

NEW YORK CITY DEPARTMENT OF TRANSPORTATION DIVISION OF BRIDGES 2009 BRIDGES AND TUNNELS ANNUAL CONDITION REPORT



New York City Celebrated the Centennial Anniversaries of the Queensboro and Manhattan Bridges in 2009. (Credit: Bernard Ente)

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Acknowledgements

Research and Analysis

For their contributions and assistance in the preparation of this report, the Division of Bridges would like to thank the following: Hasan Ahmed, Krishan Baweja, Robert Cohen, Robert Collyer, Beatriz Duran, Lawrence Fletcher, James Gallagher, Brian Gill, Russell Holcomb, Abul Hossain, Sudhir Jariwala, Paul Kahn, George Kern, Mansoor Khan, George Klein, Larry King, Kamal Kishore, Doreen Langhorne, Thomas Leung, Darlene Lucchese, Kevin McAnulty, NYSDOT, Jay Patel, Kalpa Ramachandran, Raisa Rapoport, Ronald Rauch, Abdur Razzaq, Javed Riaz, Vera Ribakove, Dorothy Roses, Paul Schwartz, Dinesh Shah, Mahabal Shah, Thomas Whitehouse, and Antoinette Zeitoun.

Photography

For the photographs used in this report, the Division of Bridges would like to thank the assistance of the following: Fouad Althaibani, Kristen Artz, Duane Bailey-Castro, Peter Basich, Tamara Berlyavsky, James Campbell, Emily Colasacco, James Conti, Yousef Demis, Sunil Desai, DUMBO NYC, Bernard Ente, Joseph Flood, Louis Garzia, Brian Gill, Russell Holcomb, Albert Hong, Bernard James, George Jarvis, George Kern, Jagtar Khinda, Joannene Kidder, Joshua A. Knoller, Reza Lotfi, Masroor Mahmood, Syed Mahmood, Edgardo Montanez, Ali Mozaffari, Vera Ovetskaya, Earlene Powell, Edward Reed, Paul Schwartz, Emad Shaker, Lacy Shelby, Mohammad Siddiqui, Hany Soliman, Joel Voisard, Lee Wells, Thomas Whitehouse, Bojidar Yanev, and Hu Zhudong.

Cover Photograph

Aerial View of the Existing Willis Avenue Bridge and of the Construction Site of the New Bridge in September 2009.

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A Message from the Commissioner



Dear Friends,

On behalf of the many dedicated professionals who staff the Division of Bridges, it is my pleasure to present the 2009 Edition of the New York City Department of Transportation's Annual Bridges and Tunnels Condition Report, as mandated under New York City's Charter. This report provides DOT with an opportunity to display the many achievements, innovations and improvements that were realized by the Division of Bridges during the 2009 calendar year.

The City's bridges are safe and in their best condition in generations. Our bridges are extremely well managed, they are being rebuilt and upgraded by experts and are subject to one of the strongest inspection systems in the United States. We have a very strong bridge capital investment program, which has turned overall City bridge conditions around and will continue to bring more bridges into good repair. DOT has been an early adopter of high-tech bridge monitoring equipment and techniques, and DOT's Division of Bridges is now further enhancing its inspection capabilities with additional technology and expertise.

The Division of Bridges includes 809 DOT employees who manage the City's capital bridge program and conduct bridge inspections, monitoring and maintenance. Our bridges include, among many others, the notable East River and Harlem River Bridges, the Belt Parkway Bridges, and pedestrian bridges and elevated roadways located City-wide.

On March 30, 2009, Mayor Michael R. Bloomberg announced the City's selections for infrastructure projects that will benefit from federal transportation funding from the American Recovery and Reinvestment Act.

Six projects will receive direct stimulus funding: the rehabilitation of the Saint George Ferry Terminal Ramps, the Brooklyn Bridge Ramps and repainting of the bridge, upgrades to the Ward's Island Pedestrian Bridge, the rehabilitation of deteriorated components of twelve roadway bridges, the painting of two Bruckner Expressway Bridges, and the rehabilitation of the Greenpoint Avenue Bridge over Newtown Creek.

In addition, four projects will receive displaced funding: the reconstruction of the Claremont Parkway and East 8th Street Access Ramp Bridges, and the repainting of six Belt Parkway/Shore Parkway and 11 bridges running over the Staten Island Railway line.

The City has been at the forefront of utilizing new technology to assist us in the monitoring of our bridges. For example, telltales for crack monitoring are installed at several locations, including three pre-stressed bridges in Staten Island and the FDR Drive at 92nd Street, and a borescope and acoustic emission equipment are used for monitoring inaccessible details at the Williamsburg Bridge. As a follow-up of the commitment to enhance bridge inspections by non-destructive remote monitoring techniques, two approach spans of the Brooklyn Bridge are instrumented with fiber optic sensors. Lastly, we are also using sensor devices to monitor the corrosion of the epoxy coated steel reinforcing bars and stainless clad steel reinforcing bars in the Annadale Bridge deck slab.

Preventive maintenance is essential to preserve the City's multi-billion dollar investment in its bridges. These steel and concrete structures must be protected from the stresses of weather, traffic, deterioration and neglect. In the last year alone, 14,905 square feet of concrete were used to renew sidewalks, curbs, and road decks; some 8,527 cubic yards of debris were removed; 1,807 bridge drains were cleaned; and crews eliminated 5,406,237 square feet of graffiti. DOT crews also eliminated 405

safety flag conditions that presented clear vehicle or pedestrian traffic hazards. Also, in the Department's ongoing attempts to minimize construction disruptions, we consistently used incentive and disincentive clauses in contracts to reward contractors who finish work early and penalize contractors who finish work late.

The Division's proud tradition of design and engineering excellence was recognized with awards from various entities, including:

- The American Council of Engineering Companies of New York's Diamond Award for the reconstruction of the Grand Concourse over East 161st Street and Grand Concourse – East 161st -East 166th Streets.
- The Design-Build Institute of America's "Owner of the Year Award" for Design-Build Excellence in Transportation. Significant Design-Build projects include the reconstruction of the Bruckner Expressway over Amtrak and the Staten Island Ferry Terminal ramps.
- The National Steel Bridge Alliance's winner in the movable span category for the Hamilton Avenue Bridge over the Gowanus Canal project.

New York City has a rich tradition of bridge design, construction, maintenance and administration. The Department of Transportation appreciates the importance of its duties and responsibilities, and the Division of Bridges is proud to shoulder the task of maintaining and rehabilitating our city's vital bridge infrastructure.

Sincerely,

Commissioner

Janette Sadik-Khan

Inventory

In calendar year 2009, the inventory of bridges under the jurisdiction of the Division decreased to 786. NYCDOT owns, operates, and/or maintains 756 non-movable bridges, 25 movable bridges, and five tunnels. Over the past 10 years, there has been a mostly steady decline in the number of bridges rated "Poor," and a somewhat steady increase in the number of bridges rated "Very Good," as shown below.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Poor	13	9	8	4	6	4	3	3	3	' 4
Fair	481	459	451	429	456	458	456	459	455	456
Good	180	196	202	209	212	210	210	215	213	209
Vgood	85	88	94	111	116	118	118	111	116	116
Closed								1	1	1
	759	752	755	753	*790	790	787	789	788	786

In 2004, 32 Department of Parks and Recreation structures, 1 Department of Education structure, and 7 Division of Ferries structures were absorbed into the inventory. 30 of these additions (22 from Parks, 6 from Ferries, and the 1 from Education) were rated "Fair," which accounted for the increase in Fair rated bridges. 1 of the Parks additions was rated "Poor." It has since been closed.

The City has four bridges that were rated "poor" after their last inspections. A poor rating means that there are components of the bridge that must be rehabilitated; it does not mean that the bridge is unsafe. If a bridge was deemed unsafe, it would be closed. The term "structural deficiency" is an engineering term-of-art used by the Federal government to indicate a defect requiring corrective action. According to the FHWA, "structurally deficient" means there are elements of the bridge that need to be monitored and/or repaired. The fact that a bridge is "deficient" does not imply that it is likely to collapse or that it is unsafe. It means they must be monitored, inspected, and maintained." Because we use the New York State rating system, we do not use that term and instead use the terms "very good", "good", "fair" and "poor". As with the Federal term, the terms "fair" and "poor" describe the condition of bridge elements and whether they are functioning as designed. Although these elements are not considered hazardous, the ratings are used to determine whether the elements require repair or rehabilitation. Again, any bridge deemed unsafe would be shut to the public. As this document goes to press, all four "poor" rated bridges are in construction.

The four City bridges that are rated "poor" include the Bruckner Expressway Bridge Northbound over Amtrak and CSX in the Bronx. The October 4, 2005 fire on the bridge weakened its members. The immediate results of the fire were addressed by in-house forces, and repairs requiring immediate attention were handled by the When and Where contractor. The replacement of the bridge's northbound superstructure and the southbound deck, are being performed under a Design-Build contract. A Notice to Proceed was issued to the contractor with a start date of October 27, 2008. Construction is expected to be complete in September 2011.

The second is a pedestrian bridge at 78th Street over the FDR Drive. The columns on this bridge have been shored and there is shielding under the concrete to protect against spalling. As a result, the bridge remains safe until its reconstruction which is expected to begin in May 2010.

The third bridge is the Hill Drive Bridge (Terrace Bridge) over Prospect Park Lake. Repairs requiring immediate attention will be performed by the When and Where contractor. This bridge is closed to vehicular traffic.

¹ In 2009, the newly "Poor" rated Hill Drive Bridge in Prospect Park was closed to vehicular traffic. Ninety three of the Parks bridges account for 20.4% of the "Fair" rated structures.

The fourth bridge is the Brooklyn Bridge. It was given a "poor" rating during its last inspection because there are certain elements of the bridge that need to be rehabilitated. While the main spans are in good condition, the decks on both the Manhattan and Brooklyn ramps to the bridge are aging and will be replaced during a rehabilitation project beginning in early 2010. It should be noted that of the 75 spans of the bridge, only 6 spans contribute to the low condition rating. None of them are among the three suspended spans (i.e. between the anchorages).

Contract Acceleration

Acceleration measures are a contract provision used in some reconstruction projects that is implemented through a contract pay item. This contract provision provides a mechanism to implement measures to accelerate the contractor's work to maintain critical path milestones. This provision does not apply to measures undertaken by the contractor to make up for time it lost in the progress schedule. Only the NYCDOT representative invokes this provision when the contract schedule is compromised due to unforeseen conditions during construction that are out of the contractor's control, and when it is deemed in the City's interests to accelerate.

Incentive and disincentive clauses are another contract provision used in some reconstruction projects that is implemented through a contract pay item. Under this provision, the contractor is compensated a certain amount of money for each day if the identified work in a critical milestone is completed ahead of schedule and is assessed a deduction for each day the contract overruns the allocated time. The amounts for the I/D clauses are based upon such items as traffic safety, maintenance and road user delay costs, Resident Engineering & Inspection (REI) expenses and cost of traffic enforcement agents. These amounts are implemented in accordance with quidelines established by Federal Highway Administration (FHWA).

East River Bridges Anti-Icing Program

The Division's Anti-Icing Program uses the liquid chemical potassium acetate and aggregate chemical sodium acetate. The anti-icing fleet consists of twenty-two spray trucks, six plow trucks and several smaller plows. Ten of the spray trucks are combination spray/plow trucks with a 1,000 gallon tank capacity, and five are spray-spreader/plow trucks with a 360 gallon spray capacity, and a nine cubic yard spreader capacity. There are twenty chemical storage tanks, with a total storage capacity of 114,250 gallons.

In the winter of 2008-2009, a total of 52,445 gallons of potassium acetate and 180 tons of sodium acetate were applied on the roadways of all four East River Bridges.

Marine Borer Remediation

In October 1999, the Department began a study to assess the present damage caused by marine borers as well as the potential for future damage at several waterfront DOT structures, including the supporting structures of the relieving platforms along the FDR and Harlem River Drives, and the timber piles and structures of the Carroll Street and Ocean Avenue bridges in Brooklyn. The underwater inspection of timber piles supporting the FDR Drive began on May 8, 2000. Inspection of the Brooklyn sites was conducted during the week of October 23, 2000. The inspections were completed in October 2000, and the Marine Borer Evaluation Report was published in June 2001. Using the results of the underwater inspections, preliminary plans were developed for the implementation of repairs and remediation measures to protect the structures from attack. These preliminary plans were completed in December 2001. The final design is complete. Mitigation work for the impact of the construction on the bodies of water will be done under a separate contract. A search for a suitable location for open water mitigation is being

conducted with the assistance of the Army Corps of Engineers and NYSDEC. The construction work is expected to commence in January 2011, and to be complete in November 2014.

