CHAPTER 4 ENVIRONMENTAL REVIEW: SOUTH BRONX CONVERTED MTS

4.1 Introduction

The results of the environmental analyses of the South Bronx Converted MTS are presented in the following sections:

4.2 Land Use, Zoning and Public Policy
4.3 Socioeconomic Conditions
4.4 Community Facilities
4.5 Open Space and Parklands
4.6 Cultural Resources
4.7 Urban Design and Visual Quality
4.8 Neighborhood Character
4.9 Traffic and Transportation
4.10 Air Quality
4.11 Odor
4.12 Noise
4.13 Infrastructure and Energy
4.14 Natural Resources
4.15 Water Quality
4.16 Waterfront Revitalization Program
4.17 Hazardous Materials

Section 2.2 provides a summary description of the site and important characteristics of the facility design. A detailed discussion of the methodologies that were applied in conducting each analysis is provided in Chapter 3. Supplemental information on the site or the study area is provided in the following sections when appropriate to the analysis.

4.2 Land Use, Zoning, and Public Policy

4.2.1 Existing Conditions

4.2.1.1 Definition of the Study Areas

The primary study area for the land use, zoning, and public policy analyses is defined as the area within ¼ mile of the site (Figure 4.2-1). The secondary study area is defined as the area between ¼ mile and ½ mile of the site (Figure 4.2-2). Section 3.4 describes the methodology employed in these analyses and Section 2.2 provides information on existing land uses and operations on the site.

4.2.1.2 Land Use Patterns

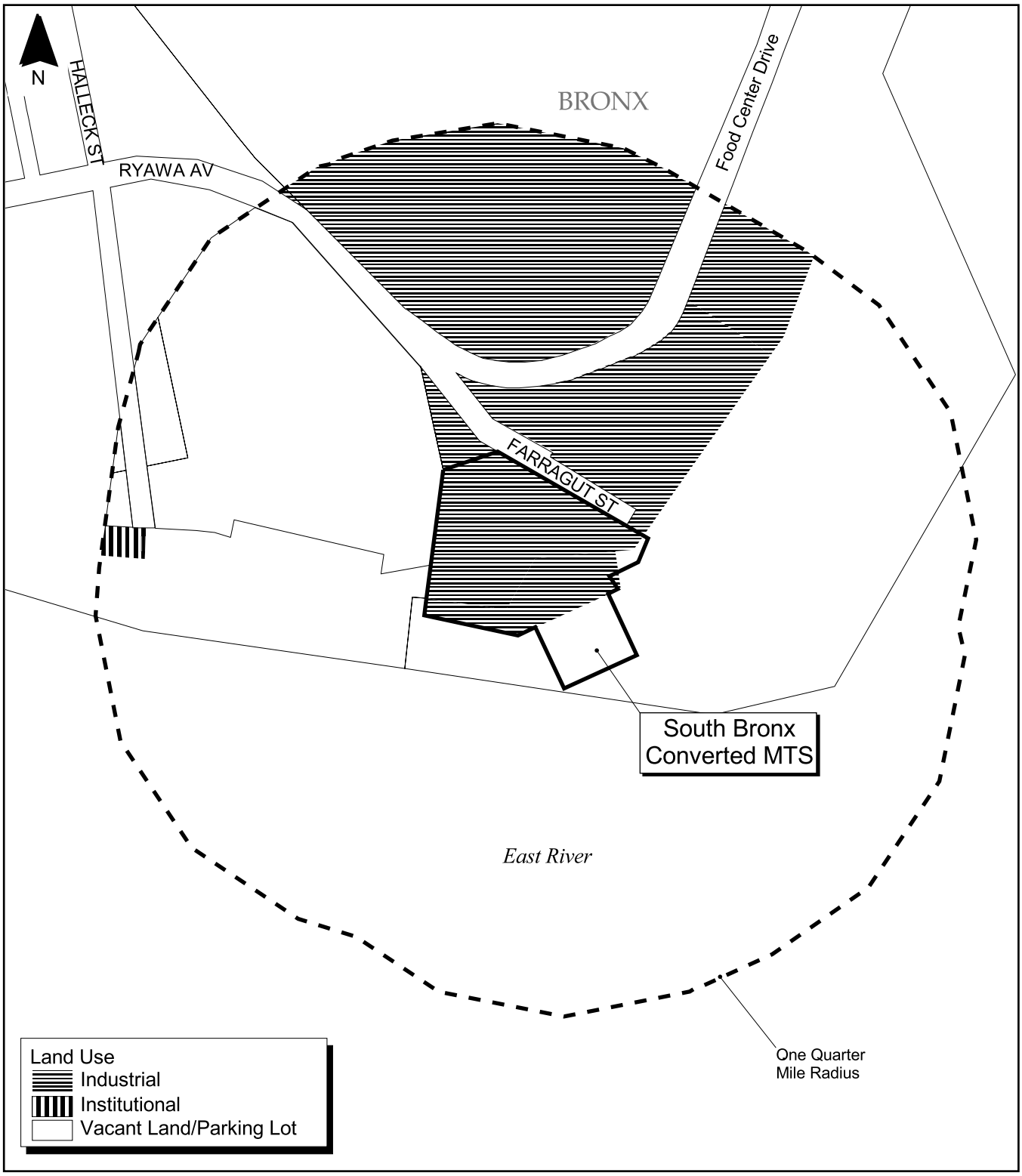
4.2.1.2.1 General Context

The site is set on the industrial Hunts Point waterfront. A number of nearby City-owned properties and operations surround the site. The predominant use is the 329-acre Hunts Point Market, which is administered by EDC.

4.2.1.2.2 Land Uses in the Primary Study Area

All property immediately adjacent to the site is owned by the City or its agencies (e.g., DSNY, Department of Correction, DEP, and EDC). A small area with deteriorated paving that abuts the site near the East River's edge is used informally by local residents as a point of public access for fishing and viewing the water.

An active SHS on the site is comprised of a paved area surrounded by concrete walls topped with cyclone fencing. Accessed through a 30-foot sliding gate facing Farragut Street (formerly Hunts Point Avenue), the SHS accepts materials such as tires, metal, wood, construction and demolition materials, and glass from non-commercial vehicles. An office trailer is also located within this area.



Site delineations and study area boundaries are approximate
Base Map Source: New York City Department of City Planning
This figure illustrates predominant land uses by lot in the primary study area.

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Figure 4.2-1 Land Use in the Primary Study Area

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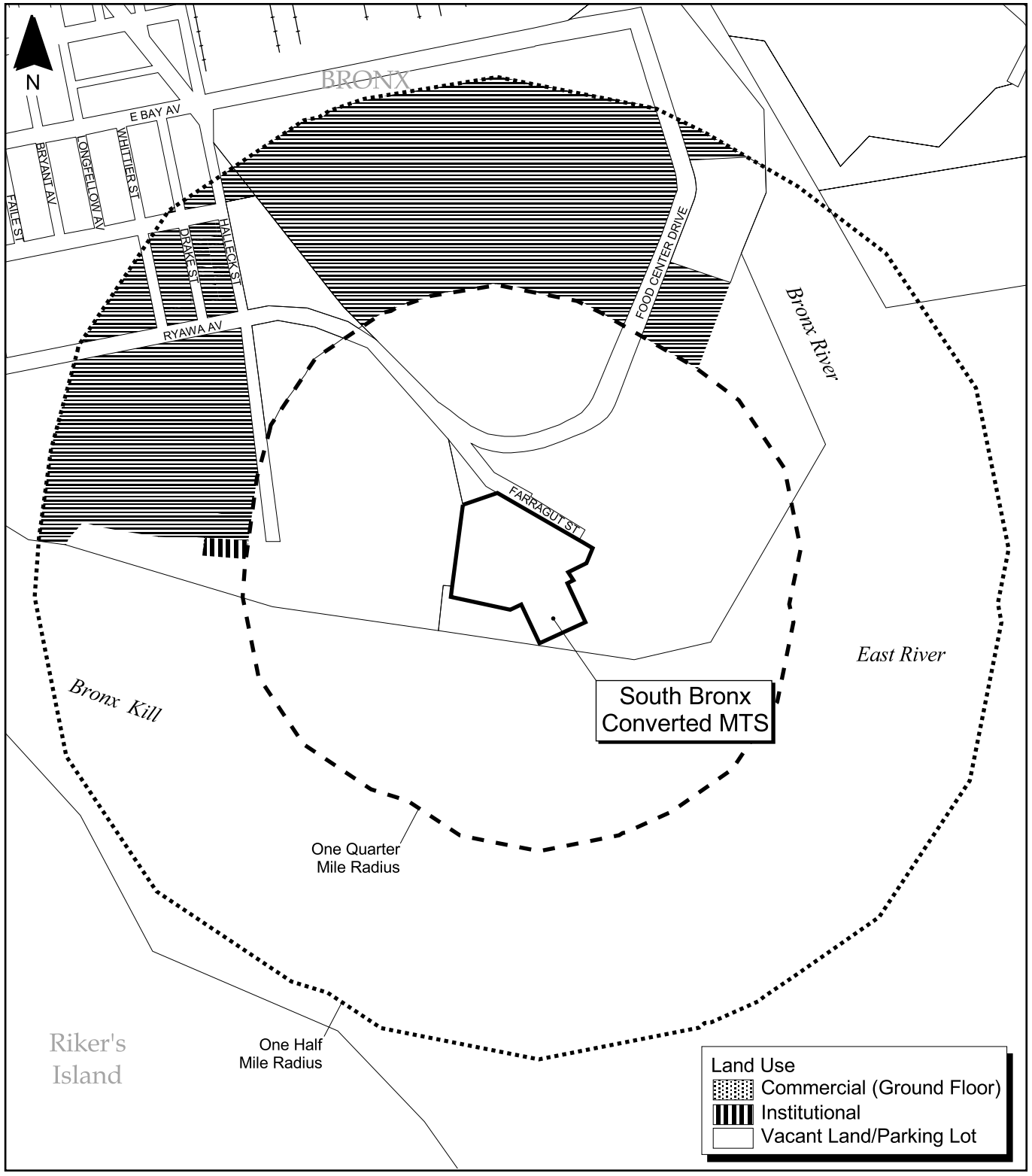

Site delineations and study area boundaries are approximate.
Base Map Source: New York City Department of City Planning
This figure illustrates generalized land uses in the secondary study area.

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Figure 4.2-2 Land Use in the Secondary Study Area
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A one-story, vacant goods distribution warehouse operated formerly by National Foods is located opposite the site, across Farragut Street. This facility is part of the City-owned Hunts Point Market, the wholesale food market and distribution center built in the 1970s that covers approximately the entire eastern half of the Hunts Point peninsula. The Hunts Point Market serves as the primary distribution point for meat and produce within the tri-state area. The meat market is located within the primary and secondary study areas, while the produce market extends north from East Bay Avenue.

Outdoor movement of meat occurs around the meat market buildings. Distribution and delivery to these buildings and some of the other facilities in the Hunts Point Market is by both truck and rail. The Hunts Point Rail Loop Spur extends into the primary study area, following Food Center Drive, a loop roadway serving the market.

The City Department of Correction's prison barge, known as the Vernon C. Bain Center (City Correctional Facilities Maritime Facility III), is located at 1280 Ryawa Avenue to the west of the site. The land area adjacent to the barge is fenced off from the site and is undeveloped and partly wooded. The prison barge is one of the Department of Correction's reserve facilities that is closed or opened on an as-needed basis in response to inmate population fluctuations. It is an 80-bed facility currently in use at full capacity. The 30-acre parcel vacant upland of the prison barge is currently being graded for construction of the relocated Fulton Fish Market.

4.2.1.2.3 Land Uses in the Secondary Study Area

Several one-story market buildings and a two-story cold storage warehouse building are located in the secondary study area, north-northeast of the site within the Hunts Point Market. Paved storage and parking areas that surround these distribution warehouses are separated from Farragut Street by wire fencing. Major food distribution businesses including National Foods, Krasdale Foods, and Bazzini Nut Corporation are located off Food Center Drive.

Additional Department of Correction vacant property is to the west of the site. Further west, just within the ½-mile secondary study area is the Hunts Point WPCP operated by DEP. Private industrial and heavy commercial uses, such as auto salvage yards, are located on Ryawa Avenue, Halleck Street, Drake Street and Whittier Street.

Beyond the secondary study area to the northwest and east, respectively, the Hunts Point peninsula contains additional industrial uses and the Hunts Point residential community (with approximately 11,400 residents).

4.2.1.3 Zoning on and near the Site

4.2.1.3.1 Zoning within the Primary Study Area

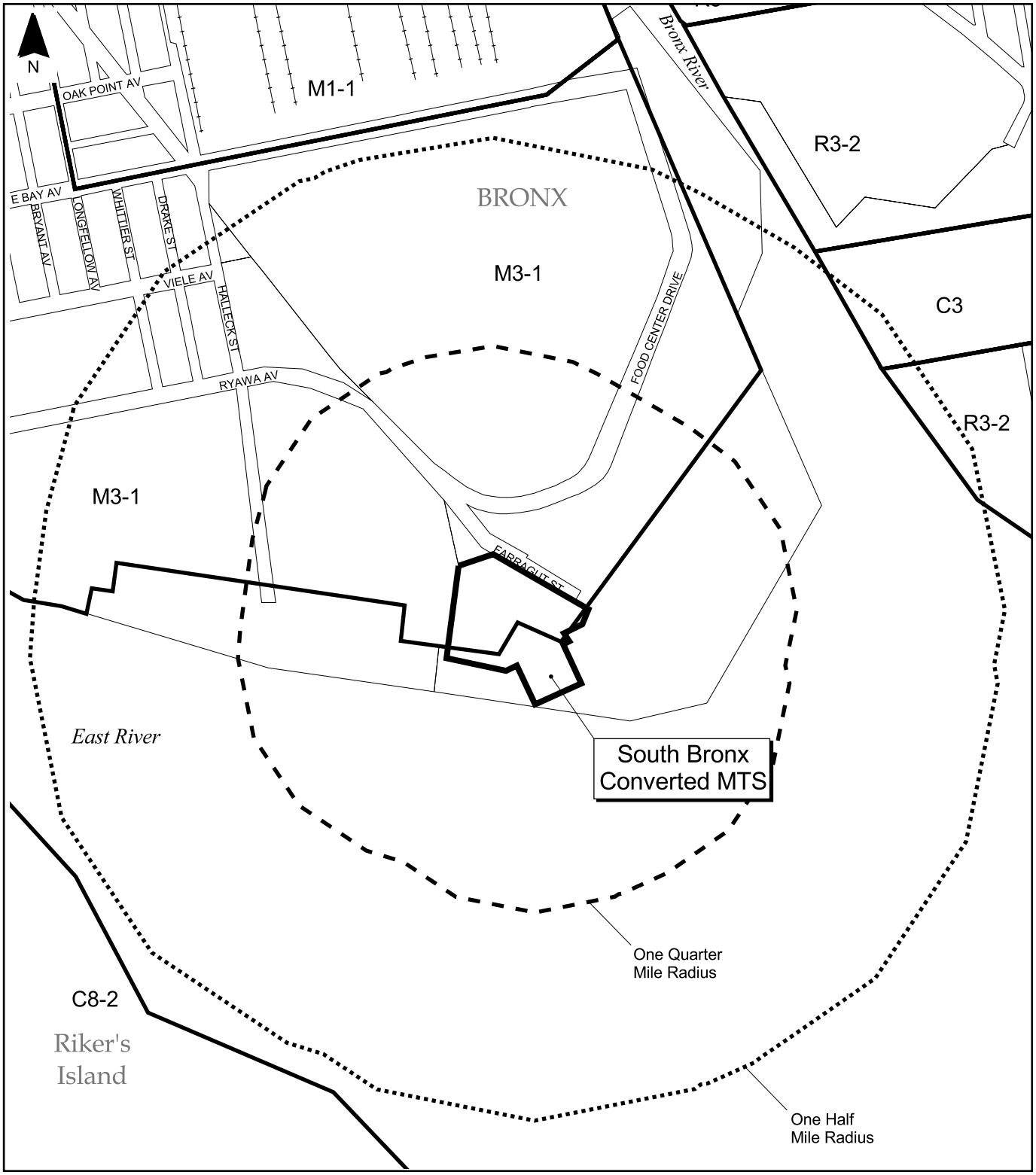
The site and surrounding properties within both the primary and secondary study areas fall within an M3-1 heavy industrial district that extends north to approximately East Bay Avenue and Randall Avenue, where it abuts an M1-1 light industrial district. Most of the Hunts Point peninsula is zoned for manufacturing, with the exception of the 20-block residential area located at the northeastern end (see Figure 4.2-3 and Table 3.4-1: Zoning District Characteristics), about one mile from the site.

4.2.1.3.2 Zoning within the Secondary Study Area

North of the subject M3 district is an M1-1 light industrial zoning district that covers areas outside of the secondary study area surrounding Randall Avenue and east to approximately Longfellow Avenue.

4.2.1.4 Plans and Policies

In its FY 2002/2003 District Needs Statement, Bronx Community Board #2 South Bronx refers to the community's anticipated use of the Bronx River, and shoreline areas outside the study area for recreational and educational purposes, but it refers the designation of the Hunts Point waterfront as an SMIA, thus making it suitable for water-dependent industry. However, the document states that because the district perceives that it is unfairly burdened by private and public waste transfer facilities located in the district, the Community Board has adopted a policy of "zero tolerance for any proposed new waste transfer station in the district."



Site delineations and study area boundaries are approximate.
Base Map Source: New York City Department of Planning

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Figure 4.2-3 Zoning

South Bronx Converted MTS

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The proposed Hunts Point Streetscaping and Transportation Enhancement Program is intended to improve the quality of life in residential areas on the Hunts Point peninsula. It includes traffic calming measures, landscaping and other improvements, including improving the industrial park with color-coded signage, lighting and streetscape improvements. Program recommendations include the decommissioning of certain truck routes. The Hunts Point Action Plan is a separate $20 million City initiative to pave streets and sidewalks and undertake bridge improvements on the peninsula.

Reach 7 of the Department of City Planning's Plan for the Bronx Waterfront, which covers the South Bronx, makes several recommendations for the Hunts Point peninsula in the vicinity of the site. The plan recommends:

- Conservation of the existing natural edge along the waterfront for shoreline areas to the north of the site in order to soften the industrial character of the Hunts Point Market as seen from the East River and Soundview Park.

- Increased use of barge transport, including for solid waste transport. (Two sites within the Hunts Point Market food distribution center are cited as having barge access potential, including one point approximately ¼ mile northeast of the South Bronx Converted MTS site).

- Waterfront public access improvements that emphasize sites within other parts of Hunts Point, such as the Tiffany Street Pier and Lafayette Street. However, a pedestrian access point is recommended at the end of Farragut Street adjacent to the South Bronx Converted MTS site, where local residents already access the waterfront informally for fishing.

- Exploring the reuse of the site as a waterfront park with an esplanade and fishing pier serving the Hunts Point community, in the event that it is vacated by DSNY.

The only element of the Reach 7 plan that is being implemented currently is the reconstruction of the Tiffany Street Pier as a public access pier with fishing and passive recreation facilities (see Section 4.16 for a review of consistency with the Waterfront Revitalization Program).

4.2.2 Future No-Build Conditions

Two major developments are underway or proposed within ½ mile of the site. Figure 4.2-4 shows the planned development sites. Development plans include the following:

- The Fulton Street Fish Market will be relocated from Manhattan to the largest site, a 30-acre parcel site west of the South Bronx Converted MTS site, by the end of 2003.
- The Hunts Point WPCP Expansion project is currently under way. It encompasses a large waterfront site west of the South Bronx Converted MTS site and the prison barge, and will be substantially complete by 2006.

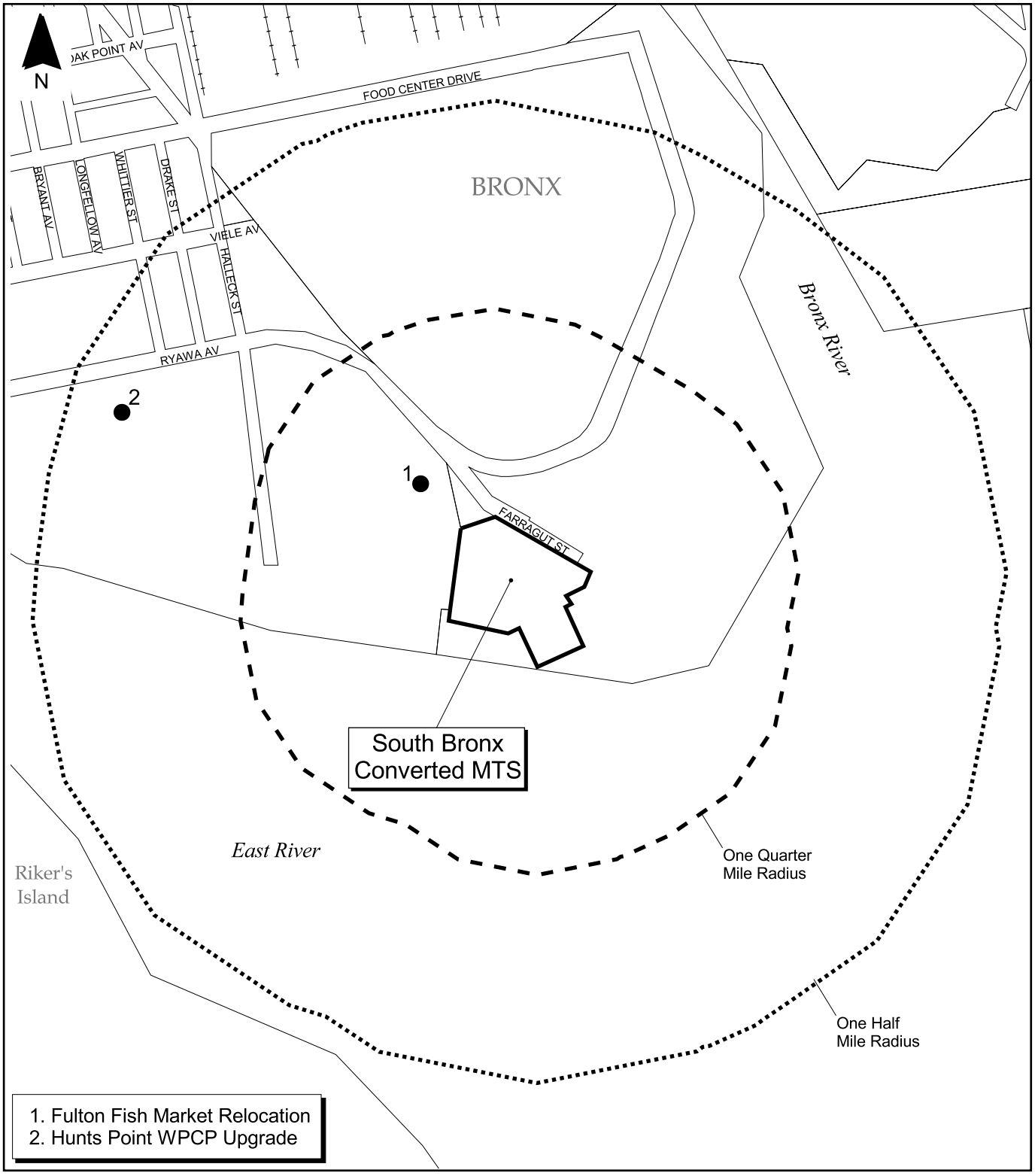
The Hunts Point Action Plan, developed in 1997 to improve signage on the peninsula and to address truck routing, will be in place by 2006.

The only element of the Reach 7 plan expected to be implemented is the reconstruction of the Tiffany Street Pier as a public access pier for fishing and passive recreation. This project will enhance waterfront public amenities in the greater Hunts Point peninsula. The site itself will remain DSNY property, and the existing MTS will remain standing. The associated DSNY salt storage facility and SHS will continue to be fully operational.

4.2.3 Potential Impacts with the South Bronx Converted MTS

4.2.3.1 Land Use and Zoning

The South Bronx Converted MTS represents a slight physical upgrading of the site. The existing MTS, which extends over water, would be demolished, and the new facility would be built in approximately the same location. The South Bronx Converted MTS processing operation would be designed to containerize waste and prepare containers for transfer to barges for disposal outside the City. The entrance to the facility would be moved slightly to the west. The existing salt shed and SHS would remain intact.



Site delineations and study area boundaries are approximate.
Base Map Source: New York City Department of City Planning

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Figure 4.2-4 Planned Development Sites

South Bronx Converted MTS

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The reactivation of waste transfer activities on the site would have no effect on land uses nearby and the truck traffic would be consistent with the heavy industrial character and zoning of the primary and secondary study areas.

4.2.3.2 Consistency with Public Plans and Policies

The South Bronx Converted MTS is consistent with recommendations of the Reach 7 plan, which promote increased use of barge for solid waste transport. While the Reach 7 plan discussed a potential future Hunts Point waterfront park on the site, this is only recommended in the event that the site is no longer used by DSNY. Therefore, this recommendation does not conflict with the South Bronx Converted MTS. The South Bronx Converted MTS would not preclude use of land at the end of Farragut Street as a designated pedestrian waterfront access point, although it could detract from the enjoyment of that adjacent waterfront experience. It is reasonable to assume, however, that pedestrian waterfront access would be better accommodated by the new Tiffany Street Pier and Barretto Point Park, which will be in place west of the site by 2006. Although the presence of the South Bronx Converted MTS operations would be consistent with the SMIA designation, as the Community District 2 Statement of Needs says, it would be inconsistent with the Community Board's zero-tolerance policy.

4.3 Socioeconomic Conditions

4.3.1 Existing Conditions

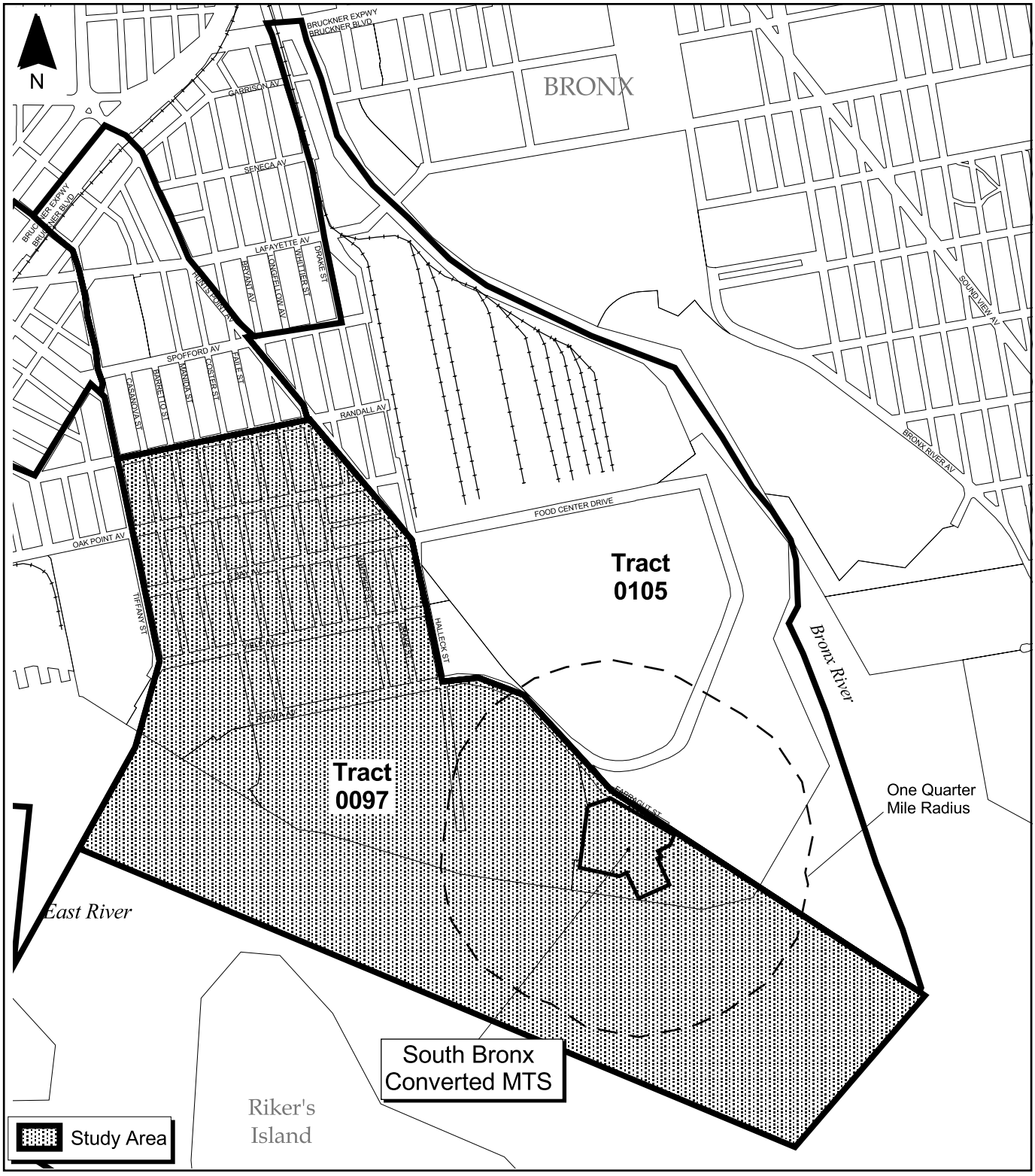
4.3.1.1 Definition of the Study Areas

Two study areas were used for the analysis of socioeconomic conditions: (1) a demographic study area based roughly on census tracts within a ¼ mile of the site, and (2) a study area related to economic activity that generally covers a larger area that extends ½ mile from the site. (Refer to Section 3.5 for a more detailed description of study area delineation.) In this case, the demographic study area consists of Census Tract 97 (Figure 4.3-1). The tract encompasses predominantly industrial areas on the southern and eastern portions of the Hunts Point peninsula and contains some scattered residential areas. The study area for the assessment of potential impacts on economic conditions extends to approximately Viele Avenue.

Because the 2000 population of the study area consisted of only 92 individuals and 13 families, none of whom would be directly displaced by the South Bronx Converted MTS, a detailed demographic review is not presented here. Socioeconomic data (comparing 1990 and 2000 census data for the study area, Borough and City) were collected, however, and are provided in Appendix B.

4.3.1.2 Economic Conditions

The site is adjacent to the Hunts Point Market, a City-administered (EDC) industrial park that is the main wholesale food distribution center for the New York region. A vacant one-story, canned food goods distribution warehouse formerly operated by National Foods is across Farragut Street from the site. Other business and institutional uses within ¼ mile north of the site include additional Hunts Point Market distribution and warehouse uses, including meat market buildings and a City Department of Corrections property (prison barge). Several other one-story market buildings and a two-story cold storage warehouse building are between ¼ and ½ mile north-northeast of the site within the Hunts Point Market. Major food distribution businesses, including Krasdale Foods and Bazzini Nut Corporation, are off Food Center Drive, a loop roadway serving the market. Industrial and heavy commercial uses, including auto salvage



Site delineations and study area boundaries are approximate
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

Figure 4.3-1 Census Tracts

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yards and waste transfer stations, are outside of the market in the industrially zoned portions of Hunts Point. These industrial and heavy commercial uses are located at a distance of approximately ½ mile to the west of the site.

The Hunts Point EDZ extends beyond the boundaries of the ½ mile study area. The EDZ was developed to stimulate economic activity in distressed areas and encourage business development through targeted incentives and benefits to new and expanding commercial and industrial firms. State benefits are available through wage tax credits, investment tax credits, sales tax refunds on building/construction costs and financial assistance. Utility discounts and free security surveys are provided to relocating or expanding businesses. This is one of the city's most successful EDZs, with 130 businesses certified to participate in its programs. In 1998, 500 new jobs were created in the EDZ and $25 million in private investment was leveraged. The Hunts Point LDC is the local sponsor of the EDZ. It has been involved with planning and upgrading initiatives for the entire Hunts Point peninsula.

Current estimates indicate that about 21,776 employees worked in Bronx Community District 2 in 2002, which was about 7.6 percent of the borough's total employment.[1]

4.3.2 Future No-Build Conditions

4.3.2.1 Demographic Characteristics

Regional projections indicate that the population of census tract 97 will remain about the same as current estimates.[2]

The Department of Correction's prison barge adjacent to the site is currently fully occupied (800 inmates) and is expected to operate at this capacity in the Future No-Build Conditions.

4.3.2.2 Economic Conditions

Regional projections indicate that employment in Bronx Community District 2 will increase to 22,876, about a 5 percent increase in employment between 2002 and 2006.[3]

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[1] New York Metropolitan Transportation Council, Employment Interim Projections data set, approved 7-17-03.
[2] New York Metropolitan Transportation Council, Employment Interim Projections data set, approved 7-17-03.
[3] New York Metropolitan Transportation Council, Employment Interim Projections data set, approved 7-17-03.

The near-term economic health of industrial areas, such as Hunts Point, may be supported by established City programs available through the IDA. The Industrial Incentive Program and the Small Industry Incentive Program provide business tax incentives for capital renovation and expansion projects.

Hunts Point is part of the South Bronx portion of the Harlem/South Bronx EZ. The EZ is one of six such designated zones in the country where state and federal matching funds and tax incentives are available to attract private investment, generate job growth, stimulate business openings and expansions, construct new housing, expand home ownership, and stabilize deteriorating neighborhoods. BOEDC is the designated LDC responsible for administering and implementing programs and initiatives within the Bronx portion of the EZ. The EZ is expected to expand the range of economic opportunities in Hunts Point.

4.3.3 Potential Impacts with the South Bronx Converted MTS

The South Bronx Converted MTS represents the reactivation of solid waste transfer operations with added containerization operations. It would be compatible with its industrial surroundings and not be expected to have a significant adverse impact on socioeconomic conditions within the study area. Given the existing industries in the study area and the already high volume of truck traffic on designated truck routes in Hunts Point, no significant adverse impacts on socioeconomic conditions are anticipated.

4.3.3.1 Residential Impacts

Because the South Bronx Converted MTS would be relatively removed from the interior residential concentrations on the Hunts Point peninsula and because trucks accessing the site would use existing designated truck routes, it is not expected to significantly affect the residential population of Hunts Point. A six-story apartment building located at the intersection of Spofford Avenue and Tiffany Street and an adjacent small home, both of which are adjacent to a designated truck route, would likely experience the greatest effects from the expected increase in truck traffic. However, analyses of traffic, air quality, and noise indicate that there would be no significant project-related impacts at these locations (see Sections 4.9, 4.10, and 4.12). Therefore, the South Bronx Converted MTS is not expected to result in indirect displacement of residents.

4.3.3.2 Direct Business and Institutional Impacts

No direct displacement of businesses or institutions would occur as a result of the South Bronx Converted MTS.

4.3.3.3 Indirect Business and Institutional Impacts

The South Bronx Converted MTS would be compatible with its industrial surroundings. The adjacent Hunts Point Market uses are not expected to experience significant adverse effects related to air quality or odor as a result of the operations of the South Bronx Converted MTS. While noise levels will increase on the site, they are not expected to affect the surrounding food distribution activities, which themselves would be expected to generate high noise levels, or the industrial operations of businesses in the study area. The site was used previously as an MTS within the same Hunts Point Market environs and its reuse for this purpose would not be expected to preclude food distribution activities nearby.

Increased truck volumes on designated truck routes on Hunts Point resulting from the South Bronx Converted MTS would not be expected to result in indirect displacement of existing businesses or institutional uses as these routes are already heavily used by trucks and have an industrial character. The Corpus Christi Monastery and the Spofford Juvenile Detention Center, located adjacent to the Tiffany Street truck route, may experience some additional environmental effects from increased truck traffic, such as air and noise emissions; however, these increases would not be expected to result in significant adverse impacts.

4.3.3.4 Employment Impacts

The South Bronx Converted MTS would be expected to generate approximately 85 jobs associated with its operation and maintenance (crane operators, mechanics, supervisors), marine operations (barge personnel, crane operators), and transportation operations (drivers, dispatchers). In addition to direct positive employment impacts, the new workers would generate a minor amount of indirect economic benefits through local spending.

4.4 Community Facilities and Services

4.4.1 Existing Conditions

4.4.1.1 Definition of the Study Areas

The primary study area is defined as the area within ¼ mile of the site. The secondary study area is defined as the area between ¼ and ½ mile of the site.

4.4.1.2 Summary of the Community Facilities and Services

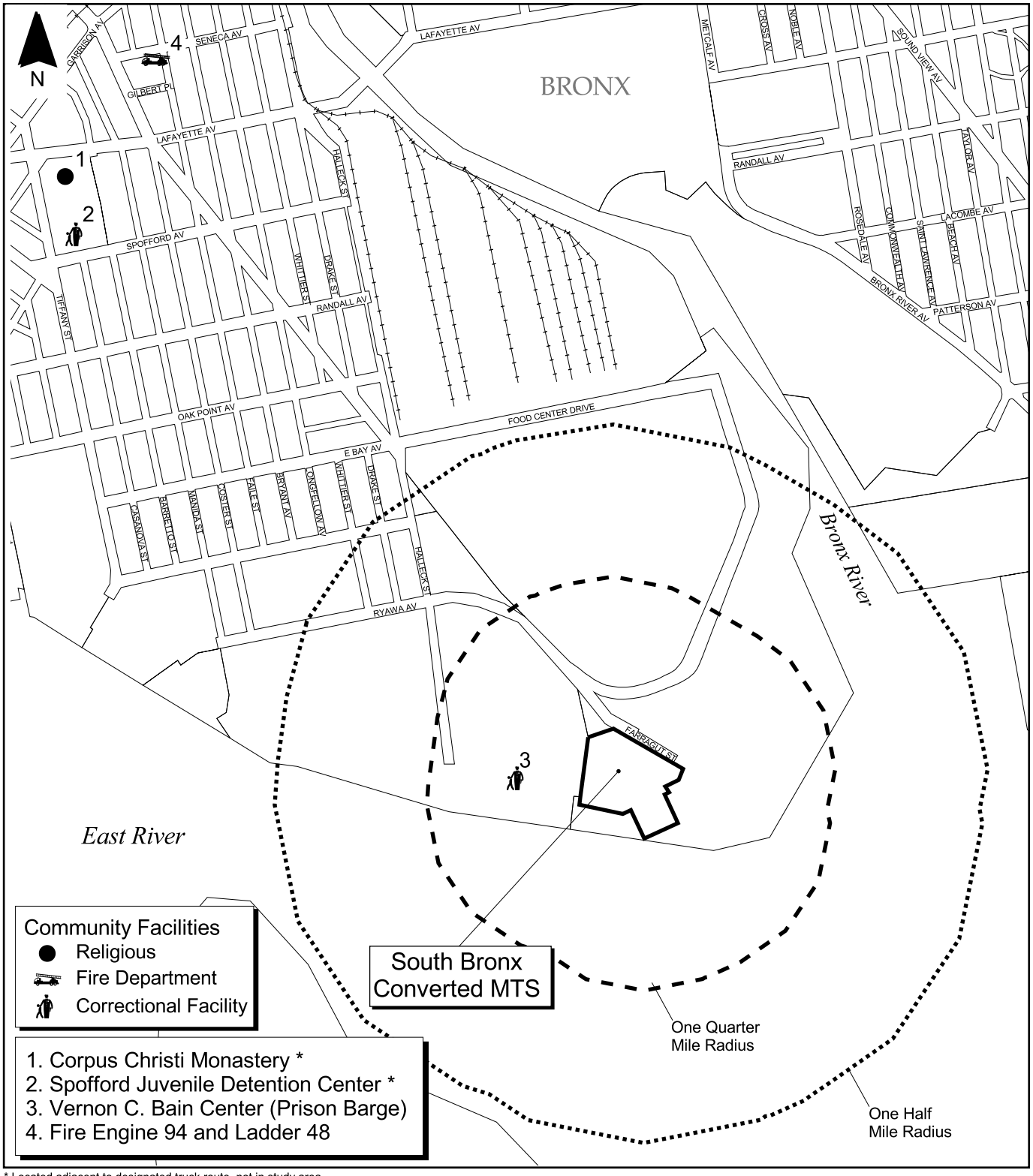
There are no community facilities or institutional uses in or closely bordering the primary or secondary study area other than the Vernon C. Bain Center (prison barge) immediately to the west of the site (Figure 4.4-1). The Corpus Christi Monastery and the Spofford Juvenile Detention Center are on a block bounded on the west by Tiffany Street, which is part of the inbound truck route. Although neither facility is within or serves the study area, the potential for impacts on these uses is analyzed within this section. The prison barge and community facilities located outside of the secondary study area are listed in Table 4.4-1.

4.4.2 Future No-Build Conditions

There are no known changes planned for the community facilities and services within the primary and secondary study areas by the Future No-Build year. Therefore, anticipated Future No-Build Conditions are expected to be fundamentally the same as Existing Conditions.

4.4.3 Potential Impacts with the South Bronx Converted MTS

The South Bronx Converted MTS would not create any significant new demand on services and community facilities and would not displace facilities or disrupt services. No significant adverse impacts to service delivery are expected. The New York City Fire Department states that it would have no problem supporting the South Bronx Converted MTS.



* Located adjacent to designated truck route, not in study area.
Site delineations and study area boundaries are approximate.
Base Map Source: New York City Department of City Planning
Note: Fire stations, police stations, and hospitals outside the secondary study area may not be shown on the figure.

Figure 4.4-1 Community Facilities and Services

South Bronx Converted MTS

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Table 4.4-1
Community Facilities and Services

Name	Address
Within the Primary Study Area	
Correctional Facilities	
Vernon C. Bain Center (prison barge)	1 Halleck Street
Outside the Secondary Study Area	
Hospitals	
Lincoln Medical Center	234 East 149th Street
Police	
41st Precinct – Police Station	1035 Longwood Avenue
Fire	
1st Engine and Ladder Company – Engine 94 and Ladder 48	1226 Seneca Avenue
2nd Engine and Ladder Company – Engine 96 and Ladder 54	1689 Story Avenue
Correctional Facilities	
Spofford Juvenile Detention Center	1221 Spofford Avenue
Religious and Cultural Institutions	
Corpus Christi Monastery	1230 Lafayette Avenue

4.5 Open Space and Parklands

4.5.1 Existing Conditions

4.5.1.1 Definition of the Study Area

The study area for open space and parklands is defined as being the area within a ½-mile radius of the site.

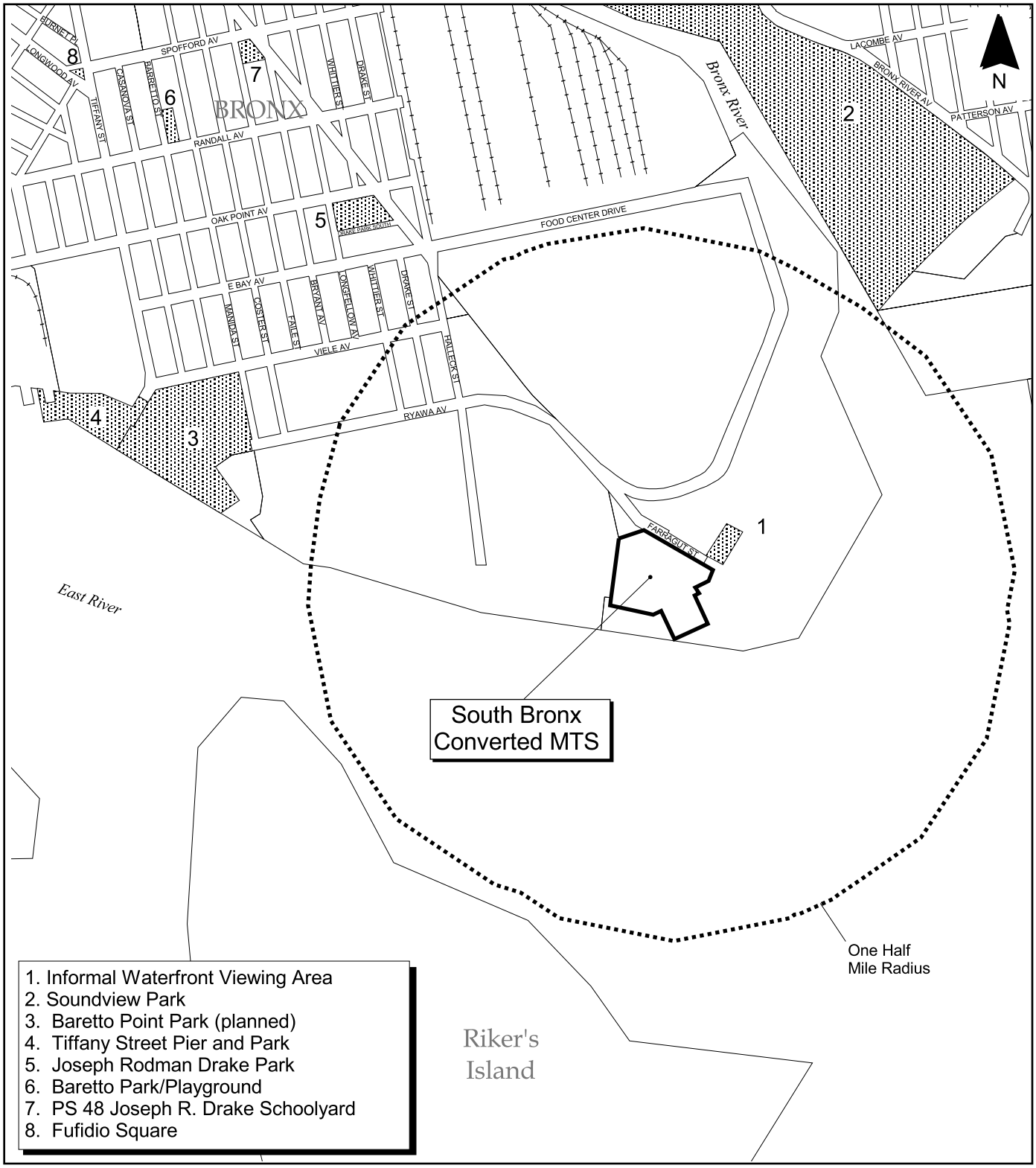
4.5.1.2 Summary of Open Space and Parklands in the Study Area

There is only one small informal open space in the study area at the terminus of Farragut Street and Easter River (approximately 0.1 acres) and a large undeveloped City park (Soundview Park) just outside the study area, with no direct access to the peninsula. They are shown on Figure 4.5-1. The outdoor exercise area on the prison barge is not included because it is not publicly accessible. Joseph Rodman Drake Park is also located just outside the study area on Oak Point Avenue and Farragut Street.

