CHAPTER 19 ENVIRONMENTAL REVIEW: SOUTH BRONX CONVERTED MTS

19.1 Introduction

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

19.2 Land Use, Zoning, and Public Policy
19.3 Socioeconomic Conditions
19.4 Community Facilities and Services
19.5 Open Space
19.6 Cultural Resources
19.7 Urban Design, Visual Resources, and Shadows
19.8 Neighborhood Character
19.9 Natural Resources
19.10 Hazardous Materials
19.11 Water Quality
19.12 Waterfront Revitalization Program
19.13 Infrastructure, Solid Waste and Sanitation Services, and Energy
19.14 Traffic, Parking, Transit and Pedestrians
19.15 Air Quality
19.16 Odor
19.17 Noise
19.18 Commercial Waste to the South Bronx Converted MTS

Section 2.4.1 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.

19.2 Land Use, Zoning, and Public Policy

19.2.1 Existing Conditions

19.2.1.1 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 (see Figure 19.2-1). The secondary study area is defined as the area between ¼-mile and ½-mile of the site (see Figure 19.2-2). Section 3.4 describes the methodology employed in these analyses and Section 2.4.1 provides information on existing land uses and operations on the site.

19.2.1.2 Land Use Patterns

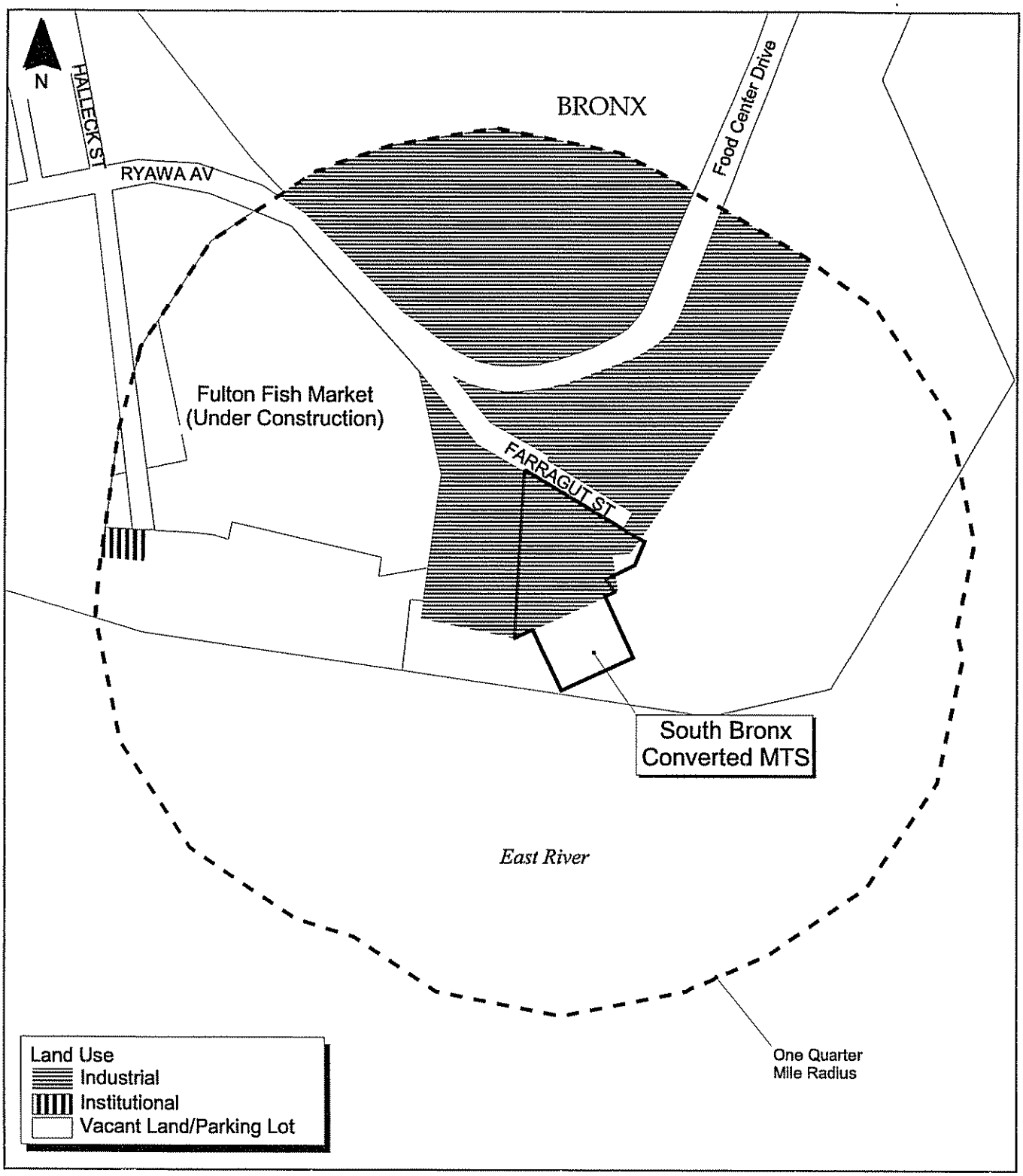
19.2.1.2.1 General Context

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 NYCEDC.

19.2.1.2.2 Land Uses in the Primary Study Area

All property immediately adjacent to the site is owned by the City or its agencies (i.e., DSNY, Department of Correction, NYCDEP and NYCEDC). 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, C&D 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 19.2-1 Land Use in the Primary Study Area

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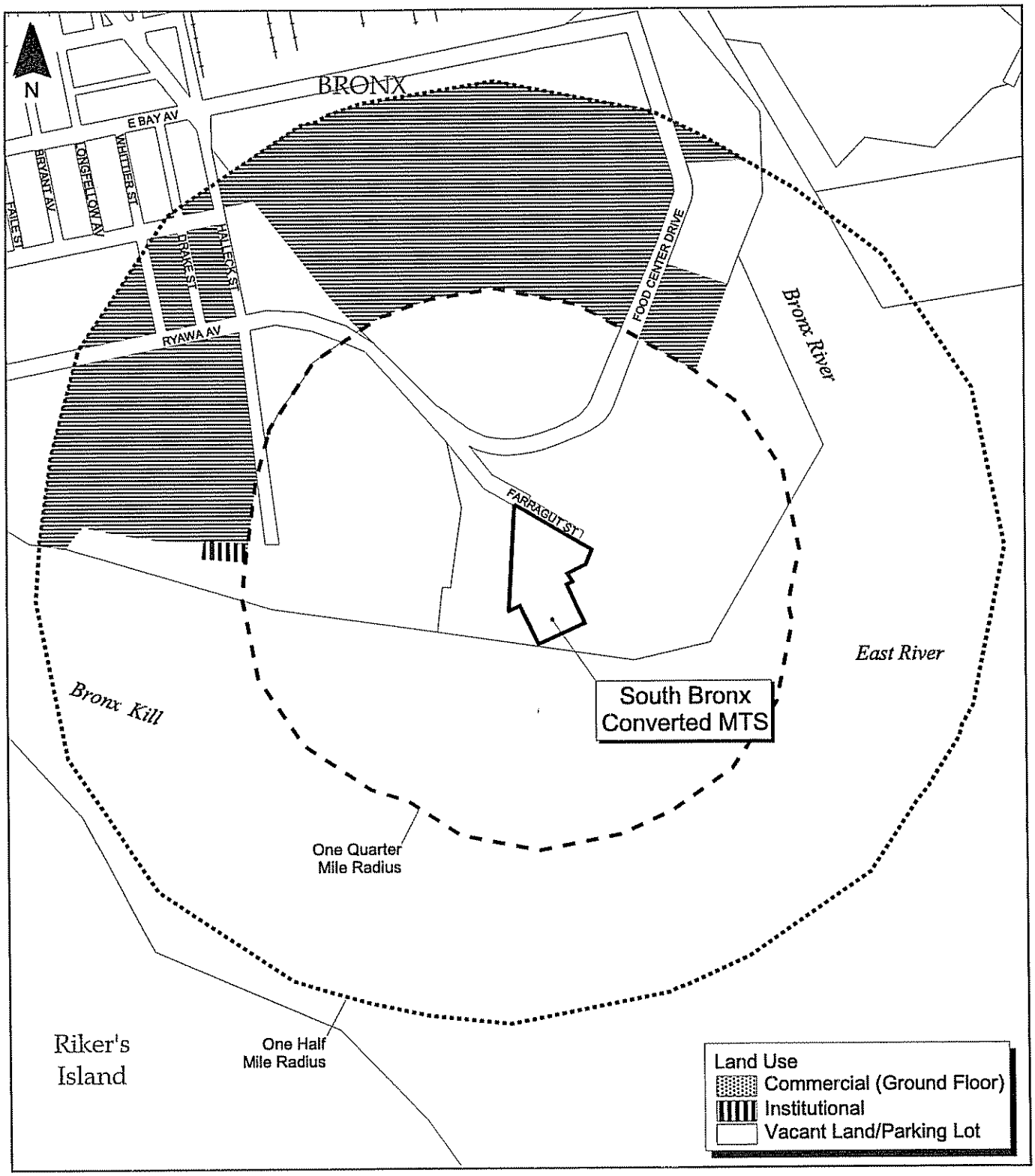

Site delineations and study area boundaries are approximate.
Base Map Source: New York City Department of City Planning
This figure illustrates generalized land uses in the secondary study area

Figure 19.2-2 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 nearly 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.

19.2.1.2.3 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 NYCDEP. 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).

19.2.1.3 Zoning On and Near the Site

19.2.1.3.1 Zoning Within the Primary Study Area

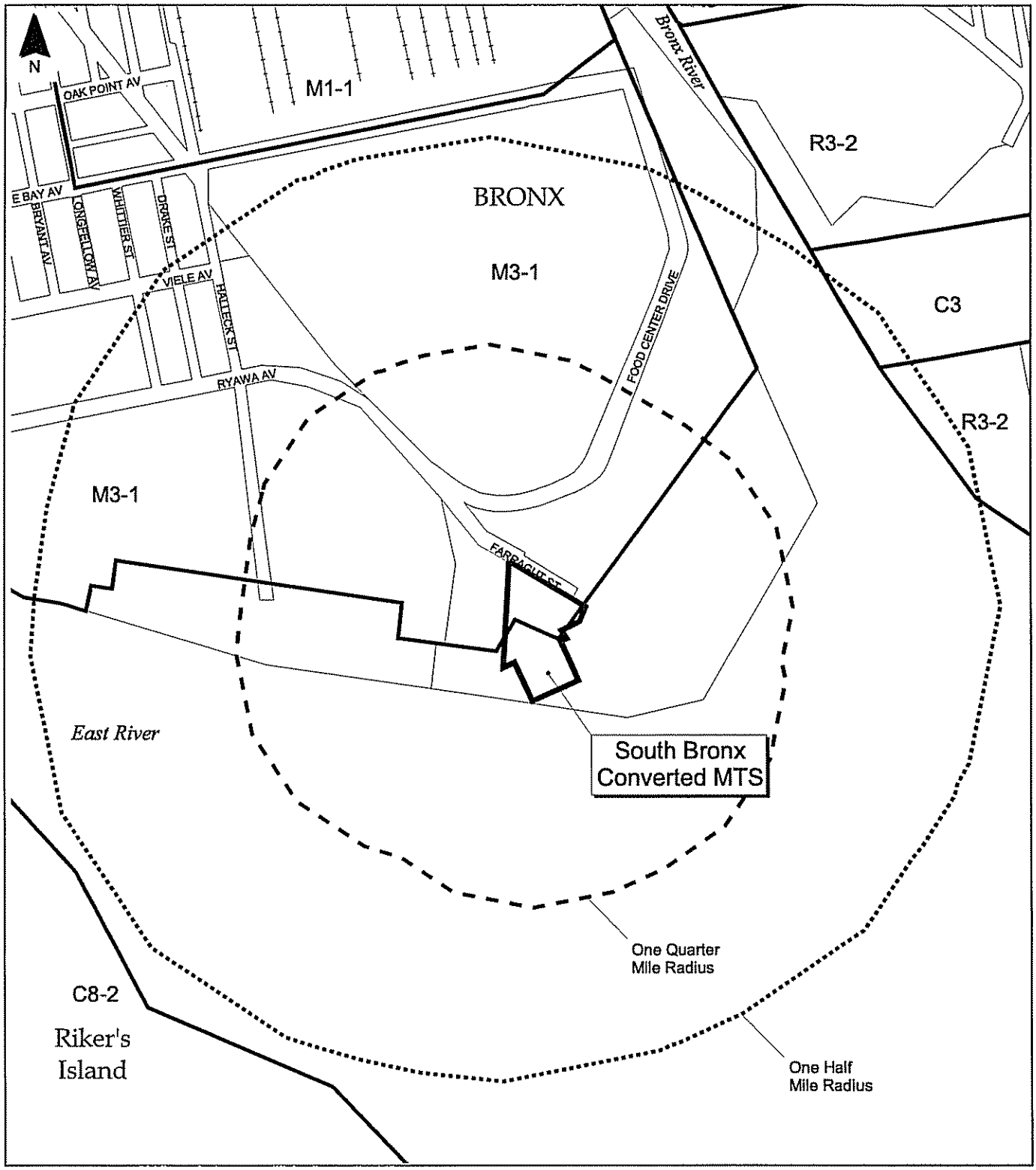
The site and surrounding properties within both the primary and secondary study areas fall within an M3-1 heavy industrial district that extends north to approximately East Bay Avenue and Randall Avenue, where it abuts an M1-1 light industrial district. Most of the Hunts Point peninsula is zoned for manufacturing, with the exception of the 20-block residential area located at the northeastern end (see Figure 19.2-3 and Table 3.4-1: Zoning District Characteristics), about one mile from the site.

19.2.1.3.2 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.

19.2.1.4 Plans and Policies

In its FY 2004 CDNS, 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 to 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 19.2-3 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 NYCDCP'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 19.12 for a review of consistency with the WRP).

19.2.2 Future No-Build Conditions

Two major developments are underway or proposed within ½-mile of the site. Figure 19.2-4 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 2004. The newly constructed two-story 450,000-square-foot facility will house 55 businesses.
- The Hunts Point WPCP Expansion Project is currently underway. 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.

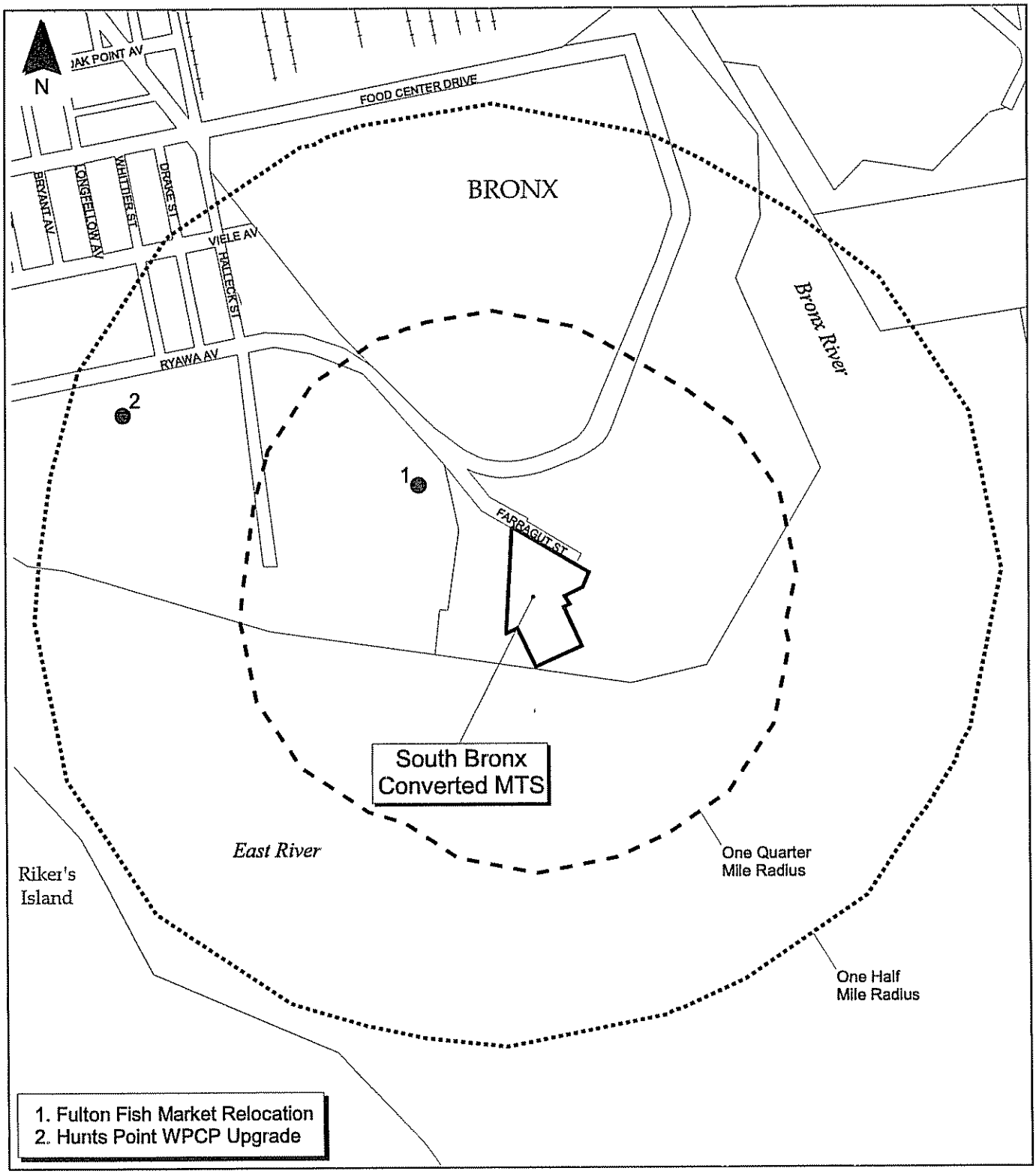
The Hunts Point Action Plan, developed in 1997 to improve signage on the peninsula and to address truck routing, will be in place by 2006.

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 on 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.

19.2.3 Potential Impacts with the South Bronx Converted MTS

19.2.3.1 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 19.2-4 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.

19.2.3.2 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 (CD) 2 Statement of Needs says, it would be inconsistent with the Community Board's zero-tolerance policy.

19.3 Socioeconomic Conditions

19.3.1 Existing Conditions

19.3.1.1 Definition of the Study Areas

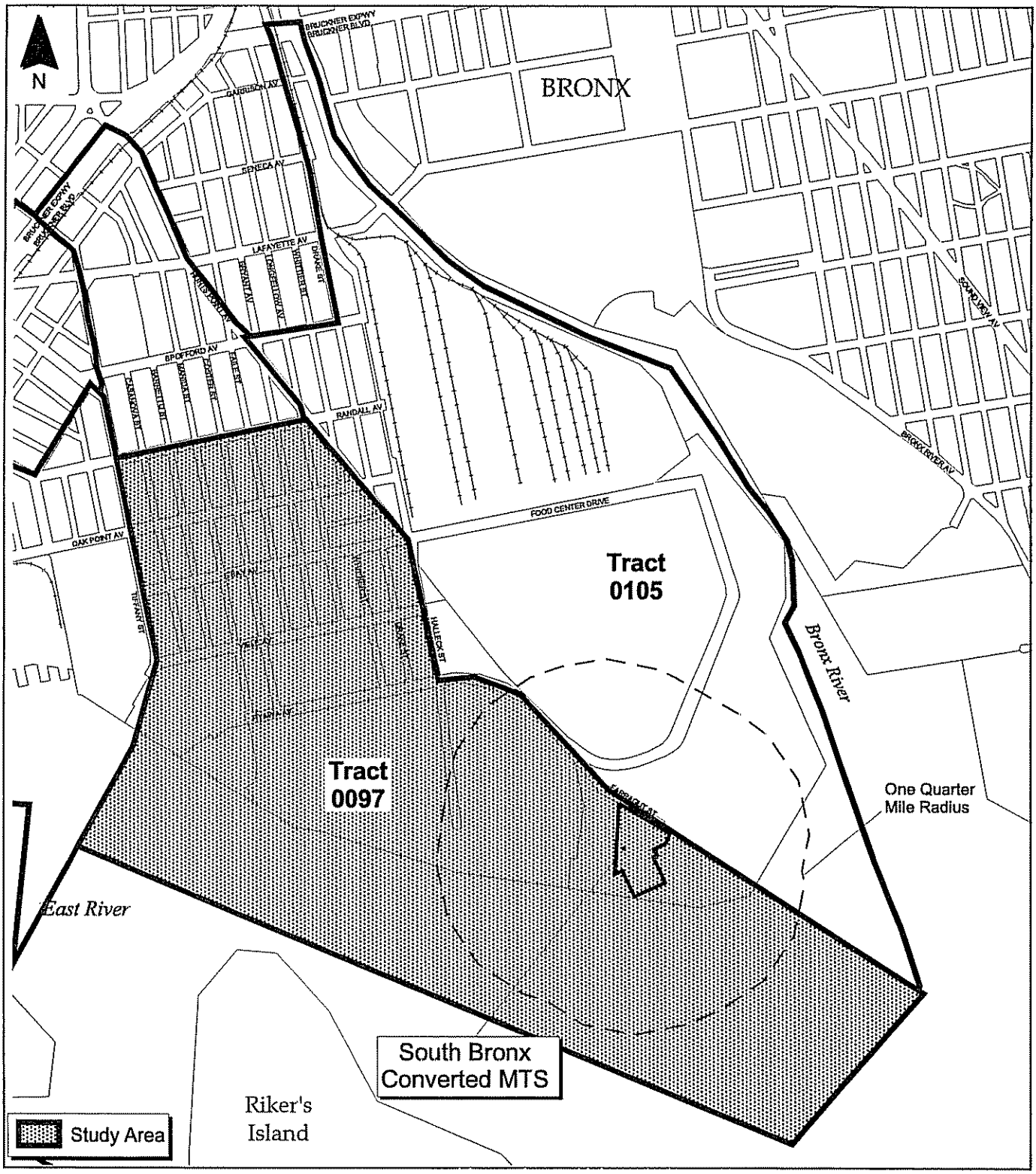
Two study areas were used for the analysis of socioeconomic conditions: (1) a demographic study area based roughly on census tracts within ¼-mile of the site; and (2) a study area related to economic activity that generally covers a larger area that extends ½-mile from the site. (Refer to Section 3.5 for a more detailed description of study area delineation.) In this case, the demographic study area consists of Census Tract 97 (see Figure 19.3-1). 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.

19.3.1.2 Demographic Characteristics

Because the 2000 population of the study area consisted of only 92 individuals and 13 families, none of who 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.

19.3.1.3 Economic Conditions

The site is adjacent to the Hunts Point Market, a City-administered (NYCEDC) 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



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

Figure 19.3-1 Census Tracts

South Bronx Converted MTS

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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 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 Local Development Corporation (LDC) is the local sponsor of the EDZ. It has been involved with planning and upgrading initiatives for the entire Hunts Point peninsula.

Current forecasts indicate that about 22,757 employees worked in Bronx CD 2 in 2005, which was about 8% of the borough's total employment.[1]

19.3.2 Future No-Build Conditions

19.3.2.1 Demographic Characteristics

Regional projections indicate that the population of Bronx CD 2 will remain about the same as current conditions.[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.

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[1] Based on New York Metropolitan Transportation Council, Population and Employment Forecasts, approved 7-17-03.

[2] Based on New York Metropolitan Transportation Council, Population and Employment Forecasts, approved 7-17-03.

19.3.2.2 Economic Conditions

Regional projections indicate that employment in Bronx CD 2 will remain about 8% of the borough total.[3]

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. Bronx Overall Economic Development Corporation (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.

19.3.3 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.

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

19.3.3.1 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 19.14, 19.16, and 19.17). Therefore, the South Bronx Converted MTS is not expected to result in indirect displacement of residents.

19.3.3.2 Direct Business and Institutional Impacts

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

19.3.3.3 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 in 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.

19.3.3.4 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.

19.4 Community Facilities and Services

19.4.1 Existing Conditions

19.4.1.1 Definition of the Study Areas

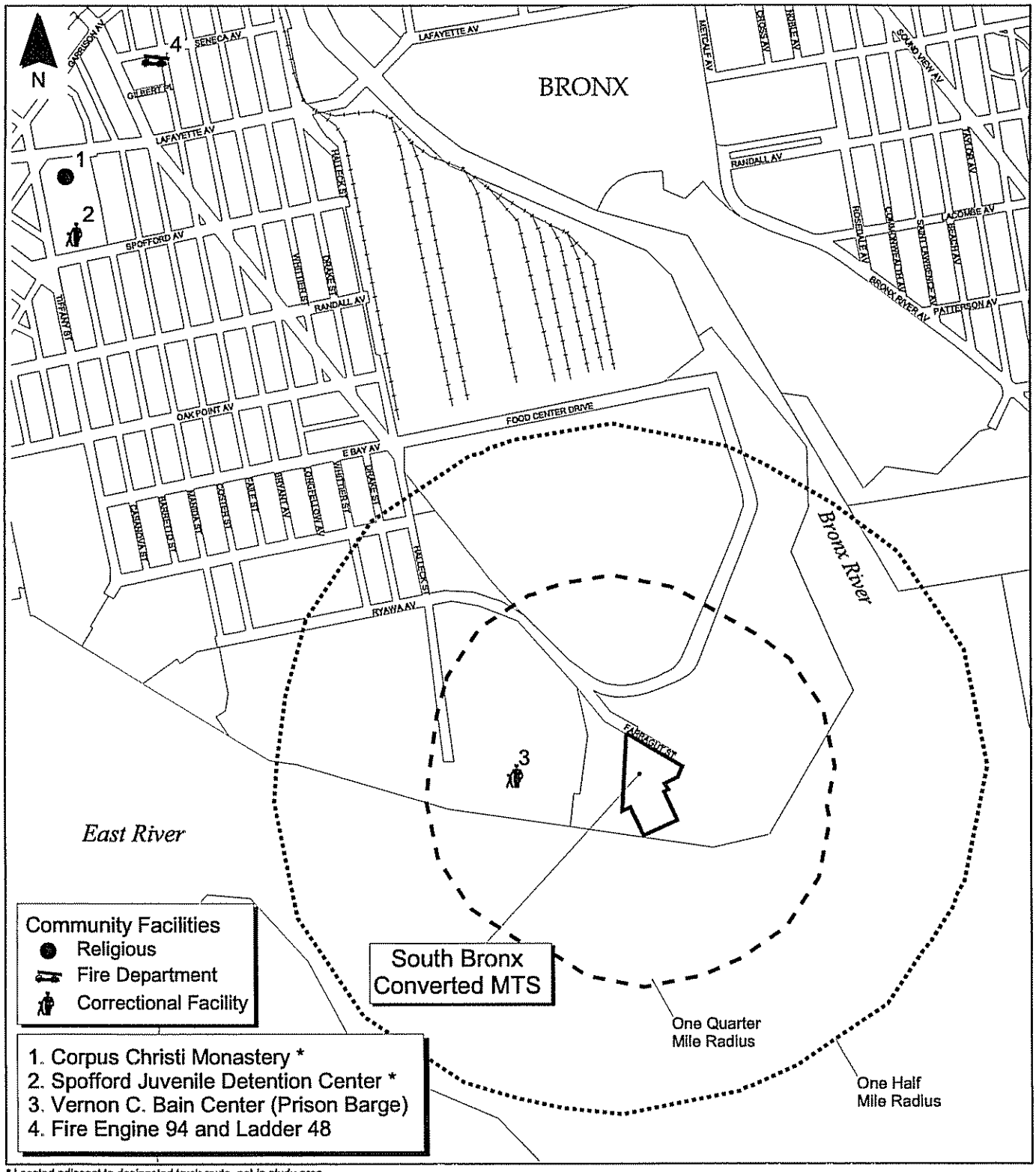
The primary study area is defined as the area within ¼-mile of the site. The secondary study area is defined as the area between ¼- and ½-mile from the site.

19.4.1.2 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 (see Figure 19.4-1). 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 19.4-1.

19.4.2 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.



* 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.

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Figure 19.4-1 Community Facilities and Services

South Bronx Converted MTS

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Table 19.4-1
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

19.4.3 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 FDNY states that it would have no problem supporting the South Bronx Converted MTS.

19.5 Open Space

19.5.1 Existing Conditions

19.5.1.1 Definition of the Study Area

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

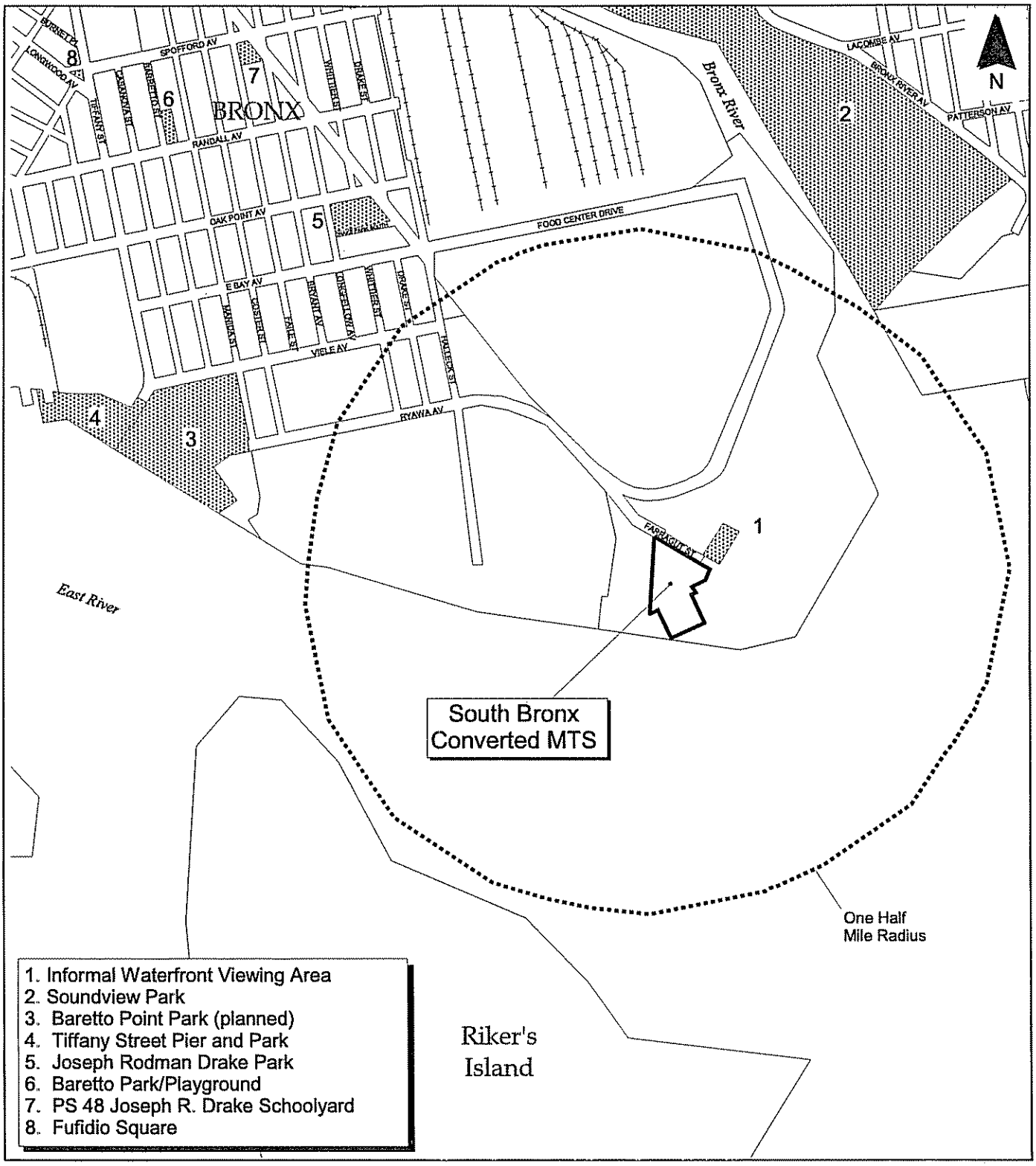
19.5.1.2 Summary of Open Space in the Study Area

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 19.5-1. 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.

19.5.2 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.

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

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Figure 19.5-1 Open Space/Parkland
South Bronx Converted MTS

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19.5.3 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.

19.6 Cultural Resources

19.6.1 Existing Conditions

19.6.1.1 Definition of the Study Area

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

19.6.1.2 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 the 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, ball fields, 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.

19.6.1.3 Cultural Resources on the Site

There are no standing structures of architectural 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] Based on New York Metropolitan Transportation Council, Population and Employment Forecasts, approved 7-17-03. Historical Perspectives, Inc. Phase 1A Archeological sensitivity Report for DSNY Resource Recovery Project, Bronx, NY. 1986.

19.6.1.4 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.

19.6.2 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.

19.6.3 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.

19.7 Urban Design, Visual Resources, and Shadows

19.7.1 Existing Conditions

19.7.1.1 Definition of the Study Area

The urban design and visual quality 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.

19.7.1.2 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 (see Figure 19.7-1). 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 (see Figure 19.7-2). To its rear between the SHS and existing MTS is a conical-shaped salt storage shed that is several stories high.

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Figure 19.7-1 : View of the MTS building looking south from the site entrance. (Photo 2000)

Figure 19.7-2 : SHS facility and storage shed on western portion of the project site as viewed from Hunts Point Avenue. (Photo 2000)

Figure 19.7-1 and 19.7-2
Urban Design and Visual Quality
South Bronx Converted MTS

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19.7.1.3 Urban Design and Visual Resources of the Study Area

The area has an industrial character. Its appearance suffers from barbed-wired fences, debris and a lack of landscaping (see Figure 19.7-3). 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 (see Figure 19.7-4).

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 (see Figure 19.7-5). 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 (see Figure 19.7-6).

19.7.2 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 of the 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 19.7-3 : The terminus of Hunts Point Avenue looking southeast. (Photo 2000)

Figure 19.7-4 : Hunts Point Market and informal waterfront viewing area, looking northeast from the site. (Photo 2000)

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Figure 19.7-5 : View of southwestern portion of the site, looking toward the moored Prison Barge. (Photo 2000)

Figure 19.7-6 : View of the East River and Riker's Island looking southwest from the site. (Photo 2000)

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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.

19.7.3 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.

According to the 2001 CEQR Technical Manual, an impact area should be drawn around the site to encompass the maximum project shadow in order to determine if any sensitive resources nearby might be affected, and consequently, if a full shadow impact assessment were warranted. (This shadow impact area is calculated by multiplying the height of the proposed structure by 4.3 to estimate its longest possible shadow.) If this site were chosen and a noise wall used as the preferred mitigation, a supporting analysis would be conducted.

A survey was conducted within this 430-foot area and found that there were no parks, publicly-accessible open spaces, historic resources or important natural features; therefore, no assessment of shadows was deemed necessary and no shadow impact is expected as a result of the proposed project.

