

MTA Capital Program 2015-2019

Renew. Enhance. Expand.



**CAPITAL
PROGRAM**

mta.info/capital

Amendment No. 2

As Approved by the MTA Board May 24, 2017

As Approved by the CPRB July 31, 2017



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The Fulton Center's "Oculus"
Natural light streams through
this skylight into the entire station,
even to the platform level.

2015-2019 Program Priorities and Major Objectives

The proposed 2015-2019 Capital Program amendment reflects revised cost and schedule estimates as well as new initiatives. Through the 2015-2019 Capital Program, the MTA will maintain its commitment to provide safe and reliable service by continuously improving our capital assets, funding projects based on the following priorities:

Renew: Our first priority is to protect the safety, reliability, and quality of our existing service. That means replacing trains, buses, and subway cars, and renewing track, signals, yards, depots, bridges, and stations.

Enhance: Service improvements like Help Points, ADA accessibility, and next train arrival information help make your trip better every day.

Expand: Expanding the MTA's reach, through projects like the Second Avenue Subway, LIRR Expansion, and access to Penn Station for Metro-North, allows us to ease crowding, accommodate and create growth, and deliver more extensive and resilient service.

We will advance the following major investment objectives:

- **Complete the installation of Positive Train Control**—a state-of-the-art train-control system—at Metro-North and the Long Island Rail Road.
- **Expand Select Bus Service** to appropriate routes across New York City, in conjunction with our partners at NYCDOT.
- **Introduce new “contactless” fare payment technology** that will work with smartphones and across our entire network.
- **Design and begin construction on the next phase of the Second Avenue Subway** to ease congestion and improve mobility on Manhattan's East Side.
- **Begin Penn Station Access**, which will open a new Metro-North Railroad link directly into Penn Station, providing critical system resiliency to protect service for more than 275,000 daily customers in the event of natural or other disasters.
- **Complete the Long Island Rail Road Double Track project**, which will improve service and reliability by adding a second track to the LIRR's Ronkonkoma Branch.
- **Improve customer communications** with the installation of Help Points—high-tech, highly visible intercoms that instantly connect customers to information and emergency services—in every one of our 472 subway stations and by installing countdown clocks throughout the B Division to advance train arrival information for customers.
- **Implement new Enhanced Station Initiative investments** to deliver customer focused amenities at select stations for New York City Transit, the Long Island Rail Road and Metro-North Railroad.
- **Install Open Road Tolling** at all nine Bridges and Tunnels facilities to ensure faster and safer auto traffic.
- **Expand the Long Island Rail Road's main line** corridor to add capacity and promote regional mobility.
- **Investments in Penn Station, as well as a new Farley Complex and Moynihan Train Hall** to improve the customer experience and flow through Manhattan's West Side transit hub.

New York City Subways - \$14.5 billion

This program will continue the revitalization of our subway system by purchasing new subway cars, modernizing signal interlockings, replacing track, and making other critical investments. New cars will improve customer communication with electronic strip maps, automated announcements, and two-way customer intercoms. Station repairs and enhancements will improve customer comfort and safety throughout the system, while new elevators make more stations fully accessible under the Americans with Disabilities Act. Signal improvements – including Communications-Based Train Control – will boost capacity and reliability. The main changes within the program are a revised phasing of railcar purchases and an increase in investment in stations. These changes are discussed in the NYCT section of this book.

NYC Transit Subway Capital Program Overview 2015-2019

Category	Budget	Highlights	Category	Budget	Highlights
Subway Cars	\$1,728m	<ul style="list-style-type: none"> Purchase 450 sixty-foot R-211 subway cars to replace the R46 cars - \$1,668m Purchase 10 Open Gangway Prototype Cars - \$60m 	Track	\$1,845m	Replace 72 miles of track and 127 switches
Line Equipment	\$285m	<ul style="list-style-type: none"> Rehab one vent plant, and repair fan plant controls and components, which remove smoke and heat - \$230m Rehabilitate pumping systems to remove water from the system - \$25m Replace tunnel lighting on various lines - \$30m 	Stations	\$4,001m	<ul style="list-style-type: none"> Enhanced Station Initiative at 30 stations plus similar investments at the two 34th Street-Penn Station subway stations - \$921m Station renewal at 14 stations on five lines - \$311m Planning and designing the Renewal/Overhaul of Mets-Willets Point Station - \$50m Station repairs system-wide to replace deficient components - \$457m
Line Structures	\$988m	<ul style="list-style-type: none"> Rehabilitate segments and repair structural components on various elevated and subway lines - \$684m Paint elevated structures on seven lines - \$266m Rehabilitate emergency exits - \$38m 			<ul style="list-style-type: none"> Reconfigure areas of Grand Central and Times Square to improve passenger circulation - \$105m New Fare Payment System investments - \$519m New elevators at 19 stations for ADA accessibility - \$966m Replace 42 elevators and 32 escalators - \$427m
Shops & Yards	\$372m	<ul style="list-style-type: none"> Make priority repairs at various car maintenance shops - \$306m Replace or upgrade 1.2 miles of track and 20 switches, and improve lighting, fencing, and car cleaning facilities in train storage yards - \$66m 			

Open Gangway Prototype

MTA will test prototype subway car designs with accordion-like structures between cars, allowing passengers to move freely from one end of the train to the other. This creates longer open spaces, increasing passenger flow and boosting capacity.

Enhanced Station Initiative

The MTA is revamping our design guidelines for subway stations to improve their look and feel. These cleaner, brighter stations will be easier to navigate, with better and more intuitive wayfinding.



Category	Budget	Highlights	Category	Budget	Highlights
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Signals & Communications

\$2,728m Install advanced CBTC signals on the Queens Blvd., Culver and 8th Avenue lines - \$952m

Modernize six signal interlockings on three lines - \$856m

Improve conventional signals by replacing cables, control lines, and relays and other components - \$224m

Upgrade the communications networks, including telecommunications equipment, cabling, and radios - \$321m

Complete the rollout of Help Points to all subway stations to bolster customer communications and safety - \$168m

Upgrade rail traffic system - \$92m

Install countdown clocks train arrival system on the B Division - \$70m

Test and deploy platform and trackway safety systems - \$45m

Traction Power \$884m Modernize and repair power facilities like substations, circuit breaker houses, and other equipment - \$221m

Repair power cable and control systems - \$267m

Add or upgrade power facilities for service using advanced CBTC signals - \$396m

Service Vehicles \$250m Purchase heavy-duty rail and road vehicles to support construction and operations - \$250m

Staten Island Railway \$479m Replace 75 cars in the SIR fleet - \$279m

Build three new power substations - \$92m

Upgrade and repair track, stations, structures, facilities and radio systems - \$93m

Enhanced Station Initiative at one station - \$15m

Misc. \$942m Progress designs, project scopes, engineering studies and services, and management information systems - \$558m

Install fire safety systems and remediate hazardous materials - \$71m

Repair and upgrade employee facilities, administrative and operations buildings, police facilities, and security systems - \$313m

Train Arrival Information

Countdown clocks are coming to lettered subway lines, now in a pilot test, and later in a broader rollout. Currently 179 stations along the L train and numbered lines feature countdown clocks.



New York City Buses - \$2.2 billion

The bus program reflects the MTA's continued commitment to realizing the full potential of a system that carries more than 2.5 million customers each day. In addition to purchasing clean diesel, hybrid-electric, compressed natural gas, and electric buses and making priority repairs to maintenance facilities, the program includes bus purchases that will enable the expansion of Select Bus Service. These investments will improve bus system efficiency and increase bus ridership.

NYC Transit Bus Capital Program Overview 2015-2019						\$1,813m
Category	Budget	Highlights	Category	Budget	Highlights	

Buses \$1,216m Purchase 1,391 new buses for local and express service - \$1,064m
 Purchase 50 electric buses - \$71m

Depots \$597m Reconstruct the Jamaica Depot - \$267m
 Make priority repairs at various bus maintenance shops - \$169m
 Purchase equipment to support additional Select Bus Service and begin design for dedicated BRT on the North Shore of Staten Island - \$34m
 Replace bus depot equipment, such as bus washers, storage tanks and paint booths - \$77m
 Property acquisition for a potential new depot - \$50m



New Bus Amenities

We're improving the customer experience aboard buses with digital information screens, Wi-Fi hotspots and USB charging ports for mobile devices.



Upgrading Depots

NYCT will replace its 76 year old Jamaica Bus Depot using a design-build contract and a creative phasing plan to reduce costs and disruption and deliver benefits faster.



MTA Bus Capital Program Overview 2015-2019 \$376m

Category	Budget	Highlights	Category	Budget	Highlights
Buses	\$263m	Purchase 335 new buses for local and express service - \$263m	Depots & Facilities	\$113m	Make priority repairs at five depots - \$50m Replace bus depot equipment, such as paint booths, service vehicles and chassis washers - \$11m Complete joint project with New York City Transit for a new bus radio system - \$35m Provide engineering support, design, and construction management - \$17m



Improving Bus Service

The 2015-2019 Program supports the introduction of new Select Bus Service (SBS) routes. In partnership with the City of New York, SBS combines state-of-the-art, low-floor buses with technologies and street improvements that speed up boarding and provide faster, more reliable service. The result is improved bus speeds and travel time savings up to 20 percent. In addition – by making bus service more attractive – SBS and related innovations like Bus Time reduce traffic, pollution, and the demand for parking.

Long Island Rail Road - \$3.0 billion

The LIRR program will make crucial investments in rolling stock, stations, and infrastructure as the railroad looks to maintain and improve safety, reliability, on-time performance, and customer satisfaction. To be ready for East Side Access—when the LIRR will begin operating trains directly to Grand Central Terminal—the LIRR will continue capacity expansion in Jamaica and add train storage and track capacity at key locations throughout its system. The railroad will purchase M-9 electric cars to complete replacing its aging M-3 fleet, and to expand service. There is an increased investment in stations including Penn Station and the planned new Moynihan Train Hall. As well, the program includes station upgrades and enhancements in Brooklyn, Queens, and Nassau and Suffolk counties, and investments to maintain and improve state of good repair. The 2015-2019 Capital Program will allow the LIRR to complete the installation of the Positive Train Control system.

Long Island Rail Road Capital Program Overview 2015-2019

Category	Budget	Highlights	Category	Budget	Highlights
Rolling Stock	\$350m	Purchase 88 M-9 cars to complete the replacement of the M-3 fleet and up to 22 additional M-9 cars for service expansion and growth - \$350m			New Fare Payment System investments - \$5m Parking rehabilitation and facility development - \$30m
Stations	\$767m	<p>Station rehabilitations, including platform improvements at Nostrand Ave. and Port Washington - \$41m</p> <p>Design Babylon Station Platform replacement, Hunterspoint Avenue Station Renewal, new Elmhurst and Republic stations and construct new Brookhaven National Lab station - \$37m</p> <p>Improve the customer experience at Penn Station and contribute to development of the new Moynihan Train Hall - \$335m</p> <p>Work to advance new Mets-Willets Point Station and improve Jamaica Station connectivity - \$75m</p> <p>Enhanced Station Initiative at 17 stations - \$150m</p> <p>Replacement of deficient station components system-wide - \$48m</p>	Communications & Signals	\$346m	<p>Replace or upgrade obsolete communications fiber optic network equipment - \$34m</p> <p>Begin to replace or upgrade the station public address system - \$5m</p> <p>Normal replacement of signal components system-wide, including renewal of the Babylon interlocking - \$80m</p> <p>Investments in signal systems from Babylon to Patchogue and from Ronkonkoma to Yaphank - \$57m</p> <p>Continue the Centralized Train Control initiative - \$10m</p> <p>Complete Positive Train Control implementation - \$126m</p>
		<p>Penn Station</p> <p>We're improving the customer experience at Penn Station with completely redesigned 33rd Street corridors and rehabilitated escalators, elevators, stairs, platform lighting and other station components.</p>			<p>Positive Train Control</p> <p>The LIRR will complete the installation of Positive Train Control through the 2015-2019 Program. PTC will help prevent train-to-train collisions, over-speed derailments, injuries to workers as a result of unauthorized incursions by a train into a work zone, and the movement of a train through an improperly aligned switch.</p>



Category	Budget	Highlights	Category	Budget	Highlights
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Line Structures	\$147m	<ul style="list-style-type: none"> Rehabilitate or replace railroad bridge structures at priority locations - \$66m Component bridge renewals on the Main Line - \$32m Structural painting and waterproofing of railroad bridges at priority locations - \$17m
	\$746m	<ul style="list-style-type: none"> Continue annual track program investments system-wide - \$333m Right-of-way improvements, including retaining walls and fencing - \$17m Amtrak-coordinated state of good repair investments - \$58m Design the second phase of Jamaica infrastructure work to improve capacity - \$72m Complete Double Track, adding a second track between Farmingdale and Ronkonkoma - \$250m

Track



Second Track
 The LIRR will complete its Double Track project through the 2015-2019 Program, adding an entire second track between Farmingdale and Ronkonkoma. This will significantly increase capacity on the Main Line, and enhance service reliability.

Power	\$227m	<ul style="list-style-type: none"> Replace aging traction power substations - \$81m Traction power substation renewals and component work system-wide - \$81m Design for new power substation in Queens to support ESA operations - \$5m Replace and upgrade third rail system components - \$28m Upgrade tunnel lighting in the Atlantic Avenue Tunnel - \$12m
	\$227m	<ul style="list-style-type: none"> Replace shop equipment to support Reliability Centered Maintenance - \$10m Progress efforts to build a new Huntington/Port Jefferson Branch electric yard - \$8m Diesel locomotive maintenance facility improvements - \$108m Component improvements at key shops, yards, and facilities - \$78m
	\$148m	<ul style="list-style-type: none"> Insurance, independent engineers, and other program management - \$130m

Metro-North Railroad - \$2.4 billion

Most of Metro-North’s program is slated for projects that continue to bring assets to a state of good repair or protect investments that have already been made, including replacement of the Harmon Shop electric repair facility and the M-3 fleet. Station repairs and enhancements will improve customer comfort and safety throughout the system. Metro-North’s program also includes targeted service improvements such as better customer information technology to provide real-time train information at stations, and early design efforts for a new midpoint yard to support West of Hudson service and ridership. The 2015-2019 Capital Program will allow Metro-North to complete the installation of the Positive Train Control system.

Metro-North Railroad Capital Program Overview 2015-2019

Category	Budget	Highlights	Category	Budget	Highlights
Rolling Stock	\$532m	Purchase up to 140 M-3 fleet replacement cars - \$440m	Stations & Parking/ Strategic Facilities	\$299m	Enhanced Station Initiatives - \$115m
		Expand the New Haven Line’s M-8 fleet by 60 cars, jointly with Connecticut - \$92m			Component-based priority repair work at stations on the Upper Harlem and Upper Hudson Lines - \$40m
GCT	\$135m	Continue priority infrastructure work on the GCT Trainshed - \$67m			Component-based renewal work at Lower Harlem Line stations - \$31m
		Fire protection and utility work in GCT and the Park Avenue Tunnel - \$17m			Improve real-time customer information at stations east of the Hudson River - \$68m
		Replace communications equipment, improving delivery of real-time customer information - \$37m			New Fare Payment System investments - \$5m
Shops & Yards	\$472m	Complete replacement of the Harmon Shop electric repair facility - \$432m			Continue investments in parking and strategic facilities - \$23m
		Begin environmental and design work for West of Hudson Midpoint Yard on the Port Jervis Line - \$24m			



Shop Replacement

The 2015-2019 Harmon electric shop replacement work will complete the multi-Program Harmon shop replacement program. Applying design-build procurement efficiencies, this project will modernize a 100+ year-old shop and yard complex to support an expanded fleet of electric and diesel hauled rail cars.



Stations and Communications

Through the 2015-2019 Program, Metro-North will improve customer communications at East of Hudson stations, including: Enhanced Station Initiative scope, real-time information on train arrivals and departures, visual information displays, an improved public address system, and safety and security enhancements.





Category	Budget	Highlights	Category	Budget	Highlights
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East of Hudson Track & Structures

\$374m

- Continue cyclical track program - \$77m
- Continue track switch replacements system-wide, some using high-speed equipment at critical locations - \$82m
- Drainage improvements and rock slope remediation system-wide - \$28m
- Purchase equipment for track program - \$22m
- Replace or repair undergrade bridges - \$57m
- Improve overhead bridges system-wide - \$52m

Communications & Signals

\$267m

- Replace or upgrade obsolete communications network equipment - \$32m
- Replace critical components, including track relays and grade crossings - \$8m
- Complete Positive Train Control implementation - \$94m
- Continue Positive Train Control-related investments including replacing or upgrading parts of the Hudson Line signal system, West of Hudson signal installation, and Harlem Line communication and signal improvements - \$133m

West of Hudson Track & Structures

\$57m

- Continue cyclical track program, including rock slope remediation at select locations - \$25m
- Replace or repair undergrade bridges at priority locations - \$15m
- Continue priority repairs to the Moodna and Woodbury viaducts - \$14m

Power

\$114m

- Harlem and Hudson Line power rehabilitation and improvements - \$43m
- Continue to replace or rehabilitate critical components, including transformers, switchgear, tunnel alarms and motor alternators, including in the Park Ave Tunnel - \$36m

Substation renewals and replacements - \$21m

Replace and upgrade third rail system components - \$10m

Misc.

\$164m

- Insurance, independent engineers, and other program management - \$87m

Positive Train Control

Along with the LIRR, Metro-North will complete the installation of Positive Train Control through the 2015-2019 Program. This will help prevent train-to-train collisions, over-speed derailments, injuries to workers as a result of unauthorized incursions by a train into a work zone, and the movement of a train through an improperly aligned switch.

Capital Construction Company - \$7.1 billion

MTACC's mission is to plan, design and construct major MTA network expansions for the operating agencies. These expansion projects are intended to ease regional congestion and create additional capacity for future growth. This 2015-2019 Capital Program will allow for the start of three new expansion projects: Penn Station Access, the second phase of the Second Avenue Subway, and the LIRR Expansion. The MTACC program also continues to support the ongoing East Side Access project and its associated Regional Investments as they progress towards a December 2022 revenue service date.

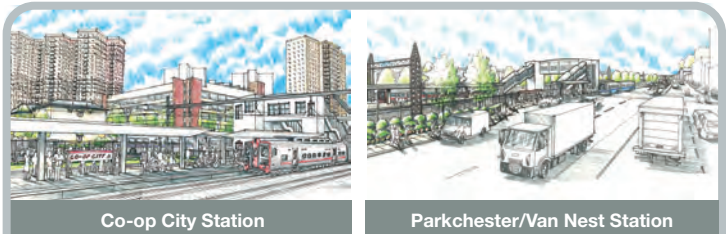
MTACC Capital Program Investment Overview 2015-2019

Category	Budget	Highlights	Category	Budget	Highlights	
East Side Access	\$2,302m	Construction of the Manhattan Caverns - \$777m	Regional Investments	\$193m	East Bound Re-Route - \$46m	
		Construction of the Mid-Day Storage Yard Facility in Queens - \$266m			Harold Loop Structures - \$58m	
		Systems packages - \$276m				
			ESA Risk Reserve	\$131m	An executive reserve established outside of the East Side Access program as a risk contingency - \$131m	
		Penn Station Access			\$695m	Early Design - \$31m
						Track and Structures work on the existing Right of Way - \$238m
			Power, Stations and Shops & Yards investments - \$325m			
					Communication and Systems Investments - \$56m	



A New Manhattan Terminal

When completed, the new station will allow for 24 peak hour trains and add about 30,500 peak hour seats. Commuters heading to the new station will save up to 40 minutes on their daily commutes.



New Haven Line expansion and resiliency

Penn Station Access will take Metro-North's New Haven Line directly to Penn Station, adding four new stations in the Bronx.



Category	Budget	Highlights	Category	Budget	Highlights
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Full Length Second Ave Subway \$1,735m

Preliminary Engineering, Design and Environmental Studies - \$135m

Construction Management, Project Support and Real Estate - \$130m

Early Construction and project reserves - \$1,470m

LIRR Expansion \$1,950m

Full Design, Track and Structures, Signals, Power, and Station work - \$1,500m

Grade Crossings - \$450m

MTACC Admin. & Misc. \$128m

To provide MTACC administrative, independent engineering services throughout the 2015-2019 program period.



Extending the Second Avenue Subway

The extension will take the Second Avenue Subway north to 125th Street and add three new stations at 125th Street, 116th Street and 106th Street.



Improve Regional Mobility

When completed, 9.8 miles of additional track between Floral Park and Hicksville on the LIRR's main line will improve commutes every day with greater service capacity and fewer delays.

Bridges and Tunnels - \$2.9 billion

B&T's program introduces a new toll collection system - cashless Open Road Tolling (ORT) - and maintains the structural integrity of its bridges and tunnels to ensure safety and reliability. These investments will improve travel across the region and ensure the continued flow of toll revenue that helps support nearly nine million daily customers across the MTA system. This portion of the amendment does not require Capital Program Review Board approval.

Bridges and Tunnels Capital Program Overview 2015-2019

Category	Budget	Highlights	Category	Budget	Highlights
Agency Wide	\$310m	<ul style="list-style-type: none"> Deploy Open Road Tolling at B&T crossings - \$134m Improve traffic management and traveler information systems - \$19m New Operation Command Center at Randall's Island- \$26m Replace Morris Street Bridge - \$10m LED roadway display signs - \$10m 	Bronx-Whitestone Bridge	\$164m	<ul style="list-style-type: none"> Deploy cashless Open Road Tolling - \$44m Rehabilitate miscellaneous structures - \$20m Paint tower interior structures - \$33m Install electronic monitoring and detection systems - \$30m Tower pier protection - \$19m Inspect and rehabilitate cables and suspender ropes - \$10m
			Henry Hudson Bridge	\$270m	<ul style="list-style-type: none"> Reconstruct toll plazas and southbound approach - \$101m Retrofit structural arch supports - \$100m Replace power substations and lighting systems - \$16m
			Rockaway Crossings (Cross Bay and Marine Parkway Bridges)	\$85m	<ul style="list-style-type: none"> Deploy cashless Open Road Tolling - \$36m Rehabilitate or repair underwater structure - \$49m



Cashless Open Road Tolling

After successful testing at the Henry Hudson Bridge, we're introducing cashless toll collection or Open Road Tolling (ORT) on all B&T crossings. This puts tolling equipment overhead, enabling free-flowing traffic lanes with better visibility.

Design Build Initiative

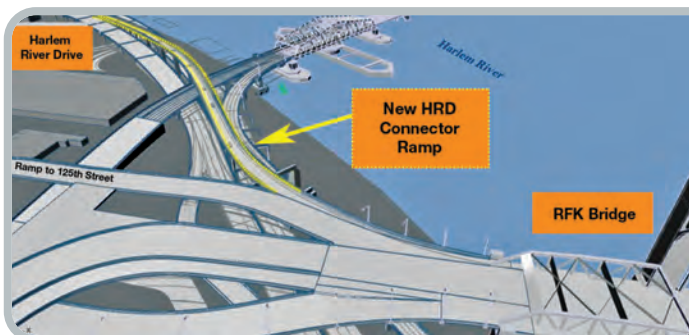
Nineteen B&T projects are targeted for design-build implementation, representing more than twenty percent of the Program's value.



Category	Budget	Highlights	Category	Budget	Highlights
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Hugh L. Carey Tunnel	\$133m	<ul style="list-style-type: none"> Deploy cashless Open Road Tolling - \$25m Rehabilitate ventilation systems - \$85m
Queens Mid-town Tunnel	\$88m	<ul style="list-style-type: none"> Deploy cashless Open Road Tolling - \$36m Upgrade controls and communication systems - \$42m
Robert F. Kennedy Bridge	\$675m	<ul style="list-style-type: none"> Deploy cashless Open Road Tolling - \$100m Replace Manhattan toll plaza structure and ramps (Phase I) - \$35m Construct new ramp onto northbound Harlem River Drive - \$135m Rehabilitate miscellaneous structures - \$94m Retrofit structure against seismic and wind effects - \$68m Upgrade fire protection and electronic monitoring and detection systems - \$65m

Throgs Neck Bridge	\$621m	<ul style="list-style-type: none"> Deploy cashless Open Road Tolling - \$51m Replace suspended span deck panels - \$306m Rehabilitate approach viaducts - \$162m
Verrazano-Narrows Bridge	\$594m	<ul style="list-style-type: none"> Deploy cashless Open Road Tolling - \$67m Dehumidify and paint anchorages - \$52m Reconstruct approach ramps (Phase I) - \$286m Rehabilitate anchorage and piers - \$49m Main cable and suspender rope testing - \$43m Replace suspended span overcoat - \$41m Various structure and equipment repairs - \$64m Reconfigure Brooklyn approach - \$31m



New Connections for Improved Mobility

We're working with NYC DOT to build a ramp from the RFK Bridge onto the northbound Harlem River Drive, so you can get where you're going, without weaving through local streets.

Funding the Capital Program

Program Funding Plan	2015-2019
Total Program Costs - \$ in millions	\$ 32,457
<i>Funding Currently Projected:</i>	
Federal	7,556
City of New York	2,492
MTA/TBTA Bonds	9,924
State of New York	8,466
Other MTA Sources	4,019
Total Available Funds	\$ 32,457

The Capital Program continues to be supported by a continuation of local funding – including City of New York, State of New York and MTA sources – and federal sources. The funding envelope for the proposed 2015-2019 Capital Program amendment reflects the administrative swap of federal funds and MTA sources between capital programs and \$2.0 billion in additional MTA bonds and PAYGO generated through lower debt service expenses.

Moving forward with a Capital Program that moves New York forward.

Thanks to the Capital Program, we've been able to maintain and improve a truly indispensable transit network, with subways that offer both express and local service all day, every day. When combined with the two most heavily-used commuter railroads in the nation—and nearly 5,700 buses serving more than 300 routes—we have more transfer points, more stations, more flexibility, and more redundancy than any other transit network in the world.

We're incredibly fortunate to have this robust, interconnected transportation network as a foundation. Now, we have to take good care of it to make certain that it meets the changing needs of riders and the region's economy. That's easier said than done, but if we want to maintain our global competitiveness—if we want to continue growing our \$1.4 trillion regional economy, second in the world only to Tokyo—we need to keep investing in our transit network.

In this way, the MTA will continue to provide safe and reliable service, while recommendations from the Transportation Reinvention Commission keep our investments forward-thinking, so the MTA system and our region continue to prosper in the century ahead.





MTA Capital Program 2015-2019

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MTA Capital Program 2015-2019 Overview



Investment Summary

The proposed MTA 2015-2019 Capital Program amendment encompasses \$32.5 billion of investments that renew, enhance, and expand the MTA network. The majority of the program focuses on renewing the system to promote safe and reliable service. Enhancements are targeted toward improving system capabilities and the customer experience. Expansion projects extend the reach of the network to address evolving regional mobility needs. The MTA Capital Program Review Board (CPRB) program amendment is subdivided into “core” investments that renew and enhance, and “expansion” investments that extend the MTA network.

Since the February amendment to the 2015-2019 Capital Program, the MTA has incorporated various changes to the program. Program changes include increasing support for new priority projects, rolling stock purchase adjustments, the new LIRR Expansion Project, and additional funding for Second Avenue Subway Phase 2. Bridges and Tunnels (which does not require CPRB approval) is proposing changes including a transfer of funding from the 2010-2014 Capital Program as it embraces a new way of collecting vehicle revenues through Open Road Tolling. As a result of these and other changes, the total program has increased from \$29.6 billion to \$32.5 billion. Changes to the program are summarized in Table 1 below and discussed thereafter.

Table 1
MTA 2015-2019 Capital Program Amendment All Agency Summary (\$ in millions)

	Approved Program	Proposed Program	Change
CPRB Core Capital Program			
New York City Transit	\$15,849	\$16,315	\$467
Long Island Rail Road	2,955	2,956	2
Metro-North Railroad	2,321	2,414	93
MTA Bus	376	376	0
MTA Interagency	264	321	57
CPRB Core Subtotal	\$21,764	\$22,382	\$618
Network Expansion	4,956	7,135	2,179
CPRB Program Total	\$26,719	\$29,517	\$2,798
Bridges and Tunnels	2,856	2,940	84
Total MTA Capital Program	\$29,575	\$32,457	\$2,882

Numbers may not total due to rounding

Program Evolution and Proposed Changes

The original \$32.046 billion MTA 2015-2019 Capital Program, which included \$28.990 billion for CPRB agencies and \$3.056 billion for the self-funded B&T program, was approved by the MTA Board in September 2014. The \$28.990 billion program was subsequently submitted to the CPRB in October 2014. That program was vetoed by the CPRB without prejudice in October 2014. In preparation for its resubmission, the MTA and agency staff responded to Governor Cuomo's challenge to reduce the program's cost by 6 to 8 percent. A refocused 2015-2019 Capital Program that included \$28.956 billion for the MTA's 2015-2019 Capital Program, of which \$2.856 billion was self-funded by B&T and \$26.100 billion of which required review and approval of the CPRB, was approved by the MTA Board in October 2015. Discussions, which continued into the State budget process, were immediately undertaken with stakeholders, including the Legislature, to ensure the revised program met their concerns.

Limited changes to the program were proposed by the MTA in collaboration with several key stakeholders. The revised 2015-2019 Capital Program included \$500 million in proposed New Starts funding for Second Avenue Subway's Phase 2, increasing the project's funding allocation in the capital program to \$1.035 billion. This proposed federal funding was subject to further discussion with the Federal Transit Administration, and subject to future provision of additional local funding for Second Avenue Subway Phase 2 as required for the New Starts application process. The revised program also included changes to advance station enhancement work and MTA work at the LIRR Mets-Willets station in support of regional mobility initiatives. These limited changes did not affect agency overall allocations approved by the MTA Board in October 2015. No other changes were made to the program. On April 20, 2016, the Board approved the proposed \$29.456 billion capital program, including \$2.856 billion for B&T. The CPRB approved the \$26.600 billion CPRB portion on May 23, 2016. The CPRB's approval was not required for the \$2.856 billion B&T portion of the program.

In February 2017, the MTA Board approved an amendment to this capital program adding \$399 million in station investments. Only the NYCT and LIRR portions of the program were affected with no change to the overall NYCT program and a \$119.4 million increase to the LIRR portion of the program. The \$119.4 million increase was funded by surpluses in prior capital programs that had been set aside to progress regional mobility. The net balance of the \$399 million was funded through adjustments within the NYCT and LIRR programs. This amendment was approved by the CPRB in March of 2017 with the CPRB portion of the program increasing to \$26.719 billion and the full program value increasing from \$29.456 billion to \$29.575 billion.

Proposed Capital Program Amendment

The MTA is seeking to increase its total capital program from \$29.575 billion to \$32.457 billion. The CPRB portion of the program increases from \$26.719 billion to \$29.517 billion. Changes to the program include the following: (a) updates to agency core programs to include critical priority projects such as station enhancement work, bus fleet amenities, train arrival information, and investments at Penn Station, as well as adjustments to update project budgets and schedules; (b) the inclusion of a new regional mobility project to expand the LIRR's Main Line; (c) additional required funding to meet needs for Second Avenue Subway's Phase 2; and (d) a new Open Road Tolling program of projects at B&T with corresponding program rebalances to accommodate this new direction.

