

MTA Capital Program 2020-2024

Amendment #2



Construction &
Development

MTA Capital Program 2020-2024

**Rebuilding
New York's
Transportation
System**



new.mta.info/2020CapitalProgram

As Proposed to the MTA Board July 27, 2022

Capital Program Progress

The MTA is implementing its historic 2020-2024 Capital Program to renew, enhance, and expand the MTA network.

COVID-19 disruptions meant the 2020-2024 Capital Program essentially started 15 months late, with only limited federal funding available in 2020 and parts of 2021. Despite that, the MTA has made significant progress. Through June of 2022, 17% of the Capital Program has been committed. By the end of the year, the MTA is on track to be at 27%.

Accelerating Projects During the Pandemic

Even as the pandemic disrupted new projects, the MTA never stopped working to improve our system. We took advantage of low ridership and temporary overnight closures to accelerate \$2.3 billion of already-funded work to complete it ahead of schedule.

We accelerated critical ADA accessibility work, with 13 new stations completed in 2020 and 2021. We also completed critical state of good repair work like track work, overcoating, and platform repairs.

Implementation Is Back on Track

As the pandemic pause lifted, the MTA has been able to get implementation back on track and has ramped up its capital commitments to kickstart the 2020-2024 Capital Program and complete the previous programs.

Over \$8 billion in projects were initiated in 2021, and another \$8 billion is set to be committed this year.

These commitments will make a major impact for riders.

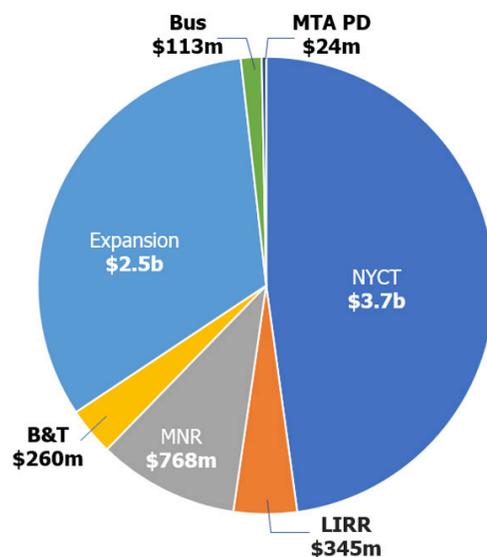
- 23 ADA subway stations were committed in 2020 and 2021, with another 13 set for 2022. This is the fastest pace in agency history.
- Over \$3 billion in state of good repair work was committed in 2021, including track replacement, elevator and escalator replacement, and structural repairs
- 60 electric buses were ordered in 2021, just the latest step on the path to a zero-emissions fleet by 2040.
- Penn Station Access, a transformative project that will bring world-class mass transit to the East Bronx, was awarded and is under construction.

We're also hitting major milestones on the delivery of priority projects.

- New modern signals are in operation on the Queens Boulevard West **E F M R** line, enhancing reliability on a key corridor in Queens.
- Resiliency projects have hardened our system against extreme weather events, with projects like the Rutgers tube rehabilitation and the protection of critical support facilities like the 148 St Yard.
- LIRR Third Track is proceeding on time and on schedule toward completion this year. Strong project management has put East Side Access back on track, too. Together, they'll make LIRR service into Grand Central Madison possible, along with a 40% increase in LIRR service.

These accomplishments are just the beginning as we continue to ramp up our capacity and take on bigger challenges.

Over \$8 billion initiated in 2021



* \$7.7 billion in commitments + full support costs for Penn Station Access

Better, Faster, Cheaper

Through strong project management and improved business practices, the MTA is containing costs and implementing the capital program more effectively than ever before.

With the newly-created MTA Construction & Development unifying capital construction under one agency, we're aggressively implementing best practices in project planning, development, contracting, and delivery. This is why the Capital Program has been able to bounce back so strongly and will continue to do so.

Better Project Management, Better Projects

MTA Construction & Development is implementing many strategies to contain cost and deliver better projects.

It starts with clear accountability for strong project management. **Project CEOs** are empowered to make decisions to advance projects from inception to completion, and are held accountable to make sure they do.

Projects are planned and developed smartly from the start.

Bundling similar work together achieves economies of scale and makes excellent project management easier.

Streamlined specifications reduce over-customization and keep projects simpler.

