Metropolitan Transportation Authority

Capital Program Oversight Committee Meeting

April 2021

Committee Members

P. Foye, Chair
N. Zuckerman, Vice Chair
A. Albert
J. Barbas
N. Brown
M. Fleischer
R. Glucksman
R. Herman
D. Jones
K. Law
R. Linn
D. Mack
J. Samuelsen
V. Tessitore

Capital Program Oversight Committee Meeting

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

Wednesday, 4/21/2021
10:00 AM - 5:00 PM ET

1. PUBLIC COMMENTS PERIOD

2. APPROVAL OF MINUTES MARCH 17, 2021

CPOC Committee Minutes - Page 3

3. COMMITTEE WORK PLAN 2021 - 2022

CPOC Committee Work Plan - Page 4

4. PRESIDENT'S REPORT

President's Report - Page 6

5. CAPITAL PROGRAM UPDATE

Progress Report on Signals and Train Control - Page 10
IEC Project Review on Signals and Train Control - Page 14

6. CAPITAL PROGRAM STATUS

Commitments, Completions, and Funding Report - Page 31

MINUTES OF MEETING

MTA CAPITAL PROGRAM OVERSIGHT COMMITTEE

March 17, 2021

New York, New York

10:00 A.M.

Because of the ongoing COVID-19 public health crisis, the MTA Chairman convened a one-day, virtual Board and Committee meeting session on March 17, 2021, which included the following committees:

- Long Island Rail Road and Metro-North Railroad;
- New York City Transit;
- MTA Bridges and Tunnels;
- Finance;
- Capital Program Oversight Committee;
- Corporate Governance.

To see a summary of the CPOC Committee meeting, please refer to the March 17, 2021 Board minutes in the April Board Book available here on the Board materials website:
https://new.mta.info/transparency/board-and-committee-meetings/april-2021

Metropolitan Transportation Authority

2021- 2022 CPOC Committee Work Plan

I. Recurring Agenda Items

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

II. Specific Agenda Items

May
Overall Capital Program
- Integrated Megaprojects

June
Overall Capital Program
Rolling Stock
OMNY
Quarterly Traffic Light Report

July
Overall Capital Program
- Stations

September
Overall Capital Program
- Railroads

Quarterly Traffic Light Report

October
Overall Capital Program
- Infrastructure

Security Projects

November
Overall Capital Program
- Signals and Train Control

Minority, Women and Disadvantaged Business Participation
Small Business Development Program

December
Overall Capital Program
- Integrated Megaprojects

OMNY
Quarterly Traffic Light Report

January
Overall Capital Program
Rolling Stock

February
Overall Capital Program
- B&T
- Railroads

March
Overall Capital Program
- Infrastructure

Quarterly Traffic Light Report

April
Overall Capital Program
- Signals and Train Control

Security Projects
Minority, Women and Disadvantaged Business Participation

MTA Capital Program Overview

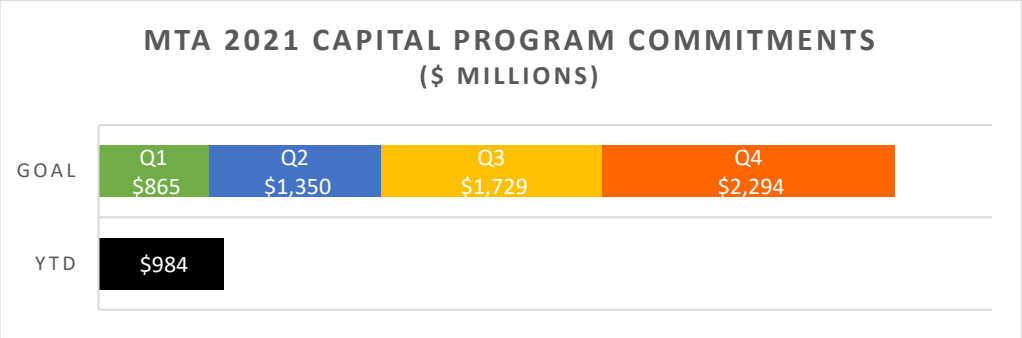
April 2021

Program Commitments

The MTA's goal is to award at least $6.2 B in total project work to third-party contractors or in-house teams in 2021. Through March, MTA agencies have committed $984 M in awards, meeting our goal for Q1.

Notable commitments for the month of March included:

- 135 standard buses ($96 M) and 84 hybrid electric buses ($71 M) for NYCT
- All electric bus chargers at five depots for NYCT ($50 M)
- Protective fencing for the Verrazzano Narrows Bridge for Bridges & Tunnels ($35 M)



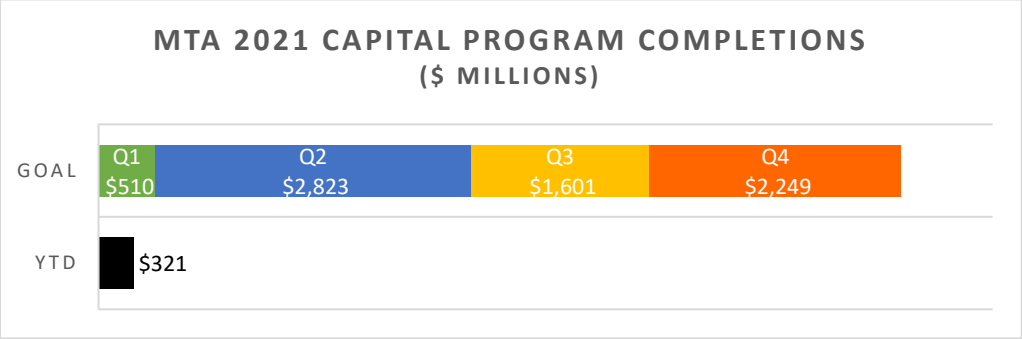
Program Completions

The value of the project work that is completed in a given year is one of the metrics that MTA C&D uses to measure progress on the Capital Program. C&D plans to complete a record $7.2 B of work in 2021, including 51 major completions (a major completion is one with a significant dollar value or high visibility). Our completions goal for Q1 is $510 M.

Through March, MTA agencies have completed $321 M worth of projects. Unfortunately, two major projects expected to be completed in February are now on schedule to be completed in April: ADA at Gun Hill Rd (5) and a LIRR diesel locomotive shop.

Notable completions in March included:

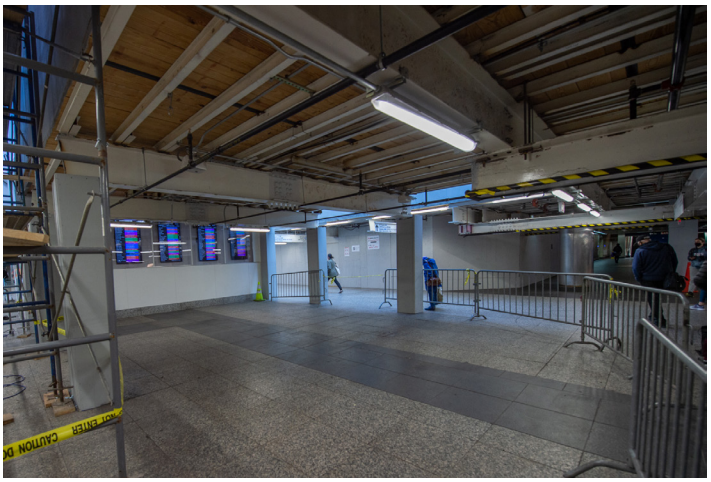
- Five Metro-North Station Improvements, including White Plains Station ($136 M)
- Replacement of escalator at Jay Street for NYCT ($21 M)



Project Highlight: East End Gateway / LIRR Concourse at Penn Station

MTA C&D is making a number of improvements to the LIRR Concourse at Penn Station, including higher ceilings, wider corridors, better lighting and air flow, accessibility improvements, more intuitive wayfinding, and new retail options. This work follows the completion of the first phase of the East End Gateway project -- the dramatic new entrance to Penn Station from Seventh Av and 33 St that opened in December 2020.

The new LIRR Concourse will be completed in 2023.