Highlights of Proposed Program Changes

Updated estimates and rebalanced programs to reflect MTA priorities. In this proposed 2015-2019 Capital Program amendment, the MTA has worked to address budgetary needs for priority projects such as enhanced station initiatives at NYCT and commuter rail stations, train arrival information on NYCT's B Division, customer facing bus amenities, and Open Road Tolling initiatives at B&T. The MTA has addressed other changes to its program of

projects such as updated cost estimates for projects such as New Fare Payment System and updated timing assumptions for projects such as purchases of rolling stock. In addition, there is a budget neutral administrative transfer of scope for East Side Access and Regional Investments to the 2010-2014 Capital Program to consolidate similar work for improved budgetary management and visibility. Some of the changes in this amendment involve transfers of budgets from prior capital programs, as well as project deferrals to future capital programs. Details of the proposed changes comprising this amendment are contained within the agency sections of this book.

A new regional mobility improvement project to expand the LIRR's Main Line. The MTA is establishing a new \$1.950 billion regional mobility project (the "LIRR Expansion Project") within the MTACC network expansion program to expand the LIRR's Main Line between the Hicksville and Floral Park stations. This new project will promote regional mobility by adding capacity, allowing for additional LIRR service, eliminating seven grade crossings and enhancing the ability of the LIRR to recover from service disruptions.

Additional required funding for Second Avenue Subway Phase 2. As a part of the program amendment, the MTA is adding required 30% local match funding for the future full funding grant agreement.

Bridges and Tunnels Open Road Tolling (ORT). ORT will transform the way B&T collects revenues and will improve the flow of traffic at its seven bridges and two tunnels. With this new direction, B&T has taken advantage of opportunities to cancel work at toll plazas that now will not be needed due to ORT. Re-sequencing and opportunities for efficiencies in other areas of the B&T program are reflected within this program amendment. All other critical work in the 2015-2019 Capital Program will continue to move forward. In addition, \$90 million of surplus funds from the 2010-2014 Capital Program are being transferred to the 2015-2019 Capital Program to support ORT.

Element increases exceeding 10%. Pursuant to the Public Authorities Law, increases to elements greater than 10% require approval of the CPRB in order to be progressed (except changes to B&T projects, which are not subject to CPRB approval). The amendment lists elements that grow by greater than 10% of the amounts set forth in the March 2017 Capital Program approved by the CPRB. CPRB approval will be required to progress the work at the proposed new levels.

Program Funding

Funds currently projected to be available for the proposed 2015-2019 Capital Program amendment total \$32.5 billion (Table 2) and are described in the following narrative.

Table 2
MTA 2015-2019 Capital Program Amendment Funding Plan (\$ in millions)

Program Funding Plan	Approved Program	Proposed Program	Change
Federal Formula, Flexible/CMAQ, Misc.	\$6,275	\$6,956	\$681
Federal Core Capacity	100	100	-
Federal New Starts	500	500	-
MTA Bonds	5,929	7,558	1,629
Pay-as-you-go Capital (PAYGO)	1,925	2,270	345
State of New York Capital	8,336	8,466	130
City of New York Capital	2,492	2,492	-
Asset Sales / Leases	600	600	-
Other MTA Sources	562	575	13
Total CPRB Program	\$26,719	\$29,517	\$2,798
Bridges and Tunnels Bonds (\$2,366) & PAYGO (\$574)	2,856	2,940	84
Total 2015-2019 Program	\$29,575	\$32,457	\$2,882

Numbers may not total due to rounding

Federal Formula, Flexible, and Miscellaneous

\$681 million

Available MTA Federal formula funding allocations (\$231 million) previously planned for the 2010-2014 Capital Program are transferred into the 2015-2019 Capital Program, offset by an equal amount of MTA local funding transferred to the 2010-2014 Capital Program to support projects in that approved capital program. In addition, \$450 million in CMAQ funding from NYSDOT is added to the program to support MTA's financial commitment for grade crossings associated with the LIRR Main Line Expansion project, bringing the total amount of CMAQ funding in the 2015-2019 program to \$725 million.

Federal Core Capacity

No funding change

The Core Capacity assumption for the Canarsie Line Power and Station Improvement project remains unchanged.

Federal New Starts

No funding change

The New Starts assumption for Second Avenue Subway Phase 2 remains unchanged.

MTA Bonds

\$1.629 billion

This amendment adds \$1.9 billion in MTA bonds generated through lower debt service expenses to support Second Avenue Subway Phase 2, the regional mobility improvement project to expand the LIRR's Main Line and the core program. This increase is offset by the transfer of \$271 million in bonds to the 2010-2014 Capital Program as part of the exchange of federal formula/flexible funding, as noted above (\$231 million), and \$40 million to restore funds borrowed temporarily in support of February 2017 amendment budget transfers, which are now fully funded within the 2015-2019 capital program.

Pay-as-you-go Capital (PAYGO)

\$345 million

The proposed amendment adds \$424 million in PAYGO generated through lower debt service expenses and other operating expense savings to support increased needs, offset by \$79 million in PAYGO transferred to the 2010-2014 capital program, for a net change of \$345 million.

State of New York Capital

\$130 million

An additional \$130 million of new capital funding to support the core capital program, including \$65 million for New York City Transit improvements, and \$65 million for Long Island Rail Road station improvements.

City of New York Capital

No funding change

This category of the funding plan remains unchanged.

Asset Sales / Leases

No funding change

This category of the funding plan remains unchanged.

Other MTA Sources

\$13 million

The proposed amendment reflects \$6 million transferred from B&T's program to support their share of the MTA Small Business Development Program (MTA Interagency), and the addition of \$7 million in previously unplanned cash receipts for the 2015-2019 capital program.

Bridges and Tunnels Program Funding

\$84 million

The proposed amendment adds \$90 million in TBTA bonds to the 2015-2019 Capital Program due to efficiency savings from the B&T 2010-2014 Capital Program. This \$90 million is offset by a transfer of \$6 million to MTA Interagency in support of B&T's share of the MTA Small Business Development Program.

MTA Capital Program 2015-2019

New York City Transit



Asset Base – New York City Transit

Table 4
Selected New York City Transit Assets

Category	Assets
Subway Cars	6,418 Rail Cars
Buses	4,475 Buses
Passenger Stations	472 Stations
Track	641 Miles of Mainline Track 1,767 Switches
Line Equipment	435 Miles of Tunnel Lighting 205 Ventilation Plants 238 Pump Rooms
Line Structures	140 Miles of Subway Structure 70 Miles of Elevated Structure 22 Miles of At-Grade Lines
Signals and Communications	730 Miles of Mainline Signal Equipment 472 Miles of Fiber Optic Cable
Power	226 Substations
Shops & Yards	42 Shops 24 Yards
Depots	23 Bus Depots
Service Vehicles	640 Work Vehicles 496 Work Trains
Staten Island Railway	64 Rail Cars

*Assets based on 2015-2034 Twenty Year Needs Assessment
Assets added for of 34th St Hudson Yards and Second Avenue Subway.*

Overview – New York City Transit

This proposed amendment adjusts the content of New York City Transit's 2015-2019 Capital Program. The total value of the revised program is \$16.315 billion, which is a net increase of \$467 million from the approved program. This reflects administrative transfers of the Small Business Development Program's (SBDP) administration budget to the MTA Interagency program and additional funding. The principal change presented in this amendment is the increased priority on new customer-focused initiatives, primarily in the Passenger Stations and Buses categories. This change is facilitated by reprogramming part of the subway car purchase from the 2015-2019 period to the next capital program, based on anticipated railcar procurement schedules.

The Enhanced Station Initiative (ESI) will revamp the design guidelines for subway stations, then put them in place using design-build procurement to deliver the projects more quickly. These cleaner, brighter stations will be easier to navigate, with better wayfinding and a modernized look and feel. Likewise, all bus purchases in the program will incorporate state-of-the-art technology that will dramatically enhance the overall customer experience – including USB charging ports, Wi-Fi hotspots, and digital information screens – as well as new systems to improve passenger and pedestrian safety. The amendment also moves toward a cleaner bus fleet by adding a project to purchase 50 all-electric buses and increasing the number of hybrid-electric buses to be purchased.

Adjustments for the remaining work in the program reflect refined project scopes and cost estimates, bid experiences, schedule changes, and market conditions since the last update to the Board. To better align project budgets with implementation schedules and priorities, this amendment also moves some projects to future capital programs. The amendment also reflects changes to the selection of projects for SBDP.

As originally approved by the Board in April 2016, the 2015-2019 Capital Program assumed program savings to be realized via more efficient design and construction of certain types of projects across 11 elements. NYCT has progressed in this effort, and is able to reflect more refined project-level savings based on updated cost estimates in some elements. In three elements (Power Distribution, Depot Rehab and Reconstruction, and Depot Improvements), new project estimates fully achieve the savings target for each element, and no further reductions are assumed. In two elements (Signal Modernization and Substations), new project estimates do not fully achieve the savings targets, but further opportunities for savings are not apparent and therefore no further reductions are assumed. Similarly, in the Station Elevators/Escalators element, further opportunities for savings for elevator projects are not available although assumed reductions remain in place for escalator projects. In the Station Work element, NYCT is able to pursue a smaller reduction for Station Component projects, reflecting the transfer of scope from station component and renewal projects to ESI, as well new project estimates. In the other four elements with assumed program efficiencies, the original reductions remain in place for the remaining projects while strategies are being refined to achieve those goals.

This amendment also reflects the addition of new projects. Some projects are moved from the 2010-2014 Capital Program to be combined with related projects that are already included in the 2015-2019 Capital Program. Other new projects are being proposed to address newly emerging needs. A number of projects are newly listed as a result of administrative transfers of scope from existing projects or programmatic reserves as a means of better budget control and transparency. Specifically, projects have been split out to identify scopes and/or locations under the mainline track and switch programs, the line structure component repair program, and for the construction of new substations on the Canarsie line. Likewise, administrative split-outs reflect anticipated contract packaging, with several instances occurring in Passenger Stations, Communications, and Depots projects. In many of these cases,

new projects reflect scope that is being implemented under the SBDP, and it is expected that additional administrative split-outs of SBDP projects will occur in the future.

Table 3 summarizes the proposed changes by category and the following narrative highlights the major changes in each of NYCT's program categories.

Table 3
MTA New York City Transit 2015-2019 Capital Program by Investment Category (\$ in millions)

Category	Approved Program	Proposed Program	Change
Subway Cars	\$2,956.4	\$1,728.2	\$(1,228.2)
Buses	1,020.0	1,216.0	196.1
Passenger Stations	2,910.0	4,000.8	1,090.8
Track	1,845.2	1,845.2	0.0
Line Equipment	280.3	285.0	4.6
Line Structures	895.2	988.3	93.1
Signals and Communications	2,765.7	2,728.0	(37.6)
Traction Power	772.8	884.0	111.2
Shops and Yards	352.8	371.9	19.2
Depots	582.4	597.3	14.9
Service Vehicles	222.3	250.3	28.0
Miscellaneous	860.0	941.7	81.7
Staten Island Railway	385.8	478.7	92.9
Total New York City Transit Program	\$15,848.8	\$16,315.4	\$466.6

Numbers may not total due to rounding

New York City Transit Subway Cars Category T-701

(\$1.228 billion)

The net decrease in the category is a result of phasing the R211 car purchase. The complete R211 purchase of 940 B Division railcars to replace the aging R46 fleet will proceed with a base purchase of 450 cars retained in the 2015-2019 Capital Program and the remaining cars via an option funded in the future 2020-2024 Capital Program.

The purchase is being split to better align funding with the manufacturing schedule of the railcars. Railcar production requires several years from the award of a contract to the delivery of cars for service. As a result, production of the base order of 450 R211 cars will carry over into the early years of the future 2020-2024 Capital Program, allowing an option for the remaining cars to be exercised in the future 2020-2024 Capital Program without interrupting the manufacturer's production line or the delivery of cars into NYCT passenger service.

In addition to better aligning funding and production, splitting the purchase provides NYCT an opportunity to incorporate open-gangway design into the option portion of the R211 purchase. Along with the base order of 450 R211 cars, the 2015-2019 Capital Program includes the purchase of a 10-car open-gangway prototype train. Positioning the car option in the future 2020-2024 program will allow NYCT to receive and test the prototype before exercising the option, maximizing the possibility of incorporating the open-gangway design into the car option purchase

Estimates for the 450 R211 cars and 10 car open-gangway prototype are also updated to reflect market conditions and more detailed design specifications.

New York City Transit Buses Category T-703

\$196 million

The net increase in this category reflects several important changes: the addition of new technology and safety features on all new bus purchases; an increase in buses powered by low-emissions propulsion systems, including electric buses; and the addition of a project to replace farebox components.

A portion of the increase, \$113 million, is reflected in revised estimates for existing bus purchase projects. This is primarily due to the inclusion of new customer amenities and advanced safety features in all bus purchases. Digital information screens, Wi-Fi, and USB ports will improve the customer experience. In addition, all new buses will come equipped with collision avoidance technology and audio and visual turn warning safety features. To improve operational performance and management, buses will also be equipped with traffic signal priority transmitters, automatic passenger counting sensors, and operator facing cameras.

The cost adjustment to existing bus purchase projects also reflects a shift toward cleaner propulsion technology. The original planned purchase of 200 diesel standard and 75 hybrid-electric standard buses are now combined into a single purchase of 275 hybrid-electric buses. Likewise, 10 of the buses in the 628 diesel standard purchase will be hybrid-electric instead and will serve as a test fleet for the 275 purchase. Similarly, 10 of the buses in the 190 diesel articulated bus purchase will be hybrids, the first hybrid-electric articulated buses ever purchased for service at NYCT.

Complementing these changes to existing purchases, the amendment also includes the addition of a project to purchase 50 electric buses (45 standard and 5 articulated buses) and eight charging stations (\$71 million), which will be the first all-electric fleet purchased for regular service at NYCT. As a result of these changes, the total number of buses purchased is increasing by 50 buses, from 1,391 to 1,441, and the share of alternative propulsion buses (CNG/Hybrids/Electric) is increasing from 23% to 40% of new purchases.

Last, a new project is added to replace farebox components (\$12 million). This project is being moved to the 2015-2019 Capital Program from the 2010-2014 Capital Program, and will ensure that systems remain in good repair during the transition to next generation fare payment that will be implemented by the agency-wide New Fare Payment System project.

New York City Transit Passenger Stations Category T-704

\$1.091 billion

This category has the largest increase of any NYCT category in this amendment, due primarily to additional funding for the Enhanced Station Initiative (ESI). By revamping NYCT's design guidelines for subway stations and putting them in place using design-build procurement to deliver the projects more quickly, ESI will deliver stations that are cleaner, brighter, and easier to navigate, with better wayfinding and a modernized look and feel. The original plan included \$64 million in funding for the launch of the ESI initiative. The scoping of the initiative has progressed rapidly in the months since program approval, and the scopes and estimates for multiple design-build packages have developed. Current plans call for ESI treatments at 30 NYCT stations in the core project (\$881 million), plus the first phase of similar treatments at the two subway stations at 34th St.-Penn Station (\$40 million), for an NYCT ESI total of \$921 million. Thus, the increase in the Passenger Stations category due to ESI is \$857 million more than the \$64 million initial ESI budget. A 31st location in the ESI core project is included in the Staten Island Railway section (\$15 million), which brings the grand total for ESI to \$936 million. Several individual ESI projects are listed in the program, reflecting anticipated contract packaging.

The original plan included station renewal projects at 20 stations, and these projects are reduced (\$47 million). This mainly reflects the transfer of scope from five renewal projects to the ESI program (\$81 million). These locations are 3rd Ave.-138th St. on the Pelham line, and 30th Ave., Broadway, 36th Ave., and 39th Ave. stations on the Astoria line. Offsetting these reductions, however, is a net increase of \$34 million in remaining renewal projects based on refined estimates. Notably, there is a \$25 million increase in the Astoria Blvd. project, due to a need to raise the mezzanine to avoid truck strikes from the roadway below, as well as additional canopy work and a refined estimate for track access costs. Also notable, there is a \$2 million increase in the Mets-Willets Point project, recognizing that this will be the first phase of a more comprehensive overhaul of the station. (A related \$50 million project for property needs is established in the Depots category for a potential new bus depot).

A net reduction (\$40 million) in station component projects reflects several dynamics: refined estimates, transfer of planned component repairs at ESI locations to the ESI program, splitting out of projects into smaller packages for award under the SBDP, refined selection criteria for platform edge repair projects, partial restoration of the savings reductions that were assumed in the original plan, and creation of a new \$3 million project to address deteriorating platform conditions at 125th St. on the Broadway-7th Ave. line. These latest project estimates then were recalibrated to update the efficiency goal to 5.25% (versus 20% in the original program), and this new reduction will remain in place while strategies are being refined to achieve the savings goal. For some component projects, the number of locations included in the project has been reduced. Based on engineering assessments during project scoping, it was determined that certain conditions identified in the 2012 Station Condition Survey in fact do not require capital repair at this time. This scope refinement process is an expected feature of the Component program, and will continue throughout the Master Plan and Design phases of each project. Last, the Station Painting at Component Locations initiative is reduced (\$6 million) because four of the stations will be painted by the ESI projects instead.

In other areas of this category, the Fare Collection element increases by \$114 million. This reflects the addition of two projects: \$100 million for force account related to the acceleration of the New Fare Payment System (NFPS), and an Automated Fare Collection (AFC) electronics replacement project (\$14 million). The AFC electronics scope is moved from the 2010-2014 Capital Program to ensure that systems remain in good repair during the transition to next generation fare payment that will be implemented by the agency-wide NFPS project.

The \$94 million increase in the Station Elevators/Escalators element largely reflects the need to address structural and mechanical repairs and project support services for certain elevator replacement projects, as well as architectural finishes for the staircase and walls adjacent to the two escalators that are being replaced at Grand Central-42nd St. Other projects have administrative split-outs to reflect contract packaging with no net change in funding. Last, with new estimates and needs described above, the programmatic savings are no longer available for elevator projects, though assumed reductions remain in place for escalator projects while strategies are being refined to achieve the savings goal.

The Disabled Accessibility element increases by \$226 million mainly to address the addition of new scope. There is a new ADA/Renewal project at the Bay Ridge-95th St. station (\$35 million) and design and preparation (\$5 million) for a similar project at the 77th St. station, both on the 4th Ave. line. Due to estimate increases related to site-specific complexities, support cost funding is added for two ADA projects that are also funded under the 2010-2014 Capital Program, at 57th St.-7th Ave. on the Broadway line (\$54 million) and 68th St.-Hunter College on the Lexington Ave. line (\$53 million). Increases in other ADA projects in the program based on refined estimates include Bedford Park Blvd. on the Concourse line (\$11 million), Eastern Pkwy.-Brooklyn Museum on the Eastern Parkway line (\$11 million), Greenpoint Ave. on the Crosstown line (\$9 million), Court Square on the Crosstown line (\$5 million), and Rockaway Parkway on the Canarsie line (\$5 million). Last, some of this element's increase relates to the Bedford Ave. and 1st Ave. projects on the Canarsie line. These two ADA projects, which are being implemented in concert with the Superstorm Sandy repair of the Canarsie Tube, have a net increase of \$38 million. However, this is largely offset by a decrease of \$33 million in a related project for new street stairs at two locations on the Canarsie line that is budgeted in the Other Station Improvements element of this category. The changes in these individual project budgets reflect better apportioning of shared costs.

The Other Station Improvements element reflects a net increase of \$22 million. New projects are added to provide capacity enhancements (\$8 million), which will ease crowding in the control areas, and to improve circulation and reduce crowding at 14th St.-Union Square on the Canarsie line (\$15 million) via the installation of a new escalator if feasible. The Union Square project will look to take advantage of the closure of that station during the Superstorm Sandy repairs of the Canarsie Tube. A project to perform planning and engineering for customer experience improvements at Sutphin Blvd.-Archer Ave. was added as well (\$10 million). Also increased is the project to reconstruct Cortlandt St. station on the Broadway-7th Ave. line (\$23 million) reflecting the increased estimated needs of this ongoing project. Offsetting these various needs are the previously noted decrease of the stairs project (\$33 million) and removal of a study of 42nd St. Shuttle operations (\$1 million) based on agency priorities. The program continues to include the next phase of access improvements at Grand Central-42nd St. associated with the proposed development of the MTA's Madison Ave. property. Additional funds and projects for this initiative may be added as necessary upon completion of the development plan for the site.

New York City Transit Track Category T-705

\$0 million

There is no net budget change to this category. However, new location-specific projects have been created for the 2015 and 2016 mainline track, switch, and continuous welded rail programs, and funding has been transferred into those projects from the annual programmatic reserves. This will allow for better planning, oversight, and evaluation. Locations for the next year's program are determined in the year before the planned work is expected to begin, and this is also when the location-specific projects are split out. In addition, some work that was originally planned for the latter years of the program has been advanced into 2016. Reflecting this advancement, the annual reserves have been reduced for mainline track in 2017, 2018 and 2019, and for mainline switch in 2017; the location-specific projects created for 2016 reflect the advancement of funding from these reserves.

New York City Transit Line Equipment Category T-706

\$5 million

The increase in this category reflects the addition of a new project to upgrade fan control at the Backup Command Center (\$3 million). This work will provide the Backup Command Center with the functionality necessary to control the fans that are currently controlled at the Rail Control Center. Also, design funds for a new fan plant on the Lexington line are increased (\$2 million).

The original approved plan reflected anticipated programmatic savings among select ventilation facility projects. Those original reductions remain in place while strategies are being refined to achieve the savings goal.

New York City Transit Line Structures Category T-707

\$93 million

This category's increase largely reflects estimate increases as designs have progressed, as well as the addition of projects that are being reprogrammed from the 2010-2014 Capital Program. Some of the increase is offset by reprogramming certain scope for implementation in future capital programs.

There are estimate increases among the three projects on the Myrtle Line, including replacement of the Bushwick viaduct (\$82 million), replacement of the bridge over the New York and Atlantic Railway (\$11 million), and overcoat painting along the entire line (\$5 million). The projects addressing the viaduct and bridge were originally intended to rehabilitate the structures, but field surveys revealed the need for full replacement. There is also an estimate increase for the structural rehabilitation of the 4th Ave. line (\$15 million) due to emerging needs that include additional structural steel. In addition, two overcoat painting projects on the Culver line are moved to this capital program from the 2010-2014 Capital Program (\$51 million).

Partially offsetting these needs, the phasing of projects to repair emergency exits and ventilators between stations has been revised, resulting in a net reduction (\$29 million) in this capital program. Last, as NYCT begins to implement a component-based approach to repairing line structures, this amendment reflects the phasing of some component work to later programs (\$41 million) and the administrative split-out of some location-specific projects (\$8 million) from the Line Structure Repair Program reserve.

New York City Transit Signals and Communications Category T-708

(\$38 million)

The Signals element decreases by \$119 million and the Communications element increases by \$82 million.

Various signals project budgets are revised to reflect the latest cost information. Reflecting a refined estimate is the increase for the modernization of Ditmas interlocking (\$22 million) on the Culver line. Other increases are based on unfavorable bid results for CBTC Queens Boulevard line Phase 2 (\$84 million) and the modernization of Kings Highway interlocking on the Culver line (\$9 million). Budget decreases based on refined estimates include CBTC Culver line (\$12 million), modernization of Avenue X interlocking, also on the Culver line (\$3 million), and a phased modernization of 30th St. and 42nd St. interlockings on the 8th Ave. line (\$21 million). The amendment also reflects the revised phasing of the CBTC 8th Avenue signals project, which is reduced (\$163 million) mainly to reschedule a portion of the in-house support costs and carborne equipment installation to the future 2020-2024 Capital Program to better align with construction and car procurement schedules. A project to replace non-vital signal code systems will be implemented in phases, with half of the budget (\$35 million) now planned in a future capital program. The original approved program reflected anticipated programmatic savings among select interlocking and CBTC projects. This savings target is now met via the changes noted above, and no further reductions are assumed in this element.

Changes in the Communications element reflect the addition of new projects (including some work transferred from the 2010-2014 Capital Program), refined estimates, and revised phasing for some ongoing initiatives.

The largest addition (\$70 million) is a new project for the second phase of the Beacon Train Arrival System. This project will provide customers with train arrival information throughout the B Division (lettered lines) via transmitter beacons on trains and at stations and liquid crystal display (LCD) signs in stations. The total cost of the project is \$90 million, but its first phase is funded under the 2010-2014 Capital Program. Also added to the program is a project to enhance police radio coverage (\$22 million) and the first phase of a project to upgrade obsolete server hardware and software for the public address and customer information system operating on the A Division (\$2 million). Work budgeted in two capital programs to replace the Private Branch Exchange (PBX) switches is being consolidated into a single-phase PBX upgrade project; scope budgeted for Phase 1 in the 2010-2014 Capital Program is now merged into the 2015-2019 Capital Program's project (\$24 million). The project for platform safety technology is increased (\$15 million), reflecting a revised estimate. An increase (\$15 million) for the Help Point program is for work necessary to complete its systemwide rollout. The amendment also reflects the administrative split-out of Help Point projects to reflect contract packaging, including various contracts under the SBDP.

Partially offsetting the above increases are reductions driven by new estimates and scheduling needs. Refined estimates result in savings in the SONET network upgrade (\$7 million) and copper cable upgrade/replacement projects (\$5 million). Reflecting revised phasing, two ongoing initiatives that span multiple capital programs are reduced. The communications room upgrade project (\$25 million) is reduced to reflect a refined list of priority locations, and additional locations included in a future capital program. Likewise, the ISIM-B Module 3: Rail Traffic Systems project is reduced (\$30 million). This project is part of the ongoing Integrated Service Information and Management – B Division (ISIM-B) program, which began in the 2010-2014 Capital Program and is expected to continue into the 2020-2024 Capital Program. Module 3 provides a software platform to integrate and process train location data from the signal system. The reduction reflects a streamlined version of the software platform that can be progressively improved in later capital plans. Last, the amendment also reflects the administrative split-out of the SONET/ATM Equipment Upgrade project (renamed Connection-Oriented Ethernet based on the technology it will employ) into three phases with no net budget change.

New York City Transit Traction Power Category T-709

\$111 million

Substation and related improvement projects have experienced cost estimate increases. The most significant estimate changes are increases for the new power substations being built on the 8th Ave. and Canarsie lines to ensure sufficient traction power for increased train throughput made possible by CBTC signals (\$94 million). Other increases include the installation of low resistance contact rail (\$9 million), as well as the renewals of Central (\$13 million) and Avenue Z substations (\$2 million). Partially offsetting these increases, there are decreases in the renewal of Burnside Ave. substation (\$2 million) and in the project to replace power frequency converters at various locations (\$4 million). Also, a project to replace negative cables on the Queens Blvd. line will now be implemented in two phases over two capital programs, and is reduced accordingly (\$45 million)

In the Power Distribution element, new estimates have been incorporated for several circuit breaker house projects. In addition, the project to upgrade the Supervisory Control and Data Acquisition (SCADA) network increased to reflect the more thorough understanding of the project that was obtained through the scoping phase (\$15 million). New projects are added to protect power cables along the Dyre line (\$9 million), and to construct new power cable ducts at the Bedford-N. 6 St. Substation on the Canarsie line (\$3 million). Another new project is added for the initial phase of upgrading emergency alarms (\$11 million); building on successful pilot testing of new technology for emergency telephones and alarms, this work is moved from the 2010-2014 Capital Program to better align funding with anticipated construction schedules. Last, there is also an administrative split-out from the project to replace negative cables on the 4th Ave. line to reflect phasing of the work in multiple packages.

The original approved program reflected anticipated programmatic savings among select substations and circuit breaker house projects. With the new estimates and changes described above, the savings target is achieved for circuit breaker houses, but there is a net increase for substations. No further reductions are assumed in the Traction Power category.

New York City Transit Shops and Yards Category T-710

\$19 million

The net increase in this category primarily reflects changes to two 207th St. Overhaul Shop projects and the transfer of the closed circuit television (CCTV) project out of the asset category. The project to replace the roof at the 207th St. Overhaul and Maintenance Shop increased by \$9 million, reflecting an updated estimate. A project is added to rehabilitate the 207th St. HVAC Shop (\$38 million); this scope is transferred from the 2010-2014 Capital Program to reflect the phased implementation of the work at this shop. These increases are partially offset by two project reductions. A lighting project at Coney Island Yard (\$5 million) is being deferred to a future capital program to reduce conflicts with ongoing Superstorm Sandy repair work at the yard. The Yard CCTV project (\$22 million) is being folded into the broader Passenger Security Systems project in the Miscellaneous category to be re-scoped in the context of a holistic assessment of security needs. There is also an administrative split-out of the Upgrade Central Electronics Shop project to reflect planned award of some work under the SBDP.

The original approved program reflected anticipated programmatic savings among select shop components projects. Those original reductions remain in place while strategies are being refined to achieve the savings goal.

New York City Transit Depots Category T-712

\$15 million

In the Depots category, the original approved plan reflected anticipated programmatic savings among select projects. The amendment revises project budgets to reflect the latest cost information, with the result that the original savings target is achieved; no further reductions are assumed in this category.

Savings targets are achieved primarily because a number of projects are now expected to be awarded through a partnership with the New York Power Authority (NYPA) to implement the energy efficiency-related portions of scope in depot component projects, such as roof and HVAC work. Some or all component work at the following locations is anticipated to be awarded in this manner: Casey Stengel, Queens Village, Fresh Pond, Manhattanville, and Yukon Depots, and the Zerega Consolidated Maintenance Facility. The total savings in projects with NYPA work is \$39 million. The program contains administrative split-outs for some of these projects to reflect contracting arrangements.

Additional reductions are included based on scope and estimate refinements. The Portable Lift Replacement project is reduced based on a precise unit count of over-age lifts (\$1 million). The Grand Ave. articulated bus modification project has been reduced and renamed as a chassis wash project to reflect scope clarification (\$1 million). Other reductions include projects for paint booths (\$5 million) and bus washers (\$3 million) reflecting scope reductions as a result of reprioritization of needs. The reduction of the Jamaica Depot project (\$41 million) mainly reflects the phasing of the project's support costs over two capital programs and splitting out certain work into the mentoring program.

The amendment also includes some increases to project budgets to account for updated scopes and estimates. The largest increase is in the Artic Modification: East New York project (\$21 million) which includes a refined scope based on updated space requirements for articulated buses maneuvering inside the building, as well as addition of façade and window repairs. Other increases include the storage tank replacement project (\$5 million) and the roof replacement project at Gun Hill Depot (\$4 million).

