CHAPTER 5 ENVIRONMENTAL REVIEW: SOUTHWEST BROOKLYN CONVERTED MTS

5.1 Introduction

The results of the environmental analyses of the Southwest Brooklyn Converted MTS are presented in the following sections:

5.2 Land Use, Zoning and Public Policy
5.3 Socioeconomic Conditions
5.4 Community Facilities
5.5 Open Space and Parklands
5.6 Cultural Resources
5.7 Urban Design and Visual Quality
5.8 Neighborhood Character
5.9 Traffic and Transportation
5.10 Air Quality
5.11 Odor
5.12 Noise
5.13 Infrastructure and Energy
5.14 Natural Resources
5.15 Water Quality
5.16 Waterfront Revitalization Program
5.17 Hazardous Materials

Section 2.3 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.

5.2 Land Use, Zoning, and Public Policy

5.2.1 Existing Conditions

5.2.1.1 Definition of Study Areas

The primary study area for the land use, zoning, and public policy analyses is defined as the area within ¼ mile of the site (Figure 5.2-1). The secondary study area is defined as the area between ¼ mile and ½ mile of the site (Figure 5.2-2). Section 3.4 describes the methodology employed in these analyses and Section 2.3 provides information on existing land uses and operations on the site.

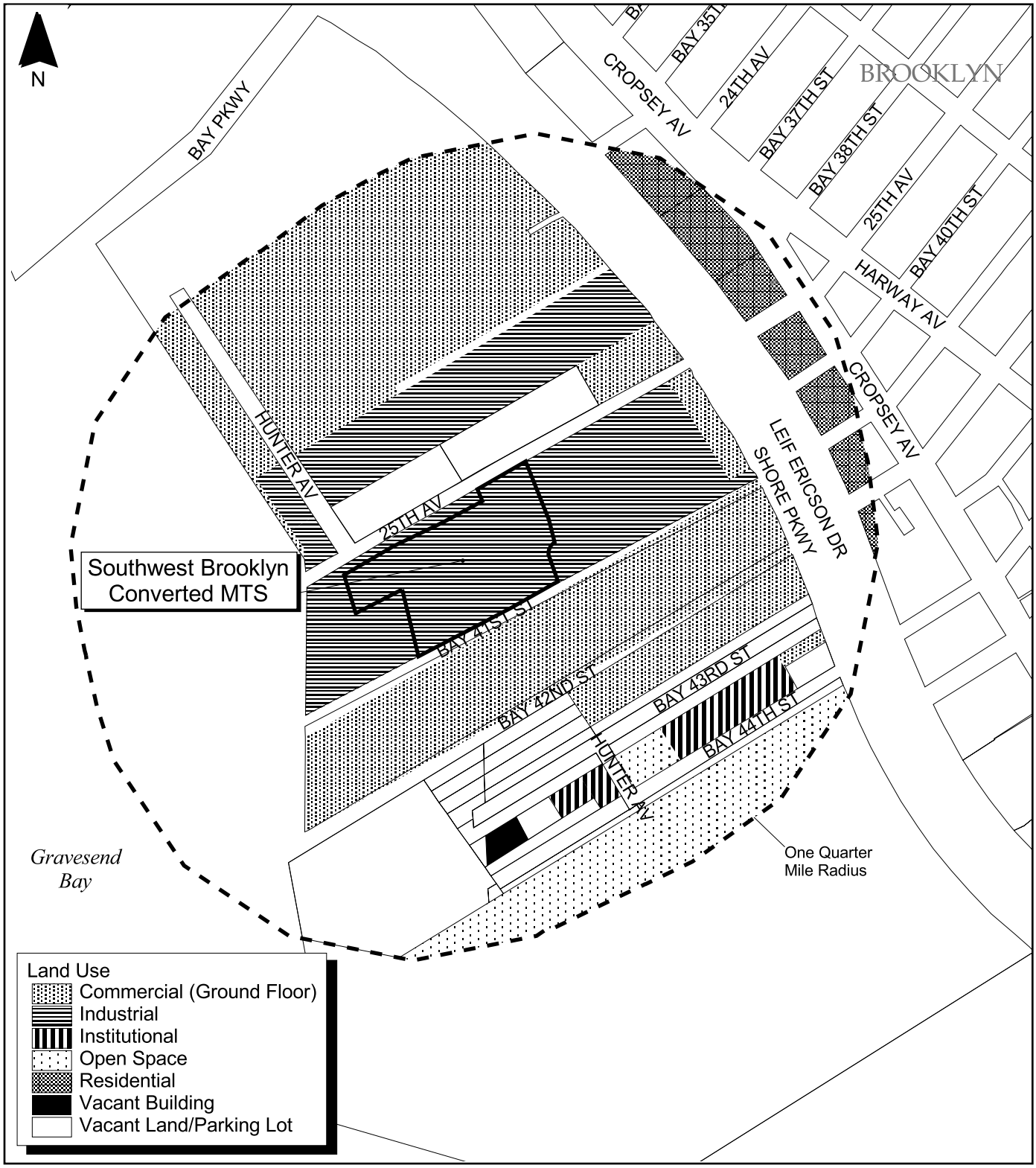
5.2.1.2 Land Use Patterns

5.2.1.2.1 General Context

The site is situated on Gravesend Bay in Bensonhurst, surrounded by a relatively mixed land use pattern. The site and immediate environs contain the only industrial uses found in the primary and secondary study areas, which are both characterized largely by commercial, recreational, residential and institutional uses.

5.2.1.2.2 Land Uses in the Primary Study Area

Directly to the northeast and east of the site are DSNY facilities, including one salt shed and DSNY garage. The Nellie Bly Amusement Park is also on the same block, fronting Shore Parkway, 500 feet east of the site. Fuel oil tanks and buildings associated with the Bayside Fuel Oil Corporation are located north of the site near Shore Parkway, as are the Atlantic Express Bus Company and various other automobile repair services. Further north-northwest of the site is a variety of commercial uses surrounded by fairly large parking areas. These uses include several banks; a shopping area with regional retail establishments, such as Best Buy and Toys "R" Us; several automobile service establishments; and a motel on the equivalent of 24th Avenue south of the Bay Parkway-Shore Parkway intersection.



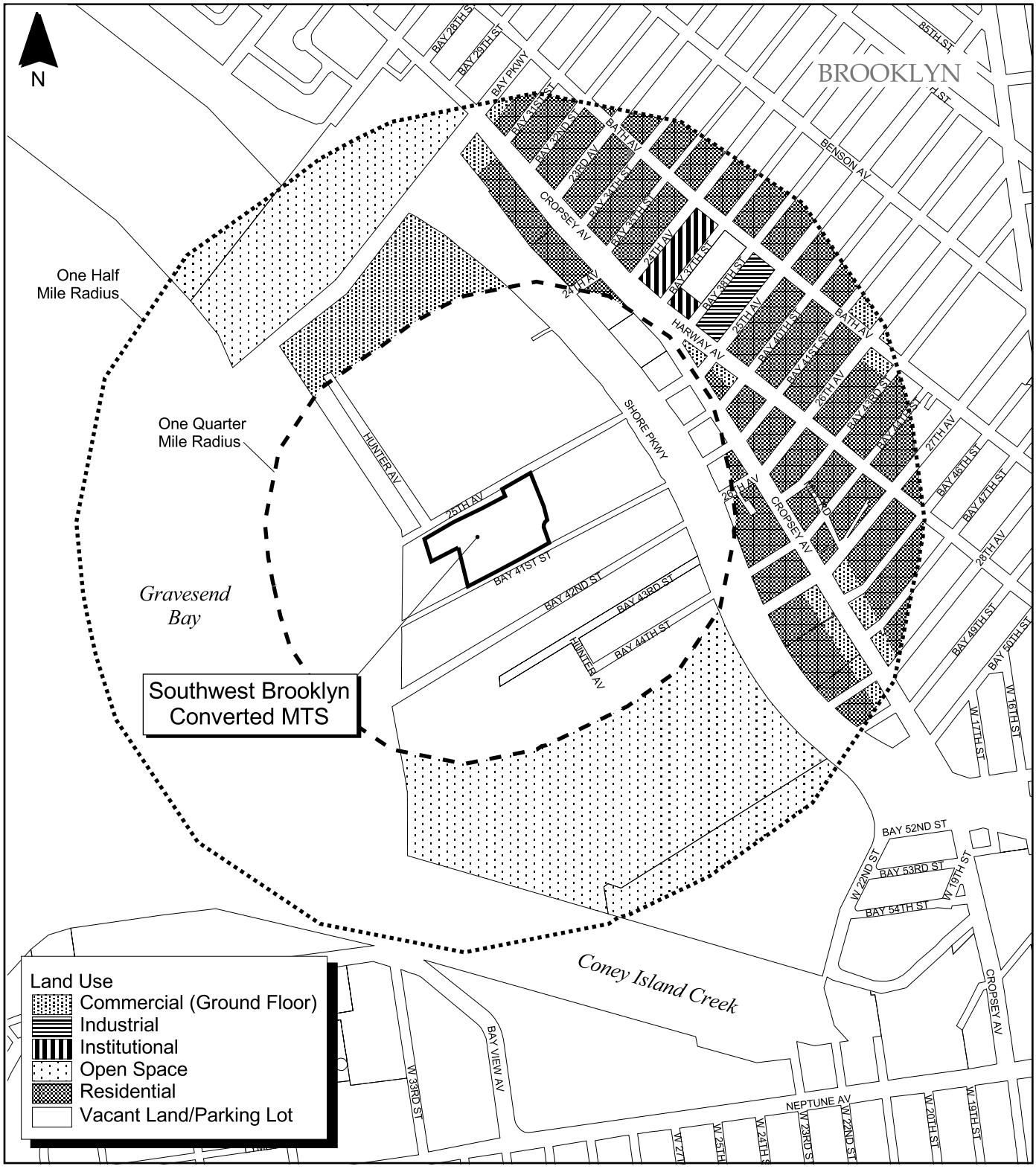
Site delineations and study area boundaries are approximate.
Base Map Source: New York City Department of City Planning
The figure illustrates predominant land uses in the primary study area.

