street interlockings in Manhattan to High Street Station in Brooklyn.

The new CBTC system ties into the Queens Boulevard Line (QBL).

This project includes replacement of the 30th Street and 42nd Street North interlockings with processor-based (solid state) signals and the decommissioning of the 42nd Street South Interlocking.

It includes the design, supply, and installation of an Axle Counter System (ACS) which will replace the traditional track circuits.

Also, the project is responsible for the supply and installation of carborne systems for the R179 and R211 subway cars and the installation of Data Communications System (DCS) equipment supplied by Siemens through NYCT via a separate contract.

The purchase for onboard CBTC equipment for the 640 R211 option 1 cars has been added to the project scope.

In addition, removal of the legacy signal system on the Flushing line, which has been completed, was added to the scope.

The original contract was awarded to L. K. Comstock (LKC) as the prime contractor in January 2020 with Siemens providing the Auxiliary Wayside Systems (AWS) and CBTC Wayside Equipment with a duration of 60 months, resulting in Substantial Completion (SC) in January 2025.



Schedule

- The Contractor's schedule, which has not been approved by the Project Team, reflects that CBTC Supply, Installation and Pretesting activities are projected to be late and the Project Team and the Contractor are negotiating an extension of time.
- Concurrent to the 8th Avenue project delay, the R211 Project Team has advised that car delivery required for CBTC in-service cutover is delayed until January 2025. In-service testing is anticipated to be completed October 2025.
- Based on the IEC's analysis of current and historical Kawasaki rail car deliveries as well as the time required for resolution of quality issues, we find the projected average vehicle delivery rate for the base order of 20 cars per month optimistic, and that a lower delivery rate is probable, resulting in risk of further delay.



Budget Review

- The Project's Budget and Estimate at Completion (EAC) are \$828M, an increase of \$54M since our April CPC report, which includes procurement of the onboard CBTC equipment and other items for the R211 option cars.
- Based on our review of project expenditures, contingency, reserve, soft costs, and change orders, the IEC agrees there are sufficient funds in the budget to complete the project.



Observations

- The project has developed a detailed axle counter implementation plan, which has been approved by MTA C&D. However, operating plans, operational procedures, training manuals, and courses for resetting of the Axle Counter System (ACS) block after a failure condition have yet to be finalized and approved by Independent Safety Assessor (ISA). These steps must be completed prior to placing the 42nd Street interlocking in service in July 2023, which is a contractual milestone.
- Siemens needs to update the R179 onboard software in order to complete the Dynamic PICO testing by April 2023. If this date is not met, it may impact the CBTC testing.

Concerns

- Post Installation Check Out (PICO) testing of the onboard CBTC equipment on the R211 occurred on 10/15/2022 was not completed and will require additional vehicle access to complete. The stakeholders are working on a resolution.
- As stated in the April 2022 report, it is essential that radio signal-to-noise ratios be analyzed to avoid communications issues that were found on QBL West.
- The contractor has not provided a detailed plan for software releases to enable C&D to effectively manage software testing and deployment.



Risk

- Further delays to the R211 Program may impact the CBTC 8th Avenue Project.
 - Biweekly meetings are being held to identify issues early and develop plans to resolve them.
- Future flagging protection and/or diversions to support construction activities and CBTC testing continue to be a risk to the project.
 - The project team, NYCT Operations Planning, and the contractor meet regularly to coordinate the project needs for NYCT services.
 - In the IEC's opinion, this issue is being effectively managed.



November 2022 Independent Engineering Consultant Project Review

Queens Blvd. Line (QBL) West Communications Based Train Control (CBTC) Design, Furnish & Install

MTACD Signals & Train Control Business Unit



Project Scope

The QBL Communications Based Train Control (CBTC) project will provide design, material, and labor for a complete CBTC system overlay on the Queens Boulevard Line from north of Union Turnpike to south of 47-50th Street on the 6th Avenue Line (F) and to 50th Street on the 8th Avenue Line (E).

Centralized Traffic Control is provided by an Automatic Train Supervision System (ATS) designed to monitor and control train service for the entire B- Division.

To implement the project, three contracts were awarded in 2015-2016: Siemens and Thales for the design, supply, test, and commission of the CBTC system, and L. K. Comstock (LKC) for the supply of the Auxiliary Wayside Signal (AWS) equipment, installation of AWS and CBTC equipment, and removal of existing wayside signal equipment.

The project will also validate the Interoperability Interface Specifications (I2S) in revenue service operation. The validation will ensure that CBTC subsystems provided by different suppliers can operate together in a safe and reliable manner.

The project scope was expanded to include the extension of the Automatic Train Supervision (ATS) system to monitoring and control of the entire B Division, interface to the Large Screen Displays in the Rail Control Center (RCC), and the supply and installation of Carborne equipment for 13 R160 trains to be used on the 8th Avenue CBTC Project.



Schedule

- The project achieved full CBTC operation in February 2022, on the entire QBL West line.
 - Although CBTC was fully deployed, system stability has not been achieved, as explained in the Observations page.
- LKC Contract Substantial Completion (SC) was achieved on schedule in July 2022. This is a significant achievement, given the many changes in the cutover plan and associated mitigations.
- Thales Contract Substantial Completion was declared in August 2022, before a resolution of remaining technical issues affecting the Zone Controller (ZC) and Carborne Controllers (CC) subsystems (See observation slide).
- Siemens Contract SC is projected for second quarter of 2023, provided that service stability is achieved, core Automatic Train Supervision (ATS) functions are fully developed, Automatic Train Operations (ATO) is implemented, and remaining commercial issues are resolved. However, work on ATS will continue through the fourth quarter of 2023.
- Based on the terms and condition of the Design & Furnish contracts, SC should be declared only after all specified work is completed.



Budget Review

- The total project Budget is \$667M (for the furnish and install contracts). The current project Estimate at Completion (EAC) increased to \$746M, a budget shortfall of \$79M, due to overspending in TA Labor (TAL) and Engineering Force Account (EFA). Project delay and the need for repeated testing due to software and hardware issues contributed to the overspending.
- In the IEC's opinion, the current project EAC will continue to increase, due to additional TAL and EFA needs to bring the project to completion.



Observations

- CBTC System Stability:
 - The QBL CBTC System continues to experience daily incidents, which require the use of the bypass mode of operation to maintain passenger service.
 - The number of daily incidents ranges from 6 to 20 and are caused mainly by onboard communication interruptions, double failures of Siemens Zone Controllers (ZC) and Thales ZC software issues in the 71st Continental area (contributing 2 to 3 incidents per day).
 - Siemens wayside CBTC installations are experiencing single failures, which are not impacting service due to redundancy.
 - Siemens has made software modifications to its Carborne Controller (CC) and Carborne Radio Equipment (CRE), which has improved system performance. More software releases are planned to address remaining issues.
 - Thales equipped trains continue to experience operational issues. They are not authorized to operate in passenger service. Thales is currently testing a software release to address these issues, which will be deployed in January 2023.
 - The Project team has taken steps to enforce the Reliability, Availability and Maintainability (RAM) requirements, which have not been met by the CBTC suppliers.
- Interoperability:
 - Good progress was made in the validation of interoperability functions between Siemens and Thales. However, full interoperability cannot be validated until the issues with the Thales onboard equipment are resolved.
- As previously stated, Siemens is progressing its development and deployment of ATS software, which is scheduled to be completed by December 2023.
 - Siemens needs to provide a development tool by January 2023, to enable other CBTC suppliers to extend ATS functions to other lines.



Concern

- While the CBTC suppliers have made progress towards resolving technical issues affecting stability, the IEC is concerned about the length of time they are taking to resolve all technical issues affecting train service.
 - An effective plan to resolve all issues affecting service stability is needed upon the identification of all root causes for service interruptions.

Recommendation

As recommended to the Project Team, and given the number of hardware and software failures, the Project Team and CBTC Suppliers in consultation with Service Delivery should define and document acceptable metrics at the system and sub-system level that would lead to system stability, and develop a roadmap on how to achieve them.



CBTC – IEC Recommendations / Observations Log

Recommendations Agency Response / Action Status (Applies to all CBTC) Based on radio test results, 1. We agree that this topic needs to be Closed which found a significant level monitored closely of radio interference and to 2. On the QBL-W project, the recurring sources ensure reliable radio of interference have been identified (Piper communications, the Beacon and TW station WiFi) respective contractors for all 3. Siemens does not find any indication of CBTC lines should be directed impact on operation from these to perform an analysis of interferences signal-to-noise on to establish 4. However, because of the bugs on the CRE a basis for reliable radio design, so as not to delay the and CRDU boards, Siemens details completion of the projects. diagnostics information are not useable and further detail analysis is not possible as long as these issues are not corrected 5. Siemens should be able to run a test on Culver 6. A radio survey has been performed for Culver and will allow to correlate the results. 7. A radio survey has been added in the DCS Radio Task for QBL-E 8. As all this should happen in the next 4 months, we want to gather those results to guide us on the best way to continue to address this question and possibly take remedial preventive actions beyond analysis and surveys



November 2022 CPC Independent Engineering Consultant Project Review

Culver Communications Based Train Control (CBTC) - Design, Furnish, & Install Program

MTACD Signals & Train Control Business Unit



Project Scope

The contract was awarded to Tutor Perini Corporation (TPC) in February 2019, with an initial duration of 42 months (to August 2022), to equip the Culver Line from Church Ave. station to West 8th Street station with a Communication Based Train Control (CBTC) system. The CBTC Wayside and Auxiliary Wayside System (AWS) equipment is supplied by Siemens and installed by Five Star Electric (FSE).

The project also includes:

- The construction of three new relay rooms at Avenue X, Ditmas Avenue, and Bay Parkway as well as modernization and commissioning of the interlockings associated with these relay rooms.
- The replacement of track work on certain portions of Church Avenue, Avenue X, and Ditmas Avenue and a CBTC system overlay between West 8th Street and South of Church Avenue, on the Culver Line.
 - The special track work included the surveys and production of track ties compatible with the contract profile of the tracks in the Avenue X and Ditmas Avenue areas.



Schedule

	Contractor Substantial Completion (SC)	Variance to Baseline SC	IEC Forecast
Baseline Schedule	August 2022		
April 2022 Report	November 2023*	15 months	~18 months
September 2022 Schedule Update	October 2024*	26 months	26 months

^{*} C&D has not approved any contractor schedule submittals.

- In our last report (April 2022), the contractor forecasted a 15-month delay to Substantial Completion (SC) due to the manufacture of the incorrectly sized track ties, which failed to meet elevated structure profiles in the Avenue X and Ditmas Ave areas.
 - The prior solution of modifying these ties on site was evaluated and subsequently rejected in favor of fabricating custom ties.
- The contractor's schedule delay has increased by an additional 11 months due to both the fabrication of these new track ties and the resequencing of the CBTC in-service testing, which now will occur after completion of special track work at Ditmas Avenue.
 - While this introduced a project delay, the IEC concurs with this action as it eliminates rework and reduces risk.
- In the IEC's opinion, if all necessary track material is delivered and TA resources are available, the project can meet SC by October 2024.



Budget Review

- The project's Budget and Estimate at Completion (EAC) are \$482M and remain the same since contract award. The construction contract is 82% complete based on payments to date.
- The IEC has the opinion that the remaining budget (including contingencies and reserves) is sufficient to complete the project as currently planned.
 - However, there are claims currently in arbitration, which may impact the EAC.



Observations

- The Project successfully placed the Avenue X Solid State Interlocking (SSI) inservice in June 2022, which will be followed by Ditmas Avenue SSI once the construction of the new relay room is complete and the SWP is completed which is currently underway.
- CBTC Cutover will take place in 5 sections and is now planned for March 2023 to August 2024.

Concerns

- Since trains operating on QBL West are used for Culver as well, the onboard equipment issues currently being experienced on QBL W Line must be resolved by the start of the cutovers in March 2023, to avoid impacting the cutover of the Culver line.
- The contractor has not provided a detailed plan for software releases to enable C&D to effectively manage software testing and deployment.

Risk

- External and uncontrolled Radio Frequency (RF) sources on Culver's elevated tracks could interfere with CBTC radio communications.
 - Mitigation The Project Team should carry out signal to noise ratios evaluation as previously recommended.



November 2022 CPC Independent Engineering Consultant Project Review

Queens Blvd. Line (QBL) East Communications Based Train Control (CBTC) Design, Furnish & Install

MTACD Signals & Train Control Business Unit

Project Scope

- This project includes three individual contracts: system integrator and CBTC furnish contract to Mitsubishi, installation of wayside equipment contract to E-J Electric, and a Data Communications System (DCS) to Siemens (which has been funded through a separate contract).
 - Note: This is Mitsubishi's first major Communications Based Train Control (CBTC) project with MTA.
- The project replaces the existing fixed block relay-based signal system from north of Union Turnpike to the 179th Street Station on the Queens Blvd Line (Hillside Ave Line (F)) with a CBTC system. The new system will also include Solid State Interlocking (SSI) and Automatic Train Supervision (ATS). The CBTC system will be integrated with an Auxiliary Wayside Signal (AWS) installation that will provide signal protection during degraded modes of operation. Similar to 8th Ave an Axle Counter System (ACS), provided by E-J Electric, to replace track circuits.
- Under this project the following four (4) interlockings will be modernized:
 - 179th Street
 - 169th Street
 - Parsons Blvd. (at Hillside Ave)
 - Briarwood
- When completed full CBTC service will be provided from Union Turnpike to 179th Street.
 - ATS, originally provided in the QBL West project, is extended in this project, to control the entire QBL line. Configuration of ATS for the QBL East territory will be carried out by Mitsubishi.



Schedule

- Both the CBTC furnish, and installer contracts were awarded in December 2021 and with CBTC in-service scheduled for completion in November 2025.
- The Data Communications System (DCS) task order to Siemens has not been awarded.
 - While the Project Team has indicated that the DCS Contractor is providing technical support for radio surveys and design activities, DCS equipment cannot be delivered until a task order is executed.
- An Integrated Project Schedule (IPS), a crucial project management tool, is not currently being produced by the Project Team, for the following reasons:
 - Unacceptable schedule submissions from Mitsubishi and E-J Electric.
 - Input from Siemens on the (DCS) and from Hitachi on the AWS design and manufacturing is necessary to complete the IPS.
- Overall Project is 7% complete based on payments with 21% of the time elapsed. This is consistent with the fact that all contracts have not been finalized for this project.
 - The IEC finds that the continued delay in the award of the DCS Task order and the late approval of the Hitachi sub-contract may have a negative impact upon project schedule.

Budget

The project's Budget and Estimate at Completion (EAC) of \$539.5M has remained the same since contract award. The budget breakdown per contract is as follows:

Project Description	Contractor	Budget
Installer	E-J Electric	\$440.5M
CBTC Supplier	Mitsubishi	\$88M
DCS Supplier	Siemens (Pending)	\$10M

The IEC finds that there are sufficient funds in the budget to complete the project as currently planned.

Observation

- Siemens is still developing the software expansion tool used to configure ATS under the QBL West CBTC Project, and Mitsubishi has indicated that they require this tool by January 2023 before impacting the configuring of the ATS.
 - This tool is essential to support in time the Mitsubishi ATS database development.
 - Track access was challenging through the summer however, access has been granted since October 2022.
- A Parsons Task Order for the Project Management Contractor (PMC) was recently awarded to expedite the review and approval of submittals.

Concerns

■ The contractor has not provided a detailed plan for software releases to enable C&D to effectively manage software testing and deployment.

Risks

- The top project risk and its mitigation are:
 - As reported in April 2022, while Mitsubishi has qualified its system, it now must finalize the software to interface with Solid State Interlockings (SSIs) and integrate with Siemens and Thales onboard equipment. There is a risk that this development effort may take longer than scheduled.
 - Identify development issues and participate in the I2S Working Group to ensure that Mitsubishi has the same requirements understanding.
 - In the opinion of the IEC, if Mitsubishi identifies development issues early, through audits or other means, then a successful mitigation could be developed.
- The Risk Assessment has not been updated to reflect post-award risks, an industry best practice. The IEC believes this best practice should be followed.

