

IV. SOCIAL, ECONOMIC, AND ENVIRONMENTAL CONSIDERATIONS

A. Introduction

The purpose of this chapter is to identify and evaluate the potential social, economic, and environmental consequences of the feasible alternatives presented; to identify potential avoidance, minimization, and/or mitigation measures where necessary and to identify all permits and approvals required for the feasible alternative.

This Design Report was prepared according to the New York State Department of Transportation (NYSDOT)'s *Design Procedures Manual* (DPM) to satisfy both the (National Environmental Policy Act) NEPA and the State Environmental Quality Review (SEQR) Act. Full environmental analyses for the proposed project are included as Appendix D to this report.

SEQR – This project will be progressed as a Non-Type II action, requiring the preparation of a full Environmental Assessment (EA), in accordance with NYSDOT's SEQR, 17 NYCRR, Part 15. The project will be progressed as a Non-Type II action because the project requires eminent domain land acquisition of two significant properties, the Apex Auto site and the PDJ Simone site (currently leased as a New York City (NYC) Marshall Impound Lot). NYSDOT will be the lead agency for SEQR.

NEPA – This project will be progressed as a NEPA Class II action in accordance with FHWA regulations 23CFR771. The project is classified as a Categorical Exclusion with Documentation. The Federal Highway Administration (FHWA) will be the lead agency for NEPA.

B. Social, Economic And Environmental Consequences

1. Social Consequences

While the study area— a 0.4 km (0.25-mile) radius from the project boundary— is predominantly residential, the area also contains a mix of transportation infrastructure, industrial, and commercial uses. Residential uses are generally located along the eastern and western boundaries of the study area. The Project Site consists of parkland, including Starlight Park, undeveloped property, and two industrial sites. The industrial sites include the Apex Auto salvage property, and the NYC Marshall Impound facility. The Proposed Project requires eminent domain land acquisition of these two properties, as described below under Section IV.2, “Economic Consequences.”

Starlight Park is an approximately 3.6-hectare (HA) (9-acre) park under the jurisdiction of the New York City Department of Parks and Recreation (NYCDPR). Starlight Park is currently closed to the public due to ongoing remediation for hazardous materials by the Consolidated Edison Company of New York. In addition, there are about 10 open spaces in the study area. Several parks within the study area are located along, and provide some access to, the Bronx River including River Park and Bronx River Park. Under redevelopment as a park is the former concrete plant along the western bank of the Bronx River. Although not fully developed as a publicly accessible open space, it is under the jurisdiction of the NYCDPR and is therefore considered parkland.

There are no community facilities located within the Project Site. There are several community facilities throughout the study area that mostly consist of schools and religious institutions. No police stations or fire houses are located within the study area.

Some on-street improvements are planned as part of the Proposed Project, including reconfiguration of two major intersections within West Farms Square. While the Lorraine Hansberry School is adjacent to the proposed street improvements, the improvements would maintain and protect motorized and non-motorized traffic throughout construction. The proposed construction would not prevent school buses, students, and faculty from gaining access to the school. As there are no police or fire stations within the study area, the proposed street improvements would not directly block access to or from these services. Emergency vehicles would continue to be able to use the streets to access the entire study area. There would be no obstruction of the delivery of services to the community facilities, including the U.S. Post Office on Devoe Avenue. Therefore, no significant impacts to community facilities are expected to occur during the construction phase of the Proposed Project.

ENVIRONMENTAL JUSTICE

The Environmental Justice analysis was prepared following the methodology set forth in the U.S. Department of Transportation's Final Order on Environmental Justice, April 1997, which expands on Executive Order 12898 issued in 1994. This involves (1) identifying potential adverse environmental impacts and the area to be affected (i.e., establishing a study area); (2) determining whether potential adverse environmental impacts are likely to affect a potential environmental justice area; and (3) identifying whether potential adverse environmental impacts would disproportionately affect low-income and minority populations.

The study area comprises four environmental justice neighborhoods, including Bronx Park South, Bronx River, Crotona Park East, and West Farms. According to the 2000 Census, the one quarter mile study area had approximately 27,000 residents of which 40 percent are Other, 35 percent are Black, 24 percent are White and less than 2 percent are Asian residents. Compared to Bronx County, the study area has less White residents but relatively the same percentages of Black, Asian and Other residents. In contrast, New York City has 45 percent White, 27 percent Black, 19 percent Other and less than 10 percent Asian. Hispanic residents within the study area make up 65 percent of the total population while Bronx County had 48 percent and New York City had 27 percent. With a very high proportion of non-white residents, minorities make up 99 percent of the total population of the study area compared to 86 percent in the Bronx, and 65 percent in New York City.

The principal impact of the Bronx River Greenway Project on ambient noise levels will occur during the construction period. Greenway construction will cause changes in noise levels from the operation of construction equipment throughout the construction period. Mitigation for construction noise impacts are discussed in Section IV.3.a "Noise."

As it currently exists, the project site is an assemblage of inaccessible parkland and industrial sites, with no amenities. Therefore, the Bronx River Greenway is expected

to have a beneficial effect on the community by providing a multi-use path for walking, running, bicycling, and skating; open space; and public recreational facilities for use by the surrounding neighborhood. The Greenway will offer public access to an area of the Bronx River that has long been separated physically and visually from the public. The project will also improve access to Starlight Park by providing two multi-use path bridges that link the multi-use path with Starlight Park. Starlight Park will offer recreation amenities including a basketball court, a multi-use field that can be permitted as either a soccer field or two baseball diamonds, and a variety of play equipment.

Intersection improvements proposed as part of the project will eliminate the intersection of East Tremont Avenue and East 177th Street and consolidate traffic to East Tremont and Devoe Avenues, simplifying the flow of traffic and reducing congestion in the immediate area.

2. Economic Consequences

While the study area is predominantly residential, the area also contains a mix of transportation infrastructure, industrial, and commercial uses. Businesses in the area range from small commercial establishments that serve the local populations, to a large commercial strip mall and other commercial businesses scattered throughout the area.

The construction of the Bronx River Greenway is not expected to have any major economic consequences. However, the development of the Proposed Project will require the permanent displacement of four business entities, including Apex Auto, the NYC Marshall Impound Lot, and two businesses located on NYSDOT property along the Bronx River between I-895 and East Tremont Avenue — a commercial parking lot and Christy’s Rubbish Removal. The Apex Auto site and NYC Marshall Impound facility (also known as PDJ Simone) will be acquired through the New York State Eminent Domain Procedure. A Draft Conceptual Stage Relocation Plan was prepared by NYSDOT in April 2002, and is included in Appendix H. NYSDOT R-11 staff has located suitable relocation areas for the two businesses to be acquired. NYSDOT will continue to work with the Apex Auto and NYC Marshall Lot (PDJ Simone), Community Boards #3, #6, and #9, and commercial real estate brokerage firms to select appropriate relocation properties for these businesses. These businesses are entitled to relocation packages that will assist them in relocating to other areas of the Bronx.

