The MTA Capital Program Executive Summary 2010-2014



Approved by the MTA Capital Program Review Board

June 2010



One of my first actions as MTA Chairman was to mandate an overhaul of the way the MTA does business.

This type of overhaul is equally important in our capital program work.



Metropolitan Transportation Authority

Letter from the Chairman and CEO



Thirty years ago, in the face of an economic crisis, the leaders of our State and City took a stand and refused to watch our transportation infrastructure crumble. Thanks to their perseverance, the legislature put in place a roadmap for investing in the MTA network that has guided us through a remarkable revitalization. Three decades and \$64 billion later, the MTA's transportation system has evolved into a modern, safe, reliable and vital network.

These, too, are extraordinarily difficult times. With budget crises on the local, state and federal level, it is tempting to put long-term investments on hold, to say that we'll invest in transportation when times are better. But if we learned anything from the 1970s, it was that our transportation network cannot withstand the strain of disinvestment. Devastating deterioration to safety, service and ridership happens in the blink of any eye, but takes decades to reverse.

While continued investment is crucial, the MTA cannot manage its capital program as it did when the economy was booming. One of my first actions as MTA Chairman was to mandate an overhaul of the way the MTA does business, reducing costs and increasing efficiency in every part of our operation. This type of overhaul is equally important in our capital program work.

As a first step in that process, we reevaluated the projects in the 2010-2014 Capital Program that was submitted last fall. These reviews have driven costs out of our program, reducing this plan by \$1.8 billion. We now have a stronger, more focused program. It maintains service reliability and safety. It improves and expands service. It reduces costs or maximizes earlier investments.

The rescue package passed last May by our State legislators acknowledged the importance of the five-year planning framework and provided funding for the first two years. Consistent with that direction, the MTA Capital Program Review Board has approved our fiveyear capital plan and work is underway. Nonetheless, full funding remains vitally important to keep our transportation network alive and well, and we will continue to work with our partners in government to find the resources required for the final three years of this plan.

Thirty years ago, our civic leaders stood up and accomplished what many thought to be impossible. Because we succeeded in revitalizing the transit system, it has become a fundamental part of New York's recovery. It is now our competitive advantage as we weather another difficult period. Today, we are the leaders who must take a strong stand. The capital program we propose in the following pages fully recognizes the economic difficulties we face. It makes sure that every dollar is used effectively for projects that will make a difference to the system and to the region that system serves. It will keep our transportation network vital while supporting economic health and recovery across the state. Our past experience has shown us that consistent investment remains our best, most effective long-term strategy. Our future demands our action.

Yours truly,

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2010-2014 MTA Capital Program:

A New Way of Doing Business

The 2010-2014 Capital Program has been reduced by nearly \$2 billion.

We now have a stronger, more focused program.

The 2010-2014 Capital Program reflects a new way of doing business at the MTA. The plan has been developed to maximize cost effectiveness and efficiency, in addition to improving safety, reliability and service. This approach has helped strip nearly \$2 billion from the program submitted last year. Projects included in this approved capital plan will reduce annual operating costs with designs that allow us to work more efficiently, realizing ongoing savings that maximize our investment long after each project is completed.

The program has been developed to maximize cost effectiveness and efficiency.

This new approach can be seen throughout the 2010-2014 Program

Subway Stations The old MTA strategy for fixing stations has become unsustainable, with typical costs ranging from \$30 - 60 million per station, a long backlog of stations to be renovated and no comprehensive maintenance plan to maintain these stations going forward.

NEW APPROACH: NYC Transit will systematically replace, repair or rehabilitate only those components that need it, greatly expanding the number of stations that can be improved. Paint and art programs will continue; customers indicate they appreciate the brightness they bring to the station environment. And, taking a lesson from the maintenance program that has kept our subway cars reliable into old age, these stations will then enter a far more aggressive, responsive and sustained maintenance program so that these investments provide lasting benefits.





Shops, Yards & Depots The capital program has historically made investments in agency-specific facilities, replacing shops and yards as necessary but spending hundreds of millions of dollars providing duplicate capacity.