SYSTEMS Business Unit TLR Summary

- The Systems Business Unit is comprised of public facing customer communication improvement projects, including the installation of countdown clocks, help points, transit wireless cellular service, digital screens, public address and customer service information systems as well as technology and software upgrades installed at power substations throughout the transit system.
- 14 Systems projects were reviewed for the third quarter 2022 TLR:
 - 2 in Design
 - 0 in Post-Design to Construction
 - 12 in Construction
- Of these:
 - 9 (64%) were designated Green
 - 1 (7%) was designated Red
 - 4 (29%) triggered variances in prior quarters

For the 1 project that triggered a Key Performance Indicator (KPI) in the third quarter, it triggered Red for both Schedule and Cost variances.

For the designated Red project, The Replacement of Fire Alarms at 15 locations, C&D prepared a brief variance report that summarizes the problems encountered and the corrective actions taken. Project inspections were impacted by manpower constraints and the budget affected by scope changes.



November 2022 CPC Independent Engineering Consultant Project Review

Bus Radio System

MTA C&D Infrastructure



Scope of Work

- Bus Radio System (BRS) is a Design Build project that replaces the NYCT and MTA Bus analog bus radio system. The BRS contract award amount of \$202M was issued to Parsons Transportation Group, with Notice to Proceed in March 2016 and Substantial Completion (SC) date of January 2021.
- BRS is a fully integrated digital bus radio system that provides for voice and data communications for all NYCT and MTA Bus operators and field supervisors.
- Project includes:
 - Installation of 37 base stations throughout the five boroughs, Yonkers and Kearny, New Jersey.
 - Outfitting approximately 6,000 buses and 250 non-revenue vehicles with new radio equipment.
 - Installation of a fully equipped Transition Center (TC, completed).
 - Equipment installation at the Rail Control Center (RCC, completed)
 - Outfitting the new Bus Command Center (BCC) with bus dispatch consoles and radio equipment hardware and software to support voice and data communications between the BCC and individual or groups of buses (completed).
 - Full integration and testing of all base stations, buses, and the BRS network.



Schedule - Buses

- While original contract completion was January 2021, significant work remains such as completion of remaining base stations, completion of approximately 5,800 bus equipment installations, and testing and commissioning of the system. The Project Team continues to be aggressive in driving the contractor to complete before its forecast of May 2024.
 - Bus production installation commenced on October 31, 2022.
 - 224 buses have been completed and are in revenue service.
- While there has been little change in overall percent complete of the project, some progress has been made in areas such as prototype installation of additional bus types, streamlining operational processes and procedures, improving configuration management system, correction of software bugs, and progress in system integration.
- Completion of pilot testing was a requirement for starting bus installation.
 - The 30-day pilot test for 200 buses that was planned to be complete by May 2022 was completed on October 22, 2022, due to technical failures that needed to be corrected.
- There are over 30 bus types with prototype installation remaining for approximately 20 bus types. Remaining prototype installation continues with support from Department of Buses (DOB).
 - To achieve contractor's May 2024 SC forecast, an average of 350 bus installations per month must be completed.
- The latest plan is to perform production installation at 5 depots by early December and expand to 10 locations by January 2023. In the IEC's opinion, the installations can be completed by May 2024 provided rampup plan can be achieved as planned.



Schedule – Base Stations

- Contractor schedule shows site installations to complete in October 2023, a
 2-month delay since our last report in March 2022.
 - 29 locations including TC and RCC complete with as-built drawings, final testing, and punch list items in progress
 - 4 locations over 90% complete with gas connections and/or air conditioning installations in progress
 - 6 locations are in earlier stages of construction
- The IEC's analysis of remaining work indicates bus installation is driving the critical path, due to 6-month delay in completion of pilot testing.
- The IEC forecasts beneficial use of the system by 2Q 2024 followed by substantial completion, provided risks associated with radio coverage issues and system failures that would require design modification are mitigated.



Budget

- Current total budget is \$294M, with the project's Estimate at Completion (EAC) of \$330M to cover additional Force Account and CCM costs.
- The IEC continues to forecast an EAC of \$350M due to impact of delays, change orders, and risk on remaining work.
 - Project is over budget and need to address the Force Account and CCM cost overrun.



Risks and mitigations

- Risk Bus installation production remains the highest risk to project schedule. Contractor has experienced turnover in bus installation subcontractors, which adds to the risk.
 - Mitigation A new subcontractor has been bought onboard but needs to quickly get trained and should be able to provide the required number of qualified and skilled staff needed for this work. DOB is committed to making 20 buses per day available for the projects use towards the project goal of a May 2024 substantial completion.
 - While the new subcontractor's performance has yet to be proven the IEC supports the introduction of a new subcontractor who is committed to complete the bus installation work.
- Risk Issues regarding system performance and reliability have already impacted and continue to impact project schedule.
 - Mitigation Close coordination by all stakeholders to analyze issues, find root causes, and agree on corrective actions.
 - In the IEC's opinion, above measures mitigate the risk, however, any issues requiring design modification identified when the system is fully stressed and tested could cause a delay to the project.
- Risk Insufficient radio coverage is a risk to meeting contract service requirements.
 - Mitigation The contractor will install additional base stations in Yukon and Meredith bus depots to provide the required coverage in Staten Island.
 - In the IEC's opinion, above measures mitigate the risk for Staten Island coverage however field testing is required once all boroughs are placed in service.



Risks and mitigations (continued)

- Risk Risk of failures due to insufficient height (80 ft.) of the Todt Hill temporary tower.
 - Mitigation This risk has been mitigated by using the existing 140 ft. tower, which has been determined to be of sufficient structural integrity for use in the new BRS.
 - The IEC agrees with the mitigation as the old radio equipment will be replaced with new, lighter BRS equipment with no additional load on the tower.
- Risk Failures due to software changes that have not gone through full system testing.
 - Mitigation Contractor to follow industry best practices such as full system testing in a controlled environment prior to any software update to BRS. In addition, Change Control Board (CCB) processes are now being followed by the contractor and MTA stakeholders to validate and approve all changes.
 - The IEC agrees with the measures being undertaken to mitigate this risk.
- Risk Schedule delays due to lack of proper resources provided by the contractor.
 - Mitigation Contractor is attempting to fill the necessary positions.
 - In the IEC's opinion the contractor needs to increase resources until it can achieve the planned production installation.



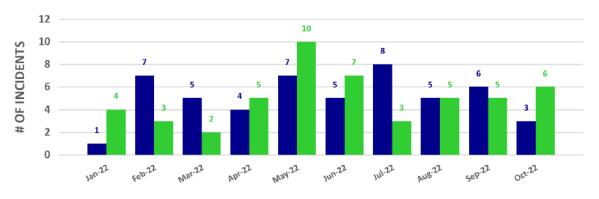
Observations

- Workshops are conducted to improve prior deficiencies in contractor's configuration management processes in order to achieve optimum BRS reliability and performance.
- There is a significant level of support required by the MTA to help the contractor complete the project.





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



SAFETY NARRATIVE

YEAR-TO-DATE TRENDS FOR MTAC&D:

- REPORTED LOST TIME INCIDENTS 3 (OCTOBER)
- REPORTED RECORDABLE INCIDENTS 6 (OCTOBER)
- REPORTED YTD LOST TIME INCIDENTS 51
- REPORTED YTD RECORDABLE INCIDENTS 50

Hazards 2022	Lost Time	Recordable	First Aid	Notification Only	Grand Total	% to Grand Total
Struck By/Against	11	19	33	16	79	29.0%
Slip, Trip, Fall	19	8	20	17	64	23.4%
Sprain/Strain	13	6	22	10	51	18.7%
Other	1	6	23	9	39	14.3%
Caught in Between	5	11	17	4	37	13.6%
Electrical	2	0	0	1	3	1.0%
Totals	51	50	115	57	273	100.0%

- LOST TIME TRENDS Slip Trips and Fall have the highest number of reported incidents with a total of (19) 37%
- **RECORDABLE TRENDS** Struck by/Against incidents have the highest number of reported incidents with a total of (19) 38%
- SERIOUS INCIDENTS YTD Total of 12
 - FALLS 5; Includes Falls from Ladders and Scaffolds
 - **STRUCK BY –** 4; Various material or equipment striking personnel
 - LACERATIONS 2; Using Circular and Demo Saws
 - **ELECTRICAL SHOCK** 1 Occurrence resulting in 2 injuries

LONG TERM TRENDS

- Compared to October 2021, reported Lost Time Injuries have dropped 80% (15 to3) and reported Recordable Injuries have dropped 45.5% (11 to 6) during October 2022.
- The YTD reported Lost Time Incidents are 32.0% lower, while the reported Recordable incidents are 4.2% higher than last year.
- The calculated LTIR has decreased by 1.6% from the previous month, while the TRIR has remained the same. The calculated LTIR has reduced by 3.2% over the last two months from the previous high reported in July 2022.
- The YTD LTIR Average is 27% lower than last year, and the YTD TRIR Average is 11% lower.
- While the calculated work hours have dropped approximately 28%, the LTIR has been trending downward since July, while the TRIR has remained level during August and September.

C&D SAFETY SUMMARY

SAFETY SUMMARY



INSPECTIONS & AUDITS:

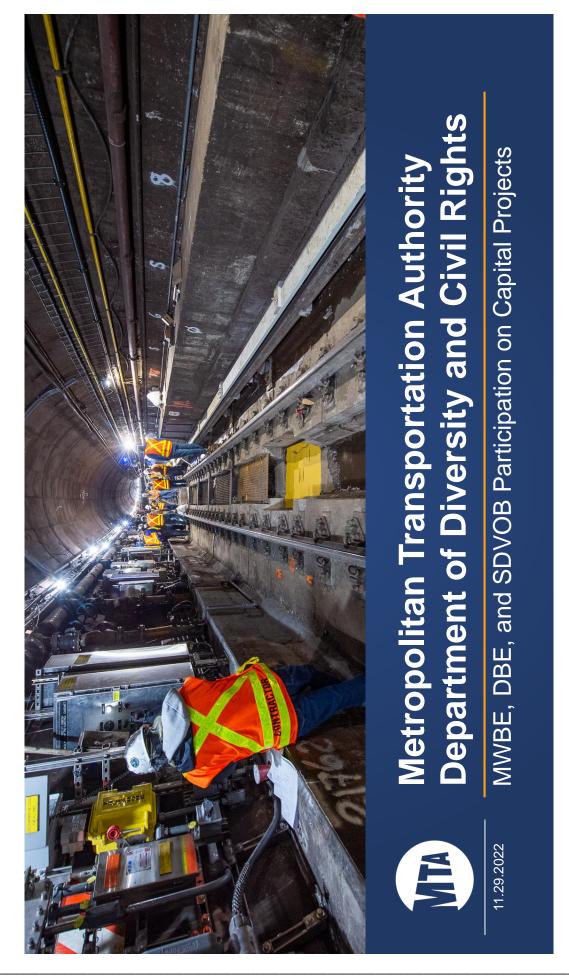
- OCTOBER INSPECTIONS:
 - **INTERNAL** 223
 - EXTERNAL 591 (98 Third-Party Safety Consultants; 493 OCIP Visits)
- YTD TOTAL # OF INSPECTIONS:
 - **INTERNAL** 1633
 - EXTERNAL 4580 (1192 Third-Party Safety Consultants; 3388 OCIP Visits)
- **NEGATIVE OBSERVATIONS** Identified through the various inspections include Housekeeping, Fall Protection, Barricades & Enclosures, and Stairs/Ladders.
- **POSITIVE OBSERVATION(S)** identified through the various inspections include Fire Protection/Prevention, Ladders & Stairs, Tools (Hand & Power), Supervision/Organization

INVESTIGATIONS & LESSONS LEARNED:

- NUMBER OF INVESTIGATIONS OCTOBER 0
- YTD NUMBER OF INVESTIGATIONS 9. One (1) of these remains OPEN under the System Safety Office of the respective MTA agency
- LESSONS LEARNED 4 have been distributed
 - o Property Damage (PD) Fire
 - Grinder (LT) Laceration
 - o Laceration (LT) Deep wound laceration
 - Ladder Fall Dislocated shoulder (LT)

MTAC&D SAFETY STRATEGIC INITIATIVES:

- Safety VP of Safety continues outreach with PMC/CCM consultant companies as part of the performance assessment initiative. Current meetings center around the PMC/CCM consultant companies' safety teams and their approach to safety oversight, compliance as well as reporting strategies on MTA C&D projects
- Safety Staffing continues to be a high priority. Interviews continue for the selection of Safety candidates to fill critical roles in the organization.
- Safety Continuing work with procurement on an RFP for independent 3rd party Safety Inspectors to augment the current staffing shortages and looking to provide additional services to the current B&T inspection program as a short-term measure to allow for increased oversight inspections.
- AECOM Safety Assessment Initiative The initiative continues to progress. The draft of the report is under Technical
 Review by the AECOM team. Additional inspections of the various levels of SBMP projects are being coordinated. The
 Digital Solution component of the initiative has been looped into a similar ESS initiative currently being developed for
 LIRR, MNR, and NYCT. All stakeholders are working with IT, Procurement, and Legal to identify commonality and create
 a unified Scope of Work (SOW).



MWDBE and SDVOB Participation on MTA Capital Projects with Goals*

Federal DBE Participation Goal: 20% Federal Fiscal Year 2022 (October 2021 to September 2022)

Total Awards: \$2B

Total DBE Awards: \$160M (7%)**

Total DBE Payments: \$126M (17%)

**Total does not include TBDs on Design-Build contracts.
If included, the total would increase to \$450.8M (20%)

New York State MBE Participation Goal: 15%

First and Second Quarters of NYS Fiscal Year 2022-2023

(April 2022- September 2022)

Total Awards: \$61M Total Payments: \$723M Total MBE Awards: \$17M (28%) Total DBE Payments: \$108M (15%)

New York State WBE Participation Goal: 15%

First and Second Quarters of NYS Fiscal Year 2022-2023 (April 2022- September 2022)

Total Awards: \$61M Total Payments: \$723M Total WBE Awards: \$4M (7%) Total DBE Payments: \$105M (14%)

New York State SDVOB Participation Goal: 6%

First and Second Quarters of NYS Fiscal Year 2022-2023 (April 2022- September 2022)

Total Awards: \$57M Total Payments: \$281M Total WBE Awards: \$2M (4%) Total DBE Payments: \$4M (1%)

Report is based on original contract amount provided by MTA agencies for third party design and construction contracts (excluding rolling stock and signals)

Matropolitan Transportation Authority

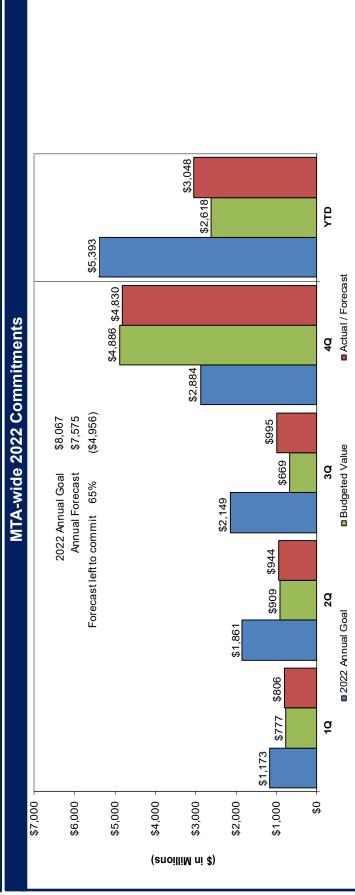
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MTA Capital Program Commitments & Completions

through October 31, 2022



Capital Projects – Commitments – October 2022



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.

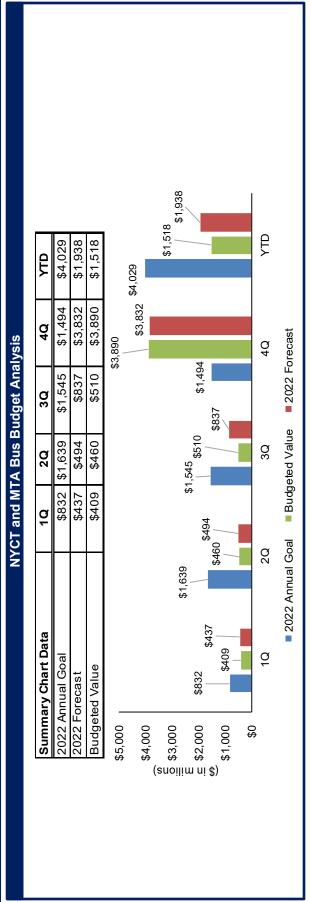
Forecasts: The updated estimates by quarter for remaining goals as well as any unplanned commitments that might occur during the year. **Budget:** The budgeted value assumed in the capital program for the Actual and Forecasted commitments being tracked during the year.