300 0 300 Feet

Figure 5.2-1 Land Use in the Primary Study Area

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION



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 5.2-2 Land Use in the Secondary Study Area
Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

East of Shore Parkway within the study area is a dense residential area, including the 167-unit Regina Pacis Residence for Senior Citizens on Bay 37th Street, various apartment houses, and three-story row houses.

South of the site are several yacht clubs, including the Excelsior Yacht Club and Marina where boats are moored south of Bay 41st Street. On Bay 44th Street and Hunter Avenue is a home for handicapped children. Across Hunter Avenue to the east are another assisted living facility and the Brooklyn School for Special Children. An unfinished residential development once known as "Rose Cove" stands within the primary study area north of and adjacent to Dreier-Offerman Park at Bay 44th Street and West Shore. This residential development was designed originally to include three buildings and some town homes, the remains of which are not publicly accessible. The model structures now stand vacant and dilapidated. The property is not being developed at this time.

5.2.1.2.3 Land Uses in the Secondary Study Area

The secondary study area is characterized by waterfront, municipal parks, and largely residential uses inland to the east. Bensonhurst Park is located southwest of the southern end of the Leif Ericson Drive Shore Road park system north of Bay Parkway and northwest of the site; while Dreier-Offerman Park, a large 73-acre waterfront public park, and the Coney Island Boat Basin are located south of the site along Coney Island Creek.

The remainder of the secondary study area lies northeast of Shore Parkway, where the land use pattern is primarily residential, consisting of single- and multi-family housing, mostly detached and semi-detached homes. The area also contains apartment towers, such as the Contello Towers Co-op, Sections I and II (between Shore Parkway and Cropsey Avenue at Bay 44th Street); senior housing; schools; and religious institutions, as well as some local professional offices, light industrial uses, and automotive services, with a concentration along Bath Avenue. East of Cropsey Avenue on either side of 25th Avenue are the buildings, storage areas, and parking areas associated with New York City Transit's Ulmer Park bus depot.

5.2.1.3 Zoning on and near the Site

5.2.1.3.1 Zoning within the Primary Study Area

The site is located in an M3-1 zoning district on Gravesend Bay, as is much of the primary study area. The area also includes a mix of M1-1, M3-1, C3 (waterfront recreation areas), R4, and R6 zoning districts. (See Figure 5.2-3 and Table 3.4-1: Zoning District Characteristics.)

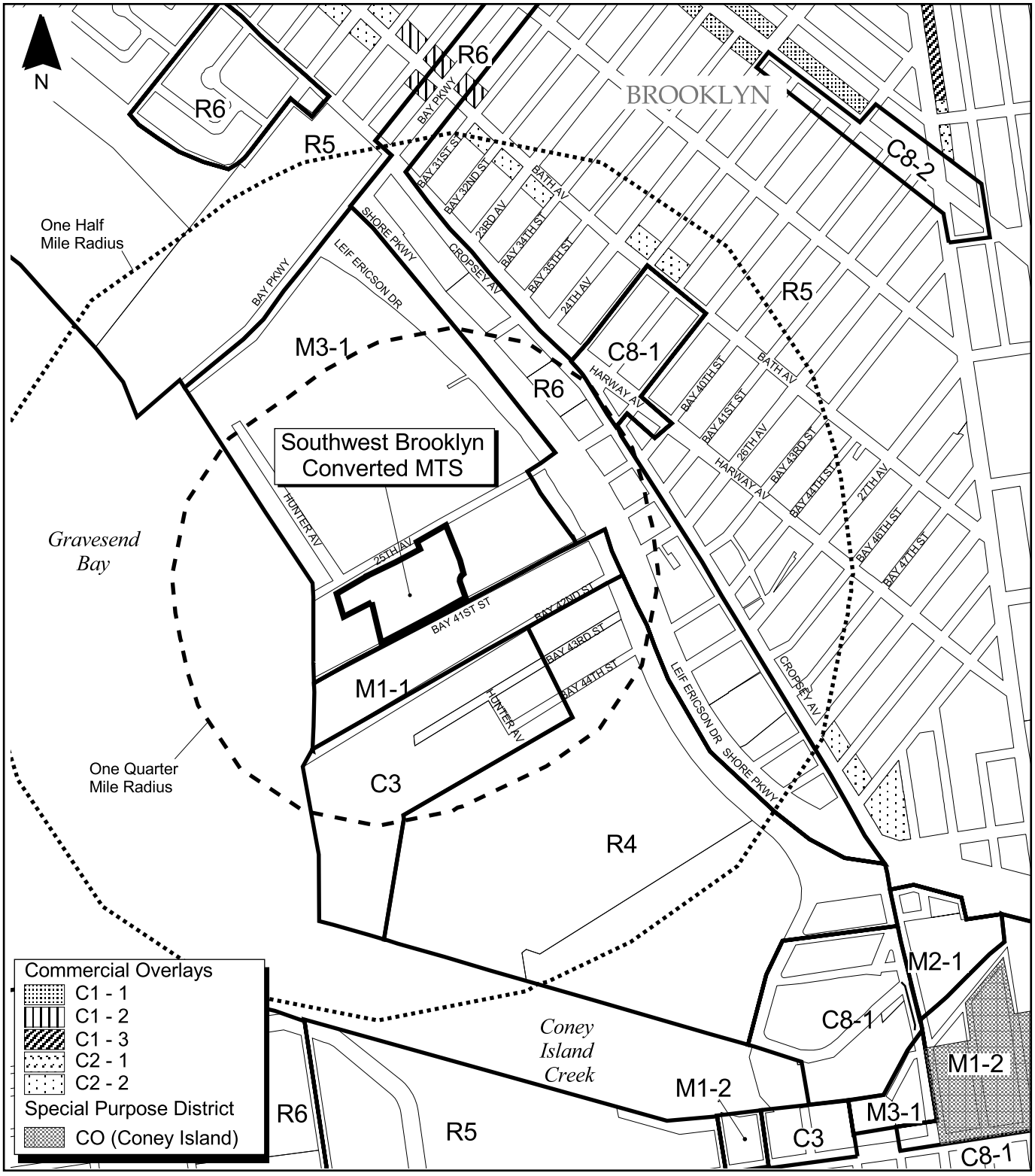
5.2.1.3.2 Zoning within the Secondary Study Area

The surrounding residential communities of Bensonhurst, Gravesend, and Coney Island are characterized by medium density R4, R-5, and R-6 residential; C8-1 (automotive related) commercial, and M3-1 zoning districts.

5.2.1.4 Plans and Policies

The FY 2002/2003 Community District Needs Statement for District 11, in which the site lies, provides no recommendations for physical development programs that would be relevant to the site or the study areas. The FY 2002/2003 statement prepared by Brooklyn Community District 13 (adjacent to the site on the south) indicates the need and the hope for overall development of the district. No specific development proposals are defined that would likely be relevant to the site or study areas, though mention is made of support for relocation of the District 13 DSNY garage from its location on Coney Island at Neptune Avenue at West 20th Street to a new location at the former Brooklyn Union Gas site (now KeySpan).

The site lies within Reach 15 of the *NYC/Brooklyn Waterfront Development Plan,* which extends along the waterfront from Owl's Head Park in Bay Ridge at the northern end to the northern shore of Coney Island at the southern end. The plan recommends that the Shore Road bicycle path, which currently ends at Bensonhurst Park, be extended south to Dreier-Offerman Park, which in turn should be developed to include bicycle/pedestrian access to the waterfront, perhaps via an esplanade. The plan recommends that mapped streets and parks be developed to



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

500 0 500 Feet

Figure 5.2-3 Zoning

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

provide enhanced access to the water's edge and, in particular, the restoration of the bulkhead at Bay Parkway. The plan also recommends that Dreier-Offerman Park be developed for recreation and that the Nellie Bly Amusement Park be relocated from Shore Road and Bay 41st Street to the Dreier-Offerman Park.

The plan notes that existing M1 and M3 zoning should be maintained, specifically around the existing MTS, but that the commercial zoning south of the site just north of Dreier-Offerman Park could offer other development opportunities. While these recommendations for developing the parks in such a manner have public support, there are no definite plans for such development. (See Section 5.5 for details on DPR park plans and Section 5.16 for a review of consistency with the Waterfront Revitalization Program.)

5.2.2 Future No-Build Conditions

It is reasonable to anticipate that except for the demolition of the on-site incinerator, the Future No-Build Conditions in both the primary and secondary study areas will generally resemble Existing Conditions. The site itself will remain DSNY property; though inactive, the existing MTS will remain; and the associated DSNY salt storage and garage facilities northeast of the site will continue to be fully utilized.

5.2.3 Potential Impacts with the Southwest Brooklyn Converted MTS

5.2.3.1 Land Use and Zoning

Development of the Southwest Brooklyn Converted MTS would entail the creation of a new facility with containerization functions that would replace the former functions of the existing MTS—though the existing MTS will remain standing—and would cover more of the site's upland area. The existing incinerator will have already been demolished and removed from the site, and the westernmost salt shed on the site (of the two that exist on the larger DSNY property) would be either moved off the property or dismantled. Delivered waste would be containerized for transport on barges for disposal outside the City—a change from the previous practice of loading loose waste onto hopper barges for intra-harbor transport to Fresh Kills Landfill.

Because the Southwest Brooklyn Converted MTS would reactivate a historic use on DSNY property, it would not be considered a substantial new use. It would, however, increase the intensity of use on the site without causing an accumulation of similar uses in the area. It is not likely to encourage or discourage other typical development in the area more than previous waste transfer operations had, and would not likely affect the existing C3, or R4 or R6 zones, which permit residential development nearby.

5.2.3.2 Consistency with Public Plans and Policies

Because the Southwest Brooklyn Converted MTS would be the reactivation of a historic use on DSNY property and there are no definitive plans for the park development and bikeway recommended in the plan for Reach 15, it would be consistent with public plans and policies. The Southwest Brooklyn Converted MTS would also be consistent with the Waterfront Development Plan for this area, which recommends maintaining the existing manufacturing zones there.