2009 Awards

In 2009, the outstanding work of the Division was recognized by the receipt of several awards. In March 2009, the American Council of Engineering Companies of New York selected the reconstruction of the Grand Concourse over East 161st Street and Grand Concourse – East 161st -East 166th Streets for the Diamond Award in the transportation engineering category in its 2009 Engineering Excellence Awards. This project was substantially completed in November 2008.

In April 2009, the Design-Build Institute of America selected the Agency for an "Owner of the Year Award" for Design-Build Excellence in Transportation. The award recognizes an owner organization in transportation that has made significant contributions in advancing awareness, understanding, and use of the design-build project delivery method. Significant Design-Build projects include the reconstruction of the Bruckner Expressway over Amtrak and the Staten Island Ferry Terminal ramps.

In September 2009, the National Steel Bridge Alliance selected the Hamilton Avenue Bridge over the Gowanus Canal project as the winner in the movable span category in its 80th awards competition. The Steel Prize Bridge Awards honor significant and innovative steel bridges constructed within the United States and Canada. Projects are judged on cost effectiveness, initial cost, life-cycle cost, innovation, aesthetics, and design.

In October 2009, Chief Bridge Officer Henry Perahia received an Outstanding Achievement Award from the South Asian American Association.

In November 2009, Deputy Chief Engineer Russell Holcomb was presented the Municipal Engineer of the Year award from the Municipal Engineers of the City of New York.

The dedication and hard work of all members of the Division ensures that the Department is stronger than ever and more capable than ever to meet the challenges of maintaining a diverse and impressive bridge infrastructure.

As an integral part of New York City's Department of Transportation, the Division of Bridges has a two-fold mission: to maintain an optimal transportation network by ensuring smooth mobility on the city's bridges, and to ensure the safety of the public.

The New York City Department of Transportation's Division of Bridges is comprised of six major bureaus. The **Chief Bridge Officer** is responsible for formulating policy and providing executive direction. He oversees all aspects of the design, construction, rehabilitation and reconstruction, maintenance, operation and administration of the 786 bridges (including 5 tunnels), and 61 culverts presently under the jurisdiction of the New York City Department of Transportation (NYCDOT). In addition to broad supervision, the Chief Bridge Officer also provides overall executive and administrative direction for the Division of Bridges, and ensures that all contractors are promptly paid.

Reporting to the Chief Bridge Officer, the **Community Affairs Unit** maintains liaison with elected officials, community boards, community groups, and civic/neighborhood associations. The Unit takes a pro-active approach in addressing design issues and roadway closures and detours by reaching out to communities prior to the onset of construction. This enables the Division to proceed with its rehabilitation program with community input, and allows the Agency and its contractors to co-exist in a more harmonious manner with the community surrounding the project. Issues and problems of concern to the communities are brought to the attention of the appropriate Division personnel and addressed.

The **Bureau of Bridge Maintenance, Inspections and Operations** employs almost 500 engineering, professional, administrative, and skilled trades employees in the maintenance and smooth operation of New York City's elevated infrastructure; it is composed of five major sections:

The *Flag Engineering* section is an engineering group that reviews, routes, and tracks hazardous or potentially hazardous safety and structural conditions ("flags") in or on the city's 786 bridges (including 5 tunnels). The Flags staff is on call 24 hours a day to respond to bridge emergencies. The section can be alerted to flag conditions by city and state inspectors and other sources, such as the Communications Center. All conditions undergo an evaluation involving review of the flag report, photographs of condition, and, if necessary, a visit to the site. Subsequently, a "flag packet" describing the type of repair or response that is required is created and routed to an appropriate group, in-house or contractor, for elimination. Flags engineers supervise repair work performed by contractors. The section monitors the status of each flag, and reports on all activities on a monthly basis.

The in-house engineers and skilled trades personnel of the *Bridge Repair Section* perform repairs to address flagged conditions. Flag repairs include structural and safety work, such as the repair of steel members damaged by corrosion or accident impact, the replacement of box beams and bridge railings, the replacement of roadway gratings, repairs to traffic control devices, and the rebuilding of wooden walkways. Much of this work is performed in the off-hours, either to accommodate traffic or in response to emergencies.

This section also rehabilitates and replaces damaged, worn, or defective components whose failure can affect service. This type of work, known as *Corrective Repair*, primarily involves the electrical, mechanical and operational control systems for the twenty-five movable bridges, as well as the travelers (movable underdeck access platforms) on the four East River bridges. The Bridge Repair Section is also responsible for the lubrication of the movable bridges as well as the mechanical components and the main cables of the East River bridges. In addition, this section administers federally funded contracts for the preventive maintenance of the four East River Bridges.

The *Inspections and Bridge Management* section performs three essential functions: *Bridge Inspections, Bridge Management*, and *Research and Development*.

The *Inspections Unit* inspects the city's bridges in accordance with state and federal standards; monitors bridge conditions with a high hazard potential, such as temporary repairs, outstanding flags, and fire hazards; responds to emergency inspection requests from NYCDOT and external sources; recommends repairs and remedial measures for hazardous conditions; generates flag and inspection reports for the Division; engages in special programs such as non-destructive monitoring of sensitive bridge components by advanced techniques; supervises inspections by consultants working for the Division; conducts inspections and inventories of expansion joints; conducts acoustic emission monitoring; and inspects non-structural cladding.

The *Bridge Management Unit* develops and maintains the database for the City's bridge inventory, condition ratings, and inspection information. The unit is also responsible for maintaining records of privately-owned bridges in the City. The database is the source of information used in a variety of reports, including the present Bridges and Tunnels Annual Condition Report. This unit uses the bridge and span condition database to determine current and future needs for bridge rehabilitation, bridge component rehabilitation, flag forecasting, inspections and monitorings.

This Section is also responsible for investigating new materials and methods to improve existing bridge conditions. It sponsors a series of lectures by experts on subjects relevant to design, construction, and maintenance, such as seismic retrofitting of bridges, salt substitutes, cathodic protection against corrosion, concrete patching materials, new paint strategies, non-destructive bridge testing, and deck resurfacing. The unit also participates in research programs with interested transportation and infrastructure entities. In conjunction with the Port, MTA Bridges and Tunnels, and NYS Bridge Authorities, it sponsored a report on suspension bridge cables that led to a federal project for the entire United States. A number of articles on bridge management are published by the unit in technical journals in the United States, Japan, France, and elsewhere. This section created the system for generating bridge inspection reports with portable computers; a similar system is now being adopted by the NYSDOT.

Preventive Maintenance is a vital part of the overall bridge program. This section is responsible for functions including debris removal; mechanical sweeping; pointing of masonry brick and block; and emergency response, such as snow removal, oil/cargo spills, and overpass hits. The section also performs some corrective repair work such as asphalt and concrete deck repairs, sidewalk patching, fence repair, and brick and masonry repairs. Preventive Maintenance is responsible for conducting the Department's anti-icing operations on the four East River bridges.

Bridge and Tunnel Operations is responsible for operating the 25 City-owned movable bridges that span city waterways. This section operates under a variety of federal mandates that call for 24-hour coverage at many locations; its mission is to provide safe and expedient passage to all marine and vehicular traffic under and on movable bridges. In calendar year 2009 Bridge Operations effected a total of 4,743 openings, 3,666 of which allowed 6,318 vessels to pass beneath the bridges. The remaining 1,077 openings were for operational and maintenance testing. The section also operates the city's five mechanically-ventilated tunnels, performing electrical maintenance and arranging for roadway cleaning.

The overall mission of the Bureau of Bridge Maintenance, Inspections and Operations is to maintain the structural integrity of elevated structures and tunnels and to prolong their life by slowing the rate of deterioration. While our objective may be seen as "maintaining the status quo" of the infrastructure, we continue to take a new look at our methods, procedures, and general focus as we formulate our operational plans for the next several years.

As more bridges are rehabilitated, it becomes incumbent upon us to protect the government's investment in the infrastructure by developing and implementing a more **substantive preventive maintenance program** to keep these bridges in good condition.

The Deputy Chief Engineer for Bridge Maintenance, Inspections and Operations also acts as the **Deputy Chief Bridge Officer**, assuming the responsibilities of the Chief Bridge Officer in that person's absence.

The **East River and Movable Bridges Bureau** is responsible for all design and construction activities for all rehabilitation/reconstruction work that is planned, or currently taking place on the four East River Bridges, as well as all City-owned movable bridges and tunnels. This involves overseeing and supervising design consultants who prepare plans and specifications for bridge rehabilitation/reconstruction projects on the four East River Bridges and all Movable Bridges, as well as overseeing and supervising contractors, Resident Engineers and Inspection Consultants, and Construction Support Services Consultants during the construction phase.

This Bureau consists of two major areas: *East River Bridges*, and *Movable Bridges*. Each of these areas is headed by a Director to whom Section Heads or Engineers-in-Charge (E.I.C.'s) report. Each is assigned a specific bridge, or bridges, where they are responsible for all design and construction activities. The Directors, in turn, report to the Deputy Chief Engineer of the Bureau.

The **Bureau of Roadway Bridges** is responsible for both design and construction activities for all rehabilitation/reconstruction work that is planned, or currently taking place on all City-owned, non-movable bridges, with the exception of the four East River Bridges. This involves overseeing and supervising design consultants who prepare plans and specifications for bridge rehabilitation/reconstruction projects, as well as overseeing and supervising contractors, Resident Engineers and Inspection Consultants, and Construction Support Services Consultants during the construction phase.

This Bureau covers two major geographic areas; *Brooklyn and Manhattan Bridges*, and *Bronx, Queens and Staten Island Bridges*. In each geographic area, the workload is divided by Community Board. Engineers-In-Charge report to the Directors of each major area, who, in turn, report to the Deputy Chief Engineer of the Bureau.

The **Engineering Review and Support Bureau** is responsible for providing Division-wide engineering support services. The following areas make up this Bureau: *In-House Design, Engineering Support, Engineering Review, and Quality Assurance*.

In-House Design staff (comprised of the Structural, Electrical, and CADD Groups) prepare plans and specifications for bridge rehabilitation/replacement projects that enable the Division to restore bridges considered "structurally deficient," to a "very good" condition rating. This unit also handles urgent Division projects, as well as special repair projects of the **Bureau of Bridge Maintenance, Inspections and Operations**. Over the last 20 years, In-House Design has completed contract documents for over 30 major replacement/rehabilitation projects. Some of these structures were in highly environmentally sensitive areas, such as the FDR Drive from 42nd to 54th Streets, Hylan Boulevard over Lemon Creek, Chelsea Road over Sawmill Creek, Cropsey Avenue over Coney Island Creek, the Exterior Street Ramp, Belt Parkway Bridge over Paerdegat Basin, and the 145th Street Bridge over Harlem River. The staff also provided plans, working drawings, and shop drawings for in-house built projects such as the temporary Pedestrian Bridge for PS-5, Ferry Terminals at 34th Street, the Hamilton Avenue Asphalt Plant conveyor supports, and the Yankee Stadium Ferry Access.

The Electrical Group reviews and/or prepares contract documents for the electrical and street lighting work for all projects in the Division's capital program. They further review plans and specifications prepared by consultants and test electrical systems on the movable bridges.

The **Engineering Support Section** is comprised of four units: Specifications, Surveying and Load Rating, Records Management, and Special Projects.

The Specifications Unit prepares and reviews specifications for all City-let in-house and consultant-designed bridge construction projects, processes the contracts for bidding, prepares and transmits addenda, maintains and updates City bridge construction boiler plates, and maintains an inventory of all NYC and NYS special specifications used in City-let bridge projects.

The *Surveying and Load Rating Unit* performs the survey, inspection and load rating of bridges, monitoring of cracks and movements in bridge structures and settlement of foundations. This unit also performs corrosion potential testing in all bridge resurfacing projects.

The Records Management Unit establishes drafting, microfilming, and digital media standards for the archiving of bridge records. It reviews design, as-built and shop drawings prepared by consulting firms, as well as CDs and DVDs. This unit maintains original plan files, upgrades the records database and converts original drawings into electronic media formats. It also answers requests for information regarding records of City-owned bridges.

The Special Projects Unit reviews contract bid documents and specifications for public and private agencies to ensure compliance with City, State and Federal standards and guidelines.

The **Engineering Review Section** consists of five units: Engineering Review and Estimates, Utilities, Land Acquisition, Geotechnical Engineering, and Scope Development.