A project is added for property acquisition for a potential new bus depot (\$50 million) due to planned work in the vicinity of Mets-Willets Point station, discussed in the Passenger Stations section. Several other projects are also added reflecting emerging needs and updated priorities. Two projects to replace roof topping and expansion joints have been added for Kingsbridge and M.J. Quill Depots (\$9 million). A depot modification project is added for Jackie Gleason Depot so that the new fleet of compressed natural gas (CNG) articulated buses can be serviced at the depot (\$3 million). A project to replace a chassis wash at Gun Hill Depot is added (\$2 million). Last, a project to upgrade the automated fuel management system at all depots is moved from the 2010-2014 Capital Program (\$3 million) to better align with the anticipated construction schedule.

There are several administrative split-outs throughout the Depots category with no net impact on budgets, notably the Depot Equipment Replacement project which is split into projects for a bus washer at Zerega Consolidated Maintenance Facility and a chassis wash at Casey Stengel Depot.

New York City Transit Service Vehicles Category T-713

\$28 million

The main change in this category is an increase in the project to purchase work locomotives, reflecting a revised phasing plan and procurement schedule. The projects for the purchase of rubber-tire non-revenue vehicles are consolidated from five projects, a project for each program year, into two projects to simplify purchases and support compliance with the Diesel Emissions Reduction Act (DERA).

The original approved plan reflected anticipated programmatic savings among select service vehicles projects. Those original reductions remain in place while strategies are being refined to achieve the savings goal.

New York City Transit Miscellaneous Category T-716

\$82 million

The largest increase in this category is the Passenger Security Systems project, which increases by \$42 million, both due to the addition of \$20 million as well as the transfer of \$22 million from the Yard CCTV project from the Shops and Yards category. These changes enable a more holistic assessment of NYCT security needs. Increases in two other projects reflect the consolidation of budgets that were previously split across the 2010-2014 and 2015-2019 capital programs. The Livingston Plaza electrical / mechanical upgrade project is adding the generator portion of work previously included in the 2010-2014 Capital Program (\$10 million), and the Power Upgrade RCC, PCC project incorporates Phase 1 from the 2010-2014 Capital Program (\$24 million). In each case, work is planned to be awarded as a single combined contract. Five new projects are being added: a project to support work expected to be implemented in various packages via SBDP (\$15 million), a project to create a special victims facility for the NYPD (\$5 million), a project to rehabilitate employee rest rooms at various facilities (\$5 million), a project to repair the exterior walls at the Tiffany Warehouse (\$5 million), and an alternatives analysis for the construction of a light rail system along the west shore of Staten Island (\$4 million). There is also an increase to the existing electrical distribution room repair project at Briarwood-Van Wyck (\$5 million) based on a refined scope and estimate.

These increases are partially offset by three projects that are removed from the program. The Small Business Development Program Administration project (\$29 million) is transferred to the MTA Interagency program. The IBM P-Series/SAN Disaster Recovery project (\$1 million) will be completed under the operating budget. Likewise, a non-capital solution is being pursued for the Medical Assessment Center #3 Repair (\$2 million). There is also a savings in the Fire Alarm System Replacement project (\$5 million) based on a refined estimate. The amendment also includes the administrative split-out of several projects to reflect planned award of some work under the SBDP.

As established in the original plan, funds remain in place to undertake critical station improvements at key locations. The locations have been developed in coordination with the City of New York, and candidate stations may include, but are not limited to: Broadway Junction, Flushing Main Street, Vernon-Jackson Avenues, Marcy Avenue, Union St. / 4th Avenue, Queensboro Plaza, East Broadway, and 170th St. / Jerome Avenue. These projects will seek to address station access, crowding, and other station issues and support the economic development and affordable housing strategy of the City of New York. Planned activities include studies, planning, design and construction.

The original approved program reflected anticipated programmatic savings among select employee facilities projects. Those original reductions remain in place while strategies are being refined to achieve the savings goal.

Staten Island Railway SIR Category S-707

\$93 million

The increase for this category is largely due to a refined estimate to replace the Staten Island Railway (SIR) railcar fleet to reflect market conditions and a more detailed design specification (\$47 million), as well as an increase in the SIR mainline track replacement project based on the latest assessment of conditions (\$20 million). Another major change in this category is the addition of an ESI project for Richmond Valley station (\$15 million). The ESI budget includes \$1 million that was previously budgeted for component work at Richmond Valley under the SIR Station Component Program. Finally, a reevaluation of traction power needs for the railway resulted in design changes and estimate increases for both the New Dorp (\$4 million) and Clifton (\$8 million) substations.

Elements Exceeding 10 Percent of the Approved Program

Pursuant to the Public Authorities Law, changes to elements that are greater than 10% require approval of the Capital Program Review Board (CPRB) in order to be progressed. Table 4 shows those elements of the program that have grown by greater than 10% versus the approved program. CPRB approval is necessary to progress these work elements, to the extent element amounts have increased by greater than 10%.

Table 4
NYC Transit Elements with Increases Exceeding 10 Percent (\$ in millions)

Element	Approved Program	Proposed Program	Change
Bus Replacement	\$1,020.0	\$1,216.0	\$196.1
Fare Collection	425.2	539.1	113.9
Station Elevators/Escalators	333.5	427.2	93.8
Station Work	1,104.3	1,739.2	634.9
Disabled Accessibility	739.5	965.9	226.3
Line Structure Rehabilitation	895.2	988.3	93.1
Communications Systems	614.0	695.8	81.8
Substations	548.3	616.6	68.3
Power Distribution	224.5	267.4	42.9
Depot Improvements	113.3	161.1	47.8
Service Vehicles	222.3	250.3	28.0
Miscellaneous	46.4	52.2	5.8
Employee Facilities	218.3	312.7	94.4
SIR: Miscellaneous	385.8	478.7	92.9

Numbers may not total due to rounding

MTA Capital Program 2015-2019

Long Island Rail Road



Asset Base – Long Island Rail Road

Table 7
Selected Long Island Rail Road Assets

Category	Assets	
Rolling Stock	1,006	Electric Cars
	45	Revenue Service Locomotives
	134	Bi-Level Coaches
Passenger Stations	124	Stations
Track	515	Miles of Mainline Track
	537	Mainline Switches
Line Structures	485	Undergrade Bridges
	5	Overgrade Bridges
	29	Viaducts
Communications and Signals	440	Track Miles of Mainline Signal Equipment
Power	108	Substations
	328	Miles of Third Rail Power (Mainline Track)
Shops and Yards	25	Shops and Yards

Assets based on 2015-2034 Twenty Year Needs Assessment

Overview – Long Island Rail Road

This proposed amendment adjusts the content of Long Island Rail Road’s 2015-2019 Capital Program.

The total value of the revised plan is \$2.956 billion, which is a net increase of \$2 million from the approved program (\$2.954 billion). Funding is added for new customer-focused initiatives in the Station and Buildings element, as well as funds are added for additional state of good repair work in the Annual Track Rehab Program element. The additions mostly are offset by other changes within the Station and Buildings element and Track category, as well as the administrative transfer of the Small Business Development Program Administration budget to the MTA Interagency program and the return of \$9.4 million in 2010-2014 Capital Program surpluses to the 2010-2014 Program. A total of \$402 million is now allocated to the Station and Buildings element, an increase of \$104 million versus the current approved program. The increase in the Enhanced Station Initiative, 17 Stations project (\$125 million) will provide for an additional twelve stations being improved aesthetically and for better customer experience.

The 2015-2019 Capital Program approved by the MTA Board in April 2016 assumed savings based upon program efficiencies expected to be generated by coordinating resources, prioritizing critical needs, exploring partnerships, and refining scope. The assumed savings achieved by the LIRR resulting from these efforts are reflected in the proposed amendment. Adjustments for the remaining work in the program reflect refined project scopes and cost estimates, bid experiences, schedule changes, and market conditions since the last update to the Board. To better align project budgets with implementation schedules and priorities, this amendment also moves some projects to future capital programs.

A number of projects in the Line Structures category particularly are newly listed as a result of administrative transfers from certain existing projects, as a means of better budget control and transparency. Though now listed as independent projects, such work was already contemplated and budgeted within the previously approved program. Likewise, administrative project split-outs are made to reflect anticipated contract packaging.

Table 5 summarizes the proposed changes by category and the following narrative highlights the major changes in each of LIRR’s program categories.

Table 5
MTA Long Island Rail Road 2015-2019 Capital Program by Investment Category (\$ in millions)

Category	Approved Program	Proposed Program	Change
Rolling Stock	\$349.5	\$349.5	\$0
Stations	668.7	766.8	98.1
Track	795.2	745.7	(49.5)
Line Structures	159.6	146.8	(12.8)
Communications and Signals	378.3	345.7	(32.6)
Shops and Yards	211.3	226.7	15.4
Power	227.0	227.0	0.0
Miscellaneous	164.9	147.9	(17.0)
Total Long Island Rail Road Program	\$2,954.5	\$2,956.1	\$1.6

Numbers may not total due to rounding

Long Island Rail Road Rolling Stock Category L-701

\$0 million

There are no changes to the Rolling Stock category.

This project will continue the purchase of new M-9 electric cars (\$280 million), which began under the 2010-2014 Capital Program, allowing for the full replacement of the LIRR's remaining M-3 electric fleet (88 cars). The aging M-3 fleet continues to face a number of service reliability and technology obsolescence challenges. The project also retains \$70 million to purchase additional M-9 cars to support future LIRR service to Grand Central Terminal.

Long Island Rail Road Stations Category L-702

\$98 million

The Stations category has the largest increase of this proposed amendment, due primarily to an increase (\$125 million) to the Enhanced Station Initiative project to progress design and/or construction of enhancements at 12 additional stations. The 12 new stations are: Ronkonkoma, Great Neck, Valley Stream, Merrick, Bellmore, Baldwin, Deer Park, Syosset, Farmingdale, Brentwood, Northport, and Stony Brook. The \$125 million includes a contribution of State funds (\$45 million) to complete the enhancement work at these stations. This project brings the number of stations in the 2015-2019 Capital Program benefitting from enhancements to aesthetics and customer experience to a total of 17. Another new project, Brookhaven National Lab Station (\$20 million) funded by the State, has been added, to progress planning and design related to a station located by the Brookhaven National Laboratory.

The Penn Station Complex Improvements project was increased (\$3 million) to reflect the cost of the design of the Penn Station - 33rd Street Corridor which will improve customer experience and flow in this busy corridor within Penn Station connecting Seventh and Eighth Avenue. Other Penn Station projects were adjusted in scope and budget to support the Penn Station 33rd Street Corridor project scope. Two such adjustments are: a decrease (\$25 million) for Penn Station Elevator/ Escalator Replacement, the scope of which has been adjusted to rehabilitate rather than replace the elevators and escalators; and an increase (\$12 million) to the Penn Station Customer Facilities project to reflect the current scope and estimates for the platform level improvements. Additionally, a new project has been created, Empire State Development Corp, whereby LIRR is contributing \$4.5 million towards the broader vision of developing a new Penn Station, Farley Complex, and Moynihan Train Hall.

The LIRR is adding a new project to undertake a planning and engineering effort for customer experience improvements at Jamaica Station (\$10 million).

A new project supporting East Side Access is the LIRR's contribution (\$3 million) for the reconstruction in the Biltmore Room in Grand Central Terminal.

Four Stations projects - Station Platform Lighting, Station Platform Railing Replacement, Station Replacement Signage Program, and the Station and Building Electrical Systems - are combined into a newly created Station Component project to allow for a more holistic and efficient use of station component funds. The new project includes additional funds (\$12 million) to address additional station components.

The project budgets for Murray Hill Station - New Elevators, which is on the Port Washington Branch, and Nostrand Avenue Station Rehabilitation on the Atlantic Branch, have increased by a total of \$16 million to reflect costs based on contract award and refined estimates respectively.

Three station projects will be progressing as design only efforts within this Capital Program: Babylon Station Platform Replacement, Hunterspoint Avenue Station Renewal, and Elmhurst Station - New Station. Project budgets are decreasing by \$79 million and project construction will occur in the next capital program.

Another change in this category reduces the project budget for the Mets-Willets Point station on the Port Washington Branch (\$3 million). Ultimately, this project will undertake a comprehensive overhaul of the station and will provide for greater intermodal connectivity between the LIRR, NYCT Subways and buses.

Long Island Rail Road Track Category L-703

(\$50 million)

The Annual Track Program which consists of normal replacement of track components, based upon component age and condition, has increased by \$28 million. The plan amendment includes an aggressive schedule for installation of wood and concrete ties (mechanized), rail, wood switches, concrete switches, field welds, surfacing, drainage, rail profiling and track stability along the right-of-way, grade crossing investments and new construction equipment to support track projects. Based on the availability of track time and workforces, the LIRR workforces are situated to take advantage of these favorable conditions.

Construction Equipment was split into two projects Phase, 1 and Phase 2, with no net change to project budget.

Due to timing considerations, a portion of the Jamaica Capacity Improvements Phase 2 project scope (\$67 million), i.e. construction of some elements east and west of Jamaica Station, is being rescheduled to the 2020-2024 Capital Program. The work remaining in the 2015-2019 Capital Program includes the complete signal and track re-design of Jamaica station. This work will include higher speed switches and will create more streamlined track routings.

Based on the schedule of LIRR's Baseline Capital Contribution to the Northeast Corridor pursuant to the Passenger Rail Investment and Improvement Act (PRIIA), the Amtrak Territory Improvements project is reduced and rescheduled to the next program (\$10 million.)

Long Island Rail Road Line Structures Category L-704

(\$13 million)

Revisions to this category reflect administrative split-out of some location-specific line structure projects and an overall decrease of \$13 million.

Five new bridge rehabilitation and replacement projects have been split out from the Bridge Program – Structural Renewals project with no budget impact. These are: Wreck Lead Rehabilitation, North Main Street & Accabonac Road, Flushing Main Street Bridge, Springfield Blvd & Union Turnpike, and Webster Ave Bridge. Buckram Road Bridge is the only bridge replacement remaining within Bridge Program – Structural Renewals.

Location-specific projects were split out from Main Line Bridge Component Renewal project into two projects - Lynbrook & Rockville Centre Viaduct Renewals and Cherry Valley Road Design. Post Avenue Bridge Replacement remains within the Main Line Bridge Component Renewal project in this program. These projects reflect a total net decrease (\$13 million) due to revised project estimates and schedules.

The Bridge Painting / Waterproofing project was split into two projects: now the Bridge Waterproofing project and the Bridge Painting Project. There is no budget impact.

Long Island Rail Road Communications and Signals Category L-705

(\$33 million)

The communications element of this category increased by \$5 million and the signals element of this category decreased by \$38 million.

The increase to Communications (\$5 million) reflects scope and funding transferred from the 2010-2014 Capital Program for the Penn Station Radio Retrofit/ East River Tunnel Antenna project. Other communications projects in the capital program remain unchanged.

In the Signals element, the amendment increases project budgets to reflect the latest cost information from refined estimates for the modernization of Babylon to Patchogue signalization (\$11 million).

The amendment also reflects the revised phasing of two Signals projects, with concomitant budget decreases. The scope for Babylon Interlocking Renewal is reduced (\$12 million) with equipment installation rescheduled to the future 2020-2024 Capital Program. A project to design and construct the signal system between Ronkonkoma and Yaphank will be design-only in this program, further reducing the budget (\$27 million) and postponing construction until the next capital program.

Finally, based upon the most recent schedule, requiring completion of a migration study prior to other work being undertaken, the LIRR's Centralized Train Control project was reduced (\$10 million).

Long Island Rail Road Shops and Yards Category L-706

\$15 million

The net increase in this category (\$15 million) primarily reflects changes to two projects.

The project to build a new Mid-Suffolk Yard in Ronkonkoma increased (\$11 million), reflecting an updated estimate to complete work started in the 2010-2014 Capital Program. Additional scope and cost was incorporated into the Rehabilitation of Employee Facilities to address various improvements and restorations of select employee facilities (\$4 million).

Long Island Rail Road Power Category L-707

\$0 million

There are no changes to the Power category.

All projects in the 2015-2019 Capital Program are progressing as planned. Additionally, the LIRR continues to implement a strategy of replacing components to maintain the system and strengthen its reliability and safety.

Long Island Rail Road Miscellaneous Category L-709

(\$17 million)

The decrease in this category (\$17 million) reflects changes to two projects.

The scope of work identified for Substation Chlordane Remediation was decreased (\$8 million) to reflect remaining remediation work still to be undertaken. In addition, the budget for the Small Business Development Program administration project is transferred to the MTA Interagency program (\$9 million).

Elements Exceeding 10 Percent of the Approved Program

Pursuant to the Public Authorities Law, changes to elements that are greater than 10% require approval of the Capital Program Review Board (CPRB) in order to be progressed. Table 6 shows those elements of the program that have grown by greater than 10% versus the approved program. CPRB approval is necessary to progress these work elements, to the extent element amounts have increased by greater than 10%.

Table 6
LIRR Elements with Increases Exceeding 10 Percent (\$ in millions)

Element	Approved Program	Proposed Program	Change
Stations and Buildings	\$298.2	\$401.8	\$103.6

Numbers may not total due to rounding

MTA Capital Program 2015-2019

Metro-North Railroad



Asset Base – Metro-North Railroad

Table 10
Selected Metro-North Railroad Assets

Category	Assets
Rolling Stock	643 Electric Cars
	228 Push-pull Coaches
	60 Locomotives
	16 Buses
Passenger Stations	85 Stations
Track	553 Miles of Mainline Track
	487 Mainline Switches
Structures	226 Overhead Bridges
	434 Undergrade Bridges
	11 Tunnels
	4 Viaducts
Communications and Signals	512 Track Miles of Mainline Signal Equipment
Power	84 Substations
	254 Track Miles of Third Rail Power
Shops & Yards	11 Shops and Yards

Assets based on 2015-2034 Twenty Year Needs Assessment, with updates to reflect New York State assets.

Overview – Metro-North Railroad

This proposed amendment adjusts Metro-North's 2015-2019 Capital Program from \$2.321 billion (the level approved by the MTA Board in April 2016) to \$2.414 billion. This \$93 million increase is the net result of an increase of \$100 million in the Enhanced Stations Initiative to improve additional stations and the administrative transfer of Metro-North's share of the MTA budget for Small Business Development Program Administration to the MTA Interagency program. The proposed amendment adjusts project budgets to reflect updated scopes and cost estimates, bid experiences, schedule changes, resource availability, and market conditions. Projects progressing in the 2015-2019 Capital Program reflect these refinements, including schedule updates which phase some scope into the next capital program to implement projects more efficiently. These impacts can be seen in the categories below.

Changes to the Metro-North 2015-2019 Capital Program as described below preserve Metro-North's commitment to address state of good repair needs. Communications and Signals projects on the Hudson, Harlem, and Port Jervis Lines in support of the federally-mandated Positive Train Control safety initiative remain a priority in the 2015-2019 Program. Resources for cyclical programs were aligned with maintenance activities and work on the New Haven Line in the State of Connecticut to maximize resources and improve productivity, and scopes were focused on critical needs in line with customer benefits.

To align project budgets with implementation schedules and the needs of the rail system, this amendment places some projects into the next capital program, including construction work to begin replacing the Grand Central Terminal Trainshed, a multi-phased project to fully rebuild the entire Trainshed continuing over the next several capital programs. Design work for and priority repairs to the Trainshed remain in this program. The Overhead and Undergrade Bridge Programs have also been refined to reflect priority needs and timing of implementation, along with the phasing of the Upper Hudson Signal system replacement. Updated schedules for power substation construction activities also phase some work into the next program to reflect timing of implementation and resources.

The original 2015-2019 Capital Program approved by the MTA Board in April 2016 assumed savings based upon program efficiencies expected to be generated by coordinating resources, prioritizing critical needs, exploring partnerships, and refining scope. Assumed savings achieved by Metro-North resulting from these efforts are reflected in this proposed amendment.

Table 7 and the discussion that follows summarize the proposed changes to Metro-North's 2015-2019 Capital Program by investment category.

Table 7
MTA Metro-North Railroad Proposed 2015-2019 Capital Program by Category (\$ in millions)

Category	Approved Program	Proposed Program	Change
Rolling Stock	\$531.6	\$531.6	\$0.0
GCT, Stations and Parking	401.9	434.4	32.6
Track and Structures	448.0	431.8	(16.2)
Communications and Signals	193.6	266.7	73.2
Power	100.8	113.6	12.8
Shops and Yards	472.0	472.0	0.0
Miscellaneous	173.1	163.7	(9.4)
Total Metro-North Program	\$2,321.0	\$2,413.9	\$92.9

Numbers may not total due to rounding

Metro-North Railroad Rolling Stock Category M-701

\$0 million

The budget for this category remains unchanged.

Metro-North will begin replacement of its M-3 fleet which is now reaching the end of its useful life. In addition, to meet extraordinary growth on the New Haven Line, in November 2016 the MTA Board approved the purchase of 60 additional M-8 cars in partnership with the Connecticut Department of Transportation (CDOT). Metro-North has budgeted \$92 million for its contribution towards the additional M-8 cars, re-allocated from the Fleet Replacement project within this category.

Metro-North Railroad Stations Category M-702

\$33 million

In the Grand Central Terminal (GCT) element, priority investments to address the GCT Trainshed and Park Avenue Tunnel structure continue, while the schedule for the overall multi-program replacement of the GCT Trainshed is refined. Design will be advanced in this program with the first phase of construction moving to the next capital program (\$67 million). Also, as part of the multi-program Customer Communications initiative, there was an administrative adjustment to the project to replace the GCT Public Address and Visual Information System to report construction management efforts for the entire initiative in a separate project in the Outlying Stations element.

In the Outlying Stations element, a new project, the Enhanced Station Initiative Reserve, has been added (\$100 million) to progress design and/or construction of enhancements at more stations. These enhancements will improve station aesthetics and customer experience. There were some other changes in this element, as well. The estimate to complete was refined to reflect support cost savings on the Harlem - 125th Street Improvements project (\$1 million). The phasing for the multi-program Customer Communications initiative was also refined, along with the administrative adjustment to report construction management, stations and systems in separate projects. These administrative adjustments do not change the overall budget allocations.

All other project budgets in this category remain the same.

Metro-North Railroad Track and Structures Category M-703

(\$16 million)

Metro-North applied increased resources and maximized use of track outages, enabling more track work to get done at one time. Also, work was re-sequenced to be more efficient, and cyclical component work was aligned with capital and maintenance work on the New Haven Line in the State of Connecticut and with maintenance activities systemwide in New York State resulting in a reduction to the overall MTA portion of the 2015-2019 Cyclical Track Program (\$20 million). The systemwide drainage project benefitted from a favorable revised estimate for support costs (\$2 million).

The Overhead Bridge Program – East of Hudson was increased to include the Prospect Hill Road Bridge construction in Southeast, previously planned for the 2010-2014 Capital Program, along with acceleration of the 3rd Avenue Bridge in Mount Vernon. Both bridges are currently closed due to deteriorated conditions. Construction for the Broadway Bridge near Harrison will be progressed in the next capital program. These adjustments resulted in a net increase (\$17 million). The Undergrade Bridge Program – East of Hudson was also refined to include additional priority component repairs identified during Metro-North inspections. Construction work at Bronx River Road will be advanced in the next program. These adjustments resulted in a net decrease (\$8 million). Park Avenue Viaduct Direct Fixation work will progress in the operating budget (\$2.5 million) and the Bridge Preservation project has been reduced to reflect the updated schedule (\$1 million).

All other project budgets in this category remain the same.

Metro-North Railroad Communications and Signals Category M-704

\$73 million

More than 80% of the investments in this category support Positive Train Control (PTC) implementation. This includes an increased estimate raising the project budgets for installation of cabling on the Upper Hudson Line (\$14 million), and two projects added to complete construction initiated in the 2010-2014 Capital Program - West of Hudson Signal Improvements (\$21 million) and Harlem Line wayside cabling (\$38 million). All three of these projects are needed to enable rollout of PTC.

All other project budgets in this category remain the same.

Metro-North Railroad

Power

Category M-705

\$13 million

Metro-North evaluated investments in this category to incorporate recent market response and constructability experiences on substation construction in the 2010-2014 Capital Program, also updating project schedules. As a result, the Harlem and Hudson Power Improvements project to construct a new substation on the Harlem Line between Chappaqua and Mount Kisco stations increased (\$7 million), while the project to replace substations at Pelham, Mount Vernon and Bronxville decreased (\$7 million). Design for these three locations, as well as construction of the Pelham substation, are advancing in this program while construction for Mount Vernon and Bronxville will progress in the next program. The project to replace motor alternators in signal substations was increased to include the purchase of a mobile motor alternator unit required to maintain power to the signal system during construction at all locations in this and future capital plans (\$3 million). An administrative adjustment is made for implementation efficiencies, combining planned power investments in the Park Avenue Tunnel into one project, including third rail component work, tunnel lighting, and the tunnel alarm.

Lastly, a new project (\$10 million) is added to complete power substation construction ongoing in the 2010-2014 Capital Program at 86th and 110th Streets, addressing constructability issues which have delayed project completion.

Metro-North Railroad Shops and Yards Category M-706

\$0 million

The budget for this category remains unchanged.

All Metro-North Shops and Yards projects in the 2015-2019 Capital Program are progressing as planned. These include the replacement of outdated facilities at the Croton-Harmon Shop, planning and design efforts for West of Hudson Yard Improvements, and other shop and yard improvements at various locations targeted to support system-wide fleet demands.

Metro-North Railroad Miscellaneous Category M-708

(\$9 million)

Investments in this category were refined to reflect updates to the Program described above. As a result, project savings were realized in Systemwide Lead/Asbestos Abatement (\$2 million), Environmental Remediation (\$0.5 million), and Program Administration (\$1 million). The budget for Metro-North's share of the Owner Controlled Insurance Program (OCIP) project was reduced, reflecting the timing of work planned for OCIP coverage (\$8 million). Program Scope Development increased to reflect the current estimated cost of planned scoping efforts in this program (\$2 million) and the project to support the Metro-North share of East Side Access work was also increased (\$7 million).

Finally, this element was reduced (\$7 million) to consolidate agency shares of the Small Business Development Program administration in the MTA Interagency portion of the capital program.

Elements Exceeding 10 Percent of the Approved Program

Pursuant to the Public Authorities Law, changes to elements that are greater than 10% require approval of the Capital Program Review Board (CPRB) in order to be progressed. Table 8 shows those elements of the program that have grown by greater than 10% versus the approved program. CPRB approval is necessary to progress these work elements, to the extent element amounts have increased by greater than 10%.

Table 8
MTA Metro-North Railroad Elements with Increases Exceeding 10 Percent (\$ in millions)

Element	Approved Program	Proposed Program	Change
Outlying Stations	\$169.6	\$276.7	\$107.2
Communications and Signals	193.6	266.7	73.2
Power	100.8	113.6	12.8

Numbers may not total due to rounding

MTA Capital Program 2015-2019

MTA Bus Company



Asset Base – MTA Bus Company

Table 13
Selected MTA Bus Company Assets

Category	Assets
Buses	646 Standard
	72 Articulated
	497 Express Coaches
Depots	8 Depots
	14 Bus Washers
	3 Paint Booths

Assets based on 2015-2034 Twenty Year Needs Assessment

Overview - MTA Bus Company

This proposed amendment adjusts the content of MTA Bus Company's 2015-2019 Capital Program. The total value of MTA Bus's program remains unchanged at \$376 million. This amendment adds funding to bus purchase projects due to a change in the mix and number of buses purchased, as well as the addition of new customer-focused initiatives. All bus purchases in the program will incorporate state-of-the-art technology that will dramatically enhance the overall customer experience – including USB charging ports, Wi-Fi hotspots, and digital information screens – as well as new systems to improve passenger and pedestrian safety.

This increase is offset by a decrease in project administration and management services costs and reductions in select project budgets to reflect revised project phasing.

Table 9 summarizes the proposed changes by category and the following narrative highlights the major changes in the MTA Bus Company's program.

Table 9
MTA Bus Company 2015-2019 Capital Program by Investment Category (\$ in millions)

Category	Approved Program	Proposed Program	Change
MTA Bus Company Projects	\$376.0	\$376.0	\$0.0
Total MTA Bus Company Program	\$376.0	\$376.0	\$0.0

Numbers may not total due to rounding

MTA Bus Company Bus Company Projects Category U-703

\$0 million

There is no net budget change in the total budget of the MTA Bus Company program. There is an increase in bus purchase projects that is fully offset by reductions in other projects.

The mix and number of buses purchased in the program is adjusted to address an operational need for more standard buses. A new project for 25 standard buses is added to the program, offset by a reduction in the express bus purchase from 292 to 257 buses. The result is a net decrease of 10 buses purchased, from 345 to 335, in the overall plan. In addition, new customer amenities and advanced safety features will be included on all new bus purchases. All buses will come equipped with digital information screens, Wi-Fi, and USB ports, as well as collision avoidance technology and audio and visual turn warning safety features. The net effect of these changes to bus purchase projects is an \$18.4 million increase.

This increase is offset by a decrease in the project administration and management services budgets (\$9.8 million), because funds remain available for these activities in an earlier capital plan. The budgets for development and rollout of new technology system projects – On-Board Audio/Visual and Automatic Passenger Counting – are adjusted (\$8.6 million) to reflect changes in project phasing.

The MTA Bus program element does not have an increase greater than 10% as a result of this amendment.

MTA Capital Program 2015-2019

Interagency



Overview – MTA Interagency

This program amendment increases the Interagency 2015-2019 Capital Program from \$263.5 million to \$320.9 million to reflect the addition of a new interagency category to consolidate operating agency shares of the cost to administer the MTA’s Small Business Development Program across the agencies. The MTA Police Department and MTA Planning portions of the MTA Interagency program remain unchanged (Table 10).

Table 10
MTA Interagency 2015-2019 Capital Program by Investment Category (\$ in millions)

Category	Approved Program	Proposed Program	Change
MTA Mentoring Program Administration	\$0.0	\$57.4	\$57.4
MTA Police Department	38.5	38.5	0.0
MTA Planning Initiatives	225.0	225.0	0.0
Total MTA Interagency Program	\$263.5	\$320.9	\$57.4

Numbers may not total due to rounding

MTA Interagency MTA Mentoring Program Administration Category N-700

\$57 million

This category is new to the 2015-2019 Capital Program as a part of this amendment.

In 2010, the MTA Small Business Development Program was established in the 2010-2014 Capital Program to increase the pool of qualified small businesses in the construction trades by providing opportunities for smaller sized contractors to bid on MTA work and provide assistance to these companies in meeting all regulatory requirements. The program includes construction management and other administrative costs associated with mentoring the new businesses. In the originally approved 2015-2019 Capital Program, each agency established a project for its share of these costs.

To facilitate MTA program management, these 2015-2019 shares were consolidated in this new MTA Interagency category. Budget requirements have been addressed by transfers from agency core programs in this capital program. The MTA Mentoring Program Administration category is being established with a \$57 million budget with allocations coming from other MTA agencies: New York City Transit (\$29 million); the Long Island Rail Road (\$9 million); Metro-North Railroad (\$7 million); MTA Capital Construction (\$7 million); and Bridges and Tunnels (\$6 million). These transfers result in no net change to the overall 2015-2019 Capital Program. These transfers do, however, result in a transfer of \$6 million to the CPRB portion of the program from Bridges and Tunnels.