NEW APPROACH: To make the best use of critical capital funds for shops and yards, we will invest in facilities that maximize their ability to serve the needs of more than one agency. Metro-North's new strategic plan for its Harmon Shop is a good example. The new design focuses on critically important equipment repairs only and provides capacity to service locomotives for both MNR and LIRR. This focus reduced the cost of Harmon by \$123 million in this program and eliminated this duplicative function from LIRR's repair shop, reducing its cost by \$76 million as well. In turn, LIRR's existing Hillside facility has capacity to offer MNR that may substitute for additional investments at Harmon.

Rolling Stock Traditionally, train and bus fleets have been replaced primarily based on age. And while new technologies were incorporated in new car designs, the overall structural elements remained the same year after year.

NEW APPROACH: The age of the fleet will no longer be enough to justify investments. Agencies will now determine the best mix of fleet replacement and component overhaul for the lowest price. This new approach reduced costs by over \$800 million in this program. Following the example of international transit systems, specifications will seek to lower overall rail car weight, reducing the cost of cars, the wear on track, and the ongoing energy demands of the traction power required to operate the equipment.



2010-2014 MTA Capital Program: Protecting and Improving Service for Customers



Program Elements	Proposed
Core Program	\$ in millions
New York City Transit	\$12,841
Long Island Rail Road	2,554
Metro-North Railroad	1,703
MTA Bus	325
MTA Wide Security	335
Interagency	315
Core Subtotal	\$18,073
Network Expansion Projects	5,739
Total 2010-2014 CPRB Program	\$23,812
Bridges and Tunnels	2,453
Total 2010-2014 Capital Program	\$26,265

Numbers may not total due to rounding

The MTA's 2010-2014 Capital Program plans \$26.3 billion in projects across the region. While much of the capital program work is done behind the scenes, every investment helps the MTA provide a good service to our customers 365 days a year.

Each project in the capital program will benefit customers in one of three ways:

• Maintain the high levels of service reliability and safety provided today:

The first goal of the MTA's capital program must be to **protect the safety**, **quality and quantity of service that is currently provided**. That means repairing trains, buses and subway cars, and replacing them when their useful life ends. It means maintaining the track, signals, yards, depots and bridges that keep our customers safe and on time. And it means addressing components in our stations in need of repair.

Improve service on the existing system:

The capital program also includes projects that **maximize the capacity of the existing system** and advance customer improvements.

- New signal technology on the #7 subway line (Communications-Based Train Control) will let us run a train nearly every two minutes, carrying about 2,500 more customers each rush hour on this crowded line.
- The MTA's bus divisions will purchase 746 articulated buses, 118 of which will be used to increase capacity along four Select Bus Service corridors developed in partnership with the City of New York.
- Several projects will develop and test new technology to improve the customer experience, from train arrival signs to all-electronic tolling and camera enforcement of bus lanes.
- ••• One of the key initiatives in the capital program is the introduction of a new smart card fare collection system that will make travel easier across the region.

Smart Card Does More than Collect the Fare



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MetroCard, which was installed in the 1990s, is outdated and in need of replacement. New "contactless" technology will allow fare payments for subways, buses, and commuter rail operations of the MTA as well as other regional transportation systems using a single smart card or a cell phone. Smart card technology will produce a 10 percent travel time savings on buses by speeding the boarding process. It will also save up to \$40 million in the annual cost of collecting the fare, and expand options for customizing fare policy to match our customers' needs.

Complete critical expansion projects to ease crowding and support growth:

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The final group of projects in the capital program **expands the MTA's transportation network** for the first time in more than a generation. This program advances our commitment to completing East Side Access and the first phase of the Second Avenue Subway, long overdue projects to reduce travel times and ease the crushing overcrowding on the Lexington Avenue subway.

Economic Benefits for New York

In addition to its benefits for MTA customers, the capital program provides an ongoing source of desperately needed jobs and economic activity in New York State.



The MTA Capital Program creates jobs for NYS communities

The economic impact of the capital program is felt far beyond the MTA service region. Companies across the state play a role building rolling stock, supplying parts or rebuilding infrastructure and working on new facilities. These projects provide jobs in communities from Buffalo to Albany to Plattsburgh and many places in between.

