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Press Release

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[Bridges & Tunnels](#)

IMMEDIATE

MTA Bridges and Tunnels \$2.5 Billion Five-year Capital Program

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MTA Bridges and Tunnels officials briefed the Bridges and Tunnels Committee of the MTA Board last week on their self-funded \$2.5 billion five-year capital program. The program is financed by bonds backed by the agency's toll revenue. The agency handles 830,000 vehicles a day and provides about 60% of its toll revenue to support the transit services of the MTA.

Acting President David Moretti said that the work is being coordinated with other transportation agencies and will be carried in a manner that minimizes customer inconvenience, with safety as the highest priority. While some projects will require off-peak lane closures, the work outlined in program is not expected to require closures during peak travel period.

The capital program is developed based on ongoing inspections and observations by outside consultants, as well as professional engineering staff assigned to each of the seven bridges and two tunnels. Ninety-five percent of the program is designed to address normal replacement needs to maintain a state of good repair. Some projects continue phases of work that began in the last capital program period. The projects range from major roadway and deck work on four major bridges and work on the ventilation, electrical and control systems slated for the Brooklyn-Battery and Queens Midtown Tunnels to steel, concrete, cable and anchorage rehabilitation of structures at various crossings. There are also plans for agency-wide improvements such as additional electronic signs to provide information to customers about conditions, including real time travel to various points, and a weigh-in-motion system to detect overweight vehicles.

Following are highlights, by facility, of major planned work:

Triborough Bridge

Reconstruction of Bronx Toll Plaza Deck, Superstructure and Substructure Rehabilitation, New Tollbooths and Ramp; Design for Manhattan Toll Plaza Deck

This work is part of the overall Triborough Bridge Rehabilitation program that began in 1997. This project will address the replacement needs of the Bronx Toll Plaza deck area, toll booths and canopies, as well as the construction of a new ramp to and from Randalls/Wards Island. The scope also includes complete reconfiguration and construction of 26 new toll plaza booths and associated infrastructure. As this project moves forward, Bridges and Tunnels will be assessing the possibility of implementing video tolls in some of its lanes; the plaza will be built with the flexibility to accommodate such a system. Similar work planned for the Manhattan Toll Plaza area will be designed as part of this project, with the construction phase to be carried out in the 2014-2018 time period. *\$525.9 million.*

Miscellaneous Steel and Concrete Rehabilitation of Manhattan Approach and Ramps

The rehabilitation and replacement of the roadway deck and support structure of the Manhattan Approach and Ramps is scheduled to begin in 2020. However, based on the 2006 Biennial Inspection and the current interim inspection findings, the conditions warrant the need for work to be carried out as soon as possible. This project will complete necessary interim steel repairs and concrete rehabilitation work until the approach and ramps can be replaced under future capital programs. *\$30.6 million*

Construction of the New Combined Service Building, Shops, Warehouse

In order to advance the reconstruction of the toll plazas, it is necessary to relocate several functions from their current locations under the Manhattan Toll Plaza. A new service building will be constructed to combine the two existing service buildings, shops and warehouse. Bridges and Tunnels has entered into an agreement with New York City Department of Parks and Recreation to utilize the area next to the bridge to build the new combined service building. *\$126.2 million.*

Verrazano-Narrows Bridge

Rehabilitation of Upper Level Decks on Suspended Spans

This project continues work begun in previous capital programs. In the 2008-2013 time frame, the second construction phase will be carried out beginning in 2010 and will involve removal and replacement of the existing concrete deck in the upper level suspended span, replacement of the median and outside parapet walls with new concrete barriers, replacement of roadway joints, suspended span drainage system and sign structures. The upper level and lower level lighting system, including tower floodlights, will also be replaced, as well as elements of the fire standpipe system. Replacement of the bridge communication system that operates the lighting controls, emergency communications, closed circuit television, lane indicators on gantries, fire standpipe controls, weather reporting system, and other communication devices is also part of this project. *\$375 million.*

Rehabilitation of Toll Plaza Eastbound, Westbound Ramps and Toll Booth Replacement

Under this project, the eastbound and westbound ramps and the eastbound roadway will be rehabilitated, and the eastbound toll booths will be removed. The eastbound roadway will be constructed to meet current AASHTO standards. New traffic interchange work will be carried out in and around the toll plaza. New entrance ramps onto the Staten Island Expressway (SIE) in the eastbound direction to the new SIE bus lane will be constructed. Design for the new westbound toll plaza will also be carried out as part of this project. *\$135.1 million.*