This new category includes allocations for construction management (\$47 million) and administration and support (\$11 million) for the MTA's Small Business Development Program.

MTA Interagency MTA Police Department Category N-710

\$0 million

The MTA Police Department's 2015-2019 Capital Program includes projects to invest in facilities, vehicles and communication systems to allow the MTA Police Department to effectively protect our customers and the overall transportation system. The \$38.5 million MTA Police Department program includes the following projects:

- Public Safety Radio - Phase 3 - \$29 million
- Poughkeepsie Facility - \$2 million
- Other facility, vehicle and administrative projects - \$8 million

None of these projects change as part of this capital program amendment.

MTA Interagency MTA Planning Initiatives Category N-711

\$0 million

The 2015-2019 Capital Program includes funds for research and analysis to sustain various planning initiatives. The planning initiatives support the MTA Long Range Planning Framework, which identifies long-term transportation needs and capital solutions to address those needs, as well as coordinate with emerging needs in the City of New York. The \$225 million MTA Planning Initiatives category includes the following initiatives:

- Core Planning Support - \$10 million
- Corridor Planning Support - \$10 million
- Capital Program Support - \$125 million
- Urban Core Infrastructure Reserve - \$80 million

None of these projects change as part of this capital program amendment.

MTA Capital Program 2015-2019

Network Expansion



Overview – Network Expansion

In the proposed 2015-2019 Capital Program amendment, the MTA Capital Construction (MTACC) program of projects increases by \$2.179 billion. The proposed changes to the 2015-2019 Capital Program include increases to the Second Avenue Subway Phase 2 project, the establishment of the new LIRR Expansion Project, administrative transfers of certain East Side Access and Regional Investments scope to the 2010-2014 Capital Program to consolidate it with similar work, and a small reduction to the MTACC Miscellaneous/Administration category due to a transfer of Small Business Development Program administrative budget to a new MTA Interagency project. Changes are summarized in Table 11.

Table 11
MTA Capital Construction Proposed 2015-2019 Capital Program by Category (\$ in millions)

Category	Approved Program	Proposed Program	Change
East Side Access	\$2,571.7	\$2,302.2	\$(269.5)
Second Avenue Subway Phase 2	1,035.0	1,735.0	700.0
Penn Station Access	695.0	695.0	0.0
LIRR Expansion Project	0.0	1,950.0	1,950.0
Regional Investments	309.8	193.0	(116.9)
ESA Rolling Stock/ESA Risk Reserve	209.1	131.0	(78.1)
Miscellaneous/Administration	135.0	128.5	(6.5)
Total MTA Capital Construction Program	\$4,955.6	\$7,134.6	\$2,179.0

Numbers may not total due to rounding

Capital Construction Company

East Side Access

Category G-709

(\$269 million)

A total budget of \$10.178 billion has been allocated in the MTA's 1995-1999, 2000-2004, 2005-2009, 2010-2014, and 2015-2019 capital programs. The 2015-2019 portion of the budget is being reduced by \$269.5 million due to administrative transfers of reserves for rolling stock (\$194.5 million) and the Enterprise Level Program Execution Plan (ELPEP) management reserve (\$75.0 million) from the 2015-2019 to 2010-2014 in an effort to consolidate similar scope to improve budget management and transparency. These two reserves are common to the 2010-2014 and 2015-2019 capital programs.

These administrative transfers result in no change to the \$10.178 billion overall multi-capital program budget for ESA. The anticipated ESA revenue service date remains December 2022.

Capital Construction Company

Second Avenue Subway

Category G-710

\$700 million

The funding in the 2015-2019 Capital Program to commence Second Avenue Subway (SAS) Phase 2 has increased from \$1.035 billion to \$1.735 billion. This \$700 million increase reflects the initial required 30% local match funding for the full funding grant agreement that will be requested for SAS Phase 2. The balance of the construction work necessary for operation is to be funded in future capital programs. Initial funding in this capital program will address environmental, design, real estate, and project support to undertake preliminary construction work, such as utility relocation, and contains reserves to support major construction activities and to increase funding to the initial required 30% local match for the future full funding grant agreement that will be requested.

Capital Construction Company

Penn Station Access

Category G-711

\$0 million

Penn Station Access (PSA) was initiated in the original approved 2015-2019 Capital Program and remains unchanged at \$695 million. However, funds will be reallocated to support ongoing conceptual engineering, program management, and design activities.

PSA is currently in the Planning/Technical Analysis Phase. MTACC will manage the design and will implement the following Hell Gate Line improvements:

- Track and structures work necessary to operate on the Hell Gate Line;
- Communications and signals work;
- Power improvements including third rail, power substations, and catenary;
- Construction of four stations in the Bronx serving Co-op City, Morris Park, Parkchester/Van Nest, and Hunts Point; and
- Rolling Stock specifications for the fleet needed to operate the service.

In addition, modifications will be made to PSA service-related areas of Penn Station (as necessary).

Capital Construction Company

LIRR Expansion Project

Category G-713

\$1.950 billion

A new network expansion project is added to this capital program as a part of the proposed amendment. The LIRR Expansion Project is a key transportation infrastructure initiative and a strategic component of a comprehensive plan to transform and expand New York's vital regional transportation infrastructure and to enhance Long Island's economy, environment, and future. The project extends approximately 9.8 miles along the LIRR's Main Line between the Floral Park and Hicksville stations, where five branches converge carrying 41% of the LIRR's daily ridership. The LIRR's Main Line serves as the central artery of the commuter rail system in Nassau and Suffolk counties. The number of tracks along the Main Line corridor varies: it primarily has four tracks west of Floral Park, but narrows to two tracks east of Floral Park to Hicksville. The construction of a third track through this segment would increase track capacity through the corridor making it easier to run trains. This will improve service reliability and make transit more attractive, with the further goals of getting travelers out of cars, reducing traffic congestion, and reducing adverse environmental impacts.

This 9.8-mile stretch also includes seven street-level train crossings ("grade crossings") where road traffic must stop and loud train horns must blow each time a train passes. The project would eliminate these grade crossings through grade separation (e.g., underpasses) or, in two cases, closure to vehicular traffic (with pedestrian access maintained). This is anticipated to substantially reduce noise, traffic congestion, delays, and air pollution, and greatly improve safety for residents, motorists, and pedestrians. In cooperation with key external stakeholders, the project is being established with a \$1.950 billion budget including \$1.500 billion for expansion and \$450 million for grade crossings. The LIRR Expansion Project is expected to entail the following major components:

- Installation of a third Main Line track from the Floral Park to Hicksville stations;
- Elimination of seven existing grade crossings to provide grade-separated crossings or, in two cases, full closures to vehicular traffic;
- Modification of overpasses, signal systems, substations, culverts, interlockings, crossovers, sidings, track bed, power systems, communications and signals;
- Construction of retaining walls along portions of the corridor;
- Installation of sound attenuation walls along portions of the corridor;
- Relocation of utilities including electric, signal, communications, gas, water, and sewer systems;
- Modification of/improvement to passenger rail stations, platforms, overpasses, ramps, and parking, including Americans with Disabilities Act (ADA) enhancements and construction of new parking facilities at selected stations; and
- Construction of new pedestrian overpasses with elevators and ADA-compliant pedestrian underpasses.

The project is expected to be managed and delivered by the LIRR.

Capital Construction Company Regional Investments Category G-714

(\$117 million)

The 2015-2019 Capital Program approved by the MTA Board in April 2016 provided \$310 million in funding for the Regional Investment program, bringing the total budget in the 2010-2014 and 2015-2019 capital programs to \$758 million. The 2015-2019 Capital Program budget is being reduced by \$116.9 as a part of this proposed capital program amendment. Transfers include select East Bound Re-route and West Bound Bypass scope which can be combined with related budgets already part of the 2010-2014 Capital Program. This consolidation of work in 2010-2014 is administrative in order to improve budget management and transparency.

These administrative transfers do not change the overall \$758 million budget which has been allocated across both capital programs.

Capital Construction Company ESA Rolling Stock / ESA Risk Reserve Category G-715

(\$78 million)

The ESA Risk Reserve of \$131 million remains unchanged. This reserve's purpose is to mitigate overall ESA project risk and is not part of the ESA budget itself.

An ESA Rolling Stock Reserve of \$78.1 million had been established in this program to restore the full \$463 million reserve approved in the 2010-2014 Capital Program, replenishing funds that were transferred to the ESA program in 2014 for the GCT Concourse and Facilities Fit-Out contract (CM014B). As a part of this capital program amendment, the 2015-2019 budget is being decreased by the amount of this reserve (\$78.1 million) with a countervailing increase in 2010-2014; it is being consolidated in the ESA Rolling Stock Reserve in the 2010-2014 Capital Program. This administrative change will improve budget management and transparency by reestablishing the full \$463 million rolling stock reserve in the 2010-2014 Capital Program.

Capital Construction Company

Miscellaneous

Category G-716

(\$7 million)

A key objective of the MTACC is to utilize a cost-efficient program management structure to oversee and manage the MTA system expansion projects. To accomplish this, MTACC established an organization of core management personnel. Project support for planning, design and construction management is also provided by staff matrixed from the sponsor operating agencies and MTA Headquarters. MTACC established consistent procedures, standards and guidelines that are applied to all the projects under its management.

The only change in this category is a reduction of \$7 million from \$135 million to \$128 million in the proposed 2015-2019 Capital Program amendment due to the transfer of the Small Business Development Program administrative budget to a new MTA Interagency project.

Elements Exceeding 10 Percent of the Approved Program

Pursuant to the Public Authorities Law, changes to elements that are greater than 10% require approval of the Capital Program Review Board (CPRB) in order to be progressed. Table 12 shows those elements of the program that have grown by greater than 10% versus the approved program. CPRB approval is necessary to progress these work elements, to the extent element amounts have increased by greater than 10%.

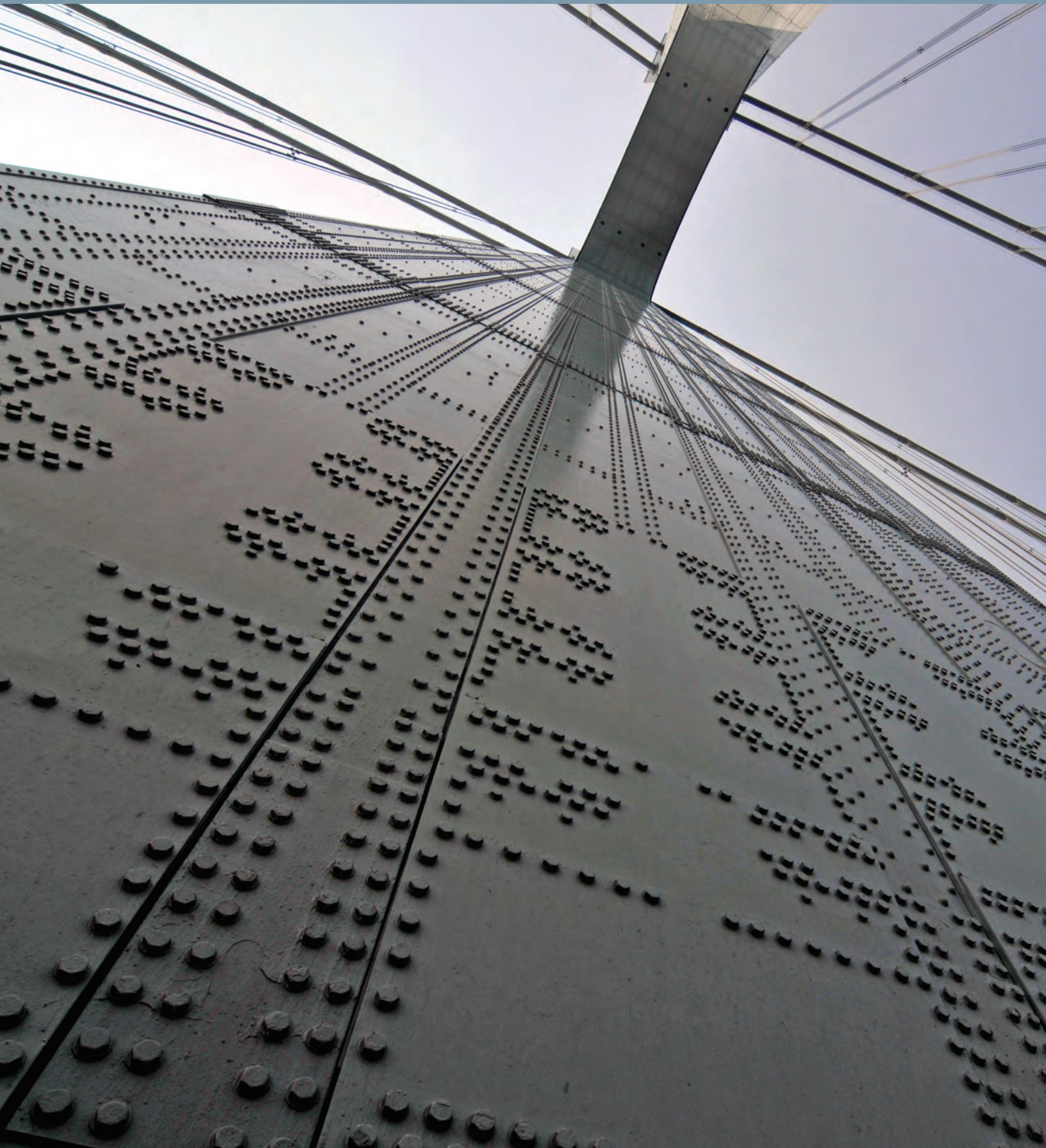
Table 12
MTA Capital Construction Company Elements with Increases Exceeding 10 Percent (\$ in millions)

Element	Approved Program	Proposed Program	Change
Second Avenue Subway Phase 2	\$1,035.0	\$1,735.0	\$700.0

Numbers may not total due to rounding

MTA Capital Program 2015-2019

Bridges and Tunnels



Asset Base – Bridges and Tunnels

Table 23
Bridges and Tunnels Facilities

Facility	Year Opened	Type of Structure	Length (Feet)
Bronx-Whitestone Bridge (BWB)	1939	Suspension Span	3,842
		Viaducts/Approaches	3,061
Cross Bay Bridge (CBB)	1970	High Level Fixed Bridge	3,023
		Viaducts/Approaches	2,472
Henry Hudson Bridge (HHB)	1936	Steel Arch Bridge	2,193
Hugh L. Carey Tunnel (HCT)	1950	Vehicular Tunnel	9,137
Marine Parkway Bridge (MPB)	1937	Lift Bridge	3,985
Queens Midtown Tunnel (QMT)	1940	Vehicular Tunnel	6,414
Robert F. Kennedy Bridge (RFK)	1936	Suspension Span	2,624
		Harlem River Lift Span	772
		Bronx Crossing Truss Span	1,600
		Viaducts/Approaches	11,742
		Ramps	10,935
Throgs Neck Bridge (TNB)	1961	Suspension Span	2,910
		Viaducts/Approaches	8,022
Verrazano-Narrows Bridge (VNB)	1964	Suspension Span	6,690
		Viaducts/Approaches	2,910
		Ramps	8,808

Overview – Bridges and Tunnels

With this proposed amendment, B&T's 2015-2019 Capital Program totals \$2.940 billion. The proposed amendment is a result of a review and reprioritization of agency needs and adjusts B&T's program to reflect the inclusion of new, high priority initiatives principally related to the implementation of Open Road Tolling (ORT). B&T's program increases by a net \$84 million, consisting of \$90 million transferred from the 2010-2014 Capital Program to support ORT and \$6 million moved to MTA Interagency to consolidate administrative costs.

By late 2017, a gantry-based ORT system will be in place and in revenue service at both tunnels and all seven bridges, with the existing toll plazas (and all toll booths) demolished as part of the 2015-2019 Capital Program. The new ORT system will capture E-ZPass transponder-reads and license plate images, and will do so in an environment absent a traditional toll plaza, allowing for unrestricted flow of traffic and enabling customers to traverse the tolling areas without narrowed lanes or restricted sight lines. By investing in ORT, B&T will significantly enhance traffic flow at its facilities, improve safety, reduce congestion and decrease commute times, making it easier for New Yorkers to get where they need to go.

The 2015-2019 Capital Program has a stronger emphasis on ORT. However, the overall investment strategy has not changed and B&T is ensuring that other critical work progresses in the 2015-2019 timeframe. The timing for implementation of some projects was refreshed for better definition of timelines for major inter-agency coordination, more optimal sequencing of certain multi-phased projects, and ensuring the most critical needs will be addressed. In addition, this amendment reflects the dynamic nature of B&T's facility master plans for each bridge and tunnel, resulting in estimate adjustments in certain areas. Since the last program submission, ongoing inspections at B&T's facilities were conducted and project designs have advanced, resulting in better cost estimate information. Table 13 outlines B&T's updated 2015-2019 needs by category; details are shown in the following sections.

Table 13
Bridges and Tunnels 2015-2019 Capital Program by Category
 (\$ in millions)

Category	Approved Program	Proposed Program	Change
Structures	\$803	\$752	(\$52)
Roadways & Decks	1,073	828	(246)
Toll Plazas & Traffic Mgmt.	206	625	419
Utilities	406	405	(1)
Buildings & Sites	94	89	(6)
Miscellaneous	86	67	(19)
Structural Painting	188	176	(12)
Total	\$2,856	\$2,940	\$84

Numbers may not total due to rounding

Bridges and Tunnels Structures Category D-701

(\$52 million)

Structural improvements on Bridges and Tunnels' facilities focus on maintaining the structural integrity of the facilities, while ensuring safety and minimizing customer inconvenience. The projects address either the components of the bridge superstructure, i.e., that part of the bridge above the foundation, such as the suspension system and roadway deck supporting system, or the substructure, i.e., those elements that support the superstructure, such as anchorages, piers, abutments and the foundations themselves.

The \$52 million decrease in this category takes into account construction estimate revisions for two projects at the Bronx-Whitestone Bridge (\$18.7 million), a revised scope at the Throgs Neck anchorages (\$6.6 million), reductions due to the deferral of design projects (\$33.1 million), and tunnels work budget adjustments (\$10 million), which are offset by an increase for the skewback retrofit at the Henry Hudson Bridge (\$17.2 million). These category revisions are being made to realign capital program goals with the incorporation of Open Road Tolling (ORT) work in the current 2015-2019 capital program by addressing locations where major ORT work will be ongoing in order to facilitate better coordination and staging of capital work between this program and the next. No critical state of good repair work is affected as a result of the proposed deferrals and adjustments.

Bridges and Tunnels Roadways and Decks Category D-702

(\$246 million)

Deck replacement and rehabilitation work focuses on preserving primary bridge elements, upgrading to modern design standards, and enhancing regional mobility through improved traffic capacity and access to facilities. The rehabilitation of roadways, decks, approaches and drainage systems range from large-scale resurfacing, to total replacement of the roadway deck, or construction of new access ramps.

The \$246 million decrease primarily takes into account the reduction for work no longer required in an ORT environment. Other savings stem from revised construction estimates at three bridges.

The RFK Bridge Manhattan toll plaza structure and ramp project is reduced (\$189 million). This work was part of the overall RFK Rehabilitation program that began in the late 1990s. The budget reduction reflects anticipated savings associated with the shift from the traditional toll plaza replacement program to the introduction of ORT. The remaining budget will address immediate structural repairs to the deck. Future capital programs will address any additional structural rehabilitation that may be required.

The Agency Wide Planning / Strategic Initiatives project is reduced (\$41 million) to re-direct funds (originally allocated for planning, design and/or construction efforts) to a number of strategic initiatives (including the full implementation of ORT). The remaining \$10 million will address the replacement of the Morris Street Pedestrian Bridge over the Hugh Carey Tunnel entryway.

Bridges and Tunnels Toll Plazas & Traffic Management/Safety Systems Category D-703

\$419 million

Projects in this category focus on the B&T toll/revenue collection system, through the rehabilitation, replacement, installation, and maintenance of elements such as overhead gantries, toll collection equipment, lighting, utilities, and the toll booths and plazas. Advanced traffic management systems (ATMS) and Intelligent transportation systems (ITS) projects encompass electronic messaging, information gathering, processing, communications, and control systems.

The \$419 million net increase in this category primarily reflects the addition of initiatives to implement ORT at all bridge and tunnel facilities.

Toll collection investments are increased (\$413 million) to enable full deployment of ORT. B&T will construct ORT gantries at all crossings, and install and integrate the next generation of tolling technology to ensure the accuracy of the tolling system. Toll booths at all facilities will be removed as well. This project addresses priority needs and allows for all necessary utility relocation and additional power and communication links at all B&T crossings. This project will also modernize tolling sub-systems and equipment at all facilities.

The Henry Hudson Bridge toll plaza / southbound approach reconstruction project increases (\$19.8 million), reflecting the actual bid which reflects an accelerated construction schedule. This initiative is being carried out in phases over two capital programs. In the 2010-2014 Capital Program, the northbound and southbound toll gantries were designed and constructed; in 2015-2019, the upper and lower level toll plaza decks and southbound lower level approach decks and related equipment will be replaced.

Partially offsetting these increases is the cancellation of the rotating prism signs program, which is no longer necessary in an ORT environment (\$13 million).

Bridges and Tunnels Utilities Category D-704

(\$1 million)

Investments in this category address replacing, rehabilitating or upgrading mechanical, electrical and power distribution systems, including tunnel ventilation equipment, and replacing lighting systems.

This category's \$1 million net reduction reflects revised power needs at multiple project locations. The Henry Hudson Bridge lighting project reduction (\$4.6 million) reflects the estimate at bid opening. The substation replacement project reduction (\$13.2 million) reflects the deferral of the project, with the remaining budget for initial work for DPR coordination. Similarly, the substation relocation project at the RFK Bridge increases \$16 million. New facility-wide electronic monitoring and detection systems at Bronx-Whitestone and Robert F. Kennedy Bridges increase \$6 million, reflecting the revised design-build estimate. The RFK Harlem River lift span project also increases (\$6 million). The Throgs Neck Bridge anchorage dehumidification project increases \$5 million, reflecting a transfer of work from the related Roadways & Decks program.

Savings include revised design-build estimates at three bridges (\$8 million), the deferral of some bridge structural monitoring at two facilities (\$11 million), as well as agency-wide savings from two systems monitoring projects (\$4 million).

Bridges and Tunnels Buildings and Sites Category D-705

(\$6 million)

Investments in this category address assets such as service buildings, ventilation buildings, and garages, while also removing hazardous materials.

The decrease in this category stems mainly from a revised construction estimate at the RFK ancillary facilities project (\$6.4 million). The project will upgrade / repair the roofs and façades and rehabilitate / replace mechanical, electrical, and plumbing components at the Robert Moses Building. Other ancillary facilities on Randall's Island require various building envelope, utility, functional improvements and fire safety upgrades to maintain a safe working environment. Partially offsetting these savings is an additional need for the Operation Command Center replacement (\$0.8 million) based on revised estimates.

Bridges and Tunnels Miscellaneous Category D-706

(\$19 million)

Projects in this category provide for costs associated with the support and management of the capital program, and include protective liability / insurance coverage, independent engineer services, value engineering services, scope development, NYC traffic enforcement agent support, and the MTA-wide Enterprise Asset Management System.

This category's reduction takes into account the revised estimates to complete for various administrative projects (\$14 million). In addition, B&T's share (\$5.6 million) of administering the Small Business Development Program is transferred to a central, all-agency location in the MTA Interagency portion of the capital program.

Bridges and Tunnels Structural Painting Category D-707

(\$12 million)

Projects in this category primarily focus on replacement of paint overcoats for various bridge elements to provide vital corrosion protection and maintain the structural integrity of all facilities.

The \$12 million reduction in this category in large part reflects a decrease in agency-wide painting estimates (\$16 million). This project provides for unplanned painting needs that may arise from ongoing biennial inspections. It also includes painting toll plazas, the HCT and QMT ventilation buildings and facility buildings, and emergency lead paint removal. Partially offsetting these savings is an additional need (\$4 million) for work at the Bronx-Whitestone Bridge to paint the suspended span and tower interior base cells and struts. The tower interiors, which are the only remaining portions of the facility that have the original lead coating, will be blast-cleaned and repainted with a high performance coating.



MTA Capital Program 2015-2019
Project Listings

Project Listings

Here are some helpful tips for navigating the project listings that follow.

Organization

Capital investments are organized and coded according to an Agency / Category / Element / Project (ACEP) hierarchy:

- Agency: MTA Agency responsible for project delivery (e.g., “New York City Transit”);
- Category: Agency subset, typically focused on a particular asset type (e.g., “Stations” or “Track”);
- Element: Category subset containing related projects (e.g., “Signal Modernization” element in “Signals & Communications” category);
- Project: Basic unit of the Capital Plan, reflecting a specific scope, schedule, and budget.

For example, the first project listing page is identified in the upper-left corner as Agency “New York City Transit,” and in the upper-right corner as Category “Subway Cars.” Below that, “T - 701” represents the Agency (“T” for New York City Transit) and the category code (“701” for subway cars). Further down the page, “01 Subway Cars” refers to the element, which in this case happens to have the same name as the parent category. Finally, this element has a single project with identifier code “01,” to “Purchase 450 B Division Railcars.” Combining all of the codes, the unique ACEP for this project is T7010101.

Needs Codes

The focus of each project is indicated by its needs code:

- State of Good Repair (SGR) projects renew assets that have surpassed their useful life, to achieve SGR.
- Normal Replacement (NR) projects renew assets that are nearing the end of their useful life, to preserve SGR.
- System Improvement (SI) projects enhance the network, providing new capabilities and a better customer experience.
- Network Expansion (NE) projects extend the reach of the MTA network, expanding the service offering.
- Administrative projects (e.g., insurance, scope development) are not assigned needs codes.

Commitments

Columns indicate the share of the project budget that is planned to be committed (i.e., started) in each year of the 2015-2019 period, along with the total for all years. Selected projects are asterisked (**), indicating that they are expected to realize savings via efficiencies.

New York City Transit

SUBWAY CARS

T - 701

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 SUBWAY CARS							
01 Purchase 450 B Division Railcars	NR	0.0	0.0	1,667.9	0.0	0.0	1,667.9
02 Purchase 10 B-Div Cars - Open Gangway Prototype	SI	0.0	0.0	60.3	0.0	0.0	60.3
Element Total 01		\$0.0	\$0.0	\$1,728.2	\$0.0	\$0.0	\$1,728.2
Category Total 701		\$0.0	\$0.0	\$1,728.2	\$0.0	\$0.0	\$1,728.2

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

New York City Transit

BUSES
T - 703

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
02 BUS REPLACEMENT							
01 Purchase 618 Diesel & 10 Hybrid Standard Buses	SGR	0.0	0.3	402.4	0.0	0.0	402.7
02 Purchase 138 CNG Standard Buses	NR	0.3	94.0	0.0	0.0	0.0	94.3
03 Purchase 275 Hybrid-Electric Standard Buses	NR	0.0	0.3	265.4	0.0	0.0	265.7
05 Purchase 180 Diesel & 10 Hybrid Articulated Buses	NR	0.0	0.2	193.6	0.0	0.0	193.8
06 Purchase 50 Express Buses	NR	0.0	0.3	0.0	38.5	0.0	38.8
12 Depot Bus Location System - NYCT	SI	0.0	0.6	5.8	0.0	0.0	6.4
13 Automatic Passenger Counting - Pilot & Ph1	SI	0.0	0.5	5.1	0.0	0.0	5.7
14 Purchase 110 CNG Articulated Buses	NR	0.0	106.4	0.0	0.0	0.0	106.4
15 AVL for Paratransit Vehicles	NR	0.0	19.0	0.0	0.0	0.0	19.0
16 Purchase 50 Electric Buses and 8 Chargers	SI	0.0	0.0	0.0	71.4	0.0	71.4
17 Replace Integrated Farebox Unit (IFU) Components	NR	0.0	11.8	0.0	0.0	0.0	11.8
Element Total 02		\$0.3	\$233.5	\$872.3	\$109.9	\$0.0	\$1,216.0
Category Total 703		\$0.3	\$233.5	\$872.3	\$109.9	\$0.0	\$1,216.0

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** Savings expected due to efficiencies

Numbers may not add due to rounding

New York City Transit

PASSENGER STATIONS

T - 704

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
04 FARE COLLECTION							
01 New Fare Payment System, Phase 2	SI	0.0	0.0	418.6	0.0	0.0	418.6
02 AFC Low Turnstile Procurement	SI	0.0	6.6	0.0	0.0	0.0	6.6
03 AFC Replacement, Phase 2: Electronic Boards	NR	0.0	13.9	0.0	0.0	0.0	13.9
04 Fare Control Area Improvements	SI	0.0	0.0	100.0	0.0	0.0	100.0
Element Total 04		\$0.0	\$20.5	\$518.6	\$0.0	\$0.0	\$539.1
07 STATION ESCALATORS / ELEVATORS							
01 Replace 11 Hydraulic Elevators / Various	SGR	4.4	0.0	44.3	0.0	0.0	48.7
02 Replace 12 Traction Elevators BW7	NR	3.8	0.0	88.1	0.0	0.0	91.9
03 Replace 8 Traction Elevators / Various	NR	2.9	0.0	39.9	0.0	0.0	42.8
04 Replace 6 Traction Elevators 8AV	NR	1.9	0.0	36.9	0.0	0.0	38.8
05 Replace 3 Hydraulic Elevators FLS, CLK	SGR	0.0	1.6	0.0	15.5	0.0	17.1
06 Replace 2 Escalators: Grand Central-42 St LEX **	SGR	1.5	0.0	17.5	0.0	0.0	19.0
07 Replace 7 Escalators / Various (Bx/M) **	SGR	0.0	0.0	2.1	0.0	35.2	37.2
08 Replace 2 Escalators: Pelham Pkwy WPR **	SGR	0.0	0.0	0.0	0.7	9.6	10.3
09 Replace 9 Escalators / Various **	SGR	0.0	2.7	0.0	43.7	0.0	46.4
10 Escalator Relocation: Jay St-MetroTech FUL	NR	0.0	1.4	13.6	0.0	0.0	15.0
11 Replace 2 Hydraulic Elevators: Franklin Av FRK	SGR	0.0	0.9	0.0	9.6	0.0	10.5
12 Replace 3 Escalators: Main St FLS **	SGR	0.0	0.0	1.4	0.0	13.9	15.3
13 Replace 7 Escalators / Various (Bk/M) **	SGR	0.0	3.1	0.0	31.1	0.0	34.2
Element Total 07		\$14.5	\$9.7	\$243.7	\$100.6	\$58.7	\$427.2