Commitments Summary

In 2022 the MTA plans to commit nearly \$8.1 billion worth of capital projects. Through October the MTA has committed \$3.0 billion versus a \$5.4 billion year-to-date goal. By year's end the MTA currently projects committing over 100% of its annual goal, with over \$4 billion projected for commitment in the 4th quarter as well as nearly \$2 billion of capital investments previously approved by the MTA Board in October still to be awarded Delayed major commitments for the first three quarters of the year are identified and explained on the following pages. Any additional delays will be explained when the fourth quarter results are shared.

MR Metropolitan Transportation Authority

NYCT/MTA Bus Capital Projects - Commitments - October 2022 - Budget Analysis and Schedule Variances



Q3 Schedule Variances

Project

Project	Commitment	Actual	Forecast
6 NYCT/MTA Bus Amber (commitments (0	new this qua	rter)
Amber delays are within 2 months of goal.	s of goal.		
line Office			

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

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

Facilities

Mar-2	58.4 \$ 58.4	questions and	s to the contract	
Feb	æ	ed to respond to q	technical changes	
Construction		ue to additional time need	posers, which required	
Tiffany Central Warehouse		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	opening of

9 NYCT/MTA Bus Red Commitments (0 new this quarter) Red delays are beyond 2 months of goal. Superstorm Sandy Restoration and Mitigation	this quarter)	
Sandy Mitigation: Rockaw ay Line Construction	Jun-22 Dec-22	.22
	\$ 406.7 \$ 467.1	_
Rockaw ay Line Resiliency and Viaduct Rehabilitation packages and the South Channel Bridge	s and the South Channel Bridge	<u>a</u>
repair package, originally planned as 3 separate contracts, are now being bundled into 1	e now being bundled into 1	
contract package to ensure better coordination, minimize outages, and minimize risk to the	ges, and minimize risk to the	
projects and impacts to the public. The RFQ for the combined package was issued on 7/15	d package w as issued on 7/15	
and the project is now scheduled for late 2022 aw ard. The budget has changed to reflect the	udget has changed to reflect the	ā
latest estimate.		

Forecast

Goal

Commitment

102.2 102.2 Jun-22 Construction Sandy Mitigation: Substation Hardening - 26 Locations

Submission of proposals w as delayed to allow time to respond to proposer questions and make associated technical changes to the contract documents.



NYCT/MTA Bus Capital Projects – Commitments – October 2022 – Budget Analysis and Schedule Variances	jects – Comr	nitments – (October 2022	! – Budget Analysis and Sc	thedule Variance	Se	
			Scheduk	Schedule Variances			
Project	Commitment	Goal	Forecast	Project	Commitment	Goal	Fore cast
5 NYCT/MTA Bus Amber Commitments (continued)	ımitments (cor	ntinued)		9 NYCT/MTABus Red Commitments (continued)	mitments (contin	(pen	
Line Structures				Power			
8th Ave Right of Way	Construction	Apr-22	May-22 (A)	Upgrade SCADA System (BMT)	Construction	Apr-22	Aug-22 (A)
Improvements		\$ 143.2	\$ 111.9	& Backup PCC		\$ 58.7	\$ 62.8
Project w as aw arded on 5/9/22. Budget change reflects the latest	change reflects the	latest estimate at aw ard.	v ard.	The aw ard w as delayed due to additional time needed to respond to questions and comments received from proposers, w hich required technical changes to the contract documents and more recently to resolve is sues relating to insurance requirements. The project was awarded	onal time needed to responsed technical changes to	ond to questions of the contract documents. The project	and comments uments and
Stations			Ī	on 8/2/2022. The bildget has been adjusted to reflect the latest estimate	ig to incurance requirements	t estimate	
Flushing Line Contract 1: Station	Construction	Jun-22	Sept	Stations			
Nellew als & Escalators,		7.097	\$ 309. I	Flushing Line: Contract 2 Station	Construction	Jun-22	Dec-22
The RFP was issued in February and the contract was approved by the Board in July. The	contract was appre	oved by the Board in	ո July. The	Renew als & Component Rehab		\$ 249.0	\$ 375.5
initial delay was in the development of the package. The award was delayed due to additional time needed for contract review	e package. The aw a	ırd w as delayed du	e to	Budget change reflects the refined construction estimate. Aw ard is delayed due to the new	onstruction estimate. Awa	ard is delayed du	e to the new
				advertisement schedule.			
MTA Bus				ADA Stations / Elevators	Construction	Sep-22	Dec-22
Façade Repair: Baisley Park, JFK,	Construction	Sep-22	Nov-22	Package#3		\$ 842.5	\$ 815.3
LaGuardia		\$ 15.3	\$ 15.3	This is the MTA's first Public Private Partnership project. Delay attributable to developing	artnership project. Dela	y attributable to d	eveloping
The vendor qualification process taking longer than anticipated. A	onger than anticipate	ed. A November aw ard is	ard is	appropriate design requirements and contract documents and to the extended procurement period for this type of contract not included in the original forecast.	contract documents and luded in the original fored	to the extended cast.	rocurement
anticipated.				Borough Hall ADA and Water	Construction	Sep-22	Dec-22
				Remedediation		\$ 245.7	\$ 245.7
				The delay was incurred during development of the design requirements and contract	pment of the design requ	uirements and co	ntract
				documents likely attibutable to staffing issues. Aw ard delayed an additional month due to	g issues. Aw ard delaye	əd an additional n	onth due to
				ongoing review of technical proposals and current schedule for oral presentations.	s and current schedule f	or oral presentati	ons.
				Jamaica Line Station Renew als	Construction	Sep-22	Dec-22
						\$ 146.0	\$ 203.8
				Delay was incurred during the development and approvals of the design drawings MTA Bus	pment and approvals of	the design draw i	ıgs.
				Portable Bus Lift/ Equipment	Construction	Sep-22	Mar-23
				Replacement		\$ 5.4	0.9

Bus lifts delayed due to technical specifications for wireless technology which will require

testing prior to introduction.

Overcoating: Jamaica Line

Line Structures

253.4

257.4 \$ Jun-22

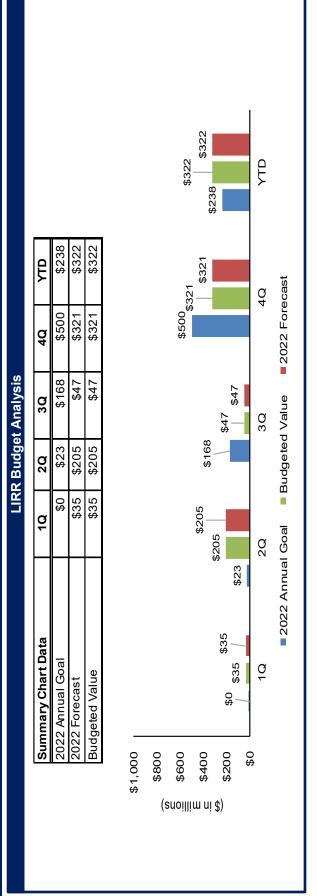
Aw ard is delayed due to the need to re-advertise the contract following cancellation of initial

Construction

bids (low bidder and second low bidder were deemed unresponsive).



LIRR Capital Projects - Commitments - October 2022 - Budget Analysis and Schedule Variances



			Q3 Schedule Variances	Variances
Project	Commitment	Goal	Forecast	
3 LIRR Red Commitments (0 new this quarter	(0 new this quarter)			ADA Impro

Red delays are beyond 2 months of goal.

Sep-22 Work Locomotives

Dec-25

the work trains along with the entire \$35 million locomotive project. The Legal Dept has Ts & 2021 in order to allow Legal Department more time to negotiate and finalize an agreement for C's to review upon negotiation completion. The procurement is now anticipating a December Aw ard of the \$10 million commitment for w ork trains has been rescheduled from December

26.2 Jul-22 Construction Penn Station Platforms

Stations

Post 2022 26.2

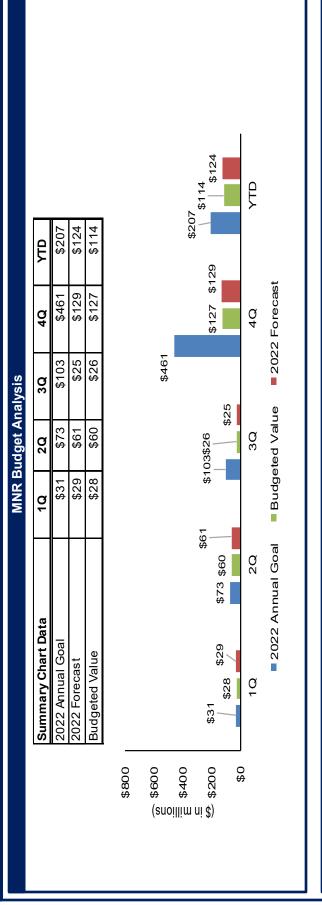
the platform ceiling design will be finalized by Aug. 2022. Ceiling documents need to be added Add'I time is required for an agreement to be reached between Amtrak and LIRR; thereafter, to balance of the completed design so Procurement can review and advertise the full IFB package.

ADA Improvements - / Stations	Construction		Sep-22	
		↔	79.5	79.
Proposals were received mid-September and have since been going through all the	er and have since b	een going	g through all the	
subsequent phases of procurement leading up to presenting to the November Board	ding up to presentir	l at to the l	November Board	

22 Ŋ.



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



Project Commitment Goal Forecast

2 Metro-North Red Commitments (0 new this quarter)

Red delays are beyond 2 months of goal.

Power

NHL Pelham Substation	S	
Control	6 100	

Dec-25

29.7

Issues with the project requirements and design documents have pushed this award to

December.

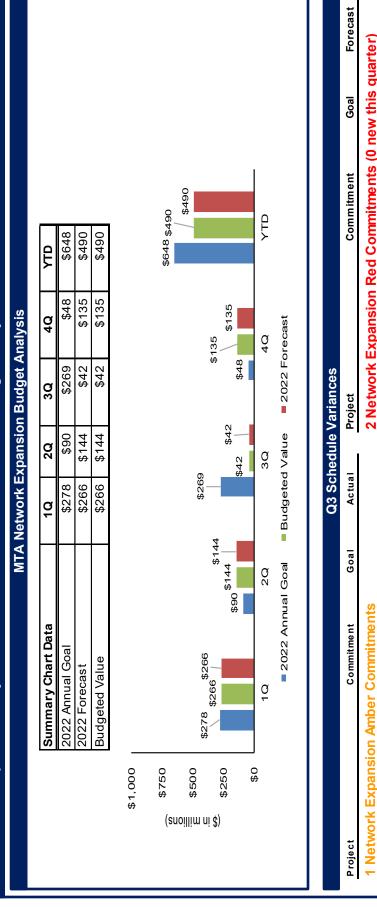
Bridges

	Dec-25	47.1
	Aug-22	47.1 \$
	Construction	↔
•	Fulton/South Street Bridges D-B	

The delay was incurred during development of the design requirements and contract documents attributable to staffing issues.

MR Metropolitan Transportation Authority

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



2 Network Expansion Red Commitments (0 new the Red delays are beyond 2 months of goal.
--

2nd Ave Subway Phase 2

Apr-22 (A)

\$32.6

The aw ard was delayed due to additional time required for final contract negotiations. A

reduction in scope resulted in a reduced award value.

Amber delays are within 2 months of goal.

Interim Maintenance Contract

East Side Access

187.6 Aug-22 ↔ Program Management Consultant Services \$20.8

Dec-22 187.6

Revised award date reflects the Full Funding Grant Agreement (FFGA) deliverable schedule with FTA.

Utilities

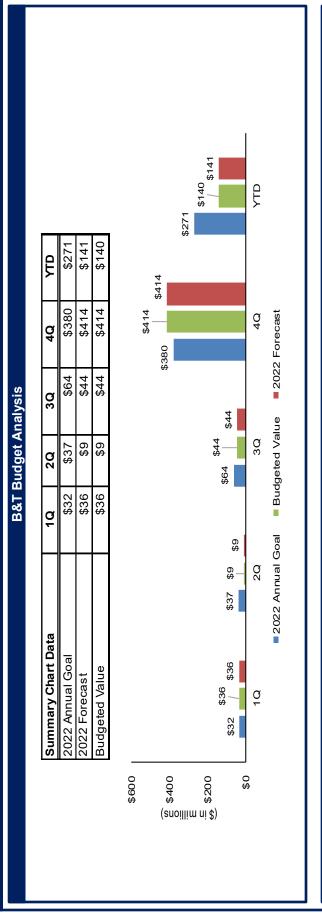
Dec-22 73.5

Aug-22

Revised award date reflects the Full Funding Grant Agreement (FFGA) deliverable schedule with FTA.



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



Project	Commitment	Goal	Forecast

2 B&T Amber Commitments (1 new this quarter)

Amber delays are within 2 months of goal.

Tunnels

Jun-22 Jul-22 (A)	38.9 \$ 28.9	e for bidder proposals.	
Construction	₩	justed to allow sufficient tim	
Relocation of QMT Refueling	Station and QSB Switchgear	Procurement schedule has been adjusted to allow sufficient time for bidder proposals.	Bridges

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Structure Rehab Cross Bay Construction		Sep-25	Sep-22 Oct-22
Bridge and Misc Repairs at the	↔	57.3	↔
Marine Parkw ay Bridge			
This was presented to the October Board and approved.	Ö,		

(A) %:



								1							
	Post	2022	11				2		3		7	7		~	3
		De c-22	10						1	7	1			2	2
		Nov-22	4						3				~		
		Oct-22	3				Γ						1	1	
	SI	Se p-22	1		7										
	mpletion	Aug-22	2			_			1		3				
	ajor Co	Jul-22	1									_			
	3 2022 M	Jun-22	4				-		3						
	MTA-wide 2022 Major Completions	Jan-22 Feb-22 Mar-22 Apr-22 May-22 Jun-22 Jul-22 Aug-22 Sep-22 Oct-22 Nov-22 Dec-22	3			-		2							
01	2	Apr-22	3		7-		2								
er 2022		Mar-22	2			8		_					_		
Octobe		Feb-22	1							-					
) – suc		Jan-22	2	l l						_					
npletic	Actual		23	-	7	2	9	က	7	က	2	7	က	4	8
Capital Projects - Completions - October 2022		Goal	Total	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-25	Sep-22	Oct-22	Nov-22	De c-22
oject															
al Pr															
apit															
O															

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

\$3.4 billion versus a \$6.0 billion year-to-date goal. The completions, all are identified on the following pages. projects. Through October, the MTA has completed In 2022 the MTA plans to complete \$9.2 billion of shortfall is mostly due to delays of several major

By year's end, the MTA forecasts achieving 68% of its overall \$9.2 billion completions goal

Goal

\$5,979 \$9,234 \$6,277 (\$2,841)**Budget Analysis** \$3,436 45% Forecast left to complete Annual Forecast 2022 Annual Goal

\$7,000

\$6,000

\$5,000

\$4,000

\$3,000

\$2,000

\$1,000

\$0

Actual

(\$ in millions)