MTA's 2010-2014 Capital Program drives economic growth across the State

- More than 20,000 new jobs annually over nine years
 - Nearly \$37 billion in economic activity/sales

Increase Contractor Diversity:

A larger and more diverse contractor pool ensures the best competition – in price, quality and product variety. To this end, MTA is implementing a new mentoring program with smaller businesses and minority and womenowned businesses, a signature component of our effort to provide opportunities for small business contractors to perform MTA capital work.

New York City Subways - \$10.5 billion

This program protects the historic revitalization of the NYC Transit subway system by replacing more than 50 miles of mainline track, 463 subway cars and 18 miles of tunnel lighting, as well as many other critical investments. New cars will improve customer communication with electronic strip maps, automated announcements and

two-way customer intercoms. Instead of costly and lengthy renovations at only a few stations, a new improvement strategy will fix what is broken at many more stations - and will put repairs on a schedule to keep them fixed. And the program increases investment in signals by 75 percent to boost capacity and reliability for subway riders.

NYC Transit Subway Capital Program Investment Overview 2010-14 (millions)

ategory	Budget	Highlights	Category	Budget	Highlights
olling	\$1,039M	Purchase 463 new subway cars	Line	\$415M	Replace 18 miles of tunnel lighting - \$110M
stock			Equipment		Install new fan plants to remove smoke - \$199M
tations	\$2,287M	Rehabilitate 10 stations that were reprogrammed from the 2005-2009 plan - \$440M			Rehabilitate pump rooms and deep wells to remove water from the system - \$89M
Renew 29 stations and repair component defects at various stations - \$945M Structures Provide full accessibility for elderly and disabled at 8 stations - \$303M Replace five escalators and 21 elevators - \$141M Improve entrances at the Grand Central and Times Square stations - \$44M		Structures	uctures \$536M	Make structural repairs on seven lines - \$206M	
	\$330IM	Paint elevated structures on seven lines - \$207M			
		Replace five escalators and 21 elevators - \$141M			Make various modifications to reduce flooding in the subway - \$79M
•		Improve stations along the Church St. Corridor in Lower Manhattan - \$70M	Track	\$1,404M	Replace 56.5 miles of mainline track and 145 mainline switches
		Implement new smart card fare collection systems and equipment - \$275M	Power	\$306M	Modernize and repair power system equipment and facilities - \$183M
•			•	•	Repair power cable systems - \$123M
`					
_			Shops & Yards	\$395M	Consolidate rail car air-conditioning repair and make other improvements at 207th Street Overhaul Shop - \$232M
New	Subway	y Cars			Make priority repairs at various car maintenance shops - \$53M
	-	ubway cars yay ride seven			Replace 6 miles of track and 40 switches in train storage yards - \$42M

Rail

6.5 miles of welded rail will replace bolted rail. Welded rail is four times less likely to break, further improving service reliability while providing a smoother ride.

times more reliable than on the cars they'll replace.





Category	Budget	Highlights	Category	Budget	Highlights
Signals &	\$3,192M	Replace nine signal interlockings on four lines - \$1,659M	Service	\$124M	Purchase various heavy-duty rail and
Communi- cations		Continue the deployment of advanced Communications Based Train Control (CBTC) signals on three lines and convert subway cars for CBTC	Vehicles		road vehicles to support construction and operations
•		operation - \$577M	Miscellaneous	\$681M	Progress designs, project scopes and
		Replace and upgrade subway radio systems - \$336M			engineering services - \$272M
		Improve public address systems at stations and provide real time train information - \$276M			Install fire safety systems and remediate hazardous materials - \$143M
		Improve ventilation and other conditions at rooms housing communication equipment - \$84M			Repair employee facilities and various admin- istrative and operations buildings - \$178M
		Make various upgrades to the signal and communication systems, such as replacing cables, control lines, and other support equipment - \$210M	SIRTOA	\$158M	Modify railcars for SIRTOA service - \$20M
		Upgrade signals on Lexington Line to increase capacity - \$51M			Build a new power substation to ensure reliable service - \$32M
					Make various repairs to stations, track, power facilities, and bridges and culverts - \$106M
V					

Signals on the #7

New signals on the #7 line mean we'll be able to run 7 percent more service – that means capacity for 2500 more customers during peak hours and less waiting and crowding.



