NEW YORK CITY DEPARTMENT OF TRANSPORTATION
DIVISION OF BRIDGES
2003 BRIDGES AND TUNNELS ANNUAL CONDITION REPORT

View from Manhattan of the Williamsburg Bridge
August 2003 (Credit: Michele N. Vulcan)

Michael R. Bloomberg, Mayor
Iris Weinshall, Commissioner
Judith E. Bergtraum, First Deputy Commissioner

Henry D. Perahia, P.E., Chief Bridge Officer
Russell Holcomb, P.E., Deputy Chief Engineer, Maintenance, Inspections & Operations
Lawrence King, P.E., Deputy Chief Engineer, Roadway Bridges
Kamal Kishore, P.E., Deputy Chief Engineer, Engineering Review & Support
Albert P. Novak, P.E., Deputy Chief Engineer, Specialty Engineering & Construction
Jay Patel, P.E., Deputy Chief Engineer, East River & Movable Bridges
Diana Recor, Chief Staff Manager/Executive Director, Community Affairs
Dorothy Roses, Executive Director, Management & Support Services

Contents

A Message from the

Commissioner

On behalf of the many dedicated professionals who staff the Division of Bridges, it is my pleasure to distribute the 2003 Edition of the New York City Department of Transportation's Annual Bridges and Tunnels Condition Report, as mandated under New York City's Charter. The cover of this issue of the report marks the 100th anniversary of the opening of the Williamsburg Bridge on December 19, 1903. Designed by Leffert L. Buck, the bridge was the longest suspension bridge at the time of its completion and the first with towers entirely made of steel. A massive restoration project is near completion, and will make the bridge as vital for New Yorkers in the 21st century, as it was in the 20th. The release of this document provides the Department of Transportation with an opportunity to display the many achievements, innovations and improvements that were realized by the Division of Bridges during the 2003 calendar year.

As a service organization, the Department of Transportation's Division of Bridges always aims to improve the quality of life for all New Yorkers and to minimize construction disruptions. The judicious use of Incentive/Disincentive clauses to accelerate construction programs, where appropriate, is just one example.

Preventive maintenance is essential in preserving the City's multi-billion dollar investment in its bridges. These steel and concrete structures must be vigilantly protected from the stresses of the weather, traffic, deterioration and neglect. In accordance with the Division of Bridges' pro-active mission, 2003 was an important year for preventive maintenance. In-house repair crews eliminated 208 safety flag conditions that presented clear vehicle or pedestrian traffic hazards. Some 12,037 cubic yards of debris were removed, while 24,292 square feet of concrete were used to renew sidewalks, curbs, and road decks. Workers cleaned 1,549 bridge drains and, in the winter, sprayed 125,000 gallons of anti-icing chemicals on the East River bridges. In addition, crews eliminated 3,367,010 square feet of graffiti.

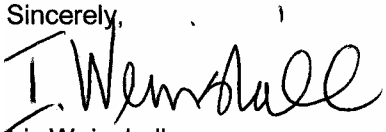
The Division's proud tradition of design and engineering excellence was recognized with the receipt of awards from the New York Association of Consulting Engineers for the rehabilitation of the Queens Boulevard Bridge over Amtrak and LIRR Yard, as well as the reconstruction of the north roadways of the Williamsburg Bridge (Contract #7). The New York City Art Commission selected the 153rd Street Bridge over Metro North project for an Award for Excellence in Design.

In addition, in recognition of their commitment, dedication and outstanding work, Deputy Chief Engineer Kamal Kishore was presented the Outstanding Engineer of the Year award from Local 375, AFSCME, and Chief Bridge Officer Henry Perahia was presented the Municipal Engineer of the Year award from the Municipal Engineers of the City of New York.

In 2003, the Division and its personnel proved, as always, equipped and ready to help the City prepare for major events including the Five Borough Bike Tour, the New York City Marathon, the West Indian Day Parade, the Thanksgiving Day Parade, and New Year's Eve in Times Square.

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

Sincerely,



Iris Weinshall
Commissioner

Inventory

In calendar year 2003, the inventory of bridges under the jurisdiction of the Division decreased from 755 to 753. This was not the only change to the inventory: the condition ratings of the bridges also changed. In fact, over the past 10 years, there has been a 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.

	1994	1995	1996*	1997	1998	1999	2000	2001	2002	2003
Poor	***57***	***60***	***48***	***40***	***24***	***16***	***13***	***9***	***8***	***4***
Fair	421	406	524	530	516	507	481	459	451	429
Good	321	342	148	145	154	160	180	196	202	209
Vgood	***61***	***51***	***59***	***55***	***75***	***81***	***85***	***88***	***94***	***111***
Unrated			68							
	861	**859**	**847**	**770**	**769**	**764**	**759**	**752**	**755**	**753**

* In 1996, NYCDOT adopted a new rating scale to be used to determine the verbal condition of bridges. The new scale matches the rating scale by New York State DOT. The new scale changed the dividing line between Fair and Good bridges from 4.500 to 4.999. The net effect of this change was that, in 1996, 157 bridges that would have been rated Good were classified as Fair. This accounts for the increase in Fair rated bridges and the decrease in Good rated bridges.

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 guidelines established by Federal Highway Administration (FHWA).

2003 was a year in which contract acceleration and the use of incentives/disincentives resulted in the early completion of several new bridge projects, such as:

In March 2003, the **Belt Parkway Bridge over Mill Basin** contractor completed the emergency median guide rail installation and re-opened all lanes to traffic six days ahead of schedule.

In June 2003, the North Upper Roadway of the **Manhattan Bridge** was re-opened to traffic 61 days ahead of schedule, thus earning the contractor a $3 million incentive.

The reconstruction of the **Grand Avenue Bridge over Conrail** was substantially completed in November 2003, four months ahead of schedule.

Restorations

In 2003, the Division completed the following restoration project:

In May 2000, the ironworkers began installing a replica of a historic promenade railing on the Brooklyn-side walkway of the Brooklyn Bridge. The replacement of the deteriorated sections of promenade railing with replicas of the existing steel was completed in December 2003.

East River Bridges Anti-Icing Program

The Division's Anti-Icing Program uses the chemicals potassium acetate and magnesium chloride. The anti-icing fleet consists of fifteen spray trucks, ten plow trucks and several smaller plows. Six of the spray trucks are combination spray/plow trucks with an 1800 gallon tank capacity, and four are spray-spreader/plow trucks with a 900 gallon spray capacity, and a four cubic yard spreader capacity. There are a total fourteen chemical storage tanks, with a total storage capacity of 76,250 gallons.

In the winter of 2002-2003, a total of 125,000 gallons of anti-icing chemicals were applied on the roadways of all four East River Bridges.

Waterway Study

In 1999, the Department procured the services of an engineering firm to undertake a comprehensive study of the City's 25 movable bridges. The surrounding areas, land use, maritime laws, regulations and other factors were considered to assist the Department of Transportation in providing justification to the U.S. Coast Guard for permission to either convert certain of these movable bridges to fixed structures, or to modify their status to reduce the number of bridge openings. Such conversions would save the City annual operation and maintenance costs.

By the end of 2001, DOT advanced the waterway study to the point that we were able to identify those bridges that are suitable candidates for conversion to fixed status. Those bridges are the Borden Avenue and Hunters Point Avenue Bridges over Dutch Kills, the Grand Street Bridge over Newtown Creek, and the Bruckner Expressway over the Bronx River. The Grand Street Bridge is anticipated to be the first to be converted, beginning in Fiscal 2006. The next phase of this study will involve researching right-of-way, legal, and community impact issues.

Marine Borer Study

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 construction work is expected to commence in December 2005.

Based upon information gathered during this study, DOT has expanded the scope of the study to include the inspection of other City-owned property not under the jurisdiction of the Agency. In addition to timber pile supported low level relieving platforms, these structures include masonry or crib-type gravity retaining walls, high level decks, steel sheet pile bulkheads and rip rap embankments. The additional inspection of property belonging to the City but not under the jurisdiction of DOT, which began on May 7, 2001, was completed in April 2002.

In August 2002, an underwater inspection of the timber piles supporting the FDR Drive relieving platform near East 15th Street revealed severe damage by marine borers. Emergency repairs to address this red flagged section began on August 19, 2002, and were completed on September 7, 2002.

A total of six critical conditions and twenty-one immediate repair conditions were identified during the inspections. Critical condition reports, which identified the condition and included sketches and cost estimates for the proposed repairs, were provided for each of the critical conditions. Conceptual repair details and cost estimates were prepared for the immediate repair conditions, defined as those requiring repairs to be carried out within three years from the date of inspection. A detailed evaluation/recommendation report, consisting of inspection findings, repair details, cost estimates and general recommendations, was prepared and distributed to all the concerned agencies, including the Department of Parks and Recreation, the NYC Economic Development Corporation, and the Departments of Sanitation and Environmental Protection.

2003 Awards

In 2003, the outstanding work of the Division was recognized by the receipt of several awards. In April 2003 the New York Association of Consulting Engineers selected the rehabilitation of the Queens Boulevard Bridge over Amtrak and LIRR Yard for an Engineering Excellence Award. The Engineering Excellence Awards Program recognizes engineering achievements that demonstrate the highest degree of skill and ingenuity. In addition to the award for the Queens Boulevard Bridge, in April 2003, the New York Association of Consulting Engineers selected the Reconstruction of the North Roadways of the Williamsburg Bridge (Contract #7) for an Engineering Excellence Award.

In July 2003, the New York City Art Commission selected the 153rd Street Bridge over Metro North project for an Award for Excellence in Design. It was recognized as an outstanding public project which exceeded the Commission's high standards of design.

In November 2003, in recognition of his commitment, dedication and outstanding work, Deputy Chief Engineer Kamal Kishore was presented the Outstanding Engineer of the Year award from Local 375, AFSCME. The Civil Service Technical Guild represents approximately 6,500 professionals, including engineers, architects, scientists, chemists, planners and other technical trades. In addition, on November 21, 2003, Chief Bridge Officer Henry Perahia 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.

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 753 bridges (including 6 tunnels), and 67 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 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 **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.

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 spot and salt splash/spot painting. Salt splash/spot painting is performed five years after full steel painting, and spot painting is performed four years after salt splash/spot. Three years after spot, we once again perform full steel painting. The interval between full steel applications is 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. 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 Deputy Chief Engineer for Specialty Engineering and Construction 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 prepare plans and specifications for bridge rehabilitation/reconstruction projects that enable the Division to restore bridges considered "structurally deficient," to a "very good" condition rating. This unit handles urgent Division projects, as well as special projects under construction by the **Bureau of Bridge Maintenance, Inspections and Operations**. 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.

The ***Engineering Support Section*** is comprised of three units: *Specifications, Surveying and Load Rating,* and *Microfilm and Records Management*.

The *Specifications Unit* prepares and reviews specifications for all in-house and consultant-designed bridge projects, processes the contracts for bidding, prepares and transmits addenda, maintains and updates boiler plates, and maintains an inventory of all NYC and NYS special specifications used in City-let bridge projects. This unit also supervises the consultant design contract "Protection Against Marine Borers".

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 *Microfilm and Records Management Unit* establishes drawing and microfilm standards, and reviews contract drawings prepared by consultants, as well as shop drawings, "as-built" drawings, microfilms and indexes prepared by contractors. This unit maintains design documents and original plan files, upgrades the plan files of original drawings into electronic media and answers requests for information regarding City-owned bridges.

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. This unit also reviews superload truck permit applications and performs load analyses for the City's bridges. 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).

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 fabrication of structural steel and precast/prestressed structural components for federally funded projects, previously handled by NYSDOT, are now being handled by this section. Current major projects include the Macombs Dam Bridge, the Williamsburg Bridge, the Third Avenue Bridge, and the rehabilitation of the Manhattan Bridge North Spans.

Through its *Lead Waste and Hazardous Waste Unit*, Quality Assurance also oversees the implementation of the Final Environmental Impact Statement (FEIS) 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 such as asbestos abatement, soil sampling, groundwater sampling, worker exposure to environmental contaminants, management of waste oil, storage of hazardous waste, site safety, and OSHA compliance. It develops training programs to educate field personnel in proper materials acceptance requirements procedures and methods. The role of this unit in ensuring public safety has been recognized and commended by the community.

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 six 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 753 bridges (including 6 tunnels). The Flags staff are 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, Research, and Development*** 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; 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.

The *Research and Development Unit* is 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. The unit contributed to the 1999 update of the Preventive Maintenance Manual for NYC bridges. In conjunction with the Port, Triborough Bridge and Tunnel, 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. The Bridge Management and Research and Development Units 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 2003, Bridge Operations effected a total of 7,059 openings, 5,935 of which allowed 10,063 vessels to pass beneath the bridges. The remaining 1,124 openings were for operational and maintenance testing. The section also operates the city's six 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 **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 six primary sections: ***Office of the Executive Director, Administrative, Budget, Capital Procurement, Capital Coordination and Truck Sections.*** 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 (EEO) enforcement, confidential investigations, Freedom of Information Law (FOIL) requests, space allocation, mail delivery, and special projects, the ***Executive Director*** oversees, on an executive level, the following areas and functions:

The ***Director of the Administrative 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 EEO 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 Two Rector Street in Manhattan. The Director of Administration also serves as the Deputy Director of the Bureau of Management and Support Services, and assumes the responsibilities of the Executive Director in that person's absence.

The Director of the Administrative Section also oversees the following two 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 NYCDOT Communication Center; and collects required documentation from field personnel for checking Driver Certifications with the Department of Motor Vehicles (DMV).

The ***Director of the Budget Section*** 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 (ACCO). The duties of this unit include: overseeing the Division's capital contracts from inception to completion; acting as liaison between engineers and the consultant programs unit, handling all engineering questions and answers; preparing status reports; managing Bridges' Engineering Service Agreements; overseeing and coordinating all activities involved in the Contract Closeout process; coordinating Railroad Force Account Agreements for Division construction projects; and providing in-house review of contracts.

Railroad Force Account Agreements are a vital component in the rehabilitation/reconstruction program since train traffic affects 317 (42%) 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.

Our Legal Department and Division engineering staff work together to clarify force account language in an attempt to avoid ambiguity. New agreements are being designed to specify clearly when notices for outages or flagging protection are required, who will be responsible when outage/flagging is canceled, and specify those documents that can be audited to expedite reimbursement of bills. These additions will streamline payment processing. The use of a Master Agreement is not feasible since each railroad has its own rules and regulations governing its employees, its own scheduling procedures and different billing requirements/procedures.

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.

This approval process typically requires three to six months to complete. A tracking process for change orders has been implemented; it reduces the time for the approval process to one-and-a-half to three months.

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; developing and maintaining criteria by which the City's involvement in joint City/State projects is analyzed and evaluated; and determining applicability of projects for funding through the Federal Inter-modal Surface Transportation Efficiency Act (ISTEA).

The ***Truck Section*** issues Annual Overweight Load Permits, Annual Self-Propelled Crane Permits, and Daily Oversize/Overdimensional/Supersize Truck Permits, all in accordance with the New York City Department of Transportation Policy and Procedures and the New York City Traffic Rules and Regulations.

JANUARY

Anti-Icing
Beginning on the evening of January 2, 2003, and ending on January 8, 2003, Division personnel applied 18,000 gallons of anti-icing chemicals to the East River bridges. In addition, they shoveled and plowed pedestrian walkways and overpasses, and monitored icicle conditions on the FDR Drive, the Brooklyn-Queens Expressway, the Agency-maintained tunnels, and the Cross Bronx Expressway.

Icicle Patrol
On January 10 and 11, 2003, weather conditions were closely monitored and icicle patrols were sent to the FDR Drive, Cross-Bronx Expressway, Brooklyn-Queens Expressway, as well as the Agency-maintained tunnels.

Glenmore, Pitkin, Sutter, and Liberty Avenue Bridges over LIRR Bay Ridge (Brooklyn)
A Notice to Proceed for the reconstruction of these bridges was issued to the contractor with a start date of January 14, 2003.

Anti-Icing
On January 15 and 16, 2003, Division personnel applied anti-icing chemicals 15 times to the East River bridges. Priority overpasses were de-iced as well. Icicle patrols monitored the FDR Drive, the Brooklyn-Queens Expressway, the Agency-maintained tunnels, and the Cross Bronx Expressway.

Honeywell Street Bridge over Amtrak and LIRR Yard (Queens)
The reconstruction of this bridge was substantially completed and it was re-opened to both vehicular and pedestrian traffic on January 17, 2003.

New Honeywell Street Bridge (Credit: Peter Basich)

Roadway Collapse at 4th Avenue and 19th Street (Brooklyn)
At 7:00 AM on January 17, 2003, at the request of the Office of Emergency Management, Chief Bridge Officer Henry Perahia and Engineer-in-Charge Sajjan Jain of the Division's Geo-Technical Section assessed an emergency condition regarding a partial roadway collapse at 4th Avenue and 19th Street. As a result of unsupported soil cuts deeper than 9 feet made for utility work by NYCDEP's contractor, the soil under a 16-inch gas line was undermined, causing concern regarding the possible collapse of that line. As a result, the Fire Department ordered that all train service at that location be stopped, and that 4th Avenue at that location be closed to vehicular traffic. The vibration levels were measured as a test train on a track furthest from the gas line

(northbound local) was run at low speed, and then another train on the northbound express line was run. Based on these tests, the engineers agreed to allow northbound trains to resume service, and to allow vehicles to travel on 4th Avenue northbound, while the contractor placed compacted sand under the gas line. Southbound subway service and vehicular traffic were allowed to resume only after the gas line was completely supported.

Anti-Icing
On January 26 and 27, 2003, Division personnel applied anti-icing chemicals 8 times to the East River bridges. In addition, the East River bridge pedestrian walkways were plowed, and the priority overpasses were de-iced. Icicle patrols monitored the FDR Drive, the Brooklyn-Queens Expressway, the Agency-maintained tunnels, and the Cross Bronx Expressway.

Belt Parkway Bridge over Mill Basin (Brooklyn)
Due to a Con Edison high voltage power line failure, the bridge lost power for approximately 28 hours, from 7:10 AM on January 27, 2003, to 11:15 AM on January 28, 2003. By noon on January 27, Division personnel were able to restart the boiler and heating system. All services resumed after Con Edison restored power and after a successful test opening.

Hamilton Avenue Asphalt Plant (Brooklyn)
In January 2003, Division ironworkers installed the plant's burner, fabricated and installed an additional catwalk with new supports, fabricated and welded braces on the shakers, modified the base at the front end of the drum, extended the conveyer, and restored the standpipe lines and street lights. In addition, they performed repairs on the plant's dryer, auger, and blue smoke chute.

Broadway Bridge over Harlem River (Bronx/Manhattan)
Cleaning and painting of the bridge operator house began and was completed in January 2003.

Roosevelt Island Bridge over East River/East Channel (Manhattan/Queens)
Cleaning and painting of the bridge operator house began and was completed in January 2003.

FEBRUARY

Hamilton Avenue Asphalt Plant (Brooklyn)
On February 1, 2003, Division ironworkers fabricated and installed a new bulkhead plate for the plant's main drum.

Space Shuttle Columbia Tribute
All seven astronauts on board the Space Shuttle Columbia were lost on the morning of February 1, 2003. The shuttle crew members were Colonel Rick Husband, Lt. Colonel Michael Anderson, Commander Laurel Clark, Captain David Brown, Commander William McCool, Dr. Kalpana Chawla, and Israeli Colonel Ilan Ramon. The American flag on the Brooklyn Bridge was lowered to half-mast by Division bridge painters on the morning of February 2, 2003 in tribute to the Shuttle Columbia astronauts. It remained at half-mast until February 5, 2003.

Conference
On February 3, 2003, Chief Bridge Officer Henry Perahia made a presentation on the construction and rehabilitation of the Williamsburg Bridge cables at the Bridge Engineering Association's seminar on the assessment, design, and erection of bridge cables. This seminar brought together experts from the United States, France, and Norway.

Belt Parkway Bridge over Mill Basin (Brooklyn)

At about 11:50 AM on February 1, 2003, the bridge's southeast semaphore gate was struck by a vehicle and destroyed. Division personnel responded and made the area safe. The eastbound parkway was closed by the NYPD until the vehicle was removed. The bridge was placed on 4-hour notice until the gate was replaced. On the night of February 3, 2003, crews erected a containment and scaffolding. The following night, Division electricians performed all of the necessary wiring. A new gate was installed on the night of February 5; 2003. Removal of the containment and scaffolding took place the following week.

Anti-Icing

In response to the February 6, 2003 snowstorm, Division personnel applied almost 9,900 gallons (26 applications) of anti-icing chemicals to the East River bridges. In addition, they de-iced and plowed the priority overpasses, and monitored icicle conditions on the FDR Drive, Brooklyn-Queens Expressway, the Agency-maintained tunnels, and the Cross Bronx Expressway.

Anti-Icing

In response to the February 16, 2003 blizzard that deposited an average of 21 inches of snow throughout the City, Division personnel applied 22,000 gallons of anti-icing chemicals to the East River bridges. Pedestrian walkways were shoveled and plowed, and priority overpasses were cleared utilizing shovels and snow-blowers. In addition, they monitored icicle conditions on the FDR Drive, the Brooklyn-Queens Expressway, the Agency-maintained tunnels, and the Cross Bronx Expressway. Snow removal continued through February 21, 2003 on the East River bridges and on priority overpasses citywide.

Pulaski Bridge over Newtown Creek (Brooklyn/Manhattan)

On February 22, 2003, Division personnel repaired the bridge's northeast semaphore gate, which had been struck and broken in half by a vehicle on February 11, 2003.

Williamsburg Bridge

The bronze plaque removed earlier during construction was re-installed on the overhead truss at the Brooklyn anchorage on February 24, 2003. A newly fabricated bronze plaque was installed on the overhead truss at the Manhattan anchorage on February 26, 2003. These historical markers commemorate the opening of the bridge on December 19, 1903.

The plaque is attached to the truss in three sections as follows:

Left Panel:

FIRST COMMISSION
APPOINTED JUNE 1895
ANDREW D BAIRD-PRES- SALEM H-NALES-VICE-PRES-
FRANCIS B-THURBER-SECY- RICHARD DEEVEES-TREAS-
JAMES A-SPERRY HENRY BETTERMAN
W-L-STRONG- EX-OFFICIO
C-A-SCHIEREN-EX-OFFICIO- F-W WURSTER-EX-OFFICIO

SECOND COMMISSION
APPOINTED JAN 19-1898
LEWIS NIXON-PRES- JAMES W-BOYLE-VICE-PRES-
SMITH E-LANE-SECY-1899 JAMES D-BELL-SECY-1901
JULIAN D-FAIRCHILD-TREASURER-
JOHN W-WEBER THOS-S-MOORE
R-A-VAN WYCK-EX-OFFICIO

SECOND COMMISSION SUCCEEDED BY
DEPARTMENT OF BRIDGES OF NEW YORK JANUARY 1 1902

Center Panel:

1896 WILLIAMSBURG BRIDGE 1903
AUTHORIZED BY THE NEW YORK STATE LEGISLATURE-LEVI F-MORTON GOVERNOR 1895-WORK WAS STARTED 1896 UNDER THE ADMINISTRATIONS OF W-L-STRONG MAYOR OF NEW YORK C-A-SCHIEREN AND F-W-WURSTER MAYORS OF BROOKLYN-CONTINUED DURING THE ADMINISTRATION OF R-A-VAN WYCK MAYOR OF NEW YORK-OPENED TO THE PUBLIC UNDER THE ADMINISTRATION OF SETH LOW MAYOR OF NEW YORK DECEMBER-19-1903-

Right Panel:

-LEFFERT LEFFERTS BUCK- CHIEF ENGINEER-
O-F-NICHOLS-PRN-ASST-ENGR-

E-G-FREEMAN
E-DURYEA-JR-
RESIDENT ENG'RS

ENG'RS-IN CHARGE
H-D-ROBINSON
K-L-MARTIN

:ASSISTANT ENGINEERS:
J-D-WILKENS
R-E-HAWLEY
W-R-BASCOME
A-JOHNSON
G-S-G-LEWIS
E-D-KNAP
J-A-TILLY
F-L-BRUYN
O-M-KELLY
C-G-WILLIAMS

Text of the Williamsburg Bridge Bronze Plaques

Bruckner Expressway (NB) Service Road Railings over Hutchinson River Parkway (Bronx)
Cleaning and painting of the railings began and was completed in February 2003.

Willis Avenue Bridge over Harlem River (Bronx/Manhattan)
Cleaning and painting of the bridge operator house, which began in January 2003, was completed in February 2003.

145th Street Bridge over Harlem River (Bronx/Manhattan)
Cleaning and painting of the bridge operator house was completed in February 2003.

MARCH

Hamilton Avenue Asphalt Plant (Brooklyn)
On March 1, 2003, Division ironworkers replaced broken brackets on the silos, repaired holes, and removed, straightened, reinforced, and re-installed a grizzly screen.

Williamsburg Bridge
A Notice to Proceed for Contract #8 was issued to the contractor with a start date of March 3, 2003.

Brooklyn Tower Leg of the Williamsburg Bridge

Anti-Icing
In response to the March 6, 2003 snowstorm, Division personnel applied almost 10,000 gallons of anti-icing chemicals to the East River bridges.

Hamilton Avenue Asphalt Plant (Brooklyn)
On March 8, 2003, Division ironworkers performed emergency repairs on the plant's grizzly screen and calibrator.

Grand Street Bridge over Newton Creek (Brooklyn/Queens)
On March 10, 2003, Division personnel installed a new warning gate and made repairs to the light pole that had been damaged by a vehicle on March 1, 2003.

Belmont Park Ramp over Cross Island Parkway (Queens)
The project to point and caulk the stone wall of the underpass, which began on March 6, 2003, was completed by Division masonry crews on March 11, 2003.

St. Patrick's Day Parade
On March 17, 2003, at the request of the Mayor's Office of Special Events, Division personnel temporarily placed four variable message boards along the route to assist participants in the St. Patrick's Day parade in Manhattan. The boards were removed that same evening.

Aqueduct Racetrack Ramp over Belt Parkway (Queens)
The overhead chipping of the bridge's loose concrete, which began on March 19, 2003, was completed by Division personnel on March 24, 2003. During the course of this project, a total of 130 square feet of loose concrete was removed.

Hamilton Avenue Asphalt Plant (Brooklyn)
On March 24 and 25, 2003, Division ironworkers fabricated and installed a 20-foot probe on a front end loader bucket for use at the plant's silos.

Belt Parkway Bridge over Mill Basin (Brooklyn)
The contractor completed the emergency median guide rail installation and re-opened all lanes to traffic on March 29, 2003, six days ahead of schedule.

Bridge Inspectors at the Belt Parkway Bridge Over Mill Basin (Credit: Bojidar Yanev)

Greek Day Parade

On March 29, 2003, at the request of the Mayor's Office of Special Events, Division personnel temporarily placed four variable message boards along the route to assist participants in the Greek Day parade in Manhattan. The boards were removed that same evening.

Macombs Dam Bridge over Harlem River (Bronx/Manhattan)

Stage III construction was completed on March 31, 2003.

Northwest View of Macombs Dam Bridge Swing Span (Credit: Hani Faouri)

APRIL

Award

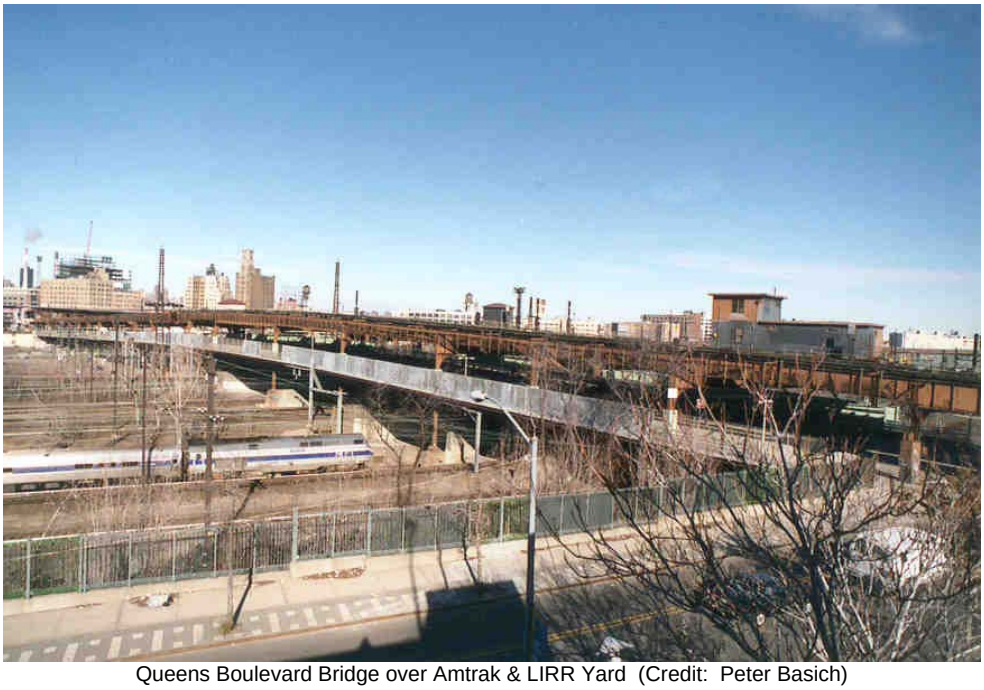
In April 2003, the New York Association of Consulting Engineers selected the rehabilitation of the Queens Boulevard Bridge over Amtrak and LIRR Yard for an Engineering Excellence Award. The Engineering Excellence Awards Program recognizes engineering achievements that demonstrate the highest degree of skill and ingenuity.

Age, weather and increased traffic took their toll on the Queens Boulevard Bridge, which was originally built in 1910. The 93-year-old bridge carries motorists over the Sunnyside Rail Yards, linking Queens Boulevard to Queens Plaza. The structural steel which supports the bridge, roadway surface and bridge joints was severely deteriorated. The bridge had outlived its useful life and needed to be rebuilt to maintain and improve the service it provides as a connector to and from Manhattan.

Besides connecting Sunnyside and Long Island City in Queens, the Queens Boulevard Bridge is a vital link between western Queens and Manhattan via the Queensboro Bridge. More than 52,000 motorists used the bridge in 2000.

The bridge underwent a complete reconstruction, beginning in April 2001. Over the course of this $41 million project, the major improvements included the reconstruction of concrete abutments, crash walls and steel piers; new bridge steel; the installation of new concrete decks and approach pavement; new sidewalks including a walkway/bikeway separated from traffic by concrete barrier; a new and improved overhead lighting system; and the installation of an ITS consisting of nine closed circuit television cameras to monitor traffic and roadway conditions. It also included installation of temporary traffic signals and modifications to the existing signal timing. Nine electronic message boards provided motorists with real-time traffic information. NYPD Traffic Enforcement Agents were strategically deployed at various locations to ease the flow of traffic.

The reconstruction of this bridge was substantially completed on July 31, 2002, and the bridge was fully re-opened to traffic at 5 AM on that date, two months ahead of schedule. The rebuilt bridge carries three westbound lanes, three eastbound lanes and two shared sidewalk/bicycle paths.



Queens Boulevard Bridge over Amtrak & LIRR Yard (Credit: Peter Basich)

Award

In addition to the award for the Queens Boulevard Bridge, in April 2003, the New York Association of Consulting Engineers selected the Reconstruction of the North Roadways of the Williamsburg Bridge (Contract #7) for an Engineering Excellence Award.

The reconstruction work on the north roadways of the Williamsburg Bridge was a mirror image of the completed reconstruction work on the south roadways. It included the complete replacement of the main bridge deck with a steel orthotropic deck system and the construction of new structures on both the Manhattan and Brooklyn approaches. This $202.8 million contract included provisions for financial incentives to ensure that the project was completed within the scheduled roadway closure period, thereby minimizing the impact the closures had on the public.

Work on the north roadway substructure (pile foundations, piers and columns), began in early 2000. All four lanes that constitute the north roadways of the bridge were closed to traffic on January 29, 2001 for demolition and reconstruction.

The two lanes on the north outer roadway were completed and reopened to traffic on December 10, 2001, 50 days ahead of schedule. This allowed four travel lanes into Manhattan during the morning rush hour, and four lanes into Brooklyn during the afternoon rush hour. In addition, Manhattan-bound truck traffic was restored to the two outer roadway lanes, decreasing the demand at both the Manhattan Bridge and the Queens Midtown Tunnel. The contractor earned $100,000 per day (for a maximum of 50 days) in incentive payments for early completion.

The north outer roadway reopening was complemented by the State Department of Transportation's early reopening of the Marcy Avenue connector ramp from the Brooklyn-Queens Expressway to the Williamsburg Bridge. This is the first time in the State's history that a segmented highway bridge was built using technology suited to situations requiring rapid construction with minimal traffic and community impacts.

The north inner roadway was re-opened to traffic on June 10, 2002, 50 days ahead of schedule, thus earning the contractor a $5 million incentive. Mayor Bloomberg and Commissioner Weinshall presided over the opening ceremony.

During construction, the Department maintained pedestrian/bike access across the bridge. The south footpath/bikeway remained open at all times. During Contract #7, DOT constructed a new Manhattan approach ramp and north footpath/bikeway. The new footpath/bikeway has one common access point for pedestrians and cyclists in Manhattan at Clinton Street, which leads to a crossover before the main span of the bridge to enable people to access either the north or south paths. The north path is open to both pedestrians and bicyclists and leads to an access point at Washington Park in Brooklyn. The south path is dedicated to pedestrians and leads to an access point at Bedford Avenue. Completion of the new north walkway also means that, for the first time ever, the bridge is accessible to wheelchair users and meets the requirements of the Americans with Disabilities Act.

Contract #7 was substantially completed on December 12, 2002. The newly completed pedestrian walkway opened to traffic at 3:00 PM on this day.

Williamsburg Bridge

Belt Parkway Bridge over Mill Basin (Brooklyn)

The bridge was re-opened to marine traffic on April 3, 2003. The emergency project on this bridge, which began on December 23, 2002, was substantially completed on April 5, 2003.

Anti-Icing

In response to the April 7, 2003 snowstorm, Division personnel applied 11,000 gallons of anti-icing chemicals to the East River bridges. Pedestrian walkways were plowed, and priority overpasses were shoveled and plowed.

Brooklyn Bridge Walkway & Removing Snow From the Approach Ramp (Credit: Anthony Napolitano)

Removing Snow From the Brooklyn Bridge Roadway & Applying Anti-Icing Chemicals (Credit: Anthony Napolitano)

Applying Anti-Icing Chemicals & Removing Snow from the Brooklyn Bridge Walkway (Credit: Anthony Napolitano)

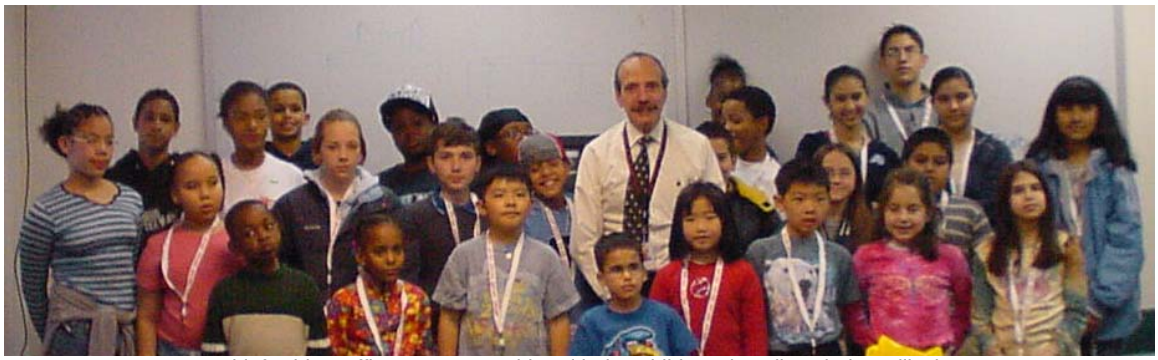
Beverly Road Bridge over BMT Subway (Brooklyn)

Two lanes on the bridge, which had been taken out of service on November 26, 2002, were re-opened to traffic on April 18, 2003, after completion of structural repairs.

Second Annual "Take Our Children to Work Day"

On April 24, 2003, as part of the Agency's second annual "Take Our Children to Work Day," Division personnel hosted 27 children at Division headquarters at 2 Rector Street. The children were treated to videos about bridge painting and the rehabilitation of the Williamsburg Bridge, as well as presentations on bridge painting and safety education.

Deputy Chief Engineer Albert Novak Answering Questions & Bridge Painter Albert Pappas Demonstrating Safety Equipment on a Volunteer (Credit: Gladys Millan)



Chief Bridge Officer Henry Perahia With the Children (Credit: Gladys Millan)

Carroll and Union Street Bridges over the Gowanus Canal (Brooklyn)
On April 29, 2003, Bridge Operations personnel hosted kindergarten students from PS #321 on a class trip to the bridges. Students, teachers, and parents enjoyed their visit.

Children at the Carroll Street and Union Street Bridges. (Credit: Keith Burrowes)

Carroll and Union Street Bridges over the Gowanus Canal (Brooklyn)
On April 30, 2003, Bridge Operations personnel hosted first grade students from the Children's School on a class trip to the bridges. Students, teachers, and parents enjoyed their visit.

Bay 8th Street Bridge over Belt Parkway (Brooklyn)
Cleaning and painting of the bridge was completed in April 2003.

Belt Parkway Bridge over Sheepshead Bay Road (Brooklyn)
Cleaning and painting of the bridge was completed in April 2003.

Roosevelt Avenue Bridge over Flushing Meadow Park Road (Queens)
Cleaning and painting of the bridge was completed in April 2003.

MAY

Five Borough Bike Tour
In preparation for the Five Borough Bike Tour on May 4, 2003, Division personnel performed pothole repairs on the Queensboro Bridge, and the contractor for the Third Avenue Bridge completed all necessary deck and ramp repairs. The night before the event, Division personnel performed mechanical sweeping along the route, including the Queensboro, Pulaski, Third Avenue, Madison Avenue, and Willis Avenue Bridges, and remained on standby until noon on May 4 for any emergency repairs which might have been necessary.

East 3rd and 52nd Street Bridges over LIRR (Brooklyn)
A Notice to Proceed for the reconstruction of these bridges was issued to the contractor with a start date of May 5, 2003.

8th Avenue Bridge over LIRR & Sea Beach NYCT (Brooklyn)
The reconstruction of this bridge was substantially completed and it was re-opened to traffic on May 5, 2003.

New 8th Avenue Bridge as Seen From 62nd Street

Carroll and Union Street Bridges over the Gowanus Canal (Brooklyn)
On May 6, 2003, Bridge Operations personnel hosted kindergarten students from PS #321 on a class trip to the bridges. Students, teachers, and parents enjoyed their visit.

Conference
On May 8, 2003, Chief Bridge Officer Henry Perahia, Deputy Chief Engineer Lawrence King, Director of Bronx, Queens, and Staten Island Roadway Bridges Ali Mallick, and George Tawfik of Ammann & Whitney P.C. made a presentation on the reconstruction of the Queens Boulevard Bridge at the American Society of Civil Engineers Metropolitan Section Structures Group 2003 Spring Seminar.

Amman & Whitney Project Design Engineer George Tawfik; Deputy Chief Engineer Lawrence King; Assistant Project Engineer Waliur Rahman; Chief Bridge Officer Henry Perahia; Project Engineer Mohan Makhijani; and Director of Bronx, Queens, and Staten Island Roadway Bridges Ali Mallick (Credit: Jagtar Khinda)

9th Street Bridge over Gowanus Canal (Brooklyn)

On May 8, 2003, Bridge Operations personnel hosted kindergarten students from PS #321 on a class trip to the bridge. Students, teachers, and parents enjoyed their visit.

Park Avenue Tunnel under 34th Street (Manhattan)

On May 12, 2003, the tunnel was closed from 9:00 PM until 6:00 AM the following morning as Division masonry crews removed concrete in preparation for stringer repairs. On May 12 and 13, 2003, the tunnel was closed for stringer repairs. Division masons removed concrete from the stringer, and ironworkers installed supports and reinforced the web.

Masonry Crew Removing Concrete Encasement From a Steel Beam Inside the Park Avenue Tunnel (Credit: Joseph Saverino)

Hamilton Avenue Asphalt Plant (Brooklyn)

On May 17, 2003, Division ironworkers repaired the plant's motor bracket, chute, and drum.

East 120th Street Pedestrian Bridge over FDR Drive (Manhattan)

On April 1 and 2, 2003, Division masonry crews performed safety flag repairs to the collapsed concrete on the ramps on both sides of the bridge. The repairs to the bridge's concrete sidewalk and curbs, which began on April 9, 2003, were completed by the Division's masonry crews on May 22, 2003. During the course of this project, a total of 6,600 square feet of concrete was installed. These repairs were requested by DOT's Bicycle Program, as the bridge is part of a waterfront greenway route circling Manhattan.

Southbound Ramp Before and After Safety Flag Concrete Repairs (Credit: Anthony Napolitano)

Curb and Sidewalk Before Repairs (Credit: Joseph Saverino)

Highway Repairer Clifton Gravesande and Motor Grader Operator Robert Lovdhal Excavating With Pneumatic Hammer and Backhoe. Pouring Concrete for Sidewalk Replacement. (Credit: Joseph Saverino)

Completed Curb and Sidewalk (Credit: Joseph Saverino)

Brooklyn Bridge

May 24, 2003 marked the 120th birthday of the bridge. In preparation for the festivities, Division electricians installed new lens covers on the walkway light poles, and tested and repaired the necklace lighting.

Brooklyn Bridge to the World Celebration
Third U.S. Infantry (the Old Guard) – the U.S. Army's Official Ceremonial Unit Performing Under the Bridge.
DOT Commissioner Iris Weinshall; Mayor Michael Bloomberg; Brooklyn Borough President Marty Markowitz; and Senator Charles Schumer Crossing the Bridge into Manhattan. (Credit: Kathryn Kirk)

Hamilton Avenue Asphalt Plant (Brooklyn)

On May 24, 2003, Division ironworkers fabricated and installed ten plates in the plant's main drum, and patched holes in the chute.

Gowanus Expressway at 65th Street (Brooklyn)

On May 26, 2003, approximately 25 feet of bridge rail was damaged in a vehicular accident. In spite of torrential downpours, Division ironworkers removed the damaged rail and tied steel cables to make the area safe. Permanent repairs were completed on May 27, 2003.

Manhattan Bridge

Microsurfacing of the suspended spans was performed on May 15 and 19, 2003. Asphalt was placed on the Manhattan approach to the bridge May 20, 2003, and on the Brooklyn approach to the bridge on May 27, 2003.

Microsurfacing of the Manhattan Bridge Steel Deck (Credit: Yuliy Zak)
Completion of the Final Inspection of the Manhattan Bridge North Upper Roadway by the Quality Assurance Section: Yuliy Zak; Javed Sarwar; Ravindera Soni; Mansoor Khan; Director of Quality Assurance Muhammad Afzal; Syed Arfeen; and Director of Environmental Engineering John Kurre

Cross Bay Boulevard Bridge over Conduit Boulevard (Queens)
Stage I reconstruction of the bridge began on May 28, 2003.

Israel Day Parade
On May 31, 2003, at the request of the Mayor's Office of Special Events, Division personnel temporarily placed two variable message boards along the route to assist participants in the Israel Day parade in Manhattan. The boards were removed that same evening.

Belt Parkway Bridge over Nostrand Avenue (Brooklyn)
Cleaning and painting of the bridge was completed in May 2003.

Eagle Avenue Bridge over East 161st Street (Bronx)
Cleaning and painting of the bridge began and was completed in May 2003.

Flushing Avenue Service Road Turnaround Railings over Flushing Avenue (near 56th Street) (Queens)
Cleaning and painting of the railings, which began in April 2003, was completed in May 2003.

Matthewson Road Bridge over MacCracken Avenue (Bronx)
Cleaning and painting of the bridge, which began in April 2003, was completed in May 2003.

Wards Island Pedestrian Bridge over Harlem River (Manhattan)
Cleaning and painting of the bridge was completed in May 2003.

Freshly Painted Wards Island Bridge

Willis Avenue Bridge over Harlem River (Bronx/Manhattan)
Cleaning and painting of the bridge was completed in May 2003.

Freshly Painted Span #6 of the Willis Avenue Bridge

31st Street Bridge over Brooklyn-Queens Expressway (Queens)
Cleaning and painting of the bridge was completed in May 2003.

32nd Street Bridge over Brooklyn-Queens Expressway (Queens)
Cleaning and painting of the bridge was completed in May 2003.

35th Street Bridge over Brooklyn-Queens Expressway (Queens)
Cleaning and painting of the bridge, which began in December 2002, was completed in May 2003.

JUNE

Manhattan Bridge

On August 1, 2002, the North Upper Roadway of the bridge was closed for rehabilitation. The roadway was re-opened to traffic on June 1, 2003, 61 days ahead of schedule, thus earning the contractor a $3 million incentive.

Consultants, Contractors, and Division Personnel at the Ribbon Cutting Ceremony for the Re-Opening of the Manhattan Bridge North Upper Roadway: Steve Koch; Bob Koch; Peter Zimmerman; Thomas Nilsson; Deputy Chief Engineer Jay Patel; Jim Tarpey; Chief Bridge Officer Henry Perahia; Terry Daly; and Manhattan Bridge Engineer-in-Charge Reza Lotfi

East 189th Street over Metro North (Bronx)

On January 5, 2001, a Division engineer discovered that the brick façades on two decorative columns in Fordham Plaza were loose, due to leaking water which had frozen. The safety flag was resolved at the time by removing all of the loose bricks. The project to replace the brick façades and match them "in-kind" to the other columns in Fordham Plaza, which had been performed intermittently since April 9, 2003, was completed by Division personnel on June 5, 2003.

Bricklayers Luigi Cuffari and Paul Stolpiniski, and Highway Repairer Timothy Pope Rebuilding a Column. A Nearly Completed Column With Matching Existing Column in Rear. (Credit: Joseph Saverino)

Puerto Rican Day Parade

On June 7, 2003, at the request of the Mayor's Office of Special Events, Division personnel temporarily placed four variable message boards along the route to assist participants in the Puerto Rican Day parade in Manhattan. The boards were removed on June 9, 2003.

East 64th Street Pedestrian Bridge over FDR Drive (Manhattan)

On June 8, 2003, one lane of the FDR Drive in both directions was closed from 5:00 AM to 11:00 AM for routine inspection. For the first time, a 120-foot boom was used to inspect this cable-stayed pedestrian bridge.

East 64th Street Pedestrian Bridge (in Foreground). 120-Foot Boom. (Credit: Bojidar Yanev)

Carroll Sreet Bridge over the Gowanus Canal (Brooklyn)

On June 10, 2003, Division personnel replaced the bridge's wooden pedestrian crash gate, which had been struck by a motorist on April 11, 2003.

Grand Avenue Bridge over Conrail (Queens)

Stage I reconstruction of the bridge was completed on June 10, 2003.

9th Street Bridge over Gowanus Canal (Brooklyn)

On June 10, 2003, Bridge Operations personnel hosted kindergarten students from PS #321 on a class trip to the bridge. Students, teachers, and parents enjoyed their visit.

Bridge Operator-in-Charge Delonda Bates-Pinkney at the Controls of the 9th Street Bridge. She has worked for the Department since 1989. (Credit: Keith Burrowes)

East 78th Street Pedestrian Bridge over FDR Drive (Manhattan)
The concrete repairs to the bridge's stairs and ramp, which began on June 2, 2003, were completed by Division personnel on June 10, 2003.

Atlantic Avenue Bridge (EB) over East New York Avenue (Brooklyn)
The bridge, which had been closed to vehicular and pedestrian traffic since October 22, 2002, was re-opened on June 11, 2003.

Hamilton Avenue Asphalt Plant (Brooklyn)
On June 14, 2003, Division ironworkers repaired the plant's patch bins and catwalks.

Cross Bay Boulevard Bridge over Conduit Boulevard (Queens)
Stage II reconstruction of the bridge began on June 16, 2003.

Placing Concrete for the Cross Bay Boulevard Grid Deck

West 207th Street/West Fordham Road over Harlem River (Bronx/Manhattan) (a.k.a. University Heights Bridge)

Due to mechanical problems, the bridge was closed to marine traffic beginning on the afternoon of May 22, 2003. It was returned to service at 9:30 AM on June 19, 2003, after Division personnel completed repairs to the bridge's motor and machinery brakes.

Williamsburg Bridge

On June 19, 2003, Division engineers participated in a panel discussion celebrating 100 years of engineering history and innovation related to the 100th Anniversary of the bridge. The event was held at the Brooklyn Public Library in Grand Army Plaza.

Belt Parkway Bridge over Mill Basin (Brooklyn)

Due to heat expansion, the bridge was closed to marine traffic beginning at 4:24 PM on June 23, 2003. It was returned to service at 11 PM that night. On June 24, 2003, beginning at 4:40 PM, the bridge was once again closed to marine traffic due to heat expansion. It was returned to service at 11 PM that night.

Carroll Street, Hamilton Avenue, Union Street, 3rd Street, and 9th Street Bridges over the Gowanus Canal (Brooklyn)

Due to heat expansion, the bridges were closed to marine traffic beginning at 5:45 PM on June 24, 2003. They were returned to service at 11 PM that night.

Riverside Drive Bridge over West 96th Street (Manhattan)

The component rehabilitation of this bridge was substantially completed on June 26, 2003.

Formwork for the Concrete Barrier on 96th Street to Protect the Public From Vehicular Traffic. Concrete Pour for the Sidewalk Replacement With Rebars Exposed for the Concrete Barrier (Credit: Nasir Khanzada)

Carroll Street Bridge over the Gowanus Canal (Brooklyn)
Effective June 27, 2003, the bridge was closed to traffic for rehabilitation, as agreed to by Community Board #6.

91st Place Bridge over LIRR (Queens)
The reconstruction of this bridge, which began on September 17, 2001, was substantially completed on June 30, 2003.

East Sidewalk of the New 91st Place Bridge

Belt Parkway Bridge over Rockaway Parkway (Brooklyn)
Cleaning and painting of the bridge, which began in May 2003, was completed in June 2003.

Cropsey Avenue Bridge over Belt Parkway (Brooklyn)
Cleaning and painting of the bridge, which began in April 2003, was completed in June 2003.

Cypress Hills Street Bridge Railings over Jackie Robinson Parkway (Queens)
Cleaning and painting of the railings, which began in May 2003, was completed in June 2003.

Francis Lewis Boulevard Bridge Railings over Belt Parkway (Queens)
Cleaning and painting of the railings began and was completed in June 2003.

Highland Boulevard Bridge Railings (Westbound) over Jackie Robinson Parkway (Brooklyn)
Cleaning and painting of the railings began and was completed in June 2003.

Houston Street Bridge Railings over FDR Drive (Manhattan)
Cleaning and painting of the railings, which began in May 2003, was completed in June 2003.

North Conduit Avenue Bridge Railings (Westbound) over Belt Parkway (Queens)
Cleaning and painting of the railings began and was completed in June 2003.

Ocean Avenue Pedestrian Bridge Railings over Sheepshead Bay (Brooklyn)
Cleaning and painting of the railings began and was completed in June 2003.

Rust Street Bridge Railings over Flushing Avenue (Queens)
Cleaning and painting of the railings, which began in May 2003, was completed in June 2003.

Springfield Boulevard Bridge Railings over Abandoned Equestrian Path (Queens)
Cleaning and painting of the railings began and was completed in June 2003.

Springfield Boulevard Bridge Railings over Southern Parkway (Queens)
Cleaning and painting of the railings began and was completed in June 2003.

130th Avenue Bridge Railings over Laurelton Parkway (Eastbound and Westbound) (Queens)
Cleaning and painting of the railings began and was completed in June 2003.

JULY

Glenmore and Sutter Avenue Bridges over the LIRR (Brooklyn)
Effective July 10, 2003, these bridges were fully closed to traffic for a one year period.

West 37th Street Bridge over Amtrak (Manhattan)
Stage II reconstruction of the bridge began on July 11, 2003.

Hamilton Avenue Asphalt Plant (Brooklyn)
On July 12, 2003, Division ironworkers patched the plant's cyclone and scale, and installed a new bracket for the motor.

Award
On July 14, 2003, the New York City Art Commission selected the 153rd Street Bridge over Metro North project for an Award for Excellence in Design. It was recognized as an outstanding public project which exceeded the Commission's high standards of design.

Rendering of New 153rd Street Bridge

14th Avenue Bridge over LIRR Bay Ridge (Brooklyn)
Stage I reconstruction of the bridge began on July 14, 2003.

Hamilton Avenue Asphalt Plant (Brooklyn)
On July 19, 2003, Division ironworkers repaired the plant's scale, motor, and chute.

Clove Road Bridge over Staten Island Expressway (Staten Island) (NYS)
On July 29, 2003, Division ironworkers performed emergency repairs on a broken bridge rail of this State-owned bridge.

East Tremont Avenue Bridge over Metro North RR (Bronx)
The reconstruction of this bridge was substantially completed and it was re-opened to traffic on July 30, 2003.

Aqueduct Racetrack Ramp over Belt Parkway (Queens)
Cleaning and painting of the bridge, which began in June 2003, was completed in July 2003.

Belt Parkway Bridge over Ocean Avenue (Brooklyn)
Cleaning and painting of the bridge, which began in May 2003, was completed in July 2003.

Bridge Painters Milan Radovic, Goncarlo Lima, and Samuel Martinez applying the Finishing Touches on the Beams of the Belt Parkway Bridge over Ocean Avenue. (Credit: Lisi de Bourbon)

Botanical Garden Road Bridge Railings over Twin Lakes (Bronx)
Cleaning and painting of the railings, which began in June 2003, was completed in July 2003.

Park Road (204th Street) Bridge Railings over the Bronx River (Bronx)
Cleaning and painting of the railings, which began in June 2003, was completed in July 2003.

PS #5 Pedestrian Bridge Staircase over 10th Avenue (Manhattan)
Cleaning and painting of the bridge staircase, began and was completed in July 2003.

East 12th Street Bridge over Belt Parkway (Brooklyn)
Cleaning and painting of the bridge, which began in May 2003, was completed in July 2003.

East 14th Street Pedestrian Bridge over Belt Parkway (Brooklyn)
Cleaning and painting of the bridge, which began in May 2003, was completed in July 2003.

AUGUST

Andrews Avenue Bridge over LIRR (Queens)
A Notice to Proceed for the reconstruction of this bridge was issued to the contractor with a start date of August 4, 2003.

Hamilton Avenue Asphalt Plant (Brooklyn)
On August 9, 2003, Division ironworkers performed emergency repairs on the plant's bin and feeder.

Brooklyn Bridge
On August 13, 2003, Division personnel completed the red flag repairs to the bridge's west fascia girder that had been struck by a vehicle on June 30, 2003.

The Blackout of 2003

At the request of the Office of Emergency Management, an emergency inspection of the Brooklyn Bridge was performed the evening of August 14, 2003 as a result of complaints of "swaying"; no structural problems were found. Division electricians provided emergency lighting at Pier 11, and at the Manhattan terminal of the Staten Island Ferry; they remained on standby until 11:00 PM on August 15, 2003. Bridge personnel assisted with crowd control at the Staten Island Ferry. A Division crew with a fork-lift spent the night of August 15, 2003 unloading bottled water from 9 tractor-trailers at the headquarters of the American Red Cross. In addition, crews worked on August 15 and August 16, 2003 to clean debris from the East River Bridges, which had experienced a high pedestrian volume.

Hamilton Avenue Bridge over the Gowanus Canal (Brooklyn)

Due to heat expansion, the bridge was closed to marine traffic beginning at 11:40 PM on August 16, 2003. It was returned to service at 11:38 PM on August 17, 2003.

City Island Road Bridge over Eastchester Bay (Bronx)

On August 20, 2003, Mayor Michael Bloomberg announced plans for a new state-of-the art bridge to replace the more than 100-year old bridge that connects City Island to the rest of the Bronx. The new structure will be a mast-type cable-stayed bridge with a single tower founded on the mainland side. The new bridge will carry one lane of traffic in each direction as well as one emergency lane in each direction. The towers will be 50 meters in height, and will taper from a base of 8 meters to a top of 4 meters. This bridge will be built at the same footprint of the old bridge. A temporary vehicular bridge will be constructed on the south side of the existing bridge to provide vehicular and pedestrian access to and from City Island during construction of the new bridge.

Rendering of New City Island Bridge

Huguenot Avenue Bridge over SIRT South Shore (Staten Island)

The component rehabilitation of this bridge was substantially completed on August 20, 2003.

Painting the Huguenot Avenue Bridge (Credit: Rezaul Karim)

North Channel Bridge (Queens) (a.k.a. Congressman Joseph P. Addabbo Bridge) (NYS)

On August 20, 2003, Division electricians, assisted by ironworkers, performed repairs to the navigation lights of this State-owned bridge.

East 10th Street Pedestrian Bridge over FDR Drive (Manhattan)

The erection of structural steel at the bridge was completed on August 24, 2003, between the hours of 2 AM and 8 AM. During that time, the FDR Drive was closed intermittently for 15 minutes on the hour.

Erection of Structural Steel at the East 10th Street Bridge (Credit: Bojidar Yanev)

Madison Avenue Bridge over Harlem River (Bronx/Manhattan)

The rehabilitation of this bridge, which began in 1994, was substantially completed on August 29, 2003.

Northern Boulevard Bridge over Cross Island Parkway (Queens)

Cleaning and painting of the bridge began and was completed in August 2003.

Union Turnpike Bridge over Jackie Robinson Parkway (Queens)

Cleaning and painting of the bridge, which began in July 2003, was completed in August 2003.

Woodhaven Boulevard Bridge over Atlantic Avenue (Queens)

Cleaning and painting of the bridge, which began in July 2003, was completed in August 2003.

Bridge Painter Frank Capalija on the Woodhaven Boulevard Bridge Over Atlantic Avenue (Credit: Lisi de Bourbon)

SEPTEMBER

Carroll Street Bridge over the Gowanus Canal (Brooklyn)

The bridge was re-opened to traffic on September 1, 2003.

Completing Repairs at Carroll Street Bridge. (Credit: Thomas Leung)

West Indian Day Parade

On September 1, 2003, at the request of the Mayor's Office of Special Events, Division electricians assisted event organizers with electrical installations at the West Indian Day parade in Brooklyn. In addition, four variable message boards were temporarily placed along the route to assist participants.

Belt Parkway Bridge over Paerdegat Basin (Brooklyn)
A Notice to Proceed for the emergency repair project on this bridge was issued to the contractor with a start date of September 2, 2003.

Barge and Crane Utilized in Paerdegat Avenue Bridge Repairs
(Credit: Mansoor Khan)

Hamilton Avenue Asphalt Plant (Brooklyn)
On September 6, 2003, Division ironworkers performed emergency repairs on the plant's conveyor belt bracket.

Great Irish Fair
On September 6 and 7, 2003, at the request of the Mayor's Office of Special Events, Division electricians assisted event organizers with electrical installations at the Great Irish Fair in Dreier Offerman Park in Coney Island.

Williamsburg Bridge
Painting of the south side stiffening trusses, which began on June 1, 2003, was completed on September 6, 2003.

West 51st Street Bridge over Amtrak 30th Street Branch (Manhattan)
The repairs to the bridge's concrete sidewalk, which began on September 3, 2003, were completed by the Division's masonry crews on September 9, 2003.

Tudor City Place Bridge over East 42nd Street (Manhattan)
The component rehabilitation of this bridge was substantially completed on September 11, 2003.

Concrete Base Course Repair and Sidewalk Repair at Tudor City Place Bridge (Credit: Nasir Khanzada)

Completed Asphalt Installation at Tudor City Place Bridge
(Credit: Nasir Khanzada)

Belt Parkway Bridge over 26th Avenue (Brooklyn)

At about 7:00 AM on September 14, 2003, a vehicle traveling west in the right lane of the parkway hit the stone parapet. 26th Avenue was closed due to fallen debris. Division crews placed Jersey barriers, removed debris, and made the area safe.

Clearing the Debris Below the Parapet. Drilling and Installing Pins Into the Jersey Barriers (Credit: Joseph Saverino)

Hurricane Isabel
Both contract and Division forces prepared for severe weather related to Hurricane Isabel. This work included picking up all small pieces of loose material and tying down equipment. Small temporary work scaffolds that were in use on a daily basis were dismantled before the impending storm. Containments were either dismantled or secured in such a manner that they were certified to withstand the expected winds. The flags on the Brooklyn Bridge were removed as a precautionary measure, and the work platform under the Paerdegat Basin Bridge was removed, as were all suspended floats from under the deck of the Brooklyn Bridge. Higher-elevation parking for vehicles was arranged where necessary. Masts on VMS boards were lowered and their outriggers extended.

During the hurricane on September 19, 2003, at least 116 trees were downed in the city, with most of the damage in Queens. The warning gates of the Metropolitan, Greenpoint, and Pulaski Bridges were damaged by the high winds. Division personnel installed new warning gates on the Metropolitan Bridge on September 26, 2003, on the Greenpoint Avenue Bridge on the nights of September 29 and 30, 2003, and on the Pulaski Bridge on October 2 and 3, 2003.

Hamilton Avenue Asphalt Plant (Brooklyn)
On September 26 and 27, 2003, Division ironworkers repaired the plant's silo, drum, and chute.

15th, 17th, 18th, and 20th Avenue Bridges over NYCT (Brooklyn)
A Notice to Proceed for the reconstruction of these bridges was issued to the contractor with a start date of September 29, 2003.

Cohancy Street Bridge Railings over Southern Parkway (Queens)
Cleaning and painting of the railings, which began in June 2003, was completed in September 2003.

OCTOBER

Metropolitan Avenue Bridge over English Kills (Brooklyn)
A Notice to Proceed for the reconstruction of this bridge was issued to the contractor with a start date of October 10, 2003.

Atlantic Avenue Bridge (WB) over East New York Avenue (Brooklyn)
The bridge, which had been closed to vehicular and pedestrian traffic since June 12, 2003, was re-opened on October 17, 2003.

Brooklyn Bridge
Filming of the feature film "Stay" required the closure of the Manhattan-bound roadway of the bridge on the nights of October 5-8, 2003, and October 13-16, 2003. Division personnel provided power and replaced missing lens covers on the promenade lights. The film's production company funded the lighting of both the Brooklyn and Manhattan Bridges' necklace lights during the shoot, and temporarily installed 40 more lights to illuminate the Brooklyn Bridge's Gothic arches.

Brooklyn Bridge With Illuminated Towers During the Filming of “Stay” (Credit: Jason Farrar)

Brooklyn Bridge Approach over Sands Street (Brooklyn)

On the night of October 21, 2003, Division crews took advantage of the nighttime lane closures for the filming of “Stay” to repair an expansion joint and the adjacent curb at the Sands Street approach, and to repair a stone wall on the approach over the BQE.

Breaking Out the Area With Jackhammers. (Credit: Anthony Napolitano)

Repairing the Expansion Joint. (Credit: Anthony Napolitano)

Placing Fresh Asphalt. (Credit: Anthony Napolitano)

Conference

At the Second New York City Bridge Conference, held on October 20 and 21, 2003, Division Directors presented papers on the new East 153rd Street Bridge and the East River Bridges Preventive Maintenance Program. In addition, Chief Bridge Officer Henry Perahia chaired the session on Bridge Analysis and Design, and Dr. Bojidar Yanev, the Division's Executive Director of Inspections and Bridge Management, chaired the session on Bridge Health Monitoring and Management.

Belt Parkway Bridge over Mill Basin (Brooklyn)

On October 23, 2003, Division ironworkers replaced the bridge's southwest warning gate and housing, which had been struck by a vehicle on October 18, 2003.

Brooklyn-Queens Expressway at Joralemon Street (Brooklyn)

Responding to a 311 complaint of a noisy and vibrating plate on October 2, 2003, Division crews broke out the area, recessed the plate, and ramped it with asphalt. Permanent repairs were completed on the night of October 23, 2003, utilizing a quick setting, high early strength cement.

Breaking Out the Asphalt Under the Plate to Expose the Condition. Exposed Rebar at the Construction Joint.
(Credit: Joseph Saverino)

Side View of the Deteriorated Concrete to be Removed and Replaced. Placing Asphalt Over the Recessed Plates.
(Credit: Joseph Saverino)

East 10th Street Pedestrian Bridge over FDR Drive (Manhattan)

The reconstruction of this bridge was substantially completed and it was re-opened to traffic on October 24, 2003.

New East 10th Street Pedestrian Bridge

Queensboro Bridge
A Notice to Proceed for the rehabilitation of various components of this bridge was issued to the contractor with a start date of October 31, 2003.

Queenboro Bridge (Credit: Bojidar Yanev)

Long Island Expressway at 31st Place (Queens) (NYS)
On October 31, 2003, Division personnel addressed an emergency condition of a broken expansion joint on this State-owned bridge by placing three plates and ramping the area with asphalt.

Hamilton Avenue Asphalt Plant (Brooklyn)
In October 2003, Division ironworkers repaired the plant's crusher teeth, vacuum cap, chutes, discharge paddles, main drum, rap bin, and crusher. In addition, they replaced the plant's main conveyor chain.

Broadway Bridge over Harlem River (Bronx/Manhattan)
Cleaning and painting of the bridge was completed in October 2003.

Riverside Drive Bridge over West 96th Street (Manhattan)
Cleaning and painting of the bridge, which began in August 2003, was completed in October 2003.

Grand Avenue Bridge over Conrail (Queens)
Stage III reconstruction of the bridge began in October 2003.

NOVEMBER

New York City Marathon
In preparation for the Marathon on November 2, 2003, Division personnel inspected and cleaned the Pulaski, Madison Avenue, and Willis Avenue Bridges, and painters searched for and removed all graffiti along the race route. On October 25, 2003, possible tripping hazards on the Willis Avenue Bridge were repaired following placement of a containment using a barge. On the night before the race, all bridges along the route were swept. Concrete barriers at both the 59th Street

and 60th Street walkway ramps of the Queensboro Bridge were temporarily removed for access by disabled race participants, and hay bales were placed at both locations. Traffic delineators were removed from the area at Queens Plaza South and Crescent Street to allow participants to enter the lower roadway. Standard configurations were restored before the next morning rush hour.

Belt Parkway Bridge over Mill Basin (Brooklyn)

At about 6:05 AM on November 5, 2003, an eastbound vehicle lost control and struck the center divider. The bridge operator reported that the newly installed median guide rail barrier prevented the sports utility vehicle from crossing over the median. Although the vehicle was damaged, the driver was able to walk away.

East River Bridge Necklace Lighting

The necklace lights of the East River Bridges, which were shut off in March 2003 as an austerity measure, were relit on November 5, 2003. At a ceremony at the River Café, Commissioner Weinshall acknowledged four businesses that donated $20,000 each for the next two years to fund this effort: the River Café, Travelex, Carter Ledyard & Millburn, and the International Gemological Institute. There are a total of 906 100-watt mercury vapor bulbs in the necklace lights: 160 on the Brooklyn Bridge, 224 on the Williamsburg Bridge, 304 on the Manhattan Bridge, and 218 on the Queensboro Bridge.

Carroll and Union Street Bridges over the Gowanus Canal (Brooklyn)

On November 7, 2003, Bridge Operations personnel hosted students from PS #321 on a class trip to the bridges. Students, teachers, and parents enjoyed their visit.

Cross Bay Boulevard Bridge over Conduit Boulevard (Queens)

Stage III reconstruction of the bridge began on November 7, 2003.

East 161st Street Bridge over Conrail Port Morris (Bronx)

The bridge was re-opened to traffic on November 7, 2003.

Hamilton Avenue Asphalt Plant (Brooklyn)

On November 8, Division ironworkers repaired the plant's main drum, discharge paddles, crusher, and blower.

Brooklyn Bridge

On November 13, 2003, Director of Bridge Repair George Klein conducted a tour of the Brooklyn Bridge for a group of high school physics students from Emily Roebling's alma mater, Georgetown Visitation Preparatory School, in Washington D.C. Ms. Roebling supervised the construction of the Brooklyn Bridge after the death of her father-in-law John Roebling and the decompression illness of her husband Washington Roebling. She was also the first woman to address a meeting of the American Society of Civil Engineers. The class visit was part of the students' project on her contributions to the construction of the Brooklyn Bridge. 2003 was the 100th anniversary of Ms. Roebling's death. Students and teachers enjoyed their visit.

Director of Bridge Repair George Klein and the Students (Credit: Peter Basich)

Grand Avenue Bridge over Conrail (Queens)

The bridge was re-opened to traffic on November 12, 2003. The reconstruction of this bridge, which began on September 16, 2002, was substantially completed on November 13, 2003, four months ahead of schedule.

New Grand Avenue Bridge

Brooklyn Bridge

On November 17, 2003, Division electricians replaced navigation lights on the east side of the bridge.

14th Avenue Bridge over LIRR Bay Ridge (Brooklyn)

Four precast deck panels were installed on the bridge on November 18, 2003.

Precast Deck Panel in the Fabricator's Yard (Credit: Boowong Kim) Lowering the Panel Into Place.

Installing the Precast Panels

Award

On November 19, 2003, in recognition of his commitment, dedication and outstanding work, Deputy Chief Engineer Kamal Kishore was presented the Outstanding Engineer of the Year award from Local 375, AFSCME. The Civil Service Technical Guild represents approximately 6,500 professionals, including engineers, architects, scientists, chemists, planners and other technical trades.

First Row: Deputy Chief Engineer Russell Holcomb; Director of In-House Design Vitali Ghin; Deputy Chief Engineer Kamal Kishore; Chief Bridge Officer Henry Perahia; Secretary Ahmed Shakir; Director of Quality Assurance Muhammad Afzal; Ramakumar Magge; and Shakti Chattopadhyay. Second Row: Engineer-in-Charge, Geo-Technical Section Sajjan Jain, Bharat Parekh; Jitendra Kothari; Mansoor Khan; and Director of Engineering Review Abul Hossain (Credit: Mahabal Shah)

Local 375 President Claude Forte; Deputy Chief Engineer Kamal Kishore; Secretary Ahmed Shakir; George Lawrence; and Second Vice President David Grant (Credit: Mahabal Shah)

Award

On November 21, 2003, Chief Bridge Officer Henry Perahia 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. Commissioner Iris Weinshall presented the award to Mr. Perahia at the organization's annual dinner-dance.

Deputy Chief Engineer Lawrence King; Deputy Chief Engineer Jay Patel; Deputy Chief Engineer Russell Holcomb; Chief Bridge Officer Henry Perahia; Deputy Chief Engineer Kamal Kishore; DOT Commissioner Iris Weinshall; Deputy Chief Engineer Albert Novak; Chief Staff Manager Diana Recor; and First Deputy Commissioner Judith Bergtraum (Credit: Jagtar Khinda)

Hamilton Avenue Asphalt Plant (Brooklyn)

On November 22, 2003, Division ironworkers repaired the plant's rap bin and fabricated and installed sections of the blue smoke duct.

Williamsburg Bridge

Painting of the north side stiffening trusses, which began on September 6, 2003, was completed on November 25, 2003.

East 3rd Street Bridge over LIRR (Brooklyn)

The bridge's deck concrete was placed on November 25, 2003.

East 183rd Street and Tiebout Avenue Step Street (Bronx)

In October 2003, NYCDDC requested the assistance of DOT in securing a step street until reconstruction can begin. A chain link fence was installed to protect pedestrians and the NYCHA grounds from falling rocks. Concrete step repairs began on November 7, 2003. All repairs to the steps and landing were completed on November 25, 2003.

Thanksgiving Day Parade

Division engineers reviewed and approved the design specifications of three new large balloons to be introduced in the parade, as follows: Barney, Garfield, and Super Grover. 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. On November 8, 2003, a Division engineer attended the successful test flight of the new balloons in the parking lot of the New Jersey Meadowlands Sports Complex. On the night of November 26, 2003, and continuing through the parade, a Division electrician assisted parade organizers with electrical installations. On November 27, Chief Bridge Officer Henry Perahia, Deputy Chief Engineer Kamal Kishore, Director of Engineering Review Abul Hossain and Mahabal Shah, as well as two consultants, were positioned at various locations along the parade route to ensure that the balloons were flown within the prescribed requirements for the wind conditions at that site. Wind speeds were extremely low and the balloons were all flown safely and at their highest positions.

New Barney (Credit: Kamal Kishore) New Super Grover (Credit: Mahabal Shah)

Charlie Brown (Credit: Mahabal Shah) Wild Thing and Pumpkins (Credit: Kamal Kishore)

New Garfield (Credit: Kamal Kishore)

DOT Commissioner Iris Weinshall; Deputy Chief Engineer Kamal Kishore; Chief Bridge Officer Henry Perahia; First Deputy Commissioner Judith Bergtraum; Mahabal Shah; and Director of Engineering Review Abul Hossain

Third Avenue Bridge over Harlem River (Bronx-Manhattan)

As of November 2003, the north truss of the bridge's new swing span was fully assembled in the fabricator's shop in Alabama.

Third Avenue Bridge Truss Fabrication in Alabama

Third Avenue Bridge Truss Pieces on the Barge in Alabama

Cross Island Parkway Bridge over Fort Totten Entrance (Queens)
Cleaning and painting of the bridge, which began in September 2003, was completed in November 2003.

DECEMBER

Award
In December 2003, the Mayor's Office of Film, Theatre, and Broadcasting named Peter Basich of the Bureau of Maintenance, Inspections and Operations as the "Agency Star of the Month" for his efforts in coordinating requests from entertainment production companies.

Peter Basich on the Brooklyn Bridge (Credit: Vasily Avadiev)

Having assisted hundreds of feature films, commercials and television shows over the years, Mr. Basich knows how to expedite the process for shooting on a bridge. Production companies are referred to him by the Mayor's Office of Film, Theatre and Broadcasting after an initial discussion and agreement on the nature of their work. Companies then need to supply a letter of intent to Mr. Basich, detailing the work planned and equipment used. He then checks the scheduled work on the bridge to avoid any conflicts with the activity of DOT tradespeople or contractors. On more complex requests, he can also arrange for engineers to meet with the production company. His major requirement? Don't block pedestrian, vehicular or bike traffic - most bridges are busy with commuters and tourists.

The Sopranos, *Sex & The City*, *NYPD Blue*, *Third Watch*, and the feature films *Stay* and *The Forgotten* are just some of the projects that have been keeping him busy lately. But he also coordinated the ambitious work of *Kate & Leopold* back in 2001, which recreated the atmosphere of the Brooklyn Bridge in the early 1880s. And as a testament to his ingenuity, he was able to arrange for the film *Frequency* (1999) to flip a fake gasoline truck and stage a fireball crash under the 125th Street overpass to the West Side Highway - right after the structure had been painted and rehabilitated. Having once paid the rent as a full-time photographer, Mr. Basich can also make practical suggestions with a creative payoff: "When they ask for a certain angle or view, I've sometimes suggested a better one, translating it in my mind's eye. I can fully appreciate what they're trying to do." Oftentimes he can even coordinate standby electricians to keep the necklace lights on a bridge illuminated past 1AM for certain bridge scenes. He was able to pull this off just recently for The Sopranos, when they shot the Brooklyn and Manhattan bridges from Fulton Ferry State Park.

In short, not only does Mr. Basich help to keep the City's bridges camera ready, but he is production's passport to some of the most stunning views in all of New York.

Cho, J. 2003. Peter Basich, Bridge to the Stars. *Agency Star of the Month*. (December 2003), http://www.nyc.gov/html/film/html/office/star_basich.shtml (accessed December 1, 2003).

Westchester Avenue Bridge over Hutchinson River Parkway (Bronx)

On December 2, 2003, Division ironworkers replaced several broken diaphragms that had been damaged when a truck hit the bridge on October 29, 2003.

Anti-Icing

In the first snowstorm of the 2003-2004 winter season, 14 inches of snow were recorded in Central Park. In response to the December 5, 2003 blizzard, Division personnel applied 37,000 gallons (80 applications) of anti-icing chemicals to the East River bridges. In addition, they shoveled and plowed pedestrian walkways, and monitored icicle conditions on the FDR Drive, the Brooklyn-Queens Expressway, the Agency-maintained tunnels, the Cross Bronx Expressway, and the East river bridge cables. Clearing of priority overpasses continued through December 10, 2003.

Anti-Icing Team: Traffic Device Maintainer Ronald Whytock; Highway Repairers Timothy Pope, Joseph Cappello, and Abraham James; Supervisor Highway Repairer Joseph Lopez; and Deputy Director of Preventive Maintenance Michael Cummiskey (Credit: Lisi de Bourbon)

Manhattan Bridge

The repairs to the bridge's necklace lights, which began on December 1, 2003, were completed by Division electricians on December 9, 2003.

Hamilton Avenue Asphalt Plant (Brooklyn)

On December 13, 2003, Division ironworkers installed the plant's blue smoke duct and made repairs to the chute, grizzlies, drum, and scales.

Anti-Icing

In the second snowstorm of the 2003-2004 winter season, 5.8 inches of snow were recorded in Central Park. Beginning at 7 AM on December 14, Division personnel applied anti-icing chemicals 18 times to the East River bridges within 24 hours. In addition, the East River bridge pedestrian walkways and priority overpasses were cleared of snow.

Borden Avenue Bridge over Dutch Kills (Queens)

The bridge's concrete deck was repaired over the course of two weekends. The bridge was retracted over land and was closed to traffic from 11:00 PM on November 21, 2003 until 5:00 AM on November 24, 2003, and again from 11:00 PM on December 12, 2003 until 5:00 AM on December 15, 2003. During the course of this project, a total of 675 square feet of concrete deck was repaired. In addition, Division ironworkers took advantage of the closure to repair delaminated flanges and webs of the bridge's floor beams.

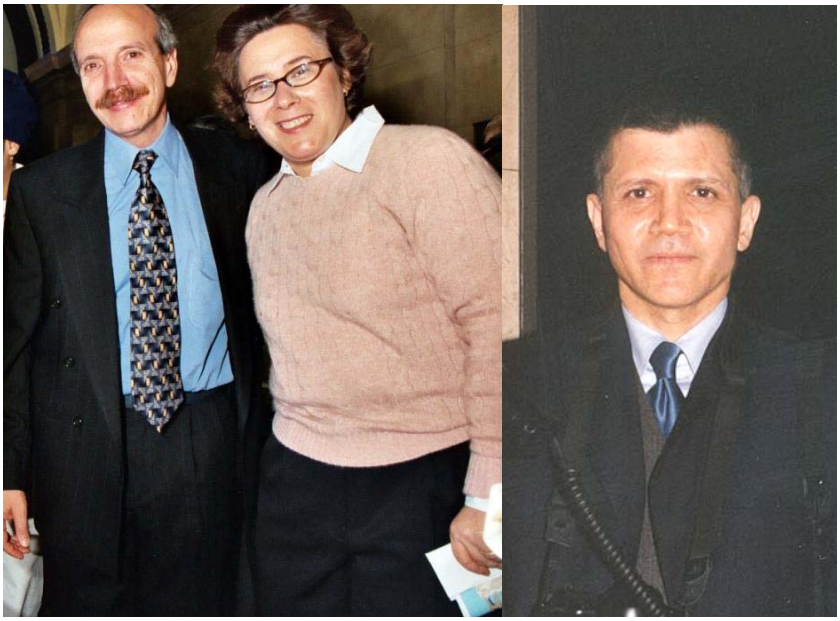
East 161st Street Bridge over Conrail Port Morris (Bronx)

The reconstruction of this bridge, which began on June 11, 2001, was substantially completed on December 15, 2003.

Completion of the Final Inspection of East 161st Street Bridge over Conrail by Contractor, Consultant and Division Personnel, including Wen-Yang Tsay, Yuliy Zak, and Syed Naqvi of the Quality Assurance Section, as well as Lakshminarayan Ghante and Roly Parroco of Roadway Bridges. (Credit: Mansoor Khan)

Williamsburg Bridge

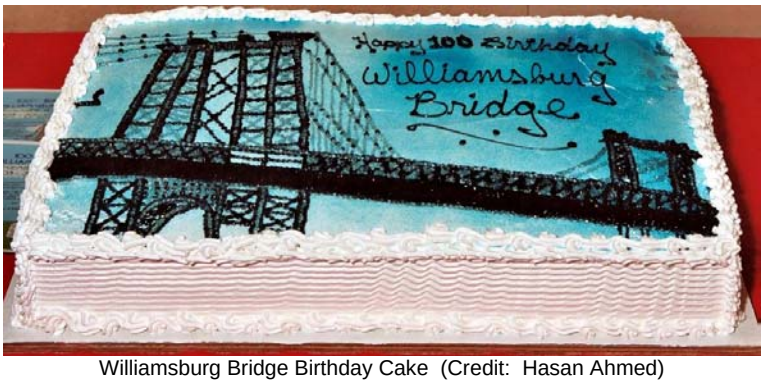
December 19, 2003 was the 100th anniversary of the opening of the Williamsburg Bridge. There was a beautiful and well attended ceremony in the lobby of the Department's headquarters at 40 Worth Street, along with displays for which the Division contributed many of the exhibit items. Chief Bridge Officer Henry Perahia was the Master of Ceremonies at the event.



Chief Bridge Officer Henry Perahia and DOT Commissioner Iris Weinshall (Credit: Hasan Ahmed)
Director of East River Bridges Hasan Ahmed (Credit: Peter Basich)

Deputy Chief Engineer Jay Patel; and Director of Community Affairs Jennifer Dee-Leibman (Credit: Peter Basich)
Brooklyn Arts Council Folklorist Dr. Kay Turner, DOT Commissioner Iris Weinshall, and Brooklyn Arts Council President Ella Weiss (Credit: Hasan Ahmed)

Williamsburg Bridge Memorabilia on Display at DOT Headquarters (Credit: Hasan Ahmed)



Williamsburg Bridge Birthday Cake (Credit: Hasan Ahmed)

Office of the Mayor
CITY OF NEW YORK

Proclamation

WHEREAS: THE WILLIAMSBURG BRIDGE OPENED IN DECEMBER 1903 TO HORSE-DRAWN CARRIAGES, BICYCLES, AND PEDESTRIANS; TODAY IT IS A MAJOR THOROUGHFARE FOR CARS, TRUCKS, BUSES, AND ELEVATED TRAINS. DESIGNED BY LEFFERT L. BUCK, THE BRIDGE WAS THE LONGEST SUSPENSION BRIDGE AT THE TIME OF ITS COMPLETION AND THE FIRST WITH TOWERS ENTIRELY MADE OF STEEL. A MASSIVE RESTORATION PROJECT IS NEAR COMPLETION, AND WILL MAKE THE BRIDGE AS VITAL FOR NEW YORKERS IN THE 21ST CENTURY, AS IT WAS IN THE 20TH.

WHEREAS: IN ITS EARLIEST YEARS, THE WILLIAMSBURG BRIDGE SERVED AS THE GATEWAY FOR PRIMARILY JEWISH RESIDENTS FROM THE LOWER EAST SIDE TO THE NORTHWEST PART OF BROOKLYN. THE BRIDGE SERVED AS A CATALYST TO OUR CITY'S RAPID GROWTH AND CULTURAL DIVERSITY, AND WILLIAMSBURG, THE SURROUNDING AREAS, AND OUR CITY AS A WHOLE, HAVE BENEFITTED FROM THAT EXPANSION. TODAY, PEOPLE FROM MANY NATIONALITIES ARE RESIDENTS OF WILLIAMSBURG AND THE LOWER EAST SIDE, CONTRIBUTING TO THESE THRIVING COMMUNITIES.

WHEREAS: THE WILLIAMSBURG BRIDGE, AFFECTIONATELY CALLED "WILLY B," IS KNOWN AS AN ENGINEER'S BRIDGE FOR ITS EXTREME UTILITARIAN DESIGN. FOR 100 YEARS THE BRIDGE HAS FULFILLED ITS FUNCTION IN OUR CITY MAGNIFICENTLY. TODAY IT CARRIES APPROXIMATELY 140,000 VEHICLES AND 92,000 SUBWAY RIDERS PER DAY. THE WILLIAMSBURG BRIDGE IS A PERFECT COMPLEMENT TO THE BROOKLYN AND MANHATTAN BRIDGES. TODAY, WE CELEBRATE THIS ARCHITECTURAL TRIUMPH, WHICH HAS PLAYED AN INVALUABLE ROLE IN NEW YORK'S REPUTATION AS THE ENTRYWAY OF THE WORLD.

NOW THEREFORE, I, MICHAEL R. BLOOMBERG, MAYOR OF THE CITY OF NEW YORK, IN RECOGNITION OF THE 100TH BIRTHDAY OF THE WILLIAMSBURG BRIDGE, DO HEREBY PROCLAIM FRIDAY, DECEMBER 19TH, 2003 IN THE CITY OF NEW YORK AS:

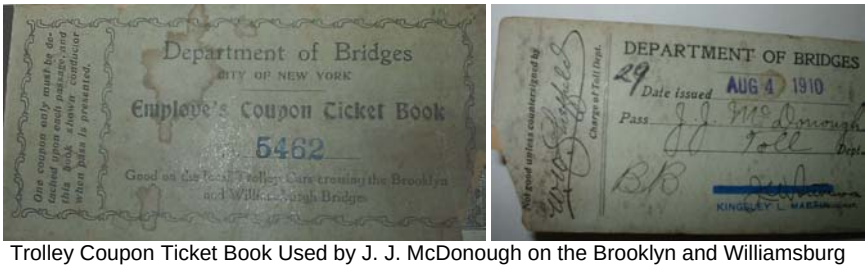
"WILLIAMSBURG BRIDGE CENTENNIAL DAY"

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND CAUSED THE SEAL OF THE CITY OF NEW YORK TO BE AFFIXED.

MICHAEL R. BLOOMBERG
MAYOR

Mayor Bloomberg Proclaimed December 19, 2003 as "Williamsburg Bridge Centennial Day"

Gateman J. J. McDonough (on left), Great-Grandfather of Deputy Chief Engineer Russell Holcomb



Trolley Coupon Ticket Book Used by J. J. McDonough on the Brooklyn and Williamsburg Bridges in the Early 1900's (Credit: Russell Holcomb)

New Year's Eve

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.

New Dorp Lane Bridge over SIRT South Shore (Staten Island)

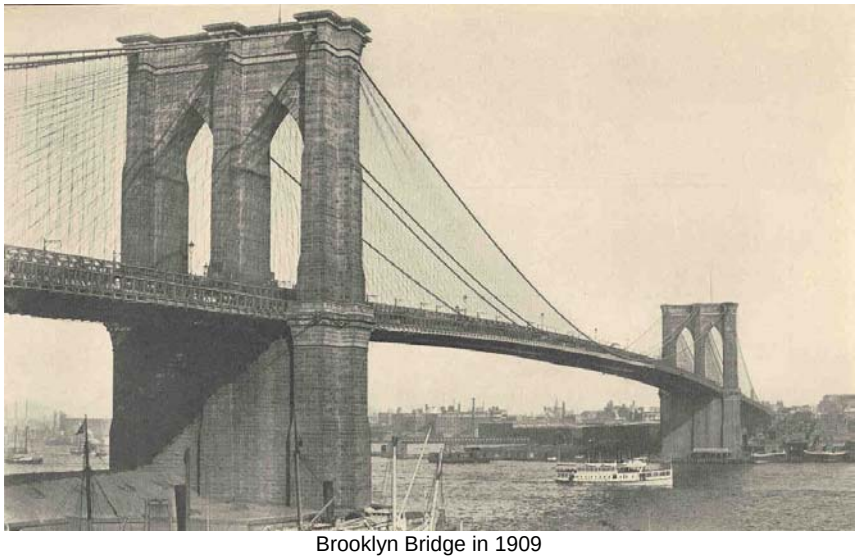
The component rehabilitation of this bridge, which began in December 2000, was substantially completed on December 30, 2003.

East River Bridges

A $2.8 billion reconstruction program is underway to rehabilitate all four East River crossings. In 2002, these bridges carried some 467,080 vehicles per day. In 2002, working in coordination with the NYPD and other law enforcement agencies, the Division implemented enhanced security measures on these bridges. This work is ongoing.

BROOKLYN BRIDGE

The Brooklyn Bridge carried some 121,145 vehicles per day in 2002. The $467 million reconstruction commenced in 1980 with Contract #1, will continue with Contract #6, currently in the design phase and scheduled for completion in 2012, and will end with a seismic retrofit of the bridge, slated for completion in 2013. Work completed on the bridge to date includes reconditioning of the main cables, replacement of the suspenders and cable stays, rehabilitation of the stiffening trusses, and the replacement of the suspended spans deck. The next work scheduled for the bridge is a project to replace the existing travelers with a state of the art technology system. Construction is scheduled to begin in the spring of 2005 and conclude in the spring of 2007.



Brooklyn Bridge in 1909

Pedestrian Vibration Study

The major blackout of August 14, 2003 forced City officials to close the bridge to vehicular traffic and open the entire bridge to pedestrians. During this mass exodus, several pedestrians reported that the bridge was vibrating and thus causing them great anxiety. At the request of the Office of Emergency Management, an emergency inspection of the bridge was performed that evening as a result of these complaints of “swaying”; no structural problems were found. DOT decided to retain a consulting firm to study the effects of pedestrian induced vibration for this bridge.

Based on the results of this study, the consultant will prepare a report with its findings and recommendations. All necessary instruments have been installed on the bridge to measure

ambient bridge vibrations. A controlled test will be performed in early 2004. This $400,000 study is expected to be complete in summer 2004.

Brooklyn Bridge (Credit: Michele N. Vulcan)

MANHATTAN BRIDGE

The youngest of the three suspension bridges that traverse the East River, the Manhattan Bridge carries some 306,152 commuters – 66,152 vehicles and 240,000 mass transit riders - between Manhattan and Brooklyn daily. It was designed by Leon Moisseiff and completed in 1909. The bridge supports a subway transit line upon which four different train lines operate.

Manhattan Bridge (Credit: Yuliy Zak)

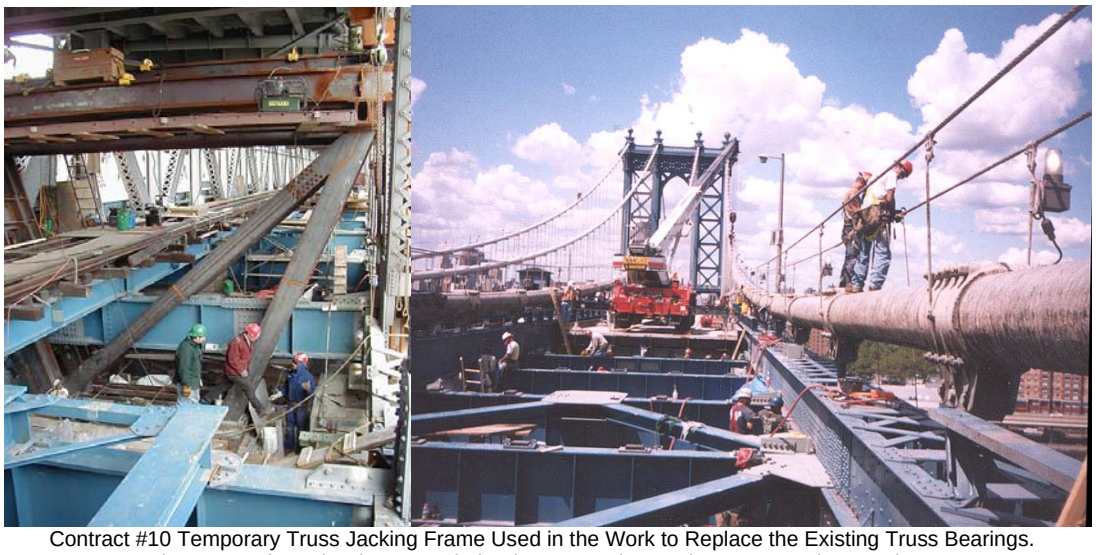
The $730 million reconstruction commenced in 1982 with Contract #1, and continues with Contract #10 (currently in construction), and Contract #11, currently in the design phase and

scheduled for completion in 2007. This work will be followed by Contract #14 to rewrap the cables and replace the suspenders. Completion is expected in 2011. The reconstruction will end with a seismic retrofit of the bridge (Contract #15), slated for completion in 2012. Work completed on the bridge to date includes reconstruction and painting of the south spans, installation of a truss stiffening system to reduce twisting, restoration of the historic arch, colonnades and Manhattan Plaza structures, and the reconstruction of the south walkway. The reopening of the south walkway is notable in that it marks the first time in 40 years that pedestrians and bicyclists have access across the bridge between Brooklyn and downtown Manhattan.

Engineers Sudhakar Pallaki and Abdur Razzaq and Consultants
Inspecting the Travelers to be Rehabilitated under Contract #11
(Credit: Jagtar Khinda)

Contract #10

Begun in March 2001, and scheduled for completion in July 2004, **Contract #10** will bring the following improvements: rehabilitation of the north main span; refurbishment of the approach spans, tunnels and truss bearings; installation of a dedicated bicycle way on the bridge's north side, and painting.



Contract #10 Temporary Truss Jacking Frame Used in the Work to Replace the Existing Truss Bearings. Replacement of Steel Stringers and Floorbeams on the North Upper Roadway Main Span.

Contract #10 Installing a New End Frame on the Main Span Side of the Brooklyn Tower. Painting Containment Structures on the Cables of the Manhattan Approach Span.

The Manhattan Bridge bicycle path was closed in the 1960's because it fell into such disrepair that it became unsafe. On May 16, 2001, Commissioner Weinshall cut the ribbon for a new 6,000-foot long pedestrian and bicycle path. This lane, along the south side of the bridge, is designed for pedestrians, but temporarily serves cyclists too, until they get their own lane on the north side in two years. Upon completion, the restored south walkway and north bikeway will reflect the original design of the bridge.

Construction of the New Bikeway Approach Ramp in Manhattan

The scope of work includes a new Intelligent Transportation System (ITS). The ITS, providing coverage from Bowery Street in Manhattan to Tillary Street in Brooklyn, will consist of Closed Circuit Televisions (CCTV), and Variable Message Signs (VMS). This will provide full coverage for the Manhattan Bridge upper and lower roadways, including the south walkway and north bikeway. Ranging radar detectors will determine the volume and occupancy of the traffic on the bridge, and the CCTV will be utilized to confirm any incident. Operators at the Traffic Management Center in Long Island City will obtain data and video from the ITS. This will enhance the management of traffic on the bridge and its vicinity and improve response to incidents. A total of 19 cameras and 7 VMS will be installed on the bridge.

The north lane of the lower roadway was closed to traffic in June 2001 for use as a construction staging area. At the same time, the south lane of the lower roadway was reopened to traffic. Subway service was restored to the south tracks on July 22, 2001. On that same day, service was temporarily discontinued on the north tracks until February 22, 2004.

Effective August 1, 2002, the bridge's north upper roadway was closed for a scheduled 12-month period, and the north lane of the lower roadway was reopened during peak hours. The roadway was re-opened to traffic on June 1, 2003, 61 days ahead of schedule, thus earning the contractor a $3 million incentive.

Contract #10 Removing an Existing North Upper Roadway Floorbeam on the Main Span of the Bridge. Installing the New Grid Deck for the North Upper Roadway on the Brooklyn Side Span.

Preparing the Brooklyn Elevated Structure Grid Deck for Concrete Placement. Placing Concrete on the Manhattan Side Span Grid Deck of the North Upper Roadway.

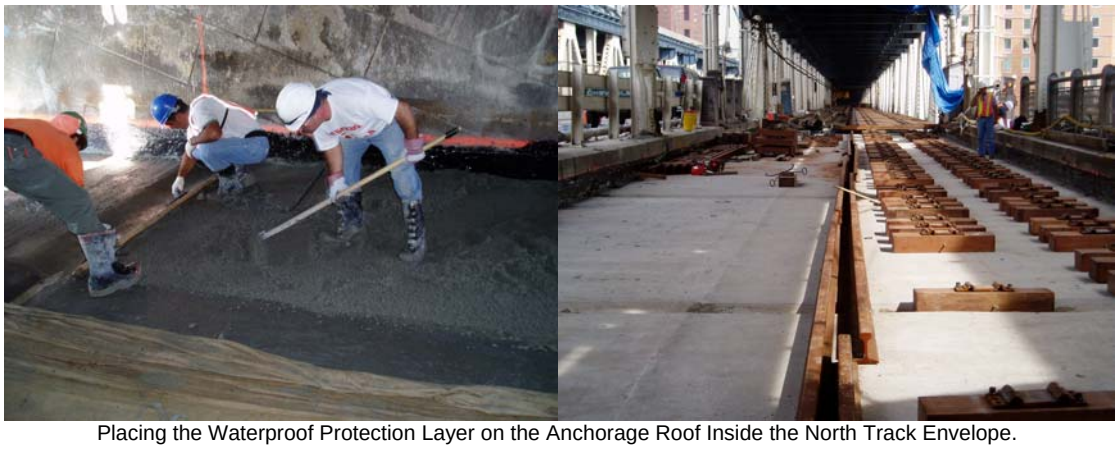
Placing and Finishing Concrete on the Grid Deck of the Brooklyn Elevated Structure.

Placing the Microsurfacing Overlay on the Main Span. Placing the Asphalt Overlay on the Brooklyn Approach Span.

A Notice to Proceed for the additional work for NYCT on the bridge's north side tracks was issued to the contractor with a start date of September 9, 2002.

Installation of New Floorbeams & Stringer Panels for the Subway Support Steel

Full access to the north tracks, originally scheduled in the MOU for January 11, 2004, was given to NYCT on December 15, 2003. Power to the third rail was energized on January 16. NYCT is expected to restore revenue service on the north tracks on February 22, 2004.



Placing the Waterproof Protection Layer on the Anchorage Roof Inside the North Track Envelope.
Installation of New Ties for the North Subway Track.

During 2003, the replacement of truss C and D bearings on the approach spans in Brooklyn and Manhattan was completed. Also, permanent maintenance platforms below the North and South subway tracks on the approach spans were installed.

Torquing the Bolts for the Installation of the Upper Laterals for the Truss Stiffening System.
Installation of a Permanent Maintenance Platform Under the Bridge on the Brooklyn Approach Span.

These upgrades will not only restore the structural integrity of the Manhattan Bridge, but will also allow it to carry an increasing number of pedestrians and bicyclists. This will reduce automobile congestion and its related air pollution in New York City.

QUEENSBORO BRIDGE

At the time of its completion in March 1909, the Queensboro Bridge (popularly referred to as the 59th Street Bridge), was the longest continuous cantilever-truss bridge in the world. While its starring role in the hierarchy of bridges has since been eclipsed by longer and larger structures, the Queensboro Bridge's importance to the mobility and unity of New York City remains undimmed. The bridge was designated as a national landmark on November 23, 1973. The $690 million reconstruction commenced in April 1981 with Contract #1, continues with Contract #6, which began on October 31, 2003,and is scheduled for completion in early 2006, and will end with a seismic retrofit of the bridge, slated for completion in 2011. The work on this vital link between Manhattan and the outer boroughs will enable this 75,000-ton workhorse to better provide the citizens and commerce of New York City with a second century of reliable, prosperous transport. The Queensboro Bridge carried some 176,419 vehicles per day in 2002.

Queensboro Bridge (Credit: Peter Basich)

Contract #6

Contract #6, which began on October 31, 2003, will include the following: condition investigation of the eyebar heads and pins, replacement of the protective screening and the aviation warning lights, drainage improvements, rehabilitation of the overhead sign structures in Manhattan, the upgrading of roadway lighting (by replacing all low-pressure sodium lights on the bridge and ramps with high-pressure sodium lights), cleaning and miscellaneous repairs of the anchor piers, the geometric improvement of Crescent Street, bikeway and walkway improvement, and repair of the south upper roadway concrete overfill and overlay, the promenade platform, the traveler platform, and the underside of the 59th Street overpass. The work will also include the rehabilitation of the Sanitation Department area's arch infill, and modifications to the maintenance facility beneath the Manhattan approach plaza. In addition, the kiosk in the plaza on the Manhattan side of the bridge will be restored. This small historical structure is in an advanced state of disrepair and has been damaged by repeated vehicular impacts. This $35 million project is expected to be complete in early 2006.

Views of the Queensboro Plaza Kiosk

Proposed Rehabilitation of the Arch Infill for the Sanitation Department

WILLIAMSBURG BRIDGE

The largest of the three suspension bridges that traverse the East River, the Williamsburg Bridge carries some 203,364 daily commuters – 103,364 in vehicles and 100,000 via mass transit - on eight traffic lanes, two heavy rail transit tracks, and a pedestrian footwalk, between Manhattan and Brooklyn. The bridge supports a subway transit line upon which three different train lines operate (J, M, and Z). The $989 million reconstruction commenced in 1983 with Contract #1, continues with Contract #8, which began in March 2003 and is scheduled for completion in 2006, and will end with a seismic retrofit of the bridge, slated for completion in 2011.