5.3 Socioeconomic Conditions

5.3.1 Existing Conditions

5.3.1.1 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 is comprised of Census Tract 320 (Figure 5.3-1), which covers industrial waterfront areas southwest of Shore Parkway between approximately 15th Avenue and Coney Island Creek.

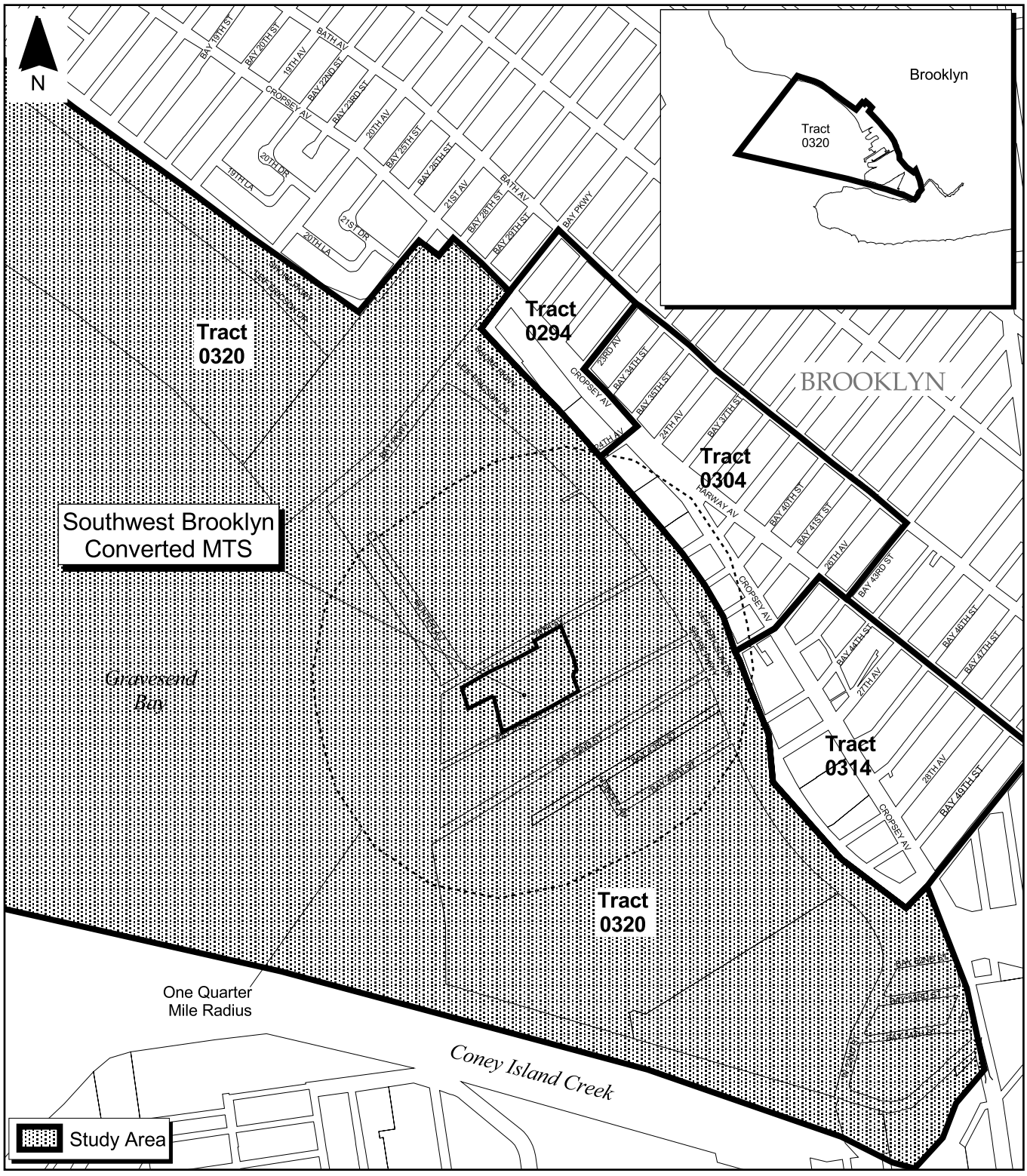
5.3.1.2 Demographic Characteristics

Because the total 2000 demographic study area population consisted of only 60 individuals and 14 families, none of whom would be directly displaced by the Southwest Brooklyn 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.

5.3.1.3 Economic Conditions

The site is in an industrial area and is surrounded immediately by a mix of industrial and water-dependent recreational uses. Around the site, the industrial activities include fuel oil storage and other DSNY facilities. Also on the water are commercial establishments and recreational facilities, such as the Excelsior Yacht Club and Marina and Dreier-Offerman Park.

The dense residential neighborhood of Bensonhurst begins on the east side of Shore Parkway within ¼ mile of the site and extends beyond the economic study area. Most local retail services are found along Cropsey Avenue.



500 0 500 Feet

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

Figure 5.3-1 Census Tracts

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

Current estimates indicate that a total of about 57,034 employees worked in Brooklyn Community Districts 11 and 13 in 2002, which was about 8 percent of the borough's total employment.[1]

5.3.2 Future No-Build Conditions

5.3.2.1 Demographic Characteristics

Regional projections indicate that the population of census tract 320 will remain the about the same as current estimates.[2]

5.3.2.2 Economic Conditions

Areas surrounding the site on the Brooklyn waterfront have seen considerable new retail construction recently, but no new projects are anticipated that would generate additional jobs and economic activity.

The near-term economic health of industrial areas such as the study area may also be supported by recently established City programs. These programs are available through the IDA and include the Industrial Incentive Program and the Small Industry Incentive Program, both of which provide business tax incentives for capital renovation and expansion projects. However, no significant changes are expected through 2006 in the study area.

Regional projections indicate that employment in Bronx Community Districts 11 and 13 will increase to about 57,673, about a 1 percent increase in employment between 2002 and 2006.[3]

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

5.3.3 Potential Impacts with the Southwest Brooklyn Converted MTS

The Southwest Brooklyn Converted MTS represents the reactivation of solid waste transfer operations on the site with added containerization operations. No significant direct or indirect impacts are anticipated related to socioeconomic conditions.

5.3.3.1 Residential Impacts

No residential uses would be displaced as a result of the Southwest Brooklyn Converted MTS, and land use and neighborhood character analyses predict no adverse impacts.

5.3.3.2 Direct Business and Institutional Impacts

The Southwest Brooklyn Converted MTS would not result in direct displacement of businesses or institutional uses.

5.3.3.3 Indirect Business and Institutional Impacts

The businesses adjacent to and near the Southwest Brooklyn Converted MTS are not expected to experience significant indirect impacts from the reactivation of solid waste transfer operations on the site and new containerization operations. The marina located directly to the south would not be significantly affected by the Southwest Brooklyn Converted MTS because the waste operations would be similar to former activities. Although the density of development on the site would increase, it would not be a significant change to the visual quality of this industrial property.

5.3.3.4 Employment Impacts

The Southwest Brooklyn Converted MTS would be expected to generate approximately 85 jobs, including supervisors, equipment operators, mechanics, laborers and clerical personnel. In addition to the direct positive employment impacts, the new workers would generate a minor amount of indirect economic benefits through local spending.

5.4 Community Facilities and Services

5.4.1 Existing Conditions

5.4.1.1 Definition of the Study Areas

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

5.4.1.2 Summary of Community Facilities and Services

There are four community facilities in the primary study area and ten in the secondary study area. Seven additional facilities are either just beyond the secondary study area or otherwise serve the site environs. Community facilities serving or located within or near the study area are listed in Table 5.4-1 and shown in Figure 5.4-1.

5.4.2 Future No-Build Conditions

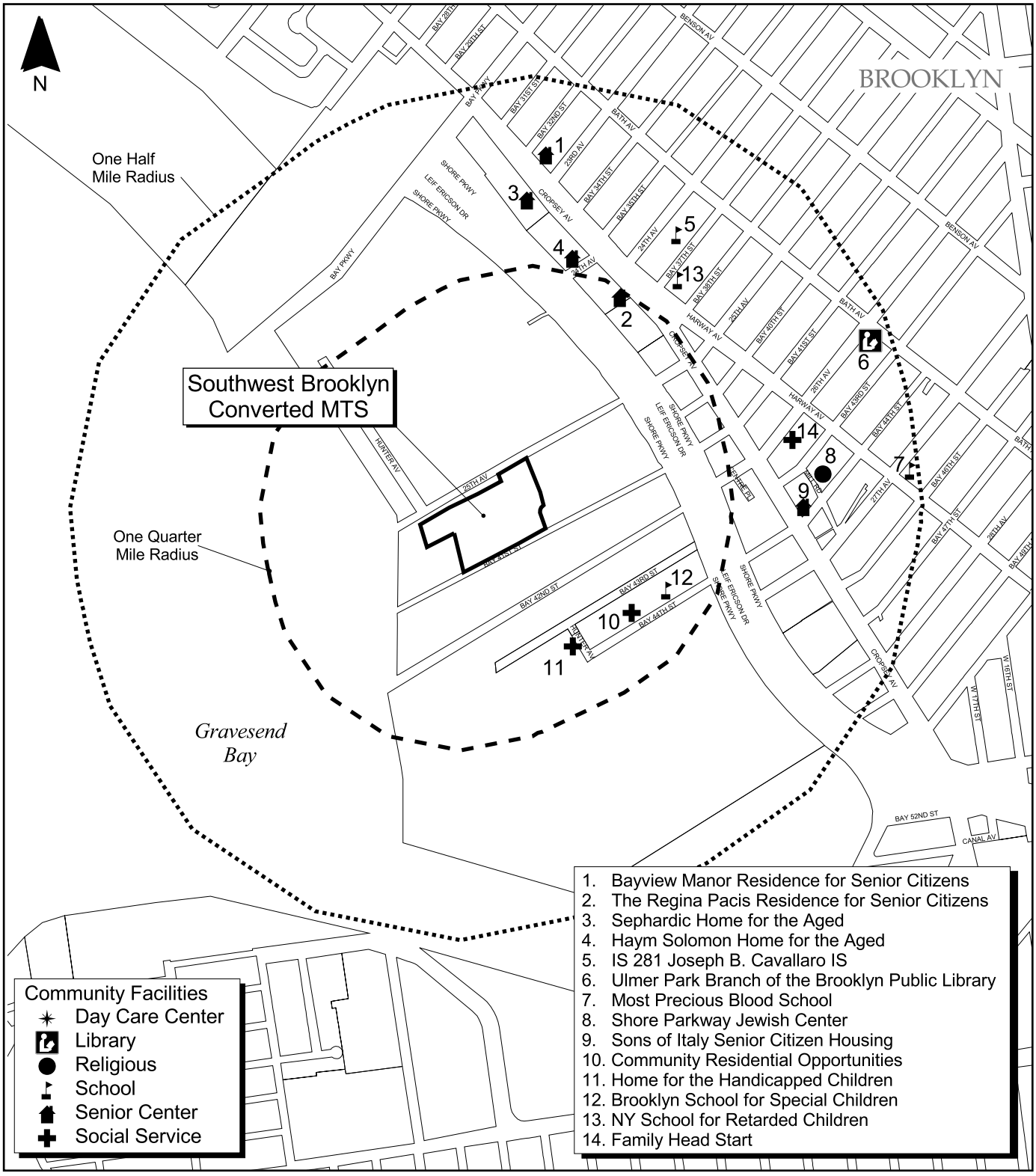
There are no known changes planned for the community facilities and services within the study areas by the Future No-Build year. Therefore, anticipated Future No-Build Conditions are expected to be fundamentally the same as Existing Conditions regarding availability of facilities and services and their capacity and adequacy of delivery.