19.8 Neighborhood Character

19.8.1 Existing Conditions

19.8.1.1 Definition of the Study Area

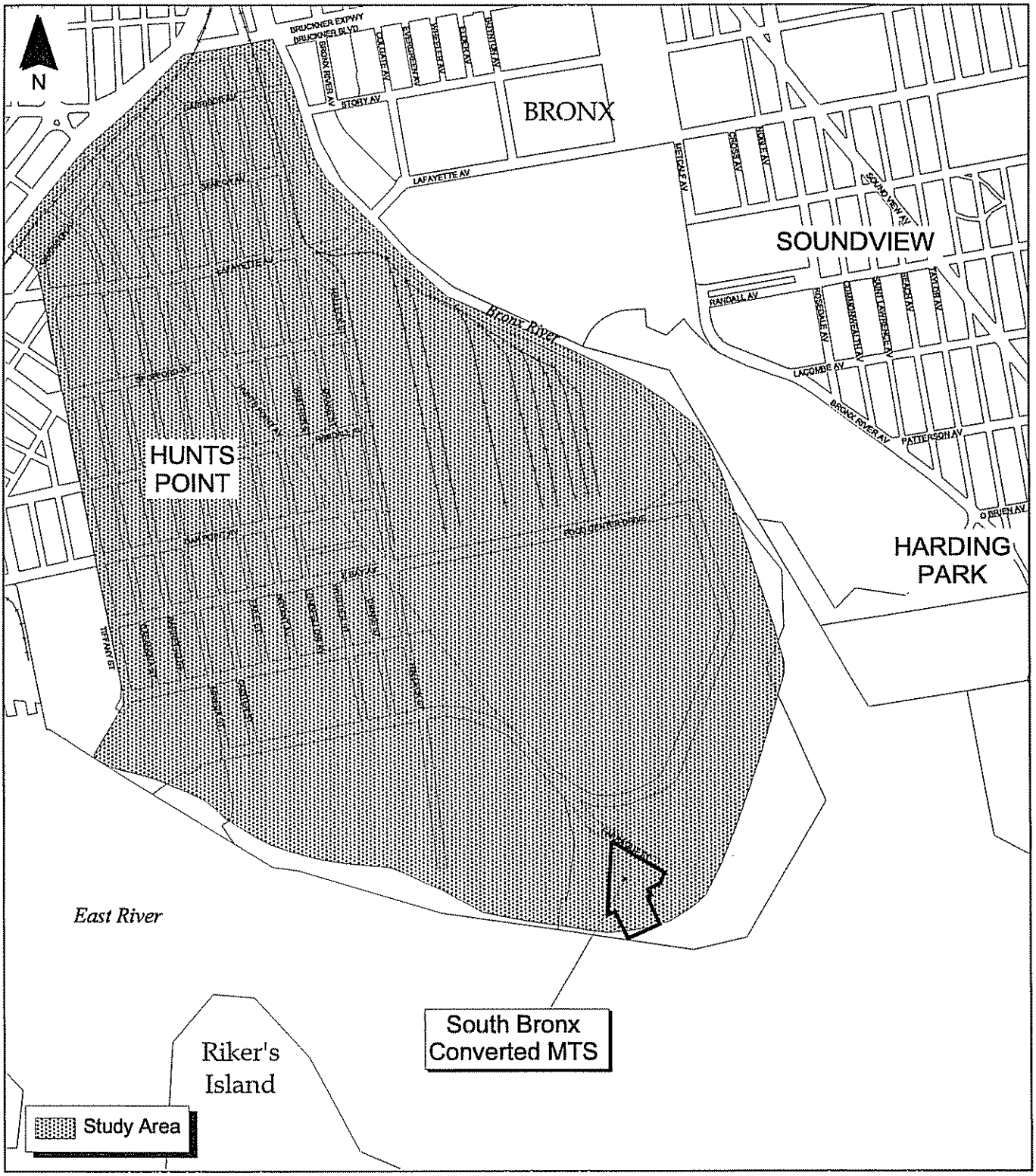
The neighborhood character study area for the site is defined by the predominantly industrial land use and visual quality, which are the two major factors contributing to the neighborhood character of the site and surrounding properties. Additionally, traffic patterns contribute to the definition of 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 (see Figure 19.8-1).

19.8.1.2 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

1000 0 1000 Feet

Figure 19.8-1 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 the 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 towards 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.

19.8.2 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 19.2, 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.

19.8.3 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 19.5, Open Space, the Tiffany Street Pier and Barretto Point 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 that would result from the South Bronx Converted MTS (Sections 19.14, 19.15 and 19.16).

Significant facility-generated noise impacts are predicted at the prison barge (approximately 400 feet away). These impacts, as described in Section 19.17 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.

19.9 Natural Resources

19.9.1 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.

19.9.1.1 Definition of Study Area

The study area includes the site and the waterfront section that is bounded by the East River to the south (see Figure 2.4.1-1). The upland sections of the study area and the surrounding neighborhood are completely developed and, therefore, have very limited terrestrial natural resources. Because Future Build Conditions would include dredging of bottom sediments and construction of a new MTS, a description of aquatic communities is included.

19.9.1.2 Geology

Based on August 1, 1995, boring data collected from within or directly adjacent to the proposed MTS site, the depth to bedrock at the site is roughly 15 to 51 feet below the existing grade. The borings ranged from 23 to 67 feet in depth. Geologic strata was encountered that had the following characteristics. Organic soil was encountered at ground surface and ranged from 2 to 8 feet in thickness. Below the organic soil, silty sand was present and ranged from 11.8 to 48 feet thick. The bedrock was encountered below the silty sand. Sediment grain size was 61% silt and clay, 22% sand and 17% gravel. The sediment was somewhat degraded due to contaminants in the sample material. Lead (approximately 71 mg/kg) and barium (approximately 64 mg/kg) had the highest metal concentrations in the sediment, followed by chromium and arsenic.

19.9.1.3 Floodplains

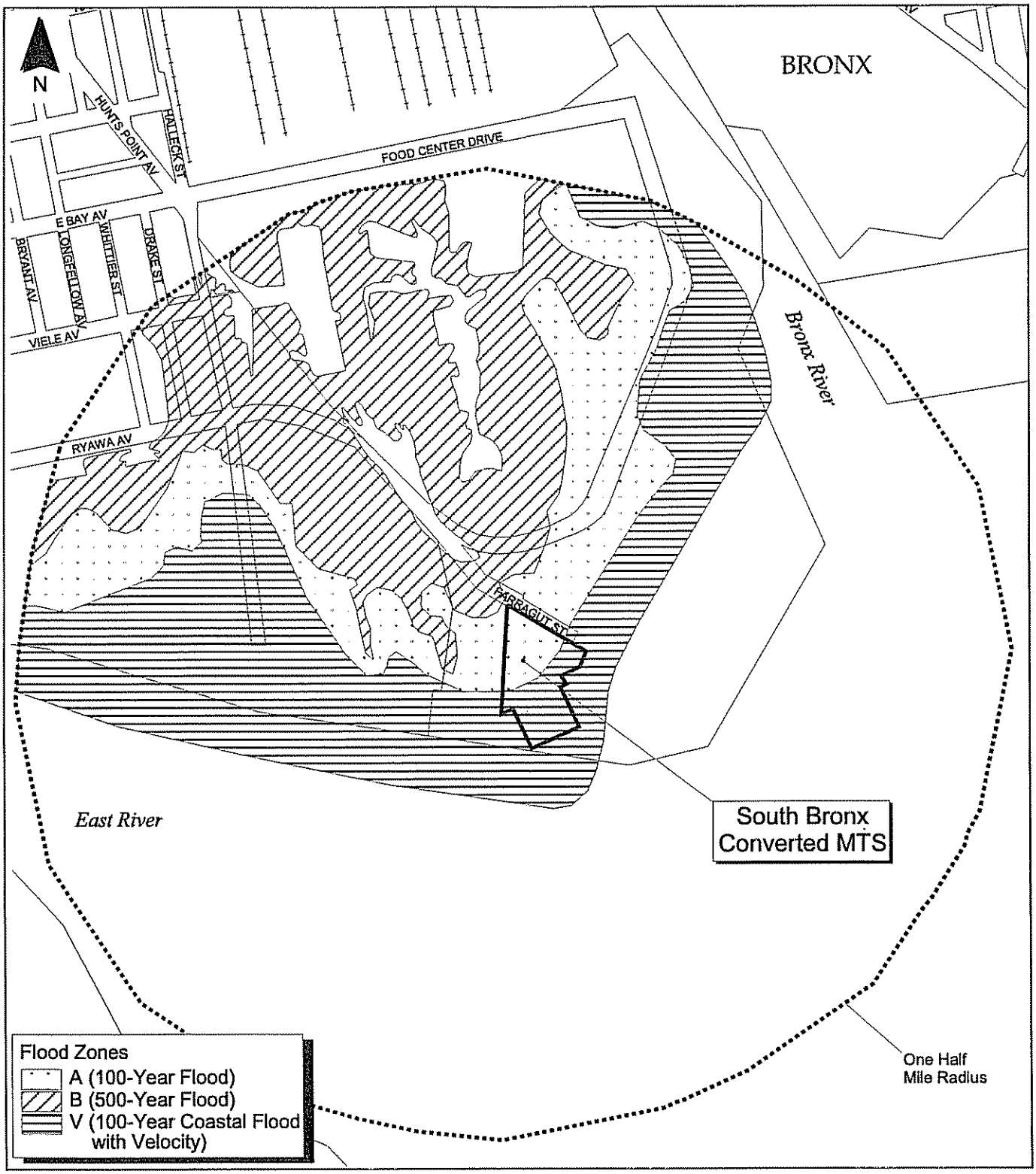
The site is constructed within the 100-year coastal floodplain (see Figure 19.9-1). There are no wetlands in the study area other than the East River, which is a NYSDEC-designated littoral zone (see Figure 19.9-2).

19.9.1.4 Ecosystems

The existing MTS is located on a platform linked to the south shore of the Bronx by a causeway. 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 within the study area is consistent with that of an urban vacant lot, as classified by Reschke[5] (see Figure 19.9-3).

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 one-year survey of the marine habitat surrounding the South Bronx Converted MTS provided information on the baseline marine communities surrounding the MTS in 2003. This MTS was determined to be one of the most biologically productive MTSs sampled. The benthic and megainvertebrate communities and finfish egg diversity were all among the highest of the MTSs sampled. *Dyspanopeus sayi*, a mud crab unable to survive in low dissolved oxygen conditions, was also present at the South Bronx Converted MTS. Additionally, six adult and two larval EFH-listed finfish species were identified at the South Bronx Converted MTS.

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



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

500 0 500 Feet

HDR HydroQual URBITRAN PB EEA Cambridge Environmental Inc

Figure 19.9-1 Floodplains

South Bronx Converted MTS

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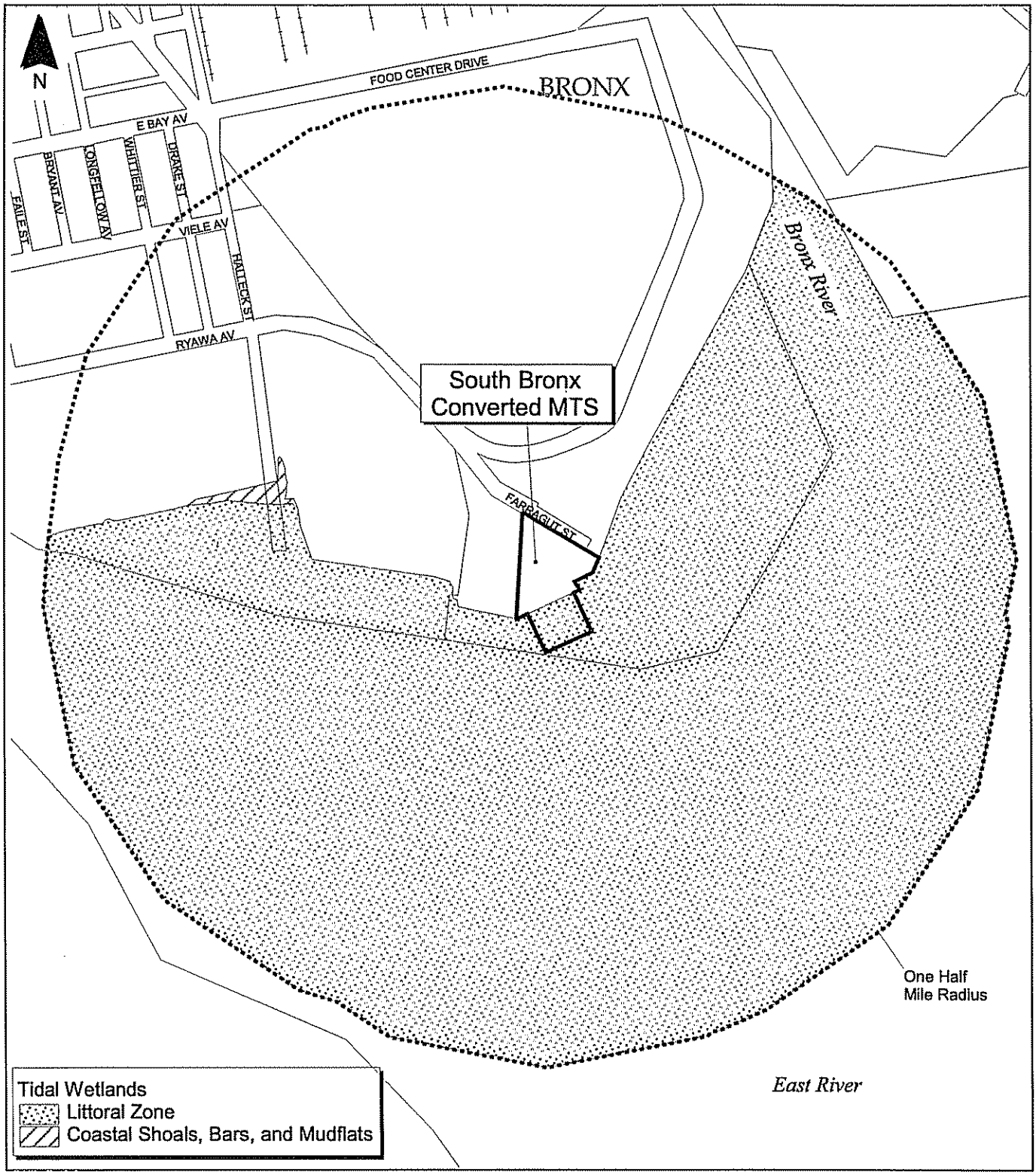

Site delinations and study area boundaries are approximate
Base Map Source: New York City Department of Planning

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HDR HydroQual URBITRAN PB EEA Cambridge Environmental Inc

Figure 19.9-2 Wetlands

South Bronx Converted MTS

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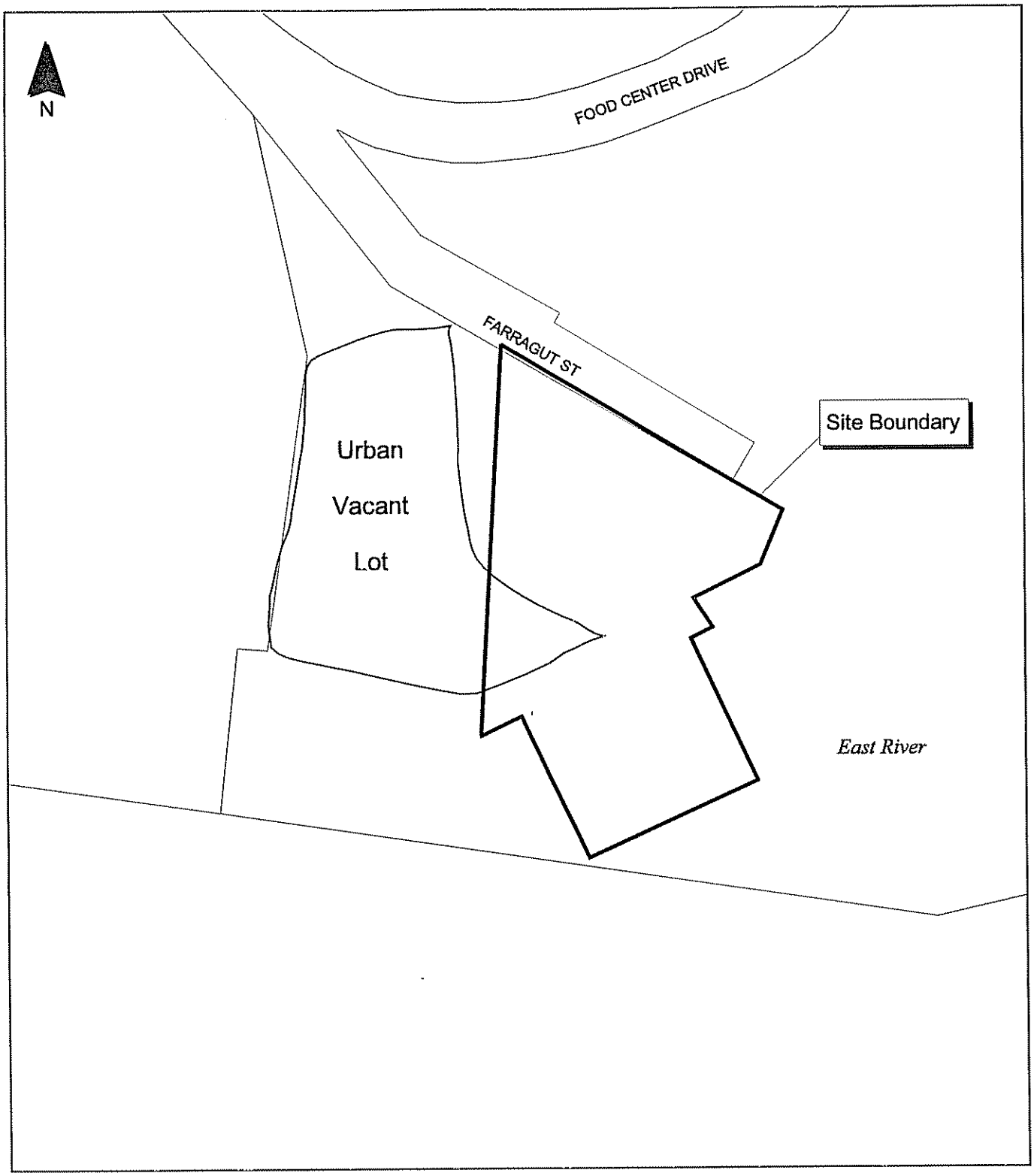

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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HDR URBITRAN EEA Hydroqual PB Cambridge Environmental Inc

Figure 19.9-3 Vegetative Cover
South Bronx Converted MTS
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A total of 95 finfish were collected during the year, with bay anchovy (*Anchoa mitchilli*) and Atlantic butterfish (*Peprilus triacanthus*) as the most abundant.[6] The South Bronx Converted MTS had the lowest total adult finfish catch of all the MTSs sampled; however, six species that have EFH designated in the waters surrounding the MTS were collected: Atlantic butterfish (*P. triacnathus*), summer flounder (*Paralichthys dentatus*), winter flounder (*Plueronectes americanus*), Atlantic herring (*Clupea harengus*), bluefish (*Pomatomus saltatrix*) and windowpane (*Scophthalmus aquosus*). Atlantic menhaden (*Brevoortia tyrannus*), cunner (*Tautogolabrus adspersus*) and fourbeard rockling (*Enchelyopus cimbrius*) were the most abundant finfish eggs collected, and Atlantic menhaden, winter flounder and goby spp. (*Gobiosoma* spp.) were the most abundant finfish larvae collected. Eggs and larvae of EFH-listed windowpane and winter flounder were also found here. A Jaccard's Index[7] indicated the South Bronx Converted MTS to have the most finfish eggs and larvae in common with the other MTSs.

The portly spider crab (*Libinia emarginata*), horseshoe crab (*Limulus polyphemus*), colonial plumose anemone (*Metridium senile*) and sevenspine bay shrimp (*Crangon septemspinosa*) were the most abundant megainvertebrates collected at the South Bronx Converted MTS. The numerically dominant benthic invertebrates collected were worms: *Streblospio benedicti*, Oligochaeta and Cirratulidae. These worms are tolerant of polluted environments. A Shannon-Weaver Index[8] indicated the South Bronx Converted MTS to have the second highest benthic species diversity and a Jaccard's Index indicated that the South Bronx Converted MTS had the least number of benthic species in common with the other MTSs. Amphipods – *Jassa falcata*, *Corophium insidiosum* and Stenothoidae – were the numerically dominant epibenthic colonizers at South Bronx Converted MTS. *Molgula manhattensis* (the sea squirt) and hydrozoa, mud and algal film were also abundant. Many of these species are pollution tolerant.

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[6] New York City Department of Sanitation, March 2004. Marine Biological Studies of the Marine Transfer Stations Operated by the New York City Department of Sanitation. Prepared by EEA, Inc.

[7] A Jaccard's Index is a statistical test that shows the similarity of organisms present at compared MTSs. It shows the proportion of the number of species observed in either of two MTSs that occurred in both MTSs. The index ranges from zero to one. An index of zero means that the MTSs are completely dissimilar and have no species in common. An index of one means the MTSs have all the same species.

[8] The Shannon-Weaver Index is a measure of community diversity. If an individual of the community is selected at random, the index gives a measure of the uncertainty that the selected individual will be of a particular species. The higher the index, the more diverse the community.

The east side of this facility had the greatest diversity of adult finfish, megainvertebrates, finfish larvae and benthic invertebrates. The metal concentrations were highest in sediment from this side of the South Bronx Converted MTS, but the dominant benthic community is highly pollution tolerant. The diversity of species associated with the community on the east side of this MTS is most likely influenced by submerged structures. During sampling events, the otter trawl used to sample for adult finfish often became entangled with debris on the seafloor on the east side of the South Bronx Converted MTS. This debris provides structure upon which encrusting organisms settle, which in turn provides food and shelter for finfish and megainvertebrates. Tautog (Tautoga onitis) was also collected in gill nets at the South Bronx Converted MTS, a species that is associated with reefs and submerged structure. A mini "reef effect" was probably occurring as submerged structure is highly attractive to many species of marine organisms.

According to the USF&WS 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 USF&WS. Also, current data specific to the site indicate that there are no barn owls on the site.

19.9.2 Future No-Build Conditions

If the South Bronx Converted MTS were not to be built, 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.

19.9.3 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 25,037 square feet 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 re-suspension 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 re-suspended 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. The following paragraphs will discuss the possible impacts.

19.9.3.1 Geology

The geology of the study area would not be changed other than by the removal of dredge material to accommodate the barges and tugboats. The dredging activity would remove layers of sediments deposited over time and further alter the submarine ecological features of the study area, but would not result in any significant impact.

19.9.3.2 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 would not include any provisions for raising any portion of the study area over and above this level.

19.9.3.3 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 benthic invertebrates in the area. Because the benthic diversity is high and marine construction causes turbidity and siltation that could smother the benthic organisms, the short-term degree of impact is expected to be high. However, recolonization of the area by benthic invertebrates can be expected to occur within 6 to 12 months after cessation of dredging activities.[9] 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 overall impact to the benthic community is expected at the South Bronx Converted MTS. The removal of the existing platform will also remove the existing epibenthic community; however, the new expanded platform will result in more surface area for epibenthic communities to colonize the site. This would positively affect the epibenthic communities at the South Bronx Converted MTS.

The pile-driving and dredging activity during the construction will cause adult finfish to avoid the site. Fish in the herring family are most sensitive to the suspended sediment and noise from construction, and flatfish (flounders) are least sensitive. Flounder catch was much higher at the South Bronx Converted MTS than herring catch, so it can be assumed that this site is not an important herring habitat that will be temporarily impacted. Finfish eggs and larvae are more sensitive to suspended sediment and those that settle to the harbor floor may be smothered by sediment. Swift currents may sweep eggs and larvae past the construction site, but the short exposure time should not significantly harm the ichthyoplankton. Also, larvae will be able to swim away from the impacted environments. Winter flounder eggs were found at the South Bronx Converted MTS, but construction impacts are expected to be negligible.

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[9] U.S. Army Corps of Engineers, 1999. The New York District's Biological Monitoring Program for the Atlantic Coast of New Jersey, Asbury Park to Manasquan Section Beach Erosion Control Project, Draft. Phase II-III. During Construction and 1st Year Post-Construction Studies.

Operational impacts will last the entire lifespan of the facility. The major impact is the footprint of the pier over water. The proposed plan for the South Bronx Converted MTS is for an increase in 25,037 square feet of pier. This will result in increased shading that will block sunlight and hinder primary production. The enlarged platform, however, will not adversely impact the ichthyoplankton, benthic, epibenthic or adult finfish communities. 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.[10] Epibenthic communities will have a larger surface area to colonize, and finfish should return to the area with the return of food sources.

Experts have differing opinions regarding the effects of shading on finfish. Studies conducted by Energy and Environmental Analysts, Inc. (EEA) in the late 1980s showed similar finfish communities in the interpier and underpier environments in a large-scale program on the East River. There were, however, slight differences in the dominant finfish in the populations. Studies by Able *et al.* showed caged juvenile winter flounder (*Pseudopleuronectes americanus*) to have depressed feeding on the benthos beneath piers as compared to feeding activity alongside and between piers.[11] Able's studies are controversial, however, because the fish were caged, and this may impact the results of the study. Some fish are even known to associate with submerged structures, as they provide shelter and surfaces for food to grow. While the field tests appear to be contradictory, there is no doubt that finfish inhabit at least the interface of platforms. However, because the increase in shading over water is very small, there are not expected to be significant deleterious results. There is a possibility of a slight shift in the finfish community with the addition of over-water pier coverage; however, because finfish are transient, this shift may be hard to measure.

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.

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[10] Hudson River Center Site Aquatic Environmental Study Final Report, 1988. Prepared for New York City Public Development Corp. by EEA, Inc.

[11] 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.

19.10 Hazardous Materials

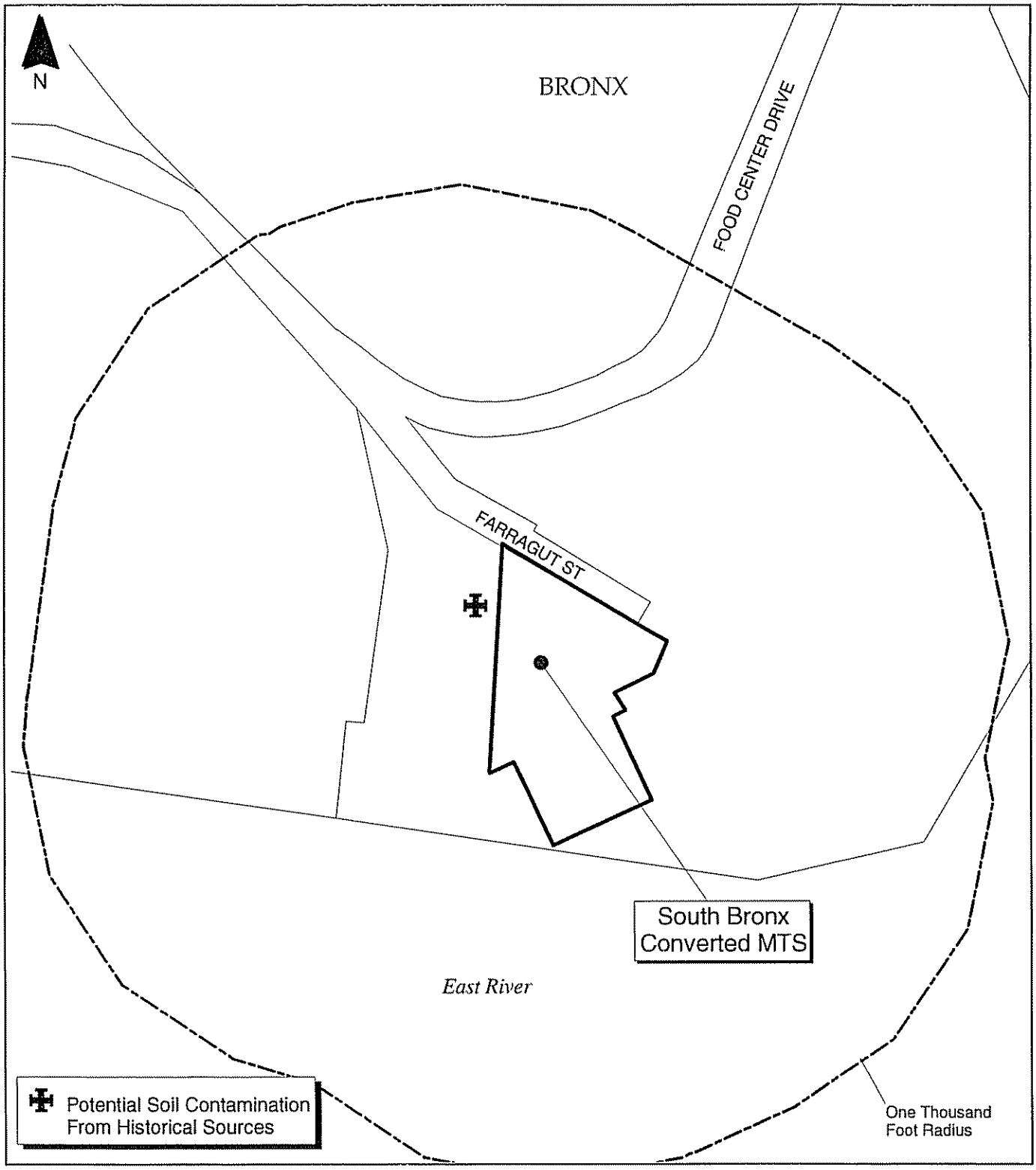
19.10.1 Existing Conditions

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 2001 CEQR Technical Manual (October 2001) and is consistent with the requirements for a Phase I ESA established by the ASTM (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 FDNY for UST 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.

19.10.1.1 Definition of Study Area

The study area includes the site and neighboring properties within a 1,000-foot radius (see Figure 19.10-1).



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

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HDR | HydroQual | URBITRAN | PB | EEA Cambridge Environmental Inc

Figure 19.10-1 Hazardous Materials Sites

South Bronx Converted MTS

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19.10.1.2 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 National Priorities List (NPL) for cleanup under Superfund. The coking station site was assigned a No Further Remediation Action Planned (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 that 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.

19.10.2 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.

19.10.3 Potential 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.

19.11 Water Quality

19.11.1 Existing Conditions

19.11.1.1 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.

19.11.1.2 Water Quality

The water quality data for the following monitoring stations, shown in Figure 19.11-1, 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[12] off Hunts Point, in the East River.

These data, along with NYSDEC water quality standards and guidance values, are presented in Table 19.11-1. 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 19.11-1, 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 E-14, 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 Hunts Point did not conform to the water quality standard for mercury.

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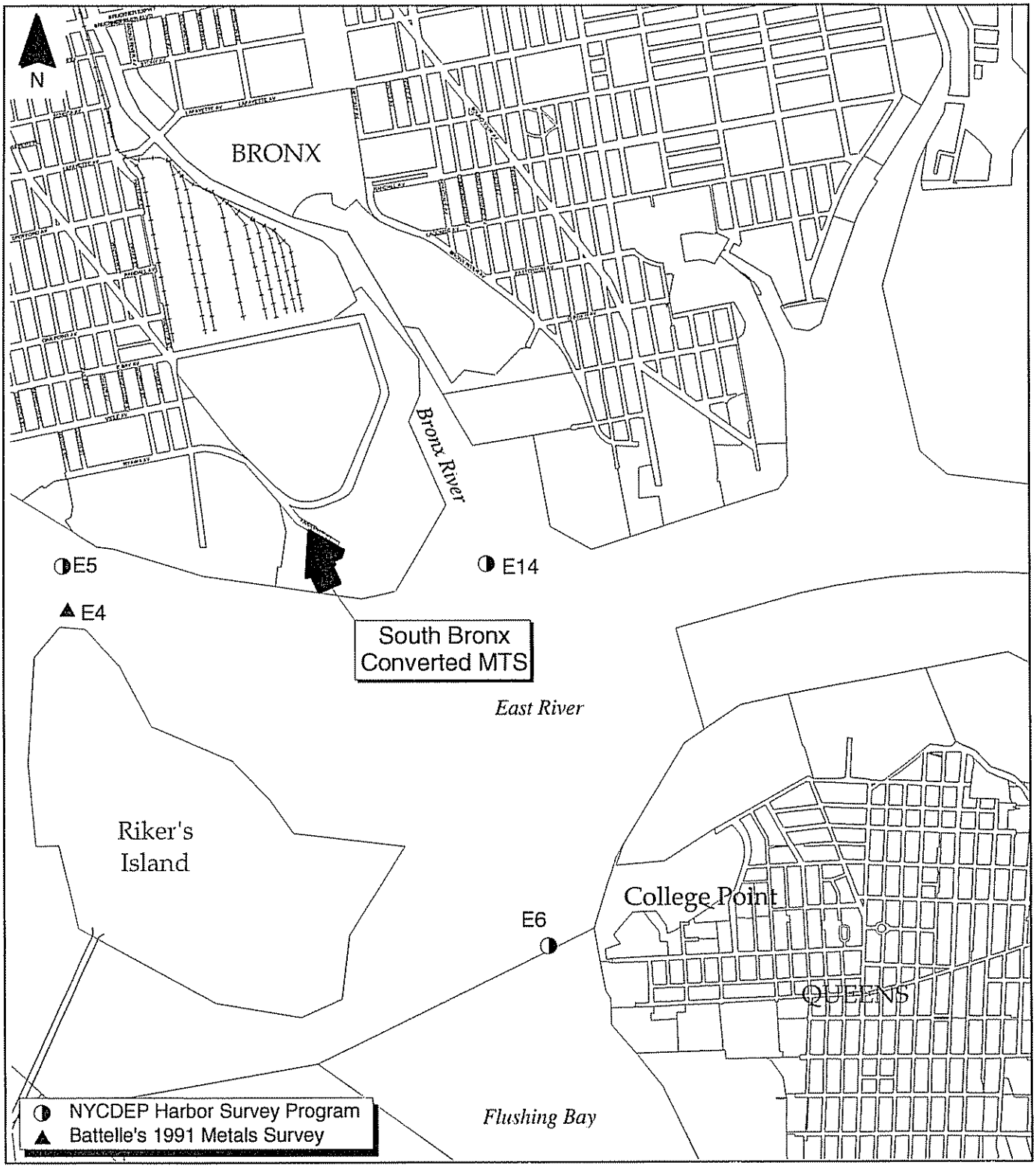
[12] Stations E-4T and E-4B are located at the same longitude and latitude off Hunts Point. Station E-4T is located at the surface of the East River. Station E-4B is located at the bottom of the East River.



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

1000 0 1000 Feet

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Figure 19.11-1 Ambient Water Quality Stations

South Bronx Converted MTS

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Table 19.11-1
Existing Water Quality Conditions and Standards
South Bronx Converted MTS Study Area

Parameter	Units	Average Concentration					
		Station E-5[1]	Station E-6[2]	Station E-14[3]	Station E-4T[4]	Station E-4B[5]	NYS Class I Standards
Dissolved Oxygen (surface/minimum)	mg/L	5.24 [6]/4.2 [7]	6.7 [8]/3.2 [9]	7.0.[8]/3.4[9]	-------	-------	4.0
Dissolved Oxygen (bottom/minimum)	mg/L	5.2 [6]/4.1 [7]	6.6 [11]/3.0 [9]	6.5[10]/3.2[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	57	105	-------	-------	2,000
Fecal Coliform (bottom)	MF	38 [14]4	96 [14]	63[14]	-------	-------	2,000
Total Suspended Solids (surface)	mg/L	6	10	11	-------	-------	-------
Total Suspended Solids (bottom)	mg/L	10	16	13	-------	-------	-------
NH_3-N	mg/L	0.41	0.524	0..461	-------	-------	-------
(NO_3 + NO_2)	mg/L	0.318	0.364	0.348	-------	-------	-------
Total Phosphorous	mg/L	0.364 [15]	0.195	0.184	-------	-------	-------
Dissolved PO_4	mg/L	-------	-------	-------	-------	-------	-------
Chlorophyll-a	µg/L	2.7	3.1	5.7	-------	-------	-------
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:

[1] Average concentrations for 2000 NYCDEP Harbor Survey Station E-5, located at Barretto Point.

[2] Average concentrations for 2003 NYCDEP Harbor Survey Station E-6, located in Flushing Bay.

[3] Average concentrations for 2003 NYCDEP Harbor Survey Station E-14, located in the Bronx River.