The Engineering Review and Estimates Unit reviews all City-let bridge construction contract drawings; reviews drawings from other Agencies and entities, as well as State and private companies; and ensures that the work to be performed conforms to NYCDOT requirements. This unit establishes design standards, including seismic requirements, and oversees estimates prepared by consultants. It is involved in the preparation of Total Design Packages for the rehabilitation/reconstruction of poorly rated bridges. This unit also reviews superload truck permit applications, performs load analyses for the City's bridges, reviews load postings for City owned bridges and provides architectural review of various projects. It is also responsible for inspecting City-owned retaining walls, identifying walls in poor condition, and creating an inventory of all City-owned retaining walls. Retaining walls in poor condition requiring immediate attention are referred to in-house repair staff or When and Where contractors. Information on poorly rated retaining walls is also forwarded to the New York City Department of Design and Construction (DDC) for permanent rehabilitation. Walls of questionable ownership are researched for ownership and jurisdiction. Thus far, 633 City owned retaining walls (along major streets) have been inspected and inventoried; 27 of which have been estimated to be in poor condition. DDC has been requested to accelerate the rehabilitation of these walls. A consultant has been assisting the unit in the inspection, condition assessment, temporary repair design, inventorying and budgeting for the permanent rehabilitation of the retaining walls.

The unit currently provides engineering review supervision of private developers' projects supervision such as the Atlantic Yards Project, the Eastside Access Project, the Riverside South Project, and the Yankee Development Project. In addition, the unit conducts other, non-bridge engineering projects, such as the annual balloon wind study for the Macy's Thanksgiving Day Parade.

The *Utilities Unit* coordinates all issues related to utility design as they affect City-owned bridge projects and related projects.

The Land Acquisition Unit reviews and maintains a database of easement issues, right-of-way, and Uniform Land Use Review Procedures (ULURP). This unit also reviews Design reports and Environmental Impact Statement (EIS) of various other Agency projects with respect to their impact on City-owned bridges.

The *Geotechnical Engineering Unit* provides geotechnical-engineering services and oversees seismic design requirements for City-let contracts for bridge projects.

The Scope Development Unit reviews inspection reports and structural condition ratings to develop the scope of work for the rehabilitation of deficient bridges, and initiates the procurement of Design Consultant contracts.

The *Quality Assurance Section* ensures that materials installed for the Bridge Rehabilitation Program meet contractual requirements and are incorporated in strict compliance with plans and specifications. This section operates under its own formulated Quality Assurance Plan that is based on NYSDOT requirements and procedures. Quality Assurance has contractually retained the services of private inspection/testing firms. The provision of services required for various projects is better coordinated through this centralized method, which is also timely and cost effective.

Off-site Quality Assurance services relative to a wide variety of basic and manufactured construction materials including concrete, asphalt, soils, reinforcing steel, bridge bearings, timber, structural steel and precast/prestressed structural components for all bridge projects, irrespective of the funding source, are handled by this section. Through its engineers at bridge construction sites, Quality Assurance ensures that only acceptable materials are incorporated into rehabilitation/reconstruction work in strict accordance with plans, specifications and acceptable construction practice. Current major projects include the Manhattan Bridge, Willis Avenue, Roosevelt Island, Belt Parkway Bridge over Paerdegat Basin, Belt Parkway Bridge over Rockaway Parkway, Belt Parkway Bridge over Fresh Creek Basin, 11th Avenue Viaduct over LIRR Westside Yard, East 8th Street Access Ramp over Belt Parkway, St. George Staten Island Ferry Terminal Ramps, Northbound and Southbound Bruckner Expressway Bridges, emergency reconstruction of the west abutment and wing walls of the Borden Avenue Bridge over Dutch Kills, Annadale Road Bridge, and the Shore Road Circle Bridge. In addition, the Section provided services to the Component Rehabilitation Section on an as-needed basis and was actively involved in the approving materials required for the emergency repairs to the FDR Drive.

Through its *Environmental Engineering Unit*, Quality Assurance also oversees the implementation of the Final Environmental Impact Statement on bridge construction projects involving the removal and disposal of lead-based paint. The unit's active involvement in training the supervisors and overseeing the abrasive blasting operations has resulted in the successful completion of various paint removal projects. This unit also oversees the proper and safe disposal of other hazardous waste and regulated waste encountered during construction activities.

In addition to enforcing the lead paint removal protocols, the unit handles other environmental concerns. Typically, the unit participates in the design stage to ensure that any environmental issues are addressed during the construction phase of the project. These issues include, but are not limited to, asbestos abatement, soil sampling, groundwater sampling, remediation of contaminated soils and groundwater, worker exposure to environmental contaminants, management of waste oil, storage of hazardous waste, site safety, and OSHA compliance. The role of this unit in ensuring public safety has been recognized and commended by the community.

The unit continues to monitor waste water discharge for numerous projects involving the generation and disposal of waste water, such as the Willis Avenue and Roosevelt Island bridges. The unit is responsible for discharge monitoring in conjunction with the NYS SPDES Discharge Permits for discharges at the Eastern Boulevard Bridge, Hunters Point Avenue Bridge, Greenpoint Avenue Bridge, Cropsey Avenue Bridge, Manhattan Plaza Underpass, Battery Park Underpass, and the Metropolitan Avenue Bridge. The unit continues to provide environmental oversight and compliance on major capital projects such as the Willis Avenue Bridge, Roosevelt Island Bridge, Manhattan Bridge, Williamsburg Bridge, Belt Parkway Bridges, Borden Avenue Bridge, and the Queensboro Bridge, as well as Component Rehabilitation, Roadway Bridge, and Design/Build projects.

The unit provided expertise and oversight for the cleanup of the historical oil spill discovered during the emergency repair of the Borden Avenue Bridge. Corrective action plans and soil remediation designs were developed and coordinated with NYSDEC to remediate the site and enable the continuation of the bridge repair operations.

The unit also provided assistance to the Hamilton Avenue Asphalt Plant with testing and analysis of storm water run-off to ensure facility compliance with federal and state storm water regulations.

The Specialty Engineering and Construction Bureau is responsible for all Component Rehabilitation activities, Emergency Declarations/Specialty Engineering Services, Bridge Painting, and the When and Where Unit.

Component Rehabilitation is the revamping or replacement of damaged, worn or defective bridge components. This type of work is performed primarily on those structures not classified as being "deficient," but which contain specific components that have low condition ratings. By rehabilitating these components, the Division can ensure that these bridges remain in "good" or "very good" condition; usually extending the bridge's useful life by up to 10 years. Section Heads or Engineers-in-Charge (E.I.C.'s) report to the Director of Component Rehabilitation. Each is assigned a specific bridge, or bridges, for which they are responsible for all component rehabilitation activities. In addition, the Component Rehabilitation Unit will be administering a new capital When and Where contract. The When and Where Unit will be responsible for the active construction and daily monitoring and supervision of the contract.

The *Emergency Declarations/Specialty Engineering Group* provides technical and procurement expertise related to the following areas: preparing Emergency Declarations for unsafe conditions that require immediate remediation; assisting the Chief Bridge Officer in the contractor selection process for declared emergency situations; providing technical expertise related to the development, procurement and administration of Design-Build contracts throughout the various areas of the Division; preparing and administering Design-Build agreements; and supervision of Design-Build project design, construction, and inspection services.

The *Bridge Painting* section's function is to maintain the protective coating of the City's bridges. The section is divided into two programs, the in-house (expense) program and the capital program. The capital program oversees total paint removal and repainting, performed by contractors; this is done at twelve-year intervals on bridges measuring more than 100,000 square feet of painted area, and bridges over railroads. In-house personnel provide the inspection services on East River Bridge preventive maintenance contracts for quality control purposes. The in-house program is responsible for full steel painting of bridges measuring less than 100,000 square feet, and bridges that are not over railroads. This includes local surface preparation of deteriorated areas and overcoating of the entire bridge. In addition, the in-house program is responsible for salt splash/spot painting.

Salt splash/spot painting is performed four years after full steel painting, and again four years later. After another four years, we once again perform full steel painting. The interval between full steel applications remains twelve years.

Members of the in-house program respond to emergency flag repairs alongside the in-house repair forces, to perform surface preparation prior to, and painting upon completion of, the steel work. In-house painting personnel also perform environmental clean-up after the iron workers finish their repair work.

The engineers and inspectors of the *When and Where Unit* supervise the contractors' repairs of structural and safety flags citywide under both marine and general repair contracts, as well as a new capital contract. The use of these contracts allows the unit greater flexibility in deploying the contractors' resources as necessary, and in obtaining a variety of construction equipment and materials that are not readily available to in-house forces. In addition, the unit responds to bridge emergencies, providing on-site inspection to verify field conditions, taking measurements for

repairs and providing emergency lane closures. The section also supervises the repair work performed during night hours to reduce the impact on traffic and on public safety.

The Bureau of Management and Support Services provides essential administrative and analytic services to each of the operational bureaus of the Division of Bridges. The Bureau is divided into five primary sections: Office of the Executive Director, Administration and Finance, Capital Procurement, Capital Coordination, and the Truck Permit Unit. Each highly-specialized section is designed to address those issues and requirements that are critical to the operation of the respective Bureaus within the Division.

In addition to the Division-wide responsibility for conflict resolution, Equal Employment Opportunity enforcement, confidential investigations, Bridges' Engineering Service Agreements, space allocation, and special projects, the *Executive Director* oversees, on an executive level, the following areas and functions:

The **Senior Director of the Administration and Finance Section** oversees and administers all administrative/personnel-related functions for the Division, acting as a liaison with the Central Personnel Coordinator in NYCDOT Personnel including, but not limited to, recruiting for vacancies (this includes reviewing for completeness and submitting the necessary paperwork, and reviewing and distributing candidates' resumes); maintaining all Managerial Position Descriptions; maintaining all Division organization charts; scheduling training; confidential investigations; maintaining records of IFA-funded positions; initiating and assisting in resolving disciplinary/grievance actions; serving as Conflicts of Interest and Financial Disclosure Officer; collecting and reviewing managerial and non-managerial performance evaluations; absence control; providing interpretive advice to Division management regarding City and Agency policy and procedures; and overseeing telephone and facility-related issues for personnel located at 55 Water Street and 59 Maiden Lane in Manhattan.

The Senior Director of the Administration and Finance Section also oversees the following three units:

The Analytic Unit prepares comprehensive bi-weekly and monthly reports that address major issues confronting the Division; compiles statistical data detailing the Division's productivity; processes and monitors all FOIL requests; frames issues in which oversight assistance is required for use by the Division, NYCDOT Executive Management and the Mayor's Office; and prepares the City Charter-mandated **Bridges and Tunnels Annual Condition Report**.

The Vehicle Coordination Unit tracks the placement and condition of all vehicles under the jurisdiction of Bridges. It maintains a database and prepares reports containing this information; provides information and reports to appropriate inquiring Divisions and Agencies such as the Auditor General's Office, NYCDOT Legal Department and NYCDOT Litigation Support Services; coordinates the assignments of vehicles and their movement throughout various borough field locations and job sites; prepares reports on Vehicle Status and replacement; prepares reports for the purpose of tracking Overnight Vehicle Assignments for all Division vehicles; receives and routes vehicle Accident Reports, Police Reports and Security Incident Reports relating to vehicle accident, theft and/or vandalism; coordinates priorities for vehicle and equipment repair with Fleet Services; prepares reports and memoranda regarding vehicle safety issues and communication procedures for the NYCDOT Communication Center; and collects required documentation from field personnel for checking Driver Certifications with the Department of Motor Vehicles and EZ Pass.

The *Finance Unit* oversees the Division's entire expense budget process including, but not limited to, base-line preparation, spending plans, overtime control, financial plan changes, and budget modifications. The unit further oversees all Division-wide fiscal activities, including the establishment and monitoring of all IFA-related project budgets, while simultaneously ensuring that the budget and plans represent the Division's priorities.

The *Capital Procurement Section* serves as a liaison between the Division of Bridges and the Office of the Agency Chief Contracting Officer. The duties of this unit include: overseeing the Division's capital consultant contract procurement from scope to registration; acting as liaison between engineers and the consultant programs unit, handling all engineering questions and answers; preparing status reports; and coordinating Railroad Force Account Agreements for Division construction projects.

Railroad Force Account Agreements are a vital component in the rehabilitation/reconstruction program since train traffic affects 326 (41%) of City-owned bridges. Careful cooperation between the NYCDOT and the various railroad agencies that service the metropolitan area is required. The Railroad Coordinator provides a single point of contact for all railroad issues. This coordination includes the use of railroad personnel for track safety, approval of reconstruction design drawings, track shutdowns and reductions in train service for bridge construction work. The coordinator informs managers of "typical" railroad problems and attempts to avoid them through proactive measures.