Bronx-Whitestone Bridge**Elevated and On-grade Queens Approach Structure Replacement**

The design for this project was carried out in the 2000-2004 Capital Program and construction work on the Bronx approach is in progress under the 2005-2009 capital program. This project in the 2008-2013 program is for similar work on the Queens approach that will replace the elevated approaches and reconstruct the on-grade roadway and end ramp concrete decks. Full replacement of the approach structures will include replacement of the fire standpipe main and installing risers, replacement of the power and communication systems and installation of new roadway lighting. *\$289.2 million.*

Toll Plaza Reconstruction (Design)

This project is for a design that will lead to reconstruction of the toll plaza and will involve widening and standardizing widths of the toll lanes, and reconfiguring the toll plaza so that the different types of service options are grouped in a way that best serves the customer. The design will also include a separated walkway to allow personnel to access the toll booths without crossing lanes of traffic. *\$12.5 million.*

Throgs Neck Bridge**Replacement of the Concrete Fill Steel Grid Suspended Span Deck**

Design and Construction for the deck replacement on the anchorage, tower and suspended spans will be performed under this project. The deck replacement area is approximately 30% of the total deck area of the bridge. The project will also include superstructure structural reinforcement and seismic retrofits, replacement of utilities, installation of a new lighting system, under-deck traveler system, fire standpipe system, and new sign gantries. The decks will be designed to meet the higher load criteria for current and anticipated commercial traffic volumes crossing the Throgs Neck Bridge on the I-295 corridor. *\$227.3 million.*

Miscellaneous Steel Repairs, Cable Re-wrapping and Cable Protective System

Recent Biennial Inspections revealed deterioration in various structural steel members. The scope of work planned includes necessary repairs to structural steel members of the suspended spans including gusset plates, deteriorated stringers and floor truss elements. In addition, design for ongoing monitoring and inspection of the Throgs Neck's main cables, as well as design and construction of a dry air protective system prototype, will be carried out under this project. *\$40.5 million.*

Queens Midtown Tunnel**Tunnel Ventilation Building Electrical Upgrade**

This project will replace the existing electrical switchgear and the fan motor control equipment for the tunnel ventilation fans at both ventilation buildings. In addition to replacing the switchgear, two other new features will be added to safeguard tunnel operation during partial or complete power outage emergencies: new automatic transfer switches between different switchgear sections and new external connections for portable diesel generators. *\$62 million.*

Controls/Communication System Room and Related Work

The existing Supervisory Control Systems in the Facility Control Centers will be expanded to incorporate all of the necessary functions such as ventilation and power system control and monitoring. The expanded Signal Control System will be connected to other tunnel and operational control and monitoring systems including: traffic control and signaling, variable message signs, traffic speed sensors, radio rebroadcast, over-height detection, drainage pumps, tunnel lighting, and digital CCTV recording. *\$52 million.*

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Brooklyn-Battery Tunnel**Rehabilitation of Tunnel Ventilation and Electrical Systems**

One of the major goals for the Brooklyn Battery Tunnel is to ensure that the electrical and ventilation systems meet current standards and expectations relative to emergency operations and improved systems monitoring and control. This project will fire-harden the Manhattan Underground Exhaust Building's fan chambers and system components subject to high temperature. The rehabilitation of supply fans, supply fan housings, and related components is also included in this project. The existing switchgear will be replaced to greatly enhance the flexibility and reliability of the tunnel's electrical power system. Newly installed generators will be placed on an automatic transfer switching system and new tunnel feeders will be installed to complete the emergency power portion of the project. This will advance tunnel life safety systems by ensuring that tunnel power can be maintained, per tunnel safety standards, and eliminating power downtime in the event of power failure requiring the need for emergency power. *\$70.2 million.*

Expand/Upgrade Control Center

This project is the continuation of the replacement and upgrades of the control and communication systems that began under the 1995-1999 Capital Program. This phase will replace power cabling to tunnel "E-Boxes," install additional tunnel closed circuit TVs, replace tunnel phones, upgrade the carbon monoxide monitors in the ventilation buildings. This project also involves the replacement of any motor control needed to tie together other vital tunnel systems. In addition, the Supervisory Control System will be further expanded to incorporate additional functions, including the installation of an overall tunnel and video management system. *\$18.7 million.*

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Rehabilitation of Ventilation Buildings

The general scope of this project will be to perform architectural and structural repairs on the ventilation buildings' façade and interior including floor slabs and walls. Work will be carried out at all four ventilation buildings: Manhattan Blower Building (MBB), Manhattan Underground Exhaust Building