LIRR Concourse prior to construction

Project Highlight: Westbury Transit-Oriented Development

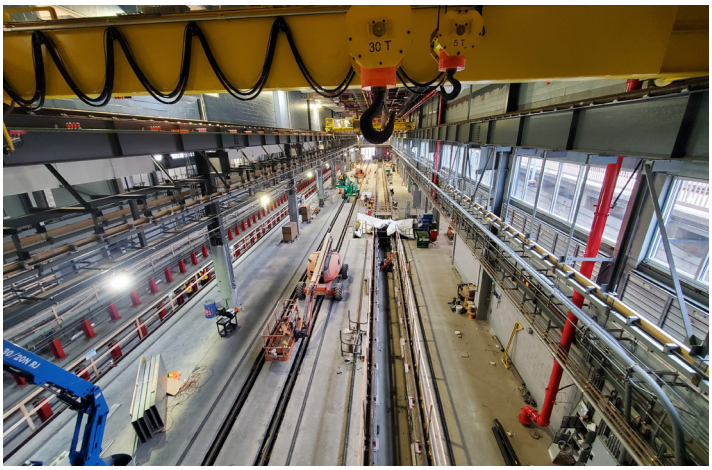
MTA C&D is working with the Village of Westbury to transform a 1.6-acre MTA-owned surface parking lot adjacent to the LIRR Westbury station into a new development project that (1) optimizes the site's proximity to transit with new residential and retail space; (2) improves the commuter experience; and (3) generates revenue for the MTA. This initiative follows the Village's recent rezoning to facilitate transit-oriented development in its downtown, and MTA's LIRR Expansion project, which will dramatically improve transit access on the Main Line.

C&D received several compelling proposals to the RFP issued in December, and is in negotiations with multiple developers. A developer and development project should be selected by this summer.

Project Highlight: Clifton Shops and Yards

MTA C&D is fortifying Clifton Shops and Yards infrastructure and equipment against heavy rainfall and storm surges. The Staten Island-based facility, which was damaged by flooding during Superstorm Sandy, is used to inspect and maintain all Staten Island Rail (SIR) locomotives. The location will also serve as the headquarters for SIR division of NYC Transit.

The project entails building a brand-new maintenance shop building before demolishing the existing, obsolescent facilities. The new building is complete, including exterior roof, and HVAC systems. Also completed are: flood wall and storm retention tanks, interior track work, rooftop systems, permanent electric power and emergency back-up generator, and facility equipment (including wheel truing machine and turntables). Underway are interior finishes, final installation of shop equipment, and testing and commissioning.



MTA Construction & Development assumed responsibility for Signals & Train Control projects in September 2020. C&D's last report to the Capital Oversight Program Committee on Signals and Train Control Projects was in November 2020. This document summarizes the progress on some of the most significant projects, primarily CBTC projects, and identifies the primary factors influencing the projects' performance.

Overall, the four Signals & Train Controls projects presented have been subject to detailed review by C&D with consequent changes made to the management personnel and organization. Where possible, measures have been put in place to mitigate past performance but these measures, along with COVID impacts, are unlikely to be sufficient to bring all projects back within their original budget and schedule.

One major area of improvement since the last C&D report on Signals & Train Control has been the transparency of equipment fabrication and delivery provided by Siemens, who is a major player in each of the three CBTC projects underway.

C&D is addressing contractor performance, key supplier capabilities and building a broader base of specialist fabricators to further improve existing project performance and enable cost containment on future projects.

Eighth Avenue CBTC Program

C48006

S48013-1

S48013-2

S87055-1

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.

PROJECT STATUS	Original	Forecast
Substantial Completion	January 2025	January 2025
Budget	$735M	$735 M
The project is approximately 20% complete		

Project builds on the technology introduced in previous CBTC projects, notably the interoperability of CBTC on the QBLW line. It also introduces, for the first time, Axle Counters In lieu of Insulated Joints/Track Circuits to reduce overall project cost and schedule. The project was solicited using A+B bidding to encourage bidders to minimize the use of track outages other authority supplied services. This process resulted in approximately $30 million in savings in support costs for MTA.

The project is approximately 20% complete, and remains on schedule and on budget. The prime contractor (LK Comstock) continues to plan and perform well and is working diligently with the C&D project team to resolve project issues as they arise.

Current activities include:

- Building two relay rooms at 34 St and 42 St to house the equipment necessary for the interlockings.
- Installing wayside equipment, including radio equipment, fiber optic cable and the messenger wire that the cable hangs on, and axle counter heads.
- Testing the signal control technology on both train car types to run on the Eighth Ave Line. The project team delivered CBTC equipment to Kawasaki to ensure that it is compatible with their R-211 train cars, currently in production. The project

team is also resolving design issues to retrofit the R-179 cars, already in use today, with the new CBTC equipment.

C&D is addressing the following factors to keep the project on track:

- Schedule for the manufacturing of equipment, including the racks to support CBTC equipment and additional DCS equipment
- On-vehicle equipment testing and installation – a pilot R-211 train from Kawasaki is expected in May 2021
- Coordinating with NYCT to ensure the limits of the outages are utilized efficiently, with the appropriate number of flaggers and work trains to support the work
- Implications of continuing development of software from QBL CBTC project

The Eighth Av line has three services (A, C, E) and carries more than 710,000 daily riders (pre-COVID).

Queens Boulevard Line West CBTC Program (QBL-W)

S48004-1

S48004-2

S48005

The project will provide CBTC from Union Tpke in Queens through 50 St/8 Ave on 53 St line and 21 St/Queensbridge on 63 St Line. The project also includes equipping 309 R160 units with CBTC equipment and deploying the B-Division ATS system. QBL-W is the first interoperable CBTC project implemented for NYCT, allowing trains with CBTC from different suppliers (Siemens and Thales) to run on the same line at the same time. Three separate contracts were awarded to deliver the project.

PROJECT STATUS	Original	Forecast
In Service CBTC	March 2021	Q4 2021
Budget	$657.7 M	$725.1 M
LK Comstock	75% complete (Installer)	
Siemens	90-95% complete	
Thales	80-85% complete	

Performance of the project has greatly improved. Since the last report to the board, C&D installed new project leadership and developed an integrated work schedule across all three contracts. The completion of acceleration work by LK Comstock has also helped improve the performance of the project.

Project has already placed CBTC into service on three of the four sections along the line, with the latest section (Section 3) being put in operation over a week-long outage at the end of 2020. In-service operation for the last section (referenced as Section 2) is now scheduled for Q4 2021. Although the project team determined that an earlier completion date of July 2021 was feasible, after consulting with NYCT the decision was made in favor of a later completion date of Q4 2021 to limit customer impacts and – most important – in light of the lower ridership avoid overstressing NYCT.

While 82% of the 309 train units have been upgraded to run in CBTC mode, the team continues performance monitoring to assess fleet stability which has not yet been fully achieved. Over the next months several updates to Siemens and Thales software will be put in place to address specific improvements required to meet desired stability

standards. Further updates to software, though unpredictable, will likely be necessary, as this project is the first to target CBTC interoperability between different suppliers.

As reported in November 2020 overall project costs will exceed the budget primarily due to the (1) late award of the LK Comstock installer contract in 2017; (2) lack of coordination between contracts; (3) late equipment supply; and (4) insufficient initial allocation of FA and TAL funds. C&D is conducting detailed studies to both assess the source of this overrun and predict final costs based on the recently finalized integrated schedule across all projects.

Culver Line CBTC Program

5-47009

S-32398

S-32399

M-44431

Culver Line Signal Modernization will improve reliability and resiliency of service between W8 St and Church Ave by modernizing signals, upgrading interlocking systems and equipment facilities, and making needed station improvements. The new signaling system will employ Communication-Based Train Control (CBTC), and add three new signal facilities at Ditmas Ave, Bay Parkway and Avenue X. This project will improve service along 4.7 route miles of subway track, for 12 subway stations.

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 selected in 2019 as the primary contractor and installer, with Siemens as their major subcontractor supplying signaling and CBTC technology.

PROJECT STATUS	Original	Forecast
Substantial Completion	Aug 2022	Mar 2023
Budget	$482 M	$482 M
The project is approximately 56% complete		

Recent activities:

- Construction of the three relay rooms -- at Ave X, Bay Parkway and Ditmas Ave – is complete. Project teams will begin installing relay room equipment this quarter
- Track work at Church Ave is also completed
- The racks and equipment for the Ave X portion of the project, manufactured in Kentucky, have passed inspection and are cleared to be delivered to the site
- Work is in progress to pull communication and control cable from Ave X to CBTC equipment along the track
- Installation of other wayside equipment is also underway, including radio equipment, transponders, switches, signals

The project schedule has fallen further behind schedule, from 2-3 months as reported in November 2020, to the currently projected 6-7 months because of:

- Tutor Perini's inability to source signal cable

  The contractor was late in ordering cable for the project from a supplier whose production was subsequently affected by COVID and prioritized their obligation to supply other government entities ahead of MTA. Project team has mitigated this condition by shifting orders for cable to other suppliers and by transferring cable

from the Eighth Ave CBTC project where LK Comstock ordered cable well in advance of need on site.