The two businesses located on NYSDOT property in the northern portion of the Project Site—the commercial parking lot and Christy’s Rubbish Removal—will have to vacate the property prior to construction. Both businesses are using NYSDOT Right-of-Way without NYSDOT’s permission. As such, both businesses will be required to vacate with no assistance provided by NYSDOT. Therefore, the Proposed Project does not represent a significant displacement impact.

Although sidewalk replacement along Devoe Avenue, East Tremont Avenue and East 177th Street will require temporary easements, access to the businesses will be provided throughout the construction period. Because access to businesses will be maintained and the construction work is temporary, the Proposed Project will not

have significant economic impacts. Two businesses (Bronx River Tire and Wheel, Inc. and Villa Ramos Grocery) may be temporarily affected by the proposed portal and ramp at the 172nd Street entrance to the Greenway. Although access to these businesses will be maintained during construction, the number of parking places for use by customers of Bronx Tire and Wheel, Inc. will be reduced both during construction and permanently. The presence of construction equipment and activities may result in some reduction or an increase in patrons of Villa Ramos Grocery during construction.

Permanent Easements are required for installation and future maintenance of retaining walls in backyards of residential properties along Bronx River Avenue approximately between Colgate Avenue and East 172nd Street. However, during final design, special studies will be conducted to minimize and/or avoid impacts to the residential properties. Anticipated demolition of sheds or garages on the properties would be reimbursed to the property owner at fair market value as part of the property acquisition process.

3. Environmental Consequences

The Proposed Project involves a number of components, ranging from the provision of a multi-use path to shoreline restoration, provision of floating docks, multi-use path bridges, and other amenities. This Design Report has taken all of the various project components into consideration in the analysis of the potential environmental effects of the overall project.

a. Noise

The NYSDOT *Environmental Procedures Manual* requires a Type I noise analysis for any proposed Federal or Federal Local Aid highway project for the construction of a highway on a new location or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment or increases the number of through lanes. The Bronx Greenway Project does not include any of the work defined in the criteria for a noise analysis. Therefore no noise analysis is required for this project.

The principal impact of the Bronx River Greenway on ambient noise levels will occur during the construction period. Greenway construction will cause changes in noise levels from the operation of heavy construction equipment. However, these impacts would be temporary. When completed, the Bronx River Greenway will not generate additional traffic volumes of motorized vehicles that would result in substantially higher noise levels. It is anticipated that the Greenway will be used as a non-motorized transportation corridor with the potential to reduce local trips by vehicles and traffic noise. Therefore, operation of the Proposed Project will not be expected to significantly increase noise levels.

b. Air Quality

A Carbon Monoxide (CO) microscale air quality analysis was performed for the project, and is included in Appendix D. This analysis indicated the proposed intersection improvements would not cause any potential exceedances of CO National Ambient Air quality Standards (NAAQS). Therefore, the project would

not have a significant adverse air quality impact. It complies with the requirement of CAAA90 and the final rule on transportation conformity. The analysis was prepared for the original Estimated Time of Completion (ETC) 2006. The project is now scheduled for an ETC of 2009. It is not expected that this change in design year would produce significantly different results, since a comparison of the 2006 and 2009 traffic volumes and emission factors shows that the year 2006 emissions would be greater than those projected for 2009.

c. General Ecology And Endangered Species

The project design will retain as many of the existing native trees on the Project Site as possible, and will include removal of invasive vegetation under the direction of NYSDOT, where practicable. Only registered herbicides will be used as part of the invasive species control efforts, and only those herbicides registered for use near surface waters will be applied near the river. Use of herbicides will follow all safety precautions to prevent drift and runoff to the river to minimize potential effects to non-target plants and wildlife. Erosion control measures and temporary seeding requirements will meet the requirements of the New York City Department of Parks and Recreation (NYCDPR), the New York City Department of Environmental Protection (NYCDEP), and the New York State Department of Environmental Conservation (NYSDEC).

The proposed improvements to the traffic intersections, bridges, amphitheater and concessions area, retaining wall and multiuse path will be constructed in uplands and will not impact wetlands. Conversion of paved industrial properties to green space will result in an increase in the available terrestrial habitat on the site. Extension or removal of the combined sewer outfall (CSO) during a future project by NYCDEP will, in either case, extend the east bank into the Bronx River by 9 m (30 feet). This will impact 0.016 HA (0.04 acres) of littoral zone wetlands (waters less than 6 feet deep). NYSDOT will mitigate for this loss within this project through the creation of wetlands within the Project Site through removal of bulkheads and naturalization of the shorelines at the Apex Auto and Marshall Impound Lot properties.

Certain Project activities may result in temporary increases to suspended sediment loads. Estuarine species have behavioral and physiological mechanisms for dealing with variable concentrations of suspended sediment. Life stages of estuarine-dependent and anadromous fish species, bivalves and other macroinvertebrates are fairly tolerant of elevated suspended sediment concentrations and have developed behavioral and physiological mechanisms for dealing with variable concentrations of suspended sediment. Fish are mobile and generally avoid unsuitable conditions in the field such as increases in suspended sediment and noise, and also have the ability to expel materials that may clog their gills when they return to cleaner, less sediment laden waters. Most shellfish are adapted to naturally turbid estuarine conditions and can tolerate short-term exposures by closing valves or reducing pumping activity. More mobile benthic invertebrates that occur in estuaries have been found to be tolerant of elevated suspended sediment concentrations. The area of dredging will be small and the period of disturbance short. Therefore activity associated with dredging for the

floating dock, should it be required, will not be expected to result in significant adverse impacts to water quality or fish populations of the Bronx River.

Areas temporarily disturbed during construction and restoration work will be restored to their original condition through proper grading, and all temporary structures and materials will be removed following construction. Designated wetland areas to be protected will be prominently marked or barricaded.

The NYNHP was contacted to confirm whether any of the 11 NY State-recognized threatened or endangered plant species reported as historically occurring in the Bronx Park is likely to occur within the Project Site. Of the 11 threatened and endangered species, two species were deemed the only plants having the potential to occur onsite by NYNHP endangered plant specialists, including rattlebox and field beadgrass. A Threatened and Endangered Species Survey was performed in July and August 2005. After a thorough investigation of areas of potential occurrence, neither rattlebox nor field beadgrass were found on the Project Site. No significant adverse impacts to essential fish habitat or managed fish stocks are anticipated from construction of the Proposed Project.

Naturalization of shorelines will help to improve storm water retention, resulting in improved water quality, and will improve habitat for birds and mammals. The intertidal wetlands created during shoreline naturalization will provide habitat for macroinvertebrates and fish. During low tides, exposed intertidal habitat will provide feeding and resting areas for wading and shorebirds.

d. Waterbodies and Wetlands

The entire stretch of the Bronx River below East Tremont Avenue is identified as littoral zone by the New York State Department of Environmental Conservation (NYSDEC). Depths at the Project Site are generally below 6 feet at low tide. The United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) map classifies the river as riverine, permanent tidal, open water (R1OWV) wetlands from approximately East Tremont Avenue to a point between East 174th and East 172nd Streets. A weir crosses the river just above East 172nd Street. Proceeding south, the river is classified as estuarine, subtidal, open water (E1OWL) wetlands. No freshwater wetlands are mapped within the Project Site by NYSDEC or USFWS.