[4] Average concentrations for 1991 Battelle Ambient Survey Station E-4T, located off Hunts Point on the surface of the East River.

[5] Average concentrations for 1991 Battelle Ambient Survey Station E-4B located off Hunts 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 January and December 2003.

[9] Minimum between June 1, 2003 and September 30, 2003.

Notes for Table 19.11-1 (continued):

(10) Represents average between March and December 2003.
(11) Represents average between January and December 2003.
(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 New York/New Jersey Harbor.

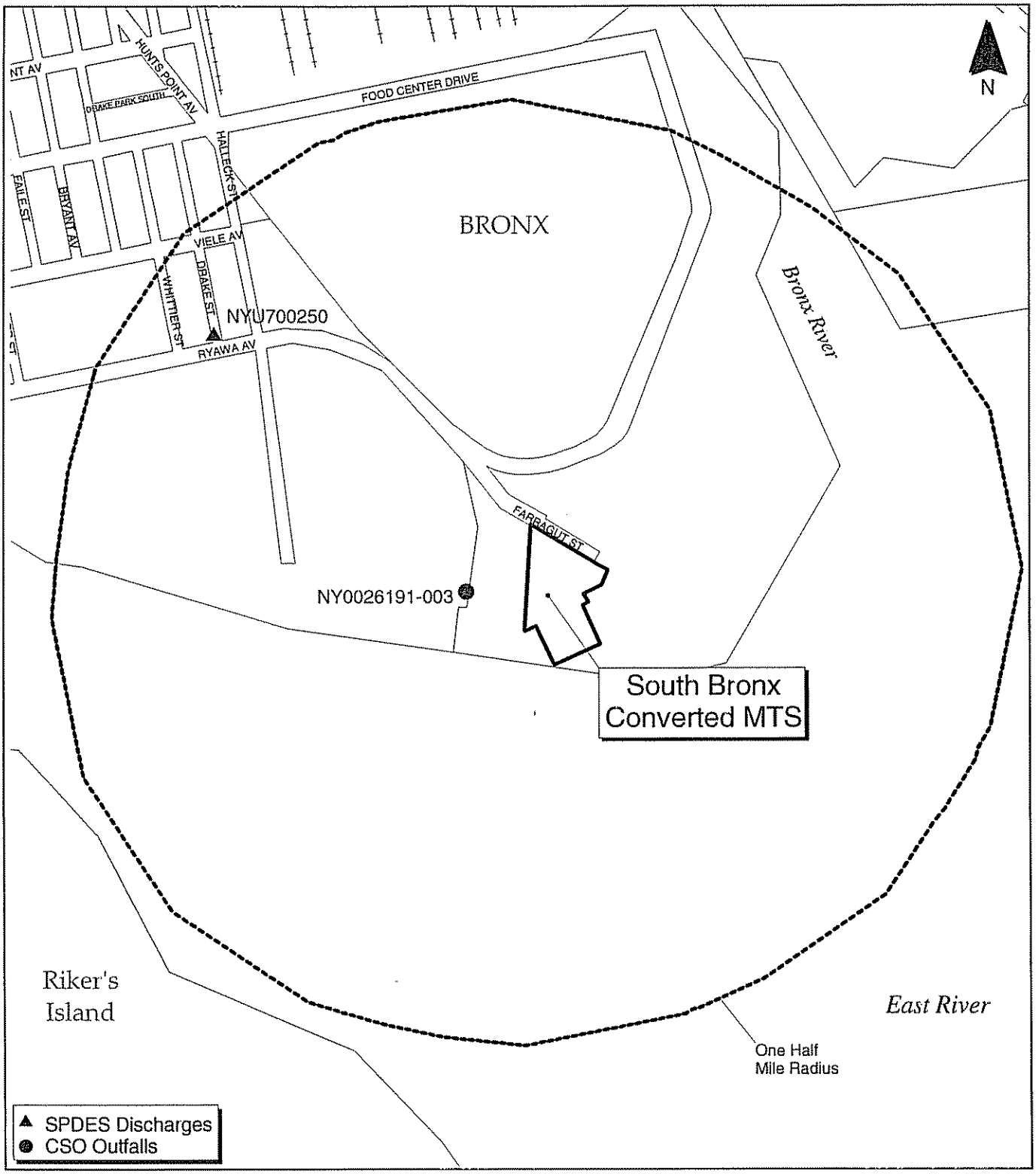
BOD = biochemical oxygen demand
NH_3-N = ammonia
NO_3 = nitrate; NO_2 = nitrite
PO_4 = phosphate
mg/L = milligrams per liter
MPN/100 ml = most probable number per 100 milliliters
MF = membrane filter
µg/L = micrograms per liter

19.11.1.3 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 19.11-2 and are listed in Table 19.11-2.

19.11.1.4 Existing Pollutant Loads and Stormwater Runoff

Using available databases on stormwater pollutant concentrations and local precipitation data, an estimate of existing stormwater pollutant loadings was calculated. The existing paved areas were assumed to be completely impervious, and the existing unpaved areas were assumed to have 100% 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 19.11-3, represent the existing loads at the site.



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

500 0 500 Feet

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Figure 19.11-2 Permitted Outfalls and CSO Locations South Bronx Converted MTS

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Table 19.11-2
Existing Permitted Discharges
South Bronx Converted MTS Study Area

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

Table 19.11-3
Estimated Existing Pollutant Loads and Runoff Flows
South Bronx Converted MTS Study Area

Pollutant	Concentration	Pollutant Loading (lbs/day)
Fecal Coliform MPN/100 ml	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. Loading comparable to MPN/100 ml.
(2) Based on Central Park Rain Data (1969-2002); The National Climatic Data Center.

19.11.2 Future No-Build Conditions

Water quality would be expected to remain the same or improve. Water quality improvements would be due to the ongoing water improvement programs such as the NYCDEP CSO Abatement Program, which will reduce untreated discharges to the receiving waterways; nitrogen removal activities, which will reduce nitrogen loads from City WPCPs; and other programs. Stormwater loads from the existing site would not be expected to change, so no significant water quality impacts would be expected.

19.11.3 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 19.11-4 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 be treated prior to discharge to the East River and, therefore, would not adversely affect water quality.

Table 19.11-4
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. Loading comparable to MPN/100 ml.
NA = Not Applicable

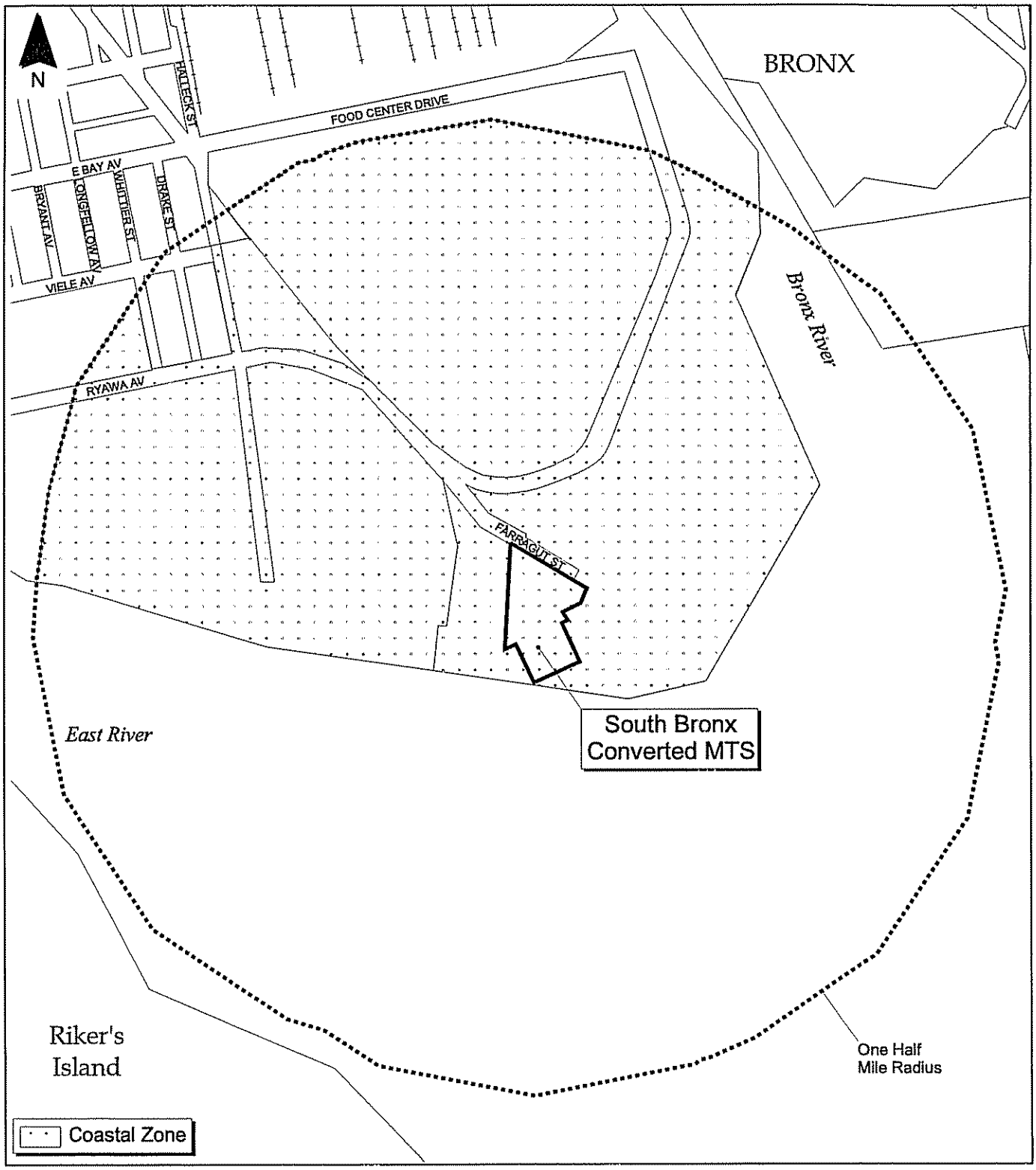
Unimpeded operation of the South Bronx Converted MTS may also require dredging to refurbish the waterfront structures and improve existing water depths in the immediate vicinity of the site. All dredging activities would be conducted in compliance with applicable federal, state and local regulations, 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.

19.12 Waterfront Revitalization Program

19.12.1 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 the City's coastal zone boundary (see Figure 19.12-1). 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 3.14-1. 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 2.4.1.



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

500 0 500 Feet

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Figure 19.12-1 Coastal Zone Boundary

South Bronx Converted MTS

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19.12.2 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 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 2.4.1, 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, dredging will 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 flat deck 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 SNWAs, Recognized Ecological Complexes, and SCFWHs, 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 19.9.1, 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 will 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 USF&WS 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 will require 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. Stormwater 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 will 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 airtight, 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 water body. 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

(6 NYCRR 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 19.5). 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 19.7.3, 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 19.7.3. 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 19.6.3. 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 19.6.3, 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.

19.13 Infrastructure, Solid Waste and Sanitation Services, and Energy

19.13.1 Existing Conditions

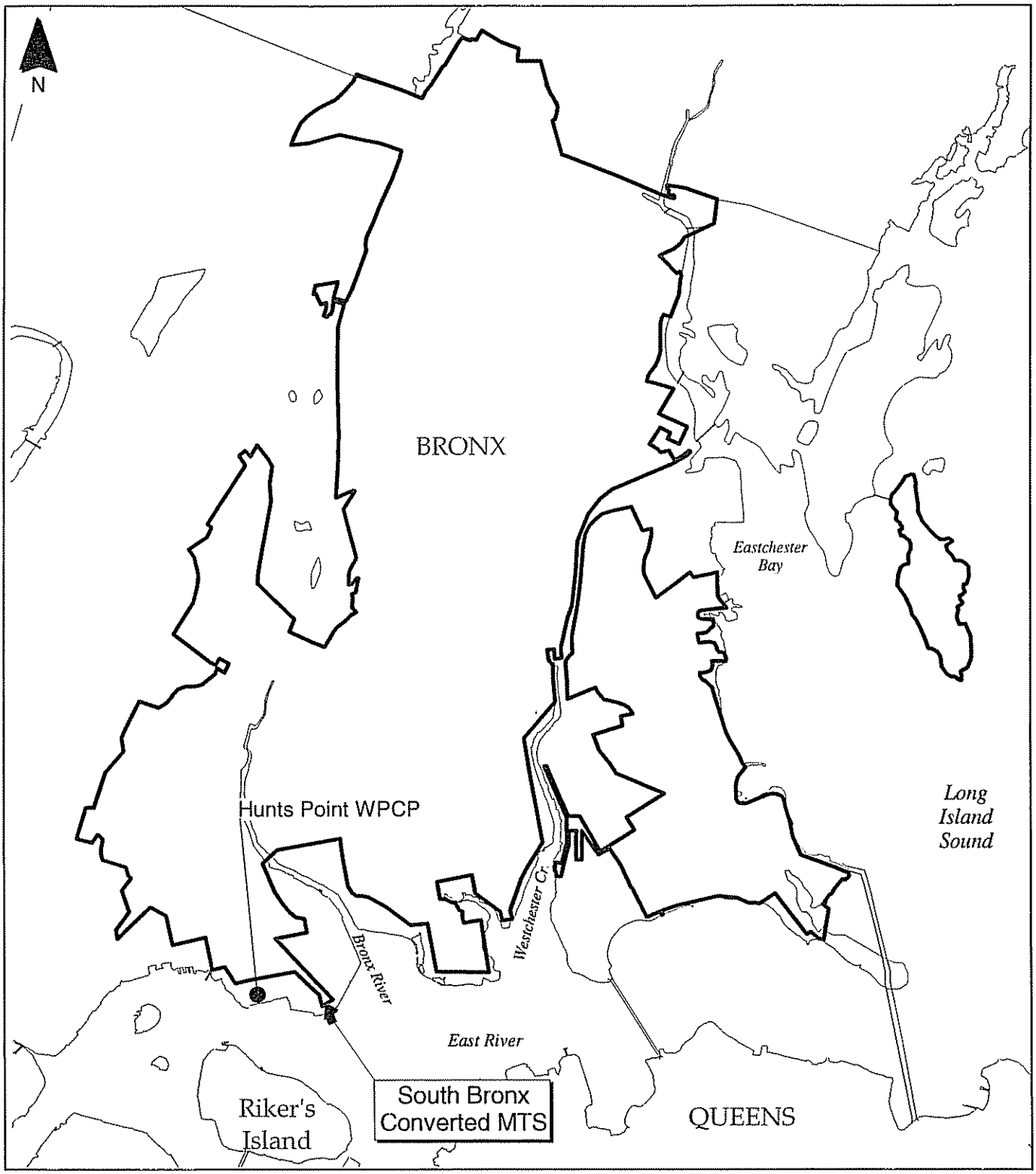
19.13.1.1 Water Supply

Water is supplied to the existing 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 psi, which is the minimum pressure acceptable for uninterrupted service (2001 CEQR Technical Manual).

19.13.1.2 Sanitary Sewage and Stormwater

A review of NYCDEP 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 19.13-1. From July 2002 through June 2003, the WPCP treated an average of 99 mgd of wastewater under dry weather flow conditions and an average flow of 114 mgd, which includes the sanitary and stromwater flows received by the WPCP during wet weather (Table 19.13-1). The maximum dry weather flow during this period was 124 mgd in June 2003 and the maximum average flow was 144 mgd during June 2003. Effluent from the plant is discharged to the East River and is regulated by NYSDEC under the 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 gpd. This estimate is based on three security employees (one guard per shift, three shifts per day) using 25 gallons per person per day (2001 CEQR Technical Manual). 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

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Figure 19.13-1 Existing WPCP Drainage Area

South Bronx Converted MTS

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Table 19.13-1
Average Monthly Dry Weather and Average Flows
Hunts Point Water Pollution Control Plant
Fiscal Year 2003

Month	Dry Weather Flow (mgd)	Average Monthly Flows[1](1) (mgd)
July 2002	94	96
August	88	100
September	92	110
October	96	116
November	98	119
December	104	119
January 2003	101	111
February	98	112
March	103	121
April	101	115
May	89	100
June	124	144
Average Effluent	**99**	**114**

Notes:
(1) -Average flow includes the sanitary and stormwater flows received by the plant during wet weather.

19.13.1.3 Solid Waste

Based on solid waste generation information from the 2001 CEQR Technical Manual, it was estimated that each employee at the MTS produces approximately nine pounds of solid waste per week for a facility total of 27 pounds per week (approximately four 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.

19.13.1.4 Energy

Consolidated Edison of New York supplies electricity and gas to the facility. As the facility is currently not operating, the existing 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.

19.13.2 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. Wastewater flows to the Hunts Point WPCP would continue to increase and would be projected to 113.5 mgd by 2006.

19.13.3 Potential Impacts with the South Bronx Converted MTS

19.13.3.1 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 1,800 gpd for truck and tipping floor washdown and dust control. The combined total usage of 3,300 gpd of potable water would represent an increase of 3,225 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.

19.13.3.2 Sanitary Sewage

Based on the estimated water usage of 3,300 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 projected wastewater flows at the WPCP would be anticipated to be approximately 113.5 mgd in 2006, which would be well below the permitted capacity of 200 mgd. In addition, the new wastewater flows due to the proposed action would not result in a significant increase in combined sewer overflows (CSO).

19.13.3.3 Solid Waste

Solid waste transfer station facility use is not cited under the solid waste generation rates provided in the 2001 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.

19.13.3.4 Energy

The South Bronx Converted MTS would require approximately 5.51E+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 was also 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 impacts on the utility.

19.14 Traffic, Parking, Transit, and Pedestrians

19.14.1 Introduction

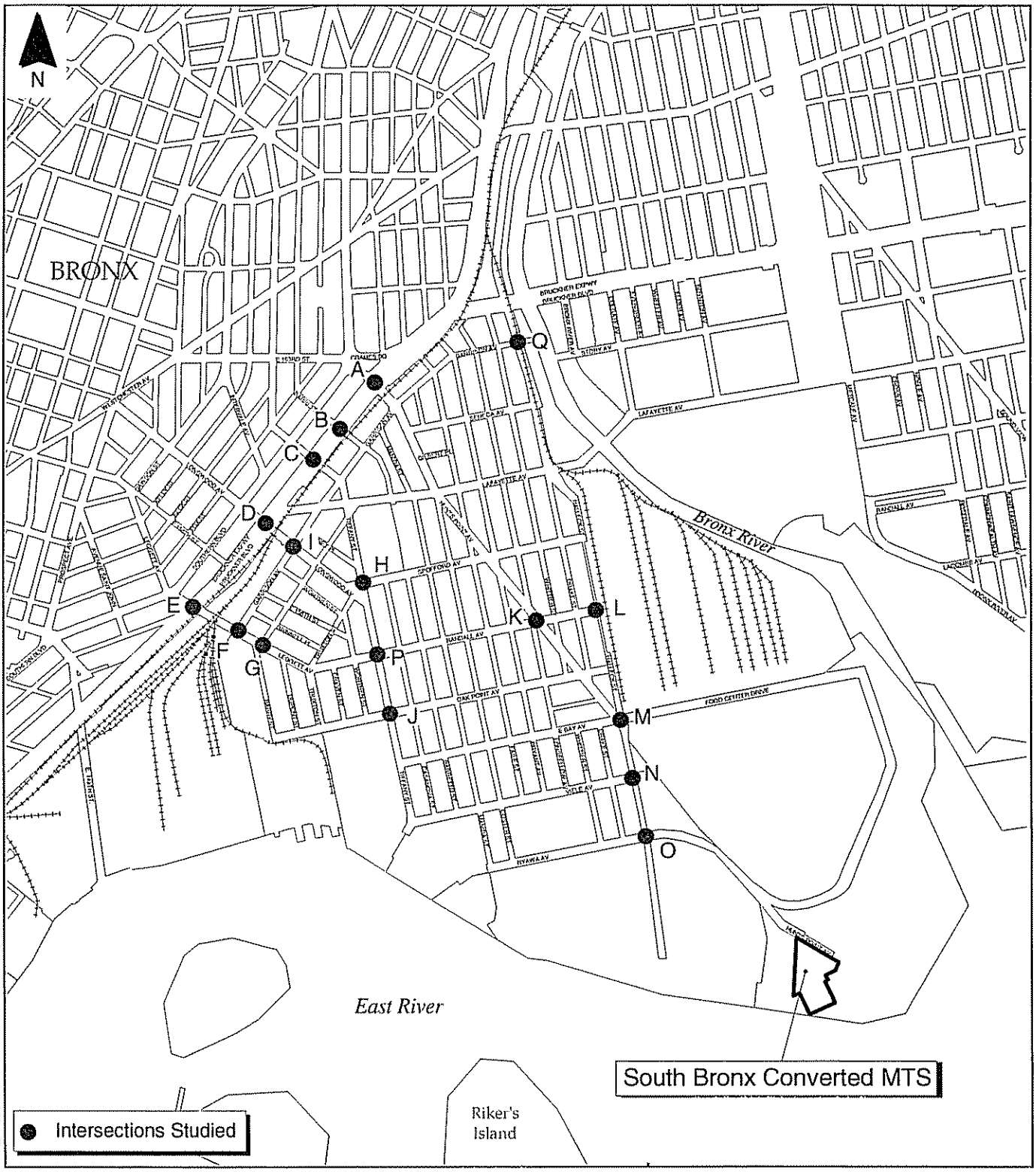
The South Bronx Converted MTS would receive waste from DSNY and other agency collection vehicles. Therefore, pursuant to CEQR guidelines, a traffic analysis was performed on the projected net increase in collection vehicles in the study area (which is defined below) and on other site-generated traffic. (See Section 3.16 for a discussion of CEQR analysis thresholds.)

19.14.2 Existing Conditions

19.14.2.1 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 19.14-1 shows the locations of the intersections selected for analysis (locations A through R). Intersections analyzed were selected using the procedures defined in Section 3.16. Section 19.14.2.2 further discusses the specific routes used by DSNY and other agency collection vehicles to access the South Bronx Converted MTS.



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

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Figure 19.14-1 Traffic Analysis Locations

South Bronx Converted MTS

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19.14.2.2 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 3.16 (see Figure 3.16-2).

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-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 by the end of 2003. These changes initially included 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. The analysis was based on these proposed modifications which were incorporated in Figure 3.16-2 and in all future truck routing considered in this analysis (not Existing Conditions). At the time of the analysis, 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 was expected to institute one-way travel westbound on Leggett Avenue (away from Bruckner Boulevard) between Southern Boulevard and Bruckner Boulevard. This modification would 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.

On July 21, 2004, the NYCDOT published the Updated Truck Routes in Hunts Point that no longer de-designated the segment of Tiffany Street from Bruckner Boulevard to Longwood Avenue and replaced it with Longwood Avenue from Bruckner Boulevard to Tiffany Street, as analyzed. The analysis presented herein will be updated in the FEIS if the South Bronx Converted MTS is included in the Proposed Plan.

DSNY and other agency collection vehicles would use Leggett Avenue and Longwood Avenue to enter the peninsula. Once on the Hunts Point Peninsula, DSNY and other agency collection vehicles would proceed to the South Bronx Converted MTS along using the a variety of different routes along the following designated truck routes: Randall Avenue, Tiffany Street, Viele Avenue, Halleck Street and Food Center Drive. All DSNY and other agency collection vehicles would turn from Food Center Drive onto Farragut Street, which is not a designated truck route, to access the South Bronx Converted MTS. Upon leaving the Converted MTS, DSNY and other agency collection vehicles would travel along the same designated truck routes as listed above, with the addition of Edgewater Street, to gain access to Bruckner Boulevard.

19.14.2.3 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 (see Figure 19.14-1 - location A)
- Bruckner Boulevard and Barretto Street - Signalized Intersection (see Figure 19.14-1 - location B)
- Bruckner Boulevard and Tiffany Street - Signalized Intersection (see Figure 19.14-1 - location C)

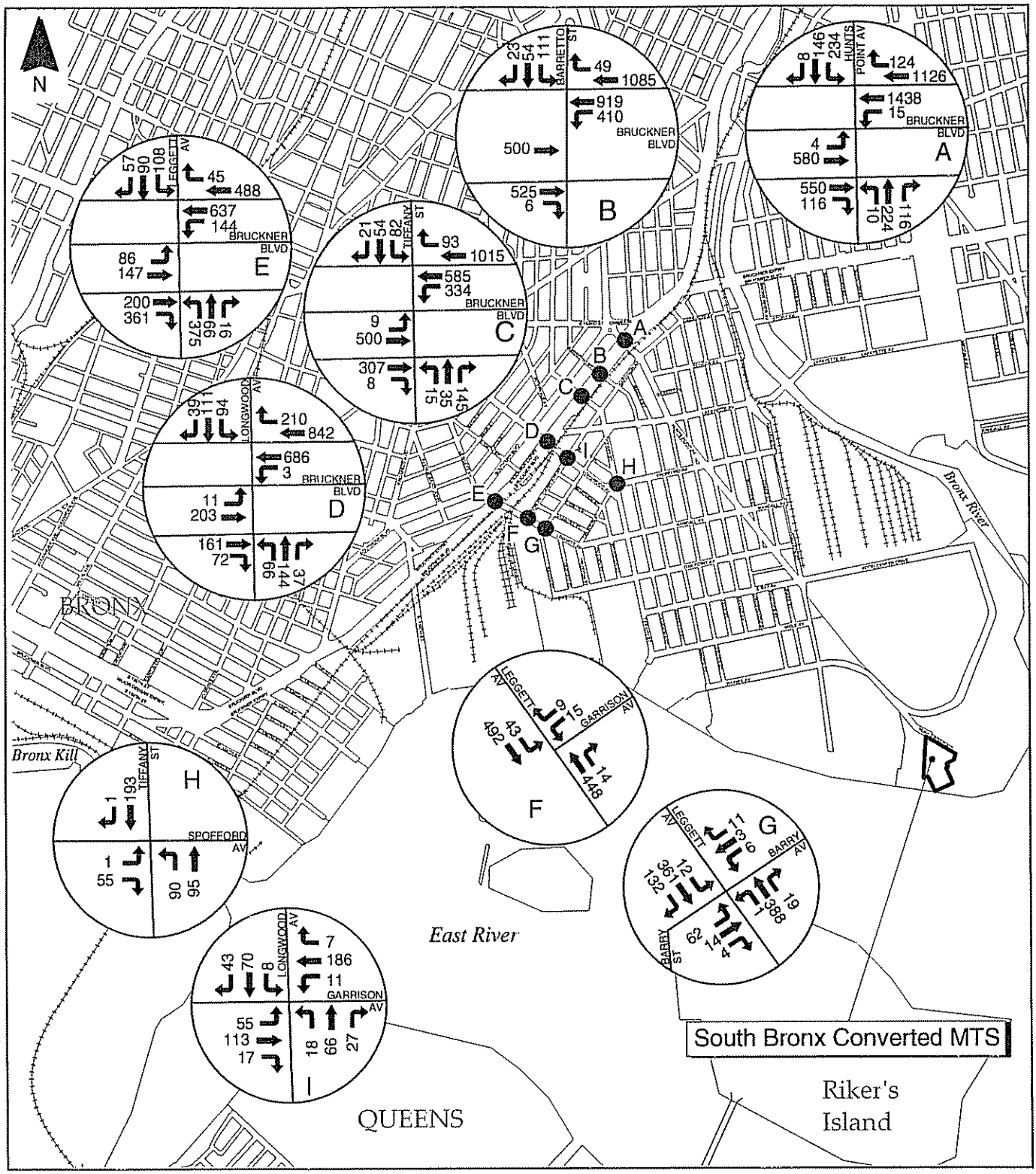
- Bruckner Boulevard and Longwood Avenue - Signalized Intersection (see Figure 19.14-1 - location D)
- Bruckner Boulevard and Leggett Avenue - Signalized Intersection (see Figure 19.14-1 - location E)
- Leggett Avenue and Garrison Avenue - Signalized Intersection (see Figure 19.14-1 - location F)
- Leggett Avenue and Barry Street - Signalized Intersection (see Figure 19.14-1-location G)
- Longwood Avenue and Garrison Avenue - Unsignalized Intersection (see Figure 19.14-1 - location H)
- Longwood Avenue and Tiffany Street - Unsignalized Intersection (see Figure 19.14-1 - location I)
- Tiffany Street and Oak Point Avenue - Signalized Intersection (see Figure 19.14-1 - location J)
- Hunts Point Avenue and Randall Avenue - Signalized Intersection (see Figure 19.14-1 - location K)
- Randall Avenue and Halleck Street - Unsignalized Intersection (see Figure 19.14-1 - location L)
- East Bay Avenue, Hunts Point Avenue and Halleck Street - Signalized Intersection (see Figure 19.14-1 - location M)
- Halleck Street and Viele Avenue - Unsignalized Intersection (see Figure 19.14-1 - location N)
- Halleck Street and Ryawa Avenue - Unsignalized Intersection (see Figure 19.14-1 - location O)
- Tiffany Street and Randall Avenue - Signalized Intersection (see Figure 19.14-1 - location P)
- Edgewater Road and Garrison Avenue - Unsignalized Intersection (see Figure 19.14-1 - location Q)
- Tiffany Street and Spofford Avenue - Unsignalized Intersection (see Figure 19.14-1 - 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 3.16 for a discussion on traffic data collection). Counts were conducted in late February 2003. Figures 19.14-2, 19.14-3, 19.14-4, 19.14-5, 19.14-6 and 19.14-7 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 19.14-1 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% of the total traffic during the AM peak and slightly less during the PM peak. Trucks and buses typically comprise 15% to 25% 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% of total traffic during the AM and Facility peak periods and dip only slightly, typically to between 20% and 30%, during the PM peak.



1500 0 1500 Feet

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

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Figure 19.14-2 Existing Traffic Volumes - AM Peak

South Bronx Converted MTS

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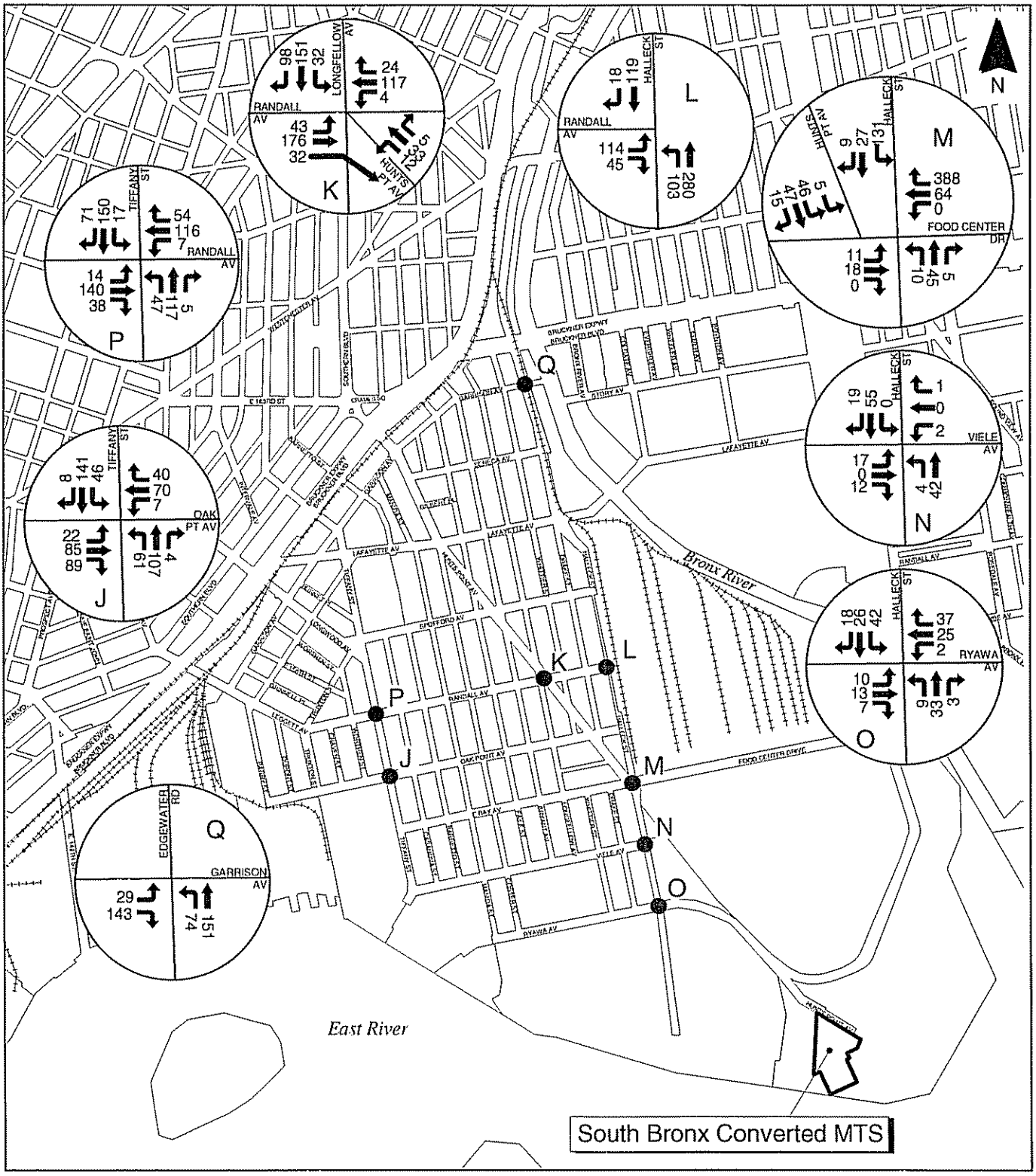

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 19.14-3 Existing Traffic Volumes - AM Peak

South Bronx Converted MTS

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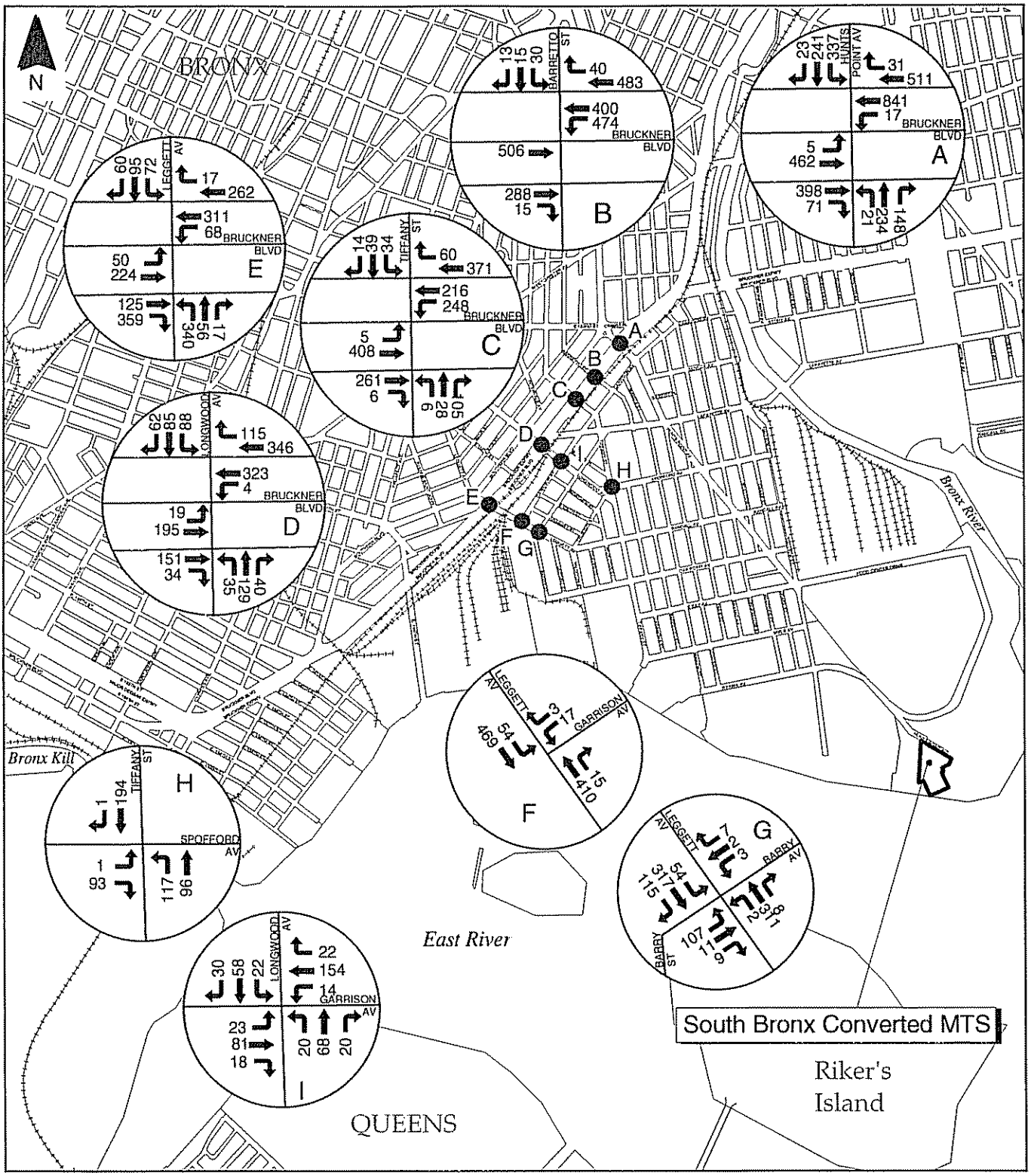