Metropolitan Transportation Authority

Apr-23 214.6 50.3 Sept-22 (A) 63.4 Forecast 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. The substantial completion has been moved to 2023 due to delays in scheduling extended Substantial completion was initially delayed due to carborne hardware/firmware testing. 50.4 63.4 214.6 10 NYCT/MTA Bus Red Completions (1 new this month) Apr-22 Jun-22 \$2,082 Goal ΔT \$4,011 NYCT/MTA Bus Capital Projects – Completions – October 2022 – Budget Analysis and Schedule Variances Testing and monitoring activities continue to delay completion. track outages and netw ork issues that need to be resolved. Completion Construction Construction \$651 \$185 \$2,082 \$4,01 YTD Red delays are beyond 2 months of goal. \$1,618 \$1,402 4 Q \$407 \$445 \$1,618 New Substations at New Dorp and \$1,402 Center, Pow er Control Center - Ph. 4 Q CBTC QBL West Ph.1 /Siemens Pow er Upgrade: Rail Control Signals & Communications 2022 Forecast **NYCT and MTA Bus Budget Analysis** \$80 80 \$1,236 \$767 g g \$767 Schedule Variances 30 Project Clifton \$86 \$1,236 \$1,300 \$597 \$287 2 0 2022 Annual Goal \$671 \$185 \$1,032 66\$ May 22 (A) Apr-22 (A) 51.3 84.3 ā Actual The schedule change reflected the delayed completion of equipment wiring and breaker The completion delay reflected the additional time required to complete steel repairs and \$597 s 5 NYCT/MTA Bus Amber Completions (1 new this month) 2Q 84.3 51.3 Mar-22 Feb-22 \$1,300 Goal 2022 Goal (Rolling Stock) Forecast (Rolling Stock) Summary Chart Data 2022 Annual Goal \$671 Completion Construction Construction 2022 Forecast á \$1,032 Amber delays are within 2 months of goal. ADA: Livonia Avenue / Canarsie \$0 New Substation: Harrison PI / \$5,000 \$4,000 \$1,000 station painting energization. Canarsie Project Power

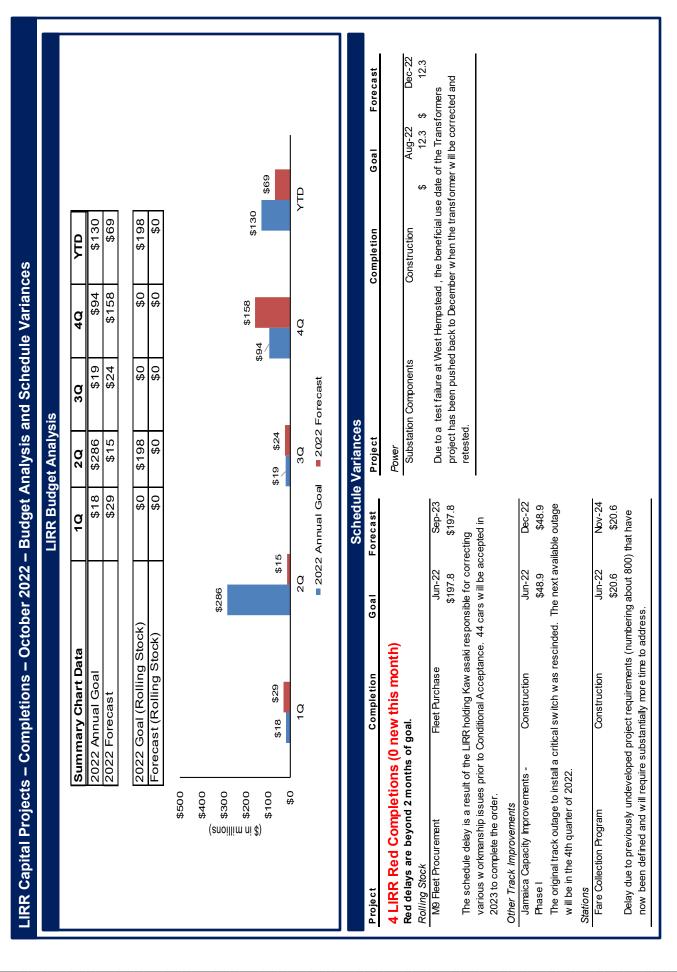


NYCT/MTA Bus Capital Projects - Completions - October 2022 - Budget Analysis and Schedule Variances

			Schedule	Schedule Variances				
Project	Completion	Goal	Fore cast		Completion	ŏ	Goal Fo	Forecast
5 NYCT/MTA Bus Amber Completions (continued) Amber delays are within 2 months of goal. Signals	Completions (coning of goal.	tinued)		10 NYCT/MTA Bus Red Completions (continued) Red delays are beyond 2 months of goal. Buses	mpletions (cor of goal.	ntinued)		
CBTC Queens Blvd West - 50th St. to Union Turnpike: Phase 1 -	Construction	Jun-22	Aug-22 (A)	Hybrid-Bectric Standard Buses (Nova)	Bus Purchase	↔	Apr-22 253.9 \$	Apr-23 253.9
Thales				Bus delivery schedules have been delayed due to supply chain issues with the final bus delivery anticipated for April 2023.	elayed due to supply	chain issue	s with the fina	snq
Substantial completion has been delayed due to zone control capacity issues.	layed due to zone contro	capacity issues.		Shops & Yards				
MTA Bus				207th St. Maintenance & Overhaul	Construction		Jul-22	Dec-25
257 Express Buses (Nova)	Bus Purchase	Nov-22		Shop Roof & Component Repair		↔ •	\$ 9.75	9'.29
\$ 166.7 \$ 16 Thru October over 200 buses have been delivered. Supply chain issues have impacted	e been delivered. Supply o	\$ 166.7 schain issues have	\$ 166.7 impacted	Substantial completion has been delayed due to material and labor shortages. Superstorm Sandy	yed due to material a	ind labor she	ortages.	
overall bus deliveries.			 - -	Sandy Mitigation: Upgrade	Construction		Aug-22	Jan-23
Staten Island Railway				Emergency Booth Comm System		↔	74.1 \$	74.1
Clifton Shop Sandy Repair/	Construction	Oct-22	Nov-22	Substantial completion has been delayed due to resolution of integration and stability issues.	yed due to resolution	ı of integrati	on and stability	/ issues.
Mitigation & Relocation (New			\$ 204.6	Line Structures				
Item)		!		Overcoating: Broadw ay - End of	Construction		Jun-22	Nov-22
	:		;	Line / Myrtle		↔	54.8 \$	54.8
Substantial completion has been delayed due to the need to perform additional soil testing.	layed due to the need to p	oerform additional (soil testing.	Substantial completion has been delayed due to additional time required to complete overcoat	yed due to additional	time require	ed to complete	overcoat
				painting. The project's steel repair scope has been reported as 100% complete.	ope has been report	ted as 100%	complete.	
				Staten Island Railway				
				SIR Mainline Track and Switch	Construction		Dec-22	Apr-23
				(New Item)		↔	112.3 \$	111.8
				Substantial completion has been delayed due to track access issues and shuttle bus service.	ayed due to track acc	sess issues	and shuttle bu	S
				Stations				
				Replace 8 Traction Bevators	Construction		Sep-22	Jan-23
						↔	\$ 0.09	9.03
				Completion has been delayed to complete punchlist w ork.	plete punchlist w ork.			
				Superstorm Sandy				
				Coney Island Yard	Construction		Dec-22	Mar-23
						↔	454.1 \$	453.7
				The forecast for remaining w ork, signals and final electrical tie ins is extended into the first	nals and final electric	al tie ins is e	extended into	he first

quarter of 2023.





MIA Metropolitan Transportation Authority

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

\$33.3 \$229.6 \$30.3 Jun-23 Aug-22 (A) Nov-22 Forecast This project is delayed due to completion of an asset study, completion of the removable Additional scope was added [Painting of Facility and Epoxy Flooring] which extends the Ourrently 28 of the 56 cars (\$115 million) have been delivered in 2022. Due to vendor panel air filter system, and equipment testing which has extended the overall project \$30.3 Mar-22 \$229.6 Jun-22 Dec-22 Goal 3 Metro-North Red Completions (1 new this month) delays, most of the remaining cars are forecast for 2023. Completion Construction Construction Purchase Red delays are beyond 2 months of goal. \$320 \$0 \$320 \$791 YΤD Ę completion date to September 2022. \$791 M8 Fleet Purchase (56 cars) GCT/East Side Access Unified \$230 \$115 **4Ω** \$401 \$468 86th / 110th Substations completion to November \$468 Trash Facility 4 Q Rolling Stock (New Item) \$144 \$416 \$0 \$401 **MNR Budget Analysis** g Schedule Variances Stations Project ■2022 Forecast \$275 \$140 \$ 0\$ **2**Q \$144 \$23.3 \$44.4 Jun-22 (A) Dec-22 Due to supply chain issues, key electrical components have not been delivered causing this Forecast 30 deficiencies identified by Mitsubishi (HVAC unit manufacturer) needed to be rectified and Before the Dense Wave Division Multiplexing (DWDM) equipment could be put online, the \$416 **1Q** \$100 \$40 \$ 0\$ 2022 Annual Goal \$23.3 Apr-22 \$44.4 Nov-22 2 Metro-North Amber Completions (1 new this month) Goal \$140 2Q \$275 2022 Goal (Rolling Stock) Forecast (Rolling Stock) Amber delays are delayed less than 2 months of goal Summary Chart Data Completion Construction 2022 Annual Goal Construction 2022 Forecast \$40 ā \$100 completion consequently delayed. \$0 \$1,000 \$750 \$500 \$250 Croton Falls Parking (New (snoillim ni \$) Network Infrastructure to slip until December Communications Replacement Project Item)

MIA Metropolitan Transportation Authority

Feb-23 \$572.0 CM014B is extended due to additional time required to complete all remaining work, including Actual Nov-22 \$572.0 Network Expansion Completion (0 new this month) Goal MTA Network Expansion Projects – Completions – October 2022 – Budget Analysis and Schedule Variances Amber delays are delayed less than 2 months of goal. Completion \$418 ΔT \$562 \$418 \$562 ΔŦ GCT Concourse & Facilities scope in the Biltmore room. \$918 MTA Network Expansion Budget Analysis \$918 \$1,353 40 East Side Access **4** Q \$1,353 CM014B Schedule Variances Project 2022 Forecast \$0 30 \$0 \$72.0 Nov-22 \$104.1 \$37.1 Oct 22 (A) \$0 Delays to the completion of systems to be turned over to CW030 and added work to CW030 \$525 \$349 Additional completion scope including wiring/cabling, testing, and PTC work was added to Delays continue due to ongoing acceptance testing. Completion was previously forecast Forecast 2 0 2022 Annual Goal \$0 Apr-22 \$72.0 \$104.1 \$37.1 ā \$349 3 Network Expansion Completion (0 new this month Goal \$525 Red delays are delayed more than 2 months of goal. CS086 which extends substantial completion to October. Completion Construction Construction for September, but has been adjusted to November. Summary Chart Data \$0 have extended the substantial completion date. ā 2022 Annual Goal \$0 2022 Forecast System Package 4 - Traction Concourse, Cavern & Facility (snoillim ni \$) (\$4,000 (\$4,000 \$2,000 Systems Package 2 - Tunnel \$1,500 \$500 \$0 Detailing Services CM030 Systems - CS086 Pow er CS084 Project

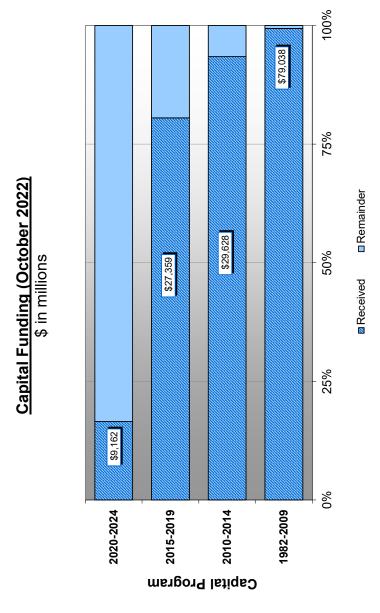
B&T Capital Projects - Completions - October 2022 - Budget Analysis and Schedule Variances

\$547 \$486 \$547 YTD \$486 \$298 \$298 \$298 \$298 **4** 3**Q** \$105 \$102 **B&T Budget Analysis** 2022 Forecast \$60 \$55 \$105 \$102 30 \$98 \$103 2022 Annual Goal \$60 \$55 2Q **Summary Chart Data** 2022 Annual Goal 2022 Forecast \$98 \$103 á (anoillim ni \$) \$600 \$0

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

Schedule Variances

Status of MTA Capital Program Funding



(October 2022)	
Detail	in millions
Funding	\$
Capital	

2010-2014 Program Federal Formula, Flexible, Misc Federal High Speed Rail Federal New Start	Current	Thui Contombor	Oct	Received to date
Federal Formula, Flexible, Misc Federal High Speed Rail Federal New Start				
Federal High Speed Rail Federal New Start	\$5,794	\$5,781	6\$	\$5,790
Federal New Start	173	173	'	173
Federal Security	1,271	1,278	(7)	1,271
	68	88	•	89
Federal RRIF Loan		•	•	•
City Capital Funds	611	809	•	809
State Assistance	770	770	•	770
MIA Bus Federal and City Match	132	113	' .	113
MIA Bonds (Payroll Mobility I ax)	11,701	10,647	51	10,698
Other (Including Operating to Capital)**	1,531	1,129	160	1,289
B&I Bonds	2,025	1,864	•	1,864
Hurricane Sandy Recovery				
Insurance Proceeds/Federal Reimbursement	869'9	269'9	•	6,697
PAYGO	18	171	(153)	18
Sandy Recovery MTA Bonds	658	225	1	225
Sandy Recovery B&T Bonds	229	23	•	23
ĭ	Total 31,700	29,568	69	29,628
	Funding Plan		Receipts	
2015-2019 Program	Current	Thru September	Oct	Received to date
Federal Formula, Flexible, Misc	\$6,898	\$5,610	(\$21)	\$5,553
Federal High Speed Kall	\$122	77L\$	•	\$2.L\$
Federal Core Capacity	001	•	•	•
rederal New Start	200	. 7	•	. 7
rederal Security Stata Assistance	0 108	7 7 7		CI 2VV Z
Oity Capital Finds	9, 190	090 6		0,44
Oity Capital Fullus MTA Bonds	2,009	2,000	133	2,000 8,308
Asset Sales/I eases	908	315	2 '	315
Pav-as-vol00 (PAYGO)**	2 156	1 572	٠	1572
Other	1,103	2,	•	86
B&T Bonds & PAYGO/Asset Sale	2,942	1 902	'	1.902
	Total 33 969	27 283	76	27.359
•		201,11	2	200,14
	Funding Plan		Receipts	
2020-2024 Program	Current	Thru September	Oct	Received to date
Capital from Central Business District Tolling	\$15,000	\$	€	φ.
Capial from New Revenue Sources	10,000	1,349	•	1,349
MTA Bonds and PAYGO	8,041	202	247	449
Other Contribution	542	•	•	•
Federal Formula	8,865	6,226	•	6,226
State of New York	3,101	101	•	101
City of New York	3,007	681	•	681
Federal New Start (SAS Ph2)	2,905	' i	•	' '
Federal Flexible	581	54	•	%
Federal Other	84	7 28	•	78
rederal Security	97	0L	•	01. 01.
bal bonds	3,327	007		200
Ĕ	Total 55,442	8.915	247	9,162



Contracts Department David Cannon, Vice President

PROCUREMENT PACKAGE November 2022



PROCUREMENTS

The Procurement Agenda this month includes twelve actions for a proposed expenditure of \$1.6B.



Subject	Procurement Actions								
Contract Department David K. Cannon, Vice President									
		Board Ad	tion						
Order	То	Date	Approva	l Info	Other				

11/29/22

11/30/22

	Internal Approvals										
	Approval		Approval								
x	Deputy Chief Development Officer, Delivery	X	President								
х	Deputy Chief Development Officer,	х	Executive Vice President & General Coursel								

Date: November 23, 2022

Purpose

1

2

Capital

Program Program

Committee

Board

To obtain the approval of the Board to award several 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:

Χ

Χ

Schedules Requiring Two-Thirds Vote		# of Actions	\$ Amount
C. Competitive Requests for Proposals (Award of Purchase/Public Work Contracts)) SUBTOTAL	11 11	\$1,584,486,018 \$1,584,486,018
Schedules Requiring Majority Vote		# of Actions	\$ Amount
I. Modifications to Purchase and Public Work Contracts	SUBTOTAL	1	\$ 7,063,032 \$ 7,063,032
	TOTAL	12	\$1,591,549,050

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

That 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 559, 2879, 1209 and 1265-a of the Public Authorities Law and the All Agency General Contract 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 Service Contract Procurement Guidelines and the All Agency General Contract 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.