A field survey of tidal wetlands in the northern portion of the Project Site was conducted on March 9, 2001. The entire shoreline on both sides of the river from East Tremont Avenue to East 172nd Street was characterized by a functional armor stone riprap. South of East 172nd Street (below the weir) to the railroad track crossing, the eastern shoreline was characterized as a combination of bulkhead, natural rock shoreline, and riprap. Intertidal mudflats were observed in the river along both shores, although these are not indicated on either the NWI or NYSDEC wetland maps. Wetland vegetation was also observed along the east bank of the river south of Starlight Park.

A Wetland Finding per Executive Order 11990, has been prepared as part of the project, and is included in Appendix D. It is determined that there is no

practicable alternative to the proposed new construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

The proposed improvements to the traffic intersections and bridges, the amphitheater and concessions area, retaining walls, and multiuse path will be constructed in uplands and will not be expected to impact wetlands. However, extension of the CSO by 9 m (30 feet) will impact 0.016 HA (0.04 acres) of littoral zone wetland pending NYCDEP construction and up to 120 cubic meters (157 cubic yards) of mudflat/littoral zone wetlands may be required for the boat launch.

Because of the importance of the natural resources in the Project Site, and to avoid adverse cumulative effects, it is anticipated that the Bronx River Greenway will not only mitigate for the loss of wetlands, but create additional wetlands to enhance habitat. The project will also remove non-native vegetation and plant native trees, shrubs, and grasses. Removal of impervious surface and improvements to drainage infrastructure along the corridor will also improve water quality of the Bronx River, and thus improve aquatic habitat.

e. Navigable Waters

Commercial boating is not important on the Bronx River because of its shallow depths and the location of a weir between East 172nd Street and East 174th Street. Commercial vessels have not used this portion of the river since the 1920s. Although formerly a lift bridge, Westchester Avenue over the Bronx River now has a fixed concrete superstructure that prevents the passage large ocean-going and commercial vessels. In addition, the Amtrak and CSX Bridges over the Bronx River, both of which are a lift bridges, are no longer capable of lifting - preventing passage of anything but very small personal watercraft. Therefore, pedestrian Bridge #1, which would have a lower clearance than Westchester Avenue and a higher clearance than the Amtrak Bridge, would not impact the navigation of ocean-going or commercial vessels.

The construction of a floating dock in the river will promote non-motorized recreational boating on the river, including kayaking and canoeing. The use of these types of small non-motorized watercraft will not be expected to result in adverse impacts to the aquatic environment or surrounding land and water uses. As the river is too shallow to allow for passage of commercial and ocean-going vessels and the passage of such vessels is also limited by the fixed bridges and weir, the Proposed Project will not create conflicts among recreational, ocean-going, or commercial vessels.

f. Coastal Zone Management

The Bronx River Greenway Project is located within New York City's Coastal Zone Boundary as outlined in the Department of City Planning's Coastal Zone Boundary of New York City, June 1986. The Project is consistent with all of the 10 *New York City's New Waterfront Revitalization Program* (WRP) policies, and will support the WRP's objective to improve the urban shoreline by providing

public access to the Bronx River and providing a quality facility for people to bicycle, walk, run, or skate for transportation, recreation, or exercise. In addition, the project would encourage water-dependent uses, such as non-motorized recreational boating.

The project would also support the WRP policies to protect and restore quality and functions of ecological systems on the Bronx River, improve water quality, and improve visual quality through wetland and native upland plantings.

g. Wild, Scenic, And Recreational Rivers

The Bronx River is not classified as a New York State a Wild, Scenic, and Recreational River.

h. Surface Water Quality

Potential impacts associated with dredging for the floating dock include possible re-suspension of sediment-associated contaminants and temporary increases in turbidity. Sediment re-suspension will be localized to the immediate area around the dredging and will be temporary. The floating dock will be designed with the smallest practical dimensions to meet applicable safety and accessibility regulations to minimize obstruction of river flow, shading and dredging.

Fill activities have the potential to cause temporary increases in suspended sediment in the immediate area where the fill is placed. Bulkhead and riprap removal during restoration of the natural shorelines also have the potential to result in localized, temporary increases in suspended sediments. Sediment control measures will be taken to minimize the amount of re-suspended sediment and could include such measures as the use of turbidity curtains.

Stormwater from the Project Site will be managed to reduce direct discharges to the Bronx River. A stormwater pollution prevention plan (SWPPP) will be developed in accordance with NYSDEC's State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity Permit No. GP-02-01. There will be potential for on-site erosion and sedimentation at construction sites where soils will be disturbed. The SWPPP will include erosion and sediment control measures that comply with the "New York Standards and Specifications for Erosion and Sediment Control" such as hay bales, silt fencing, vegetative covers, and slope and spoil stabilization. The abutments for the four pedestrian bridges, the multiuse path, and retaining walls will be built in upland areas. The construction of these components will be managed under the SWPP and will not be expected to result in significant adverse impacts to water quality. Planting of the graded, naturalized shorelines with native vegetation will reduce the potential for erosion and sedimentation in these areas. Operation of the Proposed Project will not be expected to result in significant adverse impacts to water quality.

i. Ground Water

At the Westchester Avenue (NYC Marshall Impound Lot) site, groundwater, appearing to be tidally influenced, was encountered at 11 to 14 feet below ground. The project corridor is not in a Sole-source-, Primary-, or Principal-aquifer area.

Groundwater in Bronx County is not a source of potable water. Methyl Tertiary Butyl Ether (MTBE), a gasoline additive, was found in one well, and seven metals (chromium, copper, iron, lead, magnesium, manganese, and sodium) were found above NYSDEC Class GA Standards. Iron, magnesium, manganese, and sodium are common minerals, and not likely indicative of site contamination. The highest levels of chromium, copper, and lead encountered were less than 10 times the NYSDEC Class GA standard and may be an artifact of the high levels of particulates associated with sampling of the shallow temporary wells. However, the levels encountered do not present a threat to human health or the river.

For the Apex Auto Site, results from the groundwater sample indicated MTBE in one well, and four metals (iron, lead, manganese, and sodium). The levels encountered, however, do not present a threat to human health or the river.

The project corridor is not in a Sole-source-, Primary-, or Principal- aquifer area. Groundwater in Bronx County is not a source of potable water.

As part of the construction of the Greenway, a site-specific Environmental Health and Safety Plan (HASP) will be prepared and implemented to protect workers, the community, and the river from known or potential contaminated groundwater. The HASP will include procedures to manage any groundwater, should dewatering be required. During the final design of the project, provisions will be included in the contract documents to ensure that any contaminated groundwater will be handled, transported, and disposed of in accordance with all applicable federal, state, and local rules and regulations

j. Floodplain Management

The Proposed Project is located along the Bronx River, which is the only regulatory floodway in New York City. Construction of the upland project elements and in-water project elements will not impede flood waters or result in increased flooding in areas adjacent to the Project Site. The naturalized shorelines will be constructed so as not to increase flooding or erosion on the site or the surrounding area and will be expected to slow the movement of floodwaters during extreme precipitation events.