- Siemens's and its subcontractors' failure to meet scheduled targets for equipment fabrication and delivery

  C&D has worked with Siemens to mitigate delays by transferring material fabrication to additional firms, re-prioritizing manufacturing, increasing work shifts and identifying field-level efficiencies. C&D has placed a full-time independent monitor in the Siemens facility in Louisville to directly report production progress to the project team, as reports from Siemens were sometimes found to be unreliable.

ISIM-B Module 3 Program

W32789

T7080614

The program is to provide the systems and subsystems (Data Warehouse, Large Scale Display, 41 console desks with QBL workstations) to build out the new South Wall in the centralized Rail Control Center. The program also includes Health Status Indications for signal devices for the MOW/Signals Central Monitoring System. When completed the program will provide the ability to perform preventive and corrective maintenance.

PROJECT STATUS	Original	Forecast
Substantial Completion	Dec 2022	Dec 2022
Budget	$103 M	$103 M
The project is approximately 48% complete		

In conjunction with MTA-IT, MTA C&D is in the process of reframing this project as NYCT's needs have changed significantly in the three years since the project was originally designed and contracted in 2018. A stop work order has been issued for certain scope elements, including the Data Warehouse (which will instead be undertaken by MTA-IT), the Large-Scale Display AIM software and the NYCT external interfaces applications.

The contractor continues on other important project elements including:

- LSD steel frames have been delivered, for future installation of 152 60-inch display monitors
- Ramping up the Data Modeling of 11 source system Applications out of 22 for the Data Warehouse
- In-service testing of the signal health status indications has been completed at Dekalb Ave
- Installation of Signal Health Status Indications has begun at Briarwood Van Wyck Relay Room

C&D is in the process of negotiating the restructuring of the contract which has not yet been finalized.

April 2021 CPOC
Independent Engineering Consultant
Project Review

Communications-Based Train Control Projects

- CBTC 8th Avenue
- CBTC Queens Blvd. Line
- CBTC Culver

MTACD Signals & Train Control Business Unit

McKissack

MTA Independent Engineering Consultant

April 2021 CPOC
Independent Engineering Consultant
Project Review

8th Avenue CBTC - Design, Furnish, & Install

McKissack

MTA Independent Engineering Consultant

8th Avenue CBTC

Scope

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

This contract was awarded to LK Comstock (LKC) in January 2020, with an original duration of 60 months (to January 2025) and a program budget of $734.9M.

The new CBTC system shall tie into the Queens Boulevard Line (QBL). This project includes modernization of the 30th Street and 42nd Street North interlockings and the decommissioning of the 42nd Street South Interlocking. The two-existing mechanical interlockings will be replaced with processor-based (solid state) signal systems.

The scope includes integration of the R179 and R211 fleets into the CBTC system and the supply and installation of carborne systems for those fleets.

8th Avenue CBTC

Budget Review

- Based on the IEC's review of the project expenditures, contingency, work in place, soft costs, change orders, and risks, the IEC concurs with C&D's Estimate at Completion (EAC) of $734.9M for the original scope. However, the budget and EAC will increase by $12.5M for added Flushing line signal removal work which will be funded from another source.
  - The IEC finds that the existing contingency of $12.3M is sufficient to cover negotiated and pending additional change orders.

8th Avenue CBTC

Schedule Review

- The Contractor's schedule currently indicates a 110-day delay in Substantial Completion from January 2025 to April 2025, primarily due to late delivery of signal cases. It has been rejected by C&D as ample mitigation opportunities exist.
  - The IEC agrees that mitigation opportunities are available.
- Top schedule risks include:
  - Outage availability.
  - Delay to the delivery of wayside and relay room signal equipment.
  - Delays due to the complexity of testing and commissioning of interoperable CBTC sub-system components.

8th Avenue CBTC

Observations

- Integration of axle counters into the CBTC system:
  - The issues associated with the Axle Counter System (ACS) reset process, which occur under certain operating conditions, need to be resolved.
  - Additional axle counters are needed to address safety issues associated with the signal design.
  - The ACS will require revisions to the Interoperability Interface Specification (I2S) and associated design.
- The Project Team is taking a pro-active approach to avoid the risk of late delivery of all wayside equipment.

8th Avenue CBTC Recommendation Log

8th Avenue CBTC – IEC Recommendation / Observation Log		
Recommendation (November 2020)	**Agency Response/ Action**	**Status**
▪ EMI/EMC compatibility between various car classes operating on 8th Ave line and Axle counters should be validated in a timely manner. ▪ The supplier is requesting a waiver of EMI/EMC device testing. A timeline should be established that demonstrates the validation process. It should provide a plan that includes a comprehensive analysis or product testing on NYCT property that will not impact project schedule.	The agency has approved a waiver request.	Closed

April 2021 CPOC
Independent Engineering Consultant
Project Review

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

McKissack

MTA Independent Engineering Consultant

QBL CBTC

Project Scope

The QBL-CBTC project, under three contracts will:

- Overlay a radio-controlled Communications-Based Train Control (CBTC) system on NYCT QBL signal installations from north of Union Turnpike in Queens to north of 47th – 50th Street Station / 6th Avenue Line and south of 50th Street / 8th Avenue Line in Manhattan.
- Equip 154 R160 trains with CBTC carborne controllers.
- Prove interoperability between two major CBTC suppliers.
  - This is the first CBTC project to implement the Interoperability Interface Specification (I2S). It will ensure operational compatibility with the CBTC installations on future CBTC projects (e.g., Culver and 8th Ave.). I2S conformance will be achieved when the Project Team proves interoperability, as defined in the contract.

CBTC-QBL

Budget

- The original project budget was set at $662.8M. C&D has identified the need for extra funds to cover additional TA services to support contractor activities. The Estimate at Completion (EAC) currently stands at $725M.
  - A budget modification to address cost overruns of TA labor services (originally estimated at $45M), has been in process for the last several CPOC reporting cycles.
  - The Project Team and the IEC agree that an assessment of overall budget requirements needs to be finalized to bring cost certainty to this project.

CBTC-QBL

Schedule

- In the absence of approved contractor schedules, the project team, including the contractors and Ops Planning, has prepared and agreed to a summary level schedule that reflects the remainder of the work through final cutover.
  - In this plan, final cutover for all CBTC Sections is forecast for September 2021, a delay of 6 months from the baseline schedule.
  - The reasons for the delays include unplanned software updates, resolution of technical issues, and late equipment delivery including carborne and AWS equipment.
  - The IEC believes that achieving the September forecast will be challenging and as cited by C&D in their report 4Q 2021 is a more likely in-service date.
- The following top risks remain:
  - Weekend and weekday outages availability.
  - Number of software releases required to resolve critical technical and operational issues.
- The IEC notes that removals of legacy signal equipment by LKC will continue through 2022. Outages will be required, however, the detailed plan has yet to be fully developed.

CBTC-QBL

IEC Observations

- The Project Team made progress in the testing and commissioning of the CBTC system. Three sections of QBL were placed in CBTC revenue service (Intermediate Section & Sections 1 & 3). However, hardware and software defects persist.
  - New software releases are planned to address technical and operational issues. The latest release is currently being tested.
- While the CBTC supplier has made progress in certifying train units to operate in CBTC revenue service, additional certified units are needed to support revenue service in Section 2. The Project Team is working closely with the CBTC supplier to ensure that sufficient certified units are available.
- The Project Team is planning to commence CBTC revenue service in part of Section 2 by the end of May 2021.
  - Due to the complexity and size of Section 2, the commissioning activities will continue for a number of weekends until the entire section is in CBTC revenue service by 4Q 2021.
  - The IEC understands that the following activities will be performed prior to the commissioning of Section 2:
    - CBTC Suppliers will resolve known critical technical and operational issues,
    - The Project Team will work closely with Service Delivery to establish performance metrics that need to be met,
    - The CBTC supplier will successfully test operational moves within Section 2.

CBTC-QBL

IEC Concerns

- The IEC is concerned that interoperability has not been fully achieved:
  - The Project needs to validate interoperability between the Thales on-board CBTC equipment and the Siemens zone controllers in field operation. This is critical for the 8th Ave. CBTC functionality.
  - Interface issues between Siemens and Thales zone controllers remain unresolved. The Project Team is working closely with both CBTC suppliers to resolve this issue.
- While the Project Team has been pushing the CBTC suppliers to comply with contract requirements and submit a Requirements Traceability Matrix (RTM) for approval, this remains outstanding. An approved RTM is necessary to ensure that all system requirements have been properly implemented and tested.
- Over 20% of the events (CBTC failures) that affect operation in commissioned sections remain open. The CBTC suppliers need to identify and implement actions to mitigate these events.