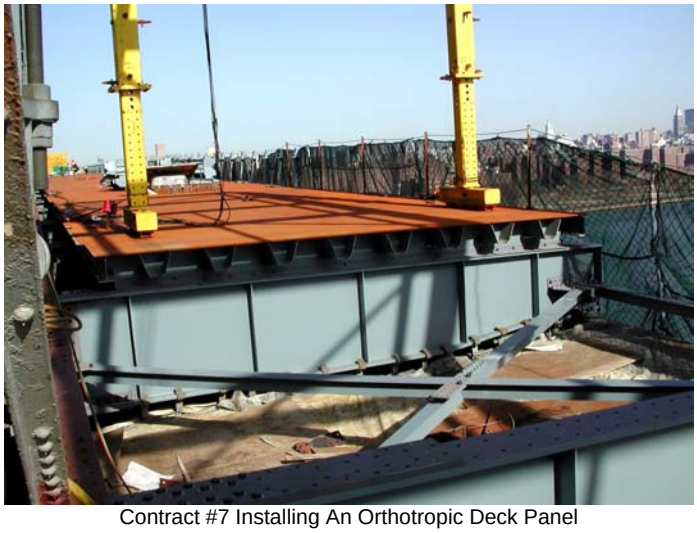

Williamsburg Bridge

In order to minimize disruption to the riding public and ensure that traffic is maintained across the bridge, the rehabilitation of the Williamsburg Bridge was divided into several contracts. In the contracts completed to date, all four main cables have been completely rehabilitated, the south and north roadways of the bridge have been replaced and the BMT subway structure across the bridge was completely reconstructed.


Williamsburg Bridge Subway Structure

Contract #7

In April 2003, the New York Association of Consulting Engineers selected the Reconstruction of the North Roadways of the Williamsburg Bridge (Contract #7) for an Engineering Excellence Award. This reconstruction work was a mirror image of the completed reconstruction work on the south roadways. It included the complete replacement of the main bridge deck with a steel orthotropic deck system and the construction of new structures on both the Manhattan and Brooklyn approaches. This $202.8 million contract included provisions for financial incentives to ensure that the project was completed within the scheduled roadway closure period, thereby minimizing the impact the closures had on the public.


Contract #7 Installing An Orthotropic Deck Panel

Work on the north roadway substructure (pile foundations, piers and columns), began in early 2000. All four lanes that constitute the north roadways of the bridge were closed to traffic on January 29, 2001 for demolition and reconstruction.

Contract #7

The two lanes on the north outer roadway were completed and reopened to traffic on December 10, 2001, 50 days ahead of schedule. This allowed four travel lanes into Manhattan during the morning rush hour, and four lanes into Brooklyn during the afternoon rush hour. In addition, Manhattan-bound truck traffic was restored to the two outer roadway lanes, decreasing the demand at both the Manhattan Bridge and the Queens Midtown Tunnel. The contractor earned $100,000 per day (for a maximum of 50 days) in incentive payments for early completion.

The north outer roadway reopening was complemented by the State Department of Transportation's early reopening of the Marcy Avenue connector ramp from the Brooklyn-Queens Expressway to the Williamsburg Bridge. This is the first time in the State's history that a segmented highway bridge was built using technology suited to situations requiring rapid construction with minimal traffic and community impacts.

The north inner roadway was re-opened to traffic on June 10, 2002, 50 days ahead of schedule, thus earning the contractor a $5 million incentive. The opening ceremony was presided over by Mayor Bloomberg and Commissioner Weinshall.

Contract #7 Replacing the North Inner Roadway Deck & Erecting the Footwalk

During construction, the Department maintained pedestrian/bike access across the bridge. The south footpath/bikeway remained open at all times. During Contract #7, DOT constructed a new Manhattan approach ramp and north footpath/bikeway. The new footpath/bikeway has one common access point for pedestrians and cyclists in Manhattan at Clinton Street, which leads to a crossover before the main span of the bridge to enable people to access either the north or south paths. The north path is open to both pedestrians and bicyclists and leads to an access point at Washington Park in Brooklyn. The south path is dedicated to pedestrians and leads to an access point at Bedford Avenue. Completion of the new north walkway also means that, for the first time ever, the bridge is accessible to wheelchair users and meets the requirements of the Americans with Disabilities Act.

Contract #7 Bikeway Steel Erection & Rebar Installation

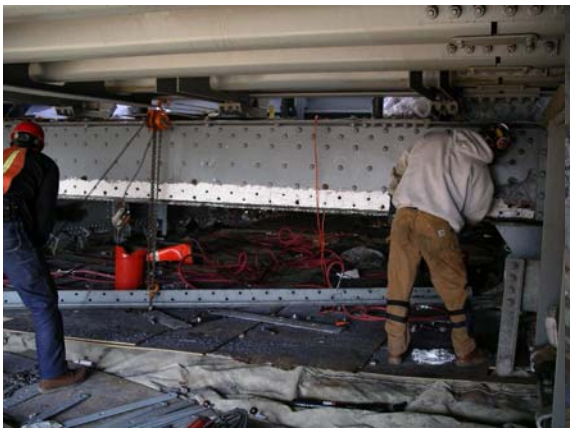
Contract #7 was substantially completed on December 12, 2002. The newly completed pedestrian walkway opened to traffic at 3:00 PM on this day.

Contract #8

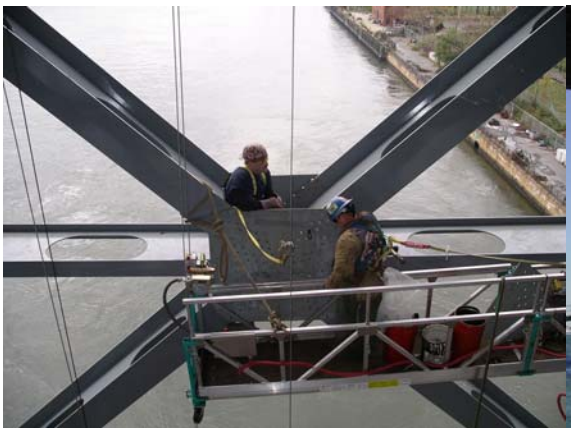
Contract #8 began on March 3, 2003, and is scheduled to finish in February 2006. This $173 million project will see the rehabilitation of the tower bearings, the truss system, the steel structure of all eight towers, and the north comfort station houses, the replacement or adjustment of the cable suspenders, the installation of maintenance travelers (inspection platforms) under the main span, as well as painting of the stiffening trusses. Architectural work will include the restoration of decorative lights and the Brooklyn granite stone monument. Work inside the anchorage houses on both the Manhattan and Brooklyn sides will include the construction of new stairs, a hoisting system, ventilation and lighting, and oiling platforms. The project will also include the installation of an Intelligent Transportation System (ITS).

Painting of the south side stiffening trusses, which began on June 1, 2003, was completed on September 6, 2003. Painting of the north side stiffening trusses, which began on September 6, 2003, was completed on November 25, 2003. Steel replacement on both the main and intermediate towers, as well as on the upper and lower chords of the main span trusses began in 2003 and will continue through 2005.


Contract #8 North Stiffening Truss Containment Erection and Removal




Contract #8 South Truss Bottom Chord Rehabilitation. .Degreasing the Brooklyn Main Tower Saddle Bearing.




Contract #8 Manhattan Main Tower Member Replacement. Manhattan Main Tower South Pier Platform Erection.

Contract #8 Manhattan Main Tower
Temporary Platform Erection

Such improvements will not only restore the structural integrity of the Williamsburg Bridge, but will also allow it to carry an increasing number of pedestrians and bicyclists, thereby reducing automobile congestion and its concomitant air pollution in New York City.

Movable Bridges

As NYCDOT completes reconstruction work on the East River Bridges, more attention is being devoted to other key City-owned bridges, such as the movable bridges. Building on the success of the East River Bridge projects, the Department is implementing many of the innovative concepts originated during the rehabilitation of East River Bridges on these other major reconstruction projects.

BELT PARKWAY BRIDGE OVER MILL BASIN (BROOKLYN)

When the Mill Basin Bridge was constructed during the first half of the 20th century, New York City's inland waterways were among the most heavily navigated thoroughfares in the country. However, as maritime traffic in New York City steadily decreased since the mid-1960s, the need for movable bridges lessened as well. In 1941, during its first full year of operation, the Mill Basin Bridge was opened 3,100 times; by 1953, that figure decreased to 2,173; by 2003, the number of openings declined further to a total of only 173 openings.

In addition, significant and costly traffic congestion results from the operation of this outmoded drawbridge. In 2002, the Mill Basin Bridge carried 142,105 vehicles per day. The average opening and closing time for the bridge (and others like it) is ten minutes. Thus, this structure's operation has a negative and significant effect on the efficiency of New York City's vehicular traffic flow.

In 2003, on a New York State-mandated scale from 1 to 7, this bridge had a condition rating of 3.31, or "fair." While the bridge is not in any immediate danger of structural failure, its reconstruction is required in order to maintain mobility and public safety on this vital artery.

The bridge is a 14 span structure, consisting of a double leaf steel bascule span. The substructure is made of reinforced concrete abutments and piers supported on precast concrete or timber piles.

Mill Basin Bridge

Under the Department's current proposal, the Mill Basin Bridge will be replaced with a new, 11 span, high-level, fixed bridge with a pre-stressed concrete superstructure and reinforced concrete substructure on piled footings. The bridge will be constructed next to the existing structure so as to maintain traffic during the construction period. It will feature three lanes of vehicular traffic, as well as a 12-foot wide shoulder in each direction. A new sidewalk/bicycleway will be also be added, and the stopping sight distance for the bridge and approach roadway will be improved.

Currently in its final design phase, the reconstruction of the Mill Basin Bridge is scheduled to start in fall 2007, and to last approximately 4 years. The new bridge will be constructed off-line while maintaining three traffic lanes in each direction and a bike/pedestrian path on the eastbound side on the existing bridge during construction. The existing bridge will be demolished after the new bridge is fully opened to vehicular traffic.

As an interim measure, beginning in September 2001, part of the existing deck grating (approximately 20 plated-over panels) of the bridge was replaced. All work was done at night, and progressed through the spring of 2002. During the winter and spring of 2002, Division ironworkers returned to the bridge to resecure surface mounted roadway plates which were covering holes in the grating. Since the plates are susceptible to loosening as a result of vehicle tire impacts, it was decided to recess each plate. This task was completed by the end of 2002. The resumption of the grating replacement work is currently on hold.

HAMILTON AVENUE BRIDGE OVER THE GOWANUS CANAL

The Hamilton Avenue Bridge opened in 1942. In 2002, the bridge carried 60,075 vehicles per day. The $44 million reconstruction of this landmark bridge will use the "float out the old/float in the new" technique. The new bascule spans with trunion towers will be shop-assembled and tested off-site, then will be floated in and erected on the rehabilitated piers. This will reduce the roadway closure time for the construction of each span from 14 months to only 2 months. Other reconstruction work will include: the rehabilitation and seismic retrofitting of the existing piers; the replacement of all electrical and mechanical and control equipment; the removal and replacement of the approach slabs of both sides of the bridge; the rehabilitation of the backwalls and abutments; and the renovation and extension of the bridge operator house.

The bridge's appearance will also be enhanced artistically. A permanent new lighting art structure will be installed on the bridge buildings that will be viewable by pedestrians, motorists, mariners and the general public as part of the Percent For Art Program administered under the Department of Cultural Affairs.

Preparing a Mock-up of the Sculpture for Installation (Credit: Gholamali Mozaffari)

Installing the Mock-up of the Hamilton Avenue Light Sculpture (Credit: Gholamali Mozaffari)

In Stage I, the Manhattan-bound span will be closed from July 1, 2007 to August 31, 2007, and it will be replaced. In Stage 2, the Brooklyn-bound span will be closed from July 1, 2008 to August 31, 2008, and it will be replaced. Each of these two main stages of the contract includes an incentive for early completion of $25,000 of per day with a cap of $300,000. There is a disincentive of $25,000 for each day the contractor is late in finishing a stage with no limit to the amount of penalty. The project is scheduled for construction between March 2005 and January 2009.

MACOMBS DAM BRIDGE OVER THE HARLEM RIVER (BRONX/MANHATTAN)

The Macombs Dam Bridge, which has one of the longest swing spans in the world, was opened in 1895. In 2002, the bridge carried 18,878 vehicles per day. The $145 million reconstruction of this landmark bridge includes the West 155th Street viaduct, the west approach plaza over the Harlem River Drive and Seventh Avenue, the swing span over the Harlem River, the deck and camelback trusses over Metro-North Railroad and Conrail, the Major Deegan interchange (consisting of the east approach and four ramps), and the Jerome Avenue viaduct. Each of the three stages of the contract included an incentive for early completion of $50,000 of per day with a cap of $2 million. There was a disincentive of $100,000 for each day the contractor would be late in finishing a stage with no limit to the amount of penalty. The rehabilitation work will not only strengthen the structure, it will also return the bridge's appearance to its turn of the century grandeur.

East View of Macombs Dam Bridge Swing Span and Camelback Truss (Credit: Hani Faouri)

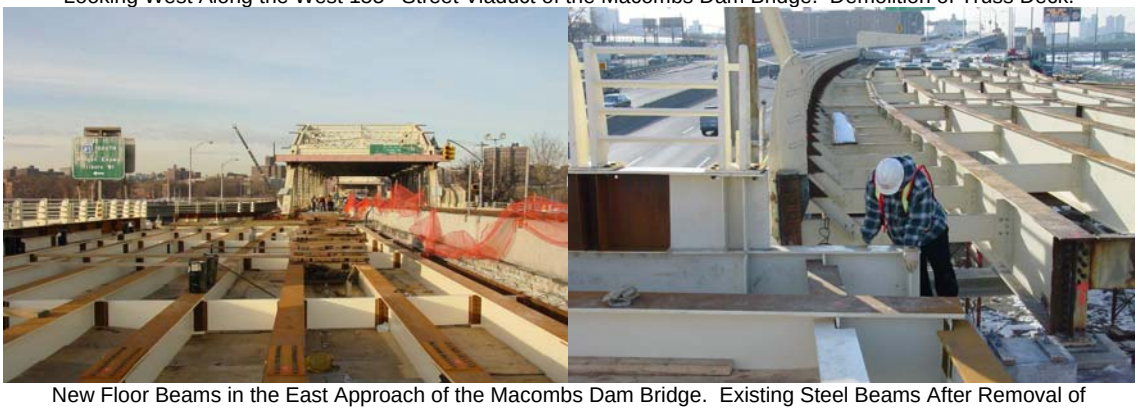
As part of this project, the historic John Hooper Fountain, which dates from 1894, was fully rehabilitated in 2000. After studying detailed old photographs, the globe and weather vane were recast and replicated. Cast aluminum was used with high impact glazing similar to the lanterns installed in Central Park in the 1980's. Just east of the fountain, a garden of rose bushes was added for the community's pleasure. Other additions included a new paved island, new curbs, and a steel fence. Bollards were installed at the western end of the island to protect the fountain from vehicular traffic.

The first stage of construction was completed on March 31, 2001. It included the installation of structural components, as well as the deck replacement of the northern one-third area of the bridge and the West 155th Street viaduct. This milestone date was met even though 31 calendar days were lost from the work period due to the post season play of the New York Yankees. Essentially twelve months' worth of work was compressed into the five worst weather months of the year.

The second stage of construction began on November 2, 2001, after the conclusion of World Series play at Yankee Stadium. It consisted of the installation of structural components as well as the deck replacement of the middle one-third area of the bridge. This stage was completed on February 20, 2002, 39 days ahead of schedule.

The third and final stage of construction began on October 7, 2002. Work included replacement of the structural deck, and rehabilitation of the superstructure steel and the concrete substructure members on the southern portion of the bridge. In addition, truss members in both the swing span and camelback portions of the bridge were reinforced. This stage was completed on March 31, 2003. Concluding items will include necessary paint work, installation and testing of electrical and mechanical systems, and additional steel repairs of the 155th Street viaduct. Expected completion of the project is the end of 2004.

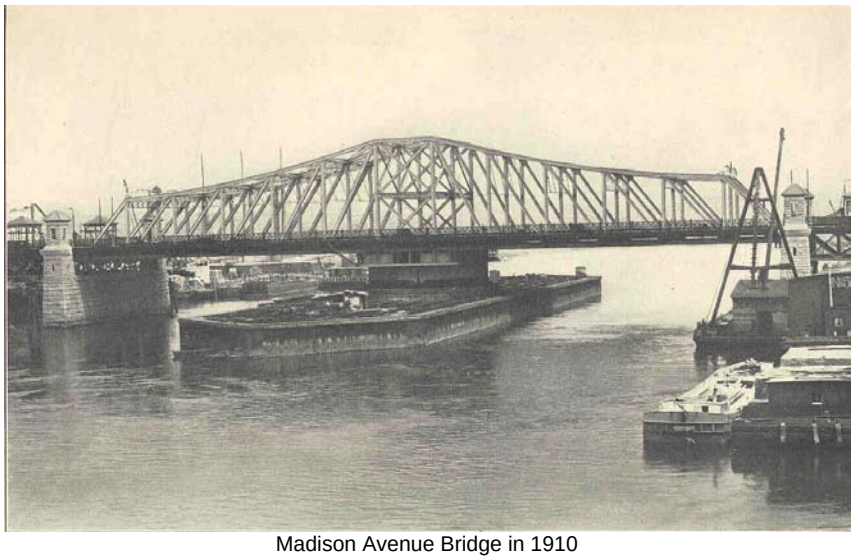
Looking West Along the West 155th Street Viaduct of the Macombs Dam Bridge. Demolition of Truss Deck.



New Floor Beams in the East Approach of the Macombs Dam Bridge. Existing Steel Beams After Removal of Concrete on Ramp B.

MADISON AVENUE BRIDGE OVER HARLEM RIVER (BRONX/MANHATTAN)

This rehabilitation project, which began in 1994, was substantially completed in August 2003. The work included rehabilitating the swingspan and approaches, and replacing the bridge's barriers, handrails, fencing, mechanical and electrical systems. The bridge's electrical system was vandalized in August 2000. Both submarine cables and most of the bridge wiring had to be replaced. More than $2.5 million in damage was done by the vandals for the salvage value of the copper wiring they removed. A temporary drive was installed to make the bridge operational. In late June 2002, the bridge was successfully partially opened utilizing the interim drive machinery, except for the end lifts. This was the first time the bridge had opened under its own power in several years. The remaining tasks include work on the Bronx approach traffic signals and the submarine cable. A contract to install the final mechanical system and to complete a seismic upgrade is expected to be in effect in 2010.



Madison Avenue Bridge in 1910

METROPOLITAN AVENUE BRIDGE OVER ENGLISH KILLS (BROOKLYN)

This bridge is a double leaf bascule constructed in 1931. The five span structure carries four lanes of traffic over the English Kills. A $30.7 million rehabilitation project began in October 2003. The estimated construction duration will be 36 months with approximately 16 months lead time. The project's scope of work includes rehabilitation of the existing bridge superstructure, substructure, and approaches, replacement of the existing mechanical and electrical systems for the bascule span, and reconstruction of the Bridge Operator House.

Onsite construction will be carried out in three stages. Incentives and disincentives are tied to the completion of Stage I and Stage II and the opening of each half of the bridge to traffic. The maximum project incentive is $900,000. There is no maximum value associated with the disincentives. Construction is expected to be complete in mid-2007.

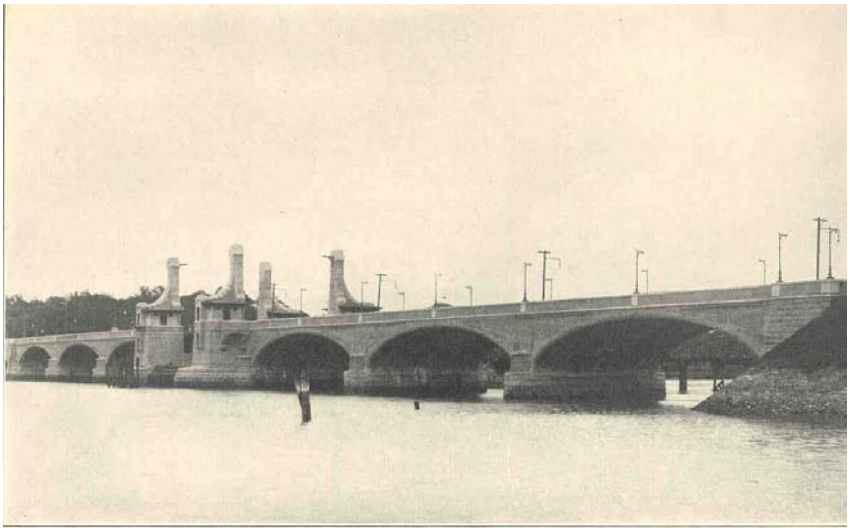
Previous Metropolitan Avenue Bridge in 1903

Metropolitan Avenue Bridge

SHORE ROAD BRIDGE OVER THE HUTCHINSON RIVER (BRONX)

This bridge, built in 1908, was originally called the Pelham Parkway Bridge over Eastchester Bay. The $5 million interim rehabilitation of the existing bridge superstructure and substructure will enable the Department to keep it operational for a period of 10 years while a new bridge is being designed and built adjacent to the existing bridge. The existing bridge will be demolished once the new bridge is in service. The rehabilitation project began in April 2001, and all traffic lanes were reopened to traffic on April 24, 2002, three days earlier than scheduled. The interim rehabilitation of this bridge was substantially completed on June 17, 2002.

As of the end of 2003, various alternatives for the new bridge were being evaluated for further design. The project to construct a new Shore Road Bridge is scheduled for construction between August 2011 and November 2015.



Shore Road Bridge in 1909

THIRD AVENUE BRIDGE OVER THE HARLEM RIVER (BRONX/MANHATTAN)

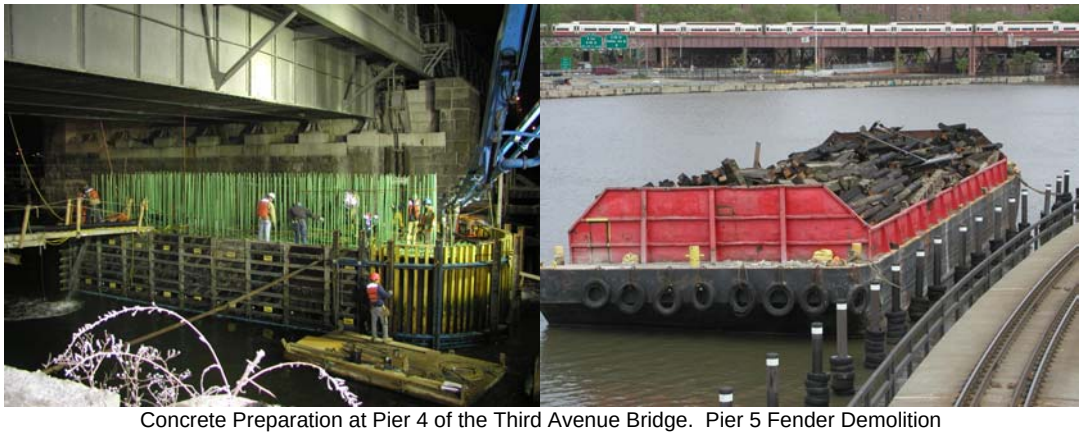
The Third Avenue Bridge carried some 58,949 vehicles per day in 2002. The bridge was built in 1899 and was last rehabilitated in the 1950's. The design of the approximately $120 million reconstruction project of this rim bearing swing bridge was completed in October 2000. Construction began in July 2001. Reconstruction will include complete replacement of the approaches and the swing span. Elimination of the center median on the main span will greatly improve the traffic flow on the bridge. This bridge will use a center spherical roller thrust bearing for supporting the span and for seismic loads. The bearing will be the largest of this type made for this purpose. The existing pivot pier will also be reinforced for seismic loads. The approximate design loading is 7,000,000 lbs. vertical and 2,400,000 lbs. horizontal. A temporary bridge, adjacent to the current one, will be in place for five months to maintain two lanes of traffic into Manhattan while the swing span is being replaced.

If the roadway is completed five months ahead of schedule, the contractor will receive a maximum incentive of $5 million. As a disincentive, the contractor will be penalized from $25,000 to $37,500 each day the milestone date is exceeded with no set maximum penalty. Completion of the project is scheduled for fall 2005.

Third Avenue Bridge

The contractor drilled new shafts for the swing span rest piers, which will eventually support the new swing span, currently being fabricated and erected in Alabama. The new swing span is anticipated to set sail for the bridge site from Alabama in spring 2004 and is expected to be floated into final position in fall 2004. A temporary fixed bridge will be erected to carry the traffic across the Harlem River while the existing swing span is floated-out and the new swing span is floated-in.

Two north lanes and the Third Avenue approach are currently under reconstruction. Once opened to traffic, the two south lanes along with Bruckner Boulevard approach will be demolished and reconstructed in 2004.



Concrete Preparation at Pier 4 of the Third Avenue Bridge. Pier 5 Fender Demolition

Third Avenue Bridge Ramp Construction

Third Avenue Bridge Stairway Demolition. Working on the River to Construct a Temporary Platform.

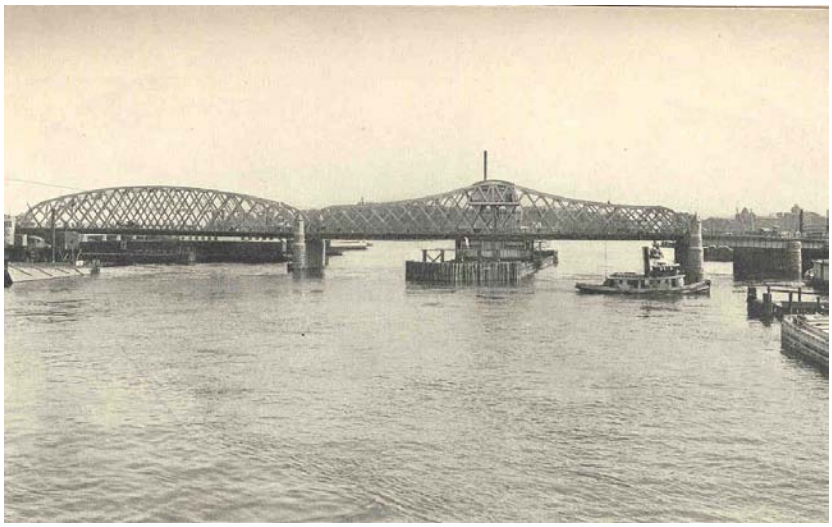
Drill Rig Installing the Third Avenue Bridge Manhattan Rest Pier Shaft from the Existing Bridge Deck. The Rebar Assembly and Staging Area are in the Foreground. Drill Rig Excavating the Drilled Shaft at the Center Pivot Pier.

Auger Excavation of the Drilled Shaft at the Third Avenue Bridge Manhattan Rest Pier From the existing Bridge Deck.
Lifting the Drilled Shaft Reinforcement Cage for Placement.

Third Avenue Bridge Rebar Cage Assembly and Staging Area.
Constructing Drilled Shafts for the New Center Pivot Pier Foundation Adjacent to the Existing Pivot Pier.

WILLIS AVENUE BRIDGE OVER THE HARLEM RIVER (BRONX/MANHATTAN)

Measuring 3,212 feet in length and opened to traffic on August 23, 1901, the Willis Avenue Bridge remains one of New York City's most heavily traveled bridges. The bridge is a bowstring truss swing bridge which spans the Harlem River, and connects Manhattan's First Avenue and 125th Street to Willis Avenue and 132nd Street in the Bronx. Engineered by Thomas C. Clarke, the bridge was designed to relieve traffic congestion on the Third Avenue Bridge.



Willis Avenue Bridge in 1909

A major hub between the FDR Drive in Manhattan, the Major Deegan Expressway and the Bruckner Expressway in the Bronx, the Willis Avenue Bridge carried approximately 73,435 vehicles per day in 2002. Ten local and interstate bus lines use the bridge as a principal route from New York City to points throughout the northeastern United States.

Because of substandard curves which are present on the structure's approaches, the Willis Avenue Bridge has been one of the City's most accident-prone crossings. Between 1992 and 1994, there were 809 vehicular accidents on the bridge, for an average of 269 per year. Under the Department's proposed reconstruction program, these substandard curves will be eliminated.

Because of the advanced age and condition of the Willis Avenue Bridge, the City of New York proposes to replace the existing bowstring truss swing bridge with a new swing span bridge constructed just to the south of the existing bridge. Elimination of the center median on the main span will greatly improve the traffic flow on the bridge. Due to begin in March 2007, this project is slated for completion in March 2012.

Willis Avenue Bridge

145th STREET BRIDGE OVER THE HARLEM RIVER (BRONX/MANHATTAN)

In 2002, the 145th Street Bridge carried approximately 35,796 vehicles per day. This makes it one of the most essential routes for vehicles and pedestrians traveling between Manhattan and the Bronx. Vehicles, which cross this rim bearing swing bridge each day between the two boroughs, include buses, trucks and cars.

Scheduled for construction between July 2004 and September 2007, the 145th Street Bridge Reconstruction project will include the complete replacement of the swing span and six approach spans, seismic retrofitting, partial reconstruction of substructures and the reconstruction of the approach roadways. The design for the bridge utilizes elements pre-fabricated off-site so as to allow a very quick replacement of the existing bridge in 3 stages totaling 18 months. Traffic will only be impacted for the 15-month period of March 16, 2006 to June 18, 2007.

These upgrades will restore the structural integrity and extend the useful life of the 145th Street Bridge.

145th Street Bridge

FLOAT OUT/FLOAT IN

A technique referred to as “float out the old/float in the new” is being incorporated into replacement schemes for many movable bridges. Under this scheme, the old spans are floated out in their entirety and the new spans are floated in. Having the new spans constructed off-site and barged to the project allows for quick and efficient replacement of the removed span. Current projects that will incorporate this technique are: Third Avenue Bridge, 145th Street Bridge, Hamilton Avenue Bridge, Borden Avenue Bridge, and Grand Street Bridge.

THREE TUNNEL PROJECT

Rehabilitation work continued on the Battery Park Underpass, and the Park Avenue and First Avenue tunnels in Manhattan. The contract includes the rehabilitation of the mechanical and electrical systems, as well as the ventilation, fire, lighting and drainage systems. This project, (particularly the Battery Park Underpass, which was used as a route to remove debris), was greatly impacted by the World Trade Center disaster, and the subsequent default of the electrical subcontractor. The project is scheduled for completion in summer 2004.

BRIDGE SEISMIC DESIGN AND RETROFITTING

The seismic retrofitting of bridges in New York City is part of the inspection and rehabilitation program mandated by Congress and administrated by the FHWA through the local authorities. During the period of 1993 to 1996, four major bridge owners in the New York City area (NYCDOT, NYSDOT, MTA, and the Port Authority of New York and New Jersey) retained seismologists to study hard rock seismic ground motions. The rock motions generated by these studies differed from each other and from the AASHTO spectrum as modified by NYSDOT. The differences were such that the resulting retrofit costs varied widely, depending upon which motions were adopted. To resolve this issue, NYCDOT, in association with NYSDOT and the FHWA, retained Weidlinger Associates to assemble an expert panel to develop recommendations for rock motions that would be adopted uniformly by the New York City region. The panel consisted of a team of six internationally recognized experts in the fields of seismology, geology, earthquake engineering, ground motion, and geotechnical studies. There were several brainstorming workshops held in New York, where the senior officials from NYCDOT, NYSDOT, and the FHWA provided their input to the panel members. NYCDOT also invited other city agencies to participate in the process.

The expert panel came up with definitive recommendations regarding rock motions, time histories, ground motions and bridge performance criteria to be used for critical, essential or other bridges undergoing structural analyses. The panel detail findings are described in the report entitled "New York City, Seismic Hazard Study and its Applications, Final Report, December 1998." This report is now extensively used by NYCDOT, NYSDOT, the FHWA, their consultants, and other agencies in the New York area for bridge projects. Thus, NYCDOT's leading role and efforts to establish ground motion standards have brought uniformity in seismic design to the New York City area. This will result in savings in bridge retrofit costs.

In 1997, the Division began a unique project aimed at conducting a seismic evaluation and subsequent retrofit of the Macombs Dam and 145th Street Bridges over the Harlem River. Intended to develop schemes for the strengthening of the unreinforced masonry piers on these movable bridges. The project's findings may be applied to other NYC bridges that have similar masonry substructures.

The 1998 Seismic Design Criteria generated by NYCDOT and adopted by all local bridge entities includes a requirement that it be revisited every 3-4 years. A panel of seismologists prepared a report to update the existing 1998 criteria. This report was reviewed by NYCDOT, NYSDOT, FHWA, and also by a few consultants working on NYCDOT projects. A meeting was held on November 13, 2002, and was attended by NYCDOT, NYSDOT, and FHWA. It was unanimously agreed to continue to follow the existing 1998 seismic design until at least the next review.

WATERWAY STUDY

In 1999, the Department procured the services of an engineering firm to undertake a comprehensive study of the City's 25 movable bridges. The surrounding areas, land use, maritime laws, regulations and other factors were considered to assist the Department of Transportation in providing justification to the U.S. Coast Guard for permission to either convert certain of these movable bridges to fixed structures, or to modify their status to reduce the number of bridge openings. Such conversions would save the City annual operation and maintenance costs.

DOT received permission from the Coast Guard and reclassified the Roosevelt Island Bridge to fixed status in March 1999. This change resulted in a total estimated saving of $38,000 to the

City because of reduced operating costs for this bridge. However, in June 2001, the Coast Guard rescinded its permission, citing construction activity and security concerns.

In April 1999, DOT proposed that the Wards Island Bridge be converted to fixed bridge status. The Coast Guard indicated that there was an excellent chance that this change in status would be successful. However, because of clearance needed for construction equipment to be used for planned reconstruction projects on several Harlem River bridges, including Third Avenue, Willis Avenue, and 145th Street, it was decided to delay conversion of the Ward's Island Pedestrian Bridge to fixed bridge status until all reconstruction projects are completed. DOT estimates completion in Fiscal 2012.

By the end of 2001, DOT advanced the waterway study to the point that we were able to identify those bridges that are realistic candidates to be converted to fixed status. Those bridges are the Borden Avenue and Hunters Point Avenue Bridges over Dutch Kills, the Grand Street Bridge over Newtown Creek, and the Bruckner Expressway over the Bronx River. The Grand Street Bridge is anticipated to be the first to be converted, beginning in Fiscal 2006. The next phase of this study will involve researching right-of-way, legal, and community impact issues. This phase will begin when the Coast Guard agrees to allow the permit process to proceed. This is expected sometime in the first half of Fiscal Year 2005.

BRIDGE CLASSIFICATION

The Coast Guard regulations, which govern the operation of the City's movable bridges, define the owner's responsibility to the mariner by classifying a bridge as "open on demand" or "open on advance notice." An "on demand" bridge provides an immediate opening to any vessel wishing to pass the bridge. An "advance notice" bridge opens after the mariner requests an opening several hours in advance. "On demand" bridges must be staffed at all times. "Advance notice" bridges are staffed only when necessary. DOT redesigned the work process in order to reduce personnel costs to the City and improve the delivery of services to the maritime community.

In October 2000, the Department implemented the United States Coast Guard-approved changes, establishing a four-hour notice for the Harlem River bridges, and a two-hour notice for the remaining "advance notice" bridges. The "on demand" classification remains for three bridges. The revised advance notice requirements allowed the formation of mobile crews with overlapping responsibilities, meeting the mariners' needs and, in some instances, improving service by providing two mobile crews to expedite a vessel's travel along a waterway.

The reduction in planned personnel will save approximately $884,000 annually. In addition, bridge operational capabilities, general maintenance, and debris and snow removal have been enhanced through the more efficient utilization of existing personnel.

The remaining task is the conversion of the three remaining bridges to "on demand" status. This will be achieved by the replacement of two of the bridges with new bridges built with higher clearances, thereby reducing the number of times the bridges must be opened.

Summary of Vessel Openings 1989 - 2003

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Brdn Ave. (Q)	39	218	282	107	141	0	0	105	15	0	3	0	28	0	0
Brdwy (B/M)	0	0	12	3	10	6	7	24	7	2	0	6	27	83	49
Brcknr Expwy (Estrn Blvd) (B)	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
Brcknr Expwy (Unnprt Brdg) (B)	676	745	743	635	554	594	431	386	363	257	345	385	420	332	300
Carroll St. (K)	243	552	517	627	669	704	432	245	142	110	174	102	80	124	186
Grand St. (K/Q)	162	610	419	549	224	254	239	189	37	23	24	17	50	19	10
Grnpoint Ave. (K/Q)	371	1390	1014	860	587	549	498	557	626	669	787	688	641	659	738
Hmltn Ave. (K)	1475	1597	1466	1331	1300	1336	1246	1191	1157	996	982	933	832	946	824
Hntrs Point Ave. (Q)	30	157	264	106	141	0	0	113	15	0	1	0	36	0	0
Htchnsn River Pkwy (B)	59	30	8	0	0	0	37	31	32	75	46	5	120	30	5
Macombs Dam (B/M)	2	0	0	0	0	6	5	13	3	0	0	0	0	0	0
Mdsn Ave. (B/M)	4	9	3	1	5	5	0	0	0	0	0	0	0	0	0
Metrpltn Ave. (K)	694	351	301	356	225	310	272	407	423	448	513	279	366	339	342
Mill Bsn (K)	480	699	867	879	1151	1250	954	903	628	591	433	336	317	142	173
Pulaski (K/Q)	527	577	584	426	224	239	206	195	291	332	383	276	208	308	599
Rsvlt Islnd (M/Q)	0	2	0	0	0	0	0	0	0	4	0	58	48	125	63
Shore Rd (Pelham Pky) (B)	2180	2457	1968	1996	2138	2222	2190	2167	2158	2274	2162	2168	2222	1897	1910
Union St. (K)	728	574	502	547	657	713	432	236	144	103	144	85	101	62	24
Ward's Isnd Pdstrn (M)	6	0	0	0	2	0	1	0	2	1	0	0	279	0	0
Willis Ave. (B/M)	8	9	15	6	8	18	24	17	9	0	4	4	40	0	7
3rd Ave. (B/M)	3	7	3	1	7	19	20	18	9	0	2	1	1	0	0
3rd St. (K)	762	638	410	549	663	732	432	256	149	112	157	178	117	212	152
9th St. (K)	986	1082	864	984	927	836	0	0	0	0	192	513	808	733	547
145th St. (B/M)	4	0	2	0	0	9	24	24	3	0	0	1	6	0	0
W.207th St. (B/M)	0	0	0	0	1	6	4	12	7	2	0	6	14	4	6
TOTAL	**9439**	**11707**	**10244**	**9963**	**9634**	**9808**	**7454**	**7089**	**6220**	**5999**	**6352**	**6041**	**6761**	**6015**	**5935**

Roadway Bridges

INNOVATIONS

Innovations in the design and construction of Roadway Bridges continued in 2003. The continued use of weathered steel for bridges over railroads eliminates expensive costs involved in maintenance painting. Where feasible, the continued use of precast elements in bridge reconstruction reduces construction duration and the resulting negative impacts on the traveling public.

Stainless steel clad rebars and galvanized steel rebars, to reduce concrete deck deterioration, are being utilized in pilot projects such as the Congress Street Bridge over the Brooklyn-Queens Expressway, and the East Third Street Bridge over the Bay Ridge LIRR.

ANDREWS AVENUE BRIDGE OVER LIRR (QUEENS)

The Andrews Avenue Bridge was built in 1937. A Notice to Proceed for the $3.7 million replacement of this bridge was issued to the contractor with a start date of August 4, 2003. The bridge will be completely closed beginning in winter 2004 for nine months. The new bridge, designed by the Division's In-House Design Section, will accommodate two 3.6-meter traffic lanes and two 2.5-meter wide sidewalks to better serve the community. The existing four span bridge will be completely removed and replaced with a single span concrete-filled grid deck with multiple weathering steel stringers and girders supported by precast modules for the abutments and wing walls. This will be the first use of this material in a NYCDOT bridge project. The proposed geometry of the south approach roadway requires the construction of a retaining wall at the edge of a soccer field, lumber yard, and other private properties, due to the rise in profile. The precast wall will require the excavation of only half a meter as compared to about two meters with the use of conventional cast-in-place concrete. The installation of these wall units can be done during the winter months in a relatively short time, and will greatly minimize the disturbance to the adjacent private properties. Precast wall units will also improve aesthetics of the playground and the area within the project limits. The use of precast concrete modules will give better quality concrete, and ease of installation will reduce the total construction time from 15 months to 9 months. This project is scheduled for completion in February 2005.

Rendering of New Andrews Avenue Bridge

ATLANTIC AVENUE BRIDGES (EB & WB) OVER EAST NEW YORK AVENUE (BROOKLYN)

The existing eastbound and westbound Atlantic Avenue bridges are on either side of the LIRR. Each is a two span steel multi-stringer structure, supported by a steel pier and reinforced concrete abutments. The NYCT structure overhead is partially supported by these bridges. The scope of work includes replacement of the roadway and sidewalks, repair of the bridge deck, and cleaning and painting of the exposed surface of the steel structure. In addition, the pavement, sidewalks and curbs of the East New York Avenue underpass and service roads will be replaced. A Notice to Proceed for the $4.2 million reconstruction of these bridges was issued to the contractor with a start date of September 9, 2002. The bridges were reconstructed in two stages. The eastbound Atlantic Avenue Bridge, which had been closed to vehicular and pedestrian traffic since October 22, 2002, was re-opened on June 11, 2003. The westbound Atlantic Avenue Bridge, which had been closed to vehicular and pedestrian traffic since June 12, 2003, was re-opened on October 17, 2003. The project is scheduled for completion in June 2004.

BELT PARKWAY BRIDGES OVER FRESH CREEK, GERRITSEN INLET, PAERDEGAT BASIN, ROCKAWAY PARKWAY, NOSTRAND AVENUE, AND BAY RIDGE AVENUE (BROOKLYN)

On a New York State-mandated scale from 1 to 7, five of these six bridges possess a condition rating of “fair” (3.001 – 4.999), and the sixth was rated “poor”. In 2003, the Fresh Creek Bridge was 3.27; the Gerritsen Inlet Bridge was 3.58; the Paedergat Basin Bridge was 2.90; the Rockway Parkway Bridge was 4.11; the Nostrand Avenue Bridge was 4.09; and the Bay Ridge Avenue Bridge was 3.81. While none of the bridges are in any immediate danger of structural failure, their reconstruction is required in order to maintain mobility and public safety on this vital artery.

Under the Department’s current proposal, the existing 5 span, 264.5 foot Fresh Creek Bridge will be replaced with a new 3 span, 309 foot bridge; the existing 11 span, 520 foot Gerritsen Inlet Bridge will be replaced with a new 3 span, 496 foot bridge; the existing 150 foot 4 span Rockaway Parkway Bridge will be replaced with a new single span 95 foot bridge; the existing 140 foot 3 span Nostrand Avenue Bridge will be replaced with a new single span 98 foot bridge; and the existing 58 foot single span Bay Ridge Avenue Bridge will be replaced with a new single span, 58 foot bridge. The stopping sight distance for the bridge and approach roadways will be improved except for the Bay Ridge Avenue Bridge, where it is not needed.

The reconstruction of the Fresh Creek Bridge, currently in its final design phase, is scheduled to start in winter 2007, and will last for approximately 3 years. The bridge and the approach roadways will be constructed in four stages, while maintaining three traffic lanes in each direction and a bike path on the eastbound side during construction.

The reconstruction of the Gerritsen Inlet Bridge, currently in its final design phase, is scheduled to start in fall 2007, and will last for approximately 3½ years. The bridge and the approach roadways will be constructed in four stages, while maintaining three traffic lanes in each direction and a bike/pedestrian path on the eastbound side during construction.

The reconstruction of the Rockaway Parkway Bridge, currently in its final design phase, is scheduled to start in spring 2008, and will last for approximately 3 years. The bridge and the approach roadways will be constructed in five stages, while maintaining three traffic lanes in each direction during construction.

The reconstruction of the Nostrand Avenue Bridge, currently in its final design phase, is scheduled to start in spring 2008, and will last for approximately 2½ years. The bridge and the approach roadways will be constructed in five stages, while maintaining three traffic lanes in each direction during construction.

The reconstruction of the Bay Ridge Avenue Bridge, currently in its final design phase, is scheduled to start in spring 2008, and will last for approximately 1½ years. The bridge will be constructed in five stages, while maintaining three traffic lanes eastbound and two traffic lanes westbound during Stage I, and two traffic lanes in both directions during Stages II, III, IV, and V during construction.

The Paerdegat Basin Bridge will be replaced by a new bridge (with complete replacement of the superstructure and substructure). It will be constructed on a new off-line alignment conforming to current standards. The new split bridge will be within the right-of-way of the parkway. This project is scheduled to begin construction in the spring of 2007, and to last for approximately four years.

Paerdegat Basin Bridge

A computerized traffic simulation model is under development in connection with the Division's plans to reconstruct seven bridges on the Belt Parkway. This model will serve as a useful tool to establish the impact of construction on the travelling public and to help determine appropriate construction schedules. In addition, it will enable us to rapidly evaluate the impact of a variety of combinations of construction staging. The Division is currently examining two construction scenarios. The first one would be to construct Fresh Creek, Gerritsen Inlet, and Paerdegat Basin, along with Mill Basin, Nostrand Avenue, and Rockaway Parkway as a group. The second option would be to construct Fresh Creek, Paerdegat Basin, Mill Basin, and Rockaway Parkway as a first group, followed by Gerritsen Inlet and Nostrand Avenue as a second group. Construction duration would be 52 months for the first scenario and 94 months for the second.

BROOKLYN-QUEENS EXPRESSWAY (WB) OVER FURMAN STREET & BROOKLYN-QUEENS EXPRESSWAY (EB) OVER BROOKLYN-QUEENS EXPRESSWAY (WB) (BROOKLYN)

The project to replace the transverse expansion joints on the Brooklyn-Queens Expressway (BQE) in Brooklyn Heights between Orange & Joralemon Streets, is scheduled to begin in April 2004. The first (lower) cantilevered level carries the westbound vehicular traffic. The second (intermediate) cantilevered level carries the eastbound vehicular traffic, and the third (top)

cantilevered level supports the Brooklyn Heights promenade. This section of the BQE was originally constructed approximately 50 years ago and due to the aging process, the original joint material is no longer capable of preventing water from infiltrating the structural concrete. If this situation continues unabated, the concrete will become severely damaged due to the water's freeze/thaw action and its corrosive effect on the reinforcing steel. Installing new joint material will reestablish the watertight seals while allowing for the necessary expansion of the superstructure, thus extending the useful life of the structural concrete that supports the westbound and eastbound roadways of the BQE. There are a total of 100 joints; 50 joints on the first cantilevered level, and 50 joints on the second cantilevered level within the project limits. Each joint is 33½ feet in length for a total 3,350 feet of joint replacement. The work will be performed only during the nighttime hours of 12:01 AM to 5:00 AM under two lane closures, with the third lane open to traffic. At all other times, all three lanes in both the westbound and eastbound directions will be open to traffic. The project is expected to be complete in February 2005.

CLAREMONT PARKWAY BRIDGE OVER METRO NORTH RR (BRONX)

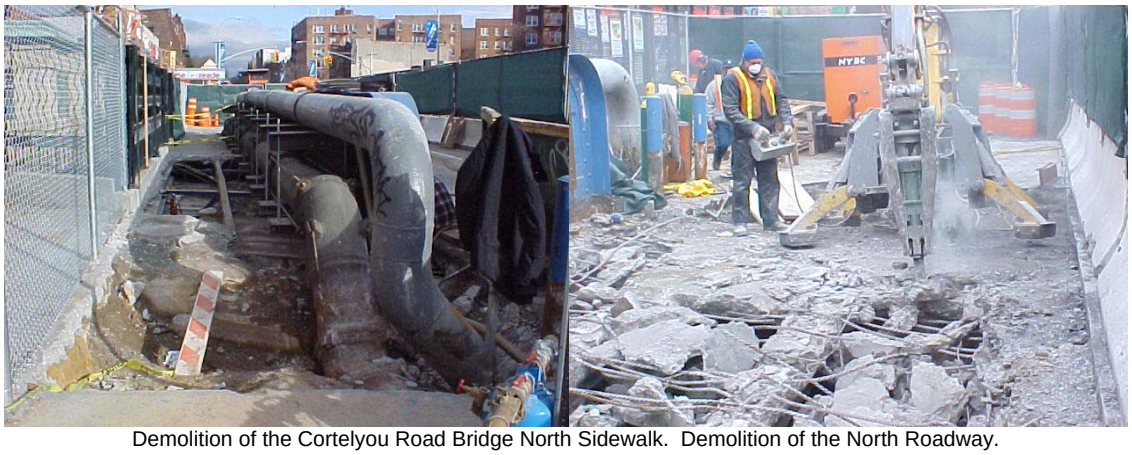
The Claremont Parkway Bridge was built in 1889, with major reconstruction in 1938. This project, currently in its final design phase, will include removal of the entire superstructure and approaches. The new bridge will consist of pre-stressed concrete box beams supporting a reinforced concrete deck and approach slab, concrete sidewalks and reinforced concrete parapet walls with protective fencing, and reconstructed approach roadways. A portion of both existing abutments will be removed to accommodate the new bridge profile. The utility work will include the installation of two new water mains, a gas main, and electrical conduits. The bridge will be constructed in four stages, with one traffic lane open in each direction at all times during construction. Construction is expected to begin in October 2004, and is expected to be complete by April 2006.

CONCOURSE VILLAGE AVENUE BRIDGE OVER METRO NORTH (BRONX)

This project will include demolishing the existing bridge deck, removing loose encasement on the structural members, localized steel repairs, and restoring the encasement. A new concrete deck will be installed, and new approach slabs, an east parapet, steel faced curbs, and concrete sidewalks will be built. The existing granite blocks will be repointed as necessary. The bridge will be reconstructed in four stages, with one 4.3 meter wide southbound lane maintained during construction. Construction is expected to begin in September 2004, and is expected to be complete in early 2006.

CORTELYOU ROAD BRIDGE OVER NYCT (BROOKLYN)

This $3.7 million project is being constructed in three stages. Two-way traffic will be maintained by providing one lane in each direction during construction, and no detours will be required. The existing bridge is a one span steel through-girder, floorbeam and steel stringer bridge with very short approach spans. Two steel column bents, rising out of the passenger platforms, support each end of the main span. The reconstruction will replace the existing deck slab and steel stringers with modified floorbeams and through-girders. Construction began in April 2002, and is expected to be complete in the spring of 2005.



Demolition of the Cortelyou Road Bridge North Sidewalk. Demolition of the North Roadway.

Excavation Behind the Abutments of the Cortelyou Road Bridge

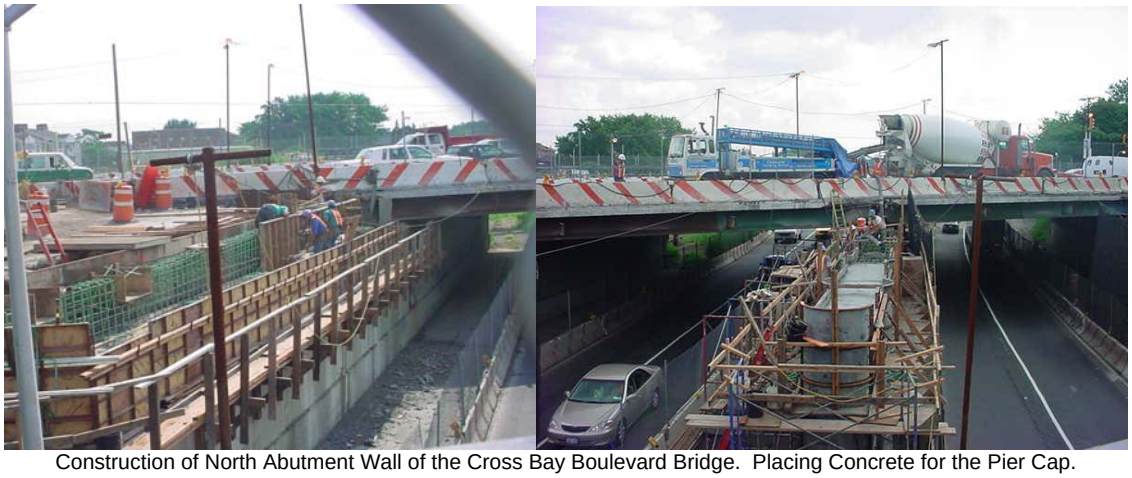
CROSS BAY BOULEVARD BRIDGE OVER CONDUIT BOULEVARD (QUEENS)

The bridge was built in 1949. A recent inspection by the Division revealed that the bridge has outlived its useful service life. The effects of age, weather and increased traffic volume have rendered reconstruction necessary. The bridge connects the communities of Howard Beach and Ozone Park, and provides seasonal access to the beaches at Gateway National Recreation Area and the Rockaways. The existing bridge structure consists of a two span reinforced deck slab, and carries four lanes of traffic in each direction. The new bridge structure will consist of a two span concrete grid deck and a concrete parapet wall with protective bridge fencing. It will carry the same lanes as before. The approach slabs, curb and sidewalk, median, roadbase, and guiderails will be replaced. New traffic signals, street lighting, traffic regulatory signs and thermoplastic stripping will be installed. Utilities such as the gas main, Con Edison, telephone, Fire Department and Time Warner will be installed across the bridge under the deck. Approximately 66 new trees will be planted as part of the landscaping improvement of this project.

The bridge will be constructed in five stages, with four lanes of traffic maintained southbound and three lanes of traffic northbound at all times. In addition, traffic enforcement agents are deployed to stream line the traffic during peak hours.

A Notice to Proceed for the $8.75 million reconstruction of this bridge was issued to the contractor with a start date of July 15, 2002. Effective October 10, 2002, the left lane in each

direction on Conduit Avenue at Cross Bay Boulevard was closed to traffic for a period of two years. Installation of both the east and west temporary pedestrian bridges at Cross Bay Boulevard over North and South Conduit Boulevard was completed in December 2002. The project is expected to be complete by September 2004.



Construction of North Abutment Wall of the Cross Bay Boulevard Bridge. Placing Concrete for the Pier Cap.

Placing Concrete for the Grid Deck of the Cross Bay Boulevard Bridge

EAST TREMONT AVENUE BRIDGE OVER METRO NORTH RR (BRONX)

This $3 million project began in June 2001. The bridge superstructure was completely replaced, including the steel girders, bearings, concrete decks, sidewalks, parapets and fencing. The abutment, bridge seat, and back wall were reconstructed, and gas and water mains were replaced. The work was completed in three stages, with one lane of vehicular traffic maintained in each direction during construction. The reconstruction of this bridge was substantially completed and it was re-opened to traffic on July 30, 2003. The contractor was assessed liquidated damages for completing the project 49 days behind schedule.

East Tremont Avenue Bridge Before Reconstruction. New ECS Conduits.

East Tremont Bridge After Reconstruction

GLENMORE AVENUE, PITKIN AVENUE, SUTTER AVENUE, AND LIBERTY AVENUE BRIDGES OVER LIRR BAY RIDGE (BROOKLYN)

This $12 million project will reconstruct four bridges over the LIRR tracks in Bay Ridge. A Notice to Proceed for the reconstruction of the Glenmore Avenue, Pitkin Avenue, and Sutter Avenue Bridges over LIRR Bay Ridge was issued to the contractor with a start date of January 14, 2003. The reconstruction of Liberty Avenue over LIRR Bay Ridge will commence after the completion of these bridges. Glenmore Avenue, Sutter Avenue, and Liberty Avenue will be fully closed to pedestrian as well as vehicular traffic during construction. The Pitkin Avenue bridge will be constructed in two stages. One traffic lane in each direction and one sidewalk will be open at all times during construction. The project is expected to be complete in September 2005.

GRAND AVENUE BRIDGE OVER CONRAIL (QUEENS)

A Notice to Proceed for the $2.4 million reconstruction of this bridge was issued to the contractor with a start date of September 16, 2002. The superstructure was replaced with high strength weathering steel girders, and a high performance concrete deck. The abutments were repaired, and the approach roadways reconstructed. New water mains, electric and telephone conduits were installed. The project was substantially completed in November 2003, four months ahead of schedule.

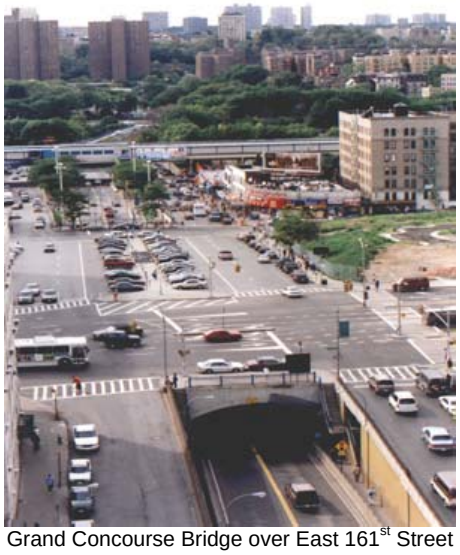
Demolition of the Grand Avenue Bridge. Erection of New Structural Steel.

Placing Concrete for the New Grand Avenue Bridge Deck. Paving the Asphalt on the New Approach Slabs.

New Grand Avenue Bridge

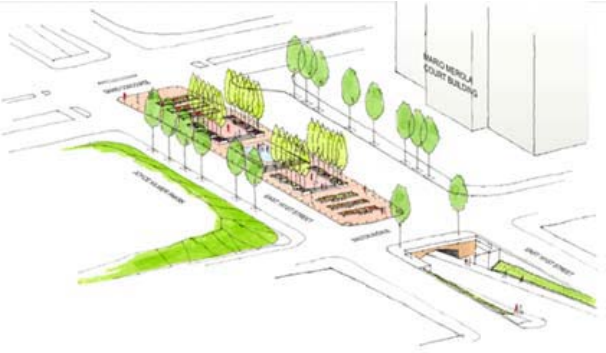
GRAND CONCOURSE BRIDGE OVER EAST 161st STREET (BRONX)

This project, currently in the final design stage, will include the rehabilitation of the Lou Gehrig Plaza and the reconstruction of the Grand Concourse from East 161st Street to East 166th Street, as well as landscaping improvements. In addition, artwork will be included under the Percent For Art Program administered by the Department of Cultural Affairs. The underpass and its approaches will be closed to traffic during the Yankees' off season only. Two traffic lanes in each direction will be maintained at the Grand Concourse during construction. Construction of the bridge is scheduled to begin in November 2005, and is expected to be complete by November 2008.



Grand Concourse Bridge over East 161st Street

Existing Lou Gehrig Plaza



Rendering of New Plaza

Existing Grand Concourse

Rendering of New Grand Concourse

GUN HILL ROAD BRIDGE OVER METRO NORTH RR (BRONX)

A recent inspection by the Division revealed that the superstructure of the bridge has outlived its useful service life. The effects of age and weather have rendered reconstruction necessary. This project will include the removal of the existing superstructure and the top portion of the existing concrete abutments, and the construction of new approach slabs, roadway, and sidewawlks. The work will also include replacing the water and gas mains, as well as other utilities, erecting new steel girders, installing new utility supports, placement of a new reinforced concrete deck, constructing new concrete parapets with pedestrian fencing. The bridge will be reconstructed in three stages, with two lanes of traffc maintained during construction. Construction is expected to begin in October 2004, and is expected to be complete in October 2007.

HARLEM RIVER DRIVE AT EAST 127th STREET (MANHATTAN)

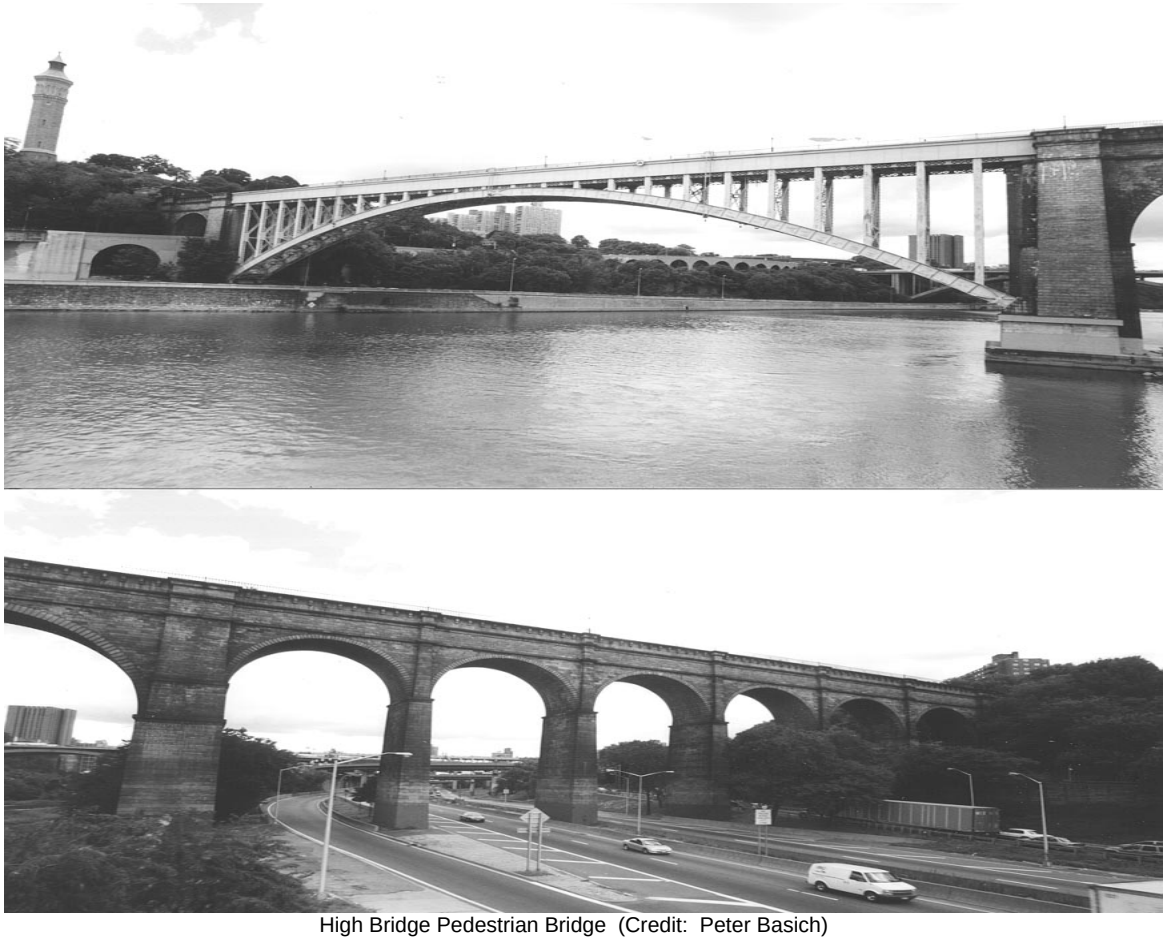
This project, currently in its preliminary design phase, involves the replacement of the existing 11 span bridge and the construction of a flyover ramp over the Third Avenue Bridge, in addition to various highway improvements. It eliminates a major weaving problem between the southbound Harlem River Drive traffic destined for the Second Avenue exit and the Third Avenue Bridge exit ramp; allows at-grade access for a future Park/Promenade to be developed by the Department of Parks at 127th Street between the Harlem River Drive and the Harlem River; and improves operational characteristics of the Harlem River Drive from the Third Avenue Bridge to the Willis Avenue Bridge.

INSPECTION OF THE HIGH BRIDGE PEDESTRIAN BRIDGE OVER THE HARLEM RIVER (BRONX/MANHATTAN)

In support of the Department of Parks and Recreation (DPR), the Division prepared a detailed scope of work for the comprehensive in-depth inspection of this eleven span landmark structure, the oldest (circa 1848) bridge over the Harlem River. The bridge is currently under DPR's jurisdiction.

A Notice to Proceed was issued to the contractor with a start date of July 18, 2002. Engineering consultants are conducting this inspection, which is scheduled for completion in the spring of 2004, at an estimated cost of $1.6 million. The Division administers and supervises this work.

The resultant report will be furnished to DPR to pursue rehabilitation of the structure. Its goal is to open the historic promenade level for public use by pedestrians and cyclists and, once again, link the Bronx and Manhattan portions of High Bridge Park.



High Bridge Pedestrian Bridge (Credit: Peter Basich)

HONEYWELL STREET BRIDGE OVER AMTRAK AND LIRR YARD (QUEENS)

The Honeywell Street Bridge was closed in 1979, because it did not meet Department safety standards. The defunct bridge ran between Skillman Avenue and Northern Boulevard. It carried numerous utilities, including Amtrak high voltage catenary lines and other electrical facilities. By the end of 2001, preparatory work for the demolition of the bridge was complete, and demolition of the utility bay and sidewalk was underway.

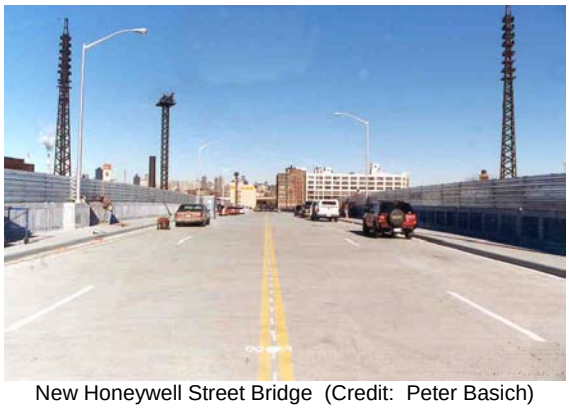
Old Honeywell Street Bridge Prior to Demolition

Removal of Old Honeywell Street Bridge Deck Slabs

Structural steel erection for the new bridge was completed in October 2002. The concrete deck placements, which began in October 2002, were completed in November 2002. The timing allowed for the placement of structural concrete during mild weather and avoided a winter shutdown of the project. The new bridge is constructed of A588 weathering steel, which will provide a high level of corrosion resistance with minimal maintenance. The new bridge is also designed to resist seismic forces per current design standards.

Structural Steel Erection of Span #9 of the New Honeywell Street Bridge

The Honeywell Street Bridge carries two traffic lanes in each direction and two sidewalks. Each sidewalk is eight feet wide, and ADA compliant with ramps on all corners. The reconstruction of the Honeywell Street Bridge was substantially completed on January 17, 2003, and the bridge was re-opened to vehicular and pedestrian traffic that morning.



New Honeywell Street Bridge (Credit: Peter Basich)

MANHATTAN COLLEGE PARKWAY, WEST 232ND STREET, WEST 239th STREET, AND WEST 252nd STREET BRIDGES OVER HENRY HUDSON PARKWAY (BRONX)

This $6.6 million project will reconstruct four bridges over the Henry Hudson Parkway. A Notice to Proceed was issued to the contractor with a start date of February 23, 2004. The reconstruction of the West 239th Street and West 252nd Street Bridges will commence after the substantial completion of the Manhattan College Parkway and West 232nd Street Bridges. Work on the Manhattan College Parkway, West 232nd Street, and West 239th Street Bridges will include the demolition and removal of the existing pavement and roadway slab down to the concrete arch of each bridge, and replacing it with a new deck on a protected membrane waterproofing system. In addition, the reconstruction of these bridges will include drainage, repointing the existing stone masonry, new signage and pavement markings, improving the under deck lighting systems, and private utility work.

On West 232nd street, the work will be completed in three stages, with one lane of vehicular traffic maintained in each direction during construction. On Manhattan College Parkway, the work will also be completed in three stages, with one lane of vehicular traffic maintained in the westbound direction during construction. On West 239th Street, the work will be completed in four stages, with one lane of vehicular traffic maintained in the each direction during construction.

Work on the West 252nd Street Bridge will include the demolition of the existing concrete arch bridge deck, and replacing it with a new prestressed concrete box beam superstructure. In addition, the reconstruction of this bridge will include installing a new 300 mm diameter water main, improving the under deck lighting systems, private utility work, partial removal of the pier and abutments, new roadway lighting, and adjustment of the existing drain inlets, manholes, and catch basins. The work will be completed in four stages, with one lane of vehicular traffic maintained in the eastbound direction during construction. The four bridge project is expected to be complete in June 2006.

QUEENS BOULEVARD BRIDGE OVER AMTRAK AND LIRR YARD (QUEENS)

In April 2003, the New York Association of Consulting Engineers selected the rehabilitation of the Queens Boulevard Bridge over Amtrak and LIRR Yard for an Engineering Excellence Award. The Engineering Excellence Awards Program recognizes engineering achievements that demonstrate the highest degree of skill and ingenuity.

Age, weather and increased traffic took their toll on the Queens Boulevard Bridge, which was originally built in 1910. The 93-year-old bridge carries motorists over the Sunnyside Rail Yards, linking Queens Boulevard to Queens Plaza. The structural steel which supports the bridge, roadway surface and bridge joints was severely deteriorated. The bridge had outlived its useful life and needed to be rebuilt to maintain and improve the service it provides as a connector to and from Manhattan.

Besides connecting Sunnyside and Long Island City in Queens, the Queens Boulevard Bridge is a vital link between western Queens and Manhattan via the Queensboro Bridge. More than 52,000 motorists used the bridge in 2000.

Rather than completely closing the Queens Boulevard Bridge during reconstruction, DOT studied the traffic patterns in the area and decided to rebuild the bridge in two stages, half of the bridge at a time, while keeping it partially open to traffic.

Our analysis revealed that at all times, traffic flow is heavier into Manhattan than into Queens. Thus, the bridge remained open to Manhattan-bound traffic during construction. However, the number of available travel lanes was reduced from three lanes to two.

Queens-bound traffic followed a carefully planned and clearly marked detour designed to minimize impacts on area businesses, the local community, and the traveling public. The traffic was diverted to side streets, including Crescent Street, 27th Street and Jackson Avenue. Service on the elevated #7 train that runs above the Queens Boulevard Bridge was not affected.

The bridge underwent a complete reconstruction, beginning in April 2001. Over the course of this $41 million project, the major improvements included the reconstruction of concrete abutments, crash walls and steel piers; new bridge steel; the installation of new concrete decks and approach pavement; new sidewalks including a walkway/bikeway separated from traffic by concrete barrier; a new and improved overhead lighting system; and the installation of an ITS consisting of nine closed circuit television cameras to monitor traffic and roadway conditions. It also included installation of temporary traffic signals and modifications to the existing signal timing. Nine electronic message boards provided motorists with real-time traffic information. NYPD Traffic Enforcement Agents were strategically deployed at various locations to ease the flow of traffic.

The contract included incentive and disincentive clauses. The Queens Boulevard Bridge contractor earned the maximum incentive award of $3 million for the early completion of the project.

The reconstruction of this bridge was substantially completed on July 31, 2002, and the bridge was fully re-opened to traffic at 5 AM on that date, two months ahead of schedule. The rebuilt bridge carries three westbound lanes, three eastbound lanes and two shared sidewalk/bicycle paths.

Full Depth Saw Cutting of Queens Boulevard Bridge Deck Slab Panels & Front Steel Demolition

Queens Boulevard - Hoisting a Roadway Grating for Transport & Installing Electrical Conduits in a New Concrete Barrier

Reconstructed Queens Boulevard Bridge (Credit: Peter Basich)

SEELEY STREET BRIDGE OVER PROSPECT AVENUE, CONGRESS STREET BRIDGE OVER BROOKLYN-QUEENS EXPRESSWAY, AND LINCOLN ROAD BRIDGE OVER BMT SUBWAY (BROOKLYN)

The project to reconstruct these three bridges is expected to begin in late spring 2004, and to be completed in April 2007.

At the recommendation from the local community board, the reconstruction of the Seeley Street Bridge will be performed in one stage. This project also includes the regrading of Prospect Avenue under the bridge. The avenue will be lowered in the bridge vicinity to improve vertical clearance. The work will include full depth construction of new pavement, curbs and sidewalks, as well as a new drainage system on Prospect Avenue. Seeley Street will be closed to through traffic for 9 months. During this time, the traffic will be detoured via adjacent roadways. The regrading of Prospect Avenue will be accomplished in stages and normal traffic will be maintained for the duration of the Prospect Avenue reconstruction. The existing bridge is a single span concrete arch structure supported by gravity type abutments. The reconstruction involves the demolition of the existing arch and the construction of a new arch that is a close replica of the existing arch. The existing abutments are in good condition and will be repaired as necessary. The Seeley Street Bridge is expected to be completed in July 2005.

The existing Congress Street Bridge is a two span structure over the Brooklyn-Queens Expressway (BQE). The major substandard feature of the bridge is its vertical clearance over the BQE. There is evidence of vehicular impacts on the bridge superstructure. The rehabilitation will include reconstructing a new bridge superstructure with high strength steel that will add 12 inches of additional vertical clearance. Stainless steel clad reinforcement will be

used for concrete deck reinforcement, and the bridge substructure will be rehabilitated to conform to seismic requirements. The reconstruction of this bridge will be accomplished in two stages. The existing bridge carries one-way east bound traffic, which will be maintained for the duration of the construction. The reconstruction will involve BQE lane closures at certain times. Traffic Enforcement Agents will be posted for the duration of the BQE lane closures to ensure the smooth flow of traffic. The Congress Street Bridge is expected to be completed in September 2005.

The Lincoln Road Bridge project will include a replacement of a water trunk main under the railroad track which is within the limits of the bridge reconstruction. The replacement of the water trunk main will be funded by NYCDEP. The existing bridge is a four span structure with asteel pier bent and reinforced concrete abutments. The bridge spans over NYCTA Brighton Beach line. The rehabilitation will include removal of the existing bridge in its entity and the construction of a new bridge. The new bridge will be a single span flexible type integral abutment bridge built compositely with a steel stringer and a concrete deck. The project work will be accomplished in four stages. The water trunk main will be replaced during the first stage. One lane of vehicular traffic in each direction and a pedestrian sidewalk will be maintained throughout the construction. Due to high traffic volume in the vicinityn of the project, Traffic Enforcement Agents will be posted for part of the construction period. The Lincoln Street Bridge is expected to be completed in April 2007.

SHORE ROAD CIRCLE BRIDGE OVER AMTRAK (BRONX)

This project will include the removal of the existing two span bridge and the construction of a new single span bridge structure with a reinforced concrete deck over steel girders. The work will also include the construction of new reinforced concrete abutments and wing walls, as well as new parapet walls with protective steel fences. The bridge will be reconstructed in three stages, with one lane of traffic maintained in each direction during construction. Construction is expected to begin in August 2004, and is expected to be complete in March 2006.

STEINWAY STREET BRIDGES OVER GRAND CENTRAL PARKWAY WB & EB (BROOKLYN-QUEENS EXPRESSWAY) (QUEENS)

This $16 million project will replace two bridges, originally built in 1937, that connect over the Grand Central Parkway. The six stage reconstruction schedule will last 42 months, nine of which will include preparation and fabrication of materials with no impact on traffic. The general public, however, will notice work on the four lane bridge for 33 months.

The contract has incentive/disincentive clauses amounting to $5,000 a day for a maximum of 90 days for incentive. There is an equal amount for disincentive with no limit. This means that the contractor will receive a bonus of $5,000 a day for every day that the work is completed ahead of schedule, up to 90 days, or will be penalized $5,000 a day with no limit if the work is completed late.

The contract provides for several NYPD Traffic Agents to maintain the flow of traffic at the Steinway Street intersections affected by the bridge for the duration of the replacement. Variable Message Signs (VMS) will be utilized to advise motorists of impending nightly lane closures on the Grand Central Parkway.

A Notice to Proceed for the reconstruction of these bridges was issued to the contractor with a start date of July 1, 2002. The project is scheduled for completion in June 2006.

WESTCHESTER AVENUE BRIDGE OVER THE HUTCHINSON RIVER PARKWAY (BRONX)

This bridge supports a transit structure overhead and has substandard clearance over the highway below. In 2003, 13 unauthorized overheight vehicles struck the bridge's girders. A project to install an ITS solution, which includes an overheight vehicle detection system that will flash signs directing vehicles identified as being over 9' in height to exit the parkway, is scheduled for completion in April 2004. It also includes cameras that will be activated by acoustics and will document future damage to the bridge as well as the offending vehicles' descriptions and plate numbers for recoupment of costs by the City. A separate project is underway to reconstruct the bridge and lower the Parkway.

2nd AVENUE BRIDGE OVER LIRR (BROOKLYN)

This $9 million project will reconstruct the bridge in two stages. During both stages, the bridge will be open for one lane of traffic in each direction. Pedestrian traffic on the bridge will be maintained at all times. The existing six span bridge was constructed in 1912. The current bridge superstructure will be completely removed and replaced with a new two span, cast-in-place reinforced concrete deck and weathering steel composite superstructure. A recent inspection revealed significant deterioration of the steel frames and the reinforced concrete piers. The bridge is currently supported by temporary 12"x12" wooden columns at various locations. A Notice to Proceed for the reconstruction of this bridge was issued to the contractor with a start date of November 4, 2002. The project is scheduled for completion in the spring of 2005.

Demolition of the 2nd Avenue Bridge Superstructure. Abutment Footing and Stem Reinforcement.

Installation of Footing and Column Reinforcement for the 2nd Avenue Bridge's Center Pier. Excavation Protection System at the North Abutment.

View of the Partially Completed Center Pier and South Abutment of the New 2nd Avenue Bridge. View of the New North Abutment Stem Wall.

Installation of Stay-in-Place Deck Forms on the 2nd Avenue Bridge

EAST 3rd STREET AND 52nd STREET BRIDGES OVER LIRR (BROOKLYN)

This $4 million project will reconstruct these two bridges, built in 1906. The bridges span a railroad track owned by LIRR, and presently used by New York and Atlantic Railway for freight service. A Notice to Proceed for the reconstruction of these bridges was issued to the contractor with a start date of May 5, 2003. The work will include building new superstructures of steel stringers, reinforced concrete decks, parapets with protective screenings, and steel faced curbs and concrete sidewalks. The bridges will be constructed in two stages, with one traffic lane in each direction and one sidewalk open at all times during construction. The project is expected to be complete in November 2004.

7th AVENUE BRIDGE OVER NYCT (BROOKLYN)

The current two span concrete encased steel stringer bridge consists of one span and a cantilever over a concrete encased steel column pier. The reconstruction of this bridge will include the replacement of the entire existing superstructure, the repair of the existing abutments and pier, and the reconstruction of the approaches. The bridge was closed to traffic for 10 months beginning on June 19, 2002, as agreed to by Community Board #7. This $3.7 million bridge reconstruction began in April 2002, and is expected to be complete by May 2004.

Installation of Safety Wrap Around the High Pressure Gas Main and the Con Edison Oil-o-Static Pipeline

Installation of Reinforcement in the 7th Avenue Bridge Abutment Stem and Backwall

8th AVENUE BRIDGE OVER LIRR AND NYCT (BROOKLYN)

This $5.3 million project replaced the original four span bridge. The existing bridge had concrete-encased steel built-up multi-stringer-floor beam systems supported by a concrete encased steel pier and concrete abutments. The new bridge is a two span multi-girder steel structure of the same length supported by steel cap beams and pier columns. In addition, a new water main was installed, and the existing electrical conduits and gas main were replaced. Construction began on March 6, 2000. The reconstruction of this bridge was substantially completed, and it was re-opened to traffic on May 5, 2003.

8th Avenue Bridge Before Reconstruction

8th Avenue Bridge Before and After Reconstruction

EAST 10th STREET PEDESTRIAN BRIDGE OVER FDR DRIVE (MANHATTAN)

This $2.1 million project began on April 8, 2002. Work included the removal and replacement of the steel superstructure and the concrete deck slab. In addition, new ramps were built to meet the requirements of the Americans with Disabilities Act. The reconstruction of this bridge was substantially completed and it was re-opened to traffic on October 24, 2003.

New East 10th Street Pedestrian Bridge

East Approach Lower Ramp of East 10th Street Bridge. VMS Board Attached to North Fascia.

14th AVENUE BRIDGE OVER LIRR (BROOKLYN)

This $3.3 million project will reconstruct a bridge originally built in 1927. The existing four span superstructure will be removed and replaced with a single span precast, pre-stressed concrete and steel composite jointless superstructure. The bridge will be constructed in two stages. During each construction stage, two lanes of traffic, one lane in each direction, will be maintained. Pedestrian traffic will be maintained at all times. A Notice to Proceed for the reconstruction of this bridge was issued to the contractor, with a start date of December 2, 2002. The project is scheduled for completion in the late spring of 2004.

Installation of the Soldier Piles for the Excavation Protection System for the 14th Avenue Bridge. Excavation for the Abutment Footing.

Installation of Abutment Footing and Stem Reinforcement for the 14th Avenue Bridge

View of Reinforcement and Form Work Installation at the 14th Avenue Bridge Abutment

Concrete Pour at the 14th Avenue Bridge Abutment. View of the Partially Completed Abutments.

15th AVENUE, 18th AVENUE, 17th AVENUE, AND 20th AVENUE BRIDGES OVER NYCT (BROOKLYN)

The 15th Avenue Bridge is an arch barrel bridge, constructed in 1912-1913 between 63rd and 64th Streets. Age, weather and increased traffic have affected the bridge. The roadway slab, concrete abutments and concrete piers are severely deteriorated. The bridge has now outlasted its useful life. The scope of this project will include the removal of the existing pavement, sidewalk, piers, columns, roof beams, portions of the abutments and the concrete arches over the NYCT tracks. The reconstruction will include portions of the abutments, installation of precast reinforced concrete pier wall and deck panels, construction of a reinforced concrete deck on top of precast deck panels, and the installation of a 300 mm water main, 408 mm gas main and electric facilities. The approach slabs and bridge joints will be replaced. In addition, new roadways, sidewalks, steel faced curbs, and a concrete parapet with pedestrian fencing and street lighting will be constructed. The 15th Avenue Bridge is expected to be completed in the fall of 2004. The entire bridge will be closed to vehicular traffic; however, pedestrian traffic will be maintained at all times. The intersection of 63rd Street and 15th Avenue will be closed to vehicular traffic; however, two-way traffic will be maintained on 63rd Street between 15th Avenue and 16th Avenue for use by local businesses and residents.

The 18th Avenue Bridge is also an arch barrel bridge, constructed in 1912-1913 between 63rd and 64th Streets. Age, weather and increased traffic have affected the bridge. The roadway slab, concrete abutments and concrete piers are severely deteriorated. The bridge has now outlasted its useful life. The scope of this project will include sewer work, the removal of a portion of the existing abutments, columns, roof beams, piers and the arches over the NYCT tracks. Cast-in place concrete piles, a steel superstructure, and new integral abutments will be installed. The water main, gas main, and sewer will be removed and relocated. A new concrete deck, approach slabs, and sidewalks will also be part of this reconstruction project. The 18th Avenue Bridge is expected to be completed by July 2005. The bridge will be constructed in four stages, with one lane open in each direction at all the times.

Similar construction at the 17th Avenue and 20th Avenue Bridges is scheduled to begin after the completion of the 15th and 18th Avenue Bridges. A Notice to Proceed for the $17.7 million reconstruction of these four bridges was issued to the contractor with a start date of September 29, 2003. The project is scheduled for completion in October 2006.

WEST 37TH STREET BRIDGE OVER AMTRAK (MANHATTAN)

A Notice to Proceed for the $3.4 million reconstruction of this bridge was issued to the contractor with a start date of January 21, 2002. A new reinforced concrete deck and approach slabs were installed, approach roadways were reconstructed, and wingwalls, abutments, and pier crash walls were replaced. Concrete encasement was removed from the existintg stringers, and they were cleaned and painted. New water mains and electrical conduits were installed.

The bridge opened to both vehicular and pedestrian traffic on January 27, 2004. The project is scheduled for completion in April 2004.

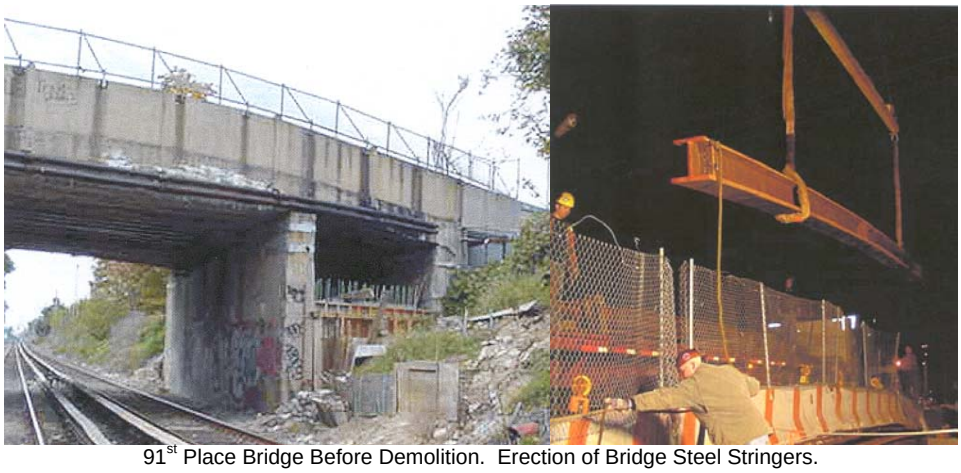
91st PLACE BRIDGE OVER LIRR (QUEENS)

The 91st Place Bridge over the LIRR in Elmhurst was built in 1927. Because a recent inspection revealed significant deterioration, DOT decided to replace the entire bridge. This $4.5 million project included removal of the existing superstructure and replacement with a single steel span structure, removal of part of the existing abutments and piers and construction of new abutments, replacement of the existing roadway pavement, sidewalks and curbs, installation of a new larger water main, electrical conduits and Time Warner cable conduits.

The bridge was reconstructed in three stages. During the first stage, one lane was opened in each direction. At the community's request, only one lane, northbound, was opened to traffic during the second stage. The southbound traffic was detoured. During the third stage, one lane was maintained in each direction.

The contract includes incentive and disincentive clauses. The contractor was awarded an incentive of $160,000 for completing Stage II 16 days early on November 9, 2002. $5,000 per day (up to $125,000 for a maximum of 25 days) will be awarded for early completion of Stage III, with an unlimited disincentive of $5,000 per day for late completion.

At the community's request, the bridge was widened to accommodate an additional lane by reducing the sidewalk width. Construction began on September 17, 2001, and was substantially completed on June 30, 2003.



91st Place Bridge Before Demolition. Erection of Bridge Steel Stringers.

Exposing the Old Steel Stringer Ends on the 91st Place Bridge. Removing the Central Pier by Saw Cutting the Concrete in Two Directions – Each Piece Weighed 9 Tons.

Placing Concrete for the 91st Place Bridge Grid Deck. Installation of New Sidewalk and Roadway at the Corner of Corona Boulevard and 91st Place.

New East Sidewalk on the North Side of the 91st Place Bridge. Northwest View of the New Bridge.

153rd STREET BRIDGE OVER METRO NORTH (BRONX)

This project, currently in the design and environmental impact assessment stage, will include a two-span, single tower, cable stayed vehicular bridge. It will be the first of its kind in New York City. The new four lane bridge will extend East 153rd Street in the Bronx across the Mott Haven rail yards from Morris Avenue to the Grand Concourse just north of Hostos Community College in the Melrose Section of the Bronx. This bridge will complete a link the street lost in the early 1980's when the old turn-of-the-century bridge was closed and demolished because of its age and deterioration. Construction of the new bridge is tentatively scheduled to begin in December 2005 and be completed in December 2007.

Original 153rd Street Bridge

The new bridge will significantly ease congestion on the current east-west streets in the South Bronx, along 149th and 161st Streets as well as the local streets in this neighborhood. With this bridge, East 153rd Street will be a continuous east-west thoroughfare from the commercial hub of Third Avenue to the Civic Center area of the Grand Concourse. It will serve the new revitalization projects of Melrose Commons, the Concourse Shopping Plaza and the Bronx Criminal Court Complex.

The bridge's graceful design, similar to the Tampa Bay Bridge in Florida, will create a very prominent landmark for this neighborhood. The cable-stayed structure will contain a tower rising above East 153rd Street to add to the Bronx skyline, with ribbons of steel cables holding up the roadway structure. The roadway will run between the two towers, and the sidewalk and bicycle lanes will be located on cantilever sections outside of the towers. This will reduce the overall depth of the superstructure by reducing the floor beam depths.

Rendering of New 153rd Street Bridge

EAST 161ST STREET BRIDGE OVER CONRAIL PORT MORRIS (BRONX)

The $5.6 million reconstruction of this bridge began on June 11, 2001. The existing bridge deck and utilities were demolished, and the abutments were partly removed. A new superstructure was constructed, the abutments were repaired, and the geometry of the local streets was widened.

O'Neill Square Park is a triangular park that was originally bounded by Elton and Washington Avenues and East 161st Street, and it is located above the CSX (Conrail) Port Morris Branch right of way. The park originally consisted of trees, asphalt pavers, park benches with concrete tables, and a flagpole, and was approximately 720 square meters in area.

Old O'Neill Square Park

The current bridge reconstruction project incorporated New York City mapping changes in conjunction with the May 1994 Melrose Commons Urban Renewal Project, mainly the elimination of the portions of East 161st Street and Washington Avenue that bounded O'Neill Square Park. The demapped portions of streets were reduced to form pedestrian ways, and the remaining land was incorporated into O'Neill Square Park, forming a larger park area, now approximately 2,040 square meters in area.

The new park consists of additional tree plantings, a flowerbed with animal art (bronze snails), park benches, a water fountain, sprinkler connection, park lights, grass, and colored asphalt pavers that complement the bronze snail art.

New Colored Asphalt Pavers

Bronze Snails at the Flower Beds

The bridge was reconstructed in three stages, with one vehicular lane maintained in each direction during construction. The project was substantially completed on December 15, 2003.

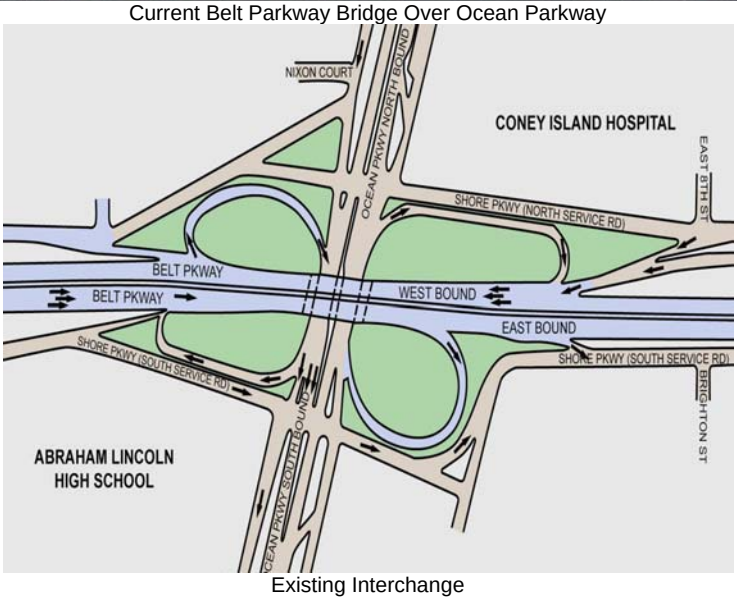
Design-Build

In 2003 the Department continued to use the Design-Build process to expedite capital bridge rehabilitation. These contracts retain the same company for both design and construction on selected projects. It is evident that there are many advantages to the Design-Build program, including the use of one consolidated procurement rather than two or more, resulting in significant time savings; the ability to commence construction before design completion; the avoidance of project escalation costs as construction commences two or three years earlier than with the conventional design-bid-build method; minimization of design change orders; and better coordination between design and construction, as critical field issues are addressed expeditiously. In addition, the design is custom made and reflects the capabilities and strength of the specific contractor; the Department establishes a single point of contact for communicating its goals and objectives; and overall costs are reduced substantially.

BELT PARKWAY BRIDGE OVER OCEAN PARKWAY (BROOKLYN)

This $55 million project involves the replacement of the Belt Parkway Bridge over Ocean Parkway, reconfiguration of the interchange, roadway work on approximately a mile of the Belt Parkway, and roadway and associated landscaping work on Ocean Parkway from approximately Avenue Z to West End Avenue.

Current Belt Parkway Bridge Over Ocean Parkway

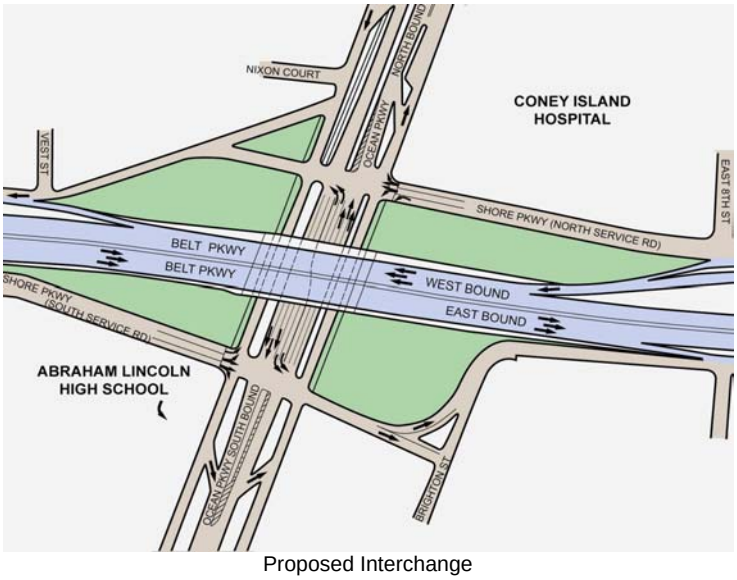


Existing Interchange

The bridge needs to be replaced because of its deteriorating condition, which cannot be done without affecting the already substandard ramps. This necessitated the re-design of the entire interchange and the associated work on Belt Parkway and on Ocean Parkway. The existing traffic patterns at the bridge and interchange ramps were projected to reach unacceptable levels of service within the next ten years without the reconstruction. The existing interchange design placed pedestrians in conflict with vehicles, especially by the loop ramps that are adjacent to Coney Island Hospital, located to the northeast of the interchange.

The Belt Parkway is a significant corridor of the Regional Transportation System with daily volumes of 166,000 vehicles. Coupled with the rapid deterioration of the bridge, the possibility of closure, and our concern for public safety, the New York State Department of Transportation (NYSDOT) requested that NYCDOT procure this project using Design-Build. NYSDOT will act as the Federal Highway Administration's representative. The project has secured 80% federal funding since it involves this significant corridor of the Belt Parkway, as well as the Historic Ocean Parkway, which was the first parkway of its kind in the United States. It is part of the Special Experimental Project No. 14 Program, a Federal Program that allows innovative contracting practices to be used.

Rendering of New Belt Parkway Bridge Over Ocean Parkway



Proposed Interchange

This project will extensively utilize precast elements. The precast beams, parapets, and approach slabs will be fabricated in upstate New York and transported to the site on an as-needed basis. A temporary bridge will be placed at the south side of the existing bridge. Traffic will be diverted onto the temporary bridge and the existing south portion, while the north portion is demolished and rebuilt. The newly built north portion will be wide enough to accommodate all

six lanes (three in each direction) on the Belt Parkway while the south is being demolished and rebuilt.

Rendering of Landscaping Plan

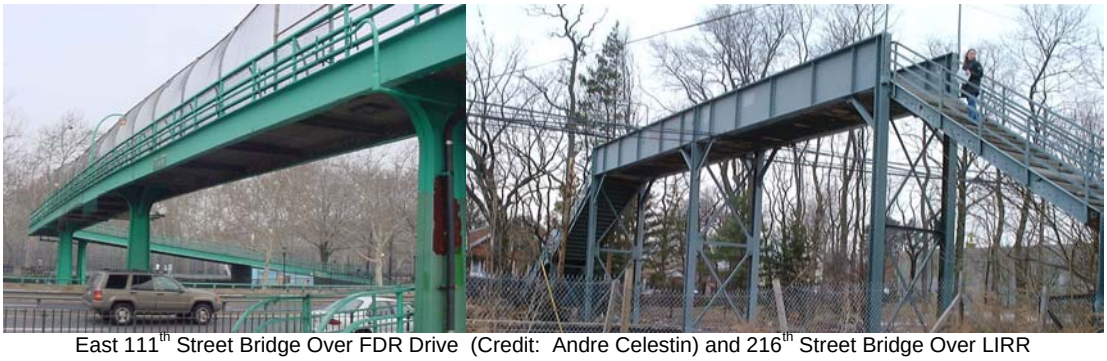
The project includes incentives and disincentives and liquidated damages clauses to ensure timely completion of critical activities and to minimize the inconvenience to the public. The project includes an incentive for early completion of $85,000 per day with a cap of $2 million. There is a disincentive of $85,000 for each day the contractor is late in finishing the project with no limit. A Notice to Proceed for the design-build reconstruction of this bridge was issued to the contractor with a start date of September 12, 2002. Pre-construction preparatory activities began in September 2003.

From September 2003 through the end of November 2003, the contractor installed the pile foundation for the new bridge as well as the foundation and pier caps for the temporary bridge; completed all watermain work on Ocean Parkway, and provided all necessary tree protection. In addition, the contractor created new embankments where necessary, compacted the soil, widened the north and south Belt Parkway service roads, and created new exit and entrance ramps between the Belt Parkway and the service roads. The existing loop ramps were then closed, and necessary signal modifications and installation of the dual left turns on Ocean Parkway were performed, thus establishing the permanent traffic pattern for the new intersection. Construction activities will resume in Spring 2004, after a three month winter shutdown. The spring activities are such that traffic will be impacted. However, the contractor is addressing this by providing a temporary bridge, thus minimizing any impact. Substantial completion of this project is expected in mid-January 2005.

Engineer-in-Charge Valeriya Remezova, Beatriz Duran, and Director of Design-Build/Emergency Contracts Chris Sklavounakis Inspecting Wick Drain Installation at the Northeast Corner of the Belt Parkway Bridge Over Ocean Parkway Project. (Credit: Andre Celestin)

PEDESTRIAN BRIDGES

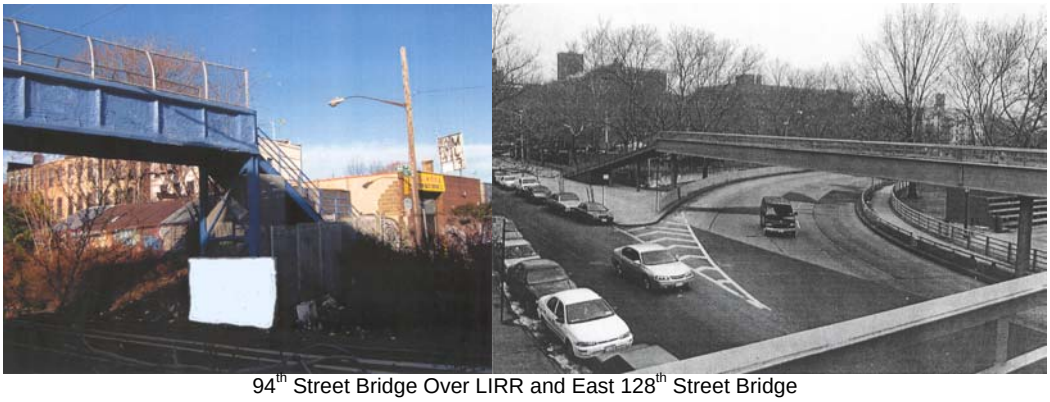
The Division is currently working on the preliminary engineering to be included in the Design-Build RFP (Request for Proposals) to replace 22 pedestrian bridges in all five boroughs. The bridges are Bethel Avenue over SIRT South Shore, and Tracy Avenue over SIRT South Shore in Staten Island; Crocheron Park over BCIP, 51st Avenue over LIRR Main Line, 55th Avenue over LIRR Main Line, 71st Avenue over LIRR, 94th Street over LIRR, 167th Street over LIRR Port Washington Branch, and 216th Street over LIRR Port Washington Branch in Queens; 204th Street over Metro North in the Bronx; Morris Street over Brooklyn Battery Tunnel Plaza, Pedestrian Bridge West of 8th Avenue over West 155th Street, 81st Street Stairway at the Promenade over FDR Drive, East 111th Street over FDR Drive, Pedestrian Bridge over East 128th Street, 129th to 130th Street over ramp off 3rd Avenue, West 155th Street over Amtrak 30th Street Branch, and West 181st Street over Henry Hudson Parkway NB in Manhattan; West 8th Street over Surf Avenue, 17th Avenue over BSHP, 27th Avenue over BSHP, and 92nd Street over BSHP in Brooklyn. The RFP was issued in August 2003. Construction is expected to begin in October 2004, and be complete in the mid-summer of 2007, with no construction activity at any single location exceeding six months. In addition, no construction is expected to take place at the West 8th Street Bridge during the summer months, so as not to interfere with Aquarium activities and access to the waterfront.