4.5.2 Future No-Build Conditions

No changes are expected by 2006 to the informal open space located at the end of Farragut Street. It is reasonable to expect that waterfront access in the vicinity, however, will be better accommodated by Barretto Point Park, which will be complete by 2006. With funding already secured, a permit is expected in 2003 with construction set to begin immediately.

Future No-Build park improvements outside the study area include three projects in Soundview Park: 1) a new playground; 2) a street park in the northern portion; and 3) a canoe/kayak access point incorporated into greenway parks to allow kayaking up the Bronx River as well as the East River.



Site delineations and study area boundaries are approximate
Base Map Source: New York City Department of Planning

Figure 4.5-1 Open Space/Parkland

South Bronx Converted MTS

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4.5.3 Potential Impacts with the South Bronx Converted MTS

The South Bronx Converted MTS is not expected to result in significant impacts on the parkland. People who use the informal open space at the end of Farragut Street may be affected by the re-introduced MTS operations and the associated presence of trucks and hopper barges. However, the effect would not be considered significant. The new Tiffany Street Pier, including parkland to the west of it, and Barretto Point Park located adjacent and to the east of it are under development and will be completed by 2006. These new park areas would accommodate the demand for waterfront access currently met by the inadequately maintained informal access point at the end of Farragut Street. Though outside the study area, these new parks provide more than 11 acres of waterfront public open space, which has long been demanded by the Hunts Point community. The South Bronx Converted MTS would not otherwise physically change, diminish, or eliminate any open space or reduce its use, utilization or aesthetic value, nor would it introduce a substantial new user population that would create or exacerbate an over-utilization of this resource.

4.6 Cultural Resources

4.6.1 Existing Conditions

4.6.1.1 Definition of the Study Area

The study area for cultural resources is defined as the area within a ½-mile radius of the site.

4.6.1.2 Development History of the Area

Native Americans called the peninsula Quinnahung, while the English name, "Hunts Point" was derived from its late 17th century proprietor, Thomas Hunt. Thomas Hunt built his mansion in 1668 at the end of the Hunts Point peninsula, in the vicinity of the site, where it remained, although in disrepair, until the early 20th century.

In the 19th century, wealthy people settled in Hunts Point and mansions were constructed. Hunts Point was an independent village until it was annexed by New York City in 1874. Three prominent families who settled on the peninsula, the Leggetts, Foxes and Tiffanys, were descendants of the original Leggetts who had owned the land on the western portion of the peninsula. This area, which includes Oak Point, eventually contained an amusement park, ballfields, picnic grounds, and a bathing beach from the time of the Civil War until around 1908.

Northwestern portions of Hunts Point developed rapidly with apartment buildings in the early decades of the 20th century, following the introduction of IRT subway service to Manhattan. In the first half of the 20th century the population was mainly Jewish, with some German, Irish and Italian immigrants. The American Banknote Building was a prominent early structure in the northern portion of the peninsula.

Starting in the 1960s, the area declined due to housing abandonment, poverty, crime and drugs, as did other areas in the South Bronx. Only recently have most of the vacant apartment buildings in Hunts Point been renovated through City housing programs. The Hunts Point Market has replaced former residential development on much of the southeastern portion of Hunts Point peninsula with food distribution facilities.

Further inland from the Hunts Point peninsula, though within the greater Hunts Point community, is the Longwood Historic District, which is listed on both the State and National Registers of Historic Places. It is nearly two miles from the site, located several blocks northwest of the Bruckner Expressway, between Leggett Avenue and Longwood Avenue. It features mostly semi-detached neo-Renaissance two- and three-family houses as well as single-family homes, apartment buildings, a church and a former synagogue.

4.6.1.3 Cultural Resources on the Site

There are no standing structures of cultural or historic significance on the site.

Historians have identified records of prehistoric sites in the vicinity of, and further to the north of the site. Bolton (1922) describes "masses of shells" found on the shore at a site near the end of the peninsula and other prehistoric sites located at Farragut Street and Randall Avenue, and near the current location of the Bruckner Expressway.[4] Previous cultural resources analyses of the area have suggested that these probably were not Native American village sites but were probably temporary and seasonal specialized camps for food collection. These sites are not expected to be intact, given past development activity that has likely disturbed them. However, there may be undiscovered prehistoric cultural resources on the site or in the area.

[4] Historical Perspectives, Inc. Phase 1A Archaeological Sensitivity Report for DSNY Resource Recovery Project, Bronx, NY. 1986.

4.6.1.4 Cultural Resources within the Study Area

There are no state, national, or local historic districts or individually-designated properties within the site or the study area.

4.6.2 Future No-Build Conditions

There are no additional elements of potential architectural or archaeological significance slated for review. Anticipated Future No-Build Conditions are assumed to be the same as Existing Conditions.

4.6.3 Potential Impacts with the South Bronx Converted MTS

Based upon its review, SHPO has stated that the South Bronx Converted MTS would have no impact upon cultural resources in, or be eligible for inclusion in, State and National Registers of Historic Places. The LPC has stated that the site contains no architectural or archeological significance (see Appendix A). The South Bronx Converted MTS would not result in adverse impacts to cultural resources and no mitigation measures would be warranted.

4.7 Urban Design and Visual Quality

4.7.1 Existing Conditions

4.7.1.1 Definition of the Study Area

The urban design and visual quality of the study area is limited roughly to the tip of the Hunts Point peninsula, marked by the intersection of East Bay Avenue with Farragut Street as the northernmost point and Manida Street as the westernmost edge. The site has been developed in a manner consistent with adjacent properties and the overall study area. It currently is a non-sensitive industrial area in terms of urban design and visual quality conditions. There are no view corridors or publicly accessible open areas or formal points of waterfront access that reasonably would be expected to experience visual-quality impacts from the South Bronx Converted MTS. The study area includes planned park development in the vicinity of the site that may be sensitive in order to allow full assessment of potential urban design and visual quality impacts to the planned new uses.

4.7.1.2 Description of the Site

Views of the site include the existing MTS, which is no longer in use. It is a large shed-like, grey, metal structure with a sloping roof and a maximum height of 67 feet (Figure 4.7-1). A wide ramp leads from Farragut Street to an open, 41-foot-wide entrance on the building's north side. A nearby SHS faces Farragut Street. The SHS consists of a concrete slab and asphalt pavement surrounded by concrete bin walls that are topped with cyclone fencing (Figure 4.7-2). To its rear between the SHS and existing MTS is a conical-shaped salt storage shed that is several stories high.

Figure 4.7-1 : View of the MTS building looking south from the site entrance. (Photo 2000)

Figure 4.7-2 : SHS facility and storage shed on western portion of the project site as viewed from Hunts Point Avenue. (Photo 2000)

Figure 4.7-1 and 4.7-2
Urban Design and Visual Quality
South Bronx Converted MTS

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DEPARTMENT OF SANITATION

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4.7.1.3 Urban Design and Visual Quality of the Study Area

The area has an industrial character. Its appearance suffers from barbed wired fences, debris and a lack of landscaping (Figure 4.7.3). In the immediate vicinity of the site, Farragut Street is lined with chain link fences. Debris is visible on the periphery of the truck distribution facility parking lot that extends upland within the interior of the property north of the site. A small open area at the end of Farragut Street is used informally for fishing and water viewing, though this area is not landscaped, and concrete barricades prohibit vehicular access (Figure 4.7-4).

The southeastern end of the Hunts Point peninsula is characterized by low-scale, light industrial uses, including food distribution warehouses that are part of the Hunts Point Market, abutting the Bronx River. Several large, one-story distribution warehouses are oriented around the Food Center Drive loop, in the market area northeast of the site.

The waterfront property west of the site is graded for construction of the Fulton Fish Market, with the moored prison barge abutting the bulkhead (Figure 4.7-5). The top of the white and blue prison barge can be seen from the end of Farragut Street, beyond the overgrown wooded area at its base. It is approximately five to six stories high and has a stark, modern appearance. The area abutting the site at the end of Farragut Street reveals views of the waterfront and the distant Queens shoreline to the south and east, and Queens and Rikers Island to the southwest (Figure 4.7-6).

4.7.2 Future No-Build Conditions

Changes to the visual environment will result from the relocation of the Fulton Fish Market and the expansion of the Hunts Point WPCP, two large-scale projects that, in addition to Hunts Point Market development, will develop much land that currently stands vacant and increase the density of large-scale development. The additional development of food distribution and warehouse uses will increase the built density of this area. The area surrounding the site is likely to continue to be an industrial area with no significant visual amenities other than waterfront views.

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Figure 4.7-3 : The terminus of Hunts Point Avenue looking southeast. (Photo 2000)

Figure 4.7-4 : Hunts Point Market and informal waterfront viewing area, looking northeast from the site. (Photo 2000)

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Figure 4.7-5 : View of southwestern portion of the site, looking toward the moored Prison Barge. (Photo 2000)

Figure 4.7-6 : View of the East River and Riker's Island looking southwest from the site. (Photo 2000)

Figure 4.7-5 and 4.7-6
Urban Design and Visual Quality
South Bronx Converted MTS

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The site will remain DSNY property, the existing MTS will remain standing, and the DSNY salt storage facility and SHS will continue to be fully operational.

4.7.3 Potential Impacts with the South Bronx Converted MTS

The South Bronx Converted MTS would be constructed over water in approximately the same location as the existing MTS, which would be demolished. It would not result in significant visual impacts on the study area since it is already industrial in character and contains no residential uses, parkland areas, or historic structures. Views from the informal waterfront area nearby would be affected by increased truck presence and barge traffic, but these changes would not have significant adverse impacts on the urban design or visual quality of the area. Views to the east from the prison barge, a residential facility that houses detainees on a temporary basis, would be altered slightly.

4.8 Neighborhood Character

4.8.1 Existing Conditions

4.8.1.1 Definition of the Study Area

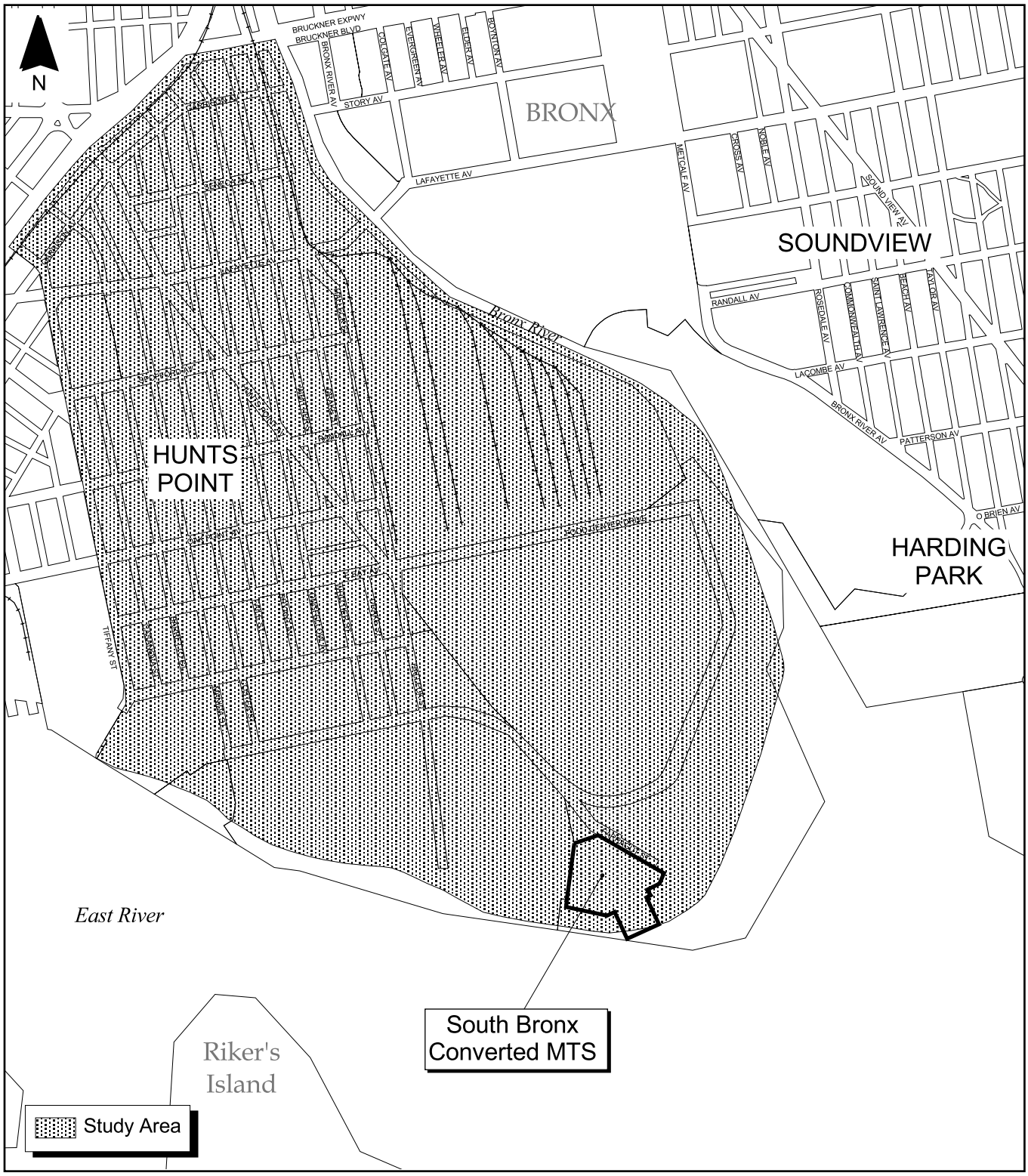
The neighborhood character study area for the site is defined by the predominantly industrial land use and visual quality, which are the two major factors contributing to the neighborhood character of the site and surrounding properties. Additionally, traffic patterns contribute to the definition of the study area because project-related increases in truck traffic would occur on routes that traverse the peninsula from the Bruckner Expressway via Tiffany Street, Halleck Street, Randall Avenue, and Viele Avenue. The study area, therefore, also includes the residential and commercial areas comprising the remainder of the peninsula upland from the site. The study area is defined as the overall Hunts Point peninsula east of Tiffany Street, which extends from the Bronx River to the East River, southeast of the Bruckner Expressway (Figure 4.8-1).

4.8.1.2 Description of Neighborhood Character

The character of the area within ½ mile of the site is defined by low-scale, low-density heavy commercial and industrial uses, large municipal facilities, and vacant land.

The Hunts Point Market, the largest property in the vicinity of the site, shapes the character of the area. This wholesale food distribution center is the largest such facility in the country and as such, generates considerable amounts of truck traffic. Its large warehouse and refrigerated warehouse buildings are oriented around Food Center Drive.

In addition to the pervasive industrial character of the southern and eastern portions of the peninsula, there is a vital residential neighborhood comprising approximately two dozen blocks about one mile north of the site. This neighborhood features dense housing and ground-floor commercial services clustered along Farragut Street between the Bruckner Expressway and Randall Avenue. Schools and other community facilities are located nearby.



Site Delineations are approximate.
Base Map Source: New York City Department of City Planning

Figure 4.8-1 Neighborhood Location

South Bronx Converted MTS

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The elevated Bruckner Expressway to the north visually separates the peninsula from the inland areas (extending to Westchester Avenue) that are also considered part of the larger Hunts Point community. This highway and the CSX/Amtrak rail line below grade present a physical barrier, limiting roadway crossings into the peninsula. The peninsula community contains relatively little open space, aside from the Tiffany Street Pier, west of the site, and Joseph Rodman Drake Park, which is located $^{2}/_{3}$ mile northwest of the site, and it contains a historic cemetery and passive recreation areas.

Farragut Street serves as the primary entry point into the peninsula and is the central hub of the larger community. A 19th century rail depot building on the north side of Farragut Street between Garrison Avenue and Bruckner Boulevard is a visual landmark that can be seen as one crosses below Bruckner Expressway onto the peninsula. Farragut Street is lined with heavier commercial uses farther to the southeast, such as auto glass repair establishments. It eventually leads into the industrial districts to the south.

The overall Hunts Point area developed in the early 20th century with the extension of the subway toward Pelham Bay. At this time, the area was settled predominantly by Jewish, German, Irish and Italian immigrants. It later became a predominantly Puerto Rican and Black community. Hunts Point has experienced declining population and disinvestment since the 1970s. Public safety concerns have included high crime rates, prostitution, and drug dealing.

4.8.2 Future No-Build Conditions

No significant variations to the area's industrial neighborhood character are expected by 2006, though the industrial development will be intensified. The Hunts Point WPCP upgrade will be substantially complete by 2006 and the relocated Fulton Fish Market will be in full operation. Some upgrading of the area's housing stock, business uses and street conditions may occur as well.

Various other City agency plans for Hunts Point may have a positive impact on neighborhood character in the Future No-Build year, though they would increase truck traffic on the Hunts Point peninsula to some degree and replace undeveloped land with food distribution warehouses. Hunts Point Market expansion plans, truck routing and signage improvement plans, which are discussed in Section 4.2, would also further develop the industrial suitability and character of the area.

The site will remain DSNY property and the existing MTS will remain standing. The salt storage facility and SHS would continue to be operational.

4.8.3 Potential Impacts with the South Bronx Converted MTS

The South Bronx Converted MTS is not expected to result in significant impacts on neighborhood character since it would be consistent with the heavy industrial character of the area within ½ mile of the site, which is considerably removed from the residential portion of the community. The South Bronx Converted MTS would be visible only from the end of Farragut Street by visitors to the informal waterfront viewing location, which is not a permitted access point, and is barricaded and strewn with garbage. As described in Section 4.5, Open Space and Parklands, the Tiffany Street Pier and Barretto Print Park will be developed west of the site by 2006 and will safely accommodate the need for waterfront access in the vicinity.

The increase in truck traffic would increase delays at some intersections, but these delays could be mitigated through minor shifts in traffic signal timing. Technical studies predicted no significant air quality or odor impacts would result from the South Bronx Converted MTS (Sections 4.9, 4.10, and 4.11).

Significant facility-generated noise impacts are predicted at the prison barge (approximately 400 feet away). These impacts, as described in Section 4.12, could not be mitigated. The prison barge is situated and designed so as to not be part of the surrounding community and neighborhood, however, so noise impacts to the prison barge are not indicative of potential changes to the character of the neighborhood as experienced throughout the study area overall, where no other impacts are predicted.

4.9 Traffic and Transportation

4.9.1 Introduction

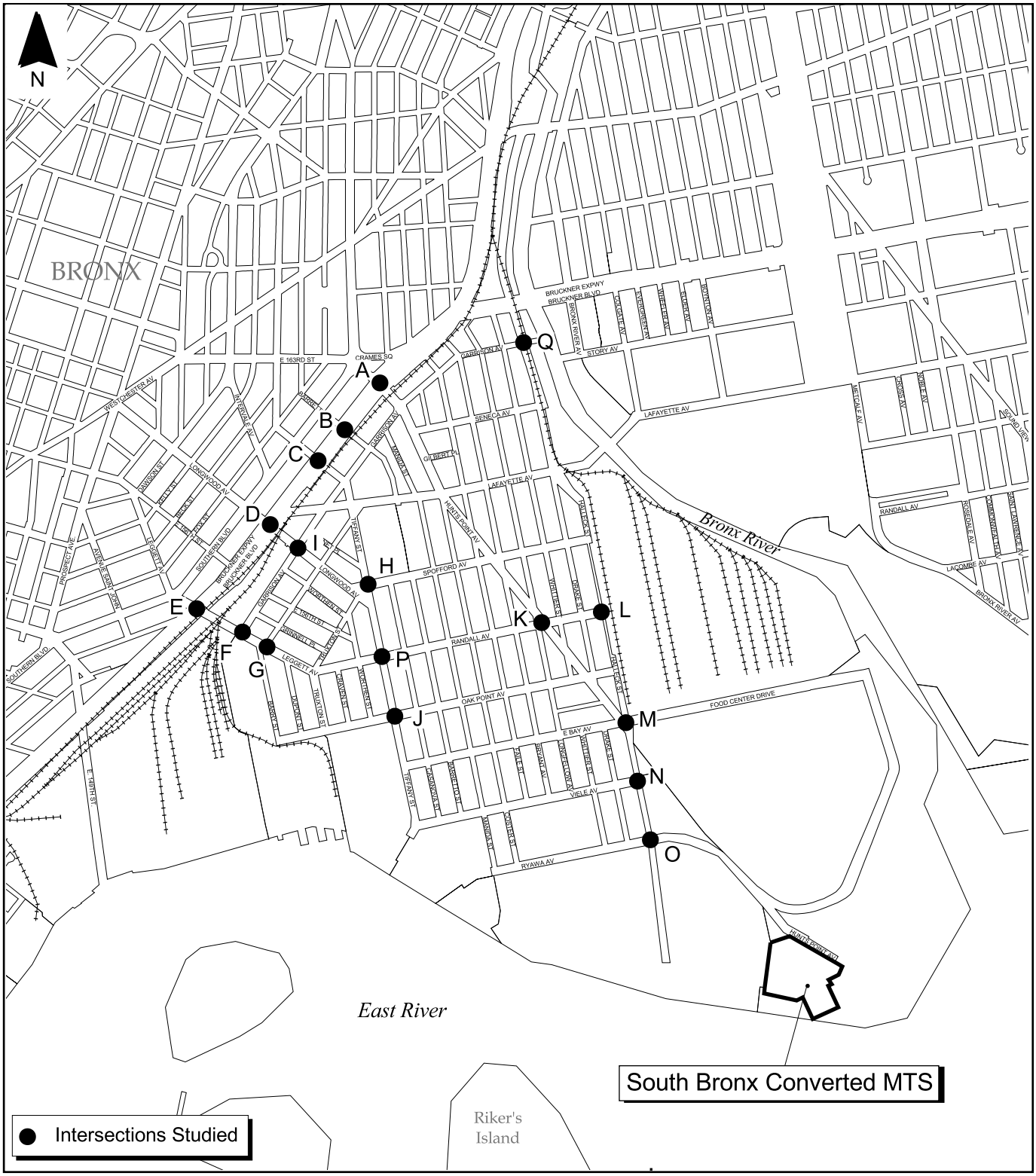
The South Bronx Converted MTS would receive waste from DSNY and other agency collection vehicles. Therefore, pursuant to CEQR guidelines, a traffic analysis was performed on the projected net increase in collection vehicles in the study area (which is defined below) and on other site-generated traffic. (See Section 3.10 for a discussion of CEQR analysis thresholds.)

4.9.2 Existing Conditions

4.9.2.1 Definition of Study Area

This site is located on the Hunts Point peninsula in the Bronx bounded on the land side by the elevated Bruckner Expressway, the depressed railroad right-of-way and the at-grade Bruckner Boulevard on the west, and the Bronx River and East River on the north, east and south. Thus, the peninsula and the adjacent Bruckner Boulevard provide a well defined geographic boundary for the study area where concentrations of trips to and from the site would be expected to occur. The study area is characterized by a mixture of light industrial/manufacturing land uses with several residential areas. There are no CEQR defined areas of concern located within the study area.

Bruckner Boulevard is a major corridor that extends from the Third Avenue Bridge in the Port Morris area of the Bronx west of the site to the interchange of the Bruckner and Sheridan Expressways. Vehicle trips into and out of the Hunts Points peninsula are limited to those portals where roadways bridge over the railroad right-of-way parallel to the Bruckner Expressway. Figure 4.9-1 shows the locations of the intersections selected for analysis (locations A through R). Intersections analyzed were selected using the procedures defined in Section 3.11.2.



Site delineations and study area boundaries are approximate.
Base Map Source: New York City Department of City Planning

Figure 4.9-1 Traffic Analysis Locations
South Bronx Converted MTS

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4.9.2.2 Surface Network

Trucks are required by NYCDOT Title 34 to travel on truck routes directly to the site or the intersection nearest the site if streets adjacent to the site are not designated truck routes. A map showing all major truck routes and local truck routes in the Bronx is provided in Section 3.11.2.1 (Figure 3.11-2).

The primary truck access route to and from the Hunts Point peninsula is Bruckner Boulevard, a major arterial located at-grade and below the Bruckner Expressway (I-278) for much of its length, with both express (mainline) and service road (SR) separated roadways. Through-truck routes connect the South Bronx with Queens via the Triborough, Bronx-Whitestone or Throgs Neck Bridges and with Manhattan via the Willis Avenue, Third Avenue, or Madison Avenue Bridges.

Within the Hunts Point peninsula, NYCDOT is expected to implement several significant changes to the local truck route network in 2003-2004. These changes include the de-designation of a segment of Tiffany Street (from Bruckner Boulevard to Longwood Avenue), which is to be replaced with Longwood Avenue from Bruckner Boulevard to Tiffany Street, and the de-designation of Garrison Avenue from Longwood Avenue to Bryant Avenue. These proposed modifications are incorporated in Figure 3.11-2 and in all future truck routing considered in this analysis (not Existing Conditions). DSNY and other agency collection vehicles would use Leggett Avenue and Longwood Avenue to enter the peninsula and proceed along Randall Avenue to Tiffany Street, which they would take to Viele Avenue, and from Viele take Halleck Street to Farragut Street. Leaving the site, trucks could utilize similar routing or a route following Halleck Street to Edgewater Road, then to the Bruckner Expressway and service road.

In addition, NYCDOT is expected to institute one-way travel westbound on Leggett Avenue (away from Bruckner Boulevard) between Southern Boulevard and Bruckner Boulevard. This modification will improve traffic operations on the westbound Leggett Avenue approach to Bruckner Boulevard. Eastbound traffic from Leggett Avenue is expected to divert to alternate routes, including Longwood Avenue and Tiffany Street. This traffic diversion was also incorporated in the Future No Build and Build conditions described herein.

4.9.2.3 Existing Traffic Operations

The 18 intersections listed below were identified for analysis because they are most likely to be impacted from the South Bronx Converted MTS. Diagrams of these intersections were included in Technical Backup submitted to NYCDOT.

- Bruckner Boulevard and Hunts Point Avenue- Signalized Intersection; (Figure 4.9-1 - location A)
- Bruckner Boulevard and Barretto Street - Signalized Intersection; (Figure 4.9-1 - location B)
- Bruckner Boulevard and Tiffany Street - Signalized Intersection; (Figure 4.9-1 - location C)
- Bruckner Boulevard and Longwood Avenue - Signalized Intersection; (Figure 4.9-1 - location D)
- Bruckner Boulevard and Leggett Avenue - Signalized Intersection; (Figure 4.9-1 - location E)
- Leggett Avenue and Garrison Avenue - Signalized Intersection; (Figure 4.9-1 - location F)
- Leggett Avenue and Barry Street - Signalized Intersection; (Figure 4.9-1 - location G)
- Longwood Avenue and Garrison Avenue – Unsignalized Intersection (Figure 4.9-1 - location H)
- Longwood Avenue and Tiffany Street – Unsignalized Intersection (Figure 4.9-1 - location I)
- Tiffany Street and Oak Point Avenue - Signalized Intersection; (Figure 4.9-1 - location J)
- Hunts Point Avenue and Randall Avenue - Signalized Intersection; (Figure 4.9-1 - location K)
- Randall Avenue and Halleck Street - Unsignalized Intersection; (Figure 4.9-1 - location L)
- East Bay Avenue, Hunts Point Avenue and Halleck Street - Signalized Intersection; (Figure 4.9-1 - location M)
- Halleck Street and Viele Avenue - Unsignalized Intersection; (Figure 4.9-1 - location N)
- Halleck Street and Ryawa Avenue - Unsignalized Intersection; (Figure 4.9-1 - location O)
- Tiffany Street and Randall Avenue - Signalized Intersection; (Figure 4.9-1 - location P)

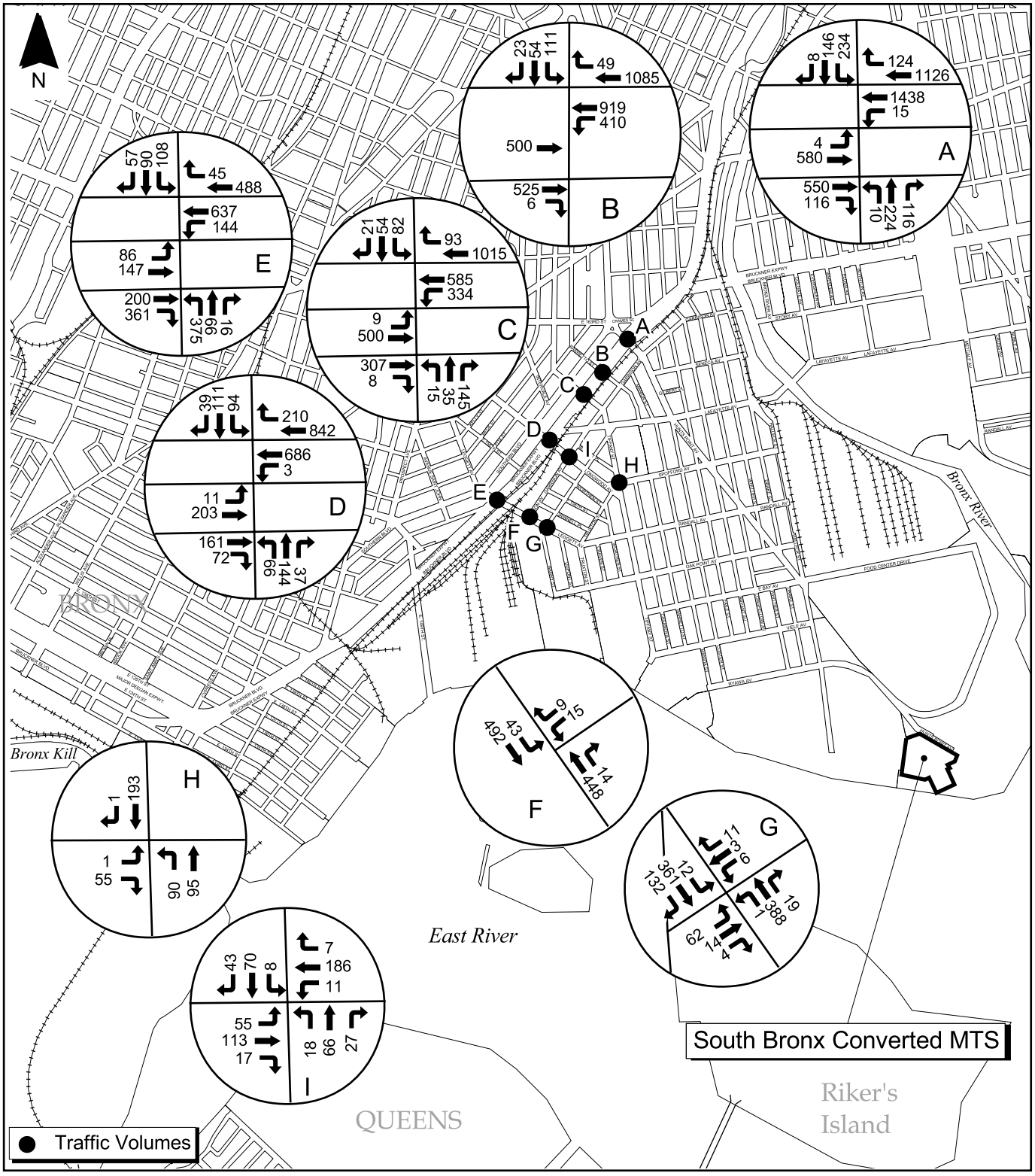
- Edgewater Road and Garrison Avenue – Unsignalized Intersection; (Figure 4.9-1 - location Q)
- Tiffany Street and Spofford Avenue – Unsignalized Intersection; (Figure 4.9-1 - location R)

As noted above, Bruckner Boulevard is a major surface arterial in the South Bronx. Leggett Avenue, Longwood Avenue, Tiffany Street, Randall Avenue and Halleck Street currently serve, or will serve after the truck route changes are implemented, as the primary routes for trucks in the Hunts Point peninsula.

A traffic data collection program that consisted of manual turning movement counts with vehicle classifications and ATR counts was undertaken to define existing weekday traffic operations (see Section 3.10.6 for a discussion on traffic data collection). Counts were conducted in late February 2003. Figures 4.9-2, 4.9-3, 4.9-4, 4.9-5, 4.9-6 and 4.97 depict the existing traffic volumes for AM, Facility, and PM peaks at the intersections analyzed. The AM peak generally occurred between 8:00 a.m. and 9:00 a.m., the Facility peak between 11:00 a.m. and 12:00 noon, and the PM peak between 5:00 p.m. and 6:00 p.m. Table 4.9-1 presents the v/c ratio, delay, and LOS for the 18 intersections during the AM, facility, and PM peaks.

For simplicity in this analysis, Bruckner Boulevard is described as north-south and Tiffany Street, Leggett Street, etc., as east-west. On Bruckner Boulevard, existing traffic volumes peak between 7:00 a.m. and 9:00 a.m., then decrease, but remain at a fairly high relative level throughout the Facility peak period. Traffic volumes peak again between 4:00 p.m. and 6:30 p.m. Throughout Hunts Point peninsula, traffic remains at a fairly consistent level from 6:00 a.m. through 4:00 p.m. and then begins to decrease through the late afternoon.

The composition of vehicles in the traffic stream varies by location and time of day but is typically comprised of a high proportion of trucks. Along Bruckner Boulevard, trucks and buses comprise between 10 and 20 percent of the total traffic during the AM peak and slightly less during the PM peak. Trucks and buses typically comprise 15 to 25 percent of the total traffic volume during the Facility peak hour on Bruckner Boulevard. The proportion of trucks is higher within Hunts Point peninsula, where truck levels are well over 30 percent of total traffic during the AM and Facility peak periods and dip only slightly, typically to between 20 and 30 percent, during the PM peak.



Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1500 0 1500 Feet

Figure 4.9-2 Existing Traffic Volumes - AM Peak
South Bronx Converted MTS

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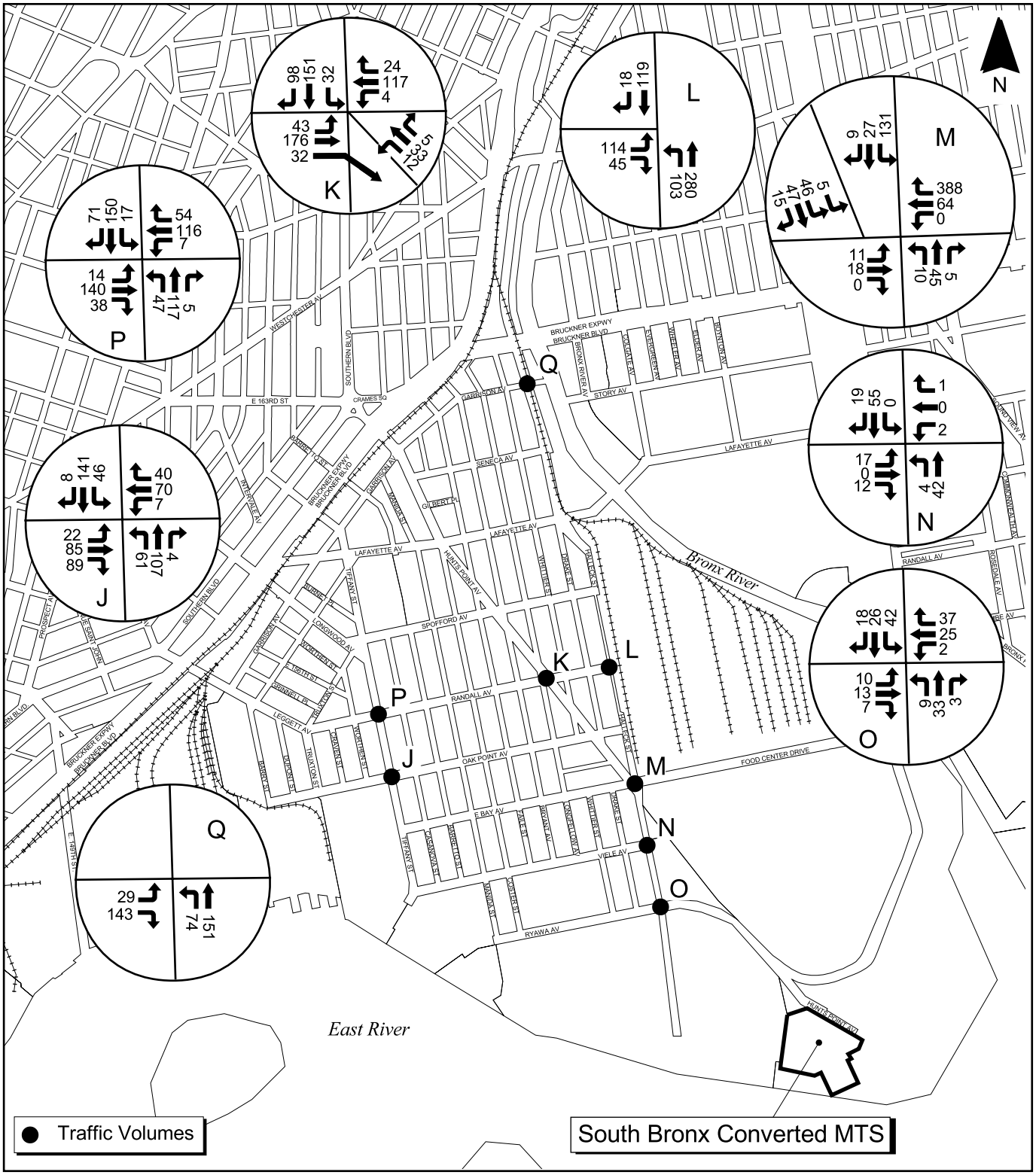

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

Figure 4.9-3 Existing Traffic Volumes - AM Peak

South Bronx Converted MTS

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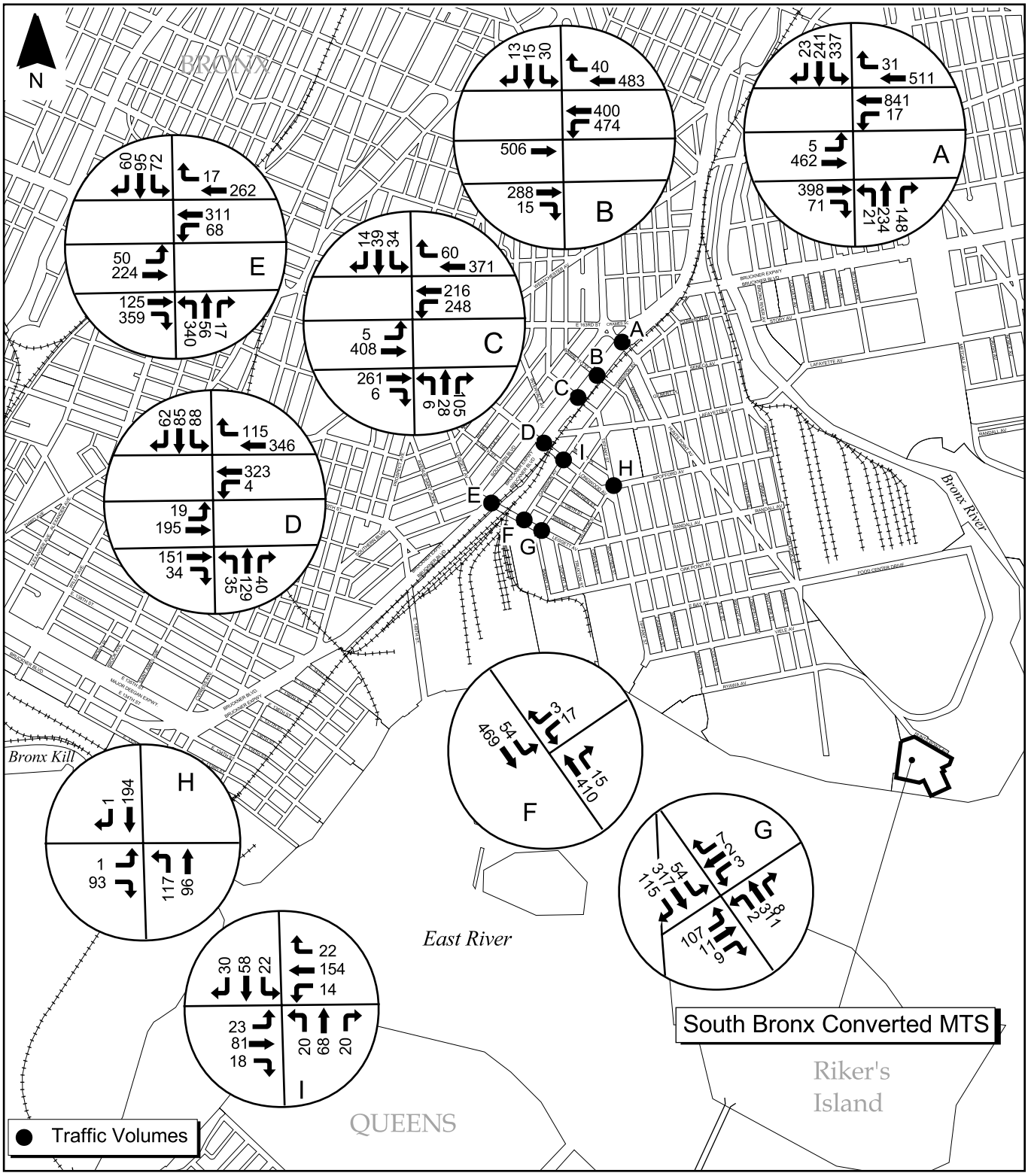

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

Figure 4.9-4 Existing Traffic Volumes
Facility Peak
South Bronx Converted MTS

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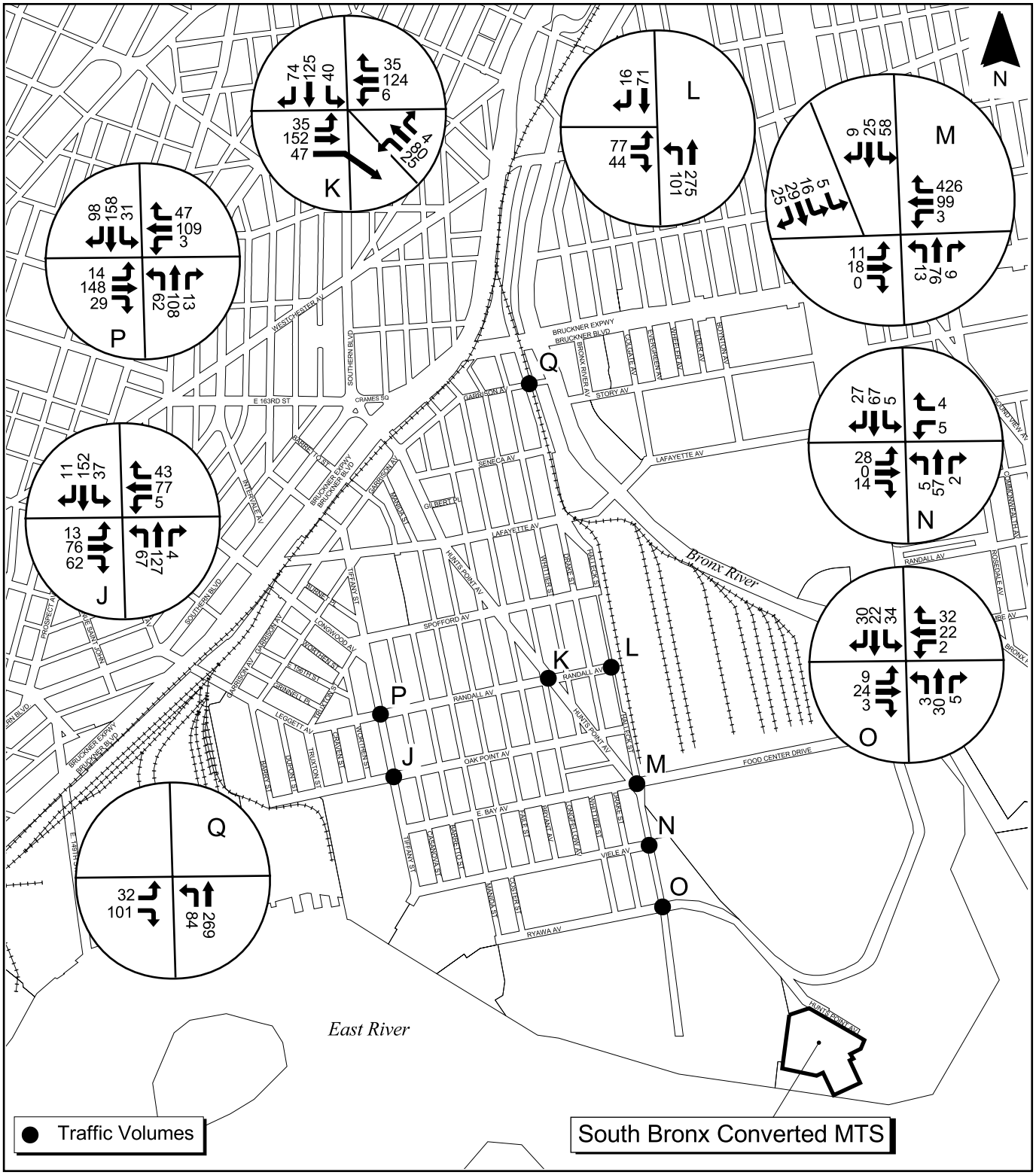