April 2021 CPOC
Independent Engineering Consultant
Project Review

Culver CBTC - Design, Furnish, & Install

McKissack

MTA Independent Engineering Consultant

Culver CBTC

Project Scope

The contract was awarded to Tutor Perini on February 2019 with a duration of 42 months (August 2022) to provide the Culver Line with a Communication Based Train Control (CBTC) system.

The project includes:

- Construction of 3 new relay rooms at Avenue X, Ditmas Avenue, and Bay Parkway.
- Modernization and commissioning of the interlockings associated with these relay rooms.
- Replacement of track work and certain portions of Church Avenue, Avenue X, and Ditmas and a CBTC systems overlay on existing signals installation between West 8th Street and Church Avenue, on the NYCT Culver Line.

Culver CBTC

Budget Review

- Based on the IEC's review of the project expenditures, contingency, work in place, soft costs, change orders, and risks, the IEC concurs with C&D's Estimate at Completion (EAC) of $482M, which equals the project budget.
  - There are 22 change orders, which are either approved, under negotiation, or pending with a value of $8M.
  - The contingency could be negatively impacted by one change order which is still being processed by the Contractor .
  - While project costs are trending higher due to change orders and time impact costs, the IEC has concluded that there is currently sufficient contingency ($12.6M) and reserve ($23.1M) to maintain the current budget and EAC levels.

Culver CBTC

Schedule Review

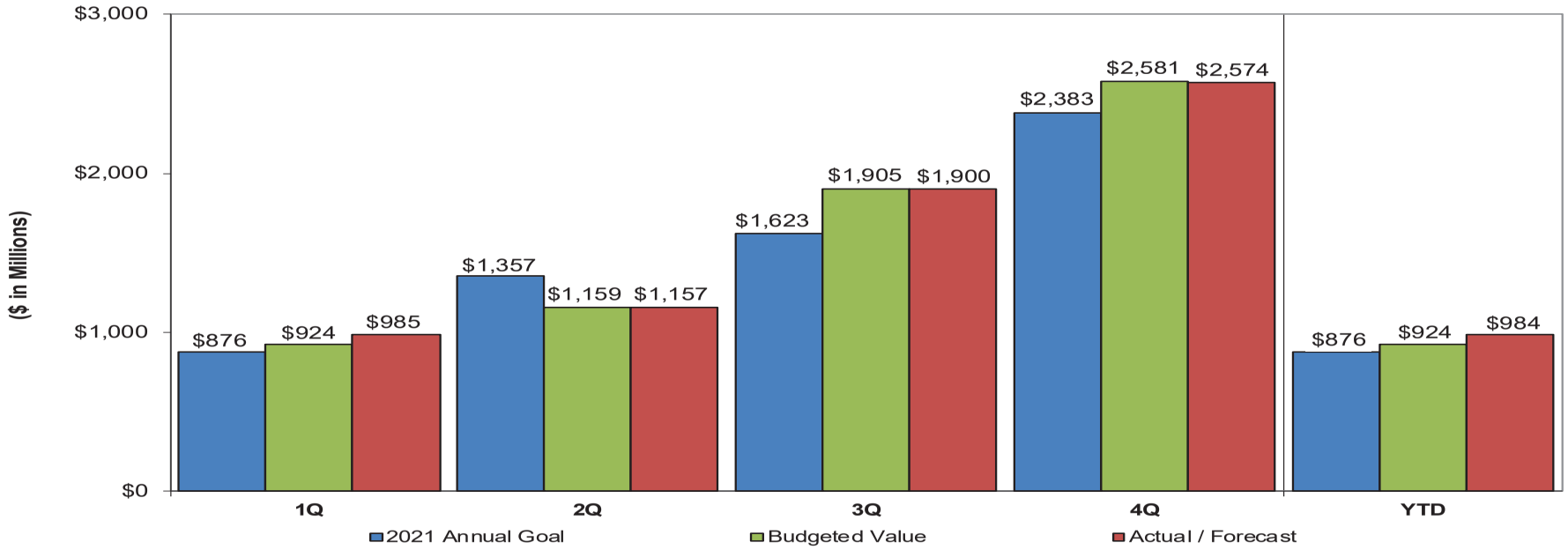
- The forecast has slipped 7-1/2 months from the baseline completion of August 2022 to March 2023 due to Tutor Perini's cable supplier's failure to meet the schedule.
- The IEC understands that there is a recovery plan being developed to mitigate the delay by resequencing work at Avenue X and utilizing the planned full weekend shutdowns to install the signal cable concurrently at the three relay rooms. This was a recommendation made by the IEC in the November 2020 CPOC report, which the project is acting on.
  - Work Train availability will limit the mitigation of the overall delay.
  - The allowable time for testing and commissioning, which follows the energization of the signal system, currently forecast to take 12 months, is likely to be compressed.
- It is the IEC's opinion that the delays to date are not fully recoverable and there continues to be a risk of further delay given these challenges.

MTA Capital Program
Commitments & Completions

through
March 31, 2021

Capital Projects – Commitments – March 2021

MTA-wide 2021 Commitments



Annual Goals: Dollar and time-based programmatic milestones for the commitment of contracts established at the start of each year and which are achievable during the year.
Actuals: The value of the goals and any additional unplanned commitments as they are achieved during the year.
Forecasts: The updated estimates by quarter for remaining goals as well as any unplanned commitments that might occur during the year.
Budget: The budgeted value assumed in the capital program for the Actual and Forecasted Commitments being tracked during the year.

Commitments Summary

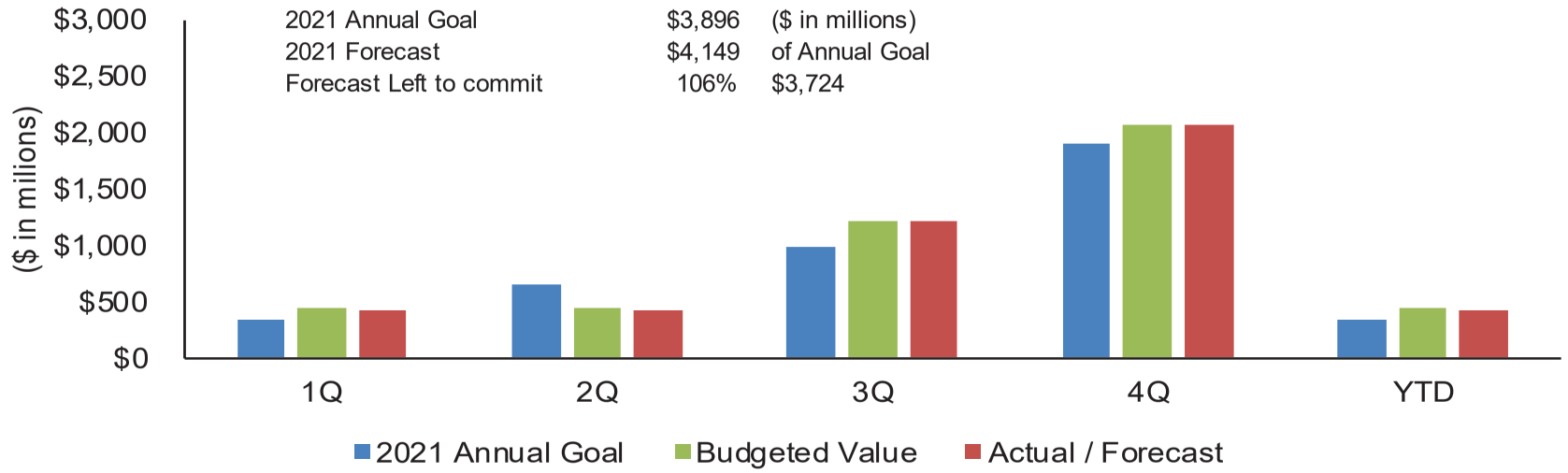
In 2021, agencies have a goal of $6.2 billion in overall commitments, including $3,839 million for NYCT, $485 million for LIRR, $777 million for MNR, $57 million for MTA Bus, $40 million for MTA Interagency, $867 million for MTA Expansion, and $173 million for B&T.

Through March, agencies have committed $984 million versus a $876 million goal reflecting both early awards ($45 million) and unplanned commitments ($339 million) that offset slippages of $276 million. At the end of each quarter in 2021, schedule variances will be explained on the following pages.