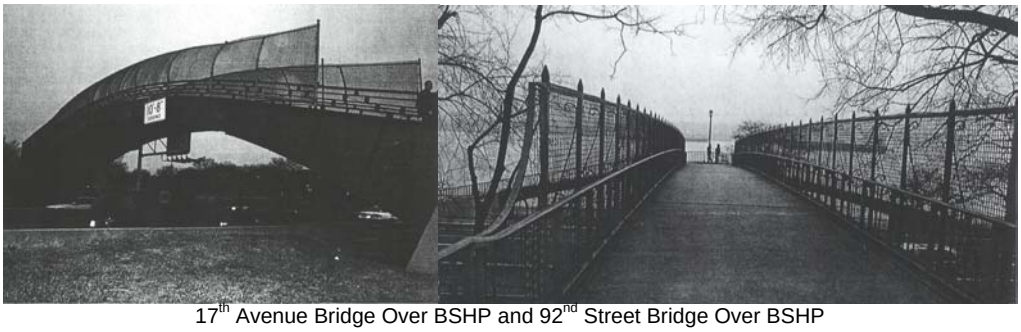
East 111th Street Bridge Over FDR Drive (Credit: Andre Celestin) and 216th Street Bridge Over LIRR

Bethel Avenue Bridge Over SIRT and Crocheron Park Bridge Over BCIP

51st Avenue Bridge Over LIRR and 55th Avenue Bridge Over LIRR



94th Street Bridge Over LIRR and East 128th Street Bridge



17th Avenue Bridge Over BSHP and 92nd Street Bridge Over BSHP

Bridge	Average 2002 Daily Pedestrian Traffic - Weekday	Average 2002 Daily Pedestrian Traffic - Weekend
Bethel Avenue over SIRT South Shore	390	169
Tracy Avenue over SIRT South Shore	410	179
Crocheron Park over BCIP	176	351
51st Avenue over LIRR Main Line	635	188
55th Avenue over LIRR Main Line	244	186
71st Avenue over LIRR	No Existing Bridge	No Existing Bridge
94th Street over LIRR	626	369
167th Street over LIRR Port Washington Branch	254	176
216th Street over LIRR Port Washington Branch	58	30
204th Street over Metro North	131	102
Morris Street over Brooklyn Battery Tunnel Plaza	789	632
Pedestrian Bridge West of 8th Avenue over West 155th Street	N/A	N/A
81st StreetStairway at the Promenade over FDR Drive	687	578
East 111th Street over FDR Drive	563	389
Pedestrian Bridge over East 128th Street	602	329
129th to 130th Street over ramp off 3rd Avenue	598	340
West 155th Street over Amtrak 30th Street Branch	567	434
West 181st Street over Henry Hudson Parkway NB	416	883
West 8th Street over Surf Avenue	1051	1129
17th Avenue over BSHP	648	916
27th Avenue over BSHP	394	813
92nd Street over BSHP	393	773

RIKERS ISLAND BRIDGE OVER RIKERS ISLAND CHANNEL (QUEENS)

This project, currently in the preliminary engineering phase, involves replacing the superstructure of this rapidly deteriorating bridge. Cores taken from the bridge deck reveal that the estimated useful life of the deck will soon expire, thus making bridge rehabilitation necessary. In 2002, the bridge carried approximately 13,447 vehicles per day.

The Division had previously completed the replacement of the bridge's substructure in 1998. The salty environment of the channel significantly contributes to the deterioration of the superstructure. This continued deterioration could also negatively impact the recently completed substructure work. The Division considered Design-Build to be the best project delivery method for this project, as it can expeditiously bring projects to the construction stage, and is the preferred method in all cases where time is of the essence. As the bridge exclusively serves the Rikers Island Correctional Facility, this project will require coordination with the Department of Corrections. Construction is expected to begin in 2012. As an interim measure, a project is planned for Fiscal Year 2005 to rehabilitate the bridge deck.

Emergency Contracts

BELT PARKWAY BRIDGE OVER MILL BASIN (BROOKLYN)

On November 6, 2002, in the interest of public safety (pursuant to Section 103(4) of the General Municipal Law and Section 315 of the New York City Charter) the Department declared that an emergency existed relative to the movable bridge carrying the Belt Parkway over Mill Basin.

A Notice to Proceed for this $3 million emergency contract was issued to the contractor with a start date of December 23, 2002. The project included an incentive for early fabrication completion of $10,000 per day with a cap of $50,000, and an incentive for early construction completion of $10,000 per day with a cap of $70,000. There were disincentives of the same amounts for a late finish with no limit to the amount of penalty.

The contractor completed the emergency median guide rail installation and re-opened all lanes to traffic on March 29, 2003, six days ahead of schedule, thus collecting an incentive of $60,000. The bridge was re-opened to marine traffic on April 3, 2003. The emergency project on this bridge, which began on December 23, 2002, was substantially completed on April 5, 2003.

Crash tests were performed at a testing site on a copy of the new barrier, resulting in the need to make some modifications to the barrier that was installed. Completion of additional crash tests are expected in early 2004, and further modifications may be introduced, if necessary. While this fine-tuning is proceeding, the new barrier has already proved its worth by saving lives on more than one occasion. Recent accidents at the site have resulted in property damage only.

New Median Barrier of the Mill Basin Bridge (Credit: Vera Ovetskaya)

BELT PARKWAY BRIDGE OVER PAERDEGAT BASIN (BROOKLYN)

On February 21, 2003, NYCDOT was informed by the Police Harbor Unit that extensive damage was observed to one of the columns supporting the bridge. The column appeared to have been hit by a vessel. Inspection revealed that the column was cracked through, and was hanging from the bridge instead of supporting it. The cap beam between this column and the adjacent column was also pulled out of place, as was the pedestal.

Broken Pier Column at the Belt Parkway Over Paerdegat Basin Bridge. (Credit: Bojidar Yanev)

In order to immediately address this condition, NYCDOT took traffic off the part of the road whose load the damaged column would carry. Today the bridge has three narrower lanes of traffic and weight restrictions are being strictly enforced. We used our in-house forces to remove the cap beam and the deck over the damaged column.

The real concern, however, is that the column adjacent to the one that was hit exhibited significant distress. This column was now taking more load than that for which it was designed. This reinforced concrete column had cracks running lengthwise along its height. The column also exhibited cracks and spalls at the level where the first column was damaged. Failure of this column could result in a catastrophic failure of the bridge, and therefore posed an immediate threat to life and property.

The above described condition had to be corrected as soon as possible by implementing the necessary repairs. These repairs included the following: removal of unsafe structural elements and obstructions of the existing bridge; repair of distressed elements (columns, dolphins, etc.); replacement of stringers and concrete deck around the location of the impact; protection of elements of the bridge from marine traffic; replacement of a portion of the bridge railing; creation of cuts in the median barrier on the approaches with removable barriers to allow overweight emergency vehicles to make u-turns; and installation of overhead gantries at the Rockaway Parkway and Flatbush Avenue entrances to the Belt Parkway to warn motorists of the bridge restrictions.

In the event of another emergency that would make the bridge unable to carry heavy loads (and necessitate its closing), the gates installed at the median barrier would enable vehicles to turn around and travel in the opposite direction on the Belt Parkway to the closest exit, and then re-enter the parkway at an entrance pass the bridge. Traffic lights to stop the traffic in such an event were installed as well as appropriate signs to notify motorists of the upcoming traffic light.

The Department was notified by its consultant that the bridge may be left in service for 7 years until the programmed replacement (planned to be completed in 2011), provided that all repairs mentioned above were carried out on an emergency basis.

On June 18, 2003, in the interest of public safety, pursuant to Section 103(4) of the General Municipal Law and Section 315 of the New York City Charter, the Department declared that an emergency exists relative to the bridge carrying the Belt Parkway over Paerdegat Basin.

A Notice to Proceed for this $11.3 million emergency contract was issued to the contractor with a start date of September 3, 2003. The project included a milestone for the structural portion of the work involving the replacement and/or repair of the distressed column and the replacement of that portion of the deck. This work required that one westbound lane on the Belt Parkway be closed for 24 hours. The contractor was given nine days to complete this work. In spite of adverse weather conditions, the contractor completed this work on November 14, 2003, in only 6 days, thus collecting the maximum incentive of $120,000.

When and Where Unit

In 2003, the following bridges were worked on under the Division's When and Where contracts: Carroll Street over the Gowanus Canal, Pedestrian Bridge in Center of Park over Transverse Road #2, East Drive over Transverse Road #3, Flushing Meadow Park Pedestrian Bridge over Lawrence Street, FDR Drive Viaduct over Avenue C to East 25th Street, Grand Concourse over East 161st Street, Hamilton Avenue Bridge over Gowanus Canal, Harlem River Drive Northbound Ramp over Harlem River, Henry Hudson Parkway Viaduct over West 72nd to West 79th Street, Summit Street Pedestrian Bridge over BQE, West Drive over Transverse Road #2, West Drive over Transverse Road #4, 14th Avenue Bridge over Cross Island Parkway, 79th Street Traffic Circle over 79th Street Pedestrian Plaza, Promenade over FDR Drive from East 79th to East 91st Streets, 147th Street Bridge over Cross Island Parkway, and West 181st Street Pedestrian Bridge over Henry Hudson Parkway NB.

191st STREET TUNNEL TO BROADWAY (MANHATTAN)

This tunnel provides the main access to the 191st Street train station for the 1 and 9 trains in upper Manhattan. The tunnel underwent a facelift to repair 21 safety and structural conditions. The scope of work included waterproofing designated sections of the tunnel to limit groundwater intrusion; installing additional weep holes along the walls to convey any intruding groundwater to the drainage troughs that are on each side of the tunnel; repairing the drainage troughs and the installation of new gratings; repairing cracks and spalls in the concrete of the tunnel roof and walls; providing a new skid resistant walking surface; installing new high pressure sodium lighting fixtures to replace the old existing florescent fixtures, thus providing for a brighter tunnel; repairing the entrance stairway surface; and applying a new coat of graffiti resistant paint, thus giving it a new fresh, clean look. The tunnel was re-opened to pedestrian traffic on January 5, 2004.

Western Half of 191st Street Tunnel Before Repairs and Painting. Repairs Almost Completed – the Tunnel's Lighting Creates the Yellow Tint. (Credit: Thomas Leung)

Old Drainage Grate Covers in the Eastern Half of the 191st Street Tunnel. New Galvanized Grate Covers. (Credit: Thomas Leung)

Applying the 2nd Skid Resistant Coating to the Western Half of the Tunnel Floor. Repaired Staircase With a Skid Resistant Coating on the Ramp and Landing. (Credit: Thomas Leung)

MARINE WHEN AND WHERE

New York State DOT conducts the underwater inspections of our waterway structures. A contract was needed to facilitate the performance of marine repairs and to maintain structures in need. The objective is to perform marine structural repairs and maintenance together with other appurtenant work, which constitutes repairs of defective and deteriorated parts of bridge structures due to and in a water environment. The Department has neither the staffing nor the equipment to handle this type of special work. The work could not be handled under the usual time and materials When and Where contract, because the work is unique, in that it requires a consultant with underwater-licensed inspectors to supervise and inspect the work for compliance and adequacy. Furthermore, detailed note taking is necessary by the inspectors to check and approve payments for the contractor's work. A Notice to Proceed for this project was issued to the contractor with a start date of February 14, 2002.

Marine bridge repairs already completed include Botanical Garden Road Bridge over the Twin Lakes inside the Bronx Botanical Garden, 145th Street Bridge over the Harlem River, Hutchinson River Parkway Bridge over the Hutchinson River, Shore Road Bridge over the Hutchinson River, Carroll Street Bridge over the Gowanus Canal, and East 15th Street over the FDR Drive.

Ironically, the increasing cleanliness of the water in New York Harbor is responsible for an enormous increase in the activity of marine borers. These organisms are now consuming wood within the tidal zone at an alarming rate, and are causing considerable damage to timber pile sheathing and other bridge structures. The use of a marine When and Where contract enables the Division to take quick and decisive action to repair this structural damage.

In August 2002, an underwater inspection of the timber piles supporting the FDR Drive relieving platform at approximately East 15th Street revealed severe damage by marine borers. Emergency repairs to address this red flagged section began on August 19, 2002, and were completed on September 7, 2002. Additional yellow structural flag work of a similar nature was performed along this site and completed in December 2003.

Current projects include Hamilton Avenue Bridge over the Gowanus Canal, Northern Boulvard over the Alley Creek, and Cropsey Avenue Bridge over the Coney Island Creek. Scheduled projects include Boston Post Road over Hutchinson River, Borden Avenue over Dutch Kills, and 163rd Street Pedestrian Bridge over Hawtree Basin.

CARROLL STREET BRIDGE OVER THE GOWANUS CANAL (BROOKLYN)

The Carroll Street Bridge is an example of a retractable bridge, i.e., a movable bridge that is mounted on tracks that are positioned to one side of a navigational channel. To open, the span is withdrawn or "retracted" to shore.

Carroll Street Bridge Before Repairs – Deteriorated Timber Walls Need Replacement. (Credit: Thomas Leung)

The bridge was closed to traffic effective June 27, 2003, as agreed to by Community Board #6. Work performed to eliminate the 44 structural and safety flags under the marine when and where contract included the repair and replacement of the dolphin cluster and abutment walls on both sides of the bridge; partial deck rehabilitation of the east approach of the bridge; and repairs of the tracks, railing, and sidewalk. These repairs have added new life to this historic bridge. The bridge was re-opened to traffic on September 1, 2003.

Work Barge Used During Carroll Street Bridge Repairs. Work Platform From Which the Timbers Were Replaced. (Credit: Thomas Leung)

Cutting 12x12 Timbers On the Barge to Match the Wall. Clam Bucket Used for the Backfilling Operation at the Carroll Street Bridge. (Credit: Thomas Leung)

Gravel Pile to be Used as Backfill After Completion of Timber Replacement at the Carroll Street Bridge. Restoring the Paving Blocks in the Roadway. (Credit: Thomas Leung)

Engineering Review and Support

IN-HOUSE DESIGN

In-House Design staff prepares plans and specifications for bridge replacement/reconstruction projects that enable the Division to restore bridges considered "structurally deficient" to a "very good" condition rating. This unit handles urgent Division projects, as well as special projects under construction by the Bureau of Bridge Maintenance, Inspections and Operations. Projects underway in 2003 included 145th Street Bridge over the Harlem River; Belt Parkway Bridge over Paerdegat Basin (both replacement and Emergency Repair projects) in Brooklyn; and Andrews Avenue Bridge over LIRR, Hempstead Avenue Bridge over Cross Island Parkway, Springfield Boulevard Bridge over Belt Parkway, and Union Turnpike Bridge over Cross Island Parkway (and Creedmoor Center Road) in Queens.

In-House Design's Electrical Group reviews and/or prepares contract documents for all electrical and street lighting work on all projects on the Division's Capital Program. Some of the contracts reviewed during 2003 included the Willis Avenue, Broadway, Macombs Dam, Madison Avenue, 145th Street, Third Avenue, and Wards Island Pedestrian Bridges over Harlem River; 3rd Street and Hamilton Avenue Bridges over Gowanus Canal; Metropolitan Avenue Bridge over English Kills, Belt Parkway Bridge over Mill Basin (Emergency Repairs), Crooke Avenue, and Newkirk

Avenue Bridges over BMT Subway, and Belt Parkway bridge over Paerdegat Basin in Brooklyn; Roosevelt Island Bridge over East River Channel; Bruckner Expressway NB & SB Service Road (Unionport Bridge) over Westchester Creek in the Bronx; Williamsburg and Manhattan Bridges; Andrews Avenue Bridge over LIRR in Queens; the Park Avenue Tunnel; and the Battery Park Underpass under West Street to FDR Drive in Manhattan.

ENVIRONMENTAL ENGINEERING

The Environmental Engineering staff of the Quality Assurance Section provides environmental oversight on all capital projects in the Division. Lead paint abrasive cleaning projects underway in 2003 included Williamsburg Bridge, Manhattan Bridge, Willis Avenue Bridge, Washington Bridge, East 241st Street Bridge, Wards Island Bridge and Macombs Dam Bridge. In addition, this staff provided environmental engineering services for the dewatering and dredging operations at the Third Avenue Bridge; the environmental site assessment at the Metropolitan Avenue Bridge over English Kills Creek; the remediation of transformers at the Broadway Bridge; the removal of underground storage tanks at the Belt Parkway over Ocean Parkway project; the investigation of transformers at the Gerritsen Inlet Bridge; and the environmental site investigation of the Metropolitan Avenue Bridge over LIRR. Environmental oversight was provided to emergency work-over-water projects on the Mill Basin Bridge, Roosevelt Island Bridge, Willis Avenue Bridge, Borden Avenue Bridge and Metropolitan Avenue Bridge.

In addition, the staff implemented a new quality assurance plan for coating inspection and application on Division bridge structures. Services are implemented through the use of consultant contracts. Coating inspection services and engineering were provided on numerous projects such as the East 191st Street Tunnel, the West 37th Street Bridge over Amtrak, the Williamsburg Bridge, the historical coating analysis of the Trolly Barn Kiosk at the Queensboro Bridge (in progress), and the review of various RFI's for shop applied coatings on steel components.

BRIDGE PROJECT SPECIFICATIONS

In 2003, the Engineering Support Section prepared and/or reviewed specifications for 26 bridge rehabilitation and reconstruction contracts which included seven combined or multiple-bridge contracts. Ten of these contracts totaling approximately $300 million in construction costs have been bid and are currently in different stages of award and registration. Seven contracts with a total construction cost of approximately $160 million have been approved by the Law Department and are waiting to be advertised. The specifications for the remaining nine contracts are in various stages of preparation.

Notable among the bridge contracts prepared and/or reviewed are the 145th Street Bridge; Rehabilitation of the Queensboro Bridge; Grand Concourse Bridge over 161st Street (includes the Grand Concourse from 161st to 166th Streets): Protection Against Marine Borers of the FDR Drive (and two bridges in Brooklyn); Protective Coating of the Queensboro Bridge; Hamilton Avenue Bridge and Manhattan Bridge Rehabilitation.

CONTRACT PROPOSAL BOOK PREPARATION GUIDELINES

The Contract Proposal Book is an essential document for the bidding and execution of a construction contract. It contains necessary information for bidders, forms to be completed by bidders, contract provisions and specifications. To assist consultants on City contracts in the preparation of acceptable Contract Proposal Books, the Bureau prepared a guidance manual. This manual specifies the requirements and standards for preparing a Proposal Book, and explains its review and approval process. It is also a useful reference for agency project engineers who manage the bridge rehabilitation and reconstruction contracts.

This manual is given to the consultant during the early stages of final design so that it may be reviewed prior to the specification guidance meeting. Any questions that the consultant may have regarding the Proposal Book preparation can then be discussed at this meeting, at which point the consultant will also be given other necessary information for going ahead with the preparation of the book. The use of this new manual by the consultants on City contracts is expected to significantly reduce the Bureau's review comments and hence the preparation and review time for proposal book submissions by the consultant.

SUPERSIZED LOADS

The weight and frequency of very heavy loads traveling over the City's bridges and roadways have taken a toll on the bridges' infrastructure. The Engineering Review Section is very involved in reviewing the requests for issuing permits for these vehicles. NYSDOT has a project to develop a computerized Automated Overweight Permitting Program for use on State–owned bridges that will handle the complete permitting process and its accompanying required analyses. At the request of NYCDOT, the State is including our locations in their ongoing consultant contract. This will ensure both a lower development cost for the City as well as compatibility between the two systems (routes often pass over both City and State owned bridges). The Department's Management and Information Systems Section has been managing the City's part of the project beginning in 2002, and they assisted in the preparation of the Memorandum of Agreement with the State. This project is expected to begin in the middle of 2004.

The new system will have the following benefits:

As the turn-around time will be days instead of weeks, truckers will be more likely to apply for permits rather than ignoring the restrictions and driving without permits on the bridges.

Ease of permit rule enforcement efforts by the NYPD, as they will have access to the system.

The program will create a database of bridges used by the trucks on the approved routes. This will help the Division to assess the affected bridges when creating the scope of work for rehabilitation and/or reconstruction, and to decide whether or not to design them for higher loads.

Many consumers are now buying merchandise via the Internet. Giant warehouses are being built around the country for packaging and shipping these goods by trucks. We expect a large increase of overweight truck movement in the City in the near future. The new permit computer program will be able to handle a large number of permit requests.

A streamlined vehicle permitting approval process coupled with the ongoing inspections of the bridges being subjected to repetitive super-loads will actually reduce the yearly capital outlays of the Department in the long run.

Review of Con Edison Superload Transporters Permit for Crossing City-Owned Bridges

In 2003, Bureau engineers reviewed calculations submitted by Con Edison in conjunction with their permit application for transporting super-heavy reactors (up to one million pounds) across city-owned bridges in the Bronx and Queens. Special attention was necessary because of the very heavy loads to which the bridges would be subjected. Con Edison was required to perform pre- and post-move inspections of the affected bridges for each move. In addition, they assumed liability for any type of damage that might be incurred. All the moves were carried out without any problems.

CONVERSION OF DIVISION ENGINEERING ARCHIVES

In 2001, the Division prepared a justification for emergency funds for electronic conversion of existing Division engineering archives and the creation of a remote management system. These items were being damaged by the temperature and humidity at their Battery Maritime Building storage area. These records include 80,000 frames of microfilm, 20,000 original construction photographs, 12,000 full-sized original drawings, and one million letter-size design documents.

The funding was received in 2002, and the transfer of the drawings and photographs to CD-ROMs was completed in spring 2003. The next phase of the project will consist of the digitizing of the microfilm collection.

NONDESTRUCTIVE TESTING OF DRILLED SHAFTS

Osterberg load cells are a relatively recent innovation; they are now commonly used to perform static load tests on high capacity drilled shafts and bored piles. Osterberg load cells consist of hydraulically operated jacks that are installed within the drilled shaft at the time of concrete placement. After the concrete achieves the required strength, the load test is performed by expanding the Osterberg load cell using hydraulic pressure. The expanding cell then applies an upward load to the section of the drilled shaft above the load cell and a downward load to the section of shaft (or shaft base) below the load cell. The Osterberg load cell thereby produces an internal load within the shaft using the soil or rock friction above the load cell as reaction to the applied downward load. The use of Osterberg load cells eliminates the need for costly reaction piles or reaction weights that are necessary for conventional static load tests, providing an economical and practical method for testing large diameter, high capacity drilled shafts.

Osterberg load cells are available in diameters of 4” to 34”, and corresponding load capacities from 40 to 3,000 tons. The load cells are typically attached to the drilled shaft reinforcing cage at the base of the shaft and, occasionally, at an intermediate level along the length of the drilled shaft. For a larger diameter drilled shaft, two or more load cells can be installed at each Osterberg cell level, using thick bearing plates above and below the load cells to join the load cells and distribute the applied load to the shaft.

Instrumentation used to monitor the load tests includes electronic displacement gauges to measure expansion of the Osterberg load cell, tell-tales and dial gauges to measure upward displacement of the top of the Osterberg load cell, dial gauges to measure top-of-shaft displacements, and electronic strain gauges to measure strains at frequent intervals along the reinforcement cage (for use in determining loads and shear resistance along the length of the drilled shaft). Applied load tests are determined by an electronic pressure gauge. All instrumentation data is electronically collected at frequent time intervals, and stored on a laptop computer. During the test, load is applied in increments until the shaft fails in end bearing or friction, or the capacity of the load cell is reached, or at the maximum expansion of the load cell (typically 6”).

In 2003, this form of nondestructive testing was performed on the drilled shafts at the Third Avenue Bridge over the Harlem River.

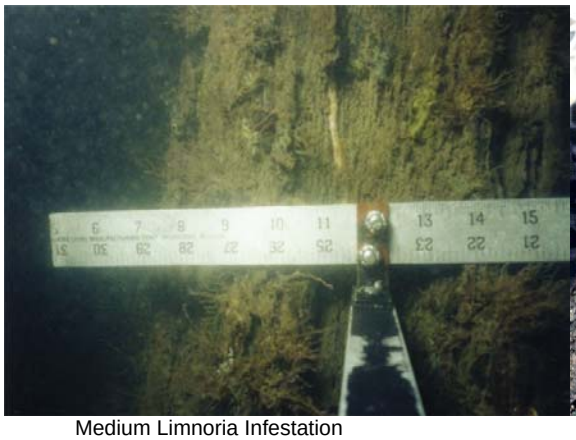
Osterberg Load Cell and Bearing Plate at Bottom of Reinforcing Cage. Instrumentation, Integrity Testing Tubes, And Concrete Tremie Pipe Within A Completed Reinforcement Cage.

MARINE BORER STUDY

Marine borers pose an immediate and serious danger to the thousands of piles and other structures of timber built in the marine environment. In New York Harbor, as the water quality improved due to many years of clean up efforts, marine borer (limnoria, teredo, etc.) activity has increased significantly in recent years. The recent inspections of timber structures by various local agencies (such as The Port Authority of NY & NJ, NYS Department of Transportation, NYC Department of Sanitation, and NYC Economic Development Corporation) indicate increasing damage to their structures resulting from marine borer activity. These agencies are implementing measures to protect the structures against marine borers.

Marine Borer – Limnoria Species

Marine Borer – Teredo Species

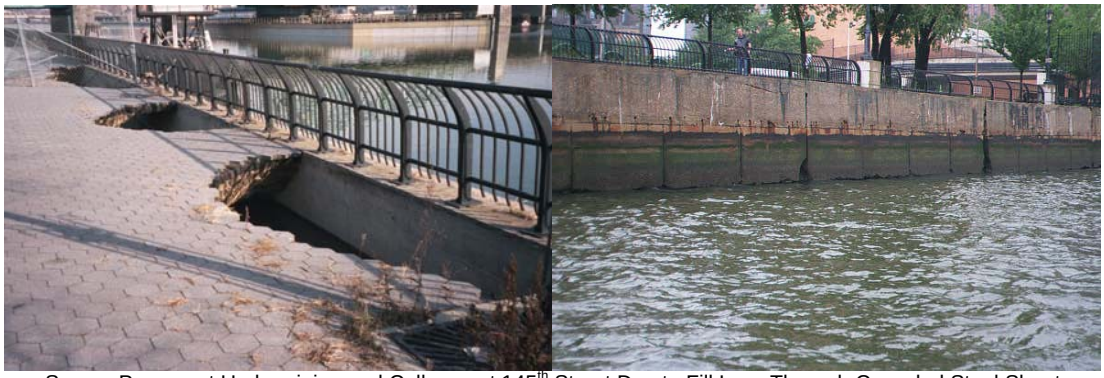


Medium Limnoria Infestation

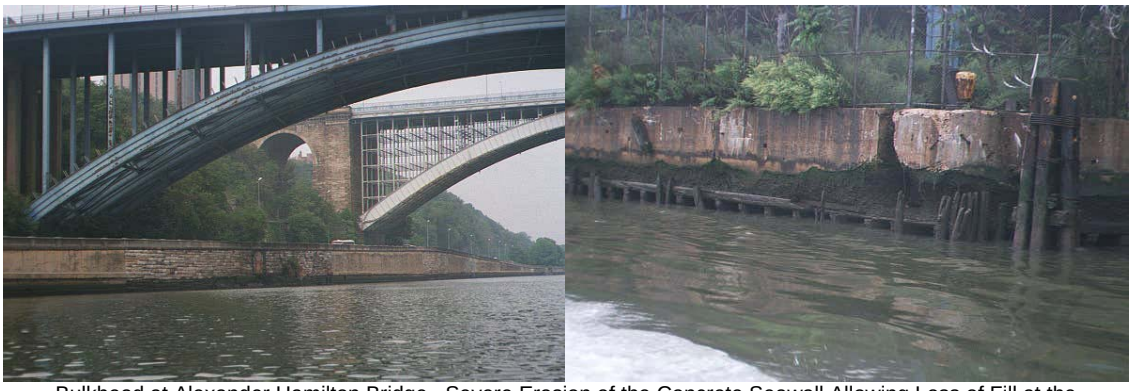
Teredo Damage (holes up to ¼" diameter)

In October 1999, the Department began a study to assess the existing 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 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 in progress and is scheduled for completion by April 2005. The construction work is expected to commence in December 2005.

Based upon information gathered during this study, DOT expanded the scope of the study to include the inspection of other City-owned property not under the jurisdiction of the Agency. In addition to timber pile supported low level relieving platforms, these structures include masonry or crib-type gravity retaining walls, high level decks, steel sheet pile bulkheads and rip rap embankments. The additional inspection of property belonging to the City but not under the jurisdiction of DOT, which began on May 7, 2001, was completed in April 2002.



Severe Pavement Undermining and Collapse at 145th Street Due to Fill Loss Through Corroded Steel Sheet Piling. East River Bulkhead.



Bulkhead at Alexander Hamilton Bridge. Severe Erosion of the Concrete Seawall Allowing Loss of Fill at the MTA Rail Yard at 151st Street.

A critical condition along the esplanade at East River Park was identified during the week of June 25, 2001 and reported to the Department of Parks and Recreation and other City agencies. Contract documents for the repair of this esplanade under a change order were prepared, and the remediation of this condition will be the financial responsibility of the Department of Parks.

In August 2002, an underwater inspection of the timber piles supporting the FDR Drive relieving platform at approximately East 15th Street revealed severe damage by marine borers. Emergency repairs to address this red flagged section began on August 19, 2002, and were completed on September 7, 2002.

A total of six critical conditions and twenty-one immediate repair conditions were identified during the inspections. Critical condition reports, which identified the condition and included sketches and cost estimates for the proposed repairs, were provided for each of the critical conditions. For the immediate repair conditions, defined as those requiring repairs to be carried out within three years from the date of inspection, conceptual repair details and cost estimates were prepared. A detailed, two volume evaluation/recommendation report consisting of inspection findings, repair details, cost estimates and general recommendations was prepared and distributed to all the concerned agencies, including the Department of Parks and Recreation, the NYC Economic Development Corporation and the Departments of Sanitation and Environmental Protection.

Deteriorated Pile Caps Under the Relieving Platform Adjacent to Pier 36. Severe Impact Damage to the Concrete Seawall and Stone Facing at the Foot of Cherry Street.

TRUMP/NEW WORLD PROJECT

The Trump/New World project (Riverside Drive between 59th and 72nd Streets) includes the construction of seven new bridges, a ramp, and connector roads along Riverside Drive as a part of the residential and commercial development over the former Penn Central Rail Yard. When completed, the infrastructure network will be transferred to DOT for maintenance. The Division is providing engineering review of the design drawings, as well as quality assurance inspections, to ensure the developer's compliance with DOT's construction and design standards. The project is now in its second stage, and is 65 percent complete overall.

BRIDGESCOPE

The Division is responsible for maintaining the structural integrity of the Department's 753 bridge structures and six tunnels. These structures are inspected to rate the current condition as compared with the original design capacity and function. Inspections also identify safety and structural conditions (flags). Repairs are performed to resolve flagged conditions. Painting and preventive maintenance are performed and defective, damaged, and worn bridge components are rehabilitated or replaced. The Division is also responsible for the rehabilitation and reconstruction projects on all NYCDOT owned bridges and tunnels.

To successfully perform its functions, the Division needs to share information necessary to coordinate maintenance, design and construction projects.

Bridgescope is an integrated, Division-wide system that provides a seamless flow of information among the bureaus within Bridges and between other divisions within the Department. This system also provides external organizations the ability to view certain information. The system will provide flexibility for incorporating any future units and functions. A timely electronic flow of information among the bureaus will be provided. This accomplishment will greatly assist the Division in meeting its objective of moving toward a paperless environment. A comprehensive on-line help function will be incorporated for the entire Bridgescope system.

The Bureau of Engineering Review and Support has undertaken the responsibility, on behalf of the end users, to ensure that the new Bridgescope application performs as defined in the consultant's scope. Bridgescope is a computer program developed in two phases. Phase I is the Memorandum of Bids, which is in production now. This application allows engineers to input engineers' estimates and contractors' bids into the system's database. The system can then print Certificate to Proceed reports and Memorandum of Bid reports, which are required for the registration of construction contracts. Phase II is the tracking system, which is under development now. This application will allow engineers to input all the information about any projects under design. This system will track all the milestones for a particular project and alert engineers and supervisors if any milestones are delayed and the consequences of this delay on the project schedule. Eventually Phase I and Phase II will be linked so that anyone can track a project from the initiation to the close out of construction of the project. The final report containing the detailed system specifications was completed on July 25, 2002, and after review by the Division, was submitted to the Agency's Management Information Services bureau for further development.

Bridge Maintenance, Inspections and Operations

EAST RIVER BRIDGES ANTI-ICING PROGRAM

Traditional snow and ice control practices rely heavily on the use of salt, a material known to corrode steel and accelerate the deterioration of concrete and asphalt surfaces. A new method of snow and ice control was needed to protect the City's $2.5 billion investment in the rehabilitated East River Bridges. This method, known as anti-icing, involves the application of a chemical freezing point depressant to the roadway surface to prevent snow and ice from bonding to the roadway. Frequent plowing removes any accumulation of unbonded snow or ice before traffic is affected.

The Division's Anti-Icing Program uses the chemicals potassium acetate and magnesium chloride. The anti-icing fleet consists of fifteen spray trucks, ten plow trucks and several smaller plows. Six of the spray trucks are combination spray/plow trucks with an 1800 gallon tank capacity, and four are spray-spreader/plow trucks with a 900 gallon spray capacity, and a four cubic yard spreader capacity. There are fourteen chemical storage tanks, with a total storage capacity of 76,250 gallons.

In the winter of 2002-2003, a total of 125,000 gallons of anti-icing chemicals were applied on the roadways of all four East River Bridges.

BROOKLYN BRIDGE PROMENADE

The replacement of the Brooklyn Bridge promenade deck and stringers by Division personnel was completed in December 2000. The temporary footbridge, which had been built several years earlier and maintained throughout the project, was removed. The replacement of the deteriorated sections of promenade railing with replicas of the existing steel was completed on December 16, 2003. Virtually all of the work was done from the promenade, closing the left roadway lane as little as possible.

Painting the Replicated Railing. New Promenade Railing (Credit: Peter Basich)

INSPECTIONS

In 2003, Inspections covered 82 bridges and 659 spans. Emphasis was placed on ensuring public safety through the monitoring of potentially hazardous conditions and temporary repairs. The unit performed 290 monitoring inspections, and 272 special winter monitoring inspections of cellular structures, shorings, and potential fire hazards. In addition, 151 emergency inspections were conducted in response to hot line calls, in-house requests, or citizen complaints.

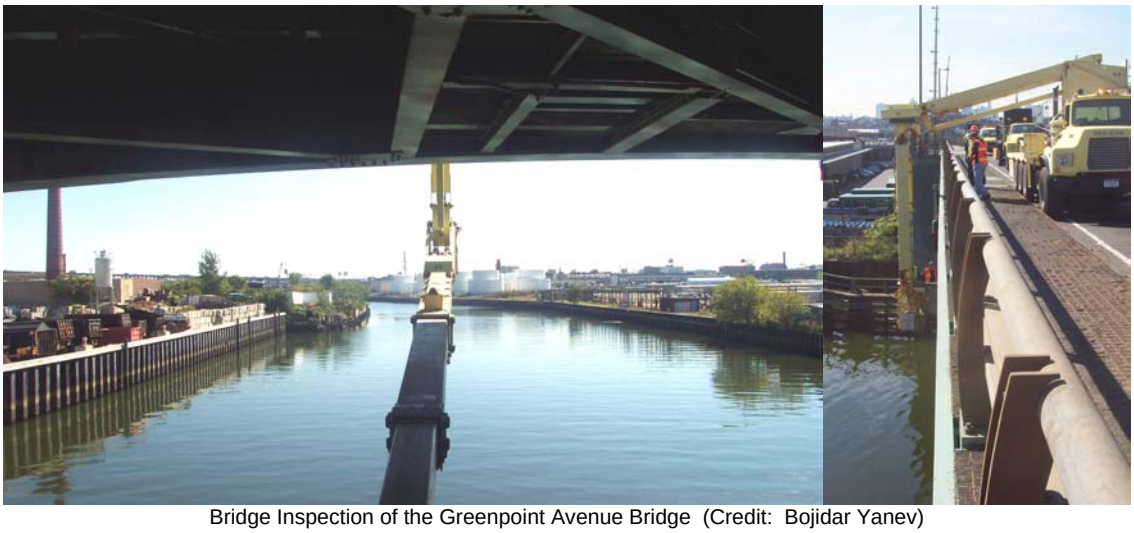
View of the East 64th Street
Pedestrian Bridge over FDR Drive
From the 120-Foot Boom
(Credit: Bojidar Yanev)

Emergency Inspection of Francis Lewis Boulevard over Cross Island Parkway in March 2003. (Credit: Wen Liao)

A Multi-Vehicle Accident Resulted in Damage to the Stone Cladding and About 200 Feet of Bridge Rail.
(Credit: Wen Liao)

In 2002, the Division began to receive State DOT bridge inspection reports in CD-ROM format. Flag reports are now also transmitted electronically. As of September 2003, standard inspection work is funded by a federal grant. Emergency response inspections and administrative support remain city funded.

The Division is inspecting 31 Parks Department bridges on a priority basis, and the necessary flag repairs are being performed under our present When and Where contract utilizing $500,000 transferred to us by Parks for this work. The bridges are: Footbridge North of Route 1 over Bronx River, West Footbridge over Prospect Park Stream, Footbridge Near Boathouse over Prospect Park Lake, Pedestrian Bridge at 73rd Street over HHP/Amtrak, West 151st Street Footbridge over Conrail 30th Street Branch, Footbridge Opposite 62nd Street over Bridle Path, Pedestrian Bridge Between 73rd and 74th Streets over the Lake, Footbridge Opposite 77th Street over the Lake, Pedestrian Walk Opposite 77th Street over Stream to Lake, Pedestrian Walk Opposite 86th Street over Bridle Path (both directions), High Bridge Pedestrian Overpass, Isham Park Pedestrian Bridge over Harlem River Inlet, Belmont Park Ramp, Motor Parkway Pedestrian Bridge over Francis Lewis Boulevard, Motor Parkway Pedestrian Bridge over Bell Boulevard, Motor Parkway Pedestrian Bridge over Springfield Boulevard, Motor Parkway Pedestrian Bridge over Hollis Court Boulevard, Flushing Meadow Park Pedestrian Bridge over Lawrence Street, Motor Parkway Pedestrian Bridge over 73rd Avenue, Motor Parkway Pedestrian Bridge over Alley Park Pedestrian Walk, Flushing Meadow Park over Willow Lake and 76th Road, Flushing Meadow Park over Stream North of Long Island Expressway, Highland Park Pedestrian Bridge over Pedestrian Path, Flushing Meadow Park Road over Aquacade Lake, West Footbridge over Clove Lake, East Footbridge over Clove Lake, Bridge over Dam at North End of Clove Lake, South of Brooks Lake over Stream in Park, Footbridge over Brooks Lake Dam, and Footbridge South of Forest Avenue over Stream in Park.

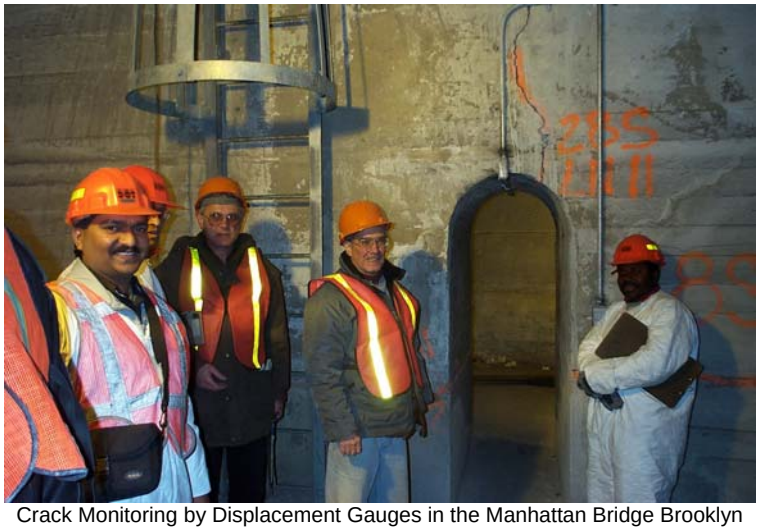


Bridge Inspection of the Greenpoint Avenue Bridge (Credit: Bojidar Yanev)

Bridge Inspectors in Bucket Truck under the Willis Avenue Bridge
(Credit: Bojidar Yanev)

STRAIN GAUGE TESTING

The monitoring of cracks in the Manhattan Bridge anchorages utilizing displacement gauges by Strain Monitoring Systems continued in 2003. In a demonstration project provided at no cost to the City, the reduction in the main span torsion on the Manhattan Bridge under train loads is monitored with fiber-optic strain gauges as the stiffening of the structure approaches conclusion.



Crack Monitoring by Displacement Gauges in the Manhattan Bridge Brooklyn Anchorage. (Credit: Bojidar Yanev)

CLEANING

In 2003, 12,037 cubic yards of debris were removed from bridges and their surrounding areas, and 1,549 drains were cleaned.

PIGEON DETERRENCE

Excessive numbers of pigeons cause property deterioration, unsafe working conditions and health hazards. Besides being unsightly, accumulation of pigeon droppings and feathers is corrosive to steel structures and raises concerns about health hazards. Many disease organisms have been associated with pigeons. They harbor ectoparasites which can infest or bite humans. Pigeon droppings also harbor fungi that can trigger serious, even fatal, lung diseases such as Histoplasmosis, Cryptococosis and Toxoplasmosis, when the spores are transmitted to humans who breathe in the harmful dust.

The Division utilizes a relatively low tech, and passive, approach to deterring pigeons. Chicken wire or heavier wire fabric is attached to metal studs to create panels which are used, much like a drop ceiling, to keep the pigeons out. The panels rest horizontally on top of the bottom flanges of the steel beams, and vertically along the top of the abutment walls. The pigeons are caged out. This method is currently in use under the Brooklyn Bridge approach (over Cadman Plaza East), Shore Parkway over Bay Ridge Avenue, and under the Pulaski Bridge approach (over Clay Street). In 2003, pigeon dropping removal and/or pigeon proofing were performed at the Cross Island Parkway Bridge over the Fort Totten Entrance, the Shore Road Bridge over the Hutchinson River (a.k.a. Pelham Bay Bridge), the Hutchinson River Parkway Bridge over the Hutchinson River, the Belt Parkway Bridge over Ocean Parkway, the Belt Parkway Bridge over Mill Basin, the Brooklyn Bridge Arch at Franklin and Pearl Streets, the Brooklyn Bridge Manhattan-side anchorage, the Williamsburg Bridge Manhattan-side anchorage, and the Clay Street Yard.

Nature's Pigeon Deterrent—A Falcon
on the Brooklyn Bridge South Side Tower

BLOODBORNE PATHOGEN PROGRAM

In 2003, the Division came into compliance with the OSHA Bloodborne Pathogen Standard, which aims to protect workers from exposure to bloodborne pathogens. While this standard is often associated with practices in hospitals, labs and doctors' offices, Division workers can be exposed to blood while removing debris at locations which have been inhabited by the homeless. In particular, used hypodermic needles are a concern for field crews who clean these areas.

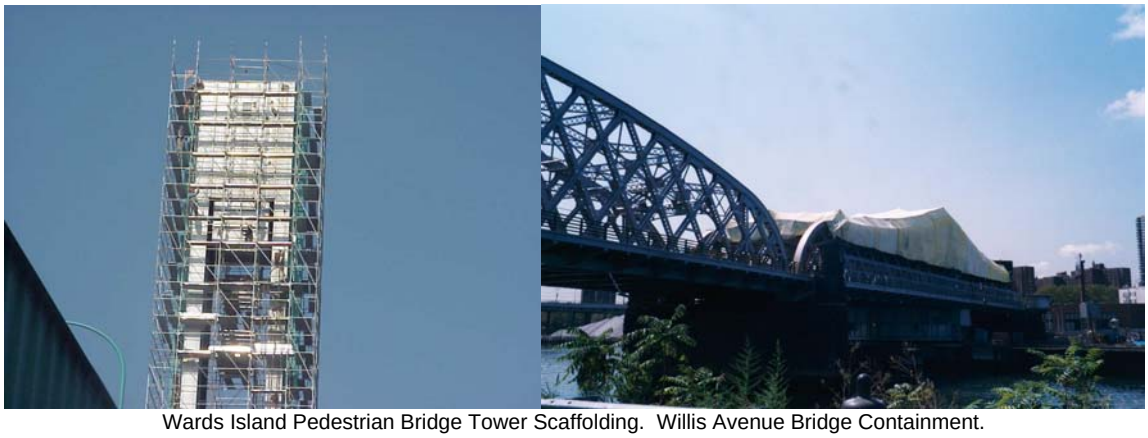
Under the guidance of the Agency's Office of Safety and Health, the Division developed a bloodborne pathogen protocol for field workers. Engineering controls such as the use of special equipment and tools to physically distance the workers from possible needles are the first lines of protection, along with special gloves, work practices and training. In addition, Hepatitis-B vaccines have been made available to those workers who perform debris removal. The vaccines are a three-shot series administered under a contract with Jamaica Hospital Medical Center. The Division will continue to monitor the effectiveness of the engineering controls and work practices in order to best protect its workers from accidental needle sticks.

PAINTING

In 2003, the following bridges were painted: Aqueduct Racetrack Ramp over Belt Parkway, Bay 8th Street over Belt Parkway, Belt Parkway over Bedford Avenue, Belt Parkway over Ocean Avenue, Belt Parkway over Nostrand Avenue, Belt Parkway over Rockaway Parkway, Belt Parkway over Sheepshead Bay Road, Broadway Bridge over Harlem River, Cropsey Avenue over Belt Parkway, Cross Island Parkway over Fort Totten Entrance, Eagle Avenue over East 161st Street, Grand Avenue over Long Island Expressway, Greenpoint Avenue Bridge over Newton Creek, Hamilton Place over Long Island Expressway, Harlem River Drive Northbound Ramp over Harlem River, Henry Hudson Parkway Viaduct over West 72nd to West 79th Street, Matthewson Road over MacCracken Avenue, Northern Boulevard over Cross Island Parkway, Riverside Drive Bridge over West 96th Street, Roosevelt Avenue over Flushing Meadow Park Road, Union Turnpike Bridge over Jackie Robinson Parkway, Wards Island Pedestrian Bridge over Harlem River, Washington Bridge over Harlem River, Willis Avenue over Harlem River, Woodhaven Boulevard over Atlantic Avenue, 11th Avenue Viaduct over LIRR West Side Yard, East 12th Street over Belt Parkway, East 14th Street Pedestrian Bridge over Belt Parkway, 31st Street Bridge over Brooklyn-Queens Expressway, 32nd Street Bridge over Brooklyn-Queens

Expressway, 35th Street Bridge over Brooklyn-Queens Expressway, 69th Street over Long Island Expressway, and East 241st Street Bridge over BRPand Metro North HAR.

Partly Finished Span 4 of the Washington Bridge



Wards Island Pedestrian Bridge Tower Scaffolding. Willis Avenue Bridge Containment.

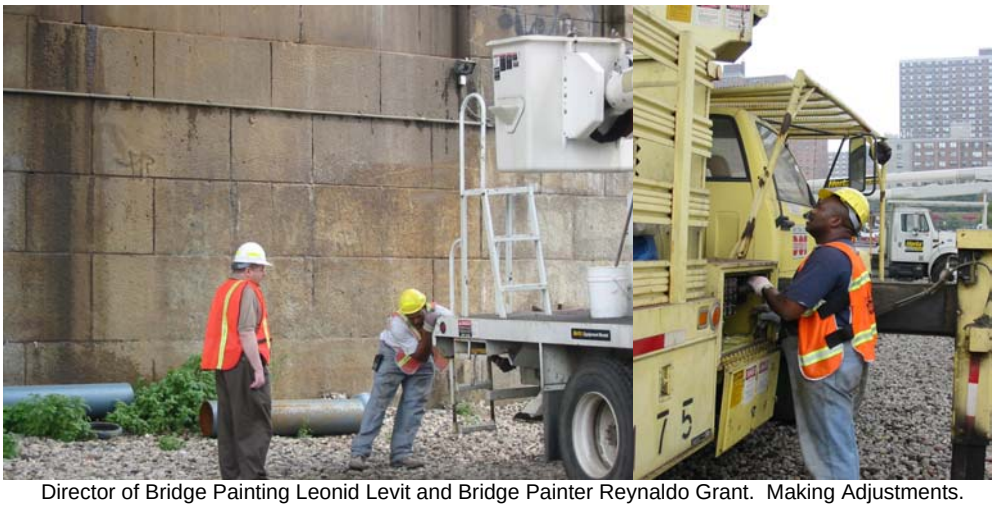
During 2003, the following structures were also painted: Railings of Beverly Road over BMT Subway, Railings of Botanical Garden Road Bridge over Twin Lakes, Broadway Bridge Operator House, Brooklyn Army Terminal Facility, Railings of Brooklyn Bridge over Brooklyn-Queens Expressway, Six columns supporting the Brooklyn Bridge Approach adjacent to Pace University, Railings of Bruckner Expressway (NB) Service Road over Hutchinson River Parkway, Railings of Cohancy Street Bridge over Southern Parkway, Railings of Cypress Hills Street Bridge over Jackie Robinson Parkway, Railings of Promenade over FDR Drive from East 79th to East 91st Streets, Flatlands Fleet Services Facility, Railings of Flushing Avenue Service Road Turnaround over Flushing Avenue (near 56th Street), Railings of Francis Lewis Boulevard over Laurelton Parkway (Eastbound and Westbound), Greenpoint Avenue Bridge Operator House, Hamilton Avenue Bridge Operator House, Railings of Highland Boulevard Bridge (Westbound) over Jackie Robinson Parkway, Railings of Houston Street Bridge over the FDR Drive, Maspeth Fleet Services Facility, Railings of North Conduit Avenue (Westbound) over Belt Parkway, Railings of Ocean Avenue Pedestrian Bridge over Sheepshead Bay, Railings of Park Road (204th Street) Bridge over the Bronx River, Roosevelt Island Bridge Operator House, Railings of Rust Street Bridge over Flushing Avenue, Railings of Springfield Boulevard Bridge over Abandoned Equestrian Path, Railings of Springfield Boulevard Bridge over Southern Parkway, DEP Plant at West 135th Street at North River, DEP Plant at Port Richmond, Staten Island, Willis Avenue Bridge Operator House, Willis Avenue Bridge Ramps, Railings of 130th Avenue Bridge over Laurelton Parkway (Eastbound and Westbound), and the 145th Street Bridge Operator House.

GRAFFITI REMOVAL

In 2003, 3,367,010 square feet of graffiti were eliminated. This program focuses its primary attention on the four East River bridges, as well as the following 21 arterial highways: Clearview Expressway, Gowanus Expressway/Belt Parkway, Major Deegan Expressway, Harlem River Drive, Van Wyck Expressway/Whitestone Expressway, Brooklyn-Queens Expressway, Jackie Robinson Parkway, Sheridan Expressway, Hutchinson River Parkway, Henry Hudson Parkway, West Shore Expressway, Richmond Parkway, Martin Luther King Jr. Expressway, Staten Island Expressway, Bruckner Expressway, Prospect Expressway, Grand Central Parkway, Long Island Expressway, Cross Bronx Expressway, Nassau Expressway, and Bronx River Parkway.

Pressure Washing Machine Used for Graffiti Removal.
It is Set to 2500 psi and 212˚ F.

Manhattan Bridge Graffiti Removal (Credit: Vadim Sokolovsky)



Director of Bridge Painting Leonid Levit and Bridge Painter Reynaldo Grant. Making Adjustments.
(Credit: Vadim Sokolovsky)

During 2003, graffiti was also removed from the following structures: Belt Parkway between Bay Parkway and Cropsey Avenue, Southbound FDR Drive between 71st and 73rd Streets, Greenpoint Avenue Bridge over Newton Creek, the New York City Marathon Route, and13th Avenue between 61st and 62nd Streets.

RESEARCH AND PRESENTATIONS

In 2003, research work of the Division was presented in the following proceedings:

Transportation Research Board Annual Meeting, Committee on Joints and Sealants, Washington, D.C., 15 January 2003. Yanev, B. *Replacement of Cushion with Plug Joints on the Henry Hudson Parkway.* In addition to the TRB committee on Joints and Sealants, Dr. Yanev was invited to join the Committee on Bridge Maintenance.

Bridge Engineering Association, 3 February 2003. Chief Bridge Officer Henry Perahia delivered the opening presentation of the "Bridge Cables: Assessment, Design and Erection" seminar. His subject was the "Construction and Rehabilitation of the Williamsburg Bridge Cables". The Director of Bridge Inspections chaired the session on Understanding Cable Behavior.

9th International Bridge Management Conference,Orlando, Florida, 28 – 30 April 2003. Yanev, B., Testa, R. B., and Garvin, M. *Maintenance Strategy to Minimize Bridge Life-Cycle Costs*.

International Workshop on Structural Monitoring of Bridges, Kitami Institute of Technology, Hokkaido, Japan, 1 – 2 September 2003. Dr. Yanev delivered the keynote address, *Monitoring the Condition of Bridges in New York City*.

Second New York City Bridge Conference, New York City, 20 – 21 October 2003. Chief Bridge Officer Henry Perahia chaired the session on Bridge Analysis and Design, and Dr. Bojidar Yanev, the Division's Executive Director of Inspections and Bridge Management, chaired the session on Bridge Health Monitoring and Management.

First International Conference on Structural Health Monitoring and Intelligent Infrastructure, Tokyo, Japan, 13 – 15 Novemer 2003. Dr. Yanev delivered the keynote address, *Structural Health Monitoring as a Bridge Management Tool*.

Yanev, B. "Management for the Bridges of New York City," International Journal of Steel Structures, Volume 3, #2, June 2003.

In addition, Dr. Yanev continued his participation on the technical advisory panels of the National Council for Highway Research (NCHR) for the following projects: FHWA DTFH61-98-C-00094 *Seismic Vulnerability of the Highway System* and NCHRP 10-57 *Strength Evaluation of Parallel Wire Suspension Bridge Cables*.

Dr. Yanev has joined the ASCE Committee working on revising the NYC Building Code. He continues to serve on the advisory panel of the NYC Department of Buildings for emergency response after citywide disasters.

In addition, the Division sponsors an in-house lecture series, inviting speakers from industry and academia several times a month. Highlight topics of the presentations in 2003 included: integral concrete waterproofing; bridge management software, a dynamic bridge positioning system, optical diagnostics and early detection of degradation, monitoring structural deformations by fiber optic sensors, blue ribbon panel findings on infrastructure security, and rapid bridge replacement technology.

Dr. Yanev on the Brooklyn Bridge

Appendix A

BRIDGE CAPITAL PROGRAM

MANHATTAN BRIDGE

REHABILITATION ITEMS
TOTAL ESTIMATED COST

	Est. Cost ($ in millions)
• Repair floor beams. (1982)	0.70*
• Replace inspection platforms, subway stringers on approach spans. (1985)	6.30*
• Install truss supports on suspended spans (1985)	0.50*
• Partial rehabilitation of walkway. (1989)	3.00*
• Rehabilitate truss hangers on east side of bridge. (1989)	0.70*
• Install anti-torsional fix (side spans) and rehabilitate upper roadway decks on approach spans on east side; replace drainage system on approach spans, install new lighting on entire upper roadways east side, including purchase of fabricated material for west side of bridge. (1989)	40.30*
• Eyebar rehabilitation - Manhattan anchorage Chamber “C”. (1988)	12.20*
• Replacement of maintenance platform in the suspended span. (1982)	4.27*
• Reconstruct maintenance inspection platforms, including new rail and hanger systems and new electrical and mechanical systems; over 2,000 interim repairs to structural steel support system of lower roadway for future functioning of roadway as a detour during later construction contracts. (1992)	23.50*
• Install anti-torsional fix on west side (main and side spans); west upper roadway decks, replace drainage systems on west suspended and approach spans; walkway rehabilitation (install fencing, new lighting on west upper roadways and walkways); rehabilitate cables in both Brooklyn and Manhattan anchorage chambers; dehumidify Brooklyn and Manhattan anchorages. (1997)	141.82*
• Installation of test panels. (1982)	1.55****
• Removal of existing suspender ropes and sockets in the suspended spans; replacement with new suspender ropes and sockets in the suspended spans and re-tensioning of suspender ropes bearing plates; re-tensioning of cable band bolts; removal of existing main cable wrapping; cleaning of main cables; application of new protective paste on main cables; replacement of new main cable wrapping; reinforcement of truss verticals and gusset plates. (2009)	70.00***
• Interim Steel Rehabilitation and Painting - cable and saddle repairs lower roadway floorbeams @PP 37/38 on approaches and at anchorages; west side truss rockers and grillages on approaches; cable and suspender repairs. Removal of parking desk. Painting entire west side, all four cables. (2001)	127.98*

MANHATTAN BRIDGE

REHABILITATION ITEMS
TOTAL ESTIMATED COST

	Est. Cost ($ in millions)
• Stiffening of Main Span; Reconstruction of North Subway framing; reconstruction of North upper roadway deck at suspended spans; rehabilitation of north approach span trusses; replace overlay on north upper roadway approach spans; rehabilitation of north elevated structures and subway tunnels; removal of railing on truss "D" in the north spans; painting of north side of bridge; new inspection platforms and debris protection in approach spans; construction of new north bikeway, replacement of approach span bearings and grillages; installation of Intelligent Vehicle Highway System for North and South Upper Roadways as well as for Lower Roadway. (Present)	175.38**
• Rehabilitation of Lower Roadway; rehabilitation of anchorage roofs under lower roadway; rehabilitation of substructures and retaining walls in Brooklyn and Manhattan approaches; installation of new signage on bridge and at plaza areas; installation of new lighting on lower roadway and plaza areas; clean and paint lower roadway; installation of grating platform under towers at lower roadway; canopy lighting at towers. (Present)	160.50***
• Seismic Retrofit (2009)	20.00***
TOTAL: $	**788.70**

* Construction Complete
** In Construction
*** In Design
**** Research and Development (completed)

QUEENSBORO BRIDGE

REHABILITATION ITEMS
TOTAL ESTIMATED COST

	Est. Cost ($ in millions)
• Repair lower outer roadways / reconstruct two ramps in lower Queens (1984)	18.80*
• Reconstruct south upper roadway, replace inspection platforms, lighting (1986)	31.50*
• Interim rehabilitation, contracts A, B, & C (repairs to lower deck and main bridge approaches). (1985)	2.80*
• Interim rehabilitation, contract D (repairs to lower deck, main bridge, and new median barrier). (1988)	3.00*
• Reconstruct north upper roadway and Queens approaches A & B, rehabilitate bearings at Queens approach. (1989)	50.00*
• Reconstruct ramps C & D (Queensboro only, not Thompson Ave.) (1988)	10.40*
• Rehabilitate bridge bearings, pier tops, and truss lower chords. (1989)	18.00*
• Rehabilitate Queens approach trusses, lower inner roadways on the main span and approaches. (1996)	172.00*
• Rehabilitate lower outer roadways main span and approaches, (bikeway) cleaning and painting. (2001)	216.93*
• Cleaning and painting main bridge upper trusses. (In Progress)	167.75***
• Miscellaneous Items (In Progress)	34.84**
• Seismic Retrofit	15.00***
	TOTAL: $ 741.02

* Construction Complete
** In Construction
*** In Design

WILLIAMSBURG BRIDGE

REHABILITATION ITEMS
TOTAL ESTIMATED COST

	Est. Cost ($ in millions)
• Replace main span outer roadway. (1983)	11.20*
• Replace one third of suspenders. (1984)	3.20*
• Repair pier 20E foundation, and replace bulkhead. (1986)	2.30*
• Paint side spans and towers. (1985)	1.10*
• Paint main and approach spans. (1989)	4.24*
• Emergency interim repairs. (1989)	10.00*
• Install temporary hand-rope system on main cables. (1990)	0.63*
• Main cable preservation (field test - oiling). (1991)	0.44*
• Main cable strand splicing at Manhattan anchorage. (1991)	0.29*
• Interim pedestrian walkway. (1994)	1.05*
• Component repairs of flag conditions on the north outer roadway and north inner roadway. (1994)	4.12*
• Rehabilitate main cables and new redundant suspender system. (1996)	88.30*
• Demolish existing building under approaches. (1993)	1.50*
• Testing Program for bored-in piles. (1993)	0.74*
• Demolish DOS and DOH buildings, replace entire south outer roadway approach structures, rehabilitate south outer roadway deck and south inner roadway deck of the main bridge, and replace south inner roadway substructure of the approaches. (1998)	198.00*

WILLIAMSBURG BRIDGE

REHABILITATION ITEMS
TOTAL ESTIMATED COST

	Est. Cost ($ in millions)
• Portion of Contract #6 BMT track structure work transferred to ongoing Contract #5 south approach roadway reconstruction work. (1998)	65.00*
• Paint main and intermediate towers. (2001)	14.90 (1)
• Reconstruct BMT Subway structure; install new signals, tracks and communication system. (2000)	166.65*
• Miscellaneous rehabilitation work: rehabilitation of towers, replace bearings, travelers, architectural work, painting of north and south trusses, suspender adjustment, tower jacking, construction of colonnades.	172.90**
• Replace north approach structures (Manhattan / Brooklyn), and rehabilitate north half of bridge. (2002)	233.00**
• Seismic Retrofit	10.00***
TOTAL:	**$ 989.56**

* Construction Complete
** In Construction
*** In Design
(1) Painting suspended in 1996 pending publication of Environmental Impact Statement (EIS) in 1998. Painting resumed under a new schedule in 1999 and was completed in 2001.

BROOKLYN BRIDGE

REHABILITATION ITEMS
TOTAL ESTIMATED COST

	Est. Cost ($ in millions)
• Brooklyn Tower protection and new sign gantries. (1981)	2.72*
• Rehabilitate promenade between towers. (1983)	0.94*
• Rehabilitate cables in anchorage and replace short rod suspenders; rehabilitate balance of promenade and construct bikeway and new pedestrian ramp. (1988)	22.68*
• Rehabilitate and paint York, Main, William and Prospect Street structures and main bridge roadway deck overlay. (1988)	6.21*
• Replace suspenders, cable posts, stay cables, hand-rope necklace lights, main cable wrapping; paint suspended spans. (1991)	53.57*
• Rehabilitate ramp E. concrete piers of ramp C and abutment at ramps C & I, and rehabilitate Sands and Washington Street structures in Brooklyn. (1991)	4.73*
• Rehabilitate ramp D and H in Manhattan; permanent improvement of promenade at Manhattan approach. (1993)	17.92*
• Rehabilitate floor systems, stiffening trusses, roadways of suspended spans and Franklin Square trusses. (1994)	66.30*
• Rehabilitate Manhattan traveler (electrical work). (1997)	1.83*
• Rehabilitate ramp D and widening along the FDR Drive. (1996)	11.50*
• Arch supports for Franklin Square truss structure.	9.50*
• Replacement of Suspended Span Deck (2000)	33.8*
• Resurfacing of the main spans (1998)	6.67*

BROOKLYN BRIDGE

REHABILITATION ITEMS
TOTAL ESTIMATED COST

	Est. Cost ($ in millions)
• • Improvement of Manhattan end of promenade (2001)	4.50*
• Rehabilitate Brooklyn approach & ramps (B, S, F) and Rehabilitate Manhattan approaches and remaining ramps (A,B,C,F,G,I,J). (In Progress)	115.00**
• Painting	74.00**
• Seismic Retrofit	25.00**
• • Replacement of Travelers	7.20**
TOTAL:	**$ 464.07**

* Construction Complete
** In Design
*** In Construction

BRIDGES UNDER CONSTRUCTION

CALENDAR YEAR 2003

CONTRACT #	BRIDGE
HBX644R	Madison Avenue Bridge over the Harlem River
HBX663	3rd Avenue Bridge over Harlem River (& 3rd Avenue Ramp to Bruckner Boulevard)
HBX1030	East Tremont Avenue Bridge over Metro North RR
HBX1086B	Westchester Avenue Bridge over Hutchinson River Parkway
HBX1106	East 161st Street Bridge over Conrail Port Morris
HBE1023	Belt Parkway Bridge over Mill Basin (Emergency Contract)
HBK1024E	Belt Parkway Bridge over Paerdegat Basin (Emergency Contract)
HBK1035	Sutter Avenue Bridge over LIRR
HBK1036/1037	Atlantic Avenue Bridges (EB & WB) over East New York Avenue
HBK1039	15th Avenue Bridge over NYCT
HBK1040	18th Avenue Bridge over NYCT
HBK1048	8th Avenue Bridge over LIRR & Sea Beach
HBK1095	Cortelyou Road Bridge over BMT Subway
HBK1098	7th Avenue Bridge over NYCT
HBK1132	2nd Avenue Bridge over LIRR
HBK1149	Metropolitan Avenue Bridge over English Kills
HBK1169	14th Avenue Bridge over LIRR
HBK1193	Belt Parkway Bridge over Ocean Parkway
HBK1196	Glenmore Avenue Bridge over LIRR Bay Ridge
HBK1097	Pitkin Avenue Bridge over LIRR
HBKC059	East 3rd Street Bridge over LIRR
HBKC063	52nd Street Bridge over LIRR
HBM1093	East 10th Street Pedestrian Bridge over FDR Drive
HBM1094	West 37th Street Bridge over Amtrak
HBQ432A	Honeywell Street Bridge over Amtrak and LIRR Yard
HBQ656	Cross Bay Boulevard Bridge over Conduit Boulevard
HBQ1110	91st Place Bridge over LIRR
HBQ1111	Grand Avenue Bridge over Conrail
HBQ1181/1182	Steinway Street Bridges over Grand Central Parkway WB & EB (Brooklyn-Queens Expressway)
HBQ1199	Andrews Avenue Bridge over LIRR
HBR659	Hylan Boulevard Bridge over Lemon Creek
BRC156C	Manhattan Bridge – Contract #10
BRC231C	Queensboro Bridge – Contract #6
BRC253CC	Williamsburg Bridge – Contract #8
BRX287R	Macombs Dam Bridge over Harlem River
HBMC023	Rehabilitation of electrical/mechanical components for First Avenue Tunnel, Park Avenue Tunnel, and Battery Park Underpass

BRIDGE CONSTRUCTION

Projects Completed in Calendar Year 2003

CONTRACT #	BRIDGE
HBX644R	Madison Avenue Bridge over the Harlem River
HBX1106	East 161st Street Bridge over Conrail Port Morris
HBX1030	East Tremont Avenue Bridge over Metro North RR
HBE1023	Belt Parkway Bridge over Mill Basin (Emergency Contract)
HBK1048	8th Avenue Bridge over LIRR & Sea Beach
HBM1093	East 10th Street Pedestrian Bridge over FDR Drive
HBQ432A	Honeywell Street Bridge over Amtrak and LIRR Yard
HBQ1110	91st Place Bridge over LIRR
HBQ1111	Grand Avenue Bridge over Conrail
HBR659	Hylan Boulevard Bridge over Lemon Creek

Component Rehabilitation

The following table illustrates the program's performance over the last eight years:

	FY 96	FY 97	FY 98	FY 99	FY 00	FY 01	*FY 02	**FY 03
Number of Bridges	13	30	13	21	24	16	0	0
Construction Cost	$8.7 M	$15.9 M	$8.8 M	$15.7 M	$5.26 M	$13.2 M	$0	$0

*No contracts were bid during the 2002 calendar year.
**One contract was bid during the 2003 calendar year, but will be registered in early 2004.

In 2003, work was completed at the following bridges, in the indicated boroughs, at the final cost shown, in millions:

Riverside Drive Bridge over West 96th Street (M)	$2.535
Huguenot Ave. over SIRT South Shore (R)	$1.197
Tudor City Place over East 42nd Street (M)	$0.740
New Dorp Lane over SIRT South Shore (R)	$0.320
TOTAL	**$4.792 M**

During calendar year 2003, work did not commence at any bridges.

APPENDIX A-3

Component Rehabilitation

There is 1 project "still under construction" since the 2002 *Annual Report* was issued.

Broadway Bridge/Harlem River (BX/M)

24 component rehabilitation projects are slated to continue, commence or be completed in the 2004 calendar year. They are:

Bedford Park Boulevard/Metro North (BX)
East Tremont Avenue/HRP (BX)
Grand Concourse/East 170th Street (BX)
Grand Concourse/East 175th Street (BX)
Riverdale Avenue/HHP (BX)
3rd Avenue/Conrail Port Morris (BX)
East 149th Street/Metro North (BX)
East 156th Street/Conrail Port Morris (BX)
East 168th Street/Metro North (BX)
East 173rd Street/Metro North (BX)
East 238th Street (Nereid Avenue)/Bronx River Pkwy. & Metro North (BX)
West 246th Street/HHP (BX)
Broadway Bridge/Harlem River (BX/M)
Cypress Hills Cemetery Road (E)/JRP (Q) (demolition)
Cypress Hills Cemetery Road (W)/JRP (Q) (demolition)

3rd Avenue over Gowanus Canal (K)
49th Street over Grand Central Parkway (Q)
Jamaica Avenue over Cross Island Parkway (Q)
Metropolitan Avenue Bridge over Conrail (Q)
Bronx Boulevard N.B. over Bronx River (BX)
Bronx Boulevard S.B. over Bronx River (BX)
Fort Tryon Place over Entrance from Riverside Drive (M)
Unionport Road over Amtrak (BX)
E. 149th Street over Amtrak (BX)

BRIDGES UNDER DESIGN BY NEW YORK CITY

BIN NO.	CAPIS NO.	FEATURE CARRIED	FEATURE CROSSED	FY CNST	PHASE	BORO
2241259	HBPED	204TH ST PED BRIDGE	METRO NORTH RR	2005	DB	B
2241570	HBX199	E 153RD ST.	METRO NORTH RR	2005	PD	B
2075837	HBX1086	WESTCHESTER AVENUE	HRP	2006	FD	B
2241590	HBX1103	CONCOURSE VILL AVE	METRO NORTH RR HAR	2005	FD	B
2242259	HBX1104	GRAND CONCOURSE	E 161ST ST	2005	FD	B
1066510	HBX1131	BRUCKNER EXP.	WESTCHESTER CREEK	2006	FD	B
2241800	HBX1139	E 183RD ST	METRO NORTH RR HAR	2005	FD	B
NEW 2240200	HBX1148B	SHORE ROAD (NEW)	HUTCHINSON RIVER	2012	PD	B
2241210	HBX1152	BRYANT AVE	AMTRAK	2006	PD	B
2241710	HBX1160	CLAREMONT PKWY	METRO NORTH RR HAR	2005	FD	B
2241860	HBX1163	GUN HILL RD	METRO NORTH RR HAR	2005	FD	B
2240210	HBX1164	CITY ISLAND ROAD	EASTCHESTER BAY	2007	PD	B
2241810	HBX1172	E 188TH ST	METRO NORTH RR HAR	2007	FD	B
2241409	HBX1190	GRAND CONCOURSE	METRO NORTH RR HUD	2006	PD	B
2242319	HBX1191	GRAND CONCOURSE	E 174TH ST	2006	PD	B
2241390	HBX1195	SHORE RD CIRCLE	AMTRAK	2005	FD	B
2240137	HBM1147	BROADWAY	HARLEM RIVER	2011	PD	BM
2240079	HBX644S	MADISON AVE	HARLEM RIVER	2010	PD	BM
1240090	BRX287S	MACOMBS DAM BRIDGE	HARLEM RIVER	2011	PD	BM
2240089	HBX1029	145TH ST BRIDGE	HARLEM RIVER	2004	FD	BM
2240027	BRC156A	MANHATTAN BRIDGE (LL)	EAST RIVER	2005	FD	KM
2240027	BRC156R	MANHATTAN BRIDGE (LL)	EAST RIVER	2008	FD	KM
2240028	BRC156R	MANHATTAN BRIDGE (UL)	NYCTA TRACKS-BMT	2008	FD	KM
2240028	BRC156S	MANHATTAN BRIDGE (UL)	NYCTA TRACKS-BMT	2007	PD	KM
2240019	BRC270C	BROOKLYN BRIDGE	2781 (B.Q.E.)	2009	FD	KM
2240019	BRC270S	BROOKLYN BRIDGE	2781 (B.Q.E.)	2010	TD	KM
2240019	BRC270T	BROOKLYN BRIDGE	2781 (B.Q.E.)	2005	FD	KM
VARIOUS	HBCBORERS-R	VARIOUS	VARIOUS	2005	FD	KM
2240310	HBCREPL99A	3RD AVE	GOWANUS CANAL	2005	FD	K
2231419	HBCREPL99B	BSHP	OCEAN AVENUE	2006	FD	K
2243480	HBCREPL99B	OCEAN AVE	LIRR	2007	FD	K
2243710	HBKC062	19TH AVE	BMT SEA BEACH	2007	FD	K
2243100	HBKC064	BEVERLY ROAD	BMT SUBWAY, BRIGHTON	2007	FD	K
VARIOUS	HBKC1144	BQE JOINTS	VARIOUS LOCATIONS	2004	FD	K
2269260	HBPED	W 8TH ST PED BRIDGE	SURF AVE	2005	DB	K
2231330	HBPED	27TH AVE PED BRIDGE	BSHP	2005	DB	K
2231300	HBPED	17TH AVE PED BRIDGE	BSHP	2005	DB	K
2231260	HBPED	92ND ST PED BRIDGE	BSHP	2005	DB	K
2243020	HBK530	PARKSIDE AVE	BMT SUBWAY, BRIGHTON	2008	FD	K
2243050	HBK531	CATON AVE	BMT SUBWAY, BRIGHTON	2007	FD	K
2243820	HBK548	21ST AVE	BMT SEA BEACH	2007	FD	K
2231450	HBK643	BSHP	GERRITSEN INLET	2006	FD	K
2231370	HBK668	E 8TH ST ACCESS RMP	BSHP	2005	FD	K
2231479	HBK1023	BSHP	MILL BASIN	2006	FD	K
2231489	HBK1024	BSHP	PAERDEGAT BASIN	2006	FD	K

PD=Preliminary Design; FD=Final Design; DB=Design Build

BRIDGES UNDER DESIGN BY NEW YORK CITY

BIN NO.	CAPIS NO.	FEATURE CARRIED	FEATURE CROSSED	FY CNST	PHASE	BORO
2243080	HBK1032	CHURCH AVE	BMT SUBWAY, BRIGHTON	2007	FD	K
2243510	HBK1046	FLATBUSH AVE	LIRR BAY RIDGE	2007	FD	K
2231509	HBK1072	BSHP	FRESH CREEK	2006	FD	K
2231249	HBK1089	BSHP	BAY RIDGE AVE	2008	PD	K
2231439	HBK1090	BSHP	NOSTRAND AVE	2008	PD	K
2231499	HBK1091	BSHP	ROCKAWAY PKWY	2008	PD	K
2240231	HBK1140	HAMILTON AVE BRIDGE	GOWANUS CANAL	2005	FD	K
2240232	HBK1140	HAMILTON AVE BRIDGE	GOWANUS CANAL	2005	FD	K
2230887	HBK1151	278I W.B. (B.Q.E.)	CADMAN PLAZA	2005	FD	K
2230888	HBK1151	2781 E.B. (B.Q.E.)	CADMAN PLAZA	2005	FD	K
2243140	HBK1153	NEWKIRK AVE	BMT SUBWAY, BRIGHTON	2005	FD	K
2243040	HBK1154	CROOKE AVE	BMT SUBWAY, BRIGHTON	2005	FD	K
2243569	HBK1201	ATLANTIC AVE	LIRR ATLANTIC AVE	2013	PD	K
2240270	HBK1213	UNION STREET BRIDGE	GOWANUS CANAL	2007	PD	K
2240390	HBK1161	GRAND ST BRIDGE	NEWTON CREEK	2006	PD	KQ
2240047	BRC231S	QUEENSBORO BRIDGE (LL)	EAST RIVER	2010	FD	MQ
2240048	BRC231S	QUEENSBORO BRIDGE (UL)	EAST RIVER	2010	FD	MQ
2240640	HBC1117	ROOSEVELT ISLAND	E. RIVER E. CHANNEL	2008	PD	MQ
2246500	HBCREPL99A	FORT TYRONE PLACE	ENT. FR. RIVERSIDE DR.	2005	FD	M
2246570	HBCREPL99B	UNITED NATIONS PLAZA	1ST AVE TUNNEL	2006	FD	M
2245090	HBMC032	W 43RD ST	AMTRAK 30TH ST BRANCH	2012	PD	M
2245130	HBMC033	W 47TH ST	AMTRAK 30TH ST BRANCH	2008	PD	M
2245150	HBMC034	W 49TH ST	AMTRAK 30TH ST BRANCH	2012	PD	M
2245340	HBMC035	W 50TH ST	AMTRAK 30TH ST BRANCH	2012	PD	M
2245180	HBMC036	W 53RD ST	AMTRAK 30TH ST BRANCH	2012	PD	M
224501C	HBMC037	W 33RD ST	LAND ADJ TO AMTRAK	2010	PD	M
2268930	HBPED	MORRIS ST PED BRIDGE	BRKLYN BTTRY TNNL PLZ	2005	DB	M
2245400	HBPED	PED BRIDGE WEST OF 8TH AVE	W 155TH ST	2005	DB	M
2269820	HBPED	81ST ST PROMENADE	FDR DRIVE	2005	DB	M
2232190	HBPED	E 111TH ST PED BRIDGE	FDR DRIVE	2005	DB	M
2246620	HBPED	PED BRIDGE	E 128TH ST	2005	DB	M
2246990	HBPED	129TH to 130TH ST PED BRIDGE	RAMP OFF 3RD AVE	2005	DB	M
2245290	HBPED	W 155TH ST PED BRIDGE	AMTRAK 30TH ST BRANCH	2005	DB	M
2229400	HBPED	W 181ST ST PED BRIDGE	HHP NB	2005	DB	M
2246540	HBM551	E 34TH ST	PARK AVE TUNNEL	2008	PD	M
2233059	HBM1027	HARLEM RIVER DRIVE	RAMP TO HRD N.B.	2007	PD	M
2245010	HBM1120	11th AVE VIADUCT	LIRR WEST SIDE YARD	2012	PD	M
2240059	HBM1124	WILLIS AVENUE	HARLEM RIVER	2007	FD	BM
224005A	HBM1124	FROM FDR DRIVE	HARLEM RIVER DRIVE	2007	FD	M
224005B	HBM1124	TO BRUCKNER BLVD (WILLIS)	RELIEF	2007	FD	M
2246490	HBM1145	A.C. POWELL BLVD N.B.	A.C. POWELL BLVD	2006	PD	M
2246710	HBM1145B	W 153 ST	A.C. POWELL BLVD	2006	PD	M
2232000	HBM1146	BATTERY PLACE	FDR DRIVE	2004	FD	M
2267380	HBM1146A	WEST ST	RECTOR STREET	2004	FD	M
2240620	HBM1159	WARDS ISLAND PED BRDG	HARLEM RIVER	2010	PD	M

PD=Preliminary Design; FD=Final Design; DB=Design Build

BRIDGES UNDER DESIGN BY NEW YORK CITY

BIN NO.	CAPIS NO.	FEATURE CARRIED	FEATURE CROSSED	FY CNST	PHASE	BORO
2246720	HBM1165	RIVERSIDE DRIVE	W 158TH ST	2007	PD	M
226672A	HBM1171	W 31ST ST	AMTRAK LAYUP TRACKS	2005	FD	M
2245070	HBM1174	W 38TH ST	AMTRAK 30TH ST BRANCH	2009	PD	M
2245080	HBM1175	W 39TH ST	AMTRAK 30TH ST BRANCH	2009	PD	M
2245100	HBM1176	W 44TH ST	AMTRAK 30TH ST BRANCH	2012	PD	M
2245120	HBM1177	W 46TH ST	AMTRAK 30TH ST BRANCH	2012	PD	M
2245140	HBM1178	W 48TH ST	AMTRAK 30TH ST BRANCH	2008	PD	M
2245210	HBM1179	W 42ND ST	AMTRAK 30TH ST BRANCH	2008	PD	M
2245440	HBM1180	W 40TH ST	AMTRAK 30TH ST BRANCH	2012	PD	M
2245330	HBM1183	W 41ST ST	AMTRAK 30TH ST BRANCH	2012	PD	M
224501B	HBM1184	W 33RD ST	AMTRAK 30TH ST BRANCH	2010	PD	M
224501D	HBM1185	W 34TH ST	AMTRAK 30TH ST BRANCH	2010	PD	M
224501E	HBM1186	W 35TH ST	AMTRAK 30TH ST BRANCH	2010	PD	M
224501F	HBM1187	W 36TH ST	AMTRAK 30TH ST BRANCH	2010	PD	M
2245209	HBM1188	11TH AVE	AMTRAK 30TH ST BRANCH	2012	PD	M
2229290	HBM1189	W 79TH ST	AMTRAK	2012	PD	M
2267717	HBM1189	79TH ST PED PLAZA	79TH ST BOAT BASIN GARAGE	2012	PD	M
2267718	HBM1189	79TH ST TRAFFIC CIRCLE	79TH ST PED PLAZA	2012	PD	M
226771A	HBM1189	79TH ST RAMP TO HHP	79TH ST BOAT BASIN GARAGE	2012	PD	M
226771B	HBM1189	79TH ST RAMP TO GARAGE	79TH ST BOAT BASIN GARAGE	2012	PD	M
226771C	HBM1189	GARAGE RAMP TO 79TH ST	79TH ST BOAT BASIN GARAGE	2012	PD	M
226771D	HBM1189	SB HHP RAMP TO 79TH ST	79TH ST BOAT BASIN GARAGE	2012	PD	M
2231819	HBCREPL99A	JAMAICA AVE	BCIP	2005	FD	Q
2247500	HBCREPL99A	METROPOLITAN AVE	CONRAIL	2005	FD	Q
2230890	HBCREPL99A	49TH ST	GCP	2005	FD	Q
2231710	HBCREPL99B	MERRICK BLVD	BLP EB	2006	FD	Q
2231720	HBCREPL99B	MERRICK BLVD	BLP WB	2006	FD	Q
224004F	HBCREPL99B	TO NY FROM 21St ST	21ST ST (QUEENS)	2006	FD	Q
2231730	HBCREPL99B	130TH AVE	BLP EB	2006	FD	Q
2231740	HBCREPL99B	130TH AVE	BLP WB	2006	FD	Q
2247080	HBCREPL99B	149TH ST	LIRR	2007	FD	Q
2240660	BRC289A	RIKERS ISLAND BRIDGE	RIKERS ISLAND CHANNEL	2007	DB	Q
2231880	HBPED	CROCHERON PARK PED BRIDGE	BCIP	2005	DB	Q
1247280	HBPED	51ST AVE PED BRIDGE	LIRR MAIN LINE	2005	DB	Q
2247190	HBPED	55TH AVE PED BRIDGE	LIRR MAIN LINE	2005	DB	Q
NONE	HBPED	71ST AVE PED BRIDGE	LIRR	2005	DB	Q
2247020	HBPED	94TH ST PED BRIDGE	LIRR N SIDE	2005	DB	Q
7705510	HBPED	167TH ST PED BRIDGE	LIRR PORT WASH BRANCH	2005	DB	Q
7703720	HBPED	216TH ST PED BRIDGE	LIRR PORT WASH BRANCH	2005	DB	Q
1247560	HBQ1112	METRO AVE (FRESH POND)	LIRR MONTAUK DIV	2005	FD	Q
2231780	HBQ1114	HEMPSTEAD AVE	BCIP	2010	PD	Q
2266149	HBQ1114	HEMPSTEAD AVE	RAMP TO BCIP NB	2010	PD	Q
2231850	HBQ1115	UNION TPKE	BCIP	2010	PD	Q

PD=Preliminary Design; FD=Final Design; DB=Design Build

BRIDGES UNDER DESIGN BY NEW YORK CITY

BIN NO.	CAPIS NO.	FEATURE CARRIED	FEATURE CROSSED	FY CNST	PHASE	BORO
2247120	HBQ1130	WOODSIDE AVE	LIRR MAIN LINE	2005	FD	Q
2248159	HBQ1134	WOODHAVEN BLVD	QUEENS BLVD	2008	FD	Q
2248160	HBQ1137	ELLIOT AVE	QUEENS BLVD	2008	PD	Q
2240410	HBQ1162	BORDEN AVE	DUTCH KILLS	2005	PD	Q
2231760	HBQ1173	BCIP	DUTCH BRDWAY-115 AVE	2009	PD	Q
2230869	HBQ1197	QUEENS BLVD	ACCESS ROAD TO BQE SB	2008	PD	Q
2231630	HBQ1200	SPRINGFIELD BLVD	BSOP	2009	PD	Q
2266129	HBQC063	WINCHESTER BLVD SB	BCIP	2009	PD	Q
2266160	HBQC064	WHITESTONE EXPRY/VAN WYCK EXPRY SB TO BCIP EB	ACCESS ROAD FROM WHITESTONE EXPRY/VAN WYCK EXPRY	2008	PD	Q
R00049	HBRC1145	VAN PELT AVE	WALKER ST	2006	FD	R
2249820	HBRC1149	ARTHUR KILL ROAD	ARTHUR KILL STREAM	2006	FD	R
2249250	HBPED	BETHEL AVE PED BRIDGE	SIRT SOUTH SHORE	2005	DB	R
2249230	HBPED	TRACY AVE PED BRIDGE	SIRT SOUTH SHORE	2005	DB	R
2249330	HBR1166	ANNADALE ROAD	SIRT SOUTH SHORE	2005	FD	R

PD=Preliminary Design; FD=Final Design; DB=Design Build

Appendix B

FLAG CONDITIONS

FLAG DEFINITIONS AND PROCEDURES

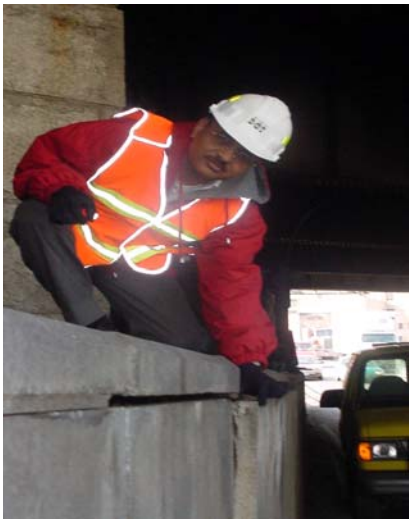
(Source: NYSDOT *Engineering Instruction 94-002*)

New York State Department of Transportation (NYSDOT) bridge inspection procedures require that "Flags" be issued to report the existence of conditions that pose a clear and present danger, or conditions which, if left unattended for an extended period, would likely become a clear and present danger.

A "Flag" is classified as either a Red Flag, Yellow Flag or Safety Flag.

Red Flag is used to report the failure or potentially imminent failure of a critical primary structural component. Potentially imminent means that a failure is likely before the next scheduled inspection. The maximum time between bridge inspections is two years. Red Flags must be addressed within six weeks.

Yellow Flag is used to report a potentially hazardous condition which, if left unattended beyond the next scheduled inspection, would likely become a clear and present danger. A Yellow Flag is also used to report the actual or imminent failure of a non-critical primary structural component, where its failure may diminish the reserve capacity or redundancy of the bridge but would not result in structural collapse or a clear and present danger.



Flag Engineer Inspecting a Yellow Flag (Loose Masonry Panel) on the BQE under the Brooklyn Bridge (Credit: Andy Hoang)
Flag Engineer Inspecting a Yellow Flag (Bottom Flanges are Corroded and Loose) at the Inwood Hill Park Footbridge (Credit: Tiffany Yau)

FLAG DEFINITIONS AND PROCEDURES

(Source: NYSDOT *Engineering Instruction 94-002*)

Safety Flag is used to report a condition that presents a clear and present vehicle or pedestrian traffic hazard, but there is no danger of structural failure or collapse.

Flag Engineer Inspecting a Safety Flag (Exposed Electrical Wiring) on the Brooklyn Bridge Promenade. (Credit: Rajendra Pandya)

Certain Red or Safety Flags may be further classified as Prompt Interim Action (PIA) flags. PIA flags must be addressed within 24 hours of discovery.

APPENDIX B-2

FLAG CONDITIONS BY CALENDAR YEAR

Citywide

	1999*	2000*	2001*	2002*	2003*	% increase (1999-2003)
FLAGS ROUTED	1,489	1,161	1,150	1,179	1,117	-25%
RED	50	39	24	36	20	-60%
YELLOW	495	304	399	137	215	-57%
SAFETY	944	818	727	1,006	882	-7%
TTL FLGS ELIMINATED	1,517	1,335	1,369	1,319	940	-38%
RED	46	42	32	42	21	-54%
YELLOW	564	368	452	307	192	-66%
SAFETY	907	925	885	970	727	-20%
TTL FLGS OUTSTANDING	2,046	1,872	1,653	1,513	1,690	-17%
RED	38	34	26	20	19	-50%
YELLOW	914	851	798	628	654	-28%
SAFETY	1,094	987	829	865	1,017	-7%

Division of Bridges Workload

FLAGS ROUTED	1,384	987	1,039	959	935	-32%
RED	49	39	23	35	13	-73%
YELLOW	506	301	399	137	211	-58%
SAFETY	829	647	617	787	711	-14%
FLAGS ELIMINATED	1,362	1,068	1,230	1,140	764	-44%
RED	44	40	31	41	14	-68%
YELLOW	561	349	451	305	183	-67%
SAFETY	757	679	748	794	567	-25%
FLAGS OUTSTANDING	1,657	1,581	1,397	1,237	1,389	-16%
RED	35	34	26	20	19	-46%
YELLOW	888	835	783	615	625	-30%
SAFETY	734	712	588	602	745	1%

*The number of flags routed, eliminated, and outstanding has been revised since the 2002 *Annual Condition Report*.

APPENDIX B-3

FLAG REPORTING AND TRACKING PROCESS

There are three primary sources from which flags originate:

- NYSDOT inspectors
- NYCDOT inspectors
- NYCDOT Communications Center

State DOT Inspectors

1. State inspectors identify flag conditions.
2. Written notification of flag conditions are sent to the Bridge's Flags unit. (Immediate verbal notification is given for Red Flags and PIA flags.)
3. Flag condition reports are entered into the Division's “City Flag” and "State Flag" database.
4. Flag conditions are reviewed by City engineers who have four routing options:
   - assign flags to outside agencies for repair, or
   - have City inspectors monitor flags until further action is desired, or
   - assign flags to the Maintenance Section for in-house or contractor repair, or
   - assign flags to the Construction Section for Capital contractor repair.
5. Each flag condition is assigned a City Flag number, and routed to the appropriate group.
6. When flag conditions are eliminated, the respective databases are updated.

City DOT Division of Bridges Inspectors

1. City inspectors identify flag conditions and prepare a scope of work. (Immediate verbal notification is given for Red Flags and PIA flags.)
2. Flag condition reports are received and reviewed by the Flags unit.
3. Flag condition reports are entered into the "City Flag" database.
4. Flag conditions are reviewed by City engineers who have four routing options:
   - assign flags to outside agencies for repair, or
   - have City inspectors monitor flags until further action is desired, or
   - assign flags to the Maintenance Section for in-house or contractor repair, or
   - assign flags to the Construction Section for Capital contractor repair.
5. When flag conditions are eliminated, the database is updated.

City DOT Communications Center

1. Flag condition is phoned in.
2. City inspectors visit the site to review the reported condition.
3. If the deficiency warrants, a flag condition report is filed.
4. Flag condition reports are entered into the "City Flag" database.
5. Flag conditions are reviewed by City engineers who have four routing options:
   - assign flags to outside agencies for repair, or
   - have City inspectors monitor flags until further action is desired, or
   - assign flags to the Maintenance Section for in-house or contractor repair, or
   - assign flags to the Construction Section for Capital contractor repair.
6. When flag conditions are eliminated, the database is updated.

Appendix C

2003 INVENTORY

Inventory Summary

In Calendar Year 2003, the Division of Bridges added one bridge structure (by extracting it from the FDR Promenade), eliminated a private school bridge from our count, and demolished two bridge structures, bringing the total number of bridge and tunnel structures under the jurisdiction of the New York City Department of Transportation (NYCDOT) to 753. In 1999, a Memorandum of Understanding between NYCDOT and the New York City Department of Environmental Protection (NYCDEP) added 67 culverts in Staten Island to the Division's Inventory. While the Division is responsible for the capital rehabilitation of these structures, maintenance and inspection responsibilities remain with NYCDEP.

The condition of New York City's 753 elevated bridge structures (including six tunnels), as measured by the City's general condition rating, are as follows: 4 structures were rated *Poor*, 429 structures were rated *Fair*, 209 structures were rated *Good*, and 111 structures were classified *Very Good*.

The bridges in the Division's inventory connect a vast and diverse highway and street network throughout the City. The impressive East River crossings – the Brooklyn, Manhattan, Williamsburg, and Queensboro Bridges – are the most visible and famous structures, but are by no means representative of all the bridges in the City's inventory. Two hundred ninety-five (39%) of the Division's structures consist of one span (the portion of a bridge between two supports). Seventy-six (10%) bridges carry pedestrian traffic. Of the 753 structures in the City's inventory, 82 (11%) cross waterways; of these, 19 connect the boroughs of the Bronx, Brooklyn, Manhattan and Queens. Three hundred seventeen (42%) structures cross the City's labyrinthine system of railroad and subway tracks. Two hundred fifty-three (34%) structures cross or connect arterial highways, such as the Henry Hudson Parkway, the Brooklyn-Queens Expressway, and the Belt Parkway, which facilitate traffic flow through and around the five boroughs of the City of New York.

Rating System

The Division of Bridges bases its general condition ratings directly on the numerical ratings assigned during bridge inspections. Federal law mandates that bridge structures be inspected at least once every two years. The New York State Department of Transportation hires engineering consultants to perform biennial inspections for all bridge structures except pedestrian bridge structures, and bridge structures less than 20 feet in length. Bridge structures not inspected by the State are inspected by the NYC Department of Transportation's Division of Bridges.

The State inspected 667 (89%) bridge structures. The balance of 86 (11%) were inspected by the City. Each structure in a biennial inspection is given an overall numerical condition rating from 1 (structural failure) to 7 (new condition), reflecting a weighting of key features of the structure (see Appendix C-4). In certain cases, where a bridge structure is closed to traffic, only a city condition rating is given.

City condition ratings coincide with the following ranges of State ratings:

State Numerical Rating		City Condition Rating
1.000 – 3.000	=	POOR
3.001 – 4.999	=	FAIR
5.000 – 6.000	=	GOOD
6.001 – 7.000	=	VERY GOOD

This method is used as a guide in assessing what operational action is needed. The overall bridge rating, in and of itself, is not always indicative of whether a bridge needs major rehabilitation. Further inspection and analysis must be done to determine specific rehabilitation or corrective repair needs.

Summary of 2003 Structure Conditions

Rating	Number of Structures	Percent	Number of Spans	Percent	Deck Area Sq Ft	Percent
Poor	4	0.53%	123	2.74%	252,373	1.77%
Fair	429	56.97%	3263	72.58%	10,487,834	73.70%
Good	209	27.76%	776	17.26%	2,214,766	15.56%
Very Good	111	14.74%	334	7.43%	1,274,784	8.96%
Total	753	100%	4496	100%	14,229,757	100%

As of December 31, 2002, the condition of the City's bridges and tunnels indicated that 0.53% were rated as *Poor*; 56.97% were classified as *Fair*; 27.76% were awarded ratings of *Good*; and 14.74% as *Very Good*. Those structures given ratings of Poor and Fair encompassed 75.32% of bridge spans.

Rating	2000		2001		2002		2003	
Poor	13	1.71%	9	1.20%	8	1.06%	4	0.53%
Fair	481	63.37%	459	61.04%	451	59.74%	429	56.97%
Good	180	23.72%	196	26.06%	202	26.75%	209	27.76%
Very Good	85	11.20%	88	11.70%	94	12.45%	111	14.74%
Total	759	100%	752	100%	755	100%	753	100%

During 2003, Manhattan had the highest percentage of bridge structures rated *poor* – 1.18% - as well as the highest percentage of bridge structures rated *fair* – 71.01%. Staten Island had the second highest percentage of bridge structures classified as *good* – 32.69%, and the highest percentage of bridge structures rated *very good* – 34.62%, for a total of 67.31%. In 2003, Queens and Staten Island had no bridges rated as *poor*. The Bronx had the second highest percentage of bridge structures classified as *fair* – 56.38%. Queens had the highest percentage of bridge structures rated as *good* – 34.21%.

Borough*	Poor	% of Boro	Fair	% of Boro	Good	% of Boro	Very Good	% of Boro	Total
Bronx	1	0.67%	84	56.38%	40	26.85%	24	16.11%	149
Brooklyn	1	0.57%	97	55.75%	45	25.86%	31	17.82%	174
Manhattan	2	1.18%	120	71.01%	39	23.08%	8	4.73%	169
Queens	0	0.00%	95	50.00%	65	34.21%	30	15.79%	190
Staten Island	0	0.00%	17	32.69%	17	32.69%	18	34.62%	52
Total	4	1%	413	56%	206	28%	111	15%	734

* Does not include borough-crossing bridges (see next table).

Summary of 2002 Structure Conditions

Approximately eight-four percent (84.21%) of the 19 bridge structures that service the five boroughs were rated in either *poor* or *fair* condition in 2003, and 15.79% were rated *good*.

Boro-Crossing	Poor	% of Boro Crossing	Fair	% of Boro Crossing	Good	% of Boro Crossing	Very Good	% of Boro Crossing	Total
Bronx-Manhattan	0	0.00%	7	77.78%	2	22.22%	0	0.00%	9
Brooklyn-Manhattan	0	0.00%	4	100.00%	0	0.00%	0	0.00%	4
Queens-Manhattan	0	0.00%	3	100.00%	0	0.00%	0	0.00%	3
Brooklyn-Queens	0	0.00%	2	66.67%	1	33.33%	0	0.00%	3
Total	0	0.00%	16	84.21%	3	15.79%	0	0.00%	19

These figures evidence that the Division is continuing to make progress in improving the conditions of the City's bridges. The number of bridges rated *Poor* and *Fair* has decreased over the past few years while the number of bridges rated *Good* and *Very Good* has increased. However, it continues to remain essential that the overall bridge program include an expansion of the Preventive Maintenance and Corrective Repair programs which have traditionally slowed the deterioration of *good* and *very good* bridges.

During 2003, the total number of closed or partially closed bridge structures was five, with three closed and two partially-closed structures (see Appendix C-2).

Bridges with Posted Weight Restrictions

NEW YORK CITY DEPARTMENT OF TRANSPORTATION

BIN	BOROUGH	LOCATION FEATURE-1	LOCATION FEATURE-2	LOCATION FEATURE-3	FISCAL YEAR*	POSTED TONS	REMARKS
2-23145-0	BROOKLYN	BELT SHORE PKWY.	GERRITSEN INLET		2007	5	CONDITION OF PAERDEGAT BASIN BRIDGE
2-23147-9	BROOKLYN	BELT SHORE PKWY.	MILL BASIN CREEK		2008	5	CONDITION OF PAERDEGAT BASIN BRIDGE
2-23148-9	BROOKLYN	BELT SHORE PKWY	PAERDEGAT BASIN		2007	5	
2-23149-9	BROOKLYN	BELT SHORE PKWY.	ROCKAWAY PKWY.		2008	5	PASSENGER CARS ONLY
2-23206-0	MANHATTAN	FDR DRIVE (NB & SB)	23RD TO 63RD STREET			4	PASSENGER CARS ONLY
2-23304-0	MANHATTAN	EAST 60TH STREET	FDR DRIVE			7	TO BE LET BY NYSDOT
2-24001-9	BROOKLYN & MANHATTAN	BROOKLYN BRIDGE	EAST RIVER	INCLUDING RAMPS	2009	3	NO COMMERCIAL TRAFFIC NO TRUCKS, NO BUSSES
2-24003-9	BROOKLYN & MANHATTAN	WILLIAMSBURG BRIDGE	EAST RIVER		2005		INNER ROADWAYS, NO TRUCKS
2-24004-7	MANHATTAN & QUEENS	QUEENSBORO BRIDGE	EAST RIVER		2004	7.5	LOWER OUTER ROADWAYS POSTED AS H-7.5 (PASSENGER CARS ONLY FOR SOUTHBOUND; PEDESTRIANS AND BICYCLES ONLY FOR NORTHBOUND); UPPER ROADWAYS DESIGNED FOR H-15, NO TRUCKS
2-24026-0	BROOKLYN	CARROL STREET BRIDGE	GOWANUS CANAL	CARROL STREET	2010	25	
2-24064-0	MANHATTAN & QUEENS	ROOSEVELT ISLAND	EAST CHANNEL OF THE EAST RIVER		2008	36	
2-24066-0	BRONX	RIKERS ISLAND BRIDGE	RIKERS ISLAND CHANNEL			36	
2-24655-0	MANHATTAN	PARK AVENUE VIADUCT	42ND STREET			15	NO COMMERCIAL TRAFFIC
2-24759-0	QUEENS	FOREST PARK DRIVE	LIRR			18	

14 COUNT * - **CONSTRUCTION CONTRACT LETTING**

Partially Closed Bridges

NEW YORK CITY DEPARTMENT OF TRANSPORTATION

BIN	BOROUGH	LOCATION FEATURE-1	LOCATION FEATURE-2	LOCATION FEATURE-3	FISCAL YEAR*	REMARKS
2-07664-0	BRONX	DEPOT PLACE	CONRAIL HUDSON DIVISION			ONE LANE CLOSED TO TRAFFIC AND ONE LANE OPEN
2-23087-0	BROOKLYN	COLUMBIA HEIGHTS	B.Q.E.	MIDDAGH ST.		CLOSED TO TRAFFIC OPEN TO PEDESTRIANS (TO BE DONE BY NYS W/B.Q.E)

2 COUNT *** - CONSTRUCTION CONTRACT LETTING**

Closed Bridges

NEW YORK CITY DEPARTMENT OF TRANSPORTATION

BIN	BOROUGH	LOCATION FEATURE-1	LOCATION FEATURE-2	LOCATION FEATURE-3	FISCAL YEAR*	REMARKS
2-24540-0	MANHATTAN	PEDESTRIAN BRIDGE WEST OF 8TH AVE.	W 155TH STREET		2005	PED BRIDGE (FOOTBRIDGE)
2-23007-0	QUEENS	CYPRESS HILLS CEMETERY ROAD EAST	JACKIE ROBINSON PARKWAY			CLOSED TO TRAFFIC AND PEDESTRIANS
2-26926-0	BROOKLYN	WEST 8TH STREET	SURF AVENUE		2004	PED BRIDGE (FOOTBRIDGE)

3 COUNT *** - CONSTRUCTION CONTRACT LETTING**

APPENDIX C-3

Bridge Identification Numbers

In 1972, the State of New York developed a computerized system to store inventory and inspection data on bridges that are greater than 20 feet in length. In New York City, structures that are 20 feet in length or less, "mini-bridges," are tracked independently by the City. Each structure is distinguished by a separate Bridge Identification Number (B.I.N.).