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New York City Transit

PASSENGER STATIONS

T - 704

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
12 STATION WORK							
01 Water Remediation - Renewal: Borough Hall LEX	SGR	1.9	0.0	41.5	0.0	0.0	43.4
02 Renewal: 138 St-Grand Concourse JER	SGR	1.4	0.0	20.6	0.0	0.0	22.0
03 Renewal: Astoria-Ditmars Blvd AST	SGR	1.1	8.7	0.0	0.0	0.0	9.8
04 Renewal: Astoria Blvd AST	SGR	1.6	0.0	41.4	0.0	0.0	43.0
05 Renewal: 30 Av AST - DEO	SGR	1.2	0.0	0.0	0.0	0.0	1.2
06 Renewal: Broadway AST - DEO	SGR	1.0	0.0	0.0	0.0	0.0	1.0
07 Renewal: 36 Av AST - DEO	SGR	1.1	0.0	0.0	0.0	0.0	1.1
08 Renewal: 39 Av AST - DEO	SGR	1.0	0.0	0.0	0.0	0.0	1.0
09 Renewal: Mets-Willets Point FLS -Phase 1	SGR	0.0	6.4	0.0	43.6	0.0	50.0
10 Renewal: 111 St FLS	SGR	0.0	1.3	0.0	17.1	0.0	18.4
11 Renewal: 103 St-Corona Plaza FLS	SGR	0.0	1.3	0.0	19.1	0.0	20.4
12 Renewal: 82 St-Jackson Heights FLS	SGR	0.0	1.4	0.0	22.9	0.0	24.3
13 Renewal: Woodhaven Blvd JAM	SGR	0.0	1.1	0.0	17.3	0.0	18.4
14 Renewal: 85 St-Forest Parkway JAM	SGR	0.0	1.1	0.0	15.3	0.0	16.4
15 Renewal: 75 St-Elderts Lane JAM	SGR	0.0	1.1	0.0	14.5	0.0	15.6
16 Renewal: Cypress Hills JAM	SGR	0.0	1.2	0.0	15.2	0.0	16.3
17 Renewal: 69 St FLS	SGR	0.0	1.5	0.0	16.6	0.0	18.1
18 Renewal: 61 St-Woodside FLS	SGR	0.0	1.6	0.0	18.5	0.0	20.1
19 Renewal: 52 St FLS	SGR	0.0	1.6	0.0	17.5	0.0	19.0
20 Renewal: 3 Av-138 St PEL - DEO	SGR	0.0	0.0	0.0	1.5	0.0	1.5
21 Station Ventilators: Various Locs (2015) **	SGR	0.7	6.1	0.0	0.0	0.0	6.7
22 Platform Components: 2 Locs 4AV **	SGR	0.5	4.5	0.0	0.0	0.0	5.0
23 Platform Components: Kingston-Throop FUL - DEO **	SGR	0.0	0.3	0.0	0.0	0.0	0.3
24 Platform Components: 2 Locs JER **	SGR	0.2	0.0	1.5	0.0	0.0	1.8
25 Platform Components: Pelham Pkwy DYR - DEO**	SGR	0.3	0.0	0.0	0.0	0.0	0.3
26 Elevated Street Stairs: 2 Locs BW7 [SBDP] **	SGR	0.1	4.9	0.0	0.0	0.0	5.1
29 Subway Street Stairs: 2 Locs / Various **	SGR	0.3	2.7	0.0	0.0	0.0	3.0
31 Station Lighting: 6 Locs / Various M/Bx [SBDP] **	SGR	0.0	0.0	0.6	4.8	0.0	5.4
32 Station Ventilators: Various Locs (2016) **	SGR	0.7	0.0	6.4	0.0	0.0	7.1
34 Platform Components: 167 St BXC - DEO **	SGR	0.3	0.0	0.0	0.0	0.0	0.3
35 Platform Components: Bedford-Nostrand XTN **	SGR	0.0	0.9	7.8	0.0	0.0	8.7
36 Platform Components: Longwood Ave PEL **	SGR	0.0	0.5	0.7	0.0	0.0	1.2
37 Platform Components: 2 Locs LEN **	SGR	0.0	0.5	4.3	0.0	0.0	4.8
38 Platform Components: 2 Locations FLS **	SGR	0.0	0.5	7.4	0.0	0.0	7.9
40 Elevated Int Stairs: Junction Blvd FLS [SBDP] **	SGR	0.0	0.0	0.3	1.2	0.0	1.4
41 Subway Int Stairs: 14 St-Union Sq LEX [SBDP] **	SGR	0.0	0.8	0.0	0.2	0.0	1.0
42 Elev Street Stairs: 2 Locs WPR [SBDP] **	SGR	0.0	0.1	1.1	0.0	0.0	1.2
43 Subway Street Stairs: 5 Locs / Var 2017 [SBDP] **	SGR	0.0	0.4	2.5	0.0	0.0	2.9
44 Mezz Columns: Atlantic Av CNR [SBDP] **	SGR	0.0	0.2	0.0	5.5	0.0	5.7

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New York City Transit

PASSENGER STATIONS

T - 704

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
12 STATION WORK							
45 Mezz Ceiling Finish: 2 Locs ARC, FLS [SBDP] **	SGR	0.0	0.3	4.2	0.0	0.0	4.6
46 Platform Components: 4 Locs QBL, ARC **	SGR	0.0	0.0	2.6	20.5	0.0	23.1
47 Stn Lighting: 6 Locs / Various M/Bx/Bk [SBDP] **	SGR	0.0	0.0	0.7	0.5	0.0	1.2
48 Station Ventilators: Various Locs (2017) **	SGR	0.0	0.7	0.0	6.7	0.0	7.4
50 Platform Components: 2 Locs NAS **	SGR	0.0	1.1	0.0	16.0	0.0	17.1
51 Platform Components: 6 Locs CNR **	SGR	1.3	0.0	0.0	25.5	0.0	26.9
52 Platform Components: 3 Locs EPK, CLK **	SGR	0.0	0.6	9.3	0.0	0.0	9.9
53 2017 Station Painting at Components Locs	SGR	0.0	0.0	7.2	0.0	0.0	7.2
56 Elev Street Stairs: Atlantic Av CNR [SBDP] **	SGR	0.0	0.0	0.1	0.7	0.0	0.7
57 Subway Street Stairs: 9 Locs / Var 2018 [SBDP] **	SGR	0.0	0.0	0.5	7.0	0.0	7.5
58 Mezz Components: Nevins St EPK [SBDP] **	SGR	0.0	0.2	6.4	0.0	0.0	6.5
59 Mezz Wall Finishes: Bowery NAS [SBDP] **	SGR	0.1	0.0	1.0	0.0	0.0	1.1
60 Platform Components: 2 Locs QBL **	SGR	0.0	0.0	1.1	9.2	0.0	10.4
61 Platform Edges: 2 Locs QBL-Hillside **	SGR	0.0	0.0	1.9	8.9	0.0	10.8
62 Station Lighting: 7 Locs / Various [SBDP] **	SGR	0.5	0.0	2.4	0.0	0.0	2.9
63 Platform Components: 3 Locs NOS **	SGR	0.0	0.8	13.1	0.0	0.0	13.9
64 Station Ventilators: Various Locs (2018) **	SGR	0.0	0.0	0.7	0.0	7.0	7.7
65 Platform Components: 2 Locations BRT **	SGR	0.0	1.3	0.0	3.8	0.0	5.1
66 Platform Components: 8 Locs 8AV **	SGR	0.0	3.2	0.0	44.1	0.0	47.2
67 Platform Components: 10 Locs BW7 **	SGR	0.0	4.7	0.0	30.0	0.0	34.8
68 2018 Station Painting at Components Locs	SGR	0.0	0.0	0.0	4.5	0.0	4.5
70 Subway Interior Stairs: 5 Locs 8AV, BW7 [SBDP] **	SGR	0.0	0.0	1.1	11.7	0.0	12.8
71 Elevated Street Stairs: 2 Locs BRT [SBDP] **	SGR	0.0	0.0	0.2	2.0	0.0	2.1
72 Subway Street Stairs: 4 Locs 8AV, BW7 [SBDP] **	SGR	0.0	0.0	0.3	3.6	0.0	3.9
73 Mezz Components: 3 Locs 8AV, LEX [SBDP] **	SGR	0.0	0.3	0.0	1.6	0.0	2.0
74 Station Lighting: 9 Locs / Various [SBDP] **	SGR	0.0	0.7	0.0	7.0	0.0	7.7
75 Station Ventilators: Various Locs (2019) **	SGR	0.0	0.0	0.7	0.0	7.0	7.7
76 Platform Components: 4 Locs 6AV, E63 **	SGR	0.0	0.0	1.4	0.0	18.5	19.9
77 Platform Components: 6 Locs LEX **	SGR	0.0	0.0	1.9	0.0	26.1	28.0
78 Platform Edges: Freeman St WPR **	SGR	0.0	0.0	0.3	0.0	0.7	1.0
79 2019 Station Painting at Components Locs	SGR	0.0	0.0	0.0	0.0	6.0	6.0
80 Elevated Interior Stairs: 4 Av-9 St 6AV [SBDP] **	SGR	0.0	0.0	0.0	0.0	0.5	0.5
81 Subway Interior Stairs: 5 Locs 8AV [SBDP] **	SGR	0.0	0.0	1.4	0.0	6.3	7.7
82 Elevated Street Stairs: 3 Locs WPR [SBDP] **	SGR	0.0	0.0	0.0	0.0	2.4	2.5
83 Subway Street Stairs: 50 St 8AV [SBDP] **	SGR	0.0	0.0	0.3	0.0	1.5	1.8
84 Mezz Components: 149 St-Grand Conc WPR [SBDP] **	SGR	0.0	0.0	0.5	0.0	3.7	4.2
85 Mezz Floors: 23 St 8AV [SBDP] **	SGR	0.0	0.0	0.2	0.0	1.6	1.8
86 Station Lighting: 6 Locs 8AV, WPR [SBDP] **	SGR	0.0	0.0	0.5	0.0	5.0	5.5
87 Station Components: 3 Locs 8AV **	SGR	0.0	0.8	0.0	8.7	0.0	9.5

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New York City Transit

PASSENGER STATIONS

T - 704

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
12 STATION WORK							
88 Subway Interior Stairs: 59 St 4AV **	SGR	0.0	0.2	0.0	1.5	0.0	1.7
90 Enhanced Station Initiative: 19 Stations	NR	0.0	474.3	0.0	0.0	0.0	474.3
91 Subway Interior Stairs: Canal St BWY [SBDP] **	SGR	0.0	3.7	0.0	0.0	0.0	3.7
92 Enhanced Station Initiative: 34 St-Penn - Ph 1	NR	0.0	0.0	40.0	0.0	0.0	40.0
93 Enhanced Station Initiative: Pkg 2 - Broadway AST	NR	0.0	0.0	39.3	0.0	0.0	39.3
94 Enhanced Station Initiative: Pkg 2 - 30 Ave AST	NR	0.0	0.0	43.2	0.0	0.0	43.2
95 Enhanced Station Initiative: Pkg 2 - 36 Ave AST	NR	0.0	0.0	39.7	0.0	0.0	39.7
96 Enhanced Station Initiative: Pkg 2 - 39 Ave AST	NR	0.0	0.0	37.9	0.0	0.0	37.9
97 Enhanced Stn Initiative: Pkg 1 - Bay Ridge Ave 4AV	NR	0.0	39.2	0.0	0.0	0.0	39.2
98 Enhanced Stn Initiative: Pkg 1 - Prospect Ave 4AV	NR	0.0	38.2	0.0	0.0	0.0	38.2
99 Enhanced Station Initiative: Pkg 1 - 53 St 4AV	NR	0.0	40.0	0.0	0.0	0.0	40.0
A6 Platform Components: 125 St BW7	SGR	0.0	0.0	0.0	3.0	0.0	3.0
A9 Sub St Stairs: 34 St BWY (S4/M4, S8/M8) [SBDP] **	SGR	0.0	1.9	0.0	0.0	0.0	1.9
B1 Subway Street Stairs: 34 St BWY (S2/M1) [SBDP] **	SGR	0.0	0.7	0.0	0.0	0.0	0.7
B2 Subway Street Stairs: 34 St BWY (S7/M7) [SBDP] **	SGR	0.0	1.1	0.0	0.0	0.0	1.1
B3 Subway Street Stairs: 59 St 4AV (S1/M1) [SBDP] **	SGR	0.0	0.8	0.0	0.0	0.0	0.8
C2 Enhanced Stn Init: Pkg 3 163 St -Amsterdam Av 8AV	NR	0.0	0.0	35.7	0.0	0.0	35.7
C3 Enhanced Stn Initiative: Pkg 3 Cathedral Pkwy 8AV	NR	0.0	0.0	32.4	0.0	0.0	32.4
C4 Enhanced Stn Initiative: Pkg 3 86 St 8AV	NR	0.0	0.0	32.0	0.0	0.0	32.0
C5 Enhanced Stn Initiative: Pkg 3 72 St 8AV	NR	0.0	0.0	28.8	0.0	0.0	28.8
Element Total 12		\$15.5	\$665.4	\$525.0	\$447.0	\$86.4	\$1,739.2

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New York City Transit

PASSENGER STATIONS

T - 704

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
13 DISABLED ACCESSIBILITY							
01 ADA: Bedford Av CNR	SI	6.7	95.9	0.0	0.0	0.0	102.5
02 ADA: Astoria Blvd AST	SI	4.3	0.0	30.7	0.0	0.0	35.0
03 ADA: Bedford Pk Blvd BXC	SI	3.6	0.0	37.9	0.0	0.0	41.5
04 ADA: 86 St 4AV	SI	3.2	0.1	25.6	0.0	0.0	28.9
05 ADA: Gun Hill Road DYR	SI	3.4	0.2	37.8	0.0	0.0	41.5
06 ADA: Eastern Pkwy-Bklyn Museum EPK	SI	0.0	3.6	38.7	0.0	0.0	42.3
07 ADA: Times Square Complex, Ph 3 - Shuttle	SI	9.5	0.0	230.4	0.0	0.0	240.0
08 ADA: Chambers St NAS	SI	0.0	3.3	0.0	29.1	0.0	32.4
09 ADA: Greenpoint Av XTN	SI	0.0	3.3	31.2	0.0	0.0	34.5
10 ADA: 59 St 4AV	SI	0.0	3.7	44.9	0.0	0.0	48.6
11 ADA: Rockaway Parkway CNR	SI	0.0	0.6	10.7	0.0	0.0	11.3
12 ADA: 1 Av CNR	SI	6.4	27.2	0.0	0.0	0.0	33.6
14 ADA: Court Square XTN (Elevator Phase)	SI	0.0	0.0	2.7	0.0	13.9	16.6
15 ADA: 149 Street-Grand Concourse Complex	SI	4.1	0.0	40.5	0.0	0.0	44.6
16 ADA: Woodhaven Boulevard JAM	SI	0.0	2.4	0.0	21.6	0.0	24.0
17 ADA: Systemwide Study	SI	0.0	0.0	10.0	0.0	0.0	10.0
18 Visual Identification of ADA Boarding Areas PILOT	SI	0.0	0.0	0.2	0.0	0.0	0.2
19 ADA: Livonia Av-Junius St	SI	0.0	0.0	0.0	15.0	0.0	15.0
20 ADA: Court Square XTN (Stairs Phase)	SI	0.0	11.7	0.0	0.0	0.0	11.7
21 ADA and Renewal: 77 St / 4AV DESIGN/PREP	SI	0.0	0.0	0.0	5.0	0.0	5.0
22 ADA and Renewal: 95 St / 4AV	SI	0.0	0.0	0.0	35.0	0.0	35.0
23 ADA: 57 Street BWY Additional Support Costs	SI	0.0	0.0	54.1	0.0	0.0	54.1
24 ADA: 68 St-Hunter Col LEX Additional Support Costs	SI	0.0	0.0	52.7	0.0	0.0	52.7
26 ADA: Times Square Complex, Ph 3 - Shuttle [SBDP]	SI	0.0	0.0	5.0	0.0	0.0	5.0
Element Total 13		\$41.2	\$152.0	\$653.1	\$105.7	\$13.9	\$965.9

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New York City Transit

PASSENGER STATIONS

T - 704

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
14 OTHER STATION IMPROVEMENTS							
01 Station Signage Improvements	NR	1.1	9.7	0.0	0.0	0.0	10.8
02 Access Improvements: Grand Central, Phase 2	SI	0.0	8.3	66.7	0.0	0.0	75.0
03 Reopen Station Entrance: 8 Av / SEA	SI	0.0	0.7	14.1	0.0	0.0	14.9
04 Reconstruction: Times Sq Complex, Ph3 - Shuttle	SGR	1.1	0.0	28.9	0.0	0.0	30.0
05 2015 Water Condition Remedy	SGR	4.5	4.4	0.0	0.0	0.0	8.8
06 Station Railings	SGR	0.3	3.5	0.0	0.0	0.0	3.8
07 Station Condition Survey Update	NR	0.0	8.9	0.0	0.0	0.0	8.9
08 2017 Water Condition Remedy	SGR	0.0	0.0	0.2	5.0	0.0	5.2
09 Reconstruct Cortlandt St Station BW7	SGR	71.2	0.6	0.0	0.0	0.0	71.8
10 Church St Corridor Improvements	NR	30.0	0.0	0.0	0.0	0.0	30.0
11 New Street Stairs: 2 Locs CNR	SI	2.6	4.6	0.0	0.0	0.0	7.2
13 Livonia Av-Junius St Station Connector	SI	0.0	0.0	0.0	30.0	0.0	30.0
14 Reopen Station Entrance: 8 Av / SEA (Stair P6)	SI	0.0	0.2	0.0	0.0	0.0	0.2
15 Station Capacity Enhancements: Myrtle Av JAM	SI	0.0	0.0	8.0	0.0	0.0	8.0
16 Circulation Improvements: Union Square / CNR	SI	0.0	0.0	0.0	0.0	15.0	15.0
17 Sutphin Blvd ARC Plan/Eng	NR	0.0	0.0	0.0	10.0	0.0	10.0
Element Total 14		\$110.7	\$40.7	\$118.0	\$45.0	\$15.0	\$329.5
Category Total 704		\$181.9	\$888.2	\$2,058.4	\$698.3	\$174.0	\$4,000.8

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New York City Transit

TRACK
T - 705

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
02 MAINLINE TRACK REHABILITATION							
01 2015 Mainline Track Repl: Design/Support	NR	3.5	0.7	0.0	0.0	0.0	4.2
02 2016 Mainline Track Repl: Design/Support	NR	0.0	6.4	0.0	0.0	0.0	6.4
03 2017 Mainline Track Replacement	NR	0.0	2.3	198.1	0.0	0.0	200.5
04 2018 Mainline Track Replacement	NR	0.0	0.0	2.2	177.0	0.0	179.1
05 2019 Mainline Track Replacement	NR	0.0	0.0	0.0	2.2	177.0	179.1
06 2020 Mainline Track Replacement DEO	NR	0.0	0.0	0.0	0.0	2.1	2.1
07 2015 CWR: Queens Blvd	NR	11.8	8.0	0.0	0.0	0.0	19.8
08 2016 CWR: Queens Blvd	NR	0.0	27.4	0.0	0.0	0.0	27.4
09 2017 Continuous Welded Rail	NR	0.0	0.0	35.9	0.0	0.0	35.9
10 2018 Continuous Welded Rail	NR	0.0	0.0	0.0	35.9	0.0	35.9
11 2019 Continuous Welded Rail	NR	0.0	0.0	0.0	0.0	35.9	35.9
12 2015 Track Force Account	NR	35.0	0.0	0.0	0.0	0.0	35.0
13 2016 Track Force Account	NR	0.0	35.0	0.0	0.0	0.0	35.0
14 2017 Track Force Account	NR	0.0	0.0	35.0	0.0	0.0	35.0
15 2018 Track Force Account	NR	0.0	0.0	0.0	35.0	0.0	35.0
16 2019 Track Force Account	NR	0.0	0.0	0.0	0.0	35.0	35.0
17 2015 Mainline Track Repl: Brighton	NR	10.6	5.4	0.0	0.0	0.0	16.0
18 2015 Mainline Track Repl: Queens Blvd	NR	49.3	29.3	0.0	0.0	0.0	78.6
19 2015 Mainline Track Repl: West End	NR	4.8	2.1	0.0	0.0	0.0	7.0
20 2015 Mainline Track Repl: Flushing	NR	11.0	15.9	0.0	0.0	0.0	26.9
21 2015 Mainline Track Repl: 8th Avenue	NR	18.6	41.8	0.0	0.0	0.0	60.4
22 2015 Mainline Track Repl: Jerome	NR	1.0	5.4	0.0	0.0	0.0	6.4
23 2015 Mainline Track Repl: Pelham	NR	1.8	1.8	0.0	0.0	0.0	3.5
24 2015 Mainline Track Repl: Lexington	NR	1.3	6.1	0.0	0.0	0.0	7.5
25 2015 Mainline Track Repl: Liberty	NR	1.3	1.3	0.0	0.0	0.0	2.5
26 2015 Mainline Track Repl: Lenox-White Plains Rd	NR	5.2	2.7	0.0	0.0	0.0	7.9
28 2015 CWR: 8th Avenue	NR	26.5	18.0	0.0	0.0	0.0	44.5
29 2015 Mainline Track Repl: BWY-7AV (n/o Lawrence)	NR	0.0	2.2	0.0	0.0	0.0	2.2
30 2016 Mainline Track Repl: Brighton	NR	0.0	22.4	0.0	0.0	0.0	22.4
31 2016 Mainline Track Repl: Jamaica	NR	0.0	18.7	0.0	0.0	0.0	18.7
32 2016 Mainline Track Repl: Queens Blvd	NR	0.0	46.8	0.0	0.0	0.0	46.8
33 2016 Mainline Track Repl: Dyre	NR	0.0	13.8	0.0	0.0	0.0	13.8
34 2016 Mainline Track Repl: 6th Ave/Culver	NR	0.0	6.6	0.0	0.0	0.0	6.6
36 2016 CWR: 8th Avenue	NR	0.0	61.5	0.0	0.0	0.0	61.5
37 2016 Mainline Track Repl: Pelham	NR	0.0	7.1	0.0	0.0	0.0	7.1
38 2016 Mainline Track Repl: White Plains Rd	NR	0.0	6.3	0.0	0.0	0.0	6.3
39 2016 Mainline Track Repl: Bushwick Cut	NR	0.0	5.3	0.0	0.0	0.0	5.3
40 2016 Mainline Track Repl: Canarsie Tube	NR	0.0	50.0	0.0	0.0	0.0	50.0
41 2015 Mainline Track Repl: Canarsie	NR	15.8	0.0	0.0	0.0	0.0	15.8

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

New York City Transit

TRACK
T - 705

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
02 MAINLINE TRACK REHABILITATION							
42 2015 Mainline Track Repl: Broadway-7th Avenue	NR	14.4	0.0	0.0	0.0	0.0	14.4
43 2015 Mainline Track Repl: Dyre	NR	4.1	0.0	0.0	0.0	0.0	4.1
44 2016 Mainline Track Repl: West End	NR	0.0	3.5	0.0	0.0	0.0	3.5
45 2016 Mainline Track Repl: Flushing	NR	0.0	7.7	0.0	0.0	0.0	7.7
46 2016 Mainline Track Repl: 8th Avenue	NR	0.0	55.8	0.0	0.0	0.0	55.8
47 2016 Mainline Track Repl: Lenox-White Plains Rd	NR	0.0	1.1	0.0	0.0	0.0	1.1
48 2016 Mainline Track Repl: 63rd St	NR	0.0	29.7	0.0	0.0	0.0	29.7
49 2016 Mainline Track Repl: Bowling Gr - LEX	NR	0.0	4.4	0.0	0.0	0.0	4.4
50 2016 Mainline Track Repl: Jerome	NR	0.0	17.9	0.0	0.0	0.0	17.9
Element Total 02		\$216.0	\$570.6	\$271.2	\$250.0	\$249.9	\$1,557.6
03 MAINLINE SWITCH REPLACEMENT							
01 2015 Mainline Switch Repl: Design/Support	NR	3.3	0.1	0.0	0.0	0.0	3.4
02 2016 Mainline Switch Repl: Design/Support	NR	0.0	9.5	0.0	0.0	0.0	9.5
03 2017 Mainline Switch Replacement	NR	0.0	4.0	47.4	0.0	0.0	51.4
04 2018 Mainline Switch Replacement	NR	0.0	0.0	3.3	54.1	0.0	57.3
05 2019 Mainline Switch Replacement	NR	0.0	0.0	0.0	3.3	54.1	57.3
06 2020 Mainline Switch Replacement DEO	NR	0.0	0.0	0.0	0.0	3.4	3.4
07 2015 Mainline Switch Repl: Brighton	NR	1.9	1.9	0.0	0.0	0.0	3.9
08 2015 Mainline Switch Repl: Queens Blvd	NR	3.2	3.2	0.0	0.0	0.0	6.4
09 2015 Mainline Switch Repl: 8th Avenue	NR	0.0	2.9	0.0	0.0	0.0	2.9
10 2015 Mainline Switch Repl: Broadway-7th Avenue	NR	1.0	9.3	0.0	0.0	0.0	10.3
11 2015 Mainline Switch Repl: Dyre	NR	3.8	3.8	0.0	0.0	0.0	7.6
12 2016 Mainline Switch Repl: Jamaica	NR	0.0	5.3	0.0	0.0	0.0	5.3
13 2016 Mainline Switch Repl: 6th Avenue	NR	0.0	10.1	0.0	0.0	0.0	10.1
14 2016 Mainline Switch Repl: Pelham	NR	0.0	3.4	0.0	0.0	0.0	3.4
15 2016 Mainline Switch Repl: Dyre	NR	0.0	4.9	0.0	0.0	0.0	4.9
16 2016 Mainline Switch Repl: Queens Blvd	NR	0.0	18.4	0.0	0.0	0.0	18.4
17 2015 Mainline Switch Repl: 6th Avenue	NR	8.9	0.0	0.0	0.0	0.0	8.9
18 2016 Mainline Switch Repl: 8th Avenue	NR	0.0	6.8	0.0	0.0	0.0	6.8
19 2016 Mainline Switch Repl: Broadway-7th Avenue	NR	0.0	8.9	0.0	0.0	0.0	8.9
20 2016 Mainline Switch Repl: Flushing	NR	0.0	7.5	0.0	0.0	0.0	7.5
Element Total 03		\$22.1	\$99.9	\$50.7	\$57.3	\$57.5	\$287.5
Category Total 705		\$238.2	\$670.5	\$321.9	\$307.3	\$307.3	\$1,845.2

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

New York City Transit

LINE EQUIPMENT

T - 706

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
05 LINE EQUIPMENT							
01 Tun Lighting: Various Locations	SGR	0.0	20.4	0.0	0.0	10.0	30.4
02 Replace Vent Plant Motor Control Sys Var Locs **	SGR	1.6	0.0	12.2	0.0	0.0	13.8
03 Replace Supervisory Vent Controls - Var Locs **	SGR	4.2	0.0	31.0	0.0	0.0	35.2
04 New Vent Plant: Grand Central LEX DES	SGR	0.0	0.0	5.0	0.0	0.0	5.0
05 Rehab Vent Plant Damper System - Var Locs **	SGR	0.0	0.0	5.9	56.9	0.0	62.8
06 Rehab Forsyth St Vent Plant **	SGR	0.0	6.2	0.0	93.8	0.0	100.0
07 Ventilation System Strategy Study	SGR	0.0	5.0	0.0	0.0	0.0	5.0
08 Rehab Pump Rooms: Various Locations	SGR	0.0	0.0	3.0	22.0	0.0	25.0
09 Repl Supervisory Vent Controls - 2 Locs / Var **	SGR	0.0	4.8	0.0	0.0	0.0	4.8
10 Head End Fan Control at BCC	SI	0.0	0.0	3.0	0.0	0.0	3.0
Element Total 05		\$5.9	\$36.4	\$60.1	\$172.7	\$10.0	\$285.0
Category Total 706		\$5.9	\$36.4	\$60.1	\$172.7	\$10.0	\$285.0

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** Savings expected due to efficiencies

Numbers may not add due to rounding

New York City Transit

LINE STRUCTURES

T - 707

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
03 LINE STRUCTURE REHABILITATION							
01 Struct Rehab: Boston Rd - E 180 St Abutt WPR	NR	0.8	19.5	0.0	0.0	0.0	20.3
02 Struct Replacement: Bridge over Atlantic RR MYT	NR	1.6	21.7	0.0	0.0	0.0	23.2
03 Struct Rehab: Livonia Yard Overpass & Retain Wall	NR	0.0	1.2	14.4	0.0	0.0	15.7
04 Struct Replacement: Viaduct and Deck MYT	NR	4.8	138.4	0.0	0.0	0.0	143.3
05 Struct Repair: Over land Section RKY	NR	0.0	0.0	2.0	0.0	18.0	20.0
06 Rehab Emergency Exits (ICC) - Various Locs DEO	NR	0.0	0.1	0.0	0.0	0.0	0.1
07 Rehab Emergency Exits (ICC) - Various Locs	NR	0.0	0.0	17.0	0.0	0.0	17.0
08 Rehab Emergency Exits (3rd Party) - Var Locs [SBDP]	NR	0.0	0.0	1.4	0.0	8.0	9.4
10 Overcoat: 17 Bridges & Flyover at E 180 St DYR	SGR	2.2	0.0	22.9	0.0	0.0	25.0
11 Overcoat: Williamsburg Bridge - Myrtle Av JAM DEO	SGR	1.0	0.0	0.0	0.0	0.0	1.0
12 Overcoat: 157 St Portal - 164 St JER	SGR	0.7	10.3	0.0	0.0	0.0	11.0
13 Overcoat: 72 St - 104 St FLS	SGR	0.9	31.9	0.0	0.0	0.0	32.8
14 Overcoat: Myrtle Av - DeSales JAM	SGR	0.0	1.0	0.0	44.8	0.0	45.8
15 Overcoat: East New York Leads & Loops	SGR	0.0	1.1	26.8	0.0	0.0	27.9
16 Overcoat: Broadway - End of Line MYR	SGR	1.2	41.4	0.0	0.0	0.0	42.6
17 Overcoat: 48 St - 72 St FLS	SGR	0.0	0.0	1.1	0.0	27.5	28.5
19 Line Structure Repair Program	SGR	5.8	12.2	0.0	191.7	167.8	377.5
20 Struct Repair: Ventilators Between Stations	SGR	0.0	2.8	2.5	2.5	2.3	10.0
21 Struct Rehab: 4AV - Ph2	SGR	0.0	55.0	0.0	0.0	0.0	55.0
22 Overcoat: 9 Av Portal to 79 Street WST - DEO	SGR	0.0	0.0	0.0	0.0	1.2	1.2
23 LSCR: Brooklyn (EPK)	SGR	0.0	0.7	0.0	0.0	0.0	0.7
24 LSCR: Uptown Manhattan and Queens (LEX, QBL, BCT)	SGR	0.0	1.0	0.0	0.0	0.0	1.0
25 LSCR: Brooklyn (CUL, BRT)	SGR	0.0	0.9	0.0	0.0	0.0	0.9
26 LSCR: Brooklyn (4AV)	SGR	0.0	0.7	0.0	0.0	0.0	0.7
27 Rehab Emergency Exits (ICC) - 4 Locs	SGR	0.0	3.0	0.0	0.0	0.0	3.0
28 Rehab Emergency Exits (ICC) - 3 Locs	SGR	0.0	1.9	0.0	0.0	0.0	1.9
30 Rehab Emergency Exits (ICC) - 2 Locs	SGR	0.0	7.0	0.0	0.0	0.0	7.0
34 Overcoat: King's Hwy - W 8 St CUL	SGR	0.0	0.0	21.9	0.0	0.0	21.9
35 Overcoat: Portal - King's Hwy CUL	SGR	0.0	0.0	28.7	0.0	0.0	28.7
36 Struct Repair: Ventilators Between Stns [SBDP]	SGR	0.0	2.8	2.5	2.5	2.3	10.0
37 LSCR: 1 Av, Bedford Av CNR	SGR	0.0	0.0	5.0	0.0	0.0	5.0
Element Total 03		\$19.0	\$354.6	\$146.2	\$241.5	\$227.0	\$988.3
Category Total 707		\$19.0	\$354.6	\$146.2	\$241.5	\$227.0	\$988.3