Metropolitan Transportation Authority

NYCT/MTA Bus Capital Projects – Commitments – March 2021 – Budget Analysis and Schedule Variances

NYCT and MTA Bus Budget Analysis



Schedule Variances

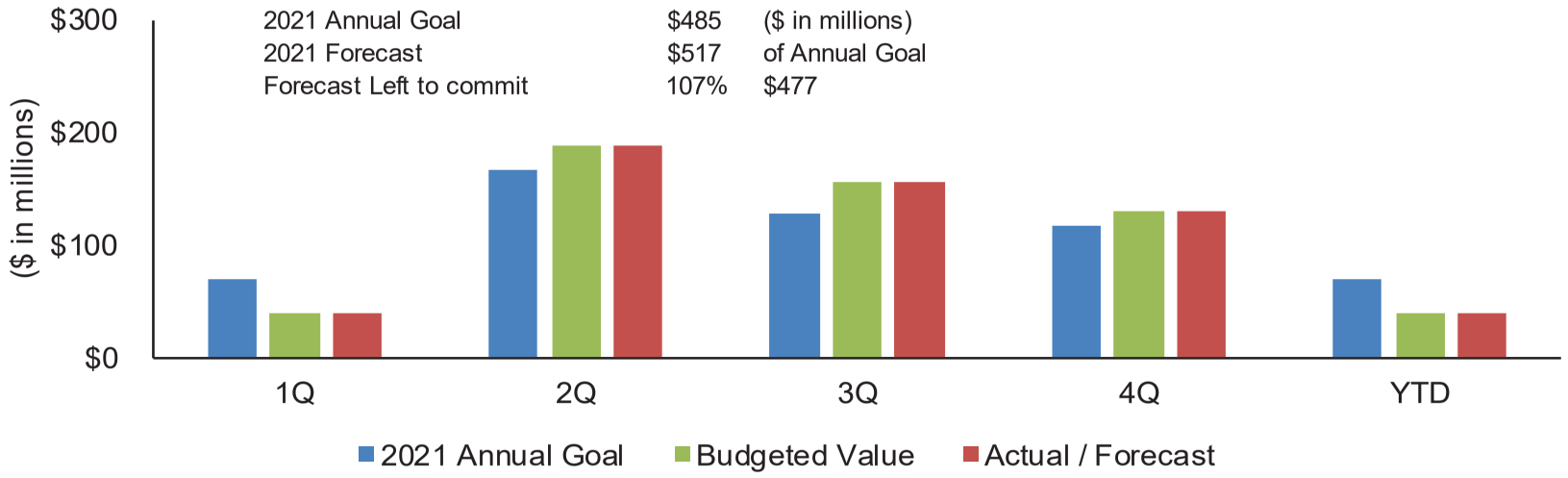
Project	Commitment	Goal	Forecast
1 All-Agency Amber Commitment (1 New Item)			
NYCT			
Passenger Stations			
Replace 8 Traction Elevators / Various (New Item)	Construction Award	Q1 $66.0	Q2 $51.4

Award delayed due to multiple bid opening postponements. Bids received in March.
Project cost decreased reflecting favorable bids received.

Metropolitan Transportation Authority

LIRR Capital Projects – Commitments – March 2021 – Budget Analysis and Schedule Variances

LIRR Budget Analysis



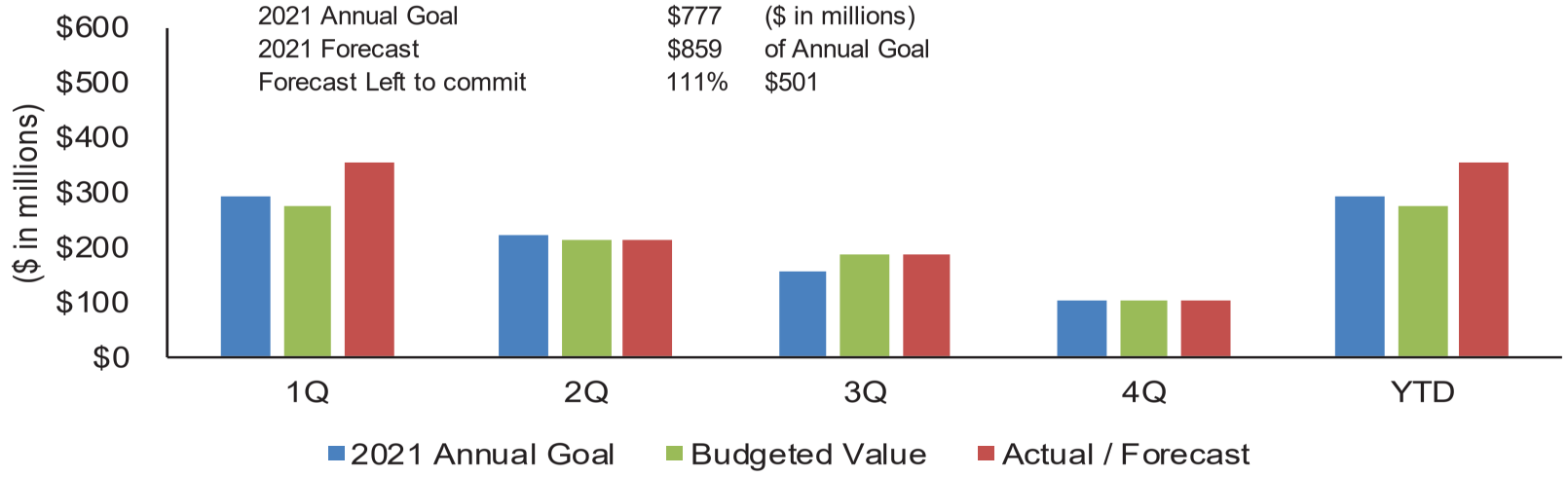
Schedule Variances

There are no schedule variances to report at this time.

Metropolitan Transportation Authority

MNR Capital Projects – Commitments – March 2021 – Budget Analysis and Schedule Variances

MNR Budget Analysis



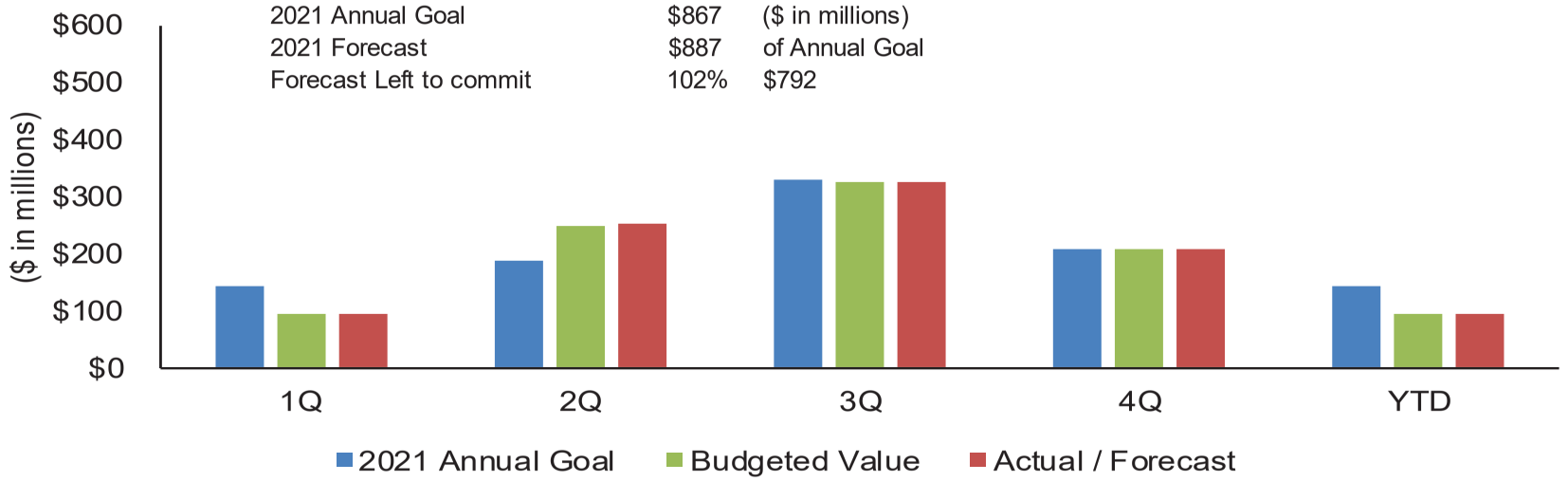
Schedule Variances

There are no schedule variances to report at this time.