These projects are then contracted and delivered using the right model. **Design-build** has been a boon for the MTA, properly allocating construction risk to contractors and incentivizing high performance. For traditional design-bid-build projects, **A+B bidding** that takes into account both cost and time has saved money and minimized impact to customers. Between these two models, the median contract came in 8% below the final engineering estimate in 2021.

We're not done innovating on delivery models, either.

Progressive design-build will take the advantages of design-build further, allowing for more flexibility and prioritization of repairs throughout the system as conditions are discovered. This year, the MTA will award its first **Public-Private Partnership**, stretching public dollars further while guaranteeing performance and reliability.

Better business practices across the agency complement the work on individual projects. Thanks to our strong safety record, **insurance reform** has bent the cost curve down and saved up to 30%, or \$60-95M, over the next year.

This is just the start as MTA Construction & Development ramps up.



In 2021, the median contract came in **8% lower** than the estimated cost

Achieved **\$60-95M in savings on insurance costs** for the next year

Proposed Plan Amendment

This proposed Plan Amendment updates the program to adapt to rising inflation and broader economic issues, as well as reflecting the changing needs of the MTA and our riders.

Updating the Capital Program as projects develop and conditions change helps keep the plan balanced and the public informed. This Amendment adds new projects, accelerates key priorities, and rebalances the plan to reflect current conditions.

Plan Amendments Are Best Practices

The MTA Capital Program is updated regularly as projects develop and conditions change.

This is consistent with the 2019 Crowe forensic audit of the MTA's capital planning process, which recommended annual amendments. Due to the pandemic, this is the first opportunity the MTA has had to comprehensively update the 2020-2024 Capital Program.

In addition, there are legal restrictions on how much the plan can change without a formal plan amendment. The Public Authorities Law requires elements with a budget increase of greater than 10% to be approved by the Capital Program Review Board.

Letter Amendment #1

In December of 2021, the MTA Board approved a Letter Amendment. This amended the 2020-2024 Capital Program in a more limited manner.

The largest change was to Penn Station Access. Its budget was increased sufficiently to allow the project to be awarded later that month, following a historic agreement with Amtrak to support the project.

The Amendment also addressed other smaller budget issues, including adjusting the NYCT track and structures program and other administrative changes.

Proposed Amendment #2

This Amendment is a comprehensive rebalancing of the 2020-2024 Capital Program. It is driven by a thorough review of project development and changing needs and conditions throughout the entire program. Its major themes include support for **New Projects & Acceleration**, support for **Expansion Project Progress**, and **Adapting to Changing Conditions & Needs**.

New Projects & Acceleration

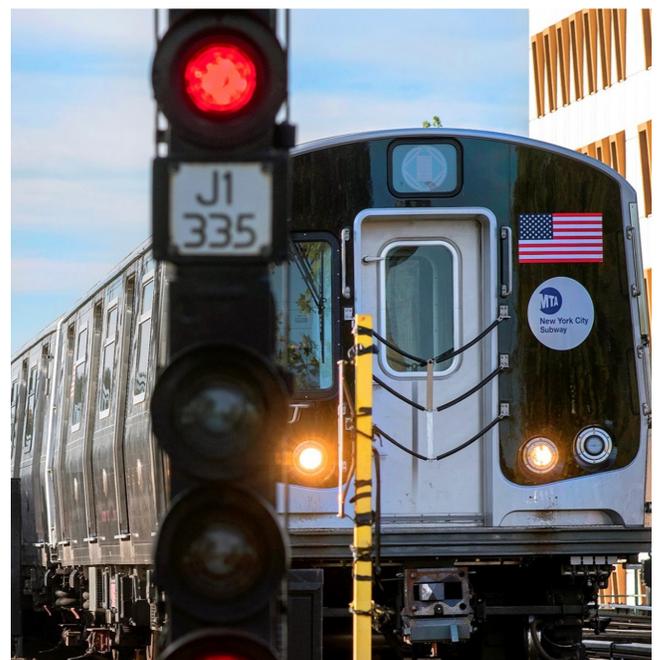
New funds are added to move projects faster to take advantage of ridership trends

Expansion Project Progress

New funds are added to advance key expansion projects

Adapting to Changing Conditions & Needs

The plan is rebalanced to reflect inflation, supply chain, and market conditions, and to adjust to changing transit priorities



Amendment Highlights

An accelerated Park Avenue Viaduct replacement, continued progress for Penn Station Access, and a signal modernization strategy focused on reliability and equity are just some of the highlights.