5.4.3 Potential Impacts with the Southwest Brooklyn Converted MTS

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

Table 5.4-1
Community Facilities and Services

Name	Address
Within the Primary Study Area	
Schools	
Brooklyn School for Special Children	376 Bay 44th Street
Health Care Facilities and Social Services	
Home for Handicapped Children	426 Bay 44th Street
Community Residential Opportunities	424 & 506 Bay 44th Street
Senior Center	
The Regina Pacis Residence for Senior Citizens	2134 Cropsey Avenue
Within the Secondary Study Area	
Schools	
IS 281 Joseph B. Cavallaro Intermediate School	8787 24th Avenue
Most Precious Blood School	133-157 27th Avenue
Health Care Facilities and Social Services	
New York School for Retarded Children	2426 Harway Avenue
Public Libraries	
Ulmer Park Branch of the Brooklyn Public Library	2602 Bath Avenue
Senior Centers	
Sephardic Home for the Aged	2266 Cropsey Avenue
Haym Solomon Home for the Aged	2300 Cropsey Avenue
Bayview Manor Residence for Senior Citizens	2255 Cropsey Avenue
Sons of Italy Senior Citizen Housing	2629 Cropsey Avenue
Religious and Cultural Institutions	
Shore Parkway Jewish Center	230 Bay 43rd Street
Social Services	
Family Head Start	8885 26th Avenue
Outside the Secondary Study Area	
Hospitals	
Coney Island Hospital	2601 Ocean Parkway
Maimonides Hospital	5th Avenue and 101st Street
Police	
60th Precinct	2951 W. 8th Street
Fire	
1st Engine Company – Engine 243 and 1st Ladder Company – Ladder 168	8653 18th Avenue
2nd Engine Company – Engine 253 and 2nd Ladder Company – Ladder 166	2510 Neptune Avenue



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.

500 0 500 Feet

Figure 5.4-1 Community Facilities and Services
Southwest Brooklyn Converted MTS
CITY OF NEW YORK
DEPARTMENT OF SANITATION

5.5 Open Space and Parklands

5.5.1 Existing Conditions

5.5.1.1 Definition of the Study Area

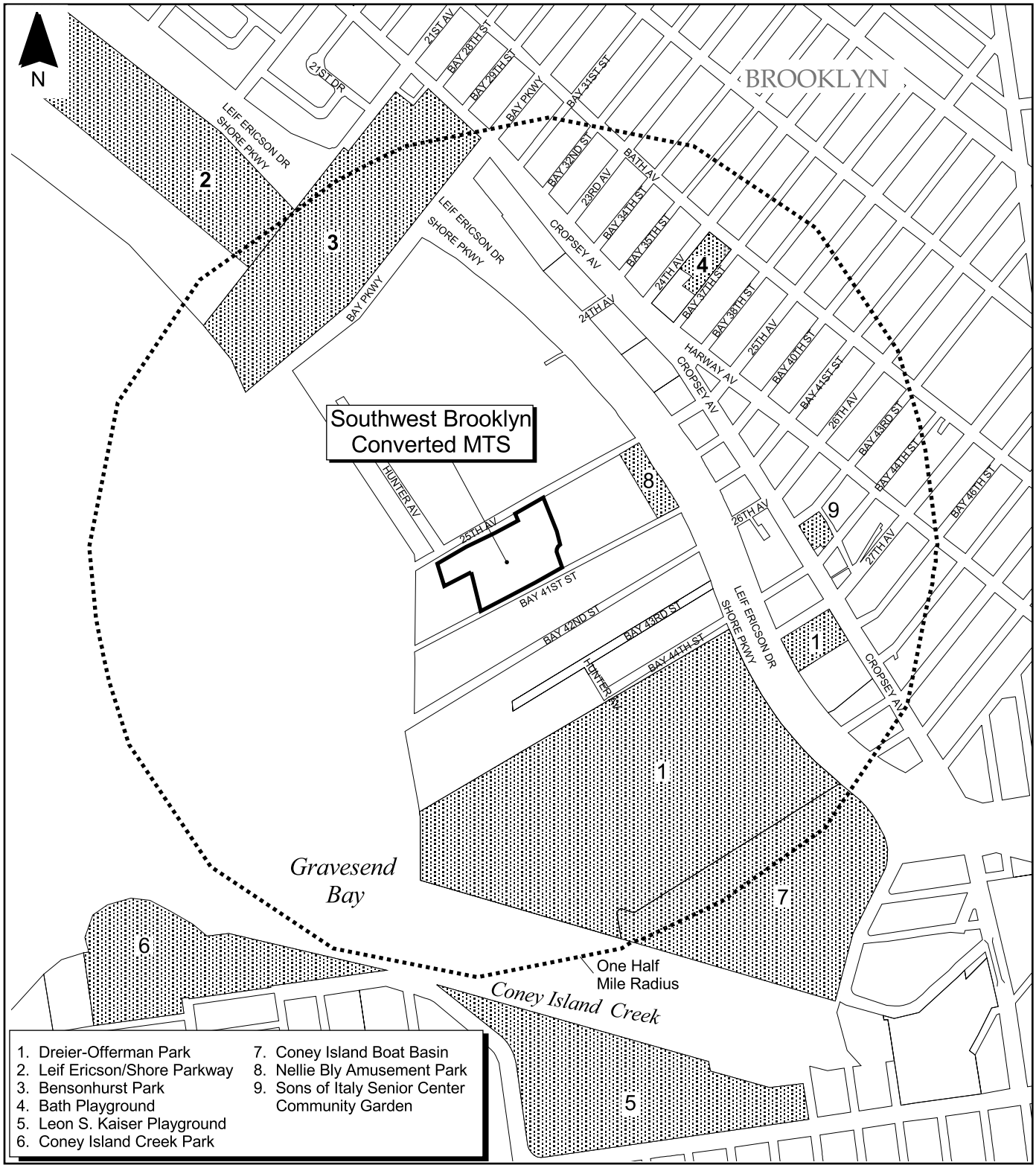
The study area for open space and parklands is defined as being the area within a ½-mile radius of the site.

5.5.1.2 Summary of Open Space and Parklands in the Study Area

There are ten public parks and open spaces in the study area—two of which are regional facilities. They provide a variety of active and passive recreational opportunities. They are listed below in Table 5.5-1 and shown on Figure 5.5-1.

Table 5.5-1
Public Parks and Open Spaces

Name	Address	Acreage
Dreier-Offerman Park	Gravesend Bay, Bay 44th – Bay 49th Streets, Shore Parkway	73.1
Portion of Drier-Offerman Park	27th Avenue and Cropsey Avenue	--
Leif Ericson/Shore Parkway	Fort Hamilton Parkway to Knapp Street, Cross Bay Boulevard	2.6
Bensonhurst Park	Gravesend Bay, 21st Avenue and Cropsey Avenue, Bay Parkway	17.5
Bath Playground	Bath Avenue between 24th Avenue and Bay 37th Street	1.2
Leon S. Kaiser Playground	Southwest Neptune Avenue and West 28th Street	26.3
Coney Island Creek Park	Bayview Avenue, US Pierhead Line and Seagate Avenue	9.8
Coney Island Boat Basin	Shore Parkway and Cropsey Avenue	36.8
Sons of Italy Senior Center Community Garden	2629 Cropsey Avenue	
Nellie Bly Amusement Park	Shore Parkway, 25th Avenue, and Bay 41st Street	1.06



1. Dreier-Offerman Park
2. Leif Ericson/Shore Parkway
3. Bensonhurst Park
4. Bath Playground
5. Leon S. Kaiser Playground
6. Coney Island Creek Park
7. Coney Island Boat Basin
8. Nellie Bly Amusement Park
9. Sons of Italy Senior Center Community Garden

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

500 0 500 Feet

Figure 5.5-1 Open Space/Parkland

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

5.5.2 Future No-Build Conditions

The reconstruction of the Bath Playground and the reconstruction of ballfields in Dreier-Offerman Park are expected to be complete by 2006.

5.5.3 Potential Impacts with the Southwest Brooklyn Converted MTS

The Southwest Brooklyn Converted MTS would not physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value. Likewise, it would not introduce a substantial new user population that would affect utilization of open space resources. Therefore, no impact on open space or parklands is expected from development of the Southwest Brooklyn Converted MTS.