Metropolitan Transportation Authority

MTA Expansion Capital Projects – Commitments – March 2021 – Budget Analysis and Schedule Variances

MTA Expansion Budget Analysis



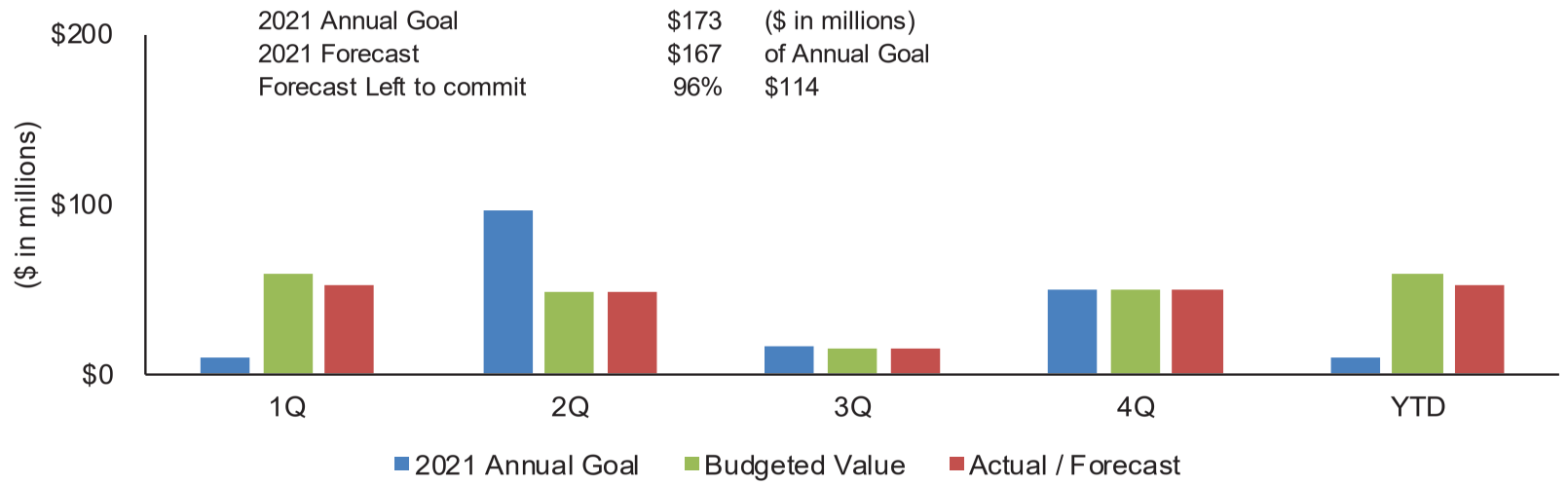
Schedule Variances

Project	Commitment	Goal	Forecast
1 All-Agency Amber Commitment (1 New Item)			
MTA Expansion			
East Side Access			
Rail Replacement (New Item)	Construction Award	Q1	Q2
		$20.0	$20.0
Project delayed to provide bidders additional time to submit bids.			

Metropolitan Transportation Authority

B&T Capital Projects – Commitments – March 2021 – Budget Analysis and Schedule Variances

B&T Budget Analysis



Schedule Variances

There are no schedule variances to report at this time.

Metropolitan Transportation Authority

Capital Projects – Completions – March 2021

Goal \ Actual		MTA-wide 2021 Major Completions												Post
		Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	2021
Total	51	1	1	1	5	6	7	3	4	2	7	2	12	0
Jan-21	1	1												
Feb-21	2				2									
Mar-21	1			1										
Apr-21	3				3									
May-21	7		1			6								
Jun-21	7						7							
Jul-21	3							3						
Aug-21	5								4				1	
Sep-21	2									2				
Oct-21	7										7			
Nov-21	2											2		
Dec-21	11												11	

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

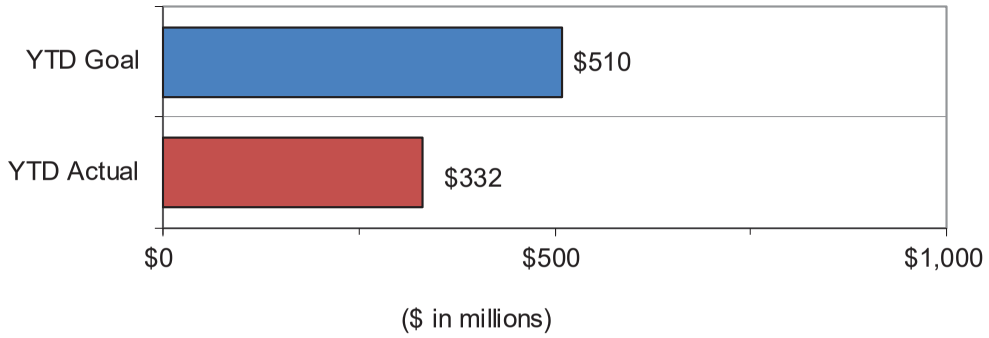
Completions Summary

In 2021, agencies have a goal of completing $7.2 billion in work including 51 major completions. Major completions are generally those that have significant dollar value or have high visibility. In 2021, major completions total 72% of the annual goal. Major completions for 2021 by agency include 26 for NYCT, 7 for LIRR, 7 for MNR, 2 for MTA Bus, 5 for MTA Expansion, and 4 for B&T.

Through March, agencies have completed $332 million versus a $510 million goal. The shortfall is mainly due to slips of two major completions. The two major slips are explained on the following pages.

Budget Analysis

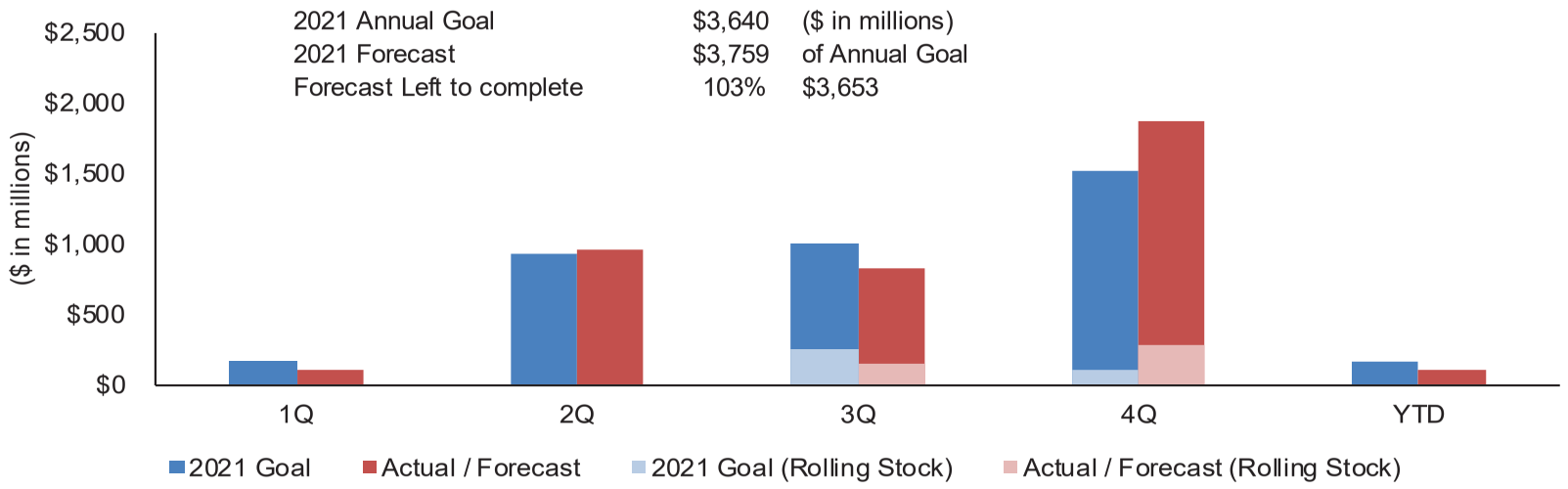
2021 Annual Goal	$7,183	($ in millions)	
2021 Forecast	102%	of Annual Goal	($7,312)
Forecast left to Complete	95%	($6,980)	



Metropolitan Transportation Authority

NYCT/MTA Bus Capital Projects – Completions – March 2021 – Budget Analysis and Schedule Variances

NYCT and MTA Bus Budget Analysis



Schedule Variances

1 All-Agency Amber Completion

Project	Completion	Goal	Forecast
NYCT			
Passenger Stations			
ADA: Gun Hill Rd / Dyre	Construction	Feb-21	Apr-21
		$55.1	$55.3

Project completion delayed due to an additional w ork order for the redesign of the fire sprinkler and fire alarm system as a result of changes to standards identified during pre-final inspection.