New Projects & Acceleration

The Amendment adds new projects and accelerates the pace of other key priorities.

MNR Park Avenue Viaduct acceleration

The critical replacement of Metro-North's 125+ year-old Park Avenue Viaduct will move forward more quickly and thus limit community impacts, with 7 blocks now slated for reconstruction in this plan

MNR West of Hudson Infrastructure Improvement Project

Additional funding is added to meet key state of good repair needs on Metro-North's Port Jervis line

LIRR ADA Stations acceleration

The pace of the LIRR's ADA program is accelerated, with Amityville, Laurelton, Lindenhurst, Massapequa Park, Forest Hills, Hollis, Douglaston, and Cold Spring Harbor all slated for accessibility upgrades

Track Trespassing Initiatives

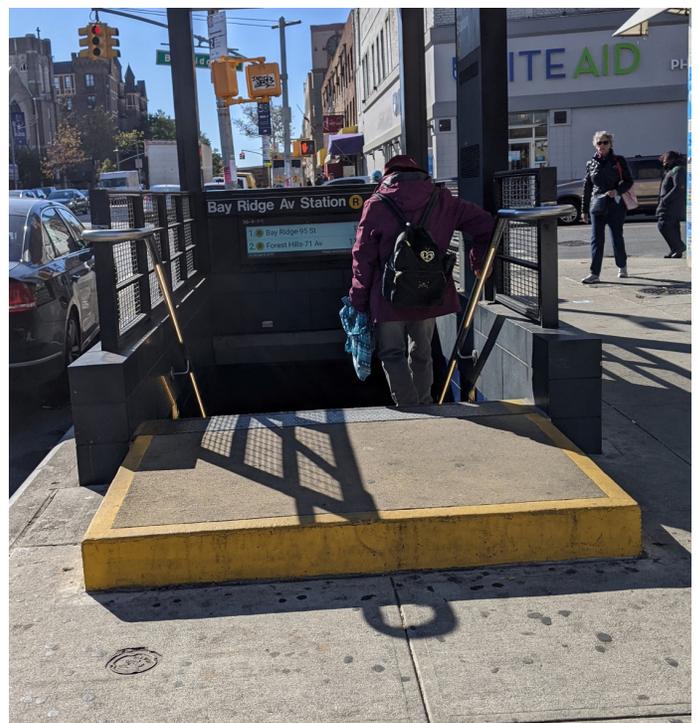
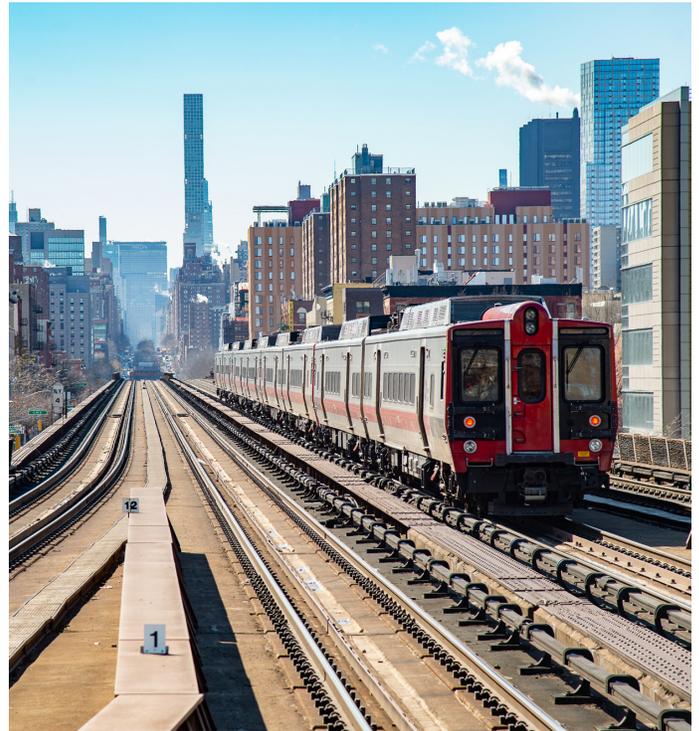
The work of the Track Trespassing Task Force is funded, including a Platform Screen Doors pilot, Track Intrusion Detection Systems with security cameras, and other technologies to keep riders safe