A six-digit B.I.N. identifies a single structure or group of connected or associated structures, while the seven-digit B.I.N. identifies each of those connected or associated bridge structures individually. Each level of a bi-level bridge, each separate bridge structure in a parallel configuration, and each ramp attached to a main bridge is considered an individual structure and assigned its own unique B.I.N. for example, the Brooklyn Bridge has one six-digit B.I.N., 2-24002, which incorporates the entire bridge. All ramps and secondary structures, as well as the main structure, are identified by their own seven-digit numbers, such as 2-24001-A, 2-24001-B, etc.

If the prefix (first number) of the B.I.N. is:

1, the bridge is considered part of the **State** bridge system. This number might include City bridges if maintenance is shared between City and State.

2, the bridge is considered part of the **City** bridge system. This number might include State bridges if maintenance is shared between City and State.

M, **Q**, or **R**, the bridge is a "mini-bridge," and is considered part of the **City** bridge system. They are located in Manhattan, Queens, or Staten Island, respectively.

If the suffix (last character) of the B.I.N. is:

1 through 6, the bridge is in parallel configuration. The left-most bridge in the Direction of Orientation has a last character of 1. The next left-most bridge has a last character of 2, and so on.

7 or 8, the bridge is in a bi-level configuration. Seven indicates the lower level and eight indicates the upper level.

0 or 9, the bridge is not in parallel or bi-level configuration.

A letter of the alphabet, the structure is a ramp physically attached to the main bridge. If more than one ramp is attached to the same span of the main bridge, the characters are assigned alphabetically starting with the left-most ramp in the Direction of Orientation. Other ramps attached to the bridge are assigned alphabetical characters in a clockwise direction.

APPENDIX C-4

New York State Biennial Bridge Inspection and Condition Rating System

During the regularly scheduled State biennial bridge inspections, each bridge element is investigated and its structural condition is numerically rated according to the system indicated below:

Numerical Rating	Description
1	Potentially Hazardous
2	Used to shade between a rating of 1 and 3
3	Serious deterioration, or not functioning as originally designed
4	Used to shade between a rating of 3 and 5
5	Minor deterioration, and is functioning as originally designed
6	Used to shade between a rating of 5 and 7
7	New condition
8	Not Applicable
9	Unknown (due to inaccessibility, e.g. footings or piles)

Based on these individual ratings for each element, a weighted average rating is computed for the entire structure.

These ratings (both individual and weighted average) are recorded on New York State Department of Transportation Inspection report Forms. Together with photographs and explanatory descriptions, the ratings provide the Division with information on the existing condition of each bridge.

A description of the condition ratings 1 through 7, with programmed responses to certain critical ratings, demonstrates the importance of these inspections:

A rating of 1 describes an extremely serious condition which is deemed potentially hazardous. This rating, which is phoned in by the inspection leader, necessitates that the Division respond immediately by 1) closing the structure either completely or partially until emergency repairs are made, or 2) limiting the vehicle weight permitted on the structure and then performing repairs on a timely basis.

A rating of 3 describes a bridge element that is not functioning as designed. Although not considered hazardous, such members require extensive rehabilitation. A determination is then made to repair such rated members either by the Division's in-house repair personnel, the critical maintenance contractor (When and Where contracts), or a major capital contract. Until such repairs are made, this condition is periodically monitored.

A rating of 5 indicates the member is functioning as designed but exhibits minor deterioration. These members are prioritized and scheduled for repair by the Bridge Maintenance, Inspection and Operations Bureau.

A rating of 7 indicates a new condition requiring no remediation.

The ratings of 2, 4, and 6 are utilized to shade between each of the above ratings.

Standard Abbreviations

General Abbreviations :

APP:	Approach
AVE:	Avenue
BLVD:	Boulevard
BR:	Bridge
CPK:	Central Park
DR:	Drive
EB:	Eastbound
EXPWY:	Expressway
I:	Interstate
LN:	Lane
NB:	Northbound
PED BR:	Pedestrian Bridge
PKWY:	Parkway
PL:	Place
RD:	Road
SB:	Southbound
ST:	Street
TPKE:	Turnpike
WB:	Westbound
X:	No State accepted mileage markers exist on this route

Routes :

No.	Borough	Name
25	Queens	Union Turnpike
25A	Queens	Northern Boulevard
27	Brooklyn	Southern Parkway
I-87	Manhattan, Bronx	Major Deegan Expressway
I-95	Manhattan, Bronx	Cross Bronx Expressway
I-278	Brooklyn, Queens	Brooklyn-Queens Expressway
I-278	Bronx	Bruckner Expressway
I-278	Staten Island	Staten Island Expressway
I-295	Queens	Clearview Expressway
I-295	Bronx	Throgs Neck Expressway
I-440	Staten Island	Richmond Parkway
I-478	Brooklyn	Brooklyn Battery Tunnel
I-495	Queens	Long Island Expressway
I-678	Queens	Whitestone Expressway, Van Wyck
I-878	Queens	Nassau Expressway
I-895	Bronx	Sheridan Expressway

Standard Abbreviations

Highways :

BCIP:	Belt System -- Cross Island
BE:	Bruckner Expressway
BLP:	Belt System -- Laurelton Parkway
BPP:	Bronx Pelham Parkway
BQE:	Brooklyn-Queens Expressway
BRPC:	Bronx River Parkway (in NYC)
BSHP:	Belt System -- Shore Parkway
BSOP:	Belt System -- Southern Parkway
CBE:	Cross Bronx Expressway
FDRD:	Franklin D. Roosevelt Drive
GCP:	Grand Central Parkway
GW:	George Washington Bridge
HHP:	Henry Hudson Parkway
HRD:	Harlem River Drive
HRPC:	Hutchinson River Parkway (in NYC)
IP:	Jackie Robinson (Interborough) Parkway
LIE:	Long Island Expressway
MAP:	Marine Parkway
MDE:	Major Deegan Expressway
MP:	Mosholu Parkway
OCP:	Ocean Parkway
PR:	Prospect Expressway
RP:	Richmond Parkway
VWE:	Van Wyck Expressway
WLMBRG:	Williamsburg Bridge
WSE:	West Shore Expressway

Information Available On Division Of Bridges Inventory Of Structures

- **Bridge Inventory Number (B.I.N.)**

- **Borough :**

B - The Bronx	Q - Queens	R - Staten Island
K - Brooklyn	M - Manhattan	

- **Feature Carried** : Name of passageway carrying vehicle or pedestrian traffic.

- **Feature Crossed** : Description of area crossed.

- **Bridge Type :**

A - Arterial	W - Waterway
O - Off-System	M - Movable
PED - Pedestrian	E - East River

- **Railroad Crossed** (if applicable):

A - Amtrak	N - New York & Atlantic
C - Conrail	O - B & O Railroad
L - Long Island Railroad	S - Staten Island Rapid Transit Operating Authority
M - Metro-North (MTA)	T - NYC Transit Authority

- **Rating** : Numerical and/or verbal rating

1.000 - 3.000:	POOR	3.001 - 4.999:	FAIR
5.000 - 6.000:	GOOD	6.001 - 7.000:	VERY GOOD

- **Rating Source:**

  City Inspection
  State Inspection

- **CD:**

  Community Board District

APPENDIX C-7

2003 Bridge Inventory Adjustments

B.I.N.	BORO	FEATURE CARRIED	FEATURE CROSSED	EXPLANATION
- Bridges removed from the City's Inventory:				
2232168	M	BREARLY SCHOOL	FDR DRIVE PROMENADE	**PRIVATELY OWNED**
2244421	K	WILLIAMSBURG BRIDGE NORTH APPROACH	DRIGGS AVE	**DEMOLISHED – INCLUDED WITH 2240039**
2245400	M	PEDESTRIAN BRIDGE WEST OF 8th AVENUE	WEST 155th STREET	**DEMOLISHED – WILL BE REPLACED**
- Bridges added to the City's Inventory:				
2269820	M	81st STREET PROMENADE	FDR DRIVE	**EXTRACTED FROM 2232167**

REV. DATE February 6, 2004

INVENTORY SORTED BY B.I.N.													
BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
1065210	Q	WHITESTONE EXP NB	BCIP (2065210)		A	1	STATE	8/14/2002	4.683	FAIR	2500	$3,600,000.00	7
1066510	B	BRUCKNER EXP.(2066510)	WESTCHESTER CREEK		WMA	17	STATE	8/22/2003	3.821	FAIR	39400	$56,736,000.00	9
1067150	B	NEREID AVE (2241880)	BRONX RIVER PKWY	M	O	10	STATE	7/26/2003	4.211	FAIR	57750	$83,160,000.00	12
1240090	BM	MACOMBS DAM BRIDGE	HARLEM RIVER		WMO	52	STATE	8/6/2003	4.169	FAIR	139100	$200,304,000.00	10
1247010	Q	91 PLACE (2247010)	LIRR PT WASH BRANCH	L	O	3	STATE	6/23/2003	7.000	VGOOD	4200	$6,048,000.00	4
1247200	Q	67 AVE PED BR 2247200	LIRR MAIN LINE	L	O-PED	3	CITY	11/19/01	4.479	FAIR	1300	$1,872,000.00	6
1247280	Q	51 AVE PED BR.2247280	LIRR MAIN LINE	L	O-PED	5	CITY	11/20/01	3.355	FAIR	700	$1,008,000.00	2
1247560	Q	METROPOLITAN AVE	LIRR MONTAUK DIV	L	O	2	STATE	6/19/2003	3.683	FAIR	20900	$30,096,000.00	5
2055801	Q	NORTHERN BLVD W.B.	FLUSHING RIVER		WO	40	STATE	9/18/2002	4.817	FAIR	71900	$103,536,000.00	7
2055802	Q	NORTHERN BLVD E.B.	FLUSHING RIVER		WO	40	STATE	9/18/2002	4.507	FAIR	78894	$113,607,360.00	7
205580A	Q	N.BLVD WB TO 678I SB	VACANT LAND		AR	16	STATE	10/3/2002	5.571	GOOD	8600	$12,384,000.00	7
2065629	B	BRONX RVR PKWY	BOSTON RD BX ZOO		A	1	STATE	8/4/2003	5.276	GOOD	6300	$9,072,000.00	27
2065930	Q	HAMILTON PLACE	495I (L.I.E.)		A	2	STATE	7/30/2002	6.403	VGOOD	11111	$16,254,720.00	5
2065940	Q	GRAND AVE	495I (L.I.E.)		A	2	STATE	9/10/2002	5.264	GOOD	12376	$17,821,440.00	5
2065950	Q	69TH STREET	495I (L.I.E.)		A	2	STATE	5/30/2003	5.389	GOOD	10336	$14,883,840.00	5
2066002	Q	495I (2066000)	WOODHAVEN BLVD		A	2	STATE	6/5/2003	6.197	VGOOD	25200	$36,288,000.00	6
2066100	K	5TH AVE	27 X PROSPECT EXPWY		A	1	STATE	4/2/2002	5.208	GOOD	8800	$12,672,000.00	7
2066671	B	BRUCKNER EXPWY SB	BRONX RIVER		WMA	3	STATE	6/12/2003	5.528	GOOD	12400	$17,856,000.00	2
2066672	B	BRUCKNER EXPWY NB	BRONX RIVER		WMA	8	STATE	6/13/2003	4.761	FAIR	22300	$32,112,000.00	2
2066720	B	E 174TH ST	SHERIDAN EXPWY/AMTRAK	A	A	13	STATE	7/17/2002	4.486	FAIR	47430	$68,299,200.00	9
206672A	B	174TH ST-NTH PED BRDG	895I - SHERIDAN EXPWY		A-PED	4	CITY	3/27/2003	5.015	GOOD	1800	$2,592,000.00	9
206672B	B	174TH ST-STH PED BRDG	895I - SHERIDAN EXPWY		A-PED	4	CITY	3/27/2003	4.667	FAIR	1900	$2,736,000.00	9
2066919	BM	WASHINGTON BRIDGE	HARLEM RIVER		WO	9	STATE	10/15/2002	4.881	FAIR	128339	$184,808,160.00	12
2075351	B	BRUCKNER EXPWY SB	AMTRAK	A	A	1	STATE	7/18/2002	3.719	FAIR	11600	$16,704,000.00	2
2075352	B	BRUCKNER EXPWY NB	AMTRAK	A	A	1	STATE	7/18/2002	3.547	FAIR	10900	$15,696,000.00	2
2075820	B	E TREMONT AVE	HUTCHINSON RVR PKWY		A	2	STATE	10/31/2003	4.069	FAIR	10200	$14,688,000.00	10
2075837	B	WESTCHESTER AVE	HUTCHINSON RVR PKWY		A	2	STATE	6/28/2002	4.389	FAIR	15858	$22,835,520.00	10
2075849	B	BRONX PELHAM PKWY	HUTCHINSON RVR PKWY		A	2	STATE	8/20/2002	4.289	FAIR	17600	$25,344,000.00	10
2075859	B	HUTCHINSON RVR PKWY	HUTCHINSON RIVER		WMA	7	STATE	10/28/2002	5.375	GOOD	60500	$87,120,000.00	10
2076109	B	BE NB SERVICE RD	HUTCHINSON RVR PKWY		A	2	STATE	10/15/2003	4.737	FAIR	7800	$11,232,000.00	10
2076129	B	BE SB SERVICE RD	HUTCHINSON RVR PKWY		A	2	STATE	4/17/2002	5.105	GOOD	7100	$10,224,000.00	10
2076640	B	DEPOT PLACE	CONRAIL HUDSON DIV	C	O	11	STATE	6/25/2003	5.306	GOOD	30192	$43,476,480.00	4
2076929	B	BRUCKNER EXPWY	AMTRAK	A	A	1	STATE	5/8/2003	4.900	FAIR	3800	$5,472,000.00	2
2229289	M	HHP VIADUCT	W 72 ST TO W 79 ST	A	A	145	STATE	9/23/2002	3.299	FAIR	236100	$339,984,000.00	7
2229290	M	W 79 ST	AMTRAK	A	A	1	STATE	9/26/2002	4.424	FAIR	4500	$6,480,000.00	7
2229309	M	HHP	RIVERSIDE PARK		A	1	STATE	2/25/2002	5.267	GOOD	2400	$3,456,000.00	7
2229311	M	HHP SB	RAMP TO 96 ST		A	1	STATE	3/1/2002	4.273	FAIR	2000	$2,880,000.00	7
2229312	M	HHP NB	RAMP TO 96 ST		A	1	STATE	3/1/2002	4.273	FAIR	2000	$2,880,000.00	7
2229321	M	HHP SB	RAMP TO 96 ST		A	1	STATE	6/6/2002	5.200	GOOD	2000	$2,880,000.00	7
2229322	M	HHP NB	RAMP TO 96 ST		A	1	STATE	6/6/2002	5.167	GOOD	2000	$2,880,000.00	7
2229339	M	HHP	ST CLAIR PLACE		A	64	STATE	4/14/2002	4.014	FAIR	370000	$532,800,000.00	9
222933A	M	RAMP FROM S.B. HHP	W 135 ST		AR	9	STATE	7/11/2002	4.746	FAIR	12900	$18,576,000.00	9
222933B	M	RAMP TO N.B. HHP	W 135 ST		AR	14	STATE	3/29/2002	4.423	FAIR	14400	$20,736,000.00	9
2229349	M	HHP	W 158 ST	A	A	44	STATE	10/2/2002	4.155	FAIR	140000	$201,600,000.00	12
222934A	M	RAMP TO N.B. HHP	AMTRAK WEST SIDE	A	AR	26	STATE	9/24/2002	3.667	FAIR	10800	$15,552,000.00	12
2229400	M	W 181ST ST PED BRDG	HHP N.B.		A-PED	6	CITY	2/5/2003	4.652	FAIR	1500	$2,160,000.00	12
2229440	B	HHP	KAPPOCK ST		A	1	STATE	9/22/2003	5.207	GOOD	3900	$5,616,000.00	8
2229450	B	232ND ST	HHP		A	2	STATE	9/18/2003	4.237	FAIR	4900	$7,056,000.00	8
2229460	B	236TH ST PED BRDG	HHP		A-PED	3	CITY	9/24/2003	5.106	GOOD	2500	$3,600,000.00	8
2229470	B	239TH ST	HHP		A	2	STATE	6/2/2003	4.711	FAIR	6100	$8,784,000.00	8
2229480	B	MANHATTAN COLL PKWY	HHP		A	3	STATE	4/30/2003	4.158	FAIR	6200	$8,928,000.00	8
2229490	B	246TH ST	HHP		A	2	STATE	4/29/2003	4.974	FAIR	5600	$8,064,000.00	8
2229500	B	252ND ST	HHP		A	2	STATE	2/6/2002	4.026	FAIR	4500	$6,480,000.00	8
2229510	B	RIVERDALE AVE	HHP		A	2	STATE	8/19/2003	4.053	FAIR	5200	$7,488,000.00	8
2229520	B	FIELDSTON ROAD	HHP		A	1	STATE	8/20/2003	5.700	GOOD	6600	$9,504,000.00	8
2229530	B	HHP	BROADWAY		A	1	STATE	8/21/2003	4.936	FAIR	7500	$10,800,000.00	8
2229540	B	VAN CRTLDT PARK	HHP		A-PED	2	CITY	9/30/2003	4.742	FAIR	3900	$5,616,000.00	26
2229550	B	VAN CRTLDT EQUES	HHP		A-PED	2	CITY	9/30/2003	5.000	GOOD	2100	$3,024,000.00	26
2229560	B	BRONX PELHAM PKWY	AMTRAK,METRO NORTH	MA	A	3	STATE	7/2/2002	4.750	FAIR	24591	$35,411,040.00	11
2229579	B	BOSTON POST ROAD	HUTCHINSON RIVER		WO	14	STATE	6/5/2003	4.528	FAIR	95700	$137,808,000.00	12
2230000	K	HIGHLAND BLVD E.B.	JACKIE ROBINSON PKWY		A	1	STATE	4/23/2002	4.833	FAIR	4900	$7,056,000.00	5
2230010	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY		A	1	STATE	4/24/2002	5.100	GOOD	3500	$5,040,000.00	5
2230020	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY		A	2	STATE	4/26/2002	4.974	FAIR	4700	$6,768,000.00	5
2230040	Q	CYPRESS HILLS ST	JACKIE ROBINSON PKWY		A	1	STATE	7/10/2002	5.611	GOOD	5000	$7,200,000.00	5
2230050	Q	CYP HILLS CEM WEST	JACKIE ROBINSON PKWY		A	3	STATE	4/3/2003	3.955	FAIR	4400	$6,336,000.00	5
2230070	Q	CYP HILLS CEM EAST	JACKIE ROBINSON PKWY		A	3	STATE	4/4/2003	4.114	FAIR	4400	$6,336,000.00	5
2230099	Q	JACKIE ROBINSON PKWY	CYPRESS HILLS CEMETRY		A	1	STATE	1/17/2002	5.483	GOOD	4200	$6,048,000.00	5
2230120	Q	MYRTLE AVE	JACKIE ROBINSON PKWY		A	1	STATE	4/24/2002	5.611	GOOD	6400	$9,216,000.00	82
2230179	Q	JACKIE ROBINSON PKWY	METROPOLITAN AVE		A	2	STATE	2/19/2002	5.321	GOOD	8673	$12,489,120.00	82
2230180	Q	UNION TPKE	JACKIE ROBINSON PKWY		A	1	STATE	4/9/2002	5.984	GOOD	5359	$7,716,960.00	82
2230190	Q	MARKWOOD ROAD	JACKIE ROBINSON PKWY		A	1	STATE	4/19/2002	5.389	GOOD	4400	$6,336,000.00	82
2230209	Q	QUEENS BLVD	JACKIE ROBINSON PKWY	T	A	5	STATE	6/18/2002	4.698	FAIR	90000	$129,600,000.00	9
2230220	K	HIGHLAND BLVD NB	VERMONT AVE		A	1	STATE	7/11/2003	6.254	VGOOD	3995	$5,752,800.00	5
2230250	B	MOSHOLU PARKWAY	BRONX RIVER		A	5	STATE	1/28/2002	4.263	FAIR	16300	$23,472,000.00	27
2230260	B	MOSHOLU PARKWAY	METRO NORTH	M	A	1	STATE	3/16/2002	6.484	VGOOD	8880	$12,787,200.00	27
2230270	B	MOSHOLU PARKWAY	WEBSTER AVE		A	1	STATE	4/23/2003	6.016	VGOOD	8480	$12,211,200.00	27
2230287	B	JEROME AVE	MOSHOLU PARKWAY	T	A	3	STATE	5/5/2003	5.053	GOOD	11800	$16,992,000.00	7
2230290	B	MOSHOLU PARKWAY	EQUESTRIAN PATH		A	1	STATE	1/29/2002	4.724	FAIR	4300	$6,192,000.00	26
2230300	B	MOSHOLU PARKWAY	CONRAIL (ABANDONED)	C	A	1	STATE	10/29/2002	4.229	FAIR	5200	$7,488,000.00	26
2230310	B	MOSHOLU PARKWAY	SB RAMP TO HHP		A	2	STATE	10/22/2003	5.243	GOOD	7400	$10,656,000.00	26
2230350	K	SUMMIT ST PED BRDG	278I (B.Q.E.)		A-PED	2	STATE	4/4/2002	4.714	FAIR	1400	$2,016,000.00	6
2230360	K	UNION ST	278I (B.Q.E.)		A	2	STATE	4/5/2002	4.540	FAIR	5000	$7,200,000.00	6
2230370	K	SACKETT ST	278I (B.Q.E.)		A	2	STATE	4/9/2002	4.642	FAIR	5000	$7,200,000.00	6
2230380	K	KANE ST	278I (B.Q.E.)		A	2	STATE	4/10/2002	4.418	FAIR	5000	$7,200,000.00	6
2230390	K	CONGRESS ST	278I (B.Q.E.)		A	2	STATE	4/12/2002	4.286	FAIR	5000	$7,200,000.00	6
2230400	K	278I (B.Q.E.)	ATLANTIC AVE		A	1	STATE	4/12/2002	5.976	GOOD	14230	$20,491,200.00	6

INVENTORY SORTED BY B.I.N.													
BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2230410	K	278I (B.Q.E.)	WASHINGTON ST		A	1	STATE	4/17/2002	4.656	FAIR	2500	$3,600,000.00	2
2230420	K	278I (B.Q.E.)	WASHINGTON ST		A	1	STATE	4/18/2002	4.953	FAIR	2500	$3,600,000.00	2
2230430	K	278I (B.Q.E.)	PROSPECT ST		A	1	STATE	3/21/2002	5.267	GOOD	1100	$1,584,000.00	2
2230440	K	278I (B.Q.E.)	ADAMS ST N.B.		A	1	STATE	3/21/2002	5.200	GOOD	2700	$3,888,000.00	2
2230450	K	278I (B.Q.E.)	ADAMS ST S.B.		A	1	STATE	3/21/2002	4.933	FAIR	2500	$3,600,000.00	2
2230460	K	278I (B.Q.E.)	PEARL ST		A	1	STATE	3/22/2002	5.333	GOOD	4500	$6,480,000.00	2
2230470	K	278I (B.Q.E.)	JAY ST		A	1	STATE	3/29/2002	5.233	GOOD	5100	$7,344,000.00	2
2230480	K	278I (B.Q.E.)	PROSPECT ST		A	1	STATE	3/29/2002	5.241	GOOD	8400	$12,096,000.00	2
2230490	K	278I (B.Q.E.)	SANDS ST		A	1	STATE	3/29/2002	5.093	GOOD	12600	$18,144,000.00	2
2230500	K	278I (B.Q.E.)	RAMP TO BQE EB		A	1	STATE	3/28/2002	5.567	GOOD	1300	$1,872,000.00	2
2230510	K	278I (B.Q.E.)	NASSAU ST		A	6	STATE	4/3/2002	4.611	FAIR	51200	$73,728,000.00	2
2230520	Q	65TH PLACE	278I (B.Q.E.)		A	2	STATE	3/5/2002	4.456	FAIR	11600	$16,704,000.00	2
2230530	Q	QUEENS BLVD	278I (B.Q.E.)		A	2	STATE	8/23/2002	4.681	FAIR	23500	$33,840,000.00	2
2230540	Q	WOODSIDE AVE	278I (B.Q.E.)		A	1	STATE	1/21/2002	5.141	GOOD	7500	$10,800,000.00	2
2230550	Q	69TH ST	278I (B.Q.E.)		A	2	STATE	5/6/2002	4.842	FAIR	12600	$18,144,000.00	2
2230560	Q	70TH ST	278I (B.Q.E.)		A	2	STATE	5/6/2002	5.125	GOOD	8500	$12,240,000.00	2
2230570	Q	41ST AVE	278I (B.Q.E.)		A	3	STATE	3/27/2002	5.014	GOOD	8800	$12,672,000.00	2
2230587	Q	ROOSEVELT AVE	278I (B.Q.E.)		A	2	STATE	3/28/2002	4.647	FAIR	6600	$9,504,000.00	2
2230590	Q	BROADWAY	278I (B.Q.E.)		O	2	STATE	6/4/2002	3.842	FAIR	16000	$23,040,000.00	2
2230600	Q	STEINWAY ST	278I W.B. (B.Q.E.)		A	1	STATE	2/14/2002	4.333	FAIR	4200	$6,048,000.00	1
2230610	Q	STEINWAY ST	278I E.B. (B.Q.E.)		A	1	STATE	2/13/2002	4.028	FAIR	4200	$6,048,000.00	1
2230620	Q	37TH ST	278I (B.Q.E.)		A	2	STATE	5/15/2002	4.667	FAIR	5300	$7,632,000.00	1
2230630	Q	35TH ST	278I (B.Q.E.)		A	4	STATE	8/20/2002	4.819	FAIR	9000	$12,960,000.00	1
2230640	Q	32ND ST	278I (B.Q.E.)		A	2	STATE	4/15/2003	4.986	FAIR	8100	$11,664,000.00	1
2230657	Q	31ST ST	278I (B.Q.E.)		A	2	STATE	8/9/2002	5.222	GOOD	9500	$13,680,000.00	1
2230669	Q	278I (B.Q.E.)	35TH AVE		A	1	STATE	8/29/2003	6.627	VGOOD	6500	$9,360,000.00	2
2230679	Q	278I (B.Q.E.)	34TH AVE		A	3	STATE	5/12/2003	6.898	VGOOD	9500	$13,680,000.00	2
2230680	Q	278I (B.Q.E.)	NORTHERN BLVD		A	1	STATE	5/24/2002	4.571	FAIR	5900	$8,496,000.00	2
2230690	Q	BQE EAST LEG NB	32ND AVE		A	1	STATE	6/20/2003	3.844	FAIR	6160	$8,870,400.00	1
2230700	Q	BQE EAST LEG	TO BQE WEST LEG		A	14	STATE	5/13/2002	3.611	FAIR	16800	$24,192,000.00	1
2230710	Q	278I S.B. (B.Q.E.)	32ND AVE		A	1	STATE	8/28/2003	6.797	VGOOD	4500	$6,480,000.00	1
2230720	Q	BQE EAST LEG	BQE NB WEST LEG		A	1	STATE	6/11/2003	6.667	VGOOD	2700	$3,888,000.00	1
2230730	Q	31ST AVE	278I (B.Q.E.)		A	1	STATE	8/27/2003	6.800	VGOOD	3700	$5,328,000.00	1
2230740	Q	BQE WEST LEG SB	31ST AVE		A	1	STATE	7/8/2003	7.000	VGOOD	3700	$5,328,000.00	1
2230750	Q	BQE EAST LEG SB	31ST AVE		A	1	STATE	7/8/2003	6.068	VGOOD	2900	$4,176,000.00	1
2230760	Q	BQE WEST LEG NB	31ST AVE		A	1	STATE	9/5/2002	4.234	FAIR	2900	$4,176,000.00	1
2230770	Q	BQE WEST LEG	30TH AVE		A	1	STATE	7/2/2003	7.000	VGOOD	6500	$9,360,000.00	1
2230780	Q	BQE EAST LEG	30TH AVE		A	3	STATE	6/10/2003	6.746	VGOOD	9400	$13,536,000.00	3
2230790	Q	BULOVA AVE	BQE WEST LEG		A	2	STATE	4/24/2002	5.667	GOOD	3300	$4,752,000.00	1
2230800	Q	49TH ST	BQE WEST LEG		A	2	STATE	5/22/2002	5.194	GOOD	4900	$7,056,000.00	1
2230810	Q	ASTORIA BLVD E.B.	BQE WEST LEG		A	4	STATE	6/5/2002	4.309	FAIR	8200	$11,808,000.00	1
2230820	Q	47TH ST	GCP		A	2	STATE	6/6/2002	4.944	FAIR	5700	$8,208,000.00	1
2230830	Q	BQE WEST LEG	GCP		A	2	STATE	8/9/2002	4.861	FAIR	7600	$10,944,000.00	1
2230840	Q	44TH ST	GCP		A	2	STATE	5/29/2002	4.833	FAIR	5000	$7,200,000.00	1
2230857	K	278I (B.Q.E.)	JORALEMON ST		A	1	STATE	5/6/2002	5.030	GOOD	2100	$3,024,000.00	2
2230858	K	278I (B.Q.E.)	JORALEMON ST / BQE WB		A	2	STATE	5/6/2002	3.887	FAIR	5900	$8,496,000.00	2
2230869	Q	QUEENS BLVD	ACCESS RD BQE S.B.		A	1	STATE	7/24/2002	4.205	FAIR	7900	$11,376,000.00	2
2230870	K	COLUMBIA HEIGHTS	278I (B.Q.E.)		A	1	STATE	5/7/2002	4.583	FAIR	16500	$23,760,000.00	2
2230887	K	278I W.B. (B.Q.E.)	CADMAN PLAZA		A	2	STATE	5/9/2002	4.250	FAIR	4500	$6,480,000.00	2
2230888	K	278I E.B. (B.Q.E.)	CADMAN PLAZA / 278I WB		A	2	STATE	5/10/2002	4.684	FAIR	4500	$6,480,000.00	2
2230890	Q	49TH ST	GCP		A	2	STATE	7/31/2002	4.778	FAIR	5500	$7,920,000.00	1
2231249	K	BSHP	BAY RIDGE AVE		A	1	STATE	4/11/2002	3.817	FAIR	4900	$7,056,000.00	10
2231250	K	81ST ST PED BR	BSHP		A-PED	5	CITY	10/9/2003	5.222	GOOD	3100	$4,464,000.00	10
2231260	K	92ND ST PED BR	BSHP		A-PED	6	CITY	8/13/2003	4.161	FAIR	3000	$4,320,000.00	10
2231270	K	4TH AVE	BSHP		A	2	STATE	4/10/2002	4.842	FAIR	6100	$8,784,000.00	10
2231290	K	BAY 8TH ST	BSHP		A	1	STATE	5/5/2003	5.984	GOOD	4920	$7,084,800.00	11
2231300	K	17TH AVE PED BRDG	BSHP		A-PED	1	CITY	1/27/2003	3.846	FAIR	2100	$3,024,000.00	11
2231319	K	BSHP	BAY PKWY		A	1	STATE	4/12/2002	4.491	FAIR	7200	$10,368,000.00	11
2231329	K	BSHP	26TH AVE		A	1	STATE	4/9/2002	4.933	FAIR	6700	$9,648,000.00	13
2231330	K	27TH AVE PED BRDG	BSHP		A-PED	1	CITY	7/1/2003	4.000	FAIR	2100	$3,024,000.00	13
2231340	K	CROPSEY AVE	BSHP		A	2	STATE	4/17/2002	4.944	FAIR	13100	$18,864,000.00	13
2231360	K	BSHP	OCEAN PKWY		A	2	STATE	6/2/2003	3.417	FAIR	11800	$16,992,000.00	13
2231370	K	B 8TH ST ACCESS RMP	BSHP		A	4	STATE	5/17/2002	3.958	FAIR	12800	$18,432,000.00	13
2231380	K	CONEY ISLAND AVE	BSHP		A	4	STATE	9/8/2003	6.292	VGOOD	19866	$29,664,000.00	13
2231390	K	E 12TH ST	BSHP		A	4	STATE	4/19/2002	4.958	FAIR	17200	$24,768,000.00	15
2231409	K	BSHP	SHEEPSHEAD BAY ROAD		A	1	STATE	4/23/2002	4.967	FAIR	6500	$9,360,000.00	15
2231419	K	BSHP	OCEAN AVE		A	3	STATE	4/23/2002	4.486	FAIR	14000	$20,160,000.00	15
2231429	K	BSHP	BEDFORD AVE		A	3	STATE	4/25/2002	4.278	FAIR	12000	$17,280,000.00	15
2231439	K	BSHP	NOSTRAND AVE		A	3	STATE	4/29/2002	4.097	FAIR	13000	$18,720,000.00	15
2231449	K	KNAPP ST	BSHP		A	1	STATE	4/30/2002	4.594	FAIR	9500	$13,680,000.00	15
2231450	K	BSHP	GERRITSEN INLET		WA	11	STATE	7/17/2003	3.582	FAIR	46400	$66,816,000.00	56
2231460	K	FLATBUSH AVE	BSHP		A	2	STATE	9/5/2003	6.618	VGOOD	14058	$19,584,000.00	56
2231479	K	BSHP	MILL BASIN		WMA	14	STATE	12/22/2003	3.313	FAIR	73500	$105,840,000.00	18
2231489	K	BSHP	PAERDEGAT BASIN		WA	15	STATE	12/23/2003	2.907	POOR	58300	$83,952,000.00	18
2231499	K	BSHP	ROCKAWAY PKWY		A	4	STATE	5/23/2003	4.111	FAIR	11500	$16,560,000.00	56
2231509	K	BSHP	FRESH CREEK		WA	5	STATE	8/21/2003	3.278	FAIR	23000	$33,120,000.00	56
2231519	K	PENNSYLVANIA AVE	BSHP		A	2	STATE	5/7/2003	6.194	VGOOD	6191	$8,915,040.00	56
2231559	Q	CROSS BAY BLVD	BSHP		A	4	STATE	5/7/2002	5.278	GOOD	23205	$33,415,200.00	10
2231560	Q	S CONDUIT BLVD	BSOP		A	2	STATE	5/15/2002	5.690	GOOD	15776	$22,717,440.00	10
2231570	Q	COHANCY ST	BSOP		A	2	STATE	5/15/2002	4.727	FAIR	6400	$9,216,000.00	10
2231580	Q	AQUEDUCT RCTK RAMP	BSOP		A	4	STATE	7/25/2002	4.264	FAIR	14000	$20,160,000.00	10
2231590	Q	130TH ST	BSOP		A	2	STATE	3/6/2002	4.750	FAIR	6800	$9,792,000.00	10
2231610	Q	GUY R. BREWER BLVD	BSOP		A	2	STATE	5/13/2003	6.833	VGOOD	7300	$10,512,000.00	13
2231620	Q	FARMERS BLVD	BSOP		A	2	STATE	5/13/2003	4.568	FAIR	6400	$9,216,000.00	13
2231630	Q	SPRINGFIELD BLVD	BSOP		A	2	STATE	6/3/2002	4.682	FAIR	8500	$12,240,000.00	13
2231640	Q	225TH ST	BSOP		A	2	STATE	6/28/2002	4.727	FAIR	7000	$10,080,000.00	13
2231650	Q	SUNRISE HWY W.B.	BLP E.B.		A	1	STATE	4/23/2002	4.623	FAIR	4100	$5,904,000.00	13

INVENTORY SORTED BY B.I.N.													
BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2231660	Q	SUNRISE HWY W.B.	BLP W.B.		A	2	STATE	6/26/2002	4.531	FAIR	5350	$7,704,000.00	13
2231670	Q	N CONDUIT AVE W.B.	BLP E.B.		A	1	STATE	1/28/2002	4.917	FAIR	4000	$5,760,000.00	13
2231680	Q	N CONDUIT AVE WB	BLP W.B.		A	2	STATE	2/11/2002	4.932	FAIR	6500	$9,360,000.00	13
2231690	Q	FRANCIS LEWIS BLVD	BLP E.B.		A	1	STATE	5/23/2002	5.333	GOOD	6000	$8,640,000.00	13
2231700	Q	FRANCIS LEWIS BLVD	BLP W.B.		A	1	STATE	4/16/2002	4.933	FAIR	6000	$8,640,000.00	13
2231710	Q	MERRICK BLVD	BLP E.B.		A	1	STATE	5/7/2002	4.533	FAIR	6000	$8,640,000.00	13
2231720	Q	MERRICK BLVD	BLP W.B.		A	1	STATE	5/20/2002	4.200	FAIR	6000	$8,640,000.00	13
2231730	Q	130TH AVE	BLP E.B.		A	1	STATE	1/17/2002	5.267	GOOD	4400	$6,336,000.00	13
2231740	Q	130TH AVE	BLP W.B.		A	1	STATE	1/18/2002	4.667	FAIR	4400	$6,336,000.00	13
2231750	Q	LINDEN BLVD	BCIP		A	2	STATE	3/21/2002	4.477	FAIR	6700	$9,648,000.00	13
2231760	Q	BCIP	DUTCH BROADWAY-115 AVE		A	1	STATE	3/11/2002	4.349	FAIR	7300	$10,512,000.00	13
2231770	Q	BELMONT PARK RAMP	BCIP		A	1	STATE	5/10/2002	4.781	FAIR	3200	$4,608,000.00	13
2231780	Q	HEMPSTEAD AVE	BCIP		A	2	STATE	6/12/2002	4.226	FAIR	14200	$20,448,000.00	13
2231800	Q	SUPERIOR ROAD	BCIP		A	2	STATE	5/7/2002	4.227	FAIR	7000	$10,080,000.00	13
2231819	Q	JAMAICA AVE	BCIP		A	2	STATE	3/26/2002	4.727	FAIR	11500	$16,560,000.00	13
2231829	Q	BRADDOCK AVE	BCIP		A	2	STATE	3/26/2002	4.909	FAIR	10600	$15,264,000.00	13
2231840	Q	HILLSIDE AVE	BCIP		A	2	STATE	6/28/2002	4.184	FAIR	9672	$13,927,680.00	13
2231850	Q	UNION TPKE	BCIP		A	2	STATE	7/30/2003	4.318	FAIR	13600	$19,584,000.00	13
2231860	Q	W ALLEY ROAD	BCIP		A	2	STATE	9/26/2003	5.568	GOOD	7200	$10,368,000.00	11
2231870	Q	NORTHERN BLVD	BCIP		A	2	STATE	9/3/2002	6.569	VGOOD	8951	$12,816,000.00	11
2231880	Q	CROCHERON PK PED	BCIP		A-PED	9	CITY	11/10/2003	4.875	FAIR	2300	$3,312,000.00	11
2231890	Q	28TH AVE PED BRDG	BCIP		A-PED	24	CITY	8/19/2003	5.016	GOOD	7600	$10,944,000.00	11
2231900	Q	BCIP	FORT TOTTEN ENTRANCE		A	1	STATE	8/2/2002	4.672	FAIR	4900	$7,056,000.00	7
2231910	Q	UTOPIA PKWY	BCIP		A	2	STATE	3/14/2002	5.136	GOOD	7200	$10,368,000.00	7
2231920	Q	160TH ST	BCIP		A	2	STATE	4/24/2003	5.972	GOOD	5500	$7,920,000.00	7
2231930	Q	FRANCIS LEWIS BLVD	BCIP		A	3	STATE	2/28/2002	4.773	FAIR	9100	$13,104,000.00	7
2231940	Q	CLINTONVILLE ST	BCIP		A	2	STATE	2/28/2002	4.727	FAIR	7400	$10,656,000.00	7
2231950	Q	150TH ST	BCIP		A	2	STATE	2/22/2002	5.136	GOOD	5900	$8,496,000.00	7
2231960	Q	149TH ST	BCIP		A	2	STATE	2/22/2002	4.977	FAIR	6100	$8,784,000.00	7
2231970	Q	14TH AVE	BCIP		A	2	STATE	2/22/2002	4.977	FAIR	8100	$11,664,000.00	7
2231980	Q	147TH ST	BCIP		A	2	STATE	2/12/2002	4.750	FAIR	6300	$9,072,000.00	7
2232000	M	BATTERY PLACE	FDR DRIVE		AT	2	CITY	6/29/2003	4.500	FAIR	75000	$108,000,000.00	1
223201A	M	FDR DR N.B. OFF RMP	FDR DR & SOUTH ST		AR	17	STATE	3/20/2002	3.597	FAIR	102225	$147,204,000.00	1
223201B	M	STH ST RMP TO FDR S.B.	SOUTH ST		AR	10	STATE	3/7/2002	3.925	FAIR	44625	$64,260,000.00	1
223201C	M	STH ST RMP TO FDR	SOUTH ST		AR	8	STATE	4/2/2002	4.701	FAIR	39150	$56,376,000.00	1
223201D	M	RAMP TO N.B. FDR DRIVE	FDR & SOUTH ST.		AR	22	STATE	6/10/2002	5.492	GOOD	15825	$22,788,000.00	1
2232029	M	CORLEARS PARK ROAD	FDR DRIVE		A	4	STATE	3/27/2002	4.125	FAIR	4100	$5,904,000.00	3
2232030	M	DELANCEY ST PED BRDG	FDR DRIVE		A-PED	9	CITY	8/10/2003	4.478	FAIR	2900	$4,176,000.00	3
2232040	M	HOUSTON ST	FDR DRIVE		A	2	STATE	5/20/2003	3.318	FAIR	11010	$15,854,400.00	3
223204A	M	FDR NB TO HOUSTON ST	RELIEF		AR	4	STATE	3/21/2002	4.000	FAIR	7642	$11,004,480.00	3
223204B	M	HOUSTON ST RAMP TO FDR	RELIEF		AR	4	STATE	3/21/2002	4.417	FAIR	7642	$11,004,480.00	3
2232050	M	E 6TH ST PED BRDG	FDR DRIVE		A-PED	22	CITY	3/16/2003	4.400	FAIR	2200	$3,168,000.00	3
2232070	M	25TH ST PED BRDG	FDR DRIVE		A-PED	4	CITY	3/16/2003	4.594	FAIR	1700	$2,448,000.00	6
2232100	M	E 51ST ST PED BRDG	FDR DRIVE		A-PED	10	CITY	3/9/2003	4.161	FAIR	2800	$4,032,000.00	6
2232110	M	E 64TH ST PED BRDG	FDR DRIVE		A-PED	13	CITY	3/9/2003	5.050	GOOD	2100	$3,024,000.00	8
2232120	M	E 71ST ST PED BRDG	FDR DRIVE		A-PED	19	CITY	5/2/2003	7.000	VGOOD	1800	$2,592,000.00	8
2232140	M	E 78TH ST PED BRDG	FDR DRIVE		A-PED	9	CITY	3/23/2003	3.578	FAIR	1700	$2,448,000.00	8
2232158	M	FDR DRIVE S.B.	FDR DRIVE N.B.		AT	56	STATE	6/18/2003	4.773	FAIR	54302	$78,194,880.00	8
2232167	M	PROMENADE OVER FDR	FDR/E79TH ST-E91ST ST		A-PED	53	STATE	7/28/2003	3.571	FAIR	93000	$133,920,000.00	8
2232180	M	E 103RD ST PED BRDG	FDR DRIVE		A-PED	20	CITY	7/29/2003	5.000	GOOD	6000	$8,640,000.00	11
2232190	M	E 111TH ST PED BRDG	FDR DRIVE		A-PED	14	CITY	3/2/2003	4.100	FAIR	2600	$3,744,000.00	11
2232200	M	E 120TH ST PED BRDG	FDR DRIVE		A-PED	23	CITY	3/2/2003	4.300	FAIR	2500	$3,600,000.00	11
2233020	M	E 10TH ST PED BRDG	FDR DRIVE		A-PED	22	CITY	11/18/2003	6.435	VGOOD	1632	$2,350,080.00	3
2233038	M	FDR DRIVE SB	FDR NB / E 62ND ST		AT	46	STATE	8/1/2003	2.698	POOR	70113	$100,962,720.00	8
2233040	M	E 60TH ST	FDR DRIVE		A	17	STATE	8/8/2003	3.318	FAIR	24480	$35,251,200.00	6
2233059	M	HARLEM RIVER DRIVE	RAMP TO HRD N.B.		A	11	STATE	6/27/2003	3.418	FAIR	51000	$73,440,000.00	11
2233080	K	E 14 ST PED BR	BSHP		A-PED	14	CITY	08/05/02	4.700	FAIR	4700	$6,768,000.00	15
2240019	KM	BROOKLYN BRIDGE	278I (B.Q.E.)		WEO	75	STATE	10/18/2002	3.097	FAIR	503788	$725,454,720.00	3
224001A	M	PARK ROW TO BKLN	WILLIAM ST N.B.		OE	3	STATE	4/22/2003	4.389	FAIR	8685	$12,506,400.00	1
224001B	M	TO BKLN FRM FDR	FRANKFRT & CITY		OE	31	STATE	4/24/2002	4.037	FAIR	51400	$74,016,000.00	1
224001C	M	PEARL ST TO BKLN	LAND ADJ TO BRDG		OE	12	STATE	4/28/2003	3.712	FAIR	6489	$9,344,160.00	3
224001D	M	TO FDR DR N.B.	PEARL STREET		OE	30	STATE	5/14/2003	5.208	GOOD	49600	$71,424,000.00	1
224001E	M	TO PEARL ST	LAND ADJ TO BRDG		OE	3	STATE	5/12/2003	5.225	GOOD	5300	$7,632,000.00	6
224001F	M	PEARL ST TO FDR DR	LAND ADJ TO BRDG		OE	3	STATE	5/14/2003	5.310	GOOD	5200	$7,488,000.00	1
224001G	M	TO PARK ROW	ROSE ST		OE	11	STATE	5/6/2003	4.736	FAIR	16551	$23,833,440.00	1
2240027	KM	MANHATTAN BRIDGE(LL)	EAST RIVER	T	WEO	23	STATE	11/12/2002	3.847	FAIR	616390	$887,601,600.00	3
2240028	KM	MANHATTAN BRIDGE(UL)	NYCTA TRACKS-BMT	T	WEO	43	STATE	11/12/2002	4.243	FAIR	587424	$845,890,560.00	3
2240039	KM	WILLIAMSBURG BRIDGE	EAST RIVER	T	WEO	72	STATE	8/28/2002	4.556	FAIR	741000	$1,067,040,000.00	3
2240047	MQ	QUEENSBORO BRIDGE(LL)	EAST RIVER	L	WEO	53	STATE	1/23/2003	4.514	FAIR	626900	$902,736,000.00	6
2240048	MQ	QUEENSBORO BRIDGE(UL)	EAST RIVER-LL		WEO	37	STATE	1/23/2003	4.547	FAIR	322300	$464,112,000.00	6
224004A	M	TO QNS FRM E 59TH ST	FIRST AVE		OE	13	STATE	11/25/2002	5.789	GOOD	14800	$21,312,000.00	6
224004B	M	TO E 60TH ST FROM QNS	FIRST AVE		OE	13	STATE	11/26/2002	5.792	GOOD	14800	$21,312,000.00	6
224004C	M	TO E 62ND ST FROM QNS	E 60TH ST		OE	10	STATE	11/27/2002	4.985	FAIR	16720	$24,076,800.00	6
224004D	M	TO QNS FROM E 58TH ST	E 59TH ST		OE	12	STATE	11/22/2002	4.585	FAIR	11781	$16,964,640.00	6
224004E	Q	TO NY FR THOMSON AVE	JACKSON AVE		OE	64	STATE	12/14/2002	4.906	FAIR	104600	$150,624,000.00	2
224004F	Q	TO NY FROM 21ST ST	21ST ST (QUEENS)		OE	63	STATE	11/20/2002	4.652	FAIR	63310	$91,166,400.00	2
224004G	Q	TO NY FROM 11TH ST	TERRAIN (CHAMBER)		OE	36	STATE	10/30/2002	4.634	FAIR	8360	$12,038,400.00	1
224004H	Q	TO 21ST ST FROM NY	22ND ST		OE	34	STATE	12/5/2002	4.655	FAIR	48100	$69,264,000.00	2
224004I	Q	TO THOMSON AVE FROM NY	JACKSON AVE		OE	38	STATE	11/12/2002	5.246	GOOD	59100	$85,104,000.00	2
224004J	M	25X	NYC GARAGE		OE	14	STATE	11/21/2002	4.780	FAIR	22058	$31,763,520.00	6
2240059	BM	WILLIS AVENUE	HARLEM RIVER		WMO	26	STATE	10/29/2003	3.083	FAIR	94700	$136,368,000.00	11
224005A	M	FROM FDR DRIVE	HARLEM RIVER DR		OR	19	STATE	6/3/2002	3.940	FAIR	29900	$43,056,000.00	11
224005B	B	TO BRUCKNER BLVD	RELIEF		OR	5	STATE	8/4/2003	4.000	FAIR	12100	$17,424,000.00	1

INVENTORY SORTED BY B.I.N.													
BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2240069	BM	THIRD AVE BRIDGE	HARLEM RIVER		WMO	32	STATE	10/5/2003	3.236	FAIR	79950	$115,128,000.00	11
224006A	B	TO BRUCKNER BLVD	RELIEF		OR	11	STATE	4/22/2003	2.966	POOR	11100	$15,984,000.00	1
2240079	BM	MADISON AVE BRIDGE	HARLEM RIVER		WMO	31	STATE	8/19/2002	5.667	GOOD	80000	$115,200,000.00	11
224007A	M	TO MADISON AVENUE	RELIEF		OR	9	STATE	8/6/2002	5.704	GOOD	22600	$32,544,000.00	11
2240089	BM	145TH ST BRIDGE	HARLEM RIVER		WMO	8	STATE	10/26/2003	3.097	FAIR	56700	$81,648,000.00	10
2240120	BM	W 207TH/W FORDHAM RD	HARLEM RIVER		WMO	5	STATE	5/21/2002	5.667	GOOD	29682	$42,742,080.00	12
2240137	BM	BROADWAY BRIDGE	HARLEM RIVER	T	WMO	3	STATE	10/13/2003	3.986	FAIR	38100	$54,864,000.00	12
2240138	BM	NYCTA IRT	HARLEM RVR/BROADWAY	T	WMO	3	STATE	10/24/2003	4.882	FAIR	38100	$54,864,000.00	12
2240180	B	WESTCHESTER AVE	BRONX RIVER		WO	1	STATE	6/11/2003	5.141	GOOD	5476	$7,885,440.00	2
2240200	B	SHORE ROAD	HUTCHINSON RIVER		WMO	7	STATE	11/5/2002	4.597	FAIR	4800	$120,000,000.00	28
2240210	B	CITY ISLAND ROAD	EASTCHESTER BAY		WO	7	STATE	10/3/2003	3.500	FAIR	28900	$41,616,000.00	28
2240231	K	HAMILTON AVE BRIDGE	GOWANUS CANAL		WMO	3	STATE	8/7/2002	4.236	FAIR	7300	$10,512,000.00	7
2240232	K	HAMILTON AVE BRIDGE	GOWANUS CANAL		WMO	3	STATE	7/17/2003	4.014	FAIR	7300	$10,512,000.00	6
2240240	K	NINTH ST BRIDGE	GOWANUS CANAL		WMO	3	STATE	7/18/2003	6.613	VGOOD	5772	$30,000,000.00	6
2240250	K	THIRD ST	GOWANUS CANAL		WMO	5	STATE	6/27/2003	4.958	FAIR	4900	$15,000,000.00	6
2240260	K	CARROLL ST	GOWANUS CANAL		WMO	2	STATE	6/27/2003	4.718	FAIR	3000	$5,000,000.00	6
2240270	K	UNION ST	GOWANUS CANAL		WMO	5	STATE	6/25/2002	4.236	FAIR	4900	$15,000,000.00	6
2240290	K	METROPOLITAN AVE	ENGLISH KILLS		WMO	5	STATE	11/12/2003	4.186	FAIR	15245	$21,952,800.00	1
2240301	K	CROPSEY AVE	CONEY ISLAND CREEK		WO	3	STATE	7/7/2003	5.169	GOOD	9400	$13,536,000.00	13
2240302	K	CROPSEY AVE	CONEY ISLAND CREEK		WO	3	STATE	6/16/2003	5.028	GOOD	9400	$13,536,000.00	13
2240310	K	THIRD AVE	GOWANUS CANAL		WO	1	STATE	7/2/2003	4.564	FAIR	3200	$4,608,000.00	6
2240320	K	OCEAN AVE PED BRDG	SHEEPSHEAD BAY		WO-PED	30	CITY	5/2/2003	4.070	FAIR	4000	$5,760,000.00	15
2240350	R	RICHMOND AVE	RICHMOND CREEK		WO	3	STATE	7/30/2003	6.153	VGOOD	32589	$46,928,160.00	2
2240370	KQ	GREENPOINT AVE BRIDGE	NEWTOWN CREEK	L	WMO	12	STATE	11/11/2003	4.889	FAIR	76106	$109,592,640.00	2
2240390	KQ	GRAND ST BRIDGE	NEWTOWN CREEK		WMO	2	STATE	9/9/2002	4.569	FAIR	5100	$25,000,000.00	5
2240410	Q	BORDEN AVE	DUTCH KILLS		WMO	2	STATE	7/14/2003	3.403	FAIR	8400	$12,096,000.00	2
2240440	Q	NORTHERN BLVD	ALLEY CREEK		WO	2	STATE	6/10/2002	5.000	GOOD	8300	$11,952,000.00	11
2240450	Q	HUNTERS PT AVE BRIDGE	DUTCH KILLS		WMO	4	STATE	5/13/2002	5.167	GOOD	11544	$16,623,360.00	2
2240507	Q	ROOSEVELT AVE	678I - VAN WYCK EXPWY		WA	27	STATE	11/13/2002	3.380	FAIR	84424	$121,570,560.00	81
2240540	K	STILLWELL AVE	CONEY ISLAND CRK		WO	2	STATE	6/17/2003	6.292	VGOOD	17000	$24,480,000.00	13
2240620	M	WARDS ISLAND PED BRDG	HARLEM RIVER		WMO-PED	10	CITY	7/29/2003	4.049	FAIR	12600	$18,144,000.00	11
2240639	KQ	PULASKI BRIDGE	NEWTOWN CREEK		WMO	48	STATE	6/11/2002	5.211	GOOD	205770	$296,308,800.00	2
2240640	MQ	ROOSEVELT ISLAND	E. RIVER E. CHANNEL		WMO	8	STATE	6/14/2002	4.292	FAIR	36500	$52,560,000.00	8
2240650	Q	163RD ST PED BRDG	HAWTREE BASIN		WO-PED	13	CITY	5/20/2003	4.407	FAIR	5000	$7,200,000.00	10
2240660	Q	RIKERS ISLAND BRIDGE	RIKERS ISL CHANNEL		WO	56	STATE	8/29/2003	4.423	FAIR	183100	$263,664,000.00	1
2241000	B	WESTCHESTER AVE	CONRAIL PT MORRIS	C	O	1	STATE	11/4/2002	5.085	GOOD	1740	$2,505,600.00	1
2241010	B	E 156TH STREET	CONRAIL PT MORRIS	C	O	1	STATE	11/5/2002	4.556	FAIR	2400	$3,456,000.00	1
2241020	B	E 161ST STREET	CONRAIL PT MORRIS	C	O	1	STATE	8/1/2003	6.783	VGOOD	12800	$18,432,000.00	1
2241030	B	E 163RD STREET	CONRAIL PT MORRIS	C	O	1	STATE	7/9/2002	4.870	FAIR	3200	$4,608,000.00	3
2241040	B	THIRD AVE	CONRAIL PT MORRIS	C	O	1	STATE	11/6/2002	4.625	FAIR	2700	$3,888,000.00	1
2241050	B	E 149TH ST/JACKSON AVE	CONRAIL PT MORRIS	C	O	1	STATE	11/8/2002	4.950	FAIR	65000	$93,600,000.00	1
2241060	B	ST. MARYS & CONCORD	CONRAIL PT MORRIS	C	O	1	STATE	11/7/2002	5.333	GOOD	4500	$6,480,000.00	1
2241070	B	WALES AVE	CONRAIL PT MORRIS	C	O	1	STATE	11/11/2002	6.567	VGOOD	2535	$3,312,000.00	1
2241080	B	SOUTHERN BLVD	CONRAIL PT MORRIS	C	O	1	STATE	12/4/2002	4.185	FAIR	3900	$5,616,000.00	1
2241099	B	BRUCKNER BLVD	CONRAIL PT MORRIS	C	O	1	STATE	12/4/2002	6.797	VGOOD	6700	$9,648,000.00	1
2241110	B	MELROSE AVE	CONRAIL PT MORRIS	C	O	8	STATE	7/31/2003	6.208	VGOOD	37854	$54,509,760.00	3
2241129	B	E 149TH ST	AMTRAK	A	O	2	STATE	6/28/2002	4.704	FAIR	12575	$18,108,000.00	1
2241139	B	LEGGETT AVE	AMTRAK	A	O	3	STATE	6/28/2002	4.690	FAIR	28300	$40,752,000.00	2
2241159	B	LONGWOOD AVE	AMTRAK	A	O	2	STATE	6/4/2002	6.042	VGOOD	10625	$15,300,000.00	2
2241169	B	LAFAYETTE AVE	AMTRAK	A	O	1	STATE	6/28/2002	5.905	GOOD	12000	$17,280,000.00	2
2241170	B	TIFFANY ST	AMTRAK	A	O	1	STATE	11/4/2003	5.843	GOOD	7267	$10,464,480.00	2
2241180	B	BARRETTO ST	AMTRAK	A	O	1	STATE	6/5/2002	6.281	VGOOD	5313	$7,650,720.00	2
2241190	B	HUNTS POINT AVE	AMTRAK	A	O	1	STATE	6/6/2002	5.250	GOOD	13700	$19,728,000.00	2
2241200	B	FAILE ST	AMTRAK	A	O	1	STATE	6/6/2002	6.156	VGOOD	6208	$8,939,520.00	2
2241210	B	BRYANT AVE	AMTRAK	A	O	1	STATE	11/6/2003	3.220	FAIR	5300	$7,632,000.00	2
2241230	B	WESTCHESTER AVE	AMTRAK	A	O	3	STATE	6/26/2002	6.250	VGOOD	15600	$22,464,000.00	2
2241259	B	204TH ST PED BRDG	METRO NORTH RR HAR	M	O-PED	1	CITY	08/26/02	3.950	FAIR	4700	$6,768,000.00	27
2241269	B	E 177TH ST	AMTRAK	A	O	3	STATE	6/24/2002	5.514	GOOD	16606	$23,912,640.00	9
2241270	B	EAST TREMONT AVE	AMTRAK	A	O	2	STATE	6/17/2002	5.722	GOOD	22300	$32,112,000.00	9
2241329	B	WHITE PLAINS ROAD	AMTRAK	A	O	1	STATE	6/18/2002	4.953	FAIR	6900	$9,936,000.00	9
2241330	B	UNIONPORT ROAD	AMTRAK	A	O	1	STATE	6/19/2002	4.875	FAIR	4400	$6,336,000.00	9
2241369	B	WILLIAMSBRIDGE RD	AMTRAK	A	O	2	STATE	6/20/2002	4.836	FAIR	10400	$14,976,000.00	11
2241390	B	SHORE RD CIRCLE	AMTRAK	A	O	2	STATE	11/7/2003	3.254	FAIR	4800	$6,912,000.00	10
2241409	B	GRAND CONCOURSE	METRO NORTH RR HUD	TCM	O	1	STATE	3/19/2002	3.844	FAIR	16100	$23,184,000.00	4
2241410	B	WALTON AVE	METRO NORTH RR HUD	M	O	1	STATE	3/21/2002	5.234	GOOD	3600	$5,184,000.00	4
2241420	B	GERARD AVE	METRO NORTH RR HUD	M	O	1	STATE	3/23/2002	6.766	VGOOD	5063	$7,290,720.00	4
2241430	B	RIVER AVE	METRO NORTH RR HUD	M	O	1	STATE	6/19/2003	6.578	VGOOD	5040	$7,257,600.00	4
2241460	B	W TREMONT AVE	METRO NORTH RR HUD	M	O	8	STATE	9/9/2002	4.761	FAIR	12900	$18,576,000.00	5
2241470	B	W FORDHAM RD	METRO NORTH RR HUD	M	O	5	STATE	7/8/2003	6.278	VGOOD	16052	$23,114,880.00	7
2241489	B	W 225TH ST	CONRAIL PUTNAM	C	O	2	STATE	7/10/2002	5.433	GOOD	10900	$15,696,000.00	7
2241490	B	W 230TH ST	CONRAIL PUTNAM	C	O	1	STATE	4/8/2003	5.844	GOOD	5600	$8,064,000.00	8
2241509	B	W 231ST ST	CONRAIL PUTNAM	C	O	1	STATE	11/11/2002	5.765	GOOD	4723	$6,801,120.00	8
2241510	B	W 233RD ST	CONRAIL PUTNAM	C	O	1	STATE	4/11/2003	5.471	GOOD	3760	$5,414,400.00	8
2241520	B	W 234TH ST	CONRAIL PUTNAM	C	O	1	STATE	4/9/2003	5.569	GOOD	3770	$5,428,800.00	8
2241550	B	E 144TH ST	METRO NORTH RR HAR	M	O	2	STATE	6/11/2003	6.708	VGOOD	8290	$11,937,600.00	1
2241560	B	E 149TH ST	METRO NORTH RR HAR	M	O	8	STATE	3/14/2002	4.736	FAIR	27900	$40,176,000.00	1
2241590	B	CONCOURSE VILL AVE	METRO NORTH RR HAR	M	O	1	STATE	3/21/2002	4.094	FAIR	17800	$25,632,000.00	1
2241600	B	E 158TH ST	METRO NORTH RR HAR	M	O	1	STATE	6/10/2003	5.233	GOOD	3400	$4,896,000.00	1
2241610	B	E 161ST ST	METRO NORTH RR HAR	M	O	1	STATE	6/10/2003	5.383	GOOD	6600	$9,504,000.00	1
2241620	B	E 162ND ST	METRO NORTH RR HAR	M	O	1	STATE	2/23/2002	4.983	FAIR	4700	$6,768,000.00	3
2241630	B	E 165TH ST	METRO NORTH RR HAR	M	O	1	STATE	4/10/2002	4.483	FAIR	16400	$23,616,000.00	3
2241650	B	E 167TH ST	METRO NORTH RR HAR	M	O	1	STATE	2/20/2002	5.863	GOOD	3363	$4,842,720.00	3
2241660	B	E 168TH ST	METRO NORTH RR HAR	M	O	1	STATE	2/21/2002	4.922	FAIR	7700	$11,088,000.00	3
2241670	B	E 169TH ST	METRO NORTH RR HAR	M	O	1	STATE	2/22/2002	4.875	FAIR	3300	$4,752,000.00	3
2241680	B	E 170TH ST	METRO NORTH RR HAR	M	O	1	STATE	3/2/2002	6.451	VGOOD	3150	$4,536,000.00	3

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2241700	B	ST PAULS PL PED BRDG	METRO NORTH RR HAR	M	O-PED	2	CITY	08/29/02	6.296	VGOOD	600	$864,000.00	3
2241710	B	CLAREMONT PKWY	METRO NORTH RR HAR	M	O	1	STATE	2/27/2002	4.484	FAIR	6300	$9,072,000.00	3
2241720	B	E 173RD ST	METRO NORTH RR HAR	M	O	1	STATE	2/26/2002	4.583	FAIR	3000	$4,320,000.00	3
2241740	B	E 175TH ST	METRO NORTH RR HAR	M	O	1	STATE	2/28/2002	4.094	FAIR	3600	$5,184,000.00	3
2241760	B	E TREMONT AVE	METRO NORTH RR HAR	M	O	1	STATE	10/10/2003	6.700	VGOOD	7300	$10,512,000.00	6
2241770	B	E 178TH ST PED BRDG	METRO NORTH RR HAR	M	O-PED	1	CITY	08/28/02	6.730	VGOOD	700	$1,008,000.00	6
2241780	B	E 179TH ST PED BRDG	METRO NORTH RR HAR	M	O-PED	6	CITY	08/27/02	6.000	GOOD	700	$1,008,000.00	6
2241790	B	E 180TH ST	METRO NORTH RR HAR	M	O	1	STATE	3/5/2002	4.078	FAIR	5000	$7,200,000.00	6
2241800	B	E 183TH ST	METRO NORTH RR HAR	M	O	1	STATE	3/6/2002	4.328	FAIR	3600	$5,184,000.00	6
2241810	B	E 188TH ST	METRO NORTH RR HAR	M	O	1	STATE	3/7/2002	4.281	FAIR	5300	$7,632,000.00	6
2241820	B	E 187TH ST	METRO NORTH RR HAR	M	O	1	STATE	3/8/2002	4.844	FAIR	3800	$5,472,000.00	6
2241839	B	E 189TH ST	METRO NORTH RR HAR	M	O	1	STATE	6/9/2003	6.533	VGOOD	43157	$62,146,080.00	6
2241840	B	BEDFORD PARK BLVD	METRO NORTH RR HAR	M	O	1	STATE	3/9/2002	4.717	FAIR	6400	$9,216,000.00	27
2241860	B	GUN HILL RD	METRO NORTH RR HAR	M	O	2	STATE	3/15/2002	4.279	FAIR	9000	$12,960,000.00	12
2241870	B	E 233RD ST	METRO NORTH RR HAR	M	O	1	STATE	3/15/2002	5.157	GOOD	7664	$11,036,160.00	12
2241890	B	E 241ST ST	BRP, METRO NORTH HAR	M	O	28	STATE	11/7/2003	4.653	FAIR	49500	$71,280,000.00	12
2241900	B	EASTCHESTER ROAD	NYCTA-DYRE AVE LN	T	O	3	STATE	7/21/2002	5.139	GOOD	13500	$19,440,000.00	12
2241910	B	GUN HILL ROAD	NYCTA-DYRE AVE LN	T	O	1	STATE	7/21/2002	6.906	VGOOD	75000	$9,072,000.00	11
2241930	B	BEDFORD PARK BLVD	NYCTA IND YARDS	T	O	4	STATE	7/20/2002	6.722	VGOOD	46300	$66,672,000.00	7
2241940	B	W 205TH ST	NYCTA IND YARDS	T	O	4	STATE	7/20/2002	6.889	VGOOD	32508	$54,432,000.00	7
2241959	B	HUTCHINSON RVR PKWY	AMTRAK	A	O	1	STATE	6/21/2002	6.068	VGOOD	15444	$22,239,360.00	10
2242010	B	BRONX PELHAM PKWY	BRONX RIVER		WA	1	STATE	5/24/2002	4.931	FAIR	9200	$13,248,000.00	27
2242029	B	SOUTHERN BLVD	BRONX PELHAM PKWY		O	2	STATE	6/4/2002	4.789	FAIR	12900	$18,576,000.00	27
2242030	B	CROTONA AVE	BRONX PELHAM PKWY		O	2	STATE	6/4/2002	5.316	GOOD	7600	$10,944,000.00	6
2242071	B	BRONX BLVD S.B.	BRONX RIVER		WO	1	STATE	5/24/2002	4.700	FAIR	1800	$2,592,000.00	12
2242072	B	BRONX BLVD N.B.	BRONX RIVER		WO	1	STATE	5/24/2002	5.033	GOOD	1800	$2,592,000.00	12
2242081	B	BRONX BLVD S.B.	BRONX RIVER		WO	1	STATE	5/20/2002	4.467	FAIR	2800	$4,032,000.00	12
2242082	B	BRONX BLVD N.B.	BRONX RIVER		WO	1	STATE	5/20/2002	4.467	FAIR	2800	$4,032,000.00	12
2242099	B	PARK ROAD (204TH ST)	BRONX RIVER		WO	1	STATE	8/28/2002	4.172	FAIR	4700	$6,768,000.00	27
2242100	B	BOTANICAL GARDEN ROAD	TWIN LAKES		O-PED	1	STATE	5/17/2002	4.967	FAIR	2200	$3,168,000.00	27
2242110	B	BOSTON ROAD	BRONX RIVER		WO	1	STATE	5/16/2002	4.273	FAIR	6200	$8,928,000.00	27
2242149	B	E TREMONT AVE	BRONX RIVER		WO	2	STATE	5/15/2002	4.778	FAIR	12900	$18,576,000.00	6
2242200	B	YANKEE STDM PED BRDG	E 153 ST, METRO NORTH	M	O-PED	5	CITY	09/03/02	5.000	GOOD	4200	$6,048,000.00	4
2242210	B	S OF ALLERTON AVE	BRONX RIVER		WO	3	STATE	5/17/2002	4.763	FAIR	6200	$8,928,000.00	27
2242220	B	SOUTHERN BLVD	BRONX RIVER		WO	2	STATE	4/23/2002	4.211	FAIR	4800	$6,912,000.00	27
2242259	B	GRAND CONCOURSE	E 161ST ST		O	1	STATE	12/5/2002	3.583	FAIR	24100	$34,704,000.00	4
2242260	B	EAGLE AVE	E 161ST ST		O	1	STATE	5/13/2002	5.234	GOOD	2800	$4,032,000.00	1
2242280	B	GRAND CONCOURSE	E 167TH ST		O	2	STATE	8/21/2002	4.579	FAIR	42900	$61,776,000.00	4
2242299	B	GRAND CONCOURSE	E 138TH ST		O	1	STATE	5/9/2003	5.600	GOOD	9500	$13,680,000.00	1
2242300	B	GRAND CONCOURSE	E 170TH ST		O	2	STATE	7/1/2002	4.789	FAIR	39300	$56,592,000.00	4
2242319	B	GRAND CONCOURSE	E 174TH ST	T	O	1	STATE	5/15/2002	4.067	FAIR	14900	$21,456,000.00	4
2242329	B	GRAND CONCOURSE	E 175TH ST	T	O	1	STATE	10/23/2002	4.467	FAIR	11900	$17,136,000.00	4
2242330	B	GRAND CONCOURSE	E TREMONT AVE		O	1	STATE	10/14/2003	6.483	VGOOD	11700	$16,848,000.00	5
2242340	B	GRAND CONCOURSE	EAST KINGSBRIDGE		O	2	STATE	12/6/2002	4.714	FAIR	16500	$23,760,000.00	7
2242350	B	EAST FORDHAM RD	GRAND CONCOURSE		O	1	STATE	5/10/2002	4.567	FAIR	10300	$14,832,000.00	5
2242360	B	GRAND CONCOURSE	BURNSIDE AVE		O	2	STATE	11/7/2002	4.368	FAIR	8400	$12,096,000.00	5
2242370	B	GRAND CONCOURSE	BEDFORD PARK BLVD		O	1	STATE	5/14/2002	4.922	FAIR	8418	$12,121,920.00	7
2242380	B	GRAND CONCOURSE	E 204TH ST		O	1	STATE	5/7/2003	5.766	GOOD	9272	$13,351,680.00	7
2242400	B	E 180TH ST	BRONX RIVER		WO	1	STATE	10/1/2002	4.810	FAIR	4500	$6,480,000.00	6
2242430	B	GUN HILL ROAD	BRONX BLVD		O	4	STATE	8/23/2002	4.912	FAIR	9400	$13,536,000.00	12
2242440	B	GUN HILL ROAD	BRONX RIVER		WO	1	STATE	4/25/2002	5.300	GOOD	8700	$12,528,000.00	12
2242459	B	E 233RD ST	BRONX RIVER		WO	1	STATE	5/24/2002	4.367	FAIR	7000	$10,080,000.00	12
2242460	B	E 233RD ST	ENTR RD BNX RVR PKWY		O	1	STATE	2/4/2002	5.600	GOOD	5300	$7,632,000.00	12
2243010	K	LINCOLN ROAD	BMT SUBWAY, BRIGHTON	T	O	4	STATE	10/9/2003	4.103	FAIR	6100	$8,784,000.00	55
2243020	K	PARKSIDE AVE	BMT SUBWAY, BRIGHTON	T	O	6	STATE	7/10/2002	4.217	FAIR	48700	$70,128,000.00	14
2243040	K	CROOKE AVE	BMT SUBWAY, BRIGHTON	T	O	4	STATE	11/11/2003	4.158	FAIR	6000	$8,640,000.00	14
2243050	K	CATON AVE	BMT SUBWAY, BRIGHTON	T	O	4	STATE	11/18/2003	4.500	FAIR	20800	$29,952,000.00	14
2243080	K	CHURCH AVE	BMT SUBWAY, BRIGHTON	T	O	4	STATE	11/21/2003	4.545	FAIR	18200	$26,208,000.00	14
2243100	K	BEVERLY ROAD	BMT SUBWAY, BRIGHTON	T	O	3	STATE	11/26/2003	3.982	FAIR	2700	$3,888,000.00	14
2243110	K	CORTELYOU ROAD	BMT SUBWAY, BRIGHTON	T	O	3	STATE	12/12/2003	4.044	FAIR	2900	$4,176,000.00	14
2243120	K	DORCHESTER ROAD	BMT SUBWAY, BRIGHTON	T	O	1	STATE	7/19/2002	5.804	GOOD	4825	$6,948,000.00	14
2243130	K	DITMAS AVE	BMT SUBWAY, BRIGHTON	T	O	1	STATE	12/10/2003	5.809	GOOD	4100	$5,904,000.00	14
2243140	K	NEWKIRK AVE	BMT SUBWAY, BRIGHTON	T	O	3	STATE	7/16/2002	4.662	FAIR	4100	$5,904,000.00	14
2243150	K	FOSTER AVE	BMT SUBWAY, BRIGHTON	T	O	1	STATE	7/18/2002	4.517	FAIR	3000	$4,320,000.00	14
2243170	K	STERLING PLACE	FRANKLIN SHUTTLE	T	O	1	STATE	12/5/2003	6.578	VGOOD	2300	$3,312,000.00	8
2243180	K	ST JOHNS PLACE	FRANKLIN SHUTTLE	T	O	1	STATE	12/4/2003	6.781	VGOOD	2200	$3,168,000.00	9
2243190	K	LINCOLN PLACE	FRANKLIN SHUTTLE	T	O	1	STATE	6/24/2002	7.000	VGOOD	2460	$4,896,000.00	9
2243200	K	UNION ST	FRANKLIN SHUTTLE	T	O	2	STATE	6/25/2002	5.048	GOOD	4100	$5,904,000.00	9
2243210	K	PRESIDENT ST	FRANKLIN SHUTTLE	T	O	2	STATE	6/26/2002	5.162	GOOD	2500	$3,600,000.00	9
2243220	K	CARROLL ST PED BRDG	FRANKLIN SHUTTLE	T	O-PED	3	CITY	09/26/02	5.484	GOOD	600	$864,000.00	9
2243230	K	CROWN ST	FRANKLIN SHUTTLE	T	O	3	STATE	12/3/2003	5.181	GOOD	4800	$6,912,000.00	9
2243240	K	MONTGOMERY ST	FRANKLIN SHUTTLE	T	O	1	STATE	12/1/2003	6.353	VGOOD	2030	$3,168,000.00	9
2243250	K	WASHINGTON AVE	FRANKLIN SHUTTLE	T	O	1	STATE	6/28/2002	6.422	VGOOD	3657	$9,360,000.00	9
2243260	K	FLATBUSH AVE	FRANKLIN SHUTTLE	T	O	2	STATE	6/28/2002	5.294	GOOD	11300	$16,272,000.00	9
2243279	K	EASTERN PKWY	FRANKLIN SHUTTLE	T	O	1	STATE	7/1/2002	4.861	FAIR	7700	$11,088,000.00	9
2243280	K	6TH AVE	LIRR ATLANTIC AVE	L	O	9	STATE	6/1/2002	5.583	GOOD	12276	$17,677,440.00	8
2243290	K	CARLTON AVE	LIRR ATLANTIC AVE	L	O	7	STATE	6/2/2002	4.958	FAIR	10823	$15,585,120.00	8
2243310	K	2ND AVE	LIRR BAY RIDGE	N	O	6	STATE	11/14/2003	3.925	FAIR	17000	$24,480,000.00	10
2243320	K	3RD AVE	LIRR BAY RIDGE	N	O	4	STATE	8/25/2003	5.542	GOOD	17230	$24,811,200.00	10
2243330	K	4TH AVE	LIRR BAY RIDGE	NT	O	6	STATE	10/17/2003	5.819	GOOD	19400	$27,936,000.00	10
2243340	K	15TH AVE	LIRR BAY RIDGE	N	O	1	STATE	6/20/2002	4.804	FAIR	3614	$5,204,160.00	11
2243350	K	60TH ST	LIRR BAY RIDGE	N	O	1	STATE	8/20/2003	6.383	VGOOD	3900	$5,616,000.00	11
2243360	K	16TH AVE	LIRR BAY RIDGE	N	O	1	STATE	6/21/2002	6.683	VGOOD	4345	$7,632,000.00	11
2243370	K	17TH AVE	LIRR BAY RIDGE	N	O	1	STATE	6/24/2002	5.000	GOOD	3406	$4,904,640.00	12
2243380	K	18TH AVE	LIRR BAY RIDGE	N	O	1	STATE	6/25/2002	5.328	GOOD	6006	$8,648,640.00	12
2243390	K	52ND ST	LIRR BAY RIDGE	N	O	2	STATE	8/18/2003	4.211	FAIR	2800	$4,032,000.00	12

INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2243400	K	50TH ST	LIRR BAY RIDGE	N	O	2	STATE	8/14/2003	4.701	FAIR	7100	$10,224,000.00	12
2243410	K	MCDONALD AVE	LIRR BAY RIDGE	N	O	1	STATE	5/27/2002	5.422	GOOD	2760	$3,974,400.00	12
2243420	K	E 3RD ST	LIRR BAY RIDGE	N	O	1	STATE	8/28/2003	5.082	GOOD	1500	$2,160,000.00	12
2243439	K	OCEAN PKWY	LIRR BAY RIDGE	N	O	1	STATE	6/28/2002	4.959	FAIR	7000	$10,080,000.00	12
2243440	K	CONEY ISLAND AVE	LIRR BAY RIDGE	N	O	1	STATE	7/1/2002	5.234	GOOD	3231	$4,652,640.00	12
2243450	K	E 14TH ST	LIRR BAY RIDGE	N	O	1	STATE	7/2/2002	5.596	GOOD	1775	$2,556,000.00	14
2243460	K	E 15TH ST - PED	LIRR BAY RIDGE	N	O-PED	3	CITY	04/17/02	3.650	FAIR	900	$1,296,000.00	14
2243480	K	OCEAN AVE	LIRR BAY RIDGE	N	O	2	STATE	7/3/2002	4.860	FAIR	5000	$7,200,000.00	14
2243490	K	BEDFORD AVE	LIRR BAY RIDGE	N	O	6	STATE	7/10/2002	4.778	FAIR	12000	$17,280,000.00	14
2243500	K	NOSTRAND AVE	LIRR BAY RIDGE	N	O	2	STATE	7/11/2002	5.186	GOOD	4320	$6,220,800.00	14
2243510	K	FLATBUSH AVE	LIRR BAY RIDGE	N	O	2	STATE	8/12/2003	4.667	FAIR	5700	$8,208,000.00	18
2243520	K	BROOKLYN AVE	LIRR BAY RIDGE	N	O	3	STATE	8/6/2003	6.055	VGOOD	4500	$6,480,000.00	18
2243530	K	AVENUE H	LIRR BAY RIDGE	N	O	2	STATE	8/8/2003	6.338	VGOOD	35100	$50,544,000.00	18
2243569	K	ATLANTIC AVE	LIRR ATLANTIC AVE	L	O	75	STATE	6/11/2002	3.873	FAIR	135100	$194,544,000.00	16
2243570	K	86TH ST	LIRR & SEA BEACH	LT	O	1	STATE	7/31/2002	6.250	VGOOD	3840	$26,208,000.00	13
2243580	K	5TH AVE	LIRR & SEA BEACH	LT	O	4	STATE	8/30/2002	4.500	FAIR	12500	$18,000,000.00	10
2243590	K	6TH AVE	LIRR & SEA BEACH	LT	O	5	STATE	10/14/2003	6.528	VGOOD	14200	$20,448,000.00	10
2243600	K	7TH AVE	LIRR & SEA BEACH	LT	O	7	STATE	8/28/2002	5.667	GOOD	18913	$27,234,720.00	10
2243610	K	8TH AVE	LIRR & SEA BEACH	LT	O	4	STATE	11/13/2003	6.319	VGOOD	11400	$16,416,000.00	10
2243620	K	FORT HAMILTON PKWY	LIRR & SEA BEACH	LT	O	3	STATE	8/26/2002	5.627	GOOD	14800	$21,312,000.00	10
2243630	K	11TH AVE	LIRR & SEA BEACH	LT	O	5	STATE	8/23/2002	6.809	VGOOD	9700	$13,968,000.00	10
2243640	K	13TH AVE	LIRR & SEA BEACH	LT	O	5	STATE	11/6/2003	4.694	FAIR	16000	$23,040,000.00	10
2243650	K	14TH AVE	LIRR BAY RIDGE	N	O	4	STATE	6/19/2002	4.321	FAIR	10000	$14,400,000.00	11
2243660	K	NEW UTRECHT AVE	LIRR BAY RIDGE	N	O	1	STATE	7/12/2002	7.000	VGOOD	2400	$3,456,000.00	11
2243670	K	15TH AVE	BMT SEA BEACH	T	O	6	STATE	7/26/2002	4.136	FAIR	17300	$24,912,000.00	11
2243680	K	16TH AVE	BMT SEA BEACH	T	O	4	STATE	7/23/2002	5.630	GOOD	6816	$9,815,040.00	11
2243690	K	17TH AVE	BMT SEA BEACH	T	O	4	STATE	8/22/2002	3.711	FAIR	8500	$12,240,000.00	11
2243700	K	18TH AVE	BMT SEA BEACH	T	O	4	STATE	10/20/2003	3.909	FAIR	8700	$12,528,000.00	11
2243710	K	19TH AVE	BMT SEA BEACH	T	O	4	STATE	8/20/2002	4.500	FAIR	4800	$6,912,000.00	11
2243720	K	20TH AVE	BMT SEA BEACH	T	O	6	STATE	8/16/2002	4.795	FAIR	12500	$18,000,000.00	11
2243730	K	65TH ST	BMT SEA BEACH	T	O	4	STATE	8/5/2002	5.947	GOOD	12000	$17,280,000.00	11
2243740	K	BAY PKWY	BMT SEA BEACH	T	O	4	STATE	8/7/2002	5.079	GOOD	16800	$24,192,000.00	11
2243750	K	AVENUE O	BMT SEA BEACH	T	O	1	STATE	10/22/2003	5.863	GOOD	4658	$6,707,520.00	11
2243760	K	AVENUE P	BMT SEA BEACH	T	O	1	STATE	10/29/2003	6.791	VGOOD	5544	$8,640,000.00	11
2243770	K	KINGS HIGHWAY	BMT SEA BEACH	T	O	1	STATE	10/30/2003	6.767	VGOOD	5032	$17,280,000.00	11
2243780	K	HIGHLAWN AVE	BMT SEA BEACH	T	O	1	STATE	10/31/2003	6.440	VGOOD	6960	$16,272,000.00	11
2243790	K	AVENUE S	BMT SEA BEACH	T	O	1	STATE	11/5/2003	6.133	VGOOD	5360	$6,912,000.00	15
2243800	K	AVENUE T	BMT SEA BEACH	T	O	1	STATE	11/6/2003	6.033	VGOOD	5360	$12,240,000.00	11
2243810	K	AVENUE U	BMT SEA BEACH	T	O	1	STATE	8/1/2002	6.569	VGOOD	5880	$12,240,000.00	15
2243820	K	21ST AVE	BMT SEA BEACH	T	O	4	STATE	8/13/2002	4.132	FAIR	21400	$30,816,000.00	11
2243839	K	4TH AVE	NYCTA BMT TRACKS	T	O	1	STATE	11/14/2003	6.633	VGOOD	5160	$5,904,000.00	7
2243840	K	9TH AVE	NYCTA BMT YARD	T	O	5	STATE	10/27/2003	6.514	VGOOD	12440	$17,913,600.00	12
2243850	K	LIBERTY AVE	LIRR BAY RIDGE	N	O	4	STATE	8/12/2003	4.294	FAIR	6400	$9,216,000.00	16
2243860	K	GLENMORE AVE	LIRR BAY RIDGE	N	O	2	STATE	8/4/2003	4.088	FAIR	5700	$8,208,000.00	16
2243870	K	PITKIN AVE	LIRR BAY RIDGE	N	O	3	STATE	7/18/2002	4.294	FAIR	5600	$8,064,000.00	16
2243890	K	SUTTER AVE	LIRR BAY RIDGE	N	O	3	STATE	8/4/2003	4.118	FAIR	5400	$7,776,000.00	16
2243900	K	BLAKE AVE	LIRR BAY RIDGE LINE	N	O	3	STATE	7/19/2002	5.309	GOOD	4900	$7,056,000.00	16
2243910	K	LIVONIA AVE PED BRDG	LIRR BAY RIDGE LINE	N	O-PED	3	CITY	01/18/01	5.458	GOOD	2500	$3,600,000.00	16
2243920	K	7TH AVE	NYCTA BMT YARD	T	O	2	STATE	11/4/2003	3.917	FAIR	5200	$7,488,000.00	7
2243940	K	9TH AVE	NYCTA IND SBWY	T	O	5	STATE	11/4/2003	4.737	FAIR	11900	$17,136,000.00	12
2244010	K	PROSPECT PK E DRIVE	ENDALE ARCH E DRIVE		O	1	CITY	05/07/02	4.367	FAIR	900	$1,296,000.00	55
2244020	K	W DR OV WK-MA.ENT	MEADOWPORT ARCH		O	1	STATE	4/7/2003	5.571	GOOD	2500	$3,600,000.00	55
2244030	K	EAST DRIVE	BRIDLE PATH		O	1	STATE	4/10/2003	5.041	GOOD	2000	$2,880,000.00	55
2244040	K	EAST DRIVE	EAST WOOD ARCH		O	1	CITY	6/30/2003	4.200	FAIR	900	$1,296,000.00	55
2244050	K	CENTRAL DRIVE	PED PATH & STREAM		WO	3	STATE	4/16/2003	5.316	GOOD	7400	$10,656,000.00	55
2244060	K	CLEFT RIDGE SPAN	PROSPECT PARK		O	1	CITY	6/10/2003	4.500	FAIR	900	$1,296,000.00	55
2244120	K	HILL DRIVE	PROSPECT PK LAKE		WO	3	STATE	4/18/2003	3.745	FAIR	7800	$11,232,000.00	55
2244150	K	RIDGE BLVD	SHORE RD DRIVE		O	1	STATE	5/28/2003	6.867	VGOOD	4350	$10,080,000.00	10
2244160	K	3RD AVE	SHORE RD DRIVE		O	1	STATE	5/28/2003	6.818	VGOOD	4360	$10,224,000.00	10
2244170	K	ATLNTC AV SVC RD E.B.	EAST NEW YORK AVE		O	2	STATE	7/25/2003	4.737	FAIR	5500	$7,920,000.00	5
2244180	K	ATLNTC AV SVC RD W.B.	EAST NEW YORK AVE		O	2	STATE	7/25/2003	4.491	FAIR	6200	$8,928,000.00	16
2244440	K	SOUTH OF TILLARY ST	NAVY ST		O-PED	1	CITY	5/5/2003	4.244	FAIR	6200	$8,928,000.00	2
2244460	K	CONDUIT BLVD NB	ATLANTIC AVE EB		O	1	STATE	4/22/2002	5.000	GOOD	3800	$5,472,000.00	5
2244470	K	SEELEY ST	PROSPECT AVE		O	1	STATE	7/10/2003	4.100	FAIR	7700	$11,088,000.00	7
2244480	K	5TH AVE	GREENWOOD CEMETERY		O	1	STATE	6/2/2003	5.000	GOOD	3600	$5,184,000.00	7
2245010	M	11TH AVE VIADUCT	LIRR WEST SIDE YARD	AL	O	39	STATE	11/27/2002	3.875	FAIR	157500	$226,800,000.00	4
224501B	M	W 33RD ST	AMTRAK 30 ST BRANCH	A	O	8	STATE	6/28/2002	4.347	FAIR	16500	$23,760,000.00	4
224501C	M	W 33RD ST	LAND ADJ TO AMTRAK	A	O	2	STATE	6/3/2003	4.750	FAIR	4620	$6,652,800.00	4
224501D	M	W 34TH ST	AMTRAK 30 ST BRANCH	A	O	4	STATE	6/5/2003	4.653	FAIR	11800	$16,992,000.00	4
224501E	M	W 35TH ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	6/25/2002	4.347	FAIR	6500	$9,360,000.00	4
224501F	M	W 36TH ST	AMTRAK 30 ST BRANCH	A	O	7	STATE	6/26/2002	4.090	FAIR	16400	$23,616,000.00	4
2245040	M	FORT TRYON PARK	SOUTH OF CLOISTERS		O	1	CITY	7/15/2003	5.333	GOOD	750	$1,080,000.00	12
2245050	M	FORT TRYON PARK	UNDERPASS		O	1	CITY	7/15/2003	4.867	FAIR	750	$1,080,000.00	12
2245060	M	W 37TH ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	10/28/2003	5.984	GOOD	7600	$10,944,000.00	4
2245070	M	W 38TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/26/2002	4.077	FAIR	6200	$8,928,000.00	4
2245080	M	W 39TH ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	6/26/2002	4.288	FAIR	6300	$9,072,000.00	4
2245090	M	W 43RD ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/20/2002	4.765	FAIR	4100	$5,904,000.00	4
2245100	M	W 44TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/20/2002	4.662	FAIR	4300	$6,192,000.00	4
2245110	M	W 45TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/21/2002	4.632	FAIR	4100	$5,904,000.00	4
2245120	M	W 46TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/5/2002	4.559	FAIR	4100	$5,904,000.00	4
2245130	M	W 47TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/28/2002	4.721	FAIR	4100	$5,904,000.00	4
2245140	M	W 48TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/29/2002	4.735	FAIR	4100	$5,904,000.00	4
2245150	M	W 49TH ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	6/5/2002	4.574	FAIR	4100	$5,904,000.00	4
2245160	M	W 51ST ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/30/2002	4.794	FAIR	4300	$6,192,000.00	4
2245170	M	W 52ND ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/29/2002	5.074	GOOD	4300	$6,192,000.00	4
2245180	M	W 53RD ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/29/2002	5.338	GOOD	5100	$7,344,000.00	4
2245190	M	W 58TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/6/2002	4.588	FAIR	4100	$5,904,000.00	4

INVENTORY SORTED BY B.I.N.													
BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2245209	M	11TH AVE	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/17/2002	4.471	FAIR	15400	$22,176,000.00	4
2245210	M	W 42ND ST	AMTRAK 30 ST BRANCH	A	O	4	STATE	7/22/2002	4.429	FAIR	10300	$14,832,000.00	4
2245220	M	W 57TH ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	6/17/2002	4.838	FAIR	9100	$13,104,000.00	4
2245230	M	W 148TH ST PED BRDG	AMTRAK 30 ST BRANCH	A	O-PED	3	CITY	09/07/01	3.692	FAIR	1100	$1,584,000.00	9
2245250	M	W 158TH ST	AMTRAK 30 ST BRANCH	A	O	7	STATE	11/14/2003	6.431	VGOOD	29170	$42,004,800.00	12
2245260	M	W 173RD ST PED BRDG	AMTRAK 30 ST BRANCH	A	O-PED	2	CITY	10/15/02	4.657	FAIR	1500	$2,160,000.00	12
2245290	M	W 155TH ST PED BRDG	AMTRAK 30 ST BRANCH	A	O-PED	3	CITY	09/09/02	3.646	FAIR	800	$1,152,000.00	9
2245300	M	INWOOD HILL PK FTBR	AMTRAK 30 ST BRANCH	A	O-PED	6	CITY	09/30/02	4.361	FAIR	700	$1,008,000.00	12
2245319	M	E 97TH ST	METRO NORTH MAIN LN	M	O	1	STATE	11/25/2002	4.686	FAIR	3200	$4,608,000.00	8
2245330	M	W 41ST ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	7/22/2002	4.159	FAIR	6200	$8,928,000.00	4
2245340	M	W 50TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/30/2002	4.647	FAIR	4100	$5,904,000.00	4
2245350	M	W 54TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/3/2002	5.603	GOOD	4700	$6,768,000.00	4
2245360	M	W 55TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/3/2002	5.529	GOOD	4300	$6,192,000.00	4
2245370	M	W 56TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/3/2002	5.368	GOOD	4400	$6,336,000.00	4
2245380	M	E 66TH ST	PED WALK N. OF ZOO		O	1	STATE	3/18/2002	5.000	GOOD	1500	$2,160,000.00	8
2245420	M	W 65TH ST E.B.	BRIDLE PATH W END		O	1	STATE	4/1/2002	4.864	FAIR	1600	$2,304,000.00	64
2245440	M	W 40TH ST	AMTRAK 30 ST BRANCH	A	O	4	STATE	12/14/2003	3.956	FAIR	9400	$13,536,000.00	4
2245460	M	PARK AVE S.B.	E 45TH ST		O	1	STATE	8/29/2003	4.946	FAIR	2400	$3,456,000.00	5
2245470	M	PARK AVE N.B	E 45TH ST		O	1	STATE	9/17/2003	4.865	FAIR	2400	$3,456,000.00	5
2245480	M	TO GWB OPP W 171ST ST	RIVERSIDE DRIVE		O	1	STATE	9/3/2002	5.333	GOOD	10800	$15,552,000.00	12
2246000	M	WEST DRIVE	PED BET 61ST & 62ST		O	1	STATE	3/14/2002	5.267	GOOD	2500	$3,600,000.00	64
2246030	M	PEDESTRIAN BRIDGE	POND		O-PED	1	CITY	7/28/2003	4.448	FAIR	1400	$2,016,000.00	64
2246040	M	EAST DR AT CNTRL PARK	PEDESTRIAN WALK		O	1	CITY	06/20/03	5.000	GOOD	1200	$1,728,000.00	5
2246050	M	CENTRAL DRIVE	PED OPP 63RD ST		O	1	STATE	3/25/2002	5.000	GOOD	2000	$2,880,000.00	64
2246069	M	EAST DRIVE	PEDESTRIAN WALK		O	1	STATE	3/25/2002	4.500	FAIR	2700	$3,888,000.00	64
2246070	M	CPK UNDER CENTR DR	OPP 65TH ST-IN E&W		O	1	CITY	6/23/2003	5.733	GOOD	1200	$1,728,000.00	64
2246080	M	WEST DRIVE	BRIDLE PATH @ 64TH ST		O	1	STATE	4/2/2002	4.667	FAIR	2000	$2,880,000.00	64
2246090	M	PED BRDG OPP 65 ST	TRANSVERSE RD #1		O-PED	1	CITY	6/21/2003	4.483	FAIR	2300	$3,312,000.00	64
2246100	M	CONTRAL DRIVE	TRANSVERSE RD #1		O	1	STATE	5/18/2002	4.333	FAIR	6000	$8,640,000.00	64
2246110	M	EAST DRIVE	TRANSVERSE RD #1		O	1	STATE	5/19/2002	4.567	FAIR	6000	$8,640,000.00	64
2246120	M	WEST DRIVE	TRANSVERSE RD #1		O	1	STATE	5/19/2002	4.833	FAIR	7900	$11,376,000.00	64
2246130	M	CENTRAL PARK	UNDER EAST DRIVE		O	1	CITY	6/20/2003	4.276	FAIR	1200	$1,728,000.00	64
2246140	M	72ND ST ENT TO W DR	BRIDLE PATH		O	1	STATE	2/26/2002	4.867	FAIR	3600	$5,184,000.00	64
2246150	M	72ND ST CROSS DR	NEAR CONCERT GRNDS		O	3	STATE	3/6/2002	4.941	FAIR	7300	$10,512,000.00	64
2246170	M	EAST DRIVE	PED WALK @ 73RD ST		O	1	STATE	3/6/2002	5.019	GOOD	1900	$2,736,000.00	64
2246230	M	EAST DRIVE	TRANSVERSE RD #2		O	1	STATE	6/2/2002	4.533	FAIR	6500	$9,360,000.00	64
2246240	M	WEST DRIVE	TRANSVERSE RD #2		O	1	STATE	6/2/2002	4.167	FAIR	7200	$10,368,000.00	64
2246250	M	EAST DRIVE	TRANSVERSE RD #3		O	1	STATE	4/21/2002	4.467	FAIR	5100	$7,344,000.00	64
2246260	M	WEST DRIVE	TRANSVERSE RD #3		O	1	STATE	4/21/2002	4.800	FAIR	5100	$7,344,000.00	64
2246270	M	EAST DRIVE	TRANSVERSE RD #4		O	1	STATE	6/8/2002	3.967	FAIR	7000	$10,080,000.00	64
2246280	M	WEST DRIVE	TRANSVERSE RD #4		O	1	STATE	6/8/2002	4.133	FAIR	4700	$6,768,000.00	64
2246330	M	WEST DRIVE	FEEDER TO LAKE		WO	1	STATE	3/4/2002	5.000	GOOD	6700	$9,648,000.00	64
2246350	M	CNTRL PK OVER E DRIVE	S OF CLEOPATRAS NDL		O	1	CITY	6/23/2003	4.300	FAIR	750	$1,080,000.00	64
2246360	M	WEST DRIVE	PED WALK OPP 82 ST		O	1	STATE	3/5/2002	6.136	VGOOD	3100	$4,464,000.00	64
2246400	M	E FOOTBRIDGE	TRANSVERSE RD #2		O-PED	1	CITY	10/4/2003	4.500	FAIR	3700	$5,328,000.00	64
2246410	M	TRANSVERSE RD. #1	PED WALK NEAR 5 AV		O	1	STATE	3/15/2002	4.364	FAIR	2000	$2,880,000.00	8
2246430	M	WEST DRIVE	PED OPP 109TH ST		O	1	STATE	3/8/2002	4.183	FAIR	1200	$1,728,000.00	64
2246440	M	PED IN CTR OF PK	TRANSVERSE RD NO.2		O-PED	1	CITY	10/4/2003	4.655	FAIR	5900	$8,496,000.00	64
2246450	M	79 ST ENTR TO E DR	PED PATH OPP 77TH ST		O	1	STATE	2/27/2002	5.190	GOOD	5000	$7,200,000.00	64
2246460	M	77 ST ENTR TO W DR	PED PATH OPP 77TH ST		O	2	STATE	3/7/2002	4.789	FAIR	5800	$8,352,000.00	64
2246470	M	EAST DRIVE	THE LOCH		WO	1	STATE	4/3/2002	4.700	FAIR	1100	$1,584,000.00	64
2246489	M	W 181 ST	RAMP TO WASH BR		O	1	STATE	3/28/2002	4.633	FAIR	8200	$11,808,000.00	12
2246490	M	A.C. POWELL BLVD N.B.	A.C. POWELL BLVD		O	1	STATE	4/10/2002	4.061	FAIR	5600	$8,064,000.00	10
2246500	M	FORT TRYON PLACE	ENTR FROM RIVERSIDE DR		O	1	STATE	4/12/2002	4.233	FAIR	6600	$9,504,000.00	12
2246510	M	CORBIN PL OVERPASS	CORBIN PLACE		O	1	STATE	3/11/2002	5.133	GOOD	2200	$3,168,000.00	12
2246540	M	E 34TH ST	PARK AVE TUNNEL		OT	1	STATE	9/9/2003	4.033	FAIR	36200	$52,128,000.00	5
2246550	M	PARK AVE VIADUCT	E 42ND ST		O	10	STATE	10/29/2003	4.716	FAIR	19600	$28,224,000.00	6
2246560	M	TUDOR CITY PLACE	E 42ND ST		O	1	STATE	4/25/2002	5.056	GOOD	6600	$9,504,000.00	6
2246570	M	UNITED NATIONS PL	FIRST AVE TUNNEL		OT	2	STATE	10/31/2002	5.000	GOOD	92200	$132,768,000.00	6
2246600	M	W 176TH ST PED BRDG	APPROACH TO G.W.B.		O-PED	1	CITY	3/21/2003	4.517	FAIR	1200	$1,728,000.00	12
2246620	M	PEDESTRIAN BRIDGE	E 128TH ST		O-PED	18	CITY	04/24/02	4.717	FAIR	2300	$3,312,000.00	11
2246660	M	RIVERSIDE DRIVE	W 125TH ST & OTHERS		O	27	STATE	6/25/2003	4.500	FAIR	148300	$213,552,000.00	9
2246670	M	W 134 ST VIADUCT	RIVERSIDE DRIVE		O	3	STATE	6/27/2003	4.852	FAIR	7927	$11,414,880.00	9
2246690	M	ISHAM PK VEHICULR	HARLEM RIVER INLET		O	1	STATE	11/12/2002	6.652	VGOOD	700	$1,008,000.00	12
2246710	M	W 153 ST	A.C. POWELL BLVD		O	1	STATE	4/10/2002	4.389	FAIR	3082	$4,438,080.00	10
2246720	M	RIVERSIDE DRIVE	W 158TH ST		O	77	STATE	11/19/2003	3.542	FAIR	181400	$261,216,000.00	9
2246970	M	RIVERSIDE DRIVE	W 96TH ST		O	3	STATE	6/9/2003	5.618	GOOD	10600	$15,264,000.00	7
2246980	M	RIVERSIDE DRIVE	W 138TH ST		O	1	STATE	4/23/2002	4.900	FAIR	6700	$9,648,000.00	9
2246990	M	129 - 130 ST PED BRDG	RAMP OFF 3RD AVE		O-PED	5	CITY	05/29/02	4.238	FAIR	500	$720,000.00	11
2247020	Q	94TH ST PED BRDG	LIRR N SIDE DIV	L	O-PED	5	CITY	12/16/02	4.211	FAIR	500	$720,000.00	4
2247040	Q	UNION ST	LIRR N SIDE DIV	L	O	1	STATE	6/11/2003	6.391	VGOOD	3313	$4,770,720.00	7
2247050	Q	BOWNE AVE	LIRR N SIDE DIV	L	O	1	STATE	8/1/2002	5.863	GOOD	4974	$7,162,560.00	7
2247060	Q	PARSONS BLVD	LIRR N SIDE DIV	L	O	1	STATE	8/2/2002	5.451	GOOD	4200	$6,048,000.00	7
2247070	Q	147TH ST	LIRR N SIDE DIV	L	O	1	STATE	6/11/2003	5.627	GOOD	2800	$4,032,000.00	7
2247080	Q	149TH ST	LIRR N SIDE DIV	L	O	1	STATE	6/11/2003	4.776	FAIR	4100	$5,904,000.00	7
2247090	Q	149TH PLACE	LIRR N SIDE DIV	L	O	2	STATE	6/11/2003	5.386	GOOD	4300	$6,192,000.00	7
2247100	Q	150TH ST	LIRR N SIDE DIV	L	O	2	STATE	6/11/2003	6.588	VGOOD	7830	$11,275,200.00	7
2247110	Q	MURRAY ST	LIRR N SIDE DIV	L	O	1	STATE	6/11/2003	5.556	GOOD	4000	$5,760,000.00	7
2247120	Q	WOODSIDE AVE	LIRR MAIN LINE	L	O	3	STATE	7/19/2003	4.444	FAIR	14900	$21,456,000.00	2
2247130	Q	CORPORAL KENNEDY ST	LIRR N SIDE DIV	L	O	1	STATE	6/13/2003	6.529	VGOOD	4340	$6,249,600.00	11
2247140	Q	BELL BLVD	LIRR N SIDE DIV	L	O	1	STATE	6/13/2003	5.881	GOOD	4320	$6,220,800.00	11
2247150	Q	65TH ST	LIRR N SIDE DIV	L	O	3	STATE	7/2/2003	6.542	VGOOD	6344	$8,640,000.00	2
2247160	Q	65TH PLACE	LIRR N SHR DIV	L	O	3	STATE	7/2/2003	6.471	VGOOD	8381	$12,068,640.00	2
2247170	Q	DOUGLASTON PKWY	LIRR N SIDE DIV	L	O	3	STATE	7/1/2002	5.288	GOOD	6300	$9,072,000.00	11
2247180	Q	GRAND AVE	LIRR MAIN LINE	L	O	3	STATE	7/23/2002	5.000	GOOD	7415	$10,677,600.00	4
2247190	Q	55TH AVE PED BRDG	LIRR MAIN LINE	L	O-PED	3	CITY	12/07/00	4.429	FAIR	13000	$18,720,000.00	4
2247220	Q	80TH ROAD	LIRR MAIN LINE	L	O	3	STATE	6/24/2003	5.000	GOOD	4100	$5,904,000.00	9