1 All-Agency Red Completion

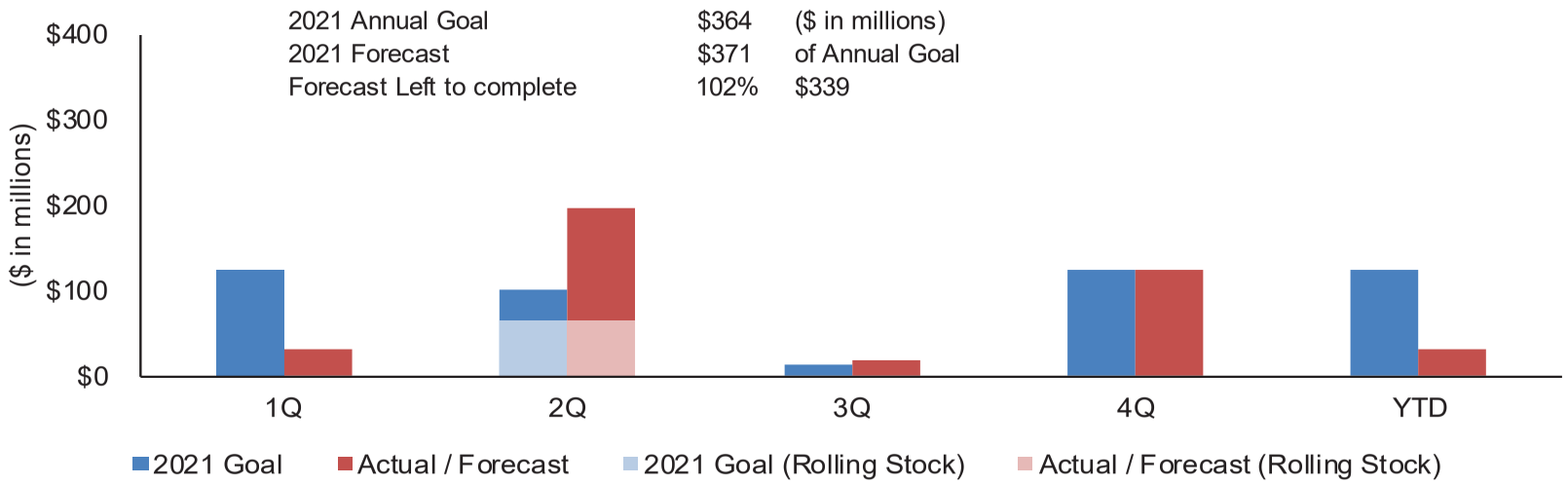
Project	Completion	Goal	Forecast
NYCT			
Signals & Communications			
CBTC Queens Blvd West - 50 St to Union Tpke: Ph 1	Construction	Aug-21	Dec-21
		$235.8	$235.8

Project completion delayed due to softw are reliability issues as w ell as additional time needed to monitor each section of the line's performance prior to entering beneficial use.

Metropolitan Transportation Authority

LIRR Capital Projects – Completions – March 2021 – Budget Analysis and Schedule Variances

LIRR Budget Analysis



Schedule Variances

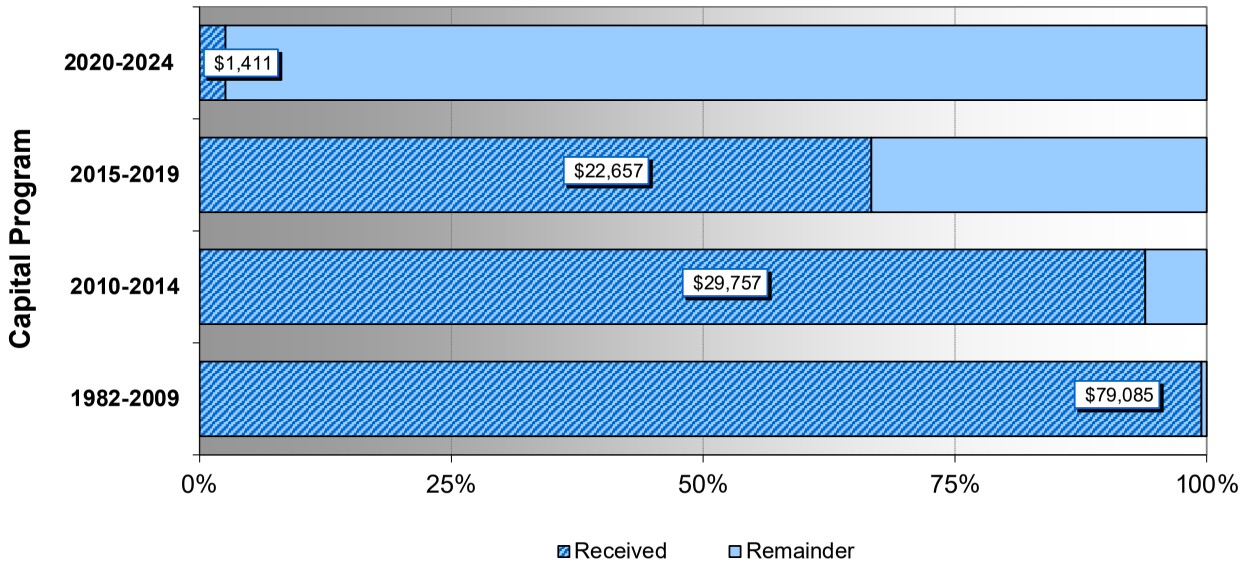
Project	Completion	Goal	Forecast
1 All-Agency Amber Completion			
LIRR			
Shops and Yards			
Diesel Locomotive Shop Improvements	Construction	Feb-21 $94.4	Apr-21 $94.4

Project completion delayed due to design and fabrication of a diesel fire pump and emergency generator as well as delays related to the COVID-19 pandemic. Additionally, while the building construction is substantially complete, Con Ed power outages and inclement weather had further delayed the permanent power energization of the building to December 9, 2020, pushing punchlist, commissioning and acceptance activities into April.

Status of MTA Capital Program Funding

Capital Funding (March 2021)

$ in millions



Capital Funding Detail (March 2021)

$ in millions

2010-2014 Program	Funding Plan Current	Receipts Thru Feb	Receipts This month	Receipts Received to date
Federal Formula, Flexible, Misc	$5,844	$5,839	$ -	$5,839
Federal High Speed Rail	173	173	-	173
Federal New Start	1,271	1,257	-	1,257
Federal Security	89	89	-	89
Federal RRIF Loan	-	-	-	-
City Capital Funds	719	608	-	608
State Assistance	770	770	-	770
MTA Bus Federal and City Match	132	112	-	112
MTA Bonds (Payroll Mobility Tax)	11,625	10,450	197	10,647
Other (Including Operating to Capital)**	1,290	1,279	-	1,279
B&T Bonds	2,175	2,019	-	2,019
Hurricane Sandy Recovery				
Insurance Proceeds/Federal Reimbursement	6,697	6,697	-	6,697
PAYGO	18	18	-	18
Sandy Recovery MTA Bonds	659	182	43	225
Sandy Recovery B&T Bonds	230	23	-	23
Total	**31,691**	**29,517**	**240**	**29,757**