NYCT Stormwater Flooding Mitigation

Building on the MTA's progress on coastal flood resiliency, funding is added for new projects to mitigate the impact of flash floods and other extreme weather events on the subway system

B&T Bike and Pedestrian Accessibility

Additional funding is added to support Bridges and Tunnels efforts to improve access for bicyclists and pedestrians at its facilities



Expansion Project Progress

While more than 82% of the Capital Program is dedicated to the MTA's existing core infrastructure, strategically pursuing expansion projects is key to meeting new needs and addressing historic transportation inequities.

Additional scope for Penn Station Access

This amendment adds funding for the New Rochelle Yard, which is critical to the project's operations. It also funds portions of its rolling stock that have long lead-times for delivery. The eventual need for this funding was noted when Letter Amendment #1 was advanced in December 2021 and it does not represent a cost increase.

Design needs for Penn Reconstruction

Penn Station Reconstruction is advancing, offering a generational opportunity to transform the busiest train station in the country. This amendment includes funding to advance preliminary design of the new station.



Adapting to Changing Needs

As the pandemic has transformed the regional and global economy, transit in New York has changed, too. This Amendment is opportunistic as we survey changing transit needs and industry constraints.

Rolling Stock

With supply chain and labor issues constraining industry supply, the Amendment updates rolling stock plans to be realistic about what is deliverable during this plan period, freeing up significant funding

Signal Modernization

Plans for signal modernization are updated to prioritize reliability and equity, now that capacity constraints are less pronounced on the subway

Spotlight: Signal Modernization

A rebalanced approach puts the focus on reliability and equity in our signal modernization plan.

This plan amendment will replace all remaining 80+ year-old signal equipment and mechanical interlockings, delivering major reliability benefits. It also prioritizes lines serving essential workers in communities that rely on transit most.

Prioritizing Reliability & Equity

The rebalanced signal modernization plan focuses on reliability and equity to make the greatest impact for riders.

The 6 Av line **B D F M** is added to the program, building on previous investments. The Fulton line **A C** is extended, addressing the critical Jay to Hoyt corridor that is a chokepoint in existing service and a frequent source of delays.

This result of this investment will be more reliable service for the riders who need it most. The **A C** and **F** are currently the three least reliable lines in the entire system, measured by wait assessment.

Along with the Queens Boulevard line East **E F**, which was awarded in 2021, and the Crosstown line **G**, targeted for award this year, this means we'll replace all of the oldest signal equipment in our system, improving service in neighborhoods throughout the city that rely on transit most.

Queens Boulevard Line East **E F**

Kew Gardens-Union Tpke – Jamaica-179 St

- Signal Age: 88 years old
- Awarded in December 2021

Fulton Line **A C**

High St – Euclid Av

- Signal Age: 74-91 years old
- Extension from original 2020-24 Plan to include critical Jay St Interlocking

6 Av Line & 63 St Lines **B D F M**

21 St-Queensbridge – Jay St

- Signal Age: 83-90 years old
- Added to 2020-24 Plan to address state-of-good-repair need

Crosstown Line **G**

Court Sq – Hoyt-Schermerhorn

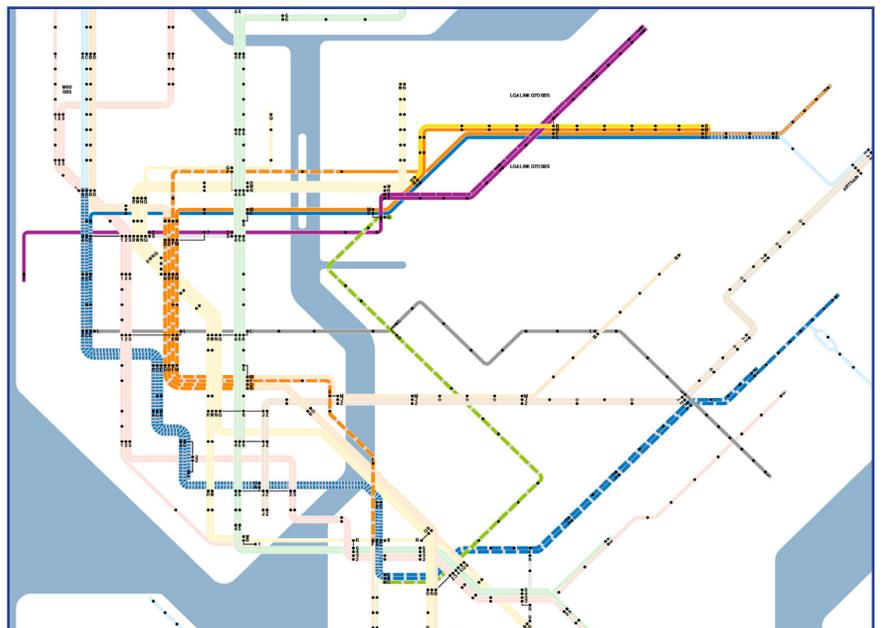
- Signal Age: 85-88 years old
- Remains in 2020-24 Plan