November 2022

LIST OF COMPETITIVE PROCUREMENTS FOR BOARD APPROVAL

Procurements Requiring Two-Third Vote:

Schedule C. Competitive Requests for Proposals (Award of Purchase/Public Work Contracts)

(Staff Summaries required for all items greater than \$1M)

1. Elevated Accessibility Enhancements

\$965,257,102

Staff Summary Attached

Contract No. A37140

15 years following substantial completion

of the Project

MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited Public-Private Partnership contract for the design, construction, financing and maintenance of elevators and other ADA improvements at selected New York City Transit Subway Stations.

2. Citnalta/Scalamandre Joint Venture

\$114,571,000

Staff Summary Attached

Contract No. 6478 Thirty-Six Months

MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited contract for design-build services for ADA improvements to nine Long Island Rail Road stations.

3. DeFoe Corporation

\$108,173,500

Staff Summary Attached

Contract No. RK-93 840 Calendar Days

MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited contract for design-build services to reconstruct the Randall's Island ramps of the Robert F. Kennedy Bridge.

4&5. Judlau Contracting, Inc.

\$106,398,530

Staff Summary Attached

1

 \downarrow

Contract No. A37145 852 Calendar Days

Modern Elevator Innovations

\$ 2,358,680

Contract No. To Be Determined

Fifteen Years

MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited contract for design and construction of accessibility upgrades at the Borough Hall Station and the award of a long-term elevator maintenance contract.

6. MLJT

\$ 91,794,500

Staff Summary Attached

Contract No. 6382 1008 Calendar Days

MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited contract for design-build services for a new railroad bridge and two new mainline tracks in Hall Interlocking.



November 2022

LIST OF COMPETITIVE PROCUREMENTS FOR BOARD APPROVAL (Continued)

7. Skanska USA Civil Northeast Inc. Contract No. A37693 \$ 74,470,000

Staff Summary Attached

Contract No. A37693 715 Calendar Days

MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited contract for design-build services for circulation improvements at Grand Central – 42nd Street Station.

8. CRC Associates Inc.

\$ 52,550,000

Staff Summary Attached

Contract No. C52146 1460 Calendar Days

MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited contract for design-build services to provide a laser intrusion detection system in thirteen underwater subway tubes and twenty-nine stations.

9. J-Track LLC

\$ 48,299,000

Staff Summary Attached

Contract No. E30645 967 Calendar Days

MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited contract for design-build services for escalator replacements at two stations.

10. Power Resources International, Inc.

\$ 13,255,286

Staff Summary Attached

Contract No. 6359 Twenty-Eight Months

MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited contract for design-build services for the replacement of Babylon and Hillside motor generators.

11. J-Track LLC

\$ 7,358,420

Staff Summary Attached

Contract No. 131618 Twenty-Four Months

MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited contract for design-build services for the replacement of timber ties on the Moodna Viaduct.

Procurements Requiring Majority Vote:

Schedule I. Modifications to Purchase and Public Work Contracts

(Staff Summaries required for all items greater than \$1M)

12. Schindler Elevator Corporation Contract No. VM014.25

\$ 7,063,032

Staff Summary Attached

MTA Construction and Development requests Board approval to award a modification to the Contract for maintenance of the elevators and escalators of the new Grand Central Madison Terminal for a period of up to seven months from the commencement of revenue service.

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Dept & De	ept & Dept Head Name:						SUMMARY INFORMATION			
Stations, D	elivery/Barne	y Gra	y, Senio	r Vice Presid	dent		Vendor Name	Contract Number		
							Elevated Accessibility Enhancements	A37140		
Contracts	Department						Description			
Mark Zanc	olli, Associate	Gene	eral Cou	nsel			Design, Construct, Finance and ADA Accessibility Upgrades at Package 3			
		Board	d Reviev	vs			Total Amount			
							1. A37140 Award:	\$965,257,102 ¹		
							A) Periodic Progress Payments	\$ 68,970,111		
Order	To	To Date		Approval	Info	Othor	B) Completion Payments	\$200,000,000		
Oruei				Appiovai		Other	C) Availability Payments	\$696,286,991		
							2. Stipend Payments:	\$ 4,000,000		
	- :						Contract Term			
1	Finance Committee	11/2	9/22	X						
2	Board	11/3	0/22	Х			15 years following substantial of Project	completion of the		
					l		Option(s) included in Total Amount?	☐ Yes ☐ No ☐ N/A		
	In	terna	I Appro	vals			Renewal?	🛚 Yes 🗌 No		
		(Order				Procurement Type			
	Approva	al	Order	Ap	prova	I	□ Competitive □ I	Non-competitive		
X	Deputy Chie Developmer		X	President	t		Solicitation Type ☑ RFP ☐ Bid ☐ □	Other:		
Х	Deputy Chie Delivery	ef,	Х	Executive President Counsel		neral	Funding Source ⊠ Operating ⊠ Capital □ F	-ederal ☐ Other		
ATA Constru	ction & Devel	onmer	nt ("C&F	") requests R	oard an	proval to	award a publicly advertised and com	netitively solicited contract		

MTA Construction & Development ("C&D") requests Board approval to award a publicly advertised and competitively solicited contract for the design, construction, financing and maintenance of American with Disabilities Act ("ADA") accessibility upgrades at thirteen stations throughout New York City (the "Project") to Elevated Accessibility Enhancements ("EAE" or the "Developer") in the amount of \$965,257,102.

EAE's key contractors include Halmar International, LLC, as design and construction ("D&C") contractor and maintenance contractor who will engage Otis Elevator Company ("Otis") as elevator supplier and maintainer. In accordance with MTA policy, to enhance competition and defray proposal costs, and consistent with comparable Public Private Partnership (P3) precedent, this solicitation includes a stipend of \$2,000,000 to be paid to each unsuccessful proposer whose proposal met the defined proposal standards. Accordingly, approval is also requested to pay stipends totaling \$4,000,000 to the two unsuccessful proposers.

Discussion

Contract A37140 (the "Contract") is one of a series of ADA projects in support of the MTA's commitment to make stations accessible. The Contract includes designing and constructing the improvements for ADA compliance, including installation of twenty-one new elevators,

¹ This amount is subject to adjustment for changes in interest rates between award and close (no later than March 2023) and for actual CPI through the contract term which will inflate the maintenance portion of the availability payment component.

Construction & Development

Schedule C Competitive Requests for Proposals (Award of Purchase/Public Work Contracts) Item Number 1

Page 2 of 3

path-of-travel improvements, and associated state of good repair work at the following eight New York City Transit Authority subway stations ("Stations"): Church Avenue Station, Sheepshead Bay Station, Rockaway Boulevard Station, Kings Highway Station, Woodhaven Boulevard Station, Steinway Street Station, Junius Street Station, and Mosholu Parkway Station, and fourteen elevator replacements, path-of-travel improvements and associated state of good repair work at the following five Stations: 34th Street-Penn Station, Euclid Avenue Station, 161st Street-Yankee Stadium Station (4 line), and 3rd Avenue-149th Street Station (the foregoing thirty-five elevators, together with related equipment being "the New Elevators"). The Contract is the first of the ADA elevator projects to be awarded using the P3 project delivery model, which, among other things, incorporates into the Contract, the requirement that Developer maintain the New Elevators, and finance a portion of the Project.

The availability payments to the Developer contain a capital availability payment component ("Capital Availability Payment"), for the payment of debt and equity return, and a maintenance availability payment component ("Maintenance Availability Payment"), for the payment of ongoing maintenance (together the "Availability Payments"). Failure of the Developer to satisfy maintenance performance requirements in the Contract results in the reduction of the Maintenance Availability Payment and/or the equity payment component of the Capital Availability Payment, providing the elevator maintainer, the Developer, and the Developer's equity owners with strong incentives to satisfy the maintenance performance requirements in the Contract. Under the P3 model, by having the Developer finance a portion of the Project with equity that is only repaid if the Developer successfully delivers and maintains the Project to the MTA's maintenance standards, MTA was able to provide the teams flexibility to propose performance-based solutions to project delivery, which resulted in total project savings versus MTA C&D's internal estimates.

The Contract has a fifteen-year maintenance period, commencing with achievement of substantial completion of the Project; and two additional 5-year option periods, exercisable at MTA's discretion at fixed prices included in the Contract.

A two-step procurement process was conducted for the Contract. In Step 1, a Request for Qualifications was advertised resulting in the submission of three Statements of Qualification, which were evaluated against the pre-established threshold criteria (addressing completeness, timeliness, capacity, responsibility and financial capability) and substantive criteria (addressing key personnel and organization, project approach, prior experience, past performance and diversity compliance). All three firms were selected to receive the Request for Proposal ("RFP") in Step 2:

- Elevator Accessibility Enhancements ("EAE"), a joint venture between ASTM North America Inc. (equity) and Halmar International, LLC ("Halmar International") (D&C contractor and maintenance contractor), with Halmar International engaging Otis, as maintenance contractor;
- New York Transit Access Partners ("NYTAP"), a joint venture among Star America NYTAP, LLC (equity), an unincorporated Judlau-ECCO Joint Venture between Judlau Contracting, Inc. and ECCO III Enterprises, Inc. (D&C contractor), Atkins Architecture & Engineering (lead designer), U.S. Facilities, Inc. (maintenance contractor) and Otis (maintenance contractor);
- Plenary Iovino Infrastructure Partners ("PIIP"), a joint venture among Plenary Americas US Holdings Inc. (equity), MLJTC2 (D&C contractor), AECOM USA, Inc. (lead designer), and Modern Elevator Installation, Inc (maintenance contractor),

The procurement process included:

- a number of interactive one-on-one meetings during which each Proposer provided legal, financial and technical feedback on the Contract, including "alternative technical concepts" in regards to the design of the Project;
- various opportunities for the Proposers to submit requests for information ("RFIs") on any aspect of the Project;
- the issuance of formal responses by MTA to those RFIs and;
- the issuance by MTA of various scheduled addenda to the Contract and technical documents to reflect MTA's position following such feedback and RFIs from the Proposers.

Following this process, each of the Proposers submitted administrative forms, technical proposals and financial proposals (together the "Proposals") in response to the RFP. The selection committee, consisting of representatives from C&D and New York City Transit, first reviewed the technical proposals and heard oral presentations from each of the Proposers. The selection committee evaluated the technical proposals using the pre-established selection criteria which assessed Proposers' major participants, key personnel, schedule, construction plan, approach regarding maintenance, management plans, safety and quality, past performance and other relevant matters.

The selection committee also reviewed the financial proposals which were as follows:



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- EAE: \$965,257,102 (comprising Periodic Progress Payments: \$68,970,111; Completion Payments: \$200,000,000 and Availability Payments: \$696,286,991);
- NYTAP: \$1,234,001,207 (comprising Periodic Progress Payments: \$298,306,163; Completion Payments: \$200,000,000 and Availability Payments: \$735,695,044); and
- PIIP: \$1,254,461,031 (comprising Periodic Progress Payments: \$289,997,519; Completion Payments: \$200,000,000 and Availability Payments: \$764,463,512).

"Periodic Progress Payments" refers to the total of five percentage of work complete payments made by C&D to the Developer during construction of the Project and "Completion Payments" refers to the total of two (2) payments made by C&D to the Developer on achievement of substantial completion and final completion of the Project.

Consistent with P3 procurement methodologies and noting the structured procurement design, the procurement process did not include a "best and final offer" component, due to the RFP's requirement of the committed financing (both debt and equity) in the Proposal. After review of the Proposals, the Selection Committee unanimously recommended EAE for the award of the Contract. The Selection Committee determined that EAE's Proposal offered the best overall value considering the strength of their technical proposal, their understanding of the work, their time reductions to the Project schedule (which will minimize the impact of the work on MTA's customers), the strength of their financial proposal (including their lowest proposed cost) (as defined by the total Periodic Progress Payments), strength of their debt commitments and executability of the financial plan. EAE's prices are considered fair and reasonable. Compared to the standard project delivery by MTA, EAE's Proposal provides cost savings to MTA after adjusting for the risks that would be absorbed by the Proposer, including construction cost overruns, higher maintenance payments and unexpected major capital costs, as well as for higher handback condition requirements than in a traditional MTA contract.

DBE/MBE/WBE/SDVOB Information

The MTA Department of Diversity and Civil Rights ("DDCR") has established a goal of 15% MBE participation, 15% WBE participation and 6% SDVOB participation for the D&C Work. Halmar International is projecting to exceed the required MBE/WBE/SDVOB goals. Halmar International has achieved its DBE/MBE/WBE goals on previously completed projects.

DDCR has established a 0% MBE/WBE/SDVOB goal for the Maintenance Work due to the lack of MWBE/SDVOB firms in the marketplace. Meetings are being coordinated with the MBE/WBE/SDVOB community to establish certified firms in the areas of elevator and escalator maintenance. Otis has not completed any MTA contracts with DBE/MBE/WBE goals, therefore, no assessment of their performance can be determined at this time.

Impact on Funding

Funding for progress payments (including Completion Payments) [and stipends for the two unsuccessful Proposers] will come from MTA's Capital Programs. The portion of progress payments associated with construction will be funded from the 2020-2024 MTA Capital Program. The portion of progress payments associated with design will be funded from both the 2015-2019 and 2020-2024 MTA Capital Programs, depending on the station. Funding of the Availability Payments during the maintenance period will come from a combination of operating sources for the Maintenance Availability Payment, and from the debt service budget for the Capital Availability Payment. The Capital Availability Payment will be secured as a subordinated contract obligation under the Transportation Revenue Bond Resolution.

Alternatives

None recommended. Currently, MTA lacks available in-house technical personnel to perform the scope of work associated with this Contract and the P3 model is the recommended structure for the Project as it requires the Developer (including equity) to stand behind the maintenance services for the Project to the standard required by the Contract.



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Dept &	Dept Head Nar	ne:				SUMMARY INFORMATION				
LIRR Bu	ısiness Unit AD	A Stations/l	Poonam Lalw	ani, PC	CEO	Vendor Name	Contract Number			
						Citnalta/Scalamandre Joint 6478 Venture				
Contrac	ts Department	i:				Description				
Ian Gold	Irich, SVP and I	Deputy Ger	eral Counsel			Design-Build Services for the Long Island Rail Road ADA Station Improvements Package #1				
Board Reviews						Total Amount				
Order	То	Date	Approval	Info	Other	1. 6478:	\$114,571,000			
Oraci	10	Dute	Αρρίοναι	0	Other	2. Stipend Payments:	\$ 300,000			
	Capital					Contract Term				
1	Program Committee	11/29/22	Х			Thirty-Six Months				
2	Board	11/30/22	Х			,				
						Option(s) included in Total Amount?	Yes ☐ No ⊠ N/A			
	In	ternal App	rovals			Renewal?	☐ Yes ⊠ No			
		ı				Procurement Type				
Order	Approval	Order	Арі	oroval			n-competitive			
Х	Deputy Chief, Development	Х	President			Solicitation Type ☑ RFP ☐ Bid ☐ Ot	ner:			
Х	Deputy Chief, Delivery	Х	Executive V Counsel	P & Ge	neral	Funding Source ☐ Operating ☐ Capital ☐ Federal ☐ Other				

Purpose/Recommendation

MTA Construction and Development ("C&D") requests Board approval to award a publicly advertised and competitively solicited contract to Citnalta/Scalamandre Joint Venture (a joint venture consisting of Citnalta Construction Corporation and Scalamandre & Sons Inc.), for design-build services for Long Island Rail Road ("LIRR") ADA Station Improvements Package #1 in the amount of \$114,571,000 and a duration of thirty-six months. In accordance with MTA policy regarding the use of design-build contracts, and to enhance competition and defray proposal costs, this solicitation includes a stipend of \$150,000 to be paid to each unsuccessful proposer whose proposal met the defined proposal standards. Accordingly, approval is also requested to pay stipends totaling \$300,000 to the two unsuccessful proposers.