Site delineations are approximate
Base Map Source: New York City Department of City Planning

Figure 19.14-4 Existing Traffic Volumes
Facility Peak
South Bronx Converted MTS

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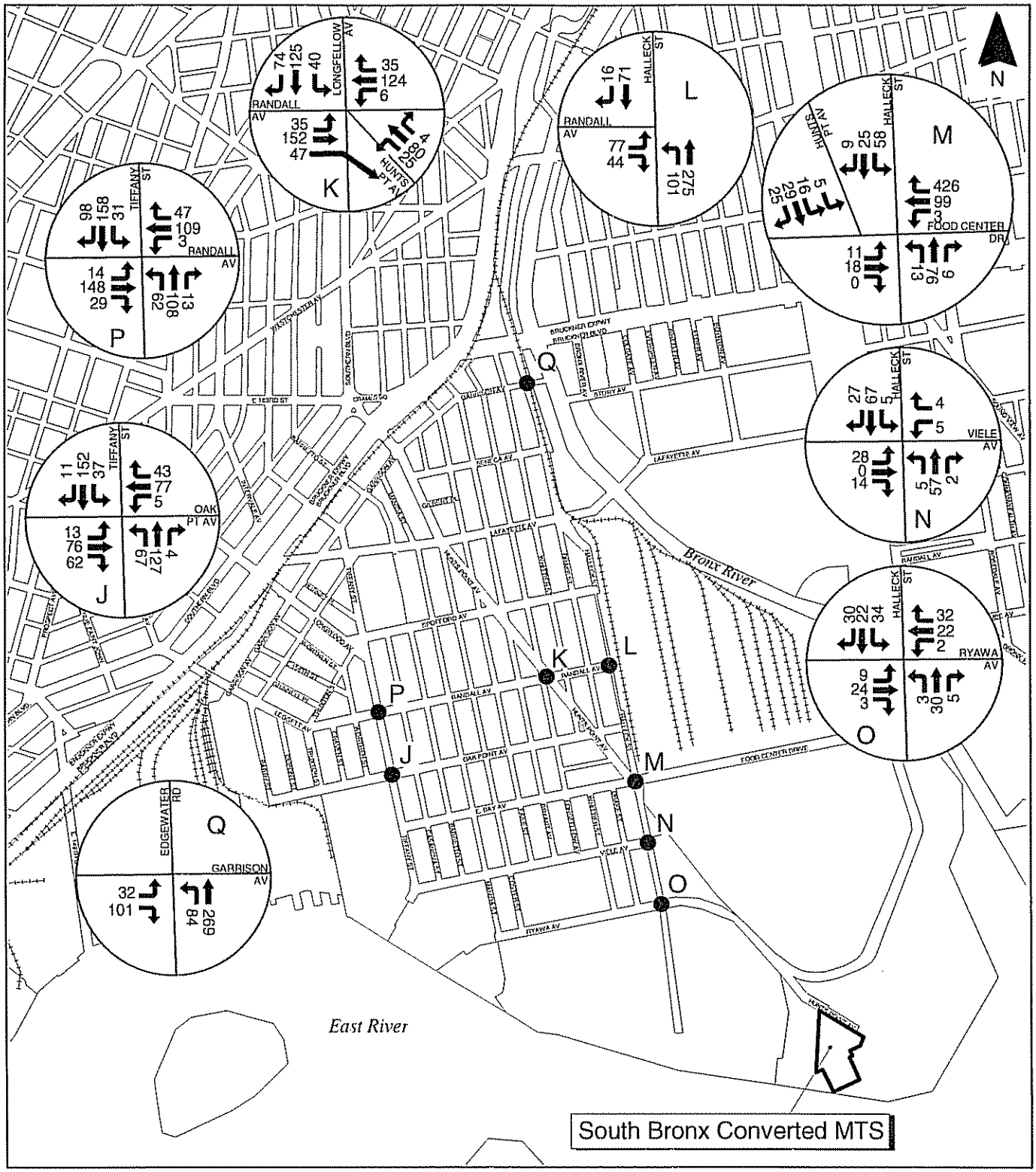

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 19.14-5 Existing Traffic Volumes
Facility Peak
South Bronx Converted MTS

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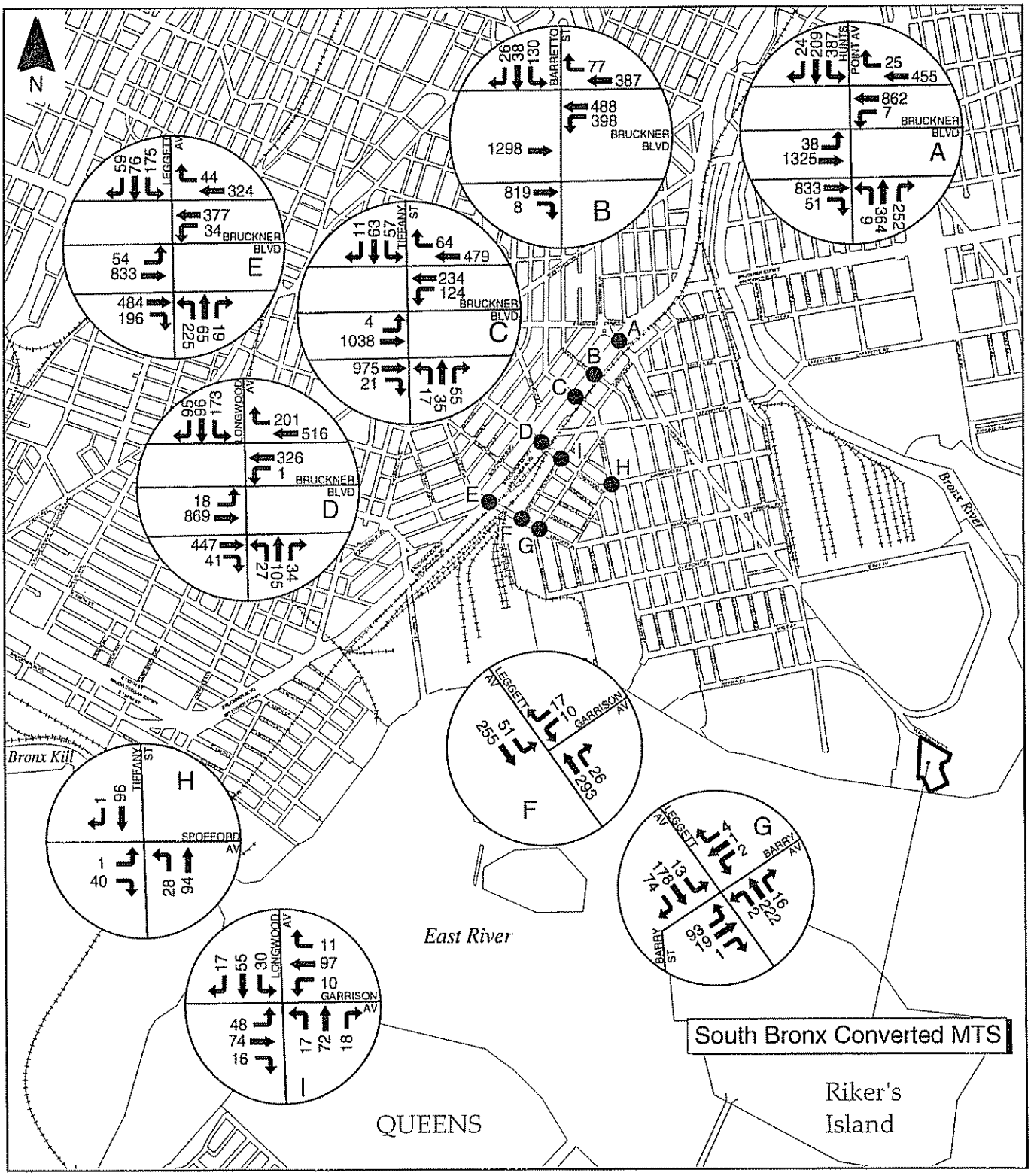

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 19.14-6 Existing Traffic Volumes - PM Peak

South Bronx Converted MTS

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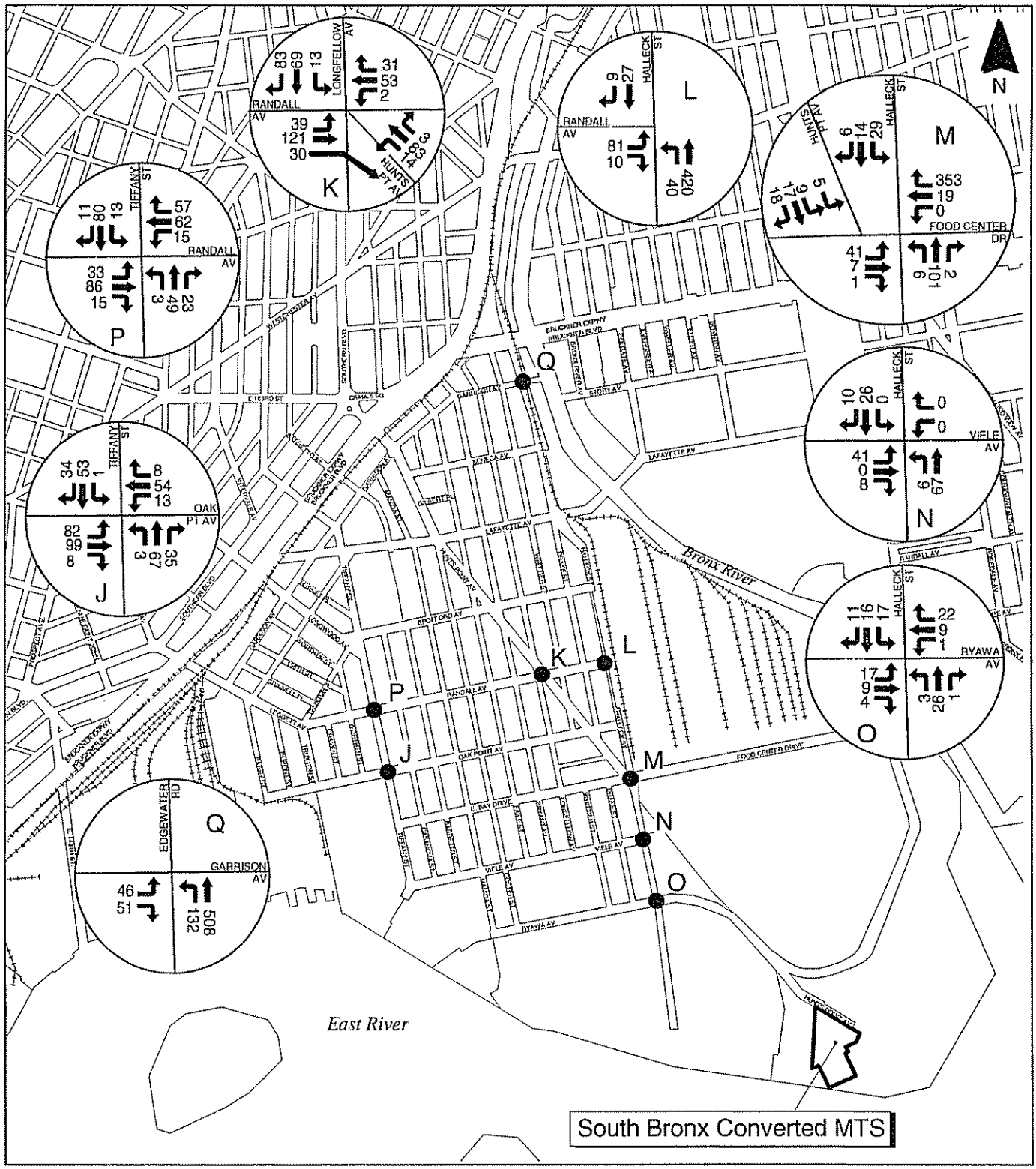

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

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Figure 19.14-7 Existing Traffic Volumes - PM Peak

South Bronx Converted MTS

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Table 19.14-1
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 Avenue & Garrison Street (signalized)									
SB LTR	0 11	14.0	B	0 08	13.8	B	0.09	13.9	B
EB LT	0 51	10.6	B	0.56	11.5	B	0.31	8.6	A
WB TR	0.52	10.8	B	0.37	9.0	A	0.27	8.1	A
OVERALL		10.8	B		10.5	B		8.6	A
Leggett Avenue & Barry Street (signalized)									
NB DFL	0.26	15.1	B	0 43	16 4	B	0 33	15.4	B
NB TR	0 09	13.9	B	0.08	13 8	B	0 06	13 6	B
SB LTR	0 10	13.9	B	0.07	13 7	B	0.05	13.6	B
EB LTR	0 51	10 7	B	0 63	13.1	B	0 32	8 6	A
WB LTR	0.46	10.2	B	0.33	8.7	A	0.21	7.7	A
OVERALL		11.0	B		12.2	B		9.7	A
Tiffany Street & Randall Avenue (signalized)									
NB DFL	-	-	-	-	-	-	-	-	-
NB LTR	0.33	10.3	B	0.35	10.4	B	0.21	8.9	A
SB LTR	0.36	10.3	B	0.39	10.7	B	0.23	9.0	A
EB LTR	0.48	18.6	B	0.39	17.2	B	0.23	15.3	B
WB LTR	0.39	17.0	B	0.28	15.7	B	0.14	14.3	B
OVERALL		14.0	B		13.2	B		11.2	B
Tiffany Street & Oak Point Avenue (signalized)									
NB LTR	0 42	17 4	B	0.39	16 7	B	0.34	15.7	B
SB LTR	0.33	15.6	B	0.35	16.0	B	0.19	14.2	B
EB LTR	0.25	9.8	A	0.20	9.3	A	0.12	8.8	A
WB LTR	0.17	9.2	A	0.17	9.0	A	0.34	15.7	B
OVERALL		13.2	B		13.2	B		12.6	B
Hunts Point Avenue & Randall Avenue (signalized)									
NB LTR	0.06	10 0	B	0.17	10.7	B	0.10	10.2	B
SB LTR	0.35	12 2	B	0 30	11 8	B	0.20	11.0	B
EB LTR	0 38	12.9	B	0.34	12.4	B	0.26	11.5	B
WB LTR	0.21	11.2	B	0.25	11.5	B	0.13	10.5	B
OVERALL		12.1	B		11.7	B		10.5	B
Longwood Avenue & 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 Avenue & 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 19.14-1 (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 Avenue & Halleck Street (signalized)									
NB L	0 04	17.3	B	0 05	17.3	B	0.02	17.0	B
NB TR	0 06	17.3	B	0.09	17.6	B	0.09	17 6	B
SB L	0 43	23 6	C	0.20	19.5	B	0 12	18 5	B
SB TR	0 07	17 4	B	0.04	17.1	B	0 04	17.1	B
EB LTR	0.10	23 1	C	0 09	22.9	C	-	-	-
EB DFL	-	-	-	-	-	-	0 17	24.4	C
EB TR							0 06	22.7	C
WB LTR	0 24	24.7	C	0.35	26.2	C	0 12	23.2	C
WB R	0.59	20.2	C	0.65	22.1	C	0.52	17.7	B
OVERALL		21.3	C		22.0	C		18.9	B
East Bay Avenue & Hunts Point Avenue (signalized)									
SB LTR	0.33	36.7	D	0.31	36.7	D	0.21	35.2	D
EB LTR	0 10	23 1	C	0 09	22 9	C	0 05	22 7	C
EB DFL							0 17	24.4	C
WB LTR	0.24	24 7	C	0.35	26.2	C	0 12	23.2	C
WB R	0.59	20.2	C	0.65	22.1	C	0.52	17.7	B
OVERALL		24.7	C		25.4	C		21.6	B
Hunts Point Avenue & Bruckner Boulevard NB ML (signalized)									
NB L	0 01	23 0	C	0 01	23 0	C	0.06	23 6	C
NB T	0 62	32 4	C	0 53	30 5	C	1 00	60 0	E
EB L	0 52	42 0	D	0 73	49 2	D	0.82	57.0	E
EB T	0 19	29 5	C	0 25	30 4	C	0 24	30 2	C
WB T	0 38	37 9	D	0 29	36 5	D	0 33	37 1	D
WB R	0.41	40.3	D	0.50	43.1	D	0.69	49.9	D
OVERALL		35.3	D		36.9	D		53.0	D
Hunts Point Avenue & Bruckner Boulevard NB SR (signalized)									
NB TR	0 75	37 0	D	0 54	30 8	C	0 75	36 4	D
EB L	0 52	42 0	D	0 73	49 2	D	0 82	57 0	E
EB T	0 19	29 5	C	0 25	30 4	C	0 21	29 8	C
WB T	0 38	37 9	D	0 29	36 5	D	0 33	37 1	D
WB R	0 41	40 3	D	0 50	43 1	D	0 69	49 9	D
OVERALL		37.4	D		37.3	D		41.5	D
Hunts Point Avenue & Bruckner Boulevard SB ML (signalized)									
SB LT	0 70	18 7	B	0 37	13 3	B	0 38	13 4	B
EB TR	0 38	37 5	D	0 57	40 8	D	0 62	41 8	D
WB LT	0 28	30 9	C	0 34	31 8	C	0 50	34 5	C
OVERALL		23 3	C		25 9	C		27 5	C
Hunts Point Avenue & Bruckner Boulevard SB SR (signalized)									
SB TR	0 78	22 2	C	0 34	13 0	B	0 26	12 2	B
EB TR	0 38	37 5	D	0 57	40 8	D	0 62	41 8	D
WB LT	0 28	30 9	C	0 34	31 8	C	0 50	34 5	C
OVERALL		26 4	C		27 9	C		30 9	C
Barretto Street & Bruckner Boulevard ML (signalized)									
NB T	0 53	35 0	D	0 52	34 7	C	0 94	46 0	D
SB L	0 67	17 2	B	0 72	19 3	B	1 01	85 2	F
SB LT	0 64	14 1	B	0 43	10 7	B	0 38	9 3	A
EB LT	0 76	57 7	E	0 26	37 3	D	0 57	45 7	D
OVERALL		24 1	C		22 4	C		45 0	D

Table 19.14-1 (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 Boulevard SR (signalized)									
NB TR	0.80	44.14	D	0.43	33.5	C	0.66	30.2	C
SB TR	0.69	14.14	B	0.32	9.3	A	0.26	8.0	A
EB TR	0.76	56.7	E	0.25	37.1	D	0.58	45.8	D
OVERALL		28.7	C		19.8	B		25.4	C
Tiffany Street & Bruckner Boulevard ML (signalized)									
NB L	0.07	28.5	C	0.03	27.8	C	0.02	16.2	B
NB T	0.63	37.4	D	0.50	34.4	C	0.72	27.4	C
SB L	0.77	28.5	C	0.67	19.3	B	0.71	40.8	D
SB T	0.32	9.3	A	0.13	7.8	A	0.13	7.8	A
EB LT	0.69	54.4	D	0.35	39.4	D	0.71	54.5	D
WB LT	0.13	34.5	C	0.08	33.9	C	0.10	34.2	C
OVERALL		27.4	C		25.8	C		28.6	C
Tiffany Street & Bruckner Boulevard SR (signalized)									
NB TR	0.40	32.9	C	0.36	32.0	C	0.72	27.4	C
SB TR	0.64	13.7	B	0.26	8.8	A	0.29	9.0	A
EB TR	0.61	47.0	D	0.33	38.6	D	0.62	47.5	D
WB TR	0.44	40.0	D	0.36	38.2	D	0.21	35.5	D
OVERALL		23.4	C		23.6	C		25.0	C
Longwood Avenue & Bruckner Boulevard ML (signalized)									
NB L	0.07	10.1	B	0.08	10.0	A	0.05	10.9	B
NB T	0.14	10.2	B	0.13	10.1	B	0.49	15.5	B
SB LT	0.42	13.1	B	0.16	10.4	B	0.22	12.3	B
EB DFL	0.49	39.3	D	0.29	33.6	C	0.51	36.7	D
EB T	0.37	35.1	D	0.24	32.4	C	0.23	30.1	C
WB LT	0.42	35.1	D	0.35	33.8	C	0.22	29.4	C
OVERALL		20.8	C		19.8	B		19.2	C
Longwood Avenue & Bruckner Boulevard SR (signalized)									
NB TR	0.16	10.4	B	0.15	10.4	B	0.36	13.7	B
SB TR	0.65	17.0	B	0.31	11.7	B	0.40	14.3	B
EB TR	0.44	34.8	C	0.30	32.5	C	0.43	32.5	C
WB TR	0.43	35.0	C	0.38	34.2	C	0.27	30.0	C
OVERALL		21.6	C		19.7	B		19.6	B
Leggett Avenue & Bruckner Boulevard ML (signalized)									
NB L	0.31	42.4	D	0.16	39.9	D	0.31	51.4	D
NB T	0.14	25.0	C	0.25	26.4	C	0.55	22.5	C
SB L	0.49	47.1	D	0.43	46.8	D	0.27	52.0	D
SB T	0.61	32.7	C	0.32	27.4	C	0.23	17.9	B
EB DFL	0.50	41.8	D	0.37	37.2	D	0.80	64.6	E
EB T	0.24	33.7	C	0.27	34.2	C	0.21	36.1	D
WB L	0.97	92.7	F	0.86	68.4	E	0.58	47.0	D
WB LT	0.85	67.3	E	0.63	46.3	D	0.53	44.1	D
OVERALL		46.3	D		39.3	D		31.7	C

Table 19.14-1 (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 Avenue & Bruckner Boulevard SR (signalized)									
NB TR	0.69	35.7	D	0.65	34.7	C	0.58	23.3	C
SB TR	0.48	30.0	C	0.29	27.0	C	0.26	18.1	B
EB TR	0.35	34.6	C	0.34	34.4	C	0.40	38.3	D
WB TR	0.71	43.9	D	0.58	39.6	D	0.47	39.6	D
OVERALL		35.8	D		34.3	C		27.9	C
Halleck Street & Randall Avenue (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 Avenue (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 Avenue & 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
LT = left through movement
L = left movement
TR = through right movement
R = right movement
T = through movement
LR = left right movement

19.14.2.3.1 LOS at Signalized Intersections

Table 19.14-1 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.

19.14.2.3.2 LOS at Unsignalized Intersections

Table 19.14-1 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.)

19.14.2.4 Existing DSNY-Related Traffic

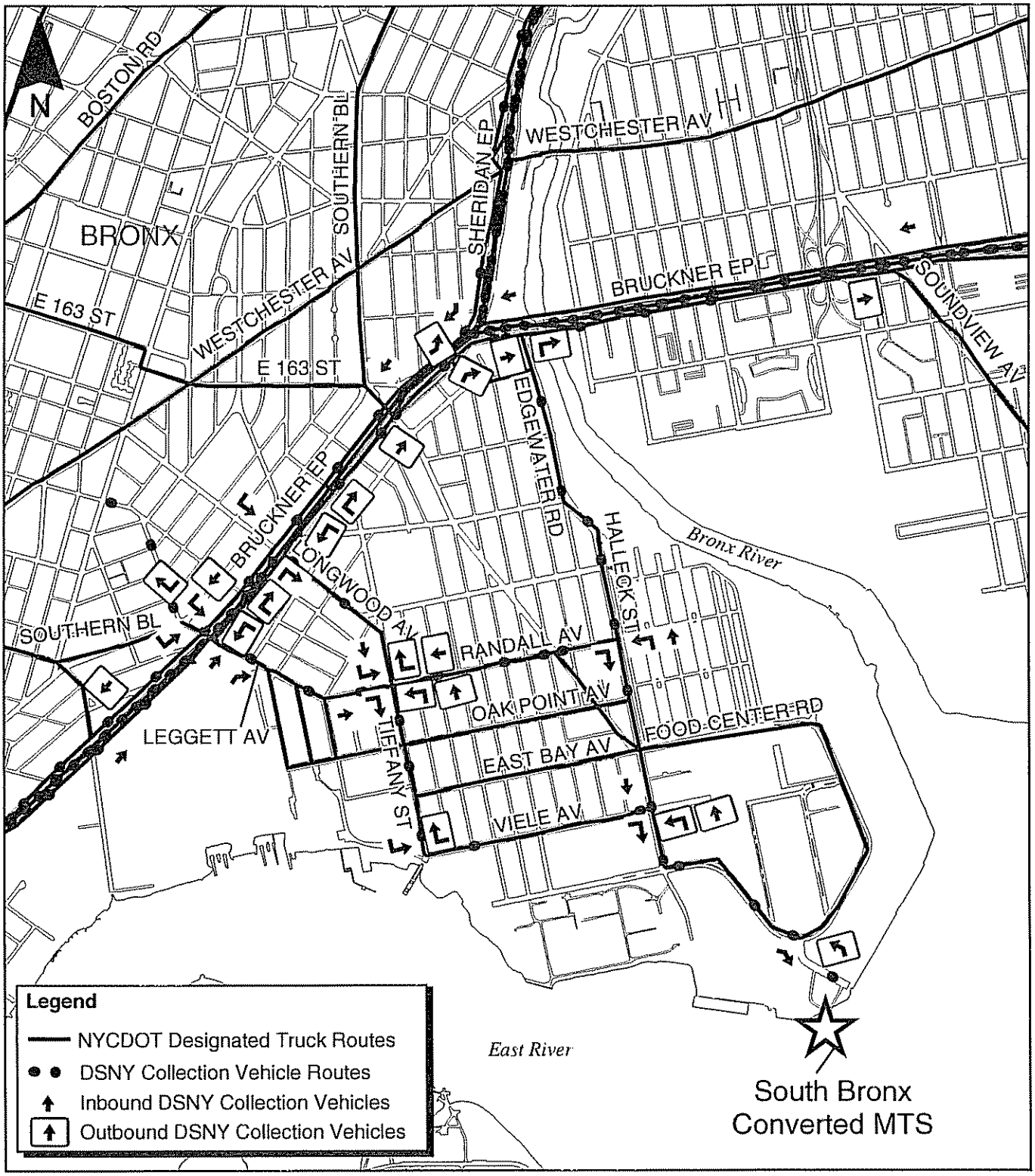
MSW generated by Bronx CDs BX1 through BX8, BX11 and BX12 is currently transported under the Bronx interim export program to USA Waste Management of NY's Harlem River Yard facility, a commercial vendor located at 98 Lincoln Avenue in the Port Morris section of the Bronx. Municipal waste generated by 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 BX6 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 proceeding to and from these vendors are routed primarily along Bruckner Boulevard.

19.14.2.5 Public Transportation

Public transportation within the study area consists of the NYCT 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.

19.14.2.6 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.



1,000 0 1,000 Feet

Site delineations are approximate.
Base Map Source: New York City Department of Information Technology & Telecommunications

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Figure 19.14-8 DSNY Collection Vehicle Routes South Bronx Converted MTS

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19.14.3 Future No-Build Conditions

19.14.3.1 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 MSW delivered to the vendors noted above;
- 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 NYCEDC; and
- Background traffic growth of 0.5% 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 19.14.2.2.

- 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 two-phase signal operation was modified to a three-phase operation.

Figures 19.14-9, 19.14-10, 19.14-11, 19.14-12, 19.14-13 and 19.14-14 provide the AM, Facility peak and PM peak-hour Future No-Build traffic volumes for the intersections analyzed in conjunction with this site.

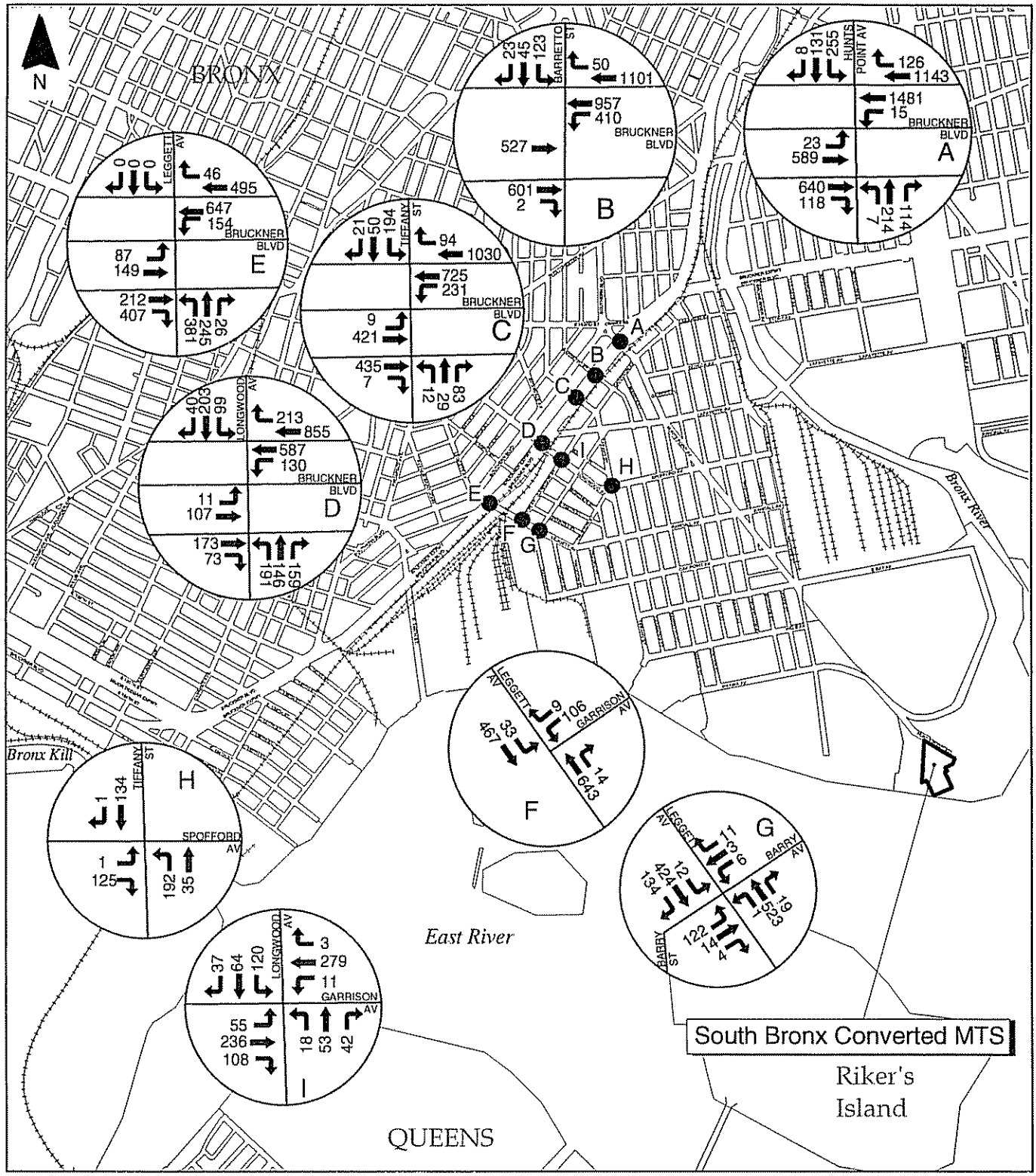
Table 19.14-2 provides the Future No-Build v/c ratio, delay and LOS for each study intersection. As shown, the majority of the intersections are forecast to operate at LOS B or LOS C, although a significant number are predicted to operate at LOS D. The additional volume of the background growth and new 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 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 during the AM peak hour and the southbound shared through and right lane group during the PM peak hour would operate at LOS E. 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.