Conversion of impervious surfaces to green space and improved storm water management practices within the Project Site should result in increased infiltration and detention of storm water, delaying the discharge of surface runoff to the Bronx River, and reducing the volume of storm water contributing to the potential for flooding. Operation of the Proposed Project will not be expected to result in significant adverse impacts to floodplains.

k. Historic And Cultural Resources

Project Description/ Evolution of its Limits: NYSDOT proposes to build a 1.8km (1.14 mi) multi-use pathway and four bridges from Westchester Avenue north to Tremont Avenue as a critical link in the City's Greenway system, including numerous incidental park and engineering features such as retaining walls, plantings, benches, etc. Historic and Cultural resource research, coordination and documentation needs have changed over the course of this

project together with the location and design of specific work to be performed by NYSDOT as one among several state and local agencies involved in a coordinated effort to realize the local Community's goal of environmental improvement and revitalization of the Bronx River from Soundview Park north to East Tremont Avenue.

Originally, NYC Department of Environmental Protection (NYCDEP) prepared environmental documentation for a combined sewer outfall project (CSO) in the section from 172nd Street to Tremont Avenue and, NYSDOT for section from 172nd Street south to Soundview Park, both under PIN, X027.05. Due to schedules and funding, responsibilities changed. New York City Parks Department, with a Federal Enhancements allocation, took over the Greenway's southern portion from NYSDOT. When NYCDEP postponed its project for the northern section, NYSDOT took over design and environmental documentation responsibilities from them, redefined its project limits from Westchester Avenue north to Tremont Avenue.

Area of Potential Effect: The Area of Potential Effect (APE) for archaeological resources is the area that will be disturbed for project construction (see Figure D-11-2 in Appendix D, Chapter D-11). This is, horizontally, the Project Site itself and, vertically, within this area to a depth of approximately 10 feet (3 meters), the deepest anticipated excavation for construction. Study areas for architectural resources are determined based on the APE for construction-period impacts, such as ground-borne vibrations, and on the APE for visual or contextual effects, which is usually a larger area. For this project, the APE for architectural resources has been defined as the area within an approximately 122 m (400-foot) radius of the Project Site (see Figure D-11-1 in Appendix D, Chapter D-11). The immediate project area (the APE for archaeological resources) south of east 172nd Street straddles the Bronx River and is generally comprised of paved, fenced parking/commercial lots behind bulkheads, with Amtrak rail lines on the west and the very busy Westchester Avenue with its raised subway line to the south. The wider context (to the 400-foot radius describing the APE for architectural resources) consists of residential apartment buildings and city streets to the east and paved industrial and the Sheridan Expressway to the west. The central part of the site, from 172nd Street to the Cross Bronx Expressway (CBE), lies between the River and the Amtrak rail lines and is generally unpaved and vegetated, varying from transitional woods/invasives in the south, to mature woods just south of 174th Street, to old field meadows north of 174th Street with some remnant pavements and fences. In the larger context, the project area is lower than adjacent residential apartment buildings and city streets to the east and will be connected with new bridges to the extensive park development of Starlight Park on the west bank. North of the CBE, the project is a narrow riparian border with transitional/invasive woods, threading between ramps of the CBE, the Sheridan Expressway on the west and an extensive paved MTA bus depot on the east to 177th Street, then continuing briefly, to East Tremont Avenue. Both 177th Street and East Tremont Avenue will be extensively reconfigured.

Identification of Resources: Archaeological: The history of the project site has been a varied one, including Native American and European settlement, industrial enterprises from a 17th-century saw and grist mill to an early 20th-century gas plant, landfilling, paving and river straightening associated with railroad and roadway development and commercial uses. The record of land disturbance throughout the archaeological APE therefore has been accordingly varied.

In 2001, NYSDOT initiated discussions with the New York State Historic Preservation Office (SHPO) and City of New York Landmarks Preservation Commission (LPC), sending both agencies a State Education Cultural Resources Survey prepared in 1987 for another project, Hunt's Point Access (X730.17), whose project limits overlapped only a small part of those for NYSDOT's project as defined at that time (southern Greenway section).

After NYSDOT redefined its project limits, an Archaeological Documentary Study was prepared for NYSDOT by Historical Perspectives and AKRF in December 2004. This study evaluates the possible presence of both potential Native American and 19th century archaeological resources within the current archaeological APE, based on known sites, prior studies and soil borings, site file research, former and current topographic and physiographic characteristics, cartographic research, a review of documentary materials and an initial pedestrian reconnaissance and photographic record, noting areas of obvious ground disturbance. It concluded the newly-defined project site has a high potential sensitivity for Native American archaeological resources, aside from sections where prior disturbance may have been deep enough to negate the potential for no disturbance to resources. Shell middens depicted on the Westchester County Historical Society's *Map of Westchester County Showing Indian Occupation* (1978) and three sites recorded in 1922 by former state archaeologist Arthur C. Parker may have been located within the archaeological APE, but it cannot be said conclusively that they were, because of the altered course of the river and the unreliability of older maps.

SHPO and LPC reviewed and concurred with the 2004 Archaeological Documentary Study's determinations and recommendation of a series of soil borings in the four potentially sensitive areas prior to any archaeological field investigations.

A soil boring program was completed in March 2005 and its results made an Addendum to the Study. It concluded that Areas 1, 2, 3, and 4 of the Project Site are indeed potentially sensitive for Native American and 19th-century archaeological resources, not having experienced extensive subsurface disturbance, with natural soils below fill in some areas and continuous natural strata from the surface down in others.

The Study divides the large Project Site into seven areas (see figures in Appendix D, Chapter D-11), of which four were found to be potentially sensitive for archaeological resources. Of these, all have the potential for Native American resources and in addition, three for resources associated with 19th-century industrial activities. To date, aside from the analysis of boring logs, no subsurface

testing specifically for archaeology (shovel pits, mechanical excavation) has been performed within the APE. The 1987 study reviewed by SHPO and LPC for the prior project limits included shovel tests, but none of those locations fall within the current archaeological APE.

Identification of Resources: Architectural: Within the architectural APE, architectural resources that were analyzed include properties listed on the State and National Registers of Historic Places or S/NR-eligible properties, National Historic Landmarks (NHLs), New York City Landmarks (NYCLs) and Historic Districts, and properties determined eligible for landmark status. In addition, other properties in the architectural APE were evaluated for their potential S/NR or NYCL eligibility.

There are four known architectural resources in the architectural APE (see Figure D-11-1). The U.S. Post Office, West Farms Station had previously been determined eligible for S/NR listing. Three others were identified in the field survey conducted for this project (see Figure D-11-1) and were submitted to the SHPO and LPC for national and local eligibility determinations, as follows:

- AMTRAK Northeast Corridor Line steel bascule bridge over the Bronx River (1907), determined by SHPO to be eligible for S/NR listing, with LPC concurrence.
- The Westchester Avenue Station of the New York, New Haven & Hartford Rail Road, found ineligible for the S/NR by SHPO due to its deteriorated state and loss of some historic features but found eligible by LPC for NYCL designation.
- IRT No. 6 subway viaduct over the Bronx River (1920), determined by SHPO to be eligible for S/NR listing, with LPC concurrence.