5.6 Cultural Resources

5.6.1 Existing Conditions

5.6.1.1 Definition of the Study Area

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

5.6.1.2 Development History of the Area

Like other areas of southwestern Brooklyn, Bensonhurst had been populated by small farms from the early 1700s until steam railroads were constructed throughout Brooklyn in the 1870s to bring city dwellers to the ocean. In the 1880s, a developer named James Lynch bought large parcels of land from the Benson family on Gravesend Bay and created the 350-acre suburb of "Bensonhurst-by-Sea." The street grid laid out for this development remains to this day.

The 4th Avenue subway linked the area to Manhattan in 1915, spurring further development and great influxes of people from other parts of the City. Mostly Italians and Jews from the Lower East Side populated the four- to six-story apartment buildings and two- to three-family brick houses built in the 1920s. Local community educational and recreational facilities, such as the Jewish Community House, became popular among the resident Jewish population.

In the early 20th century north of the site, "Bath Beach" had been a resort known for its yachting clubs, fashionable villas and restaurants until construction of Shore Parkway in 1939. Residential growth continued after World War II, and in 1949 Fred Trump built the then-largest private housing development in Brooklyn, Shore Haven Apartments at 21st Avenue and Shore Parkway.

5.6.1.3 Historic Resources on the Site

There are no elements of architectural or archaeological significance within the site.

5.6.1.4 Historic Resources within the Study Area

There are no state, national, or City designated landmarks or historic districts within the site or study area.

5.6.2 Future No-Build Conditions

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

5.6.3 Potential Impacts with the Southwest Brooklyn Converted MTS

As there are no existing or eligible architecturally or archaeologically significant resources on the site or in the study area, the Southwest Brooklyn Converted MTS would have no effect on any cultural resources. Based upon its review, SHPO has confirmed that the Southwest Brooklyn Converted MTS would have no impact upon cultural resources in or eligible for inclusion in the State Register and National Register of Historic Places. The LPC has stated that the site contains no architectural or archeological significance (see Appendix A).

5.7 Urban Design and Visual Quality

5.7.1 Existing Conditions

5.7.1.1 Definition of the Study Area

The visual quality study area is basically the same as the neighborhood character study area (see Section 5.8), but also includes view corridors from nearby parks, recreational uses, and residential areas (Figure 5.8-1). The site is visible because it extends out over the water and because the buildings in this area are generally not densely arranged or tall enough to hide the facility from view. There are views to the site and environs from waterside recreational areas such as Dreier-Offerman Park; Coney Island Creek Park; the Excelsior Yacht Club; and from the residential areas east of Shore Parkway, specifically the Regina Pacis Residence for Senior Citizens; and Bensonhurst Park.

5.7.1.2 Description of the Site

The site has been developed in a manner that is now inconsistent with the visual character of adjacent properties and the overall urban design of the study area. It contains the existing MTS facility built over the water in the western portion of the site, the Southwest Brooklyn Incinerator (building and stacks) inland from the existing MTS, and one of two salt sheds that stand on the larger DSNY property. There is much area devoted to parking on-site and in the general area for workers, and for the storage of trucks and other vehicles associated with the various sanitation uses located there.

The shoreline of the site is rock-covered. There is grass and some scrub growth on the interior regions of the shore near the fence line and along the ramp leading up to the existing MTS. The few trees in the vicinity grow mostly on non-maintained shore areas as a result of natural growth. There is no vegetative landscaping on the site, which is entirely paved in asphalt.

The concrete ramp to the existing MTS runs alongside the northwestern side of the incinerator structure. The existing MTS building design differs from other MTS facilities in that it is asymmetrical. A single large entrance door opens onto the ramp and is topped with a low gable. The shell of the tipping floor is constructed of off-white pre-fabricated steel and the lower barge level of the building is faced in red brick.

Below this portion of the building, a paved roadway runs in an easterly direction between the shore and the incinerator, toward its intersection with Bay 41st Street. It runs under what appears to be an enclosed loading belt that extends from the incinerator to a point about two stories above the shore. There is parking on the shore side of this road, and both sides of the road are lined with chain-link fencing about 10 feet high.

The brick incinerator facility is comprised of a main building, which stands about five stories tall and two cylindrical incinerator stacks that rise approximately 200 feet—more than twice the height of the main building. The stacks taper somewhat toward the top.

The salt shed is in the northern portion of the site at the base of the existing MTS entrance ramp. It is essentially conical in shape, rising to approximately 40 feet at its peak. The base walls are constructed of prefabricated unpainted concrete panels topped by a dark brown conical roof.

Additionally, there are light poles located adjacent to the site, and lights mounted on the exterior walls of the existing MTS facility and the ramp leading to it.

5.7.1.3 Urban Design and Visual Quality of the Study Area

The buildings that surround the site appear to have been constructed within the last 20 years for their current uses, which are light industrial or maritime in nature. They do not appear to have been developed originally for heavy industry or modified for such use, as buildings often are in older working waterfronts. The area immediately to the south of the site is characterized by marina and boating activities, and there is a mooring area for boats of the Excelsior Yacht Club immediately adjacent to the site, along a pier (Figure 5.7-1).

Buildings adjacent to the site include one salt shed located next to the on-site salt shed of the same design, and the DSNY Garage and Borough Command Facility. This off-site portion of DSNY property is characterized by paved surfaces and DSNY-related facilities.

The Nellie Bly Amusement Park is just to the east of the site, beyond the off-site DSNY facilities (Figure 5.7-2). This colorful small park, which faces east, features numerous amusement rides, as well as picnic, concession, and video-game areas. It offers no direct views of the site, as the off-site DSNY buildings buffer the park from the site, but it is bordered on two sides by roads that serve the site.

North of the site along the shore and beyond the Bayside Fuel Company and the Atlantic Express Bus Company is a major commercial area. It includes a Toys "R" Us store and various strip mall-type commercial establishments organized around a large parking lot. Toys "R" Us impedes almost any view of the site from the shoreline north of Bay Parkway, including views from Shore Parkway and some of the parkland running between the shore and parkway (Leif Ericson Drive Shore Parkway park system). The northern portion of this park and Bensonhurst Park afford views of the site at a distance (Figure 5.7-3).

Dreier-Offerman Park lies farther to the south of the site beyond the yacht club and marina. It affords views of the existing MTS as well as of the incinerator (Figure 5.7-4). At the mouth of Coney Island Creek is Coney Island Creek Park, which is not an active recreational area. This park extends from the Sea Gate neighborhood into the bay with views of the site. The site is clearly visible from Coney Island across Gravesend Bay (Figure 5.7-5).

The tallest building in the area is the Regina Pacis Residence for Senior Citizens (Regina Pacis Housing Corporation), at 24-24 Cropsey Avenue, which stands approximately 20 stories tall. The building is faced in light brick, has many windows and balconies with views toward the water and, consequently, the site and existing MTS.

Figure 5.7-1: View northward from Bay 43rd Street. (Photo 2000)

Figure 5.7-2: Nellie Bly Amusement Park, located east of the site.

Figure 5.7-1 and 5.7-2
Urban Design and Visual Quality
Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

This page intentionally left blank.

Figure 5.7-3: MTS as viewed from the Shore Park at approximately 19th Avenue.
(Photo 2000)

Figure 5.7-4 : View northward from the interior of Dreier-Offerman Park.
(Photo 2000)

Figure 5.7-3 and 5.7-4
Urban Design and Visual Quality
Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

This page intentionally left blank.

Figure 5.7-5: View of site, looking north across Coney Island Creek from Coney Island Creek Park.

Figure 5.7-5
Urban Design and Visual Quality
Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

This page intentionally left blank.

5.7.2 Future No-Build Conditions

Other than the imminent demolition of the defunct 200 foot-tall incinerator stacks and building, there are no plans for the site or surrounding environs that would lead to a change in urban design and visual quality characteristics. The site will remain DSNY property, the existing MTS will remain, and the associated DSNY salt storage and garage facilities will continue to be fully utilized. The anticipated urban design and visual quality Future No-Build Conditions are, therefore, fundamentally the same as Existing Conditions on-site and within the study area.

5.7.3 Potential Impacts with the Southwest Brooklyn Converted MTS

The Southwest Brooklyn Converted MTS would be located further inland than the existing facility, in about the same location as the incinerator. The Southwest Brooklyn Converted MTS would be approached via a sharply curved drive to its south. Operation of the Southwest Brooklyn Converted MTS would require mooring of barges on its bay side. The existing MTS building would remain.

Because the new construction would be limited to the site that is already arranged to handle waste transfer operations, no impacts on urban design of the area would result. Likewise, the presence of a transfer station further inland, still bordered by DSNY salt storage sheds, would not significantly alter the industrial visual quality of the site.