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

1500 0 1500 Feet

Figure 19.14-9 Future No-Build Traffic Volumes - AM Peak
South Bronx Converted MTS

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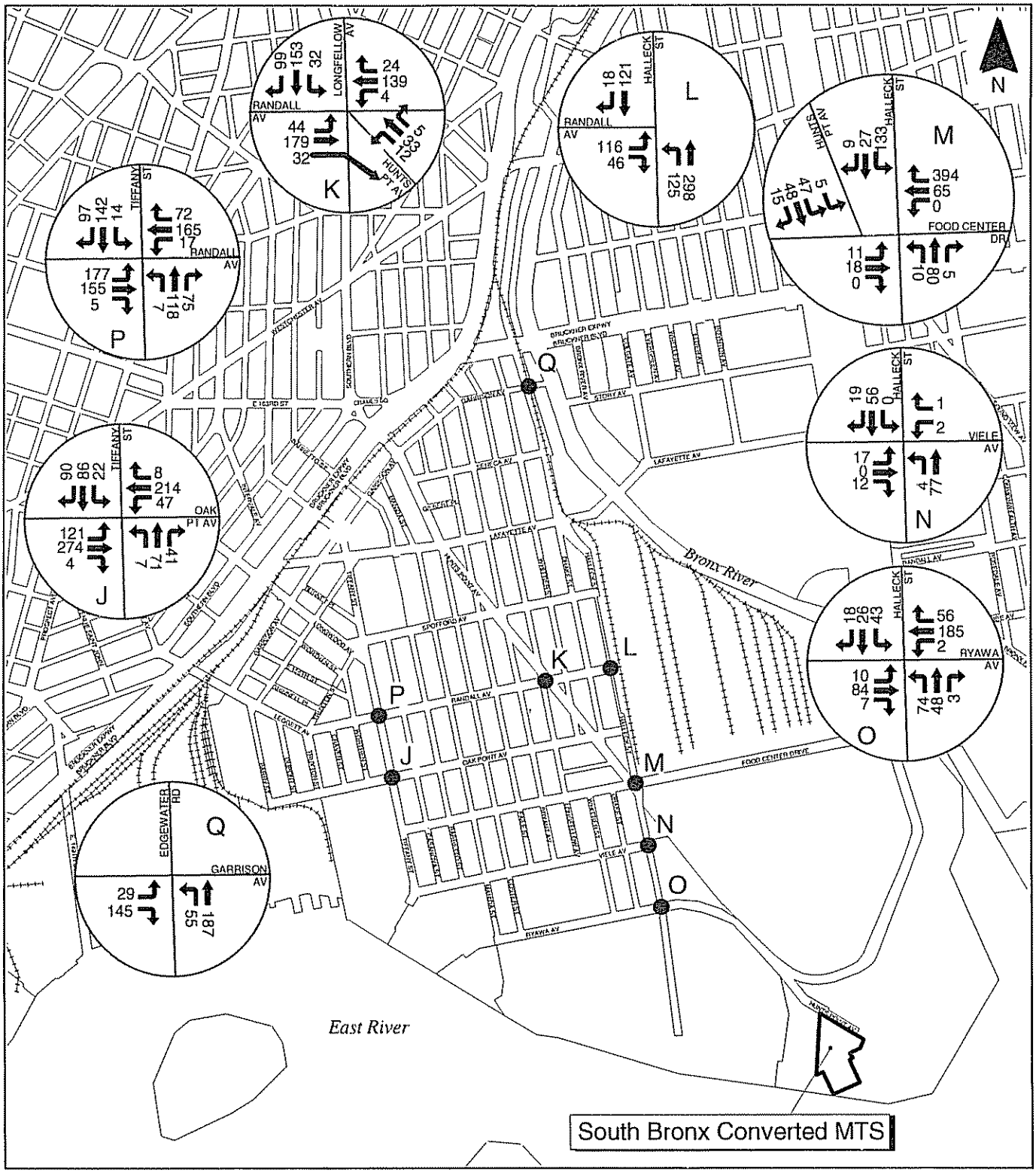

Site delineations are approximate
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

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Figure 19.14-10 Future No-Build Traffic Volumes - AM Peak South Bronx Converted MTS

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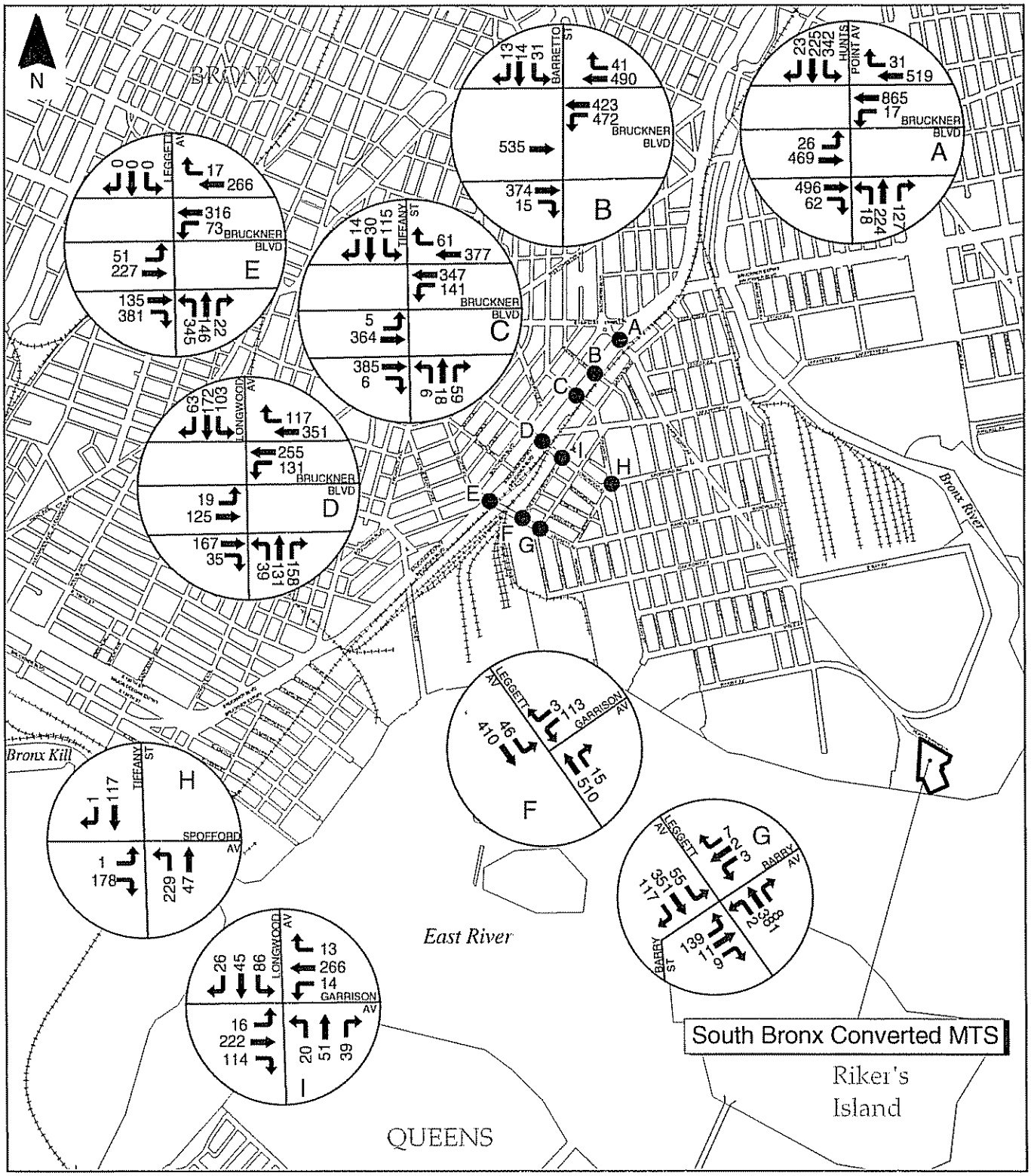

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 19.14-11 Future No-Build Traffic Volumes - Facility Peak South Bronx Converted MTS

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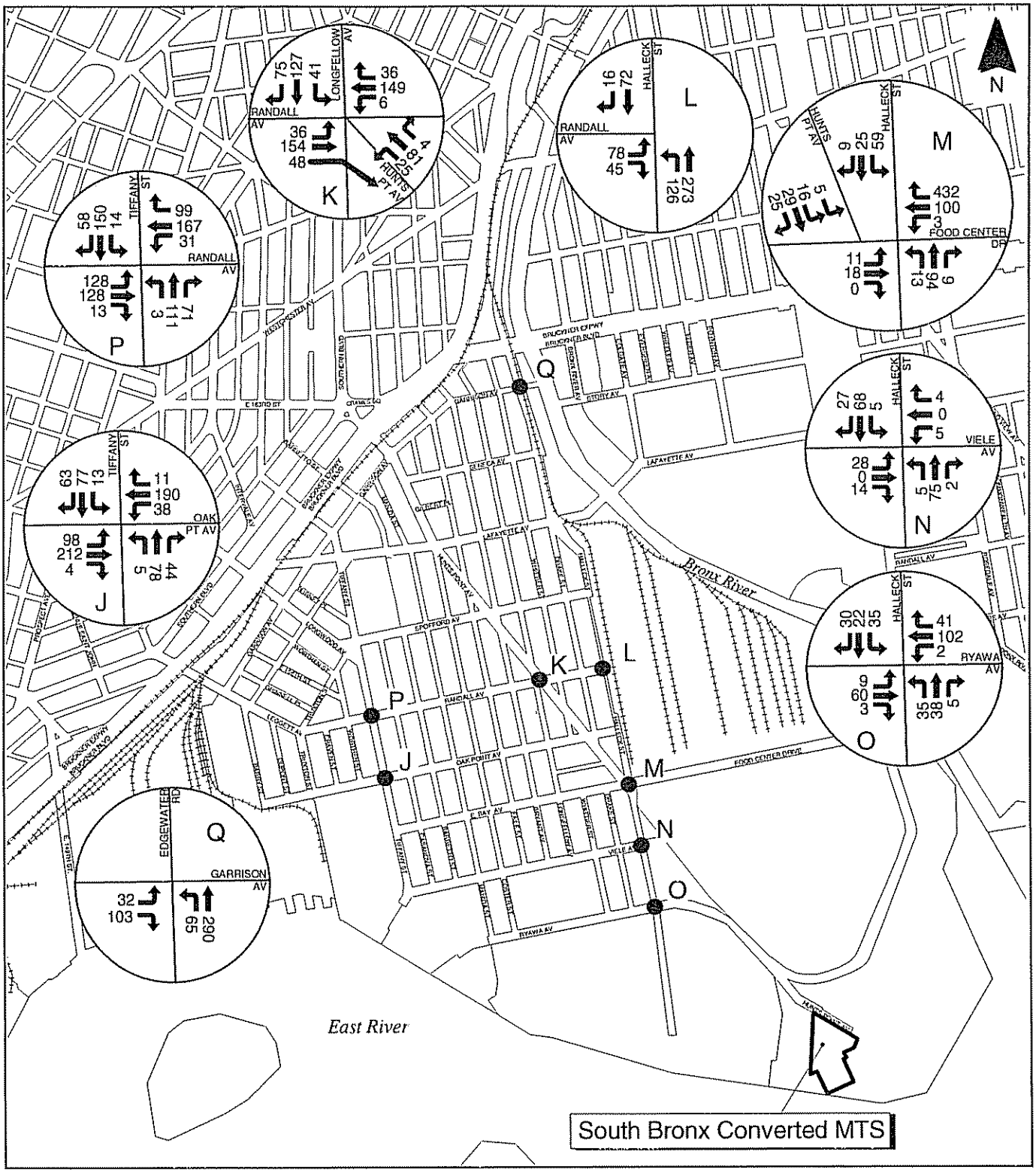

Site delineations are approximate
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

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Figure 19.14-12 Future No-Build Traffic Volumes - Facility Peak South Bronx Converted MTS

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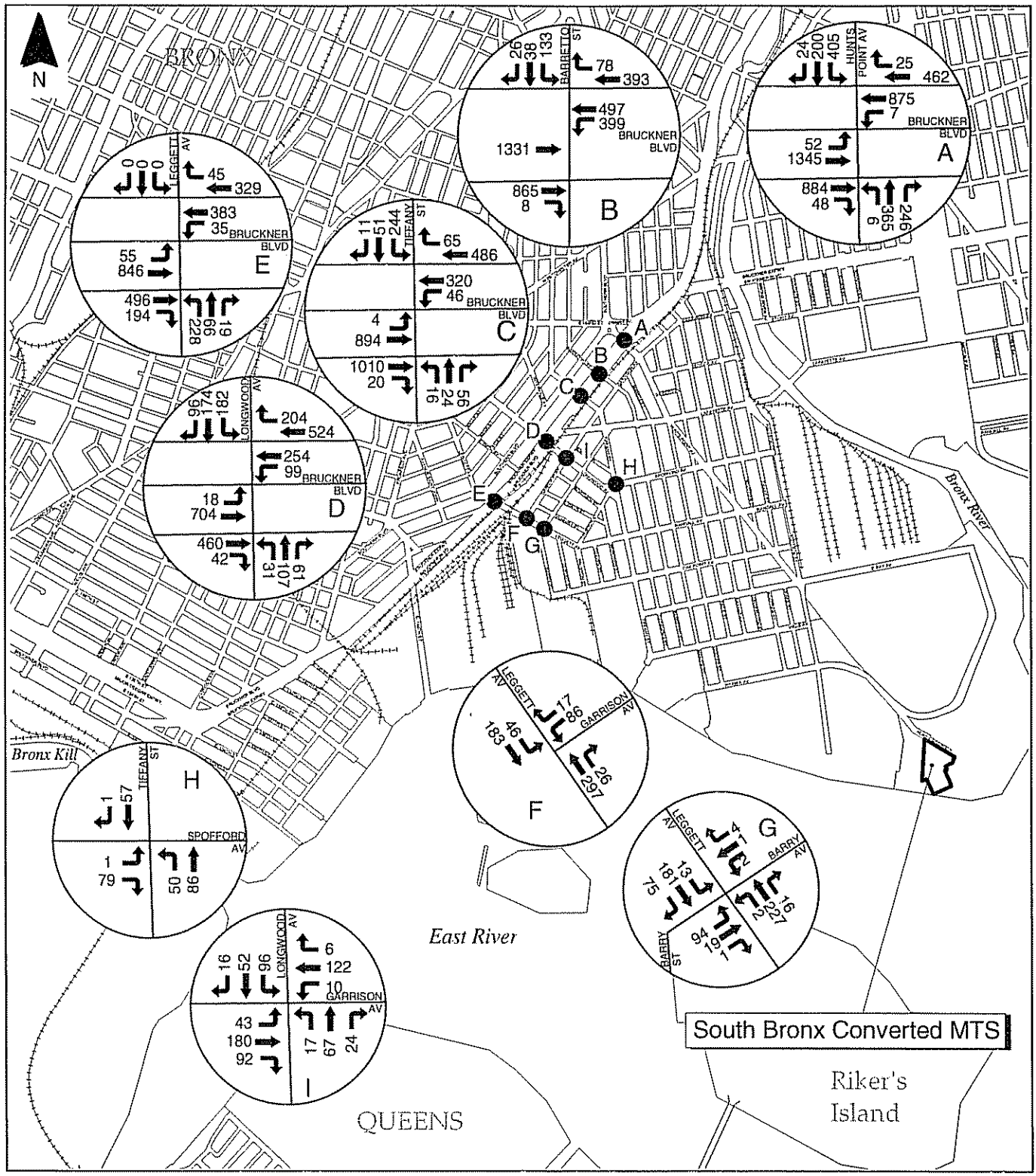

Site delineations are approximate
Base Map Source: New York City Department of City Planning

1500 0 1500 Feet

HDR HydroQual URBITRAN PB EEA Cambridge Environmental Inc

Figure 19.14-13 Future No-Build Traffic Volumes - PM Peak South Bronx Converted MTS

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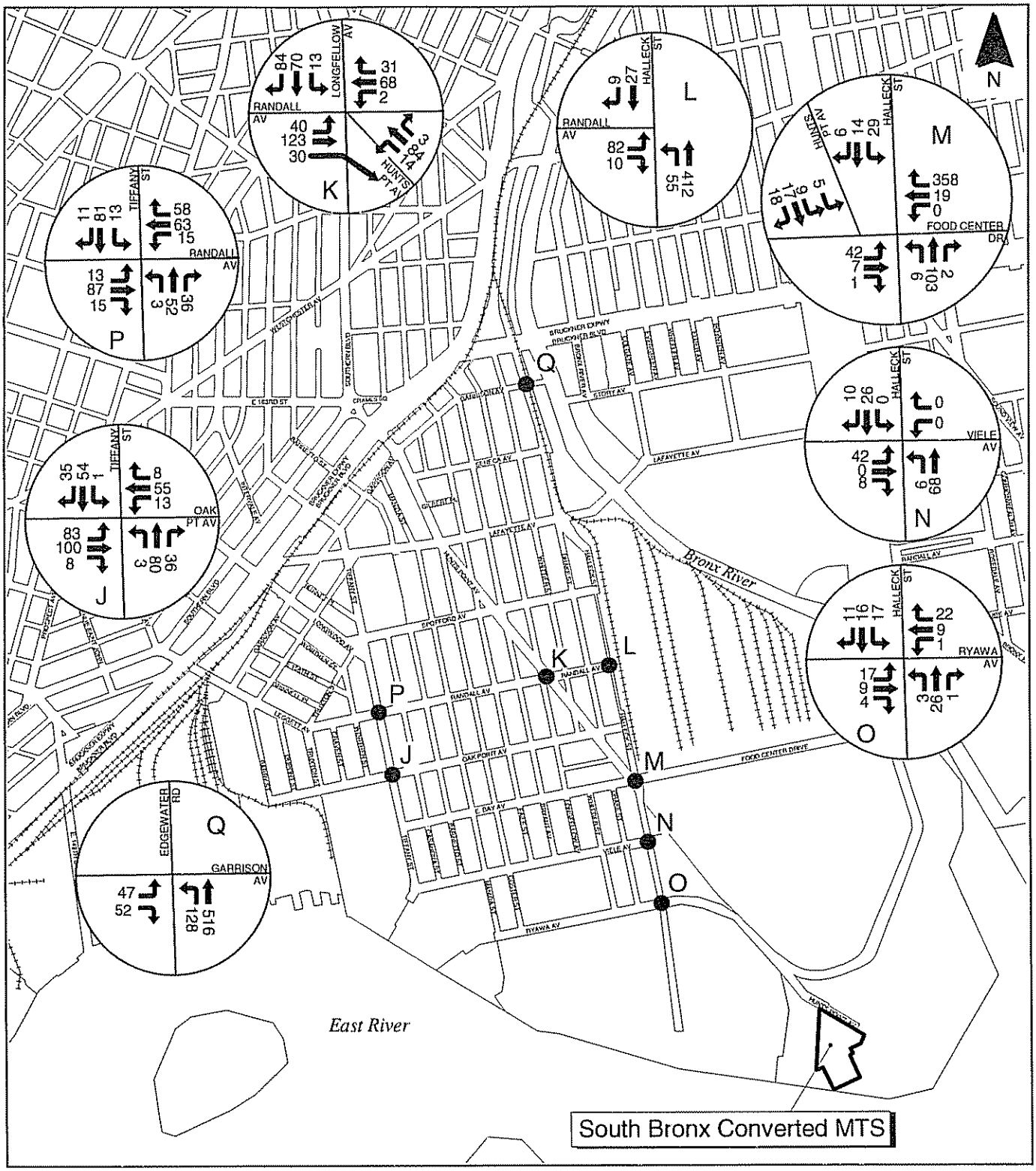

Site delineations are approximate
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

Figure 19.14-14 Future No-Build Traffic Volumes - PM Peak South Bronx Converted MTS

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Table 19.14-2
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)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Leggett Avenue & Garrison Street (signalized)									
SB LTR	0.38	15.8	B	0.32	15.4	B	0.34	15.5	B
EB LT	0.48	10.2	B	0.52	11.1	B	0.25	8.1	A
WB TR	0.69	13.7	B	0.44	9.7	A	0.27	8.1	A
OVERALL		12.6	B		10.9	B		9.4	A
Leggett Avenue & Barry Street (signalized)									
NB DFL	0.46	16.7	B	0.55	18.2	B	0.33	15.4	B
NB TR	0.09	13.9	B	0.08	13.8	B	0.06	13.6	B
SB LTR	0.10	13.9	B	0.07	13.7	B	0.05	13.6	B
EB LTR	0.56	11.4	B	0.69	14.4	B	0.32	8.6	A
WB LTR	0.57	11.6	B	0.39	9.2	A	0.21	7.7	A
OVERALL		12.2	B		13.2	B		9.7	A
Tiffany Street & Randall Avenue (signalized)									
NB DFL	0.69	20.7	C	0.39	12.0	B	-	-	-
NB TR	0.46	13.1	B	0.48	13.7	B	-	-	-
NB LTR	-	-	-	-	-	-	0.21	8.9	A
SB LTR	0.37	10.4	B	0.40	10.7	B	0.23	9.1	A
EB LTR	0.64	21.7	C	0.45	18.0	B	0.23	15.3	B
WB LTR	0.46	18.2	B	0.36	16.7	B	0.19	14.8	B
OVERALL		17.1	B		14.2	B		11.4	B
Tiffany Street & Oak Point Avenue (signalized)									
NB LTR	0.83	31.3	C	0.60	20.3	C	0.34	15.7	B
SB LTR	0.45	17.2	B	0.41	16.6	B	0.19	14.3	B
EB LTR	0.26	9.8	A	0.21	9.4	A	0.13	8.8	A
WB LTR	0.18	9.2	A	0.17	9.1	A	0.14	8.8	A
OVERALL		20.3	C		15.2	B		12.6	B
Hunts Point Avenue & Randall Avenue (signalized)									
NB LTR	0.06	10.0	B	0.17	10.7	B	0.13	10.4	B
SB LTR	0.35	12.3	B	0.31	11.9	B	0.20	11.0	B
EB LTR	0.39	13.0	B	0.35	12.5	B	0.26	11.5	B
WB LTR	0.24	11.5	B	0.29	11.9	B	0.13	10.5	B
OVERALL		12.2	B		11.9	B		11.0	B
Longwood Avenue& Garrison Avenue (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 Avenue & Tiffany Street (unsignalized)									
NB LT	-	9.8	A	-	9.0	A	-	7.4	A
EB LR	-	11.1	B	-	12.2	B	-	9.6	A

Table 19.14-2 (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 Avenue & Halleck Street (signalized)									
NB L	0 04	17 3	B	0.05	17.3	B	0 02	17 0	B
NB TR	0.09	17.5	B	0 11	17 7	B	0 09	17.6	B
SB L	0 46	24.5	C	0.21	19.7	B	0 12	18.5	B
SB TR	0 07	17.4	B	0.04	17.1	B	0.04	17.1	B
EB LTR	0 10	23.1	C	0 09	22 9	C	-	-	-
EB DFL	-	-	-	-	-	-	0 17	24.4	C
EB TR	-	-	-	-	-	-	0 06	22 7	C
WB LTR	0.25	24 8	C	0 36	26 3	C	0.12	23 2	C
WB R	0.60	20.5	C	0.66	22.4	C	0.52	17.9	B
OVERALL		21.4	C		22.1	C		19.0	B
East Bay Avenue & Hunts Point Avenue (signalized)									
SB LTR	0.34	36 8	D	0.31	36 7	D	0.21	35.2	D
EB LTR	0 10	23 1	C	0 09	22 9	C	-	-	-
EB DFL	-	-	-	-	-	-	0.17	24.4	C
EB TR	-	-	-	-	-	-	0.05	22.7	C
WB LTR	0 25	24 8	C	0.36	26 3	C	0.12	23 2	C
WB R	0.60	20.5	C	0.66	22.4	C	0.52	17.9	B
OVERALL		24.14	C		25.6	C		21.6	C
Hunts Point Avenue & Bruckner Boulevard NB ML (signalized)									
NB L	0 07	23.6	C	0 14	24.14	C	0 11	24.3	C
NB T	0 63	32.6	C	0.54	30.7	C	1 01	63.7	E
EB L	0 61	45.8	D	0.76	50.4	D	0 88	64.0	E
EB T	0 15	29.1	C	0 22	29 9	C	0 19	29.5	C
WB T	0 36	37 6	D	0 26	36 1	D	0 32	37 0	D
WB R	0.42	40.5	D	0.38	39.3	D	0.65	47.6	D
OVERALL		35.8	D		36.5	D		55.9	E
Hunts Point Avenue & Bruckner Boulevard NB SR (signalized)									
NB TR	0 86	43.7	D	0 66	34.0	C	0 82	39 6	D
EB L	0 61	45 8	D	0 76	50.4	D	0 88	64 0	E
EB T	0 15	29.1	C	0 22	29 9	C	0 19	29.5	C
WB T	0 38	38 0	D	0 26	36 1	D	0 32	37 0	D
WB R	0 39	39 8	D	0 38	39 3	D	0 65	47 6	D
OVERALL		41.3	D		38.0	D		44.1	D
Hunts Point Avenue & Bruckner Boulevard SB ML (signalized)									
SB LT	0 65	17 6	B	0 38	13 4	B	0 39	13 4	B
EB TR	0 38	37 6	D	0 57	40 9	D	0 63	42 0	D
WB LT	0.25	30.4	C	0.30	31.1	C	0.47	33.7	C
OVERALL		22.6	C		25.8	C		27.4	C
Hunts Point Avenue & Bruckner Boulevard SB SR (signalized)									
SB TR	0.79	22.7	C	0.34	13.1	B	0.27	12.2	B
EB TR	0 38	37 6	D	0 57	40 9	D	0 63	42 0	D
WB LT	0.25	30.4	C	0.30	31.1	C	0.47	33.7	C
OVERALL		26.6	C		27.8	C		30.7	C
Barretto Street & Bruckner Boulevard ML (signalized)									
NB T	0 58	36 1	D	0 58	36 0	D	0 97	51 8	D
SB L	0 68	17 7	B	0 71	19 2	B	1 02	89 5	F
SB LT	0 67	14 14	B	0 45	11 0	B	0 41	9 7	A
EB LT	0 78	59 1	E	0 26	37 3	D	0 57	45 8	D
OVERALL		24.14	C		22.9	C		48.9	D

Table 19.14-2 (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 Boulevard SR (signalized)									
NB TR	0.91	54.7	D	0.59	37.2	D	0.73	32.2	C
SB TR	0.70	15.1	B	0.32	9.3	A	0.27	8.1	A
EB TR	0.77	57.5	E	0.26	37.2	D	0.58	46.0	D
OVERALL		33.5	C		22.4	C		26.7	C
Tiffany Street & Bruckner Boulevard ML (signalized)									
NB L	0.08	28.8	C	0.04	27.9	C	0.02	16.2	B
NB T	0.59	36.5	D	0.49	34.3	C	0.63	25.0	C
SB L	0.36	11.0	B	0.23	9.3	A	0.14	11.3	B
SB T	0.40	10.1	B	0.21	8.4	A	0.22	8.5	A
EB L	0.90	74.6	E	0.55	45.3	D	0.84	65.5	E
EB T	0.18	35.7	D	0.11	34.6	C	0.15	35.2	D
WB LT	0.09	34.0	C	0.06	33.6	C	0.08	33.9	C
OVERALL		27.5	C		24.5	C		27.5	C
Tiffany Street & Bruckner Boulevard SR (signalized)									
NB TR	0.62	38.0	D	0.61	37.6	D	0.76	28.7	C
SB TR	0.71	15.5	B	0.32	9.4	A	0.29	9.0	A
EB TR	0.48	39.9	D	0.27	36.4	D	0.44	39.1	D
WB TR	0.18	35.1	D	0.15	34.8	C	0.19	35.3	D
OVERALL		25.5	C		26.2	C		25.5	C
Longwood Avenue & Bruckner Boulevard ML (signalized)									
NB L	0.09	43.9	D	0.14	40.6	D	0.05	28.0	C
NB T	0.34	47.3	D	0.27	41.8	D	0.72	40.0	D
SB L	0.41	28.6	C	0.38	31.1	C	0.51	47.5	D
SB T	0.51	27.9	C	0.31	27.9	C	0.39	39.6	D
EB DFL	0.46	37.6	D	-	-	-	0.60	42.5	D
EB T	0.69	45.9	D	-	-	-	0.46	37.2	D
EB LT	-	-	-	0.49	36.4	D	-	-	-
WB DFL	0.88	70.8	E	-	-	-	-	-	-
WB LT	-	-	-	0.39	34.6	C	0.26	32.0	C
WB T	0.49	38.6	D	-	-	-	-	-	-
OVERALL		39.8	D		34.0	C		39.4	D
Longwood Avenue & Bruckner Boulevard SR (signalized)									
NB TR	0.65	54.14	D	0.52	46.6	D	0.67	38.4	D
SB TR	0.97	53.8	D	0.51	31.3	C	0.99	74.5	E
EB TR	0.61	38.6	D	0.44	34.14	C	0.59	37.9	D
WB TR	0.95	65.7	E	0.68	42.8	D	0.43	35.1	D
OVERALL		53.6	D		37.4	D		50.4	D
Leggett Avenue & Bruckner Boulevard ML (signalized)									
NB L	0.31	42.5	D	0.16	39.9	D	0.31	51.6	D
NB T	0.14	25.0	C	0.25	26.4	C	0.56	22.7	C
SB L	0.52	48.2	D	0.44	47.3	D	0.28	52.2	D
SB T	0.62	32.9	C	0.33	27.5	C	0.24	17.9	B
WB L	0.79	56.1	E	0.62	44.4	D	0.43	40.6	D
WB LT	0.95	75.9	E	0.71	47.8	D	0.44	40.4	D
OVERALL		46.6	D		36.8	D		26.8	C

Table 19.14-2 (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 Avenue & Bruckner Boulevard SR (signalized)									
NB TR	0.75	38.1	D	0.68	35.7	D	0.58	23.5	C
SB TR	0.49	30.1	C	0.30	27.0	C	0.26	18.2	B
WB TR	0.95	64.1	E	0.70	43.1	D	0.48	39.7	D
OVERALL		44.7	D		36.2	D		25.9	C
Halleck Street & Randall Avenue (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 Avenue (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 Avenue & 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	-	14.14	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
LT = left through movement
L= left movement
TR = through right movement
R = right movement
T = through movement
LR = left right movement

Table 19.14-2 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.

19.14.3.2 Public Transportation

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

19.14.3.3 Pedestrian Activity

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

19.14.4 Potential Impacts with the South Bronx Converted MTS

The South Bronx Converted MTS would receive waste from all 12 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.

19.14.4.1 2006 Future Build Traffic Conditions

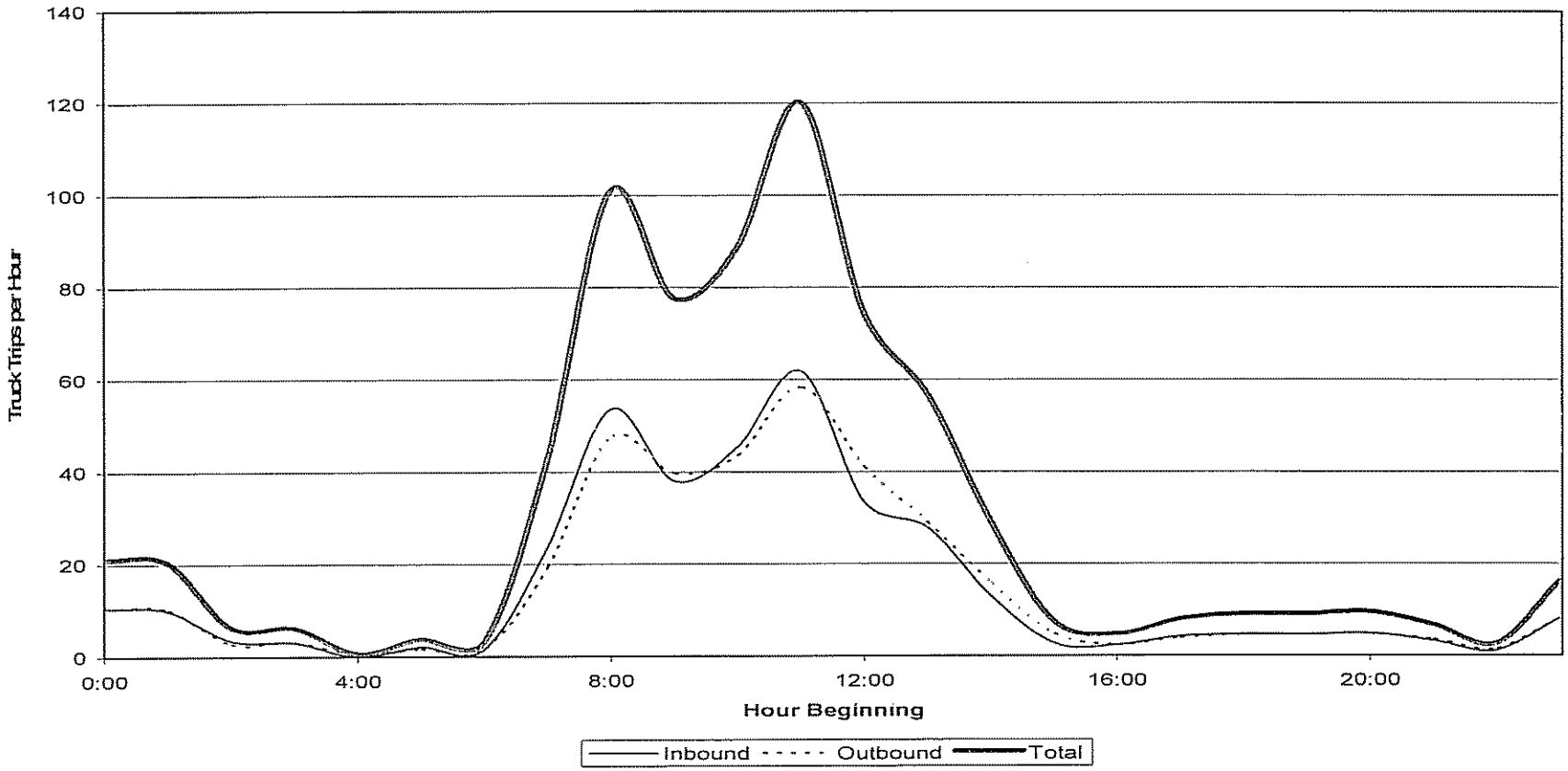
2006 Future Build Traffic Conditions assume that the South Bronx Converted MTS would generate 363 net inbound collection vehicles per average peak day. As per NYCDOT Title 34, truck trips to and from the site are restricted to travel along local truck routes directly to the site

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 19.14-8.

Figure 19.14-15 presents the average peak day temporal distribution of collection vehicles for the South Bronx Converted MTS. Section 3.16 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 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.

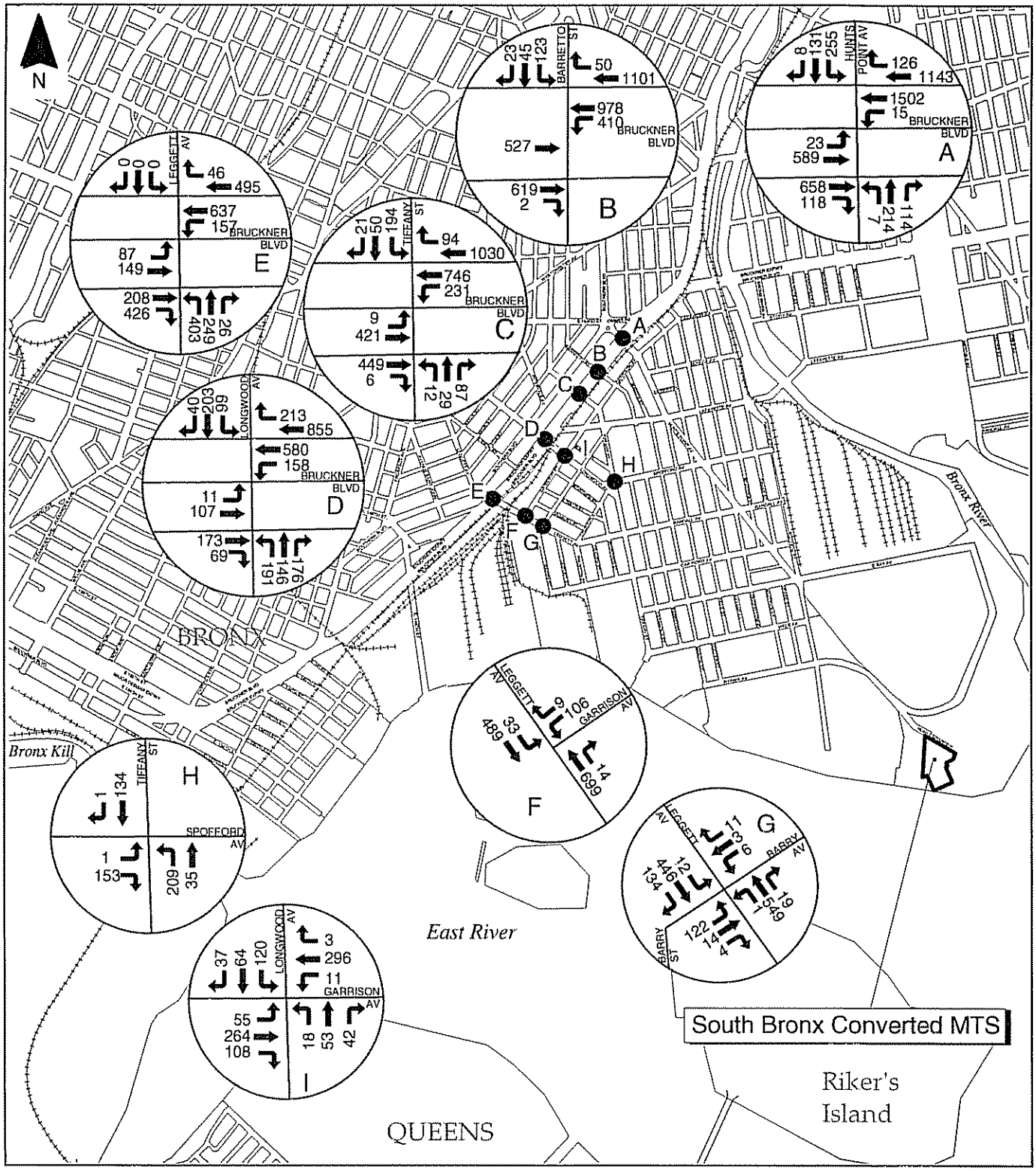
Figure 19.14-15
Truck Trips per Hour
South Bronx Converted MTS



Figures 19.14-16, 19.14-17, 19.14-18, 19.14-19, 19.14-20 and 19.14-21 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 19.14-8.