Evaluation of Project Impacts: Archaeological: In June, 2001, based on earlier project limits (Soundview Park to 172nd Street), SHPO determined that the project would have No Impact upon S/NR-listed or S/NR-eligible cultural resources and LPC determined that the Project Site had no archaeological or architectural significance. FHWA concurred.

In parallel, NYCDEP commissioned a Phase IA Archaeological survey and Documentary Research Study for the East River CSO (April 2000) for its northern project. This study recommended mechanical and shovel test pits for potential revolutionary war remains.

When NYCDEP postponed its CSO project and NYSDOT redefined its project limits, NYSDOT asked SHPO and LPC whether their original determinations were still valid or whether additional information was needed.

SHPO confirmed its No Impact opinion but LPC found the potential for the recovery of Native American and 19th-century archaeological resources on the project site and recommended that an archaeological documentary study be performed.

Further archaeological testing was recommended but, since NYSDOT is unable to complete the recommended additional testing prior to environmental determinations and design approval, the Addendum was submitted to the SHPO and LPC for review, but with an indication that NYSDOT would complete testing (further excavation) and the Section 106 process during Final Design.

Evaluation of Project Impacts: Architectural: It is not expected that the Proposed Project will have impacts to architectural resources during construction and, once built will in fact have positive impacts to their settings.

Two architectural resources—the AMTRAK bascule bridge and the No. 6 subway bridge—are located close enough (within 90 feet) to proposed construction activities to potentially be affected by them. To avoid impacts to the resources from construction-period vibrations, subsidence or other accidental damage, NYSDOT will implement construction protection plans for both, in consultation with the SHPO and LPC.

Neither the U.S. Post Office, West Farms Station nor the Westchester Avenue Station are located close enough to proposed construction activities to potentially experience construction-related effects.

Once built, the Project will improve the visual setting of the Westchester Avenue Station, the Number 6 subway bridge, and the AMTRAK Bridge with the conversion of adjacent paved yards to green space, bulkheaded shorelines to naturalized ones. The introduction of greenway paths will create new viewer groups and will introduce new vantage points from which these resources can be viewed away from busy roadways.

To the north, the setting of the U.S. Post Office, West Farms Station will be improved with the conversion of an overgrown paved parking lot across the street from it to a new amphitheater and seating area—and the street intersection in front of the Post Office will be reconfigured and materially improved for safer and more attractive vehicular and pedestrian movement. Views will not be blocked and the amenities will improve the pedestrian environment around the historic resource, whole historic setting has been altered by construction of the nearby MTA bus facility, the Arthur Sheridan Expressway, and the large car wash building.

Steps to Conclude the Section 106 Process: NYSDOT will conclude the Section 106 process during Final Design by following the State Education Department (SED) Work Scope and established Section 106 procedures between FHWA, NYSDOT and SHPO.

NYSDOT's next step will be immediately to implement its plan for shovel pits and mechanical trenches to determine the presence, nature and extent of any potential archaeological resources, evaluate their S/NR eligibility and any develop any required mitigation. NYSDOT will then combine this information with that concerning Architectural resources, make a determination of effect for the project as a whole and forward its Finding with Summary Documentation to SHPO/LPC/FHWA for their review and concurrence.

l. Parkland Issues (Joint Planning)

Although the proposed NYSDOT Greenway project will use portions of Starlight Park as a staging area for construction of the Proposed Project, this project will proceed as a joint park/transportation project development. The provisions of 23CFR771 and related FHWA policy guidance allow for such joint development, which precludes the need for a Section 4(f) statement. Therefore, Section 4(f) does not apply.

m. Hazardous Waste And Contaminated Materials

At the Starlight Park site, one soil sample contained relatively low levels of several SVOCs, and one metal (Mercury) above regulatory reference values. The former manufactured gas plant operation on Starlight Park was located north of the proposed Bronx River Greenway site, therefore significant contamination on the Starlight site appears to be located to the north of the proposed limits of excavation for the project. Currently under the jurisdiction of the New York City Department of Parks and Recreation (NYCDPR), Starlight Park is undergoing remediation by Con Edison for contamination from past uses on the property. The remediation work is being performed by Con Edison under the supervision of the NYSDEC. It is anticipated that remediation will be completed by 2008.

Sediment samples were collected for laboratory analysis from the Bronx River by GEI Consultants, Inc. during the remedial investigation at the Starlight Park. Analysis on the river sediment samples collected in the immediate vicinity of the proposed boat dock indicated the presence of various metals and SVOCs above regulatory reference values.

Soil samples were collected for laboratory analysis from nineteen sampling locations across the project site from March 2005 to May 2005. Samples collected from each of the nineteen locations contained at least one type of contaminant (SVOCs, VOCs, PCBs, or Metals) at levels that exceed either STARS or RSCO guidance values; and therefore, any soils disturbed along the project site during construction should be considered as potentially contaminated. Excluding samples collected from the Apex Auto site and the Marshall Property site, the levels of SVOCs detected across most of the project site are indicative of urban fill material commonly found in New York City, and not likely associated with onsite sources of contamination. With the exception of sample location B-7 at the Apex Auto site, soils across the site did not exhibit hazardous waste characteristics based on TCLP analysis. TCLP testing on sample B-7 at Apex Auto resulted in a lead concentration of 9.14 milligrams per liter (mg/l), which exceeds the RCRA hazardous waste level for lead of 5.0 mg/l.

Fifteen soil samples were collected on February 23, 2006 from seven soil borings advanced on the Apex Auto site in the vicinity of former boring B-7 to better define the extent of the hazardous lead impacted soil. The seven borings were advanced to 12 feet below grade or bedrock, whichever occurred first. Bedrock was encountered at depths ranging from approximately 6 feet to greater than 12 feet below grade. Samples were analyzed for RCRA metals, TCLP RCRA metals,

PCBs, Semi-Volatile Organic Compounds / Base Neutrals (SVOCs/BNs), and Volatile Organic Compounds (VOCs). Various metals, including lead, were detected at concentrations above RSCO values in soil samples from each boring location. Total lead was detected at concentrations ranging from 122 mg/kg to 3,010 mg/kg. TCLP lead was detected in the samples at concentrations exceeding the RCRA hazardous waste limit ranging from 6.69 mg/l to 26.6 mg/l. No additional metals were detected above their respective hazardous waste limits. VOCs and SVOCs were also detected in February 2006 above their respective reference values at each of the seven boring locations. PCBs were detected just slightly above the RSCO for PCBs of 1.0 mg/kg in samples collected from Apex Auto at five of the seven boring locations at concentrations ranging from 1.1 mg/kg to 2.9 mg/kg. Detailed findings of the contaminated material investigations are available in the Contaminated Material Investigation Report, Bronx River Greenway from Westchester Avenue to East Tremont Avenue, June 2005, EPM, Inc., and the Final Environmental Investigation Findings Report, Apex Auto Site, July 2006, EPM, Inc.