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

Figure 4.9-5 Existing Traffic Volumes Facility Peak South Bronx Converted MTS

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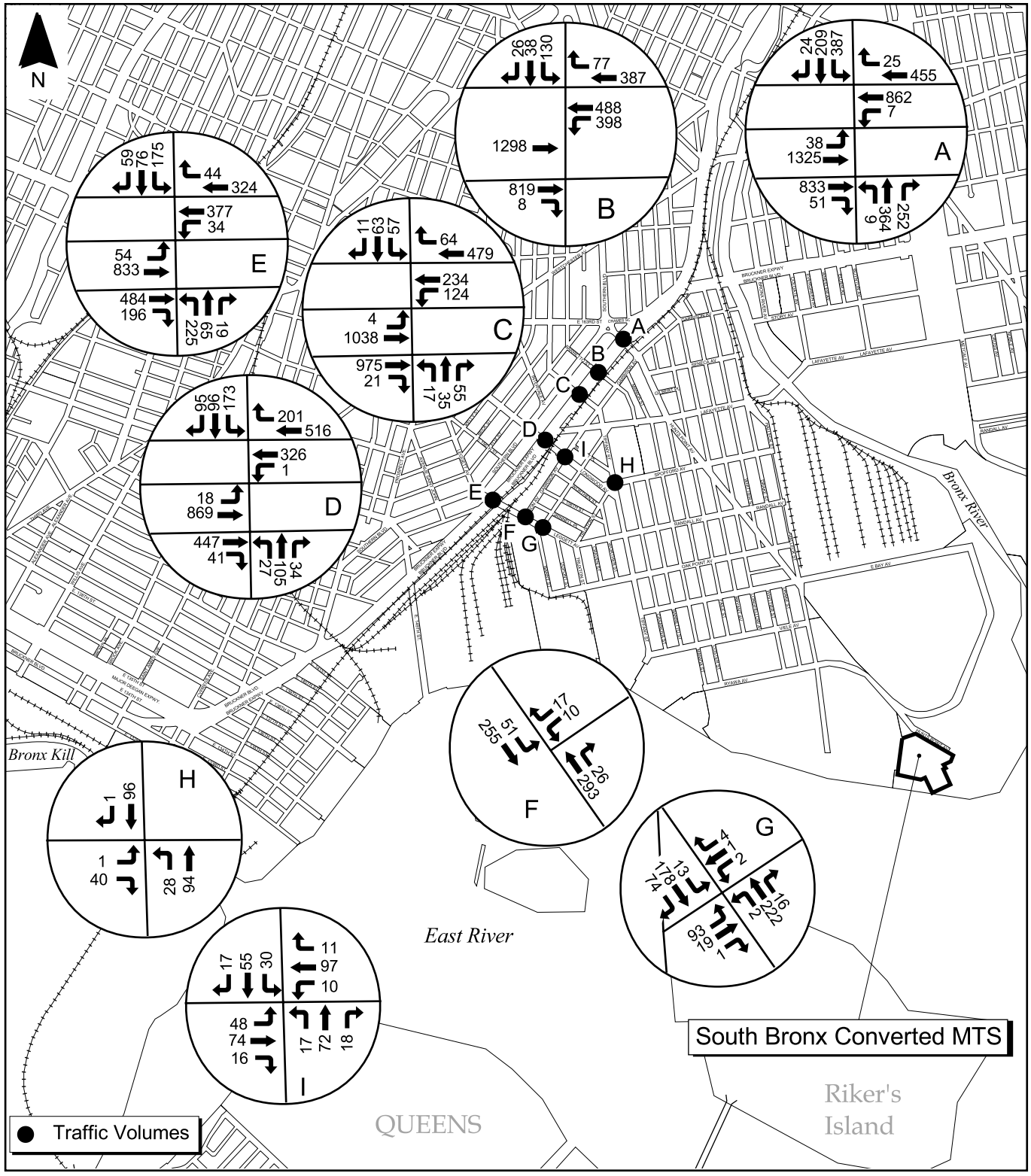

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1500 0 1500 Feet

Figure 4.9-6 Existing Traffic Volumes - PM Peak
South Bronx Converted MTS

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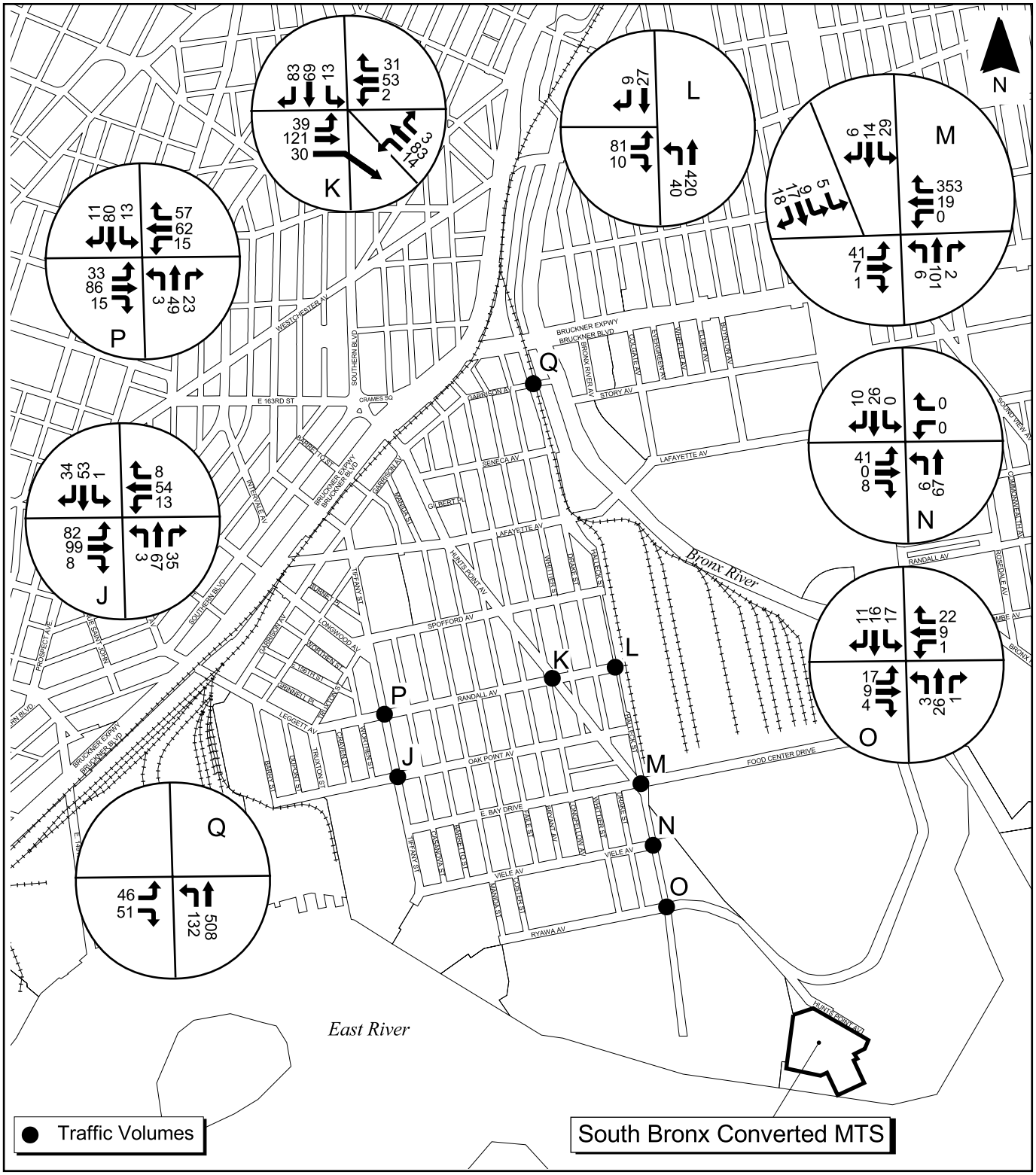

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

Figure 4.9-7 Existing Traffic Volumes - PM Peak

South Bronx Converted MTS

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Table 4.9-1
HCM Analysis[(1)] – Existing Conditions
South Bronx Converted MTS

Intersection & Lane Group	AM Peak Hour (8:00 a.m. - 9:00 a.m.)			Facility Peak Hour (11:00 a.m. – 12:00 p.m.)			PM Peak Hour (5:00 p.m. – 6:00 p.m.)		
	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Leggett Ave & Garrison Street (signalized)									
SB LTR	.11	14.0	B	.08	13.8	B	.09	13.9	B
EB LT	.51	10.6	B	.56	11.5	B	.31	8.6	A
WB TR	.52	10.8	B	.37	9.0	A	.27	8.1	A
OVERALL		10.8	B		10.5	B		8.6	A
Leggett Ave & Barry Street (signalized)									
NB DFL	.26	15.1	B	.43	16.4	B	.33	15.4	B
NB TR	.09	13.9	B	.08	13.8	B	.06	13.6	B
SB LTR	.10	13.9	B	.07	13.7	B	.05	13.6	B
EB LTR	.51	10.7	B	.63	13.1	B	.32	8.6	A
WB LTR	.46	10.2	B	.33	8.7	A	.21	7.7	A
OVERALL		11.0	B		12.2	B		9.7	A
Tiffany Street & Randall Ave (signalized)									
NB DFL	-	-	-	-	-	-	-	-	-
NB LTR	.33	10.3	B	.35	10.4	B	.21	8.9	A
SB LTR	.36	10.3	B	.39	10.7	B	.23	9.0	A
EB LTR	.48	18.6	B	.39	17.2	B	.23	15.3	B
WB LTR	.39	17.0	B	.28	15.7	B	.14	14.3	B
OVERALL		14.0	B		13.2	B		11.2	B
Tiffany Street & Oak Point Ave (signalized)									
NB LTR	.42	17.4	B	.39	16.7	B	.34	15.7	B
SB LTR	.33	15.6	B	.35	16.0	B	.19	14.2	B
EB LTR	.25	9.8	A	.20	9.3	A	.12	8.8	A
WB LTR	.17	9.2	A	.17	9.0	A	.34	15.7	B
OVERALL		13.2	B		13.2	B		12.6	B
Hunts Point Ave & Randall Ave (signalized)									
NB LTR	.06	10.0	B	.17	10.7	B	.10	10.2	B
SB LTR	.35	12.2	B	.30	11.8	B	.20	11.0	B
EB LTR	.38	12.9	B	.34	12.4	B	.26	11.5	B
WB LTR	.21	11.2	B	.25	11.5	B	.13	10.5	B
OVERALL		12.1	B		11.7	B		10.5	B
Longwood Ave & Garrison Avenue (unsignalized)									
NB LTR		10.4	B		10.3	B		8.8	A
SB LTR		11.3	B		10.0	B		9.0	A
EB LT		10.7	B		9.7	A		9.5	A
EB TR		10.2	B		10.0	B		8.8	A
WB LT		10.7	B		10.4	B		8.7	A
WB TR		11.9	B		11.4	B		8.9	A
OVERALL		10.9	B		10.5	B		8.9	A
Longwood Ave & Tiffany Street (unsignalized)									
NB LT		9.6	A		9.0	A		7.6	A
EB LR		10.4	B		11.4	B		9.7	A

Table 4.9-1 (continued)
HCM Analysis[(1)] – Existing Conditions
South Bronx Converted MTS

Intersection & Lane Group	AM Peak Hour (8:00 a.m. - 9:00 a.m.)			Facility Peak Hour (11:00 a.m. – 12:00 p.m.)			PM Peak Hour (5:00 p.m. – 6:00 p.m.)		
	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
East Bay Ave & Halleck Street (signalized)									
NB L	.04	17.3	B	.05	17.3	B	.02	17.0	B
NB TR	.06	17.3	B	.09	17.6	B	.09	17.6	B
SB L	.43	23.6	C	.20	19.5	B	.12	18.5	B
SB TR	.07	17.4	B	.04	17.1	B	.04	17.1	B
EB LTR	.10	23.1	C	.09	22.9	C	-	-	-
EB DFL	-	-	-	-	-	-	.17	24.4	C
EB TR							.06	22.7	C
WB LTR	.24	24.7	C	.35	26.2	C	.12	23.2	C
WB R	.59	20.2	C	.65	22.1	C	.52	17.7	B
OVERALL		21.3	C		22.0	C		18.9	B
East Bay Ave & Hunts Point Ave (signalized)									
SB LTR	.33	36.7	D	.31	36.7	D	.21	35.2	D
EB LTR	.10	23.1	C	.09	22.9	C	.05	22.7	C
EB DFL							.17	24.4	C
WB LTR	.24	24.7	C	.35	26.2	C	.12	23.2	C
WB R	.59	20.2	C	.65	22.1	C	.52	17.7	B
OVERALL		24.7	C		25.4	C		21.6	B
Hunts Point Ave & Bruckner Blvd NB ML (signalized)									
NB L	.01	23.0	C	.01	23.0	C	.06	23.6	C
NB T	.62	32.4	C	.53	30.5	C	1.00	60.0	E
EB L	.52	42.0	D	.73	49.2	D	.82	57.0	E
EB T	.19	29.5	C	.25	30.4	C	.24	30.2	C
WB T	.38	37.9	D	.29	36.5	D	.33	37.1	D
WB R	.41	40.3	D	.50	43.1	D	.69	49.9	D
OVERALL		35.3	D		36.9	D		53.0	D
Hunts Point Ave & Bruckner Blvd NB SR (signalized)									
NB TR	.75	37.0	D	.54	30.8	C	.75	36.4	D
EB L	.52	42.0	D	.73	49.2	D	.82	57.0	E
EB T	.19	29.5	C	.25	30.4	C	.21	29.8	C
WB T	.38	37.9	D	.29	36.5	D	.33	37.1	D
WB R	.41	40.3	D	.50	43.1	D	.69	49.9	D
OVERALL		37.4	D		37.3	D		41.5	D
Hunts Point Ave & Bruckner Blvd SB ML (signalized)									
SB LT	.70	18.7	B	.37	13.3	B	.38	13.4	B
EB TR	.38	37.5	D	.57	40.8	D	.62	41.8	D
WB LT	.28	30.9	C	.34	31.8	C	.50	34.5	C
OVERALL		23.3	C		25.9	C		27.5	C
Hunts Point Ave & Bruckner Blvd SB SR (signalized)									
SB TR	.78	22.2	C	.34	13.0	B	.26	12.2	B
EB TR	.38	37.5	D	.57	40.8	D	.62	41.8	D
WB LT	.28	30.9	C	.34	31.8	C	.50	34.5	C
OVERALL		26.4	C		27.9	C		30.9	C
Barretto Street & Bruckner Blvd ML (signalized)									
NB T	.53	35.0	D	.52	34.7	C	.94	46.0	D
SB L	.67	17.2	B	.72	19.3	B	1.01	85.2	F
SB LT	.64	14.1	B	.43	10.7	B	.38	9.3	A
EB LT	.76	57.7	E	.26	37.3	D	.57	45.7	D
OVERALL		24.1	C		22.4	C		45.0	D

Table 4.9-1 (continued)
HCM Analysis[(1)] – Existing Conditions
South Bronx Converted MTS

Intersection & Lane Group	AM Peak Hour (8:00 a.m. - 9:00 a.m.)			Facility Peak Hour (11:00 a.m. – 12:00 p.m.)			PM Peak Hour (5:00 p.m. – 6:00 p.m.)		
	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Barretto Street & Bruckner Blvd SR (signalized)									
NB TR	.80	44.9	D	.43	33.5	C	.66	30.2	C
SB TR	.69	14.9	B	.32	9.3	A	.26	8.0	A
EB TR	.76	56.7	E	.25	37.1	D	.58	45.8	D
OVERALL		28.7	C		19.8	B		25.4	C
Tiffany Street & Bruckner Blvd ML (signalized)									
NB L	.07	28.5	C	.03	27.8	C	.02	16.2	B
NB T	.63	37.4	D	.50	34.4	C	.72	27.4	C
SB L	.77	28.5	C	.67	19.3	B	.71	40.8	D
SB T	.32	9.3	A	.13	7.8	A	.13	7.8	A
EB LT	.69	54.4	D	.35	39.4	D	.71	54.5	D
WB LT	.13	34.5	C	.08	33.9	C	.10	34.2	C
OVERALL		27.4	C		25.8	C		28.6	C
Tiffany Street & Bruckner Blvd SR (signalized)									
NB TR	.40	32.9	C	.36	32.0	C	.72	27.4	C
SB TR	.64	13.7	B	.26	8.8	A	.29	9.0	A
EB TR	.61	47.0	D	.33	38.6	D	.62	47.5	D
WB TR	.44	40.0	D	.36	38.2	D	.21	35.5	D
OVERALL		23.4	C		23.6	C		25.0	C
Longwood Ave & Bruckner Blvd ML (signalized)									
NB L	.07	10.1	B	.08	10.0	A	.05	10.9	B
NB T	.14	10.2	B	.13	10.1	B	.49	15.5	B
SB LT	.42	13.1	B	.16	10.4	B	.22	12.3	B
EB DFL	.49	39.3	D	.29	33.6	C	.51	36.7	D
EB T	.37	35.1	D	.24	32.4	C	.23	30.1	C
WB LT	.42	35.1	D	.35	33.8	C	.22	29.4	C
OVERALL		20.8	C		19.8	B		19.2	C
Longwood Ave & Bruckner Blvd SR (signalized)									
NB TR	.16	10.4	B	.15	10.4	B	.36	13.7	B
SB TR	.65	17.0	B	.31	11.7	B	.40	14.3	B
EB TR	.44	34.8	C	.30	32.5	C	.43	32.5	C
WB TR	.43	35.0	C	.38	34.2	C	.27	30.0	C
OVERALL		21.6	C		19.7	B		19.6	B
Leggett Ave & Bruckner Blvd ML (signalized)									
NB L	.31	42.4	D	.16	39.9	D	.31	51.4	D
NB T	.14	25.0	C	.25	26.4	C	.55	22.5	C
SB L	.49	47.1	D	.43	46.8	D	.27	52.0	D
SB T	.61	32.7	C	.32	27.4	C	.23	17.9	B
EB DFL	.50	41.8	D	.37	37.2	D	.80	64.6	E
EB T	.24	33.7	C	.27	34.2	C	.21	36.1	D
WB L	.97	92.7	F	.86	68.4	E	.58	47.0	D
WB LT	.85	67.3	E	.63	46.3	D	.53	44.1	D
OVERALL		46.3	D		39.3	D		31.7	C

Table 4.9-1 (continued)
HCM Analysis[(1)] – Existing Conditions
South Bronx Converted MTS

Intersection & Lane Group	AM Peak Hour (8:00 a.m. - 9:00 a.m.)			Facility Peak Hour (11:00 a.m. – 12:00 p.m.)			PM Peak Hour (5:00 p.m. – 6:00 p.m.)		
	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Leggett Ave & Bruckner Blvd SR (signalized)									
NB TR	.69	35.7	D	.65	34.7	C	.58	23.3	C
SB TR	.48	30.0	C	.29	27.0	C	.26	18.1	B
EB TR	.35	34.6	C	.34	34.4	C	.40	38.3	D
WB TR	.71	43.9	D	.58	39.6	D	.47	39.6	D
OVERALL		35.8	D		34.3	C		27.9	C
Halleck Street & Randall Ave (unsignalized)									
NB LT		8.9	A		8.3	A		7.6	A
EB L		23.1	C		18.6	C		14.0	B
EB R		9.5	A		9.1	A		8.8	A
Halleck Street & Viele Ave (unsignalized)									
NB L		8.1	A		8.0	A		7.4	A
SB L		-	-		-	-		-	-
EB LT		10.1	B		10.6	B		10.3	B
EB TR		9.2	A		9.4	A		8.8	A
WB LTR		9.2	A		9.5	A		-	-
Ryawa Ave & Halleck Street (unsignalized)									
NB L		7.8	A		7.7	A		-	-
SB LT		8.0	A		7.7	A		7.8	A
EB L		11.5	B		10.7	B		10.1	B
EB T		12.8	B		12.2	B		10.8	B
EB TR		10.8	B		11.5	B		9.7	A
WB LT		12.0	B		10.9	B		9.8	A
WB TR		10.3	B		9.8	A		9.3	A
Garrison Avenue & Edgewater Road (unsignalized)									
NB LT		7.9	A		7.6	A		7.5	A
EB LT		10.3	B		11.1	B		19.6	C

Notes:
[(1)] HCM output is included in technical backup submitted to the NYCDOT.
DFL = defacto left
EB = eastbound
LTR = left, through and right movements
ML = mainline
NB = northbound
SB = southbound
SR = service road
WB = westbound

4.9.2.3.1 LOS at Signalized Intersections

Table 4.9-1 shows the existing v/c ratio, delay and LOS for each analysis peak period. Overall, most signalized intersections operate at LOS A, B or C during each analysis period except the intersections of Bruckner Boulevard at Hunts Point Avenue, Bruckner Boulevard at Barretto Street and Bruckner Boulevard at Leggett Avenue. LOS D occurs northbound on both the mainline road and service road of Bruckner Boulevard at Hunts Point Avenue during all three time periods. LOS D also occurs during the PM peak hour on the mainline road of Bruckner Boulevard at Barretto Street as well as during both the AM and Facility peak hours on the mainline road of Bruckner Boulevard at Leggett Avenue. Specific lane groups at study intersections typically operate at LOS C or better, but a number operate at LOS E or LOS F, specifically lane groups related to the above mentioned intersections. These include the northbound through lane group and eastbound left turn lane group on the mainline intersection of Bruckner Boulevard at Hunts Point Avenue as well as the eastbound left turn lane group on the service road intersection during the PM peak hour. All of these lane groups operate at LOS E. The intersection of Bruckner Boulevard at Barretto Street also has specific lane groups operating at LOS E or LOS F. On the mainline road intersection, the southbound left turn during the PM peak hour operates at LOS F, while the shared eastbound left and through lane group during the AM peak hour operates at LOS E. The shared eastbound through and right lane group on the service road intersection operates at LOS E as well during the AM peak hour. At the mainline road intersection of Bruckner Boulevard at Leggett Avenue, the westbound left turn is operating at LOS F during the AM peak hour. Lane groups operating at LOS E include the shared westbound left and through lane group during the AM peak hour, the westbound left turn during the Facility peak hour and the eastbound defacto left turn during the PM peak hour.

4.9.2.3.2 LOS at Unsignalized Intersections

Table 4.9-1 also indicates intersection operations at each of the unsignalized intersections analyzed. All unsignalized intersection movements analyzed operate at LOS A and LOS B with the exception of the eastbound left turn from Randall Avenue to Halleck Street, which operates at LOS C during the AM and Facility peak hours. The shared eastbound left and through lane group from Garrison Avenue to Edgewater Road during the PM peak hour also operates at LOS C. (HCM output was included in Technical Backup submitted to NYCDOT).

4.9.2.4 Existing DSNY-Related Traffic

Municipal solid waste generated by Bronx CDs BX1 through BX8, BX11 and BX12 is currently transported under the Bronx interim export program to the USA Waste Management of NY's Harlem River Yard facility, a commercial vendor located at 98 Lincoln Avenue in the Port Morris section of the Bronx. Municipal waste generated by CDs BX9 and BX10 is transported to the Waste Services of NY facility at 920 East 132nd Street, also in Port Morris. E-Z Pack loads from BX1 and BX 6 are delivered to either the Waste Services facility or to Triboro Fibers, located at 770 Barry Street in the Bronx, as are all borough-wide collection activities. Existing DSNY collection vehicles in the traffic study area traffic proceeding to and from these vendors are routed primarily along Bruckner Boulevard. The existing routes to the commercial vendors are presented in Figure 4.9-8.

4.9.2.5 Public Transportation

Public transportation within the study area consists of the New York City Transit Bx6 bus route with service along Hunts Point Avenue, Spofford Avenue, Halleck Street and Food Center Drive. The Bx6 route crosses the Macombs Dam Bridge into Manhattan. No other transit service is available within ½-mile of the site.

4.9.2.6 Pedestrian Activity

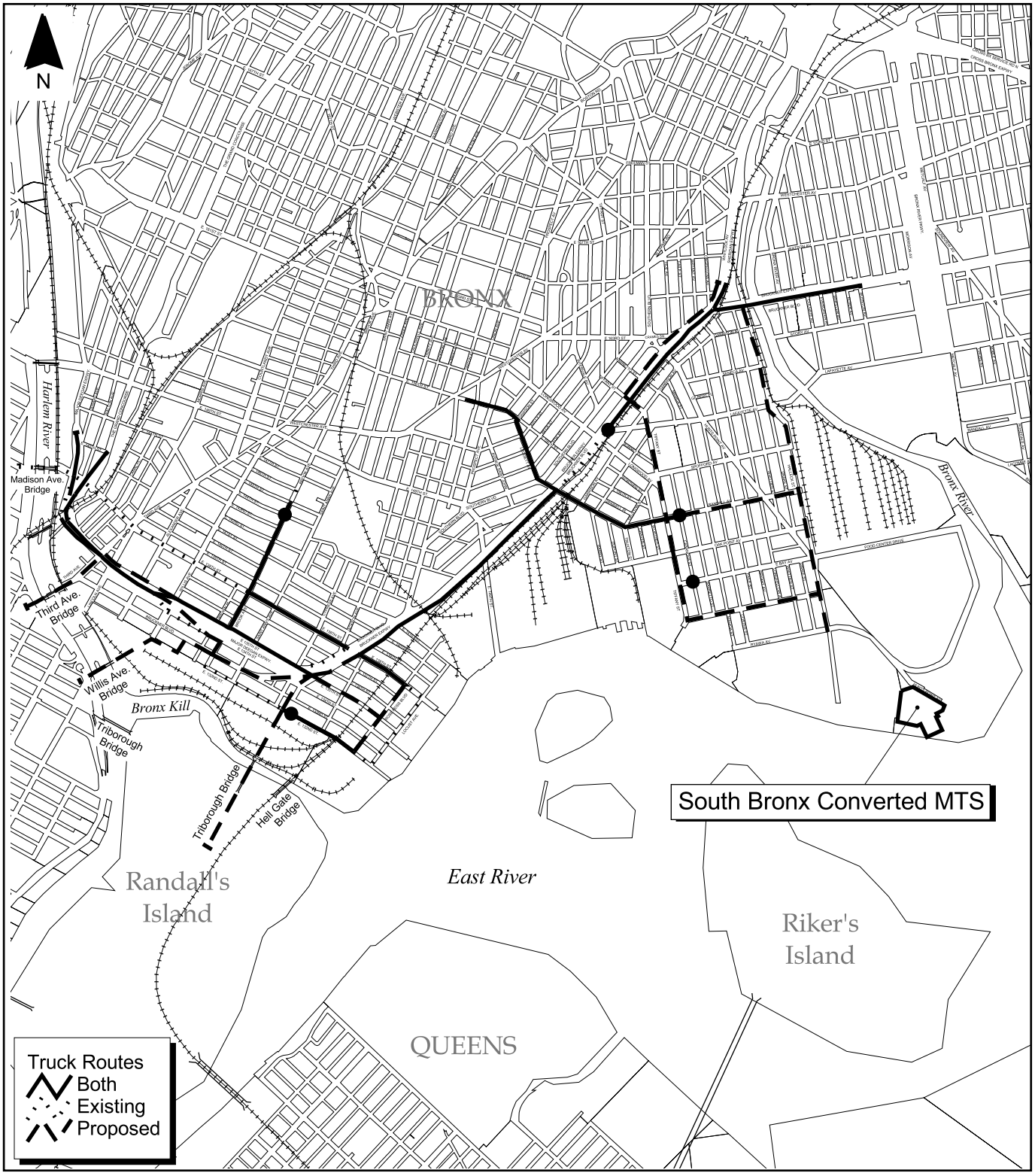
There is little pedestrian activity in the study area. Most pedestrian activity is concentrated in the area of the commercial establishments near the intersection of Hunts Point Avenue and Garrison Avenue.

4.9.3 Future No-Build Conditions

4.9.3.1 Traffic Conditions

The following assumptions and traffic assignments were applied in the development of Future No-Build traffic volumes:

- Continued operation of the Bronx interim export program with municipal solid waste delivered to the vendors noted above.



Site delineations are approximate.
Base Map Source: New York City Department of City Planning

Figure 4.9-8 Existing and Proposed Sanitation Truck Routes South Bronx Converted MTS

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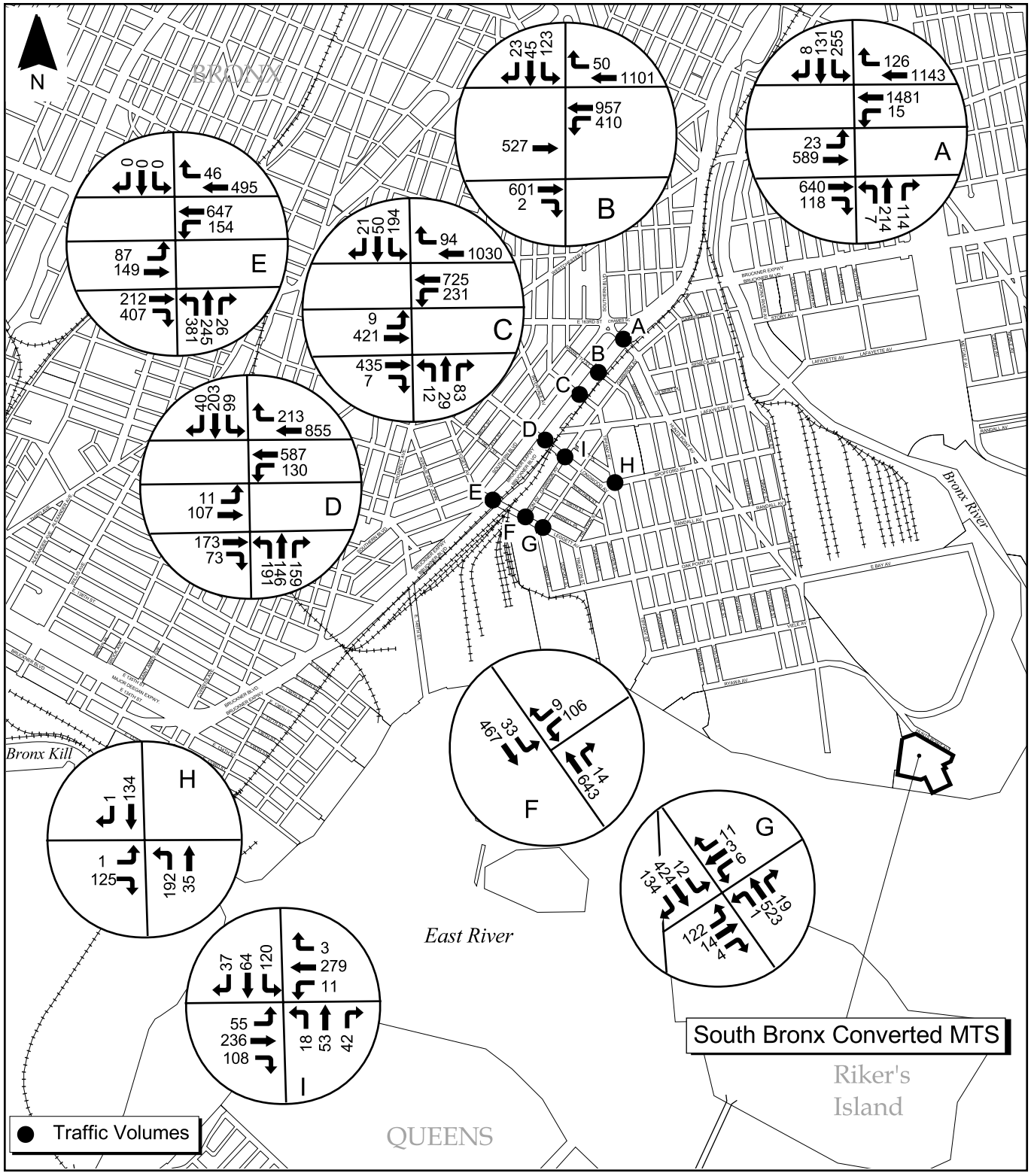
- Discrete assignment of auto and truck trips generated by the relocation of the Fulton Fish Market at Hunts Point, as detailed in the 2001 FEIS prepared for the New York City Economic Development Corporation.
- Background traffic growth of 0.5 percent per year in accordance with the 2001 CEQR Technical Manual.

In addition, background truck traffic was reassigned due to the changes expected to be implemented to the truck route network by NYCDOT and the one-way westbound restriction on Leggett Avenue between Bruckner Boulevard and Southern Boulevard, as described in Section 4.9.2.2.

Due to the truck route changes assumed for 2006 Future No Build Conditions, trucks traveling southbound on Bruckner Boulevard and turning left onto Tiffany Street will be re-routed to Longwood Avenue, thus turning left onto Longwood Avenue when traveling southbound on Bruckner Boulevard. As discussed with the NYCDOT, the installation of a southbound left turn lane on Bruckner Boulevard was assumed and the signal timing at the intersection of Bruckner Boulevard at Longwood Avenue was modified to accommodate the additional left turn volumes. The existing 2-phase signal operation was modified to a 3-phase operation.

Figures 4.9-9, 4.9-10, 4.9-11, 4.9-12, 4.9-13 and 4.9-14 provide the AM, Facility peak and PM peak-hour Future No-Build traffic volumes for the intersections analyzed in conjunction with this site.

Table 4.9-2 provides the Future No-Build v/c ratio, delay and LOS for each study intersection. As shown, the majority of the intersections are forecast to operate at LOS B or LOS C, although a significant number are predicted to operate at LOS D. The additional volume of the background growth and new development did not significantly deteriorate any one intersection, but as expected, the re-routing of truck trips to Longwood Avenue would generate a LOS D at the mainline road intersection of Bruckner Boulevard at Longwood Avenue for both the AM and PM peak periods and on the service road for all three time periods. During the PM peak period, the mainline road intersection of Bruckner Boulevard and Barretto Street would also operate at LOS D. Traffic operations during all three time periods on the northbound mainline road and service roads of Bruckner Boulevard at Hunts Point Avenue would also operate at LOS D, with the exception of the PM peak period on the northbound mainline road, which would operate at



Site delineations are approximate.
Base Map Source: New York City Department of City Planning

Figure 4.9-9 Future No-Build Traffic Volumes - AM Peak
South Bronx Converted MTS

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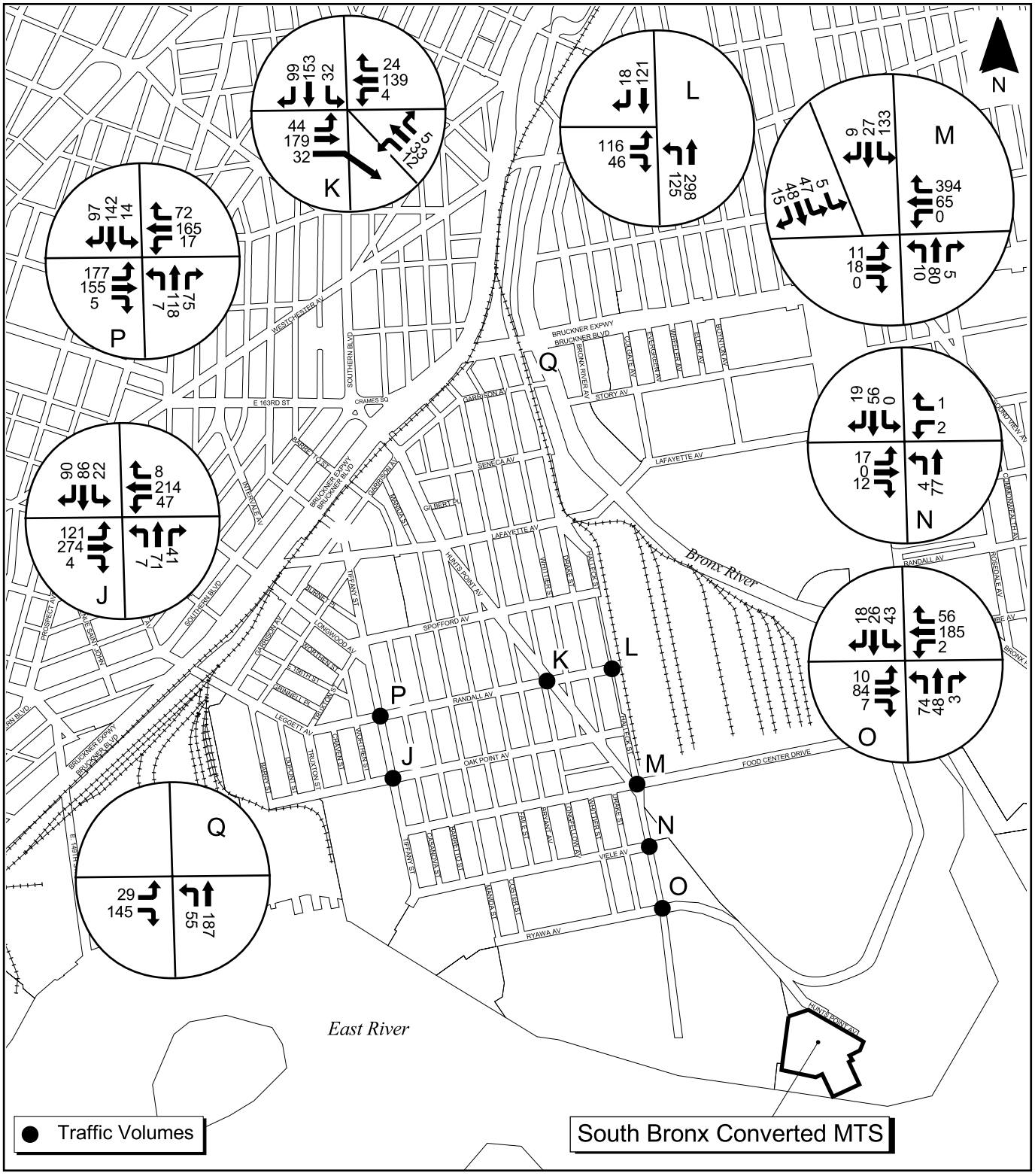

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

Figure 4.9-10 Future No-Build Traffic Volumes - AM Peak
South Bronx Converted MTS

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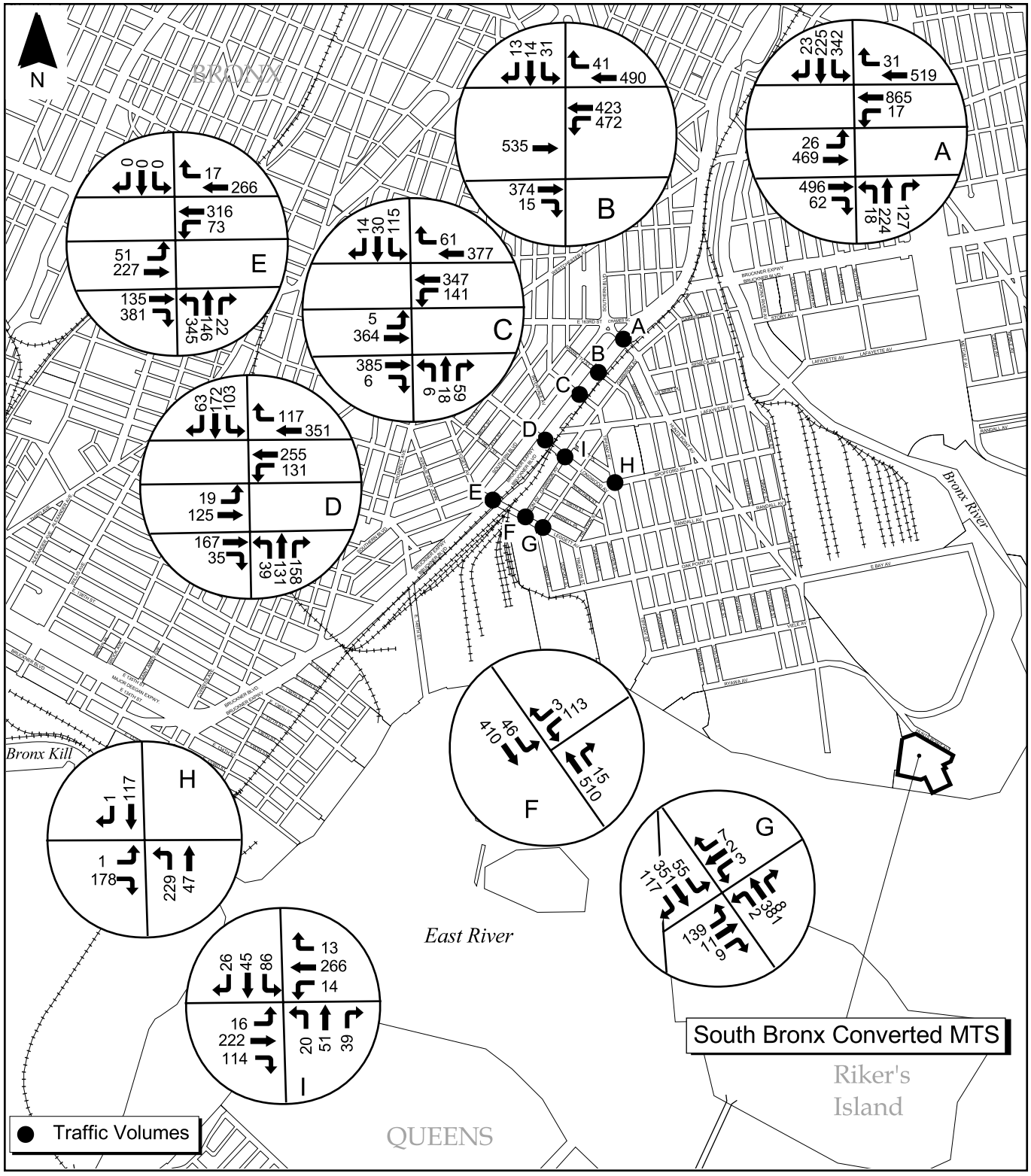

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

Figure 4.9-11 Future No-Build Traffic Volumes - Facility Peak
South Bronx Converted MTS

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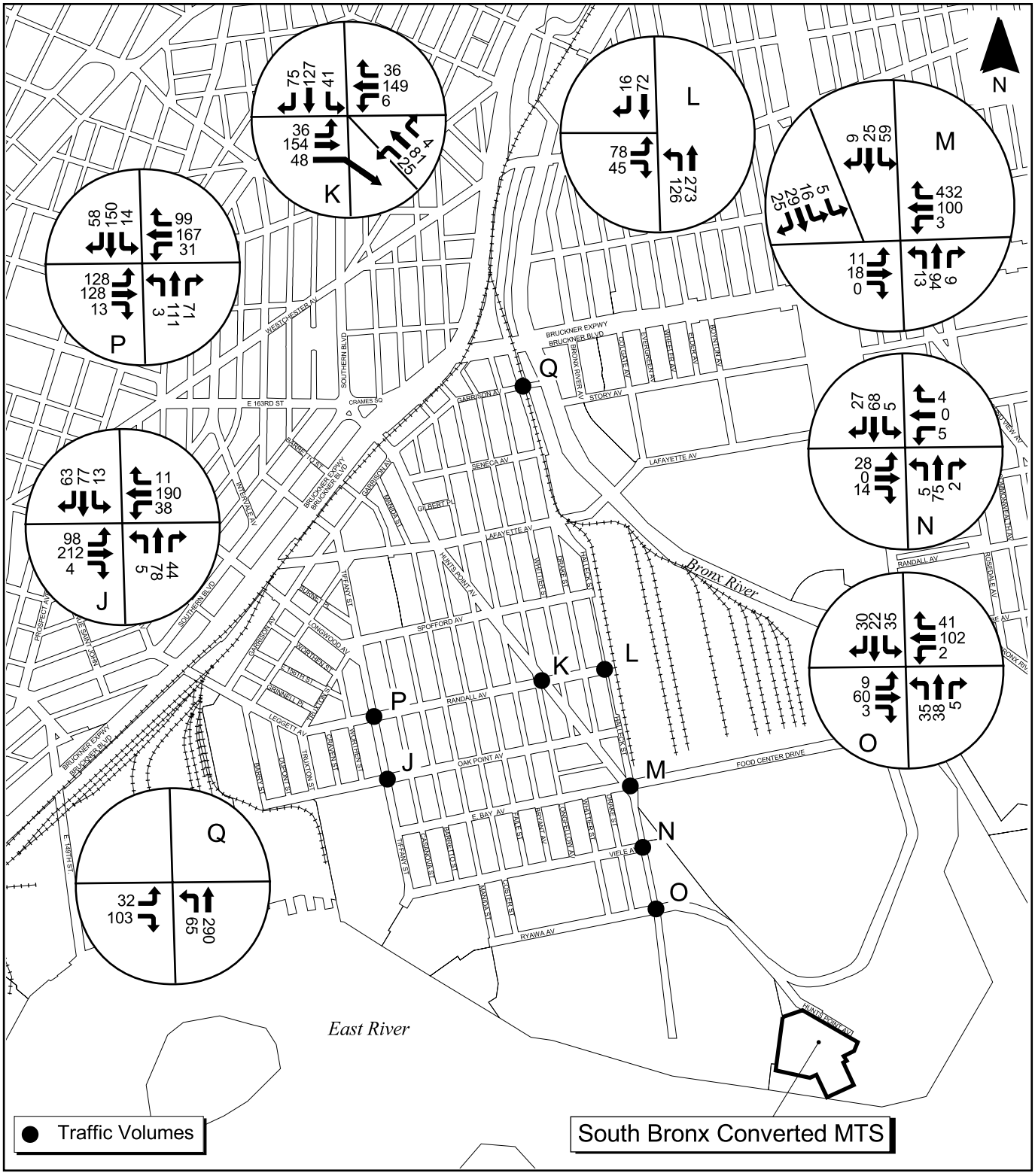