NYCDOT bridge designers make every effort to prepare accurate and complete contract documents. Unfortunately, in many instances, the original design drawings for the deteriorating bridges no longer exist, and previous records of modifications and repairs are not available. When the contract documents for the bridge reconstruction projects do not accurately address conditions found in the field, Contract Change Requests (CCR) are needed. Change order work can not proceed until the CCR is registered. Due to the nature of bridge construction projects, change order work is often on the critical path. Any delay in the issuance of a change order affects the overall project, and adds substantial overruns to the final cost. A tracking process for change orders has been implemented that significantly reduces the time for the approval process.

The *Capital Coordination Section* is responsible for preparing, coordinating and updating the capital budget and capital program initiative within the Division of Bridges. Currently, the Division's Ten Year Capital Plan is worth approximately \$5 billion. This plan is designed to rehabilitate the City's bridges. Responsibilities include: administering and participating in the development and implementation of planning capital projects; acting as liaison with oversight agencies, DOT Administration and all responsibility centers within Bridges; coordinating the submission of New and Revised Certificates to Proceed for submission to Capital Budget; reviewing and processing transfer of fund requests in an attempt to resolve funding issues; and maintaining the Division's registration report for all current year capital contracts.

The *Truck Permit Section* issues approximately 1,500 Annual Overweight Load Permits (renewals only), 100 Annual Self-Propelled Crane Permits, and in excess of 35,000 Daily Oversize/Overdimensional/Supersize Truck Permits annually; all in accordance with the New York City Department of Transportation Policy and Procedures and the New York City Traffic Rules and Regulations section 4-15.

In 2009, the traffic rules were amended to increase the fees collected for overweight and overdimensional truck permits. The fees previously charged by the Department no longer accurately reflects administrative and labor costs incurred in processing these permits. The new fees for the overdimensional permits are already in effect.

The traffic rules were amended to authorize the issuance of permits for overdimensional and/or overweight combinations of vehicles utilized by haulers of bulk milk. On a daily basis, over one hundred vehicles hauling bulk milk enter the City of New York to transport bulk milk to processing facilities and exit the City empty or carrying bulk cream. The vast majority of these vehicles currently exceed the length and weight limitations set forth in section 4-15 for vehicles operating or moving on highways or bridges in the City. These overdimensional and overweight trucks damage City streets and highways. At the same time, milk haulers will require additional time to convert their fleets to trucks that comply with the City's length and weight requirements. Section 385(15)(d) of the Vehicle and Traffic Law recognizes that milk haulers may be offered permits not available to other truck haulers. Thus, the Commissioner promulgated a rule that will provide the

haulers of bulk milk an incentive to phase in, over a six-year period, the use of smaller trucks that, when carrying bulk milk or cream, would meet the City's length and weight limitations. To accomplish this goal, the rule authorizes the issuance of quarterly overdimensional and overweight permits over a period of six years and imposes a schedule of fees that increase if the applicant does not decrease the number of permits required by a certain percentage. The increases will be implemented beginning with those permits issued during the third year of the rule if the number of permits issued during the prior year has not decreased by a fixed percentage from the first year that the proposed rule is in effect. After the sixth year, no permits will be issued.

The traffic rules were amended to increase the legal weight limit for trucks in order to comply with statewide standards. Engineers within the Department currently use the same formula as those from the New York State Department of Transportation when evaluating the permissible weight of vehicles crossing structures in New York City. As State DOT permits weight of up to 80,000 pounds, the Department wants its rules to be accordingly consistent in order to minimize disruptions in interstate commerce.



In February 2009, a Permit Was Issued for the Move of the Beam Plug of a High Flux Beam Reactor From Brookhaven National Laboratory. The Plug Was Loaded Into a Steel-Supported, Lead Lined Shipping Cask. Although the Metal is Radioactive, the Radiation Cannot be Dispersed. The Driver Was Federally Certified, Accompanied by Armed Escorts, and Only Traveled at Night.

JANUARY

Anti-Icing

Anti-icing crews were deployed on the East River bridges from 7:00 AM to 5:00 PM on January 2, 2009, and again from 1:00 PM on January 6, 2009 until 4:00 AM the following day. No applications of chemicals were necessary. Icicle patrols monitored the FDR Drive, the Brooklyn Queens and Cross Bronx Expressways, and the Battery Park Underpass.



Icicle Removal From an FDR Drive Bridge.

Anti-Icing

On January 10, 2009, 1 inch of snow fell in Central Park, 1.4 inches at La Guardia, and .6 inch at JFK. On January 15, 2009, 1 inch of snow fell in Central Park, 1.3 inches at La Guardia Airport, and .9 inch at JFK Airport. Anti-icing crews were deployed on the East River bridges from 6:00 AM on January 10, 2009 until 8:00 AM the following morning; 20 applications of chemicals were made. They were again deployed on the night of January 13, 2009, making no applications, and on January 14 and 15, 2009, making 14 applications. Priority overpasses were cleared, and icicle patrols monitored the FDR Drive, the Brooklyn-Queens and Cross-Bronx Expressways, and the Battery Park Underpass.

Gennaro Montello Tribute

The American flags on the Brooklyn Bridge were lowered to half-mast by Division painters on January 10, 2009, in tribute to Gennaro Montello of the Department of Environmental Protection. Mr. Montello, 45, a seven year veteran of the Department, died in the line of duty on January 9 while working in the Owls Head Waste Water Treatment plant in Bay Ridge, Brooklyn. The flags were raised on January 14, 2009.

Anti-Icing

On January 18, 2009, 2.2 inches of snow fell in Central Park, 2.5 inches at La Guardia Airport, and 1.8 inches at JFK Airport. On January 19, 2009, 1.8 inches of snow fell in Central Park, and .8 inch at JFK Airport. Anti-icing crews were deployed on the East River bridges from 5:30 AM on January 18, 2009 until 4:00 AM the following morning; 16 applications of chemicals were made. They were again from noon to 10:00 PM on January 19, 2009; making no applications. Priority overpasses were cleared, and icicle patrols monitored the FDR Drive, the Brooklyn-Queens and Cross-Bronx Expressways, and the Battery Park Underpass.

Antonio Pagán Tribute

The American flags on the Brooklyn Bridge were lowered to half-mast by Division painters on January 27, 2009, in tribute to Antonio Pagán, former Councilmember and later Commissioner of the NYC Department of Employment, who died on January 25, 2009. Mr. Pagán, 50, became one of the two first openly gay men elected to the Council in 1991. He headed the Latino Coalition within the Council. Mr. Pagán served as Commissioner under Mayor Rudolph W. Giuliani from January 1998 until 2002; when the Department of Employment was merged into

what is now the Department of Small Business Services under a City reorganization. The flags were raised on January 29, 2009.

Anti-Icing

On January 28, 2009, 3 inches of snow fell in Central Park, 2.9 inches at La Guardia Airport, and 2.3 inchers at JFK Airport. Anti-icing crews were deployed on the East River bridges from 9:00 PM on January 25, 2009 until 4:00 AM the following morning. No applications of chemicals were necessary. They were again deployed from 10:00 PM on January 27, 2009 until 10:30 the following morning; 13 applications were made. Priority overpasses were cleared, and icicle patrols monitored the FDR Drive, the Brooklyn-Queens and Cross-Bronx Expressways, and the Battery Park Underpass.

Department of Transportation Harper Street Maintenance and Repair Shop (Queens)

Cleaning and painting of this structure began and was completed in January 2009.

Department of Transportation Ironworker Shop at 59th Street (Manhattan)

Cleaning and painting of this structure began and was completed in January 2009.

Grand Concourse Bridge over East 204th Street (Bronx)

Cleaning and painting of the bridge, which began in August 2008, was completed in January 2009.

Metropolitan Avenue Bridge over English Kills (Brooklyn)

Cleaning and painting of the bridge operator's house began and was completed in January 2009.

FEBRUARY

Anti-Icing

On February 3, 2009, 4.3 inches of snow fell in Central Park, 2.5 inches at La Guardia Airport, and 1.3 inches at JFK Airport. Anti-icing crews were deployed on the East River bridges from 3:30 PM until 9:00 PM on January 30, 2009. No applications of chemicals were necessary. They were again deployed from 10:00 PM on February 2, 2009 until 4:00 AM the following morning; 11 applications were made. Priority overpasses were cleared, and icicle patrols monitored the FDR Drive, the Brooklyn-Queens and Cross-Bronx Expressways, and the Battery Park Underpass.

Councilmember Samuel Horowitz Tribute

The American flags on the Brooklyn Bridge were lowered to half-mast by Division painters on February 18, 2009, in tribute to former Councilmember Samuel Horowitz, who died on February 16. Mr. Horowitz, 90, was a Brooklyn councilmember for 20 years, representing Coney Island, Brighton Beach, and Sheepshead Bay. He sponsored the first bill requiring that new and repaired sidewalks have curb cuts.

Anti-Icing

Anti-icing crews were deployed on the East River bridges from 11:00 PM on February 21, 2009 until 9:00 AM the following morning. No applications of chemicals were necessary. Icicle patrols monitored the FDR Drive and the Cross Bronx and Brooklyn-Queens Expressways.

Hamilton Avenue Asphalt Plant (Brooklyn)

On February 27 and 28, 2009, Division ironworkers repaired the plant's chutes, bin, and drum.

Department of Transportation Bridge Preventive Maintenance Facilities at Pulaski Yard (Brooklyn)

Cleaning and painting of these structures, which began in January 2009, was completed in February 2009.

Department of Transportation South 6th Street Shop (Brooklyn)

Cleaning and painting of this structure, which began in January 2009, was completed in February 2009.

Belt Parkway Bridge over Mill Basin (Brooklyn)

Cleaning and painting of the bridge operator's house began and was completed in February 2009.

MARCH

Award

In March 2009, the American Council of Engineering Companies of New York selected the reconstruction of the Grand Concourse over East 161st Street and Grand Concourse – East 161st -East 166th Streets for the Diamond Award in the transportation engineering category in its 2009 Engineering Excellence Awards. Founded in 1921, ACEC New York is the oldest continuing organization of professional consulting engineering firms in the United States. The Engineering Excellence Awards Program recognizes engineering achievements that demonstrate the highest degree of skill and ingenuity. This project was substantially completed in November 2008.



Grand Concourse Boulevard Between East 161st and East 166th Streets in 2005 and 2008.



Lou Gehrig Plaza Before and After Reconstruction.

Anti-Icing

On March 1, 2009, 1.4 inches of snow fell at La Guardia Airport, and 1.8 inches at JFK Airport. On March 2, 2009, 6.5 inches of snow fell in Central Park, 5.2 inches at La Guardia Airport, and 5.1 inches at JFK Airport. Anti-icing crews were deployed on the East River bridges from 8:00 PM on February 28, 2009 until 4:00 AM on March 3, 2009; 26 applications of chemicals were made. Priority overpasses were cleared, and icicle patrols monitored the FDR Drive and the Cross Bronx and Brooklyn-Queens Expressways.

Hamilton Avenue Asphalt Plant (Brooklyn)

On March 7, 2009, Division ironworkers repaired the plant's chutes, ducts, and drum.

Brooklyn Bridge

On March 18, 2009, Executive Director of Inspections and Bridge Management Dr. Bojidar Yanev escorted a contingent of civil engineering students from Avans University in the Netherlands on a tour of the Brooklyn Bridge. The group and their professors learned about the original construction of the bridge, as well as the subsequent bridge retrofits, rehabilitation and ongoing maintenance projects.

Hamilton Avenue Asphalt Plant (Brooklyn)

On March 28 2009, Division ironworkers repaired the plant's chutes, bins, and end scoop.

Brooklyn, Manhattan, Queensboro and Williamsburg Bridges

The necklace lights on the Brooklyn, Manhattan, Williamsburg, and Queensboro Bridges were turned off at 8:30 PM on March 28, 2009 as part of the worldwide observance of Earth Hour. This event, organized by the World Wildlife Fund, took place from 8:30 PM to 9:30 PM, and participating venues included Rockefeller Center, 7 World Trade Center, the United Nations headquarters building, the New York Public Library, the Time Warner Center, and the Empire State Building, among others. Over 1,000 cities around the world committed to participate this year, up from 370 last year. The event began in Fiji and then rolled around the globe by time zone throughout the day. Cities participating included Cape Town, Chicago, Copenhagen, Dubai, Hong Kong, Istanbul, Las Vegas, Lisbon, London, Los Angeles, Manila, Mexico City, Moscow, Nashville, Oslo, Rome, San Francisco, Singapore, Sydney, Toronto, and Warsaw. Earth Hour raises awareness about climate change and the threat from rising greenhouse gas emissions.