(MUEB), Governors Island Ventilation Building (GIVB) and Brooklyn Ventilation Building (BVB). Focus will be on building floor slabs where structural defects have been identified. Interior hardware stairs, windows, interior electrical work and HVAC will also be addressed. *\$25.7 million*

Henry Hudson Bridge

Upper Level Toll Plaza Deck

This project will replace the existing upper level toll plaza. The toll plaza booths, canopy, toll collection equipment, utilities, electrical services, HVAC System and toll plaza roadway lighting will also be replaced. The plaza will be reconfigured so that service options are grouped in a way that best serves our customers. *\$37.7 million.*

Replacement of the Upper Level Curb Stringers and Safety Barriers

The curb stringers and floor beams are original 70 year old bridge components. The design is being performed in the current capital program under the Upper Level Toll Plaza Deck rehabilitation project, and the construction phase will be performed under this project. This work includes: the installation of sub-stringers between each floorbeam to support the upper level roadway; removal of the existing curb stringers and sidewalks; rehabilitation of the top flanges of the floorbeams; creation of a shoulder lane which meets HS-20 structural requirements; installation of a sealed joint system over the supporting steel; as well as seismic retrofits to the north abutment as recommended in the HH-80 seismic report and the replacement of the bridge roadway lights to meet IESNA recommended lighting levels. *\$38.5 million*

Replacement of Lower Level South Approach Roadway and Facility Maintenance Garage (Design)

This project will design the replacement of the Lower Level approach and maintenance garage. The scope of work includes the complete replacement of the deck, walls, columns, electrical room, maintenance work shops and bays and utilities. The structure will also be seismically retrofitted. A bicycle path spanning the full length of the lower level roadway will also be designed as part of this project. *\$8.8 million.*

Marine Parkway Bridge

Substructure, Underwater and Scour Protection

Biennial Inspections have revealed that the concrete substructure has areas with hollow concrete, cracking, and spalling. This project will remove and patch delaminated, spalled and unsound concrete at piers, and substructure members. This includes cleaning and epoxy coating of any exposed rebars prior to patching; pressure injecting all medium to wide cracks at substructure members; removing debris from top of tower piers and cap beams and cleaning marine growth on 20% of the substructure below water level. A diving inspection will be performed to inspect the piers and evaluate their structural integrity, and a hydrographic survey will be included to determine the mudline contours and elevation of the site. Scour protection restoration at several piers will be performed, using granular fill material along with armor stone. In addition, the pier protection plates will be restored. *\$17.1 million*

Programmable Logic Controller, Electrical and Mechanical Rehabilitation

One of the critical elements of the lift span is the Programmable Logic Controller. The operation of the lift span is dependent on the proper function of the electrical and mechanical machinery of the bridge. This project will design and carry out the rehabilitation and repairs necessary to the controller, electrical and mechanical machinery. *\$10 million.*

Cross Bay Veterans Memorial Bridge

Substructure and Underwater Rehabilitation Work

The scope for this project includes rehabilitation of delaminated spalled and unsound concrete on the all substructure elements such as the piles, pile caps, abutments, pier columns, pier caps and beams. This project will also provide scour protection to the substructure, as necessary, and other substructure elements such as the north abutment, left wing wall and right embankment of the main line. *\$23.4 million.*

Bicycle Path Improvements

This project is in response to community requests to enhance bicycle access and part of the Authority's pursuit of green/sustainability initiatives. The project will design and construct a bicycle path as follows: On the bridge span itself the existing 10-foot sidewalk will be adapted for use as a two-way shared use path meeting minimum AASHTO standards for a shared-use, two-way bicycle/pedestrian sidewalk. The North Approach will be reconstructed on the existing 10' wide sidewalk and widened to 12' at the bridge abutment, keeping the existing crosswalk with pedestrian activation (i.e.: no overpass) and providing signs warning bicyclists to walk their bicycles between East 20th Street and Van Brunt Road. At the South Approach a new 12' wide ramp with switchbacks having maximum 5% grade will be constructed. *\$4.2 million.*

MTA Bridges and Tunnels operates and maintains the following crossings, which link the boroughs of New York City: Bronx-Whitestone, Cross Bay Veterans Memorial, Henry Hudson, Marine Parkway-Gil Hodges Memorial, Throgs Neck, Triborough and Verrazano-Narrows Bridges, and the Brooklyn-Battery and Queens Midtown Tunnels.



(Photo caption: Daytime shot of Bronx-Whitestone Bridge.)