Turning Constraints Into Opportunities

Reliability was a key consideration when the 2020-2024 Capital Program was being planned, but it wasn't the only one. Reliability had to be balanced with another factor: Peak capacity needs.

Even before the pandemic, these capacity needs were easing. The opening of the Second Avenue Subway relieved overcrowding on the Lexington Avenue line **4 5 6**. On the Astoria line **N W**, further planning showed that capacity could be addressed even with the existing signal system. The pandemic has also impacted ridership and reduced immediate capacity needs. As a result, these lines are being deferred to future plans as we focus on the oldest signals and least reliable lines in the system instead.

This approach also best adapts to external constraints, as the rolling stock industry lacks the capacity to deliver the new subway cars that would be necessary for the Lexington line. We're taking this as an opportunity to explore the potential to retrofit our existing rolling stock, which would help accelerate future signal modernization.



Program Size & Funding Plan

The proposed amendment will increase the size of the program by \$108 million to a total of \$55.442 billion. The Program Funding Plan has been updated to reflect additional federal support.



Between Letter Amendment #1 and Amendment #2, total funding for the 2020-2024 Program increased by \$643 million, primarily from our State and local funding partners in support of expansion investments.

Changes to the Funding portfolio also include an increase to the Federal formula assumptions from the Bipartisan Infrastructure Law. This allows us to reduce the amount of MTA Bond funding, helping with the MTA's financial picture.

Program Funding Plan (\$ in millions)	Sept'19 Approved Program	Proposed Program	Change
Capital from Central Business District Tolling	\$15,000	\$ 15,000	\$0
Capital from New Revenue Sources	10,000	10,000	0
MTA Bonds & PAYGO	9,792	8,037	(1,755)
Federal Formula	7,500	9,171	1,671
State of New York	3,000	3,100	100
City of New York	3,000	3,007	7
Federal New Starts (Second Ave Subway Ph. 2)	2,905	2,905	0
Federal Flexible	275	275	0
Federal Other	0	79	79
Other Contributions	0	542	542
CPRB Capital Program Total	\$ 51,472	\$52,115	\$643
Bridges & Tunnels Self-Funded	\$3,327	\$3,327	\$0
Total 2020-2024 Program	\$54,799	\$55,442	\$643

Amendment #2

All Agency Comparison Summary

The program takes advantage of cashflow from rolling stock schedule adjustments to meet new needs and support Penn Station Access.

Proposed Program includes the changes approved as part of the December 2021 Letter Amendment

	December 2019 Approved Program	December 2021 Letter Amendment	Amendment #1 Changes	Proposed Program	Amendment #2 Changes
CPRB Core Capital Program					
New York City Transit	\$35,389	\$35,133	(\$256)	\$34,610	(\$523)
Long Island Rail Road	3,737	3,710	(27)	3,623	(87)
Metro-North Railroad	3,558	3,536	(22)	3,457	(79)
MTA Bus	871	870	(1)	870	0
MTA Interagency	119	142	23	142	0
CPRB Core Subtotal	\$43,674	\$43,391	(\$283)	\$42,703	(\$689)
Network Expansion	7,798	8,616	818	9,413	797
CPRB Program Total	\$51,472	\$52,007	\$535	\$52,116	\$108
Bridges and Tunnels	3,327	3,327	0	3,327	0
Total MTA Capital Program	\$54,799	\$55,334	\$535	\$55,442	\$108