Discussion

The work under this contract (the "Contract") provides for Americans with Disabilities Act ("ADA") improvements to nine LIRR stations in Nassau, Suffolk, and Queens counties. The Amityville, Copiague, Lindenhurst, Massapequa Park, Laurelton, St. Albans, and Locust Manor stations are not currently wheelchair accessible but will become fully ADA compliant under this Contract. At the Auburndale and Valley Stream stations, existing elevators and escalators will be replaced along with other improvements to bring these stations into ADA compliance. Other improvements at the stations will include electrical and mechanical upgrades, new structural foundations and superstructure elements, platform repairs and upgrades and various architectural improvements.

A two-step procurement process was conducted for the Contract. In Step 1, a Request for Qualifications was advertised, resulting in the submission of four Statements of Qualifications that were evaluated against pre-established Threshold Criteria (addressing completeness, timeliness, capacity, responsibility, and financial capability) and Substantive Evaluation Criteria (addressing key personnel and organization, project approach, prior experience, past performance, financial strength and diversity compliance). Based on these criteria, all four firms were selected to receive the Request for Proposal ("RFP") in Step 2:



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- Forte Construction Corp./J-Track Joint Venture, a joint venture consisting of Forte Construction Corporation and J-Track LLC ("Forte/J-Track")
- Skanska USA Civil Northeast, Inc. ("Skanska")
- Citnalta/Scalamandre JV (CSJV)
- John P. Picone, Inc. ("Picone")

Subsequently, Skanska withdrew its participation citing business-related reasons.

All three remaining proposers submitted technical and costs proposals. The selection committee, consisting of representatives from the C&D Delivery and Development Departments, and LIRR Engineering, first reviewed the technical proposals and heard oral presentations from each of the proposers. The selection committee evaluated the technical proposals using the following pre-established selection criteria: design, overall project schedule and construction impact mitigation approach, management approach, financial strength, experience, record of performance, safety and quality, and diversity practices. They determined that all three proposers submitted technical proposals that were responsive and acceptable. The selection committee then opened the cost proposals which were as follows: Forte/J-Track JV – \$130,920,000; CSJV – \$107,077,000; and Picone – \$124,300,000.

Discussions were held with each of the three proposers focusing on proposal details and clarifications, and costs. Following those discussions, each proposer was offered the opportunity to submit a revised cost proposal. Picone elected not to update its proposal. Both Forte/J-Track and CSJV elected to update their proposals as follows:

Forte/J-Track \$129,650,500
 CSJV \$115,957,000

CSJV's proposal increased due to repair work that was required at Locust Manor and other clarifications of the scope that they did not account for in their original cost proposal. Nevertheless, upon review of the technical proposals and revised cost proposals, the selection committee unanimously recommended CSJV to be brought in for negotiations as their proposal provided the best value to the MTA based on a combination of both technical and cost factors. Negotiations with CSJV focused on additional areas for potential cost savings and following negotiations, CSJV submitted their Best and Final Offer in the amount of \$114,571,000 which is considered to be fair and reasonable.

DBE/MBE/WBE/SDVOB Information

The MTA Department of Diversity and Civil Rights has established a 22.5% DBE goal for the Contract. Although this is a design-build contract with some undefined scope, CSJV is projecting to meet the required DBE goal requirements. Citnalta Construction Corporation has achieved their assigned D/M/WBE goals on previously completed MTA Contracts. Scalmandre & Sons, Inc. has not completed any MTA contracts with goals; therefore, no assessment of their MWDBE performance can be determined at this time.

Impact on Funding

Funding for this Contract and the stipends for the two unsuccessful proposers is included in the LIRR part of the 2020-2024 Capital Program and will be funded with federal funds.

Alternatives

None recommended. Currently, MTA lacks available in-house technical personnel to perform the scope of work associated with the Contract.



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Dept &	Dept Head Nam	ne:				SUMMARY INFORMATION				
B&T Bus	siness Unit/Joe I	Keane, SVF	^o & Program	Execut	tive	Vendor Name		Contrac	t Number	
						DeFoe Corporation RK-93				
Contrac	ts Department					Description				
David K	. Cannon, VP ar	nd Chief Pro	ocurement Of	fficer		Design-Build Services for Randall's Island Ramps	Design-Build Services for the Reconstruction of Randall's Island Ramps			
	E	Board Revi	ews			Total Amount				
						1. Base:		\$98	,173,500	
Order	То	Date	Approval	Info	Other	2. Option:		\$10	,000,000	
						3. Stipend Payments:	300,000			
1	Bridges and Tunnels Committee	11/29/22	Х			Contract Term 840 Calendar Days				
2	Board	11/30/22	X							
						Option(s) included in Total Amount?	⊠ Y	es 🗌 No	□ N/A	
	Int	ernal Appr	ovals			Renewal?		☐ Yes	$oxed{oxed}$ No	
						Procurement Type				
Order	Approval	Order	Ар	proval			☐ Non-	-competiti	ve	
Х	Deputy Chief, Development	Х	President			Solicitation Type ☑ RFP ☐ Bid	☐ Othe	Other:		
X	Deputy Chief, Delivery	Х	Executive \	/P & G	eneral	Funding Source ⊠ Operating ⊠ Capital	<u> </u>			

Purpose/Recommendation

MTA Construction & Development ("C&D") requests Board approval to award a publicly advertised and competitively solicited contract to DeFoe Corporation for design-build services to reconstruct the Randall's Island ramps of the Robert F. Kennedy Bridge in the amount of \$108,173,500 and a duration of 840 Calendar Days. In accordance with MTA policy regarding the use of design-build contracts, and to enhance competition and defray proposal costs, this solicitation includes a stipend of \$100,000 to be paid to each unsuccessful proposer whose proposal met the defined proposal standards. Accordingly, approval is also requested to pay stipends totaling \$300,000 to the three unsuccessful proposers.

Discussion

The work under this contract (the "Contract") provides for reconstruction of the two vehicular ramps and three pedestrian ramps of the Robert F. Kennedy Bridge on Randall's Island. The Contract also includes an option, which may be exercised in the MTA's sole discretion, for a third pedestrian ramp.

A two-step procurement process was conducted for the Contract. In Step 1, a Request for Qualifications was advertised resulting in the submission of nine statements of qualifications, which were evaluated against pre-established criteria organization of key personnel, past performance of the proposed teams/firms, record of performance together as a team or individually design-build projects. The following four firms were selected to receive the Request for Proposal ("RFP") in Step 2:

- DeFoe Corp. ("DeFoe")
- ECCO III Enterprises, Inc. ("ECCO III")
- Halmar International, LLC ("Halmar")
- Walsh Construction Co. II, LLC ("Walsh")



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All four of the selected firms submitted technical and price proposals in response to the RFP. The selection committee, consisting of representatives from C&D Delivery and Contracts, first reviewed the technical proposals and heard oral presentations from each of the Proposers. The selection committee evaluated the technical proposals using the following pre-established selection criteria set forth in the RFP: technical approach, key personnel, overall design-build team organization, schedule, and diversity practices. The selection committee determined that all four teams submitted technical proposals that were responsive and acceptable. The selection committee next opened the cost proposals, which were as follows: DeFoe \$109,596,150 (\$99,596,150 Base and \$10,000,000 Option) ECCO III \$131,676,000 (\$119,176,000 Base and \$12,500,000 Option); Halmar \$112,264,750 (\$102,774,750 Base and \$9,490,000 Option); and Walsh \$185,697,000 (\$167,697,000 Base and \$18,000,000 Option).

Based upon its review of the technical and price proposals, the selection committee determined that DeFoe was the highest ranked technical proposer due to the strength of its lead designer, key personnel, technical approach to the work, extensive prior experience, and a track record of completing similar projects on time and within budget. DeFoe also offered the lowest price. Accordingly, the selection committee unanimously determined that DeFoe's proposal provided the best value to the MTA and recommended that DeFoe be invited for negotiations.

The negotiations with DeFoe focused on technical clarifications and overall costs. Following negotiations, DeFoe submitted its Best and Final Offer in the amount of \$108,173,500 (\$98,173,500 Base and \$10,000,000 Option) which is considered to be fair and reasonable.

DBE/MBE/WBE/SDVOB Information

The MTA Department of Diversity and Civil Rights has established goals of 15% MBE, 15% WBE and 6% SDVOB for the Design/Build Contract. Although this is a design-build contract with some undefined scope, DeFoe is projecting to meet the required MBE/WBE/SDVOB goal.

DeFoe has achieved its DBE/MBE/WBE goals on previously completed contracts.

Impact On Funding

Funding for this Contract and the stipends for the three unsuccessful proposers is included in the Bridges and Tunnels portion of the 2020-2024 Capital Program and the Bridges and Tunnels operating budget.

Alternatives

None recommended. Currently, MTA lacks available in-house technical personnel to perform the scope of work associated with this Contract.



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Dept & Dept Head Name: **SUMMARY INFORMATION** Stations/Barney Gray, Senior Vice President **Vendor Name Contract Number** 1. Judlau Contracting, Inc (DB A37145 (D/B) Contract) TBD (Maintenance) 2. Modern Elevator Innovations (Maintenance Contract) Contracts Department: Description Mark Zancolli, Associate General Counsel Design-Build Services for Accessibility Upgrades at the Borough Hall Station **Board Reviews Total Amount** 1. A37145: \$106,398,530 Order Info Other To **Date** Approval 2. Maintenance Award \$ 2,358,680 3. Stipend Payments: 300,000 **Contract Term** Capital 11/29/22 Program Χ 1 Committee 852 Calendar Days 1. A37145 2. Maintenance Contract 15 Years 11/30/22 2 Χ Board Option(s) included in **Total Amount? Internal Approvals** Renewal? ☐ Yes ⊠ No **Procurement Type** Order Order **Approval Approval** ■ Non-competitive Solicitation Type Deputy Chief. Χ President Χ Development ⊠ RFP Bid Other: Funding Source Operating** Capital* Federal* Other Deputy Chief, Executive VP & General Χ Χ Delivery Counsel *Design-Build Contract **Maintenance Contract

Purpose/Recommendation

Item Numbers 4 & 5

MTA Construction & Development ("C&D") requests Board approval to award a publicly advertised and competitively solicited contract for the design and construction of accessibility upgrades at the Borough Hall Station to Judlau Contracting, Inc., in the amount of \$106,398,530 and a duration of 852 Calendar Days. This amount includes an option, to be exercised in MTA's sole discretion, to perform certain work on behalf of NYC DOT at Joralemon Street in the amount of \$1,000,000. If exercised, this option work will be funded by NYC DOT. Board approval is also sought to award a long-term elevator Maintenance Contract to Modern Elevator Installations, Inc. in the amount of \$2,358,680 and a duration of fifteen years. In accordance with MTA policy regarding the use of design-build contracts, and to enhance competition and defray proposal costs, this solicitation includes a stipend of \$100,000 to be paid to each unsuccessful proposer whose proposal met the defined proposal standards. Accordingly, approval is also requested to pay stipends totaling \$300,000 to the three unsuccessful proposers.

Discussion

Contract A37145 (the "Contract") is for Americans with Disabilities Act ("ADA") improvements at the Borough Hall Station to bring this station into ADA compliance. The Contract will add one (1) street-to-mezzanine elevator, one mezzanine-to-northbound platform elevator, and one mezzanine-to-southbound platform elevator, ADA boarding areas and full platform edge reconstruction to serve the northbound and southbound 4 and 5 trains at the Borough Hall Station. The Contract also includes repairs to the station floors, walls, roof and ventilator structures.

In addition, C&D will enter into a separate long-term Elevator Maintenance Contract for all maintenance, repairs, tests and inspections, callbacks and emergency services for the elevators and ancillary equipment. In order to ensure long-term, optimum performance, only the elevator manufacturer or installer were eligible for the award of the Maintenance Contract. The goal is to ensure that the Design-Builder works in concert with its elevator subcontractor to choose sufficiently robust equipment that will withstand the rigors of the New York City Transit ("NYCT") system by also making the elevator subcontractor responsible for the performance-based long-term

Construction & Development

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Maintenance Contract. The term of the Maintenance Contract is fifteen year period, commencing on achievement of Substantial Completion of the Design-Build Contract plus two five-year option periods, exercisable at MTA's discretion.

A two-step procurement process was conducted for the Contract. In Step 1, a Request for Qualifications was advertised, resulting in the submission of six Statements of Qualifications that were evaluated against pre-established Threshold Criteria (addressing completeness, timeliness, capacity, responsibility, and financial capability) and Substantive Evaluation Criteria (addressing key personnel and organization, project approach, prior experience, past performance, financial strength and diversity compliance). Based on these criteria, the following four firms were selected to receive the Request for Proposal ("RFP") in Step 2:

- Citnalta-Forte JV ("CFJV")
- John P. Picone ("Picone")
- Judlau Contracting, Inc. ("Judlau")
- MLJ Contracting Corp and TC Electric, LLC JV ("MLJTC2")

In response to the RFP, all four teams submitted technical and price proposals. The selection committee, consisting of representatives from C&D Delivery and Contracts Departments and NYCT's Elevator and Escalator Division, first reviewed the technical proposals and heard oral presentations from each of the proposers. The selection committee evaluated the technical proposals using the following pre-established selection criteria: design and construction, schedule, maintenance, management plan, experience, record of performance, safety and quality, diversity compliance, and other relevant matters. The selection committee determined that all four teams submitted technical proposals that were responsive and acceptable. The selection committee next opened the price proposals, which were as follows: CFJV \$132,172,000 (Maintenance: \$3,087,472.16); Picone \$116,000,000 (Maintenance: \$2,358,680); Judlau \$104,998,530 (Maintenance: \$2,358,680); and MLJTC2 \$132,800,000 (Maintenance: \$3,087,472.16). For the installation and the long-term maintenance of the elevators, CFJV and MLJTC2 proposed Mid-American Elevator Co. ("MAE") and Picone and Judlau proposed Modern Elevator Installations, Inc. ("Modern").

Based upon its review of the technical and cost proposals, the selection committee determined that the proposals submitted by Picone and Judlau demonstrated an understanding of the project, included a reduction in the overall contract duration, and identified potential risks and detailed risk mitigation measures. In addition, Judlau also proposed the least diversions of the selected Design-Builders. While both CFJV and MLJTC2 submitted strong technical proposals, their cost proposals were significantly higher than both Picone and Judlau, and contained fewer schedule reductions. Judlau plans to use lessons learned on their previous ADA Upgrades Project to contribute to the success of this project. For the reasons stated above, the selection committee unanimously recommended that Picone and Judlau be invited in for negotiations.

Negotiations with Picone and Judlau included discussions of design requirements and cost, project schedule, the number of diversions of service, and overall cost. Discussions also included the scope of the communication, electrical, and waterproofing work required under this contract. Following negotiations, a Best and Final Offer ("BAFO") was requested from Picone and Judlau. The results of the BAFOs were as follows:

Picone \$114,800,000 (Maintenance: \$2,358,680)
 Judlau \$106,398,530 (Maintenance: \$2,358,680)

After review of the BAFOs, the Selection Committee unanimously recommended Judlau for award of the Design-Build Contract and Modern for the award of the long-term Maintenance Contract. The Selection Committee determined that Judlau's proposal offered the best overall value considering their technical proposal, their understanding of the work, their lowest proposed cost, and reductions to schedule and diversions of service, which will minimize the impact of the work on MTA's customers. Judlau's and Modern's prices are considered fair and reasonable.

DBE/MBE/WBE/SDVOB Information

The MTA Department of Diversity and Civil Rights has established a 22.5% DBE goal for the Contract. Judlau's utilization plan is under review. Judlau has achieved its DBE/MBE/WBE goals on previously completed contracts.

DDCR has established a 0% MBE/WBE/SDVOB goal for the Maintenance Contract due to the lack of MBE/WBE/SDVOB firms in the marketplace. Meetings are being coordinated with the MBE/WBE/SDVOB community to establish certified firms in the areas of elevator and escalator maintenance. Modern has not completed any MTA contracts with DBE/MBE/WBE goals, therefore, no assessment of their performance can be determined at this time.



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Impact on Funding

Funding for the Contract, and stipends for the three unsuccessful proposers, are included in the NYCT portion of the MTA's 2020-2024 Capital Program. Funding for the Maintenance Contract is included in the NYCT operating budget.

Alternatives

None recommended. Currently, MTA lacks available in-house technical personnel to perform the scope of work associated with this Contract.