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

Figure 4.9-12 Future No-Build Traffic Volumes - Facility Peak South Bronx Converted MTS

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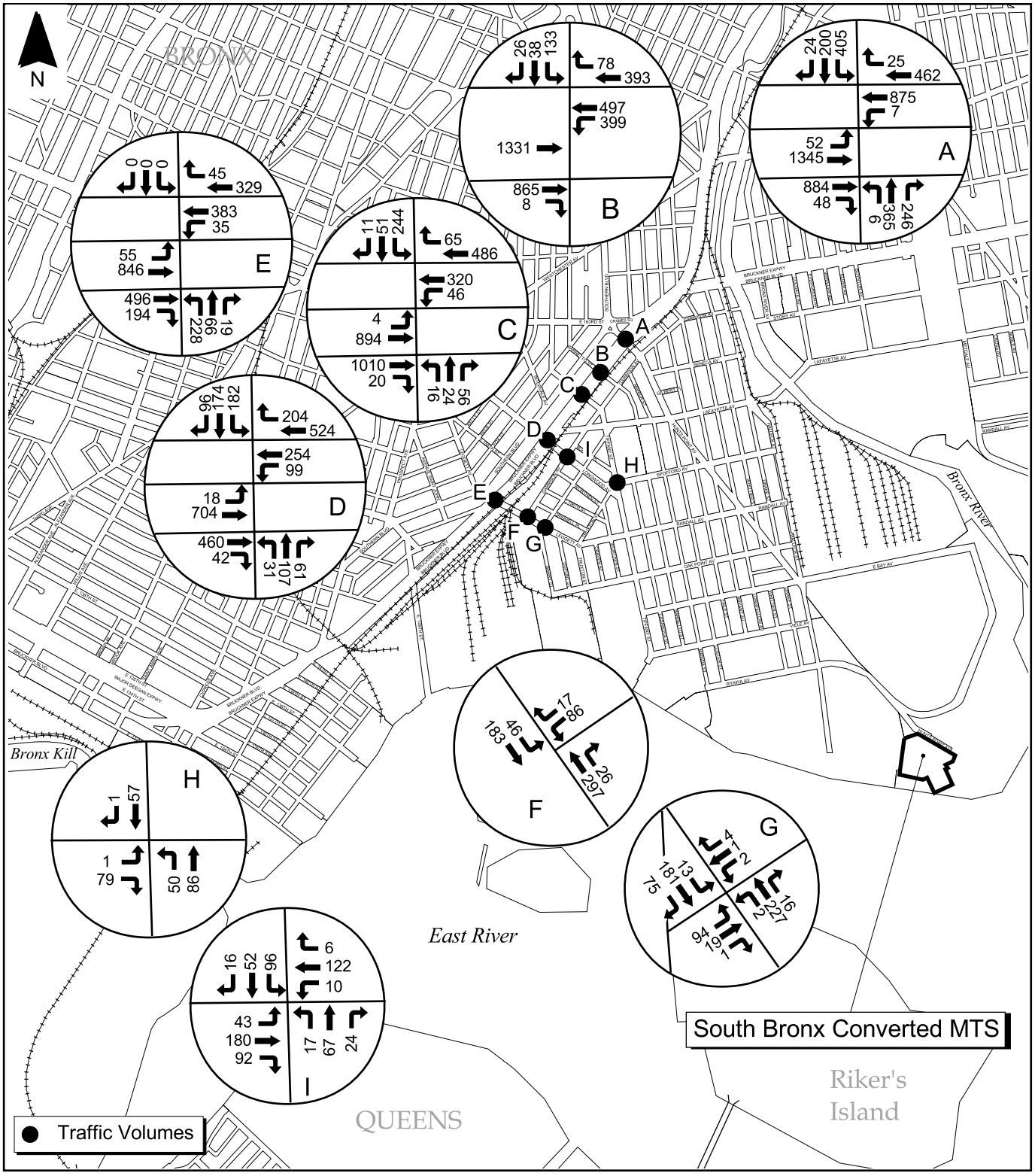

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1500 0 1500 Feet

Figure 4.9-13 Future No-Build Traffic Volumes - PM Peak
South Bronx Converted MTS

CITY OF NEW YORK
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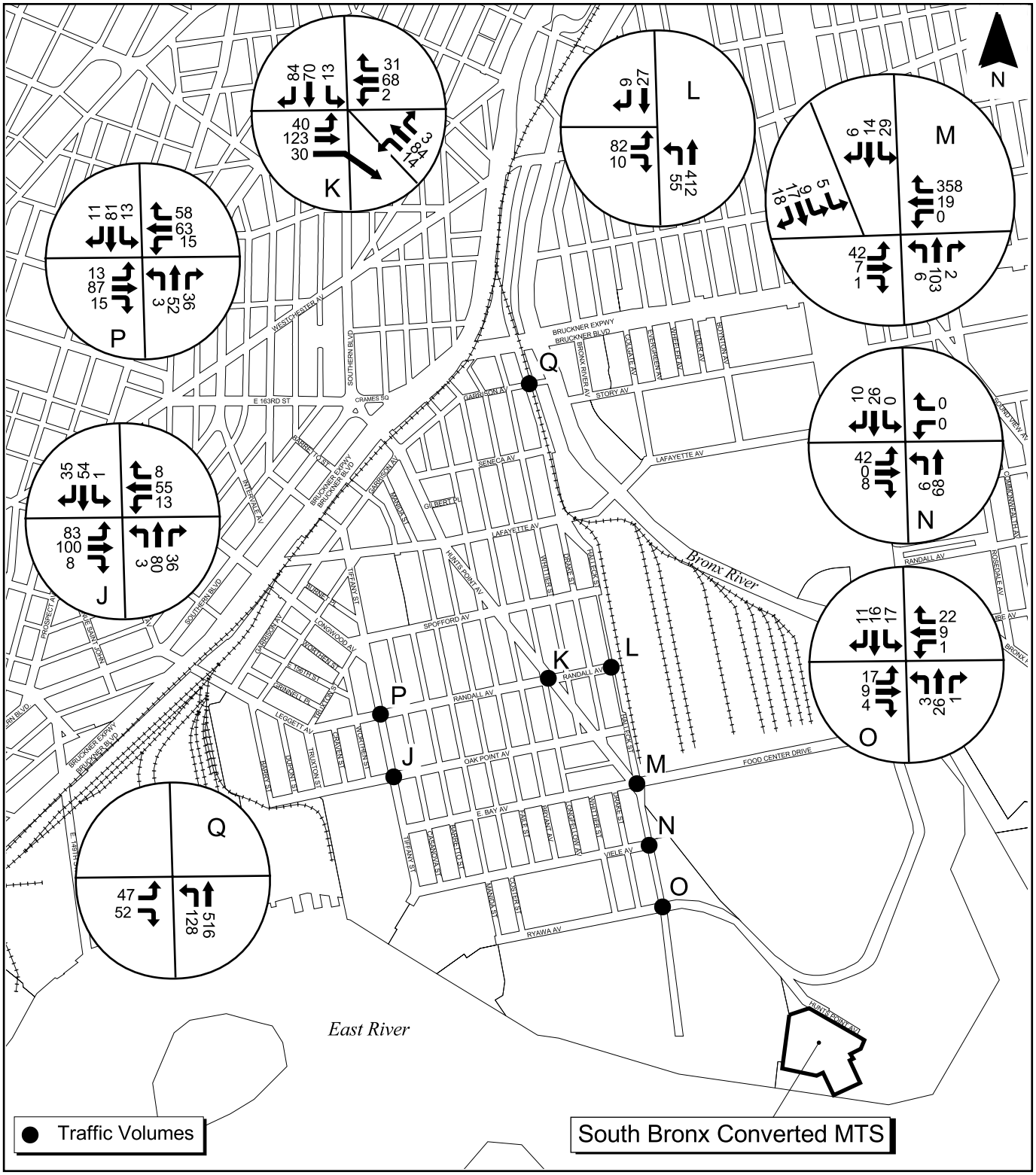

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

Figure 4.9-14 Future No-Build Traffic Volumes - PM Peak
South Bronx Converted MTS

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Table 4.9-2
HCM Analysis[(1)] – Future No-Build Conditions
South Bronx Converted MTS

Intersection & Lane Group	AM Peak Hour (8:00 a.m. - 9:00 a.m.)			Facility Peak Hour (11:00 a.m. – 12:00 p.m.)			PM Peak Hour (5:00 p.m. – 6:00 p.m.)		
	V/C Ratio	Delay (sec/veh)		V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Leggett Ave & Garrison Street (signalized)									
SB LTR	.38	15.8	B	.32	15.4	B	.34	15.5	B
EB LT	.48	10.2	B	.52	11.1	B	.25	8.1	A
WB TR	.69	13.7	B	.44	9.7	A	.27	8.1	A
OVERALL		12.6	B		10.9	B		9.4	A
Leggett Ave & Barry Street (signalized)									
NB DFL	.46	16.7	B	.55	18.2	B	.33	15.4	B
NB TR	.09	13.9	B	.08	13.8	B	.06	13.6	B
SB LTR	.10	13.9	B	.07	13.7	B	.05	13.6	B
EB LTR	.56	11.4	B	.69	14.4	B	.32	8.6	A
WB LTR	.57	11.6	B	.39	9.2	A	.21	7.7	A
OVERALL		12.2	B		13.2	B		9.7	A
Tiffany Street & Randall Ave (signalized)									
NB DFL	.69	20.7	C	.39	12.0	B	-	-	-
NB TR	.46	13.1	B	.48	13.7	B	-	-	-
NB LTR	-	-	-	-	-	-	.21	8.9	A
SB LTR	.37	10.4	B	.40	10.7	B	.23	9.1	A
EB LTR	.64	21.7	C	.45	18.0	B	.23	15.3	B
WB LTR	.46	18.2	B	.36	16.7	B	.19	14.8	B
OVERALL		17.1	B		14.2	B		11.4	B
Tiffany Street & Oak Point Ave (signalized)									
NB LTR	.83	31.3	C	.60	20.3	C	.34	15.7	B
SB LTR	.45	17.2	B	.41	16.6	B	.19	14.3	B
EB LTR	.26	9.8	A	.21	9.4	A	.13	8.8	A
WB LTR	.18	9.2	A	.17	9.1	A	.14	8.8	A
OVERALL		20.3	C		15.2	B		12.6	B
Hunts Point Ave & Randall Ave (signalized)									
NB LTR	.06	10.0	B	.17	10.7	B	.13	10.4	B
SB LTR	.35	12.3	B	.31	11.9	B	.20	11.0	B
EB LTR	.39	13.0	B	.35	12.5	B	.26	11.5	B
WB LTR	.24	11.5	B	.29	11.9	B	.13	10.5	B
OVERALL		12.2	B		11.9	B		11.0	B
Longwood Ave & Garrison Ave (unsignalized)									
NB LTR		14.0	B		13.3	B		10.1	B
SB LTR		22.2	C		13.3	B		11.2	B
EB LT		15.4	C		11.8	B		11.3	B
EB TR		32.2	D		35.3	E		16.0	C
WB LT		13.8	B		14.6	B		10.1	B
WB TR		19.6	C		19.6	C		10.4	B
OVERALL		22.0	C		22.2	C		12.6	B
Longwood Ave & Tiffany St (unsignalized)									
NB LT		9.8	A		9.0	A		7.4	A
EB LR		11.1	B		12.2	B		9.6	A

Table 4.9-2 (continued)
HCM Analysis[(1)] – Future No-Build Conditions
South Bronx Converted MTS

Intersection & Lane Group	AM Peak Hour (8:00 a.m. - 9:00 a.m.)			Facility Peak Hour (11:00 a.m. – 12:00 p.m.)			PM Peak Hour (5:00 p.m. – 6:00 p.m.)		
	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
East Bay Ave & Halleck Street (signalized)									
NB L	.04	17.3	B	.05	17.3	B	.02	17.0	B
NB TR	.09	17.5	B	.11	17.7	B	.09	17.6	B
SB L	.46	24.5	C	.21	19.7	B	.12	18.5	B
SB TR	.07	17.4	B	.04	17.1	B	.04	17.1	B
EB LTR	.10	23.1	C	.09	22.9	C	-	-	-
EB DFL	-	-	-	-	-	-	.17	24.4	C
EB TR	-	-	-	-	-	-	.06	22.7	C
WB LTR	.25	24.8	C	.36	26.3	C	.12	23.2	C
WB R	.60	20.5	C	.66	22.4	C	.52	17.9	B
OVERALL		21.4	C		22.1	C		19.0	B
East Bay Ave & Hunts Point Ave (signalized)									
SB LTR	.34	36.8	D	.31	36.7	D	.21	35.2	D
EB LTR	.10	23.1	C	.09	22.9	C	-	-	-
EB DFL	-	-	-	-	-	-	.17	24.4	C
EB TR	-	-	-	-	-	-	.05	22.7	C
WB LTR	.25	24.8	C	.36	26.3	C	.12	23.2	C
WB R	.60	20.5	C	.66	22.4	C	.52	17.9	B
OVERALL		24.9	C		25.6	C		21.6	C
Hunts Point Ave & Bruckner Blvd NB ML (signalized)									
NB L	.07	23.6	C	.14	24.9	C	.11	24.3	C
NB T	.63	32.6	C	.54	30.7	C	1.01	63.7	E
EB L	.61	45.8	D	.76	50.4	D	.88	64.0	E
EB T	.15	29.1	C	.22	29.9	C	.19	29.5	C
WB T	.36	37.6	D	.26	36.1	D	.32	37.0	D
WB R	.42	40.5	D	.38	39.3	D	.65	47.6	D
OVERALL		35.8	D		36.5	D		55.9	E
Hunts Point Ave & Bruckner Blvd NB SR (signalized)									
NB TR	.86	43.7	D	.66	34.0	C	.82	39.6	D
EB L	.61	45.8	D	.76	50.4	D	.88	64.0	E
EB T	.15	29.1	C	.22	29.9	C	.19	29.5	C
WB T	.38	38.0	D	.26	36.1	D	.32	37.0	D
WB R	.39	39.8	D	.38	39.3	D	.65	47.6	D
OVERALL		41.3	D		38.0	D		44.1	D
Hunts Point Ave & Bruckner Blvd SB ML (signalized)									
SB LT	.65	17.6	B	.38	13.4	B	.39	13.4	B
EB TR	.38	37.6	D	.57	40.9	D	.63	42.0	D
WB LT	.25	30.4	C	.30	31.1	C	.47	33.7	C
OVERALL		22.6	C		25.8	C		27.4	C
Hunts Point Ave & Bruckner Blvd SB SR (signalized)									
SB TR	.79	22.7	C	.34	13.1	B	.27	12.2	B
EB TR	.38	37.6	D	.57	40.9	D	.63	42.0	D
WB LT	.25	30.4	C	.30	31.1	C	.47	33.7	C
OVERALL		26.6	C		27.8	C		30.7	C
Barretto Street & Bruckner Blvd ML (signalized)									
NB T	.58	36.1	D	.58	36.0	D	.97	51.8	D
SB L	.68	17.7	B	.71	19.2	B	1.02	89.5	F
SB LT	.67	14.9	B	.45	11.0	B	.41	9.7	A
EB LT	.78	59.1	E	.26	37.3	D	.57	45.8	D
OVERALL		24.9	C		22.9	C		48.9	D

Table 4.9-2 (continued)
HCM Analysis[(1)] – Future No-Build Conditions
South Bronx Converted MTS

Intersection & Lane Group	AM Peak Hour (8:00 a.m. - 9:00 a.m.)			Facility Peak Hour (11:00 a.m. – 12:00 p.m.)			PM Peak Hour (5:00 p.m. – 6:00 p.m.)		
	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Barretto Street & Bruckner Blvd SR (signalized)									
NB TR	.91	54.7	D	.59	37.2	D	.73	32.2	C
SB TR	.70	15.1	B	.32	9.3	A	.27	8.1	A
EB TR	.77	57.5	E	.26	37.2	D	.58	46.0	D
OVERALL		33.5	C		22.4	C		26.7	C
Tiffany Street & Bruckner Blvd ML (signalized)									
NB L	.08	28.8	C	.04	27.9	C	.02	16.2	B
NB T	.59	36.5	D	.49	34.3	C	.63	25.0	C
SB L	.36	11.0	B	.23	9.3	A	.14	11.3	B
SB T	.40	10.1	B	.21	8.4	A	.22	8.5	A
EB L	.90	74.6	E	.55	45.3	D	.84	65.5	E
EB T	.18	35.7	D	.11	34.6	C	.15	35.2	D
WB LT	.09	34.0	C	.06	33.6	C	.08	33.9	C
OVERALL		27.5	C		24.5	C		27.5	C
Tiffany Street & Bruckner Blvd SR (signalized)									
NB TR	.62	38.0	D	.61	37.6	D	.76	28.7	C
SB TR	.71	15.5	B	.32	9.4	A	.29	9.0	A
EB TR	.48	39.9	D	.27	36.4	D	.44	39.1	D
WB TR	.18	35.1	D	.15	34.8	C	.19	35.3	D
OVERALL		25.5	C		26.2	C		25.5	C
Longwood Ave & Bruckner Blvd ML (signalized)									
NB L	.09	43.9	D	.14	40.6	D	.05	28.0	C
NB T	.34	47.3	D	.27	41.8	D	.72	40.0	D
SB L	.41	28.6	C	.38	31.1	C	.51	47.5	D
SB T	.51	27.9	C	.31	27.9	C	.39	39.6	D
EB DFL	.46	37.6	D	-	-	-	.60	42.5	D
EB T	.69	45.9	D	-	-	-	.46	37.2	D
EB LT	-	-	-	.49	36.4	D	-	-	-
WB DFL	.88	70.8	E	-	-	-	-	-	-
WB LT	-	-	-	.39	34.6	C	.26	32.0	C
WB T	.49	38.6	D	-	-	-	-	-	-
OVERALL		39.8	D		34.0	C		39.4	D
Longwood Ave & Bruckner Blvd SR (signalized)									
NB TR	.65	54.9	D	.52	46.6	D	.67	38.4	D
SB TR	.97	53.8	D	.51	31.3	C	.99	74.5	E
EB TR	.61	38.6	D	.44	34.9	C	.59	37.9	D
WB TR	.95	65.7	E	.68	42.8	D	.43	35.1	D
OVERALL		53.6	D		37.4	D		50.4	D
Leggett Ave & Bruckner Blvd ML (signalized)									
NB L	.31	42.5	D	.16	39.9	D	.31	51.6	D
NB T	.14	25.0	C	.25	26.4	C	.56	22.7	C
SB L	.52	48.2	D	.44	47.3	D	.28	52.2	D
SB T	.62	32.9	C	.33	27.5	C	.24	17.9	B
WB L	.79	56.1	E	.62	44.4	D	.43	40.6	D
WB LT	.95	75.9	E	.71	47.8	D	.44	40.4	D
OVERALL		46.6	D		36.8	D		26.8	C

Table 4.9-2 (continued)
HCM Analysis[(1)] – Future No-Build Conditions
South Bronx Converted MTS

Intersection & Lane Group	AM Peak Hour (8:00 a.m. - 9:00 a.m.)			Facility Peak Hour (11:00 a.m. – 12:00 p.m.)			PM Peak Hour (5:00 p.m. – 6:00 p.m.)		
	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Leggett Ave & Bruckner Blvd SR (signalized)									
NB TR	.75	38.1	D	.68	35.7	D	.58	23.5	C
SB TR	.49	30.1	C	.30	27.0	C	.26	18.2	B
WB TR	.95	64.1	E	.70	43.1	D	.48	39.7	D
OVERALL		44.7	D		36.2	D		25.9	C
Halleck Street & Randall Ave (unsignalized)									
NB LT		8.9	A		8.2	A		7.9	A
EB L		24.3	C		21.3	C		14.8	B
EB R		9.5	A		9.1	A		8.8	A
Halleck Street & Viele Ave (unsignalized)									
NB L		8.1	A		8.0	A		7.4	A
SB L		-	-		-	-		-	-
EB LT		10.4	B		10.8	B		10.3	B
EB TR		9.2	A		9.4	A		8.8	A
WB LTR		9.5	A		9.6	A		-	-
Ryawa Ave & Halleck Street (unsignalized)									
NB L		7.8	A		7.7	A		-	-
SB LT		8.1	A		7.7	A		7.8	A
EB L		38.0	E		17.3	C		10.1	B
EB T		17.5	C		15.0+	C		10.8	B
EB TR		16.6	C		14.6	B		9.7	A
WB LT		21.2	C		14.9	B		9.8	A
WB TR		19.0	C		13.3	B		9.3	A
Garrison Avenue & Edgewater Road (unsignalized)									
NB LT		7.6	A		7.4	A		7.5	A
EB LR		10.2	B		10.9	B		19.8	C

Notes:
[(1)] HCM output is included in technical backup submitted to the NYCDOT.
DFL = defacto left
EB = eastbound
LTR = left, through and right movements
ML = mainline
NB = northbound
SB = southbound
SR = service road
WB = westbound

LOS E. Lastly, operations at the intersection of Bruckner Boulevard at Leggett Avenue was shown to improve slightly in comparison to existing conditions due to the elimination of conflicts for westbound left turning vehicles.

Individual movements generally operate at LOS D or better, but a number operate at LOS E or F. During the PM peak hour, at the intersection of Bruckner Boulevard at Hunts Point Avenue both the eastbound left and northbound through lane groups on the northbound mainline road intersection would operate at LOS E as would the eastbound left turn lane group on the northbound service road intersection. The eastbound left turn lane group at the intersection of mainline Bruckner Boulevard at Tiffany Street would operate at LOS E, both during the AM and PM peak hours. LOS F was projected for the southbound left turn lane group on the mainline road at the intersection of Bruckner Boulevard with Barretto Street during the PM peak hour, while LOS E was projected for the shared eastbound left and through lane group during the AM peak hour. LOS E was also projected for the eastbound shared through and right turn lane group during the AM peak hour. At the service road intersection of Bruckner Boulevard with Longwood Avenue, the westbound shared through and right turn lane group would operate at LOS E during the AM peak hour and the southbound shared through and right lane group during the PM peak hour. Lastly, the westbound left turn lane group and the westbound shared left and through lane group at the mainline road intersection of Bruckner Boulevard with Leggett Avenue and at the service road intersection shared through and right turn lane group would operate at LOS E during the AM peak period.

Table 4.8-2 also indicates future No-Build traffic operations at unsignalized intersections. As indicated, operations for all lane groups would remain at LOS A, LOS B or LOS C, with the exception of the eastbound left turn lane group from Ryawa Avenue to Halleck Street during the AM peak hour and the eastbound shared right and through lane group at the intersection of Garrison Avenue and Longwood Avenue. The additional traffic on Halleck Street is expected to be generated primarily by the Fulton Fish Market relocation and would result in the increased delay for the left turn from Ryawa Avenue to Halleck Street. Additionally, the re-routing of trucks onto Longwood Avenue will increase delay on both the Longwood Avenue and Garrison Avenue approaches.

4.9.3.2 Public Transportation

Future No-Build Conditions are expected to remain the same as Existing Conditions.

4.9.3.3 Pedestrian Activity

Future No-Build Conditions are expected to remain the same as Existing Conditions.

4.9.4 Potential Impacts with the South Bronx Converted MTS

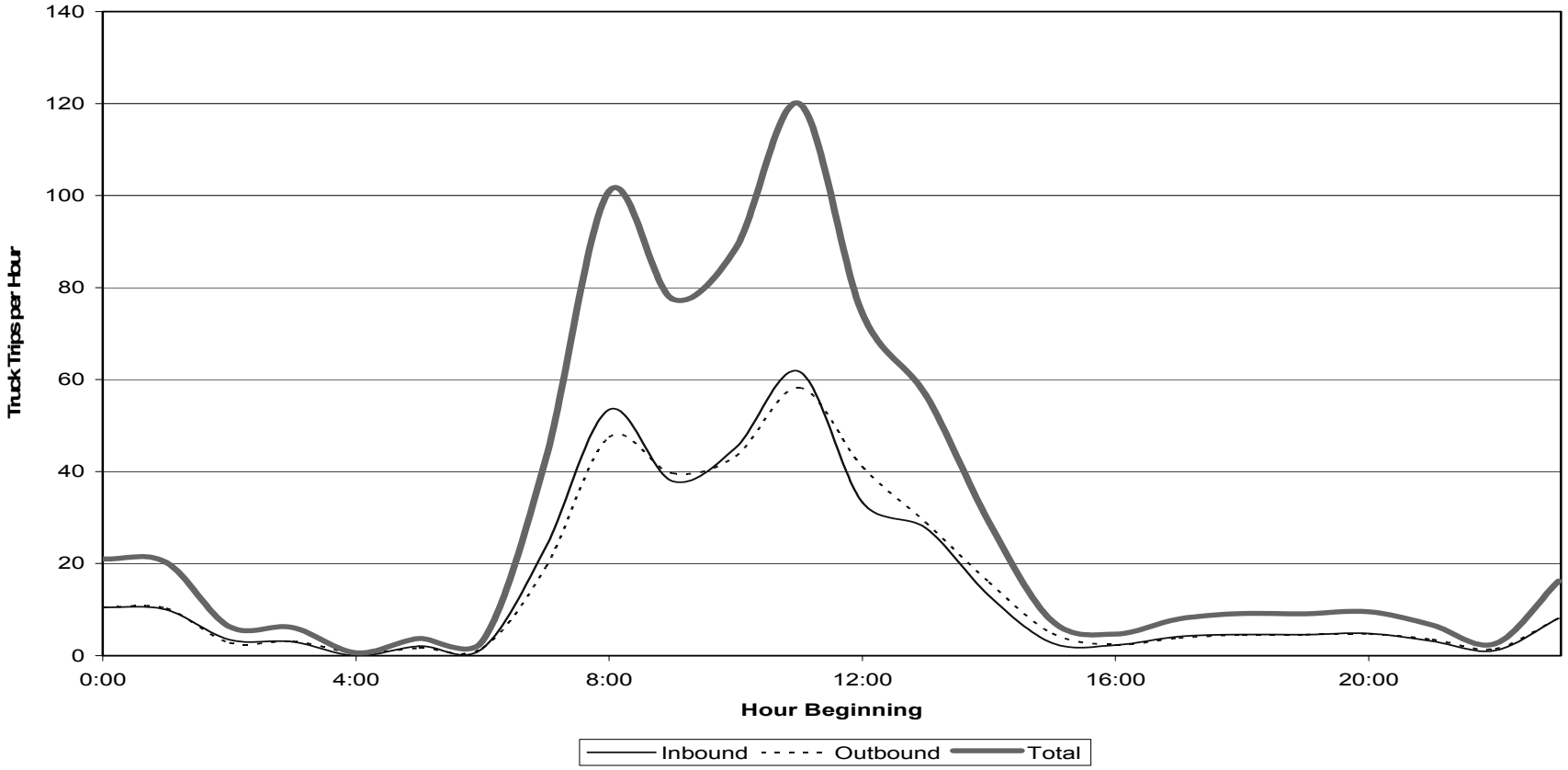
The South Bronx Converted MTS would receive waste from all the twelve CDs in the Bronx. Additionally, the waste collected via borough-wide collection activities would also be delivered to the South Bronx Converted MTS. Potential traffic impacts may result from the increase in DSNY and other agency collection vehicle trips to and from the site during all peak hours. Additionally, employee trips to and from the site may result in traffic impacts during the AM peak hour.

4.9.4.1 2006 Build Traffic Conditions

2006 Build Traffic Conditions assume that the South Bronx Converted MTS would generate 362 inbound collection vehicles per average peak day. As per NYCDOT Title 34, truck trips to and from the site are restricted to travel along local truck routes directly to the site of the intersection closest to the site if the streets adjacent to the site are not designated truck routes. The proposed collection vehicle truck routes for the South Bronx Converted MTS are shown in Figure 4.9-8.

Figure 4.9-15 presents the average peak day temporal distribution of collection vehicles for the South Bronx Converted MTS. Section 3.10.3.1 provides a detailed explanation of DSNY collection and delivery operational shifts (priority, non-priority, and relay). As shown, the number of collection vehicle trips generated by the South Bronx Converted MTS is expected to vary between approximately 2 to 20 truck trips per hour in the late evening/early morning, 30 to

Figure 4.9-15
Truck Trips per Hour
South Bronx Converted MTS

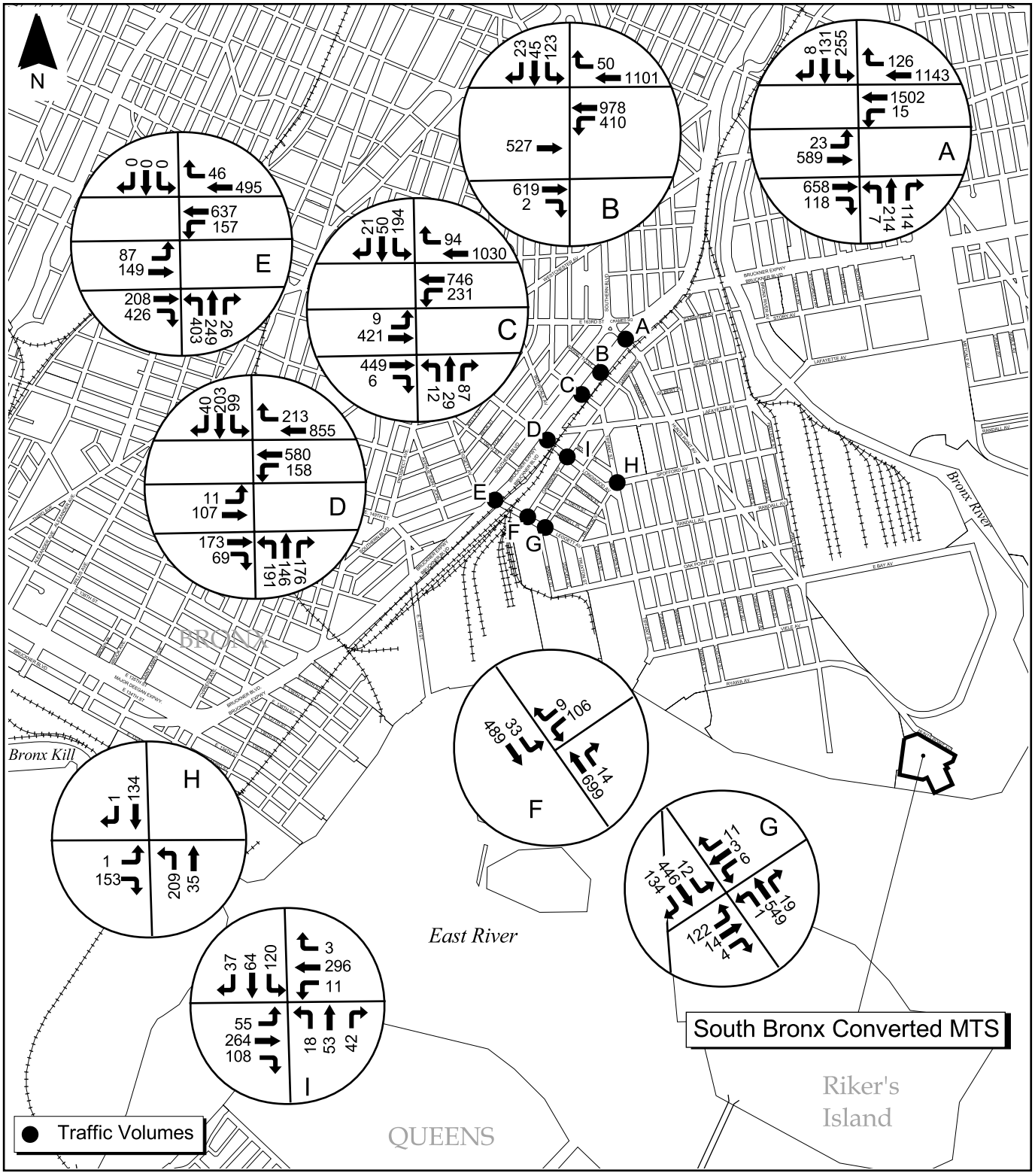


120 truck trips per hour in the mid-morning/early afternoon, and 5 to 10 truck trips per hour in the late afternoon/early evening. The peak hourly number of collection vehicle truck trips (122) occurs from 11:00 a.m. to 12 noon.

Employee person trips generated as a result of the South Bronx Converted MTS are expected to be about 44 per shift (22 coming in and 22 leaving). Employee shifts are projected to run from 8:00 a.m. to 4:00 p.m., 4:00 p.m. to 12:00 a.m., and 12:00 a.m. to 8:00 a.m. Most related trips would occur around shift changes when employees would arrive about ½ hour before the start of a shift and leave about ½ hour after the end of a shift. With these projections, employee trips are expected between 7:30 a.m. and 8:30 a.m., 3:30 p.m. and 4:30 p.m., and 11:30 p.m. and 12:30 a.m. Because only the AM peak (8:00 a.m. to 9:00 a.m.) coincided with a projected employee shift change (7:30 a.m. to 8:30 a.m.), employee trips both to and from the South Bronx Converted MTS during the shift change (44) were considered part of the net increase in site-generated traffic.

Figures 4.9-16, 4.9-17, 4.9-18, 4.9-19, 4.9-20 and 4.9-21 provide the 2006 Future Build Condition traffic volumes, which are a combination of Future No-Build and South Bronx Converted MTS traffic volumes at the study intersections. These traffic volumes were derived using a two-stage process. First, the truck trips generated by existing interim export program were subtracted from the truck trips expected to be generated by the South Bronx Converted MTS. These net trips were added to the Future No-Build traffic volumes along the paths specified in Figure 4.9-8.

Figures 4.9-22, 4.9-23, 4.9-24, 4.9-25, 4.9-26 and 4.9-27 illustrate the resulting net change in traffic at each study intersection. A negative value indicates that the volume of existing DSNY-related collection vehicle trips to the interim export facilities removed from a movement would be greater than the volume of truck traffic added to the movement by the operation of the South Bronx Converted MTS. The highest net increase in truck trips on Bruckner Boulevard would occur at the southbound left turn at Longwood Avenue. An additional 33 truck trips are projected for this movement during the Facility peak hour. During the AM peak hour, the highest net increase in truck trips along Bruckner Boulevard would occur on this movement as well, resulting in an additional 28 truck trips. Within the Hunts Point peninsula, the highest overall increase in truck traffic would occur at the analysis intersections closest to the South Bronx Converted MTS, such as Halleck Street

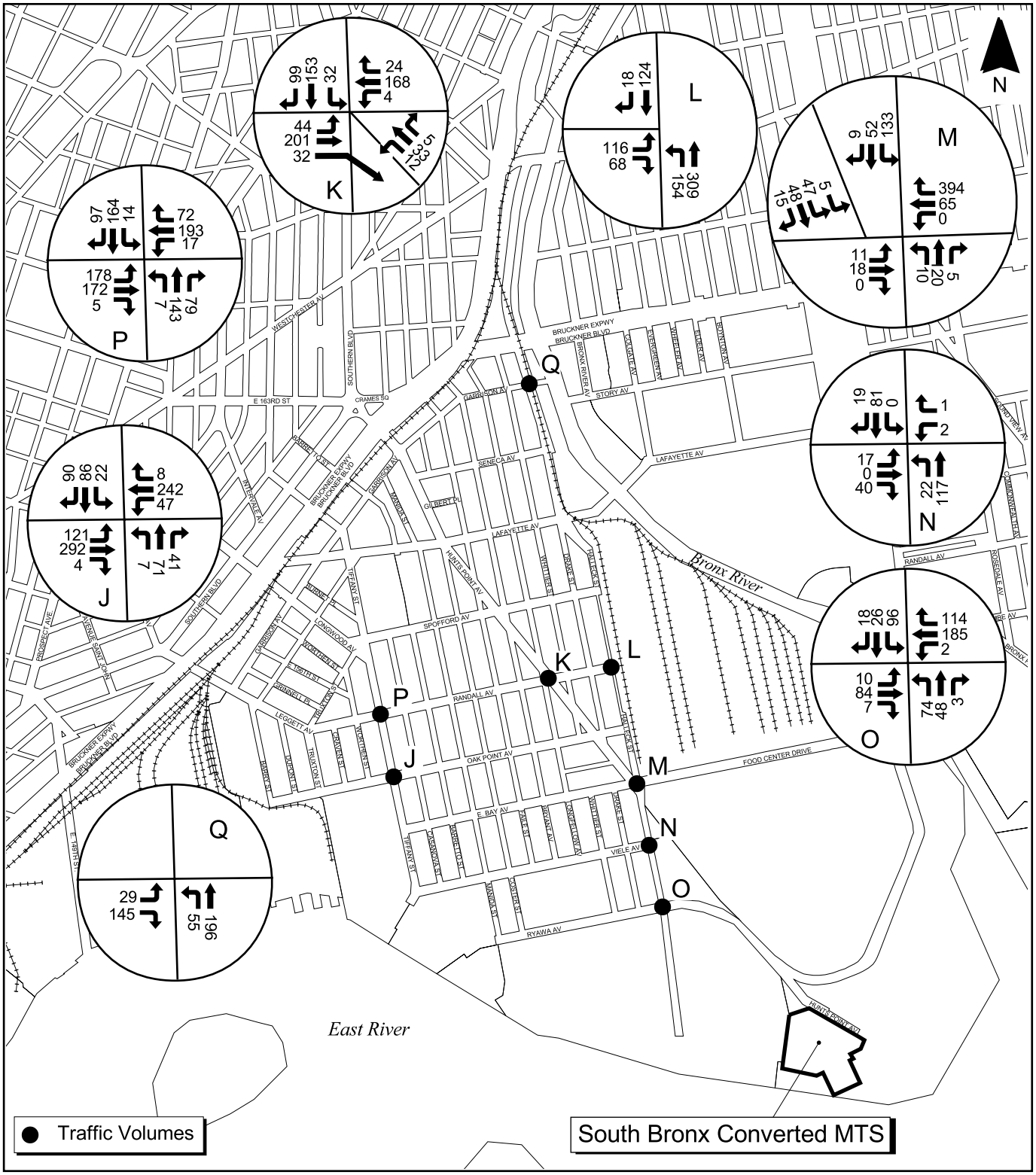


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1500 0 1500 Feet

Figure 4.9-16 2006 Build Traffic Volumes AM Peak South Bronx Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

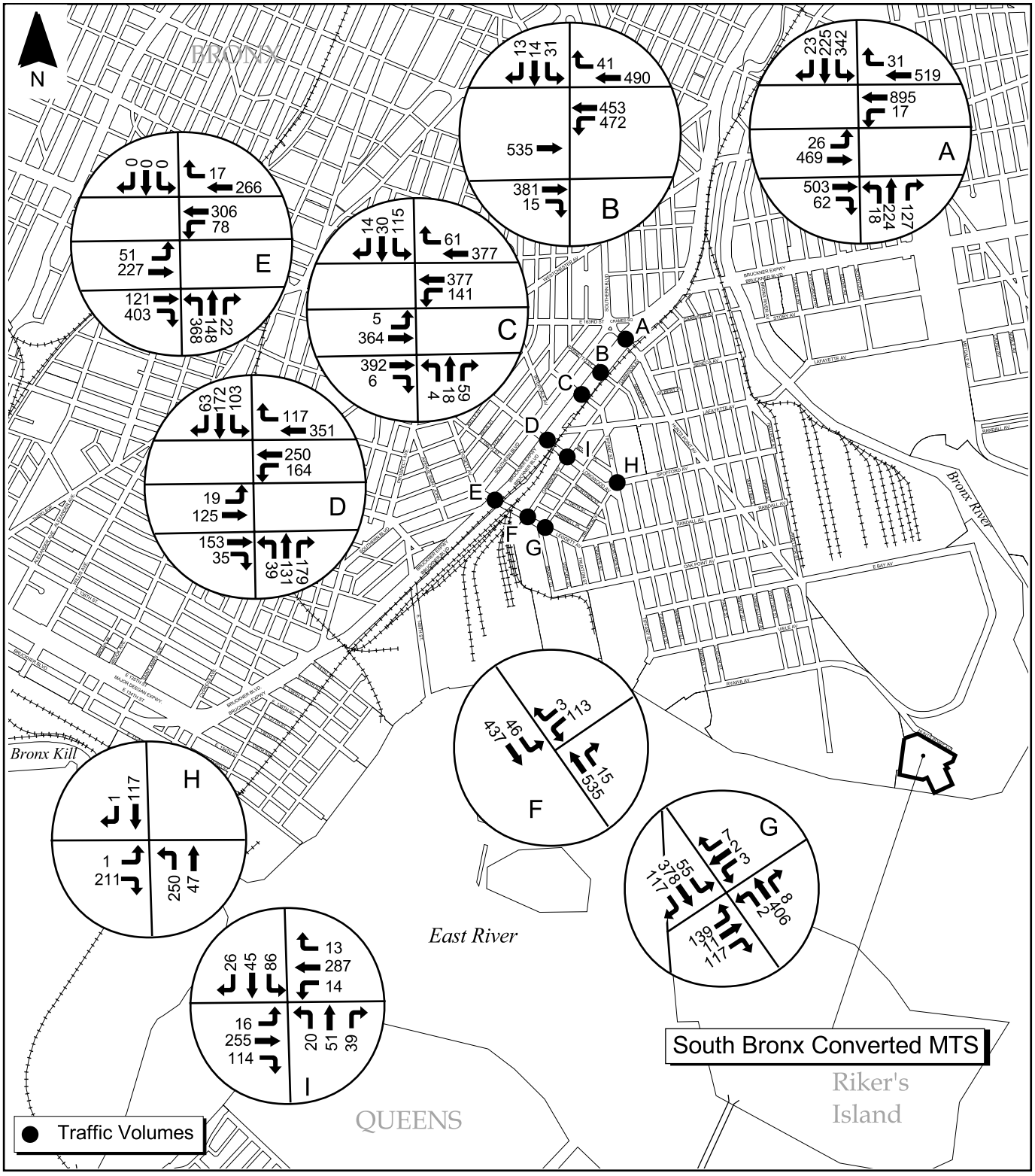


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

Figure 4.9-17 2006 Build Traffic Volumes
AM Peak
South Bronx Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

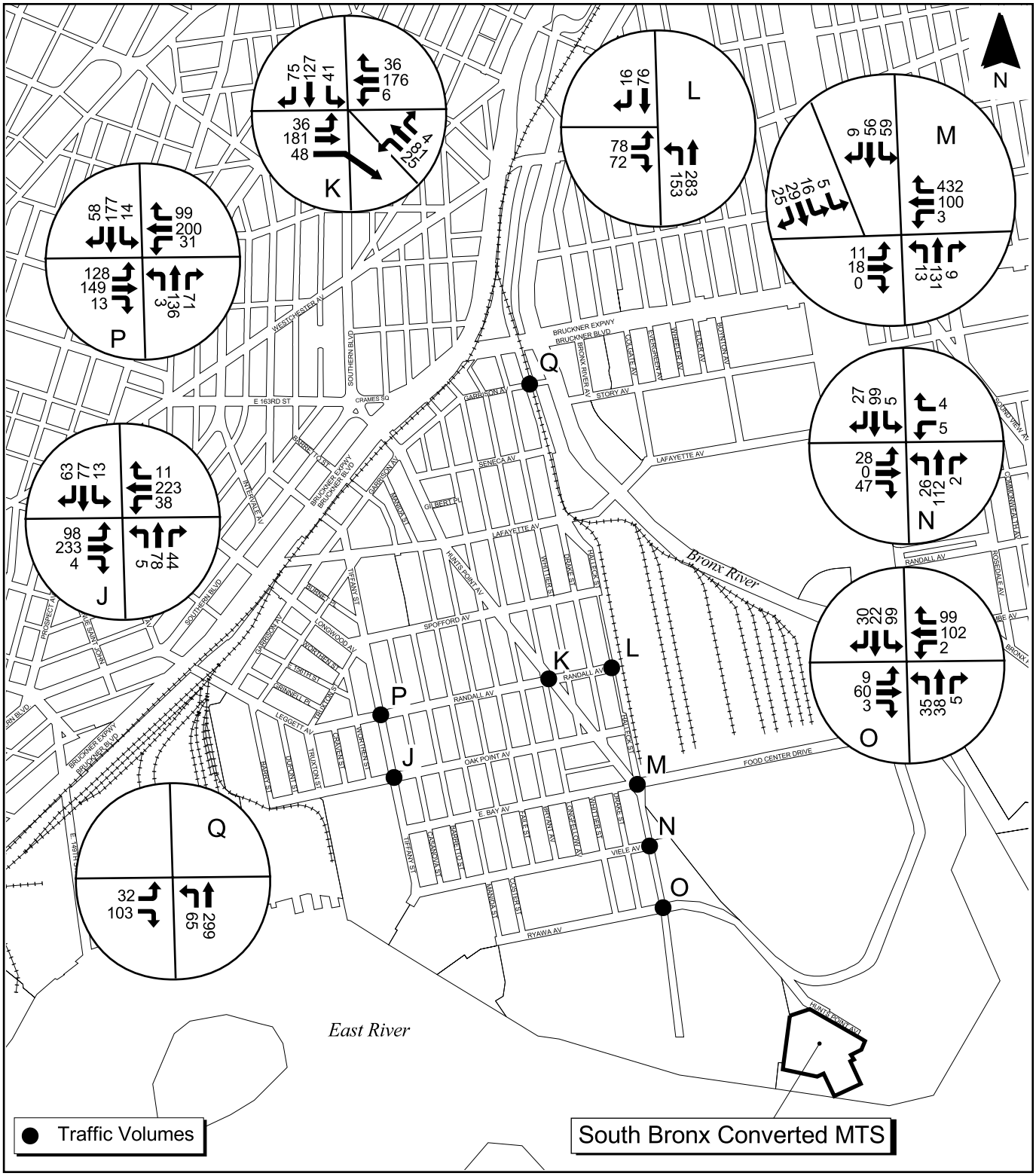


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1500 0 1500 Feet

Figure 4.9-18 2006 Build Traffic Volumes - Facility Peak
South Bronx Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