TABLE IV-1.
Compounds Detected in Project Area Soils Above Regulatory Reference Values
Bronx River Greenway
Bronx, New York

Sample Location:	B-3	B-5	B-5	B-6	B-7	B-7	B-18	B-22	B-24	B-30	B-31	B-37	B-38	B-39	B-47	B-49	B-49	B-52	B-55	SS-1	SS-2	SS-3	NYSDEC Reference Values					
Sample Depth (feet):	(0-6)	(0-6)	(6-12)	(0-6)	(1-3)	(5-7)	(0-4)	(0-6)	(0-5.75)	(2-8)	(0-4)	(0-6)	(0-6)	(0-6)	(0-6)	(6-12)	(0-6)	(0-6)	(0-1)	(0-1)	(0-0.5)							
Parameter																						STARS ^(A)	RSCO ^(B)					
Semi-Volatile Organic Compounds	Results ug/Kg (ppb)																											
Naphthalene					2,700																			none above reference values	none above reference values	none above reference values	200	13,000
Acenaphthene		760			510																		400				50,000	
Phenanthrene		6,300		3,700	4,500	1,100			2,100						1,200				2,200				1000				50,000	
Anthracene		1,300			1,300																		1000				50,000	
Fluoranthene		4,000		2,900	3,600	1,400			2,300						1,500				7,500				1000				50,000	
Pyrene		5,400		3,200	4,600	1,900			1,900						1,100				7,300				1000				50,000	
Benzo(a)anthracene	310	2,300	70	1,500	1,800	850	38		1,200	51	71	170	130		120	670		400	150	2,600			0.04 ^(C)				224	
Chrysene	330	2,500	87	1,800	2,100	1,200	46		1,200			190	130		130			450	180	3,200			0.04 ^(C)				400	
Benzo(b)fluoranthene	280	1,700	68	1,600	2,700	940		53	1,700	50	76	190	130		150	600		520	180	3,600	97		0.04 ^(C)				1,100	
Benzo(k)fluoranthene	240	1,100	51	870	840	720			750				49		78				1,100				0.04 ^(C)				1,100	
Benzo(a)pyrene	300	1,600	77	1,400	1,700	1,000			1,300		64	150	110		110			370	140	1,700			0.04 ^(C)				61	
Indeno(1,2,3-cd)pyrene		800		530	650	500			220			79	63					87	730				0.04 ^(C)				3,200	
Dibenz(a,h)anthracene		110							160														1000				14	
Benzo(g,h,i)perylene		950				580			510			82	69					95	620				0.04 ^(C)	50,000				
Volatile Organic Compounds	Results ug/Kg (ppb)																											
Acetone					320																		none above reference values	none above reference values	NA	200		
m/p-Xylenes					360																	100			1,200			
o-Xylene					1600																	100			1,200			
Poly Chlorinated Biphenyls	Results ug/Kg (ppb)																											
Aroclor-1016					6,900																		none above reference values	none above reference values	NA	1,000		
Aroclor-1248					9,000																	NA			Surface			
Aroclor-1254	4,200																					NA			10,000 Sub-Surface			
Aroclor-1260																		2,400				NA			Surface			
RCRA-8 Metals	Results mg/Kg (ppm)																											
Mercury				0.274	5.2										0.379			0.202	0.279	0.341			none above reference values	none above reference values	none above reference values	NA	0.2 ^(D)	
Arsenic					40.5	15.9											14.7					NA				12 ^(D)		
Barium					3,720	1,390																				NA	600 ^(D)	
Cadmium					48.7	10.2													1.630	1.800						NA	1.1 ^(D)	
Chromium					148	50.8				61.9										63.4						NA	40 ^(D)	
Lead					5,060	4,320														557						NA	500 ^(D)	
Selenium					9.140																					NA	3.9 ^(D)	
Notes:																												
(A) = NYSDEC Spill Technology and Remediation Series Memo #1 - Petroleum Contaminated Soil Guidance Policy, August 1992, TCLP Alternative Guidance Values.																												
(B) = NYSDEC TAGM HWR-94-4046, Recommended Soil Cleanup Objectives (RSCOs), 1994, ammended December 20, 2000.																												
(C) = Due to the high detection limit a solid matrix, the TCLP extraction method must be used to demonstrate groundwater protection for these compounds.																												
(D) = Upper Range of Typical Eastern USA / New York State Background Levels (used by NYSDEC as a RSCO for this compound).																												
ug/kg = micrograms per kilogram or parts per billion (ppb). mg/kg = miligrams per kilogram or parts per million (ppm)																												
NA : Not Applicable (no guidance value available).																												

TABLE IV-2. TCLP Results Bronx River Greenway Soil Samples					
Sample ID	B-7(1-3)	SS-1	SS-2	SS-3	RCRA Regulatory Level*
Lab Sample #	T2407-01	T3210-01	T3210-02	T3210-03	
Sampling Date	3/10/2005	5/23/2005	5/23/2005	5/23/2005	
Analyte	Results [mg/L (ppm)]				
Arsenic	ND	ND	NA	NA	5.0
Barium	1.43 J	NA	NA	NA	100.0
Cadmium	0.0632	NA	NA	NA	1.0
Chromium	ND U	NA	NA	NA	5.0
Lead	9.14	3.05	3.96	1.67	5.0
Mercury	0.0006 J	ND	NA	NA	0.20
Selenium	ND	NA	NA	NA	1.0
Silver	ND	NA	NA	NA	5.0
Notes:					
All values reported in milligrams per liter (mg/L) (ppm).					
* Resource Conservation and Recovery Act Hazardous Waste Criteria (CFR §261).					
Bold Value - Compound exceeds RCRA Regulatory Level					
NA - Not Analyzed (initial results for total metals not sufficient to warrant TCLP analysis)					
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value.					
ND - The compound was not detected at the laboratory detection limit.					

Three abandoned railroad structures in the vicinity of the proposed Greenway were identified as potentially containing polychlorinated biphenyls (PCBs): a catenary tower, a transformer shed, and a concrete structure. Two of the seven soil samples taken exceeded the PCB surface soil RSCO of 1 part per million (ppm). Samples collected from the transformer shed, including one chip sample and four wipe samples, were below the EPA criteria.

The greatest potential for exposure to any site contamination would occur during demolition of existing structures and during any soil disturbance associated with development of the Greenway. Samples collected from each of the twenty-six locations contained at least one type of contaminant (SVOCs, VOCs, PCBs, or Metals) at levels that exceed either STARS or RSCO guidance values; and therefore, any soils disturbed along the project site during construction should be considered as potentially contaminated. With the exception of the Apex Auto site, soils across the site did not exhibit hazardous waste characteristics based on TCLP analysis. However, the RCRA hazardous waste level for lead was exceeded in several samples collected from the southwest region of the Apex Auto site. Soils to be excavated in this area should be considered as potentially contaminated and hazardous. It is possible that other areas of significant contamination exist on the Apex site in areas not accessible for sampling due to surface obstructions and daily operations. The final contract documents, which will be prepared during final design of the project, will include provisions for the testing of the potentially hazardous or contaminated areas that were inaccessible

during the design phase. This testing will occur during the construction phase of the project, before any excavation work is done in these areas.