Page 1 of 2

Dept &	Dept Head Name	e :				SUMMARY INFORMA	TION			
LIRR Bu	ısiness Unit, Deliv	very/Andrev	v Wilson			Vendor Name		Contract	Number	
						MLJT	10002			
	ts Department:					Description				
lan Gold	Irich, SVP and De	eputy Gene	ral Counsel			Design-Build Services for Expansion Project	the LIRR	t Hall Inter	locking	
Board Reviews						Total Amount				
						1. 6382 Base:		\$ 9	1,794,500	
Order	То	Date	Approval	Info	Other	2. Option		\$	500,000	
						3. Stipend Payment:		\$	450,000	
	Capital					Contract Term				
1	Program	11/29/22	X							
	Committee					1008 Calendar Days				
2	Board	11/30/22	X							
		1				Option(s) included in Total Amount?	⊠ Y	′es □ No	N/A	
	Inte	rnal Appro	vals			Renewal?		☐ Yes	⊠ No	
	,					Procurement Type				
Order	Approval	Order	App	oroval			☐ Non	-competit	ve	
Х	Deputy Chief, Development	Х	President			Solicitation Type ☑ RFP ☐ Bid	Othe	er:		
						Funding Source				
Х	Deputy Chief, Delivery	X	Executive \ Counsel	/P & G	Seneral	Operating Capital	I ⊠ Fed	eral 🔛 M	TA	

Purpose/Recommendation

MTA Construction and Development ("C&D") requests Board approval to award a publicly advertised and competitively solicited contract to MLJT (a joint venture consisting of MLJ Contracting Corp. and J-Track LLC) for design-build services for the Long Island Rail Road ("LIRR") Hall interlocking expansion project in the amount of \$92,294,500 and a duration of 1008 Calendar Days. In accordance with MTA policy regarding the use of design-build contracts, and to enhance competition and defray proposal costs, this solicitation includes a stipend of \$150,000 to be paid to each unsuccessful proposer whose proposal met defined proposal standards. Accordingly, approval is also requested to pay stipends totaling \$450,000 to the three unsuccessful proposers.

Discussion

The work under this contract (the "Contract") includes the construction of a new railroad bridge, extending the existing LIRR "E-Yard" over 150th Street and the Atlantic Branch Track #1, and thereby creating two new mainline tracks in Hall Interlocking. The contract also includes an option to be exercised at the MTA's sole discretion, for two cantilevered signal platforms.

A two-step procurement process was conducted for the Contract. In Step 1, a Request for Qualifications was advertised, resulting in the submission of four Statements of Qualifications that were evaluated against pre-established Threshold Criteria (addressing completeness, timeliness, capacity, responsibility, and financial capability) and Substantive Evaluation Criteria (addressing key personnel and organization, project approach, prior experience, past performance, financial strength and diversity compliance). Based on these criteria, all four firms were selected to receive the Request for Proposal ("RFP") in Step 2:

- Michels Corporation/ARUP ("Michels/ARUP")
- MLJT
- RCC/Civetta Joint Venture, a joint venture consisting of Railroad Construction Corp./John Civetta & Sons JV ("RCC/Civetta JV")
- Schiavone Construction Co. LLC ("Schiavone")

All four teams submitted technical and price proposals in response to the RFP. The selection committee, consisting of representatives from C&D Delivery, LIRR Engineering, and LIRR Operational Support Group, first reviewed the technical proposals and heard oral presentations from each of the proposers. The selection committee evaluated the technical proposals using the following pre-established

Construction & Development

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selection criteria: design, overall project schedule and construction impact mitigation approach, management approach, financial strength, experience, record of performance, safety and quality, and diversity practices. The Selection Committee next opened the price proposals, which were as follows: Michels/ARUP - \$113,670,000 (\$113,070,000 Base + \$600,000 Option); MLJT - \$88,780,000 (\$88,280,000 Base + \$500,000 Option); RCC/Civetta JV - \$110,990,000 (\$110,565,000 Base + \$425,000 Option); and Schiavone - \$104,480,200 (104,282,430 Base + \$197,770 Option).

After evaluation of the technical and price proposals, the selection committee determined that the proposals submitted by MLJT, RCC/Civetta JV and Schiavone were in the competitive range and should be brought in for cost discussions. Discussions with MLJT focused on whether it was capable of performing the work at its proposed price while discussions with RCC and Schiavone focused on ways to reduce costs. At the conclusion of discussions with MLJT, the selection committee determined that they could perform the work under the Contract at the proposed price. RCC and Schiavone were both requested to submit updated price proposals. The following updated price proposals were submitted by RCC and Schiavone:

- RCC/Civetta JV \$107,890,000 (\$107,465,000 Base + \$425,000 Option)
- SCHIAVONE \$102,480,200 (102,282,430 Base + \$197,770 Option)

The cost discussions with RCC/Civetta JV and Schiavone did not result in the magnitude of reduction that would allow their updated offerings to compare favorably to the price proposal submitted by MLJT. Therefore, the selection committee unanimously determined that MLJT's proposal offered the best overall value to the MTA as they were technically qualified and provided a cost that was considerably lower (13%) than the second lowest proposer.

Negotiations were held with MLJT focusing on scope clarifications. Following negotiations, MLJT submitted their Best and Final Offer in the amount of \$92,294,500 (\$91,794,500 Base and \$500,000 Option). This pricing includes additional cable work not in the original solicitation, and updated subcontractor pricing from their original price submissions.

DBE/MBE/WBE/SDVOB Information

The MTA Department of Diversity and Civil Rights has established a 20% DBE goal for the Contract. Although this is a design-build contract with some undefined scope, MLJT is projecting to meet the required DBE goal requirements. MLJT has not completed any MTA contracts with MWDBE goals; therefore, no assessment of their MWDBE performance is available at this time. MLJ Contracting Corp. and J-Track LLC have individually achieved their assigned DBE/MBE/WBE goals on previously completed MTA contracts.

Impact on Funding

Funding for this Contract and the stipends for the three unsuccessful proposers is included in the LIRR part of the 2020-2024 Capital Program and will be funded with federal funds.

Alternatives

None recommended. Currently, MTA lacks available in-house technical personnel to perform the scope of work associated with this Contract.

Construction & Development

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Dept &	Dept & Dept Head Name:						SUMMARY INFORMA	TION			
Stations	/Barney Gray,	Senior Vice	President			1	Vendor Name		Contrac	t Number	
						9	Skanska USA Civil Northeast Inc. A37693				
Contrac	ts Departme	nt:					Description		I.		
Mark Za	ıncolli, Associa	ite General (Counsel				Design-Build Services for Circulation Improvements at Grand Central – 42nd Street Station				
Board Reviews					_] 7	Total Amount				
Order	То	Date	Approval	Info	Other	1. A37693: \$			\$7	4,470,000	
0.00.			7.66.010.			2	2. Stipend Payments:		\$	750,000	
1	Capital Program Committee	11/29/22	Х				Contract Term 715 Calendar Days				
2	Board	11/30/22	Х				To Galeriaar Baye				
						Option(s) included in Total Amount?			⊠ N/A		
	I	nternal App	rovals			F	Renewal?		☐ Yes	⊠ No	
						F	Procurement Type				
Order	Approval	Order	Арј	proval			Competitive	☐ Non-	-competiti	ve	
Х	Deputy Chief Development		President				Solicitation Type ☑ RFP ☐ Bid	• •			
X	Deputy Chief Delivery	, X	Executive V Counsel	P & Ge	neral	[[Funding Source ☐ Operating ☐ Capital ☐ Federal ☐ Other			er	

Purpose/Recommendation

MTA Construction & Development ("C&D") requests Board approval to award a publicly advertised and competitively solicited contract to Skanska USA Civil Northeast Inc. for design-build services for circulation improvements at Grand Central – 42nd Street Station in the amount of \$74,470,000 and with a duration of 715 calendar days. In accordance with MTA policy regarding the use of design-build contracts, and to enhance competition and defray proposal costs, this solicitation includes a stipend of \$250,000 to be paid to each unsuccessful proposer whose proposal met the defined proposal standards. Accordingly, approval is also requested to pay stipends totaling \$750,000 to the three unsuccessful proposers.

Discussion

Contract A37693 (the "Contract") is for design-build services for circulation improvements at Grand Central – 42nd Street Station, including the construction of a new passageway, new stairs, and widening of existing stairs.

A two-step procurement process was conducted for the Contract. In Step 1, a Request for Qualifications ("RFQ") was advertised, resulting in the submission of six Statements of Qualifications that were evaluated against pre-established Threshold Criteria (addressing completeness, timeliness, capacity, responsibility, and financial capability) and Substantive Evaluation Criteria (major participants, personnel and organizational capacity, project approach, prior experience, past performance, and diversity compliance). Based on these criteria, the following four firms were selected to receive the Request for Proposal ("RFP") in Step 2:

- Citnalta-Forte JV ("CFJV")
- John Civetta & Sons, Inc. ("Civetta")
- MLJ Contracting Corp. ("MLJ")
- Skanska USA Civil Northeast Inc ("Skanska")

All four of the selected teams submitted technical and price proposals. The selection committee, consisting of representatives from C&D Delivery and Contracts Departments and NYCT Maintenance of Way and Operations Planning, first reviewed the technical proposals and heard oral presentations from each of the Proposers. The selection committee evaluated the technical proposals using the following pre-established selection criteria: design and construction, schedule, maintenance, management plan, experience, record of performance,

Construction & Development

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safety and quality, diversity compliance, and other relevant matters. The selection committee determined that all four teams submitted technical proposals that were responsive and acceptable. The selection committee next opened the price proposals, which were as follows: CFJV \$67,871,000; Civetta \$87,572,500; MLJ \$98,200,000; and Skanska \$84,930,000.

Based on the technical and price proposals, the selection committee invited CFJV, Civetta, and Skanska for negotiations to discuss technical clarifications and pricing. The technical proposal from MLJ was limited in project specific information and their price was outside of the competitive range. Negotiations with CFJV, Civetta, and Skanska included discissions of design requirements, project schedule, and overall price. Following negotiations, Best and Final Offers ("BAFO") were requested from CFJV, Civetta, and Skanska requesting revised pricing and revised milestone durations. The results of the BAFOs were as follows:

- CFJV \$67,337,000 with an overall duration of 730 days
- Civetta \$72,767,500 with an overall duration of 730 days
- Skanska \$74,470,000, with an overall duration of 715 day

After review of the BAFOs, the selection committee unanimously determined that the proposal submitted by Skanska provided the best value to the MTA. The selection committee's determination was based on Skanska being unanimously ranked the highest technical proposer, based on their demonstrated experience on similar work, vast tunneling experience and detailed understanding of the project scope. In addition, Skanska offered reductions in the number of diversions of service as well as the shortest schedule duration which provided additional cost savings.

DBE/MBE/WBE/SDVOB Information

The MTA Department of Diversity and Civil Rights ("DDCR") has established 15% MBE, 15%WBE and 6% SDVOB goals for the Contract. Skanska's utilization plan is under review. Skanska has achieved its DBE/MBE/WBE goals on previously completed contracts.

Impact on Funding

Funding for the Contract, and stipends for the three unsuccessful proposers are included in the NYCT portion of the MTA's 2020-2024 Capital Program.

Alternatives

None recommended. Currently, MTA lacks available in-house technical personnel to perform the scope of work associated with this Contract.

Construction & Development

Schedule C Competitive Requests for Proposals (Award of Purchase/Public Work Contracts)
Item Number 8

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Dept &	Dept & Dept Head Name:						SUMMARY INFORMATION			
Systems	s, Deliver /Marl	k Bienstock, S	Senior Vice F	Preside	nt	Vendo	or Name		Contra	ct Number
						CRC Associates Inc. C52146				6
Contrac	ts Departmer	nt:				Descr	ription	•		
Daniel L	Tentler, SVP	, Deputy Gen	eral Counse	I		Design-Build Services for Laser Intrusion Detection Systems Installation for Under River Tubes, Phase 3				
Board Reviews						Total	Amount			
Order	То	Date	Approval	Info	Other	. 1. C52146: \$52,5			2,550,000	
0.00.		20.00	7 10 10 10 10 11			2. Stipend Payments: \$ 1				150,000
	Capital					Contract Term 1460 Calendar Days				
1	Program Committee	11/29/22	X							
2	Board	11/30/22	X				- ,			
							n(s) included in Amount?	☐ Ye	es 🗌 N	o ⊠ N/A
	lı	nternal Appr	ovals			Renev	wal?		☐ Yes	⊠ No
	T		1			Procu	rement Type			
Order	Approval	Order	Ар	proval		⊠ Co	mpetitive	☐ Non-	competit	ive
X	Deputy Chief Development		President			Solici ⊠ RF	tation Type P Bid	☐ Othe	r:	
Х	Deputy Chief Delivery	, X	Executive \	/P & G	eneral	Funding Source Operating Capital Federal Other			ner	

MTA Construction & Development ("C&D") requests Board approval to award a publicly advertised and competitively solicited contract to CRC Associates, Inc. for design-build services to provide a laser intrusion detection system for under river subway tubes and subway stations in the amount of \$52,550,000 and a duration of 1460 Calendar Days. In accordance with MTA policy regarding the use of design-build contracts, and to enhance competition and defray proposal costs, this solicitation includes a stipend of \$75,000 to be paid to each unsuccessful proposer whose proposal met the defined proposal standards. Accordingly, approval is also requested to pay stipends totaling \$150,000 to the two unsuccessful proposers.

Discussion

This contract (the "Contract") is for design-build services to provide a laser intrusion detection system in thirteen under-river subway tubes and twenty-nine subway stations. The Contract will also include updating existing CCTV equipment, upgrading access control and fiber distribution panels, and integration and commissioning of the equipment into the existing physical security information management system.

A two-step procurement process was conducted for the Contract. In Step 1, a Request for Qualifications was advertised, resulting in the submission of five Statements of Qualifications that were evaluated against pre-established Threshold Criteria (addressing completeness, timeliness, capacity, responsibility, and financial capability) and Substantive Evaluation Criteria (major participants, personnel and organizational capacity, project approach, prior experience, past performance, and diversity compliance). Based on these criteria, the following three firms were selected to receive the Request for Proposal ("RFP") in Step 2:

- CRC Associates, Inc ("CRC")
- EJ Electric Installation Co. ("EJ")
- TC Electric, LLC ("TC")

All three of the selected firms submitted technical and price proposals in response to the RFP. The selection committee, consisting of representatives from C&D's Delivery and Contracts Departments and New York City Transit's Department of Security, first reviewed the technical proposals and heard oral presentations from each of the Proposers. The selection committee evaluated the technical proposals using the following pre-established selection criteria: design and construction, schedule, maintenance, management plan, experience,



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record of performance, safety and quality, diversity compliance, and other relevant matters. The selection committee determined that all three teams submitted technical proposals that were responsive and acceptable. The selection committee next opened the price proposals, which were as follows: CRC \$52,550,000; EJ \$60,400,000; and TC \$71,700,000.

Based upon its review of the technical and price proposals the selection committee unanimously recommended award to CRC. The selection committee based their recommendation on the strength of CRC's technical proposal, its considerable reduction in schedule (8 months), as well as having submitted the lowest cost proposal. The selection committee considered CRC's proposal to offer MTA the best value. The pricing submitted by CRC is considered to be fair and reasonable.

DBE/MBE/WBE/SDVOB Information

The MTA Department of Diversity and Civil Rights ("DDCR") has established 13% MBE, 13% WBE and 0% SDVOB goals for the Contract. CRC's utilization plan is under review. CRC has achieved its DBE/MBE/WBE goals on previously completed contracts.

Impact on Funding

Funding for the Contract, and stipends for the two unsuccessful proposers are included in the NYCT portion of the MTA's 2020-2024 Capital Program.