Division Crews Prepared the Bridges for Earth Hour: Supervisor Electricians Raymond Hanley and Jose Done, Electrician Eugene Kolesnyk, ERB Supervisor Electrician Ben Cipriano, Electrician Richard Parisi, Carpenter Joseph Moschella, and Electricians Jerry Salzman, Thomas Cipriano, and Paul A. Betts. (Credit: Thomas Whitehouse) Electrician Paul Betts and Supervisor Electrician Ben Cipriano on the Brooklyn Bridge Preparing for Earth Hour. (Credit: Hany Soliman)

Astoria Boulevard South over BQE West Leg and 49th Street (Queens)

At about 7:35 PM on March 29, 2009, the Communications Center reported that the bridge rail had been damaged in a motor vehicle accident. The responding engineer found approximately 45 feet of damaged rail. Crews removed the debris and damaged rail and made the area safe

with Jersey barriers. Division ironworkers later installed new posts and rail.

Greenpoint Avenue Bridge over Newton Creek (Brooklyn/Queens)

On March 30, 2009, with the backdrop of the Greenpoint Avenue Bridge, Mayor Michael R. Bloomberg announced the City's selections for infrastructure projects that will benefit from federal transportation funding from the American Recovery and Reinvestment Act.

Six projects will receive direct stimulus funding: the rehabilitation of the Saint George Ferry Terminal Ramps, the Brooklyn Bridge Ramps, upgrades to the Ward's Island Pedestrian Bridge, the rehabilitation of twelve roadway bridges, the painting of two Bruckner Expressway Bridges, and the component rehabilitation of the Greenpoint Avenue Bridge over Newtown Creek.

In addition, four projects will receive displaced funding: the reconstruction of the Claremont Parkway and East 8th Street Access Ramp Bridges, and the repainting of six Belt Parkway/Shore Parkway and 11 bridges running over the Staten Island Railway line.



Commissioner Janette Sadik-Khan, Deputy Mayor Edward Skyler, Mayor Michael R. Bloomberg, and State Assembly Member David Weprin at the announcement. (Credit: Edward Reed)

Queensboro Bridge

March 30, 2009 marked the 100th anniversary of the opening of the bridge.

Department of Environmental Protection Plant at North River (Manhattan)

Cleaning and painting of this structure, which began in January 2009, was completed in March 2009.

Department of Transportation Facilities at Brookville Yard (Queens)

Cleaning and painting of these structures, which began in February 2009, was completed in March 2009.

Department of Transportation Facilities at 390 Kent Avenue (Brooklyn)

Cleaning and painting of these structures began and was completed in March 2009.

Department of Transportation Facilities at Kew Loop Yard (Queens)

Cleaning and painting of these structures began and was completed in March 2009.

Paul Schwartz

Interim Director of Bridge Preventive Maintenance Paul Schwartz was the subject of the "Staff Spotlight" feature in the March 2009 edition of "Byways," the official Agency newsletter.



Interim Director of Bridge Preventive
Maintenance Paul Schwartz at the Gracie
Mansion Reception on May 15, 2007 in
Honor of the 30th Anniversary of the Five
Borough Bike Tour. (Credit: Peter Basich)

APRIL

Award

In April 2009, the Design-Build Institute of America selected the Agency for an "Owner of the Year Award" for Design-Build Excellence in Transportation. The award recognizes an owner organization in transportation that has made significant contributions in advancing awareness, understanding, and use of the design-build project delivery method. Significant Design-Build projects include the reconstruction of the Bruckner Expressway over Amtrak and the Staten Island Ferry Terminal ramps.

Hamilton Avenue Asphalt Plant (Brooklyn)

On April 4 2009, Division ironworkers repaired the plant's chutes, bins, and blocks.

Hamilton Avenue Bridge over the Gowanus Canal (Brooklyn)

The reconstruction of this bridge was substantially completed on April 17, 2009.

Eighth Annual "Take Our Children to Work Day"

On April 23, 2009, as part of the Agency's eighth annual "Take Our Children to Work Day," Division personnel explained and illustrated the activities necessary to maintain the Brooklyn Bridge and to operate the Union and Carroll Street Bridges. This year's theme was "Building Partnerships to Educate and Empower" in order to shape the future for a new generation at work.



Deputy Director of In-House Painting Earlene Powell, Chief Bridge Officer Henry Perahia, Deputy Chief Engineer Russell Holcomb, and Interim Director of Bridge Preventive Maintenance Paul Schwartz With the Children. (Credit: Michele N. Vulcan)



Answering Children's Questions on the Brooklyn Bridge: Interim Director of Bridge Preventive Maintenance Paul Schwartz. Director of Bridge Management Kevin McAnulty. Assistant Civil Engineer Clara Medina and Supervisor Bridge Painter Cesar Pazmino. (Credit: Earlene Powell) Deputy Director of In-House Painting Earlene Powell.



Children and Staff on the Brooklyn Bridge. Supervisor Bridge Operator Mohamed Adel Tork Explaining the Machinery at the Carroll Street Bridge. Children and Staff, Including Bridge Operator David Stewart, Supervisor Bridge Operator Edgardo Montanez, Supervisor Bridge Operator Mohamed Adel Tork, and Bridge Operator in Charge William Bizaldi on the Carroll Street Bridge. (Credit: Earlene Powell)

Department of Transportation Parking Garage Under the FDR Drive at Old Slip (Manhattan)

Cleaning and painting of this structure began and was completed in April 2009.

Queensboro Bridge Ramp from 11th Street & Terrain (Queens)

Cleaning and painting of this bridge, which began in December 2008, was completed in April 2009.

MAY

Macombs Dam Bridge over the Harlem River (Bronx/Manhattan)

May 1, 2009 marked the 114th anniversary of the opening of the bridge.



Macombs Dam Bridge (Elevation Credit: NYSDOT).

West 252nd Street Bridge over Henry Hudson Parkway (Bronx)

The reconstruction of this bridge was substantially completed on May 4, 2009.



West 252nd Street Bridge With New Signage.

32nd Annual Five Borough Bike Tour

In preparation for the 42-mile Five Borough Bike Tour on May 3, 2009, Division personnel swept the Queensboro, Pulaski, Third Avenue, and Madison Avenue Bridges. Carpenters installed temporary plywood covers over the finger joints of the Pulaski Bridge, which were removed after the tour concluded that day.

The Five Borough Bike Tour is produced by Bike New York and the New York City Department of Transportation. Bike New York is a non-profit organization that promotes and encourages bicycling and bicycle safety through education, public events, and collaboration with community and government organizations. Best known for the Five Borough Bike Tour, Bike New York also organizes smaller rides and runs a Bicycle Education Program offering free classes and workshops for adults and children.

Brooklyn Bridge

On May 8, 2009, Division staff hosted students and faculty from the University of Calgary's Schulich School of Engineering on a tour of the public areas of the Brooklyn Bridge and a bridge repair facility.



Supervisor Bridge Painter Cesar Pazmino, Deputy Chief Engineer Russell Holcomb, Supervisor Carpenter Joseph Vaccaro, and Executive Director of Bridge Preventive Maintenance and Repair Thomas Whitehouse With the University of Calgary Students on the Brooklyn Bridge in May 2009. Bridge Repairer and Riveters Joseph Antony, Ignazio Trapani, and Yiu Liu With an Engineering Student.

Queensboro Bridge

The south upper roadway was closed on May 31, 2009 from 6:00 AM until 11:00 AM for the Centennial celebration. The Division provided back-up trucks to assist the NYPD in the roadway closure, and swept the roadway prior to and after the event. Division electricians provided power for the special event's needs. On May 31, the Chief Bridge Officer presented a talk at Rockefeller University regarding recent construction on the bridge.



Queensboro Bridge Centennial Celebration: Department of Records and Information Services
Commissioner Brian G. Anderson, Mayor Michael R. Bloomberg, Commissioner Janette Sadik-Khan, NYC
Bridge Centennial Commission Sam Schwartz, Queens Borough President Helen Marshall, and Manhattan
Borough President Scott Stringer. (Credit: Kristen Artz, Office of the Mayor)



Alan Renz (Grandson of the Queensboro Bridge Designer Gustav Lindenthal), Francesca Lindenthal-Gephardt (Daughter of Gustav Lindenthal), Department of Records and Information Services Commissioner Brian G. Andersson, Queens Borough President Helen Marshall, and NYC Bridge Centennial Commission Director of Community Affairs Joshua A. Knoller. NYC Bridge Centennial Commission Sam Schwartz Explaining the Old Toll Rates to Mayor Michael R. Bloomberg and Commissioner Janette Sadik-Khan. Closed Roadway. (Toll and First Roadway Credit: Joshua A. Knoller, Second Roadway Credit: Bernard Ente)

Andrew Hoang

Assistant Civil Engineer Andrew Hoang was the subject of the "Staff Spotlight" feature in the May 2009 edition of "Byways," the official Agency newsletter.



Assistant Civil Engineer Andrew Hoang Inspecting the Brooklyn Bridge in October 2007.

(Credit: Clara Medina)

35th Avenue Bridge over Brooklyn-Queens Expressway (Queens)

Cleaning and painting of the bridge began and was completed in May 2009.

JUNE

11th Avenue Viaduct (West 30th Street to West 33rd Street) over LIRR West Side Yard (Manhattan)

A Notice to Proceed for the reconstruction of this bridge was issued to the contractor with a start date of June 1, 2009.

Brooklyn Bridge

The project to replace the travelers was substantially completed on June 10, 2009.

32nd Street Bridge over Brooklyn-Queens Expressway (Queens)

Cleaning and painting of the bridge, which began in June 2009, was completed on June 12, 2009.

Cypress Hills Street Bridge over Jackie Robinson Parkway (Queens)

Cleaning and painting of the bridge, which began in June 2009, was completed on June 16, 2009.

Shore Road Bridge over Hutchinson River (Bronx) (a.k.a. Pelham Bay Bridge)

Division representatives participated in the 100th anniversary celebration of this bridge on June 17, 2009. A previous reception was hosted by the former Bronx Borough President Adolfo Carrión in October 2008, but the daytime ceremony had been cancelled because of the weather.



Shore Road Bridge. (Credit: George Kern) Leading the Parade. (Credit: Paul Schwartz)



NYC Records and Information Services Commissioner Brian G. Andersson, Chief Staff Manager Joannene Kidder, Bronx Borough President Ruben Diaz Jr., NYC Bridge Centennial Commission Director of Community Affairs Joshua A. Knoller, and NYC Bridge Centennial Commission Secretary Barry Schneider. Chief Bridge Officer Henry Perahia Riding in Carriage. (Credit: Bernard Ente) Chief Bridge Officer Henry Perahia and Celebrants Wearing Vintage Style Clothing. (Credit: Paul Schwartz)



NYC Bridge Centennial Commission Secretary Barry Schneider and Bronx Borough President Ruben Diaz Jr. (Holding Commemorative Medal). Parks Enforcement Officers and U.S. Armed Services Members. (Credit: Bernard Ente)

NYFD Fireboat. (Credit: George Kern)

Hamilton Avenue Asphalt Plant (Brooklyn)

On June 20, 2009, Division ironworkers repaired the plant's crusher drive and main drum.

Bethel Avenue Pedestrian Bridge over SIRT (Staten Island)

Flag repairs of the fascia girders and masonry, which began on May 16, 2009, were completed on June 22, 2009.

Highland Boulevard Bridge (NB) over Vermont Avenue (Brooklyn)

Cleaning and painting of the bridge, which began in June 2009, was completed on June 25, 2009.

Willis Avenue Bridge over Harlem River (Bronx/Manhattan)

On June 30, 2009, the Agency's summer interns visited the sign, metal fabrication, and paint shops at the Queensboro Bridge plant, and also toured the Willis Avenue Bridge to learn about movable bridge operations.