As part of the construction of the Greenway, a site-specific Environmental Health and Safety Plan (HASP) and a Stormwater Pollution Prevention Plan (SWPPP) will be prepared and implemented. Areas identified with surface soil contamination will be addressed by either: excavation and disposal; fencing to restrict Greenway use access; or covering with impervious surface or clean soil. During the final design of the project, provisions will be included in the contract documents to ensure that any contaminated and/or hazardous soil, sediments, and groundwater will be handled, transported, and disposed of in accordance with all applicable federal, state, and local rules and regulations. With these measures, no adverse impacts related to hazardous materials are expected to occur either during or following development of the Greenway.

n. Asbestos

The greatest potential for exposure to any site contamination would occur during demolition of existing structures associated with the development of the Greenway. A survey for the presence of asbestos containing materials (ACMs) in association with the Bronx River Greenway Project was conducted for NYSDOT. The asbestos surveys included the Apex Auto parcel at 1235 Bronx River Avenue, the PDJ Simone (New York City Marshall) property at 1363 Westchester Avenue, and ten structures located within the project corridor limits between East 172nd Street and East 177th Street that could be affected by construction activities.

The purpose of the asbestos survey was to identify the nature, location, quantity and asbestos content of all materials suspected of containing asbestos (greater than 1% as measured by Polarized Light Microscopy (PLM), and Transmission Electron Microscopy (TEM) as applicable) in accordance with New York State Industrial Code Rule 56.

A total of 385 asbestos bulk samples were collected from the project area and submitted for laboratory analysis of asbestos content. Out of the 343 bulk samples, 214 samples have been demonstrated by laboratory analysis to contain >1% asbestos by weight, and are therefore defined as asbestos containing materials (ACMs).

The types of asbestos containing materials identified included: plasters, window glazing, floor tiles and mastic, door insulation, roofing, flashing, coping stone and parapet wall mastic, and various electrical equipment components, mainly at the structures of APEX Auto and the PDJ Simone property.

Provisions will be made for the abatement of the identified asbestos containing materials in the Contract Plans and Specifications, in accordance with the New York State Department of Labor (NYSDOL) Industrial Code Rule 56, as well as applicable local and federal regulations.

o. Farmland

The Project Site and surrounding areas are located in an urbanized area of the Bronx. An analysis of impacts to farmland is not applicable, as there are no agricultural lands in the vicinity of the Proposed Project.

p. Energy

The transportation modes to be used on the Proposed Project, a multi-use path for walking, running, skating, and cycling, will not be energy intensive. The Proposed Project will not result in an increase in motorized vehicle miles traveled (VMT). Energy supply was not identified as an issue during the scoping process. The Proposed Project is not located in an area with energy problems and will not place excessive demands on local energy supplies. Future proposed buildings to be constructed for restrooms, a boathouse, and concessions will conform to the New York State Energy Conservation Construction Code. Additionally, buildings are likely to be occupied only seasonally, reducing annual energy usage. Path lighting will utilize efficient New York City Lighting Standards fixtures and require minimal energy consumption.

This non-motorized transportation corridor will potentially reduce local vehicle trips, which will result in reduced energy consumption. Street intersection improvements will be expected to improve the flow of traffic in the area and relieve congestion, reducing energy resources consumed by vehicles. Therefore, the Proposed Project will not be expected to result in adverse impacts to energy supply or usage in the project area.

q. Visual Impacts

It is not expected that the Proposed Project will have adverse impacts on visual resources. Although in the long term the Proposed Project will improve the visual appeal of the area, construction of the Greenway will result in temporary adverse effects to the visual character of the Project Site. However, any such impacts will only occur during the construction period (e.g., construction vehicles, denuded site clear of landscaping, etc.). Further, views of construction activities and any adversely impacted visual settings will not be visible from most locations in the surrounding area. People walking in publicly accessible areas surrounding the site have only circumscribed views of the Project Site from the bridges over it and from a small section of Devoe Avenue. People driving motor vehicles and riding elevated trains have vantage points inaccessible to those walking, but generally have only passing views of brief duration.

Construction on Starlight Park will be visible from the surrounding area. However, Starlight Park is currently a construction site and is expected to remain so under the No Action Alternative. Therefore, there will be no change to the visual character of that section of the Project Site and the surrounding area during the construction period of the Proposed Project.

Although the landscaped and developed Greenway will be a dramatic contrast to the existing visual character of the site and river, the project aims to enhance the river's setting and natural qualities. Visualizations of the proposed Greenway are

included in Appendix G along with photographs of the corresponding existing conditions. Significantly, the Greenway will bring people to the currently inaccessible river, which will become a defining visual resource in the area. The recreational and other built features will be designed to blend with the recreated natural shorelines, newly planted native vegetation, and retained woodlands. The pedestrian bridges will be in keeping with the area where numerous bridge types cross the Bronx River. It is expected that the natural and landscaped Greenway will be a visually pleasing enhancement of the Bronx River and surrounding areas.

Resulting construction on the properties between Westchester Avenue to East 172nd Street will remove existing structures on these properties to provide less-encumbered views to the River and increased green space in an area surrounded by multi-story high density residential structures.

r. Local And Regional Land Use Plans

The Proposed Project is the development of a non-motorized multi-use path and open space that will be located along the Bronx River between East Tremont and Westchester Avenues in the southern Bronx. The Project Site consists of parkland, including Starlight Park. The parkland, bounded by the river to the west and the Amtrak and CSX rail lines to the east, consists primarily of trees and fields with no amenities. It is generally inaccessible to the public and surrounding residential neighborhoods. In addition to parkland, the Project Site also includes two industrial sites.

As a result of the proposed project, the Project Site, less property that is reserved for future transportation uses for I-895 and I-95, would ultimately become mapped parkland under the jurisdiction of New York City Department of Parks and Recreation (NYCDPR). A portion of the Project Site, between East 172nd and East 174th Streets will remain designated parkland. The proposed parkland would not have an adverse impact on the surrounding light manufacturing and heavy commercial zoning districts. Overall, the Proposed Project would be beneficial to the area and would not result in significant adverse impacts to zoning.