Figures 19.14-22, 19.14-23, 19.14-24, 19.14-25, 19.14-26 and 19.14-27 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 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% of the inbound loads delivered during a typical average peak day. Additionally, traffic data indicated that the weekend background traffic volumes were approximately 63% of weekday traffic volumes. Table 19.14-3 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 overall worst-case conditions.



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

1500 0 1500 Feet

Figure 19.14-16 2006 Future Build Traffic Volumes AM Peak South Bronx Converted MTS

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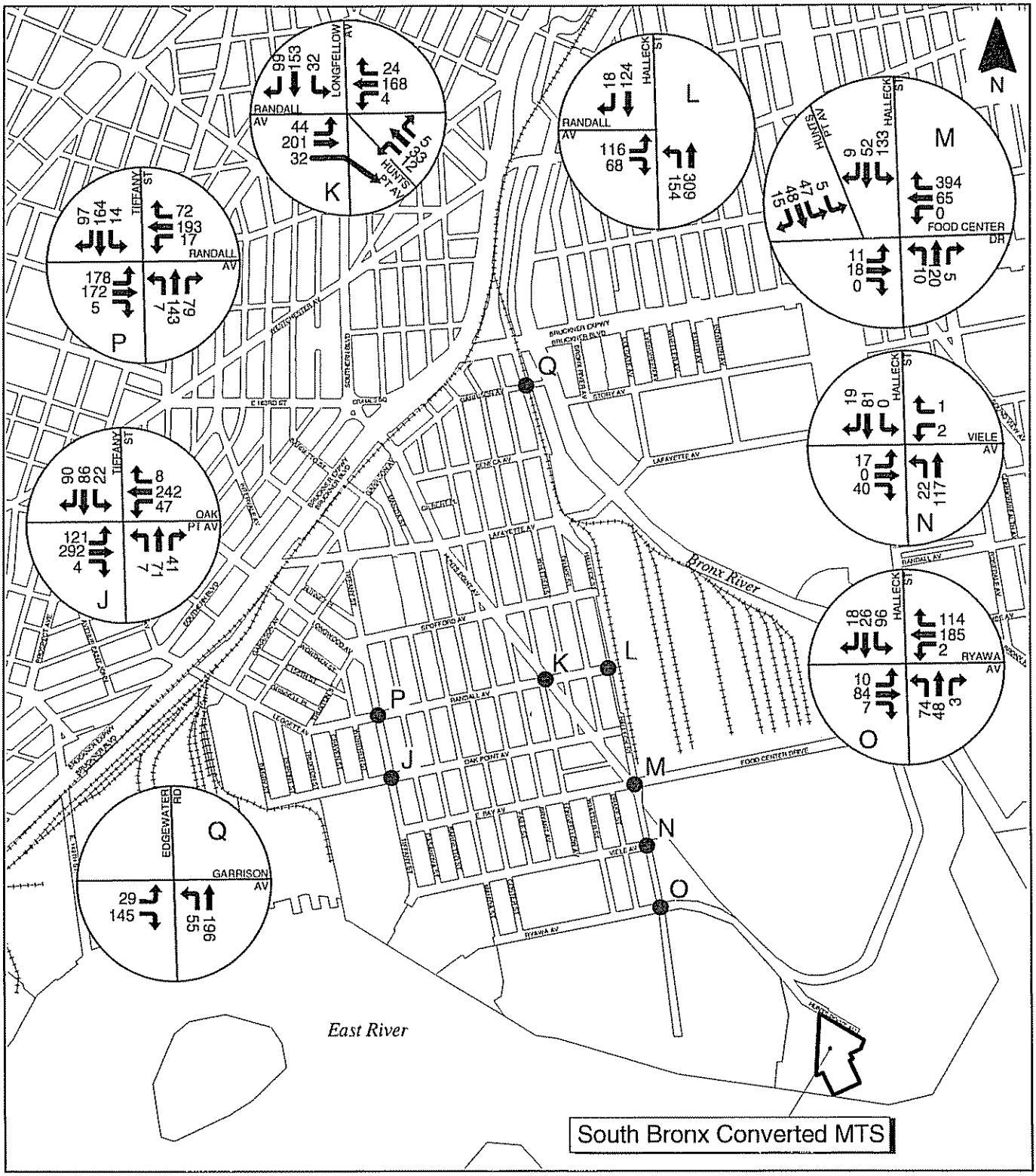

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

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Figure 19.14-17 2006 Future Build Traffic Volumes AM Peak South Bronx Converted MTS

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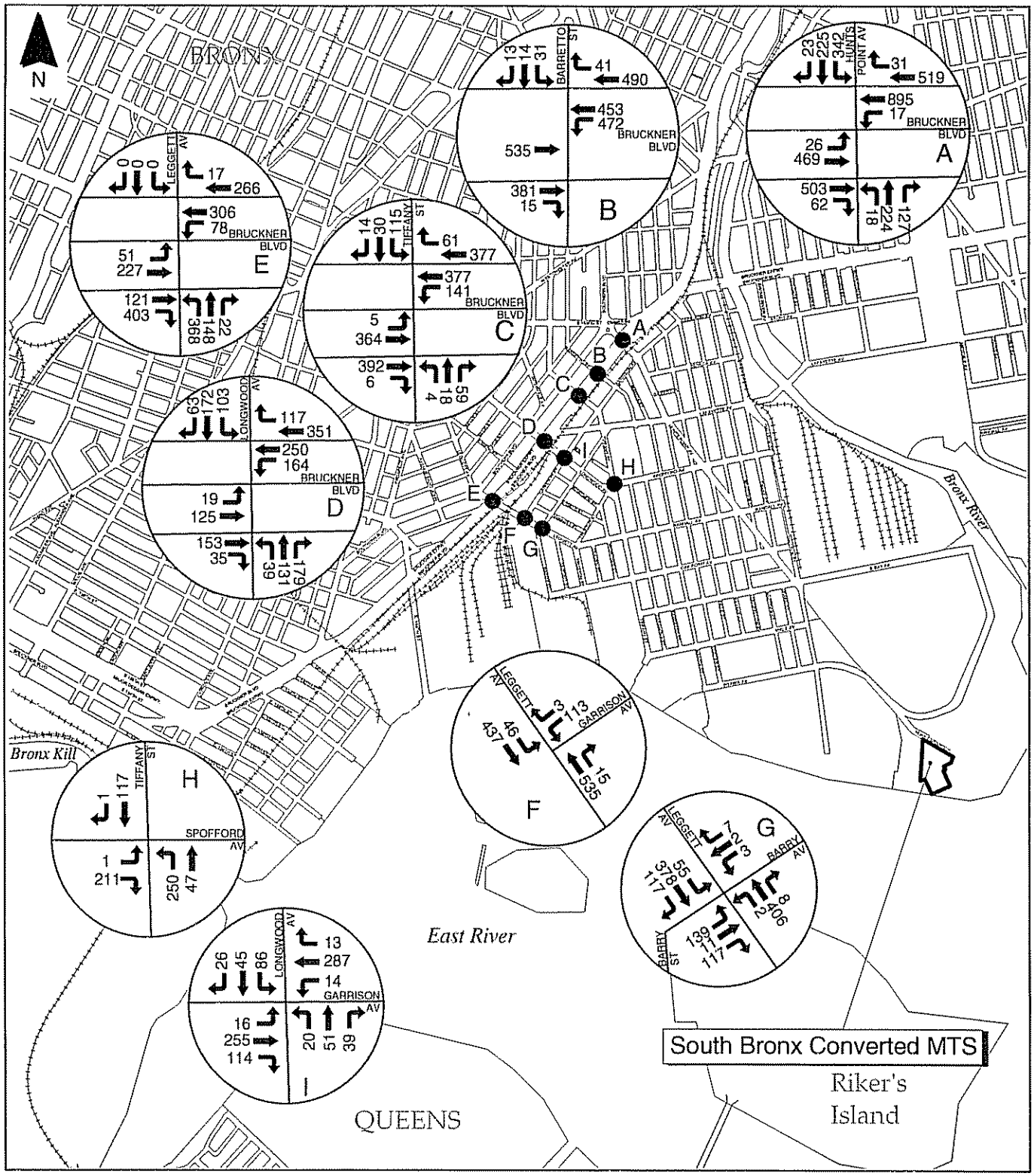

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

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Figure 19.14-18 2006 Future Build Traffic Volumes
Facility Peak
South Bronx Converted MTS

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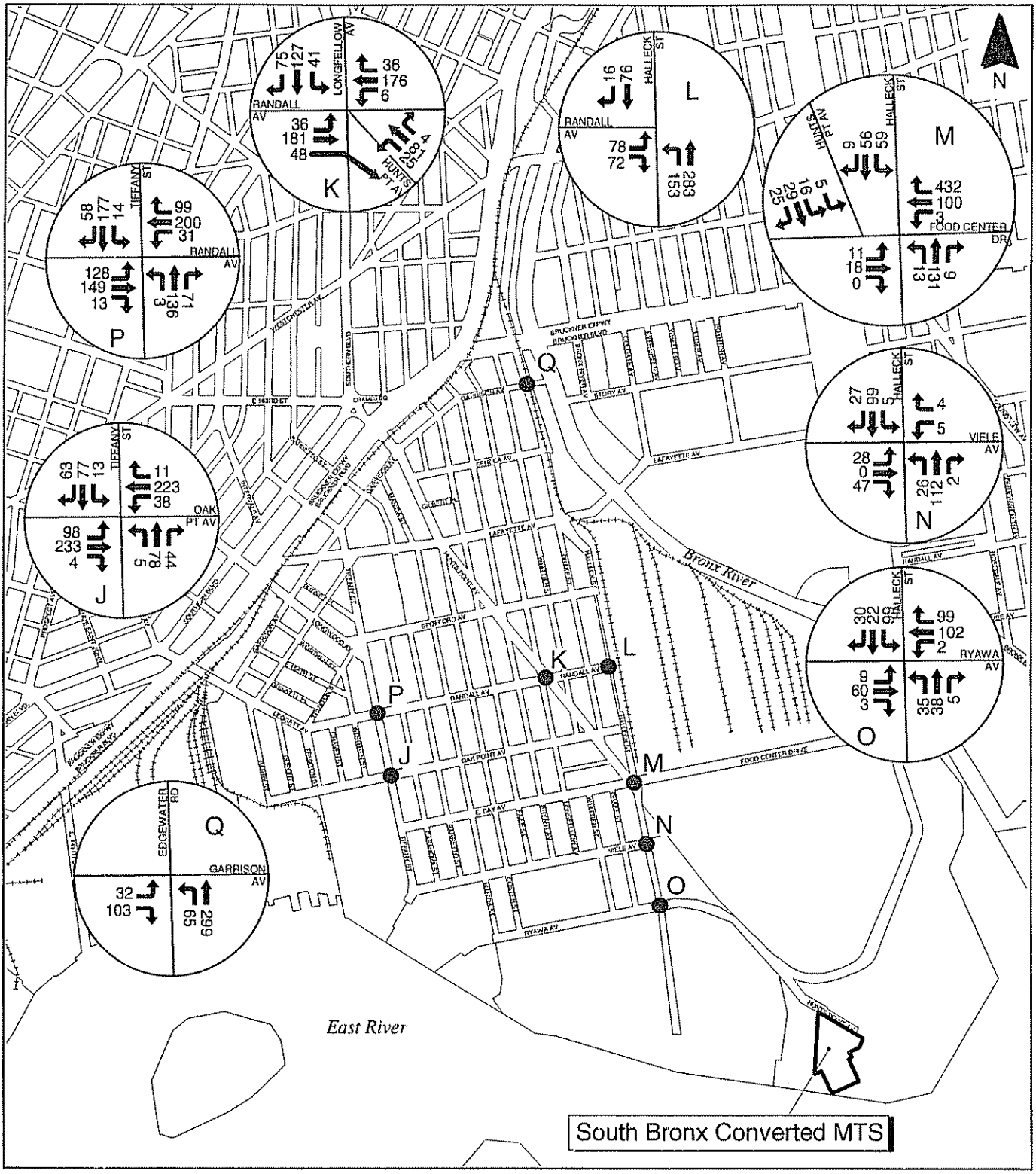

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 19.14-19 2006 Future Build Traffic Volumes
Facility Peak
South Bronx Converted MTS

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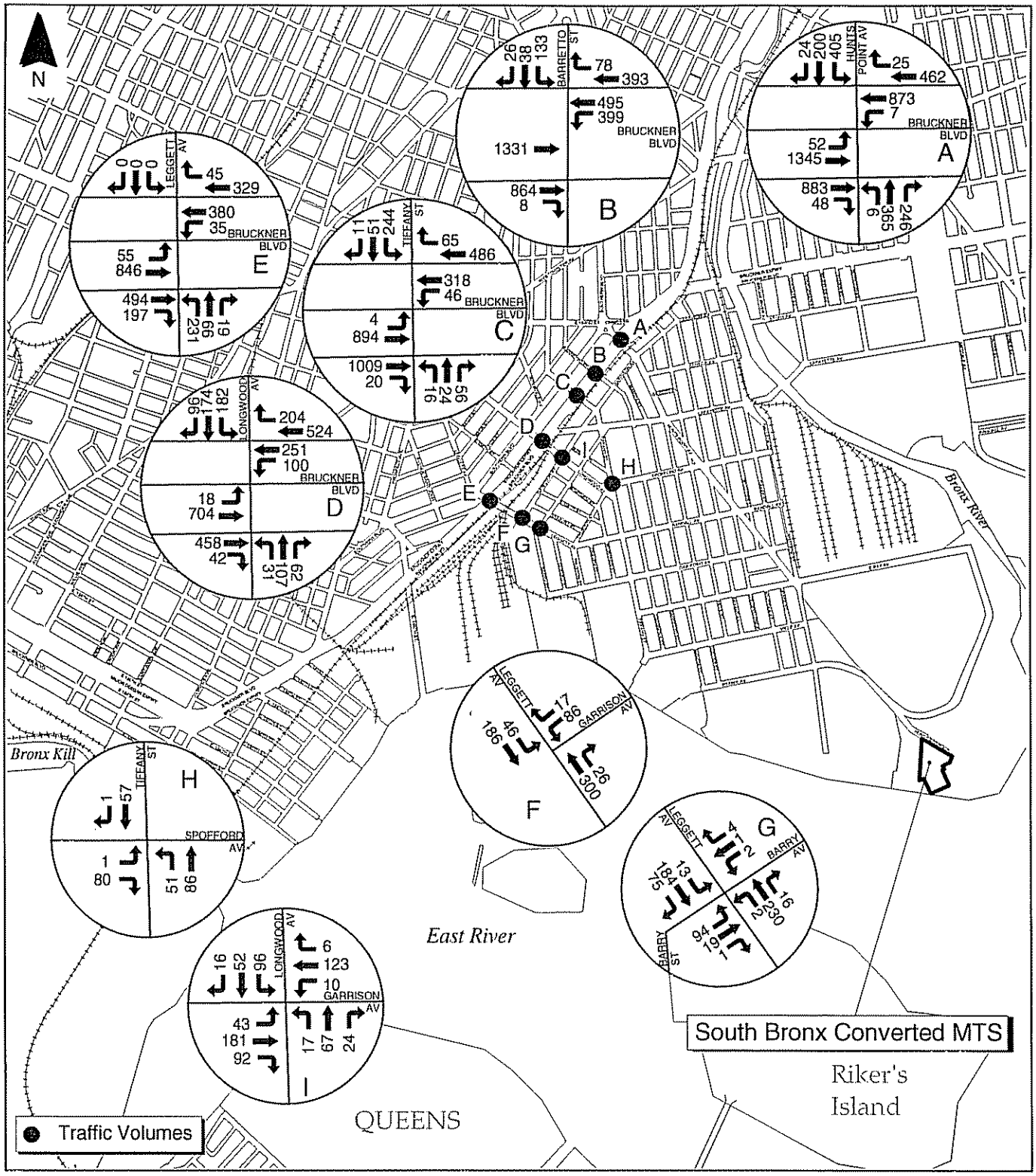

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1500 0 1500 Feet

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Figure 19.14-20 2006 Future Build Traffic Volumes
PM Peak
South Bronx Converted MTS

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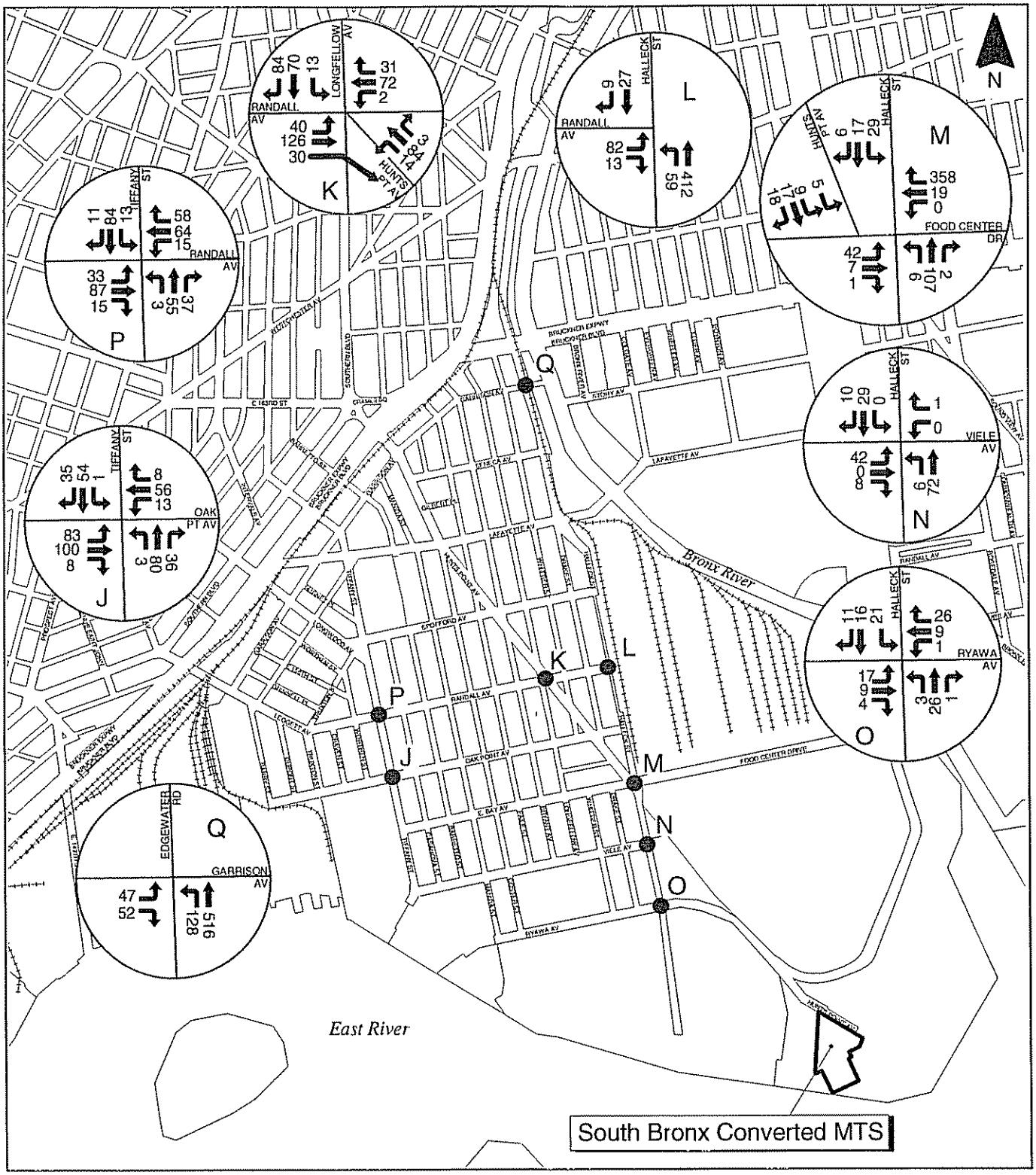

Site delineations are approximate
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

Figure 19.14-21 2006 Future Build Traffic Volumes
PM Peak
South Bronx Converted MTS

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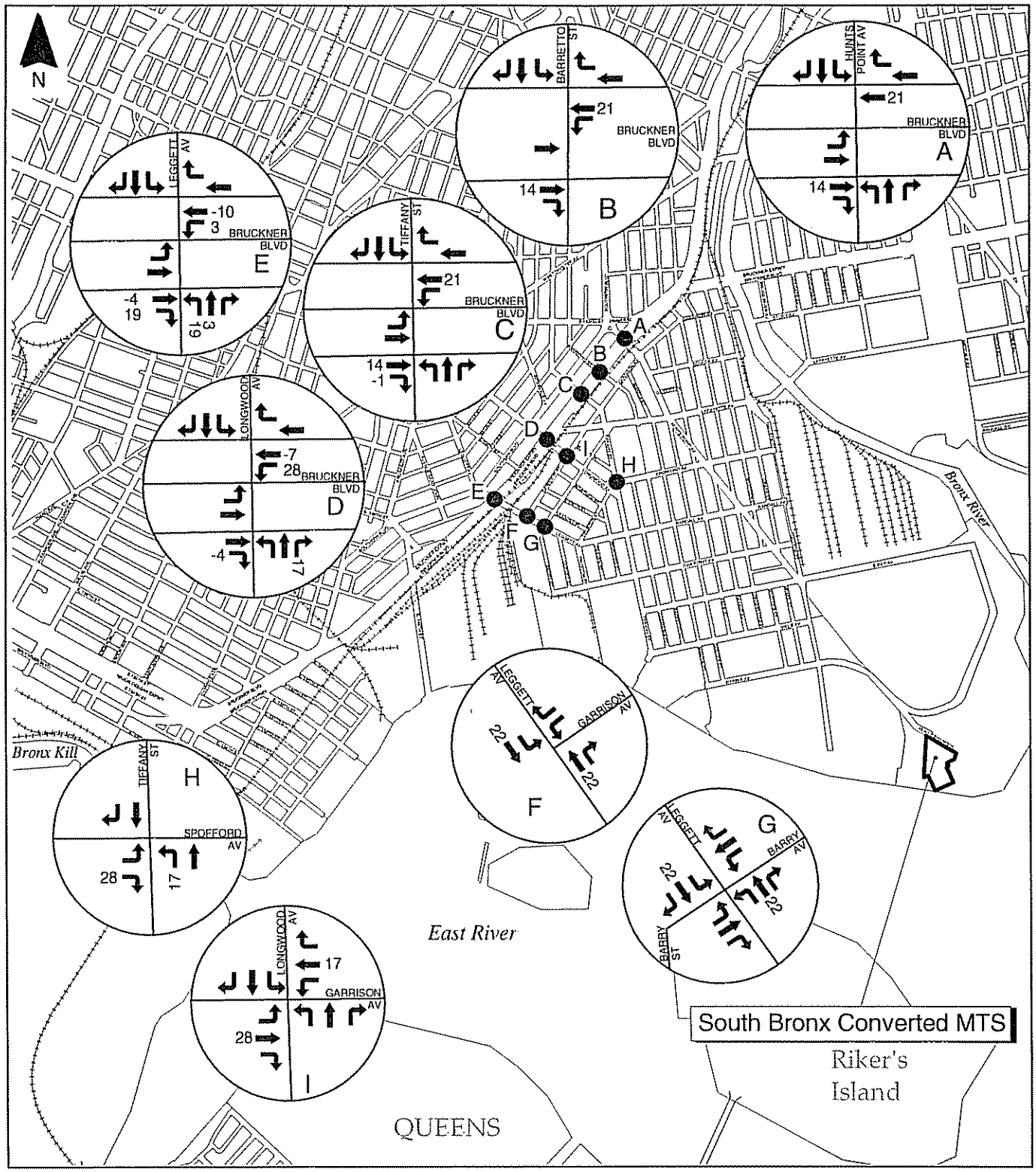

Site delineations are approximate
Base Map Source: New York City Department of City Planning

1500 0 1500 Feet

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Figure 19.14-22 2006 Net Traffic
AM Peak
South Bronx Converted MTS

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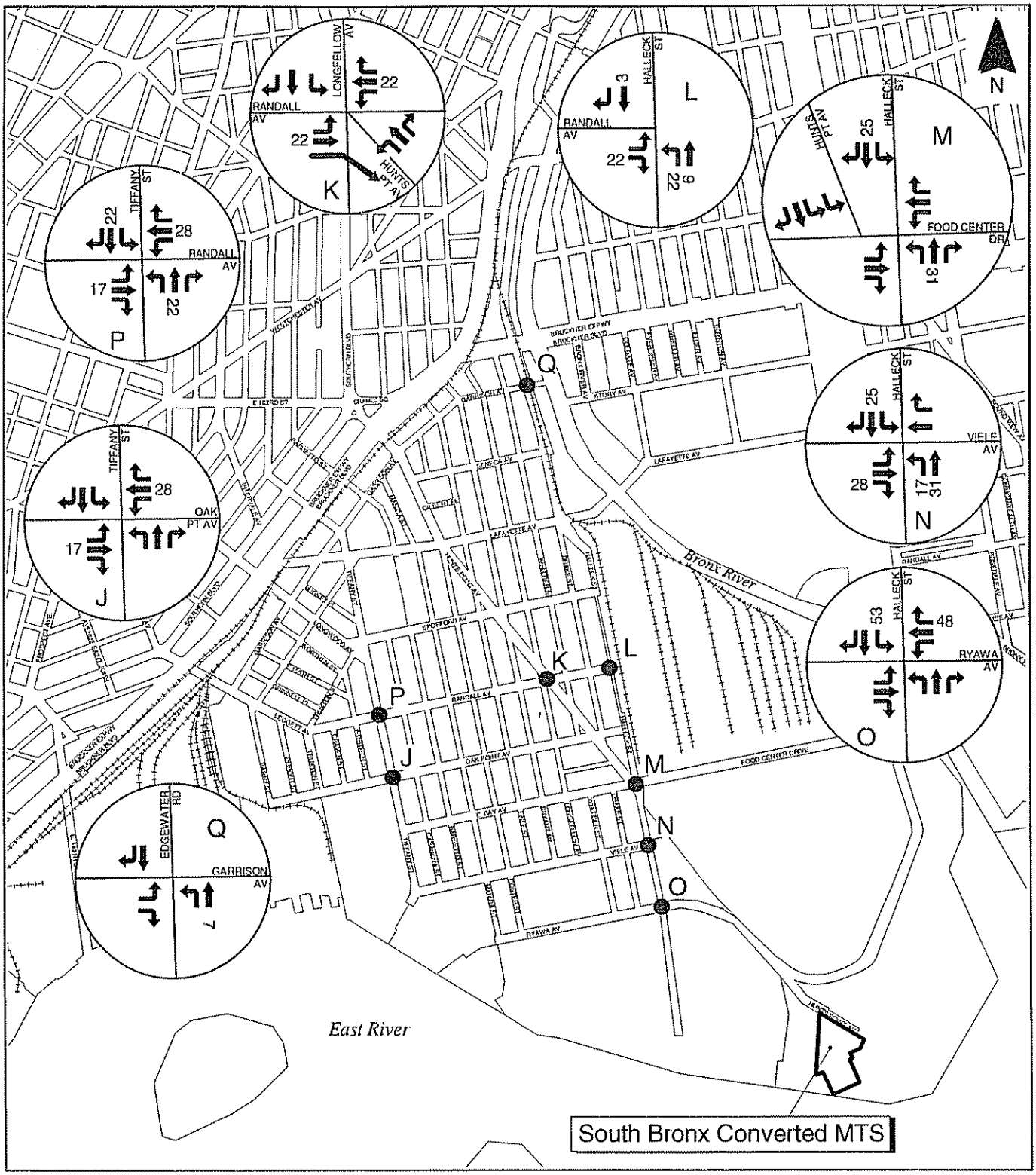

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

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Figure 19.14-23 2006 Net Traffic AM Peak South Bronx Converted MTS

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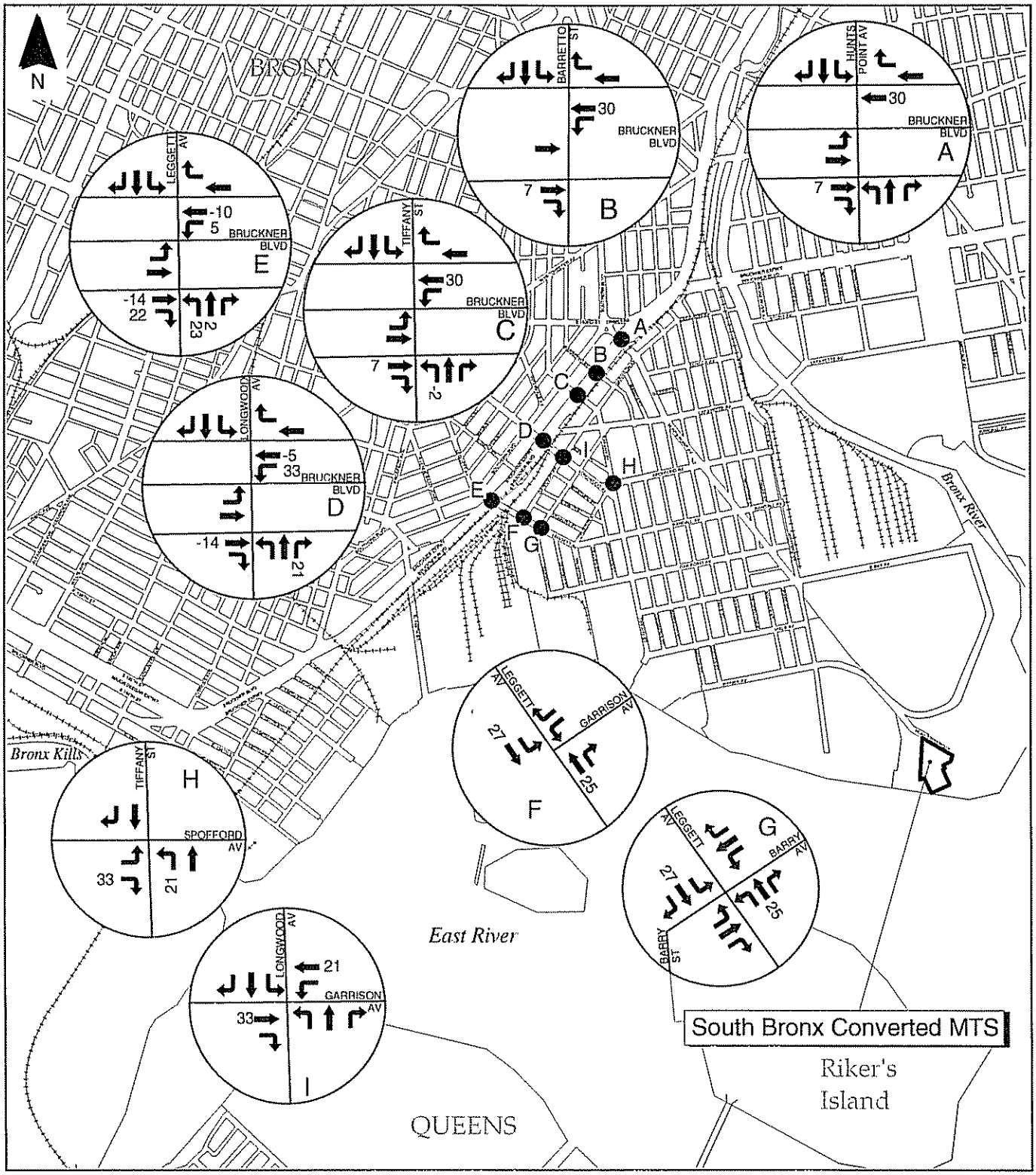

Site delineations are approximate
Base Map Source: New York City Department of City Planning

1500 0 1500 Feet

HDR URBITRAN EEA Cambridge Environmental Inc HydroQual PB

Figure 19.14-24 2006 Net Traffic Facility Peak South Bronx Converted MTS

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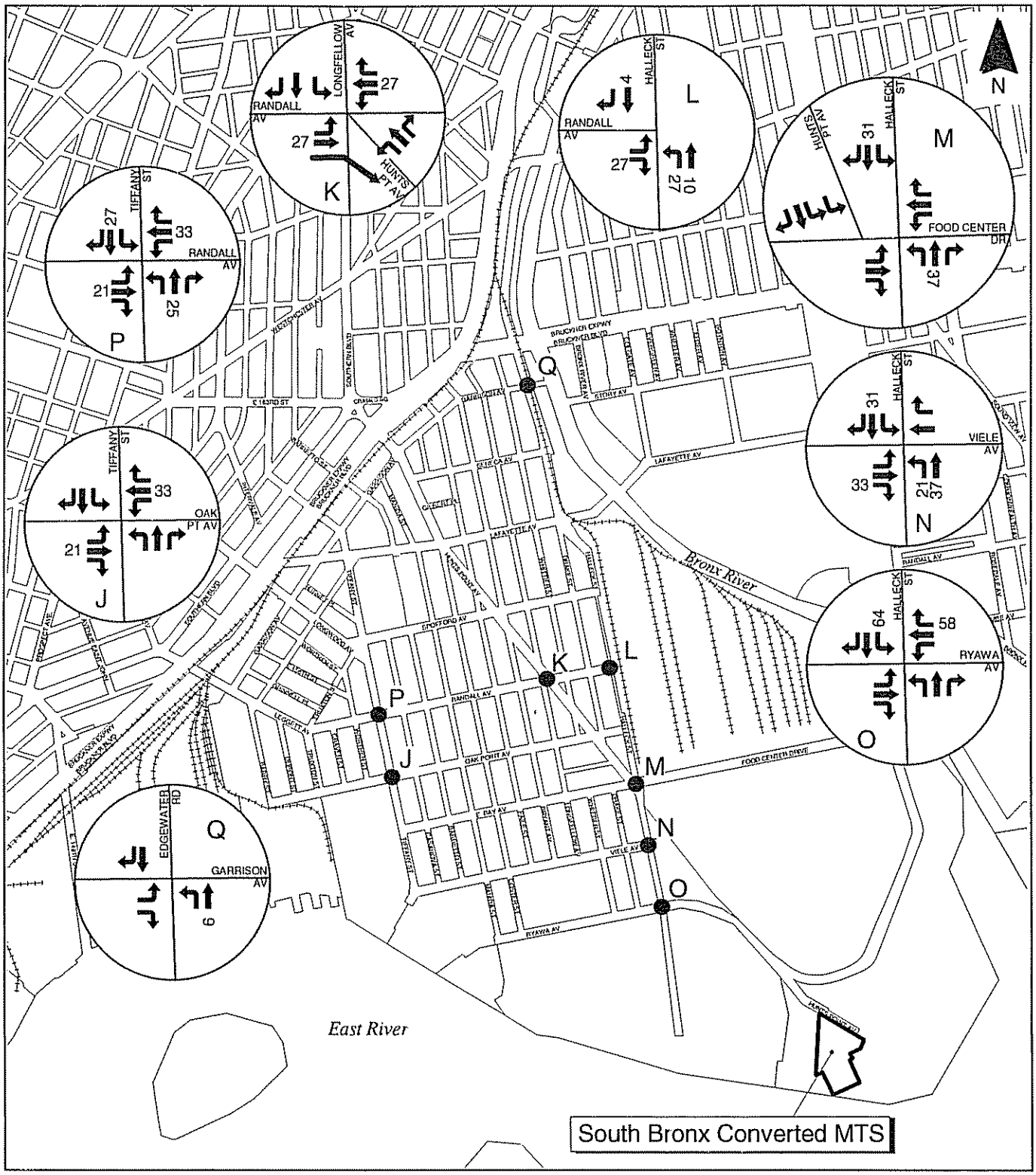