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

New York City Transit

SIGNALS & COMMUNICATIONS

T - 708

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
03 SIGNAL MODERNIZATION							
01 CBTC: QBL West Ph2 (50 St - Union Tpke)	SGR	5.6	416.6	0.0	0.0	0.0	422.2
02 CBTC Technical Support Contract FLS	NR	0.0	0.0	0.0	1.0	0.0	1.0
04 CBTC: 8AV (59 St - High St)	SGR	0.0	10.7	1.1	364.1	0.0	375.9
06 Install Automatic Signals for Work Trains / CNR	SGR	0.7	4.3	0.0	0.0	0.0	5.0
07 Interlocking Modernization: Ditmas CUL	SGR	0.0	2.4	0.0	135.6	0.0	138.0
08 Interlocking Modernization: Kings Highway CUL	SGR	6.1	173.0	0.0	0.0	0.0	179.1
19 Signal Control Line Modifications, Ph6	NR	15.2	0.0	17.8	0.0	0.0	33.0
21 AC to DC Line Relay Upgrade Ph2 - FUL	NR	13.5	0.0	0.0	0.0	0.0	13.5
22 AC to DC Line Relay Upgrade BCT	NR	0.0	0.0	28.8	0.0	0.0	28.8
23 Signal Key-By Modifications, Ph4	NR	0.0	18.4	0.0	0.0	0.0	18.4
24 Code Cable Replacement BW7	NR	0.0	0.0	0.5	6.9	0.0	7.4
25 Signal Room Fire Suppression, Phase 2	SGR	1.5	0.0	0.0	14.1	0.0	15.6
26 Life Cycle Replacement of Code Systems	NR	0.0	0.0	4.8	30.6	0.0	35.4
27 Life Cycle Mod - Speed Enforcement Systems	NR	0.0	0.0	4.5	40.5	0.0	45.0
29 Upgrade 25 Hz AC Main Cable & De-Ion Switches DEO	NR	0.0	0.0	0.0	1.1	0.0	1.1
30 Interlocking Modernization: Parsons Blvd QBL	SGR	0.0	0.0	5.1	0.0	160.5	165.7
31 Eliminate Single Point of Failure Intrlckng Cntrl	SI	0.0	0.0	0.0	10.0	0.0	10.0
32 CBTC: CUL (Church Av to W8 St)	SI	0.0	5.7	0.0	148.6	0.0	154.3
33 Interlocking Modernization: Ave X CUL	SGR	0.0	4.5	0.0	139.7	0.0	144.3
34 Cable Messenger Brackets Replacement BRT	NR	0.0	0.0	0.0	0.0	10.0	10.0
35 Interlocking Modernization: 30 St & 42nd St / 8AV	SGR	0.0	7.2	0.0	221.2	0.0	228.4
Element Total 03		\$42.7	\$643.0	\$62.6	\$1,113.4	\$170.5	\$2,032.2

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** Savings expected due to efficiencies

Numbers may not add due to rounding

New York City Transit

SIGNALS & COMMUNICATIONS

T - 708

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
06 COMMUNICATIONS SYSTEMS							
02 Upgrade Async Network to SONET, Rings A and C	NR	0.0	0.2	38.2	0.0	0.0	38.4
03 PBX Upgrade	NR	0.0	45.2	0.0	0.0	0.0	45.2
04 Fiber Optic Cable Replacement Ph2	SGR	0.0	0.0	28.7	0.0	0.0	28.7
05 Copper Cable Upgrade/Replacement Ph4	SGR	1.0	11.1	0.0	0.0	0.0	12.1
06 Antenna Cable Replacement	SGR	0.0	2.5	0.0	0.0	20.1	22.6
07 UHF T-Band Radio System Replacement	NR	0.0	3.9	0.0	31.0	0.0	34.9
10 Help Point: 64 Stations (Transit Wireless)	SI	36.3	0.2	0.0	0.0	0.0	36.5
11 Help Point: 28 Stations	SI	17.2	0.1	0.0	0.0	0.0	17.3
12 Help Point: Reserve	SI	0.0	1.3	0.0	0.0	0.0	1.3
13 PA/CIS Electronics Replacement CNR	NR	0.0	1.5	6.8	0.0	0.0	8.4
14 ISIM-B Module 3: Rail Traffic Systems	SI	0.0	0.0	91.7	0.0	0.0	91.7
17 LiftNet Transition to Ethernet	NR	0.7	0.7	0.0	16.4	0.0	17.8
18 Platform Safety Technology Rollout	SI	2.3	0.1	42.6	0.0	0.0	45.0
19 Comm Room Upgrade and Expansion Ph2 [SBDP]	SGR	2.5	0.0	0.0	0.0	22.5	25.0
20 Help Point: 60 Stations Reserve	SI	0.0	47.2	0.0	0.0	0.0	47.2
21 Help Point: 2 Stations / West End [SBMP]	SI	0.0	1.3	0.0	0.0	0.0	1.3
22 Help Point: 2 Stations / Jamaica [SBMP]	SI	0.0	1.3	0.0	0.0	0.0	1.3
23 Help Point: 2 Stations / Liberty [SBMP]	SI	0.0	1.3	0.0	0.0	0.0	1.3
24 Help Point: 2 Stns / Culver and West End [SBMP]	SI	0.0	1.5	0.0	0.0	0.0	1.5
25 Help Point: Simpson St, Prospect Av / WPR [SBMP]	SI	0.0	1.5	0.0	0.0	0.0	1.5
26 Help Point: West 8 St / CIT [SBMP]	SI	0.0	1.0	0.0	0.0	0.0	1.0
27 Help Point: 2 Stations / Myrtle & Canarsie [SBMP]	SI	0.0	1.7	0.0	0.0	0.0	1.7
28 Help Point: 2 Stations / Jerome [SBMP]	SI	0.0	1.7	0.0	0.0	0.0	1.7
29 Help Point: 2 Stations / Flushing [SBMP]	SI	0.0	1.7	0.0	0.0	0.0	1.7
30 Help Point: 2 Stations / Flushing & BW7 [SBMP]	SI	0.0	1.7	0.0	0.0	0.0	1.7
31 Help Point: Pelham Pkwy, E Tremont Av / WPR [SBMP]	SI	0.0	1.3	0.0	0.0	0.0	1.3
32 Help Point: 30 Stations (I/H)	SI	0.0	17.4	0.0	0.0	0.0	17.4
33 Help Point: 46 Stations (Transit Wireless)	SI	0.0	20.1	0.0	0.0	0.0	20.1
34 Help Point: 130 Stations (Material)	SI	0.0	5.7	0.0	0.0	0.0	5.7
35 Connection-Oriented Ethernet (COE), Core	NR	0.0	1.6	30.0	0.0	0.0	31.6
36 Connection-Oriented Ethernet (COE), Stations	NR	0.0	1.7	0.0	15.9	0.0	17.6
37 Connection-Oriented Ethernet (COE), PSIM	NR	0.0	0.4	11.4	0.0	0.0	11.8
38 Help Point: Ocean Pkwy / BRT [SBMP]	SI	0.0	0.9	0.0	0.0	0.0	0.9
39 Antenna Cable: Second Ave Connection / E63	SGR	0.0	2.4	0.0	0.0	0.0	2.4
40 B Division Beacon Train Arrival System, Ph2	SI	0.0	0.0	70.0	0.0	0.0	70.0
41 Help Point: Purchase 300 Access Node Units	SI	4.8	0.0	0.0	0.0	0.0	4.8
42 Help Point: Woodhaven Bd / QBL (Transit Wireless)	SI	0.4	0.0	0.0	0.0	0.0	0.4
43 PA/CIS Ph 2 Server System Upgrade - Design / Pilot	NR	0.0	1.6	0.0	0.0	0.0	1.6
44 Police Radio System: Enhance Coverage	SGR	0.0	22.4	0.0	0.0	0.0	22.4

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** Savings expected due to efficiencies

Numbers may not add due to rounding

New York City Transit

SIGNALS & COMMUNICATIONS

T - 708

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
06 COMMUNICATIONS SYSTEMS							
45 Upgrade Async Network to SONET, Ring F DES	NR	0.0	0.8	0.0	0.0	0.0	0.8
Element Total 06		\$65.1	\$205.2	\$319.4	\$63.4	\$42.6	\$695.8
Category Total 708		\$107.8	\$848.2	\$382.0	\$1,176.7	\$213.1	\$2,728.0

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

New York City Transit

TRACTION POWER

T - 709

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
02 SUBSTATIONS							
01 Substation Renewal: Burnside Av BXC	SGR	0.0	2.6	0.0	26.8	0.0	29.4
02 Substation Renewal: Av Z CUL	SGR	0.0	2.0	0.0	34.6	0.0	36.6
03 Substation Rnwl & New Rectifier: Centrl SS 6AV	SGR	0.0	4.1	0.0	45.9	0.0	49.9
04 Substation Roof & Enclosure: Wash Heights 8AV	SGR	0.0	0.9	0.0	8.1	0.0	9.0
05 Replace 25Hz Freq Converters - Various Locs	SGR	0.6	0.0	20.6	0.0	0.0	21.3
06 Replace HT Switchgear - Various Locs	SGR	0.0	5.3	0.0	50.0	0.0	55.4
08 Substation Roof & Enclosure: 1 Substation	SGR	0.9	7.6	0.0	0.0	0.0	8.5
09 Substation Roofs & Enclosures: 2 Substns [SBDP]	SGR	1.4	0.0	9.5	0.0	0.0	10.9
10 Install Low-Resistance Contact Rail - CNR Tube	SI	0.7	28.6	0.0	0.0	0.0	29.3
11 Three New Substations CNR - DEO	SI	5.4	0.1	0.0	0.0	0.0	5.5
15 Supplemental Negative Cables QBL	SI	0.0	2.2	0.0	0.0	40.9	43.1
18 Install Low-Resistance Contact Rail - QBL Tube	SI	0.0	0.4	0.0	0.0	20.5	20.9
19 New Substation: Canal St 8AV	SI	0.0	0.0	3.0	0.0	61.7	64.7
20 New Substation: 34 St 8AV	SI	0.0	0.0	2.5	0.0	57.5	60.0
21 New Substation: 14 St-Avenue B CNR	SI	0.0	53.6	0.0	0.0	0.0	53.6
22 New Substation: Maspeth Av-Humboldt St CNR	SI	0.0	0.0	55.2	0.0	0.0	55.2
23 New Substation: Harrison Pl CNR	SI	0.0	0.0	63.4	0.0	0.0	63.4
Element Total 02		\$9.0	\$107.4	\$154.1	\$165.4	\$180.7	\$616.6
04 POWER DISTRIBUTION							
01 Rehab CBH # 586 - 18 Av CUL	SGR	0.0	1.8	0.0	14.9	0.0	16.7
03 Rehab CBH # 210 - 239 St WPR	SGR	1.2	1.2	24.9	0.0	0.0	27.2
04 Rehab CBH # 86 - Wilson Av CNR	SGR	0.5	7.0	0.0	0.0	0.0	7.5
06 Rehab CBH # 85 - Myrtle Av CNR	SGR	0.9	14.0	0.0	0.0	0.0	14.9
07 Rehab CBH # 5 - 53 St BWY	SGR	0.0	1.7	0.0	13.9	0.0	15.6
10 Rehab Various CBH Enclosures	SGR	0.0	0.0	0.0	1.0	9.0	10.0
11 Rehab Ducts: Stanton St. Substation	NR	0.6	0.7	12.8	0.0	0.0	14.1
12 Replace Negative Cables 4AV Ph 3	SGR	0.0	5.0	0.0	0.0	28.5	33.5
13 Upgrade SCADA System	SGR	0.0	2.5	0.0	37.5	0.0	40.0
14 Repl Control & Bat Cables: Substation CZs	SGR	0.0	3.0	0.0	27.0	0.0	30.0
15 Reconstruct CBH # 392 Flushing River Bridge FLS	SGR	0.0	0.9	0.0	7.7	0.0	8.5
16 Rebuild Ducts: Central Substation	SGR	0.0	0.0	0.0	10.0	0.0	10.0
17 Replace Negative Cables 4AV Ph 2	NR	0.0	16.5	0.0	0.0	0.0	16.5
18 Protection of Cables DYR	SGR	0.0	0.0	0.0	0.0	9.0	9.0
19 Emergency Alarms (EAs), Phase 1	NR	0.0	0.0	11.0	0.0	0.0	11.0
20 New Ducts: Bedford - N 6 St Substation CNR	SGR	0.0	0.0	3.0	0.0	0.0	3.0
Element Total 04		\$3.2	\$54.2	\$51.6	\$112.0	\$46.5	\$267.4
Category Total 709		\$12.2	\$161.6	\$205.7	\$277.4	\$227.1	\$884.0

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

New York City Transit

SHOPS AND YARDS

T - 710

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
04 SHOPS AND YARDS							
01 DCE Shop Components Ph 1: 180 St, CI, PEL**	SGR	2.2	0.0	23.5	0.0	0.0	25.7
02 207 St Maint. and OH Shop Roof & Component Repl	SGR	2.5	0.0	66.3	0.0	0.0	68.8
03 DCE Shop Components Ph 2: 239 St, Concourse, ENY**	SGR	0.0	2.2	0.0	28.8	0.0	31.0
04 DCE Shop Components Ph 3: Jerome**	SGR	0.0	0.0	0.8	0.0	3.0	3.8
05 DCE Shop Components Ph 4: 207 St Admin **	SGR	0.0	0.0	1.1	0.0	11.4	12.5
06 Rehab Livonia Maintenance Shop, Ph 1	SGR	0.0	3.5	0.0	62.2	0.0	65.7
07 Upgrade Central Electronics Shop: Woodside	SGR	1.4	0.0	11.4	0.0	0.0	12.8
08 Upgrade Cable Shop, Ph 1	SI	0.0	1.9	0.0	15.6	0.0	17.5
09 Heavy Shop Equipment	NR	1.2	0.0	8.8	0.0	0.0	10.0
10 2015 Yard Track Replacement	SGR	1.0	0.0	0.0	0.0	0.0	1.0
11 2016 Yard Track Replacement	SGR	0.0	3.1	0.0	0.0	0.0	3.1
12 2017 Yard Track Replacement	SGR	0.0	0.0	2.3	0.0	0.0	2.3
13 2018 Yard Track Replacement	SGR	0.0	0.0	0.0	2.3	0.0	2.3
14 2019 Yard Track Replacement	SGR	0.0	0.0	0.0	0.0	2.3	2.3
15 2020 Yard Track Replacement DEO	SGR	0.0	0.0	0.0	0.0	0.1	0.1
16 2015 Yard Switch Replacement	SGR	2.0	0.0	0.0	0.0	0.0	2.0
17 2016 Yard Switch Replacement	SGR	0.0	4.7	0.0	0.0	0.0	4.7
18 2017 Yard Switch Replacement	SGR	0.0	0.1	3.7	0.0	0.0	3.8
19 2018 Yard Switch Replacement	SGR	0.0	0.0	0.1	3.7	0.0	3.8
20 2019 Yard Switch Replacement	SGR	0.0	0.0	0.0	0.1	3.7	3.8
21 2020 Yard Switch Replacement DEO	SGR	0.0	0.0	0.0	0.0	0.1	0.1
22 Yard Lighting: 207th St Yard	SGR	2.0	0.0	21.3	0.0	0.0	23.3
24 Yard Fencing: 2 Locations (38 St and Linden Yard)	NR	11.0	0.0	0.0	0.0	0.0	11.0
28 Car Cleaning Facility Component Repairs	NR	0.5	0.0	0.0	1.5	0.0	2.0
29 Struc. Remed. at E 180 St Maint. Fac. & Ret Wall	SGR	0.1	0.4	5.6	0.0	0.0	6.1
30 DCE Shops Industrial Engineering Study	SI	0.0	0.0	3.0	0.0	0.0	3.0
31 Rehab Livonia Maintenance Shop, Ph 1 [SBDP]	SGR	0.0	0.0	0.0	10.0	0.0	10.0
32 207th Street Overhaul Shop: Rehabilitate HVAC Shop	SGR	0.0	37.5	0.0	0.0	0.0	37.5
33 Upgrade Central Electronics Shop: Woodside [SBDP]	SGR	0.0	0.0	2.0	0.0	0.0	2.0
Element Total 04		\$23.9	\$53.4	\$149.9	\$124.1	\$20.5	\$371.9
Category Total 710		\$23.9	\$53.4	\$149.9	\$124.1	\$20.5	\$371.9

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

New York City Transit

DEPOTS

T - 712

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
03 DEPOT REHAB AND RECONSTRUCTION							
01 Artic Modification: ENY Depot	SI	0.0	2.3	0.0	29.5	0.0	31.8
02 Roof: Gun Hill Depot	NR	1.0	0.0	15.2	0.0	0.0	16.2
03 Roof, HVAC: Queens Village Depot	NR	2.6	0.0	0.0	26.1	0.0	28.7
04 Chassis Wash: Grand Ave Depot [SBDP]	SI	0.2	0.0	1.4	0.0	0.0	1.6
05 Windows, HVAC: Casey Stengel Depot	NR	0.0	1.5	9.3	0.0	0.0	10.8
06 Generator: Yukon Depot	NR	0.0	0.0	0.0	10.0	0.0	10.0
07 Roof, Office, HVAC: Fresh Pond Depot	NR	0.0	0.0	0.0	25.0	0.0	25.0
08 Paving: Manhattanville Depot [SBDP]	NR	0.0	0.4	0.0	4.7	0.0	5.1
10 New Depot: Jamaica	NR	7.6	5.3	0.0	0.0	244.4	257.2
11 Office Upgrade: Zerega Consolid Maint Fac [SBDP]	NR	1.5	0.0	3.5	0.0	0.0	5.0
12 Chassis Wash: Gun Hill Depot [SBDP]	NR	0.0	0.2	1.4	0.0	0.0	1.6
13 Artic Modification: Jackie Gleason Depot [SBDP]	SI	0.0	0.0	2.5	0.0	0.0	2.5
14 HVAC: Manhattanville Depot	NR	0.0	1.1	15.4	0.0	0.0	16.5
15 HVAC: Zerega Consolidated Maintenance Facility	NR	0.0	0.0	5.0	0.0	0.0	5.0
16 Roof Topping & Expansion Joints: Kingsbridge Depot	NR	0.0	0.0	5.3	0.0	0.0	5.3
17 Roof Topping & Expansion Joints: MJ Quill Depot	NR	0.0	0.0	3.8	0.0	0.0	3.8
18 New Depot: Jamaica [SBDP]	NR	0.0	0.0	0.0	0.0	10.0	10.0
Element Total 03		\$12.9	\$10.8	\$62.8	\$95.3	\$254.4	\$436.2

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

New York City Transit

DEPOTS

T - 712

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
04 DEPOT IMPROVEMENTS							
01 6 Bus Washers: 3 Depots DEO	SGR	1.2	0.0	0.0	0.0	0.0	1.2
02 Paint Booth Upgrade [SBDP]	NR	0.0	0.0	2.5	0.0	0.0	2.5
03 Select Bus Service 2015-19	SI	0.0	18.2	0.0	0.0	0.0	18.2
04 SBS: Traffic Signal Priority, Ph 2	SI	0.0	0.0	5.0	0.0	0.0	5.0
05 Storage Tanks: 4 Depots DESIGN	NR	2.4	1.2	0.0	0.0	0.0	3.6
07 Shoreline Upgrade: Kingsbridge Depot	SI	0.5	0.3	4.7	0.0	0.0	5.5
08 Elevator Upgrades: JG,GH,MTV,CS,ENY	NR	2.1	0.0	14.0	0.0	0.0	16.1
10 North Shore BRT: Environmental and Design	SI	0.0	0.0	5.0	0.0	0.0	5.0
11 Oil-Water Separator: Casey Stengel Depot	NR	0.0	0.0	0.0	6.6	0.0	6.6
12 Portable Lift Replacement	NR	0.0	7.7	0.0	0.0	0.0	7.7
13 Bus Washer: Zerega Consolidated Maint Facil [SBDP]	NR	0.0	1.3	0.0	0.0	0.0	1.3
14 Chassis Wash: Casey Stengel Depot [SBDP]	NR	0.0	1.3	0.0	0.0	0.0	1.3
15 2 Bus Washers: Fresh Pond Depot [SBDP]	NR	0.0	2.7	0.0	0.0	0.0	2.7
16 2 Bus Washers: Jackie Gleason Depot [SBDP]	NR	0.0	0.0	0.0	2.7	0.0	2.7
18 Automated Fuel Management System Upgrade	NR	0.0	0.2	2.4	0.0	0.0	2.6
19 Queens Depot Property & Environmental Prep	SI	0.0	0.0	0.0	50.0	0.0	50.0
20 Select Bus Service: Advance 240 MFCs	SI	0.0	5.8	0.0	0.0	0.0	5.8
21 Storage Tanks: ENY and Gun Hill Depots	NR	0.0	0.0	12.4	0.0	0.0	12.4
22 Storage Tanks: Jackie Gleason and Castleton Depots	NR	0.0	11.1	0.0	0.0	0.0	11.1
Element Total 04		\$6.1	\$49.8	\$45.9	\$59.3	\$0.0	\$161.1
Category Total 712		\$19.0	\$60.6	\$108.8	\$154.6	\$254.4	\$597.3

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

New York City Transit

SERVICE VEHICLES

T - 713

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
02 SERVICE VEHICLES							
06 Purchase 2 Signal Supply Cars **	SGR	1.2	0.0	0.0	12.2	0.0	13.4
07 Purchase 27 Refuse Flats **	NR	2.0	0.0	22.7	0.0	0.0	24.6
08 Purchase 12 3-Ton Crane Cars **	NR	2.2	0.0	0.0	26.3	0.0	28.5
10 Track Inspn Car: Platform Meas/Video Recording Sys	SI	0.0	4.5	0.0	0.0	0.0	4.5
11 Purchase Locomotives **	SGR	2.2	0.0	128.3	0.0	0.0	130.5
12 Purchase 202 Non-Revenue Vehicles **	NR	0.0	34.3	0.0	0.0	0.0	34.3
13 Purchase Various Non-Revenue Vehicles **	NR	0.0	0.0	0.0	14.4	0.0	14.4
Element Total 02		\$7.6	\$38.8	\$151.0	\$53.0	\$0.0	\$250.3
Category Total 713		\$7.6	\$38.8	\$151.0	\$53.0	\$0.0	\$250.3

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

New York City Transit

MISC./EMERGENCY

T - 716

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
02 MISCELLANEOUS							
01 All-Agency Liability Insurance & Deductible		0.0	1.6	1.6	1.6	1.6	6.4
02 Property Insurance Self-Insured Retention		5.0	0.0	5.0	0.0	5.0	15.0
03 2015 Capital Revolving Fund		5.0	0.0	0.0	0.0	0.0	5.0
04 2016 Capital Revolving Fund		0.0	5.0	0.0	0.0	0.0	5.0
05 2017 Capital Revolving Fund		0.0	0.0	5.0	0.0	0.0	5.0
06 2018 Capital Revolving Fund		0.0	0.0	0.0	5.0	0.0	5.0
07 2019 Capital Revolving Fund		0.0	0.0	0.0	0.0	5.0	5.0
99 Authority-Wide Contingency: 2015-2019		0.0	5.8	0.0	0.0	0.0	5.8
Element Total 02		\$10.0	\$12.4	\$11.6	\$6.6	\$11.6	\$52.2
04 MANAGEMENT INFORMATION SYSTEMS							
01 Upgrade Copper Cable: Livingston Plaza	NR	3.5	0.1	0.0	0.0	0.0	3.6
02 Data Storage and Server Enhancements at 2 Bwy/LP	SI	0.0	5.0	0.0	0.0	0.0	5.0
03 HP SAN Hardware for Disaster Recovery: 2 Bwy	NR	0.0	1.4	0.0	0.0	0.0	1.4
05 Replace Superdome Server: 2 Broadway	NR	0.0	1.4	0.0	0.0	0.0	1.4
06 CADD-BIM-DMS Disaster Recovery-Bus. Continuity	SI	0.0	1.2	0.0	0.0	0.0	1.2
08 Enterprise Asset Management (EAM)		0.0	20.5	0.0	20.5	0.0	41.0
Element Total 04		\$3.5	\$29.6	\$0.0	\$20.5	\$0.0	\$53.6
05 ENGINEERING SERVICES							
01 Scope Development		0.0	12.5	12.5	12.5	12.5	50.0
02 Design Reserve		0.0	5.4	41.0	45.9	0.0	92.3
03 Engineering Services		2.3	4.5	4.5	4.5	4.5	20.3
04 MTA Independent Engineering Consultant		0.0	10.5	0.0	0.0	0.0	10.5
05 General Order Support: Traffic Checkers		9.0	9.0	9.0	9.0	9.0	45.0
06 Value Engineering Services		2.6	0.0	0.0	0.0	0.0	2.6
08 Construction Support Services		0.0	6.5	0.0	6.5	0.0	13.0
09 Concrete Batch Plant Inspection		0.0	0.0	1.6	0.0	0.0	1.6
10 Boring Services: Bk/Q/SI	NR	0.0	0.0	1.9	0.0	0.0	1.9
11 Boring Services: M/Bx	NR	0.0	0.0	2.3	0.0	0.0	2.3
12 Test Pits	NR	0.0	0.0	12.4	0.0	0.0	12.4
13 Concrete Cylinder Testing	NR	0.0	0.0	0.0	1.0	0.0	1.0
15 Utica Avenue Subway Extension Study	SI	0.0	0.0	5.0	0.0	0.0	5.0
16 Core Station Improvement Project Reserve	SI	0.0	25.0	50.0	50.0	50.0	175.0
17 Small Business Mentoring Program	SGR	0.0	0.0	0.0	15.0	0.0	15.0
20 Staten Island West Shore Light Rail Alt Analysis		0.0	0.0	0.0	4.0	0.0	4.0
Element Total 05		\$13.9	\$73.4	\$140.3	\$148.4	\$76.0	\$451.9

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

New York City Transit

MISC./EMERGENCY

T - 716

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
06 ENVIRONMENTAL AND SAFETY							
01 Fire Alarm System Replacement - 3 Locs	NR	1.5	0.0	19.5	0.0	0.0	21.0
02 Asbestos / Lead Air Monitoring	NR	0.0	0.0	11.0	0.0	0.0	11.0
03 Asbestos Abatement	NR	0.0	0.0	12.0	0.0	0.0	12.0
04 Asbestos Disposal	NR	0.0	0.0	1.1	0.0	0.0	1.1
05 Consultant Services-USTs & Remediation	NR	0.0	0.0	6.5	0.0	0.0	6.5
06 Groundwater and Soil Remediation	NR	0.0	0.0	0.0	11.5	0.0	11.5
07 Consultant Services: USTs & Remediation	NR	0.0	0.0	0.0	0.0	8.1	8.1
Element Total 06		\$1.5	\$0.0	\$50.1	\$11.5	\$8.1	\$71.1
07 EMPLOYEE FACILITIES							
01 Rehab: PD Office 14 St - Union Square	SGR	0.0	2.4	0.0	0.0	25.4	27.9
02 Passenger Security Systems	SI	2.0	4.5	55.6	0.0	0.0	62.1
03 Emp Fac Consolidation: 2 Av 6AV **	SGR	1.4	13.9	0.0	0.0	0.0	15.3
04 Emp Fac Component Repairs: 10 Locs / Manhattan **	SGR	9.2	0.5	0.0	0.0	0.0	9.7
05 Emp Fac Component Repairs: 7 Locs / Various **	SGR	0.0	4.9	0.0	0.0	0.0	4.9
06 Reconstr Elev & Escal Fac - E Bway 6AV [SBDP] **	SGR	0.4	3.7	0.0	0.0	0.0	4.1
07 Emp Fac Line Repairs: 20 Locs 8AV [SBDP] **	SGR	0.5	4.6	0.0	0.0	0.0	5.1
08 Emp Fac Reloc: Trk Qtrs 14 St-Union Sq [SBDP] **	SGR	0.2	0.0	2.4	0.0	0.0	2.7
14 Livingston Plaza Electrical, Mechanical, Generator	NR	2.7	0.3	62.7	0.0	0.0	65.7
15 Rail Control Center: Annex	SI	0.0	25.0	0.0	0.0	0.0	25.0
16 RCC and PCC Power Upgrade	NR	0.0	55.2	0.0	0.0	0.0	55.2
17 Refurbish Keene Vacuum Systems [SBDP]	NR	0.0	0.0	5.2	0.0	0.0	5.2
18 Consolidated Revenue Fac: Security System Upgrade	NR	0.0	0.0	3.3	0.0	5.0	8.3
21 EDR Rprs: DO #20 - Briarwood-Van Wyck	SGR	0.0	0.9	0.0	5.6	0.0	6.5
23 Tiffany Warehouse Exterior Wall Structural Repair	SGR	0.0	0.0	5.0	0.0	0.0	5.0
24 NYPD Special Victims Facility [SBMP]	SI	0.0	0.0	5.0	0.0	0.0	5.0
25 Emp Fac Rehab: Rest Rooms & Fac Var Locs [SBDP]	SGR	0.0	0.0	0.0	5.0	0.0	5.0
Element Total 07		\$16.4	\$116.0	\$139.3	\$10.6	\$30.4	\$312.7
Category Total 716		\$45.3	\$231.5	\$341.2	\$197.6	\$126.1	\$941.7
TOTAL PROGRAM		\$661.0	\$3,577.3	\$6,525.7	\$3,513.2	\$1,559.5	\$15,836.7