Administrative Superintendent of Bridge Operations George Kern (Center) Teaching the 2009 Agency Summer Interns at the Willis Avenue Bridge. The 2009 Interns. Bridge Operators-in-Charge Anthony Smalls and Steven Lopez Preparing to Open the Willis Avenue Bridge. (Credit: Edgardo Montanez)



Bridge Site at Full Opening. Bridge Operator Jonathan Martinez Giving the Clearance Signal. Oiler Andrew Sorrentino Assisting With the Opening of the Endlift Platform. (Credit: Edgardo Montanez)



Oiler Daniel Cantirino Near the Endlift Platform. Bridge Operator Antonio Morales Observing the Opening. Bridge Operations Day Crew Reviewing the Opening. (Credit: Edgardo Martinez)

Atlantic Avenue Service Road EB & WB over East New York Avenue, and Atlantic Avenue Service Road over LIRR Atlantic Avenue (Brooklyn)

Cleaning and painting of these bridges, which began in May 2009, was completed in June 2009.

JULY

Cross Island Parkway Bridge over Dutch Broadway – 115th Avenue (Queens)

Cleaning and painting of the bridge, which began in June 2009, was completed on July 7, 2009.

Grand Avenue Bridge over Long Island Expressway (Queens)

Cleaning and painting of the bridge, which began in October 2008, was completed on July 9, 2009.

Hamilton Place Bridge over Long Island Expressway (Queens)

Cleaning and painting of the bridge, which began in October 2008, was completed on July 9, 2009.

Markwood Place Bridge over Jackie Robinson Parkway (Queens)

Cleaning and painting of the bridge, which began in June 2009, was completed on July 9, 2009.

69th Street Bridge over Long Island Expressway (Queens)

Cleaning and painting of the bridge, which began in October 2008, was completed on July 9, 2009.

East 174th Street Bridge over Sheridan Expressway and Amtrak (Bronx)

Cleaning and painting of the bridge, which began in April 2008, was completed on July 10, 2009.

Rosemarie C. O'Keefe Tribute

The American flags on the Brooklyn Bridge were lowered to half-mast by Division painters on July 17, 2009, in tribute to former Mayor's Community Assistance Unit Commissioner Rosemarie C. O'Keefe, who died on July 17. Ms. O'Keefe, 65, began her career in public service as a constituent representative under State Senator Christopher Mega and Congresswoman Susan Molinari, and continued as Assistant Deputy Commissioner for the Department of Parks and Recreation in 1994. Within one year, she became the Deputy Commissioner for Recreation. Mayor Giuliani appointed her as the first Commissioner of the City's Community Assistance Unit in 1996. She created the 9/11 Family Assistance Center, a place where victims' family members could find information and support. The flags were raised on July 21, 2009.

Brooklyn Bridge

On July 24, 2009, Division personnel hosted a Boy Scout Troops #9 and #104 from the New Jersey Shore Council on a tour of the bridge.



Chief Staff Manager Joannene Kidder Instructing the Boy Scouts. (Credit: Joseph Flood) Boy Scouts on the Brooklyn Bridge With Supervisor Highway Repairer Joseph Flood, Assistant Civil Engineer Hany Soliman, Civil Engineer Sunil Desai, Deputy Chief Engineer Russell Holcomb, and Supervisor Bridge Painter Cesar Pazmino. (Credit: Joannene Kidder)

Eight Ramps and One Pedestrian Bridge at the St. George Staten Island Ferry Terminal (Staten Island)

A Notice to Proceed for the reconstruction of these structures was issued to the contractor with a start date of July 27, 2009.

Brooklyn and Manhattan Bridges

On July 28, 2009, the Division began a project to install access control improvements at the entrances of the Manhattan Bridge bikeway and walkway and the Brooklyn Bridge Promenade. These measures will prevent unauthorized vehicle access to the Manhattan and Brooklyn Bridges while enhancing both the security of the bridges and the safety for pedestrian and cyclist crossings. The work is expected to be completed in early 2010.

Hempstead Avenue Bridges over Cross Island Parkway (Queens)

Cleaning and painting of the bridges, which began in July 2009, was completed on July 30, 2009.

Pennsylvania Avenue Bridge over Belt Parkway (Brooklyn)

Cleaning and painting of the bridge, which began in July 2009, was completed on July 30, 2009.

Highland Boulevard Bridge (Westbound) over Jackie Robinson Parkway (Brooklyn)

Cleaning and painting of the bridge, which began in June 2009, was completed in July 2009.

AUGUST

Brooklyn-Queens Expressway West Leg over Grand Central Parkway (Queens)

Cleaning and painting of this bridge, which began in April 2009, was completed on August 7, 2009.

Hamilton Avenue Asphalt Plant (Brooklyn)

On August 10, 2009, Division ironworkers repaired the plant's drum, crusher, and rap bin. On August 15 and 22, 2009, they made additional repairs to the main drum.

East 8th Street Access Ramp (Guider Avenue Ramp to Belt Parkway) over Belt Parkway (Brooklyn)

A Notice to Proceed for the reconstruction of this bridge was issued to the contractor with a start date of August 10, 2009.

Firefighter Paul Warhola Tribute

The American flags on the Brooklyn Bridge were lowered to half-mast by Division painters on August 14, 2009, in tribute to Firefighter Paul Warhola of Engine Company 221 in Brooklyn. He suffered a stroke while answering a fire call in the Williamsburg section of Brooklyn on August 12, and died on August 14. Firefighter Warhola, 47, was a 15-year veteran of the FDNY. He was appointed to the FDNY on January 16, 1994, and spent his entire career working at Engine 221. Firefighter Warhola was the 1,141st member of the New York City Fire Department to make the supreme sacrifice in the Department's 145-year history. The flags remained at half-mast until August 20, 2009.



Firefighter Paul Warhola

Cross Island Parkway over Fort Totten Entrance (Queens)

Cleaning and painting of the bridge, which began in August 2009, was completed on August 24, 2009.

47th Street Bridge over Grand Central Parkway (Queens)

Cleaning and painting of the bridge, which began in April 2009, was completed on August 31, 2009.

SEPTEMBER

Award

In September 2009, the National Steel Bridge Alliance selected the Hamilton Avenue Bridge over the Gowanus Canal project as the winner in the movable span category in its 80th awards competition. The Steel Prize Bridge Awards honor significant and innovative steel bridges constructed within the United States and Canada. Projects are judged on cost effectiveness, initial cost, life-cycle cost, innovation, aesthetics, and design.

Boston Post Road Bridge over Hutchinson River (Bronx)

Cleaning and painting of the bridge, which began in April 2009, was completed on September 4, 2009.

Jackie Robinson Parkway and Union Turnpike over Austin Street (Queens)

Cleaning and painting of the bridge, which began in August 2009, was completed on September 4, 2009.

Queensboro Bridae

The Agency's Urban Art Program enhances public space through art and improved street design and streetscapes. Launched in October 2008, the program brings the vision of the Agency's World Class Streets initiative to life by partnering with community organizations to install murals, sculptures and other art forms in plazas and on medians, triangles, sidewalks, jersey barriers and construction fences for up to 11 months on NYCDOT properties.

The final installation of "Urban Garden," a sculptural piece by Pasqualina Azzarello in partnership with Recycle-A-Bicycle, was completed on September 9, 2009. The artwork, made from recycles bicycle parts, is located under the Queensboro Bridge near an existing fence at Vernon Boulevard.



"Urban Garden." (Credit: Emily Colasacco)

Patriot Day Tribute

The Brooklyn Bridge flags flew at half-mast on September 11, 2009 to commemorate National Day of Service and Remembrance.



Brooklyn Bridge Flag at Half-Mast at Dusk. (Flag Credit: Michele N. Vulcan)

Beverly Road Bridge over NYCT (Brooklyn)

Flag repairs of the north girders, which began on September 5, 2009, were completed by Division ironworkers on September 19, 2009.

Hamilton Avenue Asphalt Plant (Brooklyn)

On September 19, 2009, Division ironworkers repaired the plant's main drum and chute. On September 26, 2009, they made additional repairs of the main drum. On September 28, 2009, they responded to an emergency call to repair a broken ring on the discharge chute.

Northern Boulevard Bridge over Alley Creek (Queens)

Cleaning and painting of the bridge, which began in September 2009, was completed on September 23, 2009.

Union Turnpike Bridge over Cross Island Parkway (Queens)

Cleaning and painting of the bridge, which began in September 2009, was completed on September 24, 2009.

Manhattan Bridge

Part of the 13th annual DUMBO Art Under the Bridge Festival, from September 25 to 27, 2009, the artist Sean Capone's "Camera Rosetum" artwork consisted of video computer animation projected onto the roof of the Water Street Arch.



Video Projection in the Water Street Arch. (Credit: DUMBO NYC)

Clintonville Street Bridge over Cross Island Parkway (Queens)

Cleaning and painting of the bridge, which began in September 2009, was completed on September 29, 2009.

Queens Boulevard Bridge over Jackie Robinson Parkway (Queens)

Cleaning and painting of the bridge, which began in September 2009, was completed on September 29, 2009.

Willis Avenue Bridge over Harlem River (Bronx/Manhattan)

In September 2009, the Mayor's Office of Film, Theatre, and Broadcasting named this bridge as a "Location of the Month." The Willis Avenue Bridge spans the Harlem River, and connects Manhattan's First Avenue and 125th Street to Willis Avenue and 132nd Street in the Bronx. The bridge, which is currently undergoing replacement, has been used by productions including the movie *Midnight Cowboy*, and the television show *Rescue Me*, and is showcased each year in the New York City Marathon.



Willis Avenue Bridge. (Credit: Brain Gill)

OCTOBER

Grand Concourse Bridge over East 175th Street (Bronx)

Cleaning and painting of the bridge, which began in September 2009, was completed on October 2, 2009.

Hamilton Avenue Asphalt Plant (Brooklyn)

On October 2, 2009, Division ironworkers assisted with the installation of a motor for the plant's excavator and repaired the drum and silo.

Richard Timmins Tribute

The American flags on the Brooklyn Bridge were lowered to half-mast by Division painters on October 2, 2009, in tribute to Sanitation Worker Richard Timmins, 46, a 5 year veteran of the Department, who died in the line of duty on that day. The flags were raised on October 8, 2009.





Sanitation Worker Richard Timmins. Brooklyn Bridge Flag at Half-Mast. (Flag Credit: Russell Holcomb)

Manhattan Bridge

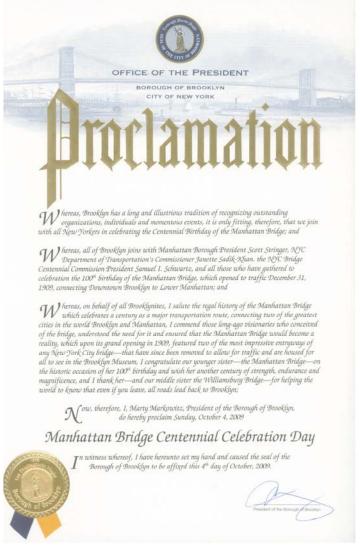
In cooperation with the Office of the Mayor, the Offices of the Borough Presidents of Manhattan, Queens, Brooklyn and the Bronx, the Department of Transportation, the Department of Parks and Recreation, the Landmarks Preservation Commission, the Department of Records and Information Services, Hunter College, La Guardia Community College and non-profit groups and private citizens, the aim of the NYC Bridge Centennial Commission is to promote the 100th year anniversary of six historic New York City bridges, to educate the public about the bridges' role in the life of the city, to encourage respect for the history of New York City; to heighten the public's awareness of the City's infrastructure and the need to maintain it; and to stimulate the interest of the public in celebrating the centennial of these six bridges. The six structures are the Borden Avenue, University Heights, Pelham Bay, Queensboro, Manhattan, and Madison Avenue bridges. October 4, 2009 was declared "Manhattan Bridge Centennial Commission Day."





Bridge Detail. (Credit: Russell Holcomb) Manhattan Plaza, Historic Arch, And Colonnades. Bridge Detail. (Credit: Jagtar Khinda)

On October 4, 2009, the Brooklyn-bound upper roadway was closed from 6:00 AM to 12 PM for ceremonies to commemorate the Centennial. Commissioner Sadik-Khan, the Manhattan and Brooklyn Borough Presidents, representatives of the NYC Bridge Centennial Commission and the American Society of Civil Engineers spoke to the crowd about the history of the Bridge, its importance to the City's transportation system, and the Bridge's utility to the people of Manhattan and Brooklyn. On October 6, 2009, the Chief Bridge Officer made a presentation on the design and construction of this bridge at a lecture sponsored by the Bridge Centennial Commission.



Manhattan Bridge Proclamation by the Brooklyn Borough President.