5.8 Neighborhood Character

5.8.1 Existing Conditions

5.8.1.1 Definition of the Study Area

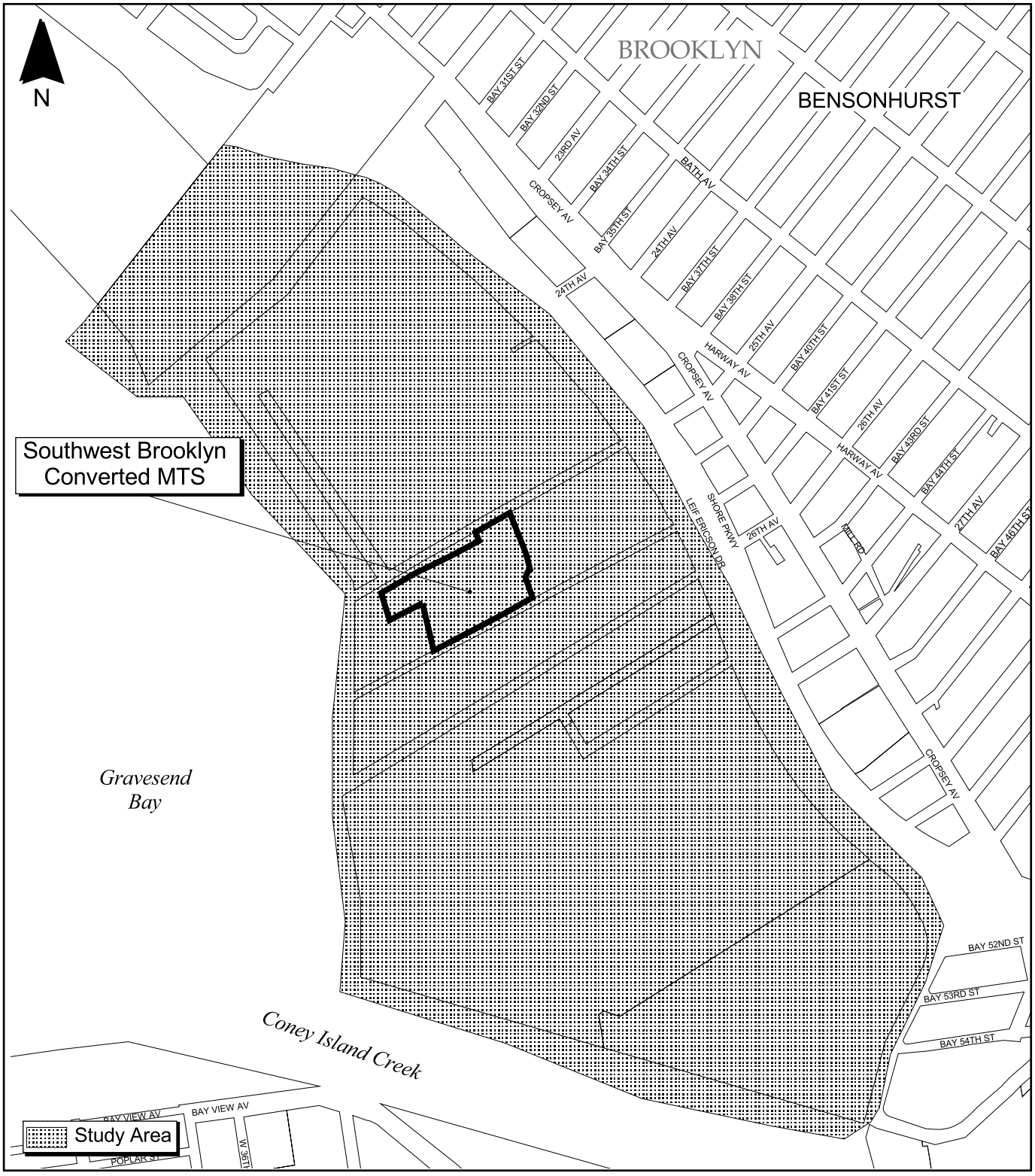
The site is on Gravesend Bay in Bensonhurst, a large mixed-use community in Southwest Brooklyn featuring mostly residential uses and water-related recreational activities. The site and other waterside uses are physically separated from the primary residential area inland by Shore Parkway, a six-lane arterial. Because Shore Parkway essentially buffers the residential neighborhood to the east, the study area considered for this assessment is defined by the mix of uses along the waterfront and includes Bensonhurst Park to the north, Dreier-Offerman Park to the south and Shore Parkway to the east (Figure 5.8-1).

5.8.1.2 Description of Neighborhood Character

The study area has a wide range of mixed-uses (e.g., industrial, commercial, institutional, recreational, and open space land uses). It is generally developed at a low density and with fairly large lots. Waterfront access is provided to the public in Bensonhurst Park north of the site, and Dreier-Offerman Park to the south. The Excelsior Yacht Club and Marina adjacent to the site affords private access to water recreation uses.

The site, which is on the waterfront portion of the larger DSNY property, is accessed from a local service road running parallel to Shore Parkway on its bay side. This road is also accessible from Cropsey Avenue at its intersection with Bay 52nd Street southeast of the site. It serves Bensonhurst Park, Dreier-Offerman Park, the Nellie Bly Amusement Park, commercial uses next to the amusement park, and the yacht club, marinas and all the other activities on the bay-side of the parkway.

The yacht club and Nellie Bly Amusement Park, which are regional destination points adjacent to the site, contribute to the pedestrian, automobile, and boat circulation activity nearby. These uses and the routes that are used to access them have direct views to the site, and virtually all



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

500 0 500 Feet

Figure 5.8-1 Neighborhood Location
Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

these uses within the immediate area are intended for outdoor activity and recreation. Dreier-Offerman Park and the institutional uses south of the site also contribute to the area's pedestrian and automobile activity, and there is direct visual connection to the site from these areas as well.

The institutional/residential uses on Bay 44th Street—Community Residential Opportunities, Home for Handicapped Children, and the Brooklyn School for Special Children—account for a well-maintained streetscape. The parks are also well maintained and, since the area is without through-traffic, this street is relatively quiet and peaceful.

5.8.2 Future No-Build Conditions

Although there would be no delivery of waste to the existing MTS, other DSNY operations would continue to produce truck traffic in the neighborhood. It is assumed that the site will remain DSNY property, the incinerator will be demolished, the existing MTS would remain standing, and the associated DSNY salt storage and garage facilities would continue to operate fully. Moreover, there are no plans for development on the site or in the study area that would potentially lead to changes in neighborhood character. The anticipated Future No-Build Conditions are, therefore, expected to be the same as Existing Conditions.

5.8.3 Potential Impacts with the Southwest Brooklyn Converted MTS

Generally, no change to the mixed neighborhood character would be expected because the operation and appearance of the Southwest Brooklyn Converted MTS would resemble those of the existing MTS and DSNY and other collection agency vehicles would follow the same routes as before. The only relevant difference between the Southwest Brooklyn Converted MTS and the Future No-Build Condition would be the delivery of waste to the existing MTS site once again, but for the containerization of waste for export. Technical studies were performed for potential site-generated environmental impacts and no significant, unmitigatible adverse traffic, air quality, odor, or noise impacts were found.

Therefore, no significant adverse impacts to neighborhood character would result from the reactivation of this historic waste transfer use on DSNY property surrounded by DSNY uses and activities that are anticipated to remain largely unchanged in the Future No-Build Condition.

5.9 Traffic and Transportation

5.9.1 Introduction

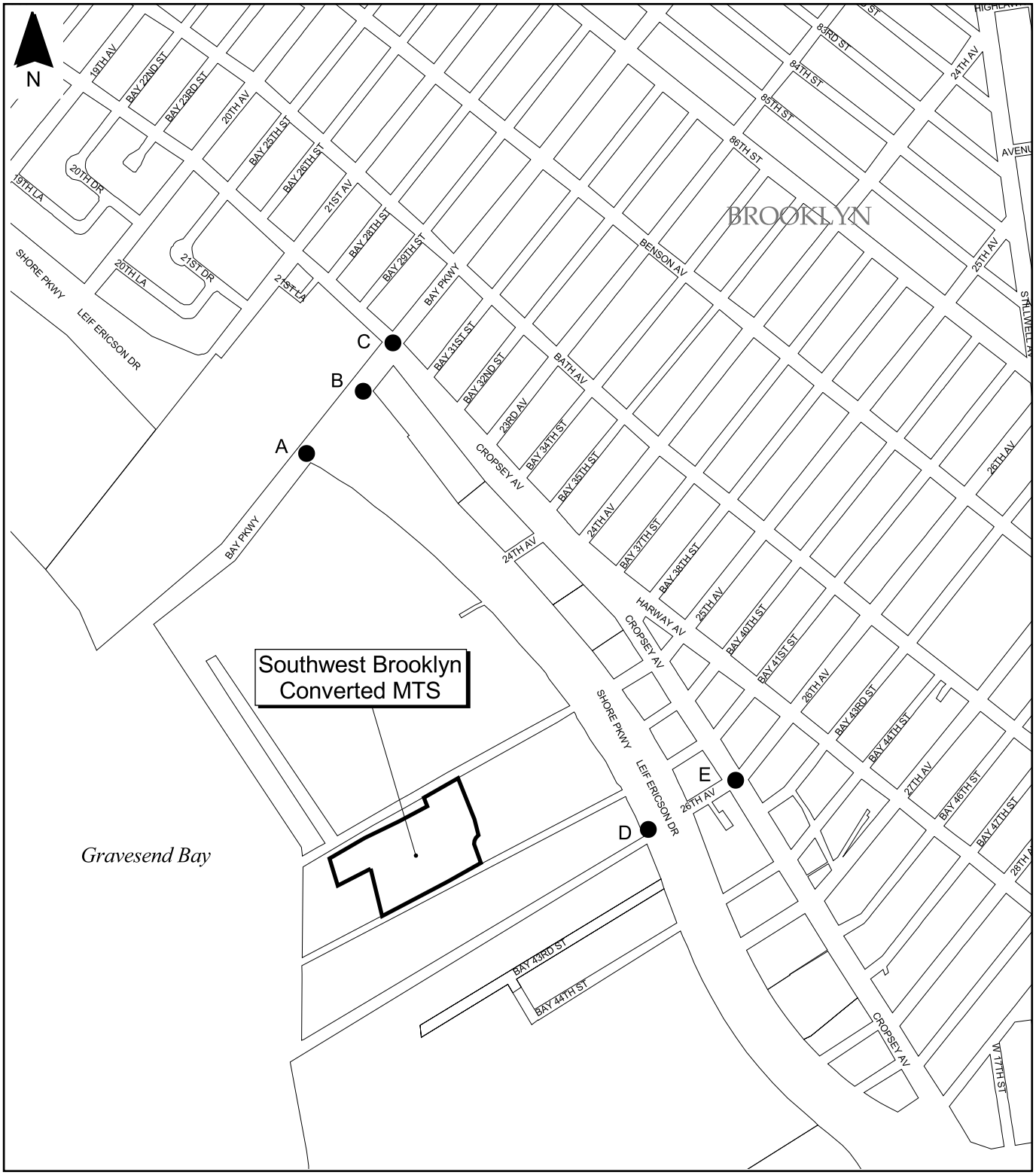
The Southwest Brooklyn Converted MTS would receive waste from DSNY and other agency collection vehicles. Therefore, pursuant to CEQR guidelines, a traffic analysis was performed on the projected net increase in collection vehicles in the study area (which is defined below) and on other site-generated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

5.9.2 Existing Conditions

5.9.2.1 Definition of Study Area

The traffic analysis study area is broad, covering portions of the Gravesend sections of Brooklyn. It includes the corridors along Cropsey Avenue and Shore Road that are bounded by Bay Parkway on the north and 26th Avenue on the south. Commercial and residential areas are included in the traffic study area. There are no CEQR defined areas of concern located within the study area. Figure 5.9-1 shows the locations of the intersections selected for analysis (locations A through E). Intersections analyzed were selected using the procedures defined in Section 3.10.2.