Total: \$10,537



Improving Bus Service

An all too familiar sight in New York is a bus with 75 people on it stuck in traffic. The MTA is pursuing a series of initiatives to improve bus service, from better bus lane enforcement to realtime information for customers. Following the successful introduction of Select Bus Service (SBS) along Fordham Road in the Bronx, which has increased bus speeds by 20 percent, NYC Transit will partner with New York City to identify and implement 4 additional routes. A goal is to speed buses through traffic choke points and speed boarding with fare payment innovations. Lastly, 118 articulated buses proposed in this program will expand capacity along these routes by at least 26 percent.



MTA Buses - \$2.6 billion

The bus program reflects the MTA's commitment to realizing the full potential of a system that carries more than 2.5 million people each day. In addition to purchasing new hybrid-electric and compressed natural gas (CNG) buses, the program includes a camera enforcement pilot to keep bus lanes clear and investments in Select Bus Service. It's all designed to show New Yorkers that bus travel can become a reliable and effective way to travel.



NYC Transit/MTA Bus Capital Program Investment Overview 2010-14 (millions)

Category	Budget	Highlights	Category	Budget	Highlights
NYC Tran	isit Bus				
Buses	\$1,766M	Purchase a total of 2,090 new buses for local and express service - \$1,664M Purchase 943 paratransit vans - \$79M	Depots	\$538M	Replace and upgrade the central bus radio system and bus command center - \$232M Begin development of two depots - \$100M Purchase equipment to support new Select Bus Service on three routes - \$25M Pilot test on-board cameras to help reduce congestion in bus lanes - \$3M Replace bus depot equipment and make building repairs - \$178M
Star	\$212M Ter Desig	Purchase a total of 285 new buses for local and express service	Depots & Facilities	\$113M	Upgrade fueling facilities at two depots operating compressed natural gas buses - \$5M Modify two depots to support new articulated buses - \$6M Improve security systems at various depots - \$12M Provide engineering support, design and construction management - \$35M Provide renewable energy technology at the Far Rockaway depot - \$2M Provide systems for real-time customer information - \$8M Implement various small projects at depots - \$44M
and		2,380 new I friendly tec	nentally Friend buses feature environm hnology and will produc er tons of carbon dioxid	entally ce	Total: \$325



LIRR Capital Program Investment Overview 2010-14 (millions)

Category	Budget	Highlights	Category	Budget	Highlights
Rolling Stock	\$437M	Purchase electric cars for replacement (approx. 84 units) - \$356M	Line Structures	\$189M	Complete rehabilitation of the Atlantic Avenue Viaduct, including Nostrand Avenue Station -\$67M
		Evaluate and purchase new types of diesel trains to support "scoot" service on diesel branches - \$81M	:		Rehabilitate or replace railroad bridges at priority locations - \$25M
Stations	\$139M	Improve Grand Central Terminal elevators and	•		Replace the Colonial Road Highway bridge in Great Neck - \$10M
512110115	\$ I J 7IVI	escalators to support East Side Access - \$16M	•		Rehabilitate the Broadway and 150th Street bridges in Queens - \$30M
		Wantagh - \$42M	•		Rehabilitate 3 Montauk Branch bridges in Suffolk County - \$26M
		Centre stations - \$5M	•		Rehabilitate the Woodhaven Blvd. bridge on the Main Line in Rego Park - \$10M
		Improve air conditioning at Penn Station - \$11M			Continue East River Tunnel fire/life safety work - \$17M
Power	\$130M	to support ESA operations \$22M	Signals & Communi- cations	\$494M	Continue build out of fiber optic network - \$10M Begin replacing systems for train crew communication with operations - \$11M Continue FCC-mandated migration to narrow
		Replace and upgrade third rail system components - \$24M			band frequency - \$10M Implement legislatively-mandated Positive Train Control - \$265M
1					Install signal system from Speonk to Montauk - \$50M
		Atlantic Ave. V	iaduct		Replace signal components based on condition systemwide - \$15M



Atlantic Ave. Viaduct

Rehabilitation of the 109-year-old Atlantic Avenue Viaduct will significantly improve safety on the Atlantic Branch. This project will also rebuild the Nostrand Avenue station and install two new ADA elevators.