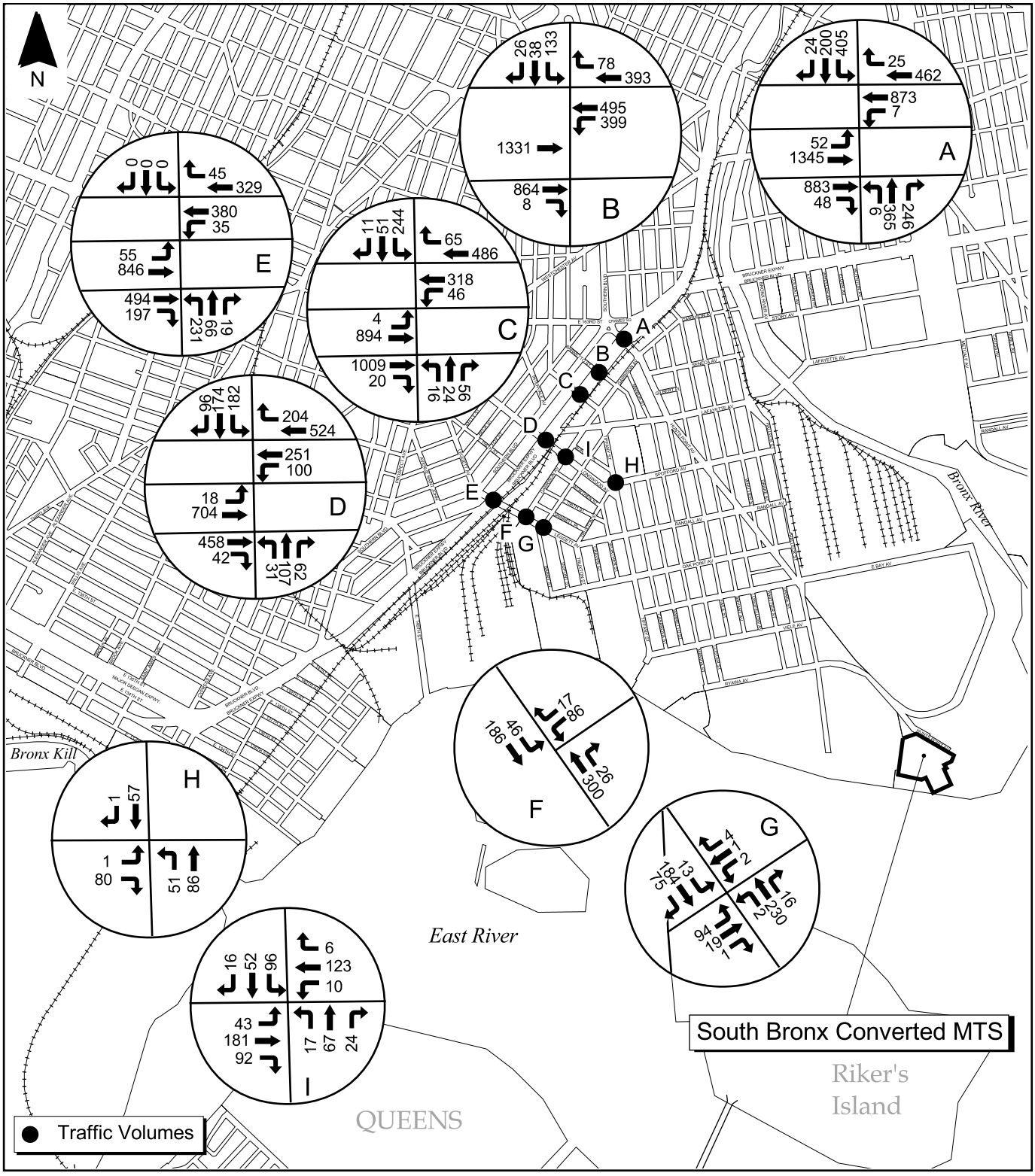


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

Figure 4.9-19 2006 Build Traffic Volumes - Facility Peak South Bronx Converted MTS

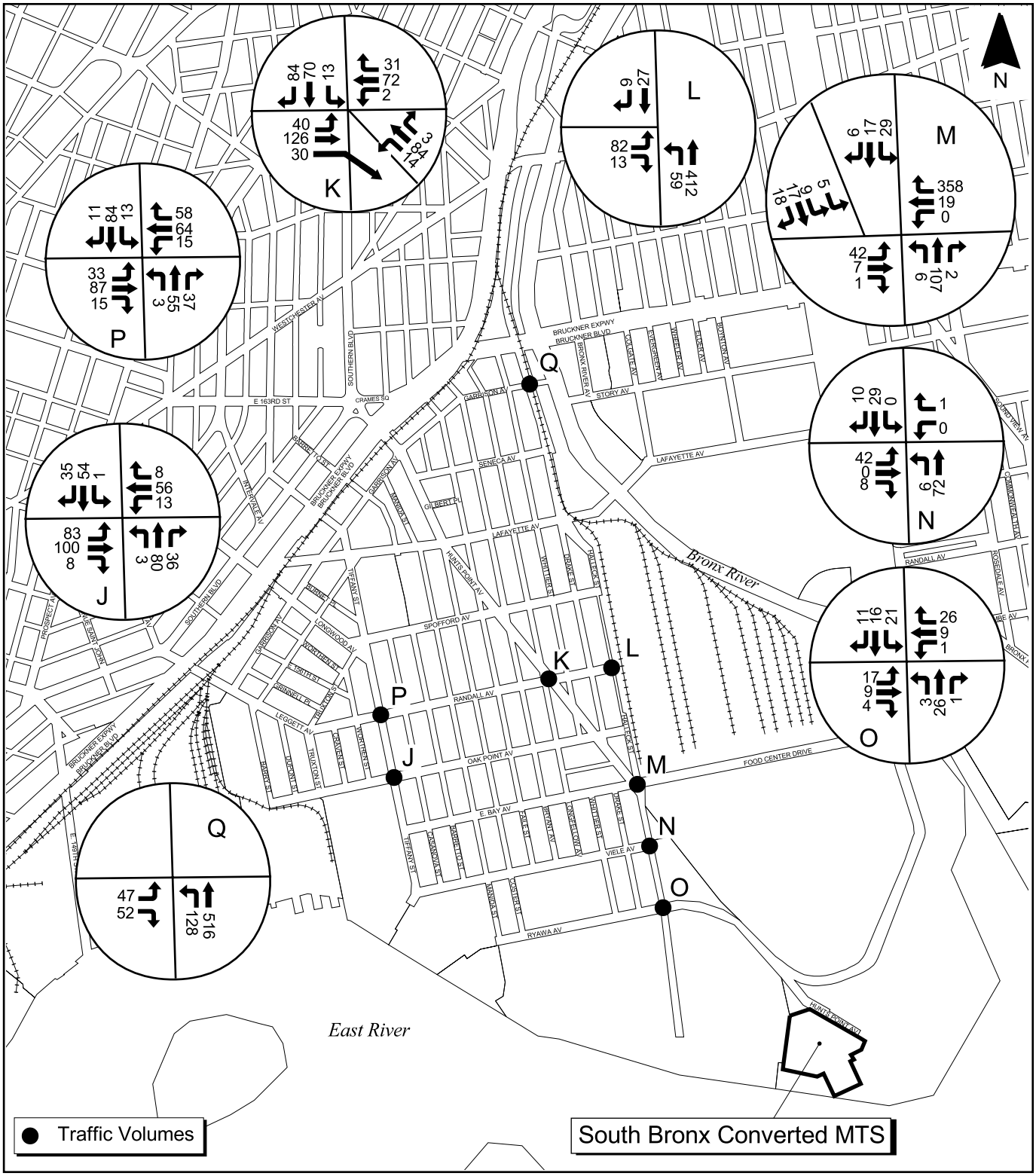
CITY OF NEW YORK
DEPARTMENT OF SANITATION



Site delineations are approximate.
Base Map Source: New York City Department of City Planning

Figure 4.9-20 2006 Build Traffic Volumes
PM Peak
South Bronx Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

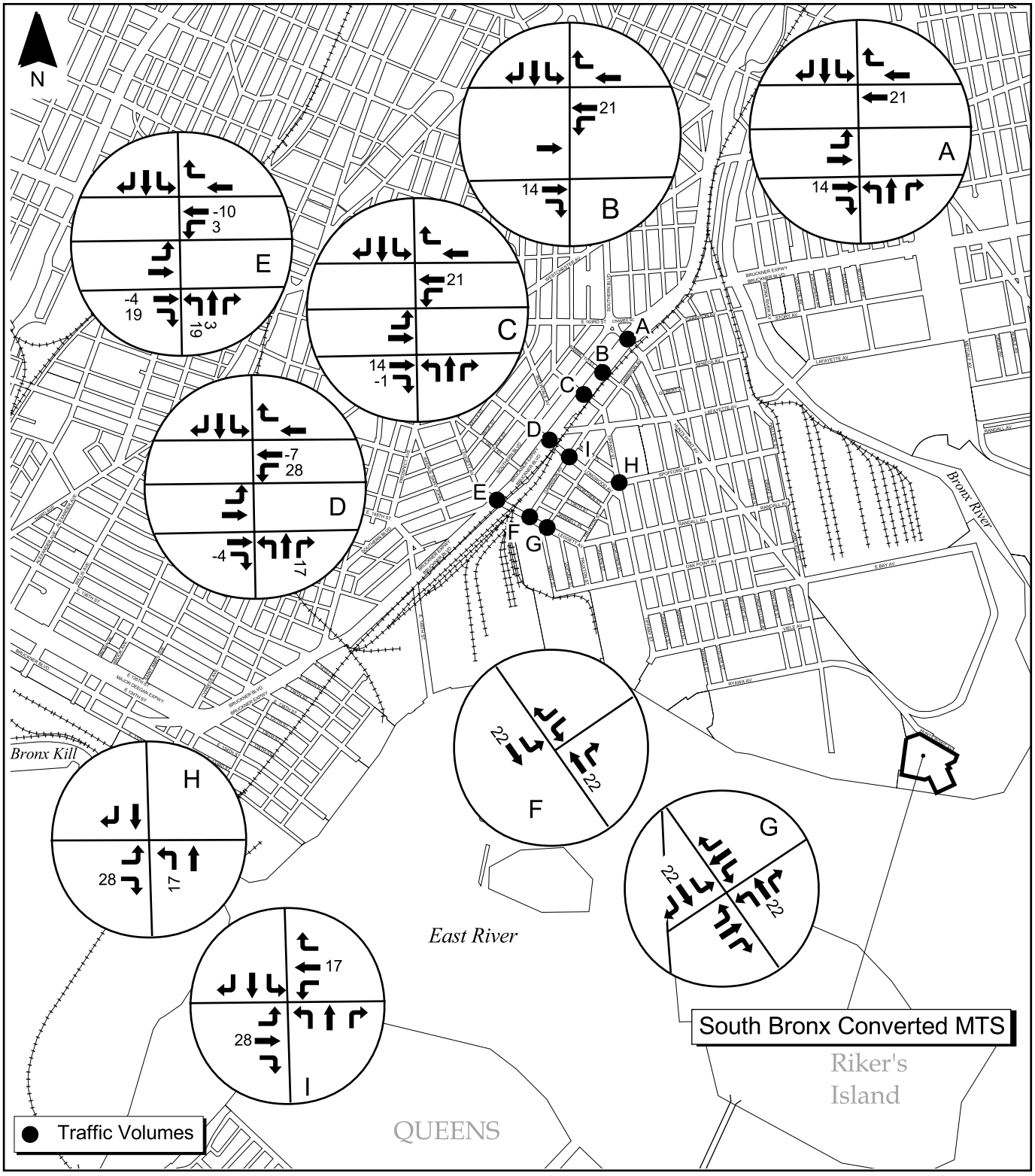


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

Figure 4.9-21 2006 Build Traffic Volumes PM Peak South Bronx Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

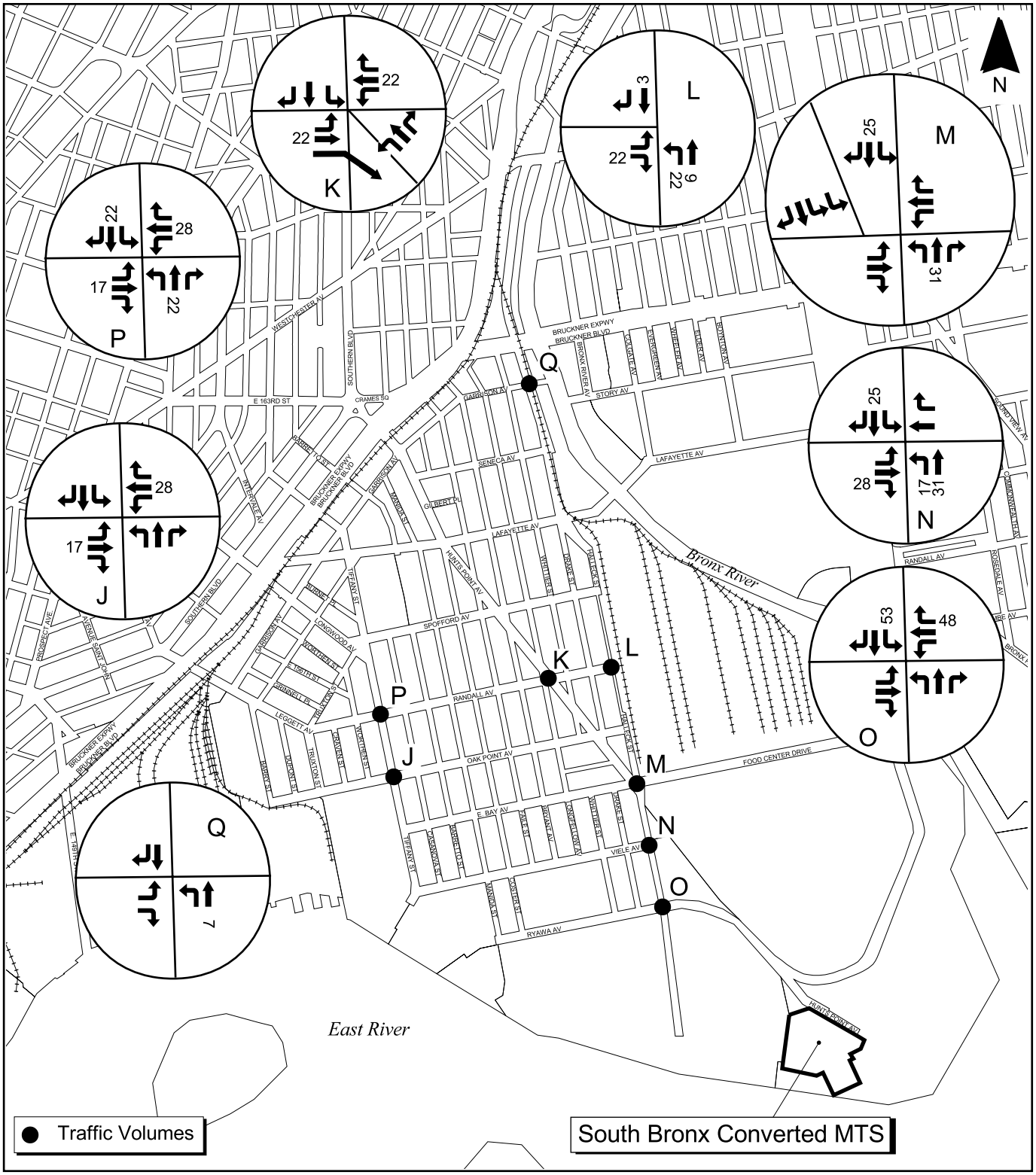


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1500 0 1500 Feet

Figure 4.9-22 2006 Net Traffic
AM Peak
South Bronx Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

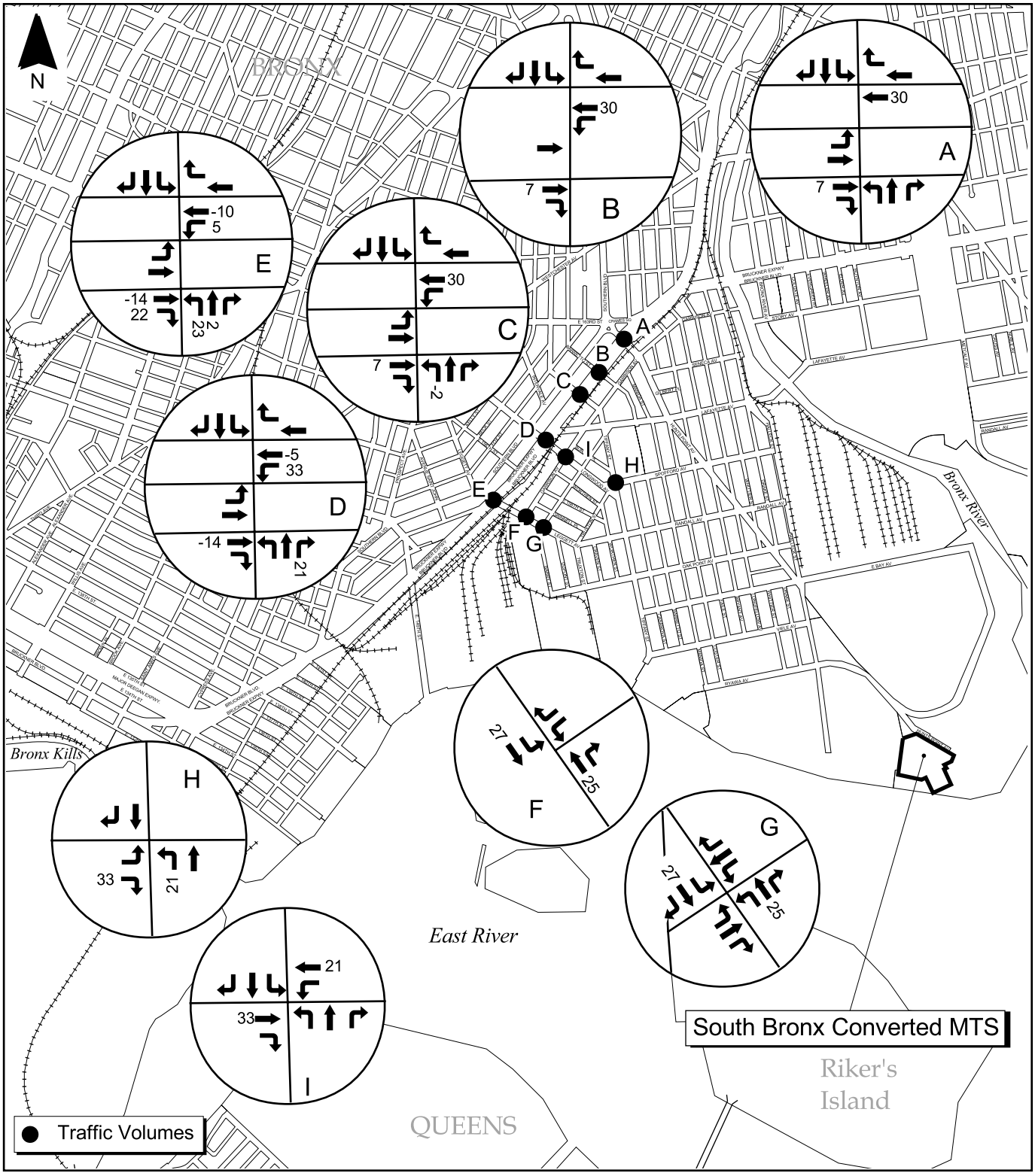


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

Figure 4.9-23 2006 Net Traffic
AM Peak
South Bronx Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

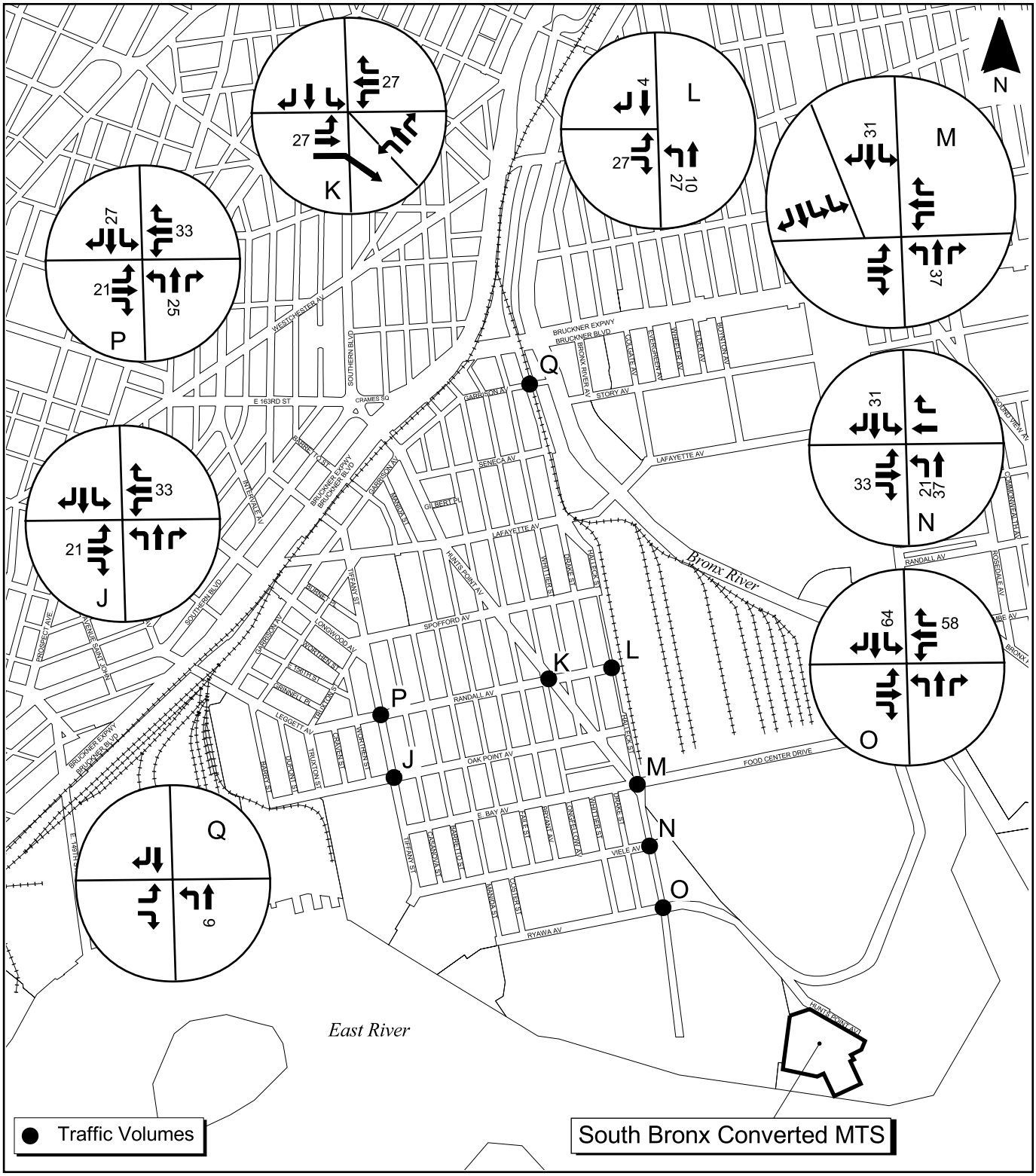


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1500 0 1500 Feet

Figure 4.9-24 2006 Net Traffic
Facility Peak
South Bronx Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

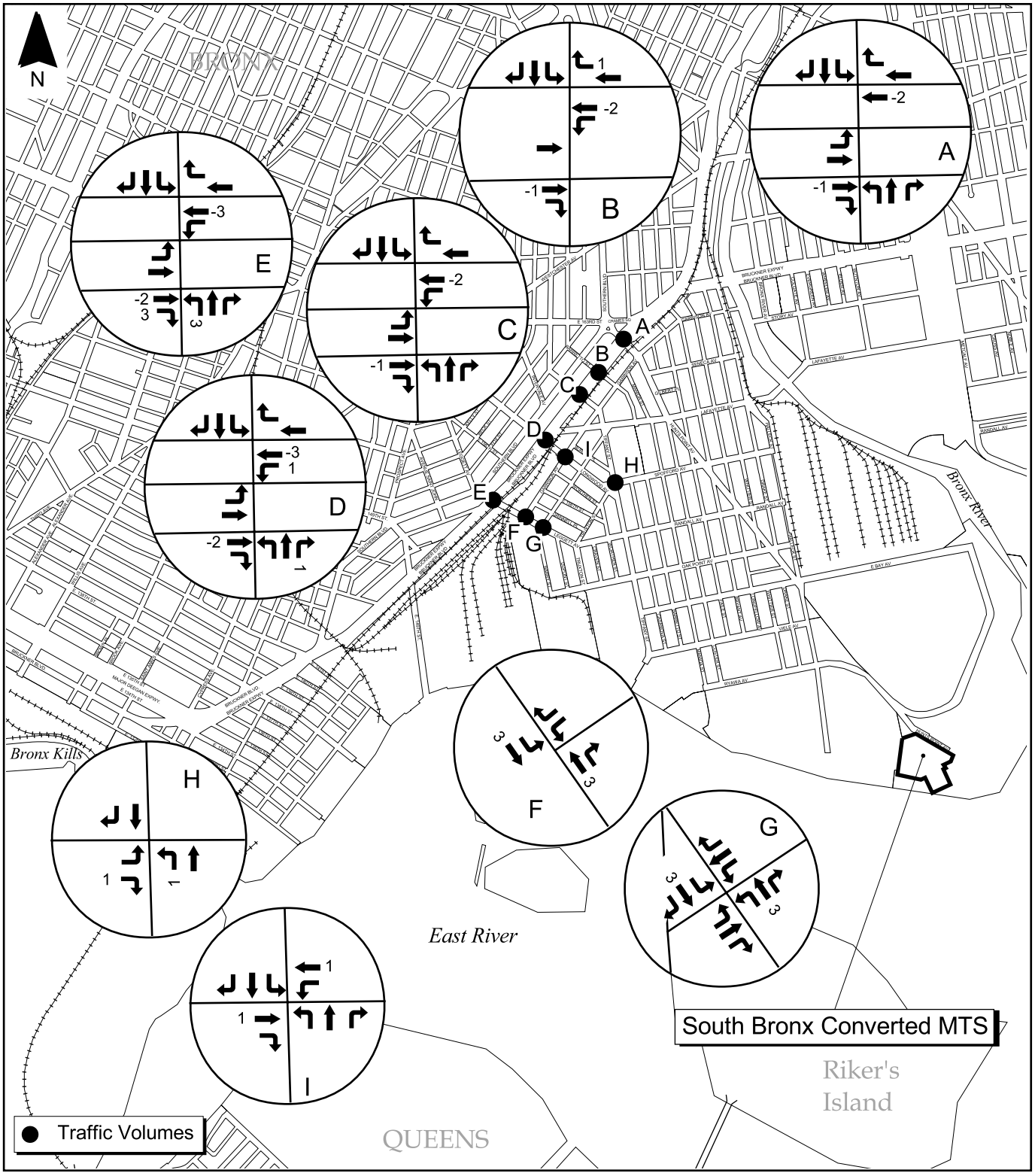


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

Figure 4.9-25 2006 Net Traffic Facility Peak South Bronx Converted MTS

CITY OF NEW YORK DEPARTMENT OF SANITATION

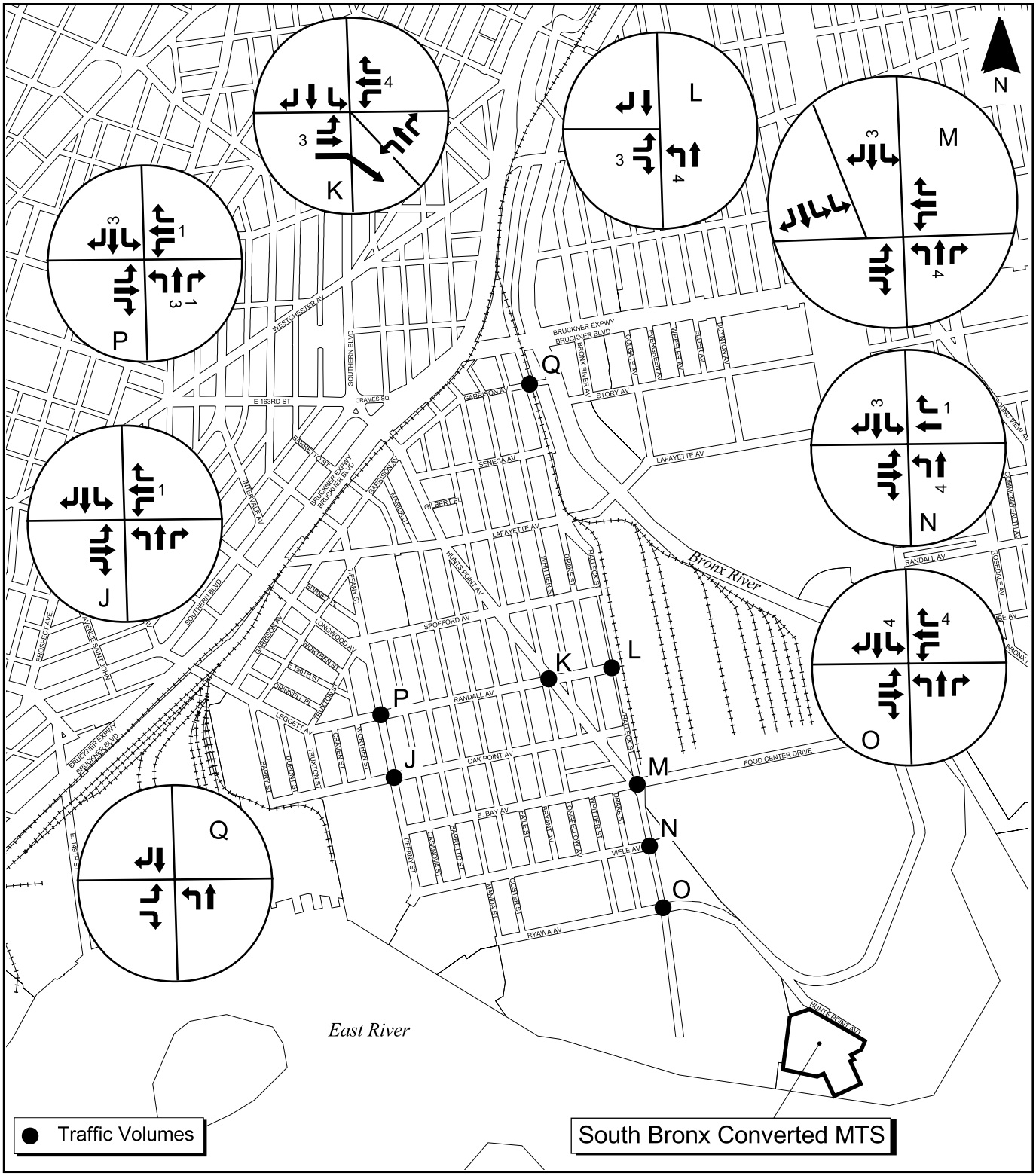


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1500 0 1500 Feet

Figure 4.9-26 2006 Net Traffic
PM Peak
South Bronx Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION



Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

Figure 4.9-27 2006 Net Traffic
PM Peak
South Bronx Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

and Ryawa Avenue, through which an additional 122 site-generated truck and auto trips are projected during the Facility peak hour. At the intersection of Leggett Avenue with Tiffany Street, an increase of 106 site generated trips is projected during the Facility peak.

The need for Saturday analysis was considered. However, a traffic analysis was not performed on the projected net increases on Saturday truck trips because the total net increase in collection vehicles delivering waste on Saturdays would be approximately 75 percent of the inbound loads delivered during a typical average peak day. Additionally, traffic data indicated that the weekend background traffic volumes were approximately 63 percent of weekday traffic volumes. Table 4.9-3 illustrates the decrease in weekday background traffic and the decrease in DSNY and other agency collection vehicle traffic on the weekend. No analysis was performed for Sunday because the South Bronx Converted MTS would not operate on Sundays. It was, therefore, judged that peak weekday analysis would represent the worst overall case conditions.

Table 4.9-3
Weekday and Weekend Traffic
South Bronx Converted MTS

DSNY and Other Agency Collection Vehicle Traffic		**Background Traffic NB and SB on Bruckner Boulevard [(1)]**	
Average Peak Day Trucks/ Day	Saturday Trucks/ Day	Weekday average vehicles/Day	Weekend average vehicles/Day
363	271	20,464	12,841

Note:
(1) NB and SB traffic data collected from ATR counts taken on Bruckner Boulevard between Tiffany Street and Barretto Street from September 17 to 22, 2003.

Table 4.9-4 provides the v/c ratios, delay and LOS for each signalized analysis intersection under the Future No-Build with Bronx Converted MTS traffic levels. Overall 2006 Future Build intersection traffic operations, expressed in terms of delay, would deteriorate slightly for certain intersections, but level of service would change only at the intersections of Bruckner Boulevard at Barretto Street (LOS C to LOS D) and at Bruckner Boulevard at Leggett Avenue (LOS D to LOS E) during the AM peak hour. The unsignalized intersection at Longwood Avenue and Garrison Avenue would also deteriorate (LOS C to LOS D) during both the AM and Facility peak hours. Significant traffic impacts, as defined by the CEQR Technical Manual and listed in Section 3.10, were identified for specific lane groups at the signalized intersections of

Table 4.9-4
HCM Analysis[(1)] – Future Build Conditions
South Bronx Converted MTS

Intersection & Lane Group	AM Peak Hour (8:00 a.m. - 9:00 a.m.)			Facility Peak Hour (11:00 a.m. – 12:00 p.m.)			PM Peak Hour (5:00 p.m. – 6:00 p.m.)		
	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Leggett Ave & Garrison Street (signalized)									
SB LTR	.38	15.8	B	.32	15.4	B	.34	15.5	B
EB LT	.51	10.6	B	.56	11.7	B	.25	8.1	A
WB TR	.73	14.7	B	.47	10.0	B	.27	8.1	A
OVERALL		13.3	B		11.3	B		9.4	A
Leggett Ave & Barry Street (signalized)									
NB DFL	.46	16.7	B	.55	18.2	B	.33	15.4	B
NB TR	.09	13.9	B	.08	13.8	B	.06	13.6	B
SB LTR	.10	13.9	B	.07	13.7	B	.05	13.6	B
EB LTR	.60	11.9	B	.73	15.9	B	.33	8.7	A
WB LTR	.61	12.2	B	.42	9.6	A	.22	7.8	A
OVERALL		12.6	B		13.9	B		9.8	A
Tiffany Street & Randall Ave (signalized)									
NB DEL	.72	22.6	C	.40	12.3	B	-	-	-
NB TR	.53	14.7	B	.56	16.0	B	-	-	-
NB LTR	-	-	-	-	-	-	.21	8.9	A
SB LTR	.43	11.1	B	.45	11.5	B	.23	9.1	A
EB LTR	.70	23.8	C	.56	20.4	C	.24	15.4	B
WB LTR	.55	19.8	B	.45	18.1	B	.20	14.9	B
OVERALL		18.6	B		15.7	B		11.5	B
Tiffany Street & Oak Point Ave (signalized)									
NB LTR	.88	36.7	D	.66	22.2	C	.34	15.7	B
SB LTR	.51	18.4	B	.49	18.1	B	.20	14.3	B
EB LTR	.26	9.8	A	.21	9.4	A	.13	8.8	A
WB LTR	.18	9.2	A	.17	9.1	A	.14	8.8	A
OVERALL		22.9	C		16.5	B		12.6	B
Hunts Point Ave & Randall Ave (signalized)									
NB LTR	.06	10.0	B	.17	10.7	B	.13	10.4	B
SB LTR	.35	12.3	B	.31	11.9	B	.20	11.0	B
EB LTR	.44	13.7	B	.40	13.1	B	.27	11.6	B
WB LTR	.29	12.0	B	.34	12.5	B	.14	10.6	B
OVERALL		12.5	B		12.2	B		11.0	B
Longwood Ave & Garrison Ave (unsignalized)									
NB LTR		14.5	B		13.9	B		10.1	B
SB LTR		23.6	C		14.1	B		11.3	B
EB LT		16.1	C		12.3	B		11.3	B
EB TR		41.6	E		51.8	F		16.0	C
WB LT		15.2	C		15.6	C		10.1	B
WB TR		20.8	C		22.5	C		10.5	B
OVERALL		25.6	D		29.0	D		12.6	B
Longwood Ave & Tiffany St (unsignalized)									
NB LT		10.0	B		9.9	A		8.4	A
EB LR		11.6	B		13.2	B		10.7	B

Table 4.9-4 (continued)
HCM Analysis[(1)] – Future Build Conditions
South Bronx Converted MTS

Intersection & Lane Group	AM Peak Hour (8:00 a.m. - 9:00 a.m.)			Facility Peak Hour (11:00 a.m. – 12:00 p.m.)			PM Peak Hour (5:00 p.m. – 6:00 p.m.)		
	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
East Bay Ave & Halleck Street (signalized)									
NB L	.04	17.3	B	.05	17.4	B	.02	17.0	B
NB TR	.14	18.0	B	.17	18.2	B	.10	17.6	B
SB L	.48	25.4	C	.22	20.0	B	.12	18.6	B
SB TR	.13	18.1	B	.09	17.6	B	.05	17.2	B
EB LTR	.10	23.1	C	.09	22.9	C	-	-	-
EB DFL	-	-	-	-	-	-	.17	24.4	C
EB TR	-	-	-	-	-	-	.06	22.7	C
WB LTR	.25	24.8	C	.36	26.3	C	.12	23.2	C
WB R	.60	20.5	C	.66	22.4	C	.52	17.9	B
OVERALL		21.4	C		22.1	C		19.0	B
East Bay Ave & Hunts Point Ave (signalized)									
SB LTR	.34	36.8	D	.31	36.7	D	.21	35.2	D
EB LTR	.10	23.1	C	.09	22.9	C	-	-	-
EB DFL	-	-	-	-	-	-	.17	24.4	C
EB TR	-	-	-	-	-	-	.05	22.7	C
WB LTR	.25	24.8	C	.36	26.3	C	.12	23.2	C
WB R	.60	20.5	C	.66	22.4	C	.52	17.9	B
OVERALL		24.9	C		25.6	C		21.6	C
Hunts Point Ave & Bruckner Blvd NB ML (signalized)									
NB L	.14	25.0	C	.15	25.1	C	.11	24.3	C
NB T	.63	32.6	C	.54	30.7	C	1.01	63.7	E
EB L	.63	47.0	D	.76	50.4	D	.88	64.0	E
EB T	.17	29.3	C	.22	29.9	C	.19	29.5	C
WB T	.38	38.0	D	.26	36.1	D	.31	37.0	D
WB R	.41	40.1	D	.38	39.3	D	.65	47.6	D
OVERALL		36.0	D		36.5	D		55.9	E
Hunts Point Ave & Bruckner Blvd NB SR (signalized)									
NB TR	.89	46.7	D	.66	34.2	C	.82	39.6	D
EB L	.63	47.0	D	.76	50.4	D	.88	64.0	E
EB T	.17	29.3	C	.22	29.9	C	.19	29.5	C
WB T	.38	38.0	D	.25	36.1	D	.32	37.0	D
WB R	.41	40.1	D	.38	39.3	D	.65	47.6	D
OVERALL		43.2	D		38.0	D		44.1	D
Hunts Point Ave & Bruckner Blvd SB ML (signalized)									
SB LT	.67	17.9	B	.40	13.6	B	.39	13.4	B
EB TR	.40	37.9	D	.57	40.9	D	.62	42.0	D
WB LT	.26	30.6	C	.30	31.1	C	.47	33.7	C
OVERALL		22.9	C		25.8	C		27.4	C
Hunts Point Ave & Bruckner Blvd SB SR (signalized)									
SB TR	.79	22.7	C	.34	13.1	B	.27	12.2	B
EB TR	.40	37.9	D	.57	40.9	D	.62	42.0	D
WB LT	.26	30.6	C	.63	37.7	D	.47	33.7	C
OVERALL		26.7	C		30.4	C		30.6	C
Barretto Street & Bruckner Blvd ML (signalized)									
NB T	.58	36.1	D	.58	36.0	D	.97	51.8	D
SB L	.68	17.7	B	.71	19.4	B	1.02	89.5	F
SB LT	.70	15.6	B	.49	11.6	B	.41	9.7	A
EB LT	.78	59.1	E	.28	37.6	D	.57	45.8	D
OVERALL		25.2	C		23.0	C		48.9	D

Table 4.9-4 (continued)
HCM Analysis[(1)] – Future Build Conditions
South Bronx Converted MTS

Intersection & Lane Group	(8:00 a.m. - 9:00 a.m.)			Facility Peak Hour (11:00 a.m. – 12:00 p.m.)			PM Peak Hour (5:00 p.m. – 6:00 p.m.)		
	Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay	LOS	V/C Ratio	Delay (sec/veh)	LOS
Barretto Street & Bruckner Blvd SR (signalized)									
NB TR	.95	61.4	E	.60	37.6	D	.73	32.2	C
SB TR	.70	15.1	B	.32	9.3	A	.27	8.1	A
EB TR	.77	57.5	E	.26	37.2	D	.58	46.0	D
OVERALL		35.2	D		22.7	C		26.7	C
Tiffany Street & Bruckner Blvd ML (signalized)									
NB L	.08	28.9	C	.04	28.0	C	.02	16.2	B
NB T	.59	36.5	D	.49	34.3	C	.63	25.0	C
SB L	.36	11.0	B	.23	9.3	A	.14	11.3	B
SB T	.42	10.3	B	.25	8.7	A	.22	8.4	A
EB L	.90	74.6	E	.55	45.3	D	.84	65.5	E
EB T	.18	35.7	D	.11	34.6	C	.15	35.2	D
WB LT	.09	34.0	C	.05	33.6	C	.08	33.9	C
OVERALL		27.5	C		24.2	C		27.5	C
Tiffany Street & Bruckner Blvd SR (signalized)									
NB TR	.65	38.9	D	.64	38.8	D	.75	28.7	C
SB TR	.71	15.5	B	.32	9.4	A	.29	9.0	A
EB TR	.48	39.9	D	.27	36.4	D	.44	39.9	D
WB TR	.19	35.2	D	.15	34.7	C	.19	35.3	D
OVERALL		25.8	C		26.7	C		25.5	C
Longwood Ave & Bruckner Blvd ML (signalized)									
NB L	.09	43.9	D	.14	40.6	D	.05	28.0	C
NB T	.34	47.3	D	.27	41.9	D	.72	40.0	D
SB L	.55	32.5	C	.47	33.5	C	.54	48.9	D
SB T	.50	27.8	C	.30	27.8	C	.38	39.4	D
EB DFL	.47	38.3	D	-	-	-	.60	42.5	D
EB T	.69	45.9	D	-	-	-	.46	37.2	D
EB LT	-	-	-	.49	36.4	D	-	-	-
WB DFL	.88	70.8	E	-	-	-	-	-	-
WB LT	-	-	-	.39	34.6	C	.26	32.0	C
WB T	.49	38.6	D	-	-	-	-	-	-
OVERALL		39.9	D		34.2	C		43.8	D
Longwood Ave & Bruckner Blvd SR (signalized)									
NB TR	.63	54.2	D	.47	45.3	D	.66	38.2	D
SB TR	.97	53.8	D	.51	31.3	C	.99	74.5	E
EB TR	.62	38.7	D	.44	34.9	C	.59	37.9	D
WB TR	.96	68.7	E	.76	47.0	D	.44	35.2	D
OVERALL		54.3	D		38.3	D		50.3	D
Leggett Ave & Bruckner Blvd ML (signalized)									
NB L	.31	42.5	D	.16	39.9	D	.31	51.6	D
NB T	.14	25.0	C	.25	26.4	C	.56	22.7	C
SB L	.94	83.7	F	.49	49.0	D	.28	52.2	D
SB T	.60	32.4	C	.31	27.3	C	.23	17.8	B
WB L	.84	61.1	E	.68	47.7	D	.44	40.8	D
WB LT	1.05	102.2	F	.75	50.4	D	.44	40.5	D
OVERALL		58.6	E		38.4	D		26.9	C

Table 4.9-4 (continued)
HCM Analysis[(1)] – Future Build Conditions
South Bronx Converted MTS

Intersection & Lane Group	AM Peak Hour (8:00 a.m. - 9:00 a.m.)			Facility Peak Hour (11:00 a.m. – 12:00 p.m.)			PM Peak Hour (5:00 p.m. – 6:00 p.m.)		
	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Leggett Ave & Bruckner Blvd SR (signalized)									
NB TR	.78	39.5	D	.71	36.7	D	.59	23.5	C
SB TR	.49	30.1	C	.30	27.0	C	.26	18.2	B
WB TR	1.00	74.8	E	.76	45.6	D	.49	39.9	D
OVERALL		49.2	D		37.6	D		26.0	C
Halleck Street & Randall Ave (unsignalized)									
NB LT		9.2	A		8.9	A		7.9	A
EB L		31.3	D		26.7	D		15.0	B
EB R		10.0	A		10.2	B		9.1	A
Halleck Street & Viele Ave (unsignalized)									
NB L		8.9	A		8.9	A		7.4	A
SB L		-	-		-	-		-	-
EB LT		12.1	B		12.6	B		10.4	B
EB TR		10.2	B		10.2	B		8.9	A
WB LTR		10.8	B		10.6	B		-	-
Ryawa Ave & Halleck Street (unsignalized)									
NB L		7.8	A		7.7	A		-	-
SB LT		8.4	A		8.5	A		7.9	A
EB L		-	F		28.4	D		10.3	B
EB T		23.6	C		19.8	C		11.0	B
EB TR		22.0	C		19.0	C		9.7	A
WB LT		32.9	D		19.8	C		9.9	A
WB TR		29.4	D		16.3	C		9.3	A
Garrison Avenue & Edgewater Road (unsignalized)D									
NB LT		7.7	A		7.5	A		7.5	A
EB LR		10.3	B		10.9	B		19.8	C

Notes:

[(1)] HCM output is included in technical backup submitted to the NYCDOT.