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

HDR HydroQual URBITRAN PB EEA Cambridge Environmental Inc

Figure 19.14-25 2006 Net Traffic Facility Peak South Bronx Converted MTS

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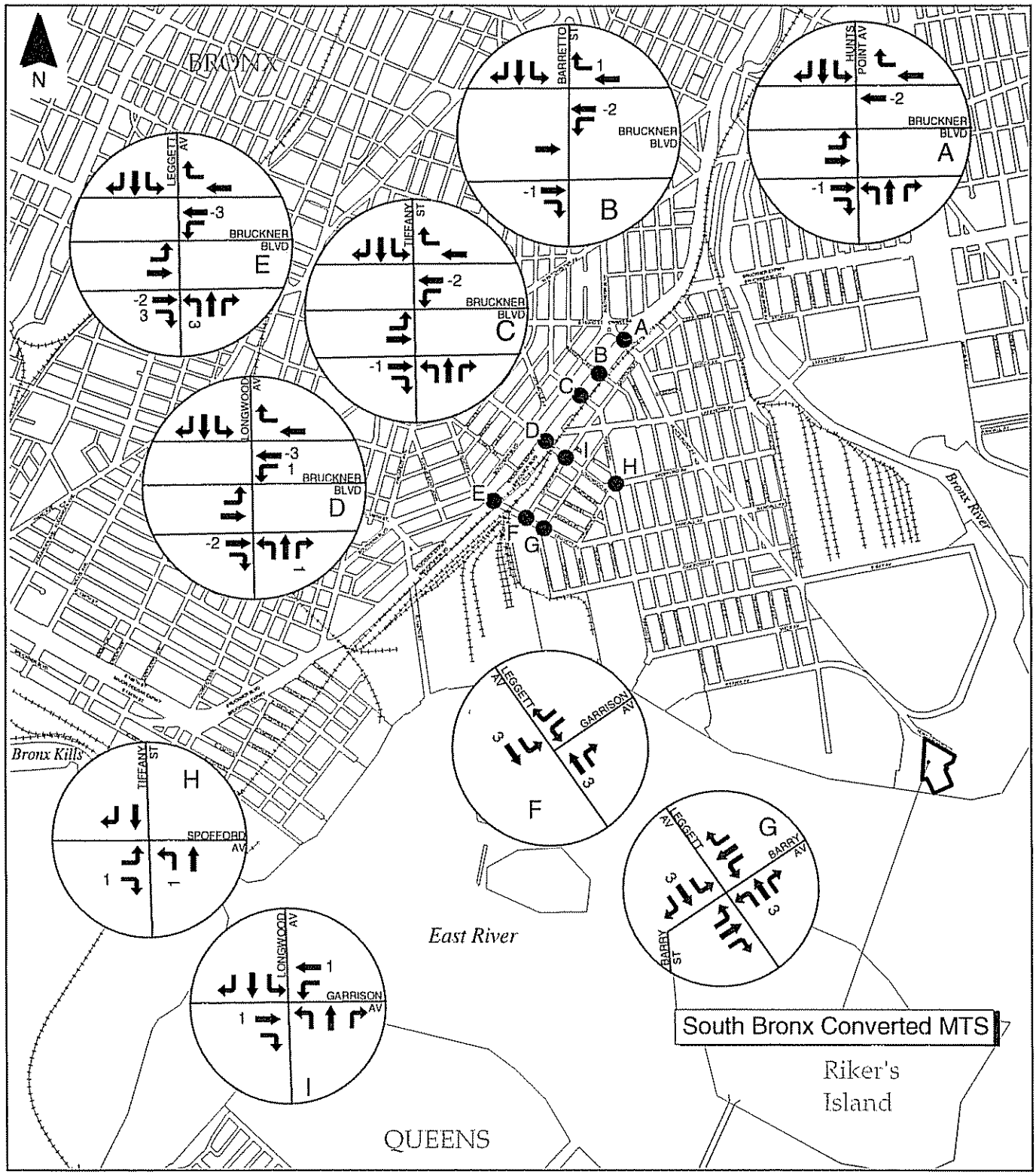

Site delineations are approximate.
Base Map Source: New York City Department of City Planning

1500 0 1500 Feet

HDR URBITRAN EEA Hydroqual DB Cambridge Environmental Inc

Figure 19.14-26 2006 Net Traffic
PM Peak
South Bronx Converted MTS

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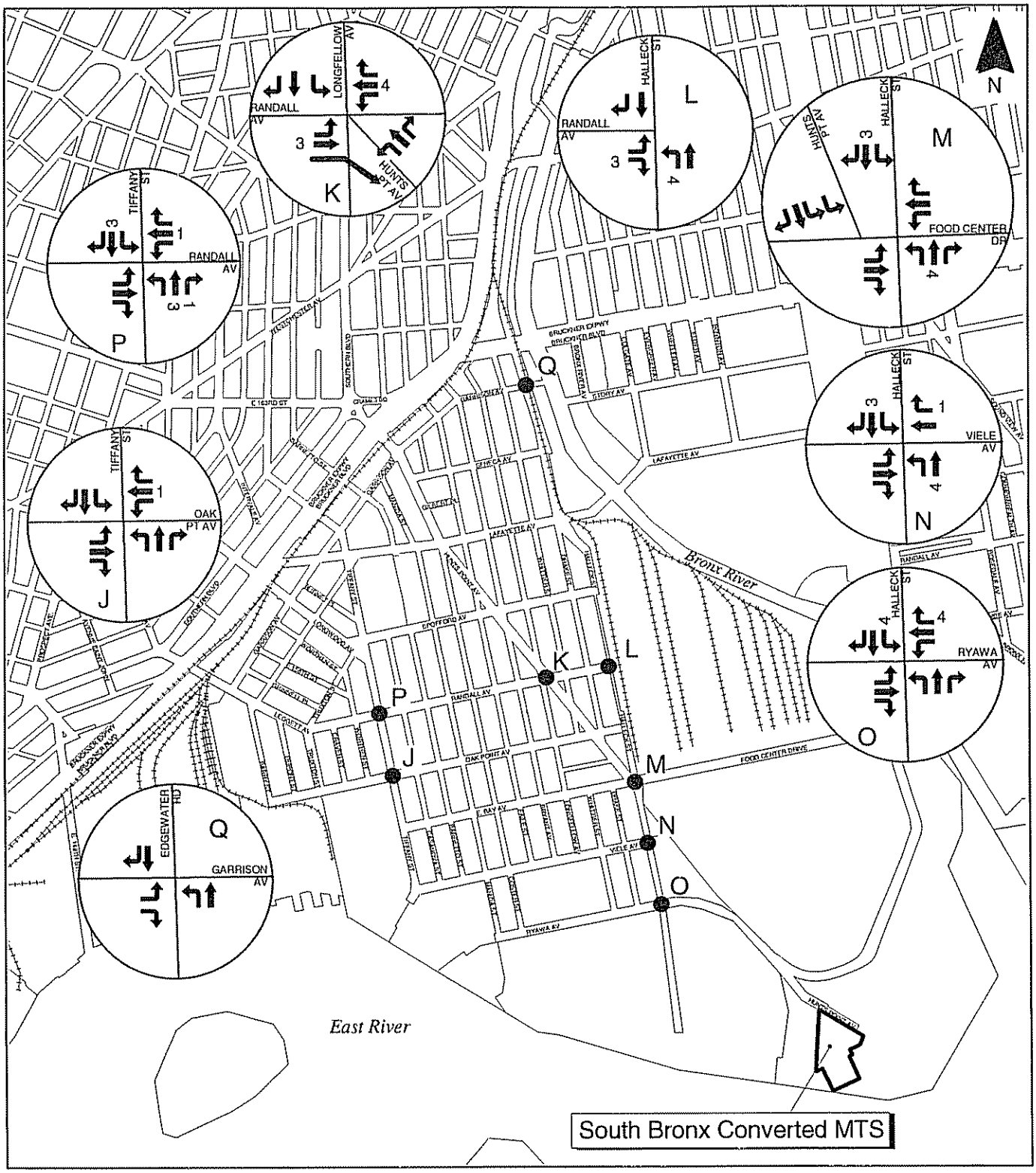

Site delineations are approximate
Base Map Source: New York City Department of City Planning

1000 0 1000 Feet

HDR HydroQual URBITRAN PB EEA Cambridge Environmental Inc

Figure 19.14-27 2006 Net Traffic
PM Peak
South Bronx Converted MTS

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Table 19.14-3
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 19.14-4 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 LOS 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 2001 CEQR Technical Manual and listed in Section 3.16, were identified for specific lane groups at the signalized intersections of 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.

Table 19.14-4
HCM Analysis[1] – 2006 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 Avenue & Garrison Street (signalized)									
SB LTR	0.38	15.8	B	0.32	15.4	B	0.34	15.5	B
EB LT	0.51	10.6	B	0.56	11.7	B	0.25	8.1	A
WB TR	0.73	14.7	B	0.47	10.0	B	0.27	8.1	A
OVERALL		13.3	B		11.3	B		9.4	A
Leggett Avenue & Barry Street (signalized)									
NB DFL	0.46	16.7	B	0.55	18.2	B	0.33	15.4	B
NB TR	0.09	13.9	B	0.08	13.8	B	0.06	13.6	B
SB LTR	0.10	13.9	B	0.07	13.7	B	0.05	13.6	B
EB LTR	0.60	11.9	B	0.73	15.9	B	0.33	8.7	A
WB LTR	0.61	12.2	B	0.42	9.6	A	0.22	7.8	A
OVERALL		12.6	B		13.9	B		9.8	A
Tiffany Street & Randall Avenue (signalized)									
NB DFL	0.72	22.6	C	0.40	12.3	B	-	-	-
NB TR	0.53	14.7	B	0.56	16.0	B	-	-	-
NB LTR	-	-	-	-	-	-	0.21	8.9	A
SB LTR	0.43	11.1	B	0.45	11.5	B	0.23	9.1	A
EB LTR	0.70	23.8	C	0.56	20.4	C	0.24	15.4	B
WB LTR	0.55	19.8	B	0.45	18.1	B	0.20	14.14	B
OVERALL		18.6	B		15.7	B		11.5	B
Tiffany Street & Oak Point Avenue (signalized)									
NB LTR	0.88	36.7	D	0.66	22.2	C	0.34	15.7	B
SB LTR	0.51	18.4	B	0.49	18.1	B	0.20	14.3	B
EB LTR	0.26	9.8	A	0.21	9.4	A	0.13	8.8	A
WB LTR	0.18	9.2	A	0.17	9.1	A	0.14	8.8	A
OVERALL		22.9	C		16.5	B		12.6	B
Hunts Point Avenue & Randall Avenue (signalized)									
NB LTR	0.06	10.0	B	0.17	10.7	B	0.13	10.4	B
SB LTR	0.35	12.3	B	0.31	11.9	B	0.20	11.0	B
EB LTR	0.44	13.7	B	0.40	13.1	B	0.27	11.6	B
WB LTR	0.29	12.0	B	0.34	12.5	B	0.14	10.6	B
OVERALL		12.5	B		12.2	B		11.0	B
Longwood Avenue & Garrison Avenue (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 Avenue & Tiffany Street (unsignalized)									
NB LT	-	10.0	B	-	9.9	A	-	8.4	A
EB LR	-	11.6	B	-	13.2	B	-	10.7	B

Table 19.14-4 (continued)
HCM Analysis[(1)] – 2006 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 Avenue & Halleck Street (signalized)									
NB L	0.04	17.3	B	0.05	17.4	B	0.02	17.0	B
NB TR	0.14	18.0	B	0.17	18.2	B	0.10	17.6	B
SB L	0.48	25.4	C	0.22	20.0	B	0.12	18.6	B
SB TR	0.13	18.1	B	0.09	17.6	B	0.05	17.2	B
EB LTR	0.10	23.1	C	0.09	22.9	C	-	-	-
EB DFL	-	-	-	-	-	-	0.17	24.4	C
EB TR	-	-	-	-	-	-	0.06	22.7	C
WB LTR	0.25	24.8	C	0.36	26.3	C	0.12	23.2	C
WB R	0.60	20.5	C	0.66	22.4	C	0.52	17.9	B
OVERALL		21.4	C		22.1	C		19.0	B
East Bay Avenue & Hunts Point Avenue (signalized)									
SB LTR	0.34	36.8	D	0.31	36.7	D	0.21	35.2	D
EB LTR	0.10	23.1	C	0.09	22.9	C	-	-	-
EB DFL	-	-	-	-	-	-	0.17	24.4	C
EB TR	-	-	-	-	-	-	0.05	22.7	C
WB LTR	0.25	24.8	C	0.36	26.3	C	0.12	23.2	C
WB R	0.60	20.5	C	0.66	22.4	C	0.52	17.9	B
OVERALL		24.14	C		25.6	C		21.6	C
Hunts Point Avenue & Bruckner Boulevard NB ML (signalized)									
NB L	0.14	25.0	C	0.15	25.1	C	0.11	24.3	C
NB T	0.63	32.6	C	0.54	30.7	C	1.01	63.7	E
EB L	0.63	47.0	D	0.76	50.4	D	0.88	64.0	E
EB T	0.17	29.3	C	0.22	29.9	C	0.19	29.5	C
WB T	0.38	38.0	D	0.26	36.1	D	0.31	37.0	D
WB R	0.41	40.1	D	0.38	39.3	D	0.65	47.6	D
OVERALL		36.0	D		36.5	D		55.9	E
Hunts Point Avenue & Bruckner Boulevard NB SR (signalized)									
NB TR	0.89	46.7	D	0.66	34.2	C	0.82	39.6	D
EB L	0.63	47.0	D	0.76	50.4	D	0.88	64.0	E
EB T	0.17	29.3	C	0.22	29.9	C	0.19	29.5	C
WB T	0.38	38.0	D	0.25	36.1	D	0.32	37.0	D
WB R	0.41	40.1	D	0.38	39.3	D	0.65	47.6	D
OVERALL		43.2	D		38.0	D		44.1	D
Hunts Point Avenue & Bruckner Boulevard SB ML (signalized)									
SB LT	0.67	17.9	B	0.40	13.6	B	0.39	13.4	B
EB TR	0.40	37.9	D	0.57	40.9	D	0.62	42.0	D
WB LT	0.26	30.6	C	0.30	31.1	C	0.47	33.7	C
OVERALL		22.9	C		25.8	C		27.4	C
Hunts Point Avenue & Bruckner Boulevard SB SR (signalized)									
SB TR	0.79	22.7	C	0.34	13.1	B	0.27	12.2	B
EB TR	0.40	37.9	D	0.57	40.9	D	0.62	42.0	D
WB LT	0.26	30.6	C	0.63	37.7	D	0.47	33.7	C
OVERALL		26.7	C		30.4	C		30.6	C
Barretto Street & Bruckner Boulevard ML (signalized)									
NB T	0.58	36.1	D	0.58	36.0	D	0.97	51.8	D
SB L	0.68	17.7	B	0.71	19.4	B	1.02	89.5	F
SB LT	0.70	15.6	B	0.49	11.6	B	0.41	9.7	A
EB LT	0.78	59.1	E	0.28	37.6	D	0.57	45.8	D
OVERALL		25.2	C		23.0	C		48.9	D

Table 19.14-4 (continued)
HCM Analysis[1] – 2006 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
Barretto Street & Bruckner Boulevard SR (signalized)									
NB TR	0.95	61.4	E	0.60	37.6	D	0.73	32.2	C
SB TR	0.70	15.1	B	0.32	9.3	A	0.27	8.1	A
EB TR	0.77	57.5	E	0.26	37.2	D	0.58	46.0	D
OVERALL		35.2	D		22.7	C		26.7	C
Tiffany Street & Bruckner Boulevard ML (signalized)									
NB L	0.08	28.9	C	0.04	28.0	C	0.02	16.2	B
NB T	0.59	36.5	D	0.49	34.3	C	0.63	25.0	C
SB L	0.36	11.0	B	0.23	9.3	A	0.14	11.3	B
SB T	0.42	10.3	B	0.25	8.7	A	0.22	8.4	A
EB L	0.90	74.6	E	0.55	45.3	D	0.84	65.5	E
EB T	0.18	35.7	D	0.11	34.6	C	0.15	35.2	D
WB LT	0.09	34.0	C	0.05	33.6	C	0.08	33.9	C
OVERALL		27.5	C		24.2	C		27.5	C
Tiffany Street & Bruckner Boulevard SR (signalized)									
NB TR	0.65	38.9	D	0.64	38.8	D	0.75	28.7	C
SB TR	0.71	15.5	B	0.32	9.4	A	0.29	9.0	A
EB TR	0.48	39.9	D	0.27	36.4	D	0.44	39.9	D
WB TR	0.19	35.2	D	0.15	34.7	C	0.19	35.3	D
OVERALL		25.8	C		26.7	C		25.5	C
Longwood Avenue & Bruckner Boulevard ML (signalized)									
NB L	0.09	43.9	D	0.14	40.6	D	0.05	28.0	C
NB T	0.34	47.3	D	0.27	41.9	D	0.72	40.0	D
SB L	0.55	32.5	C	0.47	33.5	C	0.54	48.9	D
SB T	0.50	27.8	C	0.30	27.8	C	0.38	39.4	D
EB DFL	0.47	38.3	D	-	-	-	0.60	42.5	D
EB T	0.69	45.9	D	-	-	-	0.46	37.2	D
EB LT	-	-	-	0.49	36.4	D	-	-	-
WB DFL	0.88	70.8	E	-	-	-	-	-	-
WB LT	-	-	-	0.39	34.6	C	0.26	32.0	C
WB T	0.49	38.6	D	-	-	-	-	-	-
OVERALL		39.9	D		34.2	C		43.8	D
Longwood Avenue & Bruckner Boulevard SR (signalized)									
NB TR	0.63	54.2	D	0.47	45.3	D	0.66	38.2	D
SB TR	0.97	53.8	D	0.51	31.3	C	0.99	74.5	E
EB TR	0.62	38.7	D	0.44	34.14	C	0.59	37.9	D
WB TR	0.96	68.7	E	0.76	47.0	D	0.44	35.2	D
OVERALL		54.3	D		38.3	D		50.3	D
Leggett Avenue & Bruckner Boulevard ML (signalized)									
NB L	0.31	42.5	D	0.16	39.9	D	0.31	51.6	D
NB T	0.14	25.0	C	0.25	26.4	C	0.56	22.7	C
SB L	0.94	83.7	F	0.49	49.0	D	0.28	52.2	D
SB T	0.60	32.4	C	0.31	27.3	C	0.23	17.8	B
WB L	0.84	61.1	E	0.68	47.7	D	0.44	40.8	D
WB LT	1.05	102.2	F	0.75	50.4	D	0.44	40.5	D
OVERALL		58.6	E		38.4	D		26.9	C

Table 19.14-4 (continued)
HCM Analysis[(1)] – 2006 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 Avenue & Bruckner Boulevard SR (signalized)									
NB TR	0 78	39.5	D	0.71	36.7	D	0.59	23.5	C
SB TR	0 49	30 1	C	0.30	27.0	C	0.26	18.2	B
WB TR	1.00	74.8	E	0.76	45.6	D	0.49	39.9	D
OVERALL		49.2	D		37.6	D		26.0	C
Halleck Street & Randall Avenue (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 Avenue (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 Avenue & 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
LT = left through movement
L= left movement
TR = through right movement
R = right movement
T = through movement
LR = left right movement

19.14.4.2 Impacts and Mitigation

Table 19.14-5 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 three-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; and
- 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 19.14-5
HCM Analysis[1] – 2006 Future Build Conditions with Mitigation
South Bronx Converted MTS

Intersection & Lane Group	2006 Future No-Build			2006 Future Build			2006 Future Build after Mitigation		
	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Barretto Street & Bruckner Boulevard SR (signalized) - AM Peak									
NB TR	0.91	54.7	D	0.95	61.4	E	0.86	46.5	D
SB TR	0.70	15.1	B	0.70	15.1	B	0.71	15.9	B
EB TR	0.77	57.5	E	0.77	57.5	E	0.74	54.6	D
OVERALL		33.5	C		35.2	D		30.3	C
Barretto Street & Bruckner Boulevard ML (signalized) - AM Peak									
NB L	0.58	36.1	D	0.58	36.1	D	0.52	32.2	C
SB L	0.68	17.7	B	0.68	17.7	B	0.72	19.5	B
SB LT	0.67	14.14	B	0.70	15.6	B	0.71	16.3	B
EB LT	0.78	59.1	E	0.78	59.1	E	0.75	55.9	E
OVERALL		24.14	C		25.2	C		24.6	C
Leggett Avenue & Bruckner Boulevard SR (signalized) - AM Peak									
NB TR	0.75	38.1	D	0.78	39.5	D	0.78	39.5	D
SB TR	0.49	30.1	C	0.49	30.1	C	0.49	30.1	C
WB TR	0.95	64.1	E	1.00	74.8	E	0.94	61.6	E
OVERALL		44.7	D		49.2	D		44.5	D
Leggett Avenue & Bruckner Boulevard ML (signalized) - AM Peak									
NB L	0.31	42.5	D	0.31	42.5	D	0.34	44.7	D
NB T	0.14	25.0	C	0.14	25.0	C	0.14	25.0	C
SB L	0.52	48.2	D	0.53	48.6	D	0.58	52.3	D
SB T	0.62	32.9	C	0.60	32.4	C	0.60	32.4	C
WB L	0.79	56.1	E	0.84	61.1	E	0.79	54.1	D
WB LT	0.95	75.9	E	1.05	102.2	F	0.96	75.5	E
OVERALL		46.6	D		53.9	D		47.2	D
Longwood Avenue & Garrison Avenue (unsignalized 2006 No-Build & Build, signalized 2006 Future Build with Mitigation) – Facility Peak									
NB LTR	0.36	13.3	B	0.36	13.9	B	0.31	16.6	B
SB LTR	0.40	13.3	B	0.40	14.1	B	0.44	19.3	B
EB LT(R)	0.22	11.8	B	0.24	12.3	B	0.40	10.4	B
EB TR	0.83	35.3	E	0.93	51.8	F	-	-	-
WB LT(R)	0.39	14.6	B	0.41	15.6	C	0.41	10.5	B
WB TR	0.57	19.6	C	0.63	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
LT = left through movement
L= left movement
TR = through right movement
R = right movement
T = through movement

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

- Provide a two-second increment in green time to the eastbound/westbound lane group by taking one 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 LOS (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 PCEs 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. (There are 11 warrants that have been developed by the FHWA that are contained in the Manual on Uniform Traffic Control Devices. Traffic Signal Warrants are defined as minimum conditions under which signal installations may be justified. In this case, a traffic signal is warranted if for one hour of an average day the minor street traffic suffers undue delay in entering or crossing the major street.)

19.14.4.3 Public Transportation

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

19.14.4.4 Pedestrian Activity

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

19.15 Air Quality

19.15.1 Definition of Study Areas

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 19.15.4.2.

19.15.2 Existing Conditions

Applicable air quality data collected at the monitoring station(s) nearest the study area are shown in Table 19.15-1. These data were compiled by NYSDEC for 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 19.15-1
Representative Ambient Air Quality Data
South Bronx Converted MTS

Pollutant	Monitor	Averaging Time	Value	NAAQS
CO	200th Street and Southern Boulevard	8-Hour	2,519 $\mu g/m^3$	10,000 $\mu g/m^3$
		1-Hour	4,695 $\mu g/m^3$	40,000 $\mu g/m^3$
NO_2	200th Street and Southern Boulevard	Annual	51 $\mu g/m^3$	100 $\mu g/m^3$
PM_{10}	East 156th Street between Dawson and Kelly Streets	Annual	22 $\mu g/m^3$	50 $\mu g/m^3$
		24-Hour	60 $\mu g/m^3$	150 $\mu g/m^3$
SO_2	200th Street and Southern Boulevard	3-Hour	207 $\mu g/m^3$	1,300 $\mu g/m^3$
		24-Hour	134 $\mu g/m^3$	365 $\mu g/m^3$
		Annual	24 $\mu g/m^3$	80 $\mu g/m^3$

Note:
Source: USEPA Airdata, 2003 – Monitor Values Report (http://oaspub.epa.gov/airdata)

19.15.3 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.

19.15.4 Potential Impacts with the South Bronx Converted MTS

19.15.4.1 On-Site Analysis

19.15.4.1.1 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 19.15-2. Figure 19.15-1 shows the locations of these sources within the site.

19.15.4.1.2 Results of the Criteria Pollutant Analysis

The highest estimated criteria pollutant concentrations at any of the receptor locations considered are presented in Table 19.15-3. 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 19.15-3, are below the STVs. The South Bronx Converted MTS would not, therefore, significantly impact air quality in the area.

Table 19.15-2
Emission Sources Considered for On-Site Air Quality Analysis[1]
South Bronx Converted MTS

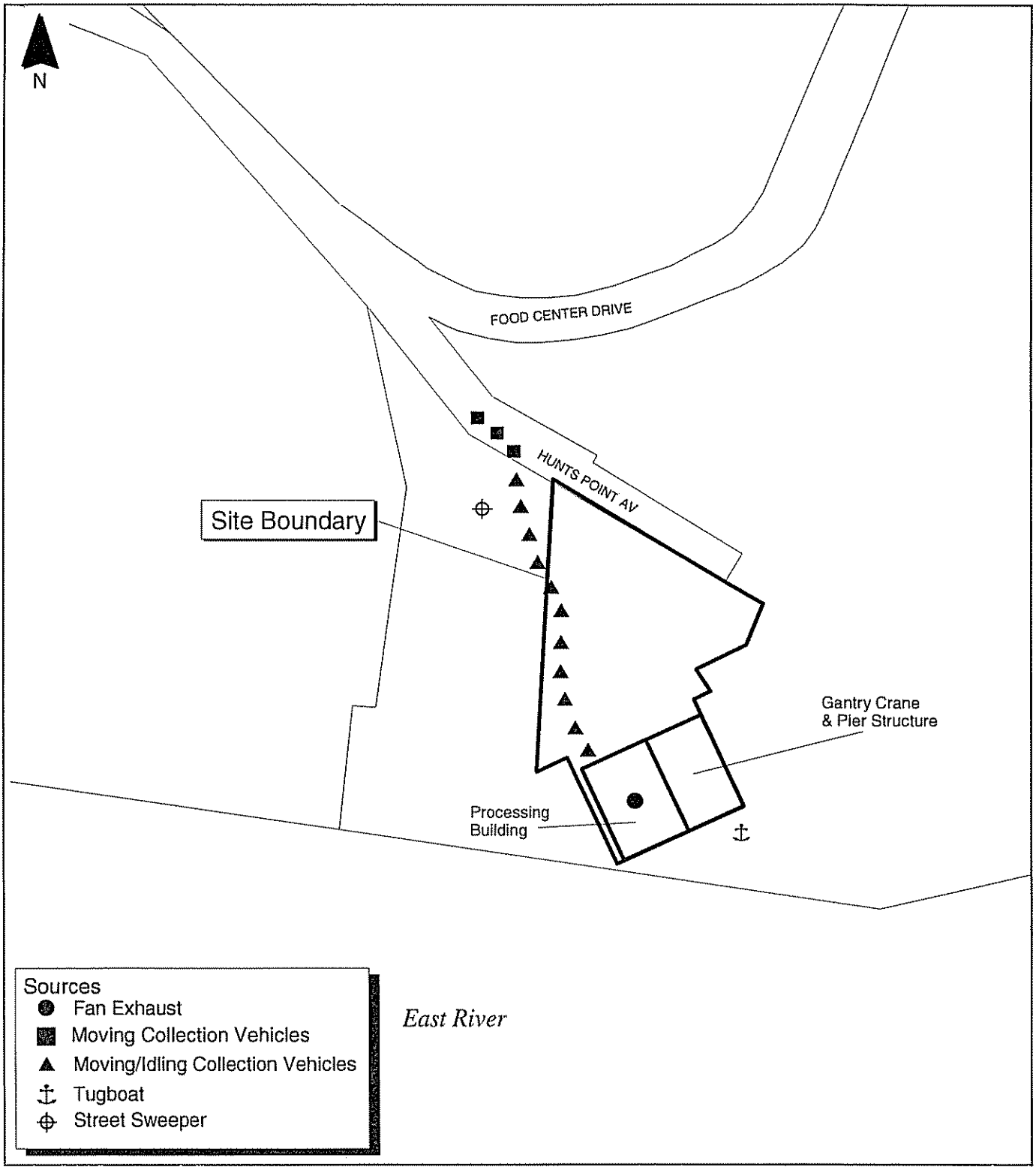
Type of Emission Source	Maximum Number of Sources Operated During a Single Hour[2]	Number of Sources Operated During 24-hour and Annual Average Hour
Within Processing Building		
Wheel Loaders	2	1
Mini Loaders	1	1
Tamping Cranes	1	1
Mini-Sweepers	1	1
Vacuum Sweepers	1	1
Moving/Queuing Collection Vehicles	46	18
Space Heaters	10	10
Boiler	1	1
Outside Processing Building		
Moving Collection Vehicles	46	18
Queuing Collection Vehicles[3]	17 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) This is based on design capacity of the Converted MTS, not analyzed truck arrival rates.

(3) 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 (17), 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
Note: These are modeled source locations used in the on-site air quality analysis and do not represent individual collection vehicles

200 0 200 Feet

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Figure 19.15-1 On-Site Air Quality Analysis

South Bronx Converted MTS

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Table 19.15-3
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[1]	Background Pollutant Concentrations[2]	Highest Estimated On-Site Pollutant Concentrations	NAAQS[3]	STV[4]
Carbon Monoxide (CO), $\mu g/m^3$	1-hour[6]	549	3,781	4,330	40,000	NA
	8-hour[6]	253	2,635	2,888	10,000	NA
Nitrogen Dioxide (NO_2), $\mu g/m^3$	Annual	4	~~68~~60	64	100	NA
Particulate Matter (PM_{10}), $\mu g/m^3$	24-hour[7]	23	91	114	150	NA
	Annual	3	21	24	50	NA
Particulate Matter ($PM_{2.5}$), $\mu g/m^3$	24-hour	2	NA	NA	NA	5
	Annual Neighborhood Average	0.021[5]	NA	NA	NA	0.1
Sulfur Dioxide (SO_2), $\mu g/m^3$	3-hour[6]	96	254	350	1,300	NA
	24-hour[6]	5	136	141	365	NA
	Annual	0.4	37	37	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 ~~in April 2003~~memorandum dated February 18, 2005.

(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 provides a very conservative comparison with standards.

(7) The 24-hour PM_{10} 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~~ very conservative.

NA = Not Applicable

19.15.4.1.3 Results of the Toxic Pollutant Analysis

The results of the toxic pollutant analysis are summarized in Table 19.15-4. 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.

19.15.4.2 Off-Site Analysis

19.15.4.2.1 Pollutants Considered and Analyses Conducted

Locations potentially affected by DSNY and other agency collection vehicles were identified using 2001 CEQR Technical Manual guidelines that are outlined in Section 3.17. Following these guidelines, the following detailed mobile source analyses were conducted for the applicable (i.e., worst-case) 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 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 the 24-hour and annual PM_{10} NAAQS.

The roadway intersections selected for the mobile source analysis are shown in Figure 19.15-2.

Table 19.15-4
Highest Estimated Non-Cancer Hazard Index and Cancer Risk of Toxic Air Pollutants 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 (1-hr) 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	317E-01	1.30E+03	2.44E-04	1.37E-03	1.30E-01	1.06E-02	1.37E-03	8.30E-06	1.14E-08
2	Formaldehyde	4.01E-01	3.00E+01	1.34E-02	1.74E-03	6.00E-02	2.89E-02	1.74E-03	1.30E-05	2.26E-08
3	1,3 Butadiene	1.33E-02	-	-	5.75E-05	3.60E-03	1.60E-02	5.75E-05	2.80E-04	1.61E-08
4	Acetaldehyde	2.61E-01	4.50E+03	5.79E-05	1.13E-03	4.50E-01	2.51E-03	1.13E-03	2.20E-06	2.48E-09
5	Benzo(a)pyrene	6.39E-05	-	-	2.77E-07	2.00E-03	1.38E-04	2.77E-07	1.70E-03	4.70E-09
Non-Carcinogenic Pollutants [10]										
6	Propylene	8.77E-01	-	-	3.80E-02	3.00E+03	1.27E-06	3.80E-03	NA	NA
7	Acrolein	3.14E-02	1.90E-01	1.65E-01	1.36E-04	2.00E-02	6.81E-03	1.36E-04	NA	NA
8	Toluene	1.39E-01	3.70E+04	3.76E-06	6.02E-04	4.00E+02	1.50E-06	6.02E-04	NA	NA
9	Xylenes	9.68E-02	4.30E+03	2.25E-05	4.19E-04	7.00E+02	5.99E-07	4.19E-04	NA	NA
10	Anthracene	6.35E-04	-	-	2.75E-06	2.00E-02	1.38E-04	2.75E-06	NA	NA
11	Benzo(a)anthracene	5.71E-04	-	-	2.47E-06	2.00E-02	1.24E-04	2.47E-06	NA	NA
12	Chrysene	1.20E-04	-	-	5.19E-07	2.00E-02	2.60E-05	5.19E-07	NA	NA
13	Naphthalene	2.88E-02	7.90E+03	3.65E-06	1.25E-04	3.00E+00	4.16E-05	1.25E-04	NA	NA
14	Pyrene	1.62E-03	-	-	7.03E-06	2.00E-02	3.52E-04	7.03E-06	NA	NA
15	Phenanthrene	9.99E-03	-	-	4.33E-05	2.00E-02	2.16E-03	4.33E-05	NA	NA
16	Dibenz(a,h)anthracene	1.98E-04	-	-	8.58E-07	2.00E-02	4.29E-04	8.58E-07	NA	NA
		Total Estimated Acute Non-Cancer Hazard Index		**1.79E-01**	**Total Estimated Chronic Non-Cancer Hazard Index**		**6.78E-02**	**Total Estimated Combined Cancer Risk**		**5.30E-08**
		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 19.15-4:

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

(2) Short-term (1-hour) guideline concentrations (SGCs) established by NYSDEC.

(3) Estimated by dividing the maximum 1-hour 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 HCs.