Continue investments to establish Centralized Train Control - \$30M

Renew the Babylon Interlocking by replacing signal components - \$77M

Long Island Rail Road - \$2.6 billion

The LIRR program will make crucial investments in rolling stock and infrastructure as the Rail Road looks to maintain and improve its on-time performance. As part of an effort to be ready for East Side Access - when the LIRR will begin operating trains directly to Grand Central Terminal - the LIRR will expand capacity in Jamaica and add train storage and track capacity at key locations throughout the LIRR system. Customers will notice as we begin to replace the aging M-3 fleet with new M-9 electric cars. The program also includes station upgrades in Brooklyn, Queens and Nassau County, as well as the introduction of a smart card pilot. To address a federal mandate, the proposed program includes \$314.4 million to design and install a Positive Train Control system and related investments.

Category	Budget	Highlights	Category	Budget	Highlights
Shops & Yards	\$134M	Build a new Mid-Suffolk Electric Yard for train storage needs on the Main Line in central Suffolk County - \$79M	Track	\$861M	Continue annual track program investments systemwide - \$286M
	Reconfigure the Port Washington Yard to e storage capacity - \$12M				Replace deteriorated track structure on the Atlantic Branch - \$40M
		Make facility improvements in the Montauk Yard - \$8M	•		Replace track system on the Babylon Branch viaduct - \$37M
		Continue shop improvements to support Reliability Centered Maintenance - \$10M			Improve right-of-way systemwide - \$15M
		Repair roof and upgrade systems at the Hillside Maintenance Facility - \$9M			Implement first phase of Jamaica infrastructure work to improve capacity - \$400M
		Rehabilitate components of Employee Facilities - \$10M			Design a second track between Farmingdale and Ronkonkoma - \$30M
			•		Construct pocket tracks for train storage capacity at Great Neck and Massapequa - \$46M
termi	nals, while a	LIRR Manhattan Iso operating service and Jamaica.			Total: \$2,554
			Track		

Metro-North Railroad - \$1.7 billion

Overall, 95% of Metro-North Railroad's \$1.7 billion investment program is slated for projects that continue to bring assets to a state of good repair or protect investments that have already been made. Limited investments have been proposed for targeted service improvements; key initiatives in this category include better customer information technology to provide real-time train information at stations, a pilot for smart card technology and targeted improvements in train yards for service expansion. MNR's program also includes \$254.7 million to design and install Positive Train Control and associated right-of-way improvements to comply with federal law.

MNR Capital Program Investment Overview 2010-14 (millions)

Category	Budget	Highlights	Category	Budget	Highlights
Rolling Stock	\$259M	Complete car purchase and modernization of existing New Haven Line fleet (at least 342 cars) - \$246M	Power	\$103M	Continue power improvements and component replacement on the Harlem and Hudson Lines - \$44M
		Complete replacement of locomotives used for non-revenue yard operations, recovery of disabled			Replace critical power infrastructure in Mount Vernon - \$28M
		trains and branch line service (5 locomotives) - \$13M			Replace Harlem River Lift Bridge motor control components - \$14M
GCT	\$101M	Continue priority infrastructure work on the Park Avenue Tunnel and the trainshed leading into GCT - \$38M	Stations & Parking/	\$203M	Continue component-based renewal work at various stations - \$81M
		Improve utilities and remediate leaks - \$40M	Strategic Facilities		Improve customer communications to provide real-time information at East of Hudson stations - \$61M
ignals & 🕴	\$278M	Fully implement legislatively-mandated Positive Train Control - \$187M			Pilot smart card - \$9M Create new strategic intermodal facilities - \$45M
cations		Install West of Hudson signal improvements on the Port Jervis Line - \$68M			Greate new strategic internodal facilities - \$4500
		Replace critical components: fiber, cables, track relays, radios - \$24M			
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New Haven Line Rail Cars

Together with the Connecticut Department of Transportation, Metro-North will complete the purchase of up to 380 new rail cars on the New Haven Line. These cars replace a time-worn, 40-year-old fleet, thereby increasing reliability. If the new cars on the Hudson & Harlem lines are any indication, customers will see a jump in on-time performance (from 96% to 98%) and better seat availability.