DFL = defacto left

EB = eastbound

LTR = left, through and right movements

ML = mainline

NB = northbound

SB = southbound

SR = service road

WB = westbound

Barretto Street/Bruckner Boulevard, Leggett Avenue/Bruckner Boulevard, Longwood Avenue/Garrison Avenue, and Ryawa Avenue/Halleck Street. These impacts and suggested mitigation are discussed below.

4.9.4.2 Impacts and Mitigation

Table 4.9-5 provides a comparison of v/c ratio, delay and LOS for the Future No-Build, Future Build before mitigation, and Future Build after mitigation scenarios at each intersection where impacts were identified. The following describes proposed mitigation and projected results with mitigation.

During the AM peak hour, an impact was identified on the northbound approach at the intersection of Bruckner Boulevard at Barretto Street on the service road. LOS D deteriorated to LOS E with an increase in delay from 54.7 seconds to 61.4 seconds. The existing signal operates as a 3-phase signal. The mitigation is as follows:

- Add one second of green time to the eastbound/westbound phase.
- Reduce the green time of the southbound exclusive left turn phase from 35 to 30 seconds.
- Increase the green time of the northbound/southbound phase from 39 to 43 seconds.

These changes would improve the approach of the northbound service road to LOS D with a delay of 46.5 seconds. There would be no impacts induced for either the eastbound/westbound lane group or the southbound exclusive left turn lane group. These changes would also continue to provide adequate clearance time for pedestrian crossings.

During the AM peak hour, impacts were identified on the westbound approach at the mainline road intersection of Bruckner Boulevard at Leggett Avenue. At LOS E, delay would increase from 56.1 seconds to 61.1 seconds for the westbound left turn lane group, and from 75.9 seconds to 102.2 seconds for the westbound shared left and through lane group. On the service road, during the AM peak period delay would increase from 64.1 seconds to 74.8 seconds for the westbound shared through and right turn lane group at LOS E.

Table 4.9-5
HCM Analysis[(1)] – 2006 Build Mitigation
South Bronx Converted MTS

Intersection & Lane Group	2006 Future No Build			2006 Future Build			2006 Future Build after Mitigation		
	V/C	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Barretto Street & Bruckner Blvd SR (signalized) - AM Peak									
NB TR	.91	54.7	D	.95	61.4	E	.86	46.5	D
SB TR	.70	15.1	B	.70	15.1	B	.71	15.9	B
EB TR	.77	57.5	E	.77	57.5	E	.74	54.6	D
OVERALL		33.5	C		35.2	D		30.3	C
Barretto Street & Bruckner Blvd ML (signalized) - AM Peak									
NB L	.58	36.1	D	.58	36.1	D	.52	32.2	C
SB L	.68	17.7	B	.68	17.7	B	.72	19.5	B
SB LT	.67	14.9	B	.70	15.6	B	.71	16.3	B
EB LT	.78	59.1	E	.78	59.1	E	.75	55.9	E
OVERALL		24.9	C		25.2	C		24.6	C
Leggett Ave & Bruckner Blvd SR (signalized) - AM Peak									
NB TR	.75	38.1	D	.78	39.5	D	.78	39.5	D
SB TR	.49	30.1	C	.49	30.1	C	.49	30.1	C
WB TR	.95	64.1	E	1.00	74.8	E	.94	61.6	E
OVERALL		44.7	D		49.2	D		44.5	D
Leggett Ave & Bruckner Blvd ML (signalized) - AM Peak									
NB L	.31	42.5	D	.31	42.5	D	.34	44.7	D
NB T	.14	25.0	C	.14	25	C	.14	25	C
SB L	.52	48.2	D	.53	48.6	D	.58	52.3	D
SB T	.62	32.9	C	.6	32.4	C	.60	32.4	C
WB L	.79	56.1	E	.84	61.1	E	.79	54.1	D
WB LT	.95	75.9	E	1.05	102.2	F	.96	75.5	E
OVERALL		46.6	D		53.9	D		47.2	D
Longwood Ave & Garrison Ave (unsignalized 2006 No-build & Build, signalized 2006 Build Mitigation) – Facility Peak									
NB LTR	.36	13.3	B	.36	13.9	B	.31	16.6	B
SB LTR	.40	13.3	B	.40	14.1	B	.44	19.3	B
EB LT(R)	.22	11.8	B	.24	12.3	B	.4	10.4	B
EB TR	.83	35.3	E	.93	51.8	F	-	-	-
WB LT(R)	.39	14.6	B	.41	15.6	C	.41	10.5	B
WB TR	.57	19.6	C	.63	22.5	C	-	-	-
OVERALL		22.2	C		29.0	D		12.3	B

Notes:

(1) HCM output is included in technical backup submitted to the NYCDOT.

DFL = defacto left
EB = eastbound
LTR = left, through and right movements
ML = mainline
NB = northbound
SB = southbound
SR = service road
WB = westbound

Currently, the existing signal operates as a 3-phase signal. The mitigation is as follows:

- Provide a 2-second increment in green time to the eastbound/westbound lane group by taking 1 second from both the southbound exclusive left turn phase and the northbound/southbound phase.

This change would decrease the delay of the westbound left turn lane group on the mainline from 61.1 seconds to 54.1 seconds and increase the level of service (LOS D to LOS C). The westbound shared left and through lane group delay would decrease from 102.2 seconds (at LOS F) to 75.5 seconds (at LOS E). Additional improvement would also be achieved for the westbound approach lane group on the service road. The westbound shared through and right turn lane group delay would reduce at LOS E from 74.8 seconds to 61.6 seconds. There would be no impacts induced for the northbound/southbound lane groups.

During the AM and Facility peak hour periods, impacts were identified on the eastbound left turn lane group at the intersection of Ryawa Avenue at Halleck Street. However, the traffic volume for this movement is very low (less than 25 passenger car equivalents during any peak hour in the build condition) and therefore does not qualify as an impact for unsignalized intersections under CEQR guidelines.

During the Facility peak, at the four-way STOP controlled intersection of Longwood Avenue and Garrison Avenue, impacts were identified at the eastbound shared through and right turn lane group. The first mitigation measure tested was to modify the intersection operations to two- way STOP control with Garrison Avenue as the minor street. This measure resulted in LOS F on Garrison Avenue. Therefore, the mitigation proposed is to signalize the intersection. A preliminary warrant analysis indicates that Traffic Signal Warrant 10, Peak Hour Delay would be satisfied.

4.9.4.3 Public Transportation

Future Build Conditions are expected to remain the same as Future No-Build Conditions.

4.9.4.4 Pedestrian Activity

Future Build Conditions are expected to remain the same as Future No-Build Conditions.

4.10 Air Quality

4.10.1 Definition of Study Area

The study area for the on-site air quality analysis for criteria pollutants (except $PM_{2.5}$) is defined as the area within 500 meters (0.3 miles) of the property line in all directions. The study area for the on-site analysis for $PM_{2.5}$ is defined as the area within 500 meters from the highest impact location of the South Bronx Converted MTS. The study area for the off-site air quality analysis is defined as the area or intersections listed in Section 4.10.4.2.

4.10.2 Existing Conditions

Applicable air quality data collected at the monitoring station(s) nearest the study area are shown in Table 4.10-1. These data were compiled by NYSDEC for 2002, the latest calendar year for which applicable data are currently available. The monitored levels do not exceed national and state ambient air quality standards.

Table 4.10-1
Representative Ambient Air Quality Data (2002)
South Bronx Converted MTS

Pollutant	Monitor	Averaging Time	Value	NAAQS
CO	Bronx	8-Hour	2,635 μg/m^3	10,000 μg/m^3
		1-Hour	3,781 μg/m^3	40,000 μg/m^3
NO_2	Morrisania	Annual	68 μg/m^3	100 μg/m^3
PM_{10}	Morrisania	Annual	25 μg/m^3	50 μg/m^3
		24-Hour	73 μg/m^3	150 μg/m^3
SO_2	Morrisania	3-Hour	325 μg/m^3	1300 μg/m^3
		24-Hour	144 μg/m^3	365 μg/m^3
		Annual	31 μg/m^3	80 μg/m^3

Note:
Source: NYCDEP April 18, 2003.

4.10.3 Future No-Build Conditions

The primarily commercial/industrial nature of the study area is not expected to change by the 2006 analysis year. Therefore, no changes to air quality levels are anticipated, and Future No Build Conditions are assumed to be the same as Existing Conditions for all pollutants except CO. CO concentrations are expected to be lowered by increasingly stringent, federally mandated vehicular emission controls, although any effects may be offset by increases in regional traffic volumes.

4.10.4 Potential Impacts with the South Bronx Converted MTS

4.10.4.1 On-Site Analysis

4.10 4.1.1 Sources Considered in the Analysis

The sources of emissions and the number of each type of source that is anticipated to be in operation during the peak hour and under daily average conditions are provided in Table 4.10-2. Figure 4.10-1 shows the locations of these sources within the site.

4.10.4.1.2 Results of the Criteria Pollutant Analysis

The highest estimated criteria pollutant concentrations at any of the receptor locations considered are presented in Table 4.10-3. These values are below the national and state ambient air quality standards for the appropriate averaging time periods. In addition, the highest estimated changes in 24-hour and annual $PM_{2.5}$ concentrations from South Bronx Converted MTS-generated vehicles at any of the receptor locations considered, which are also presented in Table 4.10-3, are below the STVs. The South Bronx Converted MTS would not, therefore, significantly impact air quality in the area.

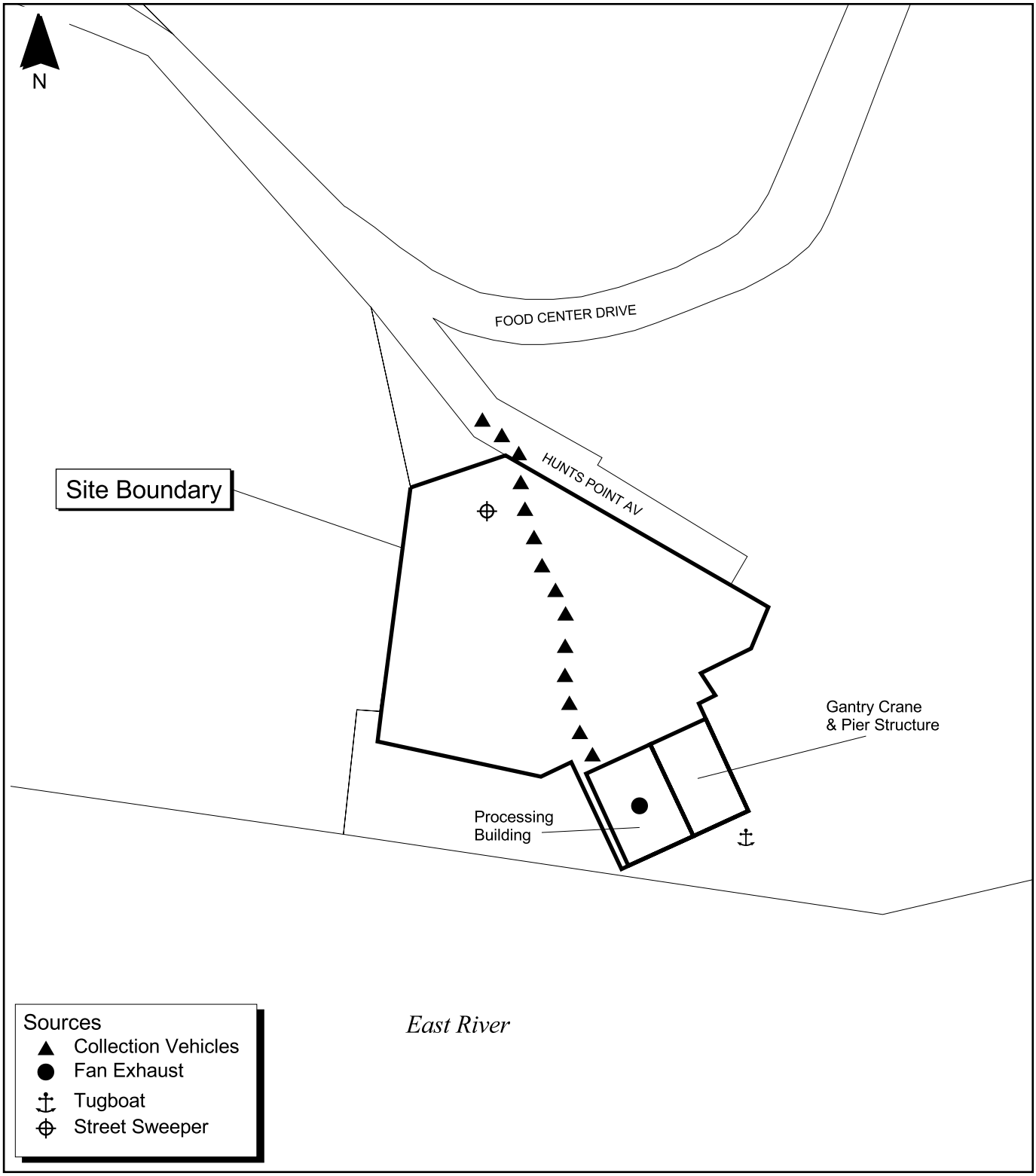
Table 4.10-2
Emission Sources Considered for On-site Air Quality Analysis [1]
South Bronx Converted MTS

Type of Emission Source	Number of Sources Operated During Peak Hour	Number of Sources Operated During 24-hour and Annual Average Hour
Within Processing Building		
Wheel Loaders	2	1
Tamping Cranes	1	1
Mini-Sweepers	1	1
Moving/Queuing Collection Vehicles	46	18
Space Heaters	10	10
Boiler	1	1
Outside Processing Building		
Moving Street Sweepers	1	1
Moving Collection Vehicles[2]	46	18
Queuing Collection Vehicles[2]	19 in; 1 out	3 in; 1 out
Oceangoing Tugboats	1	1

Notes:

(1) Emission factors used and emission rates estimated for each of these sources are included in Technical Backup provided to the NYCDEP.

(2) Peak 8-hour and 3-hour average number of queuing collection vehicles outside building is 6. Theoretically, the 3-hour value should be no less than one-third of the peak 1-hour value (19), but for this analysis, the 3-hour and 8-hour values are more realistic estimates of actual peak queuing activity, while the 1-hour peak is simply a conservative assumption based on the maximum available physical queuing space on the entrance road/ramp.



Site delineations are approximate.
Base Map Source: New York City Department of City Planning

200 0 200 Feet

Figure 4.10-1 On-Site Air Quality Analysis

South Bronx Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

Table 4.10-3
Highest Estimated Concentrations of the Criteria Pollutants from On-site Emissions
South Bronx Converted MTS

Pollutant	Averaging Time Period	Maximum Impacts from On-site Emission Sources	Background Pollutant Concentrations[(2)]	Highest Estimated On-site Pollutant Concentrations	NAAQS[(3)]	STV[(4)]
Carbon Monoxide (CO), $\mu g/m^3$	1-hour[(6)]	947	4,926	4,728	40,000	NA
	8-hour[(6)]	182	3,322	2,817	10,000	NA
Nitrogen Dioxide (NO_2), $\mu g/m^3$	Annual	3	56	71	100	NA
Particulate Matter (PM_{10}), $\mu g/m^3$	24-hour[(7)]	18	91	91	150	NA
	Annual	3	25	28	50	NA
Particulate Matter ($PM_{2.5}$), $\mu g/m^3$	24-hour	1	NA	-	NA	5
	Annual Neighborhood Average	0.012[(5)]	NA	-	NA	0.1
Sulfur Dioxide (SO_2), $\mu g/m^3$	3-hour[(6)]	35	215	360	1,300	NA
	24-hour[(6)]	3	113	147	365	NA
	Annual	0.4	26	31	80	NA

Notes:
[(1)] The highest estimated pollutant concentrations found at any of the off-site receptor locations.
[(2)] Background concentrations were obtained from the NYCDEP on April 18, 2003.
[(3)] NAAQS = National Ambient Air Quality Standard
[(4)] Screening Threshold Value (STV) established by the NYCDEP and NYSDEC
[(5)] Average $PM_{2.5}$ concentration over 1 km x 1 km "neighborhood-scale" receptor grid.
[(6)] The standards for these averaging periods allow one exceedance per year, so the use of the overall maximum concentration in this provides a very conservative comparison with standards.
[(7)] The 24-hour PM10 NAAQS is based on a 99th percentile concentration, which means that the high, 4th high concentration is appropriate for comparison with the standard. Therefore, the use of the overall highest concentration in this comparison is quite conservative.
NA = Not Applicable

4.10.4.1.3 Results of the Toxic Pollutant Analysis

The results of the toxic pollutant analysis are summarized in Table 4.10-4. The highest estimated non-carcinogenic toxic air pollutant impacts are below the short-term (acute) and long-term (chronic) hazard index thresholds specified in New York State's Air Guide 1. In addition, the highest estimated carcinogenic impacts are less than the one-in-a-million threshold level that is defined by NYSDEC as being significant. As such, the potential impacts of the toxic pollutant emissions from the on-site operations of the South Bronx Converted MTS are not considered to be significant.

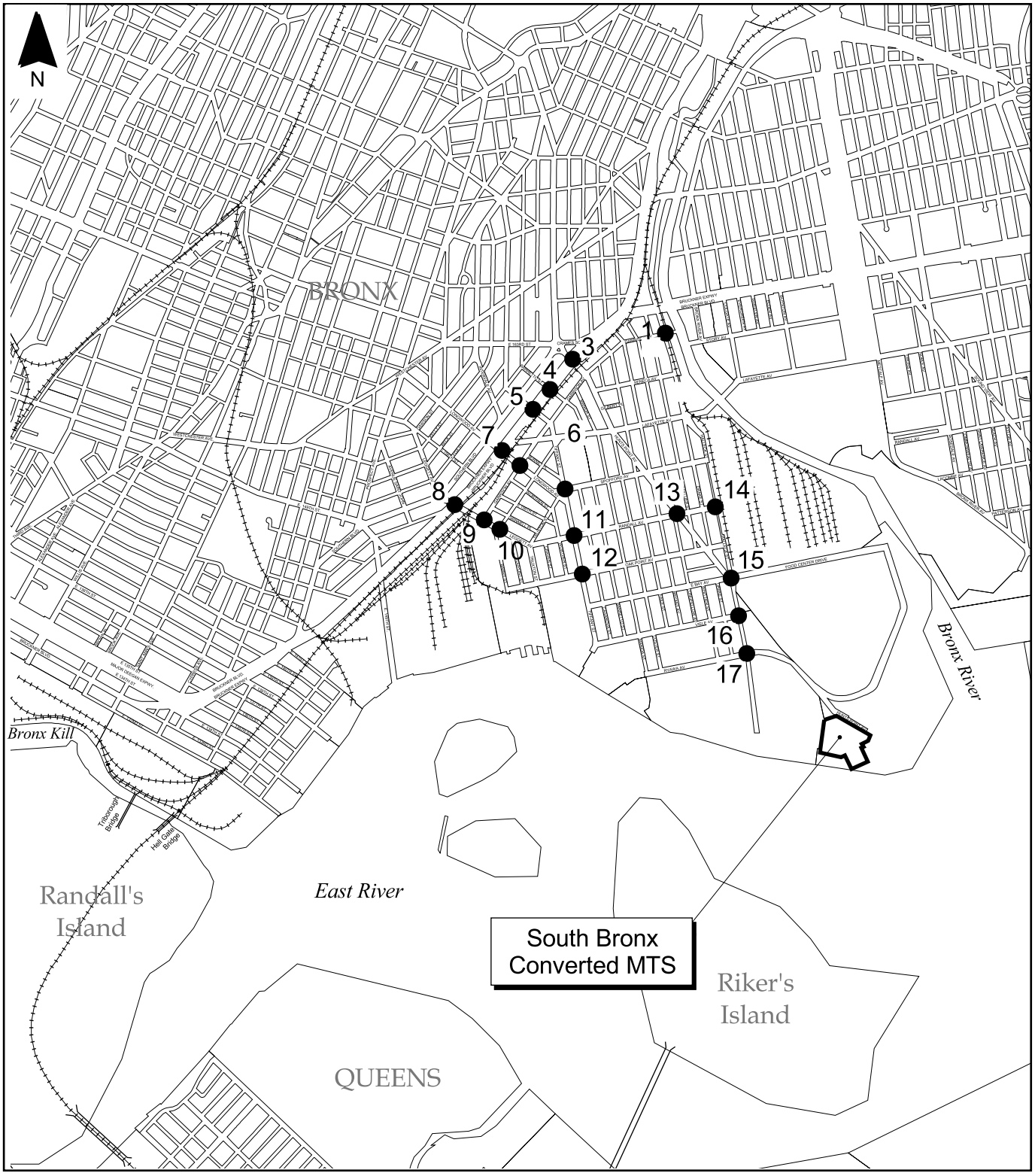
4.10.4.2 Off-Site Analysis

4.10.4.2.1 Pollutants Considered and Analyses Conducted

Locations potentially affected by DSNY and other agency collection vehicles were identified using *CEQR Technical Manual Guidelines* that are outlined in Section 3.11.5. Following these guidelines, the following detailed mobile source analyses were conducted for the applicable (i.e., worst-cast) time periods:

- An analysis of the intersections of Tiffany Street and Randall Avenue, Halleck Street/East Bay Avenue and Hunts Point Avenue, and Bruckner Boulevard and Leggett Avenue to determine whether South Bronx Converted MTS-generated traffic has the potential to cause exceedances of NYCDEP's 8-hour CO de minimus value or a violation of the 8-hour NAAQS;
- An analysis of the intersections of Bruckner Boulevard and Leggett Avenue, Bruckner Boulevard and Longwood Avenue, Tiffany Street and Randall Avenue, Halleck Street/East Bay Avenue and Hunts Point Avenue, and Halleck Street and Ryawa Avenue to determine whether South Bronx Converted MTS-generated traffic has the potential to cause exceedances of NYCDEP's 24-hour and annual $PM_{2.5}$ STVs; and
- An analysis for the intersections of Bruckner Boulevard and Leggett Avenue, Bruckner Boulevard and Longwood Avenue, Tiffany Street and Randall Avenue, Halleck Street/East Bay Avenue and Hunts Point Avenue, and Halleck Street and Ryawa Avenue to determine whether South Bronx Converted MTS-generated traffic has the potential to cause exceedances of the 24-hour and annual PM_{10} NAAQS.

The roadway intersections selected for the mobile source analysis are shown in Figure 4.10-2.



Site delineations and study area boundaries are approximate.
Base Map Source: New York City Department of City Planning

1500 0 1500 Feet

Figure 4.10-2 Off-Site Air Quality Intersections Studied South Bronx Converted MTS

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Table 4.10-4
Highest Estimated Non-Cancer Hazard Index and Cancer Risk of Toxic Air Pollutant from On-site Emissions
South Bronx Converted MTS

No.	Toxic Air Pollutants	Acute Non-Cancer Risk			Chronic Non-Cancer Risk			Cancer Risk		
		Highest Estimated Short-Term Pollutant Conc.[1] ($\mu g/m^3$)	Short-Term (1-hr) Guideline Conc. (SGCs) [2] ($\mu g/m^3$)	Acute Non-Cancer Hazard Index[3]	Highest Estimated Long-Term (Annual) Pollutant Conc.[4] ($\mu g/m^3$)	Long-Term (Annual) Guideline Conc. (AGCs) [5] ($\mu g/m^3$)	Chronic Non-Cancer Hazard Index [6]	Highest Estimated Long-Term (Annual) Pollutant Conc. [4] ($\mu g/m^3$)	Unit Risk Factors [7] ($\mu g/m^3$)	Maximum Cancer Risk [8,9]
Carcinogenic Pollutants										
1	Benzene	3.08E-01	1,300	2.37E-04	2.76E-03	1.30E-01	2.13E-02	2.76E-03	8.30E-06	2.29E-08
2	Formaldehyde	3.89E-01	30	1.30E-02	3.49E-03	6.00E-02	5.82E-02	3.49E-03	1.30E-05	4.54E-08
3	1,3 Butadiene	1.29E-02	-	-	1.16E-04	3.60E-03	3.22E-02	1.16E-04	2.80E-04	3.24E-08
4	Acetaldehyde	2.53E-01	4,500	5.62E-05	2.27E-03	4.50E-01	5.05E-03	2.27E-03	2.20E-06	5.00E-09
5	Benzo(a)pyrene	6.20E-05	-	-	5.57E-07	2.00E-03	2.78E-04	5.57E-07	1.70E-03	9.46E-10
6	Propylene	8.51E-01	-	-	7.64E-03	3.00E+03	2.55E-06	7.64E-03	NA	NA
Non-Carcinogenic Pollutants [10]										
7	Acrolein	3.05E-02	1.90E-01	1.61E-01	2.74E-04	2.00E-02	1.37E-02	2.74E-04	NA	NA
8	Toluene	1.35E-01	3.70E+04	3.65E-06	1.21E-03	4.00E+02	3.03E-06	1.21E-03	NA	NA
9	Xylenes	9.40E-02	4.30E+03	2.19E-05	8.44E-04	7.00E+02	1.21E-06	8.44E-04	NA	NA
10	Anthracene	6.17E-04	-	-	5.54E-06	2.00E-02	2.77E-04	5.54E-06	NA	NA
11	Benzo(a)anthracene	5.54E-04	-	-	4.97E-06	2.00E-02	2.49E-04	4.97E-06	NA	NA
12	Chrysene	1.16E-04	-	-	1.05E-06	2.00E-02	5.23E-05	1.05E-06	NA	NA
13	Naphthalene	2.80E-02	7.90E+03	3.54E-06	2.51E-04	3.00E+00	8.37E-05	2.51E-04	NA	NA
14	Pyrene	1.58E-03	-	-	1.42E-05	2.00E-02	7.08E-04	1.42E-05	NA	NA
15	Phenanthrene	9.70E-03	-	-	8.71E-05	2.00E-02	4.35E-03	8.71E-05	NA	NA
16	Dibenz(a,h)anthracene	1.92E-04	-	-	1.73E-06	2.00E-02	8.63E-05	1.73E-06	NA	NA
		Total Estimated Acute Non-Cancer Hazard Index		**1.74E-01**	**Total Estimated Chronic Non-Cancer Hazard Index**		**1.36E-01**	**Total Estimated Combined Cancer Risk**		**1.07E-07**
		Acute Non-Cancer Hazard Index Threshold [11]		**1.0E+00**	**Chronic Non-Cancer Hazard Index Threshold [11]**		**1.0E+00**	**Cancer Risk Threshold [11]**		**1.0E-06**

Notes to Table 4.10-4:

(1) Estimated by multiplying the total 1-hr HCs concentration by the ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(2) Short-term (1-hr) guideline concentrations (SGC) established by NYSDEC

(3) Estimated by dividing the maximum 1-hr concentrations of each pollutant by the SGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(4) Estimated by multiplying the total annual HCs concentration by ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.

(5) Long-term (annual) guideline concentrations (AGC) established by NYSDEC

(6) Estimated by dividing the maximum annual concentration of each of the individual pollutants by the AGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.

(7) Unit risk factors established by USEPA and other governmental agencies for the inhalation of carcinogenic air pollutants.

(8) The maximum cancer risk of each of the individual pollutant was estimated by multiplying the estimated annual concentration of each pollutant by its unit risk factor.

(9) The total incremental cancer risk from all of the pollutants combined was estimated by summing the maximum cancer risk of each of the individual pollutants.

(10) Some of the pollutants included in the group of non-carcinogenic pollutants, such as anthracene, benzo(a)anthracene and chrysene, may also have carcinogenic effects. As these pollutants do not have established unit risk factors, they were evaluated using the hazard index approach for non-carcinogens.

(11) Hazard index and cancer risk thresholds based on NYSDEC "Guidelines for the Control of Toxic Ambient Air Contaminants" dated November 12, 1997. Estimated values below these threshold limits are considered to be insignificant impacts.

4.10.4.2.2 Results of the Off-Site Analysis

Applicable pollutant concentrations estimated near each selected intersection, which are shown in Table 4.10-5, are all within (less than) the applicable state and federal ambient air quality standards, STVs (for $PM_{2.5}$), and/or de minimus impact values (for CO). The off-site operations of the South Bronx Converted MTS are not, therefore, considered to be significant. (A Tier II analysis of the intersections at Tiffany Street and Randall Avenue, Halleck Street/East Bay Avenue and Hunts Point Avenue, and Halleck Street and Ryawa Avenue was necessary to determine the off-site annual impacts for $PM_{2.5}$.)

Table 4.10-5
Maximum Estimated Pollutant Concentrations Near Selected Roadway Intersection
South Bronx Converted MTS

Air Quality Receptor Site		PM_{10}		24-hr $PM_{2.5}$ Impacts			Max Annual Neighborhood $PM_{2.5}$ Impacts		
	8-hr CO ppm (NAAQS: 9 ppm)	24-hr PM_{10} Conc.(1) µg/m³ 150 µg/m³)	Annual PM_{10} Conc.(1) µg/m³ (NAAQS:	Impacts from On-Site Emission Sources(2) µg/m³ (STV: 5 µg/m³)	Impacts from Off-Site Emission Sources(3) µg/m³ (STV: 5 µg/m³)	Total Combined Impacts from On and Emission Sources µg/m³ (STV: 5 µg/m³)	Impacts from On-Site Emission Sources(2) µg/m³ (STV: 0.1 µg/m³)	Impacts from Emission Sources(4) µg/m³ (STV: 0.1 µg/m³)	Total Combined Impacts from On and Off-Site Emission Sources µg/m³ (STV: 0.1 µg/m)
Bruckner & Leggett									
Existing Conditions	6	121	42						
Future No Build Conditions	5	117	41						
Future Build Conditions	5	118	41						
Future Build Incremental				0.02	0.99	1.01	0.0002	0.08	0.08
Bruckner & Longwood									
Existing Conditions		132	42						
Future No Build Conditions		129	41						
Future Build Conditions	N/A (5)	129	43						
Future Build Incremental				0.03	0.47	0.50	0.0003	0.08	0.08

Table 4.10-5 (Continued)
Maximum Estimated Pollutant Concentrations Near Selected Roadway Intersection
South Bronx Converted MTS

Intersection	CO	PM_{10}		24-hr PM2.5 Impacts			Max Annual Neighborhood PM2.5 Impacts		
	8-hr CO Conc.[1] (NAAQS: 9 ppm)	24-hr PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 150 $\mu g/m^3$)	Annual PM_{10} Conc. $\mu g/m^3$ (NAAQS: 50 $\mu g/m^3$)	Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Impacts from Off-Site Emission Sources[3] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Total Combined Impacts from On and Off-Site Emission Sources $\mu g/m^3$	Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)	Impacts from Off-Site Emission Sources[4] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)	Total Combined Impacts from On and Emission Sources $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)
Tiffany & Randall									
Existing Conditions	3	93	32						
Future No Build Conditions	3	88	34						
Future Build Conditions	3	99	34						
Future Build Incremental				0.03	0.19	0.22	0.0004	0.04	0.04
Halleck & Ryawa									
Existing Conditions		84	28						
Future No Build Conditions	N/A [5]	95	32						
Future Build Conditions		98	33						
Future Build Incremental				0.10	0.22	0.32	0.002	0.05	0.05
Halleck & East Bay/ Hunts Point									
Existing Conditions	4	111	44						
Future No Build Conditions	4	110	43						
Future Build Conditions	4	113	44						
Future Build Incremental				0.07	0.19	0.26	0.001	0.03	0.03

Notes for Table 4.10-5:

(1) CO and PM_{10} concentrations are the maximum concentrations estimated using the AM, Facility AM, and PM peak traffic conditions plus background concentration (8-hr CO=2.3ppm; 24-hr PM_{10} = 75 $\mu g/m^3$; Annual PM_{10}=24$\mu g/m^3$).

(2) The maximum estimated concentrations of on-site emissions near the intersection considered.

(3) The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced (or future build) traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No Build and Future Build scenarios at any receptor 3 meters from the edge of the roadways using AM, midday or PM peak traffic conditions.

(4) The $PM_{2.5}$ concentrations are the maximum modeled incremental $PM_{2.5}$ impacts (due to project-induced (or future build) traffic only) estimated by taking the difference between the maximum $PM_{2.5}$ concentrations for the Future No Build and Future Build scenarios at any receptor 15 meters from the edge of the roadways using AM, midday or PM peak traffic conditions.

(5) Incremental 1-hour vehicular trips were below CEQR CO air quality screening thresholds.

Ppm = Parts per million

$\mu g/m^3$ = Microgram per cubic meter

4.11 Odor

4.11.1 Existing Conditions

The existing MTS is currently not in operation, and there are no existing sources of odor at the site. The study area is within 500 meters (0.3 miles) from the facility boundary. The locations of sensitive receptors in this analysis are the same as those used in the noise analysis. The nearest sensitive receptor is the Vernon C. Bain Center (prison barge), which is located approximately 340 feet from the site boundary.

4.11.2 Future No-Build Conditions

No additional odor-producing sources are currently anticipated in the vicinity of the South Bronx Converted MTS. Thus, Existing Conditions are assumed to be representative of Future No-Build Conditions.

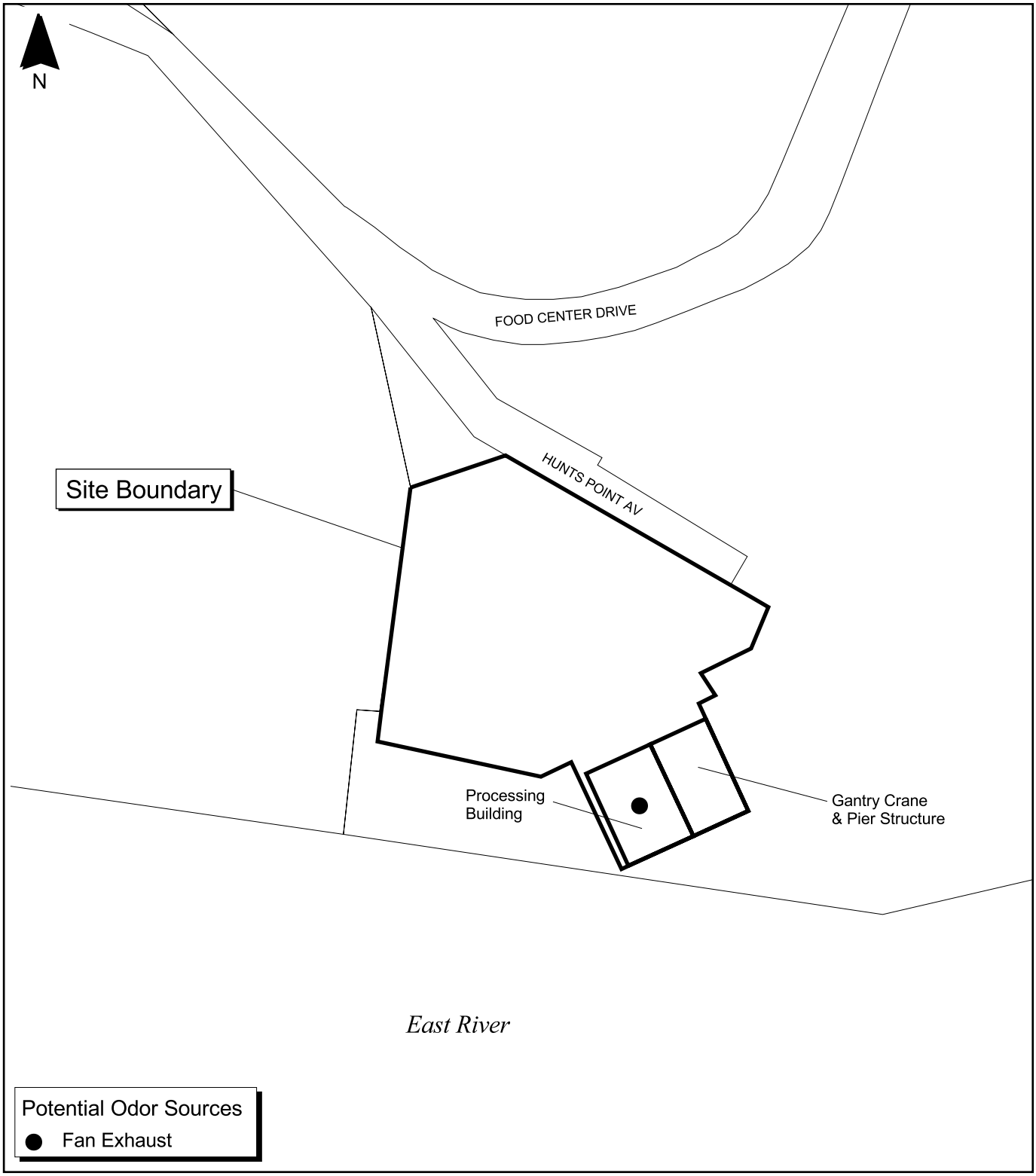
4.11.3 Potential Impacts with the South Bronx Converted MTS

4.11.3.1 Odor Source Types and Locations Considered in the Analysis

The anticipated number and type of odor sources that would be associated with waste processing operations at peak design capacity at the South Bronx Converted MTS are provided in Table 4.11-1. Figure 4.11-1 shows the locations of these sources within the site.

Table 4.11-1
Odor Sources Included in Odor Analysis
South Bronx Converted MTS

Type of Emission Source	Number of Sources Operated During Peak Design Capacity
Exhaust Fans from Processing Building	1



Site delineations are approximate.
Base Map Source: New York City Department of City Planning

200 0 200 Feet

Figure 4.11-1 Potential Odor Sources

South Bronx Converted MTS

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An odor control system (e.g., scrubber, neutralizing agent misting system injected into the exhaust duct work system, etc.) would be included in the design to control odorous emissions from the processing building. Odor control systems can remove between 90 percent and 99 percent of odorous compounds. For purposes of modeling odor dispersion, a 90 percent reduction of odorous emissions was conservatively assumed for the South Bronx Converted MTS.

4.11.3.2 Results of the Odor Analysis

The highest estimated odor concentrations at any of the receptor sites considered and the concentrations at the closest sensitive receptor are presented in Table 4.11-2. The predicted odor unit values at sensitive receptor locations are compared to an odor unit of 5, which represents the level of odor impact that would begin to be detected by an average observer. The highest predicted odor unit associated with the South Bronx Converted MTS at any nearby sensitive receptor is less than 1, so odors from the South Bronx Converted MTS would not be detectable by off-site sensitive receptors and the facility would comply with NYSDEC requirements for effective odor control. Therefore, no significant adverse impacts from odors on receptors are expected to occur as a result of this facility.

Table 4.11-2
Highest Predicted Odor Concentration(s) from On-site Sources
South Bronx Converted MTS

Parameter	Odor Unit
Estimated Detectable Concentration	1.0
Highest Result Type of Receptor Receptor [2]	0.10 Over Water Receptor 36 feet from the facility
Closest Sensitive Receptor Result Type Of Receptor Distance To Receptor [3]	0.025 Prison Barge 340 Feet

Notes:
[1] D/T ratio is dimensionless.
[2] Measured from the site boundary.
[3] Measured from the site property line.

4.12 Noise

The noise analysis addresses on-site and off-site sources of noise emissions from South Bronx Converted MTS-related solid waste management activities. It is based on Section R of the CEQR Technical Manual for both on-site and off-site sources, for on-site sources only, the Performance Standards of the New York City Zoning Code for Manufacturing Districts, and the New York City Noise Code. Section 3.14 provides a general discussion of the relevant regulatory standards and methodologies applied in this analysis.

4.12.1 Existing Conditions

4.12.1.1 Introduction

Figure 4.12-1 shows the location of the South Bronx Converted MTS and the surrounding area. The nearest noise-sensitive receptor is the Vernon C. Bain Center (prison barge), which is moored off the East River shore, approximately 104 meters (340 feet) west of the site boundary.

4.12.1.2 On-site Noise Sources

Existing on-site noise sources consist of noise created by the activities and events on and immediately surrounding the site. Existing noise levels were monitored hourly for a 24-hour period at the property line nearest the prison barge. Noise monitoring data recorded hourly included: L_{eq}, L_{min}, L_{max},[5] and the statistical metrics of L_{10}, L_{50}, and L_{90}[6] are presented in Table 4.12-1. As shown, the quietest hour at the monitoring location occurred between 2:00 a.m. and 3:00 a.m. with an $L_{eq}(h)$ of 53.5 dBA, on March 15, 2003. Activities and events that contribute to the on-site noise levels are as follows:

- Traffic on Hunts Point Avenue; and
- Other noise sources associated with activities in the surrounding industrial areas.

[5] Terms L_{eq}, L_{min}, L_{max} are defined in Section 3.14.2.
[6] Terms L_{10}, L_{50}, and L_{90} are defined in Section 3.14.2.

Table 4.12-1
Existing Hourly (Monitored) Noise Levels On-site[(1)]
South Bronx Converted MTS

Time of Measurement	L_{eq} (h)	L_{90} (dBA)	L_{50} (dBA)	L_{10} (dBA)	L_{min}	L_{max}
12:00-1:00 a.m.	54.7	52.1	53.1	56.1	50.7	64.5
1:00-2:00 a.m.	54.3	52.8	53.8	55.2	51.3	67.3
2:00-3:00 a.m.	53.5	52.4	53.2	54.4	51.0	66.9
3:00-4:00 a.m.	54.6	52.6	53.5	55.0	50.9	67.2
4:00-5:00 a.m.	54.4	53.2	54.1	55.2	51.6	65.9
5:00-6:00 a.m.	55.1	54.0	54.8	55.9	52.5	64.6
6:00-7:00 a.m.	65.8	54.4	57.1	68.3	52.6	88.1
7:00-8:00 a.m.	64.3	53.8	56.7	66.2	51.1	84.4
8:00-9:00 a.m.	61.8	53.2	55.1	62.3	50.6	83.5
9:00-10:00 a.m.	55.1	51.0	52.9	57.0	48.7	74.7
10:00-11:00 a.m.	57.5	51.8	54.1	59.9	49.0	88.5
11:00 a.m.-12:00 p.m.	56.4	51.4	53.4	58.2	49.2	74.9
12:00-1:00 p.m.	65.0	53.4	56.6	66.6	50.9	95.4
1:00-2:00 p.m.	66.1	54.7	57.2	66.3	52.5	90.5
2:00-3:00 p.m.	64.7	54.4	57.9	67.0	51.6	84.6
3:00-4:00 p.m.	65.2	54.7	58.1	68.4	51.6	84.5
4:00-5:00 p.m.	63.1	54.7	58.1	66.3	51.7	81.9
5:00-6:00 p.m.	64.3	55.0	58.2	68.3	52.1	83.2
6:00-7:00 p.m.	64.6	54.5	57.8	67.3	51.6	86.6
7:00-8:00 p.m.	64.1	54.0	56.7	66.3	51.7	84.4
8:00-9:00 p.m.	65.0	53.2	55.5	64.8	51.4	91.0
9:00-10:00 p.m.	66.6	53.3	55.6	65.2	51.0	89.9
10:00-11:00 p.m.	57.7	53.0	54.1	55.8	51.3	84.1
11:00 p.m.-12:00 a.m.	55.6	52.5	53.5	55.1	50.9	72.8

Note:
(1) The 24-hour background noise levels were measured at site boundary nearest to the closest sensitive receptor to identify the quietest background hour.

4.12.1.3 Off-site Noise Sources

Existing off-site noise sources consist of the existing traffic and other background noise. A screening analysis was conducted to determine if noise monitoring would be required along the South Bronx Converted MTS-related truck routes due to an increase in traffic caused by the DSNY and other agency collection vehicles. As a result of this screening, which is described in Section 3.14.5.2, no off-site noise analysis was required. Therefore, no noise monitoring data were collected for off-site noise sources.

4.12.2 Future No-Build Conditions

4.12.2.1 On-site Noise Levels

No appreciable changes in on-site noise levels are anticipated by 2006; therefore, Future No-Build Conditions are expected to be the same as Existing Conditions.

4.12.2.2 Off-site Noise Levels

Off-site noise levels for the Future No-Build Conditions in 2006 were calculated using the annual growth rates for traffic volume provided in the CEQR Manual, Section O: Traffic. Table 4.12-2 below presents the existing traffic volume and the Future No-Build traffic volume for the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest) during the daytime (if any) and nighttime for roadways where there is a possible impact based on the second level screening.

4.12.3 Potential Impacts with South Bronx Converted MTS

4.12.3.1 On-site Noise Levels

Equipment assumed to be operating at the South Bronx Converted MTS and the reference noise levels which were used in the CEQR and Noise Code analysis are shown on Table 4.12-3. Spectral noise levels used in the Performance Standards analysis are shown in Table 4.12-4. The number and types of equipment assumed for this analysis were based on the facility's peak design capacity.