INVENTORY SORTED BY B.I.N.													
BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2247230	Q	82ND AVE	LIRR MAIN LINE	L	O	3	STATE	6/24/2003	5.443	GOOD	4100	$5,904,000.00	9
2247240	Q	LEFFERTS BLVD	LIRR MAIN LINE	L	O	3	STATE	6/25/2003	5.917	GOOD	5460	$7,862,400.00	9
2247260	Q	JACKSON AVE	LIRR,AMT,CON NE	L	O	1	STATE	11/4/2002	6.183	VGOOD	4517	$6,504,480.00	2
2247270	Q	21ST STREET	CONRAIL	C	O	6	STATE	7/7/2003	5.528	GOOD	17590	$25,329,600.00	2
2247290	Q	49TH AVE	LIRR,AMT,CON NE	L	O	5	STATE	11/1/2002	4.389	FAIR	20200	$29,088,000.00	2
2247300	Q	THOMPSON AVE	AMTRAK YARD	L	O	14	STATE	12/13/2002	5.333	GOOD	61280	$88,243,200.00	2
2247310	Q	QUEENS BLVD	AMTRAK & LIRR YARD	L	O	19	STATE	12/10/2002	6.465	VGOOD	92400	$133,056,000.00	2
2247320	Q	HONEYWELL ST	AMTRAK & LIRR YARD	AL	O	22	STATE	7/30/2003	6.569	VGOOD	98300	$141,552,000.00	2
2247330	Q	39TH ST (NORTH)	SUNNYSIDE YARDS	AL	O	14	STATE	9/9/2003	6.556	VGOOD	48200	$69,408,000.00	2
2247370	Q	37TH AVE	CONRAIL HELLGATE	C	O	1	STATE	8/6/2003	4.818	FAIR	5300	$7,632,000.00	2
2247380	Q	ROOSEVELT AVE	CONRAIL HELLGATE	C	O	2	STATE	9/23/2002	5.042	GOOD	5200	$7,488,000.00	2
2247390	Q	41ST AVE	CONRAIL HELLGATE	C	O	2	STATE	8/6/2003	4.942	FAIR	4000	$5,760,000.00	2
2247400	Q	WOODSIDE AVE	CONRAIL	C	O	1	STATE	8/7/2003	5.067	GOOD	8200	$11,808,000.00	2
2247410	Q	43RD AVE	CONRAIL	C	O	1	STATE	8/8/2003	5.033	GOOD	4800	$6,912,000.00	2
2247420	Q	44TH AVE	CONRAIL	C	O	1	STATE	8/8/2003	5.033	GOOD	5100	$7,344,000.00	2
2247430	Q	45TH AVE	CONRAIL	C	O	1	STATE	8/8/2003	5.510	GOOD	2400	$3,456,000.00	2
2247440	Q	GRAND AVE	CONRAIL	C	O	1	STATE	8/11/2003	6.567	VGOOD	3400	$4,896,000.00	5
2247450	Q	57TH AVE	CONRAIL	C	O	1	STATE	8/11/2003	6.195	VGOOD	2248	$3,456,000.00	5
2247460	Q	CALDWELL AVE	CONRAIL	C	O	1	STATE	9/24/2002	6.639	VGOOD	2243	$3,229,920.00	5
2247470	Q	ELIOT AVE	CONRAIL	C	O	1	STATE	8/12/2003	5.250	GOOD	3600	$5,184,000.00	5
2247480	Q	JUNIPER BLVD SO	CONRAIL	C	O	1	STATE	8/12/2003	5.556	GOOD	8500	$12,240,000.00	5
2247490	Q	69TH ST JUNPR BLVD	CONRAIL	C	O	1	STATE	9/25/2002	5.455	GOOD	6175	$8,892,000.00	5
2247500	Q	METROPOLITAN AVE	CONRAIL	C	O	1	STATE	8/12/2003	4.167	FAIR	18650	$26,856,000.00	5
2247530	Q	ANDREWS AVE	LIRR MONTAUK DIV	L	O	4	STATE	6/16/2003	4.113	FAIR	3200	$4,608,000.00	5
2247540	Q	60TH ST	LIRR MONTAUK DIV	L	O	2	STATE	6/17/2003	5.264	GOOD	5340	$7,689,600.00	5
2247550	Q	ELIOT AVE	LIRR MONTAUK DIV	L	O	2	STATE	6/18/2003	5.894	GOOD	9200	$13,248,000.00	5
2247570	Q	80TH ST	71ST TO 77TH AVE	L	O	5	STATE	8/9/2002	5.169	GOOD	11725	$16,884,000.00	5
2247590	Q	FOREST PARK DRIVE	LIRR MONTAUK DIV	L	O	5	STATE	6/23/2003	5.404	GOOD	6000	$8,640,000.00	9
2247600	Q	PARK LANE SOUTH	LIRR MONTAUK DIV	AL	O	1	STATE	7/31/2002	7.000	VGOOD	3024	$8,496,000.00	9
2247620	Q	MYRTLE AVE	ABANDONED LIRR	L	O	3	STATE	3/27/2002	5.250	GOOD	6725	$9,684,000.00	4
2247630	Q	PED BRG NEAR UNION TPK	ABANDONED LIRR		O-PED	8	CITY	8/6/2003	5.154	GOOD	900	$1,296,000.00	5
2247640	Q	39 ST (SOUTH)	AMTRAK & LIRR YARD	AL	O	9	STATE	9/10/2003	6.125	VGOOD	34100	$49,104,000.00	2
2247650	Q	60TH RD PED BRDG	LIRR MAIN LINE	L	O-PED	3	CITY	01/14/03	5.207	GOOD	2293	$3,301,920.00	5
2247660	Q	FOREST PARK DRIVE	ABANDONED LIRR	L	O	6	STATE	6/2/2003	5.254	GOOD	10000	$14,400,000.00	9
2247680	Q	221ST ST	LIRR N SIDE DIV	L	O	3	STATE	6/12/2003	6.000	GOOD	6050	$8,712,000.00	11
2248019	Q	WOODHAVEN BLVD	ATLANTIC AVE		O	3	STATE	7/15/2002	4.472	FAIR	19400	$27,936,000.00	9
2248020	Q	WHITELAW PED BRDG	CONDUIT AVE		O-PED	7	CITY	4/24/2003	4.775	FAIR	5500	$7,920,000.00	10
2248039	Q	CROSS BAY BLVD	CONDUIT BLVD		O	2	STATE	6/6/2003	3.535	FAIR	17000	$24,480,000.00	10
2248040	Q	LINDEN BLVD	CONDUIT AVE		O	1	STATE	5/23/2002	5.233	GOOD	3352	$4,826,880.00	10
2248129	Q	UNION TPKE	CREEDMO0RE HOSP RD		O	1	STATE	5/9/2003	4.867	FAIR	3500	$5,040,000.00	13
2248159	Q	WOODHAVEN BLVD	QUEENS BLVD		O	2	STATE	6/18/2002	4.308	FAIR	11500	$16,560,000.00	6
2248160	Q	ELLIOT AVE	QUEENS BLVD		O	2	STATE	8/23/2002	4.922	FAIR	13785	$19,850,400.00	12
2248200	Q	RUST ST	FLUSHING AVE		O	1	STATE	5/12/2003	5.547	GOOD	2900	$4,176,000.00	5
2248220	Q	FLUSHING AV SERVICE	FLUSHING AVE		O	1	STATE	5/12/2003	5.125	GOOD	3000	$4,320,000.00	5
2248230	Q	BEACH CHANNEL DR WB	BEACH CHANNEL DR EB		O	1	STATE	5/19/2003	4.400	FAIR	3600	$5,184,000.00	84
2248240	Q	SERVICE RD TURNAROUND	OVER FLUSHING AVE		O	1	STATE	5/12/2003	5.250	GOOD	2900	$4,176,000.00	5
2248250	Q	102ND ST	HAWTREE BASIN		WO	3	STATE	7/15/2003	6.574	VGOOD	3200	$4,608,000.00	10
2248260	Q	FLUSHING MEADW PARK	MEADOW LAKE & 69TH RD		WO	5	STATE	4/25/2002	4.891	FAIR	4200	$6,048,000.00	81
2248299	Q	INTER PKWY-UNION TPK	AUSTIN ST		O	1	STATE	3/22/2002	4.750	FAIR	5900	$8,496,000.00	9
2248300	Q	71ST AVE	COOPER AVE		O	1	STATE	5/9/2003	4.458	FAIR	2800	$4,032,000.00	5
2248340	Q	FOREST PARK DR	MYRTLE AVE		O	3	STATE	5/8/2003	5.081	GOOD	5100	$7,344,000.00	9
2248369	Q	ROCKAWAY BLVD	THURSTON BASIN		WO	2	STATE	6/25/2003	5.158	GOOD	6000	$8,640,000.00	83
2249040	R	TOMPKINS AVE	B&O RR (ABANDONED)		O	1	STATE	4/9/2002	6.438	VGOOD	5096	$7,338,240.00	1
2249070	R	JOHN ST	B&O RAILROAD	O	O-PED	3	CITY	3/12/2003	6.806	VGOOD	5800	$8,352,000.00	1
2249090	R	MORNINGSTAR ROAD	B&O RAILROAD	O	O	4	STATE	4/14/2003	5.339	GOOD	7900	$11,376,000.00	1
2249100	R	GRANITE AVE	B&O RAILROAD	O	O	4	STATE	4/10/2002	6.237	VGOOD	7300	$10,512,000.00	1
2249110	R	LAKE AVE	B&O RAILROAD	O	O	3	STATE	4/9/2003	5.926	GOOD	5900	$8,496,000.00	1
2249120	R	SIMONSON AVE	B&O RAILROAD	O	O	3	STATE	5/1/2003	6.111	VGOOD	5819	$8,379,360.00	1
2249130	R	VAN NAME AVE	B&O RAILROAD	O	O	3	STATE	4/10/2003	5.492	GOOD	5474	$7,882,560.00	1
2249140	R	VAN PELT AVE	B&O RAILROAD	O	O	3	STATE	4/16/2003	5.780	GOOD	5000	$7,200,000.00	1
2249160	R	DE HART AVE	B&O RAILROAD	O	O	4	STATE	5/5/2003	6.500	VGOOD	6700	$9,648,000.00	1
2249170	R	UNION AVE	B&O RAILROAD	O	O	4	STATE	5/8/2003	5.352	GOOD	6500	$9,360,000.00	1
2249180	R	HARBOR ROAD	B&O RAILROAD	O	O	4	STATE	5/6/2003	6.356	VGOOD	6615	$9,525,600.00	1
2249200	R	SOUTH AVE	B&O RAILROAD	O	O	3	STATE	9/29/2003	6.927	VGOOD	8322	$14,544,000.00	1
2249210	R	MAIN ST PED BRDG	SIRT SOUTH SHORE	S	O-PED	9	CITY	5/14/2003	4.710	FAIR	400	$576,000.00	3
2249230	R	TRACY AVE PED BRDG	SIRT SOUTH SHORE	S	O-PED	9	CITY	5/1/2003	3.158	FAIR	200	$288,000.00	3
2249240	R	ARTHUR KILL ROAD	SIRT SOUTH SHORE	S	O	1	STATE	6/17/2002	4.833	FAIR	3700	$5,328,000.00	3
2249250	R	BETHEL AV PED BRDG	SIRT SOUTH SHORE	S	O-PED	12	CITY	6/11/2003	3.980	FAIR	500	$720,000.00	3
2249269	R	PAGE AVE	SIRT SOUTH SHORE	S	O	4	STATE	10/16/2003	6.306	VGOOD	30420	$43,804,800.00	3
2249270	R	RICHMMD VALLY ROAD	SIRT SOUTH SHORE	S	O	4	STATE	10/14/2003	5.299	GOOD	9300	$13,392,000.00	3
2249280	R	COZZINS BLVD PED BRDG	SIRT SOUTH SHORE	S	O-PED	7	CITY	6/17/2003	4.902	FAIR	200	$288,000.00	3
2249290	R	SEGUINE AVE	SIRT SOUTH SHORE	S	O	1	STATE	10/15/2003	6.016	VGOOD	2200	$3,168,000.00	3
2249300	R	HUGUENOT AVE	SIRT SOUTH SHORE	S	O	2	STATE	10/14/2003	4.955	FAIR	4900	$7,056,000.00	3
2249320	R	ALBEE AVE	SIRT SOUTH SHORE	S	O	3	STATE	10/17/2003	4.787	FAIR	6500	$9,360,000.00	3
2249330	R	ANNADALE ROAD	SIRT SOUTH SHORE	S	O	2	STATE	10/19/2003	4.455	FAIR	4500	$6,480,000.00	3
2249350	R	NELSON AVE PED BRDG	SIRT SOUTH SHORE	S	O-PED	1	CITY	6/2/2003	4.725	FAIR	300	$432,000.00	3
2249360	R	GIFFORDS LANE	SIRT SOUTH SHORE	S	O	1	STATE	6/18/2002	5.844	GOOD	3042	$4,380,480.00	3
2249370	R	GREAVES AVE	SIRT SOUTH SHORE	S	O	3	STATE	10/18/2003	6.750	VGOOD	6100	$8,784,000.00	3
2249380	R	GUYON AVE	SIRT SOUTH SHORE	S	O	3	STATE	10/19/2003	4.869	FAIR	6900	$9,936,000.00	3
2249390	R	CEDARVIEW AVE PED BRDG	SIRT SOUTH SHORE	S	O-PED	5	CITY	6/10/2003	4.684	FAIR	600	$864,000.00	3
2249400	R	BEACH AVE	SIRT SOUTH SHORE	S	O	2	STATE	10/23/2003	5.697	GOOD	3700	$5,328,000.00	2
2249410	R	ROSS AVE	SIRT SOUTH SHORE	S	O	2	STATE	10/24/2003	5.500	GOOD	3800	$5,472,000.00	2
2249420	R	ROSE AVE	SIRT SOUTH SHORE	S	O	2	STATE	10/25/2003	5.712	GOOD	3800	$5,472,000.00	2
2249430	R	NEW DORP LANE	SIRT SOUTH SHORE	S	O	2	STATE	10/18/2003	4.903	FAIR	7600	$10,944,000.00	2
2249440	R	BANCROFT AVE	SIRT SOUTH SHORE	S	O	3	STATE	10/19/2003	5.269	GOOD	5900	$8,496,000.00	2

INVENTORY SORTED BY B.I.N.													
BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2249450	R	FREMONT AVE PED BRDG	SIRT SOUTH SHORE	S	O-PED	3	CITY	6/12/2003	4.459	FAIR	800	$1,152,000.00	2
2249460	R	LINCOLN AVE	SIRT SOUTH SHORE	S	O	1	STATE	10/25/2003	5.552	GOOD	4500	$6,480,000.00	2
2249470	R	MIDLAND AVE	SIRT SOUTH SHORE	S	O	1	STATE	10/26/2003	5.603	GOOD	3000	$4,320,000.00	2
2249480	R	FINGERBOARD ROAD	SIRT SOUTH SHORE	S	O	2	STATE	10/26/2003	6.764	VGOOD	5100	$7,344,000.00	2
2249490	R	CLOVE ROAD	SIRT SOUTH SHORE	S	O	3	STATE	6/19/2002	6.264	VGOOD	5270	$11,808,000.00	2
2249510	R	TOMPKINS AVE	WILLOW AVE, SIRT	S	O	2	STATE	6/20/2002	5.525	GOOD	5378	$7,744,320.00	1
2249520	R	HANNAH ST	SIRT SOUTH SHORE	S	O	10	STATE	10/21/2003	5.119	GOOD	10020	$14,428,800.00	1
2249530	R	MINTHORNE ST PED BRDG	SIRT SOUTH SHORE	S	O-PED	23	CITY	9/17/2003	6.170	VGOOD	1600	$2,304,000.00	1
2249580	R	BELFIELD AVE PED BRDG	SIRT SOUTH SHORE	S	O-PED	5	CITY	5/15/2003	4.277	FAIR	400	$576,000.00	3
2249760	R	MARTLINGS AVE	RICHMOND LAKE DAM		WO	2	STATE	6/9/2003	4.933	FAIR	7000	$10,080,000.00	1
2249800	R	FOREST AVE	CLOVE LAKES PK STREAM		WO	1	STATE	9/9/2003	4.767	FAIR	1600	$2,304,000.00	1
2249810	R	HYLAN BLVD	LEMON CREEK		WO	1	STATE	4/12/2002	6.625	VGOOD	11400	$16,416,000.00	3
2249820	R	ARTHUR KILL ROAD	ARTHUR KILL STREAM		WO	1	STATE	5/9/2003	4.122	FAIR	2000	$2,880,000.00	3
2249840	R	TOMPKINS AVE	GREENFIELD AVE		O	1	STATE	4/15/2002	5.277	GOOD	2562	$3,689,280.00	1
2249860	R	SLATER BLVD	NEW CREEK		WO	1	STATE	4/14/2003	5.959	GOOD	3500	$5,040,000.00	2
2249870	R	TRAVIS AVE	MAIN CREEK		WO	1	STATE	8/5/2003	6.100	VGOOD	1700	$2,448,000.00	2
2249880	R	CHELSEA ROAD	SAWMILL CREEK		WO	1	STATE	5/12/2003	6.981	VGOOD	2205	$3,163,680.00	2
2257569	M	MILLER HIGHWAY	TERRAIN		A	63	STATE	7/1/2003	5.000	GOOD	287539	$414,056,160.00	7
2266129	Q	WINCHESTER BLVD S.B.	BCIP		A	1	STATE	5/24/2002	4.592	FAIR	4400	$6,336,000.00	11
2266139	Q	WINCHESTER BLVD N.B.	BCIP		A	1	STATE	5/24/2002	4.714	FAIR	6400	$9,216,000.00	11
2266149	Q	HEMPSTEAD AVE	CROSS ISLAND PKWY		A	2	STATE	7/11/2002	4.077	FAIR	9500	$13,680,000.00	13
2266160	Q	678I SB TO BCIP EB	ACCESS RD FROM 678I		A	1	STATE	5/20/2002	4.438	FAIR	2300	$3,312,000.00	7
2266229	M	HHP	PED UNDERPASS @ 148 ST		A	1	STATE	4/8/2002	5.621	GOOD	1800	$2,592,000.00	9
2266230	M	HHP	PED UNDERPASS INWD PK		A	1	STATE	2/22/2002	6.211	VGOOD	800	$1,152,000.00	12
2266240	M	HHP	PED UNDERPASS INWD PK		A	1	STATE	3/11/2002	5.762	GOOD	1100	$1,584,000.00	12
2266540	B	BRUCKNER BLVD OVRPAS	133RD - 135TH ST		A	2	STATE	5/7/2003	4.645	FAIR	32900	$47,376,000.00	1
226672A	M	W 31ST ST	AMTRAK LAYUP TRACKS	A	O	9	STATE	7/22/2002	3.587	FAIR	8800	$12,672,000.00	4
2266770	Q	CROSS ISLAND PKWY	LAURELTON PKWY		A	1	STATE	7/3/2002	5.250	GOOD	9508	$13,691,520.00	13
2267130	M	RIVERSIDE DRIVE	W 145TH ST		O	1	STATE	6/11/2003	4.867	FAIR	5800	$8,352,000.00	9
2267160	Q	ROOSEVELT AVE	FLUSHING MDW PK ROAD		O	4	STATE	5/23/2003	4.746	FAIR	7280	$10,483,200.00	84
2267199	Q	FRANCIS LEWIS BLVD	PARK ROAD		O	1	STATE	6/3/2003	5.167	GOOD	7085	$10,202,400.00	8
2267240	M	HRD NB RAMP	HARLEM RIVER DR		A	51	STATE	9/23/2003	3.000	POOR	112860	$162,518,400.00	12
2267250	M	HHP	AMTRAK 30TH ST LINE	A	A	55	STATE	7/22/2002	3.435	FAIR	40000	$57,600,000.00	7
2267380	M	WEST STREET	RECTOR ST		AT	1	STATE	10/14/2003	5.033	GOOD	4320	$6,220,800.00	1
2267717	M	79 ST PED PLAZA	79 ST BT BASIN GAR		A	10	STATE	5/2/2003	4.593	FAIR	27400	$39,456,000.00	7
2267718	M	79 ST TRAFFIC CIRC	79 ST PED PLAZA		A	34	STATE	5/13/2003	3.934	FAIR	24130	$34,747,200.00	7
226771A	M	79 ST RAMP TO HHP	79 ST BT BASIN GAR		AR	4	STATE	5/16/2003	4.242	FAIR	3131	$4,508,640.00	7
226771B	M	79 ST RAMP TO GAR	79 ST BT BASIN GAR		AR	21	STATE	5/23/2003	4.452	FAIR	7114	$10,244,160.00	7
226771C	M	GAR RAMP TO 79 ST	79 ST BT BASIN GAR		AR	21	STATE	6/9/2003	4.726	FAIR	9095	$13,096,800.00	7
226771D	M	SB HHP RAMP TO 79 ST	79 ST BT BASIN GAR		AR	4	STATE	5/29/2003	4.645	FAIR	2601	$3,745,440.00	7
2267860	K	BROOKLYN BR APPROACH	SANDS STREET		O	1	STATE	5/14/2002	4.732	FAIR	6490	$9,345,600.00	2
2268350	K	BROOKLYN PROMENADE	278I N.B. (B.Q.E.)		A-PED	35	CITY	04/17/03	4.500	FAIR	46184	$66,504,960.00	6
2268480	M	CHAMBERS ST PED BRDG	WEST SIDE HWY		O-PED	8	CITY	8/12/2003	5.849	GOOD	3344	$4,815,360.00	1
2268497	K	278I W.B. (B.Q.E.)	FURMAN ST		A	45	STATE	6/19/2003	4.292	FAIR	78022	$112,351,680.00	2
2268498	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)		A	69	STATE	7/16/2003	4.041	FAIR	120734	$173,856,960.00	2
2268507	K	278I W.B. (B.Q.E.)	YORK ST		A	6	STATE	6/13/2003	4.262	FAIR	9380	$13,507,200.00	2
2268508	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)		A	11	STATE	5/19/2003	4.034	FAIR	17956	$25,856,640.00	2
2268517	K	278I W.B. (B.Q.E.)	FURMAN ST		A	7	STATE	7/22/2003	4.206	FAIR	10988	$15,822,720.00	2
2268518	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)		A	5	STATE	11/11/2003	4.310	FAIR	8375	$12,060,000.00	2
2268650	M	FDR NB 42ND TO 49ST	EAST RIVER		A	119	STATE	8/28/2003	4.415	FAIR	30767	$44,304,480.00	6
2268760	M	PS-5 PEDESTRIAN BR.	TENTH AVENUE		O-PED	5	CITY	6/3/2003	5.837	GOOD	1500	$2,160,000.00	12
2268770	Q	SPRINGFIELD BLVD	EQUES. PATH (ABAND.)		O	1	STATE	6/3/2003	4.778	FAIR	1470	$2,116,800.00	13
2268920	R	AMBOY ROAD	LEMON CREEK		WO	1	STATE	4/17/2002	7.000	VGOOD	1310	$2,079,360.00	3
2268930	M	MORRIS ST PED BRDG	BKLN-BATTERY TUNN PLZ		A-PED	3	CITY	06/13/02	4.535	FAIR	1200	$1,728,000.00	1
2269030	B	MATTHEWSON ROAD	MAC CRACKEN AVE		O	15	STATE	11/3/2003	3.947	FAIR	14880	$21,427,200.00	7
2269190	M	W.70TH STREET	AMTRAK	A	O	3	STATE	11/3/2003	6.583	VGOOD	17433	$25,103,520.00	7
2269210	M	W.68TH STREET	AMTRAK	A	O	3	STATE	11/21/2003	6.746	VGOOD	5382	$7,702,560.00	7
2269260	K	W. 8TH STREET	SURF AVE.		O-PED	55	CITY	4/1/2003	4.000	FAIR	14742	$21,228,480.00	13
2269600	K	ERSKINE STREET	BSHP		A	1	STATE	10/30/2002	6.906	VGOOD	8258	$11,891,520.00	5
2269820	M	E 81 ST PED BRIDGE	FDR DRIVE N.B.		A-PED	3	CITY	11/2/2003	3.213	FAIR	900	$1,296,000.00	8
2300130	Q	HOOK CREEK	HOOK CREEK BRIDGE		WO	3	STATE	6/26/2003	6.339	VGOOD	18302	$26,354,880.00	13
7703720	Q	216TH ST PED BRDG	LIRR PORT WASH BRANCH	L	O-PED	5	CITY	12/07/00	4.102	FAIR	400	$576,000.00	11
7705510	Q	167TH ST PED BRDG	LIRR PORT WASH BRANCH	L	O-PED	3	CITY	11/14/01	4.208	FAIR	600	$864,000.00	7
M00001	M	PEDESTRIAN TUNNEL	BROADWAY TO		O-PED	1	CITY	10/25/02	4.556	FAIR	2000	$2,880,000.00	12
M00003	M	HHP ON/OFF RMP-79 WB	PEDESTRIAN PATH		A	1	CITY	7/16/2003	5.000	GOOD	900	$1,296,000.00	7
M00004	M	HHP ON/OFF RMP-79 EB	PEDESTRIAN PATH		A	1	CITY	7/17/2003	4.900	FAIR	900	$1,296,000.00	7
Q00002	Q	BCIP	PATH OPPOSITE 88TH RD		A	1	CITY	6/25/2003	4.467	FAIR	1200	$1,728,000.00	13
753 BRIDGES						4496	SPANS				14229757	$20,637,971,040	

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2241000	B	WESTCHESTER AVE	CONRAIL PT MORRIS	C	O	1	STATE	11/4/2002	5.085	GOOD	1740	$2,505,600.00	1
2241010	B	E 156TH STREET	CONRAIL PT MORRIS	C	O	1	STATE	11/5/2002	4.556	FAIR	2400	$3,456,000.00	1
2241020	B	E 161ST STREET	CONRAIL PT MORRIS	C	O	1	STATE	8/1/2003	6.783	VGOOD	12800	$18,432,000.00	1
2241040	B	THIRD AVE	CONRAIL PT MORRIS	C	O	1	STATE	11/6/2002	4.625	FAIR	2700	$3,888,000.00	1
2241050	B	E 149TH ST/JACKSON AVE	CONRAIL PT MORRIS	C	O	1	STATE	11/8/2002	4.950	FAIR	65000	$93,600,000.00	1
2241060	B	ST. MARYS & CONCORD	CONRAIL PT MORRIS	C	O	1	STATE	11/7/2002	5.333	GOOD	4500	$6,480,000.00	1
2241070	B	WALES AVE	CONRAIL PT MORRIS	C	O	1	STATE	11/11/2002	6.567	VGOOD	2535	$3,312,000.00	1
2241080	B	SOUTHERN BLVD	CONRAIL PT MORRIS	C	O	1	STATE	12/4/2002	4.185	FAIR	3900	$5,616,000.00	1
2241099	B	BRUCKNER BLVD	CONRAIL PT MORRIS	C	O	1	STATE	12/4/2002	6.797	VGOOD	6700	$9,648,000.00	1
2241129	B	E 149TH ST	AMTRAK	A	O	2	STATE	6/28/2002	4.704	FAIR	12575	$18,108,000.00	1
2241550	B	E 144TH ST	METRO NORTH RR HAR	M	O	2	STATE	6/11/2003	6.708	VGOOD	8290	$11,937,600.00	1
2241560	B	E 149TH ST	METRO NORTH RR HAR	M	O	8	STATE	3/14/2002	4.736	FAIR	27900	$40,176,000.00	1
2241590	B	CONCOURSE VILL AVE	METRO NORTH RR HAR	M	O	1	STATE	3/21/2002	4.094	FAIR	17800	$25,632,000.00	1
2241600	B	E 158TH ST	METRO NORTH RR HAR	M	O	1	STATE	6/10/2003	5.233	GOOD	3400	$4,896,000.00	1
2241610	B	E 161ST ST	METRO NORTH RR HAR	M	O	1	STATE	6/10/2003	5.383	GOOD	6600	$9,504,000.00	1
2242260	B	EAGLE AVE	E 161ST ST		O	1	STATE	5/13/2002	5.234	GOOD	2800	$4,032,000.00	1
2242299	B	GRAND CONCOURSE	E 138TH ST		O	1	STATE	5/9/2003	5.600	GOOD	9500	$13,680,000.00	1
2266540	B	BRUCKNER BLVD OVRPAS	133RD - 135TH ST		A	2	STATE	5/7/2003	4.645	FAIR	32900	$47,376,000.00	1
224005B	B	TO BRUCKNER BLVD	RELIEF		OR	5	STATE	8/4/2003	4.000	FAIR	12100	$17,424,000.00	1
224006A	B	TO BRUCKNER BLVD	RELIEF		OR	11	STATE	4/22/2003	2.966	POOR	11100	$15,984,000.00	1
2066671	B	BRUCKNER EXPWY SB	BRONX RIVER		WMA	3	STATE	6/12/2003	5.528	GOOD	12400	$17,856,000.00	2
2066672	B	BRUCKNER EXPWY NB	BRONX RIVER		WMA	8	STATE	6/13/2003	4.761	FAIR	22300	$32,112,000.00	2
2075351	B	BRUCKNER EXPWY SB	AMTRAK	A	A	1	STATE	7/18/2002	3.719	FAIR	11600	$16,704,000.00	2
2075352	B	BRUCKNER EXPWY NB	AMTRAK	A	A	1	STATE	7/18/2002	3.547	FAIR	10900	$15,696,000.00	2
2076929	B	BRUCKNER EXPWY	AMTRAK	A	A	1	STATE	5/8/2003	4.900	FAIR	3800	$5,472,000.00	2
2240180	B	WESTCHESTER AVE	BRONX RIVER		WO	1	STATE	6/11/2003	5.141	GOOD	5476	$7,885,440.00	2
2241139	B	LEGGETT AVE	AMTRAK	A	O	3	STATE	6/28/2002	4.690	FAIR	28300	$40,752,000.00	2
2241159	B	LONGWOOD AVE	AMTRAK	A	O	2	STATE	6/4/2002	6.042	VGOOD	10625	$15,300,000.00	2
2241169	B	LAFAYETTE AVE	AMTRAK	A	O	1	STATE	6/28/2002	5.905	GOOD	12000	$17,280,000.00	2
2241170	B	TIFFANY ST	AMTRAK	A	O	1	STATE	11/4/2003	5.843	GOOD	7267	$10,464,480.00	2
2241180	B	BARRETTO ST	AMTRAK	A	O	1	STATE	6/5/2002	6.281	VGOOD	5313	$7,650,720.00	2
2241190	B	HUNTS POINT AVE	AMTRAK	A	O	1	STATE	6/6/2002	5.250	GOOD	13700	$19,728,000.00	2
2241200	B	FAILE ST	AMTRAK	A	O	1	STATE	6/6/2002	6.156	VGOOD	6208	$8,939,520.00	2
2241210	B	BRYANT AVE	AMTRAK	A	O	1	STATE	11/6/2003	3.220	FAIR	5300	$7,632,000.00	2
2241230	B	WESTCHESTER AVE	AMTRAK	A	O	3	STATE	6/26/2002	6.250	VGOOD	15600	$22,464,000.00	2
2241030	B	E 163RD STREET	CONRAIL PT MORRIS	C	O	1	STATE	7/9/2002	4.870	FAIR	3200	$4,608,000.00	3
2241110	B	MELROSE AVE	CONRAIL PT MORRIS	C	O	8	STATE	7/31/2003	6.208	VGOOD	37854	$54,509,760.00	3
2241620	B	E 162ND ST	METRO NORTH RR HAR	M	O	1	STATE	2/23/2002	4.983	FAIR	4700	$6,768,000.00	3
2241630	B	E 165TH ST	METRO NORTH RR HAR	M	O	1	STATE	4/10/2002	4.483	FAIR	16400	$23,616,000.00	3
2241650	B	E 167TH ST	METRO NORTH RR HAR	M	O	1	STATE	2/20/2002	5.863	GOOD	3363	$4,842,720.00	3
2241660	B	E 168TH ST	METRO NORTH RR HAR	M	O	1	STATE	2/21/2002	4.922	FAIR	7700	$11,088,000.00	3
2241670	B	E 169TH ST	METRO NORTH RR HAR	M	O	1	STATE	2/22/2002	4.875	FAIR	3300	$4,752,000.00	3
2241680	B	E 170TH ST	METRO NORTH RR HAR	M	O	1	STATE	3/2/2002	6.451	VGOOD	3150	$4,536,000.00	3
2241700	B	ST PAULS PL PED BRDG	METRO NORTH RR HAR	M	O-PED	2	CITY	08/29/02	6.296	VGOOD	600	$864,000.00	3
2241710	B	CLAREMONT PKWY	METRO NORTH RR HAR	M	O	1	STATE	2/27/2002	4.484	FAIR	6300	$9,072,000.00	3
2241720	B	E 173RD ST	METRO NORTH RR HAR	M	O	1	STATE	2/26/2002	4.583	FAIR	3000	$4,320,000.00	3
2241740	B	E 175TH ST	METRO NORTH RR HAR	M	O	1	STATE	2/28/2002	4.094	FAIR	3600	$5,184,000.00	3
2076640	B	DEPOT PLACE	CONRAIL HUDSON DIV	C	O	11	STATE	6/25/2003	5.306	GOOD	30192	$43,476,480.00	4
2241409	B	GRAND CONCOURSE	METRO NORTH RR HUD	TCM	O	1	STATE	3/19/2002	3.844	FAIR	16100	$23,184,000.00	4
2241410	B	WALTON AVE	METRO NORTH RR HUD	M	O	1	STATE	3/21/2002	5.234	GOOD	3600	$5,184,000.00	4
2241420	B	GERARD AVE	METRO NORTH RR HUD	M	O	1	STATE	3/23/2002	6.766	VGOOD	5063	$7,290,720.00	4
2241430	B	RIVER AVE	METRO NORTH RR HUD	M	O	1	STATE	6/19/2003	6.578	VGOOD	5040	$7,257,600.00	4
2242200	B	YANKEE STDM PED BRDG	E 153 ST, METRO NORTH	M	O-PED	5	CITY	09/03/02	5.000	GOOD	4200	$6,048,000.00	4
2242259	B	GRAND CONCOURSE	E 161ST ST		O	1	STATE	12/5/2002	3.583	FAIR	24100	$34,704,000.00	4
2242280	B	GRAND CONCOURSE	E 167TH ST		O	2	STATE	8/21/2002	4.579	FAIR	42900	$61,776,000.00	4
2242300	B	GRAND CONCOURSE	E 170TH ST		O	2	STATE	7/1/2002	4.789	FAIR	39300	$56,592,000.00	4
2242319	B	GRAND CONCOURSE	E 174TH ST	T	O	1	STATE	5/15/2002	4.067	FAIR	14900	$21,456,000.00	4
2242329	B	GRAND CONCOURSE	E 175TH ST	T	O	1	STATE	10/23/2002	4.467	FAIR	11900	$17,136,000.00	4
2241460	B	W TREMONT AVE	METRO NORTH RR HUD	M	O	8	STATE	9/9/2002	4.761	FAIR	12900	$18,576,000.00	5
2242330	B	GRAND CONCOURSE	E TREMONT AVE		O	1	STATE	10/14/2003	6.483	VGOOD	11700	$16,848,000.00	5
2242350	B	EAST FORDHAM RD	GRAND CONCOURSE		O	1	STATE	5/10/2002	4.567	FAIR	10300	$14,832,000.00	5
2242360	B	GRAND CONCOURSE	BURNSIDE AVE		O	2	STATE	11/7/2002	4.368	FAIR	8400	$12,096,000.00	5
2241760	B	E TREMONT AVE	METRO NORTH RR HAR	M	O	1	STATE	10/10/2003	6.700	VGOOD	7300	$10,512,000.00	6
2241770	B	E 178TH ST PED BRDG	METRO NORTH RR HAR	M	O-PED	1	CITY	08/28/02	6.730	VGOOD	700	$1,008,000.00	6
2241780	B	E 179TH ST PED BRDG	METRO NORTH RR HAR	M	O-PED	6	CITY	08/27/02	6.000	GOOD	700	$1,008,000.00	6
2241790	B	E 180TH ST	METRO NORTH RR HAR	M	O	1	STATE	3/5/2002	4.078	FAIR	5000	$7,200,000.00	6
2241800	B	E 183TH ST	METRO NORTH RR HAR	M	O	1	STATE	3/6/2002	4.328	FAIR	3600	$5,184,000.00	6
2241810	B	E 188TH ST	METRO NORTH RR HAR	M	O	1	STATE	3/7/2002	4.281	FAIR	5300	$7,632,000.00	6
2241820	B	E 187TH ST	METRO NORTH RR HAR	M	O	1	STATE	3/8/2002	4.844	FAIR	3800	$5,472,000.00	6
2241839	B	E 189TH ST	METRO NORTH RR HAR	M	O	1	STATE	6/9/2003	6.533	VGOOD	43157	$62,146,080.00	6
2242030	B	CROTONA AVE	BRONX PELHAM PKWY		O	2	STATE	6/4/2002	5.316	GOOD	7600	$10,944,000.00	6
2242149	B	E TREMONT AVE	BRONX RIVER		WO	2	STATE	5/15/2002	4.778	FAIR	12900	$18,576,000.00	6
2242400	B	E 180TH ST	BRONX RIVER		WO	1	STATE	10/1/2002	4.810	FAIR	4500	$6,480,000.00	6
2230287	B	JEROME AVE	MOSHOLU PARKWAY	T	A	3	STATE	5/5/2003	5.053	GOOD	11800	$16,992,000.00	7
2241470	B	W FORDHAM RD	METRO NORTH RR HUD	M	O	5	STATE	7/8/2003	6.278	VGOOD	16052	$23,114,880.00	7
2241489	B	W 225TH ST	CONRAIL PUTNAM	C	O	2	STATE	7/10/2002	5.433	GOOD	10900	$15,696,000.00	7
2241930	B	BEDFORD PARK BLVD	NYCTA IND YARDS	T	O	4	STATE	7/20/2002	6.722	VGOOD	46300	$66,672,000.00	7
2241940	B	W 205TH ST	NYCTA IND YARDS	T	O	4	STATE	7/20/2002	6.889	VGOOD	32508	$54,432,000.00	7
2242340	B	GRAND CONCOURSE	EAST KINGSBRIDGE		O	2	STATE	12/6/2002	4.714	FAIR	16500	$23,760,000.00	7
2242370	B	GRAND CONCOURSE	BEDFORD PARK BLVD		O	1	STATE	5/14/2002	4.922	FAIR	8418	$12,121,920.00	7
2242380	B	GRAND CONCOURSE	E 204TH ST		O	1	STATE	5/7/2003	5.766	GOOD	9272	$13,351,680.00	7
2269030	B	MATTHEWSON ROAD	MAC CRACKEN AVE		O	15	STATE	11/3/2003	3.947	FAIR	14880	$21,427,200.00	7
2229440	B	HHP	KAPPOCK ST		A	1	STATE	9/22/2003	5.207	GOOD	3900	$5,616,000.00	8
2229450	B	232ND ST	HHP		A	2	STATE	9/18/2003	4.237	FAIR	4900	$7,056,000.00	8
2229460	B	236TH ST PED BRDG	HHP		A-PED	3	CITY	9/24/2003	5.106	GOOD	2500	$3,600,000.00	8
2229470	B	239TH ST	HHP		A	2	STATE	6/2/2003	4.711	FAIR	6100	$8,784,000.00	8
2229480	B	MANHATTAN COLL PKWY	HHP		A	3	STATE	4/30/2003	4.158	FAIR	6200	$8,928,000.00	8
2229490	B	246TH ST	HHP		A	2	STATE	4/29/2003	4.974	FAIR	5600	$8,064,000.00	8

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2229500	B	252ND ST	HHP		A	2	STATE	2/6/2002	4.026	FAIR	4500	$6,480,000.00	8
2229510	B	RIVERDALE AVE	HHP		A	2	STATE	8/19/2003	4.053	FAIR	5200	$7,488,000.00	8
2229520	B	FIELDSTON ROAD	HHP		A	1	STATE	8/20/2003	5.700	GOOD	6600	$9,504,000.00	8
2229530	B	HHP	BROADWAY		A	1	STATE	8/21/2003	4.936	FAIR	7500	$10,800,000.00	8
2241490	B	W 230TH ST	CONRAIL PUTNAM	C	O	1	STATE	4/8/2003	5.844	GOOD	5600	$8,064,000.00	8
2241509	B	W 231ST ST	CONRAIL PUTNAM	C	O	1	STATE	11/11/2002	5.765	GOOD	4723	$6,801,120.00	8
2241510	B	W 233RD ST	CONRAIL PUTNAM	C	O	1	STATE	4/11/2003	5.471	GOOD	3760	$5,414,400.00	8
2241520	B	W 234TH ST	CONRAIL PUTNAM	C	O	1	STATE	4/9/2003	5.569	GOOD	3770	$5,428,800.00	8
1066510	B	BRUCKNER EXP.(2066510)	WESTCHESTER CREEK		WMA	17	STATE	8/22/2003	3.821	FAIR	39400	$56,736,000.00	9
2066720	B	E 174TH ST	SHERIDAN EXPWY/AMTRAK	A	A	13	STATE	7/17/2002	4.486	FAIR	47430	$68,299,200.00	9
2241269	B	E 177TH ST	AMTRAK	A	O	3	STATE	6/24/2002	5.514	GOOD	16606	$23,912,640.00	9
2241270	B	EAST TREMONT AVE	AMTRAK	A	O	2	STATE	6/17/2002	5.722	GOOD	22300	$32,112,000.00	9
2241329	B	WHITE PLAINS ROAD	AMTRAK	A	O	1	STATE	6/18/2002	4.953	FAIR	6900	$9,936,000.00	9
2241330	B	UNIONPORT ROAD	AMTRAK	A	O	1	STATE	6/19/2002	4.875	FAIR	4400	$6,336,000.00	9
206672A	B	174TH ST-NTH PED BRDG	895I - SHERIDAN EXPWY		A-PED	4	CITY	3/27/2003	5.015	GOOD	1800	$2,592,000.00	9
206672B	B	174TH ST-STH PED BRDG	895I - SHERIDAN EXPWY		A-PED	4	CITY	3/27/2003	4.667	FAIR	1900	$2,736,000.00	9
2075820	B	E TREMONT AVE	HUTCHINSON RVR PKWY		A	2	STATE	10/31/2003	4.069	FAIR	10200	$14,688,000.00	10
2075837	B	WESTCHESTER AVE	HUTCHINSON RVR PKWY		A	2	STATE	6/28/2002	4.389	FAIR	15858	$22,835,520.00	10
2075849	B	BRONX PELHAM PKWY	HUTCHINSON RVR PKWY		A	2	STATE	8/20/2002	4.289	FAIR	17600	$25,344,000.00	10
2075859	B	HUTCHINSON RVR PKWY	HUTCHINSON RIVER		WMA	7	STATE	10/28/2002	5.375	GOOD	60500	$87,120,000.00	10
2076109	B	BE NB SERVICE RD	HUTCHINSON RVR PKWY		A	2	STATE	10/15/2003	4.737	FAIR	7800	$11,232,000.00	10
2076129	B	BE SB SERVICE RD	HUTCHINSON RVR PKWY		A	2	STATE	4/17/2002	5.105	GOOD	7100	$10,224,000.00	10
2241390	B	SHORE RD CIRCLE	AMTRAK	A	O	2	STATE	11/7/2003	3.254	FAIR	4800	$6,912,000.00	10
2241959	B	HUTCHINSON RVR PKWY	AMTRAK	A	O	1	STATE	6/21/2002	6.068	VGOOD	15444	$22,239,360.00	10
2229560	B	BRONX PELHAM PKWY	AMTRAK,METRO NORTH	MA	A	3	STATE	7/2/2002	4.750	FAIR	24591	$35,411,040.00	11
2241369	B	WILLIAMSBRIDGE RD	AMTRAK	A	O	2	STATE	6/20/2002	4.836	FAIR	10400	$14,976,000.00	11
2241910	B	GUN HILL ROAD	NYCTA-DYRE AVE LN	T	O	1	STATE	7/21/2002	6.906	VGOOD	75000	$9,072,000.00	11
1067150	B	NEREID AVE (2241880)	BRONX RIVER PKWY	M	O	10	STATE	7/26/2003	4.211	FAIR	57750	$83,160,000.00	12
2229579	B	BOSTON POST ROAD	HUTCHINSON RIVER		WO	14	STATE	6/5/2003	4.528	FAIR	95700	$137,808,000.00	12
2241860	B	GUN HILL RD	METRO NORTH RR HAR	M	O	2	STATE	3/15/2002	4.279	FAIR	9000	$12,960,000.00	12
2241870	B	E 233RD ST	METRO NORTH RR HAR	M	O	1	STATE	3/15/2002	5.157	GOOD	7664	$11,036,160.00	12
2241890	B	E 241ST ST	BRP, METRO NORTH HAR	M	O	28	STATE	11/7/2003	4.653	FAIR	49500	$71,280,000.00	12
2241900	B	EASTCHESTER ROAD	NYCTA-DYRE AVE LN	T	O	3	STATE	7/21/2002	5.139	GOOD	13500	$19,440,000.00	12
2242071	B	BRONX BLVD S.B.	BRONX RIVER		WO	1	STATE	5/24/2002	4.700	FAIR	1800	$2,592,000.00	12
2242072	B	BRONX BLVD N.B.	BRONX RIVER		WO	1	STATE	5/24/2002	5.033	GOOD	1800	$2,592,000.00	12
2242081	B	BRONX BLVD S.B.	BRONX RIVER		WO	1	STATE	5/20/2002	4.467	FAIR	2800	$4,032,000.00	12
2242082	B	BRONX BLVD N.B.	BRONX RIVER		WO	1	STATE	5/20/2002	4.467	FAIR	2800	$4,032,000.00	12
2242430	B	GUN HILL ROAD	BRONX BLVD		O	4	STATE	8/23/2002	4.912	FAIR	9400	$13,536,000.00	12
2242440	B	GUN HILL ROAD	BRONX RIVER		WO	1	STATE	4/25/2002	5.300	GOOD	8700	$12,528,000.00	12
2242459	B	E 233RD ST	BRONX RIVER		WO	1	STATE	5/24/2002	4.367	FAIR	7000	$10,080,000.00	12
2242460	B	E 233RD ST	ENTR RD BNX RVR PKWY		O	1	STATE	2/4/2002	5.600	GOOD	5300	$7,632,000.00	12
2229540	B	VAN CRTLDT PARK	HHP		A-PED	2	CITY	9/30/2003	4.742	FAIR	3900	$5,616,000.00	26
2229550	B	VAN CRTLDT EQUES	HHP		A-PED	2	CITY	9/30/2003	5.000	GOOD	2100	$3,024,000.00	26
2230290	B	MOSHOLU PARKWAY	EQUESTRIAN PATH		A	1	STATE	1/29/2002	4.724	FAIR	4300	$6,192,000.00	26
2230300	B	MOSHOLU PARKWAY	CONRAIL (ABANDONED)	C	A	1	STATE	10/29/2002	4.229	FAIR	5200	$7,488,000.00	26
2230310	B	MOSHOLU PARKWAY	SB RAMP TO HHP		A	2	STATE	10/22/2003	5.243	GOOD	7400	$10,656,000.00	26
2065629	B	BRONX RVR PKWY	BOSTON RD BX ZOO		A	1	STATE	8/4/2003	5.276	GOOD	6300	$9,072,000.00	27
2230250	B	MOSHOLU PARKWAY	BRONX RIVER		A	5	STATE	1/28/2002	4.263	FAIR	16300	$23,472,000.00	27
2230260	B	MOSHOLU PARKWAY	METRO NORTH	M	A	1	STATE	3/16/2002	6.484	VGOOD	8880	$12,787,200.00	27
2230270	B	MOSHOLU PARKWAY	WEBSTER AVE		A	1	STATE	4/23/2003	6.016	VGOOD	8480	$12,211,200.00	27
2241259	B	204TH ST PED BRDG	METRO NORTH RR HAR	M	O-PED	1	CITY	08/26/02	3.950	FAIR	4700	$6,768,000.00	27
2241840	B	BEDFORD PARK BLVD	METRO NORTH RR HAR	M	O	1	STATE	3/9/2002	4.717	FAIR	6400	$9,216,000.00	27
2242010	B	BRONX PELHAM PKWY	BRONX RIVER		WA	1	STATE	5/24/2002	4.931	FAIR	9200	$13,248,000.00	27
2242029	B	SOUTHERN BLVD	BRONX PELHAM PKWY		O	2	STATE	6/4/2002	4.789	FAIR	12900	$18,576,000.00	27
2242099	B	PARK ROAD (204TH ST)	BRONX RIVER		WO	1	STATE	8/28/2002	4.172	FAIR	4700	$6,768,000.00	27
2242100	B	BOTANICAL GARDEN ROAD	TWIN LAKES		O-PED	1	STATE	5/17/2002	4.967	FAIR	2200	$3,168,000.00	27
2242110	B	BOSTON ROAD	BRONX RIVER		WO	1	STATE	5/16/2002	4.273	FAIR	6200	$8,928,000.00	27
2242210	B	S OF ALLERTON AVE	BRONX RIVER		WO	3	STATE	5/17/2002	4.763	FAIR	6200	$8,928,000.00	27
2242220	B	SOUTHERN BLVD	BRONX RIVER		WO	2	STATE	4/23/2002	4.211	FAIR	4800	$6,912,000.00	27
2240200	B	SHORE ROAD	HUTCHINSON RIVER		WMO	7	STATE	11/5/2002	4.597	FAIR	4800	$120,000,000.00	28
2240210	B	CITY ISLAND ROAD	EASTCHESTER BAY		WO	7	STATE	10/3/2003	3.500	FAIR	28900	$41,616,000.00	28
1240090	BM	MACOMBS DAM BRIDGE	HARLEM RIVER		WMO	52	STATE	8/6/2003	4.169	FAIR	139100	$200,304,000.00	10
2240089	BM	145TH ST BRIDGE	HARLEM RIVER		WMO	8	STATE	10/26/2003	3.097	FAIR	56700	$81,648,000.00	10
2240059	BM	WILLIS AVENUE	HARLEM RIVER		WMO	26	STATE	10/29/2003	3.083	FAIR	94700	$136,368,000.00	11
2240069	BM	THIRD AVE BRIDGE	HARLEM RIVER		WMO	32	STATE	10/5/2003	3.236	FAIR	79950	$115,128,000.00	11
2240079	BM	MADISON AVE BRIDGE	HARLEM RIVER		WMO	31	STATE	8/19/2002	5.667	GOOD	80000	$115,200,000.00	11
2066919	BM	WASHINGTON BRIDGE	HARLEM RIVER		WO	9	STATE	10/15/2002	4.881	FAIR	128339	$184,808,160.00	12
2240120	BM	W 207TH/W FORDHAM RD	HARLEM RIVER		WMO	5	STATE	5/21/2002	5.667	GOOD	29682	$42,742,080.00	12
2240137	BM	BROADWAY BRIDGE	HARLEM RIVER	T	WMO	3	STATE	10/13/2003	3.986	FAIR	38100	$54,864,000.00	12
2240138	BM	NYCTA IRT	HARLEM RVR/BROADWAY	T	WMO	3	STATE	10/24/2003	4.882	FAIR	38100	$54,864,000.00	12
2240290	K	METROPOLITAN AVE	ENGLISH KILLS		WMO	5	STATE	11/12/2003	4.186	FAIR	15245	$21,952,800.00	1
2230410	K	278I (B.Q.E.)	WASHINGTON ST		A	1	STATE	4/17/2002	4.656	FAIR	2500	$3,600,000.00	2
2230420	K	278I (B.Q.E.)	WASHINGTON ST		A	1	STATE	4/18/2002	4.953	FAIR	2500	$3,600,000.00	2
2230430	K	278I (B.Q.E.)	PROSPECT ST		A	1	STATE	3/21/2002	5.267	GOOD	1100	$1,584,000.00	2
2230440	K	278I (B.Q.E.)	ADAMS ST N.B.		A	1	STATE	3/21/2002	5.200	GOOD	2700	$3,888,000.00	2
2230450	K	278I (B.Q.E.)	ADAMS ST S.B.		A	1	STATE	3/21/2002	4.933	FAIR	2500	$3,600,000.00	2
2230460	K	278I (B.Q.E.)	PEARL ST		A	1	STATE	3/22/2002	5.333	GOOD	4500	$6,480,000.00	2
2230470	K	278I (B.Q.E.)	JAY ST		A	1	STATE	3/29/2002	5.233	GOOD	5100	$7,344,000.00	2
2230480	K	278I (B.Q.E.)	PROSPECT ST		A	1	STATE	3/29/2002	5.241	GOOD	8400	$12,096,000.00	2
2230490	K	278I (B.Q.E.)	SANDS ST		A	1	STATE	3/29/2002	5.093	GOOD	12600	$18,144,000.00	2
2230500	K	278I (B.Q.E.)	RAMP TO BQE EB		A	1	STATE	3/28/2002	5.567	GOOD	1300	$1,872,000.00	2
2230510	K	278I (B.Q.E.)	NASSAU ST		A	6	STATE	4/3/2002	4.611	FAIR	51200	$73,728,000.00	2
2230857	K	278I (B.Q.E.)	JORALEMON ST		A	1	STATE	5/6/2002	5.030	GOOD	2100	$3,024,000.00	2
2230858	K	278I (B.Q.E.)	JORALEMON ST / BQE WB		A	2	STATE	5/6/2002	3.887	FAIR	5900	$8,496,000.00	2
2230870	K	COLUMBIA HEIGHTS	278I (B.Q.E.)		A	1	STATE	5/7/2002	4.583	FAIR	16500	$23,760,000.00	2
2230887	K	278I W.B. (B.Q.E.)	CADMAN PLAZA		A	2	STATE	5/9/2002	4.250	FAIR	4500	$6,480,000.00	2
2230888	K	278I E.B. (B.Q.E.)	CADMAN PLAZA / 278I WB		A	2	STATE	5/10/2002	4.684	FAIR	4500	$6,480,000.00	2
2244440	K	SOUTH OF TILLARY ST	NAVY ST		O-PED	1	CITY	5/5/2003	4.244	FAIR	6200	$8,928,000.00	2

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2267860	K	BROOKLYN BR APPROACH	SANDS STREET		O	1	STATE	5/14/2002	4.732	FAIR	6490	$9,345,600.00	2
2268497	K	278I W.B. (B.Q.E.)	FURMAN ST		A	45	STATE	6/19/2003	4.292	FAIR	78022	$112,351,680.00	2
2268498	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)		A	69	STATE	7/16/2003	4.041	FAIR	120734	$173,856,960.00	2
2268507	K	278I W.B. (B.Q.E.)	YORK ST		A	6	STATE	6/13/2003	4.262	FAIR	9380	$13,507,200.00	2
2268508	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)		A	11	STATE	5/19/2003	4.034	FAIR	17956	$25,856,640.00	2
2268517	K	278I W.B. (B.Q.E.)	FURMAN ST		A	7	STATE	7/22/2003	4.206	FAIR	10988	$15,822,720.00	2
2268518	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)		A	5	STATE	11/11/2003	4.310	FAIR	8375	$12,060,000.00	2
2230000	K	HIGHLAND BLVD E.B.	JACKIE ROBINSON PKWY		A	1	STATE	4/23/2002	4.833	FAIR	4900	$7,056,000.00	5
2230010	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY		A	1	STATE	4/24/2002	5.100	GOOD	3500	$5,040,000.00	5
2230020	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY		A	2	STATE	4/26/2002	4.974	FAIR	4700	$6,768,000.00	5
2230220	K	HIGHLAND BLVD NB	VERMONT AVE		A	1	STATE	7/11/2003	6.254	VGOOD	3995	$5,752,800.00	5
2244170	K	ATLNTC AV SVC RD E.B.	EAST NEW YORK AVE		O	2	STATE	7/25/2003	4.737	FAIR	5500	$7,920,000.00	5
2244460	K	CONDUIT BLVD NB	ATLANTIC AVE EB		O	1	STATE	4/22/2002	5.000	GOOD	3800	$5,472,000.00	5
2230350	K	SUMMIT ST PED BRDG	278I (B.Q.E.)		A-PED	2	STATE	4/4/2002	4.714	FAIR	1400	$2,016,000.00	6
2230360	K	UNION ST	278I (B.Q.E.)		A	2	STATE	4/5/2002	4.540	FAIR	5000	$7,200,000.00	6
2230370	K	SACKETT ST	278I (B.Q.E.)		A	2	STATE	4/9/2002	4.642	FAIR	5000	$7,200,000.00	6
2230380	K	KANE ST	278I (B.Q.E.)		A	2	STATE	4/10/2002	4.418	FAIR	5000	$7,200,000.00	6
2230390	K	CONGRESS ST	278I (B.Q.E.)		A	2	STATE	4/12/2002	4.286	FAIR	5000	$7,200,000.00	6
2230400	K	278I (B.Q.E.)	ATLANTIC AVE		A	1	STATE	4/12/2002	5.976	GOOD	14230	$20,491,200.00	6
2240232	K	HAMILTON AVE BRIDGE	GOWANUS CANAL		WMO	3	STATE	7/17/2003	4.014	FAIR	7300	$10,512,000.00	6
2240240	K	NINTH ST BRIDGE	GOWANUS CANAL		WMO	3	STATE	7/18/2003	6.613	VGOOD	5772	$30,000,000.00	6
2240250	K	THIRD ST	GOWANUS CANAL		WMO	5	STATE	6/27/2003	4.958	FAIR	4900	$15,000,000.00	6
2240260	K	CARROLL ST	GOWANUS CANAL		WMO	2	STATE	6/27/2003	4.718	FAIR	3000	$5,000,000.00	6
2240270	K	UNION ST	GOWANUS CANAL		WMO	5	STATE	6/25/2002	4.236	FAIR	4900	$15,000,000.00	6
2240310	K	THIRD AVE	GOWANUS CANAL		WO	1	STATE	7/2/2003	4.564	FAIR	3200	$4,608,000.00	6
2268350	K	BROOKLYN PROMENADE	278I N.B. (B.Q.E.)		A-PED	35	CITY	04/17/03	4.500	FAIR	46184	$66,504,960.00	6
2066100	K	5TH AVE	27 X PROSPECT EXPWY		A	1	STATE	4/2/2002	5.208	GOOD	8800	$12,672,000.00	7
2240231	K	HAMILTON AVE BRIDGE	GOWANUS CANAL		WMO	3	STATE	8/7/2002	4.236	FAIR	7300	$10,512,000.00	7
2243839	K	4TH AVE	NYCTA BMT TRACKS	T	O	1	STATE	11/14/2003	6.633	VGOOD	5160	$5,904,000.00	7
2243920	K	7TH AVE	NYCTA BMT YARD	T	O	2	STATE	11/4/2003	3.917	FAIR	5200	$7,488,000.00	7
2244470	K	SEELEY ST	PROSPECT AVE		O	1	STATE	7/10/2003	4.100	FAIR	7700	$11,088,000.00	7
2244480	K	5TH AVE	GREENWOOD CEMETERY		O	1	STATE	6/2/2003	5.000	GOOD	3600	$5,184,000.00	7
2243170	K	STERLING PLACE	FRANKLIN SHUTTLE	T	O	1	STATE	12/5/2003	6.578	VGOOD	2300	$3,312,000.00	8
2243280	K	6TH AVE	LIRR ATLANTIC AVE	L	O	9	STATE	6/1/2002	5.583	GOOD	12276	$17,677,440.00	8
2243290	K	CARLTON AVE	LIRR ATLANTIC AVE	L	O	7	STATE	6/2/2002	4.958	FAIR	10823	$15,585,120.00	8
2243180	K	ST JOHNS PLACE	FRANKLIN SHUTTLE	T	O	1	STATE	12/4/2003	6.781	VGOOD	2200	$3,168,000.00	9
2243190	K	LINCOLN PLACE	FRANKLIN SHUTTLE	T	O	1	STATE	6/24/2002	7.000	VGOOD	2460	$4,896,000.00	9
2243200	K	UNION ST	FRANKLIN SHUTTLE	T	O	2	STATE	6/25/2002	5.048	GOOD	4100	$5,904,000.00	9
2243210	K	PRESIDENT ST	FRANKLIN SHUTTLE	T	O	2	STATE	6/26/2002	5.162	GOOD	2500	$3,600,000.00	9
2243220	K	CARROLL ST PED BRDG	FRANKLIN SHUTTLE	T	O-PED	3	CITY	09/26/02	5.484	GOOD	600	$864,000.00	9
2243230	K	CROWN ST	FRANKLIN SHUTTLE	T	O	3	STATE	12/3/2003	5.181	GOOD	4800	$6,912,000.00	9
2243240	K	MONTGOMERY ST	FRANKLIN SHUTTLE	T	O	1	STATE	12/1/2003	6.353	VGOOD	2030	$3,168,000.00	9
2243250	K	WASHINGTON AVE	FRANKLIN SHUTTLE	T	O	1	STATE	6/28/2002	6.422	VGOOD	3657	$9,360,000.00	9
2243260	K	FLATBUSH AVE	FRANKLIN SHUTTLE	T	O	2	STATE	6/28/2002	5.294	GOOD	11300	$16,272,000.00	9
2243279	K	EASTERN PKWY	FRANKLIN SHUTTLE	T	O	1	STATE	7/1/2002	4.861	FAIR	7700	$11,088,000.00	9
2231249	K	BSHP	BAY RIDGE AVE		A	1	STATE	4/11/2002	3.817	FAIR	4900	$7,056,000.00	10
2231250	K	81ST ST PED BR	BSHP		A-PED	5	CITY	10/9/2003	5.222	GOOD	3100	$4,464,000.00	10
2231260	K	92ND ST PED BR	BSHP		A-PED	6	CITY	8/13/2003	4.161	FAIR	3000	$4,320,000.00	10
2231270	K	4TH AVE	BSHP		A	2	STATE	4/10/2002	4.842	FAIR	6100	$8,784,000.00	10
2243310	K	2ND AVE	LIRR BAY RIDGE	N	O	6	STATE	11/14/2003	3.925	FAIR	17000	$24,480,000.00	10
2243320	K	3RD AVE	LIRR BAY RIDGE	N	O	4	STATE	8/25/2003	5.542	GOOD	17230	$24,811,200.00	10
2243330	K	4TH AVE	LIRR BAY RIDGE	NT	O	6	STATE	10/17/2003	5.819	GOOD	19400	$27,936,000.00	10
2243580	K	5TH AVE	LIRR & SEA BEACH	LT	O	4	STATE	8/30/2002	4.500	FAIR	12500	$18,000,000.00	10
2243590	K	6TH AVE	LIRR & SEA BEACH	LT	O	5	STATE	10/14/2003	6.528	VGOOD	14200	$20,448,000.00	10
2243600	K	7TH AVE	LIRR & SEA BEACH	LT	O	7	STATE	8/28/2002	5.667	GOOD	18913	$27,234,720.00	10
2243610	K	8TH AVE	LIRR & SEA BEACH	LT	O	4	STATE	11/13/2003	6.319	VGOOD	11400	$16,416,000.00	10
2243620	K	FORT HAMILTON PKWY	LIRR & SEA BEACH	LT	O	3	STATE	8/26/2002	5.627	GOOD	14800	$21,312,000.00	10
2243630	K	11TH AVE	LIRR & SEA BEACH	LT	O	5	STATE	8/23/2002	6.809	VGOOD	9700	$13,968,000.00	10
2243640	K	13TH AVE	LIRR & SEA BEACH	LT	O	5	STATE	11/6/2003	4.694	FAIR	16000	$23,040,000.00	10
2244150	K	RIDGE BLVD	SHORE RD DRIVE		O	1	STATE	5/28/2003	6.867	VGOOD	4350	$10,080,000.00	10
2244160	K	3RD AVE	SHORE RD DRIVE		O	1	STATE	5/28/2003	6.818	VGOOD	4360	$10,224,000.00	10
2231290	K	BAY 8TH ST	BSHP		A	1	STATE	5/5/2003	5.984	GOOD	4920	$7,084,800.00	11
2231300	K	17TH AVE PED BRDG	BSHP		A-PED	1	CITY	1/27/2003	3.846	FAIR	2100	$3,024,000.00	11
2231319	K	BSHP	BAY PKWY		A	1	STATE	4/12/2002	4.491	FAIR	7200	$10,368,000.00	11
2243340	K	15TH AVE	LIRR BAY RIDGE	N	O	1	STATE	6/20/2002	4.804	FAIR	3614	$5,204,160.00	11
2243350	K	60TH ST	LIRR BAY RIDGE	N	O	1	STATE	8/20/2003	6.383	VGOOD	3900	$5,616,000.00	11
2243360	K	16TH AVE	LIRR BAY RIDGE	N	O	1	STATE	6/21/2002	6.683	VGOOD	4345	$7,632,000.00	11
2243650	K	14TH AVE	LIRR BAY RIDGE	N	O	4	STATE	6/19/2002	4.321	FAIR	10000	$14,400,000.00	11
2243660	K	NEW UTRECHT AVE	LIRR BAY RIDGE	N	O	1	STATE	7/12/2002	7.000	VGOOD	2400	$3,456,000.00	11
2243670	K	15TH AVE	BMT SEA BEACH	T	O	6	STATE	7/26/2002	4.136	FAIR	17300	$24,912,000.00	11
2243680	K	16TH AVE	BMT SEA BEACH	T	O	4	STATE	7/23/2002	5.630	GOOD	6816	$9,815,040.00	11
2243690	K	17TH AVE	BMT SEA BEACH	T	O	4	STATE	8/22/2002	3.711	FAIR	8500	$12,240,000.00	11
2243700	K	18TH AVE	BMT SEA BEACH	T	O	4	STATE	10/20/2003	3.909	FAIR	8700	$12,528,000.00	11
2243710	K	19TH AVE	BMT SEA BEACH	T	O	4	STATE	8/20/2002	4.500	FAIR	4800	$6,912,000.00	11
2243720	K	20TH AVE	BMT SEA BEACH	T	O	6	STATE	8/16/2002	4.795	FAIR	12500	$18,000,000.00	11
2243730	K	65TH ST	BMT SEA BEACH	T	O	4	STATE	8/5/2002	5.947	GOOD	12000	$17,280,000.00	11
2243740	K	BAY PKWY	BMT SEA BEACH	T	O	4	STATE	8/7/2002	5.079	GOOD	16800	$24,192,000.00	11
2243750	K	AVENUE O	BMT SEA BEACH	T	O	1	STATE	10/22/2003	5.863	GOOD	4658	$6,707,520.00	11
2243760	K	AVENUE P	BMT SEA BEACH	T	O	1	STATE	10/29/2003	6.791	VGOOD	5544	$8,640,000.00	11
2243770	K	KINGS HIGHWAY	BMT SEA BEACH	T	O	1	STATE	10/30/2003	6.767	VGOOD	5032	$17,280,000.00	11
2243780	K	HIGHLAWN AVE	BMT SEA BEACH	T	O	1	STATE	10/31/2003	6.440	VGOOD	6960	$16,272,000.00	11
2243800	K	AVENUE T	BMT SEA BEACH	T	O	1	STATE	11/6/2003	6.033	VGOOD	5360	$12,240,000.00	11
2243820	K	21ST AVE	BMT SEA BEACH	T	O	4	STATE	8/13/2002	4.132	FAIR	21400	$30,816,000.00	11
2243370	K	17TH AVE	LIRR BAY RIDGE	N	O	1	STATE	6/24/2002	5.000	GOOD	3406	$4,904,640.00	12
2243380	K	18TH AVE	LIRR BAY RIDGE	N	O	1	STATE	6/25/2002	5.328	GOOD	6006	$8,648,640.00	12
2243390	K	52ND ST	LIRR BAY RIDGE	N	O	2	STATE	8/18/2003	4.211	FAIR	2800	$4,032,000.00	12
2243400	K	50TH ST	LIRR BAY RIDGE	N	O	2	STATE	8/14/2003	4.701	FAIR	7100	$10,224,000.00	12
2243410	K	MCDONALD AVE	LIRR BAY RIDGE	N	O	1	STATE	5/27/2002	5.422	GOOD	2760	$3,974,400.00	12

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2243420	K	E 3RD ST	LIRR BAY RIDGE	N	O	1	STATE	8/28/2003	5.082	GOOD	1500	$2,160,000.00	12
2243439	K	OCEAN PKWY	LIRR BAY RIDGE	N	O	1	STATE	6/28/2002	4.959	FAIR	7000	$10,080,000.00	12
2243440	K	CONEY ISLAND AVE	LIRR BAY RIDGE	N	O	1	STATE	7/1/2002	5.234	GOOD	3231	$4,652,640.00	12
2243840	K	9TH AVE	NYCTA BMT YARD	T	O	5	STATE	10/27/2003	6.514	VGOOD	12440	$17,913,600.00	12
2243940	K	9TH AVE	NYCTA IND SBWY	T	O	5	STATE	11/4/2003	4.737	FAIR	11900	$17,136,000.00	12
2231329	K	BSHP	26TH AVE		A	1	STATE	4/9/2002	4.933	FAIR	6700	$9,648,000.00	13
2231330	K	27TH AVE PED BRDG	BSHP		A-PED	1	CITY	7/1/2003	4.000	FAIR	2100	$3,024,000.00	13
2231340	K	CROPSEY AVE	BSHP		A	2	STATE	4/17/2002	4.944	FAIR	13100	$18,864,000.00	13
2231360	K	BSHP	OCEAN PKWY		A	2	STATE	6/2/2003	3.417	FAIR	11800	$16,992,000.00	13
2231370	K	B 8TH ST ACCESS RMP	BSHP		A	4	STATE	5/17/2002	3.958	FAIR	12800	$18,432,000.00	13
2231380	K	CONEY ISLAND AVE	BSHP		A	4	STATE	9/8/2003	6.292	VGOOD	19866	$29,664,000.00	13
2240301	K	CROPSEY AVE	CONEY ISLAND CREEK		WO	3	STATE	7/7/2003	5.169	GOOD	9400	$13,536,000.00	13
2240302	K	CROPSEY AVE	CONEY ISLAND CREEK		WO	3	STATE	6/16/2003	5.028	GOOD	9400	$13,536,000.00	13
2240540	K	STILLWELL AVE	CONEY ISLAND CRK		WO	2	STATE	6/17/2003	6.292	VGOOD	17000	$24,480,000.00	13
2243570	K	86TH ST	LIRR & SEA BEACH	LT	O	1	STATE	7/31/2002	6.250	VGOOD	3840	$26,208,000.00	13
2269260	K	W. 8TH STREET	SURF AVE.		O-PED	55	CITY	4/1/2003	4.000	FAIR	14742	$21,228,480.00	13
2243020	K	PARKSIDE AVE	BMT SUBWAY, BRIGHTON	T	O	6	STATE	7/10/2002	4.217	FAIR	48700	$70,128,000.00	14
2243040	K	CROOKE AVE	BMT SUBWAY, BRIGHTON	T	O	4	STATE	11/11/2003	4.158	FAIR	6000	$8,640,000.00	14
2243050	K	CATON AVE	BMT SUBWAY, BRIGHTON	T	O	4	STATE	11/18/2003	4.500	FAIR	20800	$29,952,000.00	14
2243080	K	CHURCH AVE	BMT SUBWAY, BRIGHTON	T	O	4	STATE	11/21/2003	4.545	FAIR	18200	$26,208,000.00	14
2243100	K	BEVERLY ROAD	BMT SUBWAY, BRIGHTON	T	O	3	STATE	11/26/2003	3.982	FAIR	2700	$3,888,000.00	14
2243110	K	CORTELYOU ROAD	BMT SUBWAY, BRIGHTON	T	O	3	STATE	12/12/2003	4.044	FAIR	2900	$4,176,000.00	14
2243120	K	DORCHESTER ROAD	BMT SUBWAY, BRIGHTON	T	O	1	STATE	7/19/2002	5.804	GOOD	4825	$6,948,000.00	14
2243130	K	DITMAS AVE	BMT SUBWAY, BRIGHTON	T	O	1	STATE	12/10/2003	5.809	GOOD	4100	$5,904,000.00	14
2243140	K	NEWKIRK AVE	BMT SUBWAY, BRIGHTON	T	O	3	STATE	7/16/2002	4.662	FAIR	4100	$5,904,000.00	14
2243150	K	FOSTER AVE	BMT SUBWAY, BRIGHTON	T	O	1	STATE	7/18/2002	4.517	FAIR	3000	$4,320,000.00	14
2243450	K	E 14TH ST	LIRR BAY RIDGE	N	O	1	STATE	7/2/2002	5.596	GOOD	1775	$2,556,000.00	14
2243460	K	E 15TH ST - PED	LIRR BAY RIDGE	N	O-PED	3	CITY	04/17/02	3.650	FAIR	900	$1,296,000.00	14
2243480	K	OCEAN AVE	LIRR BAY RIDGE	N	O	2	STATE	7/3/2002	4.860	FAIR	5000	$7,200,000.00	14
2243490	K	BEDFORD AVE	LIRR BAY RIDGE	N	O	6	STATE	7/10/2002	4.778	FAIR	12000	$17,280,000.00	14
2243500	K	NOSTRAND AVE	LIRR BAY RIDGE	N	O	2	STATE	7/11/2002	5.186	GOOD	4320	$6,220,800.00	14
2231390	K	E 12TH ST	BSHP		A	4	STATE	4/19/2002	4.958	FAIR	17200	$24,768,000.00	15
2231409	K	BSHP	SHEEPSHEAD BAY ROAD		A	1	STATE	4/23/2002	4.967	FAIR	6500	$9,360,000.00	15
2231419	K	BSHP	OCEAN AVE		A	3	STATE	4/23/2002	4.486	FAIR	14000	$20,160,000.00	15
2231429	K	BSHP	BEDFORD AVE		A	3	STATE	4/25/2002	4.278	FAIR	12000	$17,280,000.00	15
2231439	K	BSHP	NOSTRAND AVE		A	3	STATE	4/29/2002	4.097	FAIR	13000	$18,720,000.00	15
2231449	K	KNAPP ST	BSHP		A	1	STATE	4/30/2002	4.594	FAIR	9500	$13,680,000.00	15
2233080	K	E 14 ST PED BR	BSHP		A-PED	14	CITY	08/05/02	4.700	FAIR	4700	$6,768,000.00	15
2240320	K	OCEAN AVE PED BRDG	SHEEPSHEAD BAY		WO-PED	30	CITY	5/2/2003	4.070	FAIR	4000	$5,760,000.00	15
2243790	K	AVENUE S	BMT SEA BEACH	T	O	1	STATE	11/5/2003	6.133	VGOOD	5360	$6,912,000.00	15
2243810	K	AVENUE U	BMT SEA BEACH	T	O	1	STATE	8/1/2002	6.569	VGOOD	5880	$12,240,000.00	15
2243569	K	ATLANTIC AVE	LIRR ATLANTIC AVE	L	O	75	STATE	6/11/2002	3.873	FAIR	135100	$194,544,000.00	16
2243850	K	LIBERTY AVE	LIRR BAY RIDGE	N	O	4	STATE	8/12/2003	4.294	FAIR	6400	$9,216,000.00	16
2243860	K	GLENMORE AVE	LIRR BAY RIDGE	N	O	2	STATE	8/4/2003	4.088	FAIR	5700	$8,208,000.00	16
2243870	K	PITKIN AVE	LIRR BAY RIDGE	N	O	3	STATE	7/18/2002	4.294	FAIR	5600	$8,064,000.00	16
2243890	K	SUTTER AVE	LIRR BAY RIDGE	N	O	3	STATE	8/4/2003	4.118	FAIR	5400	$7,776,000.00	16
2243900	K	BLAKE AVE	LIRR BAY RIDGE LINE	N	O	3	STATE	7/19/2002	5.309	GOOD	4900	$7,056,000.00	16
2243910	K	LIVONIA AVE PED BRDG	LIRR BAY RIDGE LINE	N	O-PED	3	CITY	01/18/01	5.458	GOOD	2500	$3,600,000.00	16
2244180	K	ATLNTC AV SVC RD W.B.	EAST NEW YORK AVE		O	2	STATE	7/25/2003	4.491	FAIR	6200	$8,928,000.00	16
2231479	K	BSHP	MILL BASIN		WMA	14	STATE	12/22/2003	3.313	FAIR	73500	$105,840,000.00	18
2231489	K	BSHP	PAERDEGAT BASIN		WA	15	STATE	12/23/2003	2.907	POOR	58300	$83,952,000.00	18
2243510	K	FLATBUSH AVE	LIRR BAY RIDGE	N	O	2	STATE	8/12/2003	4.667	FAIR	5700	$8,208,000.00	18
2243520	K	BROOKLYN AVE	LIRR BAY RIDGE	N	O	3	STATE	8/6/2003	6.055	VGOOD	4500	$6,480,000.00	18
2243530	K	AVENUE H	LIRR BAY RIDGE	N	O	2	STATE	8/8/2003	6.338	VGOOD	35100	$50,544,000.00	18
2243010	K	LINCOLN ROAD	BMT SUBWAY, BRIGHTON	T	O	4	STATE	10/9/2003	4.103	FAIR	6100	$8,784,000.00	55
2244010	K	PROSPECT PK E DRIVE	ENDALE ARCH E DRIVE		O	1	CITY	05/07/02	4.367	FAIR	900	$1,296,000.00	55
2244020	K	W DR OV WK-MA.ENT	MEADOWPORT ARCH		O	1	STATE	4/7/2003	5.571	GOOD	2500	$3,600,000.00	55
2244030	K	EAST DRIVE	BRIDLE PATH		O	1	STATE	4/10/2003	5.041	GOOD	2000	$2,880,000.00	55
2244040	K	EAST DRIVE	EAST WOOD ARCH		O	1	CITY	6/30/2003	4.200	FAIR	900	$1,296,000.00	55
2244050	K	CENTRAL DRIVE	PED PATH & STREAM		WO	3	STATE	4/16/2003	5.316	GOOD	7400	$10,656,000.00	55
2244060	K	CLEFT RIDGE SPAN	PROSPECT PARK		O	1	CITY	6/10/2003	4.500	FAIR	900	$1,296,000.00	55
2244120	K	HILL DRIVE	PROSPECT PK LAKE		WO	3	STATE	4/18/2003	3.745	FAIR	7800	$11,232,000.00	55
2231450	K	BSHP	GERRITSEN INLET		WA	11	STATE	7/17/2003	3.582	FAIR	46400	$66,816,000.00	56
2231460	K	FLATBUSH AVE	BSHP		A	2	STATE	9/5/2003	6.618	VGOOD	14058	$19,584,000.00	56
2231499	K	BSHP	ROCKAWAY PKWY		A	4	STATE	5/23/2003	4.111	FAIR	11500	$16,560,000.00	56
2231509	K	BSHP	FRESH CREEK		WA	5	STATE	8/21/2003	3.278	FAIR	23000	$33,120,000.00	56
2231519	K	PENNSYLVANIA AVE	BSHP		A	2	STATE	5/7/2003	6.194	VGOOD	6191	$8,915,040.00	56
2269600	K	ERSKINE STREET	BSHP		A	1	STATE	10/30/2002	6.906	VGOOD	8258	$11,891,520.00	5
2240019	KM	BROOKLYN BRIDGE	278I (B.Q.E.)		WEO	75	STATE	10/18/2002	3.097	FAIR	503788	$725,454,720.00	3
2240027	KM	MANHATTAN BRIDGE(LL)	EAST RIVER	T	WEO	23	STATE	11/12/2002	3.847	FAIR	616390	$887,601,600.00	3
2240028	KM	MANHATTAN BRIDGE(UL)	NYCTA TRACKS-BMT	T	WEO	43	STATE	11/12/2002	4.243	FAIR	587424	$845,890,560.00	3
2240039	KM	WILLIAMSBURG BRIDGE	EAST RIVER	T	WEO	72	STATE	8/28/2002	4.556	FAIR	741000	$1,067,040,000.00	3
2240370	KQ	GREENPOINT AVE BRIDGE	NEWTOWN CREEK	L	WMO	12	STATE	11/11/2003	4.889	FAIR	76106	$109,592,640.00	2
2240639	KQ	PULASKI BRIDGE	NEWTOWN CREEK		WMO	48	STATE	6/11/2002	5.211	GOOD	205770	$296,308,800.00	2
2240390	KQ	GRAND ST BRIDGE	NEWTOWN CREEK		WMO	2	STATE	9/9/2002	4.569	FAIR	5100	$25,000,000.00	5
2232000	M	BATTERY PLACE	FDR DRIVE		AT	2	CITY	6/29/2003	4.500	FAIR	75000	$108,000,000.00	1
2267380	M	WEST STREET	RECTOR ST		AT	1	STATE	10/14/2003	5.033	GOOD	4320	$6,220,800.00	1
2268480	M	CHAMBERS ST PED BRDG	WEST SIDE HWY		O-PED	8	CITY	8/12/2003	5.849	GOOD	3344	$4,815,360.00	1
2268930	M	MORRIS ST PED BRDG	BKLN-BATTERY TUNN PLZ		A-PED	3	CITY	06/13/02	4.535	FAIR	1200	$1,728,000.00	1
223201A	M	FDR DR N.B. OFF RMP	FDR DR & SOUTH ST		AR	17	STATE	3/20/2002	3.597	FAIR	102225	$147,204,000.00	1
223201B	M	STH ST RMP TO FDR S.B.	SOUTH ST		AR	10	STATE	3/7/2002	3.925	FAIR	44625	$64,260,000.00	1
223201C	M	STH ST RMP TO FDR	SOUTH ST		AR	8	STATE	4/2/2002	4.701	FAIR	39150	$56,376,000.00	1
223201D	M	RAMP TO N.B. FDR DRIVE	FDR & SOUTH ST.		AR	22	STATE	6/10/2002	5.492	GOOD	15825	$22,788,000.00	1
224001A	M	PARK ROW TO BKLN	WILLIAM ST N.B.		OE	3	STATE	4/22/2003	4.389	FAIR	8685	$12,506,400.00	1
224001B	M	TO BKLN FRM FDR	FRANKFRT & CITY		OE	31	STATE	4/24/2002	4.037	FAIR	51400	$74,016,000.00	1
224001D	M	TO FDR DR N.B.	PEARL STREET		OE	30	STATE	5/14/2003	5.208	GOOD	49600	$71,424,000.00	1
224001F	M	PEARL ST TO FDR DR	LAND ADJ TO BRDG		OE	3	STATE	5/14/2003	5.310	GOOD	5200	$7,488,000.00	1
224001G	M	TO PARK ROW	ROSE ST		OE	11	STATE	5/6/2003	4.736	FAIR	16551	$23,833,440.00	1

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2232029	M	CORLEARS PARK ROAD	FDR DRIVE		A	4	STATE	3/27/2002	4.125	FAIR	4100	$5,904,000.00	3
2232030	M	DELANCEY ST PED BRDG	FDR DRIVE		A-PED	9	CITY	8/10/2003	4.478	FAIR	2900	$4,176,000.00	3
2232040	M	HOUSTON ST	FDR DRIVE		A	2	STATE	5/20/2003	3.318	FAIR	11010	$15,854,400.00	3
2232050	M	E 6TH ST PED BRDG	FDR DRIVE		A-PED	22	CITY	3/16/2003	4.400	FAIR	2200	$3,168,000.00	3
2233020	M	E 10TH ST PED BRDG	FDR DRIVE		A-PED	22	CITY	11/18/2003	6.435	VGOOD	1632	$2,350,080.00	3
223204A	M	FDR NB TO HOUSTON ST	RELIEF		AR	4	STATE	3/21/2002	4.000	FAIR	7642	$11,004,480.00	3
223204B	M	HOUSTON ST RAMP TO FDR	RELIEF		AR	4	STATE	3/21/2002	4.417	FAIR	7642	$11,004,480.00	3
224001C	M	PEARL ST TO BKLN	LAND ADJ TO BRDG		OE	12	STATE	4/28/2003	3.712	FAIR	6489	$9,344,160.00	3
2245010	M	11TH AVE VIADUCT	LIRR WEST SIDE YARD	AL	O	39	STATE	11/27/2002	3.875	FAIR	157500	$226,800,000.00	4
2245060	M	W 37TH ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	10/28/2003	5.984	GOOD	7600	$10,944,000.00	4
2245070	M	W 38TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/26/2002	4.077	FAIR	6200	$8,928,000.00	4
2245080	M	W 39TH ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	6/26/2002	4.288	FAIR	6300	$9,072,000.00	4
2245090	M	W 43RD ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/20/2002	4.765	FAIR	4100	$5,904,000.00	4
2245100	M	W 44TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/20/2002	4.662	FAIR	4300	$6,192,000.00	4
2245110	M	W 45TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/21/2002	4.632	FAIR	4100	$5,904,000.00	4
2245120	M	W 46TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/5/2002	4.559	FAIR	4100	$5,904,000.00	4
2245130	M	W 47TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/28/2002	4.721	FAIR	4100	$5,904,000.00	4
2245140	M	W 48TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/29/2002	4.735	FAIR	4100	$5,904,000.00	4
2245150	M	W 49TH ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	6/5/2002	4.574	FAIR	4100	$5,904,000.00	4
2245160	M	W 51ST ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/30/2002	4.794	FAIR	4300	$6,192,000.00	4
2245170	M	W 52ND ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/29/2002	5.074	GOOD	4300	$6,192,000.00	4
2245180	M	W 53RD ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/29/2002	5.338	GOOD	5100	$7,344,000.00	4
2245190	M	W 58TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/6/2002	4.588	FAIR	4100	$5,904,000.00	4
2245209	M	11TH AVE	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/17/2002	4.471	FAIR	15400	$22,176,000.00	4
2245210	M	W 42ND ST	AMTRAK 30 ST BRANCH	A	O	4	STATE	7/22/2002	4.429	FAIR	10300	$14,832,000.00	4
2245220	M	W 57TH ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	6/17/2002	4.838	FAIR	9100	$13,104,000.00	4
2245330	M	W 41ST ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	7/22/2002	4.159	FAIR	6200	$8,928,000.00	4
2245340	M	W 50TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/30/2002	4.647	FAIR	4100	$5,904,000.00	4
2245350	M	W 54TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/3/2002	5.603	GOOD	4700	$6,768,000.00	4
2245360	M	W 55TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/3/2002	5.529	GOOD	4300	$6,192,000.00	4
2245370	M	W 56TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/3/2002	5.368	GOOD	4400	$6,336,000.00	4
2245440	M	W 40TH ST	AMTRAK 30 ST BRANCH	A	O	4	STATE	12/14/2003	3.956	FAIR	9400	$13,536,000.00	4
224501B	M	W 33RD ST	AMTRAK 30 ST BRANCH	A	O	8	STATE	6/28/2002	4.347	FAIR	16500	$23,760,000.00	4
224501C	M	W 33RD ST	LAND ADJ TO AMTRAK	A	O	2	STATE	6/3/2003	4.750	FAIR	4620	$6,652,800.00	4
224501D	M	W 34TH ST	AMTRAK 30 ST BRANCH	A	O	4	STATE	6/5/2003	4.653	FAIR	11800	$16,992,000.00	4
224501E	M	W 35TH ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	6/25/2002	4.347	FAIR	6500	$9,360,000.00	4
224501F	M	W 36TH ST	AMTRAK 30 ST BRANCH	A	O	7	STATE	6/26/2002	4.090	FAIR	16400	$23,616,000.00	4
226672A	M	W 31ST ST	AMTRAK LAYUP TRACKS	A	O	9	STATE	7/22/2002	3.587	FAIR	8800	$12,672,000.00	4
2245460	M	PARK AVE S.B.	E 45TH ST		O	1	STATE	8/29/2003	4.946	FAIR	2400	$3,456,000.00	5
2245470	M	PARK AVE N.B	E 45TH ST		O	1	STATE	9/17/2003	4.865	FAIR	2400	$3,456,000.00	5
2246040	M	EAST DR AT CNTRL PARK	PEDESTRIAN WALK		O	1	CITY	06/20/03	5.000	GOOD	1200	$1,728,000.00	5
2246540	M	E 34TH ST	PARK AVE TUNNEL		OT	1	STATE	9/9/2003	4.033	FAIR	36200	$52,128,000.00	5
2232070	M	25TH ST PED BRDG	FDR DRIVE		A-PED	4	CITY	3/16/2003	4.594	FAIR	1700	$2,448,000.00	6
2232100	M	E 51ST ST PED BRDG	FDR DRIVE		A-PED	10	CITY	3/9/2003	4.161	FAIR	2800	$4,032,000.00	6
2233040	M	E 60TH ST	FDR DRIVE		A	17	STATE	8/8/2003	3.318	FAIR	24480	$35,251,200.00	6
2246550	M	PARK AVE VIADUCT	E 42ND ST		O	10	STATE	10/29/2003	4.716	FAIR	19600	$28,224,000.00	6
2246560	M	TUDOR CITY PLACE	E 42ND ST		O	1	STATE	4/25/2002	5.056	GOOD	6600	$9,504,000.00	6
2246570	M	UNITED NATIONS PL	FIRST AVE TUNNEL		OT	2	STATE	10/31/2002	5.000	GOOD	92200	$132,768,000.00	6
2268650	M	FDR NB 42ND TO 49ST	EAST RIVER		A	119	STATE	8/28/2003	4.415	FAIR	30767	$44,304,480.00	6
224001E	M	TO PEARL ST	LAND ADJ TO BRDG		OE	3	STATE	5/12/2003	5.225	GOOD	5300	$7,632,000.00	6
224004A	M	TO QNS FRM E 59TH ST	FIRST AVE		OE	13	STATE	11/25/2002	5.789	GOOD	14800	$21,312,000.00	6
224004B	M	TO E 60TH ST FROM QNS	FIRST AVE		OE	13	STATE	11/26/2002	5.792	GOOD	14800	$21,312,000.00	6
224004C	M	TO E 62ND ST FROM QNS	E 60TH ST		OE	10	STATE	11/27/2002	4.985	FAIR	16720	$24,076,800.00	6
224004D	M	TO QNS FROM E 58TH ST	E 59TH ST		OE	12	STATE	11/22/2002	4.585	FAIR	11781	$16,964,640.00	6
224004J	M	25X	NYC GARAGE		OE	14	STATE	11/21/2002	4.780	FAIR	22058	$31,763,520.00	6
2229289	M	HHP VIADUCT	W 72 ST TO W 79 ST	A	A	145	STATE	9/23/2002	3.299	FAIR	236100	$339,984,000.00	7
2229290	M	W 79 ST	AMTRAK	A	A	1	STATE	9/26/2002	4.424	FAIR	4500	$6,480,000.00	7
2229309	M	HHP	RIVERSIDE PARK		A	1	STATE	2/25/2002	5.267	GOOD	2400	$3,456,000.00	7
2229311	M	HHP SB	RAMP TO 96 ST		A	1	STATE	3/1/2002	4.273	FAIR	2000	$2,880,000.00	7
2229312	M	HHP NB	RAMP TO 96 ST		A	1	STATE	3/1/2002	4.273	FAIR	2000	$2,880,000.00	7
2229321	M	HHP SB	RAMP TO 96 ST		A	1	STATE	6/6/2002	5.200	GOOD	2000	$2,880,000.00	7
2229322	M	HHP NB	RAMP TO 96 ST		A	1	STATE	6/6/2002	5.167	GOOD	2000	$2,880,000.00	7
2246970	M	RIVERSIDE DRIVE	W 96TH ST		O	3	STATE	6/9/2003	5.618	GOOD	10600	$15,264,000.00	7
2257569	M	MILLER HIGHWAY	TERRAIN		A	63	STATE	7/1/2003	5.000	GOOD	287539	$414,056,160.00	7
2267250	M	HHP	AMTRAK 30TH ST LINE	A	A	55	STATE	7/22/2002	3.435	FAIR	40000	$57,600,000.00	7
2267717	M	79 ST PED PLAZA	79 ST BT BASIN GAR		A	10	STATE	5/2/2003	4.593	FAIR	27400	$39,456,000.00	7
2267718	M	79 ST TRAFFIC CIRC	79 ST PED PLAZA		A	34	STATE	5/13/2003	3.934	FAIR	24130	$34,747,200.00	7
2269190	M	W.70TH STREET	AMTRAK	A	O	3	STATE	11/3/2003	6.583	VGOOD	17433	$25,103,520.00	7
2269210	M	W.68TH STREET	AMTRAK	A	O	3	STATE	11/21/2003	6.746	VGOOD	5382	$7,702,560.00	7
226771A	M	79 ST RAMP TO HHP	79 ST BT BASIN GAR		AR	4	STATE	5/16/2003	4.242	FAIR	3131	$4,508,640.00	7
226771B	M	79 ST RAMP TO GAR	79 ST BT BASIN GAR		AR	21	STATE	5/23/2003	4.452	FAIR	7114	$10,244,160.00	7
226771C	M	GAR RAMP TO 79 ST	79 ST BT BASIN GAR		AR	21	STATE	6/9/2003	4.726	FAIR	9095	$13,096,800.00	7
226771D	M	SB HHP RAMP TO 79 ST	79 ST BT BASIN GAR		AR	4	STATE	5/29/2003	4.645	FAIR	2601	$3,745,440.00	7
M00003	M	HHP ON/OFF RMP-79 WB	PEDESTRIAN PATH		A	1	CITY	7/16/2003	5.000	GOOD	900	$1,296,000.00	7
M00004	M	HHP ON/OFF RMP-79 EB	PEDESTRIAN PATH		A	1	CITY	7/17/2003	4.900	FAIR	900	$1,296,000.00	7
2232110	M	E 64TH ST PED BRDG	FDR DRIVE		A-PED	13	CITY	3/9/2003	5.050	GOOD	2100	$3,024,000.00	8
2232120	M	E 71ST ST PED BRDG	FDR DRIVE		A-PED	19	CITY	5/2/2003	7.000	VGOOD	1800	$2,592,000.00	8
2232140	M	E 78TH ST PED BRDG	FDR DRIVE		A-PED	9	CITY	3/23/2003	3.578	FAIR	1700	$2,448,000.00	8
2232158	M	FDR DRIVE S.B.	FDR DRIVE N.B.		AT	56	STATE	6/18/2003	4.773	FAIR	54302	$78,194,880.00	8
2232167	M	PROMENADE OVER FDR	FDR/E79TH ST-E91ST ST		A-PED	53	STATE	7/28/2003	3.571	FAIR	93000	$133,920,000.00	8
2233038	M	FDR DRIVE SB	FDR NB / E 62ND ST		AT	46	STATE	8/1/2003	2.698	POOR	70113	$100,962,720.00	8
2245319	M	E 97TH ST	METRO NORTH MAIN LN	M	O	1	STATE	11/25/2002	4.686	FAIR	3200	$4,608,000.00	8
2245380	M	E 66TH ST	PED WALK N. OF ZOO		O	1	STATE	3/18/2002	5.000	GOOD	1500	$2,160,000.00	8
2246410	M	TRANSVERSE RD. #1	PED WALK NEAR 5 AV		O	1	STATE	3/15/2002	4.364	FAIR	2000	$2,880,000.00	8
2269820	M	E 81 ST PED BRIDGE	FDR DRIVE N.B.		A-PED	3	CITY	11/2/2003	3.213	FAIR	900	$1,296,000.00	8
2229339	M	HHP	ST CLAIR PLACE		A	64	STATE	4/14/2002	4.014	FAIR	370000	$532,800,000.00	9
2245230	M	W 148TH ST PED BRDG	AMTRAK 30 ST BRANCH	A	O-PED	3	CITY	09/07/01	3.692	FAIR	1100	$1,584,000.00	9
2245290	M	W 155TH ST PED BRDG	AMTRAK 30 ST BRANCH	A	O-PED	3	CITY	09/09/02	3.646	FAIR	800	$1,152,000.00	9