CHRONOLOGY



NYC Bridge Centennial Commission Sam Schwartz, Brooklyn Borough President Marty Markowitz, Commissioner Janette Sadik-Khan, and Manhattan Borough President Scott M. Stringer. Robert Olmsted Holding a Copy of the National Historic Civil Engineering Landmark Plaque. NYFD Fireboat. (Credit: Jagtar Khinda)



Interim Director of Bridge Preventive Maintenance Paul Schwartz and Manhattan Bridge Engineer-In-Charge Brian Gill. (Credit: Jagtar Khinda) Civil Engineer Jagtar Khinda. (Credit: Brian Gill) The Old Toll Rates. (Credit: Jagtar Khinda)



Parade Across the Bridge. (Credit: Brian Gill) Vintage Cars. (Credit: Jagtar Khinda) Crimson Kings Marching Band. (Credit: Bernard Ente)

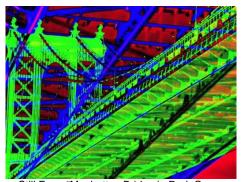


U.S. Merchant Marine Academy Fanfare Trumpeters. (Credit: Brian Gill) Manhattan Bridge Engineer-In-Charge Brian Gill and NYC Bridge Centennial Commission Sam Schwartz. (Credit: Jagtar Khinda) Commissioner Janette Sadik-Khan, and Manhattan Borough President Scott M. Stringer. (Credit: Brian Gill)



National Historic Civil Engineering Landmark Plaque on the Bridge. Murray Bergtraum High School Athletic Field Seen Through the Columns of the Manhattan Bridge. Manhattan Bridge Walkway. (Credit: Russell Holcomb) Fireworks Show. (Credit: Brian Gill)

On October 7, 2009, "Bright Nights," a series of digital artwork, was projected on the Manhattan Bridge Anchorage (Adams & Front Street side) in DUMBO, Brooklyn, from 7:00 PM until 10:00 PM. The program was chosen to coincide with the 100th birthday of the bridge and the 10th annual Walk21 conference. Four Brooklyn-based artists created new works that interpret the unique physical, spatial, and historical components of the bridge. The artists were chosen for their ability to energize a public space, in celebration of the major thoroughfare's 100th birthday. Participating artists were Burak Arikan, Motomichi Nakamura, Marius Watz, and Lee Wells. Images by the artist Patrick Singh were projected on the bridge's buttress wall (along Pearl, Water and Front Streets) on the evening of October 24, 2009.



Still From "Manhattan Bridge in Red, Green and Blue" for the Bright Nights Projection (Credit: Lee Wells)

Grand Concourse Bridge over Burnside Avenue (Bronx)

Cleaning and painting of the bridge, which began in October 2009, was completed on October 20, 2009.

Award

On October 21, 2009, Chief Bridge Officer Henry Perahia received an Outstanding Achievement Award from the South Asian American Association.



Deputy Chief Engineer Jay Patel, Mrs. Perahia, Chief Bridge Officer Henry Perahia. Administrative Engineer Udayakumar Dommaraju, Deputy Chief Engineer Kamal Kishore. (Credit: Bernard James)



First Deputy Commissioner Lori Ardito and Chief Bridge Officer Henry Perahia. (Credit: Bernard James)

Eastern Parkway Bridge over Franklin Shuttle (Brooklyn)

The project to reinforce the I-beams, replace deteriorated timber planks, and repoint the joints between bricks with mortar in the vicinity of the utility supports was completed by Division ironworkers, carpenters, masons, and bricklayers on the night of October 22, 2009.



Cement Masons Frank Finizio and Paul Maguire. Bricklayer Vincent Scuilla and Cement Mason Frank Finizio. (Credit: Mohammad Siddiqui)

Belt Parkway Bridges over Paerdegat Basin, Fresh Creek, and Rockaway Parkway (Brooklyn)

A Notice to Proceed for the reconstruction of these bridges was issued to the contractor with a start date of October 26, 2009.

Division Years of Service Ceremony

Division personnel were honored on October 27, 2009 for their years of service to the City. Executive Director of Management and Support Services Dorothy Roses led the ceremony.

35 Years of Service

Associate Staff Analyst Norine Enrione, and First Deputy Chief Engineer Russell Holcomb.

30 Years of Service

Associate Staff Analyst Barbara Pedersen.

25 Years of Service

Bridge Operator In Charge Tony Allen, Associate Staff Analyst Victoria Bailey, Bridge Operator In Charge William Bizaldi, Electrician Thomas Cipriano, Carpenter Thomas Gilmore, Supervisor Highway Repairer Anthony Gnerre, Bridge Operator Theodore Hardwick, Area Supervisor Highway Maintenance Howard Lesser, Supervisor Highway Repairer Salvatore Mazzatenda, Oiler Thomas McAuliffe, Chief Bridge Officer Henry Perahia, Construction Project Manager Victor Sandoval, and Administrative Staff Analyst Michael Tohl.



At the Ceremony: Electrician Thomas Cipriano, Construction Project Manager Victor Sandoval, Administrative Staff Analyst Michael Tohl, Bridge Operator In Charge William Bizaldi, First Deputy Chief Engineer Russell Holcomb, Associate Staff Analyst Norine Enrione, Chief Bridge Officer Henry Perahia, Associate Staff Analyst Barbara Pedersen, Supervisor Highway Repairer Salvatore Mazzatenda, Oiler Thomas McAuliffe, and Bridge Operator Theodore Hardwick. (Credit: Michele Vulcan)



Unable to Attend the Ceremony: Bridge Operator In Charge Tony Allen, Associate Staff Analyst Victoria Bailey, Carpenter Thomas Gilmore, Supervisor Highway Repairer Anthony Gnerre, and Area Supervisor Highway Maintenance Howard Lesser.

11th Avenue Viaduct (West 30th Street to West 33rd Street) over LIRR West Side Yard (Manhattan)

Installation of the railroad horizontal and vertical protective shields, which began on September 23, 2009, was completed on October 27, 2009.



Installed Railroad Protective Shields.

Macombs Dam Bridge over the Harlem River (Bronx/Manhattan)

The concentricity testing of the bridge by the contractor took place on the nights of October 31 and November 1, 2009, requiring closure of the bridge from 1:00 AM until 6:00 AM. Division engineers, oilers, and electricians were on stand-by and received training. All tests were satisfactory.



Macombs Dam in October 2009. Displacement Sensor Recording the Position of the Center of the Bridge During a Bridge Opening. Sensor Recording Program. Measuring Tooth Backlash for the Concentricity Test. (Credit: Vera Ovetskaya)

Borden Avenue Bridge over Dutch Kills (Queens)

In October 2009, the Mayor's Office of Film, Theatre, and Broadcasting named this bridge as a "Location of the Month." The Borden Avenue Bridge is located just south of the Long Island Expressway between 27th Street and Review Avenue in the Sunnyside section of Queens. The bridge is currently undergoing emergency reconstruction.

44th Street Bridge over Grand Central Parkway (Queens)

Cleaning and painting of the bridge, which began in July 2009, was completed on October 30, 2009.

South Conduit Boulevard Bridge over Belt Parkway (Queens)

Cleaning and painting of the bridge, which began in October 2008, was completed in October 2009.

NOVEMBER

New York City Marathon

In preparation for the Marathon on November 1, 2009, Division personnel inspected and cleaned the Queensboro, Pulaski, and Madison Avenue Bridges, and re-configured the Jersey barriers and placed hay bales at the ramps to the lower level of the Queensboro Bridge. The bridge reconstruction contractor prepared the Willis Avenue Bridge for the event. Painting crews continued graffiti patrols through the morning of the race. An ironworker crew was on standby to install plates if needed. Standard traffic configurations were restored by 4:00 PM on Sunday.



Placing Hay Bales at the Ramps to the Lower level of the Queensboro Bridge: Highway Repairers Louie Dumeng and Darryl Anderson. The Queensboro Bridge Preparation Crew: Assistant City Highway Repairer Joseph Brucculeri and Highway Repairer Joseph Cappello (sitting); Highway Repairers Sharon Britt and Darryl Anderson, Interim Director of Bridge Preventive Maintenance Paul Schwartz, Area Supervisor Highway Maintenance James Campbell, Assistant City Highway Repairer Peter Valentino, Highway Repairer Louie Dumeng, and Supervisor Highway Repairer Michael Parise. (Credit: Joseph Flood)



Australia's Kurt Fearnley, Winner of the Men's Wheelchair Division. Male and Female Wheelchair Racers at Mile 16, On the 59th Street Ramp of the Queensboro Bridge. Female Racers on the Queensboro Bridge: Kenya's Salina Kosgei (Wearing Blue Shorts, 5th Place), Great Britain's Paula Radcliffe (4th Place), Russia's Ludmila Petrova (2nd Place), and France's Christelle Daunay (3rd Place). (Credit: Paul Schwartz)



Ethiopia's Derartu Tulu (at Left, Wearing Blue and White Top, Winner). Male Racers on the Queensboro Bridge: United States' Jorge Torres (Wearing Orange Shorts,7th Place), and Kenya's Robert Kipkoech Cheruiyot (Wearing Blue Top, 2nd Place). United States' Meb Keflezighi (Wearing White Top, Winner), and Ryan Hall (Wearing Bib #5, 4th Place). (Credit: Paul Schwartz)



Wheelchair Racers on the Willis Avenue Bridge Approach. Female Racers on the Approach to the Willis Avenue Bridge from First Avenue: Great Britain's Paula Radcliffe (4th Place), Russia's Ludmila Petrova (2nd Place), France's Christelle Daunay (3rd Place), and Ethiopia's Derartu Tulu (Winner). Male Racers on the Approach to the Willis Avenue Bridge from First Avenue: Kenya's Robert Kipkoech Cheruiyot (2nd Place), United States' Meb Keflezighi (Winner), and Morocco's Jaouad Gharib (2nd from Right, 3rd Place). (Credit: Edgardo Montanez)



Runners Alongside the Construction Site of the New Willis Avenue Bridge. The Carpeted Willis Avenue Bridge. (Credit: Edgardo Montanez)

Queens Boulevard Bridge over Access Road to BQE SB (Queens)

Cleaning and painting of the bridge, which began in October 2009, was completed on November 4, 2009.

Riverdale Avenue Bridge over Henry Hudson Parkway (Bronx)

The component rehabilitation of this bridge was substantially completed on November 5, 2009.

West 246th Street Bridge over Henry Hudson Parkway (Bronx)

The component rehabilitation of this bridge was substantially completed on November 5, 2009.



West 246th Street Bridge in August 2009. Re-pointing the Abutment Walls and Wing Walls in October 2009.

FDR Drive at Brooklyn Bridge (Manhattan)

On November 8, 2009, in response to safety and red flags issued following a vehicular accident, Division ironworkers replaced damaged railing and repaired a fascia girder. The left lane of the ramp from the southbound drive to the bridge was closed from 11:00 AM. to 7:00 PM.



FDR Drive Safety Flag Condition - Before and After. (Credit: Bojidar Yanev)

Miriam Friedlander Tribute

The American flags on the Brooklyn Bridge were lowered to half-mast by Division painters on November 12, 2009, in tribute to former Councilmember Miriam Friedlander, who died on October 4, 2009. Ms. Friedlander, 95, was a Manhattan councilmember for 17 years, representing the East Village and the Lower East Side. She advocated on behalf of gay and lesbian issues, women, tenants, and the homeless.

Brooklyn Queens Expressway East Leg North Bound over 32nd Avenue (Queens) Cleaning and painting of the bridge, which began in October 2009, was completed on November 13, 2009.

Grand Concourse Bridge over East Kingsbridge Road (Bronx)

Cleaning and painting of the bridge, which began in October 2009, was completed on November 13, 2009.

Pulaski Bridge over Newtown Creek (Brooklyn/Queens)

The "Bridge That Binds," an art installation by Joel Voisard in partnership with Transportation Alternatives, was officially unveiled on the Pulaski Bridge on November 19, 2009. The 11 month installation is part of the Agency's Urban Art Program. The art consists of a bench sculpture made from reclaimed lumber and stencil graphics. The graphics include a series of silhouettes expressing, gesturing and performing different actions like walking and riding bikes along the pedestrian path to a meeting point at the center of the bridge. Stencils extending from the Queens side are colored in maroon, inspired by the "7" train logo, while those from the Brooklyn side are green in honor of the "G" train.



Pulaski Street Bench and Stencils. (Credit: Emily Colasacco) Marathoners Passing the Artwork on November 1. (Credit: Joel Voisard)

Award

On November 20, 2009, Deputy Chief Engineer Russell Holcomb was presented the Municipal Engineer of the Year award from the Municipal Engineers of the City of New York. Members of the society include professional engineers as well as licensed architects, attorneys and urban planners, all of whom share the common goal of guiding and promoting the development of infrastructure improvements within the New York metropolitan area. Through monthly meetings and lectures, the organization serves as a conduit for these professionals to exchange information and remain up to date with current practice. The organization was founded in 1903. Chief Bridge Officer Henry Perahia presented the award to Mr. Holcomb at the organization's annual dinner-dance.