Table 4.12-2
Off-site Noise Traffic Volume
South Bronx Converted MTS

Location		Existing Traffic Volume	No Build Traffic Volume
Randall Avenue between Manida Street and Coster Avenue	11:00 a.m.	545	553
Randall Avenue between Manida Street and Coster Avenue	8.00 p.m.	189	192
Tiffany Street between Spofford and Randall Avenues	1:00 a.m.	135	137
Tiffany Street between Spofford and Randall Avenues	11:00 a.m.	564	573
Bruckner Boulevard between Longwood Avenue and Tiffany Street	11:00 a.m.	1124	1141
Longwood Avenue between Garrison and Barry Streets	1:00 a.m.	91	92
Longwood Avenue between Garrison and Barry Streets	10:00 a.m.	438	445

Table 4.12-3
Equipment Modeled in the Noise Analysis and Reference Noise Levels
South Bronx Converted MTS

Equipment Name (quantity)	Reference Noise Level [(1)] at 50 feet (dBA)
Indoor	
Wheel Loaders (2)	81
Tamping Crane (1)	81
Bridge Crane (1)	70
Mini-Sweeper (1)	76
Moving/Queuing Collection Vehicles (7)	73
Outdoor	
Moving/Queuing Collection Vehicles (20)	67
Container Car Pullers (3)	45
Gantry Cranes (1)	78
Oceangoing Tugboats (1)	73

Note:
See Section 3.14.7 for sources.

Table 4.12-4
Equipment Modeled in the Noise Analysis and Spectral Noise Levels
South Bronx Converted MTS

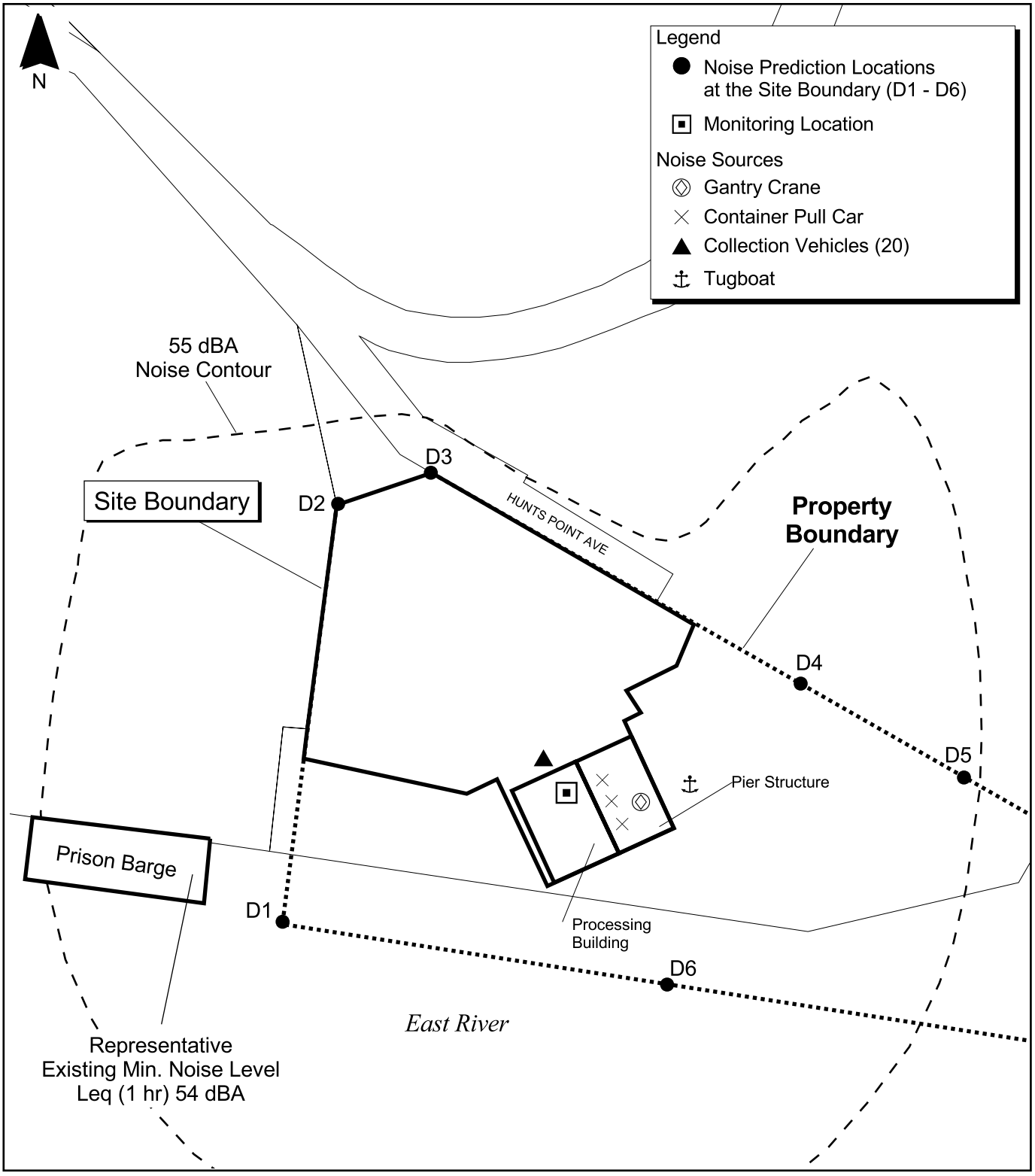
Equipment	Reference Noise Level at 50 feet (dB)							
	Frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
Indoor								
Wheel Loaders (2)	78	77	75	76	77	74	68	60
Tamping Crane (1)	95	90	85	85	81	78	73	64
Bridge Crane (1)	77	78	77	71	74	71	69	57
Mini-Sweeper (1)	71	74	69	74	71	68	64	56
Outdoor								
Container Car Pullers (3)	31	30	47	44	36	35	42	46
Gantry Cranes (1)	79	82	82	79	78	73	64	56
Oceangoing Tugboats (1)	97	85	79	75	72	66	59	52

Figure 4.12-1 shows the South Bronx Converted MTS layout, locations of the points along its boundary where overall noise predictions were calculated, and the predicted 55 dBA contour line.

4.12.3.2 CEQR Analysis

A screening analysis was conducted to determine if a detailed noise analysis would be required for the on-site operations at the South Bronx Converted MTS. Noise levels from indoor and outdoor sources were combined to determine the location of the 55 dBA contour line. The 55 dBA contour line is 160 meters (525 feet) from the property line in the direction of the nearest noise-sensitive receptor, which is 104 meters (340 feet) from the site boundary. The 55 dBA contour line was selected as a limit for the study area because 55 dBA, (i.e., the point off-site where noises generated on-site attenuate to 55 dBA), is considered an acceptable noise level in an urban environment. Section 3.14.5.1 discusses this concept in greater detail. The results of the screening analysis show that receptors are located within the 55 dBA contour line, therefore, an on-site noise analysis, including noise monitoring at the nearest noise sensitive receptor was required to determine if there would be an impact.

Noise monitoring was conducted at the receptor during the quietest hour based on monitoring data provided in Table 4.12-1 above. Table 4.12-5 below identifies the existing background noise level during the quietest hour. The table shows the distance from the South Bronx Converted MTS to the receptor, South Bronx Converted MTS-related noise levels at the receptor, the monitored existing background noise level, and the predicted noise levels with both facility noise and background noise combined. The difference between this combined noise level and the existing noise level at the receptor represents the predicted incremental change in noise level from the South Bronx Converted MTS. Because this incremental change is greater than the CEQR threshold of 3 dBA at the nearest noise sensitive receptor, there is a predicted impact that would be caused by the South Bronx Converted MTS on-site operations.



Site delineations are approximate.
Base Map Source: New York City Department of City Planning

200 0 200 Feet

Figure 4.12-1 Noise Sources and Receptors

South Bronx Converted MTS

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Table 4.12-5
Existing and Predicted Noise Levels at the Nearest Noise-Sensitive Receptor
South Bronx Converted MTS

Receptor ID	Distance from Facility (meters/feet)	Existing Noise Levels During Quietest Hour (dBA)[1][2]	Predicted Facility Noise Level at Sensitive Receptor (dBA)[3]	Combined Facility and Background Noise Level at the Sensitive Receptor (dBA)	Increase over Existing Noise Levels (dBA)	Impact[4] (yes or no)
Prison Barge	104/340	54.0	56.9	58.7	4.7	Yes

Notes:
(1) Twenty-minute noise level readings measured at the closest sensitive receptor during the quietest hour determined from the 24-hour noise level readings.
(2) Existing noise levels measured on January 30, 2003 at 5:00 p.m.
(3) Predicted noise level calculations at sensitive receptor include on-site and off-site shielding from structures.
(4) According to CEQR, an increase of 3 dBA at daytime is considered an impact. The impact analysis compares the loudest noise emissions from daily operations at the facility with the quietest background noise levels that occur during facility operation. The quietest hour of background noise levels occurred during the nighttime hours for the sensitive receptor park; therefore, only nighttime impact criteria are discussed in this analysis for this sensitive receptor.

4.12.3.2.1 Mitigation Measures

Noise barrier calculations were performed to estimate the noise attenuation that would be provided by a noise barrier within the South Bronx Converted MTS property line in direction of the sensitive receptor. Based on these calculations, a 20-foot high (from the ramp surface), 350 feet long concrete noise barrier located along the western side of the ramp to the South Bronx Converted MTS would provide an attenuation of approximately 1.9 dBA, the sensitive receptor would then be shielded from the noise generated by the South Bronx Converted MTS. Table 4.12-6 shows the existing noise level at the receptor, the South Bronx Converted MTS-related noise levels with a 1.9 dBA attenuation provided by the noise barrier, and the combined noise level. As shown in Table 4.12-6, this noise barrier mitigates the impacts found at the sensitive receptor.

Table 4.12-6
Existing and Predicted Noise Levels at the Nearest Noise-Sensitive Receptor with Attenuation from a 20-foot High, 350 feet Long Noise Barrier at the Property Line South Bronx Converted MTS

Receptor ID	Distance from Facility (meters/ feet)	Existing Noise Levels During Quietest Hour (dBA)[1][2]	Predicted Facility Noise Level at Sensitive Receptor (dBA)[3]	Combined Facility and Background Noise Level at the Sensitive Receptor (dBA)	Increase over Existing Noise Levels (dBA)	Impact[4] (yes or no)
Prison Barge	104/340	54.0	53.6	56.8	2.8	No

Notes:
(1) Twenty-minute noise level readings measured at the closest sensitive receptor during the quietest hour determined from the 24-hour noise level readings.
(2) Existing noise levels measured on January 30, 2003 at 5:00 p.m.
(3) Predicted noise level calculations at sensitive receptor include on-site and off-site shielding from structures.
(4) According to CEQR, an increase of 3 dBA at daytime is considered an impact. The impact analysis compares the loudest noise emissions from daily operations at the facility with the quietest background noise levels that occur during facility operation. The quietest hour of background noise levels occurred during the nighttime hours for the sensitive receptor park; therefore, only nighttime impact criteria are discussed in this analysis for this sensitive receptor.

4.12.3.3 Performance Standards for Zoning Code Analysis

Overall noise predictions were calculated at the locations of the points along the South Bronx Converted MTS boundary to determine the total noise level for each octave band from indoor and outdoor sources, not including DSNY and other agency collection vehicles, in accordance with the New York City Zoning Code Performance Standards for Manufacturing Districts (see Table 4.12-7 below). Based on this analysis, no exceedances to the Performance Standards are predicted in the direction of a noise sensitive receptor.

Table 4.12-7
Spectral Noise Analysis
South Bronx Converted MTS

Manufacturing District Regulation (M3)	Frequency Range							
	63	125	250	500	1K	2K	4K	8K
	79	74	69	63	57	52	48	45
Total Lp dB: D1	65.7	59.1	52.2	48.8	45.8	38.6	26.7	15.0
Total Lp dB: D2	69.1	60.5	55.9	52.4	50.0	43.3	30.9	19.0
Total Lp dB: D3	70.1	61.3	56.8	53.3	51.0	44.5	32.5	20.9
Total Lp dB: D4	75.7	65.3	60.9	57.3	55.1	49.0	38.5	28.3

4.12.3.4 Noise Code Analysis

Overall noise predictions were calculated at the locations of the points along the South Bronx Converted MTS boundary to determine the Total L_{eq} from all indoor and outdoor sources. This is shown in Table 4.12-8 below. Based on this analysis, the Total Leq does not exceed the Noise Code Standard of 70 dBA.

Table 4.12-8
Noise Code Analysis
South Bronx Converted MTS

Location at Plant Boundary	Total L_{eq} Contribution at Plant Boundary (dBA)
D1	57.8
D2	62.6
D3	67.1
D4	59.5

4.12.3.5 Off-site Noise Analysis

A screening analysis was conducted to determine if noise monitoring would be required along the truck routes. As a result of this screening, which is described in Section 3.14.5.2, no off-site noise analysis was required. Screening results for the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest) during the daytime (if any) and nighttime for roadways where there is a possible impact based on the second level screening are provided in Table 4.12-9.

Table 4.12-9
Off-site Noise Screening Results
South Bronx Converted MTS

Location	Hour	Future No-Build PCEs[(1)]	Collection Vehicles	Employee Vehicles	Future Build PCEs[(1)(2)]	Possible Impact[(3)]
Randall Avenue between Manida Street and Coster Avenue	11:00 a.m.	5106	54	7	2358	No
Randall Avenue between Manida Street and Coster Avenue	8:00 p.m.	1662	6	0	282	No
Tiffany Street between Spofford and Randall Avenues	1:00 a.m.	2093	9	0	423	No
Tiffany Street between Spofford and Randall Avenues	11:00 a.m.	8530	54	0	2538	No
Bruckner Boulevard between Longwood Avenue and Tiffany Street	11:00 a.m.	8373	61	0	2867	No
Longwood Avenue between Garrison and Barry Streets	1:00 a.m.	934	9	0	423	No
Longwood Avenue between Garrison and Barry Streets	10:00 a.m.	4383	54	0	2068	No

Notes:
(1) Total PCEs are rounded to the nearest whole number.
(2) Future Build PCEs include South Bronx Converted MTS-related collection vehicles and employee vehicles.
(3) There is a possible impact if the Future Build PCEs are doubled the Future No-Build PCEs

Since the screening results presented above showed that the PCEs would not double on a roadway due to DSNY and other agency collection vehicles coming to or going from the South Bronx Converted MTS, a detailed off-site noise analysis was not required.

4.13 Infrastructure & Energy

4.13.1 Existing Conditions

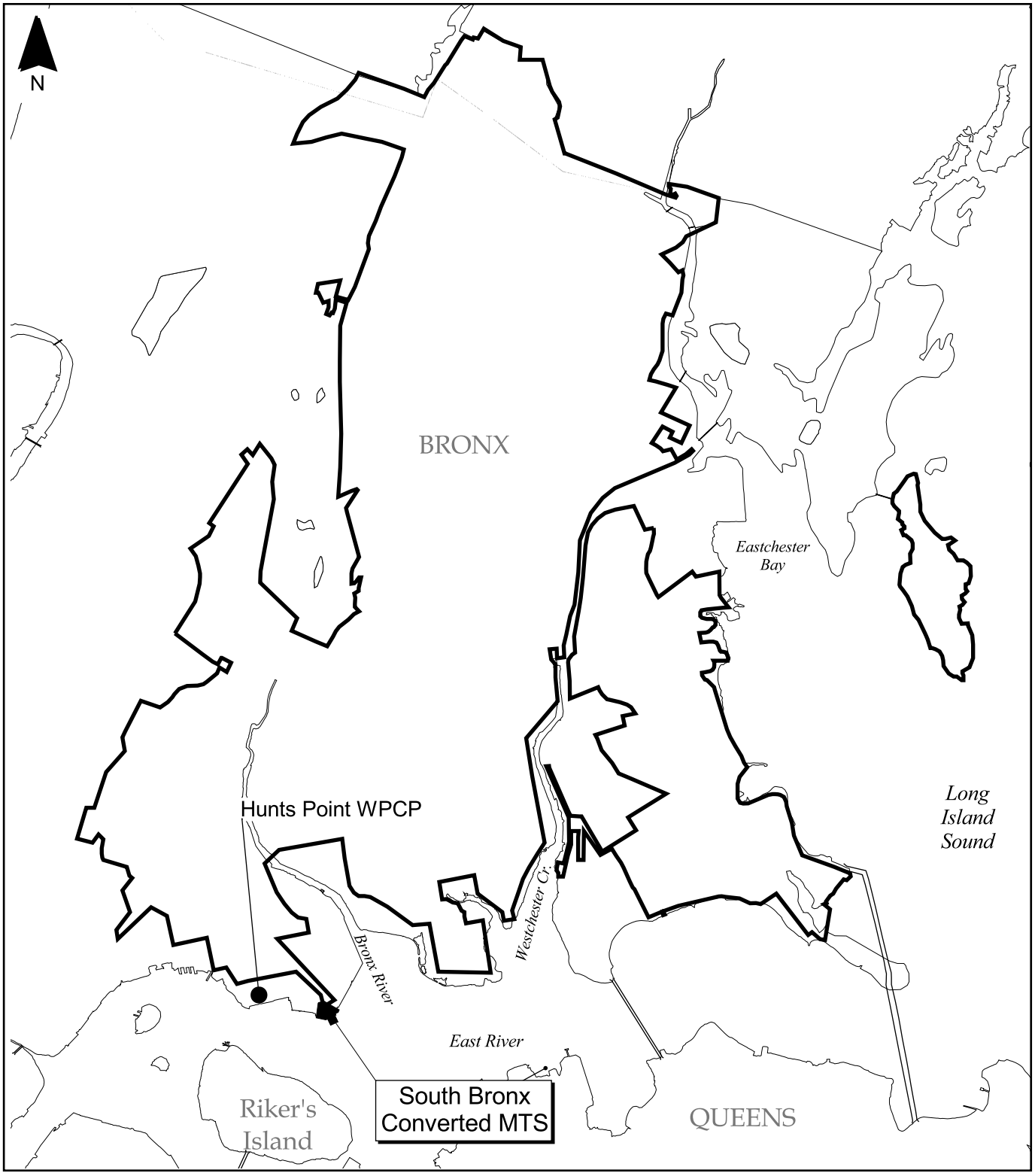
4.13.1.1 Water Supply

Water is supplied to the South Bronx MTS from the Delaware and Catskill reservoir systems through the City's municipal water distribution system. A 12-inch diameter water line along Farragut Street provides potable water for both process and sanitary requirements. Water pressure throughout the City system is generally maintained at about 20 pounds per square inch (psi), which is the minimum pressure acceptable for uninterrupted service (CEQR Technical Manual, 2001).

4.13.1.2 Sanitary Sewage and Storm Water

A review of NYCDEP infiltration and inflow (I&I) maps shows that the site is served by the Hunts Point WPCP, which serves the majority of the Bronx. The WPCP drainage area is illustrated in Figure 4.13-1. From July 2001 through June 2002, the WPCP treated an average of 99 million gallons per day (mgd) of wastewater during dry weather flow (Table 4.13-1). The maximum dry weather flow during this period was 114 mgd in August 2001. Effluent from the plant is discharged to the East River and is regulated by NYSDEC under the State Pollutant Discharge Elimination System (SPDES). The current SPDES permit limit for flow to the Hunts Point WPCP is 200 mgd.

It is estimated that current on-site employee water usage is about 75 gallons per day (gpd). This estimate is based on three security employees (one guard per shift, three shifts per day) using 25 gallons per person per day (CEQR Technical Manual, 2001). No additional potable water is used as the facility is currently not accepting waste, and no operational staff are currently assigned to the site. Sanitary wastewater generated at the facility is discharged to a 15-inch sanitary sewer line along Hunts Point Avenue. The 15-inch sanitary sewer line discharges to a pumping station from which wastewater is sent to the Hunts Point WPCP for treatment.



Site delineations are approximate.

1 0 1 Miles

Figure 4.13-1 Existing WPCP Drainage Area

South Bronx Converted MTS

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Table 4.13-1
Average Monthly Dry Weather Flows
Hunts Point Water Pollution Control Plant
Fiscal Year 2002

Month	Dry Weather Flow (mgd)
July 2001	107
August	114
September	106
October	97
November	91
December	99
January 2002	98
February	96
March	95
April	95
May	95
June	98
Average Effluent	**99**

4.13.1.3 Solid Waste

Based on solid waste generation information from the CEQR Technical Manual, it was estimated that each employee at the MTS produces approximately 9 pounds of solid waste per week for a facility total of 27 pounds per week (approximately 4 pounds per day). As the facility is not currently accepting waste, no operational personnel are assigned to the site. Solid waste produced at the facility is collected by DSNY personnel and transported by truck to an appropriately licensed solid waste management facility.

4.13.1.4 Energy

Consolidated Edison of New York supplies electricity and gas to the facility. As the facility is currently not operating, the South Bronx MTS utilizes a negligible amount of energy due to the low staffing levels that supply only security for the site. The facility has no gas supply, however, a review of Consolidated Edison utility maps shows that gas mains are located in the vicinity of the facility along East Bay Avenue and currently serve the National Foods facility north of the site.

4.13.2 Future No-Build Conditions

The South Bronx MTS would continue to not accept waste. Potable water use, process and sanitary wastewater generation, solid waste generation and energy use would, therefore, be anticipated to remain at or near the Existing Conditions levels for security employees.

4.13.3 Potential Impacts with the South Bronx Converted MTS

4.13.3.1 Water Supply

The South Bronx Converted MTS would have a total of up to 60 employees working three shifts per day. They would require approximately 1,500 gallons of potable water per day plus an additional 180 gpd for truck and tipping floor washdown and dust control. The combined total usage of 1,680 gpd of potable water would represent an increase of 1,605 gpd above current consumption levels.

The South Bronx Converted MTS would have no impact on the existing system's ability to supply water reliably. Under worst-case conditions, the increased usage would not have significant impacts on water pressure in the system.

4.13.3.2 Sanitary Sewage

Based on the estimated water usage of 1,680 gpd for the South Bronx Converted MTS, the small quantities of wastewater sent to the Hunts Point WPCP would not significantly impact the sewage flow rate or the ability of the Hunts Point WPCP to meet its SPDES permit limits. The Hunts Point WPCP treated an average of 99 mgd in fiscal year 2002 and has a design operating capacity of 200 mgd.

4.13.3.3 Solid Waste

Solid waste transfer station facility use is not cited under the solid waste generation rates provided in the CEQR Technical Manual, so rates for a commercial office building (1.3 lbs/day per employee) were used as a basis for a conservative estimate of waste generation. For an estimated 60 facility employees, 468 pounds of solid waste would be generated per week (78 lbs/day) and would represent an incremental increase of approximately 444 pounds per week (74 lbs/day) above current waste generation levels. This volume would be managed at the South Bronx Converted MTS and would not significantly impact the system.

The South Bronx Converted MTS would be in compliance with DSNY's siting regulations for solid waste transfer stations. Subsequent to adoption of the City's Final Solid Waste Management Plan, the South Bronx Converted MTS, if incorporated in the Plan, would be subject to permitting as a solid waste management facility by NYSDEC and DSNY.

4.13.3.4 Energy

The South Bronx Converted MTS would require approximately 1.11E+10 BTU/year of electricity to operate the facility. Natural gas heating would be used with an estimated demand of 1.34E+08 BTU/year.

Consolidated Edison has been notified of the power requirements of the South Bronx Converted MTS and has stated that all demands generated by the South Bronx Converted MTS could be met without any impact on the power requirements of the surrounding community and without the need for additional power generation capacity.

Consolidated Edison also was notified of the natural gas requirements of the South Bronx Converted MTS and has stated that the facility could be supplied with natural gas with no adverse impact on the utility.

4.14 Natural Resources

4.14.1 Existing Conditions

Existing Conditions include stressed aquatic and terrestrial communities that are typical of this area of the Bronx. Conditions associated with the presence of natural resources, including water resources and endangered species and habitats, were investigated within the defined study area to identify potential impacts that might arise from the South Bronx Converted MTS.

4.14.1.1 Definition of Study Area

The study area includes the site and the waterfront section that is bounded by the East River to the south (Figure 2.2-1). The upland sections of the study area and the surrounding neighborhood are completely developed and, therefore, have very limited terrestrial natural resources. Because the Future Build Condition would include dredging of bottom sediments and construction of a new MTS, a description of aquatic communities is included.

4.14.1.2 Geology

Borings taken at the Hunts Point WPCP approximately 0.5 miles to the west of the study area and those taken to the southeast of the study area indicate schist at 9 feet to 65 feet below ground level and at an average depth of 20 feet. Surface sediment collected from the study area in 2003 indicates that the sediment is from dark grey to grey sludge consisting of dark grey hard clay and silt with trace sand, and approximately 48,000 mg/Kg total organic carbon. Sediment was somewhat degraded due to contaminants in the sample material.

4.14.1.3 Floodplains

The site is constructed within the 100-year coastal floodplain (Figure 4.14-1). There are no wetlands in the study area other than the East River, which is a NYSDEC-designated littoral zone (Figure 4.14-2).

4.14.1.4 Ecosystems

The existing MTS is located on a platform linked to the south shore of the Bronx by a causeway. The terrestrial ecology of the upland portion of the study area is mostly developed and covered by structures and hard surfaces. The portions not developed have been altered by clearing and leveling and have no substantial ground cover other than opportunistic weeds. Vegetation on the study area is consistent with that of an urban vacant lot, as classified by Reschke[7] (Figure 4.14-3).

The waters surrounding the study area are dominated by the East River, and the aquatic resources are typical of the eastern sections of the East River. A marine environmental survey was made of a site located diagonally across the East River in Whitestone.[8] The configuration of this site, with near-shore depositional sediments and an offshore channel, is quite similar to the South Bronx Converted MTS site, so the data should be generally applicable. It is reasonable to assume that the study area has similar aquatic natural resources based on such factors as the high level of industrial and military development on both shorefronts and the fact that they are located on adjacent shores of the same tidal strait, which is less than 1 mile wide at this point.

Overall, the resident fauna (benthic macroinvertebrates) exhibit reasonable diversity and abundances. Macroinvertebrate data also reveal that, despite substrate differences between the benthic stations, there appears to be uniformity of community structure between all of the stations. Additionally, the study area stations support benthic assemblages typical of New York Harbor.

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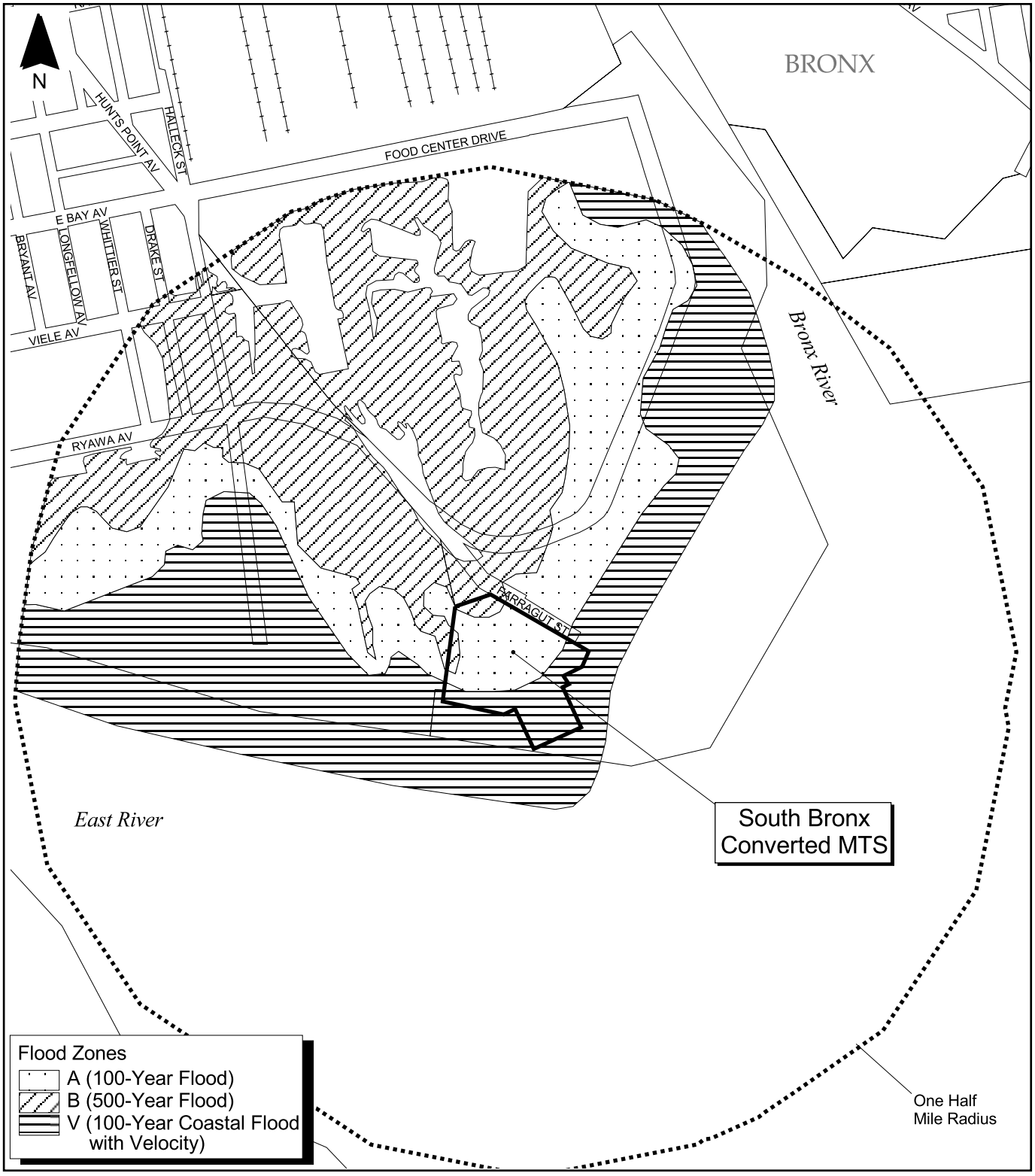
[7] Reschke, Carol. 1990. *Ecological Communities of New York State*. New York Natural Heritage Program, NYSDEC.

[8] Whitestone Aquatic Environmental Study Final Report August 1992. EEA, Inc.



Site delineations and study area boundaries are approximate.
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 4.14-1 Floodplains

South Bronx Converted MTS

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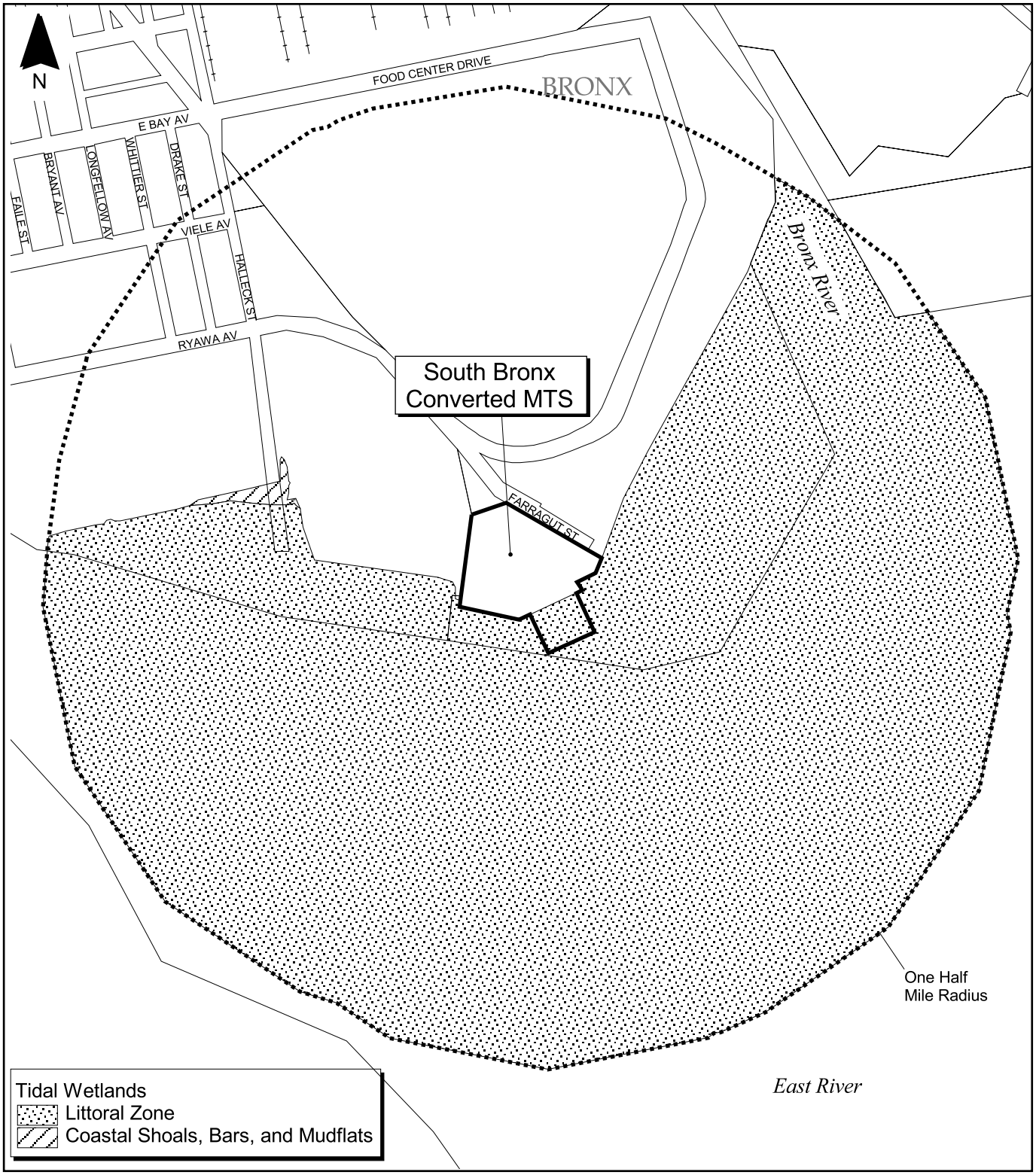

Site delinations and study area boundaries are approximate.
Base Map Source: New York City Department of Planning

500 0 500 Feet

Figure 4.14-2 Wetlands

South Bronx Converted MTS

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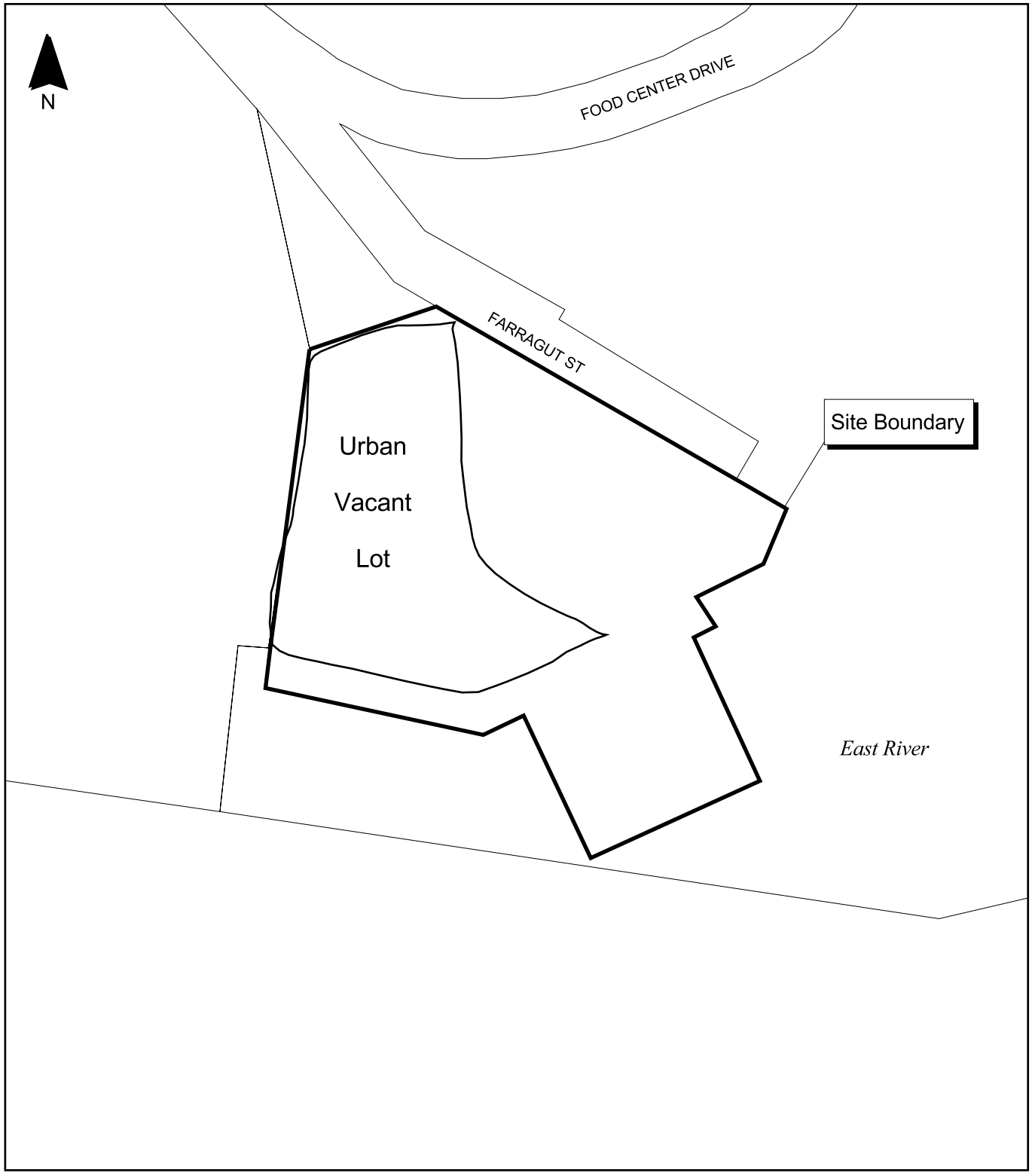

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

200 0 200 Feet

Figure 4.14-3 Vegetative Cover

South Bronx Converted MTS

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The fisheries data collected at the Whitestone site and control stations are typical of the Long Island Sound marine/estuarine system. The study area does not appear to contain finfish species or finfish habitats that are markedly different from the Bronx-Whitestone area.

Results of the plankton surveys (phytoplankton, ichthyoplankton and zooplankton) showed abundance and species composition generally similar to those reported for western Long Island Sound. No significant difference was reported between the stations. Water quality results exhibited normal ranges for the East River and seasonal fluctuations.

A field program that commenced in January 2003 and is scheduled to end in December 2003 was designed to fully characterize the marine biological resources of the study area. The program includes monthly sampling for finfish, fish eggs, and larvae, and quarterly sampling for benthic organisms and sessile colonizing organisms. Results of the program through the second quarter samplings are included in this Draft MTS Environmental Evaluation. Results of the annual program will be included in the Final MTS Environmental Evaluation.

While the study was not complete at the time of this writing, a number of finfish species have been caught and identified, including the EFH listed species: winter flounder (*Pseudopleuronectes americanus*), Atlantic herring (*Clupea harengus*), summer flounder (*Parlichthys dentatus*), windowpane (*Scopthalmus aquosus*). Species that were not on the list were also caught, including: bay anchovy (*Clupea* harengus), cunner (*Tautogolabrus adspersus*), Atlantic tomcod (*Microgadus tomcod*), and striped bass (*Morone saxatilis*). Larval species include winter flounder (*Pseudopleuronectes americanus*), Atlantic herring (*Clupea harengus*), fourbeard rockling (*Enchelyopus cimbrius*), American sandlance (*Ammodytes americanus*), American eel (*Anguilla rostrata*), and rock gunnel (*Pholis gunnellus*). Invertebrates collected include hydroids, golden star tunicates (*Botryllus schlosseri*), sevenspine bay shrimp (*Crangon septemspinosa*), red beard sponges (*Microciona prolifera*), nematodes, spider crab (*Libinia emarginata*), common sea star (*Asterias forbesii*), horshoe crabs (*Limulus polyphemus*), blue crabs (*Callinectes sapidus*), and eastern mudsnails (*Ilyanassa obsolete*), and sea grapes (*Molgula manhattensis*). The results of infaunal benthic invertebrate studies had not been fully analyzed at the time of this writing, but preliminary results indicate the presence of polychaete worms (*Capitellida* and *Haploscolopos robustus)* and bivalves (*Mulinera laateralis)*. This study is ongoing and as more species are collected, they will be added to this list.

According to the U.S. Department of the Interior Fish and Wildlife Service and NYSDEC Breeding Bird Atlas records, there are no endangered, threatened, or special concern birds living or breeding on the site. The peregrine falcon (*Falco peregrinus*), a federally listed endangered species, was not listed as present for this site in the recent response from the Fish and Wildlife Service. Also, current data specific to the site indicate that there are no barn owls on the site.

4.14.2 Future No-Build Conditions

The study area would remain in its current condition. The site would remain DSNY property and the existing MTS would remain standing. The absence of terrestrial natural resources would remain, and the upland portion of the study area would continue to be an ecologically unproductive and stressed urban area. Reasonably diverse and abundant aquatic natural resources would prevail in the waters in and around the study area.

4.14.3 Potential Impacts with the South Bronx Converted MTS

The South Bronx Converted MTS would be an over-water structure. It would result in an increase of 0.63 acre of shaded marine environment. Removal of the above-water structure would be carried out presumably with a barge-mounted crane and the demolished pieces carried off by barge to a permitted disposal facility. Assuming normal operations, this procedure should not involve any measurable impacts to the aquatic or terrestrial natural resources. Removal of the subsurface pilings would also be by crane. During this operation, the upper organic silts would be disturbed to some degree, resulting in resuspension of the sediments. Because of the swift currents in the area, mitigation measures, such as silt curtains, would not be feasible. However, the amount of resuspended sediments is expected to be low and the impacts, if any, highly localized. Turbidity and short-term, lowered, dissolved oxygen are possible, but not measurable against the normal background fluctuations.

Construction of the South Bronx Converted MTS would involve installing piles for the foundation supports and dredging to accommodate the deeper draft of the coastal barges.

4.14.3.1 Geology

There would be no impacts that would affect the geology of the study area other than those caused by the dredging activity necessary to accommodate the barges. Historically, dredging activities have been conducted at this and other areas along the East River on a regular basis to keep the waterway open for barge deliveries. The dredging activity would remove layers of sediment deposited over time and further alter the profile of the submarine geological features of the study area, but no significant impact would occur.

4.14.3.2 Floodplains

Implementation of the South Bronx Converted MTS would have no effect on the elevation of the site. The facility would be constructed within the 100-year floodplain as it currently exists today, and it would not include any provisions for raising any portion of the study area over and above this level.

4.14.3.3 Ecosystems

Construction of the South Bronx Converted MTS would involve installing piles for the foundation supports and dredging to accommodate the deeper draft of the coastal barges, resulting in an immediate, short-term destruction of the macrobenthic invertebrates in the area. Recolonization of the area by macrobenthic invertebrates can be expected to occur within 6 months to 12 months after cessation of dredging activities. Given the relatively small size of the project and the fact that periodic maintenance dredging has been repeatedly performed at the site since its original construction, minimal impact is expected from the South Bronx Converted MTS.

The net impact of the South Bronx Converted MTS would be a gain of 0.63 acre of over-water facility, resulting in an increase in shading. Experts have differing opinions regarding the effects of shading. A field study conducted on the Hudson River reported no statistical difference in

benthic populations in interpier and underpier areas in New York Harbor waters[9]. Another study conducted on the Hudson River reported that there we no significant differences in benthic population biomass under or between piers, but benthos were smaller and numerically more abundant underneath piers than alongside or between them. Also, juvenile winter flounder (*Pseudopleuronectes americanus*), were reported to have depressed feeding on the benthos beneath piers as compared to feeding activity along side and between piers.[10] However, because the increase in shading over water is very small, there are not expected to be significant deleterious results and any perceived adverse impacts would be negated by the removal of the existing MTS.

The South Bronx Converted MTS would not have any significant impact on the upland vegetation because the only vegetation is opportunistic weeds. The vegetation of the area would remain that of an urban vacant lot.

[9] Hudson River Center Site Aquatic Environmental Study Final Report. 1988. Prepared for NYC Public Development Corp. by EEA, Inc.

[10] Duffy-Anderson, J.T. & Able, K.W. 2001. "An Assessment of the Feeding Success of Young-of-the-Year Winter Flounder (*Pseudopleuronectes americanus*) Near a Municipal Pier in the Hudson River Estuary, U.S.A." *Estuaries*. Vol. 24, No. 3, p. 430-440.

4.15 Water Quality

4.15.1 Existing Conditions

4.15.1.1 Definition of the Study Area

The water quality study area encompasses the East River, which would be the receiving water for the site, as well as discharges from CSOs and point sources located within ½ mile of the site.