Fordham Station

At Fordham, \$13 million will be spent on installing wider platforms, new canopies and real-time customer information to accommodate the tenfold increase since 1982 in riders who use this Bronx station.



Category	Budget	Highlights	Category	Budget	Highlights			
East of Hudson Track &	\$285M	Continue cyclical track program - \$67M Replace track switches systemwide, some using	West of Hudson Track &	\$50M	Continue cyclical track program on West of Hudson lines - \$21M			
Structures	J	high speed equipment at critical locations - \$70M	Structures		Replace or rehabilitate undergrade bridges			
•		Continue replacement of switches in Grand Central Terminal - \$14M			at 4 priority locations - \$12M Make critical repairs to the Moodna and			
		Improve drainage and right-of-way systemwide - \$10M			Woodbury Viaducts - \$10M			
		Procure equipment for track program - \$10M	Shops &	\$324M	Begin replacing the Harmon Shop electric			
		Replace/repair approximately 10 undergrade bridges East of Hudson lines - \$37M	Yards				Repair and rehabilitate critical c	repair facility -\$290M Repair and rehabilitate critical components in shops and yards systemwide - \$24M
		Improve overhead bridges systemwide, coordinated with NYSDOT - \$17M			Expand the Port Jervis and Wassaic Yards			
		Replace Harlem River Lift Bridge cable - \$11M			to increase storage capacity - \$10M			
		Improve employee welfare & storage facilities - \$10M	Miscellaneous	\$100M	Administer program (*77)			
			Wiscenaneous	\$100M	Administer program - \$77M Develop scopes for new work - \$12M			
					Perform environmental remediation at various locations systemwide - \$7M			

Total: \$1,703

Track

A good railroad begins with good track and \$88 million of MNR's program is slated to keep this key infrastructure component on a maintenance cycle to ensure reliability and a fast, smooth and quiet ride – both east and west of the Hudson River. Investments in track infrastructure have contributed to reducing travel times by 10 minutes.



Bridges & Tunnels - \$2.5 billion

An important part of the MTA's regional plan, B&T's program focuses on maintaining the structural integrity of its bridges and tunnels while ensuring safety and minimizing customer inconvenience. These investments will improve travel for drivers in the region and ensure the continued flow of toll revenue that helps support public transportation for 8.5 million people each day. This program does not require Capital Program Review Board approval.

Replace the deck at the Bronx ramps and toll plaza -

Rehabilitate components of Manhattan approach

Repair Manhattan toll plaza decks - \$46M

B&T Capital Program Investment Overview 2010-14 (millions)

Category	Budget	Highlights	Category	Budget	Highlights
Brooklyn Battery	\$169M	Rehabilitate tunnel: walls, ceiling and roadway drainage system - \$79M	Cross Bay Bridge	\$30M	Address underwater structure
Tunnel		Replace electrical equipment - \$64M	Henry Hudson	\$107M	Replace the upper level toll plaza deck - \$52M
		Rehabilitate the structural concrete slab at the Brooklyn Plaza - \$22M	Bridge	J	Replace the upper level curb stringers supporting the roadway and sidewalk - \$39M
Bronx White- stone Bridge	\$339M	Replace the deck at the Queens Approach - \$292M Repair the Bronx anchorage concrete - \$11M	Marine Park- way Bridge	\$48M	Rehabilitate various mechanical control elements - \$20M
		Improve necklace lighting - \$11M	•		Address underwater structure - \$17M
					Improve the Rockaway Point overpass - \$7M
			• Queens Mid-	\$118M	Upgrade ventilation building electrical system - \$70M
			town Tunnel		Repair tunnel wall and ceiling - \$23M
			•		Rehabilitate entrance & exit plazas - \$21M

Robert F.

Kennedy

Bridge

\$588M

\$436M

ramps - \$75M

All-Electronic Tolling

B&T will pilot fully electronic, gateless in-plaza tolling on the Henry Hudson Bridge. This state of the art technology, which is already in place in several cities in the U.S. and around the world, allows motorists to pay tolls without stopping.