(5) Long-term (annual) guideline concentrations (AGCs) 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

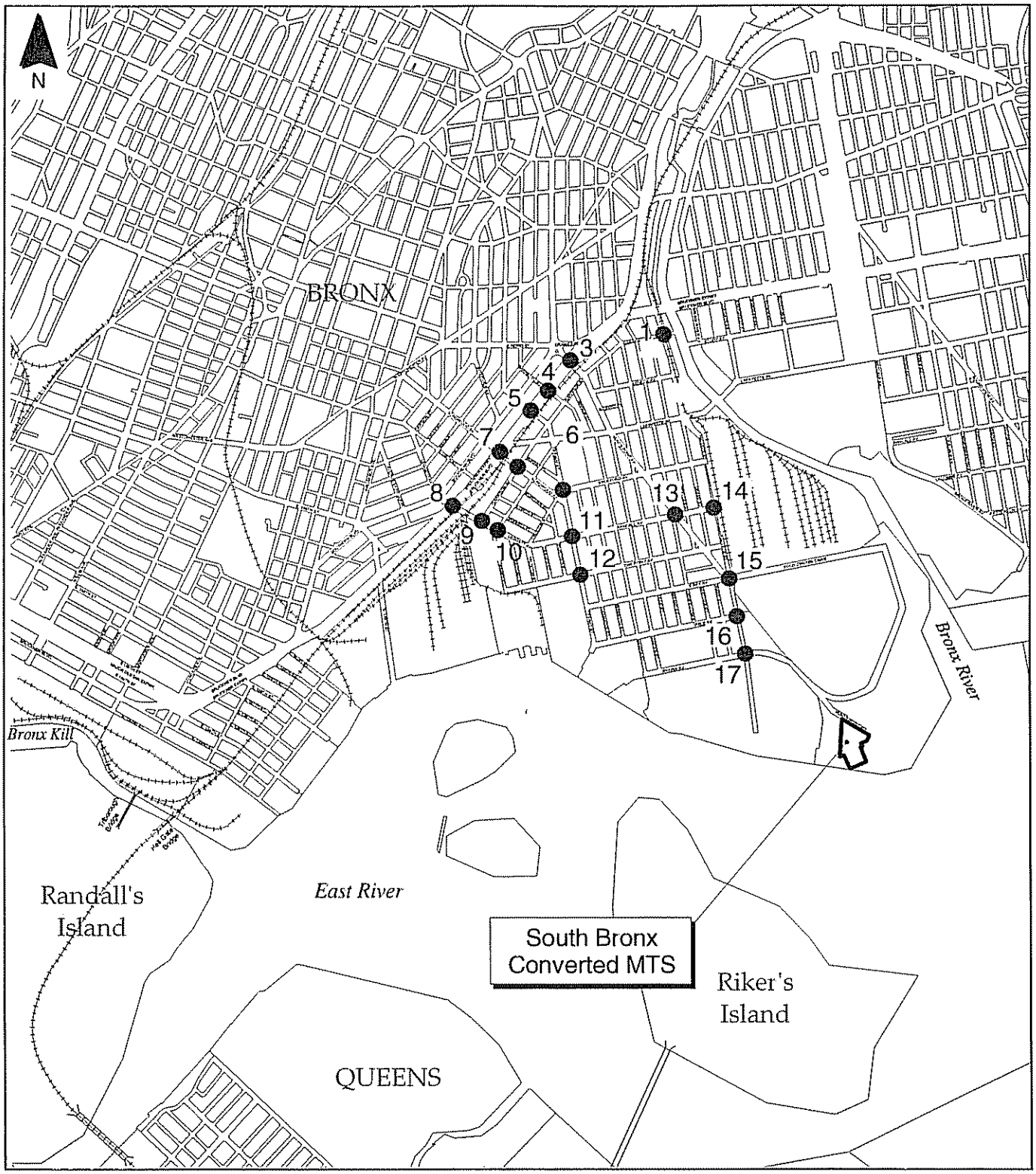
(8) The maximum cancer risk of each of the individual pollutants was estimated by multiplying the estimated annual concentration of each pollutant by its unit risk factor.

(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.

NA = Not Applicable



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

1500 0 1500 Feet

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Figure 19.15-2 Off-Site Air Quality Intersections Studied South Bronx Converted MTS

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19.15.4.2.2 Results of the Off-Site Analysis

Applicable pollutant concentrations estimated near each selected intersection, which are shown in Table 19.15-5, 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 19.15-5
Maximum Estimated Pollutant Concentrations Near Selected Roadway Intersections
South Bronx Converted MTS

Air Quality Receptor Site	CO	PM_{10}		24-hr $PM_{2.5}$ Impacts			Max Annual Neighborhood $PM_{2.5}$ Impacts		
	8-hr CO Conc.[1] ppm (NAAQS: 9 ppm)	24-hr PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 150 $\mu g/m^3$)	Annual PM_{10} Conc.[1] $\mu g/m^3$ (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 $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	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 Off-Site Emission Sources $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)
Bruckner Boulevard & Leggett Avenue									
Existing Conditions	6	~~121~~137	~~42~~39						
Future No-Build Conditions	5	~~117~~133	~~41~~38						
Future Build Conditions	5	~~118~~134	~~41~~38						
Future Build Incremental				0.02	0.993	~~1.01~~0.32	0.0002	0.08090	~~0.08~~0.090
Bruckner Boulevard & Longwood Avenue									
Existing Conditions		~~132~~148	~~42~~39						
Future No-Build Conditions		~~129~~145	~~41~~38						
Future Build Conditions	NA [4]	~~129~~145	~~43~~39						
Future Build Incremental				0.03	0.47	~~0.50~~0.43	0.0003	0.080	~~0.08~~0.080

Table 19.15-5 (Continued)
Maximum Estimated Pollutant Concentrations Near Selected Roadway Intersections
South Bronx Converted MTS

Intersection	CO	PM_{10}		24-hr $PM_{2.5}$ Impacts			Max Annual Neighborhood $PM_{2.5}$ Impacts		
	8-hr CO Conc.[1] ppm (NAAQS: 9 ppm)	24-hr PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 150 $\mu g/m^3$)	Annual PM_{10} Conc.[1] $\mu g/m^3$ (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 $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	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 Off-Site Emission Sources $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)
Tiffany Street & Randall Avenue[6]									
Existing Conditions	3	~~93~~109	~~32~~29						
Future No-Build Conditions	3	~~88~~113	~~34~~30						
Future Build Conditions	3	~~99~~115	~~34~~31						
Future Build Incremental				0.03	0.~~1~~93	~~0.22~~0.33	0.035	0.~~04~~060[6]	~~0.08~~0.095
Halleck Street & Ryawa Avenue[6]									
Existing Conditions		~~84~~100	~~28~~25						
Future No-Build Conditions		~~95~~111	~~32~~28						
Future Build Conditions	NA [5]	~~98~~114	~~33~~30						
Future Build Incremental				0.10	0.~~2~~25	~~0.32~~0.60	0.035	0.049[7]	0.084
Halleck Street & East Bay Avenue/Hunts Point Avenue[6]									
Existing Conditions	4	~~111~~127	~~44~~41						
• Future No-Build Conditions	4	~~110~~126	~~43~~40						
Future Build Conditions	4	~~113~~129	~~44~~41						
Future Build Incremental				0.07	0.~~1~~93	~~0.26~~0.37	0.035	~~0.03~~0.050[6]	~~0.07~~0.085

Notes for Table 19.15-5:

(1) CO and PM_{10} concentrations are the maximum concentrations estimated using the AM, Facility, and PM peak traffic conditions plus background concentration (8-hr CO = 2.3 ppm; 24-hr PM_{10} = ~~75~~ 91 $\mu g/m^3$; Annual PM_{10} = 24 $\mu g/m^3$).

(2) The maximum incremental 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~~ The maximum difference between ~~the maximum~~ $PM_{2.5}$ concentrations ~~for~~ under the ~~Future~~ future No-Build and ~~Future~~ future Build ~~scenarios~~ conditions at ~~any~~ sidewalk receptors ~~three meters from the edge of the roadways~~ under ~~using~~ AM, Facility, or PM peak traffic conditions.

(4) NA=Not Applicable. Incremental 1-hour vehicular trips were below CEQR CO air quality screening thresholds

(5) Results determined using a Tier II analysis.

(6) The difference between $PM_{2.5}$ concentrations under future No-Build and future Build conditions at receptors 15 meters from the edge of the roadways under AM, Facility, or PM peak traffic conditions.

(7) The difference of the average concentration of the mobile receptor grid between future No Build and future Build conditions at receptors 15 meters from the edge of the roadways under AM, Facility, 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, Facility, 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

~~NA = Not Applicable~~

19.16 Odor

19.16.1 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 645 feet from the site boundary.

19.16.2 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.

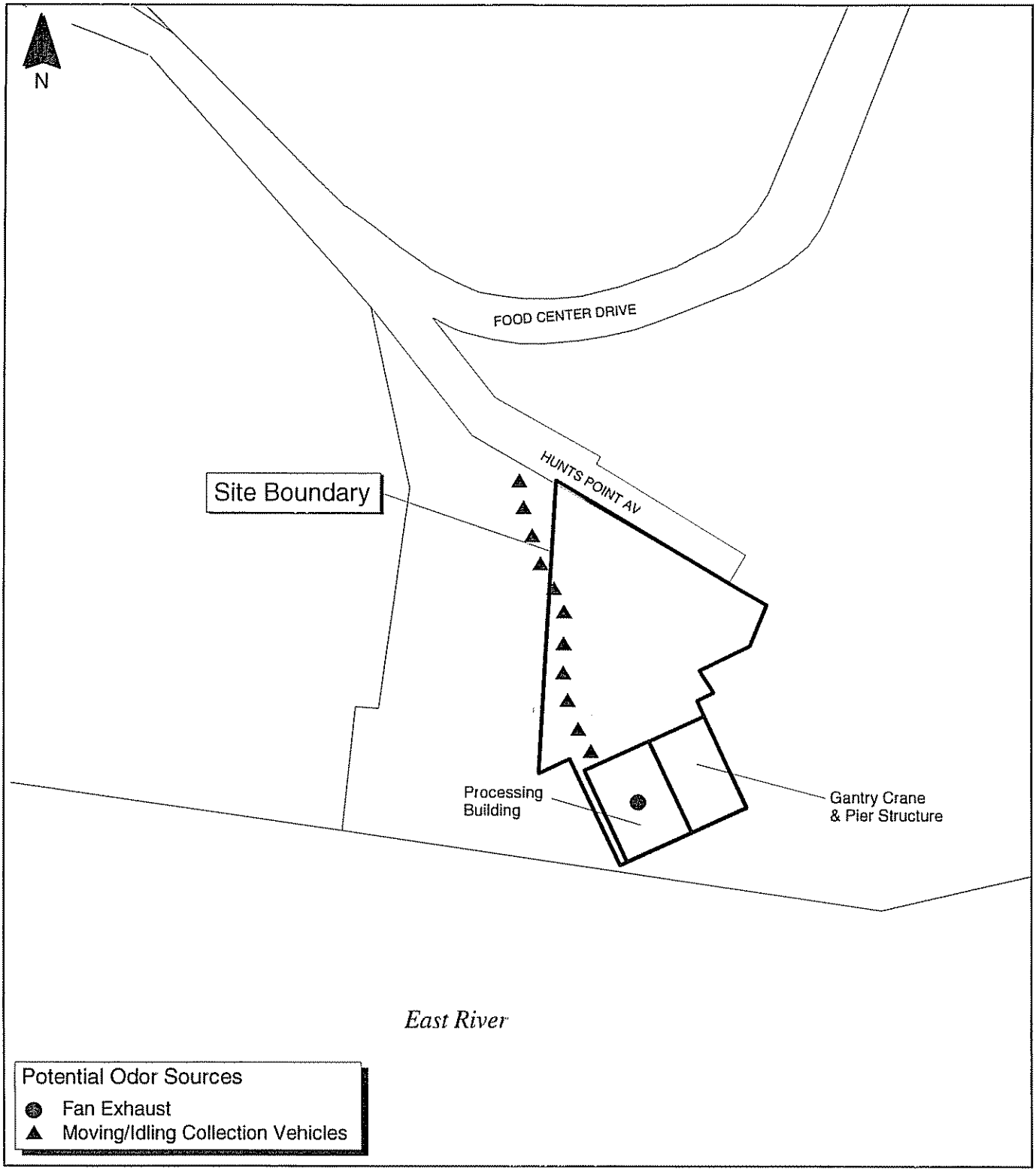
19.16.3 Potential Impacts with the South Bronx Converted MTS

19.16.3.1 Odor Source Types and Locations Considered in the Analysis

The anticipated number and types 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 19.16-1. Figure 19.16-1 shows the locations of these sources within the site.

Table 19.16-1
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
Moving and Idling Collection Vehicles	18



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

200 0 200 Feet

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Figure 19.16-1 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% and 99% of odorous compounds. For purposes of modeling odor dispersion, a 90% reduction of odorous emissions was conservatively assumed for the South Bronx Converted MTS.

19.16.3.2 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 19.16-2. The predicted OU values at sensitive receptor locations are compared to an OU of 5, which represents the level of odor impact that would begin to be detected by an average observer. The highest predicted OU 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 19.16-2
Highest Predicted Odor Concentration(s) from On-Site Sources
South Bronx Converted MTS

Parameter	Resulting Odor Unit [1]
Estimated Detectable Concentration	5.0
Highest Result	0.25
Type of Receptor	Over-Water Receptor
Receptor	36 feet from the facility
Closest Sensitive Receptor Result [2]	0.03
Type of Receptor	Prison Barge
Distance to Receptor	645 Feet

Notes:
[1] Odor Unit is defined as concentration that an average person in a laboratory setting could just barely detect.
[2] Sensitive receptors in this analysis are the same as sensitive receptors in the noise analysis.

19.17 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 2001 CEQR Technical Manual for both on-site and off-site sources, and, for on-site sources only, the Performance Standards of the New York City Zoning Code for Manufacturing Districts and the Current New York City Noise Code. Section 3.19 provides a general discussion of the relevant regulatory standards and methodologies applied in this analysis.

19.17.1 Existing Conditions

19.17.1.1 Introduction

Figure 19.17-1 shows the location of the South Bronx Converted MTS, the surrounding area and the points that represent the property boundary (D1, etc.) for all noise analyses. The nearest noise-sensitive receptor is the Vernon C. Bain Center (prison barge), which is moored off the East River shore, approximately 197 meters (645 feet) west of the site boundary.

19.17.1.2 On-Site Noise Levels

Existing on-site noise levels 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 $L_{eq(1)}$, L_{min} and L_{max},[13] and the statistical metrics of L_{10}, L_{50} and L_{90}.[14] Table 19.17-1 presents monitored noise levels. As shown, the quietest hour at the monitoring location occurred between 2:00 a.m. and 3:00 a.m. and had an $L_{eq(1)}$ of 53.5 dBA on May 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.

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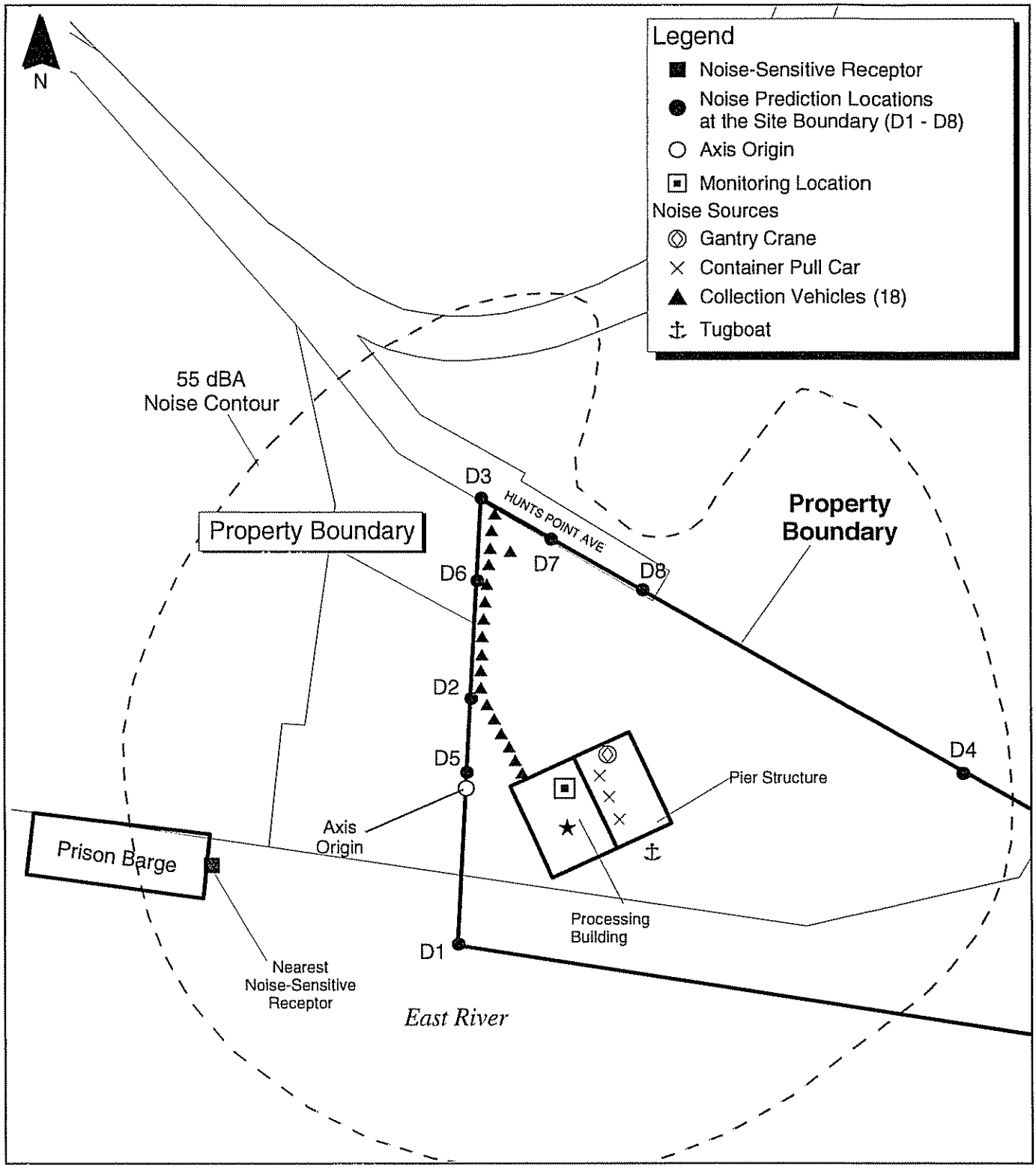
[13] Terms $L_{eq(1)}$, L_{min} and L_{max} are defined in Section 3.19.2.
[14] Terms L_{10}, L_{50} and L_{90} are defined in Section 3.19.2.



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

200 0 200 Feet

HDR HydroQual URBITRAN PB EEA Cambridge Environmental Inc

Figure 19.17-1 Noise Sources and Receptors

South Bronx Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

THE CITY OF NEW YORK DEPARTMENT of SANITATION

Table 19.17-1
Existing Hourly (Monitored) Noise Levels On Site[1]
South Bronx Converted MTS

Time of Measurement	$L_{eq(1)}$ (dBA)	L_{90} (dBA)	L_{50} (dBA)	L_{10} (dBA)	L_{min} (dBA)	L_{max} (dBA)
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 noise-sensitive receptor to identify the quietest background hour.

19.17.1.3 Off-Site Noise Levels

Existing off-site noise levels consist of the noise from 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 DSNY and other agency collection vehicles. As a result of this screening, which is described in Section 3.19.5.2, no off-site noise analysis was required. Therefore, no noise monitoring data were collected for off-site noise levels.

19.17.2 Future No-Build Conditions

19.17.2.1 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.

19.17.2.2 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 Section O: Traffic of the 2001 CEQR Technical Manual. Table 19.17-2 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 and nighttime for locations where there is a possible impact based on the first-level screening.

19.17.3 Potential Impacts with the South Bronx Converted MTS

19.17.3.1 On-Site Noise Levels

Equipment assumed to be operating at the South Bronx Converted MTS and its reference noise levels used in the CEQR and Current Noise Code analysis are shown in Table 19.17-3. Spectral noise levels used in the Performance Standards analysis are shown in Table 19.17-4. The number and types of equipment assumed for this analysis were based on the South Bronx Converted MTS's peak design capacity. Shown earlier, Figure 19.17-1 indicates the South Bronx Converted MTS layout, the locations of the points along its boundary where overall noise predictions were calculated and the predicted 55 dBA contour line.

Table 19.17-2
Off-Site Noise Traffic Volume
South Bronx Converted MTS

Location	Hour	Existing Traffic Volume [1] (Vehicles / Hour)	Future No-Build Traffic Volume [2] (Vehicles / Hour)
Randall Avenue between Manida Street and Coster Avenue	11:00 a.m.	545	553
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.	1,124	1,141
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

Notes:
(1) Existing Traffic Volumes are based on ATR data.
(2) Future No-Build Traffic Volumes are based on CEQR annual traffic growth rates.

Table 19.17-3
Equipment Modeled in the Noise Analysis and Reference Noise Levels (L_{eq})
South Bronx Converted MTS

Equipment Name (quantity) [1]	Reference Sound Pressure Noise Level at 50 feet (dBA) [2]
Indoor	
Tip Floor Wheel Loaders type CAT 966G (2)	80.6
Mini-Loader type CAT 908 (1)	69.3
Tamping Cranes type CAT 325 (1)	81
Spreader Crane/Hoist (1)	70
Skid Steer Loader (Bobcat S300) (1)	76
Vacuum Sweeper (1)	64.3
Moving/Queuing DSNY Collection Vehicles (7)	79
Outdoor	
Container Shuttle Cars (3)	45
Gantry Cranes (1) [3]	67
Harbor Tug Boat (1) [4]	69
Moving/Queuing DSNY Collection Vehicles (18) [5]	67

Notes:

(1) Instantaneous maximum number of pieces of equipment on site at any given time.

(2) Noise level representative of each piece of equipment.

(3) Noise level will be specified for the gantry crane in DSNY's plans and specifications for construction of the converted MTS's.

(4) Noise level will be specified for the harbor tug boat in DSNY's plans and specification for construction of the converted MTS's.

(5) Quantity includes one truck queuing on the outbound scale.

Table 19.17-4
Equipment Modeled in the Noise Analysis and Spectral Noise Levels (L_{max})
South Bronx Converted MTS

Equipment Name (quantity) (1),(2)	Reference Sound Pressure Noise Level at 50 feet (dB) (3)							
	Frequency (Hz)							
	63	125	250	500	1K	2K	4K	8K
Indoor								
Tip Floor Wheel Loaders type CAT 966G (2)	78	77	75	76	77	74	68	60
Mini-Loader type CAT 908 (1)	78	77	75	76	77	74	68	60
Tamping Cranes type CAT 325 (1)	95	90	85	85	81	78	73	64
Spreader Crane/Hoist (1)	77	78	77	71	74	71	69	57
Skid Steer Loader (Bobcat S300) (1)	71	74	69	74	71	68	64	56
Vacuum Sweeper (1)	71	74	69	74	71	68	64	56
Outdoor								
Container Shuttle Cars (3)	31	30	47	44	36	35	42	46
Gantry Cranes (1) (4)	78	81	78	71	66	60	55	55

Notes:

(1) Instantaneous maximum number of pieces of equipment on site at any given time.

(2) Trucks and tugboats are not included in the Performance Standard analysis because they are transportation facilities.

(3) Noise level representative of each piece of equipment.

(4) Noise level will be specified for the gantry crane in DSNY's plans and specification for construction of the Converted MTS's.

Hz = Hertz
K = Thousand

19.17.3.2 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 214 meters (702 feet) from the property line in the direction of the nearest noise-sensitive receptor, which is 197 meters (645 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 3.19.5.1 discusses this concept in greater detail. Since the background noise level at the receptor is 54.0 dBA, which is less than 55 dBA, the contour of the predicted facility L_{eq} equivalent to the background noise level is also shown in Figure 19.17-1. The results of the screening analysis show that noise-sensitive receptors are located within the 55 dBA contour line (see Figure 19.17-1). Therefore, an on-site noise analysis, including noise monitoring at the nearest noise-sensitive receptor, was required to determine if an impact is predicted under Section R of the 2001 CEQR Technical Manual.

Noise monitoring was conducted at the noise-sensitive receptor during the quietest hour based on monitoring data provided in Table 19.17-1 above. Table 19.17-5 below identifies the existing background noise level during the quietest hour. The table shows the distance from the South Bronx Converted MTS to the noise-sensitive receptor, the monitored existing background noise level at the noise-sensitive receptor, South Bronx Converted MTS-related predicted noise levels at the noise-sensitive receptor, and the predicted noise levels with both facility noise and background noise combined. The table also provides the difference between this combined noise level and the existing noise level at the noise-sensitive receptor. This difference 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, since the daytime noise level is 62 dBA or greater, there is a predicted impact that would be caused by the South Bronx Converted MTS on-site operations.

Table 19.17-5
CEQR Analysis
Existing and Predicted Noise Levels (L_{eq}) at the Nearest Noise-Sensitive Receptor
South Bronx Converted MTS

Noise-Sensitive Receptor ID	Distance from Facility (meters/feet)	Existing Noise Levels During Quietest Hour (dBA)[1][2]	Predicted Facility Noise Level at Noise-Sensitive Receptor (dBA)[3]	Combined Facility and Background Noise Level at the Noise-Sensitive Receptor (dBA)	Increase over Existing Noise Levels (dBA)	Impact[4] (yes or no)
Prison Barge	197 / 645	~~54.0~~53.5	~~62.2~~62.0	~~62.8~~62.6	~~8.8~~9.1	Yes

Notes:
(1) Twenty-minute noise level readings measured at the nearest noise-sensitive receptor during the quietest hour determined from the 24-hour noise level readings.
(2) Existing noise levels measured on May 7, 2003 at 3:00 p.m.
(3) Predicted noise level calculations at the noise-sensitive receptor include on-site and off-site shielding from structures.
(4) According to CEQR, if the existing noise level is less than 60 dBA, an increase over 5 dBA during the daytime is considered an impact. The impact analysis compares the loudest noise emissions from daily operations at the South Bronx Converted MTS with the quietest background noise levels that occur during facility operation. The quietest hour of background noise levels occurred during the daytime hours for the noise-sensitive receptor; therefore, only daytime impact criteria are discussed in this analysis for this noise-sensitive receptor.

19.17.3.3 Performance Standards for Zoning Code Analysis

Overall noise predictions were calculated at the locations of the points representative of the South Bronx Converted MTS boundary (D1, etc.) 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 19.17-6). Based on this analysis, no exceedances to the Performance Standards are predicted.

Table 19.17-6
Zoning Code Analysis
Predicted Spectral Noise Levels (L_{max}) at the Property Boundary
South Bronx Converted MTS

Manufacturing District Regulation (M3)								
Frequency (Hz)	**63**	**125**	**250**	**500**	**1K**	**2K**	**4K**	**8K**
Threshold	**79**	**74**	**69**	**63**	**57**	**52**	**48**	**45**
Total Lp dB: D1	68.0	62.5	52.7	46.7	39.2	30.7	21.3	16.8
Total Lp dB: D2	71.5	67.4	61.1	54.3	48.4	41.6	35.0	33.3
Total Lp dB: D3	62.0	57.5	50.6	43.9	37.6	30.3	22.6	19.5
Total Lp dB: D4	61.6	58.6	53.4	46.4	40.6	33.5	26.0	23.2
Total Lp dB: D5	73.0	68.4	61.1	54.5	48.3	41.2	34.3	32.4
Total Lp dB: D6	65.4	60.9	53.7	47.1	40.9	33.7	26.9	24.9
Total Lp dB: D7	61.0	60.8	57.0	50.0	44.6	37.9	31.4	29.4
Total Lp dB: D8	65.7	63.8	59.4	52.4	47.0	40.4	34.2	32.7

Notes:

Hz = Hertz
Lp = Sound pressure level
dB = Decibel
D1 through D8 are the points representative of the South Bronx Converted MTS boundary that are used in all noise analyses
K = Thousand

19.17.3.4 NYC Noise Code Analysis – Current

Overall noise predictions were calculated at the locations of the points (D1, etc.) representative of the South Bronx Converted MTS boundary to determine the total L_{eq} from all indoor and outdoor sources for comparison to the current Noise Code. This is shown in Table 19.17-7. Based on this analysis, the total L_{eq} does exceed the current Noise Code Standard of 70 dBA at the property boundary.

Table 19.17-7
Current Noise Code Analysis
South Bronx Converted MTS

Location at Plant Boundary	Total L_{eq} Contribution at Plant Boundary (dBA)
D1	63.8
D2	**76.32**
D3	**71.65**
D4	~~61.5~~60.4
D5	**70.8**
D6	**76.7**
D7	68.8
D8	65.3

Note:
D1 through D8 are the points representative of the South Bronx Converted MTS boundary that are used in all noise analyses.

Bold= Exceedence

19.17.3.5 Mitigation Measures

Mitigation measures available were limited to those that affect the source, the propagation path or the receiver. The typical mitigation measure for the path of noise between source and receiver is a noise wall. Noise walls can be designed to provide noise attenuation for noise-sensitive areas located relatively close to the wall. Noise attenuation provided by the wall decreases as distance from the wall increases. Receiver treatments may include the construction of noise walls at residential property lines or the installation of replacement windows and air conditioning. The latter two mitigation measures are suggested in the 2001 CEQR Technical Manual. Typical mitigation measures at the source include: (1) changes in operations schedules to reduce noise emissions; (2) reduction in DSNY collection vehicles; (3) using noise mufflers for the exhaust pipes of material handling equipment (e.g., side loaders, yard tractors, etc.) or other source noise reduction methods; and (4) maintaining the equipment through regularly scheduled maintenance and repairs.

The data presented in this section is for the analysis to date. If the South Bronx Converted MTS is included in the New SWMP, a supplemental analysis will be performed.

19.17.3.6 Off-Site Noise Levels

A screening analysis was conducted to determine if a detailed off-site noise analysis including noise monitoring would be required along the truck routes serving the South Bronx Converted MTS. The assumed DSNY and other agency collection vehicle routes are provided in Section 14 of this chapter. As a result of this screening, which is described in Section 3.19.5.2, no off-site noise analysis was required. Results of the second-level screening 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 and nighttime are provided in Table 19.17-8.

Because 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.

19.17.3.7 Combined On-Site and Off-Site Noise Levels

An on-site noise analysis was performed for the South Bronx Converted MTS. As a result of the off-site screening analysis, which is described above in 19.17.3.5, no off-site noise analysis was required. Since an off-site analysis was not required, a combined noise analysis was not performed.

Table 19.17-8
Off-Site Noise Screening Results
South Bronx Converted MTS

Location	Hour	Future No-Build PCEs[1]	Collection Vehicles	Employee Vehicles	Total Net DSNY Collection Vehicle PCEs[1]	Future Build PCEs[1][2]	Possible Impact[3]
Randall Avenue between Manida Street and Coster Avenue	11:00 a.m.	5,106	54	7	2,538	7,644	No
Tiffany Street between Spofford and Randall Avenues	1:00 a.m.	2,093	9	0	423	2,516	No
Tiffany Street between Spofford and Randall Avenues	11:00 a.m.	8,530	54	4	2,538	11,068	No
Bruckner Boulevard between Longwood Avenue and Tiffany Street	11:00 a.m.	8,373	61	0	2,867	11,240	No
Longwood Avenue between Garrison and Barry Streets	1:00 a.m.	934	9	0	423	1,357	No
Longwood Avenue between Garrison and Barry Streets	10:00 a.m.	4,383	44	0	2,068	6,451	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. Per CEQR, collection vehicles are converted to PCEs using a factor of 47, and employee vehicles are converted to PCEs using a factor of 1.

(3) There is a possible impact if the Future Build PCEs are double the Future No-Build PCEs or more.

19.18 Commercial Waste to the South Bronx Converted MTS

19.18.1 Existing Conditions

No commercial waste is delivered to the South Bronx MTS site under Existing Conditions. Commercial waste generated in the Bronx is delivered to privately owned and operated transfer stations in the City, or taken directly out of the City to remote disposal locations.

19.18.2 Future No-Build Conditions

Under Future No-Build Conditions, no commercial waste would be delivered to the South Bronx Converted MTS; therefore, Future No-Build Conditions are the same as Existing Conditions.

19.18.3 Potential Impacts of Sending Commercial Waste to the South Bronx Converted MTS

The complete analysis of potential impacts of sending commercial waste to the Converted MTSs is presented in Volume III of the March 2004 Commercial Waste Management Study, which is included as Appendix D to this FDEIS.

19.18.3.1 On-Site Air Quality, Odor and Noise

Under Future Build Conditions, the South Bronx Converted MTS was evaluated for on-site air quality, odor and noise impacts at its maximum design capacity of approximately 4,290 tpd (see Sections 19.15, 19.16 and 19.17). Results showed no unmitigatible adverse on-site air quality, odor or noise impacts. Although the peak hourly arrival rates of collection vehicles are not sustained over a 24-hour period, the analysis of on-site impacts conservatively modeled these peak hour conditions to predict the potential for on-site noise and odor impacts, and air quality impacts for short-term (1-hour, 3-hour, 8-hour and 24-hour) averaging periods. Because the analysis of short-term averaging periods was based on facility operations at the design capacity, no additional evaluation of on-site noise was required.

An evaluation of potential on-site air quality impacts for pollutants compared to annual average standards was modeled assuming commercial waste was processed at the Converted MTS. Based on these analyses, the potential processing of these quantities of the City's commercial putrescible waste would not cause any significantly adverse air quality impacts attributable to on-site operations. Likewise, odors from on-site operations of the Converted MTS with the addition of commercial waste at levels discussed in the Commercial Waste Management Study were also analyzed and results showed no unmitigatible significant adverse odor impacts.

See Appendix D for the revised tables to the Commercial Waste Management Study that contain the results of the on-site air quality and odor analyses.

19.18.3.2 Off-Site Traffic, Air Quality and Noise

Potential off-site traffic, air quality and noise impacts of deliveries of DSNY-managed Waste to the South Bronx Converted MTS were evaluated in Sections 19.14, 19.15 and 19.17 based on temporal distributions of DSNY and other agency collection vehicles identified in Section 19.14.

The greatest number of DSNY and other agency collection vehicles analyzed for traffic impacts during all three periods (AM, midday and PM peak hours) was 64 (inbound trip ends) per hour, which occurred during the AM peak. These 64 DSNY and other agency collection vehicles are more than the 23 peak hour DSNY and other agency collection vehicle and commercial waste hauling vehicle inbound trip ends that can be processed per hour at the South Bronx Converted MTS during the 8:00 p.m. to 8:00 a.m. shift. In addition, the intersection LOS is lower (i.e., poorer) and the background volumes of traffic are higher during the AM peak than the 8:00 p.m. to 8:00 a.m. hours, so the AM peak analysis represents worst-case conditions. As reported above, there were no unmitigatible significant adverse environmental impacts from the 64 DSNY and other collection agency vehicle trip ends at the South Bronx Converted MTS during the AM peak hour. Therefore, the addition of the 23 DSNY and other agency collection vehicles and commercial waste hauling vehicles at the South Bronx Converted MTS per hour during the 8:00 p.m. to 8:00 a.m. shift — during a period with a better LOS and lower background traffic volumes — would also have no unmitigatible significant adverse traffic impacts.

Likewise, the 64 inbound DSNY and other agency collection vehicles analyzed for off-site air quality impacts during the AM peak hour was the highest number of collection vehicles analyzed for all three periods (AM, midday and PM peak hours). For off-site air quality modeling, a Tier I analysis assumed conservatively that the 64 inbound DSNY and other agency collection vehicles would travel through the analyzed intersections each hour over a 24 hour period at several analyzed intersections. Results showed there would be no unmitigatible significant adverse environmental impacts. Consequently, because the 23 inbound DSNY and other agency collection vehicles and commercial waste hauling vehicles that could travel through these intersections during the 8:00 p.m. to 8:00 a.m. shift would be fewer than the number of such vehicles analyzed over a 24-hour period, there would be no significant adverse off-site air quality impacts.

For the intersections of Tiffany Street and Randall Avenue, Halleck Street/East Bay Avenue and Hunts Point Avenue, and Halleck Street and Ryawa Avenue, a Tier II analysis was required. The estimated actual hourly distribution over 24 hours included the estimated 23 inbound DSNY and other agency collection vehicles and commercial waste hauling vehicles that could potentially be processed at the South Bronx Converted MTS, and no unmitigatible significant adverse environmental impacts were identified.

Evaluating the potential for off-site noise impacts required the use of a second-level noise screening analysis. The results of this analysis indicate that the potential number of commercial waste hauling vehicles that could be routed to the South Bronx Converted MTS during various hours within the 8:00 p.m. to 8:00 a.m. period must be limited to less than the available excess capacity to avoid causing potential impacts at noise-sensitive receptors on the approach routes these vehicles would take to the South Bronx Converted MTS. The amount of available capacity that can be used to process commercial waste during the hours of 8:00 p.m. to 8:00 a.m., without causing any significant adverse noise impacts, is 1,611 tons (or 150 commercial waste hauling vehicles, assuming an average of 11 tons per truck) over this 12-hour period.

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