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Staten Island Railway

STATEN ISLAND RAILWAY

S - 707

**Commitments
(\$ in millions)**

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 SIR: MISCELLANEOUS							
01 SIR: Replace Car Fleet	NR	0.0	0.0	278.8	0.0	0.0	278.8
02 SIR Station Component Program	SGR	0.0	0.0	0.8	0.0	7.1	7.9
03 SIR Mainline Track Replacement	SGR	0.0	0.0	1.7	0.0	35.7	37.4
04 UHF T-Band Radio System Replacement, SIR	NR	0.0	3.8	0.0	21.9	0.0	25.7
05 New Power Substation: Tottenville	SI	2.5	23.0	0.0	0.0	0.0	25.5
06 New Power Substation: New Dorp	SI	2.8	0.0	29.9	0.0	0.0	32.7
07 New Power Substation: Clifton	SI	2.5	0.0	30.9	0.0	0.0	33.4
08 SIR: Install Customer Information Signs	SI	0.0	1.2	0.0	0.0	0.0	1.2
09 SIR Station Component Program [SBDP]	SGR	0.0	0.0	0.4	0.0	4.6	5.0
10 Rehabilitation of Amboy Rd Bridge	NR	0.4	0.3	0.0	5.1	0.0	5.9
11 Relocate HQ to Clifton Shop	SI	0.0	10.0	0.0	0.0	0.0	10.0
12 Enhanced Station Initiative: Richmond Valley SIR	NR	0.0	15.3	0.0	0.0	0.0	15.3
Element Total 01		\$8.2	\$53.6	\$342.6	\$27.0	\$47.3	\$478.7
Category Total 707		\$8.2	\$53.6	\$342.6	\$27.0	\$47.3	\$478.7
TOTAL PROGRAM		\$8.2	\$53.6	\$342.6	\$27.0	\$47.3	\$478.7

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

New York City Transit Agency Summary

Commitments
(\$ in millions)

AGENCY	2015	2016	2017	2018	2019	Total All Years
TOTAL New York City Transit	\$661.0	\$3,577.3	\$6,525.7	\$3,513.2	\$1,559.5	\$15,836.7
TOTAL Staten Island Railway	\$8.2	\$53.6	\$342.6	\$27.0	\$47.3	\$478.7
TOTAL NEW YORK CITY TRANSIT AGENCY PROGRAM	\$669.2	\$3,630.9	\$6,868.3	\$3,540.2	\$1,606.8	\$16,315.4

* Represents values less than \$50,000

Numbers may not add due to rounding

** Savings expected due to efficiencies

Long Island Rail Road

ROLLING STOCK

L - 701

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 REVENUE EQUIPMENT							
ME M-9 Procurement	NR	0.0	22.0	265.0	62.5	0.0	349.5
Element Total 01		\$0.0	\$22.0	\$265.0	\$62.5	\$0.0	\$349.5
Category Total 701		\$0.0	\$22.0	\$265.0	\$62.5	\$0.0	\$349.5

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Long Island Rail Road

STATIONS

L - 702

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years	
04 STATION AND BUILDINGS								
U8	ESA - Biltmore Room GCT	SI	0.0	0.0	3.0	0.0	3.0	
U9	Jamaica Station - Planning & Engineering	SI	0.0	0.0	10.0	0.0	10.0	
UA	Station Component Replacement	NR	0.0	0.0	7.0	19.0	33.0	
UG	Mets-Willets Point Station	SI	0.0	0.0	0.0	75.0	75.0	
UJ	Enhanced Station Initiative, 17 Stations	NR	0.0	5.0	72.5	72.5	150.0	
UM	Murray Hill Station - New Elevators	SI	0.0	0.0	14.5	0.0	14.5	
UN	Nostrand Ave. Station Rehabilitation	NR	0.0	0.0	28.1	0.0	28.1	
UO	Brookhaven National Lab Station	SI	0.0	0.0	20.0	0.0	20.0	
UP	Port Washington Station Improvements	NR	0.0	0.0	5.0	0.0	8.0	
UQ	Babylon Station Platform Replacement	NR	0.0	0.0	7.0	0.0	7.0	
UU	Mentor Allowance - Stations	NR	0.0	4.7	5.5	5.1	6.6	
UV	New Fare Payment System	SI	0.0	0.0	0.0	0.0	5.0	
UW	GCT/ESA Unified Trash Facility	SI	8.7	1.9	0.5	0.0	0.0	
UX	Hunterspoint Avenue Station Renewal	NR	0.0	0.0	2.1	0.0	0.0	
UY	Elmhurst Station - New Station	SI	0.0	0.0	0.0	0.0	3.0	
UZ	New Republic Station on Main Line	SI	0.0	0.0	0.0	0.0	5.0	
Element Total 04			\$8.7	\$11.6	\$175.2	\$171.6	\$34.6	\$401.8
05 PARKING								
V1	Parking Rehabilitation	NR	0.0	5.0	0.0	0.0	0.0	5.0
V2	Parking Facility Development	SI	0.0	3.0	0.0	0.0	22.0	25.0
Element Total 05			\$0.0	\$8.0	\$0.0	\$0.0	\$22.0	\$30.0
06 PENN STATION								
VM	Empire State Development Corp.	SI	0.0	0.0	4.5	0.0	0.0	4.5
VN	Penn Station - 33rd Street Corridor	SI	0.0	0.0	170.0	0.0	0.0	170.0
VP	Penn Sta Elevator/Escalator Replacement	NR	0.0	0.0	15.0	0.0	0.0	15.0
VQ	Penn Station Customer Facilities	NR	0.0	4.0	31.5	0.0	0.0	35.5
VR	Penn Station Complex Improvements	SI	0.0	7.0	3.0	0.0	0.0	10.0
VS	Moynihan Train Hall	SI	0.0	0.0	0.0	100.0	0.0	100.0
Element Total 06			\$0.0	\$11.0	\$224.0	\$100.0	\$0.0	\$335.0
Category Total 702			\$8.7	\$30.6	\$399.2	\$271.6	\$56.6	\$766.8

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Long Island Rail Road

TRACK
L - 703

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 ANNUAL TRACK REHAB PROGRAM							
WA 2015 Annual Track Program	NR	64.6	0.4	0.0	0.0	0.0	65.0
WB 2016 Annual Track Program	NR	0.0	65.0	0.0	0.0	0.0	65.0
WC 2017 Annual Track Program	NR	0.0	0.0	75.0	0.0	0.0	75.0
WD 2018 Annual Track Program	NR	0.0	0.0	0.0	64.0	0.0	64.0
WE 2019 Annual Track Program	NR	0.0	0.0	0.0	0.0	64.0	64.0
WF Right of Way Fencing	SI	0.0	0.9	1.4	1.4	1.4	5.2
WG Construction Equipment - Phase I	NR	0.0	0.0	8.1	0.0	0.0	8.1
WH Retaining Walls / Right of Way Projects	NR	0.0	2.6	4.7	4.7	0.0	12.0
WJ Construction Equipment - Phase II	NR	0.0	0.0	0.0	7.4	0.0	7.4
Element Total 01		\$64.6	\$68.8	\$89.2	\$77.5	\$65.4	\$365.7
04 OTHER TRACK IMPROVEMENTS							
WU Jamaica Capacity Improvements Ph 2	SI	0.0	0.0	51.0	21.5	0.0	72.5
WV Amtrak Territory Investments	SI	0.0	32.6	7.2	17.7	0.0	57.5
WX Double Track Ph 2	SI	0.0	246.0	4.0	0.0	0.0	250.0
Element Total 04		\$0.0	\$278.6	\$62.2	\$39.2	\$0.0	\$380.0
Category Total 703		\$64.6	\$347.4	\$151.5	\$116.7	\$65.4	\$745.7

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Long Island Rail Road

LINE STRUCTURES

L - 704

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 BRIDGES							
BM Wreck Lead Rehabilitation	SGR	0.0	0.0	2.0	0.0	0.0	2.0
BQ Bridge Program - Structural Renewals	SGR	0.0	2.2	24.5	0.0	0.0	26.7
BR Main Line Bridge Component Renewals	SGR	0.0	2.3	12.0	5.7	0.0	20.0
BS Bridge Waterproofing	SGR	0.0	1.1	1.6	5.4	5.4	13.3
BT Removal of Montauk Cut-Off Viaduct	SGR	0.0	5.7	0.0	0.0	0.0	5.7
BU Mentor Allowance - Line Structures	SGR	0.0	7.2	4.4	5.4	6.0	23.0
BV North Main Street & Accabonac Road	SGR	0.0	0.0	15.1	0.0	0.0	15.1
BW Flushing Main Street Bridge	SGR	0.0	0.0	3.5	0.0	0.0	3.5
BX Springfield Blvd & Union Tpke	SGR	0.0	0.0	8.0	0.0	0.0	8.0
BZ Webster Ave Bridge	SGR	0.0	0.0	10.7	0.0	0.0	10.7
C3 Lynbrook & Rockville Centre Renewals	SGR	0.0	0.0	12.0	0.0	0.0	12.0
C4 Cherry Valley Road Design	SGR	0.0	0.0	3.0	0.0	0.0	3.0
C6 Bridge Painting	SGR	0.0	0.0	3.8	0.0	0.0	3.8
Element Total 01		\$0.0	\$18.5	\$100.6	\$16.5	\$11.3	\$146.8
Category Total 704		\$0.0	\$18.5	\$100.6	\$16.5	\$11.3	\$146.8

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Long Island Rail Road

COMMUNICATIONS AND SIGNALS

L - 705

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 COMMUNICATIONS IMPROVEMENTS							
SD Fiber Optic Network	NR	0.0	20.0	1.3	13.2	0.0	34.5
SE Comm. Pole Line	NR	0.0	1.8	1.4	1.6	2.9	7.7
SF Improve Radio Coverage Initiatives/FCC Mandate	SI	0.0	0.0	4.8	0.0	0.0	4.8
SJ LIRR Public Address System	NR	0.0	2.0	3.0	0.0	0.0	5.0
SN Penn Sta Radio Retrofit/ERT Antenna	NR	0.0	0.0	6.5	0.0	0.0	6.5
SQ Atlantic Ave Tunnel Security Improvements	SI	0.0	1.5	1.6	0.0	0.0	3.1
SR Station Platform CCTV Cameras	SI	0.0	0.0	0.0	0.0	1.2	1.2
Element Total 01		\$0.0	\$25.3	\$18.6	\$14.8	\$4.1	\$62.8
02 SIGNAL IMPROVEMENTS							
LH Babylon Interlocking Renewal	NR	0.0	5.2	0.0	28.0	7.0	40.2
LJ Signal Normal Replacement Program	NR	0.0	4.4	11.9	11.9	11.9	40.0
LK Positive Train Control (PTC)	SI	40.1	4.9	81.0	0.0	0.0	126.0
LL Ronkonkoma to Yaphank Signalization	SI	0.0	0.0	0.0	0.0	2.0	2.0
LM Hunt to Post Design	NR	0.0	0.0	0.0	5.0	0.0	5.0
LN Babylon to Patchogue	NR	0.0	0.0	5.0	49.7	0.0	54.7
LP Lightning Protection	SI	0.0	0.0	5.0	0.0	0.0	5.0
LQ Centralized Train Control	SI	0.0	0.0	0.0	0.0	10.0	10.0
Element Total 02		\$40.1	\$14.5	\$102.9	\$94.5	\$30.9	\$282.9
Category Total 705		\$40.1	\$39.8	\$121.5	\$109.3	\$35.0	\$345.7

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Long Island Rail Road

SHOPS AND YARDS

L - 706

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 SHOPS AND YARDS							
YG Diesel Locomotive Shop Improvements	NR	0.0	0.0	108.3	0.0	0.0	108.3
YH Rolling Stock Support Equipment	NR	9.5	0.0	0.5	0.0	0.0	10.0
YR Mid Suffolk Yard Improvements	SI	0.0	51.4	0.0	0.0	0.0	51.4
YS New Huntington/PortJeff Branch ElectricYard	SI	0.0	0.0	0.0	0.0	8.0	8.0
Element Total 01		\$9.5	\$51.4	\$108.8	\$0.0	\$8.0	\$177.7
04 EMPLOYEE FACILITIES							
YJ Mentor Allowance - Shops & Yards	NR	0.0	5.1	7.1	6.4	4.4	23.0
YV Hillside Facility/Upper Holban Improvements	NR	0.0	2.0	2.0	0.0	0.0	4.0
YW Rehabilitation of Employee Facilities	NR	0.0	2.0	2.0	6.0	2.0	12.0
YX Fire Protection Improvements	NR	0.0	2.5	2.5	2.5	2.5	10.0
Element Total 04		\$0.0	\$11.6	\$13.6	\$14.9	\$8.9	\$49.0
Category Total 706		\$9.5	\$63.0	\$122.4	\$14.9	\$16.9	\$226.7

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Long Island Rail Road

POWER
L - 707

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 POWER							
XA Substation Replacements	NR	0.0	1.2	42.2	20.1	17.5	81.0
XB Substation Components	NR	0.0	0.8	7.2	26.6	7.8	42.4
XC 3rd Rail - 2000 Million Cubic Meter Cable	NR	0.0	0.4	0.7	0.7	0.7	2.4
XD 3rd Rail - Disconnect Switches	NR	0.0	0.3	0.5	0.5	0.5	1.6
XE 3rd Rail - Protection Board	NR	0.0	1.0	2.6	2.6	2.6	8.8
XF 3rd Rail -Composite Rail	NR	0.0	0.3	3.9	3.9	3.9	12.0
XG 3rd Rail - Feeder Cable Upgrade	NR	0.0	0.3	1.0	1.0	1.0	3.2
XH Negative Reactor Upgrade	NR	0.0	0.1	1.0	1.0	1.0	3.2
XJ Substation Battery Replacement	NR	0.0	0.3	0.2	0.2	0.2	0.8
XK Signal PowerMotor Generator Replacement	NR	0.0	1.0	2.0	1.5	2.0	6.4
XL DC Relay Controls Replacement	NR	0.0	0.4	0.4	0.4	0.4	1.6
XM Signal Power Line Replacement	NR	0.0	0.3	1.0	1.0	1.0	3.2
XN Power Pole Replacement	NR	0.0	0.3	1.0	1.0	1.0	3.2
XP Atlantic Avenue Tunnel Lighting	NR	0.0	0.0	4.5	4.5	3.0	12.0
XQ 4,160 Volt Feeders	NR	0.0	0.1	0.5	0.5	0.5	1.6
XR New Substations	SI	0.0	0.0	0.0	5.0	0.0	5.0
XS Substation Renewals	NR	0.0	0.0	0.0	27.4	11.2	38.6
Element Total 01		\$0.0	\$6.6	\$68.5	\$97.6	\$54.2	\$227.0
Category Total 707		\$0.0	\$6.6	\$68.5	\$97.6	\$54.2	\$227.0

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Long Island Rail Road

MISCELLANEOUS

L - 709

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
04 MISCELLANEOUS							
N5 20 Substations Chlordane Remediation - Ph 2	NR	0.0	0.0	2.0	0.0	0.0	2.0
NJ Program Development		0.0	1.5	2.0	2.0	2.0	7.5
NK Insurance		0.0	1.6	2.1	2.1	2.1	8.0
NL Independent Engineer		0.0	5.2	0.0	0.2	2.1	7.4
NQ Program Administration		20.2	24.1	23.2	23.5	24.0	115.0
NR EAM Reserve		0.0	8.0	0.0	0.0	0.0	8.0
Element Total 04		\$20.2	\$40.4	\$29.3	\$27.8	\$30.2	\$147.9
Category Total 709		\$20.2	\$40.4	\$29.3	\$27.8	\$30.2	\$147.9
TOTAL PROGRAM		\$143.1	\$568.3	\$1,258.0	\$717.0	\$269.7	\$2,956.1

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Metro-North Railroad

ROLLING STOCK

M - 701

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 REVENUE EQUIPMENT							
01 Fleet Replacement	NR	0.0	0.0	439.6	0.0	0.0	439.6
02 M-8 Fleet Purchase	SI	0.0	92.0	0.0	0.0	0.0	92.0
Element Total 01		\$0.0	\$92.0	\$439.6	\$0.0	\$0.0	\$531.6
Category Total 701		\$0.0	\$92.0	\$439.6	\$0.0	\$0.0	\$531.6

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Metro-North Railroad

STATIONS

M - 702

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 GRAND CENTRAL TERMINAL							
01 GCT Trainshed/Tunnel Struct (incl Roof Exp. Jts)	SGR	0.0	0.0	33.2	33.8	0.0	67.0
02 Park Av Tunnel Fire&LifeSafetyImpvmnts	NR	0.0	0.0	1.0	0.0	0.0	1.0
03 GCT Platform Rehabilitation	SGR	0.0	0.0	0.0	1.2	0.0	1.2
04 GCT Fire Protection	NR	11.4	0.0	0.0	0.0	0.0	11.4
05 GCT Utilities	NR	0.0	0.0	0.0	1.8	3.2	5.0
06 GCT Elevator Imprvmnts-Final Phase	NR	0.0	0.0	1.0	0.0	6.2	7.2
07 GCT PA Head End and VIS Systems	NR	0.0	0.0	37.1	0.0	0.0	37.1
08 Mentoring - GCT	NR	0.0	0.0	0.0	2.0	3.0	5.0
Element Total 01		\$11.4	\$0.0	\$72.3	\$38.8	\$12.5	\$135.0
02 OUTLYING STATIONS							
01 Harlem - 125th Street Improvements	NR	0.7	0.0	0.6	0.0	0.0	1.3
02 Lower Harlem Line Station Imprvmnts	NR	0.0	0.0	0.0	30.6	0.0	30.6
03 Upper Hudson Station Improvements	NR	0.0	1.7	0.0	15.8	0.0	17.5
04 Harlem Line Station Improvements	NR	0.0	3.3	0.0	19.2	0.0	22.5
05 West of Hudson Station Improvements	NR	0.0	0.0	0.0	0.3	1.2	1.5
06 Station Building Rehabilitation	NR	0.0	0.0	0.1	0.4	0.0	0.5
07 Customer Communication-Stations	SI	0.0	0.0	46.2	0.0	0.0	46.2
08 New Fare Payment	SI	0.0	0.0	5.0	0.0	0.0	5.0
09 Mentoring Program - Stations	NR	0.0	2.4	1.0	9.6	2.0	15.0
10 Enhanced Station Initiative, 5 Stations	NR	0.0	1.5	13.5	0.0	0.0	15.0
11 Customer Communication-Systems	NR	0.0	0.0	13.7	0.0	0.0	13.7
12 Customer Communication-CM	NR	0.0	0.0	8.0	0.0	0.0	8.0
13 Enhanced Station Initiative Reserve	NR	0.0	0.0	100.0	0.0	0.0	100.0
Element Total 02		\$0.7	\$8.9	\$188.1	\$75.8	\$3.2	\$276.7
03 PARKING							
01 Strategic Facilities	SI	0.0	0.0	6.0	5.0	8.7	19.7
02 Mentoring Program - Strategic Facilities	NR	0.0	0.0	0.0	0.0	3.0	3.0
Element Total 03		\$0.0	\$0.0	\$6.0	\$5.0	\$11.7	\$22.7
Category Total 702		\$12.2	\$8.9	\$266.4	\$119.6	\$27.4	\$434.4

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Metro-North Railroad

TRACK AND STRUCTURES

M - 703

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 TRACK							
01 2016 Cyclical Track Program	NR	0.0	23.6	0.0	0.0	0.0	23.6
02 Cyclical Repl. Insulated Joint	NR	0.0	0.8	0.4	0.4	0.4	2.0
03 Rock Slope Remediation	NR	0.0	12.1	0.0	0.0	7.6	19.7
04 Turnouts - Mainline/High Speed	NR	0.0	12.5	12.9	10.0	16.1	51.5
05 GCT Turnouts/Switch Renewal	NR	3.0	4.5	4.6	4.7	8.1	24.9
06 Turnouts - Yards/Sidings	NR	0.0	0.0	0.0	5.2	0.0	5.2
07 Rebuild Retaining Walls	NR	0.0	0.0	2.3	5.3	0.0	7.5
08 Systemwide Drainage	NR	0.0	2.6	5.4	0.0	0.0	8.0
09 Purchase MoW Equipment	NR	0.0	12.0	0.0	10.0	0.0	22.0
10 2017 Cyclical Track Program	NR	0.0	0.0	4.0	0.0	0.0	4.0
11 2018 Cyclical Track Program	NR	0.0	0.0	0.0	24.7	0.0	24.7
12 2019 Cyclical Track Program	NR	0.0	0.0	0.0	0.0	24.7	24.7
Element Total 01		\$3.0	\$68.2	\$29.5	\$60.2	\$56.9	\$217.8
02 STRUCTURES							
01 Overhead Bridge Program - E of H	SGR	0.0	3.6	17.4	12.0	19.1	52.0
02 Bridge Preservation Program	SGR	0.0	0.0	0.0	0.8	0.0	0.8
03 Undergrade Bridge Rehabilitation	SGR	0.0	1.5	18.9	20.2	16.3	56.9
04 Beacon Line Undergrade Bridges	SGR	0.0	0.0	5.0	2.5	0.0	7.5
06 Railtop Culverts	SGR	0.0	1.9	1.1	0.0	0.4	3.4
07 Bridge Walkways	NR	0.0	0.0	0.9	0.6	0.5	2.0
08 Replace Timbers - Undergrade Bridges	SGR	0.0	1.9	1.2	1.9	0.0	5.0
09 Harlem River Lift Bridge	NR	0.0	0.0	1.4	8.7	0.0	10.0
10 Hudson Line Tunnels Inspection	SGR	0.0	0.0	0.0	2.0	0.0	2.0
11 ROW Fencing	SGR	0.0	0.4	0.2	0.2	0.2	1.0
12 Catenary Painting	SGR	0.0	0.0	0.2	1.4	3.5	5.0
13 DC Substation/SignalHse Roof Replacement	NR	0.0	0.0	2.5	1.3	1.3	5.0
14 Employee Welfare & Storage Facilities	NR	0.0	0.0	0.0	0.5	2.5	3.0
15 Mentoring Program - Structures	NR	0.0	0.0	0.0	2.4	0.6	3.0
Element Total 02		\$0.0	\$9.2	\$48.6	\$54.4	\$44.3	\$156.6
03 WEST OF HUDSON INFRASTRUCTURE							
01 Rock Slope Remediation	NR	0.0	12.3	0.0	0.0	2.7	15.0
02 West of Hudson Track Improvements	SGR	5.5	1.0	3.5	0.0	0.0	10.0
03 Undergrade Bridge Rehabilitation	SGR	0.0	0.0	7.4	5.7	1.9	15.0
04 Moodna/Woodbury Viaduct (incl timbers/walkways)	SGR	0.0	0.0	14.0	0.0	0.0	14.0
05 West of Hudson Improvements	SGR	0.7	0.7	0.7	0.7	0.7	3.5
Element Total 03		\$6.2	\$14.0	\$25.6	\$6.4	\$5.3	\$57.5
Category Total 703		\$9.2	\$91.4	\$103.7	\$120.9	\$106.5	\$431.8

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Metro-North Railroad

COMMUNICATIONS AND SIGNALS

M - 704

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 COMMUNICATIONS AND SIGNALS							
01 Network Infrastructure Replacement	NR	0.0	31.5	0.0	0.0	0.0	31.5
02 Harmon to Poughkeepsie SignalSystem	NR	0.0	0.0	45.4	28.5	0.0	73.9
03 Positive Train Control	SI	0.0	31.2	26.2	36.5	0.0	93.8
04 Repl Signal OfficeEqpmt/SCADA Office	NR	0.0	0.0	3.5	0.0	0.0	3.5
05 PBX Replacement	NR	0.0	1.5	0.0	0.0	0.0	1.5
06 Upgrade Grade Crossings	NR	0.0	0.0	0.0	1.5	0.0	1.5
07 Replace High Cycle Relays	NR	0.0	0.2	0.2	0.2	0.2	0.8
09 Fire Suppression Systems	NR	0.0	0.0	0.7	0.1	0.0	0.8
11 West of Hudson Signal Improvements	NR	0.0	0.0	21.1	0.0	0.0	21.1
12 Harlem Wayside Comm & Signal Improvements	NR	0.0	0.0	38.4	0.0	0.0	38.4
Element Total 01		\$0.0	\$64.4	\$135.3	\$66.8	\$0.2	\$266.7
Category Total 704		\$0.0	\$64.4	\$135.3	\$66.8	\$0.2	\$266.7

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** Savings expected due to efficiencies

Numbers may not add due to rounding

Metro-North Railroad

POWER
M - 705

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 POWER							
01 Replace MA's in Signal Substations	NR	0.0	0.0	2.6	12.4	0.0	15.0
02 Transformer Rehabilitation	NR	0.0	0.0	2.9	1.4	1.0	5.2
03 Replace AC Circuit Breaker/Switchgear	NR	0.0	0.0	2.9	0.7	0.3	3.9
04 Harlem & Hudson Power Rehabilitation	NR	0.0	0.0	11.9	3.1	0.0	15.0
05 Harlem and Hudson Power Improvements	NR	0.0	1.6	1.0	15.3	0.0	17.9
06 Three Substation Replacements	NR	0.0	0.0	0.0	3.0	15.4	18.4
07 3rd Rail Component Replacement	NR	0.0	0.0	0.0	5.0	5.0	10.0
08 Replace 3rd Rail Sectionalizing Switches	NR	0.0	0.0	0.4	0.0	0.0	0.4
09 Replace Substations 128 and 178	NR	0.0	0.0	0.0	2.8	0.0	2.8
10 Park Avenue Tunnel Power Initiatives	NR	0.0	0.0	1.3	10.8	0.0	12.0
12 Mentoring - Power	NR	0.0	0.0	3.0	0.0	0.0	3.0
13 H&H Power (86th St / 110th St)	NR	0.0	0.0	10.0	0.0	0.0	10.0
Element Total 01		\$0.0	\$1.6	\$36.0	\$54.4	\$21.6	\$113.6
Category Total 705		\$0.0	\$1.6	\$36.0	\$54.4	\$21.6	\$113.6

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Metro-North Railroad

SHOPS AND YARDS

M - 706

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 SHOPS AND YARDS							
01 Harmon Shop Replacement - Phase V	SGR	0.0	3.1	5.0	395.3	28.2	431.6
02 Harmon Wheel True Improvements	NR	0.0	0.0	2.0	0.0	0.0	2.0
03 Brewster YD Improvements - Design	SI	0.0	0.0	0.0	4.2	0.0	4.2
04 West of Hudson Capacity Improvements	SI	0.0	0.0	9.2	8.0	7.0	24.2
05 Mentoring Program - Shops and Yards	SGR	0.0	0.0	3.7	6.4	0.0	10.0
Element Total 01		\$0.0	\$3.1	\$19.9	\$413.8	\$35.2	\$472.0
Category Total 706		\$0.0	\$3.1	\$19.9	\$413.8	\$35.2	\$472.0

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Metro-North Railroad

MISCELLANEOUS

M - 708

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 MISCELLANEOUS							
01 Systemwide Lead/Asbestos Abatement	NR	0.0	0.0	1.0	1.0	1.0	3.0
02 Environmental Remediation	NR	0.0	0.0	2.0	0.0	0.0	2.0
03 Railroad Protective Liability		0.0	0.1	1.5	1.4	1.5	4.5
04 Independent Engineer		0.0	3.1	0.0	4.9	0.0	8.0
06 Program Administration		8.1	11.1	11.3	11.2	11.2	53.0
07 Program Scope Development		3.0	3.6	6.2	3.6	3.6	20.0
08 OCIP - Insurance		2.0	3.4	8.0	0.0	8.0	21.5
09 GCT/ESA Investments	SI	11.3	3.8	6.8	0.1	0.0	21.9
10 Systemwide Security Initiatives	SI	0.0	0.0	3.5	6.0	7.4	16.9
11 EAM Reserve		0.0	0.0	0.0	2.0	11.0	13.0
Element Total 01		\$24.4	\$25.1	\$40.3	\$30.2	\$43.7	\$163.7
Category Total 708		\$24.4	\$25.1	\$40.3	\$30.2	\$43.7	\$163.7
TOTAL PROGRAM		\$45.7	\$286.5	\$1,041.3	\$805.7	\$234.7	\$2,413.9

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Commuter Railroad Agency Summary

Commitments
(\$ in millions)

AGENCY	2015	2016	2017	2018	2019	Total All Years
TOTAL Long Island Rail Road	\$143.1	\$568.3	\$1,258.0	\$717.0	\$269.7	\$2,956.1
TOTAL Metro-North Railroad	\$45.7	\$286.5	\$1,041.3	\$805.7	\$234.7	\$2,413.9
TOTAL COMMUTER RAILROAD AGENCY PROGRAM	\$188.8	\$854.8	\$2,299.3	\$1,522.7	\$504.4	\$5,370.0

* Represents values less than \$50,000

Numbers may not add due to rounding

** Savings expected due to efficiencies

MTA Bus Company

BUS COMPANY PROJECTS

U - 703

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
02 BUS COMPANY PROJECTS							
01 Purchase 53 Articulated Buses	NR	0.0	53.2	0.0	0.0	0.0	53.2
02 Purchase 257 Express Buses	NR	0.0	0.0	192.5	0.0	0.0	192.5
04 Depot Bus Location System - MTA Bus	SI	0.0	0.0	5.2	0.0	0.0	5.2
05 On-Board Audio Visual Ph 2 - MTA Bus	SI	0.0	0.0	7.5	0.0	0.0	7.5
06 Automated Passenger Counting Pilot & Ph 1	SI	0.0	0.0	0.0	1.9	0.0	1.9
07 Component Rehab: LaGuardia, Baisley Pk [SBDP] **	SGR	0.0	0.0	0.0	10.8	0.0	10.8
08 Rehab and Facility Upgrade: Spring Creek [SBDP] **	NR	0.0	0.0	8.2	0.0	0.0	8.2
09 Rehab and Facility Upgrade: College Pt [SBDP] **	SGR	0.0	0.0	0.0	9.5	0.0	9.5
10 Paint Booths: Eastchester, College Point [SBDP] **	NR	0.0	0.0	0.0	4.9	0.0	4.9
11 Bus Radio System - MTA Bus Share	NR	0.0	34.5	0.0	0.0	0.0	34.5
12 Environmental Remediation **	NR	0.0	0.0	0.0	0.0	4.5	4.5
13 Chassis Wash: Eastchester Depot [SBDP]	NR	0.0	0.0	0.0	2.5	0.0	2.5
14 MTA Bus Rubber Tire Service Vehicles 2015-19	NR	0.0	0.0	0.0	3.6	0.0	3.6
15 Project Administration		0.0	0.0	0.0	10.5	0.0	10.5
16 Design/Engineering Management Services		0.4	0.8	0.8	0.8	0.8	3.4
17 Construction Management Services		0.0	0.0	0.0	3.4	0.0	3.4
18 JFK Windows Replacement [SBDP]	NR	0.0	0.0	0.0	3.0	0.0	3.0
19 Purchase 25 Standard Diesel Buses	NR	0.0	0.0	0.0	16.8	0.0	16.8
Element Total 02		\$0.4	\$88.4	\$214.3	\$67.7	\$5.3	\$376.0
Category Total 703		\$0.4	\$88.4	\$214.3	\$67.7	\$5.3	\$376.0
TOTAL PROGRAM		\$0.4	\$88.4	\$214.3	\$67.7	\$5.3	\$376.0