The analysis of collection vehicle routing to the site included highway access points within ½ mile of the site in conjunction with local truck routes. Northbound and southbound collection vehicles would approach the site on Cropsey Avenue, turn onto Bay Parkway and then onto Shore Road (southbound). DSNY and other agency collection vehicles would gain access to the Southwest Brooklyn Converted MTS by turning onto 25th Avenue from Shore Road (southbound). Westbound collection vehicles would approach the site on either 25th Avenue or Bay Parkway to Cropsey Avenue and then follow routes similar to northbound and southbound collection vehicles to the site.



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

500 0 500 Feet

Figure 5.9-1 Traffic Analysis Study Area
Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

5.9.2.2 Surface Network

One major parkway, the predominantly north-south Shore Parkway (Lief Ericson Drive) services the traffic analysis study area. The Shore Parkway is a controlled access highway, which prohibits commercial vehicle traffic. Cropsey Avenue is a local truck route that provides access from the south and north of the site and Bay Parkway is a local truck route that provides access to the site from the east. A map showing all major truck routes and local truck routes in Brooklyn is provided in Section 3.10.2.1 (Figure 3.10-3).

5.9.2.3 Existing Traffic Operations

The five intersections listed below were identified for analysis because they are the most likely to be impacted from an increase in DSNY and other agency collection vehicle traffic to the Southwest Brooklyn Converted MTS. All of them are on major arterials and/ or collection vehicle routes. Diagrams of these intersections are included in Technical Backup submitted to NYCDOT.

- Shore Road (southbound) and Bay Parkway – Signalized Intersection (Figure 5.9-1 location A);
- Bayview Place (Shore Road - northbound) and Bay Parkway – Signalized Intersection (Figure 5.9-1 – location B);
- Cropsey Avenue and Bay Parkway – Signalized Intersection (Figure 5.9-1 - location C);
- Shore Road (southbound) and 26th Avenue – Unsignalized Intersection (Figure 11.9-1 – location D); and
- Cropsey Avenue and 26th Avenue – Signalized Intersection (Figure 5.9-1 - location E);

25th and 26th Avenues are collector roads that provide access to and from the arterials of Cropsey Avenue and Shore Road (southbound). Bay Parkway, another arterial, provides access to and from northbound traffic on the Shore Parkway. Southbound traffic on the Shore Parkway enters and exits on Shore Road (southbound) in the traffic study area.

A traffic data collection program that consisted of manual turning movement counts with vehicle classifications and ATR counts was undertaken to define existing weekday traffic operations (see Section 3.10.6 for a discussion on traffic data collection). Manual turning movement counts were conducted between February 5, 2003 and February 11, 2003, while ATR counts were conducted between February 3, 2003 and February 9, 2003. Figures 5.9-2, 5.9-3, and 5.9-4 depict the existing traffic volumes for AM, Facility, and PM peaks at the intersections analyzed. The AM peak generally occurred between 7:45 a.m. and 8:45 a.m., the Facility peak between 10:00 a.m. and 11:00 a.m., and the PM peak between 5:00 p.m. and 6:00 p.m. Table 5.9-1 presents the V/C ratio, delay, and LOS for the nine intersections during the AM, Facility, and PM peaks.

Existing truck traffic varies throughout the intersections in the traffic study area. On roads that provide access to and from the Shore Parkway, truck percentages held constant between 4% and 10% throughout the day. On truck routes in the study area, the percentages of trucks generally increased throughout the morning hours, remains between 15 % and 25 % during mid-day hours, and then decreased during the PM peak hours to 5% to 15 %.

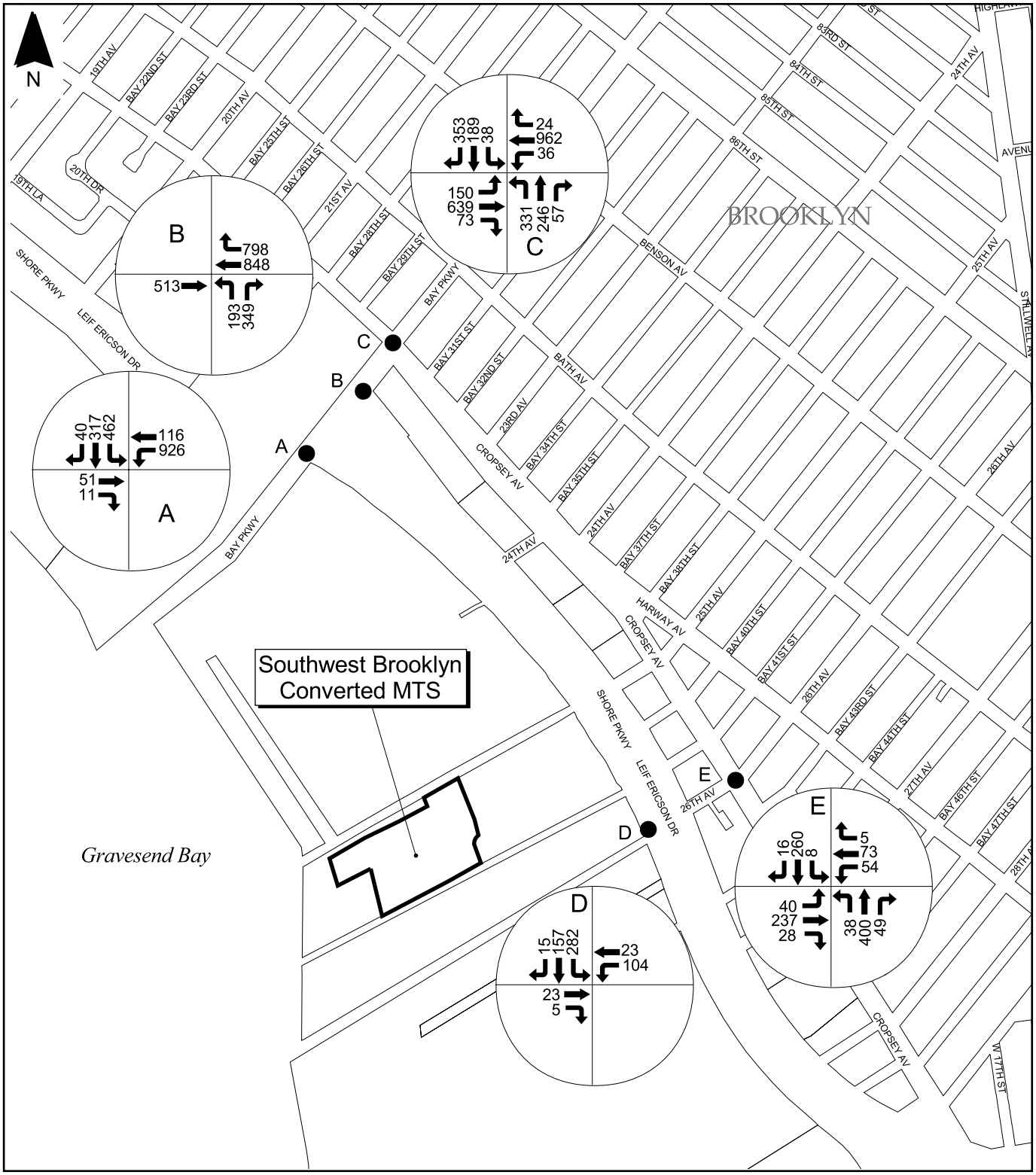
5.9.2.3.1 LOS at Signalized Intersections

Table 5.9-1 shows that the existing signalized intersections generally operated at an overall LOS of B or C with the following exceptions:

- During the AM and PM peak hours, the intersections of Cropsey Avenue at Bay Parkway and Shore Road (southbound) at Bay Parkway operate at an overall LOS D;
- The eastbound left/through/right lane group at Cropsey Avenue and 26th Avenue operates at LOS D for the AM, Facility, and PM peak hours; and
- During the AM and PM peak hours, the intersection of Shore Road and Bay Parkway operates at an overall LOS D or E.

5.9.2.3.2 LOS at Unsignalized Intersections

The one unsignalized intersection analyzed operates at LOS A or B throughout the day as shown in Table 5.9-1.