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2246660	M	RIVERSIDE DRIVE	W 125TH ST & OTHERS		O	27	STATE	6/25/2003	4.500	FAIR	148300	$213,552,000.00	9
2246670	M	W 134 ST VIADUCT	RIVERSIDE DRIVE		O	3	STATE	6/27/2003	4.852	FAIR	7927	$11,414,880.00	9
2246720	M	RIVERSIDE DRIVE	W 158TH ST		O	77	STATE	11/19/2003	3.542	FAIR	181400	$261,216,000.00	9
2246980	M	RIVERSIDE DRIVE	W 138TH ST		O	1	STATE	4/23/2002	4.900	FAIR	6700	$9,648,000.00	9
2266229	M	HHP	PED UNDERPASS @ 148 ST		A	1	STATE	4/8/2002	5.621	GOOD	1800	$2,592,000.00	9
2267130	M	RIVERSIDE DRIVE	W 145TH ST		O	1	STATE	6/11/2003	4.867	FAIR	5800	$8,352,000.00	9
222933A	M	RAMP FROM S.B. HHP	W 135 ST		AR	9	STATE	7/11/2002	4.746	FAIR	12900	$18,576,000.00	9
222933B	M	RAMP TO N.B. HHP	W 135 ST		AR	14	STATE	3/29/2002	4.423	FAIR	14400	$20,736,000.00	9
2246490	M	A.C. POWELL BLVD N.B.	A.C. POWELL BLVD		O	1	STATE	4/10/2002	4.061	FAIR	5600	$8,064,000.00	10
2246710	M	W 153 ST	A.C. POWELL BLVD		O	1	STATE	4/10/2002	4.389	FAIR	3082	$4,438,080.00	10
2232180	M	E 103RD ST PED BRDG	FDR DRIVE		A-PED	20	CITY	7/29/2003	5.000	GOOD	6000	$8,640,000.00	11
2232190	M	E 111TH ST PED BRDG	FDR DRIVE		A-PED	14	CITY	3/2/2003	4.100	FAIR	2600	$3,744,000.00	11
2232200	M	E 120TH ST PED BRDG	FDR DRIVE		A-PED	23	CITY	3/2/2003	4.300	FAIR	2500	$3,600,000.00	11
2233059	M	HARLEM RIVER DRIVE	RAMP TO HRD N.B.		A	11	STATE	6/27/2003	3.418	FAIR	51000	$73,440,000.00	11
2240620	M	WARDS ISLAND PED BRDG	HARLEM RIVER		WMO-PED	10	CITY	7/29/2003	4.049	FAIR	12600	$18,144,000.00	11
2246620	M	PEDESTRIAN BRIDGE	E 128TH ST		O-PED	18	CITY	04/24/02	4.717	FAIR	2300	$3,312,000.00	11
2246990	M	129 - 130 ST PED BRDG	RAMP OFF 3RD AVE		O-PED	5	CITY	05/29/02	4.238	FAIR	500	$720,000.00	11
224005A	M	FROM FDR DRIVE	HARLEM RIVER DR		OR	19	STATE	6/3/2002	3.940	FAIR	29900	$43,056,000.00	11
224007A	M	TO MADISON AVENUE	RELIEF		OR	9	STATE	8/6/2002	5.704	GOOD	22600	$32,544,000.00	11
2229349	M	HHP	W 158 ST	A	A	44	STATE	10/2/2002	4.155	FAIR	140000	$201,600,000.00	12
2229400	M	W 181ST ST PED BRDG	HHP N.B.		A-PED	6	CITY	2/5/2003	4.652	FAIR	1500	$2,160,000.00	12
2245040	M	FORT TRYON PARK	SOUTH OF CLOISTERS		O	1	CITY	7/15/2003	5.333	GOOD	750	$1,080,000.00	12
2245050	M	FORT TRYON PARK	UNDERPASS		O	1	CITY	7/15/2003	4.867	FAIR	750	$1,080,000.00	12
2245250	M	W 158TH ST	AMTRAK 30 ST BRANCH	A	O	7	STATE	11/14/2003	6.431	VGOOD	29170	$42,004,800.00	12
2245260	M	W 173RD ST PED BRDG	AMTRAK 30 ST BRANCH	A	O-PED	2	CITY	10/15/02	4.657	FAIR	1500	$2,160,000.00	12
2245300	M	INWOOD HILL PK FTBR	AMTRAK 30 ST BRANCH	A	O-PED	6	CITY	09/30/02	4.361	FAIR	700	$1,008,000.00	12
2245480	M	TO GWB OPP W 171ST ST	RIVERSIDE DRIVE		O	1	STATE	9/3/2002	5.333	GOOD	10800	$15,552,000.00	12
2246489	M	W 181 ST	RAMP TO WASH BR		O	1	STATE	3/28/2002	4.633	FAIR	8200	$11,808,000.00	12
2246500	M	FORT TRYON PLACE	ENTR FROM RIVERSIDE DR		O	1	STATE	4/12/2002	4.233	FAIR	6600	$9,504,000.00	12
2246510	M	CORBIN PL OVERPASS	CORBIN PLACE		O	1	STATE	3/11/2002	5.133	GOOD	2200	$3,168,000.00	12
2246600	M	W 176TH ST PED BRDG	APPROACH TO G.W.B.		O-PED	1	CITY	3/21/2003	4.517	FAIR	1200	$1,728,000.00	12
2246690	M	ISHAM PK VEHICULR	HARLEM RIVER INLET		O	1	STATE	11/12/2002	6.652	VGOOD	700	$1,008,000.00	12
2266230	M	HHP	PED UNDERPASS INWD PK		A	1	STATE	2/22/2002	6.211	VGOOD	800	$1,152,000.00	12
2266240	M	HHP	PED UNDERPASS INWD PK		A	1	STATE	3/11/2002	5.762	GOOD	1100	$1,584,000.00	12
2267240	M	HRD NB RAMP	HARLEM RIVER DR		A	51	STATE	9/23/2003	3.000	POOR	112860	$162,518,400.00	12
2268760	M	PS-5 PEDESTRIAN BR.	TENTH AVENUE		O-PED	5	CITY	6/3/2003	5.837	GOOD	1500	$2,160,000.00	12
222934A	M	RAMP TO N.B. HHP	AMTRAK WEST SIDE	A	AR	26	STATE	9/24/2002	3.667	FAIR	10800	$15,552,000.00	12
M00001	M	PEDESTRIAN TUNNEL	BROADWAY TO		O-PED	1	CITY	10/25/02	4.556	FAIR	2000	$2,880,000.00	12
2245420	M	W 65TH ST E.B.	BRIDLE PATH W END		O	1	STATE	4/1/2002	4.864	FAIR	1600	$2,304,000.00	64
2246000	M	WEST DRIVE	PED BET 61ST & 62ST		O	1	STATE	3/14/2002	5.267	GOOD	2500	$3,600,000.00	64
2246030	M	PEDESTRIAN BRIDGE	POND		O-PED	1	CITY	7/28/2003	4.448	FAIR	1400	$2,016,000.00	64
2246050	M	CENTRAL DRIVE	PED OPP 63RD ST		O	1	STATE	3/25/2002	5.000	GOOD	2000	$2,880,000.00	64
2246069	M	EAST DRIVE	PEDESTRIAN WALK		O	1	STATE	3/25/2002	4.500	FAIR	2700	$3,888,000.00	64
2246070	M	CPK UNDER CENTR DR	OPP 65TH ST-IN E&W		O	1	CITY	6/23/2003	5.733	GOOD	1200	$1,728,000.00	64
2246080	M	WEST DRIVE	BRIDLE PATH @ 64TH ST		O	1	STATE	4/2/2002	4.667	FAIR	2000	$2,880,000.00	64
2246090	M	PED BRDG OPP 65 ST	TRANSVERSE RD #1		O-PED	1	CITY	6/21/2003	4.483	FAIR	2300	$3,312,000.00	64
2246100	M	CONTRAL DRIVE	TRANSVERSE RD #1		O	1	STATE	5/18/2002	4.333	FAIR	6000	$8,640,000.00	64
2246110	M	EAST DRIVE	TRANSVERSE RD #1		O	1	STATE	5/19/2002	4.567	FAIR	6000	$8,640,000.00	64
2246120	M	WEST DRIVE	TRANSVERSE RD #1		O	1	STATE	5/19/2002	4.833	FAIR	7900	$11,376,000.00	64
2246130	M	CENTRAL PARK	UNDER EAST DRIVE		O	1	CITY	6/20/2003	4.276	FAIR	1200	$1,728,000.00	64
2246140	M	72ND ST ENT TO W DR	BRIDLE PATH		O	1	STATE	2/26/2002	4.867	FAIR	3600	$5,184,000.00	64
2246150	M	72ND ST CROSS DR	NEAR CONCERT GRNDS		O	3	STATE	3/6/2002	4.941	FAIR	7300	$10,512,000.00	64
2246170	M	EAST DRIVE	PED WALK @ 73RD ST		O	1	STATE	3/6/2002	5.019	GOOD	1900	$2,736,000.00	64
2246230	M	EAST DRIVE	TRANSVERSE RD #2		O	1	STATE	6/2/2002	4.533	FAIR	6500	$9,360,000.00	64
2246240	M	WEST DRIVE	TRANSVERSE RD #2		O	1	STATE	6/2/2002	4.167	FAIR	7200	$10,368,000.00	64
2246250	M	EAST DRIVE	TRANSVERSE RD #3		O	1	STATE	4/21/2002	4.467	FAIR	5100	$7,344,000.00	64
2246260	M	WEST DRIVE	TRANSVERSE RD #3		O	1	STATE	4/21/2002	4.800	FAIR	5100	$7,344,000.00	64
2246270	M	EAST DRIVE	TRANSVERSE RD #4		O	1	STATE	6/8/2002	3.967	FAIR	7000	$10,080,000.00	64
2246280	M	WEST DRIVE	TRANSVERSE RD #4		O	1	STATE	6/8/2002	4.133	FAIR	4700	$6,768,000.00	64
2246330	M	WEST DRIVE	FEEDER TO LAKE		WO	1	STATE	3/4/2002	5.000	GOOD	6700	$9,648,000.00	64
2246350	M	CNTRL PK OVER E DRIVE	S OF CLEOPATRAS NDL		O	1	CITY	6/23/2003	4.300	FAIR	750	$1,080,000.00	64
2246360	M	WEST DRIVE	PED WALK OPP 82 ST		O	1	STATE	3/5/2002	6.136	VGOOD	3100	$4,464,000.00	64
2246400	M	E FOOTBRIDGE	TRANSVERSE RD #2		O-PED	1	CITY	10/4/2003	4.500	FAIR	3700	$5,328,000.00	64
2246430	M	WEST DRIVE	PED OPP 109TH ST		O	1	STATE	3/8/2002	4.183	FAIR	1200	$1,728,000.00	64
2246440	M	PED IN CTR OF PK	TRANSVERSE RD NO.2		O-PED	1	CITY	10/4/2003	4.655	FAIR	5900	$8,496,000.00	64
2246450	M	79 ST ENTR TO E DR	PED PATH OPP 77TH ST		O	1	STATE	2/27/2002	5.190	GOOD	5000	$7,200,000.00	64
2246460	M	77 ST ENTR TO W DR	PED PATH OPP 77TH ST		O	2	STATE	3/7/2002	4.789	FAIR	5800	$8,352,000.00	64
2246470	M	EAST DRIVE	THE LOCH		WO	1	STATE	4/3/2002	4.700	FAIR	1100	$1,584,000.00	64
2240047	MQ	QUEENSBORO BRIDGE(LL)	EAST RIVER	L	WEO	53	STATE	1/23/2003	4.514	FAIR	626900	$902,736,000.00	6
2240048	MQ	QUEENSBORO BRIDGE(UL)	EAST RIVER-LL		WEO	37	STATE	1/23/2003	4.547	FAIR	322300	$464,112,000.00	6
2240640	MQ	ROOSEVELT ISLAND	E. RIVER E. CHANNEL		WMO	8	STATE	6/14/2002	4.292	FAIR	36500	$52,560,000.00	8
2230600	Q	STEINWAY ST	278I W.B. (B.Q.E.)		A	1	STATE	2/14/2002	4.333	FAIR	4200	$6,048,000.00	1
2230610	Q	STEINWAY ST	278I E.B. (B.Q.E.)		A	1	STATE	2/13/2002	4.028	FAIR	4200	$6,048,000.00	1
2230620	Q	37TH ST	278I (B.Q.E.)		A	2	STATE	5/15/2002	4.667	FAIR	5300	$7,632,000.00	1
2230630	Q	35TH ST	278I (B.Q.E.)		A	4	STATE	8/20/2002	4.819	FAIR	9000	$12,960,000.00	1
2230640	Q	32ND ST	278I (B.Q.E.)		A	2	STATE	4/15/2003	4.986	FAIR	8100	$11,664,000.00	1
2230657	Q	31ST ST	278I (B.Q.E.)		A	2	STATE	8/9/2002	5.222	GOOD	9500	$13,680,000.00	1
2230690	Q	BQE EAST LEG NB	32ND AVE		A	1	STATE	6/20/2003	3.844	FAIR	6160	$8,870,400.00	1
2230700	Q	BQE EAST LEG	TO BQE WEST LEG		A	14	STATE	5/13/2002	3.611	FAIR	16800	$24,192,000.00	1
2230710	Q	278I S.B. (B.Q.E.)	32ND AVE		A	1	STATE	8/28/2003	6.797	VGOOD	4500	$6,480,000.00	1
2230720	Q	BQE EAST LEG	BQE NB WEST LEG		A	1	STATE	6/11/2003	6.667	VGOOD	2700	$3,888,000.00	1
2230730	Q	31ST AVE	278I (B.Q.E.)		A	1	STATE	8/27/2003	6.800	VGOOD	3700	$5,328,000.00	1
2230740	Q	BQE WEST LEG SB	31ST AVE		A	1	STATE	7/8/2003	7.000	VGOOD	3700	$5,328,000.00	1
2230750	Q	BQE EAST LEG SB	31ST AVE		A	1	STATE	7/8/2003	6.068	VGOOD	2900	$4,176,000.00	1
2230760	Q	BQE WEST LEG NB	31ST AVE		A	1	STATE	9/5/2002	4.234	FAIR	2900	$4,176,000.00	1
2230770	Q	BQE WEST LEG	30TH AVE		A	1	STATE	7/2/2003	7.000	VGOOD	6500	$9,360,000.00	1

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2230790	Q	BULOVA AVE	BQE WEST LEG		A	2	STATE	4/24/2002	5.667	GOOD	3300	$4,752,000.00	1
2230800	Q	49TH ST	BQE WEST LEG		A	2	STATE	5/22/2002	5.194	GOOD	4900	$7,056,000.00	1
2230810	Q	ASTORIA BLVD E.B.	BQE WEST LEG		A	4	STATE	6/5/2002	4.309	FAIR	8200	$11,808,000.00	1
2230820	Q	47TH ST	GCP		A	2	STATE	6/6/2002	4.944	FAIR	5700	$8,208,000.00	1
2230830	Q	BQE WEST LEG	GCP		A	2	STATE	8/9/2002	4.861	FAIR	7600	$10,944,000.00	1
2230840	Q	44TH ST	GCP		A	2	STATE	5/29/2002	4.833	FAIR	5000	$7,200,000.00	1
2230890	Q	49TH ST	GCP		A	2	STATE	7/31/2002	4.778	FAIR	5500	$7,920,000.00	1
2240660	Q	RIKERS ISLAND BRIDGE	RIKERS ISL CHANNEL		WO	56	STATE	8/29/2003	4.423	FAIR	183100	$263,664,000.00	1
224004G	Q	TO NY FROM 11TH ST	TERRAIN (CHAMBER)		OE	36	STATE	10/30/2002	4.634	FAIR	8360	$12,038,400.00	1
1247280	Q	51 AVE PED BR.2247280	LIRR MAIN LINE	L	O-PED	5	CITY	11/20/01	3.355	FAIR	700	$1,008,000.00	2
2230520	Q	65TH PLACE	278I (B.Q.E.)		A	2	STATE	3/5/2002	4.456	FAIR	11600	$16,704,000.00	2
2230530	Q	QUEENS BLVD	278I (B.Q.E.)		A	2	STATE	8/23/2002	4.681	FAIR	23500	$33,840,000.00	2
2230540	Q	WOODSIDE AVE	278I (B.Q.E.)		A	1	STATE	1/21/2002	5.141	GOOD	7500	$10,800,000.00	2
2230550	Q	69TH ST	278I (B.Q.E.)		A	2	STATE	5/6/2002	4.842	FAIR	12600	$18,144,000.00	2
2230560	Q	70TH ST	278I (B.Q.E.)		A	2	STATE	5/6/2002	5.125	GOOD	8500	$12,240,000.00	2
2230570	Q	41ST AVE	278I (B.Q.E.)		A	3	STATE	3/27/2002	5.014	GOOD	8800	$12,672,000.00	2
2230587	Q	ROOSEVELT AVE	278I (B.Q.E.)		A	2	STATE	3/28/2002	4.647	FAIR	6600	$9,504,000.00	2
2230590	Q	BROADWAY	278I (B.Q.E.)		O	2	STATE	6/4/2002	3.842	FAIR	16000	$23,040,000.00	2
2230669	Q	278I (B.Q.E.)	35TH AVE		A	1	STATE	8/29/2003	6.627	VGOOD	6500	$9,360,000.00	2
2230679	Q	278I (B.Q.E.)	34TH AVE		A	3	STATE	5/12/2003	6.898	VGOOD	9500	$13,680,000.00	2
2230680	Q	278I (B.Q.E.)	NORTHERN BLVD		A	1	STATE	5/24/2002	4.571	FAIR	5900	$8,496,000.00	2
2230869	Q	QUEENS BLVD	ACCESS RD BQE S.B.		A	1	STATE	7/24/2002	4.205	FAIR	7900	$11,376,000.00	2
2240410	Q	BORDEN AVE	DUTCH KILLS		WMO	2	STATE	7/14/2003	3.403	FAIR	8400	$12,096,000.00	2
2240450	Q	HUNTERS PT AVE BRIDGE	DUTCH KILLS		WMO	4	STATE	5/13/2002	5.167	GOOD	11544	$16,623,360.00	2
2247120	Q	WOODSIDE AVE	LIRR MAIN LINE	L	O	3	STATE	7/19/2003	4.444	FAIR	14900	$21,456,000.00	2
2247150	Q	65TH ST	LIRR N SIDE DIV	L	O	3	STATE	7/2/2003	6.542	VGOOD	6344	$8,640,000.00	2
2247160	Q	65TH PLACE	LIRR N SHR DIV	L	O	3	STATE	7/2/2003	6.471	VGOOD	8381	$12,068,640.00	2
2247260	Q	JACKSON AVE	LIRR,AMT,CON NE	L	O	1	STATE	11/4/2002	6.183	VGOOD	4517	$6,504,480.00	2
2247270	Q	21ST STREET	CONRAIL	C	O	6	STATE	7/7/2003	5.528	GOOD	17590	$25,329,600.00	2
2247290	Q	49TH AVE	LIRR,AMT,CON NE	L	O	5	STATE	11/1/2002	4.389	FAIR	20200	$29,088,000.00	2
2247300	Q	THOMPSON AVE	AMTRAK YARD	L	O	14	STATE	12/13/2002	5.333	GOOD	61280	$88,243,200.00	2
2247310	Q	QUEENS BLVD	AMTRAK & LIRR YARD	L	O	19	STATE	12/10/2002	6.465	VGOOD	92400	$133,056,000.00	2
2247320	Q	HONEYWELL ST	AMTRAK & LIRR YARD	AL	O	22	STATE	7/30/2003	6.569	VGOOD	98300	$141,552,000.00	2
2247330	Q	39TH ST (NORTH)	SUNNYSIDE YARDS	AL	O	14	STATE	9/9/2003	6.556	VGOOD	48200	$69,408,000.00	2
2247370	Q	37TH AVE	CONRAIL HELLGATE	C	O	1	STATE	8/6/2003	4.818	FAIR	5300	$7,632,000.00	2
2247380	Q	ROOSEVELT AVE	CONRAIL HELLGATE	C	O	2	STATE	9/23/2002	5.042	GOOD	5200	$7,488,000.00	2
2247390	Q	41ST AVE	CONRAIL HELLGATE	C	O	2	STATE	8/6/2003	4.942	FAIR	4000	$5,760,000.00	2
2247400	Q	WOODSIDE AVE	CONRAIL	C	O	1	STATE	8/7/2003	5.067	GOOD	8200	$11,808,000.00	2
2247410	Q	43RD AVE	CONRAIL	C	O	1	STATE	8/8/2003	5.033	GOOD	4800	$6,912,000.00	2
2247420	Q	44TH AVE	CONRAIL	C	O	1	STATE	8/8/2003	5.033	GOOD	5100	$7,344,000.00	2
2247430	Q	45TH AVE	CONRAIL	C	O	1	STATE	8/8/2003	5.510	GOOD	2400	$3,456,000.00	2
2247640	Q	39 ST (SOUTH)	AMTRAK & LIRR YARD	AL	O	9	STATE	9/10/2003	6.125	VGOOD	34100	$49,104,000.00	2
224004E	Q	TO NY FR THOMSON AVE	JACKSON AVE		OE	64	STATE	12/14/2002	4.906	FAIR	104600	$150,624,000.00	2
224004F	Q	TO NY FROM 21ST ST	21ST ST (QUEENS)		OE	63	STATE	11/20/2002	4.652	FAIR	63310	$91,166,400.00	2
224004H	Q	TO 21ST ST FROM NY	22ND ST		OE	34	STATE	12/5/2002	4.655	FAIR	48100	$69,264,000.00	2
224004I	Q	TO THOMSON AVE FROM NY	JACKSON AVE		OE	38	STATE	11/12/2002	5.246	GOOD	59100	$85,104,000.00	2
2230780	Q	BQE EAST LEG	30TH AVE		A	3	STATE	6/10/2003	6.746	VGOOD	9400	$13,536,000.00	3
1247010	Q	91 PLACE (2247010)	LIRR PT WASH BRANCH	L	O	3	STATE	6/23/2003	7.000	VGOOD	4200	$6,048,000.00	4
2247020	Q	94TH ST PED BRDG	LIRR N SIDE DIV	L	O-PED	5	CITY	12/16/02	4.211	FAIR	500	$720,000.00	4
2247180	Q	GRAND AVE	LIRR MAIN LINE	L	O	3	STATE	7/23/2002	5.000	GOOD	7415	$10,677,600.00	4
2247190	Q	55TH AVE PED BRDG	LIRR MAIN LINE	L	O-PED	3	CITY	12/07/00	4.429	FAIR	13000	$18,720,000.00	4
2247620	Q	MYRTLE AVE	ABANDONED LIRR	L	O	3	STATE	3/27/2002	5.250	GOOD	6725	$9,684,000.00	4
1247560	Q	METROPOLITAN AVE	LIRR MONTAUK DIV	L	O	2	STATE	6/19/2003	3.683	FAIR	20900	$30,096,000.00	5
2230040	Q	CYPRESS HILLS ST	JACKIE ROBINSON PKWY		A	1	STATE	7/10/2002	5.611	GOOD	5000	$7,200,000.00	5
2230050	Q	CYP HILLS CEM WEST	JACKIE ROBINSON PKWY		A	3	STATE	4/3/2003	3.955	FAIR	4400	$6,336,000.00	5
2230070	Q	CYP HILLS CEM EAST	JACKIE ROBINSON PKWY		A	3	STATE	4/4/2003	4.114	FAIR	4400	$6,336,000.00	5
2230099	Q	JACKIE ROBINSON PKWY	CYPRESS HILLS CEMETRY		A	1	STATE	1/17/2002	5.483	GOOD	4200	$6,048,000.00	5
2247440	Q	GRAND AVE	CONRAIL	C	O	1	STATE	8/11/2003	6.567	VGOOD	3400	$4,896,000.00	5
2247450	Q	57TH AVE	CONRAIL	C	O	1	STATE	8/11/2003	6.195	VGOOD	2248	$3,456,000.00	5
2247460	Q	CALDWELL AVE	CONRAIL	C	O	1	STATE	9/24/2002	6.639	VGOOD	2243	$3,229,920.00	5
2247470	Q	ELIOT AVE	CONRAIL	C	O	1	STATE	8/12/2003	5.250	GOOD	3600	$5,184,000.00	5
2247480	Q	JUNIPER BLVD SO	CONRAIL	C	O	1	STATE	8/12/2003	5.556	GOOD	8500	$12,240,000.00	5
2247490	Q	69TH ST JUNPR BLVD	CONRAIL	C	O	1	STATE	9/25/2002	5.455	GOOD	6175	$8,892,000.00	5
2247500	Q	METROPOLITAN AVE	CONRAIL	C	O	1	STATE	8/12/2003	4.167	FAIR	18650	$26,856,000.00	5
2247530	Q	ANDREWS AVE	LIRR MONTAUK DIV	L	O	4	STATE	6/16/2003	4.113	FAIR	3200	$4,608,000.00	5
2247540	Q	60TH ST	LIRR MONTAUK DIV	L	O	2	STATE	6/17/2003	5.264	GOOD	5340	$7,689,600.00	5
2247550	Q	ELIOT AVE	LIRR MONTAUK DIV	L	O	2	STATE	6/18/2003	5.894	GOOD	9200	$13,248,000.00	5
2247570	Q	80TH ST	71ST TO 77TH AVE	L	O	5	STATE	8/9/2002	5.169	GOOD	11725	$16,884,000.00	5
2247630	Q	PED BRG NEAR UNION TPK	ABANDONED LIRR		O-PED	8	CITY	8/6/2003	5.154	GOOD	900	$1,296,000.00	5
2247650	Q	60TH RD PED BRDG	LIRR MAIN LINE	L	O-PED	3	CITY	01/14/03	5.207	GOOD	2293	$3,301,920.00	5
2248200	Q	RUST ST	FLUSHING AVE		O	1	STATE	5/12/2003	5.547	GOOD	2900	$4,176,000.00	5
2248220	Q	FLUSHING AV SERVICE	FLUSHING AVE		O	1	STATE	5/12/2003	5.125	GOOD	3000	$4,320,000.00	5
2248240	Q	SERVICE RD TURNAROUND	OVER FLUSHING AVE		O	1	STATE	5/12/2003	5.250	GOOD	2900	$4,176,000.00	5
2248300	Q	71ST AVE	COOPER AVE		O	1	STATE	5/9/2003	4.458	FAIR	2800	$4,032,000.00	5
1247200	Q	67 AVE PED BR 2247200	LIRR MAIN LINE	L	O-PED	3	CITY	11/19/01	4.479	FAIR	1300	$1,872,000.00	6
2066002	Q	495I (2066000)	WOODHAVEN BLVD		A	2	STATE	6/5/2003	6.197	VGOOD	25200	$36,288,000.00	6
2248159	Q	WOODHAVEN BLVD	QUEENS BLVD		O	2	STATE	6/18/2002	4.308	FAIR	11500	$16,560,000.00	6
1065210	Q	WHITESTONE EXP NB	BCIP (2065210)		A	1	STATE	8/14/2002	4.683	FAIR	2500	$3,600,000.00	7
2055801	Q	NORTHERN BLVD W.B.	FLUSHING RIVER		WO	40	STATE	9/18/2002	4.817	FAIR	71900	$103,536,000.00	7
2055802	Q	NORTHERN BLVD E.B.	FLUSHING RIVER		WO	40	STATE	9/18/2002	4.507	FAIR	78894	$113,607,360.00	7
2231900	Q	BCIP	FORT TOTTEN ENTRANCE		A	1	STATE	8/2/2002	4.672	FAIR	4900	$7,056,000.00	7
2231910	Q	UTOPIA PKWY	BCIP		A	2	STATE	3/14/2002	5.136	GOOD	7200	$10,368,000.00	7
2231920	Q	160TH ST	BCIP		A	2	STATE	4/24/2003	5.972	GOOD	5500	$7,920,000.00	7
2231930	Q	FRANCIS LEWIS BLVD	BCIP		A	3	STATE	2/28/2002	4.773	FAIR	9100	$13,104,000.00	7
2231940	Q	CLINTONVILLE ST	BCIP		A	2	STATE	2/28/2002	4.727	FAIR	7400	$10,656,000.00	7
2231950	Q	150TH ST	BCIP		A	2	STATE	2/22/2002	5.136	GOOD	5900	$8,496,000.00	7

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2231960	Q	149TH ST	BCIP		A	2	STATE	2/22/2002	4.977	FAIR	6100	$8,784,000.00	7
2231970	Q	14TH AVE	BCIP		A	2	STATE	2/22/2002	4.977	FAIR	8100	$11,664,000.00	7
2231980	Q	147TH ST	BCIP		A	2	STATE	2/12/2002	4.750	FAIR	6300	$9,072,000.00	7
2247040	Q	UNION ST	LIRR N SIDE DIV	L	O	1	STATE	6/11/2003	6.391	VGOOD	3313	$4,770,720.00	7
2247050	Q	BOWNE AVE	LIRR N SIDE DIV	L	O	1	STATE	8/1/2002	5.863	GOOD	4974	$7,162,560.00	7
2247060	Q	PARSONS BLVD	LIRR N SIDE DIV	L	O	1	STATE	8/2/2002	5.451	GOOD	4200	$6,048,000.00	7
2247070	Q	147TH ST	LIRR N SIDE DIV	L	O	1	STATE	6/11/2003	5.627	GOOD	2800	$4,032,000.00	7
2247080	Q	149TH ST	LIRR N SIDE DIV	L	O	1	STATE	6/11/2003	4.776	FAIR	4100	$5,904,000.00	7
2247090	Q	149TH PLACE	LIRR N SIDE DIV	L	O	2	STATE	6/11/2003	5.386	GOOD	4300	$6,192,000.00	7
2247100	Q	150TH ST	LIRR N SIDE DIV	L	O	2	STATE	6/11/2003	6.588	VGOOD	7830	$11,275,200.00	7
2247110	Q	MURRAY ST	LIRR N SIDE DIV	L	O	1	STATE	6/11/2003	5.556	GOOD	4000	$5,760,000.00	7
2266160	Q	678I SB TO BCIP EB	ACCESS RD FROM 678I		A	1	STATE	5/20/2002	4.438	FAIR	2300	$3,312,000.00	7
7705510	Q	167TH ST PED BRDG	LIRR PORT WASH BRANCH	L	O-PED	3	CITY	11/14/01	4.208	FAIR	600	$864,000.00	7
205580A	Q	N.BLVD WB TO 678I SB	VACANT LAND		AR	16	STATE	10/3/2002	5.571	GOOD	8600	$12,384,000.00	7
2267199	Q	FRANCIS LEWIS BLVD	PARK ROAD		O	1	STATE	6/3/2003	5.167	GOOD	7085	$10,202,400.00	8
2230209	Q	QUEENS BLVD	JACKIE ROBINSON PKWY	T	A	5	STATE	6/18/2002	4.698	FAIR	90000	$129,600,000.00	9
2247220	Q	80TH ROAD	LIRR MAIN LINE	L	O	3	STATE	6/24/2003	5.000	GOOD	4100	$5,904,000.00	9
2247230	Q	82ND AVE	LIRR MAIN LINE	L	O	3	STATE	6/24/2003	5.443	GOOD	4100	$5,904,000.00	9
2247240	Q	LEFFERTS BLVD	LIRR MAIN LINE	L	O	3	STATE	6/25/2003	5.917	GOOD	5460	$7,862,400.00	9
2247590	Q	FOREST PARK DRIVE	LIRR MONTAUK DIV	L	O	5	STATE	6/23/2003	5.404	GOOD	6000	$8,640,000.00	9
2247600	Q	PARK LANE SOUTH	LIRR MONTAUK DIV	AL	O	1	STATE	7/31/2002	7.000	VGOOD	3024	$8,496,000.00	9
2247660	Q	FOREST PARK DRIVE	ABANDONED LIRR	L	O	6	STATE	6/2/2003	5.254	GOOD	10000	$14,400,000.00	9
2248019	Q	WOODHAVEN BLVD	ATLANTIC AVE		O	3	STATE	7/15/2002	4.472	FAIR	19400	$27,936,000.00	9
2248299	Q	INTER PKWY-UNION TPK	AUSTIN ST		O	1	STATE	3/22/2002	4.750	FAIR	5900	$8,496,000.00	9
2248340	Q	FOREST PARK DR	MYRTLE AVE		O	3	STATE	5/8/2003	5.081	GOOD	5100	$7,344,000.00	9
2231559	Q	CROSS BAY BLVD	BSHP		A	4	STATE	5/7/2002	5.278	GOOD	23205	$33,415,200.00	10
2231560	Q	S CONDUIT BLVD	BSOP		A	2	STATE	5/15/2002	5.690	GOOD	15776	$22,717,440.00	10
2231570	Q	COHANCY ST	BSOP		A	2	STATE	5/15/2002	4.727	FAIR	6400	$9,216,000.00	10
2231580	Q	AQUEDUCT RCTK RAMP	BSOP		A	4	STATE	7/25/2002	4.264	FAIR	14000	$20,160,000.00	10
2231590	Q	130TH ST	BSOP		A	2	STATE	3/6/2002	4.750	FAIR	6800	$9,792,000.00	10
2240650	Q	163RD ST PED BRDG	HAWTREE BASIN		WO-PED	13	CITY	5/20/2003	4.407	FAIR	5000	$7,200,000.00	10
2248020	Q	WHITELAW PED BRDG	CONDUIT AVE		O-PED	7	CITY	4/24/2003	4.775	FAIR	5500	$7,920,000.00	10
2248039	Q	CROSS BAY BLVD	CONDUIT BLVD		O	2	STATE	6/6/2003	3.535	FAIR	17000	$24,480,000.00	10
2248040	Q	LINDEN BLVD	CONDUIT AVE		O	1	STATE	5/23/2002	5.233	GOOD	3352	$4,826,880.00	10
2248250	Q	102ND ST	HAWTREE BASIN		WO	3	STATE	7/15/2003	6.574	VGOOD	3200	$4,608,000.00	10
2231860	Q	W ALLEY ROAD	BCIP		A	2	STATE	9/26/2003	5.568	GOOD	7200	$10,368,000.00	11
2231870	Q	NORTHERN BLVD	BCIP		A	2	STATE	9/3/2002	6.569	VGOOD	8951	$12,816,000.00	11
2231880	Q	CROCHERON PK PED	BCIP		A-PED	9	CITY	11/10/2003	4.875	FAIR	2300	$3,312,000.00	11
2231890	Q	28TH AVE PED BRDG	BCIP		A-PED	24	CITY	8/19/2003	5.016	GOOD	7600	$10,944,000.00	11
2240440	Q	NORTHERN BLVD	ALLEY CREEK		WO	2	STATE	6/10/2002	5.000	GOOD	8300	$11,952,000.00	11
2247130	Q	CORPORAL KENNEDY ST	LIRR N SIDE DIV	L	O	1	STATE	6/13/2003	6.529	VGOOD	4340	$6,249,600.00	11
2247140	Q	BELL BLVD	LIRR N SIDE DIV	L	O	1	STATE	6/13/2003	5.881	GOOD	4320	$6,220,800.00	11
2247170	Q	DOUGLASTON PKWY	LIRR N SIDE DIV	L	O	3	STATE	7/1/2002	5.288	GOOD	6300	$9,072,000.00	11
2247680	Q	221ST ST	LIRR N SIDE DIV	L	O	3	STATE	6/12/2003	6.000	GOOD	6050	$8,712,000.00	11
2266129	Q	WINCHESTER BLVD S.B.	BCIP		A	1	STATE	5/24/2002	4.592	FAIR	4400	$6,336,000.00	11
2266139	Q	WINCHESTER BLVD N.B.	BCIP		A	1	STATE	5/24/2002	4.714	FAIR	6400	$9,216,000.00	11
7703720	Q	216TH ST PED BRDG	LIRR PORT WASH BRANCH	L	O-PED	5	CITY	12/07/00	4.102	FAIR	400	$576,000.00	11
2248160	Q	ELLIOT AVE	QUEENS BLVD		O	2	STATE	8/23/2002	4.922	FAIR	13785	$19,850,400.00	12
2231610	Q	GUY R. BREWER BLVD	BSOP		A	2	STATE	5/13/2003	6.833	VGOOD	7300	$10,512,000.00	13
2231620	Q	FARMERS BLVD	BSOP		A	2	STATE	5/13/2003	4.568	FAIR	6400	$9,216,000.00	13
2231630	Q	SPRINGFIELD BLVD	BSOP		A	2	STATE	6/3/2002	4.682	FAIR	8500	$12,240,000.00	13
2231640	Q	225TH ST	BSOP		A	2	STATE	6/28/2002	4.727	FAIR	7000	$10,080,000.00	13
2231650	Q	SUNRISE HWY W.B.	BLP E.B.		A	1	STATE	4/23/2002	4.623	FAIR	4100	$5,904,000.00	13
2231660	Q	SUNRISE HWY W.B.	BLP W.B.		A	2	STATE	6/26/2002	4.531	FAIR	5350	$7,704,000.00	13
2231670	Q	N CONDUIT AVE W.B.	BLP E.B.		A	1	STATE	1/28/2002	4.917	FAIR	4000	$5,760,000.00	13
2231680	Q	N CONDUIT AVE WB	BLP W.B.		A	2	STATE	2/11/2002	4.932	FAIR	6500	$9,360,000.00	13
2231690	Q	FRANCIS LEWIS BLVD	BLP E.B.		A	1	STATE	5/23/2002	5.333	GOOD	6000	$8,640,000.00	13
2231700	Q	FRANCIS LEWIS BLVD	BLP W.B.		A	1	STATE	4/16/2002	4.933	FAIR	6000	$8,640,000.00	13
2231710	Q	MERRICK BLVD	BLP E.B.		A	1	STATE	5/7/2002	4.533	FAIR	6000	$8,640,000.00	13
2231720	Q	MERRICK BLVD	BLP W.B.		A	1	STATE	5/20/2002	4.200	FAIR	6000	$8,640,000.00	13
2231730	Q	130TH AVE	BLP E.B.		A	1	STATE	1/17/2002	5.267	GOOD	4400	$6,336,000.00	13
2231740	Q	130TH AVE	BLP W.B.		A	1	STATE	1/18/2002	4.667	FAIR	4400	$6,336,000.00	13
2231750	Q	LINDEN BLVD	BCIP		A	2	STATE	3/21/2002	4.477	FAIR	6700	$9,648,000.00	13
2231760	Q	BCIP	DUTCH BROADWAY-115 AVE		A	1	STATE	3/11/2002	4.349	FAIR	7300	$10,512,000.00	13
2231770	Q	BELMONT PARK RAMP	BCIP		A	1	STATE	5/10/2002	4.781	FAIR	3200	$4,608,000.00	13
2231780	Q	HEMPSTEAD AVE	BCIP		A	2	STATE	6/12/2002	4.226	FAIR	14200	$20,448,000.00	13
2231800	Q	SUPERIOR ROAD	BCIP		A	2	STATE	5/7/2002	4.227	FAIR	7000	$10,080,000.00	13
2231819	Q	JAMAICA AVE	BCIP		A	2	STATE	3/26/2002	4.727	FAIR	11500	$16,560,000.00	13
2231829	Q	BRADDOCK AVE	BCIP		A	2	STATE	3/26/2002	4.909	FAIR	10600	$15,264,000.00	13
2231840	Q	HILLSIDE AVE	BCIP		A	2	STATE	6/28/2002	4.184	FAIR	9672	$13,927,680.00	13
2231850	Q	UNION TPKE	BCIP		A	2	STATE	7/30/2003	4.318	FAIR	13600	$19,584,000.00	13
2248129	Q	UNION TPKE	CREEDMO0RE HOSP RD		O	1	STATE	5/9/2003	4.867	FAIR	3500	$5,040,000.00	13
2266149	Q	HEMPSTEAD AVE	CROSS ISLAND PKWY		A	2	STATE	7/11/2002	4.077	FAIR	9500	$13,680,000.00	13
2266770	Q	CROSS ISLAND PKWY	LAURELTON PKWY		A	1	STATE	7/3/2002	5.250	GOOD	9508	$13,691,520.00	13
2268770	Q	SPRINGFIELD BLVD	EQUES. PATH (ABAND.)		O	1	STATE	6/3/2003	4.778	FAIR	1470	$2,116,800.00	13
2300130	Q	HOOK CREEK	HOOK CREEK BRIDGE		WO	3	STATE	6/26/2003	6.339	VGOOD	18302	$26,354,880.00	13
Q00002	Q	BCIP	PATH OPPOSITE 88TH RD		A	1	CITY	6/25/2003	4.467	FAIR	1200	$1,728,000.00	13
2240507	Q	ROOSEVELT AVE	678I - VAN WYCK EXPWY		WA	27	STATE	11/13/2002	3.380	FAIR	84424	$121,570,560.00	81
2248260	Q	FLUSHING MEADW PARK	MEADOW LAKE & 69TH RD		WO	5	STATE	4/25/2002	4.891	FAIR	4200	$6,048,000.00	81
2230120	Q	MYRTLE AVE	JACKIE ROBINSON PKWY		A	1	STATE	4/24/2002	5.611	GOOD	6400	$9,216,000.00	82
2230179	Q	JACKIE ROBINSON PKWY	METROPOLITAN AVE		A	2	STATE	2/19/2002	5.321	GOOD	8673	$12,489,120.00	82
2230180	Q	UNION TPKE	JACKIE ROBINSON PKWY		A	1	STATE	4/9/2002	5.984	GOOD	5359	$7,716,960.00	82
2230190	Q	MARKWOOD ROAD	JACKIE ROBINSON PKWY		A	1	STATE	4/19/2002	5.389	GOOD	4400	$6,336,000.00	82
2248369	Q	ROCKAWAY BLVD	THURSTON BASIN		WO	2	STATE	6/25/2003	5.158	GOOD	6000	$8,640,000.00	83
2248230	Q	BEACH CHANNEL DR WB	BEACH CHANNEL DR EB		O	1	STATE	5/19/2003	4.400	FAIR	3600	$5,184,000.00	84
2267160	Q	ROOSEVELT AVE	FLUSHING MDW PK ROAD		O	4	STATE	5/23/2003	4.746	FAIR	7280	$10,483,200.00	84
2065930	Q	HAMILTON PLACE	495I (L.I.E.)		A	2	STATE	7/30/2002	6.403	VGOOD	11111	$16,254,720.00	5
2065940	Q	GRAND AVE	495I (L.I.E.)		A	2	STATE	9/10/2002	5.264	GOOD	12376	$17,821,440.00	5
2065950	Q	69TH STREET	495I (L.I.E.)		A	2	STATE	5/30/2003	5.389	GOOD	10336	$14,883,840.00	5

INVENTORY SORTED BY BOROUGH AND COMMUNITY BOARD DISTRICT

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2249040	R	TOMPKINS AVE	B&O RR (ABANDONED)		O	1	STATE	4/9/2002	6.438	VGOOD	5096	$7,338,240.00	1
2249070	R	JOHN ST	B&O RAILROAD	O	O-PED	3	CITY	3/12/2003	6.806	VGOOD	5800	$8,352,000.00	1
2249090	R	MORNINGSTAR ROAD	B&O RAILROAD	O	O	4	STATE	4/14/2003	5.339	GOOD	7900	$11,376,000.00	1
2249100	R	GRANITE AVE	B&O RAILROAD	O	O	4	STATE	4/10/2002	6.237	VGOOD	7300	$10,512,000.00	1
2249110	R	LAKE AVE	B&O RAILROAD	O	O	3	STATE	4/9/2003	5.926	GOOD	5900	$8,496,000.00	1
2249120	R	SIMONSON AVE	B&O RAILROAD	O	O	3	STATE	5/1/2003	6.111	VGOOD	5819	$8,379,360.00	1
2249130	R	VAN NAME AVE	B&O RAILROAD	O	O	3	STATE	4/10/2003	5.492	GOOD	5474	$7,882,560.00	1
2249140	R	VAN PELT AVE	B&O RAILROAD	O	O	3	STATE	4/16/2003	5.780	GOOD	5000	$7,200,000.00	1
2249160	R	DE HART AVE	B&O RAILROAD	O	O	4	STATE	5/5/2003	6.500	VGOOD	6700	$9,648,000.00	1
2249170	R	UNION AVE	B&O RAILROAD	O	O	4	STATE	5/8/2003	5.352	GOOD	6500	$9,360,000.00	1
2249180	R	HARBOR ROAD	B&O RAILROAD	O	O	4	STATE	5/6/2003	6.356	VGOOD	6615	$9,525,600.00	1
2249200	R	SOUTH AVE	B&O RAILROAD	O	O	3	STATE	9/29/2003	6.927	VGOOD	8322	$14,544,000.00	1
2249510	R	TOMPKINS AVE	WILLOW AVE, SIRT	S	O	2	STATE	6/20/2002	5.525	GOOD	5378	$7,744,320.00	1
2249520	R	HANNAH ST	SIRT SOUTH SHORE	S	O	10	STATE	10/21/2003	5.119	GOOD	10020	$14,428,800.00	1
2249530	R	MINTHORNE ST PED BRDG	SIRT SOUTH SHORE	S	O-PED	23	CITY	9/17/2003	6.170	VGOOD	1600	$2,304,000.00	1
2249760	R	MARTLINGS AVE	RICHMOND LAKE DAM		WO	2	STATE	6/9/2003	4.933	FAIR	7000	$10,080,000.00	1
2249800	R	FOREST AVE	CLOVE LAKES PK STREAM		WO	1	STATE	9/9/2003	4.767	FAIR	1600	$2,304,000.00	1
2249840	R	TOMPKINS AVE	GREENFIELD AVE		O	1	STATE	4/15/2002	5.277	GOOD	2562	$3,689,280.00	1
2240350	R	RICHMOND AVE	RICHMOND CREEK		WO	3	STATE	7/30/2003	6.153	VGOOD	32589	$46,928,160.00	2
2249400	R	BEACH AVE	SIRT SOUTH SHORE	S	O	2	STATE	10/23/2003	5.697	GOOD	3700	$5,328,000.00	2
2249410	R	ROSS AVE	SIRT SOUTH SHORE	S	O	2	STATE	10/24/2003	5.500	GOOD	3800	$5,472,000.00	2
2249420	R	ROSE AVE	SIRT SOUTH SHORE	S	O	2	STATE	10/25/2003	5.712	GOOD	3800	$5,472,000.00	2
2249430	R	NEW DORP LANE	SIRT SOUTH SHORE	S	O	2	STATE	10/18/2003	4.903	FAIR	7600	$10,944,000.00	2
2249440	R	BANCROFT AVE	SIRT SOUTH SHORE	S	O	3	STATE	10/19/2003	5.269	GOOD	5900	$8,496,000.00	2
2249450	R	FREMONT AVE PED BRDG	SIRT SOUTH SHORE	S	O-PED	3	CITY	6/12/2003	4.459	FAIR	800	$1,152,000.00	2
2249460	R	LINCOLN AVE	SIRT SOUTH SHORE	S	O	1	STATE	10/25/2003	5.552	GOOD	4500	$6,480,000.00	2
2249470	R	MIDLAND AVE	SIRT SOUTH SHORE	S	O	1	STATE	10/26/2003	5.603	GOOD	3000	$4,320,000.00	2
2249480	R	FINGERBOARD ROAD	SIRT SOUTH SHORE	S	O	2	STATE	10/26/2003	6.764	VGOOD	5100	$7,344,000.00	2
2249490	R	CLOVE ROAD	SIRT SOUTH SHORE	S	O	3	STATE	6/19/2002	6.264	VGOOD	5270	$11,808,000.00	2
2249860	R	SLATER BLVD	NEW CREEK		WO	1	STATE	4/14/2003	5.959	GOOD	3500	$5,040,000.00	2
2249870	R	TRAVIS AVE	MAIN CREEK		WO	1	STATE	8/5/2003	6.100	VGOOD	1700	$2,448,000.00	2
2249880	R	CHELSEA ROAD	SAWMILL CREEK		WO	1	STATE	5/12/2003	6.981	VGOOD	2205	$3,163,680.00	2
2249210	R	MAIN ST PED BRDG	SIRT SOUTH SHORE	S	O-PED	9	CITY	5/14/2003	4.710	FAIR	400	$576,000.00	3
2249230	R	TRACY AVE PED BRDG	SIRT SOUTH SHORE	S	O-PED	9	CITY	5/1/2003	3.158	FAIR	200	$288,000.00	3
2249240	R	ARTHUR KILL ROAD	SIRT SOUTH SHORE	S	O	1	STATE	6/17/2002	4.833	FAIR	3700	$5,328,000.00	3
2249250	R	BETHEL AV PED BRDG	SIRT SOUTH SHORE	S	O-PED	12	CITY	6/11/2003	3.980	FAIR	500	$720,000.00	3
2249269	R	PAGE AVE	SIRT SOUTH SHORE	S	O	4	STATE	10/16/2003	6.306	VGOOD	30420	$43,804,800.00	3
2249270	R	RICHMMD VALLY ROAD	SIRT SOUTH SHORE	S	O	4	STATE	10/14/2003	5.299	GOOD	9300	$13,392,000.00	3
2249280	R	COZZINS BLVD PED BRDG	SIRT SOUTH SHORE	S	O-PED	7	CITY	6/17/2003	4.902	FAIR	200	$288,000.00	3
2249290	R	SEGUINE AVE	SIRT SOUTH SHORE	S	O	1	STATE	10/15/2003	6.016	VGOOD	2200	$3,168,000.00	3
2249300	R	HUGUENOT AVE	SIRT SOUTH SHORE	S	O	2	STATE	10/14/2003	4.955	FAIR	4900	$7,056,000.00	3
2249320	R	ALBEE AVE	SIRT SOUTH SHORE	S	O	3	STATE	10/17/2003	4.787	FAIR	6500	$9,360,000.00	3
2249330	R	ANNADALE ROAD	SIRT SOUTH SHORE	S	O	2	STATE	10/19/2003	4.455	FAIR	4500	$6,480,000.00	3
2249350	R	NELSON AVE PED BRDG	SIRT SOUTH SHORE	S	O-PED	1	CITY	6/2/2003	4.725	FAIR	300	$432,000.00	3
2249360	R	GIFFORDS LANE	SIRT SOUTH SHORE	S	O	1	STATE	6/18/2002	5.844	GOOD	3042	$4,380,480.00	3
2249370	R	GREAVES AVE	SIRT SOUTH SHORE	S	O	3	STATE	10/18/2003	6.750	VGOOD	6100	$8,784,000.00	3
2249380	R	GUYON AVE	SIRT SOUTH SHORE	S	O	3	STATE	10/19/2003	4.869	FAIR	6900	$9,936,000.00	3
2249390	R	CEDARVIEW AVE PED BRDG	SIRT SOUTH SHORE	S	O-PED	5	CITY	6/10/2003	4.684	FAIR	600	$864,000.00	3
2249580	R	BELFIELD AVE PED BRDG	SIRT SOUTH SHORE	S	O-PED	5	CITY	5/15/2003	4.277	FAIR	400	$576,000.00	3
2249810	R	HYLAN BLVD	LEMON CREEK		WO	1	STATE	4/12/2002	6.625	VGOOD	11400	$16,416,000.00	3
2249820	R	ARTHUR KILL ROAD	ARTHUR KILL STREAM		WO	1	STATE	5/9/2003	4.122	FAIR	2000	$2,880,000.00	3
2268920	R	AMBOY ROAD	LEMON CREEK		WO	1	STATE	4/17/2002	7.000	VGOOD	1310	$2,079,360.00	3
753 BRIDGES						4496	SPANS				14229757	$20,637,971,040	

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2248250	Q	102ND ST	HAWTREE BASIN		WO	3	STATE	7/15/2003	6.574	VGOOD	3200	$4,608,000.00	10
2245209	M	11TH AVE	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/17/2002	4.471	FAIR	15400	$22,176,000.00	4
2243630	K	11TH AVE	LIRR & SEA BEACH	LT	O	5	STATE	8/23/2002	6.809	VGOOD	9700	$13,968,000.00	10
2245010	M	11TH AVE VIADUCT	LIRR WEST SIDE YARD	AL	O	39	STATE	11/27/2002	3.875	FAIR	157500	$226,800,000.00	4
2246990	M	129 - 130 ST PED BRDG	RAMP OFF 3RD AVE		O-PED	5	CITY	05/29/02	4.238	FAIR	500	$720,000.00	11
2231730	Q	130TH AVE	BLP E.B.		A	1	STATE	1/17/2002	5.267	GOOD	4400	$6,336,000.00	13
2231740	Q	130TH AVE	BLP W.B.		A	1	STATE	1/18/2002	4.667	FAIR	4400	$6,336,000.00	13
2231590	Q	130TH ST	BSOP		A	2	STATE	3/6/2002	4.750	FAIR	6800	$9,792,000.00	10
2243640	K	13TH AVE	LIRR & SEA BEACH	LT	O	5	STATE	11/6/2003	4.694	FAIR	16000	$23,040,000.00	10
2240089	BM	145TH ST BRIDGE	HARLEM RIVER		WMO	8	STATE	10/26/2003	3.097	FAIR	56700	$81,648,000.00	10
2231980	Q	147TH ST	BCIP		A	2	STATE	2/12/2002	4.750	FAIR	6300	$9,072,000.00	7
2247070	Q	147TH ST	LIRR N SIDE DIV	L	O	1	STATE	6/11/2003	5.627	GOOD	2800	$4,032,000.00	7
2247090	Q	149TH PLACE	LIRR N SIDE DIV	L	O	2	STATE	6/11/2003	5.386	GOOD	4300	$6,192,000.00	7
2231960	Q	149TH ST	BCIP		A	2	STATE	2/22/2002	4.977	FAIR	6100	$8,784,000.00	7
2247080	Q	149TH ST	LIRR N SIDE DIV	L	O	1	STATE	6/11/2003	4.776	FAIR	4100	$5,904,000.00	7
2231970	Q	14TH AVE	BCIP		A	2	STATE	2/22/2002	4.977	FAIR	8100	$11,664,000.00	7
2243650	K	14TH AVE	LIRR BAY RIDGE	N	O	4	STATE	6/19/2002	4.321	FAIR	10000	$14,400,000.00	11
2231950	Q	150TH ST	BCIP		A	2	STATE	2/22/2002	5.136	GOOD	5900	$8,496,000.00	7
2247100	Q	150TH ST	LIRR N SIDE DIV	L	O	2	STATE	6/11/2003	6.588	VGOOD	7830	$11,275,200.00	7
2243670	K	15TH AVE	BMT SEA BEACH	T	O	6	STATE	7/26/2002	4.136	FAIR	17300	$24,912,000.00	11
2243340	K	15TH AVE	LIRR BAY RIDGE	N	O	1	STATE	6/20/2002	4.804	FAIR	3614	$5,204,160.00	11
2231920	Q	160TH ST	BCIP		A	2	STATE	4/24/2003	5.972	GOOD	5500	$7,920,000.00	7
2240650	Q	163RD ST PED BRDG	HAWTREE BASIN		WO-PED	13	CITY	5/20/2003	4.407	FAIR	5000	$7,200,000.00	10
7705510	Q	167TH ST PED BRDG	LIRR PORT WASH BRANCH	L	O-PED	3	CITY	11/14/01	4.208	FAIR	600	$864,000.00	7
2243680	K	16TH AVE	BMT SEA BEACH	T	O	4	STATE	7/23/2002	5.630	GOOD	6816	$9,815,040.00	11
2243360	K	16TH AVE	LIRR BAY RIDGE	N	O	1	STATE	6/21/2002	6.683	VGOOD	4345	$7,632,000.00	11
206672A	B	174TH ST-NTH PED BRDG	895I - SHERIDAN EXPWY		A-PED	4	CITY	3/27/2003	5.015	GOOD	1800	$2,592,000.00	9
206672B	B	174TH ST-STH PED BRDG	895I - SHERIDAN EXPWY		A-PED	4	CITY	3/27/2003	4.667	FAIR	1900	$2,736,000.00	9
2243690	K	17TH AVE	BMT SEA BEACH	T	O	4	STATE	8/22/2002	3.711	FAIR	8500	$12,240,000.00	11
2243370	K	17TH AVE	LIRR BAY RIDGE	N	O	1	STATE	6/24/2002	5.000	GOOD	3406	$4,904,640.00	12
2231300	K	17TH AVE PED BRDG	BSHP		A-PED	1	CITY	1/27/2003	3.846	FAIR	2100	$3,024,000.00	11
2243700	K	18TH AVE	BMT SEA BEACH	T	O	4	STATE	10/20/2003	3.909	FAIR	8700	$12,528,000.00	11
2243380	K	18TH AVE	LIRR BAY RIDGE	N	O	1	STATE	6/25/2002	5.328	GOOD	6006	$8,648,640.00	12
2243710	K	19TH AVE	BMT SEA BEACH	T	O	4	STATE	8/20/2002	4.500	FAIR	4800	$6,912,000.00	11
2241259	B	204TH ST PED BRDG	METRO NORTH RR HAR	M	O-PED	1	CITY	08/26/02	3.950	FAIR	4700	$6,768,000.00	27
2243720	K	20TH AVE	BMT SEA BEACH	T	O	6	STATE	8/16/2002	4.795	FAIR	12500	$18,000,000.00	11
7703720	Q	216TH ST PED BRDG	LIRR PORT WASH BRANCH	L	O-PED	5	CITY	12/07/00	4.102	FAIR	400	$576,000.00	11
2243820	K	21ST AVE	BMT SEA BEACH	T	O	4	STATE	8/13/2002	4.132	FAIR	21400	$30,816,000.00	11
2247270	Q	21ST STREET	CONRAIL	C	O	6	STATE	7/7/2003	5.528	GOOD	17590	$25,329,600.00	2
2247680	Q	221ST ST	LIRR N SIDE DIV	L	O	3	STATE	6/12/2003	6.000	GOOD	6050	$8,712,000.00	11
2231640	Q	225TH ST	BSOP		A	2	STATE	6/28/2002	4.727	FAIR	7000	$10,080,000.00	13
2229450	B	232ND ST	HHP		A	2	STATE	9/18/2003	4.237	FAIR	4900	$7,056,000.00	8
2229460	B	236TH ST PED BRDG	HHP		A-PED	3	CITY	9/24/2003	5.106	GOOD	2500	$3,600,000.00	8
2229470	B	239TH ST	HHP		A	2	STATE	6/2/2003	4.711	FAIR	6100	$8,784,000.00	8
2229490	B	246TH ST	HHP		A	2	STATE	4/29/2003	4.974	FAIR	5600	$8,064,000.00	8
2229500	B	252ND ST	HHP		A	2	STATE	2/6/2002	4.026	FAIR	4500	$6,480,000.00	8
2232070	M	25TH ST PED BRDG	FDR DRIVE		A-PED	4	CITY	3/16/2003	4.594	FAIR	1700	$2,448,000.00	6
224004J	M	25X	NYC GARAGE		OE	14	STATE	11/21/2002	4.780	FAIR	22058	$31,763,520.00	6
2230679	Q	278I (B.Q.E.)	34TH AVE		A	3	STATE	5/12/2003	6.898	VGOOD	9500	$13,680,000.00	2
2230669	Q	278I (B.Q.E.)	35TH AVE		A	1	STATE	8/29/2003	6.627	VGOOD	6500	$9,360,000.00	2
2230440	K	278I (B.Q.E.)	ADAMS ST N.B.		A	1	STATE	3/21/2002	5.200	GOOD	2700	$3,888,000.00	2
2230450	K	278I (B.Q.E.)	ADAMS ST S.B.		A	1	STATE	3/21/2002	4.933	FAIR	2500	$3,600,000.00	2
2230400	K	278I (B.Q.E.)	ATLANTIC AVE		A	1	STATE	4/12/2002	5.976	GOOD	14230	$20,491,200.00	6
2230470	K	278I (B.Q.E.)	JAY ST		A	1	STATE	3/29/2002	5.233	GOOD	5100	$7,344,000.00	2
2230857	K	278I (B.Q.E.)	JORALEMON ST		A	1	STATE	5/6/2002	5.030	GOOD	2100	$3,024,000.00	2
2230858	K	278I (B.Q.E.)	JORALEMON ST / BQE WB		A	2	STATE	5/6/2002	3.887	FAIR	5900	$8,496,000.00	2
2230510	K	278I (B.Q.E.)	NASSAU ST		A	6	STATE	4/3/2002	4.611	FAIR	51200	$73,728,000.00	2
2230680	Q	278I (B.Q.E.)	NORTHERN BLVD		A	1	STATE	5/24/2002	4.571	FAIR	5900	$8,496,000.00	2
2230460	K	278I (B.Q.E.)	PEARL ST		A	1	STATE	3/22/2002	5.333	GOOD	4500	$6,480,000.00	2
2230430	K	278I (B.Q.E.)	PROSPECT ST		A	1	STATE	3/21/2002	5.267	GOOD	1100	$1,584,000.00	2
2230480	K	278I (B.Q.E.)	PROSPECT ST		A	1	STATE	3/29/2002	5.241	GOOD	8400	$12,096,000.00	2
2230500	K	278I (B.Q.E.)	RAMP TO BQE EB		A	1	STATE	3/28/2002	5.567	GOOD	1300	$1,872,000.00	2
2230490	K	278I (B.Q.E.)	SANDS ST		A	1	STATE	3/29/2002	5.093	GOOD	12600	$18,144,000.00	2
2230410	K	278I (B.Q.E.)	WASHINGTON ST		A	1	STATE	4/17/2002	4.656	FAIR	2500	$3,600,000.00	2
2230420	K	278I (B.Q.E.)	WASHINGTON ST		A	1	STATE	4/18/2002	4.953	FAIR	2500	$3,600,000.00	2
2268498	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)		A	69	STATE	7/16/2003	4.041	FAIR	120734	$173,856,960.00	2
2268508	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)		A	11	STATE	5/19/2003	4.034	FAIR	17956	$25,856,640.00	2
2268518	K	278I E.B. (B.Q.E.)	278I W.B. (B.Q.E.)		A	5	STATE	11/11/2003	4.310	FAIR	8375	$12,060,000.00	2
2230888	K	278I E.B. (B.Q.E.)	CADMAN PLAZA / 278I WB		A	2	STATE	5/10/2002	4.684	FAIR	4500	$6,480,000.00	2
2230710	Q	278I S.B. (B.Q.E.)	32ND AVE		A	1	STATE	8/28/2003	6.797	VGOOD	4500	$6,480,000.00	1
2230887	K	278I W.B. (B.Q.E.)	CADMAN PLAZA		A	2	STATE	5/9/2002	4.250	FAIR	4500	$6,480,000.00	2
2268497	K	278I W.B. (B.Q.E.)	FURMAN ST		A	45	STATE	6/19/2003	4.292	FAIR	78022	$112,351,680.00	2
2268517	K	278I W.B. (B.Q.E.)	FURMAN ST		A	7	STATE	7/22/2003	4.206	FAIR	10988	$15,822,720.00	2
2268507	K	278I W.B. (B.Q.E.)	YORK ST		A	6	STATE	6/13/2003	4.262	FAIR	9380	$13,507,200.00	2
2231330	K	27TH AVE PED BRDG	BSHP		A-PED	1	CITY	7/1/2003	4.000	FAIR	2100	$3,024,000.00	13
2231890	Q	28TH AVE PED BRDG	BCIP		A-PED	24	CITY	8/19/2003	5.016	GOOD	7600	$10,944,000.00	11
2243310	K	2ND AVE	LIRR BAY RIDGE	N	O	6	STATE	11/14/2003	3.925	FAIR	17000	$24,480,000.00	10
2230730	Q	31ST AVE	278I (B.Q.E.)		A	1	STATE	8/27/2003	6.800	VGOOD	3700	$5,328,000.00	1
2230657	Q	31ST ST	278I (B.Q.E.)		A	2	STATE	8/9/2002	5.222	GOOD	9500	$13,680,000.00	1
2230640	Q	32ND ST	278I (B.Q.E.)		A	2	STATE	4/15/2003	4.986	FAIR	8100	$11,664,000.00	1
2230630	Q	35TH ST	278I (B.Q.E.)		A	4	STATE	8/20/2002	4.819	FAIR	9000	$12,960,000.00	1
2247370	Q	37TH AVE	CONRAIL HELLGATE	C	O	1	STATE	8/6/2003	4.818	FAIR	5300	$7,632,000.00	2
2230620	Q	37TH ST	278I (B.Q.E.)		A	2	STATE	5/15/2002	4.667	FAIR	5300	$7,632,000.00	1
2247640	Q	39 ST (SOUTH)	AMTRAK & LIRR YARD	AL	O	9	STATE	9/10/2003	6.125	VGOOD	34100	$49,104,000.00	2
2247330	Q	39TH ST (NORTH)	SUNNYSIDE YARDS	AL	O	14	STATE	9/9/2003	6.556	VGOOD	48200	$69,408,000.00	2
2243320	K	3RD AVE	LIRR BAY RIDGE	N	O	4	STATE	8/25/2003	5.542	GOOD	17230	$24,811,200.00	10
2244160	K	3RD AVE	SHORE RD DRIVE		O	1	STATE	5/28/2003	6.818	VGOOD	4360	$10,224,000.00	10
2230570	Q	41ST AVE	278I (B.Q.E.)		A	3	STATE	3/27/2002	5.014	GOOD	8800	$12,672,000.00	2
2247390	Q	41ST AVE	CONRAIL HELLGATE	C	O	2	STATE	8/6/2003	4.942	FAIR	4000	$5,760,000.00	2

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2247410	Q	43RD AVE	CONRAIL	C	O	1	STATE	8/8/2003	5.033	GOOD	4800	$6,912,000.00	2
2247420	Q	44TH AVE	CONRAIL	C	O	1	STATE	8/8/2003	5.033	GOOD	5100	$7,344,000.00	2
2230840	Q	44TH ST	GCP		A	2	STATE	5/29/2002	4.833	FAIR	5000	$7,200,000.00	1
2247430	Q	45TH AVE	CONRAIL	C	O	1	STATE	8/8/2003	5.510	GOOD	2400	$3,456,000.00	2
2230820	Q	47TH ST	GCP		A	2	STATE	6/6/2002	4.944	FAIR	5700	$8,208,000.00	1
2066002	Q	495I (2066000)	WOODHAVEN BLVD		A	2	STATE	6/5/2003	6.197	VGOOD	25200	$36,288,000.00	6
2247290	Q	49TH AVE	LIRR,AMT,CON NE	L	O	5	STATE	11/1/2002	4.389	FAIR	20200	$29,088,000.00	2
2230800	Q	49TH ST	BQE WEST LEG		A	2	STATE	5/22/2002	5.194	GOOD	4900	$7,056,000.00	1
2230890	Q	49TH ST	GCP		A	2	STATE	7/31/2002	4.778	FAIR	5500	$7,920,000.00	1
2231270	K	4TH AVE	BSHP		A	2	STATE	4/10/2002	4.842	FAIR	6100	$8,784,000.00	10
2243330	K	4TH AVE	LIRR BAY RIDGE	NT	O	6	STATE	10/17/2003	5.819	GOOD	19400	$27,936,000.00	10
2243839	K	4TH AVE	NYCTA BMT TRACKS	T	O	1	STATE	11/14/2003	6.633	VGOOD	5160	$5,904,000.00	7
2243400	K	50TH ST	LIRR BAY RIDGE	N	O	2	STATE	8/14/2003	4.701	FAIR	7100	$10,224,000.00	12
1247280	Q	51 AVE PED BR.2247280	LIRR MAIN LINE	L	O-PED	5	CITY	11/20/01	3.355	FAIR	700	$1,008,000.00	2
2243390	K	52ND ST	LIRR BAY RIDGE	N	O	2	STATE	8/18/2003	4.211	FAIR	2800	$4,032,000.00	12
2247190	Q	55TH AVE PED BRDG	LIRR MAIN LINE	L	O-PED	3	CITY	12/07/00	4.429	FAIR	13000	$18,720,000.00	4
2247450	Q	57TH AVE	CONRAIL	C	O	1	STATE	8/11/2003	6.195	VGOOD	2248	$3,456,000.00	5
2066100	K	5TH AVE	27 X PROSPECT EXPWY		A	1	STATE	4/2/2002	5.208	GOOD	8800	$12,672,000.00	7
2244480	K	5TH AVE	GREENWOOD CEMETERY		O	1	STATE	6/2/2003	5.000	GOOD	3600	$5,184,000.00	7
2243580	K	5TH AVE	LIRR & SEA BEACH	LT	O	4	STATE	8/30/2002	4.500	FAIR	12500	$18,000,000.00	10
2247650	Q	60TH RD PED BRDG	LIRR MAIN LINE	L	O-PED	3	CITY	01/14/03	5.207	GOOD	2293	$3,301,920.00	5
2243350	K	60TH ST	LIRR BAY RIDGE	N	O	1	STATE	8/20/2003	6.383	VGOOD	3900	$5,616,000.00	11
2247540	Q	60TH ST	LIRR MONTAUK DIV	L	O	2	STATE	6/17/2003	5.264	GOOD	5340	$7,689,600.00	5
2230520	Q	65TH PLACE	278I (B.Q.E.)		A	2	STATE	3/5/2002	4.456	FAIR	11600	$16,704,000.00	2
2247160	Q	65TH PLACE	LIRR N SHR DIV	L	O	3	STATE	7/2/2003	6.471	VGOOD	8381	$12,068,640.00	2
2243730	K	65TH ST	BMT SEA BEACH	T	O	4	STATE	8/5/2002	5.947	GOOD	12000	$17,280,000.00	11
2247150	Q	65TH ST	LIRR N SIDE DIV	L	O	3	STATE	7/2/2003	6.542	VGOOD	6344	$8,640,000.00	2
1247200	Q	67 AVE PED BR 2247200	LIRR MAIN LINE	L	O-PED	3	CITY	11/19/01	4.479	FAIR	1300	$1,872,000.00	6
2266160	Q	678I SB TO BCIP EB	ACCESS RD FROM 678I		A	1	STATE	5/20/2002	4.438	FAIR	2300	$3,312,000.00	7
2230550	Q	69TH ST	278I (B.Q.E.)		A	2	STATE	5/6/2002	4.842	FAIR	12600	$18,144,000.00	2
2247490	Q	69TH ST JUNPR BLVD	CONRAIL	C	O	1	STATE	9/25/2002	5.455	GOOD	6175	$8,892,000.00	5
2065950	Q	69TH STREET	495I (L.I.E.)		A	2	STATE	5/30/2003	5.389	GOOD	10336	$14,883,840.00	5
2243590	K	6TH AVE	LIRR & SEA BEACH	LT	O	5	STATE	10/14/2003	6.528	VGOOD	14200	$20,448,000.00	10
2243280	K	6TH AVE	LIRR ATLANTIC AVE	L	O	9	STATE	6/1/2002	5.583	GOOD	12276	$17,677,440.00	8
2230560	Q	70TH ST	278I (B.Q.E.)		A	2	STATE	5/6/2002	5.125	GOOD	8500	$12,240,000.00	2
2248300	Q	71ST AVE	COOPER AVE		O	1	STATE	5/9/2003	4.458	FAIR	2800	$4,032,000.00	5
2246150	M	72ND ST CROSS DR	NEAR CONCERT GRNDS		O	3	STATE	3/6/2002	4.941	FAIR	7300	$10,512,000.00	64
2246140	M	72ND ST ENT TO W DR	BRIDLE PATH		O	1	STATE	2/26/2002	4.867	FAIR	3600	$5,184,000.00	64
2246460	M	77 ST ENTR TO W DR	PED PATH OPP 77TH ST		O	2	STATE	3/7/2002	4.789	FAIR	5800	$8,352,000.00	64
2246450	M	79 ST ENTR TO E DR	PED PATH OPP 77TH ST		O	1	STATE	2/27/2002	5.190	GOOD	5000	$7,200,000.00	64
2267717	M	79 ST PED PLAZA	79 ST BT BASIN GAR		A	10	STATE	5/2/2003	4.593	FAIR	27400	$39,456,000.00	7
226771B	M	79 ST RAMP TO GAR	79 ST BT BASIN GAR		AR	21	STATE	5/23/2003	4.452	FAIR	7114	$10,244,160.00	7
226771A	M	79 ST RAMP TO HHP	79 ST BT BASIN GAR		AR	4	STATE	5/16/2003	4.242	FAIR	3131	$4,508,640.00	7
2267718	M	79 ST TRAFFIC CIRC	79 ST PED PLAZA		A	34	STATE	5/13/2003	3.934	FAIR	24130	$34,747,200.00	7
2243600	K	7TH AVE	LIRR & SEA BEACH	LT	O	7	STATE	8/28/2002	5.667	GOOD	18913	$27,234,720.00	10
2243920	K	7TH AVE	NYCTA BMT YARD	T	O	2	STATE	11/4/2003	3.917	FAIR	5200	$7,488,000.00	7
2247220	Q	80TH ROAD	LIRR MAIN LINE	L	O	3	STATE	6/24/2003	5.000	GOOD	4100	$5,904,000.00	9
2247570	Q	80TH ST	71ST TO 77TH AVE	L	O	5	STATE	8/9/2002	5.169	GOOD	11725	$16,884,000.00	5
2231250	K	81ST ST PED BR	BSHP		A-PED	5	CITY	10/9/2003	5.222	GOOD	3100	$4,464,000.00	10
2247230	Q	82ND AVE	LIRR MAIN LINE	L	O	3	STATE	6/24/2003	5.443	GOOD	4100	$5,904,000.00	9
2243570	K	86TH ST	LIRR & SEA BEACH	LT	O	1	STATE	7/31/2002	6.250	VGOOD	3840	$26,208,000.00	13
2243610	K	8TH AVE	LIRR & SEA BEACH	LT	O	4	STATE	11/13/2003	6.319	VGOOD	11400	$16,416,000.00	10
1247010	Q	91 PLACE (2247010)	LIRR PT WASH BRANCH	L	O	3	STATE	6/23/2003	7.000	VGOOD	4200	$6,048,000.00	4
2231260	K	92ND ST PED BR	BSHP		A-PED	6	CITY	8/13/2003	4.161	FAIR	3000	$4,320,000.00	10
2247020	Q	94TH ST PED BRDG	LIRR N SIDE DIV	L	O-PED	5	CITY	12/16/02	4.211	FAIR	500	$720,000.00	4
2243840	K	9TH AVE	NYCTA BMT YARD	T	O	5	STATE	10/27/2003	6.514	VGOOD	12440	$17,913,600.00	12
2243940	K	9TH AVE	NYCTA IND SBWY	T	O	5	STATE	11/4/2003	4.737	FAIR	11900	$17,136,000.00	12
2246490	M	A.C. POWELL BLVD N.B.	A.C. POWELL BLVD		O	1	STATE	4/10/2002	4.061	FAIR	5600	$8,064,000.00	10
2249320	R	ALBEE AVE	SIRT SOUTH SHORE	S	O	3	STATE	10/17/2003	4.787	FAIR	6500	$9,360,000.00	3
2268920	R	AMBOY ROAD	LEMON CREEK		WO	1	STATE	4/17/2002	7.000	VGOOD	1310	$2,079,360.00	3
2247530	Q	ANDREWS AVE	LIRR MONTAUK DIV	L	O	4	STATE	6/16/2003	4.113	FAIR	3200	$4,608,000.00	5
2249330	R	ANNADALE ROAD	SIRT SOUTH SHORE	S	O	2	STATE	10/19/2003	4.455	FAIR	4500	$6,480,000.00	3
2231580	Q	AQUEDUCT RCTK RAMP	BSOP		A	4	STATE	7/25/2002	4.264	FAIR	14000	$20,160,000.00	10
2249820	R	ARTHUR KILL ROAD	ARTHUR KILL STREAM		WO	1	STATE	5/9/2003	4.122	FAIR	2000	$2,880,000.00	3
2249240	R	ARTHUR KILL ROAD	SIRT SOUTH SHORE	S	O	1	STATE	6/17/2002	4.833	FAIR	3700	$5,328,000.00	3
2230810	Q	ASTORIA BLVD E.B.	BQE WEST LEG		A	4	STATE	6/5/2002	4.309	FAIR	8200	$11,808,000.00	1
2243569	K	ATLANTIC AVE	LIRR ATLANTIC AVE	L	O	75	STATE	6/11/2002	3.873	FAIR	135100	$194,544,000.00	16
2244170	K	ATLNTC AV SVC RD E.B.	EAST NEW YORK AVE		O	2	STATE	7/25/2003	4.737	FAIR	5500	$7,920,000.00	5
2244180	K	ATLNTC AV SVC RD W.B.	EAST NEW YORK AVE		O	2	STATE	7/25/2003	4.491	FAIR	6200	$8,928,000.00	16
2243530	K	AVENUE H	LIRR BAY RIDGE	N	O	2	STATE	8/8/2003	6.338	VGOOD	35100	$50,544,000.00	18
2243750	K	AVENUE O	BMT SEA BEACH	T	O	1	STATE	10/22/2003	5.863	GOOD	4658	$6,707,520.00	11
2243760	K	AVENUE P	BMT SEA BEACH	T	O	1	STATE	10/29/2003	6.791	VGOOD	5544	$8,640,000.00	11
2243790	K	AVENUE S	BMT SEA BEACH	T	O	1	STATE	11/5/2003	6.133	VGOOD	5360	$6,912,000.00	15
2243800	K	AVENUE T	BMT SEA BEACH	T	O	1	STATE	11/6/2003	6.033	VGOOD	5360	$12,240,000.00	11
2243810	K	AVENUE U	BMT SEA BEACH	T	O	1	STATE	8/1/2002	6.569	VGOOD	5880	$12,240,000.00	15
2231370	K	B 8TH ST ACCESS RMP	BSHP		A	4	STATE	5/17/2002	3.958	FAIR	12800	$18,432,000.00	13
2249440	R	BANCROFT AVE	SIRT SOUTH SHORE	S	O	3	STATE	10/19/2003	5.269	GOOD	5900	$8,496,000.00	2
2241180	B	BARRETTO ST	AMTRAK	A	O	1	STATE	6/5/2002	6.281	VGOOD	5313	$7,650,720.00	2
2232000	M	BATTERY PLACE	FDR DRIVE		AT	2	CITY	6/29/2003	4.500	FAIR	75000	$108,000,000.00	1
2231290	K	BAY 8TH ST	BSHP		A	1	STATE	5/5/2003	5.984	GOOD	4920	$7,084,800.00	11
2243740	K	BAY PKWY	BMT SEA BEACH	T	O	4	STATE	8/7/2002	5.079	GOOD	16800	$24,192,000.00	11
2231760	Q	BCIP	DUTCH BROADWAY-115 AVE		A	1	STATE	3/11/2002	4.349	FAIR	7300	$10,512,000.00	13
2231900	Q	BCIP	FORT TOTTEN ENTRANCE		A	1	STATE	8/2/2002	4.672	FAIR	4900	$7,056,000.00	7
Q00002	Q	BCIP	PATH OPPOSITE 88TH RD		A	1	CITY	6/25/2003	4.467	FAIR	1200	$1,728,000.00	13
2076109	B	BE NB SERVICE RD	HUTCHINSON RVR PKWY		A	2	STATE	10/15/2003	4.737	FAIR	7800	$11,232,000.00	10
2076129	B	BE SB SERVICE RD	HUTCHINSON RVR PKWY		A	2	STATE	4/17/2002	5.105	GOOD	7100	$10,224,000.00	10
2249400	R	BEACH AVE	SIRT SOUTH SHORE	S	O	2	STATE	10/23/2003	5.697	GOOD	3700	$5,328,000.00	2
2248230	Q	BEACH CHANNEL DR WB	BEACH CHANNEL DR EB		O	1	STATE	5/19/2003	4.400	FAIR	3600	$5,184,000.00	84
2243490	K	BEDFORD AVE	LIRR BAY RIDGE	N	O	6	STATE	7/10/2002	4.778	FAIR	12000	$17,280,000.00	14

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2241840	B	BEDFORD PARK BLVD	METRO NORTH RR HAR	M	O	1	STATE	3/9/2002	4.717	FAIR	6400	$9,216,000.00	27
2241930	B	BEDFORD PARK BLVD	NYCTA IND YARDS	T	O	4	STATE	7/20/2002	6.722	VGOOD	46300	$66,672,000.00	7
2249580	R	BELFIELD AVE PED BRDG	SIRT SOUTH SHORE	S	O-PED	5	CITY	5/15/2003	4.277	FAIR	400	$576,000.00	3
2247140	Q	BELL BLVD	LIRR N SIDE DIV	L	O	1	STATE	6/13/2003	5.881	GOOD	4320	$6,220,800.00	11
2231770	Q	BELMONT PARK RAMP	BCIP		A	1	STATE	5/10/2002	4.781	FAIR	3200	$4,608,000.00	13
2249250	R	BETHEL AV PED BRDG	SIRT SOUTH SHORE	S	O-PED	12	CITY	6/11/2003	3.980	FAIR	500	$720,000.00	3
2243100	K	BEVERLY ROAD	BMT SUBWAY, BRIGHTON	T	O	3	STATE	11/26/2003	3.982	FAIR	2700	$3,888,000.00	14
2243900	K	BLAKE AVE	LIRR BAY RIDGE LINE	N	O	3	STATE	7/19/2002	5.309	GOOD	4900	$7,056,000.00	16
2240410	Q	BORDEN AVE	DUTCH KILLS		WMO	2	STATE	7/14/2003	3.403	FAIR	8400	$12,096,000.00	2
2229579	B	BOSTON POST ROAD	HUTCHINSON RIVER		WO	14	STATE	6/5/2003	4.528	FAIR	95700	$137,808,000.00	12
2242110	B	BOSTON ROAD	BRONX RIVER		WO	1	STATE	5/16/2002	4.273	FAIR	6200	$8,928,000.00	27
2242100	B	BOTANICAL GARDEN ROAD	TWIN LAKES		O-PED	1	STATE	5/17/2002	4.967	FAIR	2200	$3,168,000.00	27
2247050	Q	BOWNE AVE	LIRR N SIDE DIV	L	O	1	STATE	8/1/2002	5.863	GOOD	4974	$7,162,560.00	7
2230780	Q	BQE EAST LEG	30TH AVE		A	3	STATE	6/10/2003	6.746	VGOOD	9400	$13,536,000.00	3
2230720	Q	BQE EAST LEG	BQE NB WEST LEG		A	1	STATE	6/11/2003	6.667	VGOOD	2700	$3,888,000.00	1
2230700	Q	BQE EAST LEG	TO BQE WEST LEG		A	14	STATE	5/13/2002	3.611	FAIR	16800	$24,192,000.00	1
2230690	Q	BQE EAST LEG NB	32ND AVE		A	1	STATE	6/20/2003	3.844	FAIR	6160	$8,870,400.00	1
2230750	Q	BQE EAST LEG SB	31ST AVE		A	1	STATE	7/8/2003	6.068	VGOOD	2900	$4,176,000.00	1
2230770	Q	BQE WEST LEG	30TH AVE		A	1	STATE	7/2/2003	7.000	VGOOD	6500	$9,360,000.00	1
2230830	Q	BQE WEST LEG	GCP		A	2	STATE	8/9/2002	4.861	FAIR	7600	$10,944,000.00	1
2230760	Q	BQE WEST LEG NB	31ST AVE		A	1	STATE	9/5/2002	4.234	FAIR	2900	$4,176,000.00	1
2230740	Q	BQE WEST LEG SB	31ST AVE		A	1	STATE	7/8/2003	7.000	VGOOD	3700	$5,328,000.00	1
2231829	Q	BRADDOCK AVE	BCIP		A	2	STATE	3/26/2002	4.909	FAIR	10600	$15,264,000.00	13
2230590	Q	BROADWAY	278I (B.Q.E.)		O	2	STATE	6/4/2002	3.842	FAIR	16000	$23,040,000.00	2
2240137	BM	BROADWAY BRIDGE	HARLEM RIVER	T	WMO	3	STATE	10/13/2003	3.986	FAIR	38100	$54,864,000.00	12
2242072	B	BRONX BLVD N.B.	BRONX RIVER		WO	1	STATE	5/24/2002	5.033	GOOD	1800	$2,592,000.00	12
2242082	B	BRONX BLVD N.B.	BRONX RIVER		WO	1	STATE	5/20/2002	4.467	FAIR	2800	$4,032,000.00	12
2242071	B	BRONX BLVD S.B.	BRONX RIVER		WO	1	STATE	5/24/2002	4.700	FAIR	1800	$2,592,000.00	12
2242081	B	BRONX BLVD S.B.	BRONX RIVER		WO	1	STATE	5/20/2002	4.467	FAIR	2800	$4,032,000.00	12
2229560	B	BRONX PELHAM PKWY	AMTRAK,METRO NORTH	MA	A	3	STATE	7/2/2002	4.750	FAIR	24591	$35,411,040.00	11
2242010	B	BRONX PELHAM PKWY	BRONX RIVER		WA	1	STATE	5/24/2002	4.931	FAIR	9200	$13,248,000.00	27
2075849	B	BRONX PELHAM PKWY	HUTCHINSON RVR PKWY		A	2	STATE	8/20/2002	4.289	FAIR	17600	$25,344,000.00	10
2065629	B	BRONX RVR PKWY	BOSTON RD BX ZOO		A	1	STATE	8/4/2003	5.276	GOOD	6300	$9,072,000.00	27
2243520	K	BROOKLYN AVE	LIRR BAY RIDGE	N	O	3	STATE	8/6/2003	6.055	VGOOD	4500	$6,480,000.00	18
2267860	K	BROOKLYN BR APPROACH	SANDS STREET		O	1	STATE	5/14/2002	4.732	FAIR	6490	$9,345,600.00	2
2240019	KM	BROOKLYN BRIDGE	278I (B.Q.E.)		WEO	75	STATE	10/18/2002	3.097	FAIR	503788	$725,454,720.00	3
2268350	K	BROOKLYN PROMENADE	278I N.B. (B.Q.E.)		A-PED	35	CITY	04/17/03	4.500	FAIR	46184	$66,504,960.00	6
2241099	B	BRUCKNER BLVD	CONRAIL PT MORRIS	C	O	1	STATE	12/4/2002	6.797	VGOOD	6700	$9,648,000.00	1
2266540	B	BRUCKNER BLVD OVRPAS	133RD - 135TH ST		A	2	STATE	5/7/2003	4.645	FAIR	32900	$47,376,000.00	1
1066510	B	BRUCKNER EXP.(2066510)	WESTCHESTER CREEK		WMA	17	STATE	8/22/2003	3.821	FAIR	39400	$56,736,000.00	9
2076929	B	BRUCKNER EXPWY	AMTRAK	A	A	1	STATE	5/8/2003	4.900	FAIR	3800	$5,472,000.00	2
2075352	B	BRUCKNER EXPWY NB	AMTRAK	A	A	1	STATE	7/18/2002	3.547	FAIR	10900	$15,696,000.00	2
2066672	B	BRUCKNER EXPWY NB	BRONX RIVER		WMA	8	STATE	6/13/2003	4.761	FAIR	22300	$32,112,000.00	2
2075351	B	BRUCKNER EXPWY SB	AMTRAK	A	A	1	STATE	7/18/2002	3.719	FAIR	11600	$16,704,000.00	2
2066671	B	BRUCKNER EXPWY SB	BRONX RIVER		WMA	3	STATE	6/12/2003	5.528	GOOD	12400	$17,856,000.00	2
2241210	B	BRYANT AVE	AMTRAK	A	O	1	STATE	11/6/2003	3.220	FAIR	5300	$7,632,000.00	2
2231329	K	BSHP	26TH AVE		A	1	STATE	4/9/2002	4.933	FAIR	6700	$9,648,000.00	13
2231319	K	BSHP	BAY PKWY		A	1	STATE	4/12/2002	4.491	FAIR	7200	$10,368,000.00	11
2231249	K	BSHP	BAY RIDGE AVE		A	1	STATE	4/11/2002	3.817	FAIR	4900	$7,056,000.00	10
2231429	K	BSHP	BEDFORD AVE		A	3	STATE	4/25/2002	4.278	FAIR	12000	$17,280,000.00	15
2231509	K	BSHP	FRESH CREEK		WA	5	STATE	8/21/2003	3.278	FAIR	23000	$33,120,000.00	56
2231450	K	BSHP	GERRITSEN INLET		WA	11	STATE	7/17/2003	3.582	FAIR	46400	$66,816,000.00	56
2231479	K	BSHP	MILL BASIN		WMA	14	STATE	12/22/2003	3.313	FAIR	73500	$105,840,000.00	18
2231439	K	BSHP	NOSTRAND AVE		A	3	STATE	4/29/2002	4.097	FAIR	13000	$18,720,000.00	15
2231419	K	BSHP	OCEAN AVE		A	3	STATE	4/23/2002	4.486	FAIR	14000	$20,160,000.00	15
2231360	K	BSHP	OCEAN PKWY		A	2	STATE	6/2/2003	3.417	FAIR	11800	$16,992,000.00	13
2231489	K	BSHP	PAERDEGAT BASIN		WA	15	STATE	12/23/2003	2.907	POOR	58300	$83,952,000.00	18
2231499	K	BSHP	ROCKAWAY PKWY		A	4	STATE	5/23/2003	4.111	FAIR	11500	$16,560,000.00	56
2231409	K	BSHP	SHEEPSHEAD BAY ROAD		A	1	STATE	4/23/2002	4.967	FAIR	6500	$9,360,000.00	15
2230790	Q	BULOVA AVE	BQE WEST LEG		A	2	STATE	4/24/2002	5.667	GOOD	3300	$4,752,000.00	1
2247460	Q	CALDWELL AVE	CONRAIL	C	O	1	STATE	9/24/2002	6.639	VGOOD	2243	$3,229,920.00	5
2243290	K	CARLTON AVE	LIRR ATLANTIC AVE	L	O	7	STATE	6/2/2002	4.958	FAIR	10823	$15,585,120.00	8
2240260	K	CARROLL ST	GOWANUS CANAL		WMO	2	STATE	6/27/2003	4.718	FAIR	3000	$5,000,000.00	6
2243220	K	CARROLL ST PED BRDG	FRANKLIN SHUTTLE	T	O-PED	3	CITY	09/26/02	5.484	GOOD	600	$864,000.00	9
2243050	K	CATON AVE	BMT SUBWAY, BRIGHTON	T	O	4	STATE	11/18/2003	4.500	FAIR	20800	$29,952,000.00	14
2249390	R	CEDARVIEW AVE PED BRDG	SIRT SOUTH SHORE	S	O-PED	5	CITY	6/10/2003	4.684	FAIR	600	$864,000.00	3
2246050	M	CENTRAL DRIVE	PED OPP 63RD ST		O	1	STATE	3/25/2002	5.000	GOOD	2000	$2,880,000.00	64
2244050	K	CENTRAL DRIVE	PED PATH & STREAM		WO	3	STATE	4/16/2003	5.316	GOOD	7400	$10,656,000.00	55
2246130	M	CENTRAL PARK	UNDER EAST DRIVE		O	1	CITY	6/20/2003	4.276	FAIR	1200	$1,728,000.00	64
2268480	M	CHAMBERS ST PED BRDG	WEST SIDE HWY		O-PED	8	CITY	8/12/2003	5.849	GOOD	3344	$4,815,360.00	1
2249880	R	CHELSEA ROAD	SAWMILL CREEK		WO	1	STATE	5/12/2003	6.981	VGOOD	2205	$3,163,680.00	2
2243080	K	CHURCH AVE	BMT SUBWAY, BRIGHTON	T	O	4	STATE	11/21/2003	4.545	FAIR	18200	$26,208,000.00	14
2240210	B	CITY ISLAND ROAD	EASTCHESTER BAY		WO	7	STATE	10/3/2003	3.500	FAIR	28900	$41,616,000.00	28
2241710	B	CLAREMONT PKWY	METRO NORTH RR HAR	M	O	1	STATE	2/27/2002	4.484	FAIR	6300	$9,072,000.00	3
2244060	K	CLEFT RIDGE SPAN	PROSPECT PARK		O	1	CITY	6/10/2003	4.500	FAIR	900	$1,296,000.00	55
2231940	Q	CLINTONVILLE ST	BCIP		A	2	STATE	2/28/2002	4.727	FAIR	7400	$10,656,000.00	7
2249490	R	CLOVE ROAD	SIRT SOUTH SHORE	S	O	3	STATE	6/19/2002	6.264	VGOOD	5270	$11,808,000.00	2
2246350	M	CNTRL PK OVER E DRIVE	S OF CLEOPATRAS NDL		O	1	CITY	6/23/2003	4.300	FAIR	750	$1,080,000.00	64
2231570	Q	COHANCY ST	BSOP		A	2	STATE	5/15/2002	4.727	FAIR	6400	$9,216,000.00	10
2230870	K	COLUMBIA HEIGHTS	278I (B.Q.E.)		A	1	STATE	5/7/2002	4.583	FAIR	16500	$23,760,000.00	2
2241590	B	CONCOURSE VILL AVE	METRO NORTH RR HAR	M	O	1	STATE	3/21/2002	4.094	FAIR	17800	$25,632,000.00	1
2244460	K	CONDUIT BLVD NB	ATLANTIC AVE EB		O	1	STATE	4/22/2002	5.000	GOOD	3800	$5,472,000.00	5
2231380	K	CONEY ISLAND AVE	BSHP		A	4	STATE	9/8/2003	6.292	VGOOD	19866	$29,664,000.00	13
2243440	K	CONEY ISLAND AVE	LIRR BAY RIDGE	N	O	1	STATE	7/1/2002	5.234	GOOD	3231	$4,652,640.00	12
2230390	K	CONGRESS ST	278I (B.Q.E.)		A	2	STATE	4/12/2002	4.286	FAIR	5000	$7,200,000.00	6

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2246100	M	CONTRAL DRIVE	TRANSVERSE RD #1		O	1	STATE	5/18/2002	4.333	FAIR	6000	$8,640,000.00	64
2246510	M	CORBIN PL OVERPASS	CORBIN PLACE		O	1	STATE	3/11/2002	5.133	GOOD	2200	$3,168,000.00	12
2232029	M	CORLEARS PARK ROAD	FDR DRIVE		A	4	STATE	3/27/2002	4.125	FAIR	4100	$5,904,000.00	3
2247130	Q	CORPORAL KENNEDY ST	LIRR N SIDE DIV	L	O	1	STATE	6/13/2003	6.529	VGOOD	4340	$6,249,600.00	11
2243110	K	CORTELYOU ROAD	BMT SUBWAY, BRIGHTON	T	O	3	STATE	12/12/2003	4.044	FAIR	2900	$4,176,000.00	14
2249280	R	COZZINS BLVD PED BRDG	SIRT SOUTH SHORE	S	O-PED	7	CITY	6/17/2003	4.902	FAIR	200	$288,000.00	3
2246070	M	CPK UNDER CENTR DR	OPP 65TH ST-IN E&W		O	1	CITY	6/23/2003	5.733	GOOD	1200	$1,728,000.00	64
2231880	Q	CROCHERON PK PED	BCIP		A-PED	9	CITY	11/10/2003	4.875	FAIR	2300	$3,312,000.00	11
2243040	K	CROOKE AVE	BMT SUBWAY, BRIGHTON	T	O	4	STATE	11/11/2003	4.158	FAIR	6000	$8,640,000.00	14
2231340	K	CROPSEY AVE	BSHP		A	2	STATE	4/17/2002	4.944	FAIR	13100	$18,864,000.00	13
2240301	K	CROPSEY AVE	CONEY ISLAND CREEK		WO	3	STATE	7/7/2003	5.169	GOOD	9400	$13,536,000.00	13
2240302	K	CROPSEY AVE	CONEY ISLAND CREEK		WO	3	STATE	6/16/2003	5.028	GOOD	9400	$13,536,000.00	13
2231559	Q	CROSS BAY BLVD	BSHP		A	4	STATE	5/7/2002	5.278	GOOD	23205	$33,415,200.00	10
2248039	Q	CROSS BAY BLVD	CONDUIT BLVD		O	2	STATE	6/6/2003	3.535	FAIR	17000	$24,480,000.00	10
2266770	Q	CROSS ISLAND PKWY	LAURELTON PKWY		A	1	STATE	7/3/2002	5.250	GOOD	9508	$13,691,520.00	13
2242030	B	CROTONA AVE	BRONX PELHAM PKWY		O	2	STATE	6/4/2002	5.316	GOOD	7600	$10,944,000.00	6
2243230	K	CROWN ST	FRANKLIN SHUTTLE	T	O	3	STATE	12/3/2003	5.181	GOOD	4800	$6,912,000.00	9
2230070	Q	CYP HILLS CEM EAST	JACKIE ROBINSON PKWY		A	3	STATE	4/4/2003	4.114	FAIR	4400	$6,336,000.00	5
2230050	Q	CYP HILLS CEM WEST	JACKIE ROBINSON PKWY		A	3	STATE	4/3/2003	3.955	FAIR	4400	$6,336,000.00	5
2230040	Q	CYPRESS HILLS ST	JACKIE ROBINSON PKWY		A	1	STATE	7/10/2002	5.611	GOOD	5000	$7,200,000.00	5
2249160	R	DE HART AVE	B&O RAILROAD	O	O	4	STATE	5/5/2003	6.500	VGOOD	6700	$9,648,000.00	1
2232030	M	DELANCEY ST PED BRDG	FDR DRIVE		A-PED	9	CITY	8/10/2003	4.478	FAIR	2900	$4,176,000.00	3
2076640	B	DEPOT PLACE	CONRAIL HUDSON DIV	C	O	11	STATE	6/25/2003	5.306	GOOD	30192	$43,476,480.00	4
2243130	K	DITMAS AVE	BMT SUBWAY, BRIGHTON	T	O	1	STATE	12/10/2003	5.809	GOOD	4100	$5,904,000.00	14
2243120	K	DORCHESTER ROAD	BMT SUBWAY, BRIGHTON	T	O	1	STATE	7/19/2002	5.804	GOOD	4825	$6,948,000.00	14
2247170	Q	DOUGLASTON PKWY	LIRR N SIDE DIV	L	O	3	STATE	7/1/2002	5.288	GOOD	6300	$9,072,000.00	11
2232180	M	E 103RD ST PED BRDG	FDR DRIVE		A-PED	20	CITY	7/29/2003	5.000	GOOD	6000	$8,640,000.00	11
2233020	M	E 10TH ST PED BRDG	FDR DRIVE		A-PED	22	CITY	11/18/2003	6.435	VGOOD	1632	$2,350,080.00	3
2232190	M	E 111TH ST PED BRDG	FDR DRIVE		A-PED	14	CITY	3/2/2003	4.100	FAIR	2600	$3,744,000.00	11
2232200	M	E 120TH ST PED BRDG	FDR DRIVE		A-PED	23	CITY	3/2/2003	4.300	FAIR	2500	$3,600,000.00	11
2231390	K	E 12TH ST	BSHP		A	4	STATE	4/19/2002	4.958	FAIR	17200	$24,768,000.00	15
2233080	K	E 14 ST PED BR	BSHP		A-PED	14	CITY	08/05/02	4.700	FAIR	4700	$6,768,000.00	15
2241550	B	E 144TH ST	METRO NORTH RR HAR	M	O	2	STATE	6/11/2003	6.708	VGOOD	8290	$11,937,600.00	1
2241129	B	E 149TH ST	AMTRAK	A	O	2	STATE	6/28/2002	4.704	FAIR	12575	$18,108,000.00	1
2241560	B	E 149TH ST	METRO NORTH RR HAR	M	O	8	STATE	3/14/2002	4.736	FAIR	27900	$40,176,000.00	1
2241050	B	E 149TH ST/JACKSON AVE	CONRAIL PT MORRIS	C	O	1	STATE	11/8/2002	4.950	FAIR	65000	$93,600,000.00	1
2243450	K	E 14TH ST	LIRR BAY RIDGE	N	O	1	STATE	7/2/2002	5.596	GOOD	1775	$2,556,000.00	14
2241010	B	E 156TH STREET	CONRAIL PT MORRIS	C	O	1	STATE	11/5/2002	4.556	FAIR	2400	$3,456,000.00	1
2241600	B	E 158TH ST	METRO NORTH RR HAR	M	O	1	STATE	6/10/2003	5.233	GOOD	3400	$4,896,000.00	1
2243460	K	E 15TH ST - PED	LIRR BAY RIDGE	N	O-PED	3	CITY	04/17/02	3.650	FAIR	900	$1,296,000.00	14
2241610	B	E 161ST ST	METRO NORTH RR HAR	M	O	1	STATE	6/10/2003	5.383	GOOD	6600	$9,504,000.00	1
2241020	B	E 161ST STREET	CONRAIL PT MORRIS	C	O	1	STATE	8/1/2003	6.783	VGOOD	12800	$18,432,000.00	1
2241620	B	E 162ND ST	METRO NORTH RR HAR	M	O	1	STATE	2/23/2002	4.983	FAIR	4700	$6,768,000.00	3
2241030	B	E 163RD STREET	CONRAIL PT MORRIS	C	O	1	STATE	7/9/2002	4.870	FAIR	3200	$4,608,000.00	3
2241630	B	E 165TH ST	METRO NORTH RR HAR	M	O	1	STATE	4/10/2002	4.483	FAIR	16400	$23,616,000.00	3
2241650	B	E 167TH ST	METRO NORTH RR HAR	M	O	1	STATE	2/20/2002	5.863	GOOD	3363	$4,842,720.00	3
2241660	B	E 168TH ST	METRO NORTH RR HAR	M	O	1	STATE	2/21/2002	4.922	FAIR	7700	$11,088,000.00	3
2241670	B	E 169TH ST	METRO NORTH RR HAR	M	O	1	STATE	2/22/2002	4.875	FAIR	3300	$4,752,000.00	3
2241680	B	E 170TH ST	METRO NORTH RR HAR	M	O	1	STATE	3/2/2002	6.451	VGOOD	3150	$4,536,000.00	3
2241720	B	E 173RD ST	METRO NORTH RR HAR	M	O	1	STATE	2/26/2002	4.583	FAIR	3000	$4,320,000.00	3
2066720	B	E 174TH ST	SHERIDAN EXPWY/AMTRAK	A	A	13	STATE	7/17/2002	4.486	FAIR	47430	$68,299,200.00	9
2241740	B	E 175TH ST	METRO NORTH RR HAR	M	O	1	STATE	2/28/2002	4.094	FAIR	3600	$5,184,000.00	3
2241269	B	E 177TH ST	AMTRAK	A	O	3	STATE	6/24/2002	5.514	GOOD	16606	$23,912,640.00	9
2241770	B	E 178TH ST PED BRDG	METRO NORTH RR HAR	M	O-PED	1	CITY	08/28/02	6.730	VGOOD	700	$1,008,000.00	6
2241780	B	E 179TH ST PED BRDG	METRO NORTH RR HAR	M	O-PED	6	CITY	08/27/02	6.000	GOOD	700	$1,008,000.00	6
2242400	B	E 180TH ST	BRONX RIVER		WO	1	STATE	10/1/2002	4.810	FAIR	4500	$6,480,000.00	6
2241790	B	E 180TH ST	METRO NORTH RR HAR	M	O	1	STATE	3/5/2002	4.078	FAIR	5000	$7,200,000.00	6
2241800	B	E 183TH ST	METRO NORTH RR HAR	M	O	1	STATE	3/6/2002	4.328	FAIR	3600	$5,184,000.00	6
2241820	B	E 187TH ST	METRO NORTH RR HAR	M	O	1	STATE	3/8/2002	4.844	FAIR	3800	$5,472,000.00	6
2241810	B	E 188TH ST	METRO NORTH RR HAR	M	O	1	STATE	3/7/2002	4.281	FAIR	5300	$7,632,000.00	6
2241839	B	E 189TH ST	METRO NORTH RR HAR	M	O	1	STATE	6/9/2003	6.533	VGOOD	43157	$62,146,080.00	6
2242459	B	E 233RD ST	BRONX RIVER		WO	1	STATE	5/24/2002	4.367	FAIR	7000	$10,080,000.00	12
2242460	B	E 233RD ST	ENTR RD BNX RVR PKWY		O	1	STATE	2/4/2002	5.600	GOOD	5300	$7,632,000.00	12
2241870	B	E 233RD ST	METRO NORTH RR HAR	M	O	1	STATE	3/15/2002	5.157	GOOD	7664	$11,036,160.00	12
2241890	B	E 241ST ST	BRP, METRO NORTH HAR	M	O	28	STATE	11/7/2003	4.653	FAIR	49500	$71,280,000.00	12
2246540	M	E 34TH ST	PARK AVE TUNNEL		OT	1	STATE	9/9/2003	4.033	FAIR	36200	$52,128,000.00	5
2243420	K	E 3RD ST	LIRR BAY RIDGE	N	O	1	STATE	8/28/2003	5.082	GOOD	1500	$2,160,000.00	12
2232100	M	E 51ST ST PED BRDG	FDR DRIVE		A-PED	10	CITY	3/9/2003	4.161	FAIR	2800	$4,032,000.00	6
2233040	M	E 60TH ST	FDR DRIVE		A	17	STATE	8/8/2003	3.318	FAIR	24480	$35,251,200.00	6
2232110	M	E 64TH ST PED BRDG	FDR DRIVE		A-PED	13	CITY	3/9/2003	5.050	GOOD	2100	$3,024,000.00	8
2245380	M	E 66TH ST	PED WALK N. OF ZOO		O	1	STATE	3/18/2002	5.000	GOOD	1500	$2,160,000.00	8
2232050	M	E 6TH ST PED BRDG	FDR DRIVE		A-PED	22	CITY	3/16/2003	4.400	FAIR	2200	$3,168,000.00	3
2232120	M	E 71ST ST PED BRDG	FDR DRIVE		A-PED	19	CITY	5/2/2003	7.000	VGOOD	1800	$2,592,000.00	8
2232140	M	E 78TH ST PED BRDG	FDR DRIVE		A-PED	9	CITY	3/23/2003	3.578	FAIR	1700	$2,448,000.00	8
2269820	M	E 81 ST PED BRIDGE	FDR DRIVE N.B.		A-PED	3	CITY	11/2/2003	3.213	FAIR	900	$1,296,000.00	8
2245319	M	E 97TH ST	METRO NORTH MAIN LN	M	O	1	STATE	11/25/2002	4.686	FAIR	3200	$4,608,000.00	8
2246400	M	E FOOTBRIDGE	TRANSVERSE RD #2		O-PED	1	CITY	10/4/2003	4.500	FAIR	3700	$5,328,000.00	64
2242149	B	E TREMONT AVE	BRONX RIVER		WO	2	STATE	5/15/2002	4.778	FAIR	12900	$18,576,000.00	6
2075820	B	E TREMONT AVE	HUTCHINSON RVR PKWY		A	2	STATE	10/31/2003	4.069	FAIR	10200	$14,688,000.00	10
2241760	B	E TREMONT AVE	METRO NORTH RR HAR	M	O	1	STATE	10/10/2003	6.700	VGOOD	7300	$10,512,000.00	6
2242260	B	EAGLE AVE	E 161ST ST		O	1	STATE	5/13/2002	5.234	GOOD	2800	$4,032,000.00	1
2246040	M	EAST DR AT CNTRL PARK	PEDESTRIAN WALK		O	1	CITY	06/20/03	5.000	GOOD	1200	$1,728,000.00	5
2244030	K	EAST DRIVE	BRIDLE PATH		O	1	STATE	4/10/2003	5.041	GOOD	2000	$2,880,000.00	55
2244040	K	EAST DRIVE	EAST WOOD ARCH		O	1	CITY	6/30/2003	4.200	FAIR	900	$1,296,000.00	55
2246170	M	EAST DRIVE	PED WALK @ 73RD ST		O	1	STATE	3/6/2002	5.019	GOOD	1900	$2,736,000.00	64
2246069	M	EAST DRIVE	PEDESTRIAN WALK		O	1	STATE	3/25/2002	4.500	FAIR	2700	$3,888,000.00	64
2246470	M	EAST DRIVE	THE LOCH		WO	1	STATE	4/3/2002	4.700	FAIR	1100	$1,584,000.00	64
2246110	M	EAST DRIVE	TRANSVERSE RD #1		O	1	STATE	5/19/2002	4.567	FAIR	6000	$8,640,000.00	64
2246230	M	EAST DRIVE	TRANSVERSE RD #2		O	1	STATE	6/2/2002	4.533	FAIR	6500	$9,360,000.00	64