Deputy Chief Engineer Lawrence King, Deputy Chief Engineer Kamal Kishore, Anand Lalchandani, Chief Bridge Officer Henry Perahia, Retired Deputy Chief Engineer Albert Novak, Paul Kidder, Deputy Director of In-House Painting Earlene Powell, Auditor General Lucita Andres, Mrs. Perahia, Mrs. Novak, and Chief Staff Manager Joannene Kidder. (Bernard James) Deputy Engineer-In-Charge Brian Gill. (Credit: Earlene Powell)



President Paul Nietzschmann, Deputy Chief Engineer Russell Holcomb, Chief Bridge Officer Henry Perahia. Municipal Engineer of the Year Russell Holcomb. (Credit: Earlene Powell)

Brooklyn Bridge

The final installation of "Flock to Living," an art piece by Johan Kritzinger in partnership with the Action Arts League, was completed on November 21, 2009. The 11 month installation is part of the Agency's Urban Art Program. The artwork is located at Frankfort and Pearl Street, and consists of six multi-colored birds inspired by toys found in nearby Chinatown and the actual birds that perch on the Brooklyn Bridge structure. If you listen closely, the faint sound of bells can be heard up above. Antique bells, discovered at various fairs in upstate New York, hang from the bird silhouettes, ringing as gusts of wind move the bells to and fro.



"Flock to Living." (Credit: Emily Colasacco)

Ocean Avenue Pedestrian Bridge over Sheepshead Bay (Brooklyn)

Cleaning and painting of the bridge, which began in October 2009, was completed on November 24, 2009.

Queensboro Bridge (Upper Level) Exit Ramp to East 62nd/63rd Streets (Queens)

Cleaning and painting of the bridge, which began in November 2009, was completed on November 25, 2009.

83rd Annual Macy's Thanksgiving Day Parade

Division engineers assisted the Office of Emergency Management and the NYPD in the selection of the new parade route along 7th and 6th Avenues. They also reviewed and approved the design specifications of four new large balloons to be introduced in the parade, as follows: Sailor Mickey, Spiderman, Pillsbury Dough Boy, and Ronald McDonald. A balloon is classified as large if it is larger than 5,000 cubic feet. However, the balloons in the parade cannot be taller than 70 feet, wider than 40 feet, or longer than 78 feet. Division representatives attended the test flights of the balloons at the Meadowlands Racetrack on November 7, 2009, with NYPD and other agencies.

On November 26, 2009, wind speeds were relatively low and the balloons flew in the parade without incident. The average wind speed was light (between 5 and 10 miles per hour) during the parade. Chief Bridge Officer Henry Perahia, Director of Engineering Review Abul Hossain, and George Jarvis were positioned at various locations along the parade route to observe compliance with the approved procedures. Eight anemometers were mounted on the top of light poles along the new parade route between 77th Street and 34th Street to measure wind speed during the parade. Four Division engineers and four consultant engineers were assigned to the anemometer locations to monitor the wind gusts.



New Spiderman, New Ronald McDonald, New Pillsbury Dough Boy. (Credit: Hu Zhudong)



New Sailor Micky, and Snoopy. (Credit: Hu Zhudong)



Kermit, The National Association of Music Merchants/Sesame Street Float, and Hello Kitty. (Credit: George Jarvis)



Commissioner Janette Sadik-Khan, Chief Bridge Officer Henry Perahia, and First Deputy Commissioner Lori Ardito. Administrative Engineer Udayakumar Dommaraju, First Deputy Commissioner Lori Ardito, Civil Engineer Hu Zhudong, Commissioner Janette Sadik-Khan, and Assistant Civil Engineer George Jarvis. Director of Engineering Review Abul Hossain.

Belt Parkway Bridge over Paerdegat Basin (Brooklyn)

On November 30, 2009, the Division began a significant resurfacing project on the westbound roadway of the Paerdegat Basin Bridge. The work included removal of the existing pavement and installation of new asphalt and pavement markings. The pedestrian/bike path remained open

at all times. The contractor also repaired all inoperable navigation lights. Work was concluded on December 11, 2009.

Brooklyn Queens Expressway (Southbound) over 32nd Avenue (Queens)

Cleaning and painting of the bridge, which began in November 2009, was completed on November 30, 2009.

DECEMBER

World AIDS Day

At the request of the United Nations, the necklace lights on the Brooklyn Bridge were turned off at 6:15 PM on December 1, 2009, World AIDS Day. Other participating venues turning off their lights in New York City included all Broadway theaters, Madison Square Garden, Lincoln Center, the Chrysler Building, Radio City Music Hall, the Beacon Theatre and the Washington Square Park Memorial Arch. The New York City event was part of the global "Light for Rights Campaign" organized by amfAR, the Foundation for AIDS Research; UNAIDS - the Joint United Nations Programme on HIV/AIDS; Broadway Cares/Equity Fights AIDS; and World AIDS Campaign.

Brooklyn Queens Expressway East Leg over 30th Avenue (Queens)

Cleaning and painting of the bridge, which began in October 2009, was completed on December 4, 2009.

Hamilton Avenue Asphalt Plant (Brooklyn)

On December 5, 2009, Division ironworkers repaired the plant's silo and drum.

National Pearl Harbor Remembrance Day

The Brooklyn Bridge flags flew at half-mast on December 7, 2009 to commemorate National Pearl Harbor Remembrance Day, in honor of those who died as a result of their service at Pearl Harbor and to pay special tribute to veterans of World War II.

Hamilton Avenue Asphalt Plant (Brooklyn)

On December 12, 2009, Division ironworkers performed routine maintenance on the plant machinery. They also removed old and damaged plates and installed new plates at the discharge chute located at the top of the silos.

Dennis deLeon Tribute

The American flags on the Brooklyn Bridge were lowered to half-mast by Division painters on December 15, 2009, in tribute to former Human Rights Commissioner and long-time AIDS activist Dennis deLeon, who died on December 14. Mr. deLeon, 61, began his career in public service in the City in 1982, when Mayor Edward I. Koch named him Senior Assistant Corporation Counsel. He was then appointed Director of the Mayor's Commission on Latino Concerns in 1986. In 1988, Manhattan Borough President David Dinkins appointed Mr. deLeon Deputy Borough President. After Mr. Dinkins became Mayor in 1990, he named Mr. deLeon Human Rights Commissioner.

In 1993, Commissioner deLeon was one of the first New York City officials to reveal that he had HIV. In 1994, he returned to the private sector and helped found the Latino Commission on AIDS, where he served as its President for 15 years. In 2003, the organization sponsored the first National Latino AIDS Awareness Day, a program that is now held annually on October 15 in 40 states. The organization works in cooperation with 380 AIDS groups around the country to provide support to Latinos living with and affected by HIV/AIDS. In addition, from 1990 to 1996, Mr. deLeon was co-chair and then chair of the Board of Directors of Housing Works, now one of the largest AIDS service providers in the nation. The flags were raised on December 18, 2009.

Belt Parkway Bridge over Mill Basin (Brooklyn)

On July 13, 2009, the Division began a significant resurfacing project on the Belt Parkway's approaches to the Mill Basin Bridge. The work included subsurface repairs and installation of new asphalt and pavement markings. The pedestrian/bike path remained open at all times. Work on the eastbound roadway was completed on October 25. Division crews repaired in excess of 14,000 square feet of roadway pavement, using 345 tons of asphalt. Work on the westbound lanes began the night of October 26, and were suspended for the winter season in December. A grand total of 18,855 square feet of roadway were repaired, using 469 tons of asphalt.



Resurfacing the Belt Parkway Bridge over Mill Basin on August 3, 2009. The Crew Completed a 13'x29' Cut in the Eastbound Center Lane, West Approach Spans. The Area Before Breakout, Exhibiting Rutting, Cracking and Excessive Patching. Breakout and Removal of Deteriorated Wearing Surface.



Belt Parkway Bridge over Mill Basin: Ironworker Assisting the Crew. Prepped Cut, Ready for Asphalt. Installation of New Asphalt. (Credit: Yousef Demis)



Belt Parkway Bridge over Mill Basin: Installation of New Asphalt. Compacting the Asphalt With the Assistance of a Gasoline Roller Engineer From the Roadway Repair and Maintenance Division. Completed Resurfacing Work.

(Installation Credit: Yousef Demis, GRE Credit: Ali Mozaffari)

Anti-Icing

On December 19, 2009, 9.1 inches of snow fell in Central Park, 6.8 inches at La Guardia Airport, and 11.1 inches at JFK Airport. On Sunday, December 20, 1.8 inches of snow fell in Central Park, 2.4 inches at La Guardia Airport, and 4.7 inches at JFK Airport. Anti-icing crews were deployed on the East River bridges from 8:00 AM on December 19, 2009, until 5:00 PM on December 20, 2009; 17 applications of liquid potassium acetate were made totaling 8,200 gallons. 24 tons of solid sodium acetate were also applied. Priority overpasses were cleared of snow and ice, and icicle patrols monitored the FDR Drive, the Brooklyn-Queens and Cross-Bronx Expressways, and the Battery Park Underpass.

Williamsburg Bridge

December 19, 2009 marked the 106th anniversary of the opening of the bridge.



Williamsburg Bridge in 2003. (Credit: Peter Basich) Tower Detail in 2009. (Credit: Bernard Ente)

Percy E. Sutton Tribute

The American flags on the Brooklyn Bridge were lowered to half-mast by Division painters on December 28, 2009, in tribute to former Manhattan Borough President Percy E. Sutton, who died on December 26. Mr. Sutton, 89, began serving the nation in World War II as a Tuskegee Airman, winning combat stars in two theaters. Captain Sutton later became a civil rights attorney, entrepreneur and politician, serving one term as a State Assemblyman, before taking over as the longest-serving Manhattan Borough President from 1966 to 1977. He was the state's highest-ranking black elected official at the time. Mr. Sutton went on to become a successful entrepreneur, owning both WBLS and WLIB, the city's first black-owned radio station. He purchased and renovated the Apollo Theater in 1981, preventing the landmark's demise. The flags were raised on January 7, 2010.

Hamilton Avenue Asphalt Plant (Brooklyn)

On December 28, 2009, Division ironworkers repaired the plant's cyclone.

Manhattan Bridge

A Notice to Proceed for Contract #14 was issued to the contractor with a start date of December 28, 2009.

New Year's Eve

On the night of December 29, 2009 at the request of the Mayor's Office of Special Events and the NYPD, Division ironworkers temporarily welded shut all manholes in the Times Square area in preparation for New Year's Eve. Celebrating the arrival of the New Year in Times Square was started in 1904 by Adolph Ochs, owner of the *New York Times*. The ball dropping tradition began three years later.

Merrick Boulevard Bridges over Laurelton Parkway (Northbound & Southbound) (Queens)

The component rehabilitation of these bridges was substantially completed on December 30, 2009.



Merrick Boulevard Bridges over Laurelton Parkway (NB and SB) in 2002. (Credit: NYSDOT)



Merrick Boulevard Bridges: Repairing the Under Deck in September 2009. Deck and Sidewalk Repairs in November and December 2009.

130th Avenue Bridges over Laurelton Parkway (Northbound & Southbound) (Queens)

(Queens)
The component rehabilitation of these bridges was substantially completed on December 30, 2009.



130th Avenue Bridges over Laurelton Parkway (EB and WB) in 2002. (Credit: NYSDOT)



130th Avenue Bridges: Under Deck Repair Work in November 2008.

Anti-Icing

On December 31, 2009, 1.5 inches of snow fell in Central Park, 1.7 inches at La Guardia Airport, and 1.6 inches at JFK Airport. Anti-icing crews were deployed on the East River bridges from 8:30 AM until 3:00 PM; seven applications of liquid potassium acetate were made totaling 5,950 gallons. Icicle patrols monitored the FDR Drive, the Brooklyn-Queens and Cross-Bronx Expressways, and the Battery Park Underpass.

Manhattan Bridge

December 31, 2009 marked the 100th anniversary of the opening of the bridge.



Manhattan Bridge. (Credit: Bojidar Yanev) Bridge at Night in May 2008. (Credit: Jason Bax)

Grand Street Bridge over Newtown Creek (Brooklyn/Queens)

Cleaning and painting of the bridge, which began in September 2009, was completed in December 2009.