Alternatives

None recommended. Currently, MTA lacks available in-house technical personnel to perform the scope of work associated with this Contract

Construction & Development

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Dept & Dept Head Name:								SUMMARY INFORMATION			
Stations/Barney Gray, Senior Vice President								Vendor Name	Contract Number		
						J-Track, LLC	E30645				
Contracts Department:								Description			
Mark Zancolli, Associate General Counsel								Design and Construction Services for Escalator Replacements in Manhattan and Queens			
Board Reviews								Total Amount			
Order	То		Date	Approval	Info	Other		1. E30645:		\$48	3,299,000
0.00.				7.66.014.				2. Stipend Payments:		\$	96,000
1	Capital Program Committee	11,	/29/22	Х				Contract Term 967 Calendar Days			
2	Board	11,	/30/22	Х				cor calonida Bayo			
			·					Option(s) included in Total Amount?	□ Y	es 🗌 No	⊠ N/A
Internal Approvals								Renewal?		☐ Yes	⊠ No
	r		r	<u>, </u>				Procurement Type			
Order	Approva	al	Order	Ap	proval	I			☐ Non-	-competitiv	е
Х	Deputy Chief, Development		Х	President				Solicitation Type ☑ RFP ☐ Bid	☐ Othe	er:	
X	X Deputy Chief, Delivery		X	Executive VP & General Counsel				Funding Source ☐ Operating ☐ Capital	Feder	al 🗌 Othe	er

Purpose/Recommendation

MTA Construction & Development ("C&D") requests Board approval to award a publicly advertised and competitively solicited contract for design-build services for the replacement of six escalators to J-Track, LLC in the amount of \$48,299,000 and a duration of 967 Calendar Days. In accordance with MTA policy regarding the use of design-build contracts, and to enhance competition and defray proposal costs, this solicitation includes a stipend of \$48,000 to be paid to each unsuccessful proposer whose proposal met the defined proposal standards. Accordingly, approval is also requested to pay stipends totaling \$96,000 to the two unsuccessful proposers.

Discussion

This contract (the "Contract") is for design-build services for escalator replacements at West 4th Street in Manhattan and Sutphin Boulevard in Queens. The project will replace the two escalators at the West 4th St. - 8th Avenue Line station and the four escalators at the Sutphin Blvd-Archer Ave-JFK Airport station with new heavy-duty transit escalators that are suitable for 24-hour continuous operation. The work also includes the replacement of equipment in the escalator machine rooms and "state of good repair" work in the vicinity of the escalators, such as replacing tile finishes on walls, adding new handrails to stairwells adjacent to the escalators, and replacing existing lighting with new LED lighting.

A two-step procurement process was conducted for this Contract. In Step 1, a Request for Qualifications was advertised, resulting in the submission of three Statements of Qualifications that were evaluated against pre-established Threshold Criteria (addressing completeness, timeliness, capacity, responsibility, and financial capability) and Substantive Evaluation Criteria (addressing key personnel, and organization, project approach, prior experience, past performance, and diversity compliance). Based on these criteria, all three firms were selected to receive the Request for Proposals ("RFP") in Step 2:

- Forte Construction Corp. ("Forte")
- J-Track, LLC ("J-Track")
- Paul J. Scariano, Inc. ("PJS")

All three firms submitted technical and price proposals in response to the RFP. The selection committee, consisting of representatives from C&D Delivery and Contracts Departments, first reviewed the technical proposals and heard oral presentations from each of the



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Proposers. The selection committee evaluated the technical proposals using the following pre-established selection criteria: design and construction, schedule, management plan, experience, record of performance, safety and quality, diversity compliance, and other relevant matters. The selection committee determined that all three teams submitted technical proposals that were responsive and acceptable. The selection committee next opened the price proposals, which were as follows: Forte \$54,122,500; J-Track \$49,998,000; and PJS \$61,600,000.

Based upon its review of the technical and price proposals, the selection committee determined that the proposal submitted by J-Track demonstrated a technically superior approach to the design and construction work and full understanding of potential risks and included reductions in both the number of diversions of service and the overall contract duration which provided significant cost savings to the MTA. While PJS submitted a strong technical proposal, its price proposal was significantly higher than J-Track and its proposal did not contain any schedule reductions. Forte's technical proposal lacked project-specific detail and during their oral presentation, several key personnel were not in attendance, as is required. Additionally, Forte did not present any schedule reductions. For the reasons stated above, the selection committee unanimously recommended that only J-Track be invited in for negotiations.

Negotiations with J-Track included discussions of design requirements, project schedule, and overall cost. Following negotiations, J-Track submitted their Best and Final Offer in the amount of \$48,299,000 which is deemed to be fair and reasonable.

DBE/MBE/WBE/SDVOB Information

The MTA Department of Diversity and Civil Rights ("DDCR") has established 10% MBE, 10%WBE and 2% SDVOB goals for the Contract. J-Track's utilization plan is currently under review. J-Track has achieved its DBE/MBE/WBE goals on previously completed contracts.

Impact on Funding

Funding for the Contract, and stipends for the two unsuccessful proposers, are included in the NYCT portion of the MTA's 2020-2024 Capital Program.

Alternatives

None recommended. Currently, MTA lacks available in-house technical personnel to perform the scope of work associated with this Contract.



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Dant 9 Dant Haad Name:						SUMMARY INFORMATION				
Dept & Dept Head Name:							SUMMART INFORMA	IION		
LIRR Business Unit, Delivery/Andrew Wilson, Acting Chief							Vendor Name		Contrac	t Number
					Power Resources International 6359 Inc.					
Contrac	ts Department:					ĪΠ	Description		•	
Ian Goldrich, SVP and Deputy General Counsel							Design-Build Services for the Replacement of Babylon and Hillside Motor Generators			
	Вс	ard Revie	ws			1	Total Amount			
Order	То	Date	Approval	Info	Other	;	\$13,255,286			
1	Capital Program Committee	11/29/22	Х				Contract Term Twenty -Eight Months			
2	Board	11/30/22	Х				Thenty Light Mentile			
							Option(s) included in Total Amount?	☐ Y	es 🗌 No	⊠ N/A
Internal Approvals							Renewal?		☐ Yes	⊠ No
						Ī	Procurement Type			
Order	Approval	Order	Apı	proval			⊠ Competitive	☐ Non-	-competitiv	/e
Х	Deputy Chief, Development	Х	President				Solicitation Type ☑ RFP ☐ Bid	☐ Othe	er:	
Х	Deputy Chief, Delivery	Х	Executive VP & General Counsel				Funding Source ☐ Operating ☐ Capital	Feder	al 🗌 Othe	er

Purpose/Recommendation

MTA Construction and Development ("C&D") requests Board approval to award a publicly advertised and competitively solicited contract to Power Resources International Inc. for design-build services to provide two new prefabricated motor generator buildings in the amount of \$13,255,286 and a duration of twenty-eight months.

Discussion

The work under Contract 6359 (the "Contract") provides for the design and construction of one signal power motor generator at 170-55 Douglas Ave, Jamaica, NY ("Hillside") and one signal power motor generator at 2 Paris Ct., Babylon, NY ("Babylon") in order to address current and future signal system requirements.

A one-step procurement process was conducted for this Contract. The Request for Proposals ("RFP") for this contract was publicly advertised in the New York State Contract Reporter, the N.Y. Post, and on the MTA website. In response to the RFP, proposals were received from the following firms:

- Power Resources International, Inc. ("PRI")
- Verde Electric Corporation ("Verde")
- VOLTAMP Electrical Contractors, Inc. ("VOLTAMP")
- Mass Electric Construction Co. ("Mass Electric")
- T. Moriarty & Son, Inc. ("Moriarty")

The selection committee, consisting of members from the C&D Delivery and Development Departments and from the Long Island Rail Road Engineering Department first reviewed the technical proposals from each of the Proposers. The selection committee evaluated the technical proposals using the following pre-established selection criteria set forth in the RFP: technical approach, demonstrated ability to meet the contract schedule, qualifications and experience of proposed staff; qualifications and experience of overall firm and diversity practices. Based on the selection committee's review of the technical proposals, PRI, Moriarty and Verde were deemed to be in the



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competitive range and were invited to give oral presentations on their technical proposals. The selection committee next opened the price proposals of the three firms which were as follows: PRI \$14,787,151; Moriarty \$16,503,218; and Verde \$17,723,244.

Although all three firms submitted acceptable technical proposals, based upon its review of their technical and price proposals, the selection committee unanimously determined that PRI was the highest ranked proposer. PRI's proposal demonstrated a thorough and comprehensive understanding of the project and adequately responded to all of the selection committee's questions. In addition, the means, methods, and design proposed by PRI mitigated many significant project risks. PRI also offered the lowest price among the three proposers. Accordingly, the selection committee unanimously determined that PRI's proposal provided the best value to the MTA and recommended that PRI be invited for negotiations.

Negotiations with PRI focused on cost-savings initiatives and scope clarifications. Following negotiations, PRI submitted its Best and Final Offer in the amount of \$13,255,286 (a reduction of \$1,531,865 or 10%) which is considered to be fair and reasonable.

DBE/MBE/WBE/SDVOB Information

The MTA Department of Diversity and Civil Rights has established a DBE goal of 5% for the Contract due to the limited subcontracting opportunities. Although this is a design-build contract with some undefined scope, PRI is projecting to exceed the required DBE goal requirements. PRI has achieved the assigned D/M/WBE goals on previous completed contracts.

Impact On Funding

Funding for this Contract is included in the LIRR portion of the 2015-2019 Capital Program.

Alternatives

None recommended. Currently, MTA lacks available in-house technical personnel to perform the scope of work associated with the Contract.



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Dept &	Dept Head Nar	ne:		SUMMARY INFORMATION				
MNR Bu	ısiness Unit/ De	elivery Ziona	a Rubin, Vice	Vendor Name	Contract Numb	er		
						J-Track LLC	131618	
Contrac	ts Department	<u>:</u>		Description				
John Ab	ili, Sr. Vice Pre	sident & Dep	outy General	Design-Build Services for Moodna Viaduct Timber Ties Replacement				
	1	Board Revi	ews	Total Amount	Total Amount			
Order	То	Date	Approval	Info	Other	\$7,358,420		
	Capital					Contract Term		
1	Program	11/29/22	Χ					
	Committee					Twenty-Four Months		
2	Board	11/30/22	X					
						Option(s) included in Total Amount?	☐ Yes ☐ No ☒ N/A	ı
	In	ternal Appr	ovals	Renewal?	☐ Yes 🛛 No)		
						Procurement Type		
Order	Approval	Order	Ар	proval			☐ Non-competitive	
Х	Deputy Chief,	Х	President			Solicitation Type		
	Development					RFP Bid	Other:	
X	Deputy Chief, Delivery	x	Executive VP & General Counsel			Funding Source ☐ Operating ☒ Capita	ıl ⊠ Federal □ Other	

Purpose/Recommendation

MTA Construction & Development ("C&D") requests Board approval to award a publicly advertised and competitively solicited contract to J-Track LLC for design-build services to replace of the timber ties on the Moodna Viaduct in the amount of \$7,358,420 and a duration of twenty-four months.

Discussion

This contract (the "Contract") provides for the replacement of the timber bridge ties on the Moodna Viaduct on Metro-North's ("MNR") Port Jervis Line in Orange County, New York. The Moodna Viaduct is a 3,201 feet long steel railroad viaduct located in Salisbury Mills and Cornwall NY. The work under the Contract includes design, survey, procurement, fabrication and installation for the replacement of timber ties and rail connection parts, along with the removal and disposal of the existing timber bridge ties.

A two-step procurement process was conducted for the Contract. In Step 1, a Request for Qualifications was advertised, resulting in the submission of six Statements of Qualifications that were evaluated against pre-established Threshold Criteria (addressing completeness, timeliness, capacity, responsibility, and financial capability) and Substantive Evaluation Criteria (addressing key personnel and organization, project approach, prior experience, past performance, financial strength and diversity compliance). Based on these criteria, all three responding firms were selected to receive the Request for Proposal ("RFP") in Step 2:

- J-Track LLC ("J-Track")
- Railroad Construction Company ("RCC")
- Tracks Unlimited, LLC ("Tracks Unlimited")

All three firms submitted technical and price proposals in response to the RFP. The selection committee, consisting of representatives from C&D Delivery and MNR, first reviewed the technical proposals and heard oral presentations from each of the respondents during which technical discussions were conducted. The selection committee evaluated the technical proposals utilizing the following preestablished selection criteria: technical approach, qualifications of the firm, team organization, schedule, and diversity practices. The selection committee determined that all three firms submitted technical proposals that were responsive and acceptable. The selection committee then opened the price proposals, which were as follows: J-Track - \$7,428,420; RCC - \$9,365,000; and Tracks Unlimited - \$7,720,400.



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Based upon its review of the technical and price proposals, and discussions during the oral presentations, the selection committee determined that the proposal submitted by J-Track was the highest ranked technically, provided the lowest prices and provided the best value to the MTA as it demonstrated a superior combination of technical approach, price, and schedule. J-Track's proposal demonstrated a strong understanding of all components of the scope of work as established in their technical approach, and their key personnel have successfully completed design-build projects of similar scope and magnitude. Of the three teams, J-Track submitted the most aggressive schedule and also offered the lowest price. J-Track has successfully completed similar projects.

Based on their evaluation, the selection committee unanimously recommended J-Track be invited to negotiations.

Negotiations focused on technical approach, schedule and costs. Following negotiations, J-Track submitted a Best and Final Offer in the amount of \$7,358,420 which was deemed to be fair and reasonable.

DBE/MBE/WBE/SDVOB Information

The MTA Department of Diversity and Civil Rights has established a 22.5% DBE goal for the Contract. Although this is a design-build contact with some undefined scope, J-Track is projecting to meet the required DBE goal. J-Track has met has achieved its goals on all recently completed contracts.

Impact on Funding

Funding for the Contract is included in the MNR's portion of the MTA's 2015-19 Capital Program.

Alternatives

None are recommended. Currently, C&D lacks the in-house technical personnel to perform the scope of work associated with the Contract.

Construction & Development

Schedule I Modifications to Purchase and Public Work Contracts Item Number 12

Vendor Name (& Location)								
Schindler Elevator Corporation (New York, New York)								
Description								
Vertical Circulation Elements for the East Side Access Project								
Contract Term (including Options, if any)								
4,481 days								
Option(s) include Amount?	ded in Total ⊠ Yes □ No □ N/A							
Procurement Type	□ Competitive □ Non-competitive							
Solicitation Type	☐ RFP ☐ Bid ☐ Other: Modification							
Funding Source								
☑ Operating ☐ Capital ☐ Federal ☐ Other:								
Requesting Dept/Div & Dept/Div Head Name:								
East Side Access, R. Troup								
D: :								

Contract Number	Mod	ification Number
VM014		25
Original Amount:	\$	24,077,558
Prior Modifications:	\$	15,624,352
Exercised Options:	\$	1,787,351
Current Amount:	\$	41,489,261
This Request	\$	7,063,032
% of This Request to Current Amount:		17%
% of Modifications (including This Request) to Original Amount:		94%

Discussion:

Contract VM014 (the "Contract") provides engineering and fabrication for all of the elevators and escalators (also referred to as vertical circulation elements) for the East Side Access project. MTA Construction and Development requests Board approval to award a modification to the Contract for the maintenance of all of the elevators and escalators at the new Grand Central Madison Terminal for a period of up to seven months from the commencement of revenue service.

The new Grand Central Madison Terminal ("GCMT") includes twenty elevators and thirty-eight escalators (including seventeen high rise escalators). This modification to the Contract requires Schindler Elevator Corporation ("Schindler") to be on-site twenty-four hours a day, seven days a week to provide maintenance of these elevators and escalators from the revenue service date of the Long Island Rail Road service into GCMT until the long-term facility maintenance contract (MS21001) is in place. The MS21001 scope of work which includes the maintenance of the GCMT elevators and escalators, is currently in the solicitation phase and is scheduled to be awarded in the first quarter of 2023. This modification will also allow the future MS21001 contractor enough time to mobilize staff and ramp up for their eventual take-over of the maintenance of these elements.

Schindler's proposal for this modification was \$9,029,154 for the seven month period. Negotiations were held and the parties agreed to a cost of \$235,434 per week for a total not to exceed amount of \$7,063,032 for the seven month period. The negotiated cost is deemed to be fair and reasonable. Schindler will be paid at unit price rates and will only be entitled to the costs associated with the time period for which the MTA requires these services.

In connection with review of Schindler's responsibility pursuant to the All-Agency Responsibility Guidelines, Schindler was found to be responsible notwithstanding significant adverse information and such responsibility finding was approved by the MTA Deputy Chief Operating Officer in consultation with the MTA General Counsel.