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2246250	M	EAST DRIVE	TRANSVERSE RD #3		O	1	STATE	4/21/2002	4.467	FAIR	5100	$7,344,000.00	64
2246270	M	EAST DRIVE	TRANSVERSE RD #4		O	1	STATE	6/8/2002	3.967	FAIR	7000	$10,080,000.00	64
2242350	B	EAST FORDHAM RD	GRAND CONCOURSE		O	1	STATE	5/10/2002	4.567	FAIR	10300	$14,832,000.00	5
2241270	B	EAST TREMONT AVE	AMTRAK	A	O	2	STATE	6/17/2002	5.722	GOOD	22300	$32,112,000.00	9
2241900	B	EASTCHESTER ROAD	NYCTA-DYRE AVE LN	T	O	3	STATE	7/21/2002	5.139	GOOD	13500	$19,440,000.00	12
2243279	K	EASTERN PKWY	FRANKLIN SHUTTLE	T	O	1	STATE	7/1/2002	4.861	FAIR	7700	$11,088,000.00	9
2247470	Q	ELIOT AVE	CONRAIL	C	O	1	STATE	8/12/2003	5.250	GOOD	3600	$5,184,000.00	5
2247550	Q	ELIOT AVE	LIRR MONTAUK DIV	L	O	2	STATE	6/18/2003	5.894	GOOD	9200	$13,248,000.00	5
2248160	Q	ELLIOT AVE	QUEENS BLVD		O	2	STATE	8/23/2002	4.922	FAIR	13785	$19,850,400.00	12
2269600	K	ERSKINE STREET	BSHP		A	1	STATE	10/30/2002	6.906	VGOOD	8258	$11,891,520.00	5
2241200	B	FAILE ST	AMTRAK	A	O	1	STATE	6/6/2002	6.156	VGOOD	6208	$8,939,520.00	2
2231620	Q	FARMERS BLVD	BSOP		A	2	STATE	5/13/2003	4.568	FAIR	6400	$9,216,000.00	13
223201A	M	FDR DR N.B. OFF RMP	FDR DR & SOUTH ST		AR	17	STATE	3/20/2002	3.597	FAIR	102225	$147,204,000.00	1
2232158	M	FDR DRIVE S.B.	FDR DRIVE N.B.		AT	56	STATE	6/18/2003	4.773	FAIR	54302	$78,194,880.00	8
2233038	M	FDR DRIVE SB	FDR NB / E 62ND ST		AT	46	STATE	8/1/2003	2.698	POOR	70113	$100,962,720.00	8
2268650	M	FDR NB 42ND TO 49ST	EAST RIVER		A	119	STATE	8/28/2003	4.415	FAIR	30767	$44,304,480.00	6
223204A	M	FDR NB TO HOUSTON ST	RELIEF		AR	4	STATE	3/21/2002	4.000	FAIR	7642	$11,004,480.00	3
2229520	B	FIELDSTON ROAD	HHP		A	1	STATE	8/20/2003	5.700	GOOD	6600	$9,504,000.00	8
2249480	R	FINGERBOARD ROAD	SIRT SOUTH SHORE	S	O	2	STATE	10/26/2003	6.764	VGOOD	5100	$7,344,000.00	2
2231460	K	FLATBUSH AVE	BSHP		A	2	STATE	9/5/2003	6.618	VGOOD	14058	$19,584,000.00	56
2243260	K	FLATBUSH AVE	FRANKLIN SHUTTLE	T	O	2	STATE	6/28/2002	5.294	GOOD	11300	$16,272,000.00	9
2243510	K	FLATBUSH AVE	LIRR BAY RIDGE	N	O	2	STATE	8/12/2003	4.667	FAIR	5700	$8,208,000.00	18
2248220	Q	FLUSHING AV SERVICE	FLUSHING AVE		O	1	STATE	5/12/2003	5.125	GOOD	3000	$4,320,000.00	5
2248260	Q	FLUSHING MEADW PARK	MEADOW LAKE & 69TH RD		WO	5	STATE	4/25/2002	4.891	FAIR	4200	$6,048,000.00	81
2249800	R	FOREST AVE	CLOVE LAKES PK STREAM		WO	1	STATE	9/9/2003	4.767	FAIR	1600	$2,304,000.00	1
2248340	Q	FOREST PARK DR	MYRTLE AVE		O	3	STATE	5/8/2003	5.081	GOOD	5100	$7,344,000.00	9
2247660	Q	FOREST PARK DRIVE	ABANDONED LIRR	L	O	6	STATE	6/2/2003	5.254	GOOD	10000	$14,400,000.00	9
2247590	Q	FOREST PARK DRIVE	LIRR MONTAUK DIV	L	O	5	STATE	6/23/2003	5.404	GOOD	6000	$8,640,000.00	9
2243620	K	FORT HAMILTON PKWY	LIRR & SEA BEACH	LT	O	3	STATE	8/26/2002	5.627	GOOD	14800	$21,312,000.00	10
2245040	M	FORT TRYON PARK	SOUTH OF CLOISTERS		O	1	CITY	7/15/2003	5.333	GOOD	750	$1,080,000.00	12
2245050	M	FORT TRYON PARK	UNDERPASS		O	1	CITY	7/15/2003	4.867	FAIR	750	$1,080,000.00	12
2246500	M	FORT TRYON PLACE	ENTR FROM RIVERSIDE DR		O	1	STATE	4/12/2002	4.233	FAIR	6600	$9,504,000.00	12
2243150	K	FOSTER AVE	BMT SUBWAY, BRIGHTON	T	O	1	STATE	7/18/2002	4.517	FAIR	3000	$4,320,000.00	14
2231930	Q	FRANCIS LEWIS BLVD	BCIP		A	3	STATE	2/28/2002	4.773	FAIR	9100	$13,104,000.00	7
2231690	Q	FRANCIS LEWIS BLVD	BLP E.B.		A	1	STATE	5/23/2002	5.333	GOOD	6000	$8,640,000.00	13
2231700	Q	FRANCIS LEWIS BLVD	BLP W.B.		A	1	STATE	4/16/2002	4.933	FAIR	6000	$8,640,000.00	13
2267199	Q	FRANCIS LEWIS BLVD	PARK ROAD		O	1	STATE	6/3/2003	5.167	GOOD	7085	$10,202,400.00	8
2249450	R	FREMONT AVE PED BRDG	SIRT SOUTH SHORE	S	O-PED	3	CITY	6/12/2003	4.459	FAIR	800	$1,152,000.00	2
224005A	M	FROM FDR DRIVE	HARLEM RIVER DR		OR	19	STATE	6/3/2002	3.940	FAIR	29900	$43,056,000.00	11
226771C	M	GAR RAMP TO 79 ST	79 ST BT BASIN GAR		AR	21	STATE	6/9/2003	4.726	FAIR	9095	$13,096,800.00	7
2241420	B	GERARD AVE	METRO NORTH RR HUD	M	O	1	STATE	3/23/2002	6.766	VGOOD	5063	$7,290,720.00	4
2249360	R	GIFFORDS LANE	SIRT SOUTH SHORE	S	O	1	STATE	6/18/2002	5.844	GOOD	3042	$4,380,480.00	3
2243860	K	GLENMORE AVE	LIRR BAY RIDGE	N	O	2	STATE	8/4/2003	4.088	FAIR	5700	$8,208,000.00	16
2065940	Q	GRAND AVE	495I (L.I.E.)		A	2	STATE	9/10/2002	5.264	GOOD	12376	$17,821,440.00	5
2247440	Q	GRAND AVE	CONRAIL	C	O	1	STATE	8/11/2003	6.567	VGOOD	3400	$4,896,000.00	5
2247180	Q	GRAND AVE	LIRR MAIN LINE	L	O	3	STATE	7/23/2002	5.000	GOOD	7415	$10,677,600.00	4
2242370	B	GRAND CONCOURSE	BEDFORD PARK BLVD		O	1	STATE	5/14/2002	4.922	FAIR	8418	$12,121,920.00	7
2242360	B	GRAND CONCOURSE	BURNSIDE AVE		O	2	STATE	11/7/2002	4.368	FAIR	8400	$12,096,000.00	5
2242299	B	GRAND CONCOURSE	E 138TH ST		O	1	STATE	5/9/2003	5.600	GOOD	9500	$13,680,000.00	1
2242259	B	GRAND CONCOURSE	E 161ST ST		O	1	STATE	12/5/2002	3.583	FAIR	24100	$34,704,000.00	4
2242280	B	GRAND CONCOURSE	E 167TH ST		O	2	STATE	8/21/2002	4.579	FAIR	42900	$61,776,000.00	4
2242300	B	GRAND CONCOURSE	E 170TH ST		O	2	STATE	7/1/2002	4.789	FAIR	39300	$56,592,000.00	4
2242319	B	GRAND CONCOURSE	E 174TH ST	T	O	1	STATE	5/15/2002	4.067	FAIR	14900	$21,456,000.00	4
2242329	B	GRAND CONCOURSE	E 175TH ST	T	O	1	STATE	10/23/2002	4.467	FAIR	11900	$17,136,000.00	4
2242380	B	GRAND CONCOURSE	E 204TH ST		O	1	STATE	5/7/2003	5.766	GOOD	9272	$13,351,680.00	7
2242330	B	GRAND CONCOURSE	E TREMONT AVE		O	1	STATE	10/14/2003	6.483	VGOOD	11700	$16,848,000.00	5
2242340	B	GRAND CONCOURSE	EAST KINGSBRIDGE		O	2	STATE	12/6/2002	4.714	FAIR	16500	$23,760,000.00	7
2241409	B	GRAND CONCOURSE	METRO NORTH RR HUD	TCM	O	1	STATE	3/19/2002	3.844	FAIR	16100	$23,184,000.00	4
2240390	KQ	GRAND ST BRIDGE	NEWTOWN CREEK		WMO	2	STATE	9/9/2002	4.569	FAIR	5100	$25,000,000.00	5
2249100	R	GRANITE AVE	B&O RAILROAD	O	O	4	STATE	4/10/2002	6.237	VGOOD	7300	$10,512,000.00	1
2249370	R	GREAVES AVE	SIRT SOUTH SHORE	S	O	3	STATE	10/18/2003	6.750	VGOOD	6100	$8,784,000.00	3
2240370	KQ	GREENPOINT AVE BRIDGE	NEWTOWN CREEK	L	WMO	12	STATE	11/11/2003	4.889	FAIR	76106	$109,592,640.00	2
2241860	B	GUN HILL RD	METRO NORTH RR HAR	M	O	2	STATE	3/15/2002	4.279	FAIR	9000	$12,960,000.00	12
2242430	B	GUN HILL ROAD	BRONX BLVD		O	4	STATE	8/23/2002	4.912	FAIR	9400	$13,536,000.00	12
2242440	B	GUN HILL ROAD	BRONX RIVER		WO	1	STATE	4/25/2002	5.300	GOOD	8700	$12,528,000.00	12
2241910	B	GUN HILL ROAD	NYCTA-DYRE AVE LN	T	O	1	STATE	7/21/2002	6.906	VGOOD	75000	$9,072,000.00	11
2231610	Q	GUY R. BREWER BLVD	BSOP		A	2	STATE	5/13/2003	6.833	VGOOD	7300	$10,512,000.00	13
2249380	R	GUYON AVE	SIRT SOUTH SHORE	S	O	3	STATE	10/19/2003	4.869	FAIR	6900	$9,936,000.00	3
2240232	K	HAMILTON AVE BRIDGE	GOWANUS CANAL		WMO	3	STATE	7/17/2003	4.014	FAIR	7300	$10,512,000.00	6
2240231	K	HAMILTON AVE BRIDGE	GOWANUS CANAL		WMO	3	STATE	8/7/2002	4.236	FAIR	7300	$10,512,000.00	7
2065930	Q	HAMILTON PLACE	495I (L.I.E.)		A	2	STATE	7/30/2002	6.403	VGOOD	11111	$16,254,720.00	5
2249520	R	HANNAH ST	SIRT SOUTH SHORE	S	O	10	STATE	10/21/2003	5.119	GOOD	10020	$14,428,800.00	1
2249180	R	HARBOR ROAD	B&O RAILROAD	O	O	4	STATE	5/6/2003	6.356	VGOOD	6615	$9,525,600.00	1
2233059	M	HARLEM RIVER DRIVE	RAMP TO HRD N.B.		A	11	STATE	6/27/2003	3.418	FAIR	51000	$73,440,000.00	11
2231780	Q	HEMPSTEAD AVE	BCIP		A	2	STATE	6/12/2002	4.226	FAIR	14200	$20,448,000.00	13
2266149	Q	HEMPSTEAD AVE	CROSS ISLAND PKWY		A	2	STATE	7/11/2002	4.077	FAIR	9500	$13,680,000.00	13
2267250	M	HHP	AMTRAK 30TH ST LINE	A	A	55	STATE	7/22/2002	3.435	FAIR	40000	$57,600,000.00	7
2229530	B	HHP	BROADWAY		A	1	STATE	8/21/2003	4.936	FAIR	7500	$10,800,000.00	8
2229440	B	HHP	KAPPOCK ST		A	1	STATE	9/22/2003	5.207	GOOD	3900	$5,616,000.00	8
2266229	M	HHP	PED UNDERPASS @ 148 ST		A	1	STATE	4/8/2002	5.621	GOOD	1800	$2,592,000.00	9
2266230	M	HHP	PED UNDERPASS INWD PK		A	1	STATE	2/22/2002	6.211	VGOOD	800	$1,152,000.00	12
2266240	M	HHP	PED UNDERPASS INWD PK		A	1	STATE	3/11/2002	5.762	GOOD	1100	$1,584,000.00	12
2229309	M	HHP	RIVERSIDE PARK		A	1	STATE	2/25/2002	5.267	GOOD	2400	$3,456,000.00	7
2229339	M	HHP	ST CLAIR PLACE		A	64	STATE	4/14/2002	4.014	FAIR	370000	$532,800,000.00	9
2229349	M	HHP	W 158 ST	A	A	44	STATE	10/2/2002	4.155	FAIR	140000	$201,600,000.00	12
2229312	M	HHP NB	RAMP TO 96 ST		A	1	STATE	3/1/2002	4.273	FAIR	2000	$2,880,000.00	7
2229322	M	HHP NB	RAMP TO 96 ST		A	1	STATE	6/6/2002	5.167	GOOD	2000	$2,880,000.00	7
M00004	M	HHP ON/OFF RMP-79 EB	PEDESTRIAN PATH		A	1	CITY	7/17/2003	4.900	FAIR	900	$1,296,000.00	7

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
M00003	M	HHP ON/OFF RMP-79 WB	PEDESTRIAN PATH		A	1	CITY	7/16/2003	5.000	GOOD	900	$1,296,000.00	7
2229311	M	HHP SB	RAMP TO 96 ST		A	1	STATE	3/1/2002	4.273	FAIR	2000	$2,880,000.00	7
2229321	M	HHP SB	RAMP TO 96 ST		A	1	STATE	6/6/2002	5.200	GOOD	2000	$2,880,000.00	7
2229289	M	HHP VIADUCT	W 72 ST TO W 79 ST	A	A	145	STATE	9/23/2002	3.299	FAIR	236100	$339,984,000.00	7
2230000	K	HIGHLAND BLVD E.B.	JACKIE ROBINSON PKWY		A	1	STATE	4/23/2002	4.833	FAIR	4900	$7,056,000.00	5
2230220	K	HIGHLAND BLVD NB	VERMONT AVE		A	1	STATE	7/11/2003	6.254	VGOOD	3995	$5,752,800.00	5
2230010	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY		A	1	STATE	4/24/2002	5.100	GOOD	3500	$5,040,000.00	5
2230020	K	HIGHLAND BLVD W.B.	JACKIE ROBINSON PKWY		A	2	STATE	4/26/2002	4.974	FAIR	4700	$6,768,000.00	5
2243780	K	HIGHLAWN AVE	BMT SEA BEACH	T	O	1	STATE	10/31/2003	6.440	VGOOD	6960	$16,272,000.00	11
2244120	K	HILL DRIVE	PROSPECT PK LAKE		WO	3	STATE	4/18/2003	3.745	FAIR	7800	$11,232,000.00	55
2231840	Q	HILLSIDE AVE	BCIP		A	2	STATE	6/28/2002	4.184	FAIR	9672	$13,927,680.00	13
2247320	Q	HONEYWELL ST	AMTRAK & LIRR YARD	AL	O	22	STATE	7/30/2003	6.569	VGOOD	98300	$141,552,000.00	2
2300130	Q	HOOK CREEK	HOOK CREEK BRIDGE		WO	3	STATE	6/26/2003	6.339	VGOOD	18302	$26,354,880.00	13
2232040	M	HOUSTON ST	FDR DRIVE		A	2	STATE	5/20/2003	3.318	FAIR	11010	$15,854,400.00	3
223204B	M	HOUSTON ST RAMP TO FDR	RELIEF		AR	4	STATE	3/21/2002	4.417	FAIR	7642	$11,004,480.00	3
2267240	M	HRD NB RAMP	HARLEM RIVER DR		A	51	STATE	9/23/2003	3.000	POOR	112860	$162,518,400.00	12
2249300	R	HUGUENOT AVE	SIRT SOUTH SHORE	S	O	2	STATE	10/14/2003	4.955	FAIR	4900	$7,056,000.00	3
2240450	Q	HUNTERS PT AVE BRIDGE	DUTCH KILLS		WMO	4	STATE	5/13/2002	5.167	GOOD	11544	$16,623,360.00	2
2241190	B	HUNTS POINT AVE	AMTRAK	A	O	1	STATE	6/6/2002	5.250	GOOD	13700	$19,728,000.00	2
2241959	B	HUTCHINSON RVR PKWY	AMTRAK	A	O	1	STATE	6/21/2002	6.068	VGOOD	15444	$22,239,360.00	10
2075859	B	HUTCHINSON RVR PKWY	HUTCHINSON RIVER		WMA	7	STATE	10/28/2002	5.375	GOOD	60500	$87,120,000.00	10
2249810	R	HYLAN BLVD	LEMON CREEK		WO	1	STATE	4/12/2002	6.625	VGOOD	11400	$16,416,000.00	3
2248299	Q	INTER PKWY-UNION TPK	AUSTIN ST		O	1	STATE	3/22/2002	4.750	FAIR	5900	$8,496,000.00	9
2245300	M	INWOOD HILL PK FTBR	AMTRAK 30 ST BRANCH	A	O-PED	6	CITY	09/30/02	4.361	FAIR	700	$1,008,000.00	12
2246690	M	ISHAM PK VEHICULR	HARLEM RIVER INLET		O	1	STATE	11/12/2002	6.652	VGOOD	700	$1,008,000.00	12
2230099	Q	JACKIE ROBINSON PKWY	CYPRESS HILLS CEMETRY		A	1	STATE	1/17/2002	5.483	GOOD	4200	$6,048,000.00	5
2230179	Q	JACKIE ROBINSON PKWY	METROPOLITAN AVE		A	2	STATE	2/19/2002	5.321	GOOD	8673	$12,489,120.00	82
2247260	Q	JACKSON AVE	LIRR,AMT,CON NE	L	O	1	STATE	11/4/2002	6.183	VGOOD	4517	$6,504,480.00	2
2231819	Q	JAMAICA AVE	BCIP		A	2	STATE	3/26/2002	4.727	FAIR	11500	$16,560,000.00	13
2230287	B	JEROME AVE	MOSHOLU PARKWAY	T	A	3	STATE	5/5/2003	5.053	GOOD	11800	$16,992,000.00	7
2249070	R	JOHN ST	B&O RAILROAD	O	O-PED	3	CITY	3/12/2003	6.806	VGOOD	5800	$8,352,000.00	1
2247480	Q	JUNIPER BLVD SO	CONRAIL	C	O	1	STATE	8/12/2003	5.556	GOOD	8500	$12,240,000.00	5
2230380	K	KANE ST	278I (B.Q.E.)		A	2	STATE	4/10/2002	4.418	FAIR	5000	$7,200,000.00	6
2243770	K	KINGS HIGHWAY	BMT SEA BEACH	T	O	1	STATE	10/30/2003	6.767	VGOOD	5032	$17,280,000.00	11
2231449	K	KNAPP ST	BSHP		A	1	STATE	4/30/2002	4.594	FAIR	9500	$13,680,000.00	15
2241169	B	LAFAYETTE AVE	AMTRAK	A	O	1	STATE	6/28/2002	5.905	GOOD	12000	$17,280,000.00	2
2249110	R	LAKE AVE	B&O RAILROAD	O	O	3	STATE	4/9/2003	5.926	GOOD	5900	$8,496,000.00	1
2247240	Q	LEFFERTS BLVD	LIRR MAIN LINE	L	O	3	STATE	6/25/2003	5.917	GOOD	5460	$7,862,400.00	9
2241139	B	LEGGETT AVE	AMTRAK	A	O	3	STATE	6/28/2002	4.690	FAIR	28300	$40,752,000.00	2
2243850	K	LIBERTY AVE	LIRR BAY RIDGE	N	O	4	STATE	8/12/2003	4.294	FAIR	6400	$9,216,000.00	16
2249460	R	LINCOLN AVE	SIRT SOUTH SHORE	S	O	1	STATE	10/25/2003	5.552	GOOD	4500	$6,480,000.00	2
2243190	K	LINCOLN PLACE	FRANKLIN SHUTTLE	T	O	1	STATE	6/24/2002	7.000	VGOOD	2460	$4,896,000.00	9
2243010	K	LINCOLN ROAD	BMT SUBWAY, BRIGHTON	T	O	4	STATE	10/9/2003	4.103	FAIR	6100	$8,784,000.00	55
2231750	Q	LINDEN BLVD	BCIP		A	2	STATE	3/21/2002	4.477	FAIR	6700	$9,648,000.00	13
2248040	Q	LINDEN BLVD	CONDUIT AVE		O	1	STATE	5/23/2002	5.233	GOOD	3352	$4,826,880.00	10
2243910	K	LIVONIA AVE PED BRDG	LIRR BAY RIDGE LINE	N	O-PED	3	CITY	01/18/01	5.458	GOOD	2500	$3,600,000.00	16
2241159	B	LONGWOOD AVE	AMTRAK	A	O	2	STATE	6/4/2002	6.042	VGOOD	10625	$15,300,000.00	2
1240090	BM	MACOMBS DAM BRIDGE	HARLEM RIVER		WMO	52	STATE	8/6/2003	4.169	FAIR	139100	$200,304,000.00	10
2240079	BM	MADISON AVE BRIDGE	HARLEM RIVER		WMO	31	STATE	8/19/2002	5.667	GOOD	80000	$115,200,000.00	11
2249210	R	MAIN ST PED BRDG	SIRT SOUTH SHORE	S	O-PED	9	CITY	5/14/2003	4.710	FAIR	400	$576,000.00	3
2240027	KM	MANHATTAN BRIDGE(LL)	EAST RIVER	T	WEO	23	STATE	11/12/2002	3.847	FAIR	616390	$887,601,600.00	3
2240028	KM	MANHATTAN BRIDGE(UL)	NYCTA TRACKS-BMT	T	WEO	43	STATE	11/12/2002	4.243	FAIR	587424	$845,890,560.00	3
2229480	B	MANHATTAN COLL PKWY	HHP		A	3	STATE	4/30/2003	4.158	FAIR	6200	$8,928,000.00	8
2230190	Q	MARKWOOD ROAD	JACKIE ROBINSON PKWY		A	1	STATE	4/19/2002	5.389	GOOD	4400	$6,336,000.00	82
2249760	R	MARTLINGS AVE	RICHMOND LAKE DAM		WO	2	STATE	6/9/2003	4.933	FAIR	7000	$10,080,000.00	1
2269030	B	MATTHEWSON ROAD	MAC CRACKEN AVE		O	15	STATE	11/3/2003	3.947	FAIR	14880	$21,427,200.00	7
2243410	K	MCDONALD AVE	LIRR BAY RIDGE	N	O	1	STATE	5/27/2002	5.422	GOOD	2760	$3,974,400.00	12
2241110	B	MELROSE AVE	CONRAIL PT MORRIS	C	O	8	STATE	7/31/2003	6.208	VGOOD	37854	$54,509,760.00	3
2231710	Q	MERRICK BLVD	BLP E.B.		A	1	STATE	5/7/2002	4.533	FAIR	6000	$8,640,000.00	13
2231720	Q	MERRICK BLVD	BLP W.B.		A	1	STATE	5/20/2002	4.200	FAIR	6000	$8,640,000.00	13
2247500	Q	METROPOLITAN AVE	CONRAIL	C	O	1	STATE	8/12/2003	4.167	FAIR	18650	$26,856,000.00	5
2240290	K	METROPOLITAN AVE	ENGLISH KILLS		WMO	5	STATE	11/12/2003	4.186	FAIR	15245	$21,952,800.00	1
1247560	Q	METROPOLITAN AVE	LIRR MONTAUK DIV	L	O	2	STATE	6/19/2003	3.683	FAIR	20900	$30,096,000.00	5
2249470	R	MIDLAND AVE	SIRT SOUTH SHORE	S	O	1	STATE	10/26/2003	5.603	GOOD	3000	$4,320,000.00	2
2257569	M	MILLER HIGHWAY	TERRAIN		A	63	STATE	7/1/2003	5.000	GOOD	287539	$414,056,160.00	7
2249530	R	MINTHORNE ST PED BRDG	SIRT SOUTH SHORE	S	O-PED	23	CITY	9/17/2003	6.170	VGOOD	1600	$2,304,000.00	1
2243240	K	MONTGOMERY ST	FRANKLIN SHUTTLE	T	O	1	STATE	12/1/2003	6.353	VGOOD	2030	$3,168,000.00	9
2249090	R	MORNINGSTAR ROAD	B&O RAILROAD	O	O	4	STATE	4/14/2003	5.339	GOOD	7900	$11,376,000.00	1
2268930	M	MORRIS ST PED BRDG	BKLN-BATTERY TUNN PLZ		A-PED	3	CITY	06/13/02	4.535	FAIR	1200	$1,728,000.00	1
2230250	B	MOSHOLU PARKWAY	BRONX RIVER		A	5	STATE	1/28/2002	4.263	FAIR	16300	$23,472,000.00	27
2230300	B	MOSHOLU PARKWAY	CONRAIL (ABANDONED)	C	A	1	STATE	10/29/2002	4.229	FAIR	5200	$7,488,000.00	26
2230290	B	MOSHOLU PARKWAY	EQUESTRIAN PATH		A	1	STATE	1/29/2002	4.724	FAIR	4300	$6,192,000.00	26
2230260	B	MOSHOLU PARKWAY	METRO NORTH	M	A	1	STATE	3/16/2002	6.484	VGOOD	8880	$12,787,200.00	27
2230310	B	MOSHOLU PARKWAY	SB RAMP TO HHP		A	2	STATE	10/22/2003	5.243	GOOD	7400	$10,656,000.00	26
2230270	B	MOSHOLU PARKWAY	WEBSTER AVE		A	1	STATE	4/23/2003	6.016	VGOOD	8480	$12,211,200.00	27
2247110	Q	MURRAY ST	LIRR N SIDE DIV	L	O	1	STATE	6/11/2003	5.556	GOOD	4000	$5,760,000.00	7
2247620	Q	MYRTLE AVE	ABANDONED LIRR	L	O	3	STATE	3/27/2002	5.250	GOOD	6725	$9,684,000.00	4
2230120	Q	MYRTLE AVE	JACKIE ROBINSON PKWY		A	1	STATE	4/24/2002	5.611	GOOD	6400	$9,216,000.00	82
2231670	Q	N CONDUIT AVE W.B.	BLP E.B.		A	1	STATE	1/28/2002	4.917	FAIR	4000	$5,760,000.00	13
2231680	Q	N CONDUIT AVE WB	BLP W.B.		A	2	STATE	2/11/2002	4.932	FAIR	6500	$9,360,000.00	13
205580A	Q	N.BLVD WB TO 678I SB	VACANT LAND		AR	16	STATE	10/3/2002	5.571	GOOD	8600	$12,384,000.00	7
2249350	R	NELSON AVE PED BRDG	SIRT SOUTH SHORE	S	O-PED	1	CITY	6/2/2003	4.725	FAIR	300	$432,000.00	3
1067150	B	NEREID AVE (2241880)	BRONX RIVER PKWY	M	O	10	STATE	7/26/2003	4.211	FAIR	57750	$83,160,000.00	12
2249430	R	NEW DORP LANE	SIRT SOUTH SHORE	S	O	2	STATE	10/18/2003	4.903	FAIR	7600	$10,944,000.00	2
2243660	K	NEW UTRECHT AVE	LIRR BAY RIDGE	N	O	1	STATE	7/12/2002	7.000	VGOOD	2400	$3,456,000.00	11
2243140	K	NEWKIRK AVE	BMT SUBWAY, BRIGHTON	T	O	3	STATE	7/16/2002	4.662	FAIR	4100	$5,904,000.00	14
2240240	K	NINTH ST BRIDGE	GOWANUS CANAL		WMO	3	STATE	7/18/2003	6.613	VGOOD	5772	$30,000,000.00	6

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2240440	Q	NORTHERN BLVD	ALLEY CREEK		WO	2	STATE	6/10/2002	5.000	GOOD	8300	$11,952,000.00	11
2231870	Q	NORTHERN BLVD	BCIP		A	2	STATE	9/3/2002	6.569	VGOOD	8951	$12,816,000.00	11
2055802	Q	NORTHERN BLVD E.B.	FLUSHING RIVER		WO	40	STATE	9/18/2002	4.507	FAIR	78894	$113,607,360.00	7
2055801	Q	NORTHERN BLVD W.B.	FLUSHING RIVER		WO	40	STATE	9/18/2002	4.817	FAIR	71900	$103,536,000.00	7
2243500	K	NOSTRAND AVE	LIRR BAY RIDGE	N	O	2	STATE	7/11/2002	5.186	GOOD	4320	$6,220,800.00	14
2240138	BM	NYCTA IRT	HARLEM RVR/BROADWAY	T	WMO	3	STATE	10/24/2003	4.882	FAIR	38100	$54,864,000.00	12
2243480	K	OCEAN AVE	LIRR BAY RIDGE	N	O	2	STATE	7/3/2002	4.860	FAIR	5000	$7,200,000.00	14
2240320	K	OCEAN AVE PED BRDG	SHEEPSHEAD BAY		WO-PED	30	CITY	5/2/2003	4.070	FAIR	4000	$5,760,000.00	15
2243439	K	OCEAN PKWY	LIRR BAY RIDGE	N	O	1	STATE	6/28/2002	4.959	FAIR	7000	$10,080,000.00	12
2249269	R	PAGE AVE	SIRT SOUTH SHORE	S	O	4	STATE	10/16/2003	6.306	VGOOD	30420	$43,804,800.00	3
2245470	M	PARK AVE N.B	E 45TH ST		O	1	STATE	9/17/2003	4.865	FAIR	2400	$3,456,000.00	5
2245460	M	PARK AVE S.B.	E 45TH ST		O	1	STATE	8/29/2003	4.946	FAIR	2400	$3,456,000.00	5
2246550	M	PARK AVE VIADUCT	E 42ND ST		O	10	STATE	10/29/2003	4.716	FAIR	19600	$28,224,000.00	6
2247600	Q	PARK LANE SOUTH	LIRR MONTAUK DIV	AL	O	1	STATE	7/31/2002	7.000	VGOOD	3024	$8,496,000.00	9
2242099	B	PARK ROAD (204TH ST)	BRONX RIVER		WO	1	STATE	8/28/2002	4.172	FAIR	4700	$6,768,000.00	27
224001A	M	PARK ROW TO BKLN	WILLIAM ST N.B.		OE	3	STATE	4/22/2003	4.389	FAIR	8685	$12,506,400.00	1
2243020	K	PARKSIDE AVE	BMT SUBWAY, BRIGHTON	T	O	6	STATE	7/10/2002	4.217	FAIR	48700	$70,128,000.00	14
2247060	Q	PARSONS BLVD	LIRR N SIDE DIV	L	O	1	STATE	8/2/2002	5.451	GOOD	4200	$6,048,000.00	7
224001C	M	PEARL ST TO BKLN	LAND ADJ TO BRDG		OE	12	STATE	4/28/2003	3.712	FAIR	6489	$9,344,160.00	3
224001F	M	PEARL ST TO FDR DR	LAND ADJ TO BRDG		OE	3	STATE	5/14/2003	5.310	GOOD	5200	$7,488,000.00	1
2246090	M	PED BRDG OPP 65 ST	TRANSVERSE RD #1		O-PED	1	CITY	6/21/2003	4.483	FAIR	2300	$3,312,000.00	64
2247630	Q	PED BRG NEAR UNION TPK	ABANDONED LIRR		O-PED	8	CITY	8/6/2003	5.154	GOOD	900	$1,296,000.00	5
2246440	M	PED IN CTR OF PK	TRANSVERSE RD NO.2		O-PED	1	CITY	10/4/2003	4.655	FAIR	5900	$8,496,000.00	64
2246620	M	PEDESTRIAN BRIDGE	E 128TH ST		O-PED	18	CITY	04/24/02	4.717	FAIR	2300	$3,312,000.00	11
2246030	M	PEDESTRIAN BRIDGE	POND		O-PED	1	CITY	7/28/2003	4.448	FAIR	1400	$2,016,000.00	64
M00001	M	PEDESTRIAN TUNNEL	BROADWAY TO		O-PED	1	CITY	10/25/02	4.556	FAIR	2000	$2,880,000.00	12
2231519	K	PENNSYLVANIA AVE	BSHP		A	2	STATE	5/7/2003	6.194	VGOOD	6191	$8,915,040.00	56
2243870	K	PITKIN AVE	LIRR BAY RIDGE	N	O	3	STATE	7/18/2002	4.294	FAIR	5600	$8,064,000.00	16
2243210	K	PRESIDENT ST	FRANKLIN SHUTTLE	T	O	2	STATE	6/26/2002	5.162	GOOD	2500	$3,600,000.00	9
2232167	M	PROMENADE OVER FDR	FDR/E79TH ST-E91ST ST		A-PED	53	STATE	7/28/2003	3.571	FAIR	93000	$133,920,000.00	8
2244010	K	PROSPECT PK E DRIVE	ENDALE ARCH E DRIVE		O	1	CITY	05/07/02	4.367	FAIR	900	$1,296,000.00	55
2268760	M	PS-5 PEDESTRIAN BR.	TENTH AVENUE		O-PED	5	CITY	6/3/2003	5.837	GOOD	1500	$2,160,000.00	12
2240639	KQ	PULASKI BRIDGE	NEWTOWN CREEK		WMO	48	STATE	6/11/2002	5.211	GOOD	205770	$296,308,800.00	2
2230530	Q	QUEENS BLVD	278I (B.Q.E.)		A	2	STATE	8/23/2002	4.681	FAIR	23500	$33,840,000.00	2
2230869	Q	QUEENS BLVD	ACCESS RD BQE S.B.		A	1	STATE	7/24/2002	4.205	FAIR	7900	$11,376,000.00	2
2247310	Q	QUEENS BLVD	AMTRAK & LIRR YARD	L	O	19	STATE	12/10/2002	6.465	VGOOD	92400	$133,056,000.00	2
2230209	Q	QUEENS BLVD	JACKIE ROBINSON PKWY	T	A	5	STATE	6/18/2002	4.698	FAIR	90000	$129,600,000.00	9
2240047	MQ	QUEENSBORO BRIDGE(LL)	EAST RIVER	L	WEO	53	STATE	1/23/2003	4.514	FAIR	626900	$902,736,000.00	6
2240048	MQ	QUEENSBORO BRIDGE(UL)	EAST RIVER-LL		WEO	37	STATE	1/23/2003	4.547	FAIR	322300	$464,112,000.00	6
222933A	M	RAMP FROM S.B. HHP	W 135 ST		AR	9	STATE	7/11/2002	4.746	FAIR	12900	$18,576,000.00	9
223201D	M	RAMP TO N.B. FDR DRIVE	FDR & SOUTH ST.		AR	22	STATE	6/10/2002	5.492	GOOD	15825	$22,788,000.00	1
222934A	M	RAMP TO N.B. HHP	AMTRAK WEST SIDE	A	AR	26	STATE	9/24/2002	3.667	FAIR	10800	$15,552,000.00	12
222933B	M	RAMP TO N.B. HHP	W 135 ST		AR	14	STATE	3/29/2002	4.423	FAIR	14400	$20,736,000.00	9
2249270	R	RICHMMD VALLY ROAD	SIRT SOUTH SHORE	S	O	4	STATE	10/14/2003	5.299	GOOD	9300	$13,392,000.00	3
2240350	R	RICHMOND AVE	RICHMOND CREEK		WO	3	STATE	7/30/2003	6.153	VGOOD	32589	$46,928,160.00	2
2244150	K	RIDGE BLVD	SHORE RD DRIVE		O	1	STATE	5/28/2003	6.867	VGOOD	4350	$10,080,000.00	10
2240660	Q	RIKERS ISLAND BRIDGE	RIKERS ISL CHANNEL		WO	56	STATE	8/29/2003	4.423	FAIR	183100	$263,664,000.00	1
2241430	B	RIVER AVE	METRO NORTH RR HUD	M	O	1	STATE	6/19/2003	6.578	VGOOD	5040	$7,257,600.00	4
2229510	B	RIVERDALE AVE	HHP		A	2	STATE	8/19/2003	4.053	FAIR	5200	$7,488,000.00	8
2246660	M	RIVERSIDE DRIVE	W 125TH ST & OTHERS		O	27	STATE	6/25/2003	4.500	FAIR	148300	$213,552,000.00	9
2246980	M	RIVERSIDE DRIVE	W 138TH ST		O	1	STATE	4/23/2002	4.900	FAIR	6700	$9,648,000.00	9
2267130	M	RIVERSIDE DRIVE	W 145TH ST		O	1	STATE	6/11/2003	4.867	FAIR	5800	$8,352,000.00	9
2246720	M	RIVERSIDE DRIVE	W 158TH ST		O	77	STATE	11/19/2003	3.542	FAIR	181400	$261,216,000.00	9
2246970	M	RIVERSIDE DRIVE	W 96TH ST		O	3	STATE	6/9/2003	5.618	GOOD	10600	$15,264,000.00	7
2248369	Q	ROCKAWAY BLVD	THURSTON BASIN		WO	2	STATE	6/25/2003	5.158	GOOD	6000	$8,640,000.00	83
2230587	Q	ROOSEVELT AVE	278I (B.Q.E.)		A	2	STATE	3/28/2002	4.647	FAIR	6600	$9,504,000.00	2
2240507	Q	ROOSEVELT AVE	678I - VAN WYCK EXPWY		WA	27	STATE	11/13/2002	3.380	FAIR	84424	$121,570,560.00	81
2247380	Q	ROOSEVELT AVE	CONRAIL HELLGATE	C	O	2	STATE	9/23/2002	5.042	GOOD	5200	$7,488,000.00	2
2267160	Q	ROOSEVELT AVE	FLUSHING MDW PK ROAD		O	4	STATE	5/23/2003	4.746	FAIR	7280	$10,483,200.00	84
2240640	MQ	ROOSEVELT ISLAND	E. RIVER E. CHANNEL		WMO	8	STATE	6/14/2002	4.292	FAIR	36500	$52,560,000.00	8
2249420	R	ROSE AVE	SIRT SOUTH SHORE	S	O	2	STATE	10/25/2003	5.712	GOOD	3800	$5,472,000.00	2
2249410	R	ROSS AVE	SIRT SOUTH SHORE	S	O	2	STATE	10/24/2003	5.500	GOOD	3800	$5,472,000.00	2
2248200	Q	RUST ST	FLUSHING AVE		O	1	STATE	5/12/2003	5.547	GOOD	2900	$4,176,000.00	5
2231560	Q	S CONDUIT BLVD	BSOP		A	2	STATE	5/15/2002	5.690	GOOD	15776	$22,717,440.00	10
2242210	B	S OF ALLERTON AVE	BRONX RIVER		WO	3	STATE	5/17/2002	4.763	FAIR	6200	$8,928,000.00	27
2230370	K	SACKETT ST	278I (B.Q.E.)		A	2	STATE	4/9/2002	4.642	FAIR	5000	$7,200,000.00	6
226771D	M	SB HHP RAMP TO 79 ST	79 ST BT BASIN GAR		AR	4	STATE	5/29/2003	4.645	FAIR	2601	$3,745,440.00	7
2244470	K	SEELEY ST	PROSPECT AVE		O	1	STATE	7/10/2003	4.100	FAIR	7700	$11,088,000.00	7
2249290	R	SEGUINE AVE	SIRT SOUTH SHORE	S	O	1	STATE	10/15/2003	6.016	VGOOD	2200	$3,168,000.00	3
2248240	Q	SERVICE RD TURNAROUND	OVER FLUSHING AVE		O	1	STATE	5/12/2003	5.250	GOOD	2900	$4,176,000.00	5
2241390	B	SHORE RD CIRCLE	AMTRAK	A	O	2	STATE	11/7/2003	3.254	FAIR	4800	$6,912,000.00	10
2240200	B	SHORE ROAD	HUTCHINSON RIVER		WMO	7	STATE	11/5/2002	4.597	FAIR	4800	$120,000,000.00	28
2249120	R	SIMONSON AVE	B&O RAILROAD	O	O	3	STATE	5/1/2003	6.111	VGOOD	5819	$8,379,360.00	1
2249860	R	SLATER BLVD	NEW CREEK		WO	1	STATE	4/14/2003	5.959	GOOD	3500	$5,040,000.00	2
2249200	R	SOUTH AVE	B&O RAILROAD	O	O	3	STATE	9/29/2003	6.927	VGOOD	8322	$14,544,000.00	1
2244440	K	SOUTH OF TILLARY ST	NAVY ST		O-PED	1	CITY	5/5/2003	4.244	FAIR	6200	$8,928,000.00	2
2242029	B	SOUTHERN BLVD	BRONX PELHAM PKWY		O	2	STATE	6/4/2002	4.789	FAIR	12900	$18,576,000.00	27
2242220	B	SOUTHERN BLVD	BRONX RIVER		WO	2	STATE	4/23/2002	4.211	FAIR	4800	$6,912,000.00	27
2241080	B	SOUTHERN BLVD	CONRAIL PT MORRIS	C	O	1	STATE	12/4/2002	4.185	FAIR	3900	$5,616,000.00	1
2231630	Q	SPRINGFIELD BLVD	BSOP		A	2	STATE	6/3/2002	4.682	FAIR	8500	$12,240,000.00	13
2268770	Q	SPRINGFIELD BLVD	EQUES. PATH (ABAND.)		O	1	STATE	6/3/2003	4.778	FAIR	1470	$2,116,800.00	13
2243180	K	ST JOHNS PLACE	FRANKLIN SHUTTLE	T	O	1	STATE	12/4/2003	6.781	VGOOD	2200	$3,168,000.00	9
2241700	B	ST PAULS PL PED BRDG	METRO NORTH RR HAR	M	O-PED	2	CITY	08/29/02	6.296	VGOOD	600	$864,000.00	3
2241060	B	ST. MARYS & CONCORD	CONRAIL PT MORRIS	C	O	1	STATE	11/7/2002	5.333	GOOD	4500	$6,480,000.00	1
2230610	Q	STEINWAY ST	278I E.B. (B.Q.E.)		A	1	STATE	2/13/2002	4.028	FAIR	4200	$6,048,000.00	1

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2230600	Q	STEINWAY ST	278I W.B. (B.Q.E.)		A	1	STATE	2/14/2002	4.333	FAIR	4200	$6,048,000.00	1
2243170	K	STERLING PLACE	FRANKLIN SHUTTLE	T	O	1	STATE	12/5/2003	6.578	VGOOD	2300	$3,312,000.00	8
223201C	M	STH ST RMP TO FDR	SOUTH ST		AR	8	STATE	4/2/2002	4.701	FAIR	39150	$56,376,000.00	1
223201B	M	STH ST RMP TO FDR S.B.	SOUTH ST		AR	10	STATE	3/7/2002	3.925	FAIR	44625	$64,260,000.00	1
2240540	K	STILLWELL AVE	CONEY ISLAND CRK		WO	2	STATE	6/17/2003	6.292	VGOOD	17000	$24,480,000.00	13
2230350	K	SUMMIT ST PED BRDG	278I (B.Q.E.)		A-PED	2	STATE	4/4/2002	4.714	FAIR	1400	$2,016,000.00	6
2231650	Q	SUNRISE HWY W.B.	BLP E.B.		A	1	STATE	4/23/2002	4.623	FAIR	4100	$5,904,000.00	13
2231660	Q	SUNRISE HWY W.B.	BLP W.B.		A	2	STATE	6/26/2002	4.531	FAIR	5350	$7,704,000.00	13
2231800	Q	SUPERIOR ROAD	BCIP		A	2	STATE	5/7/2002	4.227	FAIR	7000	$10,080,000.00	13
2243890	K	SUTTER AVE	LIRR BAY RIDGE	N	O	3	STATE	8/4/2003	4.118	FAIR	5400	$7,776,000.00	16
2241040	B	THIRD AVE	CONRAIL PT MORRIS	C	O	1	STATE	11/6/2002	4.625	FAIR	2700	$3,888,000.00	1
2240310	K	THIRD AVE	GOWANUS CANAL		WO	1	STATE	7/2/2003	4.564	FAIR	3200	$4,608,000.00	6
2240069	BM	THIRD AVE BRIDGE	HARLEM RIVER		WMO	32	STATE	10/5/2003	3.236	FAIR	79950	$115,128,000.00	11
2240250	K	THIRD ST	GOWANUS CANAL		WMO	5	STATE	6/27/2003	4.958	FAIR	4900	$15,000,000.00	6
2247300	Q	THOMPSON AVE	AMTRAK YARD	L	O	14	STATE	12/13/2002	5.333	GOOD	61280	$88,243,200.00	2
2241170	B	TIFFANY ST	AMTRAK	A	O	1	STATE	11/4/2003	5.843	GOOD	7267	$10,464,480.00	2
224004H	Q	TO 21ST ST FROM NY	22ND ST		OE	34	STATE	12/5/2002	4.655	FAIR	48100	$69,264,000.00	2
224001B	M	TO BKLN FRM FDR	FRANKFRT & CITY		OE	31	STATE	4/24/2002	4.037	FAIR	51400	$74,016,000.00	1
224005B	B	TO BRUCKNER BLVD	RELIEF		OR	5	STATE	8/4/2003	4.000	FAIR	12100	$17,424,000.00	1
224006A	B	TO BRUCKNER BLVD	RELIEF		OR	11	STATE	4/22/2003	2.966	POOR	11100	$15,984,000.00	1
224004B	M	TO E 60TH ST FROM QNS	FIRST AVE		OE	13	STATE	11/26/2002	5.792	GOOD	14800	$21,312,000.00	6
224004C	M	TO E 62ND ST FROM QNS	E 60TH ST		OE	10	STATE	11/27/2002	4.985	FAIR	16720	$24,076,800.00	6
224001D	M	TO FDR DR N.B.	PEARL STREET		OE	30	STATE	5/14/2003	5.208	GOOD	49600	$71,424,000.00	1
2245480	M	TO GWB OPP W 171ST ST	RIVERSIDE DRIVE		O	1	STATE	9/3/2002	5.333	GOOD	10800	$15,552,000.00	12
224007A	M	TO MADISON AVENUE	RELIEF		OR	9	STATE	8/6/2002	5.704	GOOD	22600	$32,544,000.00	11
224004E	Q	TO NY FR THOMSON AVE	JACKSON AVE		OE	64	STATE	12/14/2002	4.906	FAIR	104600	$150,624,000.00	2
224004G	Q	TO NY FROM 11TH ST	TERRAIN (CHAMBER)		OE	36	STATE	10/30/2002	4.634	FAIR	8360	$12,038,400.00	1
224004F	Q	TO NY FROM 21ST ST	21ST ST (QUEENS)		OE	63	STATE	11/20/2002	4.652	FAIR	63310	$91,166,400.00	2
224001G	M	TO PARK ROW	ROSE ST		OE	11	STATE	5/6/2003	4.736	FAIR	16551	$23,833,440.00	1
224001E	M	TO PEARL ST	LAND ADJ TO BRDG		OE	3	STATE	5/12/2003	5.225	GOOD	5300	$7,632,000.00	6
224004A	M	TO QNS FRM E 59TH ST	FIRST AVE		OE	13	STATE	11/25/2002	5.789	GOOD	14800	$21,312,000.00	6
224004D	M	TO QNS FROM E 58TH ST	E 59TH ST		OE	12	STATE	11/22/2002	4.585	FAIR	11781	$16,964,640.00	6
224004I	Q	TO THOMSON AVE FROM NY	JACKSON AVE		OE	38	STATE	11/12/2002	5.246	GOOD	59100	$85,104,000.00	2
2249040	R	TOMPKINS AVE	B&O RR (ABANDONED)		O	1	STATE	4/9/2002	6.438	VGOOD	5096	$7,338,240.00	1
2249840	R	TOMPKINS AVE	GREENFIELD AVE		O	1	STATE	4/15/2002	5.277	GOOD	2562	$3,689,280.00	1
2249510	R	TOMPKINS AVE	WILLOW AVE, SIRT	S	O	2	STATE	6/20/2002	5.525	GOOD	5378	$7,744,320.00	1
2249230	R	TRACY AVE PED BRDG	SIRT SOUTH SHORE	S	O-PED	9	CITY	5/1/2003	3.158	FAIR	200	$288,000.00	3
2246410	M	TRANSVERSE RD. #1	PED WALK NEAR 5 AV		O	1	STATE	3/15/2002	4.364	FAIR	2000	$2,880,000.00	8
2249870	R	TRAVIS AVE	MAIN CREEK		WO	1	STATE	8/5/2003	6.100	VGOOD	1700	$2,448,000.00	2
2246560	M	TUDOR CITY PLACE	E 42ND ST		O	1	STATE	4/25/2002	5.056	GOOD	6600	$9,504,000.00	6
2249170	R	UNION AVE	B&O RAILROAD	O	O	4	STATE	5/8/2003	5.352	GOOD	6500	$9,360,000.00	1
2230360	K	UNION ST	278I (B.Q.E.)		A	2	STATE	4/5/2002	4.540	FAIR	5000	$7,200,000.00	6
2243200	K	UNION ST	FRANKLIN SHUTTLE	T	O	2	STATE	6/25/2002	5.048	GOOD	4100	$5,904,000.00	9
2240270	K	UNION ST	GOWANUS CANAL		WMO	5	STATE	6/25/2002	4.236	FAIR	4900	$15,000,000.00	6
2247040	Q	UNION ST	LIRR N SIDE DIV	L	O	1	STATE	6/11/2003	6.391	VGOOD	3313	$4,770,720.00	7
2231850	Q	UNION TPKE	BCIP		A	2	STATE	7/30/2003	4.318	FAIR	13600	$19,584,000.00	13
2248129	Q	UNION TPKE	CREEDMO0RE HOSP RD		O	1	STATE	5/9/2003	4.867	FAIR	3500	$5,040,000.00	13
2230180	Q	UNION TPKE	JACKIE ROBINSON PKWY		A	1	STATE	4/9/2002	5.984	GOOD	5359	$7,716,960.00	82
2241330	B	UNIONPORT ROAD	AMTRAK	A	O	1	STATE	6/19/2002	4.875	FAIR	4400	$6,336,000.00	9
2246570	M	UNITED NATIONS PL	FIRST AVE TUNNEL		OT	2	STATE	10/31/2002	5.000	GOOD	92200	$132,768,000.00	6
2231910	Q	UTOPIA PKWY	BCIP		A	2	STATE	3/14/2002	5.136	GOOD	7200	$10,368,000.00	7
2229550	B	VAN CRTLDT EQUES	HHP		A-PED	2	CITY	9/30/2003	5.000	GOOD	2100	$3,024,000.00	26
2229540	B	VAN CRTLDT PARK	HHP		A-PED	2	CITY	9/30/2003	4.742	FAIR	3900	$5,616,000.00	26
2249130	R	VAN NAME AVE	B&O RAILROAD	O	O	3	STATE	4/10/2003	5.492	GOOD	5474	$7,882,560.00	1
2249140	R	VAN PELT AVE	B&O RAILROAD	O	O	3	STATE	4/16/2003	5.780	GOOD	5000	$7,200,000.00	1
2246670	M	W 134 ST VIADUCT	RIVERSIDE DRIVE		O	3	STATE	6/27/2003	4.852	FAIR	7927	$11,414,880.00	9
2245230	M	W 148TH ST PED BRDG	AMTRAK 30 ST BRANCH	A	O-PED	3	CITY	09/07/01	3.692	FAIR	1100	$1,584,000.00	9
2246710	M	W 153 ST	A.C. POWELL BLVD		O	1	STATE	4/10/2002	4.389	FAIR	3082	$4,438,080.00	10
2245290	M	W 155TH ST PED BRDG	AMTRAK 30 ST BRANCH	A	O-PED	3	CITY	09/09/02	3.646	FAIR	800	$1,152,000.00	9
2245250	M	W 158TH ST	AMTRAK 30 ST BRANCH	A	O	7	STATE	11/14/2003	6.431	VGOOD	29170	$42,004,800.00	12
2245260	M	W 173RD ST PED BRDG	AMTRAK 30 ST BRANCH	A	O-PED	2	CITY	10/15/02	4.657	FAIR	1500	$2,160,000.00	12
2246600	M	W 176TH ST PED BRDG	APPROACH TO G.W.B.		O-PED	1	CITY	3/21/2003	4.517	FAIR	1200	$1,728,000.00	12
2246489	M	W 181 ST	RAMP TO WASH BR		O	1	STATE	3/28/2002	4.633	FAIR	8200	$11,808,000.00	12
2229400	M	W 181ST ST PED BRDG	HHP N.B.		A-PED	6	CITY	2/5/2003	4.652	FAIR	1500	$2,160,000.00	12
2241940	B	W 205TH ST	NYCTA IND YARDS	T	O	4	STATE	7/20/2002	6.889	VGOOD	32508	$54,432,000.00	7
2240120	BM	W 207TH/W FORDHAM RD	HARLEM RIVER		WMO	5	STATE	5/21/2002	5.667	GOOD	29682	$42,742,080.00	12
2241489	B	W 225TH ST	CONRAIL PUTNAM	C	O	2	STATE	7/10/2002	5.433	GOOD	10900	$15,696,000.00	7
2241490	B	W 230TH ST	CONRAIL PUTNAM	C	O	1	STATE	4/8/2003	5.844	GOOD	5600	$8,064,000.00	8
2241509	B	W 231ST ST	CONRAIL PUTNAM	C	O	1	STATE	11/11/2002	5.765	GOOD	4723	$6,801,120.00	8
2241510	B	W 233RD ST	CONRAIL PUTNAM	C	O	1	STATE	4/11/2003	5.471	GOOD	3760	$5,414,400.00	8
2241520	B	W 234TH ST	CONRAIL PUTNAM	C	O	1	STATE	4/9/2003	5.569	GOOD	3770	$5,428,800.00	8
226672A	M	W 31ST ST	AMTRAK LAYUP TRACKS	A	O	9	STATE	7/22/2002	3.587	FAIR	8800	$12,672,000.00	4
224501B	M	W 33RD ST	AMTRAK 30 ST BRANCH	A	O	8	STATE	6/28/2002	4.347	FAIR	16500	$23,760,000.00	4
224501C	M	W 33RD ST	LAND ADJ TO AMTRAK	A	O	2	STATE	6/3/2003	4.750	FAIR	4620	$6,652,800.00	4
224501D	M	W 34TH ST	AMTRAK 30 ST BRANCH	A	O	4	STATE	6/5/2003	4.653	FAIR	11800	$16,992,000.00	4
224501E	M	W 35TH ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	6/25/2002	4.347	FAIR	6500	$9,360,000.00	4
224501F	M	W 36TH ST	AMTRAK 30 ST BRANCH	A	O	7	STATE	6/26/2002	4.090	FAIR	16400	$23,616,000.00	4
2245060	M	W 37TH ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	10/28/2003	5.984	GOOD	7600	$10,944,000.00	4
2245070	M	W 38TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/26/2002	4.077	FAIR	6200	$8,928,000.00	4
2245080	M	W 39TH ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	6/26/2002	4.288	FAIR	6300	$9,072,000.00	4
2245440	M	W 40TH ST	AMTRAK 30 ST BRANCH	A	O	4	STATE	12/14/2003	3.956	FAIR	9400	$13,536,000.00	4
2245330	M	W 41ST ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	7/22/2002	4.159	FAIR	6200	$8,928,000.00	4
2245210	M	W 42ND ST	AMTRAK 30 ST BRANCH	A	O	4	STATE	7/22/2002	4.429	FAIR	10300	$14,832,000.00	4
2245090	M	W 43RD ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/20/2002	4.765	FAIR	4100	$5,904,000.00	4
2245100	M	W 44TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/20/2002	4.662	FAIR	4300	$6,192,000.00	4
2245110	M	W 45TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/21/2002	4.632	FAIR	4100	$5,904,000.00	4
2245120	M	W 46TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/5/2002	4.559	FAIR	4100	$5,904,000.00	4
2245130	M	W 47TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/28/2002	4.721	FAIR	4100	$5,904,000.00	4

INVENTORY SORTED BY FEATURE CARRIED

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	RAIL ROAD	BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2245140	M	W 48TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/29/2002	4.735	FAIR	4100	$5,904,000.00	4
2245150	M	W 49TH ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	6/5/2002	4.574	FAIR	4100	$5,904,000.00	4
2245340	M	W 50TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/30/2002	4.647	FAIR	4100	$5,904,000.00	4
2245160	M	W 51ST ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/30/2002	4.794	FAIR	4300	$6,192,000.00	4
2245170	M	W 52ND ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/29/2002	5.074	GOOD	4300	$6,192,000.00	4
2245180	M	W 53RD ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	5/29/2002	5.338	GOOD	5100	$7,344,000.00	4
2245350	M	W 54TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/3/2002	5.603	GOOD	4700	$6,768,000.00	4
2245360	M	W 55TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/3/2002	5.529	GOOD	4300	$6,192,000.00	4
2245370	M	W 56TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/3/2002	5.368	GOOD	4400	$6,336,000.00	4
2245220	M	W 57TH ST	AMTRAK 30 ST BRANCH	A	O	3	STATE	6/17/2002	4.838	FAIR	9100	$13,104,000.00	4
2245190	M	W 58TH ST	AMTRAK 30 ST BRANCH	A	O	2	STATE	6/6/2002	4.588	FAIR	4100	$5,904,000.00	4
2245420	M	W 65TH ST E.B.	BRIDLE PATH W END		O	1	STATE	4/1/2002	4.864	FAIR	1600	$2,304,000.00	64
2229290	M	W 79 ST	AMTRAK	A	A	1	STATE	9/26/2002	4.424	FAIR	4500	$6,480,000.00	7
2231860	Q	W ALLEY ROAD	BCIP		A	2	STATE	9/26/2003	5.568	GOOD	7200	$10,368,000.00	11
2244020	K	W DR OV WK-MA.ENT	MEADOWPORT ARCH		O	1	STATE	4/7/2003	5.571	GOOD	2500	$3,600,000.00	55
2241470	B	W FORDHAM RD	METRO NORTH RR HUD	M	O	5	STATE	7/8/2003	6.278	VGOOD	16052	$23,114,880.00	7
2241460	B	W TREMONT AVE	METRO NORTH RR HUD	M	O	8	STATE	9/9/2002	4.761	FAIR	12900	$18,576,000.00	5
2269260	K	W. 8TH STREET	SURF AVE.		O-PED	55	CITY	4/1/2003	4.000	FAIR	14742	$21,228,480.00	13
2269210	M	W.68TH STREET	AMTRAK	A	O	3	STATE	11/21/2003	6.746	VGOOD	5382	$7,702,560.00	7
2269190	M	W.70TH STREET	AMTRAK	A	O	3	STATE	11/3/2003	6.583	VGOOD	17433	$25,103,520.00	7
2241070	B	WALES AVE	CONRAIL PT MORRIS	C	O	1	STATE	11/11/2002	6.567	VGOOD	2535	$3,312,000.00	1
2241410	B	WALTON AVE	METRO NORTH RR HUD	M	O	1	STATE	3/21/2002	5.234	GOOD	3600	$5,184,000.00	4
2240620	M	WARDS ISLAND PED BRDG	HARLEM RIVER		WMO-PED	10	CITY	7/29/2003	4.049	FAIR	12600	$18,144,000.00	11
2243250	K	WASHINGTON AVE	FRANKLIN SHUTTLE	T	O	1	STATE	6/28/2002	6.422	VGOOD	3657	$9,360,000.00	9
2066919	BM	WASHINGTON BRIDGE	HARLEM RIVER		WO	9	STATE	10/15/2002	4.881	FAIR	128339	$184,808,160.00	12
2246080	M	WEST DRIVE	BRIDLE PATH @ 64TH ST		O	1	STATE	4/2/2002	4.667	FAIR	2000	$2,880,000.00	64
2246330	M	WEST DRIVE	FEEDER TO LAKE		WO	1	STATE	3/4/2002	5.000	GOOD	6700	$9,648,000.00	64
2246000	M	WEST DRIVE	PED BET 61ST & 62ST		O	1	STATE	3/14/2002	5.267	GOOD	2500	$3,600,000.00	64
2246430	M	WEST DRIVE	PED OPP 109TH ST		O	1	STATE	3/8/2002	4.183	FAIR	1200	$1,728,000.00	64
2246360	M	WEST DRIVE	PED WALK OPP 82 ST		O	1	STATE	3/5/2002	6.136	VGOOD	3100	$4,464,000.00	64
2246120	M	WEST DRIVE	TRANSVERSE RD #1		O	1	STATE	5/19/2002	4.833	FAIR	7900	$11,376,000.00	64
2246240	M	WEST DRIVE	TRANSVERSE RD #2		O	1	STATE	6/2/2002	4.167	FAIR	7200	$10,368,000.00	64
2246260	M	WEST DRIVE	TRANSVERSE RD #3		O	1	STATE	4/21/2002	4.800	FAIR	5100	$7,344,000.00	64
2246280	M	WEST DRIVE	TRANSVERSE RD #4		O	1	STATE	6/8/2002	4.133	FAIR	4700	$6,768,000.00	64
2267380	M	WEST STREET	RECTOR ST		AT	1	STATE	10/14/2003	5.033	GOOD	4320	$6,220,800.00	1
2241230	B	WESTCHESTER AVE	AMTRAK	A	O	3	STATE	6/26/2002	6.250	VGOOD	15600	$22,464,000.00	2
2240180	B	WESTCHESTER AVE	BRONX RIVER		WO	1	STATE	6/11/2003	5.141	GOOD	5476	$7,885,440.00	2
2241000	B	WESTCHESTER AVE	CONRAIL PT MORRIS	C	O	1	STATE	11/4/2002	5.085	GOOD	1740	$2,505,600.00	1
2075837	B	WESTCHESTER AVE	HUTCHINSON RVR PKWY		A	2	STATE	6/28/2002	4.389	FAIR	15858	$22,835,520.00	10
2241329	B	WHITE PLAINS ROAD	AMTRAK	A	O	1	STATE	6/18/2002	4.953	FAIR	6900	$9,936,000.00	9
2248020	Q	WHITELAW PED BRDG	CONDUIT AVE		O-PED	7	CITY	4/24/2003	4.775	FAIR	5500	$7,920,000.00	10
1065210	Q	WHITESTONE EXP NB	BCIP (2065210)		A	1	STATE	8/14/2002	4.683	FAIR	2500	$3,600,000.00	7
2241369	B	WILLIAMSBRIDGE RD	AMTRAK	A	O	2	STATE	6/20/2002	4.836	FAIR	10400	$14,976,000.00	11
2240039	KM	WILLIAMSBURG BRIDGE	EAST RIVER	T	WEO	72	STATE	8/28/2002	4.556	FAIR	741000	$1,067,040,000.00	3
2240059	BM	WILLIS AVENUE	HARLEM RIVER		WMO	26	STATE	10/29/2003	3.083	FAIR	94700	$136,368,000.00	11
2266139	Q	WINCHESTER BLVD N.B.	BCIP		A	1	STATE	5/24/2002	4.714	FAIR	6400	$9,216,000.00	11
2266129	Q	WINCHESTER BLVD S.B.	BCIP		A	1	STATE	5/24/2002	4.592	FAIR	4400	$6,336,000.00	11
2248019	Q	WOODHAVEN BLVD	ATLANTIC AVE		O	3	STATE	7/15/2002	4.472	FAIR	19400	$27,936,000.00	9
2248159	Q	WOODHAVEN BLVD	QUEENS BLVD		O	2	STATE	6/18/2002	4.308	FAIR	11500	$16,560,000.00	6
2230540	Q	WOODSIDE AVE	278I (B.Q.E.)		A	1	STATE	1/21/2002	5.141	GOOD	7500	$10,800,000.00	2
2247400	Q	WOODSIDE AVE	CONRAIL	C	O	1	STATE	8/7/2003	5.067	GOOD	8200	$11,808,000.00	2
2247120	Q	WOODSIDE AVE	LIRR MAIN LINE	L	O	3	STATE	7/19/2003	4.444	FAIR	14900	$21,456,000.00	2
2242200	B	YANKEE STDM PED BRDG	E 153 ST, METRO NORTH	M	O-PED	5	CITY	09/03/02	5.000	GOOD	4200	$6,048,000.00	4
753 BRIDGES						4496	SPANS				14229757	$20,637,971,040	

PARKS DEPARTMENT BRIDGES CURRENTLY IN THE NYC DOT BRIDGE INVENTORY SORTED BY B.I.N.

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED		BRIDGE TYPE	SPANS	RATING SOURCE	INSPECTION DATE	RATING	VERBAL RATING	DECK AREA	REPLACEMENT COST	CD
2232029	M	CORLEARS PARK ROAD	FDR DRIVE		A	4	STATE	03/27/02	4.125	FAIR	4100	$5,904,000.00	3
2232167	M	PROMENADE OVER FDR	FDR/E79TH ST-E91ST ST		A-PED	53	STATE	11/12/01	3.285	FAIR	93000	$133,920,000.00	8
2242100	B	BOTANICAL GARDEN ROAD	TWIN LAKES		O-PED	1	STATE	05/17/02	4.966	FAIR	2200	$3,168,000.00	27
2244010	K	PROSPECT PK E DRIVE	ENDALE ARCH E DRIVE		O	1	CITY	05/07/02	4.367	FAIR	900	$1,296,000.00	55
2244030	K	EAST DRIVE	BRIDLE PATH		O	1	STATE	04/25/01	5.183	GOOD	2000	$2,880,000.00	55
2244040	K	EAST DRIVE	EAST WOOD ARCH		O	1	CITY	6/30/2003	4.200	FAIR	900	$1,296,000.00	55
2244050	K	CENTRAL DRIVE	PED PATH & STREAM		WO	3	STATE	04/27/01	5.315	GOOD	7400	$10,656,000.00	55
2244060	K	CLEFT RIDGE SPAN	PROSPECT PARK		O	1	CITY	6/10/2003	4.500	FAIR	900	$1,296,000.00	55
2244120	K	HILL DRIVE	PROSPECT PK LAKE		WO	3	STATE	05/01/01	3.636	FAIR	7800	$11,232,000.00	55
2245040	M	FORT TRYON PARK	SOUTH OF CLOISTERS		O	1	CITY	7/15/2003	5.333	GOOD	750	$1,080,000.00	12
2245050	M	FORT TRYON PARK	UNDERPASS		O	1	CITY	7/15/2003	4.867	FAIR	750	$1,080,000.00	12
2245380	M	E 66TH ST	PED WALK N. OF ZOO		O	1	STATE	03/18/02	5.000	GOOD	1500	$2,160,000.00	8
2246000	M	WEST DRIVE	PED BET 61ST & 62ST		O	1	STATE	03/14/02	5.266	GOOD	2500	$3,600,000.00	64
2246030	M	PEDESTRIAN BRIDGE	POND		O-PED	1	CITY	7/28/2003	4.448	FAIR	1400	$2,016,000.00	64
2246040	M	EAST DR AT CNTRL PARK	PEDESTRIAN WALK		O	1	CITY	06/20/03	5.000	GOOD	1200	$1,728,000.00	5
2246050	M	CENTRAL DRIVE	PED OPP 63RD ST		O	1	STATE	03/25/02	5.000	GOOD	2000	$2,880,000.00	64
2246069	M	EAST DRIVE	PEDESTRIAN WALK		O	1	STATE	03/25/02	4.500	FAIR	2700	$3,888,000.00	64
2246070	M	CPK UNDER CENTR DR	OPP 65TH ST-IN E&W		O	1	CITY	6/23/2003	5.733	GOOD	1200	$1,728,000.00	64
2246080	M	WEST DRIVE	BRIDLE PATH @ 64TH ST		O	1	STATE	04/02/02	4.666	FAIR	2000	$2,880,000.00	64
2246090	M	PED BRDG OPP 65 ST	TRANSVERSE RD #1		O-PED	1	CITY	6/21/2003	4.483	FAIR	2300	$3,312,000.00	64
2246100	M	CONTRAL DRIVE	TRANSVERSE RD #1		O	1	STATE	05/18/02	4.333	FAIR	6000	$8,640,000.00	64
2246110	M	EAST DRIVE	TRANSVERSE RD #1		O	1	STATE	05/19/02	4.566	FAIR	6000	$8,640,000.00	64
2246120	M	WEST DRIVE	TRANSVERSE RD #1		O	1	STATE	05/19/02	4.833	FAIR	7900	$11,376,000.00	64
2246130	M	CENTRAL PARK	UNDER EAST DRIVE		O	1	CITY	6/20/2003	4.276	FAIR	1200	$1,728,000.00	64
2246140	M	72ND ST ENT TO W DR	BRIDLE PATH		O	1	STATE	02/26/02	4.866	FAIR	3600	$5,184,000.00	64
2246150	M	72ND ST CROSS DR	NEAR CONCERT GRNDS		O	3	STATE	03/06/02	4.941	FAIR	7300	$10,512,000.00	64
2246170	M	EAST DRIVE	PED WALK @ 73RD ST		O	1	STATE	03/06/02	5.018	GOOD	1900	$2,736,000.00	64
2246230	M	EAST DRIVE	TRANSVERSE RD #2		O	1	STATE	06/02/02	4.533	FAIR	6500	$9,360,000.00	64
2246240	M	WEST DRIVE	TRANSVERSE RD #2		O	1	STATE	06/02/02	4.166	FAIR	7200	$10,368,000.00	64
2246250	M	EAST DRIVE	TRANSVERSE RD #3		O	1	STATE	04/21/02	4.466	FAIR	5100	$7,344,000.00	64
2246260	M	WEST DRIVE	TRANSVERSE RD #3		O	1	STATE	04/21/02	4.800	FAIR	5100	$7,344,000.00	64
2246270	M	EAST DRIVE	TRANSVERSE RD #4		O	1	STATE	06/08/02	3.966	FAIR	7000	$10,080,000.00	64
2246280	M	WEST DRIVE	TRANSVERSE RD #4		O	1	STATE	06/08/02	4.133	FAIR	4700	$6,768,000.00	64
2246330	M	WEST DRIVE	FEEDER TO LAKE		WO	1	STATE	03/04/02	5.000	GOOD	6700	$9,648,000.00	64
2246350	M	CNTRL PK OVER E DRIVE	S OF CLEOPATRAS NDL		O	1	CITY	6/23/2003	4.300	FAIR	750	$1,080,000.00	64
2246360	M	WEST DRIVE	PED WALK OPP 82 ST		O	1	STATE	03/05/02	6.136	VGOOD	3100	$4,464,000.00	64
2246400	M	E FOOTBRIDGE	TRANSVERSE RD #2		O-PED	1	CITY	10/4/2003	4.500	FAIR	3700	$5,328,000.00	64
2246410	M	TRANSVERSE RD. #1	PED WALK NEAR 5 AV		O	1	STATE	03/15/02	4.363	FAIR	2000	$2,880,000.00	8
2246430	M	WEST DRIVE	PED OPP 109TH ST		O	1	STATE	03/08/02	4.183	FAIR	1200	$1,728,000.00	64
2246440	M	PED IN CTR OF PK	TRANSVERSE RD NO.2		O-PED	1	CITY	10/4/2003	4.655	FAIR	5900	$8,496,000.00	64
2246450	M	79 ST ENTR TO E DR	PED PATH OPP 77TH ST		O	1	STATE	02/27/02	5.190	GOOD	5000	$7,200,000.00	64
2246460	M	77 ST ENTR TO W DR	PED PATH OPP 77TH ST		O	2	STATE	03/07/02	4.789	FAIR	5800	$8,352,000.00	64
2246470	M	EAST DRIVE	THE LOCH		WO	1	STATE	04/03/02	4.700	FAIR	1100	$1,584,000.00	64
2249800	R	FOREST AVE	CLOVE LAKES PK STREAM		WO	1	STATE	10/01/01	4.766	FAIR	1600	$2,304,000.00	1
2268350	K	BROOKLYN PROMENADE	278I N.B. (B.Q.E.)		A-PED	35	CITY	04/17/03	4.500	FAIR	46184	$66,504,960.00	6

STATEN ISLAND CULVERTS							
BIN	**BORO**	**FEATURE CARRIED**	**FEATURE CROSSED**		**BRIDGE TYPE**	**SPANS**	**SOURCE**
R00003	R	DELAFIELD AVE	RAYMOND PLACE		O	1	CITY
R00004	R	DICKIE AVE	NEAR COLUMBUS PLACE		O	1	CITY
R00005	R	BIDWELL AVE	COLUMBUS PLACE		O	1	CITY
R00006	R	LIVERMORE AVE	WATCHOGUE ROAD		O	1	CITY
R00010	R	GALLOWAY AVE	MARIANNE ST		O	1	CITY
R00011	R	FOREST AVE	CRYSTAL AVE		O	1	CITY
R00013	R	NAUGHTON AVE	PATTERSON AVE		O	3	CITY
R00015	R	OLYMPIA BLVD	SLATER AVE		O	1	CITY
R00016	R	GRAHAM BLVD	JAY ST		O	2	CITY
R00021	R	HUNTER AVE	IDLEASE PLACE		O	1	CITY
R00022	R	IDLEASE PLACE	HUNTER AVE		O	1	CITY
R00023	R	MIDLAND AVE	HYLAN BLVD		O	1	CITY
R00024	R	LINCOLN AVE	SANILAC ST		O	1	CITY
R00025	R	GREELEY AVE	SANILAC ST		O	1	CITY
R00027	R	ELEANOR ST	ROCKLAND AVE		O	1	CITY
R00031	R	TARLTON ST	GREAT KILLS LANE		O	1	CITY
R00032	R	SEGUINE AVE	PURDY PLACE		O	1	CITY
R00034	R	ROCKLAND AVE	BRIELLE AVE		O	1	CITY
R00035	R	BRADLEY AVE	WILLOWBROOK ROAD		O	1	CITY
R00036	R	AMBOY ROAD	ARBUTUS AVE		O	1	CITY
R00038	R	MAGUIRE AVE	DEPEW PLACE		O	1	CITY
R00039	R	MAGUIRE AVE	DEPEW PLACE		O	1	CITY
R00040	R	113 MAGUIRE AVE	DEPEW PLACE		O	1	CITY
R00041	R	93 FOSTER ROAD	AMBOY ROAD		O	1	CITY
R00042	R	LEDYARD PLACE	LACONIA AVE		O	1	CITY
R00044	R	REID AVE	HURBERT ST		O	1	CITY
R00046	R	RICHMOND TERRACE	SNUG HARBOUR		O	2	CITY
R00047	R	SIMONSON AVE	WALKER ST		O	1	CITY
R00048	R	VAN NAME AVE	WALKER AVE		O	1	CITY
R00049	R	VAN PELT AVE	WALKER ST		O	1	CITY
R00050	R	UNION AVE	NETHERLAND AVE		O	1	CITY
R00051	R	HARBOR ROAD	DUBLIN PLACE		O	1	CITY
R00055	R	TRAVIS AVE	VICTORY BLVD		O	1	CITY
R00056	R	RICHMOND TERR	WESTERN AVE		WO	1	CITY
R00059	R	WESTERN AVE	RR BRIDGE		WO	1	CITY
R00060	R	SIGNS ROAD	VICTORY BLVD		O	1	CITY
R00062	R	KISSEL AVE	SNUG HARBOR ROAD		O	1	CITY
R00065	R	HENDERSON AVE	WESTBURY AVE		O	1	CITY
R00068	R	FOREST AVE	RANDALL AVE		O	1	CITY
R00069	R	GREGG PLACE	RANDALL AVE		O	1	CITY
R00076	R	ROOSEVELT AVE	HAROLD ST		O	1	CITY
R00077	R	BUCHANAN AVE	HAROLD ST		O	1	CITY
R00078	R	WILLOW BROOK ROAD	FILLMORE AVE		O	1	CITY
R00079	R	FILLMORE AVE	WILLOW BROOK ROAD		O	1	CITY
R00084	R	ARTHUR KILL ROAD	MULDOON AVE		O	1	CITY
R00085	R	ARTHUR KILL ROAD	150' N.W. ELLIS ROAD		O	1	CITY
R00086	R	ARTHUR KILL ROAD	ENGLEWOOD ST		O	1	CITY
R00095	R	MEISNER AVE	ROCKLAND AVE		O	1	CITY
R00096	R	ROCKLAND AVE	MANOR ROAD		O	1	CITY

STATEN ISLAND CULVERTS							
BIN	**BORO**	**FEATURE CARRIED**	**FEATURE CROSSED**		**BRIDGE TYPE**	**SPANS**	**SOURCE**
R00097	R	RICHMOND HILL ROAD	RICHMOND ROAD		O	1	CITY
R00101	R	ST ANDREWS ROAD	LIGHTHOUSE AVE		O	1	CITY
R00103	R	AULTMAN AVE	ST GEORGE ROAD		O	2	CITY
R00104	R	ST. GEORGE ROAD	ASCOTT AVE		O	1	CITY
R00106	R	ARTHUR KILL ROAD	RICHMONDTOWN ROAD		O	1	CITY
R00111	R	ELTINGVILLE BLVD	KATAN AVE		O	2	CITY
R00114	R	SWEET BROOK ROAD	RIDGEWOOD ROAD		O	1	CITY
R00115	R	VICTORY BLVD	CLOVES LAKE PARK		O	3	CITY
R00122	R	ARTHUR KILL ROAD	RIDGEWOOD AVE		O	1	CITY
R00129	R	LAMOKA AVE	DEMOPOLIS AVE		O	1	CITY
R00130	R	DEMOPOLIS AVE	LAMOKA AVE		O	2	CITY
R00133	R	ARDEN AVE	HALPIN AVE		O	1	CITY
R00135	R	HYLAN BLVD	CORNELIA AVE		O	1	CITY
R00136	R	SNUG HARBOR ROAD	KISSEL AVE		O	1	CITY
R00137	R	RICHMOND TERRACE	WESTERN AVE		O	2	CITY
R00138	R	HOLLAND AVE	BENJAMIN PLACE		O	1	CITY
R00139	R	DE PEW PL	MAGUIRE AVE		O	1	CITY
R00141	R	ALTER AVE	STORM&GRND FED STREAM		O	1	CITY

PARKS DEPARTMENT BRIDGES NOT IN THE NYC DOT BRIDGE INVENTORY

BIN	BORO	FEATURE CARRIED	FEATURE CROSSED	INSPECTION DATE	RATING	VERBAL RATING
222928C	M	PED BR AT 73RD ST	HHP - AMTRAK	6/8/2002	4.000	FAIR
2231790	Q	BELMONT PARK RAMP	907A907AX5M22106	1/22/2002	4.750	FAIR
2241380	B	PELHAM BAY PK PED	AMTRAK	11/13/1978	5.109	GOOD
2242050	B	PEDS BR AT E194ST	METRO-NORTH RR HR	1/9/1979	5.574	GOOD
2242120	B	FTBG N OF RTE 1	BRONX RIVER	6/15/2002	4.029	FAIR
2244100	K	WEST FOOTBRIDGE	PROSPCT PK STREAM	9/9/2003	4.577	FAIR
2244130	K	FTBRG NR BOATHSE	PROSPECT PK LAKE	6/15/2002	5.000	GOOD
2245240	M	W 151ST ST FOOTBR	CONRAIL 30 ST BR	6/8/2002	2.000	POOR
2246010	M	FTBRG OPP 62ND ST	BRIDLE PATH	6/1/2002	5.000	GOOD
2246160	M	PED BET 73ST&74ST	THE LAKE	6/1/2002	5.000	GOOD
2246320	M	FTBRG OPP 77TH ST	THE LAKE	5/18/2002	4.872	FAIR
2246340	M	PED WALK OPP 77ST	STREAM TO LAKE	5/18/2002	4.871	FAIR
2246380	M	PED WALK OPP 86ST	BRIDLE PATH	3/16/2002	4.917	FAIR
2246390	M	PED WALK OPP 86ST	BRIDLE PATH	3/16/2002	4.960	FAIR
2246580	M	HIGH BRIDGE PDOVP	87I 87I01011037	10/1/85	5.651	GOOD
2246700	M	ISHM PK PEDESTRN	HARLEM RV INLET	11/3/2001	4.778	FAIR
2248059	Q	MOTOR PKWY (PED)	FRANCIS LEWIS BLD	4/20/2002	4.556	FAIR
2248060	Q	MOTOR PKWY (PED)	BELL BLVD	4/21/2002	4.889	FAIR
2248070	Q	MOTOR PKWY (PED)	SPRINGFIELD BLVD	2/3/2003	4.569	FAIR
2248080	Q	MOTOR PKWY (PED)	HOLLIS COURT BLVD	5/18/2002	4.839	FAIR
2248090	Q	FLSHG MDW PK PED.	LAWRENCE STREET	5/11/2002	4.722	FAIR
2248100	Q	MOTOR PKWY (PED)	73RD AVE	5/18/2002	4.794	FAIR
2248110	Q	MOTOR PKWY (PED)	ALLEY PK PED WALK	3/16/2002	1.000	POOR
2248130	Q	FLUSHING MEADW PK	WILLOW LK&76TH RD	4/20/2002	1.000	POOR
2248140	Q	FLUSHING MEADW PK	STREAM N OF LIE	3/16/2002	4.741	FAIR
2248280	Q	HIGHLAND PK PED.	PEDESTRIAN PATH	4/20/2002	3.667	FAIR
2248379	Q	FLUSHING MW PK RD	AQUACADE LAKE	8/17/78	5.809	GOOD
2249710	R	WEST FOOTBRIDGE	CLOVE LAKE	6/8/2002	4.862	FAIR
2249720	R	EAST FOOTBRIDGE	CLOVE LAKE	6/1/2002	4.690	FAIR
2249730	R	BRIDGE OVER DAM	N.END CLOVE LAKE	7/13/2002	4.241	FAIR
2249770	R	S OF BROOKS LAKE	STREAM IN PARK	7/20/2002	5.000	GOOD
2249780	R	FOOTBRIDGE	BROOKS LAKE DAM	6/15/2002	4.967	FAIR
2249790	R	FB S OF FOREST AV	STREAM IN PARK	6/15/2002	5.000	GOOD

A brief glossary of the terms most commonly used in bridge design, construction and maintenance is presented below. Cross-references are indicated through the use of BLOCK LETTERING.

ABUTMENT
Walls of reinforced concrete or masonry. Abutments support a bridge's SUPERSTRUCTURE and APPROACHES, as well as retain the embankments that are positioned at the extreme ends of a multi-span bridge.

AGGREGATE
Inert material such as sand or stone that is mixed with cement, lime and water to produce grout or mortar.

ALIGNMENT
The relative horizontal and vertical positioning between the bridge and APPROACHES.

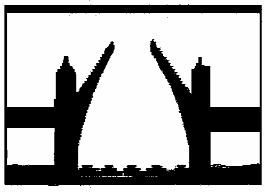
ANCHORAGE
A solid mass, usually comprised of concrete, that encases a grillage of heavy steel bars into which the ends of a suspension bridge's main CABLES are anchored. Anchorages are designed to resist the pull of the cables.

APPROACH
Roadway at each end of a bridge, beyond the ABUTMENT, providing access to the bridge.

ARTERIAL BRIDGE
Any bridge upon which an arterial highway runs as it crosses streets, water, railroads, etc.

BACK FILL
Material used to refill an excavated area.

BASCULE BRIDGES
Bascule bridges are movable bridges, typically referred to as "draw bridges" which rotate the superstructure vertically. The movable leaf of the structure - known as a *bascule* - is counterbalanced by weights of such size that minimal power is required for operation - just enough to overcome inertia, frictional resistance, wind and snow loads. Such bridges are relatively speedy to operate and provide unlimited vertical clearance. Examples of bascule bridges currently under the jurisdiction of the New York City Department of Transportation include the Unionport, ***Pelham***, Hamilton Avenue, Third Street, Union Street, and Greenpoint Avenue Bridges.



BEAM
A linear structural member designed to span from one support to another.

BEARINGS
Designed to transmit the load from the SUPERSTRUCTURE to the SUBSTRUCTURE. Divided into two types, expansion and fixed, bearings are needed to ensure that certain elements are not forced to take more load than that for which they were designed and that the bridge can move slightly under load and temperature changes as needed.

BID
A contractor's formal proposal, including prices, to perform the work set out in the project SPECIFICATIONS.

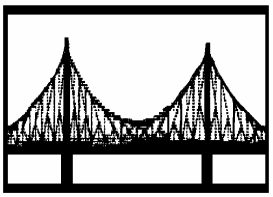
BOX BEAM
A hollow structural beam with a square, rectangular, or trapezoidal cross-section.

BRIDGE
A structure connecting two points, greater than 20 feet in distance, which carries vehicular and/or pedestrian traffic over water, a descending slope, or another road.

CABLE
A steel rope, composed of parallel or twisted wires, used to support the road deck of SUSPENSION BRIDGES or CABLE STAYED BRIDGES.

CABLE STAYED BRIDGES
Bridges in which the superstructure is directly supported by cables, or stays, passing over or attached to towers located at the main piers.

CANTILEVER BRIDGES
Bridges of this type are economical to build because they require less material in construction and less condemnation of property is necessary for the narrow piers which are sufficient for support. Typically, no falsework is required during construction and the bridge does not exceed 1,800 feet in length. NYCDOT's ***Queensboro Bridge*** is a notable example of this type of structure.



CATCH BASIN
A receptacle, commonly box shaped and fitted with a grilled inlet and a pipe outlet drain, designed to collect the rain water and floating debris from the roadway surface and retain the solid material so that it may be periodically removed.

CHANGE ORDER
An approved modification of the SPECIFICATIONS or the costs in a construction contract.

CHIPPING HAMMER
A welder's compressed-air tool for cleaning steel after welding. It is also used by bridge inspectors.

CLEARANCE
The unobstructed vertical and horizontal space provided between two objects.

CONDITION RATING
A judgment of a structure's condition in comparison to its original as-built condition.

COPING
The material forming the top layer of a masonry unit which protects the masonry below from penetrating water.

CORE
A cylindrical sample of concrete removed from a bridge component for the purpose of destructive testing.

CORROSION
The general disintegration of surface metal through oxidation.

CRITICAL PATH
The set of activities that must be completed on time for the contract completion date to be met. Activities on the critical path have no slack time.

CULVERT
Any structure under the roadway with a clear opening of twenty feet or less, measured along the center of the roadway.

DEAD LOAD
The weight of the bridge itself without any traffic or external loads.

DECK
The supporting slab and wearing surface of a bridge.

DESIGN-BUILD CONTRACTS
A delivery procedure where one company is retained to perform both design and construction, thus expediting the capital bridge rehabilitation program.

EFFLORESCENCE
White salts that water movement brings to the surface of porous construction materials.

ELECTRICAL MAINTENANCE
Preventive maintenance to electrical systems on the East River bridges (e.g., travelers, lighting systems) and the movable bridges (e.g., contacts, relays, switches, controls, limit switches, and lighting systems).

EXPANSION JOINTS
Located throughout a bridge, expansion joints are located in the deck, directly above the BEARINGS. Expansion joints allow parts of the structure to expand independently and therefore relieve stresses that may otherwise cause damage.

EYEBARS
Steel bars with each end shaped like the eyes of giant needles. They provide total anchorage of the suspension cable and are buried deep within the ANCHORAGE structure.

FACE
The outer, exposed surface of a MASONRY unit.

FENDER
A structure that acts as a buffer to protect the portions of a bridge exposed to floating debris and water-borne traffic from collision damage.

FIRE HAZARD
Accumulation of debris, where the debris is of sufficient quantity, in a location where, if it caught fire, it would compromise the structural integrity of the bridge.

FIXED PRICE CONTRACT
A contract with an overall predetermined price for the project work.

FLAG CONDITIONS
A “Flag” is a hazardous or potentially hazardous condition on a bridge. A "Flag" is classified as either Red, Yellow, or Safety. A "Red Flag" requires prompt evaluation and, possibly, corrective action. A "Yellow Flag" is used to report a potentially hazardous structural condition, which if left unresolved will most likely become a danger to the soundness of the bridge and a hazard to the public. In the case of a "Safety Flag", there is no danger of partial or complete structural failure of the bridge; however, if left unattended, those conditions can present a vehicular or pedestrian hazard.

FOOTINGS
Part of the substructure known as the bridge foundation, they are masses of reinforced concrete which can be found beneath the ABUTMENTS and PIER and which spread the load to allow the soil to support the structure above.

FULL STEEL PAINTING
A bridge painting technique that involves cleaning of steel surfaces using approved environmentally safe paint removal techniques (blasting, power tools, or hand tools). A full primer, intermediate and finish coat are applied using combinations of brush, roller, or (if necessary) spray painting.

GENERAL CONTRACTOR
has overall responsibility for a construction project. The general contractor may break down the project into smaller pieces to be handled by subcontractors.

GIRDER SPAN BRIDGES
are primarily employed in bridging short distances, and may be classified as either simple or continuous. The steel girders carry the roadway and roadway load to end supports. The Midtown Highway, Hook Creek, Little Neck and Brooklyn Third Avenue Bridges are of this type.

GUTTER
A paved drain commonly constructed in conjunction with the curbs of the roadway.

LIVE LOAD
The weight of the traffic crossing a bridge and of other external loads applied to the structure (excluding the weight of the bridge itself.)

LUBRICATION MAINTENANCE
Lubrication of mechanical parts of the East River bridges (e.g., travelers, cables, solid rod suspenders, and eyebars), and the movable bridges (e.g., bearings, brakes, limit switches, and gates).

MARINE BORERS
Mollusks and crustaceans which live in water and destroy wood by digesting it.

MASONRY
Construction materials made of concrete, brick, tile, or stone.

MEDIAN
A strip of land between opposing lanes of roadway traffic; also known as a median strip.

MONITORING INSPECTION
Inspection of a condition known have a potential for developing into a hazard to the structure or the public.

MOVABLE BRIDGE
A type of bridge which carries vehicular or pedestrian traffic over a navigable waterway, and which opens to permit the passage of a ship, barge or boat.

MOVING LOAD
A LIVE LOAD that is moving, for example, vehicular traffic.

NECKLACE LIGHTS
The necklace lights are those lights on the main cables of suspension bridges which, when illuminated at night, resemble a necklace.

NONDESTRUCTIVE TESTING
A method of checking the structural quality of materials that does not damage them.

OPERATOR'S HOUSE
The building containing the power plant and operating machinery and devices required for the operator's (bridge tender's) work in executing the complete cycle of opening and closing a MOVABLE BRIDGE span.

PANEL POINT
The point at which two members of a TRUSS cross.

PARAPET
A low wall along the outmost edge of the roadway of a bridge to protect vehicles and pedestrians.

PEDESTRIAN BRIDGES
Bridges designed and constructed to provide means of crossing for pedestrian traffic only.

PIER
Part of a bridge's substructure, piers are the intermediate supports or columns which support a multi-span bridge. Piers may be composed of steel or reinforced concrete, and can appear as columns or solid walls.

PILES
A concrete, steel or timber column located beneath the footings of a bridge and embedded in the soil. Piles are employed in bridges only if the soil directly below the footing is not firm enough to support the bridge loads.

PLUMB BOB
A weight hanging on a string (plumb line), used by bridge inspectors to show the direction of the vertical distance.

POINTING
The compacting of the mortar in the outermost portion of a joint and the troweling of its exposed surface to secure water tightness or desired architectural effect.

PORTLAND CEMENT CONCRETE
The most common concrete used in construction. It was patented in England in 1820, and is so named because when hard, it resembles Portland stones from Dorset.

POTHOLE
A hole in a roadway or pavement, usually caused by heavy vehicular traffic or weathering.

PRECAST CONCRETE
Concrete members that are cast and cured before being placed into their final positions on the construction site.

PREVENTIVE MAINTENANCE
Extends the useful life of a bridge and reduces the need for capital reconstruction expenditures and the associated vehicular traffic problems, including lane closures and congestion. Preventive maintenance tasks on the bridges include: the cleaning of drainage systems, gratings, and expansion joints; the washing of the deck area and salt splash zones; full-steel, salt splash, and spot painting; the patching of sidewalks; the maintenance of electrical devices; and the oiling of mechanical components.

PRIMER
The first layer of paint used to cover the unsealed surface. This is followed by at least one more coat of paint.

PUNCH LIST
A catalogue of minor items still outstanding towards the end of a construction project.

QUALITY ASSURANCE
An independent evaluation of a service (i.e., an inspection) to establish that a pre-described level of quality has been met.

RAILING
A fence-like construction built at the outermost edge of the roadway or the sidewalk portion of a bridge to protect pedestrians and vehicles.

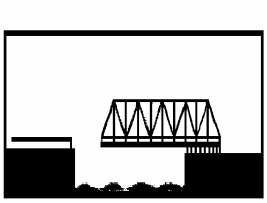
RAILROAD FORCE ACCOUNTS
Railroad force accounts are contracts between the Agency and railroads by which the railroads supply flag personnel so the Division can perform repair work on bridges that cross over railroad tracks.

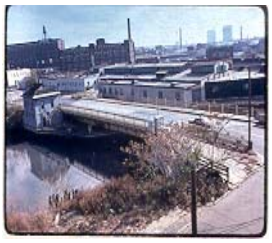
REBAR, or REINFORCING BAR
Steel bars placed within concrete to add strength (tensile load-bearing capacity) to the structure.

RECONSTRUCTION
Reconstruction of severely deteriorated bridges includes extensive rehabilitation, as well as partial or complete replacement, either in-kind or newly designed.

REHABILITATION
Extending the useful life of a bridge by painting, repairing or replacing the DECK or selected elements of the SUBSTRUCTURE or SUPERSTRUCTURE. This type of work is performed primarily on those structures not classified as deficient, but which contain specific components that have low condition ratings.

RETRACTILE BRIDGES
Retractile bridges are movable bridges that are mounted on tracks that are positioned to one side of a navigational channel. To open, the bridge is withdrawn or "retracted" to shore. Although fascinating to observe and efficient to operate, retractile bridges are considered obsolete because of the expansive land areas that must be condemned in order to accommodate their tracks. The New York City Department of Transportation currently possesses two retractile bridges - the ***Borden Avenue*** and Carroll Street bridges, rare examples of the bridge builders' art.