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 MTA MENTORING PROGRAM ADMIN							
01	MTA SBDP Construction Management (Scope A)	0.0	0.0	46.7	0.0	0.0	46.7
02	MTA SBDP Business Development (Scope B)	0.0	10.7	0.0	0.0	0.0	10.7
Element Total 01		\$0.0	\$10.7	\$46.7	\$0.0	\$0.0	\$57.4
Category Total 700		\$0.0	\$10.7	\$46.7	\$0.0	\$0.0	\$57.4

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 MTA POLICE DEPARTMENT							
01 Public Radio Phase 3	SI	0.0	28.5	0.0	0.0	0.0	28.5
02 Poughkeepsie Facility	NR	0.0	0.0	2.0	0.0	0.0	2.0
03 Other Facilities	NR	0.0	0.0	2.3	0.0	0.0	2.3
04 REP-ESU Fleet	NR	0.0	0.0	0.7	0.0	0.0	0.7
05 Program Management	NR	0.0	1.0	1.0	1.5	1.5	5.0
Element Total 01		\$0.0	\$29.5	\$6.0	\$1.5	\$1.5	\$38.5
Category Total 710		\$0.0	\$29.5	\$6.0	\$1.5	\$1.5	\$38.5

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 MTA PLANNING INITIATIVES							
01 Core Planning Support	SI	0.0	2.5	2.5	2.5	2.5	10.0
02 Corridor Planning Support	SI	0.0	2.5	2.5	2.5	2.5	10.0
03 Capital Program Support	SI	0.0	20.0	35.0	35.0	35.0	125.0
04 Urban Core Infrastructure Reserve	SI	0.0	20.0	20.0	20.0	20.0	80.0
Element Total 01		\$0.0	\$45.0	\$60.0	\$60.0	\$60.0	\$225.0
Category Total 711		\$0.0	\$45.0	\$60.0	\$60.0	\$60.0	\$225.0
TOTAL PROGRAM		\$0.0	\$85.2	\$112.7	\$61.5	\$61.5	\$320.9

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

MTA Interagency Summary

Commitments
(\$ in millions)

AGENCY	2015	2016	2017	2018	2019	Total All Years
TOTAL MTA POLICE DEPARTMENT	\$0.0	\$29.5	\$6.0	\$1.5	\$1.5	\$38.5
TOTAL MTA PLANNING	\$0.0	\$45.0	\$60.0	\$60.0	\$60.0	\$225.0
TOTAL MTA MENTORING PROGRAM	\$0.0	\$10.7	\$46.7	\$0	\$0	\$57.4
TOTAL MTA INTERAGENCY	\$0.0	\$85.2	\$112.7	\$61.5	\$61.5	\$320.9

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Capital Construction Company

EAST SIDE ACCESS

G - 709

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 EAST SIDE ACCESS							
01 Program Management	NE	10.4	9.7	7.5	4.9	0.0	32.6
02 Design - GEC	NE	18.0	10.5	6.5	3.2	0.8	39.0
03 MTA Management	NE	12.0	9.9	9.3	12.6	0.0	43.9
05 Manh Structures 1-MNR ForcAcct	NE	0.0	10.9	8.1	0.0	0.0	19.0
11 OCIP	NE	20.9	76.2	0.0	0.0	0.0	97.1
13 Construction Management	NE	47.9	51.3	38.3	20.4	0.0	157.9
15 Vertical Circulation Elements	NE	0.0	0.0	5.6	0.0	0.0	5.6
16 General Conditions	NE	11.1	9.2	8.8	7.4	0.0	36.5
18 Harold Interlocking ForceAcct	NE	0.0	19.6	21.9	15.5	8.5	65.5
21 Mid-Day Storage Yard Facility	NE	266.0	0.0	0.0	0.0	0.0	266.0
23 Harold Structures EBRR & WBBP	NE	0.0	26.6	1.3	0.0	0.0	27.9
24 EBRR	NE	0.0	0.0	77.3	2.3	1.0	80.5
27 FA Systems Testing & Commissioning	NE	0.0	0.8	6.2	8.9	9.6	25.4
32 Management Reserve	NE	0.0	20.3	20.8	0.0	0.0	41.0
34 Protect Locomotives	NE	7.5	0.0	0.0	0.0	0.0	7.5
35 Systems Package 1 - Facilities	NE	225.2	0.0	13.3	0.0	0.0	238.5
36 Systems Package 2 - Tunnel Systems	NE	37.5	0.0	0.0	0.0	0.0	37.5
38 Force Account Warehouse	NE	0.0	2.9	1.3	0.5	0.0	4.7
39 Utilities	NE	7.0	10.3	6.3	5.4	6.3	35.3
40 Construction Management - Other	NE	5.4	10.4	7.2	1.4	0.0	24.4
41 A Tunnel/D Approach Structure	NE	42.9	4.7	0.0	0.0	0.0	47.6
42 GCT Caverns	NE	777.4	0.0	0.0	0.0	0.0	777.4
44 Arts For Transit	NE	0.0	1.7	0.0	0.0	0.0	1.7
45 48th St Entrance at 415 Madison Ave	NE	0.0	16.8	0.0	0.0	0.0	16.8
46 Caverns and Concourse Detailing	NE	0.0	5.0	10.0	5.0	0.0	20.0
47 Building Owner Cost	NE	1.0	0.0	0.0	0.0	0.0	1.0
49 Material Warranties	NE	7.2	7.2	0.0	0.0	0.0	14.3
50 Operational Readiness Training	NE	0.0	0.0	0.0	3.6	0.0	3.6
51 Test Trains	NE	0.0	0.0	0.0	1.8	0.0	1.8
52 Force Account Support	NE	0.0	2.2	0.0	0.0	0.0	2.2
53 Project Management Contingency	NE	0.0	0.0	35.0	0.0	29.0	64.0
54 Cab Simulator	NE	0.0	4.3	0.0	0.0	0.0	4.3
55 Program Contingency	NE	21.5	25.0	15.0	0.0	0.0	61.5
Element Total 01		\$1,518.8	\$335.5	\$299.8	\$92.9	\$55.2	\$2,302.2
Category Total 709		\$1,518.8	\$335.5	\$299.8	\$92.9	\$55.2	\$2,302.2

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Capital Construction Company FULL LENGTH SECOND AVE SUBWAY
G - 710

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 FULL LENGTH SECOND AVE SUBWAY							
01 SAS 2 PE, Design & Environmental	NE	0.0	135.0	0.0	0.0	0.0	135.0
04 SAS 2 Construction Management	NE	0.0	0.0	0.0	50.0	0.0	50.0
05 SAS 2 Project Support	NE	0.0	20.0	0.0	20.0	0.0	40.0
07 SAS 2 Prelim Const/Utilities	NE	0.0	0.0	0.0	0.0	270.0	270.0
98 SAS 2 Real Estate	NE	0.0	0.0	40.0	0.0	0.0	40.0
99 SAS 2 Reserve	NE	0.0	0.0	0.0	0.0	1,200.0	1,200.0
Element Total 01		\$0.0	\$155.0	\$40.0	\$70.0	\$1,470.0	\$1,735.0
Category Total 710		\$0.0	\$155.0	\$40.0	\$70.0	\$1,470.0	\$1,735.0

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Capital Construction Company

PENN STATION ACCESS

G - 711

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 PENN STATION ACCESS							
01 PSA: Pre Design / Design	NE	0.0	31.1	0.0	0.0	0.0	31.1
02 PSA: Program Management	NE	0.0	9.3	0.0	0.0	0.0	9.3
03 PSA: Construction Management	NE	0.0	0.0	0.0	16.1	15.0	31.1
04 PSA: Track & Structures	NE	0.0	0.0	0.0	237.6	0.0	237.6
05 PSA: Communication and Signals	NE	0.0	0.0	0.0	56.3	0.0	56.3
06 PSA: Power	NE	0.0	0.0	0.0	106.2	0.0	106.2
07 PSA: Stations	NE	0.0	0.0	0.0	0.0	188.0	188.0
08 PSA: Shops & Yards	NE	0.0	0.0	0.0	0.0	30.6	30.6
09 PSA: Rolling Stock Specification	NE	0.0	0.0	0.0	0.0	4.9	4.9
Element Total 01		\$0.0	\$40.4	\$0.0	\$416.2	\$238.5	\$695.0
Category Total 711		\$0.0	\$40.4	\$0.0	\$416.2	\$238.5	\$695.0

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Capital Construction Company

LIRR EXPANSION PROJECT

G - 713

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 LIRR EXPANSION PROJECT							
01 Project Reserve	NE	0.0	0.0	1,500.0	0.0	0.0	1,500.0
02 Grade Crossings Reserve	NE	0.0	0.0	450.0	0.0	0.0	450.0
Element Total 01		\$0.0	\$0.0	\$1,950.0	\$0.0	\$0.0	\$1,950.0
Category Total 713		\$0.0	\$0.0	\$1,950.0	\$0.0	\$0.0	\$1,950.0

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Capital Construction Company

REGIONAL INVESTMENTS

G - 714

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 REGIONAL INVESTMENTS							
01 WBBP & EBRR F/A Connections	NE	0.0	0.0	0.0	3.9	0.0	3.9
02 East Bound Re-Route	NE	0.0	0.0	0.0	0.0	46.1	46.1
04 Loop & T Interlockings	NE	0.0	0.0	0.0	3.9	3.9	7.9
07 GCT Concourse & Facilities Part 2	NE	0.0	0.0	0.8	0.0	0.0	0.8
12 Sunnyside Station	NE	0.0	0.0	10.0	0.0	66.5	76.5
13 Harold Loop Civil Structures - Part 4	NE	0.0	0.0	0.0	0.0	57.8	57.8
Element Total 01		\$0.0	\$0.0	\$10.8	\$7.8	\$174.3	\$193.0
Category Total 714		\$0.0	\$0.0	\$10.8	\$7.8	\$174.3	\$193.0

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Capital Construction Company

ESA RS /ESA RISK RESERVE

G - 715

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 ESA RS /ESA RISK RESERVE							
02 Risk Reserve	NE	0.0	0.0	0.0	0.0	131.0	131.0
Element Total 01		\$0.0	\$0.0	\$0.0	\$0.0	\$131.0	\$131.0
Category Total 715		\$0.0	\$0.0	\$0.0	\$0.0	\$131.0	\$131.0

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Capital Construction Company

MISCELLANEOUS

G - 716

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
01 MISCELLANEOUS							
01	Misc Engineering/Program Support	0.0	27.9	27.9	27.9	27.9	111.6
02	MTA Independent Engineering Consultant	0.0	8.6	0.0	4.0	4.2	16.8
Element Total 01		\$0.0	\$36.5	\$27.9	\$31.9	\$32.1	\$128.5
Category Total 716		\$0.0	\$36.5	\$27.9	\$31.9	\$32.1	\$128.5
TOTAL PROGRAM		\$1,518.8	\$567.3	\$2,328.5	\$618.8	\$2,101.1	\$7,134.6

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

CPRB Agency Summary

AGENCY	Commitments (\$ in millions)					Total All Years
	2015	2016	2017	2018	2019	
TOTAL New York City Transit	\$669.2	\$3,630.9	\$6,868.3	\$3,540.2	\$1,606.8	\$16,315.4
TOTAL Long Island Rail Road	\$143.1	\$568.3	\$1,258.0	\$717.0	\$269.7	\$2,956.1
TOTAL Metro-North Railroad	\$45.7	\$286.5	\$1,041.3	\$805.7	\$234.7	\$2,413.9
TOTAL MTA Bus Company	\$0.4	\$88.4	\$214.3	\$67.7	\$5.3	\$376.0
TOTAL MTA Interagency	\$0.0	\$85.2	\$112.7	\$61.5	\$61.5	\$320.9
Core Subtotal	\$858.4	\$4,659.3	\$9,494.5	\$5,192.1	\$2,177.9	\$22,382.2
TOTAL Capital Construction Company	\$1,518.8	\$567.3	\$2,328.5	\$618.8	\$2,101.1	\$7,134.6
TOTAL 2015-2019 CPRB PROGRAM	\$2,377.3	\$5,226.6	\$11,823.0	\$5,810.9	\$4,279.0	\$29,516.8

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Bridges and Tunnels

STRUCTURES

D - 701

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
AW AGENCY-WIDE							
98 Tunnel Vulnerability Improvements - Phase 2	NR	0.0	0.0	4.6	0.0	0.5	5.1
Element Total AW		\$0.0	\$0.0	\$4.6	\$0.0	\$0.5	\$5.1
BW BRONX-WHITESTONE BRIDGE							
07 Fender Protection around Tower Piers (Const)	NR	0.0	0.5	0.0	18.8	0.0	19.3
14 Miscellaneous Structural Rehabilitation	NR	20.3	0.0	0.0	0.0	0.0	20.3
84 Cable & Suspender Rope Investigation/Testing	NR	10.5	0.0	0.0	0.0	0.0	10.5
Element Total BW		\$30.7	\$0.5	\$0.0	\$18.8	\$0.0	\$50.0
CB CROSS BAY BRIDGE							
18 CB Scour Protect/Repair/Rpl CB/MP Pier Fender Sys	NR	0.1	0.6	0.0	48.2	0.0	48.9
Element Total CB		\$0.1	\$0.6	\$0.0	\$48.2	\$0.0	\$48.9
HH HENRY HUDSON BRIDGE							
07 Structural Rehabilitation	NR	0.1	1.7	0.0	2.2	19.7	23.7
89 Skewback Retrofit	NR	0.0	4.4	95.5	0.0	0.5	100.4
Element Total HH		\$0.1	\$6.1	\$95.5	\$2.2	\$20.3	\$124.1
QM QUEENS MIDTOWN TUNNEL							
18 Manhattan/Queens Plaza Structural Rehab	NR	0.0	0.0	0.0	0.0	0.0	0.0*
Element Total QM		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
RK ROBERT F. KENNEDY BRIDGE							
04 Queens Anchorage Rehabilitation	NR	0.0	2.4	0.0	0.0	0.0	2.4
19 Seismic/Wind Retrofit & Structural Rehab Ph1	NR	0.1	0.2	4.3	0.6	63.1	68.2
20 Cable Inspection and Rehabilitation	NR	0.0	0.1	3.1	0.0	13.2	16.3
22 Interim Repairs - FDR Ramp	NR	0.0	0.0	25.9	0.0	0.0	25.9
70 Miscellaneous Structural Rehabilitation	NR	0.1	0.2	4.5	0.0	89.0	93.8
Element Total RK		\$0.1	\$2.9	\$37.7	\$0.6	\$165.3	\$206.6
TN THROGS NECK BRIDGE							
53 Approach Viaduct Seismic Retrofit/Structural Rehab	NR	0.0	7.9	3.0	151.5	0.0	162.5
87 Design for Anchorage & Tower Protection	NR	0.0	0.0	0.1	6.6	0.0	6.7
Element Total TN		\$0.0	\$7.9	\$3.0	\$158.1	\$0.0	\$169.1

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Bridges and Tunnels

STRUCTURES

D - 701

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years	
VN VERRAZANO-NARROWS BRIDGE								
10	Anchorage & Piers Rehabilitation and Sealing	NR	3.4	0.0	1.0	44.5	0.0	49.0
32	Steel Repair & Concrete Rehabilitation	NR	0.0	0.0	0.5	1.8	31.6	33.8
34	Main Cable & Suspender Rope Testing - Phase 1	NR	0.0	0.0	43.1	0.0	0.0	43.1
89	Tower Pier Rehab/Construct Mooring Platform	NR	1.1	0.0	0.0	20.6	0.0	21.8
Element Total VN			\$4.6	\$0.0	\$44.6	\$67.0	\$31.6	\$147.7
Category Total 701			\$35.6	\$18.1	\$185.4	\$294.9	\$217.6	\$751.6

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Bridges and Tunnels

ROADWAYS & DECKS

D - 702

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
AW AGENCY-WIDE							
X1 Replace Manhattan Plaza Pedestrian Bridge	NR	0.0	0.0	7.8	0.0	2.2	10.0
Element Total AW		\$0.0	\$0.0	\$7.8	\$0.0	\$2.2	\$10.0
RK ROBERT F. KENNEDY BRIDGE							
23 Construction of New Harlem River Drive Ramp	SI	0.0	22.9	0.5	0.1	111.9	135.4
65 Reconstruct Manhattan Toll Plaza Structure & Ramps	NR	0.0	0.1	12.8	0.0	22.2	35.1
Element Total RK		\$0.0	\$23.0	\$13.3	\$0.1	\$134.1	\$170.4
TN THROGS NECK BRIDGE							
49 Replacement of Grid Decks on Suspended Span	NR	0.0	0.0	0.0	305.9	0.0	305.9
55 Study for Bx/Queens Approach Viaduct Replacement	NR	0.0	0.0	12.8	0.0	0.0	12.8
Element Total TN		\$0.0	\$0.0	\$12.8	\$305.9	\$0.0	\$318.7
VN VERRAZANO-NARROWS BRIDGE							
11 Brooklyn Approach Reconstruction	SI	0.0	2.0	0.0	0.0	29.1	31.1
80 Prelim Design for Suspended Span Lower Level Deck	NR	0.0	0.0	0.1	6.6	0.0	6.7
84 Reconstruction of VN Approach Ramps - Phase1	NR	0.0	16.3	0.0	0.0	269.7	286.0
86 Design for Belt Parkway Ramps Widening	NR	0.0	0.0	0.1	4.6	0.0	4.6
Element Total VN		\$0.0	\$18.3	\$0.1	\$11.2	\$298.8	\$328.5
Category Total 702		\$0.0	\$41.3	\$33.9	\$317.1	\$435.2	\$827.6

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Bridges and Tunnels

TOLL PLAZAS & ATMS

D - 703

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
AW AGENCY-WIDE							
32 Installation of Rotating Prism Signs	NR	0.2	0.1	0.0	0.0	0.0	0.2
36 Install CCTV/FiberOptic Infrastructure/Integration	SI	0.0	0.0	1.2	0.0	9.5	10.7
52 Traffic Detection/Incident Mgmt Systems	SI	0.0	0.0	3.0	0.0	0.0	3.0
57 Advanced Traffic Mgmt Systems Enhancement/Upgrade	SI	0.0	0.4	0.0	7.7	0.0	8.1
63 Replace Toll Equipment & New Toll Initiatives	NR	0.0	79.7	12.7	0.0	0.0	92.4
65 Toll Collection System Rehabilitation/Upgrades	NR	0.4	24.9	17.1	0.0	0.0	42.5
Element Total AW		\$0.6	\$105.2	\$34.0	\$7.7	\$9.5	\$156.9
BW BRONX-WHITESTONE BRIDGE							
63 Open Road Tolling Initiative at BWB	SI	0.0	38.3	6.0	0.0	0.0	44.3
Element Total BW		\$0.0	\$38.3	\$6.0	\$0.0	\$0.0	\$44.3
CB CROSS BAY BRIDGE							
63 Open Road Tolling Initiative at CBB	SI	0.0	11.8	6.3	0.0	0.0	18.1
Element Total CB		\$0.0	\$11.8	\$6.3	\$0.0	\$0.0	\$18.1
HC HUGH L. CAREY TUNNEL							
63 Open Road Tolling Initiative at HLCT	SI	0.0	11.4	13.7	0.0	0.0	25.0
Element Total HC		\$0.0	\$11.4	\$13.7	\$0.0	\$0.0	\$25.0
HH HENRY HUDSON BRIDGE							
63 Open Road Tolling/Aesthetics	SI	0.0	0.0	7.7	0.0	0.0	7.7
88 Toll Plazas & Southbound Approach Reconstruction	NR	0.0	4.3	94.7	0.0	2.5	101.5
Element Total HH		\$0.0	\$4.3	\$102.3	\$0.0	\$2.5	\$109.1
MP MARINE PARKWAY BRIDGE							
63 Open Road Tolling Initiative at MPB	SI	0.0	11.9	6.5	0.0	0.0	18.4
Element Total MP		\$0.0	\$11.9	\$6.5	\$0.0	\$0.0	\$18.4
QM QUEENS MIDTOWN TUNNEL							
63 Open Road Tolling Initiative at QMT	SI	0.0	19.0	16.6	0.0	0.0	35.6
Element Total QM		\$0.0	\$19.0	\$16.6	\$0.0	\$0.0	\$35.6
RK ROBERT F. KENNEDY BRIDGE							
63 Open Road Tolling Initiative at RFK	SI	0.0	49.9	49.8	0.0	0.0	99.7
Element Total RK		\$0.0	\$49.9	\$49.8	\$0.0	\$0.0	\$99.7
TN THROGS NECK BRIDGE							
63 Open Road Tolling Initiative at TNB	SI	0.0	44.8	6.0	0.0	0.0	50.8
Element Total TN		\$0.0	\$44.8	\$6.0	\$0.0	\$0.0	\$50.8

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Bridges and Tunnels

TOLL PLAZAS & ATMS

D - 703

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
VN VERRAZANO-NARROWS BRIDGE							
63 Open Road Tolling Initiative at VNB	SI	0.0	57.7	9.6	0.0	0.0	67.4
Element Total VN		\$0.0	\$57.7	\$9.6	\$0.0	\$0.0	\$67.4
Category Total 703		\$0.6	\$354.2	\$250.9	\$7.7	\$12.0	\$625.4

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Bridges and Tunnels

UTILITIES

D - 704

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
AW AGENCY-WIDE							
80 Advanced Traveler Information Systems (ATIS)	SI	0.0	0.8	0.5	0.0	0.0	1.2
81 LED Roadway Display Signs	SI	0.0	0.0	10.0	0.0	0.0	10.0
X3 Bridge Structural Health Monitoring Initiatives	NR	0.0	0.0	0.0	0.6	8.5	9.1
Element Total AW		\$0.0	\$0.8	\$10.5	\$0.6	\$8.5	\$20.4
BW BRONX-WHITESTONE BRIDGE							
32 Installation of Fire Standpipe Connections	NR	0.1	0.3	0.0	6.9	0.0	7.3
39 Install Electronic Monitoring & Detection Systems	SI	0.1	0.0	29.8	0.0	0.0	29.9
Element Total BW		\$0.1	\$0.3	\$29.8	\$6.9	\$0.0	\$37.1
HC HUGH L. CAREY TUNNEL							
07 Rehabilitation of HCT Ventilation Systems	NR	0.0	0.1	0.8	84.7	0.0	85.5
30 Installation of Smoke Detection/Alarm Systems	NR	0.0	0.1	0.7	9.8	0.0	10.6
64 Brooklyn Service Building Electrical Rehab.	NR	0.0	0.1	1.0	6.3	0.0	7.3
Element Total HC		\$0.0	\$0.2	\$2.4	\$100.8	\$0.0	\$103.4
HH HENRY HUDSON BRIDGE							
13 Replacement of Facility Lighting System	NR	1.2	0.3	12.7	0.0	0.0	14.1
19 Replacement and Upgrade of Substations	NR	0.0	0.0	0.0	0.0	2.1	2.1
Element Total HH		\$1.2	\$0.3	\$12.7	\$0.0	\$2.1	\$16.2
QM QUEENS MIDTOWN TUNNEL							
81 Rehab of Tunnel Controls & Communication Systems	NR	0.0	0.0	0.0	42.2	0.0	42.2
91 Installation of Smoke Detection/Alarm Systems	NR	0.0	0.1	0.7	6.3	0.0	7.0
Element Total QM		\$0.0	\$0.1	\$0.7	\$48.5	\$0.0	\$49.2
RK ROBERT F. KENNEDY BRIDGE							
07 Electrical/Mechanical Rehab of HR Lift Span	NR	0.0	0.3	21.7	0.0	0.0	22.0
21 Install Fire Standpipe/Upgrade Protection System	SI	0.2	2.6	19.8	0.0	0.0	22.6
60 Install Electronic Monitoring & Detection Systems	SI	0.0	0.0	42.4	0.0	0.0	42.4
66 Relocation of 13KV Substation	NR	0.0	0.0	0.0	35.1	0.0	35.1
Element Total RK		\$0.2	\$2.9	\$83.8	\$35.1	\$0.0	\$122.0
TN THROGS NECK BRIDGE							
27 Install Service Building Alarm Systems & Upgrades	NR	0.0	0.0	1.3	0.0	0.0	1.3
58 Replace Electrical Eqmt & Rehab Tower Elevator	NR	0.0	0.0	0.6	0.0	2.2	2.8
60 Anchorage Dehumidification	NR	43.5	0.0	0.0	0.0	0.0	43.5
Element Total TN		\$43.5	\$0.0	\$1.9	\$0.0	\$2.2	\$47.6

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Bridges and Tunnels

UTILITIES

D - 704

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
VN VERRAZANO-NARROWS BRIDGE							
30 Elevator Rehabilitation	NR	0.0	0.0	0.0	8.6	0.0	8.6
Element Total VN		\$0.0	\$0.0	\$0.0	\$8.6	\$0.0	\$8.6
Category Total 704		\$45.1	\$4.5	\$141.7	\$200.6	\$12.8	\$404.6

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Bridges and Tunnels

BUILDINGS & SITES

D - 705

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
AW AGENCY-WIDE							
12 Hazardous Material Abatement	NR	1.7	0.0	9.0	0.0	0.0	10.7
66 Operations Command Center Rehab/Replacement	NR	0.0	2.2	24.1	0.0	0.0	26.3
Element Total AW		\$1.7	\$2.2	\$33.1	\$0.0	\$0.0	\$37.0
HC HUGH L. CAREY TUNNEL							
80 Rehabilitation of Ventilation Buildings	NR	0.0	0.0	0.1	4.7	0.0	4.7
Element Total HC		\$0.0	\$0.0	\$0.1	\$4.7	\$0.0	\$4.7
QM QUEENS MIDTOWN TUNNEL							
36 Rehabilitation of Ventilation Building	NR	0.0	0.0	0.0	3.1	0.0	3.2
Element Total QM		\$0.0	\$0.0	\$0.0	\$3.1	\$0.0	\$3.2
RK ROBERT F. KENNEDY BRIDGE							
58 Rehab Robert Moses Bldg & Ancillary Facilities	NR	0.1	0.0	2.8	0.0	41.0	43.8
Element Total RK		\$0.1	\$0.0	\$2.8	\$0.0	\$41.0	\$43.8
Category Total 705		\$1.7	\$2.2	\$36.0	\$7.8	\$41.0	\$88.7

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Bridges and Tunnels

MISCELLANEOUS

D - 706

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
AW AGENCY-WIDE							
10	Enterprise Asset Management	0.0	3.5	0.5	0.0	0.0	4.0
15	MTA Independent Engineer	0.0	2.3	0.0	0.0	0.2	2.5
18	Protective Liability Insurance	0.0	1.4	3.6	2.5	5.6	13.1
21	Program Administration	2.2	5.6	3.1	3.1	3.6	17.6
22	Miscellaneous	0.0	3.5	2.0	0.0	0.0	5.4
28	Scope Development	2.9	2.5	3.0	1.6	2.5	12.5
85	Traffic Enforcement Support	0.0	7.8	0.0	0.0	0.0	7.8
94	Small Business Mentoring Program	0.0	3.7	0.0	0.0	0.0	3.7
Element Total AW		\$5.1	\$30.3	\$12.1	\$7.2	\$11.9	\$66.6
Category Total 706		\$5.1	\$30.3	\$12.1	\$7.2	\$11.9	\$66.6

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

Bridges and Tunnels

STRUCTURAL PAINTING

D - 707

Commitments
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
AW AGENCY-WIDE							
95 Miscellaneous Agency Wide Painting	NR	0.0	0.0	0.0	14.3	0.0	14.3
Element Total AW		\$0.0	\$0.0	\$0.0	\$14.3	\$0.0	\$14.3
BW BRONX-WHITESTONE BRIDGE							
84 Paint Tower Interior Base Cells and Struts	NR	33.0	0.0	0.0	0.0	0.0	33.0
Element Total BW		\$33.0	\$0.0	\$0.0	\$0.0	\$0.0	\$33.0
HH HENRY HUDSON BRIDGE							
30 Replacement of HHB Overcoat System	NR	0.0	0.9	0.0	2.6	17.2	20.6
Element Total HH		\$0.0	\$0.9	\$0.0	\$2.6	\$17.2	\$20.6
RK ROBERT F. KENNEDY BRIDGE							
70 Paint Suspended Span/Bronx Truss Steel	NR	0.0	0.2	0.3	0.0	31.6	32.1
Element Total RK		\$0.0	\$0.2	\$0.3	\$0.0	\$31.6	\$32.1
TN THROGS NECK BRIDGE							
49 Painting of Suspended Span	NR	0.0	0.0	0.0	26.0	0.0	26.0
60 Anchorage Dehumidification - Painting	NR	8.2	0.0	0.0	0.0	0.0	8.2
Element Total TN		\$8.2	\$0.0	\$0.0	\$26.0	\$0.0	\$34.2
VN VERRAZANO-NARROWS BRIDGE							
49 Paint Suspended Span Upper & Lower Level Steel	NR	0.1	1.1	0.0	40.6	0.0	41.7
Element Total VN		\$0.1	\$1.1	\$0.0	\$40.6	\$0.0	\$41.7
Category Total 707		\$41.3	\$2.2	\$0.3	\$83.4	\$48.8	\$176.0
TOTAL PROGRAM		\$129.3	\$452.8	\$660.4	\$918.7	\$779.2	\$2,940.4

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding

All Agency Summary

AGENCY	Commitments (\$ in millions)					Total All Years
	2015	2016	2017	2018	2019	
TOTAL New York City Transit	\$669.2	\$3,630.9	\$6,868.3	\$3,540.2	\$1,606.8	\$16,315.4
TOTAL Long Island Rail Road	\$143.1	\$568.3	\$1,258.0	\$717.0	\$269.7	\$2,956.1
TOTAL Metro-North Railroad	\$45.7	\$286.5	\$1,041.3	\$805.7	\$234.7	\$2,413.9
TOTAL MTA Bus Company	\$0.4	\$88.4	\$214.3	\$67.7	\$5.3	\$376.0
TOTAL MTA Interagency	\$0.0	\$85.2	\$112.7	\$61.5	\$61.5	\$320.9
Core Subtotal	\$858.4	\$4,659.3	\$9,494.5	\$5,192.1	\$2,177.9	\$22,382.2
TOTAL Capital Construction Company	\$1,518.8	\$567.3	\$2,328.5	\$618.8	\$2,101.1	\$7,134.6
TOTAL 2015-2019 CPRB PROGRAM	\$2,377.3	\$5,226.6	\$11,823.0	\$5,810.9	\$4,279.0	\$29,516.8
TOTAL Bridges and Tunnels	\$129.3	\$452.8	\$660.4	\$918.7	\$779.2	\$2,940.4
TOTAL 2015-2019 CAPITAL PROGRAM	\$2,506.6	\$5,679.4	\$12,483.5	\$6,729.6	\$5,058.2	\$32,457.3

* Represents values less than \$50,000

** Savings expected due to efficiencies

Numbers may not add due to rounding