Category	Budget	Highlights	Category	Budget	Highlights
Throgs Neck Bridge	\$179M	Begin replacing the suspended span deck - \$97M Complete rehabilitating the approach span deck - \$52M Rehabilitate structural components - \$27M	Agency Wide	\$308M	Paint major structures systemwide - \$173M Pilot upgrades for tolling/E-ZPass - \$35M Improved travel information systems - \$19M Improve safety and security systems - \$12M
Verrazano- Narrows	\$567M	Replace the suspended span decks on the upper level - \$414M			Administer program and develop new scopes - \$29M
Narrows Bridge		Rehabilitate toll plaza ramps - \$106M Rehabilitate steel and concrete - \$19M Upgrade power infrastructure - \$17M			

Bridge Painting

A systemwide bridge painting program replaces existing lead based paint with high performance coatings to slow deterioration rates and prevent corrosion in areas planned for future work. This translates into longer maintenance intervals and extended useful life of the bridges.



Total: \$2,453

MTA Security

The safety and security of our customers and infrastructure is the MTA's highest priority. The MTA utilizes a multi-pronged strategy that includes customer awareness, regional policing and nearly \$1 billion in capital investments to date.







In the wake of the September 11, 2001 attacks, the MTA initiated a comprehensive review of its infrastructure. Security experts defined critical vulnerabilities and

better strategies to protect people and infrastructure. Capital investments included hardening assets and implementing the networks and equipment necessary to conduct targeted surveillance, control access, stop intrusion and provide command and control systems to support incident response.

MTA began implementing these investments in the 2000-2004 Capital Program and has now committed \$990 million to security projects. The 2010-2014 program continues this commitment with \$250 million in Federal grants.

The security of the MTA's transportation network is continually improving, and these investments and policing programs are constantly recalibrated based on up-to-theminute security intelligence in partnership with local, state and federal law enforcement. Although the MTA has its own police force for its commuter rails, the NYPD is responsible for the security of the subway system and helps guide and prioritize all security investments within New York City.





Expansion:

Easing Congestion and Facilitating Growth

The success of the MTA's capital program has led to unprecedented 56% ridership growth across the MTA system since 1990. As a result, there is an acute need for expanded service to meet growing demand. This program continues to advance our commitment to complete two major, federally funded capacity expansion projects – East Side Access and the Second Avenue Subway. These projects – the first expansions of the MTA's footprint in a generation – address long-standing capacity limitations of the existing system and provide additional capacity for future growth. This program continues to advance our commitment to complete two major, federally funded capacity expansion projects - East Side Access and the Second Avenue Subway

East Side Access

This project brings LIRR customers into a new station beneath Grand Central Terminal. The additional 24 peak-hour LIRR trains into Grand Central represent a capacity increase of about 30,500 new peakhour seats, meeting the future needs of Long Islanders to access Manhattan jobs. Commuters heading to the east ESA will provide up to 65 percent more trains per hour in the morning to Manhattan from Queens and Long Island.



side will save up to 40 minutes on their daily commute and those heading to Penn Station will enjoy a less crowded, more comfortable ride. Significant LIRR investments will be made during the 2010-2014 timeframe to improve the reliability and capacity of the core network in order to support the additional service expected at ESA's completion in September 2016.

Second Avenue Subway •••••

The Second Avenue Subway will reduce overcrowding and delays on the Lexington Avenue line, improving travel for both city and suburban commuters, and provide better access to mass transit for residents of the far East Side of Manhattan. The line is being built in phases; the first phase of the Second Avenue Subway will provide service from 96th St. to 63rd St. as an extension of the Q train.

When complete in December 2016, the first phase will:

- Serve 213,000 daily riders currently using other subways, buses, taxis or cars;
- Decrease crowding on the adjacent Lexington Avenue Line by as much as 13%, or 23,500 fewer riders on an average weekday; and
- Reduce travel times by up to 10 minutes or more (up to 27%) for those on the far east side or those traveling from the eastside to west midtown.

The first phase of Second Avenue Subway will add 14 new trains in the peak hour, increasing capacity by 30 percent in this congested corridor.