4.15.1.2 Water Quality

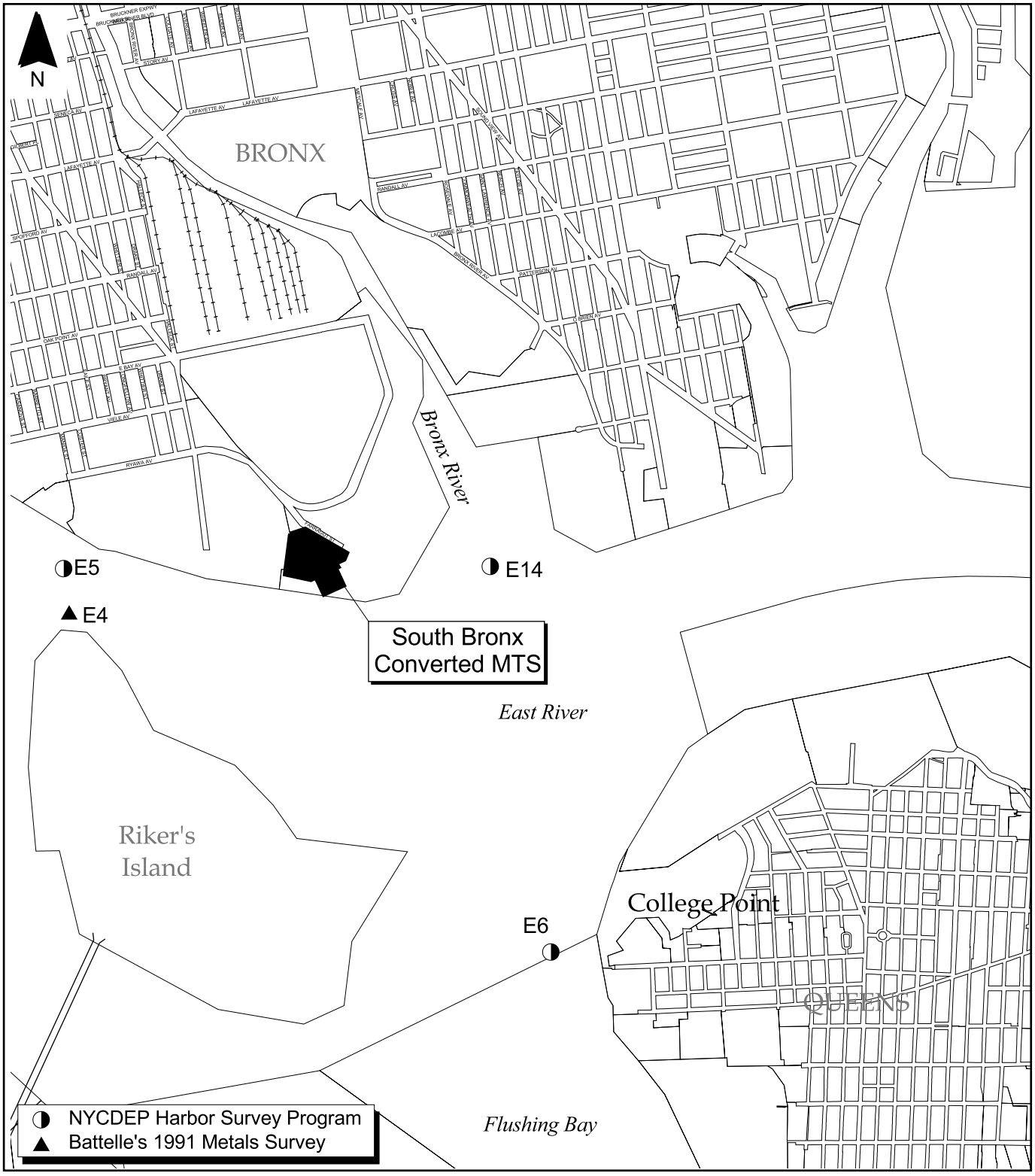
The water quality data for the following monitoring stations, shown in Figure 4.15-1, are generally representative of water quality conditions in the study area:

- NYCDEP Harbor Survey Program – Station E-5 at Barretto Point, Station E-6 at Flushing Bay, and Station E-14 at the Bronx River; and
- Battelle's 1991 Metals Survey – Stations E-4T and E-4B[11] off Hunt's Point, in the East River.

These data, along with NYSDEC water quality standards and guidance values, are presented in Table 4.15-1. The standards and guidance values for the waters in the vicinity of the site correspond to "Class I," which indicates waters suitable for secondary contact recreation (i.e., fishing and boating).

As shown in Table 4.15-1, on average, NYSDEC standards and guidance values are met. For NYCDEP Harbor Survey Program Station E-6; however, the minimum surface and bottom dissolved oxygen between June 1, 2002, and September 30, 2002, did not meet water quality standards for dissolved oxygen. For NYCDEP Harbor Survey Program Station E14, the minimum surface dissolved oxygen between June 1, 2002, and September 31, 2002, did not meet water quality standards for dissolved oxygen. In addition, the mercury concentration for Battelle Stations E-4T and E-4B off Hunt's Point did not conform to the water quality standard for mercury.

[11] Stations E-4T and E-4B are located at the same longitude and latitude off Hunt's Point. Station E-4T is located at the surface of the East River. Station E-4B is located at the bottom of the East River.



Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

Figure 4.15-1 Ambient Water Quality Stations

South Bronx Converted MTS

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Table 4.15-1
Existing Water Quality Conditions and Standards
South Bronx Converted MTS Study Area

Average Concentration							
Parameter	**Units**	**Station E5[1]**	**Station E6[2]**	**Station E14[3]**	**Station E4T[4]**	**Station E4B[5]**	**NYS Class I Standards**
Dissolved Oxygen (surface/minimum)	mg/L	5.24 [6]/4.2 [7]	6.0 [8]/2.9 [9]	60.[10]/3.8[9]	-------	-------	4.0
Dissolved Oxygen (bottom/minimum)	mg/L	5.2 [6]/4.1 [7]	5.1 [11]/3.0 [9]	5.5[10]/4.3[9]	-------	-------	4.0
BOD (surface)	mg/L	3.2 [12]	3.1 [12]-	3.1 [12]	-------	-------	-------
BOD (bottom)	mg/L	3.2 [12]	3.3 [12]	3.0 [12]	-------	-------	-------
Total Coliform (surface)	MPN/100 mL	874 [13]	1171 [13]	972 [13]	-------	-------	10,000
Total Coliform (bottom)	MPN/100 mL	548 [13]	1003 [13]	700 [13]	-------	-------	10,000
Fecal Coliform (top)	MF	30	85	102	-------	-------	2,000
Fecal Coliform (bottom)	MF	38 [14]4	96 [14]	63[14]	-------	-------	2,000
Total Suspended Solids (surface)	mg/L	6	21	18	-------	-------	-------
Total Suspended Solids (bottom)	mg/L	10	23	26	-------	-------	-------
NH3-N	mg/L	0.41	0.452	0.3395	-------	-------	-------
(NO3 + NO2)	mg/L	0.318	0.364	0.327	-------	-------	-------
Total Phosphorous	mg/L	0.364 [15]	0.293 [15]	0.350[15]	-------	-------	-------
Dissolved PO4	mg/L	-------	-------	-------	-------	-------	-------
Chlorophyll-a	µg/L	2.7	5.9	21.7	-------	-------	-------
Arsenic	µg/L	-------	-------	-------	-------	-------	36 [16,17]
Cadmium	µg/L	-------	-------	-------	0.07 [16])	0.06[16]	7.7 [16,17]
Chromium	µg/L	-------	-------	-------	-------	-------	-------
Copper	µg/L	-------	-------	-------	1.83 [16]	1.83[18]	5.6 [17,18]
Lead	µg/L	-------	-------	-------	0.20 [16]	0.19[18]	8.0 [16,17]
Mercury	µg/L	-------	-------	-------	0.0028[16]	0.0029[16]	0.0026 [16,17]
Nickel	µg/L	-------	-------	-------	1.50 [16]	1.46[16]	8.2 [16,17]
Silver	µg/L	-------	-------	-------	0.0083 [16]	0.0078[16]	-------
Zinc	µg/L	-------	-------	-------	5.32 [16]	5.11[16]	66 [16,17]
Cyanide	µg/L	-------	-------	-------		-----	1.0 [17]

Notes for Table 4.15-1:

(1) Average concentrations for 2000 NYCDEP Harbor Survey Station E-5, located at Barretto Point.
(2) Average concentrations for 2002 NYCDEP Harbor Survey Station E-6, located in Flushing Bay.
(3) Average concentrations for 2002 NYCDEP Harbor Survey Station E-14, located in the Bronx River.
(4) Average concentrations for 1991 Battelle Ambient Survey Station E-4T, located off Hunt's Point on the surface of the East River.
(5) Average concentrations for 1991 Battelle Ambient Survey Station E-4B located off Hunt's Point on the bottom of the East River.
(6) Represents average between May and September 2000.
(7) Minimum between June 1, 2000 and September 30, 2000.
(8) Represents average between February and December 2002.
(9) Minimum between June 1, 2002 and September 30, 2002.
(10) Represents average between June and December 2002.
(11) Represents average between May and December 2002.
(12) Latest available data 1997.
(13) Latest available data 1996.
(14) Latest available data 1999.
(15) Latest available data 1998.
(16) Guidance values and data are for dissolved metals.
(17) NYSDEC Guidance Value (NYSDEC TOGS 1.1.1, June 1998, errata sheet January 1999 and addendum April 2000).
(18) Site specific chronic and acute criteria for dissolved copper in NY/NJ Harbor.

4.15.1.3 Permitted Discharges

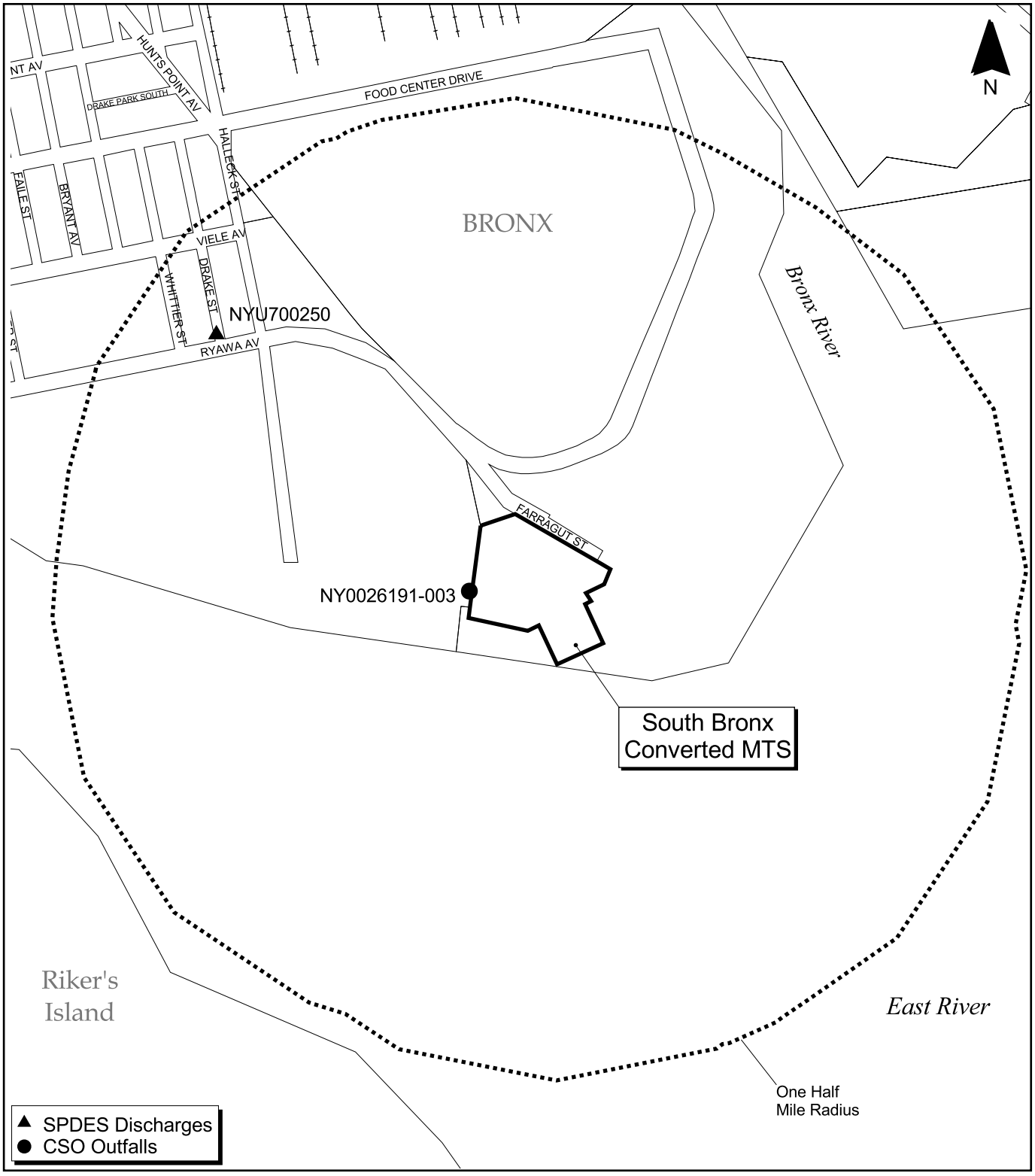
A review of the most recently available NYSDEC and USEPA databases indicated that there are two permitted discharges in the vicinity of the site. These discharges, which are permitted by the NYSDEC, are within ½ mile of the site. One discharge is a CSO outfall west of the site and the other is an industrial site northwest of the site. The locations are shown on Figure 4.15-2 and are listed in Table 4.15-2.

4.15.1.4 Existing Pollutant Loads and Stormwater Runoff

Using available databases on stormwater pollutant concentrations and local precipitation data, an estimate of existing stormwater pollutant loadings were calculated. The existing paved areas were assumed to be completely impervious, and the existing unpaved areas were assumed to have 100 percent storage and/or infiltration. A runoff flow of 0.246 cfs was calculated using the impervious site area (4.1 acres), an average rainfall intensity per storm of 0.06 inches/hour, and a runoff coefficient of 1. The resulting stormwater loads, shown in Table 4.15-3, represent the existing loads at the site.

4.15.2 Potential Impacts with the South Bronx Converted MTS

An inoperative MTS that has been closed since July 1994 is on the site. With development and operation of the South Bronx Converted MTS, there would be an increase in the impervious area and, therefore, an increase in stormwater loadings. Water quality conditions would not be significantly different from Future No-Build Conditions and, as a result, no significant impacts to water quality would be anticipated. Table 4.15-4 shows the existing impervious area, the change in impervious area, and pollutant loads. After treatment, the process wastewater would be discharged to the municipal sewer system and, ultimately, to the Hunts Point WPCP, where it would treated prior to discharge to the east river and, therefore, would not adversely affect water quality.



Site delineations and study area boundaries are approximate.
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 4.15-2 Permitted Outfalls and CSO Locations

South Bronx Converted MTS

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Table 4.15-2
Existing Permitted Discharges
South Bronx Converted MTS Study Area

Combined Sewer Overflow (CSOs)			
Outflow Location/WPCP	**Permit Number**	**County**	**Receiving Waters**
Farragut Street/Hunts Point	NY0026191-003	Bronx	East River
Point Sources			
Company Name	**Permit Number**	**County**	**Receiving Waters**
US-1 Auto Wreckers, Inc.	NYU700250	Bronx	Not listed

Table 4.15-3
Estimated Existing Pollutant Loads and Runoff Flows
South Bronx Converted MTS Study Area

Pollutant	Concentration	Pollutant Loading (lbs/day)
Fecal Coliform MPN/100 mL[1]	34,000	45,008[1]
BOD mg/L	11	15
Heavy Metals		
Copper µg/L	35	0.046
Lead µg/L	28	0.037
Zinc µg/L	154	0.204
Total Impervious Area (acre) = 4.1		Runoff Coefficient (C) = 1.00
Average Rainfall Intensity per Storm (inch/hour) = 0.06 [2]		Runoff Flow (cfs) = 0.246

Notes:
(1) Coliform loads are not shown in lbs/day. Values shown are input to the 208 Model, with output results comparable to MPN/100 mL.
(2) Based on Central Park Rain Data (1969-2002); the National Climatic Data Center.

Table 4.15-4
Impervious Area and Estimated Pollutant Loads
South Bronx Converted MTS

			Estimated Pollutant Loadings/Incremental Change [1]				
Conditions	**Total Impervious Area (acres)**	**Change in Impervious Area (acres)**	**Fecal Coliform[2]**	**BOD (lbs/day)**	**Copper (lbs/day)**	**Lead (lbs/day)**	**Zinc (lbs/day)**
Existing Conditions	4.09	0.0	45,008/NA	15/NA	0.046/NA	0.037/NA	0.204/NA
Future Build Conditions	5.67	1.58	62,391/17,383	20/5	0.064/0.018	0.051/0.014	0.283/0.079

Notes:
(1) Incremental change refers to the difference in pollutant loading between the Existing Conditions and Future Build Conditions.
(2) Coliform loads are not shown in lbs/day. Values shown are input to the 208 Model, with output results comparable to MPN/100 ml.

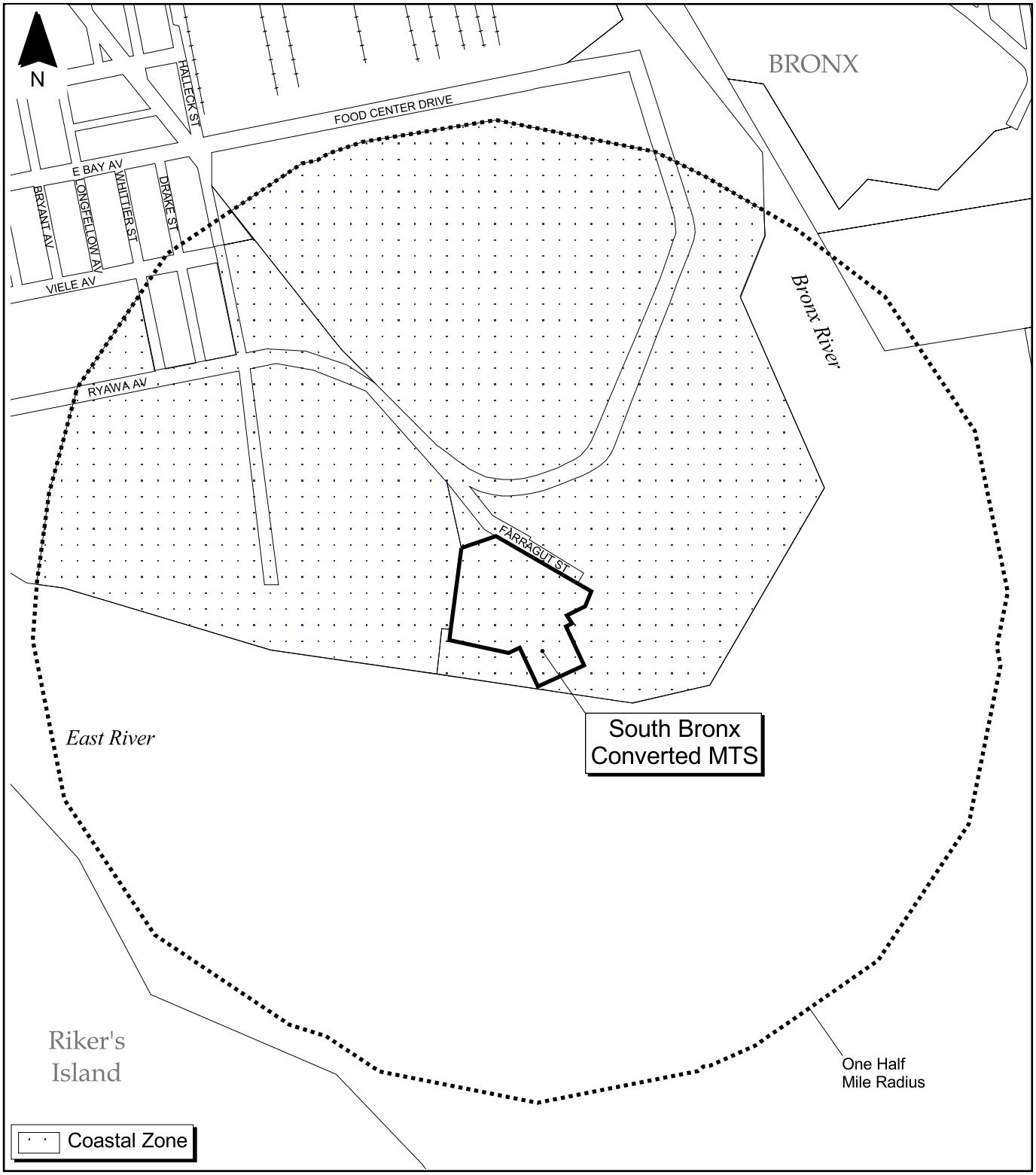
Unimpeded operation of the South Bronx Converted MTS may also require dredging to refurbish the waterfront structures and improve existing water depths in the immediate vicinity of the site. All dredging activities would be conducted in compliance with applicable federal, state, and local regulations and required permits would be acquired before such activities commenced. Applicable and appropriate measures (e.g., closed clamshell buckets, etc.) would be implemented during any and all dredging activities to minimize and/or eliminate any short-term impacts to water quality. Short-term impacts could include an increase in turbidity during active dredging operations; however, dredging would not result in any significant adverse long-term impacts.

4.16 Waterfront Revitalization Program

4.16.1 Introduction

The Federal Coastal Zone Management Act of 1972 established coastal zone management programs to preserve, protect, develop and restore the coastal zone of the U.S. Due to its proximity to the waterfront of the East River, the South Bronx Converted MTS would be within New York City's coastal zone boundary (Figure 4.16-1). According to "The New Waterfront Revitalization Program," the South Bronx Converted MTS would be classified as a water-dependent, industrial use. It would be located within Reach 7/South Bronx, as indicated within the "New York City Comprehensive Waterfront Plan" and the "Plan for the Bronx Waterfront," and within the South Bronx SMIA. The South Bronx Converted MTS is subject to review under the 10 primary policies and the 32 subpolicies identified within "The New Waterfront Revitalization Program" that address the waterfront's important natural, recreational, industrial, commercial, ecological, cultural, aesthetic, and energy resources.

The South Bronx Converted MTS was reviewed to determine its general consistency with each of these policies and subpolicies. This review identified several subpolicies that were not applicable, including subpolicies 1.1, 1.2, 2.2, 3.1, 4.4, 6.2, 6.3, and 8.5. All policies and subpolicies, including those identified as not applicable, are listed in Table 3.18-1. Further discussion is provided below for those policies or subpolicies needing more clarification or found to be inconsistent with a component of the South Bronx Converted MTS. A description of waste handling operations that would occur at the South Bronx Converted MTS is provided in Section 2.2.



Site delineations and study area boundaries are approximate.
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 4.16-1 Coastal Zone Boundary

South Bronx Converted MTS

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4.16.2 Consistency Assessment

Policy 1: Support and facilitate commercial and residential redevelopment in areas well-suited to such development.

1.3 Encourage redevelopment in the coastal area where public facilities and infrastructure are adequate or will be developed.

A review of available information indicates that there are sufficient public services and facilities to support the South Bronx Converted MTS. As part of the South Bronx Converted MTS, connections from the facility to existing utilities (e.g., sewer and electrical connections, etc.) in the vicinity would be established.

Policy 2: Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.

2.1 Promote water-dependent and industrial uses in Significant Maritime and Industrial Areas.

The South Bronx Converted MTS would be located within the South Bronx SMIA. It would involve the conversion of the existing over-water MTS facility from a truck-to-barge waste transfer station to a truck-to-container-to-barge (TCB) transfer station that would transport DSNY-managed waste by marine transport to remote out-of-City disposal facilities. The proposed MTS would involve the removal of the existing MTS building and its support structures and the development of a new MTS, constructed over water on a pile-supported platform.

The South Bronx Converted MTS, as described in Section 2.2.2, would largely represent the continuation of an existing industrial and water-dependent use. Waterfront construction would involve four primary components: (1) elevated access ramps to the main structure; (2) an enclosed processing building, which

would include the tipping floor, loading floor and pier level; (3) an outside gantry crane system; and (4) a new bulkhead and fendering system. The South Bronx Converted MTS would serve to maintain this use while restoring and revitalizing industrial waterfront property. It would be consistent and compatible with surrounding industrial land uses and current zoning, and it would be consistent with the "Plan for the Bronx Waterfront," which recommends increased use of water-borne transportation for solid waste and other recyclables. Although the South Bronx Converted MTS would not encourage or facilitate the siting of any additional water-dependent uses, it would represent an expansion in building size of an existing water-dependent use and would be compatible with surrounding uses. The South Bronx Converted MTS would be consistent with this subpolicy.

2.3 Provide infrastructure improvements necessary to support working waterfront uses.

The South Bronx Converted MTS would involve the complete demolition of the existing MTS and the subsequent development of a new and expanded facility within the East River. It would allow for marine transport of solid waste to licensed out-of-city disposal facilities. Waterfront development would involve four primary components: (1) elevated access ramps to the main structure; (2) an enclosed processing building, which would include the tipping floor, loading floor and pier level; (3) an outside gantry crane system; and (4) a new bulkhead and fendering system. An existing salt shed and SHS would remain on the South Bronx Converted MTS site.

Based on historical information, navigable depths in the area have generally been maintained by natural scouring. However, minor dredging may be required to improve existing water depths at and in the vicinity of the site to allow for the unimpeded operation of barges and tugboats once the South Bronx Converted MTS became operational. All dredging would be conducted in compliance with applicable federal, state and local regulations. Required permits would be acquired prior to any dredging activities.

Although the "Plan for the Bronx Waterfront" recommends that the parcel be converted to parkland serving the Hunts Point community should DSNY decide to vacate the site, expansion of the existing site by DSNY would be consistent and compatible with the plan, surrounding land uses and current zoning. The new facility would be consistent with existing industrial uses in the vicinity of the site and would be consistent with this subpolicy.

Policy 3: Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation centers.

3.2 Minimize conflicts between recreational, commercial, and ocean-going freight vessels.

The South Bronx Converted MTS would be located within the East River and would be expanded from its existing footprint. In addition, the facility would be located within an existing, heavily industrialized area and would not interfere with any other maritime industrial, commercial or recreational vessel activities in the area. Activities within the East River resulting from the South Bronx Converted MTS would be limited to barge loading along the pier level and the periodic swapping of loaded barges at the slips. Four of five barges would be filled on a daily basis. These swapping activities would be similar to previous barge activities at the site. Therefore, no adverse impact to other uses within the water body would be anticipated. The South Bronx Converted MTS would be consistent with this subpolicy.

3.3 Minimize impact of commercial and recreational boating activities on the aquatic environment and surrounding land and water uses.

The South Bronx Converted MTS would involve the conversion of an existing over-water facility truck-to-barge waste transfer station where loose waste was placed in open barges into a TCB transfer station where waste would be transferred into containers that were sealed and placed into modified hopper barges that would transport the DSNY-managed waste to remote out-of-city disposal facilities. All waste would be placed in sealed containers before leaving the processing building. All solid waste handling would be done within an enclosed processing building and, therefore, would be protective of the aquatic environment and surrounding land and water uses. Litter control methods, such as routine sweeping and washing of the tipping floor, would also be implemented to minimize or eliminate the potential for litter entering surface waters. Building ventilation would be maintained under negative pressure, which would maintain dust inside the building. Additional dust, odor and vector control systems would also be used to minimize impacts to the surrounding environment. All process wastewaters would be treated on-site prior to being discharged to the municipal sewer system. In addition, any on-site storage of petroleum or hazardous materials related to the South Bronx Converted MTS would be managed in accordance with all applicable federal, state and local regulations

Policy 4: Protect and restore the quality and function of ecological systems within the New York coastal area.

4.1 Protect and restore the ecological quality and component habitats and resources within the Special Natural Waterfront Areas, Recognized Ecological Complexes, and Significant Coastal Fish and Wildlife Habitats.

Based upon a review of SNWA, Recognized Ecological Complexes and Significant Coastal Fish and Wildlife Habitat, the South Bronx Converted MTS would not be located within any designated areas. It would represent an

expansion in size of a previous use and would not be anticipated to result in any long-term impacts to natural resources in the vicinity of the site. The South Bronx Converted MTS would be consistent with this subpolicy.

4.2 Protect and restore tidal and freshwater wetlands.

A review of NYSDEC tidal and freshwater wetland and National Wetland Inventory (NWI) maps was conducted to determine the presence of wetlands. As noted in Section 4.14.1, the site contains no freshwater wetlands. The South Bronx Converted MTS would be located within the East River, which is identified as a littoral zone, a state-designated wetland. The demolition of the existing MTS and subsequent development of the South Bronx Converted MTS would result in limited, short-term impacts to these tidal wetlands.

Impacts to littoral zones would be minimized due to previous and ongoing industrial activities at and in the vicinity of the site. Future Build Conditions would involve demolition and removal of the existing MTS and pile-supported structures, and construction of waterfront facilities for barge loading and mooring. Historical information indicates that natural scouring of sediments occurs in the immediate vicinity of the site, which has limited the need for ongoing dredging. However, dredging may be required to provide sufficient depths for barge and tugboat operations. Potential impacts due to dredging would be short-term and localized. All dredging would be conducted in accordance with applicable federal, state and local regulations. Mitigation for potential impacts, as appropriate and applicable, would be proposed during the environmental review and permitting of the South Bronx Converted MTS. Mitigation, if required, would be proposed to address any potential impacts to wetlands that may occur due to the development of the South Bronx Converted MTS. The South Bronx Converted MTS would, therefore, be consistent with this policy.

4.3 Protect vulnerable plant, fish and wildlife species, and rare ecological communities. Design and develop land and water uses to maximize their integration or compatibility with the identified ecological community.

There are no vulnerable plant, fish or wildlife species found in the vicinity of the site. A review of the U.S. Department of Interior Fish and Wildlife Service and NYSDEC Breeding Bird Atlas records indicates that there are no federally listed endangered, threatened or special concern species found in the area surrounding the South Bronx Converted MTS

The South Bronx Converted MTS would involve the demolition of the existing MTS facility. The proposed facility would remain as an over-water facility. Waterfront development would include elevated access ramps; an enclosed processing building, which includes a tipping floor, loading floor and pier level; a gantry crane system; and a fendering and bulkhead system. Although navigable depths in the area have historically been maintained by natural scouring, the development of the South Bronx Converted MTS may involve dredging. However, potential impacts to plant, fish and wildlife species would be minimized and all dredging would be conducted in compliance with applicable federal, state and local regulations. Required permits would be obtained prior to any dredging activities.

In addition, all handling and containerization of solid waste would be performed inside the processing building, thereby limiting the risk of an introduction of hazardous wastes or other pollutants into the environment that could impact surrounding fish and wildlife resources. Sanitary and process wastewaters would be routed to on-site treatment systems and would then be discharged to the municipal sewer system. Stormwater runoff from the South Bronx Converted MTS and the storage of any petroleum products would be managed in accordance with applicable federal, state and local regulations. The South Bronx Converted MTS would, therefore, be consistent with this subpolicy.

Policy 5: Protect and improve water quality in the New York City coastal area.

5.1 Manage direct or indirect discharges to waterbodies

The South Bronx Converted MTS would be developed in accordance with applicable federal, state and local regulations. Consistent with this subpolicy, the processing areas would be cleaned on a regular basis. All sanitary and process wastewaters (e.g., floor washdown waters, etc.) would be conveyed to an on-site treatment system, which would include an oil-water separator, and then discharged to the municipal sewer system. In addition, the slope of the tipping floor would prevent the build-up of free liquids by directing all liquids to drains. Storm water runoff from the South Bronx Converted MTS would be managed in accordance with applicable regulations.

5.2 Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution.

During the development and operation of the South Bronx Converted MTS, BMPs would be used to the extent possible to minimize any nonpoint discharges. The South Bronx Converted MTS would comply with applicable federal, state and local requirements concerning the management of stormwater runoff and erosion. All handling and containerization of solid waste would be performed inside the processing building; thereby limiting the risk of an introduction of hazardous wastes or other pollutants into the environment. In addition, litter control methods would be implemented to minimize or eliminate the potential for litter to enter surface waters.

5.3 Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.

The majority of the proposed demolition and construction would occur within the East River. The existing MTS structures and foundations would be removed. During removal of the existing pile-supported structure and over-water pier structures, disturbances to upper organic silts may occur, resulting in the temporary resuspension of sediment. Due to the swift currents in the area, mitigation measures (e.g., silt screens) would not be feasible, however, potential impacts would be short-term. Although navigable depths in the area have historically been maintained by natural scouring, dredging may be necessary to rehabilitate the existing bulkhead and to provide sufficient water depths for the unimpeded operation of barges and tugboats once the facility is operational. Potential impacts due to dredging would also be short-term and highly localized. All dredging would be done in compliance with applicable federal, state and local regulations and removed materials would be disposed of at a permitted facility.

5.4 Protect the quality and quantity of groundwater, streams, and the sources of water for wetlands.

The South Bronx Converted MTS would result in no adverse impact to the quality or quantity of surface waters at or in the vicinity of the site. Sanitary and process wastewaters (e.g., floor washdown waters, etc.) would be conveyed to an on-site treatment system and would then discharge to the municipal sewer system. Stormwater runoff from the South Bronx Converted MTS would be managed in accordance with federal, state and local regulations. No surface or ground waters in the vicinity of the site constitute a primary or sole source of water supply. The South Bronx Converted MTS would be consistent with this subpolicy.

Policy 6: Minimize loss of life, structures and natural resources caused by flooding and erosion.

6.1 Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the condition and use of the property to be protected and the surrounding area.

According to a review of the FEMA National Flood Insurance Program maps, the majority of the site is located within the 100-year flood plain boundary (Zone A) As part of the Future Build Conditions, the existing MTS would be demolished and a new MTS would be constructed within an expanded footprint that would encompass the existing site. The South Bronx Converted MTS would not affect the potential for flooding or erosion. All demolition and construction would comply with applicable building code requirements and, to the extent practicable, non-structural measures would be implemented to minimize damage from flooding or erosion.

Policy 7: Minimize environmental degradation from solid waste and hazardous substances.

7.1 Manage solid waste material, hazardous wastes, toxic pollutants, and substances hazardous to the environment to protect public health, control pollution and prevent degradation of coastal ecosystems.

The South Bronx Converted MTS would not involve the storage, treatment or disposal of hazardous waste, but would involve the management and processing of solid waste through a TCB system and marine transport to out-of-City disposal sites. Waste would be transported in air-tight, waterproof sealed containers. All waste handling operations would occur within an enclosed processing building, which would minimize or eliminate the escape of litter into the surrounding waterbody. Unless emergencies close the facility, solid waste would generally be containerized within 24 hours of tipping. All solid waste handling operations

would be conducted in accordance with NYSDEC Part 360 regulations (6NYCRR Parts 360-1 and 360-11) for solid waste transfer stations, which would be incorporated by reference into the permit to construct and operate the South Bronx Converted MTS. Litter control methods would be implemented at the facility to minimize or eliminate litter entering surface waters. Radiation detection equipment would be located at the facility, and contingency plans would be in place in the event of unauthorized waste and/or other situations that could disrupt the operation of the facility.

On-site storage of petroleum or hazardous materials related to the operation of the South Bronx Converted MTS would be minimal. All storage would be in accordance with applicable federal, state and local regulations. The South Bronx Converted MTS would be operated in a manner to ensure that there would be no impact to ground and surface water supplies, significant fish and wildlife habitats, recreational areas and scenic resources.

7.2 Prevent and remediate discharge of petroleum products.

See response to Subpolicy 7.1.

7.3 Transport solid waste and hazardous substances and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.

See response to Subpolicy 7.1.

Policy 8: Provide public access to and along New York City's coastal waters.

8.1 Preserve, protect and maintain existing physical, visual and recreational access to the waterfront.

Due to the existing, heavy industrial uses at and in the immediate vicinity of the South Bronx Converted MTS, public access would generally not be compatible with the principal use of the site. Therefore, this subpolicy is not applicable.

8.2 Incorporate public access into new public and private development where compatible with proposed land use and coastal location.

Located at the end of Farragut Street and adjacent to the site, approximately where the Reach 7/South Bronx "Plan for the Bronx Waterfront" recommends waterfront public access be developed, is an informal and unimproved, City-owned area used for water viewing and fishing. While the operation of the South Bronx Converted MTS could detract from the enjoyment of the waterfront experience at the end of Farragut Street, it would not preclude this non-designated and informal use. The Reach Plan also recommends that if the site were abandoned by DSNY, its redevelopment as a waterfront park could be explored. Since the plan was prepared, however, waterfront park planning on Hunts Point has advanced other alternatives, and by 2006 waterfront access in the vicinity will be accommodated by Barretto Point Park, which will not be affected by the South Bronx Converted MTS (see Section 4.5). Therefore, the South Bronx Converted MTS is consistent with this policy.

The South Bronx Converted MTS would be a stand-alone, water-dependent facility within the East River. Public access would not be compatible with the South Bronx Converted MTS, however, its development would not preclude any future development of public access at other waterfront locations along the East River.

8.3 Provide visual access to coastal lands, waters and open space where physically practical.

Development of the South Bronx Converted MTS would be compatible with adjacent properties along the waterfront and would not obstruct or impair visual access to coastal lands, waters or open space. It would represent an expansion of an existing water-dependent facility. As discussed in Section 4.7.3, visual access to coastal lands would not be impacted. See also response to Subpolicy 9.1

8.4 Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations.

Located at the end of Farragut Street and adjacent to the site is the only existing open space resource in the study area. It is an informal and unimproved, city-owned area used for water viewing and fishing. The South Bronx Converted MTS would not be expected to result in significant impacts on this parkland resource. According to the plan for Reach 7/South Bronx in the "Plan for the Bronx Waterfront," it is recommended that this and the adjacent MTS site be incorporated into a large park. This park is only recommended in the event that DSNY no longer uses the site.

Policy 9: Protect scenic resources that contribute to the visual quality of the New York City coastal area.

9.1 Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.

The South Bronx Converted MTS would not result in a significant impact on visual quality as noted in Section 4.7.3. Based on the information discussed in that section, the South Bronx Converted MTS would be consistent with this subpolicy.

9.2 Protect scenic values associated with natural resources.

The South Bronx Converted MTS would involve an expansion of an existing water-dependent use and would pose no significant new impacts to scenic values associated with natural resources. It would be compatible with surrounding industrial uses and would be constructed within the East River. The South Bronx Converted MTS would be consistent with this subpolicy.

Policy 10: Protect, preserve and enhance resources significant to the historical, archaeological and cultural legacy of the New York City coastal area.

10.1 Retain and preserve designated historic resources and enhance resources significant to the coastal culture of New York City.

The South Bronx Converted MTS would have no effect on any cultural resources, as stated in Section 4.6.3. There are no historic structures listed, or eligible for listing on the National or State Registers of Historic Places. Based on the information presented in Section 4.6.3, the South Bronx Converted MTS would be consistent with this subpolicy.

10.2 Protect and preserve archaeological resources and artifacts.

No archaeologically significant resources are located at the site, or in the immediate vicinity of the site. This subpolicy is, therefore, not applicable.

4.17 Hazardous Materials

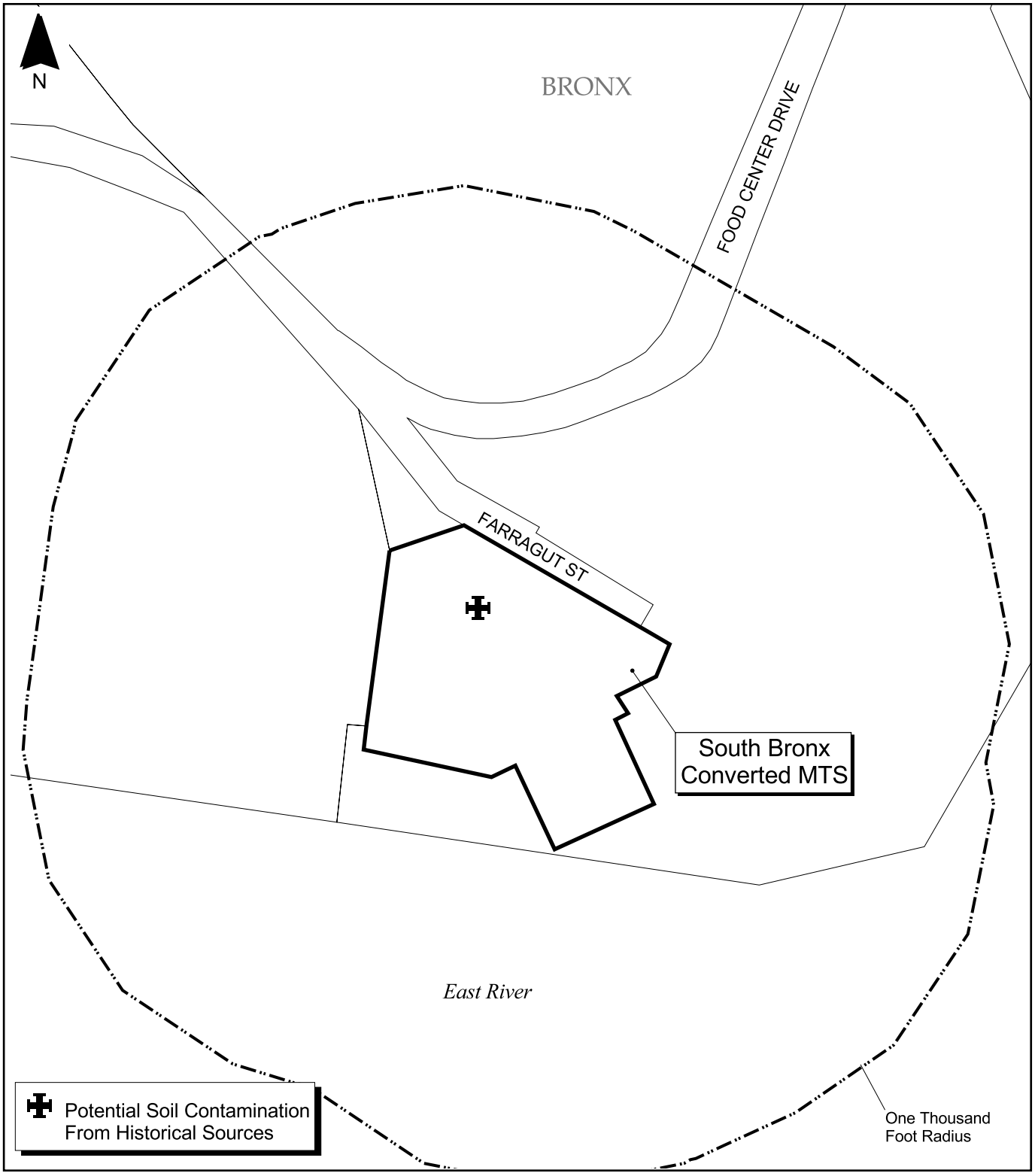
4.17.1 Existing Conditions

Existing Conditions associated with the presence of hazardous materials in soil, groundwater, and building components/equipment were investigated within the defined study area. The Hazardous Materials Assessment was performed in accordance with the guidelines for a preliminary assessment presented in the CEQR Manual (October 2001) and is consistent with the requirements for a Phase I ESA established by the American Society for Testing and Materials (ASTM E-1527). The assessment was performed in April 1999 and updated in February 2003. It included a historical land use review, regulatory agency database review, reconnaissance of the study area and surrounding area, and surface and subsurface drainage evaluation.

The historical land use review included an assessment of *Sanborn* fire insurance maps for the study area, if available, and a Freedom-of-Information Law request to the New York City Fire Department for underground storage tank records. Standard federal and state environmental databases were assessed for records of sites within the study area that had evidence of hazardous waste activity or spills. A written request to NYCDEP was made to solicit records pertaining to hazardous or toxic materials activities within the study area. Pedestrian reconnaissance of accessible interior and exterior areas within the study area was conducted, most recently in February 2003. During the reconnaissance, visual evidence was sought of hazardous materials handling or storage, including the presence of tanks, drums, transformers, and unusual stains and odors. Topographic maps, visual observations, and readily available geologic information sources were reviewed if off-site potential sources of contamination were identified.

4.17.1.1 Definition of Study Area

The study area includes the site and neighboring properties within a 1,000-foot radius (Figure 4.17-1).



Site delineations are approximate.
Base Map Source: New York City Department of City Planning

200 0 200 Feet

Figure 4.17-1 Hazardous Materials Sites

South Bronx Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

4.17.1.2 Delineation of Area of Concern

Areas of concern are defined as parts of the soil, groundwater, and building components/equipment within the study area where the presence or likely presence of hazardous materials exists and implementation of the South Bronx Converted MTS could lead to an increased exposure of people or the environment to those materials. The areas of concern within the study area include:

- Possible subsurface contamination migrating to the site from the former Hunts Point Coking Station, which operated as a coal gasification plant. This coking station site is located north and west of the South Bronx Converted MTS site. Historical *Sanborn* atlases indicate the presence of numerous underground and aboveground oil storage tanks at the former coking station. The coking station site was also identified within the USEPA CERCLIS, which inventories and tracks sites that might be candidates for listing in the NPL for cleanup under Superfund. The coking station site was assigned an NFRAP designation by the USEPA on September 22, 1987. An NFRAP designation means that USEPA has completed its preliminary assessment and determined that no further steps are to be taken to list this coking station site on the NPL. The coking station site was also entered into the NYSDEC Hazardous Substance Waste Disposal Site Study, a database of sites that cannot be remediated using state monies from the Hazardous Waste Remedial Fund.

- Potential soil contamination due to the fact the South Bronx Converted MTS site is comprised primarily of fill material from unknown origins. Depending on its origins, the fill material may be contaminated.

- Probable presence of lead-based paint in underlying layers of the existing MTS building. However, painted surfaces appeared in relatively good condition during a February 2003 reconnaissance.

- Suspected ACMs (corrugated transite) in the external sheeting and roofing, which are extensive at the existing MTS building.

- Possibility of PCBs in a working transformer that is mounted on a concrete pad along Farragut Street. It should be noted that there were no obvious indications that the transformer had leaked.

4.17.2 Future No-Build Conditions

The site would remain as is. Contamination may exist on the property due to the nature of the fill material and historical activities that occurred on the adjacent property.

4.17.3 Impacts with the South Bronx Converted MTS

The areas of concern included possible subsurface contamination, possible historical soil contamination because of contaminated fill material, lead-based paint, and suspected ACMs. These areas of concern would be mitigated during construction of the South Bronx Converted MTS and/or demolition of the existing MTS. Lead-based paint and ACMs that may be in the existing MTS would be removed prior to its demolition in accordance with City building codes and practices. Contaminated soils that may be present in fill material would be excavated and disposed of in a manner that is consistent with the levels of contamination as specified in New York State regulations. The necessary and appropriate health and safety measures would be used during construction/demolition to mitigate and minimize any exposure risk to workers or the general public related to the possible subsurface contamination.