The entirety of the Bronx River Greenway Corridor will provide valuable transportation links and options to the communities it passes through from the East River to beyond the Westchester County border. The Proposed Project will eventually provide a vital link along the Bronx River Greenway Corridor, allowing path users to underpass I-95, overpass Amtrak and CSX, get across the Bronx River, and provide reasonably safe at-grade street crossings where no sustainable means to these ends previously existed. Although it would become a link in the larger network, the project provides significant utility independent of the entire Bronx River Greenway corridor, including car-free passage for cycling and walking between the neighborhoods of Bronx River and West Farms and their associated transit services, schools, and shopping. The completed Bronx River Greenway would also provide improved walking and cycling access to the Bronx Zoo, the Bronx Botanical Gardens, various community parks along the Bronx

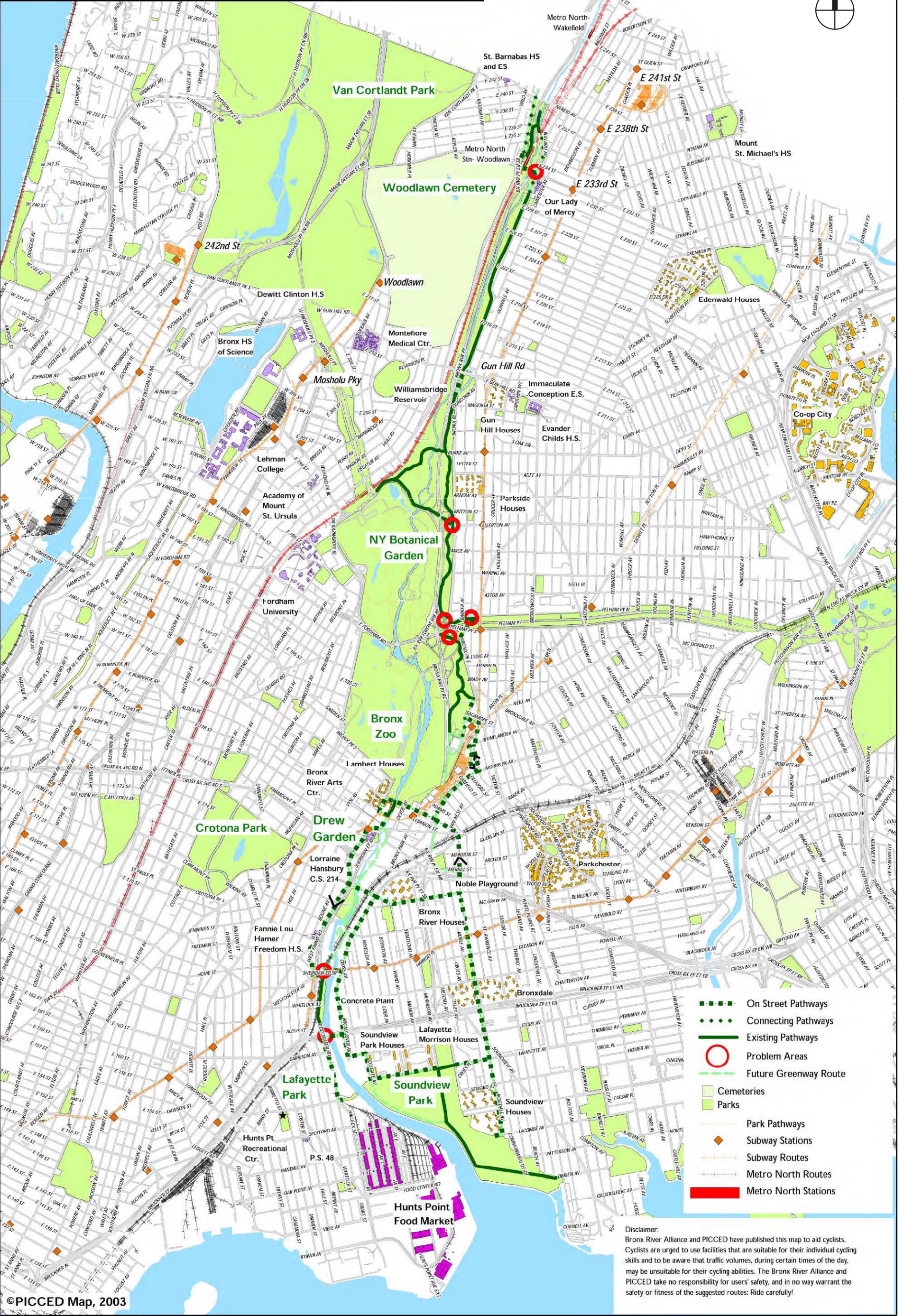
River, and is eventually envisioned to be part of a connection to and from Manhattan (see Figure IV-1).

The Proposed Project is planned to seamlessly connect to Concrete Plant Park's Bronx River Greenway path to the south and West Farm's Bronx River Greenway path to the north. NYSDOT is coordinating closely with NYCDPR to ensure seamless links between these projects and additional projects linking Soundview Park and Randall's Island to the south and into Westchester County to the north. The South Bronx Greenway will link the Bronx River Greenway corridor to the Manhattan Waterfront Greenway via Randalls Island's East 103rd Street Pedestrian Lift Bridge. In addition, the Bronx River Greenway corridor intersects the Pelham Parkway Greenway, including Pelham Bay Park, City Island, and Orchard Beach, and the Mosholu Parkway Greenway leading to Van Cortlandt Park and the South County Trail (a continuous paved multi-use path to be constructed from the New York City/Westchester County border to trails continuing into Putnam County). The Proposed Project may also serve as a portion in the evolving East Coast Greenway from Florida to Maine.

s. Construction Impacts

Impacts resulting from construction activities have discussed in each technical area above and fully analyzed in each section of the attached environmental analysis, Appendix D. Most of the construction will occur on-site, with access for construction equipment and materials from the regional and local roadways surrounding the project site. As described in the previous sections, measures will be incorporated into the construction documents to minimize impacts to the surrounding communities.

In order to minimize pollutant emissions from construction diesel engines and their potential impact on air quality, NYSDOT will implement a strategy similar to that recently enacted as New York City Local Law 7 (amendments to Title 24 of the administrative cod of the city of New York, section 24-163.3). These measures include the use of ultra low sulfur diesel fuel (sulfur content of 15 parts per million or less) for all diesel engines, and the best available technology (BAT) for reducing particulate matter emissions (primarily) and nitrogen oxides (secondarily) from all diesel engines rated 50 horsepower or larger. BAT would constitute the technologies defined by New York City as BAT under Chapter 14 of Title 15 of the Rules of the City of New York at the time of implementation.



©PICCED Map, 2003

Source: Bronx River Alliance

C. List Of Permits

The anticipated permits, certifications, approvals, and consultations required for this project include the following:

New York City

New York City Department of City Planning (NYCDCP)

- Coastal Consistency Certification

New York City Department of Transportation (NYCDOT)

- Office of Construction Mitigation and Coordination (OCMC) Lane Closure Permit

New York City Department of Parks and Recreation (NYCDPR)

- Parks Permit
- Forestry Permit

New York State

New York State Department of Environmental Conservation (NYSDEC)

- Article 25 Tidal Wetlands Permit
- Article 15 Protection of Waters Permit
- Section 401 Water Quality Certification
- SPDES Permit

New York State Department of State (NYSDOS)

- Coastal Zone Consistency Determination

State Historic Preservation Office (SHPO)

- Section 106 Consultation

Federal

Army Corps of Engineers (ACOE)

- Individual Section 404 Permit
- Individual Section 10 Permit
- Water Quality Certification

National Marine Fisheries Service/NOAA Fisheries (NMFS)

- Essential Fish Habitat Evaluation

United States Coast Guard (USCG)

- Bridge Certification