Moving Forward: Funding the Capital Program

The MTA's capital program is supported by a combination of local (City, State and MTA) and federal funding sources. Taken together, existing resources are expected to provide \$13.9 billion of the \$23.8 billion funding need, fully funding the first two years (\$9.1B) of the fiveyear program. The approved capital program requires no additional funding until 2012. The importance of the program to customers, to the MTA system and to the economy dictates that we move forward immediately with available funds. We will work with our partners in government to identify full funding for the projects scheduled to be done in the last three years of the program in time to contract for this essential work.

Local Funding

The State rescue legislation signed in May 2009 covers the first two years of the State's share of funding, and was intended to get this work started without delay. Additional State funding will be required for the final three years, but is not being requested with this submission in light of the State's current fiscal situation. The program assumes more than \$500 million in City capital funds, a 25% increase from the previous plan.

Federal Funding

The delay in advancing a new federal transportation reauthorization bill, previously expected in 2010, means that federal funding levels are expected to remain stagnant in 2010 and 2011. A significant increase is anticipated in

the next reauthorization, consistent with the growing importance of public transportation to the country's economy and environment.

Program Funding Plan	2010-2011	2012-2014	Total
Total CPRB Program Costs - \$ in millions	\$9,142	\$14,670	\$23,812
Total Funds Available	\$9,142	\$4,758	\$13,900
Funding Currently Projected:			
Federal Formula	\$2,188	\$4,227	\$6,415
Federal Security	90	135	225
City Capital Funds	200	300	500
MTA Bus Federal and City Match	64	96	160
MTA Bonds (Payroll Mobility Tax)	6,000	0	6,000
Other	600	0	600
Future State, Local and MTA Funding	\$0	\$9,912	\$9,912

Implementing the Program

The capital program overhaul doesn't stop with approval of the program. The plan's implementation will ensure that projects are completed efficiently and that taxpayers are able to hold the MTA accountable.

- Eliminate the Premium on MTA Work: Whether it's to protect against the perceived risks of working with MTA or to compensate for construction industry practices in New York that tend to increase costs, contractors charge more for MTA work. A glaring example is that tunneling for the MTA's expansion projects has cost between three and six times as much as similar projects in Germany, France and Italy. Together with the contracting community, we will drive down costs.
- **Develop Innovative Approaches to Partnering with Labor:** The City recently negotiated a project labor agreement with those trades that build some of the City's capital infrastructure projects, promising a portfolio of projects in return for saving hundreds of millions of dollars in work rule changes. MTA is working with the building trades involved in our projects to determine if similar savings can be achieved.
- **Increase Organizational Efficiency of the Capital Program:** Part of overhauling the way we do business is streamlining functions and eliminating redundancy in how our capital program is managed and implemented throughout the MTA.
- **Track our Progress:** For the first time, our web site (www.mta.info), is featuring a user-friendly, interactive system to let the public track our progress for this approved program. Projects will be color coded green for those that meet their goals and red for targets that are not being met. This information is available for each project in the 2010-2014 Capital Program and select projects still underway in the 2005-2009 Program.

Conclusion

The MTA's capital program has earned a critical place in the story of New York's revitalization and growth over the past 30 years. While the more than \$64 billion spent in that time helped turn around our regional economy, the reality is that maintaining and improving our 100-year-old system is an ongoing need and we cannot afford to disinvest. But we have an additional reality – the State's economic crisis has required the MTA to look at its entire operation through a new lens. The 2010-2014 Capital Program described in this report reflects the current economic situation and introduces a new way of doing business. Every project included here has been thoroughly reviewed to ensure that it is critical and will be continually reviewed to monitor progress and identify further cost savings. The projects themselves provide enormous benefit to our customers and thousands of jobs to New York State at a critical time.

The economic crisis dictates that we use every dollar wisely, but it also demands that we move forward as soon as possible to stimulate the economy with the two years of available funding. Make no mistake – the projects included in the first two years of the plan are ready to go, and we will not start any project that we can't finish. Moving forward, the plan must be fully funded and we are ready to begin the public discussion when the time is right. In the meantime, we will implement this program with a new spirit of accountability and transparency, with customers and taxpayers following us each step of the way. There's a lot of work to do – it's time to get started.