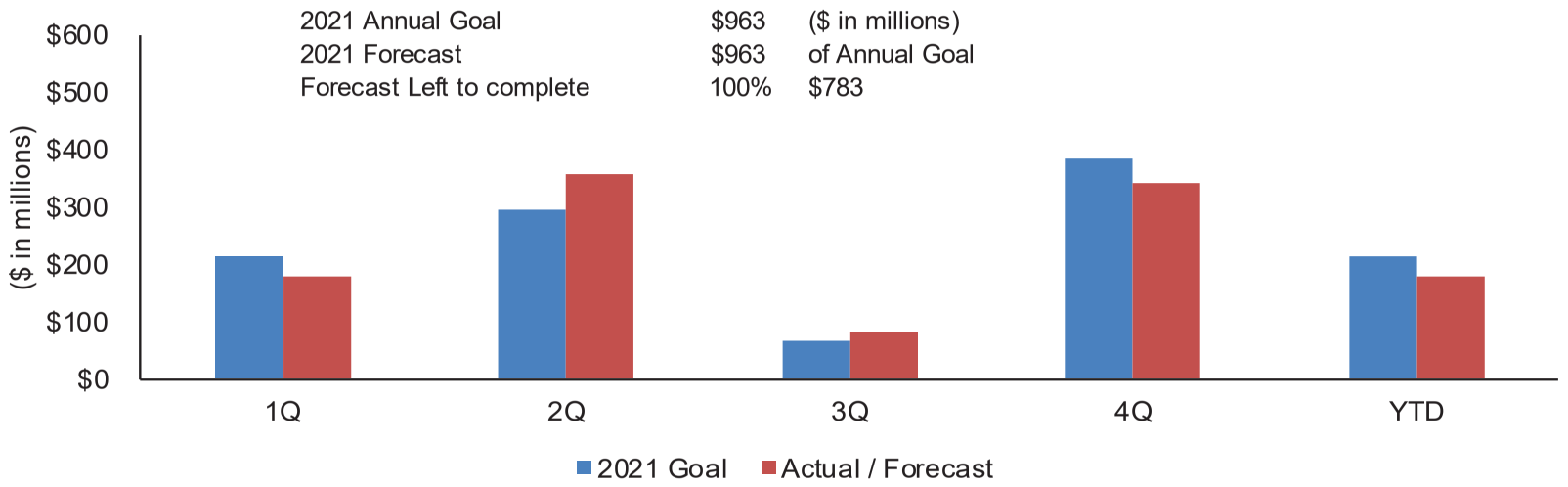
2015-2019 Program	Funding Plan Current	Receipts Thru Feb	Receipts This month	Receipts Received to date
Federal Formula, Flexible, Misc	$6,704	$4,989	$ -	$4,989
Federal High Speed Rail	$122	$122	-	$122
Federal Core Capacity	100	-	-	-
Federal New Start	500	-	-	-
Federal Security	19	15	-	15
State Assistance	9,064	3,723	629	4,352
City Capital Funds	2,667	1,235	187	1,423
MTA Bonds	8,474	7,818	357	8,175
Asset Sales/Leases	959	315	-	315
Pay-as-you-go (PAYGO)**	2,145	1,572	-	1,572
Other	265	50	-	50
B&T Bonds & PAYGO/Asset Sale	2,942	1,644	-	1,644
Total	**33,961**	**21,483**	**1,174**	**22,657**

2020-2024 Program	Funding Plan Current	Receipts Thru Feb	Receipts This month	Receipts Received to date
Capital from Central Business District Tolling	$15,000	$ -	$ -	$ -
Capial from New Revenue Sources	10,000	-	-	-
MTA Bonds and PAYGO	9,782	80	122	202
Federal Formula	7,500	1,119	-	1,119
State of New York	3,000	-	-	-
City of New York	3,000	80	-	80
Federal New Start (SAS Ph2)	2,905	-	-	-
Federal Flexible	275	-	-	-
Federal Security	10	10	-	10
B&T Bonds (Self-Funded)	3,327	1	-	1
Total	**54,799**	**1,289**	**122**	**1,411**

Metropolitan Transportation Authority

MNR Capital Projects – Completions – March 2021 – Budget Analysis and Schedule Variances

MNR Budget Analysis



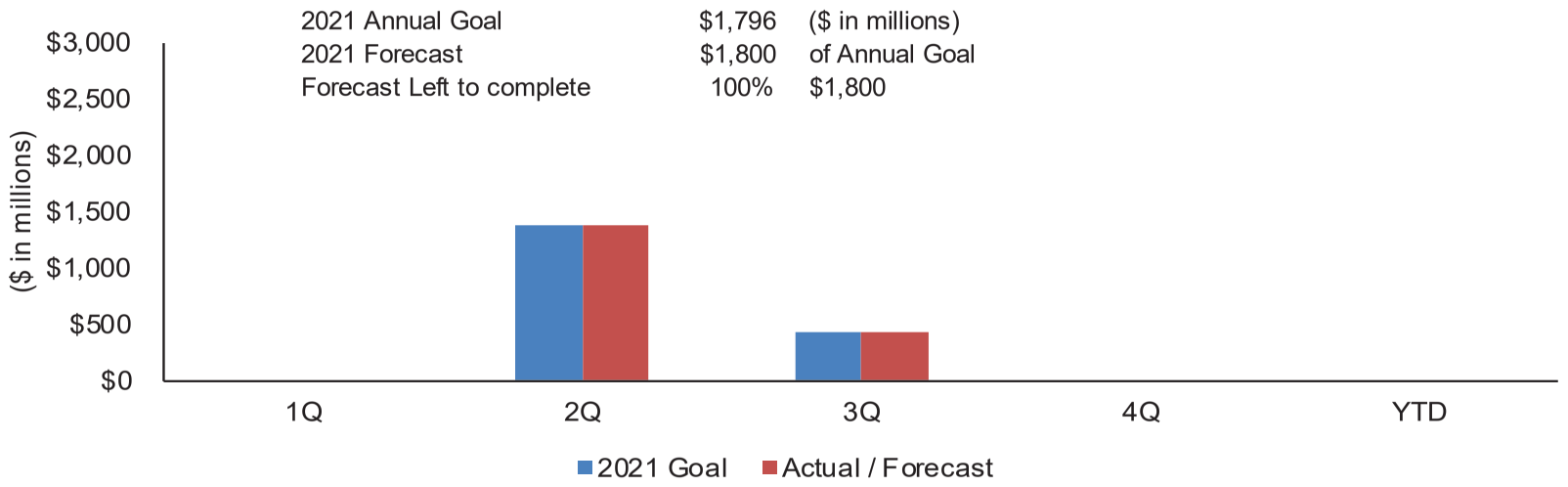
Schedule Variances

There are no schedule variances to report at this time.

Metropolitan Transportation Authority

MTA Expansion Capital Projects – Completions – March 2021 – Budget Analysis and Schedule Variances

MTA Expansion Budget Analysis



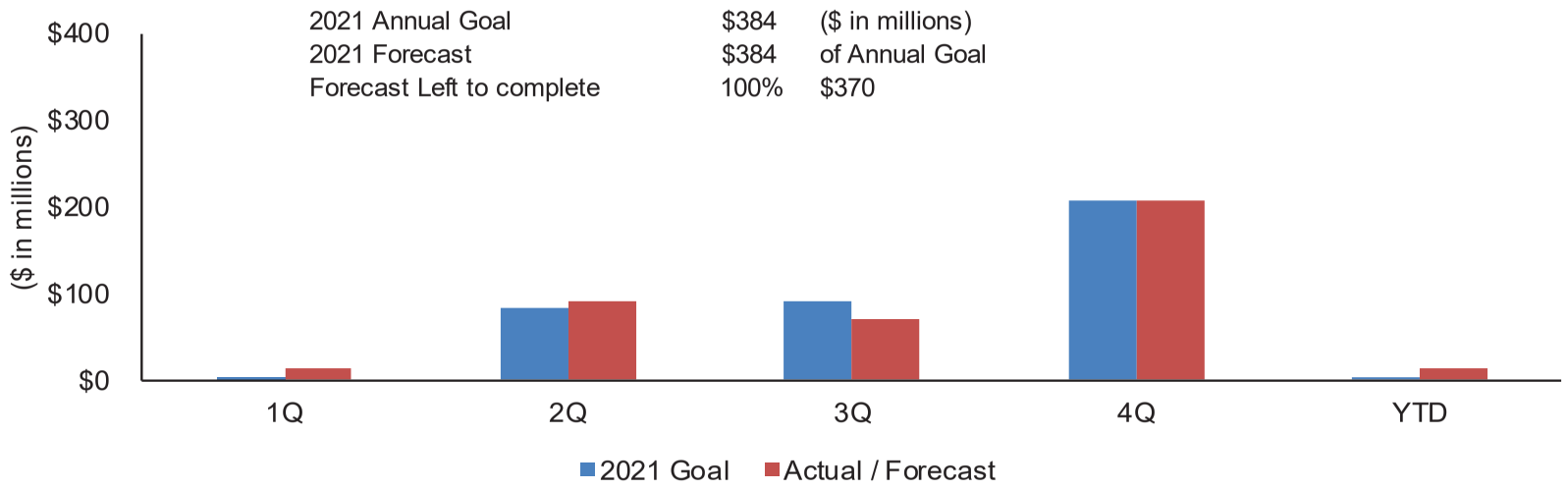
Schedule Variances

There are no schedule variances to report at this time.

Metropolitan Transportation Authority

B&T Capital Projects – Completions – March 2021 – Budget Analysis and Schedule Variances

B&T Budget Analysis



Schedule Variances

There are no schedule variances to report at this time.