RETARDING AGENT
A chemical added to mortar to slow down the set.

RIPRAP
Irregularly broken, random-sized pieces of rock used for a foundation or to prevent soil erosion.

ROADWAY
The portion of the road intended for the use of vehicular traffic.

ROCKER BEARING
A bridge support that accommodates expansion and contraction of the superstructure through a rocking action.

SADDLE
A special curved casting atop a SUSPENSION BRIDGE tower into which the cables are placed to avoid sharp bends in directional changes of the cable.

SALT SPLASH ZONE PAINTING
A bridge painting process that involves preparation of the area to be painted by power wash, using clean water or steam. After power washing, hand and power tools are used in areas which have started to show deterioration from accumulated de-icing agents. Solvent cleaning is done in locations where oil and grease need to be removed from the steel surface. A spot PRIMER coat and finish coat are then applied by brush or roller. Occasionally, when there is no danger of overspray, spray painting may be performed.

SCUPPER
An opening in the floor portion of a bridge to provide means for rain or other water accumulated upon the roadway surface to drain through it into the space beneath the structure.

SET
When the consistency of mortar changes from plastic to hard.

SHORING
Temporary bracing to support a structure.

SOFFIT
The underside of a structural component, such as a beam or arch.

SPALLING
The flaking or breaking out of concrete parallel to the main surface, caused by a blow, or by the action of weather or pressure.

SPAN
The distance between consecutive supports of a bridge.

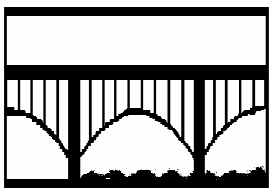
SPECIFICATIONS OR SPECS
A detailed listing of required construction materials and methods to be used in the project. This information is a supplement to the blue prints and working drawings.

SPLAY CASTING
A steel or cast-iron collar fitted around a bridge suspension CABLE at the location where it spreads out (splays) into separate bundles of wires which are then attached to the ANCHORAGE EYEBARS. It is used to control the degree and location of the splay. These castings are usually located at the entry point of the cable into the anchorage chamber.

Consultants Inspecting the Splay Casting at Anchorage D of the Williamsburg Bridge, Where the Suspension Cables are Secured

SPOT PAINTING
When the surface to be painted is contaminated with de-icing salts, sea salt, bird excrement, or other corrosive agents, the area is prepared by power washing, using clean water or steam. When grease or oil is present, it is removed by solvents. Mechanical cleaning with hand and/or power tools is performed in the areas containing deteriorated paint. A spot PRIMER coat and a single finish coat are applied by brush or roller. Occasionally, when there is no danger of overspray, spray painting may be performed.

STEEL ARCH BRIDGES
Steel arch bridges consist of either a single arch or a series of arches fashioned from steel or concrete. Aesthetically one of the more attractive bridge types. Arch structures can prove economical to construct if the bridge spans between high ABUTMENTS. At present, there is only one bridge of this kind in steel under the guardianship of the NYCDOT; the twin-arched ***Washington Bridge***, positioned over the Harlem River at 181st Street. This bridge opened to traffic in December 1888 and, with its approaches, is 2,375 feet long.



STEM
The vertical part of a retaining wall, usually made of concrete or masonry.

STRAIN GAUGE TESTING
Small strips of material (imagine a small band-aid) are glued onto part of a structure to measure the stress in the material under load. Inside the small "band-aid" are tiny electrical wires. When a structure is under load it stretches (tension) or contracts (compression). When this happens, the resistance in the tiny wires in the strain gauge changes, resulting in a change in the wire's current. What is actually being measured are changes in the electrical current in the tiny wires. Knowing the physical properties of the structural member that the gauge is attached to, (such as steel), a calculation is can then be made to convert these changes in current to changes in stress. The readings are taken with special instruments that record the information over the desired period of time or loading sequences.

Division Engineers Installing
Strain Gauges in 1995 on
the Greenpoint Avenue Bridge

STRAND
Comprised of hundreds of thin wires laid parallel to form a bundle, strands comprise the base element in the CABLES, or main cables, on a SUSPENSION BRIDGE or cable stayed bridge.

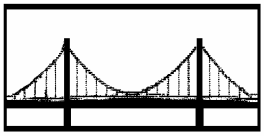
STRINGER
A part of a bridge's SUPERSTRUCTURE, a stringer is essentially a BEAM parallel to the span used to support the road DECK.

SUBSTRUCTURE
The name given to those elements below a bridge's road deck system, namely the ABUTMENTS, ANCHORAGES, BEARINGS, and PIERS.

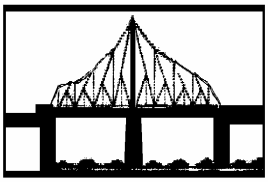
SUPERSTRUCTURE
The superstructure is all that part of a structure above the bearings of simple and continuous spans, skewbacks of arches and top of footings of rigid frames; excluding backwalls, WINGWALLS and wing protection railings.

SUSPENDER
A wire rope or a short vertical rod that enables the forces of the roadway of a SUSPENSION BRIDGE to be translated into an axial force in the supporting CABLES.

SUSPENSION BRIDGES
Suspension bridges are high level bridges with spans that usually exceed 1,500 feet in length. Supported by large wire CABLES that are anchored to masses of concrete and which pass over the tops of towers, the road DECK is suspended at regular intervals by smaller cables called suspenders. While the main cables carry the entire live and dead load, stiffening TRUSSES are required to distribute the live load and prevent excessive deflection at any point. The Brooklyn, Manhattan and ***Williamsburg*** Bridges are noted New York City examples of this type.




SWING BRIDGES
Swing bridges are movable bridges that are supported on a center PIER in the center of a waterway, and are opened by rotating the SUPERSTRUCTURE horizontally on wheels riding on a circular track. Two channels are provided on either side of the bridge for navigational ease when the bridge is in the open position. Because swing bridges are slow to operate and restrict channel width, they are rarely constructed today. Examples of swing bridges in New York City include the Third Avenue, Madison Avenue, 145th Street, ***University Heights***, Grand Street and Macombs Dam Bridges.




THERMAL CAPACITY
The ability of MASONRY to hold heat and/or cold.

TIME AND MATERIALS CONTRACT
A contract in which the contractor's labor and material costs are reimbursed at a predetermined rate of profit.

TORSION
Twisting force usually caused by unbalanced or asymmetrical loading.

TOWER
Often the most majestic element in a SUSPENSION or cable stayed bridge, the ***tower*** serves as a support for the structure's main CABLES.

TRAVELER MAINTENANCE
The maintenance of a traveler (movable underdeck platform) that runs under the East River Bridges so maintenance, inspections and repairs can be performed to the underside of the bridge.

TRUSS
A rigid framework built of interconnecting steel beams, creating a large "girder" to support the floor system and transfer loads to the substructure over a longer span.

TRUSS BRIDGES
Truss bridges possess road decks that are supported by Steel TRUSSES that rest on PIERS and ABUTMENTS, and which span short distances. The 174th Street Bridge in the Bronx is an example of a truss bridge.

VERTICAL LIFT BRIDGES
Vertical lift bridges are movable bridges which have road DECKS that operate in much the same fashion as an elevator. Comprised of supporting end CABLES that are attached at one end to the road DECK and at the other to rotating drums, these bridges are raised and lowered to allow for the safe passage of marine traffic. The ***103rd Street - Wards Island Pedestrian Bridge***, Ninth Street Bridge, and Broadway Bridge are examples of this type of bridge.

VIADUCT BRIDGES
Viaduct bridges are multi-span bridges containing two end spans and any number of intermediate SPANS. The end spans are supported by an ABUTMENT on one end and a PIER on the other. The intermediate spans held aloft by piers.

WINGWALL
Walls of reinforced concrete or stone that prevent the soil behind the ABUTMENT from eroding away and leaving a void beneath the approaches of the bridge. Also known as a retaining wall.

WINTER INSPECTION
Inspection of a site known to have a greater hazard potential during winter. This may be due to low ambient temperatures, accidental or deliberately set fires.

(Glossary Photo Credits: Peter Basich)

Bridge Protection through Dirt and Water Control

Cleaning of Abutment and Pier Tops Removal of debris, dirt and vegetation from abutment and pier tops; cleaning and lubrication of bridge bearings.

Debris Removal Removal of spilled trash; removal of rocks, wood, plastic or metal objects, tires, mufflers, wheel covers, and other traffic droppings; removal of paper products, bottles, cans, accumulated dirt and other trash. Debris removal is also required for walkways and plazas. For movable bridges and bridges over water, the protective fender systems need to be cleared of debris. The removal of debris from bridges is an important and critical component of maintenance. Debris can cause safety and hazard conditions. In addition, debris traps moisture and salts on the structure and prevents proper drainage.

Manhattan Bridge Tower After Debris Removal

Hutchinson River Parkway Under Westchester Avenue
(Credit: Anthony Napolitano

Cleaning of Drainage System Removal of debris, dirt and vegetation from drainage systems, including gutter gratings, gutters and leaders, scuppers, down spouts and scupper piping systems. The cleaning of surface gratings and gutters requires hand tools, brooms and brushes. In some cases, an air compressor might be needed to blow out some gutters. Cleaning the scuppers and scupper piping systems requires specialized equipment.

Cleaning Catch Basins on the Manhattan Bridge

Cleaning of Expansion Joints Removal of debris and dirt from the troughs using compressed air or water; and cleaning and resealing of the joints. Performed on all bridges. Expansion joints are located at the surface level where they are subjected to impact and vibration and are exposed not only to the elements such as water, dust, grit, ultra-violet rays and ozone, but also to the effect of chemicals such as salt solutions, cement alkalis and petroleum derivatives. In addition to regular lubrication of moving parts, penetration of water, silt and grit must be effectively prevented or provision made for their removal.

Expansion Joint Cleaning on the Manhattan Bridge

Clean Expansion Joint on the Manhattan Bridge

Cleaning of Open Grating Decks Removal of debris and dirt from open-grating decks and washing with high-pressure water jets.

Sweeping Sweeping each bridge with a mechanical sweeper along each curb.

Sweeping the Grand Street Bridge (Credit: Anthony Napolitano)

Washing of Decks and Salt Splash Zones Washing of decks and salt splash zones to remove remnants of de-icing salts; use of compressed air and water jets to clean tight corners.

Roadway Surface Maintenance

Crack Sealing in Pavement and Curbline Sealing Cleaning of cracks and filling them with sealant; sealing with mastic material along the curb line to prevent water leakage onto bridge components. This maintenance function is sensitive to weather conditions.

Repair of Sidewalks and Curbs Sidewalk repair to restore sidewalk to original condition. Curb repair to be undertaken along with this task.

Repaired Bullnose Curb and Sidewalk at Crotona Avenue
(Credit: Joseph Saverino)

Replacement of Wearing Surfaces Removal of old wearing surface; preparation of exposed concrete slab or steel plate; installation of new wearing surface. The wearing surface is a two-inch course of bituminous concrete. Also includes minor deck repair, cleaning and waterproofing of deck.

Asphalt Repair on the Grand Street Bridge (Credit: Anthony Napolitano)

Break-Out and Removal of Old Asphalt at the Tillary Street Ramp to the Brooklyn Bridge
(Credit: Anthony Napolitano)

Compacting the Hot Asphalt Cement With a Portable Gasoline Powered Roller. Completed Asphalt Deck Repair at the Tillary Street Ramp. (Credit: Anthony Napolitano)

Concrete Deck Pothole Repairs Along the Westbound BQE Over Furman Street – Break-Out. Cutout Ready for Concrete. (Credit: Joseph Saverino)

Pouring Concrete on the Westbound BQE Over Furman Street. Rolling and Tamping the Asphalt. (Credit: Joseph Saverino)

Closeup of Part of the Completed Concrete Deck Repair on the BQE. (Credit: Joseph Saverino)

Electrical and Mechanical Component Maintenance of the 4 East River Bridges and 25 Movable Bridges

Maintenance of Electrical Devices Checking and servicing electrical systems such as travelers, relays, auxiliary contacts, meters, overload relays, time delay relays, span and tail locks, brake systems, transmitters, transformers, fuses, wiring, resistors, etc. Also includes checking interior anchorage lighting, caution lighting, navigation lighting, and necklace lighting. During inspection, the travelers of the East River Bridges are operated to ensure proper calibration of electric motors. If motors are not calibrated properly, the travelers may rotate and jam along their guides. Many of the movable bridges are very old and replacement parts are difficult to find or may not be available any longer. When necessary, Division personnel fabricate machine parts such as shafts, and brake and warning gate components. In addition to inspection of systems, the electrical technicians replace poor condition components with electric systems before corrective maintenance is required. This preventive maintenance strategy avoids disruption of bridge service to motorists. This is important, because once corrective maintenance is necessary, it may require the bridge to be out of service for lengthy periods.

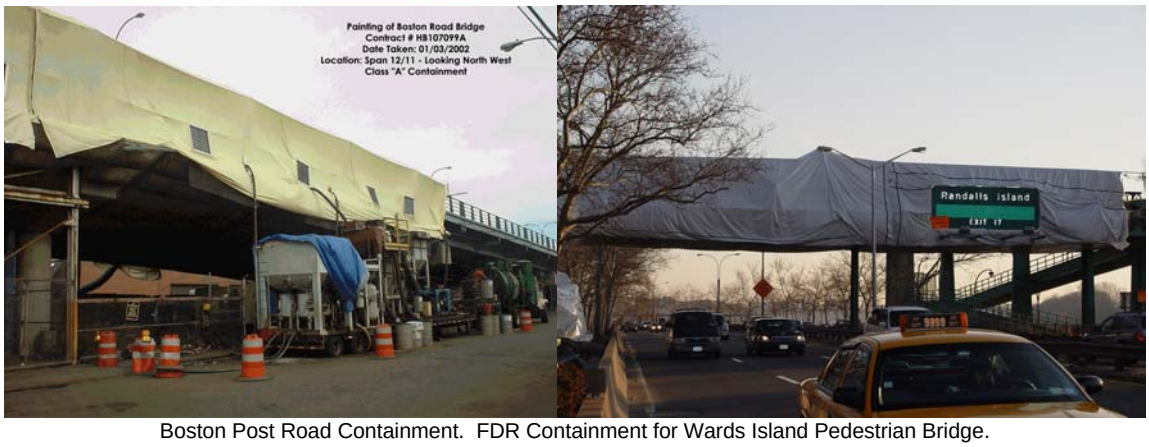
Maintenance of Mechanical Components Cleaning and lubrication of all movable parts and bridge cables for the four East River Bridges and the twenty-five movable bridges. Cleaning and lubrication of travelers; cleaning, wedging and oiling of the main cable strands and eyebars; cleaning of truss bearings; cleaning and lubricating air and fire line valves. Cleaning and lubrication is required to keep components from corroding and becoming immobile. Allowing components to seize could cause operating failure and introduce unsafe structural stresses.

Steel Protection – Painting**

Total Paint Removal and Repainting Constructing negative pressure containment (Class 1A); washing and surface blasting to commercial-blast or near-white metal condition (Society for Protective Coating SP-6 or SP-10); constructing Class 3P containment; power tool cleaning to bare metal condition (Society for Protective Coating SP-11 or SP-15); lead monitoring and disposal; applying lead-free paint; primer, intermediate coat and top coat. Surface preparation is accomplished by abrasive blasting. The containment materials include tarps, plywood, scaffolding, and cables. Equipment includes blasting machines, needle guns, spray pumps, compressors, dust collectors, filters, and ductwork.

Abrasive Blasting

Tower Scaffolding and Containment at the Wards Island Pedestrian Bridge



Boston Post Road Containment. FDR Containment for Wards Island Pedestrian Bridge.

The Division treats all lead paint waste as hazardous waste, and stores and disposes of it according to the Resourse Conservation and Recovery Act (RCRA). Waste is stored in approved leak-proof drums and containers which are, in turn stored temporarily in a fenced, secured area on-site until they are transferred to a disposal/recycling facility.

Full-Steel (Overcoating) Overcoating of the entire bridge. Solvent cleaning and cleaning of steel surfaces in areas with deteriorated paint is conducted using approved environmentally safe paint removal techniques, and either power tools, hand tools or combination hand/power tools. Power tool cleaning is performed in a Class 3P containment, and hand tool cleaning in a Class 4 containment. Combination hand/power tool cleaning is performed in a Class 3P containment. A localized primer coat and a single finish coat are then applied by brush, roller, or spray over the entire bridge.

Spot Painting When the surface to be painted is contaminated with de-icing salts, sea salt, bird excrement, or other corrosive agents, the area is prepared by power washing, using clean water or steam. When grease or oil is present, it is removed by solvents. Mechanical cleaning with hand and/or power tools is performed in the areas containing deteriorated paint. Power tool cleaning is performed in a Class 3P containment, and hand tool cleaning in a Class 4 containment. Combination hand/power tool cleaning is performed in a Class 3P containment. A spot primer coat and a single finish coat are applied by brush or roller. Occasionally, when there is no danger of overspray, spray painting may be performed.

Salt Splash/Spot Painting This is a new process that combines salt splash with spot painting. It involves preparation of the area to be painted by power wash, using clean water or steam. Solvent cleaning is done in locations where oil and grease need to be removed from the steel surface. Areas to be power washed and painted are: the superstructure (up to six feet upwards from the deck), the underdeck steel (up to three feet from each side of the center line of the expansion joints), and the outside of the bridge's steel faces. In addition to these painted areas, we now perform localized surface preparation and painting of any deteriorated locations as mentioned in our spot painting definition above. After power washing, hand and power tools are used in areas that have started to show deterioration from accumulated de-icing agents. Power tool cleaning is performed in a Class 3P containment, and hand tool cleaning in a Class 4 containment. Combination hand/power tool cleaning is performed in a Class 3P containment. A spot primer coat and finish coat are then applied by brush or roller. Occasionally, when there is no danger of overspray, spray painting may be performed.

Spot Cleaning Before Painting on the Williamsburg Bridge.

Primer Coating on the Williamsburg Bridge

Containment Examples

Bridge Painters at Their Kent Avenue Shop Near the Williamsburg Bridge. Supervisor Bridge Painter Osvaldo Lima; Bridge Painters Anthony Attore, Vlatko Zic, Reynaldo Grant, Thomas Anzalone; Supervisor Bridge Painter Vincent Babajko; Bridge Painters Safdar Ali, Andrew Law, Drago Milin, Frank Pinheiro; Supervisor Bridge Painter Jure Dzida; and Deputy Director of In-House Painting Earlene Powell. (Credit: Lisi de Bourbon)

*Consortium of Civil Engineering Departments of New York City Colleges and Universities. *Preventive Maintenance Management System For New York City Bridges: Update 1998. Technical Report No. 98-1*. 1999. **Descriptions modified in November 2003.

MAINTENANCE PERSONNEL RESOURCES IN 2003

Preventive maintenance, corrective repair, flag repair, and painting work on the bridges and other structures within the City is performed by mechanics and supervisors in a variety of trades. The bridge operators provide safe and expedient passage to all marine and vehicular traffic under and on movable bridges. A breakdown of this work force by trade is:

	SUPERVISORS	MECHANICS
BRICKLAYERS	2	5
BRIDGE OPERATORS (INCLUDES ASSISTANTS)	19	72
BRIDGE PAINTERS	6	38
BRIDGE REPAIRERS/RIVETERS	3	36
CARPENTERS	2	15
CEMENT MASONS	-	6
DEBRIS REMOVERS	-	1
ELECTRICIANS (INCLUDES HELPERS)	2	21
HIGHWAY REPAIRERS (INCLUDES ASSISTANTS & SEASONAL WORKERS)	24	89
MACHINISTS	-	2
MOTOR GRADER OPERATORS	-	1
OILERS	-	13
STATIONARY ENGINEERS (ELECTRIC)	-	1
TRACTOR OPERATORS	-	1
TRAFFIC DEVICE MAINTAINERS	-	3
TOTALS	58 SUPERVISORS	304 MECHANICS

MAINTENANCE PERSONNEL RESOURCES IN 1900

A breakdown of the Department of Bridges work force by trade in 1900:

	SUPERVISORS	MECHANICS
AXEMAN		8
BLACKSMITH	1	2
BOILERMAKER		1
BRICK MASON	1	4
BRIDGE TENDER	15	137
CARPENTER	1	23
DOCKBUILDER		1
DRIVER		11
FIREMAN		18
FITTER		3
GATEMAN		7
INSPECTOR (INCLUDING STEEL)		10
LABORER (INCLUDES HELPERS)	7	111
LEVELER		4
LINEMAN		3
MACHINIST (INCLUDING HELPERS)		13
MASONRY INSPECTOR		7
MECHANIC	1	2
PAINTER	1	16
RIGGER		11
RIVETER	1	6
RODMAN		4
SHIP CARPENTER		4
SOUNDER		4
STABLEHAND		3
STEAM ENGINEER (INCLUDES DYNAMO)		15
STONE CUTTER/STONE MASON	1	2
SUPERINTENDENT ELECTRIC LIGHT	1	
SUPERVISOR (INCLUDES ASSTS)	12	
TOOLMAN		2
TRANSITMAN		7
TRIMMER		2
TOTALS	42 SUPERVISORS	441 MECHANICS

*BRIDGE INSPECTION EQUIPMENT LIST**

Inspector Equipment	Inspection Team Equipment	Inspection Van Equipment
Boots-Knee High	5 Boro Map	Clip Boards
Dust Masks (Disposable)	Binoculars	Flashlight (3 “D” Cell)
Safety Goggles	Telephone Directory	Fire Extinguisher
Hard Hat With Liner	Broom	First Aid Kit
Rain Hat & Jacket	Camera 35mm	3 Flags
OSHA Approved Respirator & Filters	Digital Camera	Step Ladder 6’ or 8’
Work Gloves Long Cuff	Hand Compass	10 Traffic Cones
Work Gloves Unlined	Screwdriver Set (Regular)	Tool Chest
Work Gloves Lined	Screwdriver Set (Phillips)	
Chipping Hammer	Dye Penetrant Kit	
Clip Boards	Lantern	**Put In Trucks By Highway Repairers When Needed**
Deceleration Lanyards	D-Meter With Test Block	
Flashlight (2 “D” Cell)	Marking Paint Spray	Generator
Safety Vest	Retract Survey Rod 25’	Oil For Generator
Belt With Two Drop Forged D-Rings	Sledge Hammer (8 lbs.)	Approved Safety Gasoline Can
Level 9” (Magnetic)	Thermometer	Bolt Cutter
Tool Bags (24”)	Spray Penetrating Oil	Extension Ladder 32’
Class III Body Harness	Cell Phone/Radio	Extension Ladder 24’
Lanyards	Vernier Calipers	Extension Ladder 16’
Bridge Inspection Manual (New York State)	Wrenches 12”	Shovel
Technical Advisories For Inspection Manual	Tool Pouch	Push Broom
Emergency Procedure Instructions	Lumber Crayons	Dust Pan & Sweep Broom
	Awl	Water Cooler
	Spray Paint	Flood Lights
	Calipers	
	Drafting Equipment	
	Hacksaw	
	Hacksaw Blades (Extra)	
	Paint Scraper	
	Inspection Mirror	
	Level 24”	
	Pliers 8”	
	Plumb Bob	
	Pocket Knife	
	Ruler 25’ or 30’ (Metal)	
	Ruler 100’ (Fiberglass)	
	Scraper Blades (Extra)	
	Snips	
	Wire Brush	
	Folding Ruler 8’	
	Rope ½” With 100’ Coil	
	Handheld Computer	

*New York City Department of Transportation, Division of Bridges. *Bridge Inspections, Research & Development Section Equipment Checklist.* 2003.

JANUARY		
"Good Day Live"	Television	Brooklyn Bridge Walkway
Charles Schwab Commercial	Television	Brooklyn Bridge
FEBRUARY		
Japan Airlines Commercial	Television	Brooklyn Bridge Walkway
"Furious Force"	Documentary	Brooklyn Bridge Walkway Williamsburg Bridge Walkway
"Collage of our Lives"	Motion Picture	Brooklyn Bridge Walkway
MARCH		
Chrysler Commercial	Television	Brooklyn Bridge Roadway
"Perfect Match"	Television	Brooklyn Bridge Walkway
"Sex and the City"	Television	Brooklyn Bridge Walkway
"Third Watch"	Television	Manhattan Bridge Queensboro Bridge Roadway
APRIL		
"Spiderman II"	Motion Picture	Brooklyn Bridge Walkway
License! Magazine	Still Photography	Brooklyn Bridge Walkway
British Bridal Magazine	Still Photography	Brooklyn Bridge Walkway
United Hospital Fund Annual Report	Still Photography	Brooklyn Bridge Walkway
"Raising Helen"	Motion Picture	Queensboro Bridge Roadway
MAY		
"Stay"	Motion Picture	Brooklyn Bridge Towers
People Magazine	Still Photography	Brooklyn Bridge Walkway
Verizon Commercial	Television	Brooklyn Bridge Roadway
"Light and the Sufferer"	Video	Brooklyn Bridge Walkway Manhattan Bridge Walkway
Mia Magazine	Still Photography	Brooklyn Bridge Walkway
"Violet is Not Dead"	Short Film	Manhattan Bridge Walkway
"Up From Zero"	Documentary	Manhattan Bridge
JUNE		
"The Restaurant"	Television	Brooklyn Bridge Walkway Queensboro Bridge
"Wrath"	Motion Picture	Brooklyn Bridge Walkway Brooklyn Bridge Roadway
"elimiDATE"	Television	Brooklyn Bridge
OUT Magazine	Still Photography	Brooklyn Bridge Walkway
"Lion King" Commercial	Television	Brooklyn Bridge
"Bommalata"	Motion Picture	Brooklyn Bridge Walkway
"Texas Justice"	Television	Brooklyn Bridge Walkway
Travel & Leisure Golf Magazine	Still Photography	Brooklyn Bridge Walkway
Bloomingdale's Catalogue	Still Photography	Brooklyn Bridge Walkway
"Do You Speak American?"	Documentary	Queensboro Bridge Roadway
JULY		
"Building the Indestructible"	Documentary	Brooklyn Bridge Walkway Manhattan Bridge Walkway
"Bargain Hunt"	Television	Brooklyn Bridge Walkway
"Asmali Konak"	Motion Picture	Under Manhattan Bridge
United States Army Commercial	Television	Queensboro Bridge Roadway
AUGUST		
Discovery Channel Documentary on Brooklyn	Documentary	Brooklyn Bridge
Honda Commercial	Television	Brooklyn Bridge Walkway Brooklyn Bridge Roadway
"Witness 9.11"	Short Film	Brooklyn Bridge Walkway

"Third Watch"	Television	Under Manhattan Bridge Roosevelt Island Bridge
SEPTEMBER		
"Stay"	Motion Picture	Brooklyn Bridge Walkway
"Rock Dove Trilogy"	Short Film	Brooklyn Bridge Walkway
"Blind Date"	Television	Brooklyn Bridge Walkway
"Taxi NYC"	Motion Picture	Brooklyn Bridge Walkway
"The Jaime Kennedy Experiment"	Television	East River Bridge Walkways
"Satellite"	Motion Picture	Manhattan Bridge Walkway
Delta Airlines Commercial	Television	Queensboro Bridge Roadway
OCTOBER		
"Stay"	Motion Picture	Brooklyn Bridge Roadway Manhattan Bridge Walkway Roosevelt Island Bridge
IBM Commercial	Television	Brooklyn Bridge Walkway
"Taxi NYC"	Motion Picture	Brooklyn Bridge Walkway Queensboro Bridge Walkway
"N.Y. Minute"	Motion Picture	Brooklyn Bridge Ramp
"Jeopardy"	Television	Brooklyn Bridge Walkway
Rancid	Motion Picture	Brooklyn Bridge Roadway
"Movin' Out" Commercial	Television	Manhattan Bridge Roadway
"Oracles"	Short Film	Third Avenue Bridge
"Tyler's Ultimate"	Television	Brooklyn Bridge Walkway
"The Trevor Lowdown"	Television	Brooklyn Bridge Walkway
Maybelline Commercial	Television	Queensboro Bridge Roadway
NOVEMBER		
"The Forgotten"	Motion Picture	Brooklyn Bridge Manhattan Bridge
"Stay"	Motion Picture	Brooklyn Bridge Roadway
"Hope for World Peace"	Video	Brooklyn Bridge Walkway
"Queer Eye for the Straight Guy"	Television	Brooklyn Bridge Walkway
"Sacred Ground"	Documentary	Williamsburg Bridge Walkway
DECEMBER		
"Alfie"	Motion Picture	Brooklyn Bridge Manhattan Bridge
"Stay"	Motion Picture	Williamsburg Bridge Walkway
Nextel Commercial	Television	Brooklyn Bridge Walkway
Toyota Commercial	Television	Brooklyn Bridge
"Martini's Shot"	Short Film	Queensboro Bridge Roadway
"Brooklyn Bound"	Motion Picture	Brooklyn Bridge Roadway

Abdel-Sayed, George, Bakht, Baidar, and Jaegar, Leslie G. (editors). *Soil-Steel Bridges: Design and Construction*. McGraw-Hill Professional, 1994.

Annan, Jason, and Gabriel, Pamela. *Great Cooper River Bridge*. University of South Carolina Press, 2002.

Azizinamini, Atorod, Yakel, Aaron, Abdelrahman, Magdy, (editors), and United Engineering Foundation. *High Performance Materials in Bridges: Proceedings of the International Conference*. American Society of Civil Engineers, August 2003.

Bascove (Editor), and Gordon, Mary (Introduction). *Stone and Steel : Paintings & Writings Celebrating the Bridges of New York City*. David R. Godine, 1998.

Beard, Jeffrey L., Wundram, Edward C., and Loulakis, Michael C. *Design-Build: Planning Through Development*. McGraw-Hill Professional, 2001.

Bennett, David. *The Architecture of Bridge Design*. American Society of Civil Engineers, 1997.

Bennett, David. *Creation of Bridges*: *From Vision to Reality - the Ultimate Challenge of Architecture, Design, and Distance*. Book Sales Incorporated, 1999.

Berlow, Lawrence H. *The Reference Guide to the World's Famous Landmarks: Bridges, Tunnels, Dams, Roads and Other Structures*. Oryx Press, 1997.

Beskos, D. E., and Anagnostopoulos, S. A. (editors). *Computer Analysis and Design of Earthquake Resistant Structures: A Handbook (Advances in Earthquake Engineering, Volume 3)*. Computational Mechanics, December 1997.

Bettigole, Neal H., and Robison, Rita. *Bridge Decks: Design, Construction, Rehabilitation, Replacement*. American Society of Civil Engineers,1997.

Billington, David P. *Robert Maillart and the Art of Reinforced Concrete*. MIT Press, 1991.

Billington, David P. *Robert Maillart: Builder, Designer, and Artist*. Cambridge University Press, 1997.

Billington, David P. *The Tower and the Bridge: The New Art of Structural Engineering*. Princeton University Press, 1985.

Blakstad, Lucy (editor). *Bridge: The Architecture of Connection*. Birkhauser Verlag, 2002.

Brown, David J. *Bridges*. Hungry Minds, Inc., 1993.

Brown, David J. *Bridges: Three Thousand Years of Defying Nature*. Motorbooks International, October 2001.

Canel, Annie, Oldenziel, Ruth, and Zachman, Karin, (editors). *Crossing Boundaries, Building Bridges : Comparing the History of Women Engineers, 1870s-1990s*. Gordon & Breach Publishing Group, 2000.

Canter, Larry W. *Environmental Impact Assessment*. McGraw-Hill Science/Engineering/Math, 2nd edition, 1995.

Chatterjee, Suhken. *Design of Modern Steel Bridges*. Blackwell Science Inc., 2nd edition, 2003.

Chen, Wai-Fah, and Duan, Lian, (editors). *Bridge Engineering Handbook*. CRC Press, 1999.

Cheung, M. S., Li, W., and Chidiac, S. E. *Finite Strip Analysis of Bridges*. E & F N Spon, 1996.

Committee on History and Heritage of American Civil Engineering. *American Wooden Bridges*. American Society of Civil Engineers, 1976.

Cook, Martin. *Medieval Bridges*. Shire Publications, 1999.

Cortright, Robert S. (photographer) *Bridging: Discovering the Beauty of Bridges*. Bridge Ink, 1998.

Cossons, Neil, and Trinder, Barrie. *Iron Bridge: Symbol of the Industrial Revolution*. Phillimore & Company, Limited, 2002.

Creazza, G., and Mele, M. (editors). *Advanced Problems in Bridge Construction*. Springer-Verlag New York, Incorporated, 1991.

Dale, Frank T. *Bridges over the Delaware River: A History of Crossings*. Rutgers University Press, 2003.

Day, Robert W. *Geotechnical Earthquake Engineering Handbook*. McGraw-Hill, 2001.

Delony, Eric. *Landmark American Bridges*. American Society of Civil Engineers, 1993.

Derucher, Kenneth N., Minor, John, and White, Kenneth R. (editor). *Bridge Maintenance Inspection and Evaluation*. Marcel Dekker, 2nd edition, 1992.

Dillon, Richard, Moulin, Thomas, and Denevi, Don (editors). *High Steel: Building the Bridges Across San Francisco Bay*. Celestial Arts, reissue edition, 1998.

Dogancay, Burhan (photographer). *Bridge of Dreams: The Rebirth of the Brooklyn Bridge*. Hudson Hills Press, 1999.

Dupre, Judith, and Gehry, Frank O. (introduction). *Bridges: A History of the World's Most Famous and Important Spans*. Black Dog & Leventhal, 1997.

Eggert, Helmut, and Kauschke, Wolfgang. *Structural Bearings*. John Wiley & Sons, 2003.

Evans, Benjamin D., and Evans, June R. *Pennsylvania's Covered Bridges: A Complete Guide*. University of Pittsburgh Press, revised and updated edition, 2001.

Fowler, John, Baker, Benjamin, Boyd Whyte, Iain (illustrator), MacDonald, Angus J., and Baxter, Colin (photographer). *John Fowler, Benjamin Baker: Forth Bridge.* Edition Axel Menges, 1998.

Frampton, Kenneth (editor), Webster, Anthony C., Tischhauser, Anthony, and Calatrava, Santiago. *Calatrava Bridges*. Birkhauser (Architectural), 2nd edition, 1996.

Frangopol, Dan M. *Bridge Safety and Reliability*. American Society of Civil Engineers, 1999.

Fuller, Robert G., Lang, Charles R., and Lang, Roberta H., eds. *Twin Views of the Tacoma Narrows Bridge Collapse*. American Association of Physics Teachers, 2000.

Gere, James M. *Mechanics of Materials*. Brooks/Cole Publishing, 5th edition, 2000.

Ghosh, Uptal K. *Repair & Rehabilitation of Steel Bridges*. Balkema Publishers, 2000.

Gimsing, Niels J. *Cable Supported Bridges : Concept and Design*. John Wiley & Sons, 2nd edition, 1997.

Gohler, Bernhard, and Pearson, Brian. *Incrementally Launched Bridges: Design and Construction*. John Wiley & Sons, 2000.

Gottemoeller, Frederick. *Bridgescape: The Art of Designing Bridges*. John Wiley & Sons, 1998.

Graf, Bernhard. *Bridges That Changed the World*. Prestel USA, 2002.

Grigg, Neil S., Criswell, Marvin E, Fontane, Darrell G., and Siller, Thom. *Civil Engineering Practice in the Twenty-First Century : Knowledge and Skills for Design and Management*. American Society of Civil Engineers, 2001.

Hadlow, Robert W. *Elegant Arches, Soaring Spans: C. B. McCullough, Oregon's Master Bridge Builder*. Oregon State University Press, 2001.

Hambly, Edmund C. *Bridge Deck Behaviour*. E & F N Spon, 2nd edition, 1990.

Hamill, Les. *Bridge Hydraulics*. E & F N Spon, 1998.

Harding, J. E., Parke, G. E. R., and Ryall, M. J. (editors). *Bridge Management: Third International Conference on Bridge Management, 1996*. E & F N Spon, 1996.

Harding, J. E., Parke, G. E. R., and Ryall, M. J. (editors). *Bridge Management: Inspection, Maintenance, Assessment, and Repair (First International Conference on Bridge Management, 1990).* Elsevier Applied Science, 1990.

Hare, Clive H. *Painting of Steel Bridges And Other Structures*. Van Nostrand Reinhold, 1990.

Hopkins, H. J. *A Span of Bridges: An Illustrated History.* Praeger Publishers, 1970.

Horton, Tom, and Wolman, Baron (photographer). *Superspan: The Golden Gate Bridge*. Squarebooks, revised edition, 1998.

Huxtable, Ada Louise. *The Architecture of New York.* Doubleday, 1964.

Hyde, Charles K. *Historic Highway Bridges of Michigan*. Wayne State University Press, 1993.

Ito, Manabu, Fujino, Yozo, Miyata, Toshio, and Narita, Nobuyuki (editor). *Cable-Stayed Bridges*. Elsevier Science Ltd., 1991.

Jackson, Donald C., and McCullough, David G. (foreword). *Great American Bridges and Dams*. John Wiley & Sons, 1996.

Jackson, Robert W. *Rails Across the Mississippi: A History of the St. Louis Bridge*. University of Illinois Press, 2001.

Jaffe, Rochelle C. *Masonry Instant Answers (Instant Answer Series).* McGraw-Hill Professional, 2003.

Johnson, Stephen, and Leon, Roberto T. *Encyclopedia of Bridges and Tunnels*. Facts on File, 2002.

Kappos, Andreas J. (editor). *Dynamic Loading and Design of Structures*. E & F N Spon, 2001.

Kidney, Walter C., and Hare, Clyde (photographer). *Pittsburgh's Bridges: Architecture and Engineering*. Landmark Store, 1999.

Klein, Lawrence A. *Sensor Technologies and Data Requirements for ITS Applications*. Artech House, 2001.

Koglin, Terry. *Movable Bridge Engineering*. John Wiley & Sons, 2003.

Kranakis, Eda. *Constructing a Bridge: An Exploration of Engineering Culture, Design, and Research in Nineteenth-Century France and America*. MIT Press, 1997.

Kratkey, Richard J. (Editor). Assessment of Performance of Vital Long-Span Bridges in the United States. American Society of Civil Engineers, 2003.

Larsen, A., and Esdahl, S. (editors). *Bridge Aerodynamics: Proceedings of the International Symposium on Advances in Bridge Aerodynamics, Copenhagen Denmark, 10-13 May 1998*. Balkema Publishers, May 1998.

Latimer, Margaret Webb, Hindle, Brooke, and Kranzberg, Melvin (editors). *Bridge to the Future: A Centennial Celebration of the Brooklyn Bridge*. (Annals of the New York Academy of Sciences, Volume 424). New York Academy of Sciences, 1984.

Lee, David J. *Bridge Bearings and Expansion Joints*. E & F N Spon, 2nd edition, 1994.

Leonhardt, Fritz. *Bridges: Aesthetics & Design*. Butterworth-Heinemann, 1983.

Mallett, G. P. *Repair of Concrete Bridges (State-Of-The-Art Review)*. American Society of Civil Engineers, 1994.

Mao, Yi-sheng. *Bridges in China, Old and New: From the Ancient Chaochow Bridge to the Modern Nanking Bridge over the Yangtze*. Foreign Languages Press, 1978.

Mason, Philip P. *Ambassador Bridge: A Monument to Progress*. Wayne State University Press, 1987.

McCullough, David G. *The Great Bridge: The Epic Story of the Building of the Brooklyn Bridge*. Simon & Schuster, reprint, 1983.

McKee, Brian J., and American Society of Civil Engineers. *Historic American Covered Bridges*. Oxford University Press, April 1997.

McLeish, Andrew. *Underwater Concreting and Repair*. John Wiley & Sons, 1994.

Measures, Raymond M. *Structural Monitoring With Fiber Optic Technology*. Academic Press, 2001.

Melaragno, Michele G. *Preliminary Design of Bridges for Architects and Engineers*. Marcel Dekker, 1998.

Middleton, William D. *The Bridge at Québec*. Indiana University Press, 2001.

Middleton, William D. *Landmarks on the Iron Road: Two Centuries of North American Railroad Engineering*. Indiana University Press, 1999.

Miller, William J., and Demerast (editor). *Crossing the Delaware: The Story of the Delaware Memorial Bridge, the Longest Twin Suspension Bridge in the World*. Koen Book Distributors, 2nd edition, 1997.

Miyata, T., Fijisawa, N., and Yamada, H. (editors). *Long-Span Bridges and Aerodynamics: International Seminar on Long-Span Bridge Aerodynamics Perspective 8, Kobe, Japan, March 1-3, 1998*. Springer Verlag, December 1999.

Mock, Elizabeth B. *The Architecture of Bridges*. Museum of Modern Art, 1949.

Nardon, J. David. *Bridge and Structure Estimating*. McGraw-Hill Professional, 1995.

Nelson, Joseph C. *Spanning Time: Vermont's Covered Bridges*. New England Press, 1997.

Nevins, Deborah, McCullough, David, Millstein, Barbara H., Fein, A., and Kachur, Lewis. *Great East River Bridge, 1883-1983: Celebrating The 100th Anniversary of the Brooklyn Bridge*. Brooklyn Museum (exhibition catalogue), 1983.

Nicholson, John. *Building the Sydney Harbour Bridge*. Allen & Unwin Pty., Limited, 2000.

Nowak, Andrzei S. (editor). *Bridge Evaluation, Repair and Rehabilitation*. Kluwer Academic Publishers, 1990.

O'Brien, Eugene J., and Keogh, Damien L. *Bridge Deck Analysis*. E & F N Spon, 1999.

O'Connor, Colin O., and Shaw, Peter A. *Bridge Loads*. Routledge, 2000.

O'Connor, Colin O. *Spanning Two Centuries: Historic Bridges of Australia*. University of Queensland Press, 1985.

Ostrow, Steven A., and Burgess, Tony (editor) *Bridges*. Michael Friedman Publishing Group Incorporated, 1997.

Outerbridge, Graeme (photographer), and Outerbridge, David. *Bridges*. Harry N Abrams, 1989.

Parmley, Robert O. *Civil Engineer's Illustrated Sourcebook*. McGraw-Hill Professional, 2003.

Parsons Brinckerhoff, Silano, Louis G. (editor), and Deen, Tomas B. (foreword). *Bridge Inspection and Rehabilitation: A Practical Guide*. Wiley-Interscience, 1992.

Pearce, Martin, and Jobson, R. *Bridge Builders*. John Wiley & Sons, 2002.

Pennells, E. *Concrete Bridge Designer's Manual*. E & F N Spon, 2nd 1998.

Petroski, Henry, and Kastenmeier, Edward (editor). *Engineers of Dreams: Great Bridge Builders and the Spanning of America*. Vintage Books, reprint, 1996.

Plowden, David. *Bridges: The Spans of North America*. W.W. Norton & Company, reissue edition, 1984.

Pollalis, Spiro N., and Diaz-Hermidas, Alberto (illustrator). *What Is a Bridge? : The Making of Calatrava's Bridge in Seville*. MIT Press; reprint, 2002.

Priestly, M. J. N., Calvi, Glan Michele, and Seible, F. *Seismic Design and Retrofit of Bridges*. Wiley-Interscience, 1996.

Pritchard, Brian. *Bridge Design for Economy and Durability: Concepts for New, Strengthened and Replacement Bridges*. American Society of Civil Engineers, 1992.

Pritchard, Brian (editor), and Institution of Civil Engineers. *Bridge Modification 2: Stronger & Safer Bridges*. American Society of Civil Engineers, 2nd edition, 1997.

Puckett, Jay A. (contributor), and Barker, Richard M. *Design of Highway Bridges: Based on AASHTO LRFD, Bridge Design Specifications*. John Wiley & Sons, 1997.

Raina, V. K. *Concrete Bridges: Inspection, Repair, Strengthening, Testing and Load Capacity Evaluation*. McGraw-Hill Professional, 1996.

Rastorfer, Darl. *Six Bridges: The Legacy of Othmar H. Ammann*. Yale University Press, 2000.

Ratay, Robert T. (editor). *Forensic Structural Engineering Handbook*. McGraw-Hill Professional, 2000.

Reed, Henry. *Bridges of Central Park*. Greensward Foundation, 1990.

Reier, Sharon. *The Bridges of New York.* Dover Publications, Incorporated, 2000.

Richardson, Mark. *Fundamentals of Durable Reinforced Concrete*. E & F N Spon, 2002.

Rosignoli, Marco. *Launched Bridges: Prestressed Concrete Bridges Built on the Ground and Launched into Their Final Position*. American Society of Civil Engineers, June 1998.

Ruddock, Ted (editor). *Masonry Bridges, Viaducts and Aquaducts*. Ashgate Publishing Company, 2000.

Russell, Jeffrey S. (editor). *Perspectives in Civil Engineering: Commemorating the 150th Anniversary of the American Society of Civil Engineers*. American Society of Civil Engineers, 2003.

Ryall, M. J. *Bridge Management*. Butterworth-Heinemann, 2001.

Saunders, F. Wenderoth. Building Brooklyn Bridge. Little Brown, 1965.

Schodek, Daniel L. *Landmarks in American Civil Engineering*. MIT Press, 1987.

Scott, Quinta (photographer), and Miller, Howard S. *Eads Bridge*. Missouri Historical Society Press, 1999.

Scott, R. *In the Wake of Tacoma : Suspension Bridges and the Quest for Aerodynamic Stability*. American Society of Civil Engineers, 2001.

Seward, Derek. *Understanding Structures: Analysis, Materials, Design*. MacMillan Publishing Limited, 1998.

Shank, William H. *Historic Bridges of Pennsylvania*. American Canal & Transportation Center, 1990.

Shapiro, Mary J. *A Picture History of the Brooklyn Bridge*. Dover Publications, Incorporated, 1983.

Sinopoli, A. (editor). *Arch Bridges: History, Analysis, Assessment, Maintenance and Repair*. A A Balkema, 1998.

Smith, Dwight A., Norman, James, and Dykman, Pieter T. *Historic Highway Bridges of Oregon.* Oregon Historical Society, 2nd edition, 2000.

Somayaji, Shan. *Civil Engineering Materials*. Prentice Hall College Division, 2nd edition, 2001.

Stahl, Frank L., and Gagnon, Christopher P. *Cable Corrosion in Bridges and Other Structures: Causes and Solutions*. American Society of Civil Engineers, 1996.

Steinman, David B. *The Builders of the Bridge: The Story of John Roebling and His Son.* Harcourt Brace, 1945.

Sutherland, Cara. *Bridges of New York City (Portraits of America).* Friedman/Fairfax Publishing, 2002.

Sweetman, John. *The Artist and the Bridge: 1700-1920*. Ashgate Publishing, Limited, 2000.

Talese, Gay, Davidson, Bruce (photographer), and Rethi, Lili (illustrator). *The Bridge: The Building of the Verrazano-Narrows Bridge*. Walker & Company, 2002.

Taly, Narendra, and Taly, Marendra. *Design of Modern Highway Bridges*. McGraw-Hill Higher Education, 1997.

Thienel, Phillip M. *Mr. Lincoln's Bridge Builders: The Right Hand of American Genius*. White Mane Publishing Company, Incorporated, 2000.

Tilly, Graham, Gifford, and Partners. *Bridge Conservation: A Guide to Good Practice*. Taylor & Francis, 2002.

Tonias, Demetrios E. *Bridge Engineering: Design, Rehabilitation, and Maintenance of Modern Highway Bridges*. McGraw Hill Text, 1994.

Trachtenberg, Alan. *Brooklyn Bridge : Fact and Symbol*. University of Chicago Press, 1979.

Troitsky, M. S. *Orthotropic Bridges Theory and Design*. James F. Lincoln Arc Welding Foundation, 1967.

Troitsky, M. S. *Planning and Design of Bridges*. John Wiley & Sons, 1994.

Troitsky, M. S. *Prestressed Steel Bridges: Theory and Design*. Van Nostrand Reinhold, 1990.

Van Der Zee, John. *The Gate: The True Story of the Design and Construction of the Golden Gate Bridge*. Simon & Schuster, 1987.

Watson, Bruce, Brigham, Trevor, and Dyson, Tony. *London Bridge: 2000 Years of a River Crossing.* Museum of London Archaeology Service, 2002.

Wells, Matthew, and Pearman, Hugh (introduction). *30 Bridges*. Watson-Guptill Publications, 2002.

White, Kenneth R., Minor, John, and Derucher, Kenneth N. *Bridge Maintenance Inspection and Evaluation*. Marcel Dekker, 2nd edition, 1992.

White, Norval, and Willensky, Elliot, (editors). *A/A Guide to New York City, Third Edition.* Harcourt Brace Jovanovich, 1988.

Whitney, Charles S. *Bridges of the World: Their Design and Construction*. Dover Publications, 2003.

Williams, Allan. *Seismic Design of Buildings and Bridges, 2002-2003: For Civil and Structural Engineers*. Engineering Press, 2002.

Winpenny, Thomas R. *Without Fitting, Filing, or Chipping: An Illustrated History of the Phoenix Bridge Company*. Canal History & Technology Press, 1996.

Wisely, William H., Fairweather, Virginia, and Caballeros, Harold A. *The American Civil Engineer 1852-2002: The History, Traditions, and Development of the American Society of Civil Engineers*. American Society of Civil Engineers, 2002.

Wood, Miriam. *Covered Bridges of Ohio: An Atlas and History*. Thunder Bay Press, 1994.

Xanthakos, Petros P. *Bridge Strengthening and Rehabilitation*. Prentice Hall, 1995.

Xanthakos, Petros P. *Bridge Substructure and Foundation Design*. Prentice Hall, 1998.

Xanthakos, Petros P. *Theory and Design of Bridges*. Wiley-Interscience, 1993.

New York City Bridge Conference: A Special Issue of the Journal of Bridge Engineering: Proceedings of the 1st New York City Bridge Conference. American Society of Civil Engineers, 2001.

For Children

Adkins, Jan (illustrator). *Bridges: From My Side to Yours*. Roaring Brook, 2002.

Arnold, Caroline. *Golden Gate Bridge*. Watts Franklin, 1986.

Barter, James. *The Golden Gate Bridge*. Gale Group, 2001.

Baxter, Nicola. *Bridges*. Scholastic Library Publishing, 2000.

Browne, Lionel. *Bridges :Masterpieces of Architecture*. Walter/McBean Gallery, San Francisco Art Institute, 1996.

Carter, Polly, and Doty, Roy (illustrator). *The Bridge Book*. Simon & Schuster, 1992.

Cooper, Jason. *Bridges*. Rourke Enterprises, Incorporated, 1991. (Also available in a Spanish edition.)

Curlee, Lynn. *Brooklyn Bridge*. Simon & Schuster Trade, 2001.

Harris, David W. *Truss Fun*. BaHa Enterprises, 2000.

Hill, Lee Sullivan. *Bridges Connect*. The Lerner Publishing Group, 1996.

Johmann, Carol A., Rieth, Elizabeth J., and Kilne, Michael P. (illustrator). *Bridges: Amazing Structures to Design, Build & Test*. Williamson Publishing, 1999.

Kaner, Etta, and Cupples, Pat (illustrator). *Bridges*. Kids Can Press, 1997.

Kent, Zachary. *The Story of The Brooklyn Bridge*. Childrens Press, 1988.

LaFontaine, Bruce. *Bridges of the World Coloring Book*. Dover Publications, Incorporated, 1995.

Levy, Matthys, and Panchyk, Richard. *Engineering the City.* Chicago Review Press, 2000.

Mann, Elizabeth, and Witschonke, Alan (illustrator). *The Brooklyn Bridge: The Story of the World's Most Famous Bridge and the Remarkable Family That Built It*. Mikaya Press, 1996.

Maze, Stephanie, O'Neill Grace, Catherine (contributor), and Menzel, Peter (illustrator). *I Want to Be... an Engineer*. Harcourt, 1997.

Murray, Elaine, and Devillier, Christy (editor). *Golden Gate Bridge*. ABDO Publishing Company, 2002.

Nardo, Don. *Roman Roads and Aqueducts*. Gale Group, 2000.

Oxlade, Chris. *Bridges*. Raintree Steck-Vaughn Publishers, 1997.

Pascoe, Elaine. *The Brooklyn Bridge*. Blackbirch Press, Incorporated, 1999.

Pelta, Kathy. *Bridging the Golden Gate*. Lerner Publishing Group, 1993.

Robbins, Ken. *Bridges*. Dial Books for Young Readers, 1991.

Rose, Alan. *Build Your Own Brooklyn Bridge: Hours of Fun for the Ambitious Modeler*. The Putnam Publishing Group, 1980.

Royston, Angela, and Shone, Rob (illustrator). *Tell Me about Buildings, Bridges and Tunnels*. Watts Franklin, 1991.

Simon, Seymour, Fauteux, Nicole, and Cushman, Doug (illustrator). *Let's Try It Out with Towers and Bridges: Hands-On Early-Learning Activities*. Atheneum, 2003.

St. George, Judith. *The Brooklyn Bridge: They Said It Couldn't Be Built*. Putnam, 1982.

Steinman, David B., and Wiese, Kurt (illustrator). *Famous Bridges of the World*. Dover Publications, Incorporated, revised edition, 1961.

Stone, Lynn M. *Bridges*. Rourke Publishing, 2002.

Sturges, Philemon, and Laroche, Giles (illustrator). *Bridges Are to Cross*. Putnam Publishing Group Juvenile, 1998.

Vanderwarker, Peter, and Keller, John (editor). *Big Dig: Reshaping an American City*. Little, Brown Children's Books, 2001.

Willard, Keith, and Richardson, Adele. *Bridges*. The Creative Company, 2000.

Wilson, Forrest. *Bridges Go from Here to There*. Wiley, John & Sons, Incorporated, 1993.

CD-ROM and Electronic Book

Hicks, Tyler Gregory. *Civil Engineering Formulas*. McGraw-Hill, Electronic Book - 2001.

Merritt, Frederick S., Loftin, M. Kent, and Ricketts, Jonathan T. (editors). *Merritt's Civil Engineers' Platinum Edition*. (includes print handbook). McGraw-Hill Professional, 1999.

Civil Engineer's Solutions Suite. McGraw-Hill Professional, 1998.

Video, Videodisc, and DVD

Barnes, Michael. *Nova: Secrets of Lost Empires II - China Bridge*. WGBH Boston, 2000.

Burns, Ken. *Ken Burns' America: Brooklyn Bridge.* PBS Home Video, DVD-2003, Video - 1982.

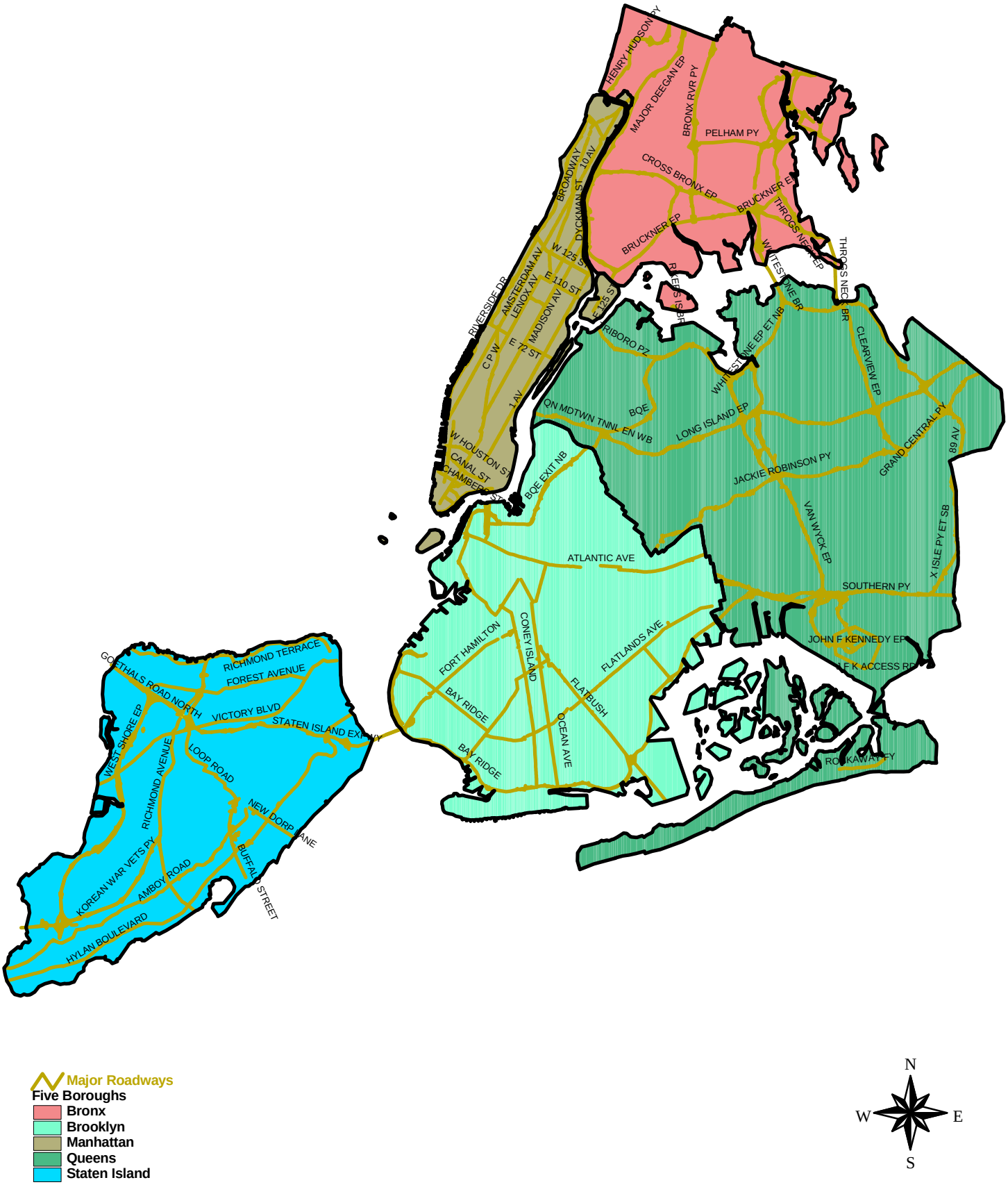
Fuller, Robert G., Zollman, Dean A., and Campbell, Thomas C. *The Puzzle of the Tacoma Narrows Bridge Collapse*. John Wiley & Sons, videodisc - 1982.

Klein, Larry. *Building Big with David Macaulay: Bridges*. WGBH Records, 2000.

Modern Marvels: The Golden Gate Bridge. A & E Entertainment, 1994.

Nova: Super Bridge. WGBH Boston Video, 1997.

Five Boro Map



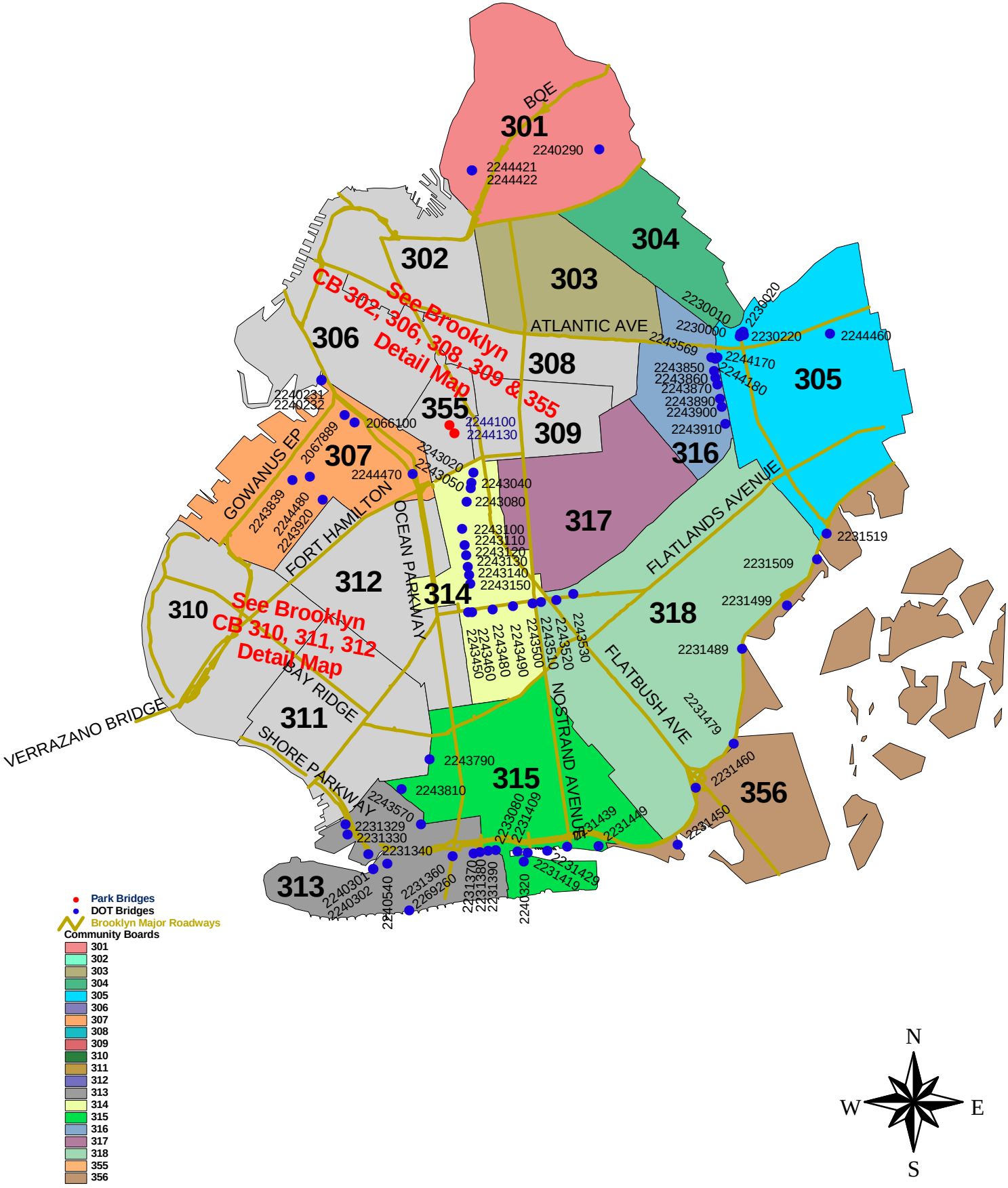
Major Roadways

Five Boroughs

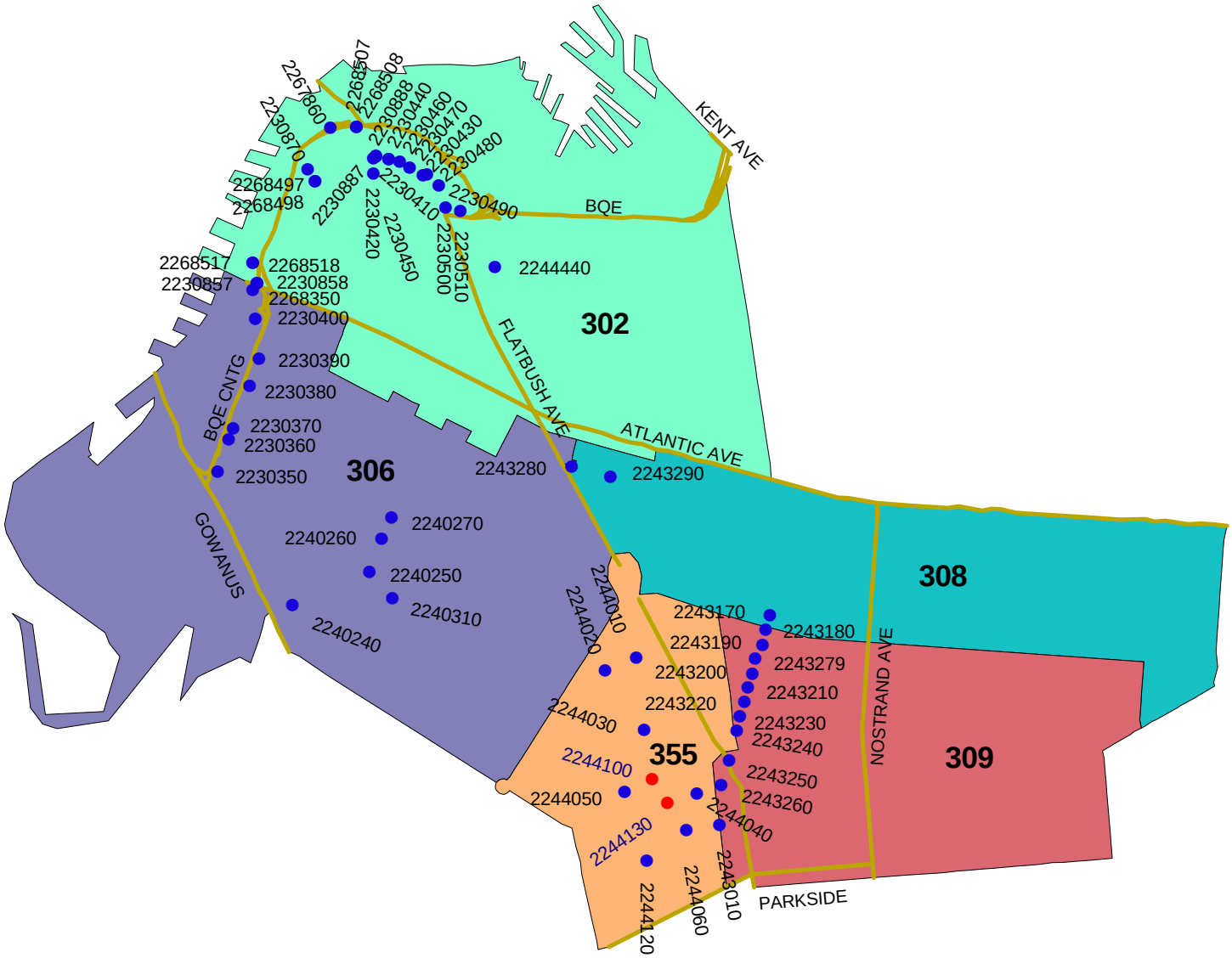
- Bronx
- Brooklyn
- Manhattan
- Queens
- Staten Island

N
W E
S

Brooklyn


BQE
301
2240290
2244421
2244422
304
302
303
CB 302, 306, 308, 309 & 355
See Brooklyn
Detail Map
ATLANTIC AVE
2230010
2230020
2230000
2230220
2244460
2243569
2244170
2244180
2243850
2243860
2243870
2243890
2243900
2243910
305
306
308
2240231
2240232
355
2244100
2244130
309
316
2066100
2067889
307
2244470
2243020
2243050
2243040
2243080
GOWANUS EP
2243839
2244480
2243920
FORT HAMILTON
OCEAN PARKWAY
317
FLATLANDS AVENUE
2231519
2231509
2243100
2243110
2243120
2243130
2243140
2243150
312
314
2231499
318
310
See Brooklyn
CB 310, 311, 312
Detail Map
2243530
2243520
2243510
2243500
2243490
2243480
2243460
2243450
2231489
FLATBUSH AVE
BAY RIDGE
311
2231479
NOSTRAND AVENUE
VERRAZANO BRIDGE
SHORE PARKWAY
2243790
315
356
2231460
2243810
2243570
2231329
2231330
2231340
2233080
2231409
2231439
2231449
2231450
313
2240301
2240302
2240540
2231360
2269260
2231370
2231380
2231390
2240320
2231419
2231429
Park Bridges
DOT Bridges
Brooklyn Major Roadways
Community Boards
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
355
356
N
W
E
S

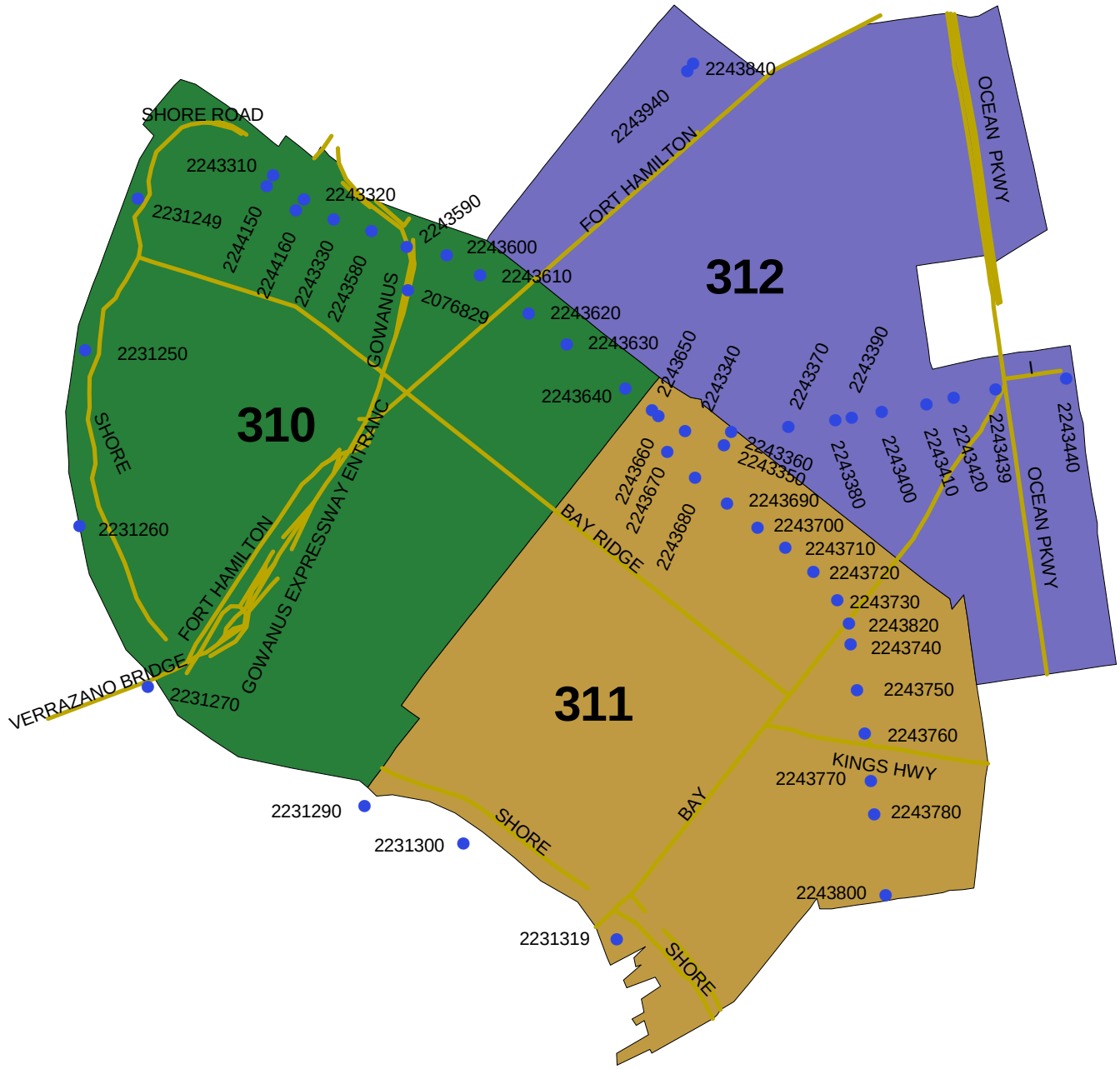
Brooklyn
CB 302, 306, 308, 309 & 355
Detail Map



DOT Bridges
Park Bridges
Brooklyn Major Roadway
Community Boards
302
306
308
309
355

N
W
E
S

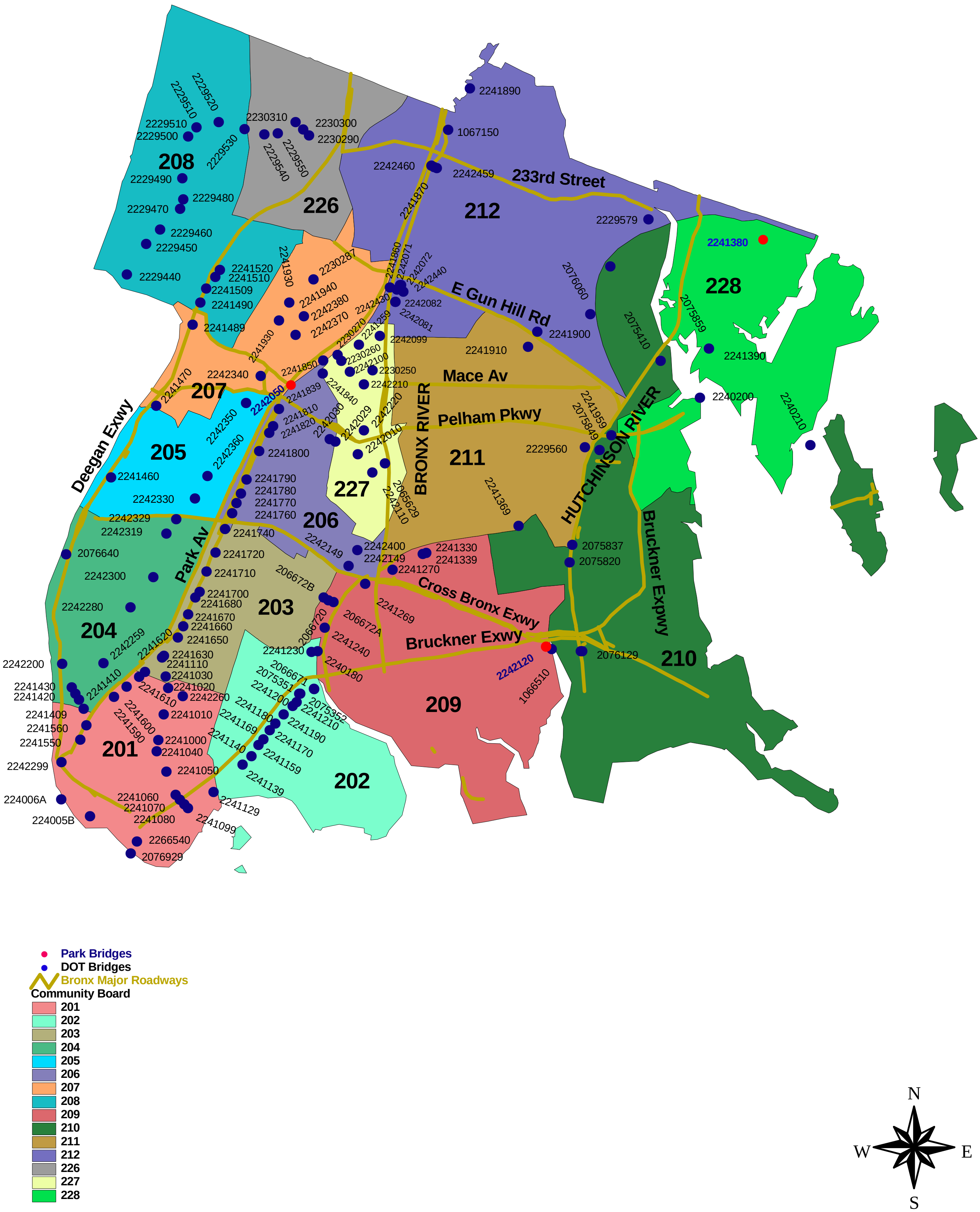
Brooklyn
CB 310, 311, 312 Detail Map



DOT Bridges
Brooklyn 310 311 312 Details Major Streets
Community Boards
310
311
312

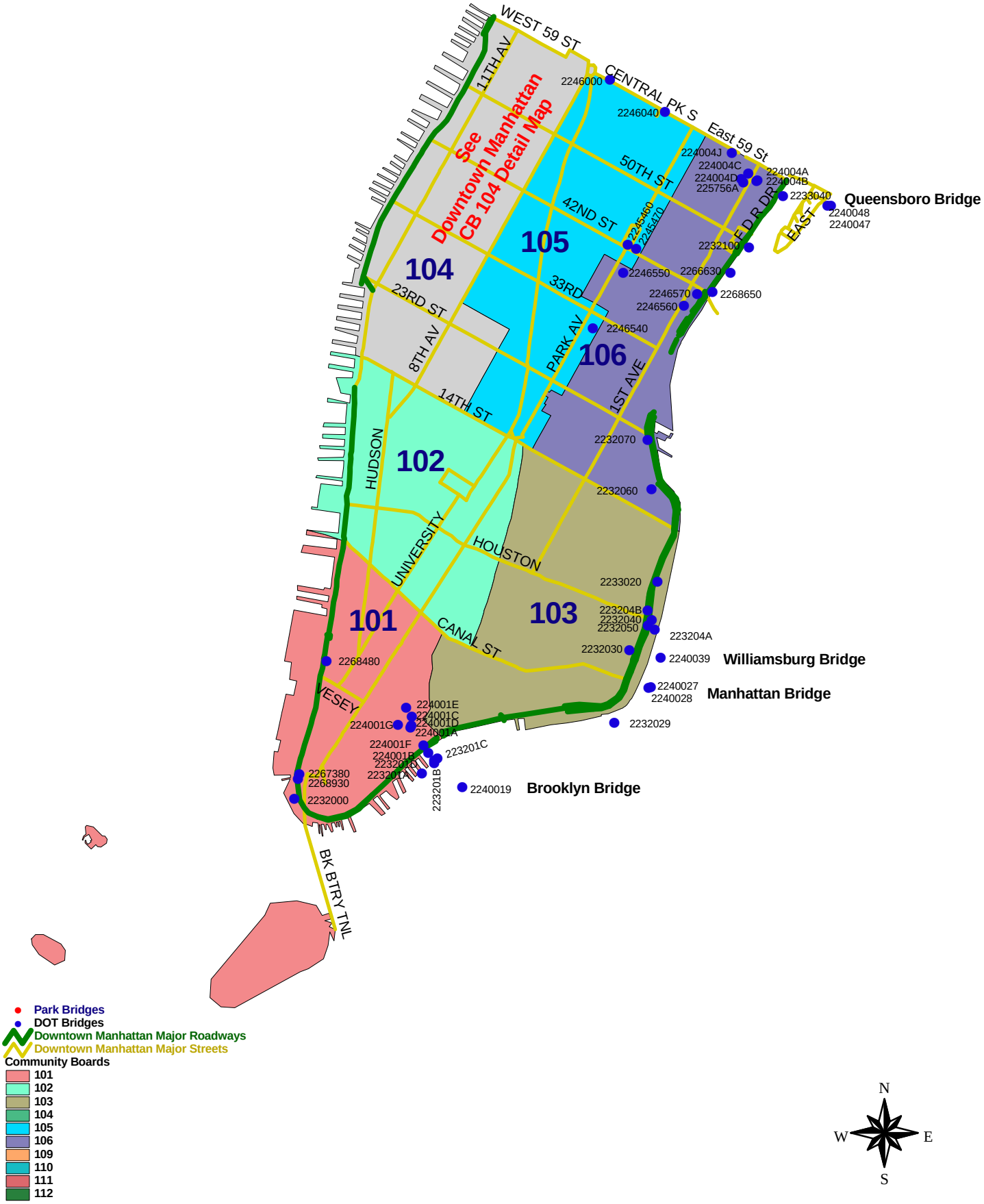
N
W
E
S

Bronx

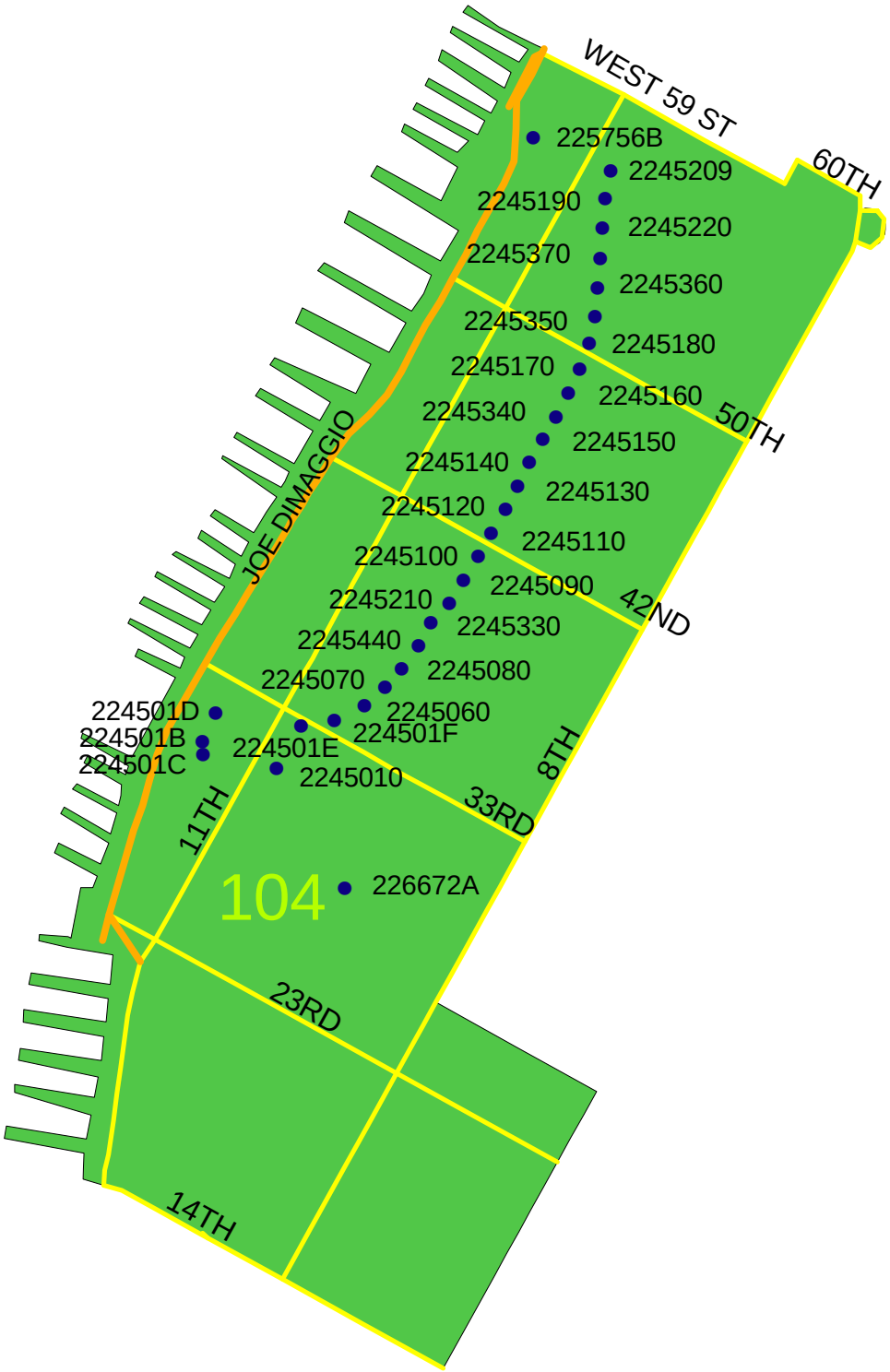


233rd Street
E Gun Hill Rd
Mace Av
Pelham Pkwy
BRONX RIVER
HUTCHINSON RIVER
Bruckner Expwy
Cross Bronx Exwy
Bruckner Exwy
Deegan Exwy
Park Av
201
202
203
204
205
206
207
208
209
210
211
212
226
227
228
2241890
1067150
2242460
2242459
2241870
2229579
2241380
2241390
2240200
2240210
2076060
2075410
2075859
2241900
2241910
2241959
2075849
2229560
2241369
2075837
2075820
2076129
1066510
2242120
2241330
2241339
2241270
2242400
2242149
2241269
206672A
2241240
2240180
2241230
2066720
206672B
2066671
2075351
2075352
2241200
2241210
2241180
2241190
2241169
2241170
2241140
2241159
2241139
2241129
2241099
2266540
2076929
2241060
2241070
2241080
224006A
224005B
2242299
2241050
2241000
2241040
2241010
2241600
2241590
2241610
2242260
2241020
2241030
2241110
2241630
2241620
2241650
2241660
2241670
2241680
2241700
2241710
2241720
2241740
2241760
2241770
2241780
2241790
2241800
2241409
2241560
2241550
2241430
2241420
2241410
2242200
2242259
2242280
2242300
2076640
2242319
2242329
2242330
2241460
2242360
2242350
2241470
2242340
2242050
2241850
2241839
2241840
2241810
2241820
2242030
2242029
2242010
2242220
2242210
2230250
2230260
2242100
2230270
2242099
2241259
2242430
2242081
2242082
2242440
2242072
2242071
2241860
2242370
2242380
2241940
2230287
2241930
2241489
2241490
2241509
2241510
2241520
2229440
2229450
2229460
2229470
2229480
2229490
2229500
2229510
2229530
2229510
2229520
2230310
2229540
2229550
2230300
2230290
2065629
2242110
Park Bridges
DOT Bridges
Bronx Major Roadways
Community Board
N
W
E
S

Downtown Manhattan



Downtown Manhattan
CB 104 Detail



Park Bridges
Major Roadways
Major Streets
Community Board 104

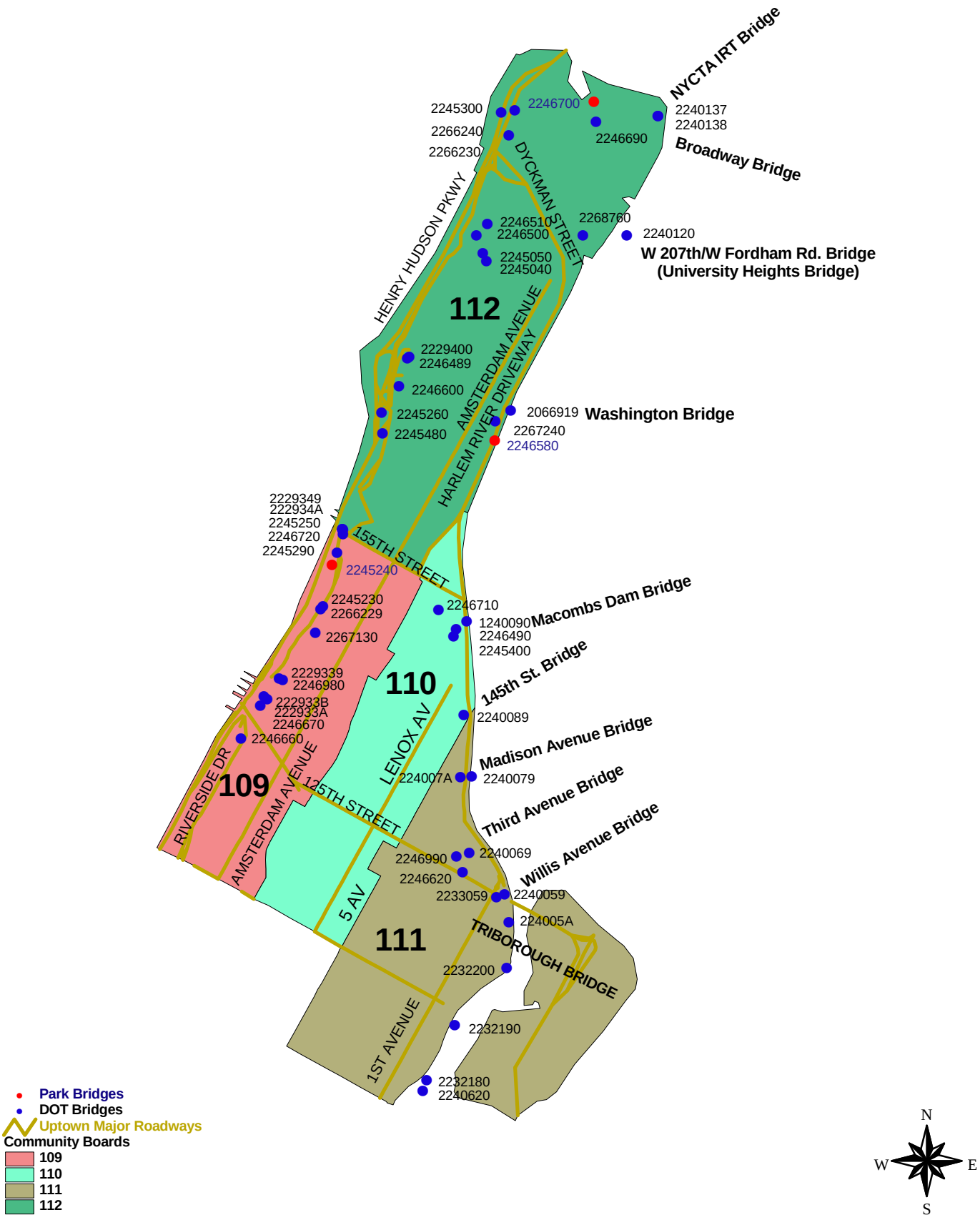
N
W
E
S

Midtown Manhattan

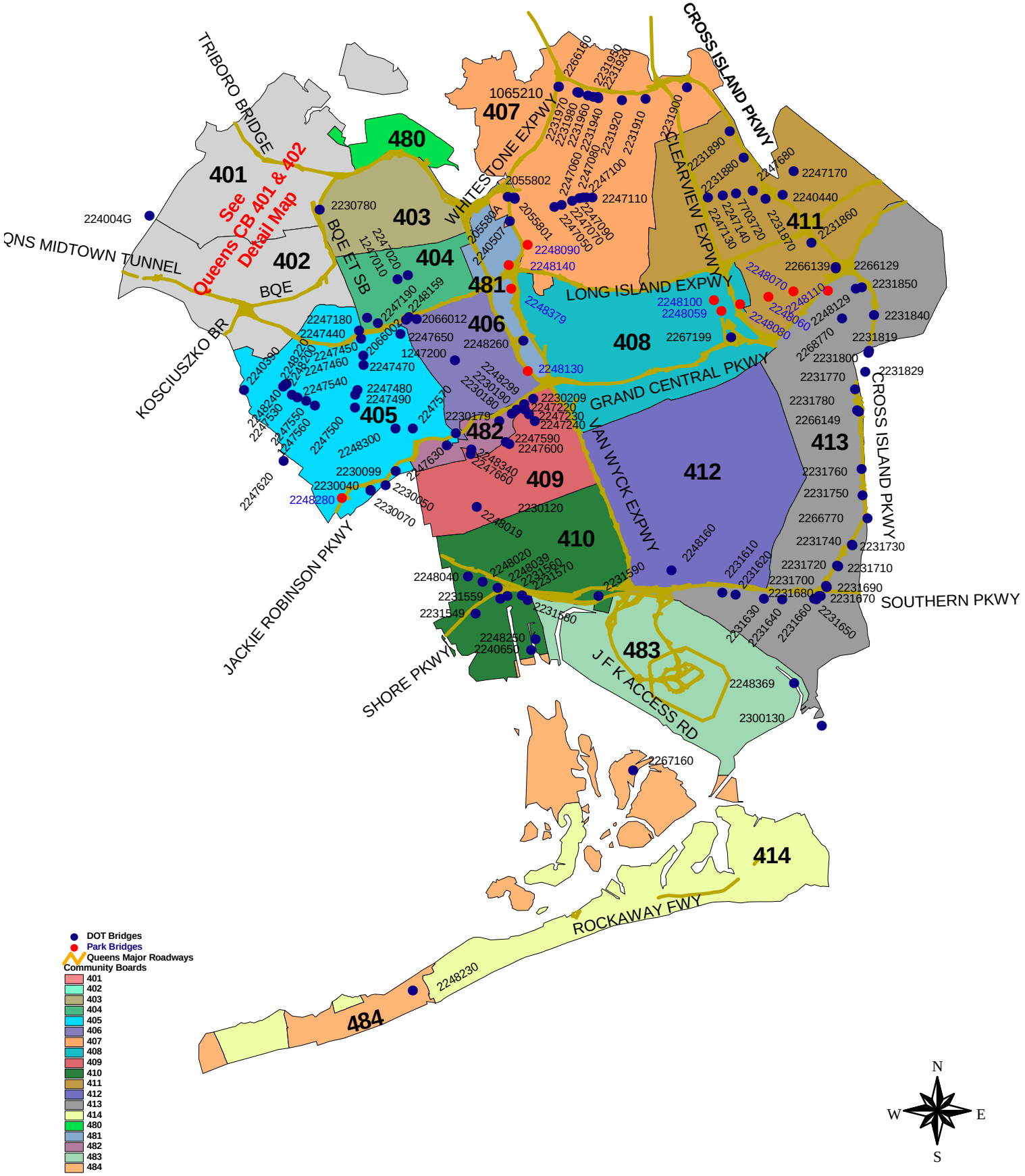
Park Bridges
DOT Bridges
Midtown Manhattan Major Roadways
Midtown Manhattan Major Streets
Community Boards
107
108
164

N
W
E
S

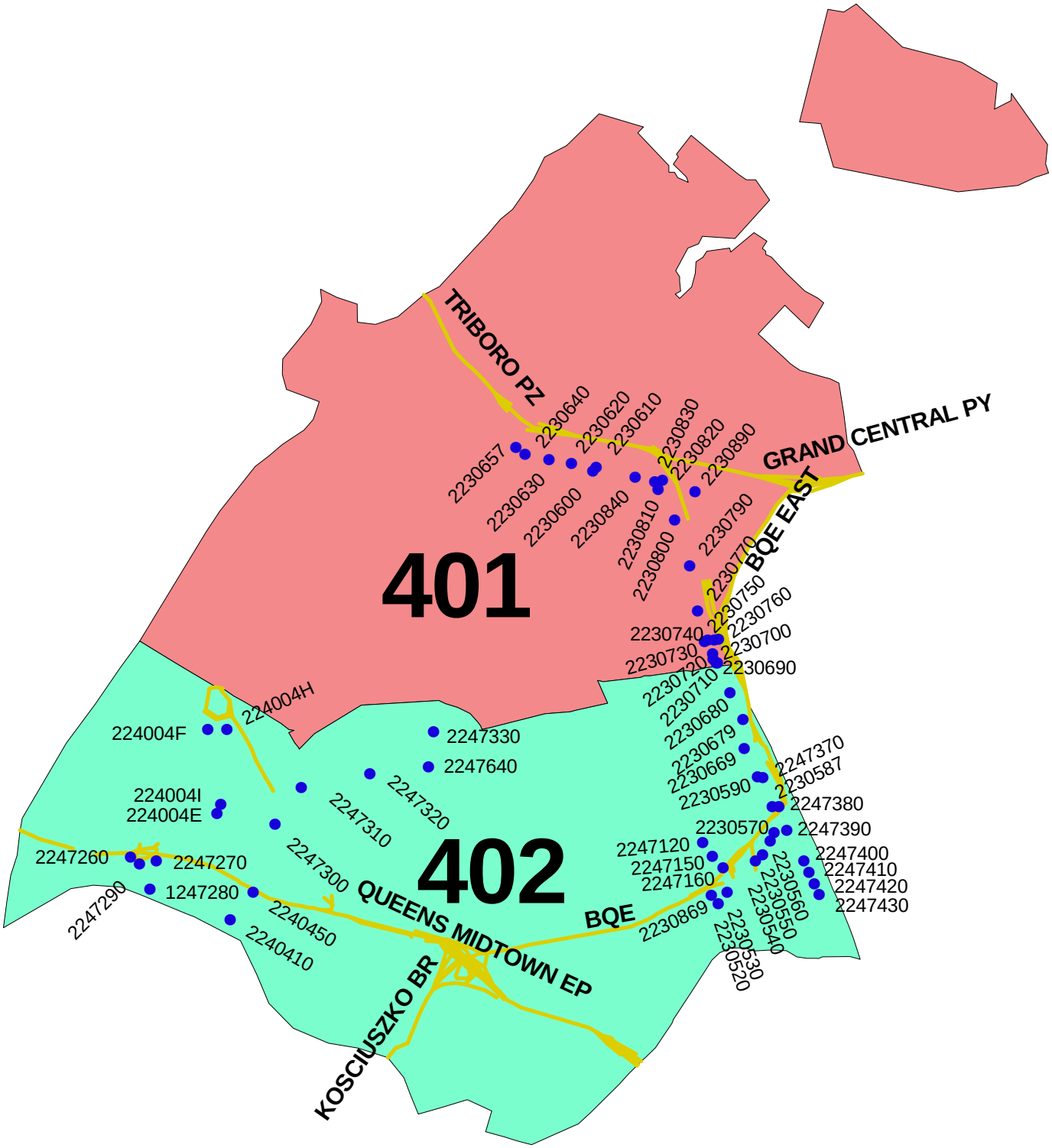
Uptown Manhattan



Queens


TRIBORO BRIDGE
CROSS ISLAND PKWY
WHITESTONE EXPWY
CLEARVIEW EXPWY
LONG ISLAND EXPWY
GRAND CENTRAL PKWY
VAN WYCK EXPWY
CROSS ISLAND PKWY
SOUTHERN PKWY
JACKIE ROBINSON PKWY
SHORE PKWY
J F K ACCESS RD
ROCKAWAY FWY
KOSCIUSZKO BR
BQE
BQE E-T SB
QNS MIDTOWN TUNNEL
See Queens CB 401 & 402 Detail Map
401
402
403
404
405
406
407
408
409
410
411
412
413
414
480
481
482
483
484
DOT Bridges
Park Bridges
Queens Major Roadways
Community Boards
N
W
E
S

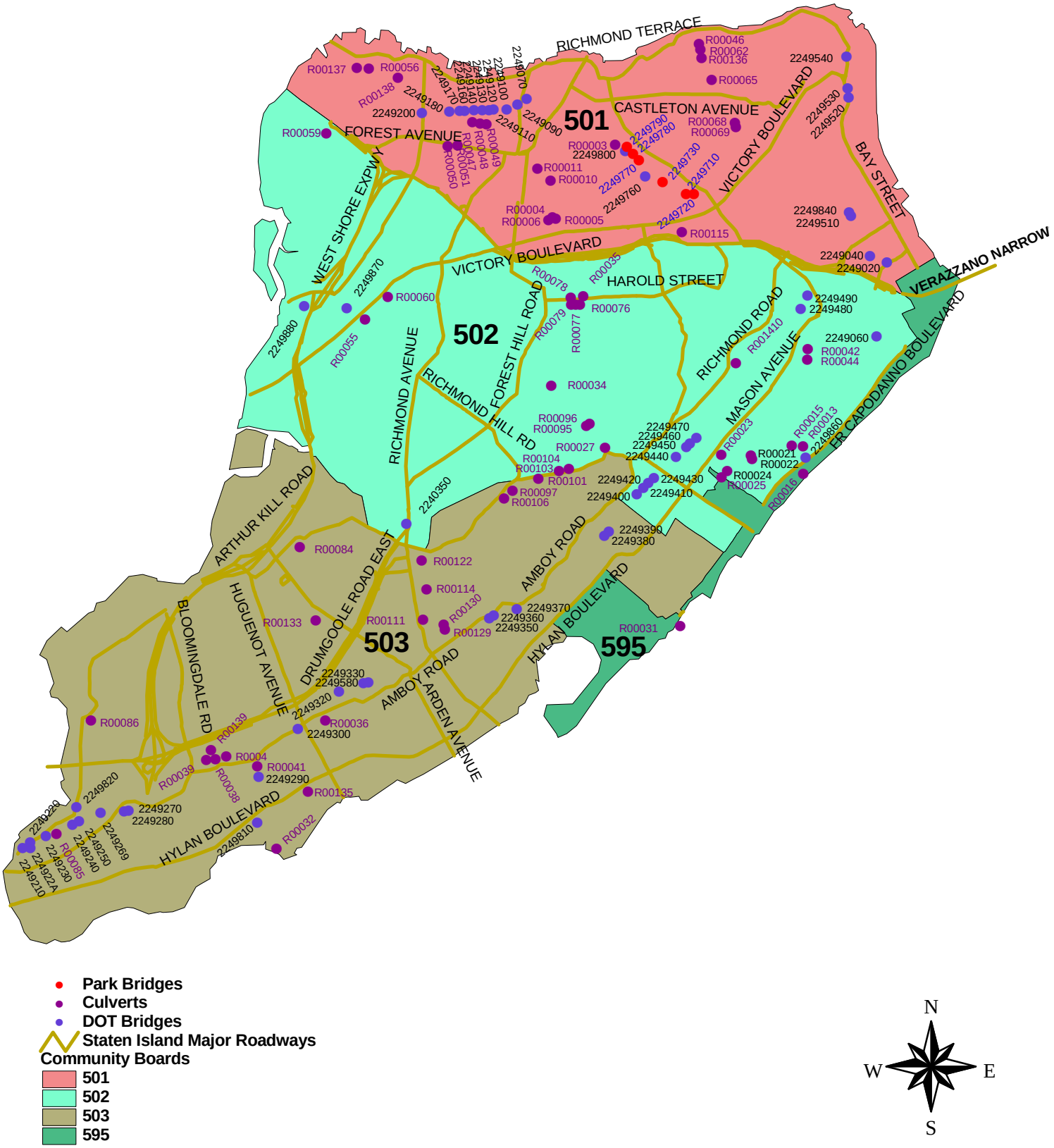
Queens
CB 401 & 402 Detail Map



DOT Bridges
CB 401-402 Major Roadways
Community Boards
401
402

N
W E
S

Staten Island



- Park Bridges
- Culverts
- DOT Bridges
- Staten Island Major Roadways

Community Boards

- 501
- 502
- 503
- 595

N
W E
S