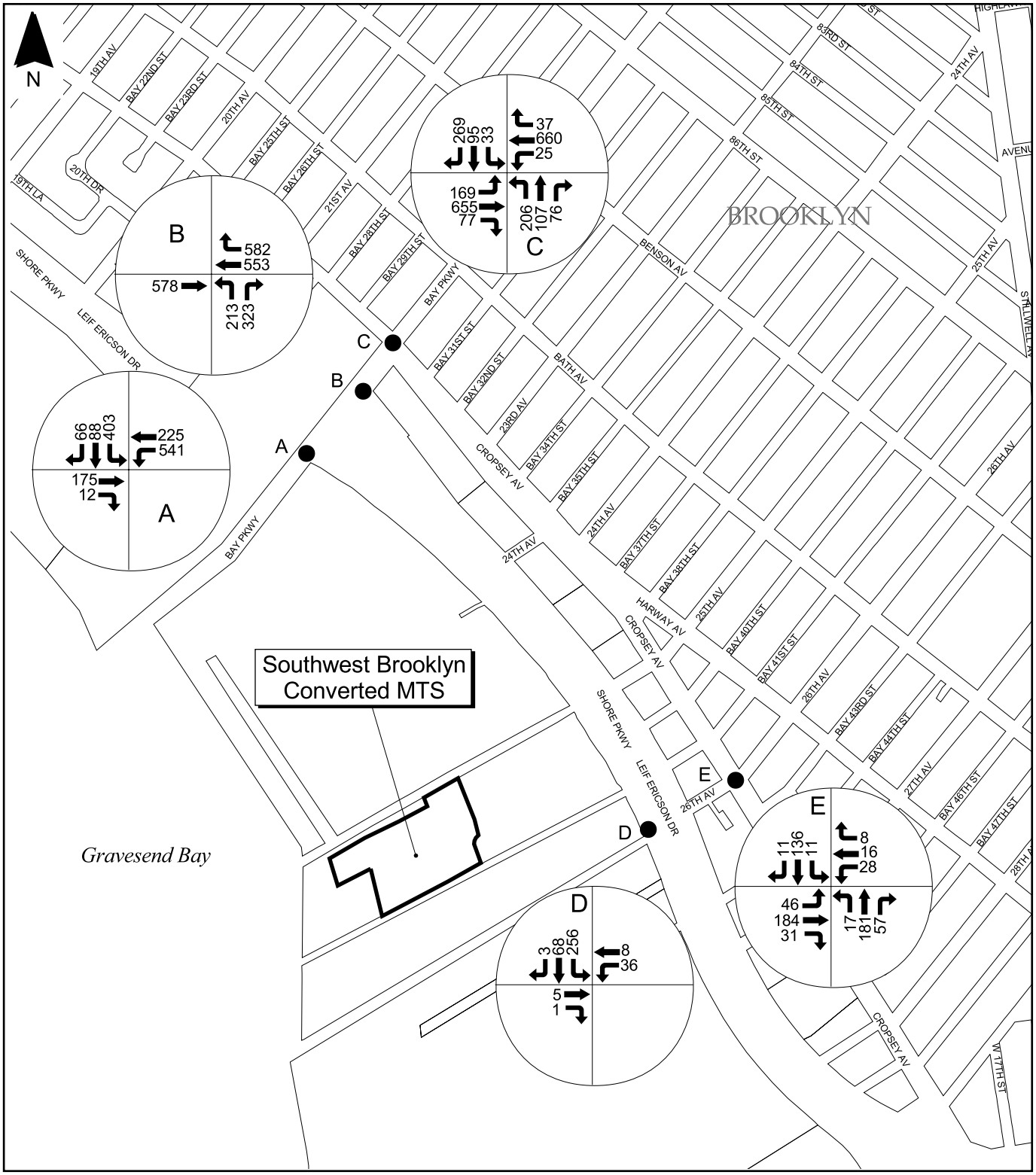
Site delineations are approximate.
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 5.9-2 Existing Traffic Volumes - AM Peak

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

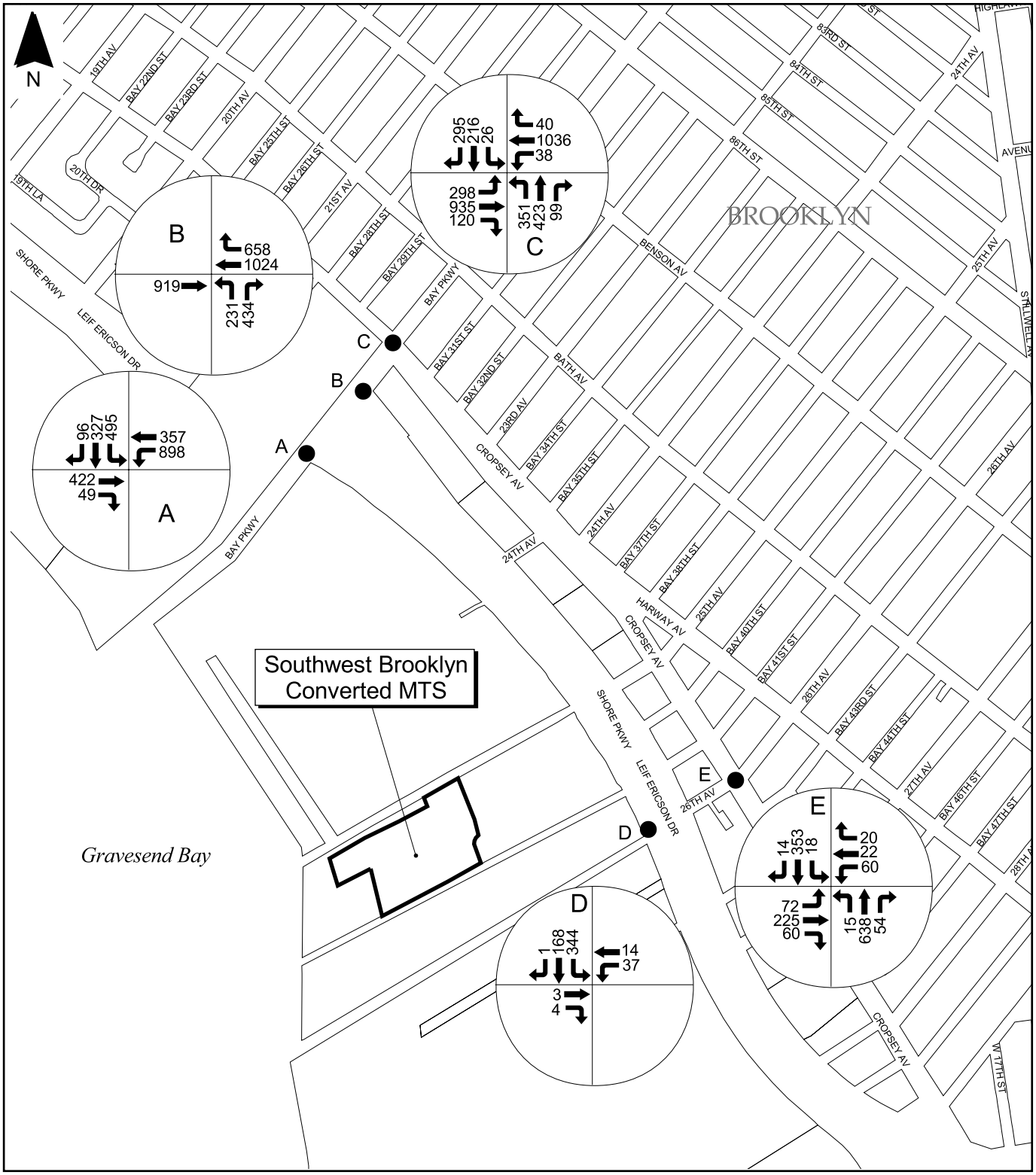


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 5.9-3 Existing Traffic Volumes Facility Peak Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION



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

500 0 500 Feet

Figure 5.9-4 Existing Traffic Volumes - PM Peak

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

Table 5.9-1
HCM Analysis[(1)]— Existing Conditions
Southwest Brooklyn Converted MTS

Lane Group	AM Peak Hour (7:45 a.m. – 8:45 a.m.)			Facility Peak Hour (10:00 a.m. – 11:00 a.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
Cropsey Avenue and Bay Parkway (signalized)									
EB L	0.79	49.3	D	0.67	26.5	C	1.05	112.5	F
EB TR	0.44	20.1	C	0.44	15.3	B	0.64	23.9	C
WB L	0.27	29.0	C	0.19	22.2	C	0.41	38.1	D
WB TR	0.84	40.6	D	0.71	28.4	C	0.93	49.2	D
NB L	0.85	55.7	E	0.51	25.2	C	0.96	75.9	E
NB LTR	0.39	25.5	C	0.28	19.7	B	0.53	28.1	C
SB L	0.16	34.4	C	0.18	28.5	C	0.17	34.8	C
SB T	0.47	39.6	D	0.35	31.0	C	0.50	40.3	D
SB R	0.93	71.1	E	0.81	49.1	D	0.76	52.0	D
OVERALL		39.3	D		25.9	C		44.0	D
Cropsey Avenue and 26th Avenue (signalized)									
EB LTR	0.84	44.8	D	0.72	35.6	D	0.84	44.0	D
WB LTR	0.54	30.2	C	0.24	22.7	C	0.32	24.6	C
NB LTR	0.42	13.3	B	0.24	11.4	B	0.48	13.9	B
SB LTR	0.24	11.4	B	0.16	10.7	B	0.30	11.9	B
OVERALL		23.2	C		21.0	C		21.2	C
Bayview Place (Shore Road – northbound) and Bay Parkway (signalized)									
EB T	0.24	8.5	A	0.31	11.7	B	0.39	9.9	A
WB TR	0.85	20.4	C	0.69	17.2	B	0.86	21.3	C
NB L	0.46	38.2	D	0.43	23.1	C	0.49	38.5	D
NB R	0.81	56.9	E	0.38	24.1	C	0.93	72.6	E
OVERALL		24.0	C		17.1	B		25.8	C
Shore Road (southbound) and Bay Parkway (signalized)									
EB T	0.07	31.6	C	0.19	25.0	C	0.45	36.9	D
EB R	0.05	31.5	C	0.04	23.6	C	0.17	33.3	C
WB DFL	0.77	31.1	C	0.56	21.8	C	0.94	55.1	E
WB T	0.14	13.9	B	0.24	13.4	B	0.45	18.3	B
SB L	0.95	69.8	E	0.85	47.2	D	1.04	91.4	F
SB TR	0.77	47.7	D	0.36	27.9	C	0.86	55.7	E
OVERALL		42.5	D		28.3	C		56.2	E
Shore Road (southbound) and 26th Avenue (unsignalized)									
EB TR		8.6	A		8.0	A		7.8	A
WB LT		10.0-	A		8.9	A		8.7	A
SB L		11.8	B		10.4	B		11.1	B
SB TR		9.0	A		8.3	A		8.2	A
OVERALL		10.4	B		9.5	A		9.9	A

Notes:

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

DFL = defacto left

LTR = left, through and right movements

NB = northbound

SB = southbound

EB = eastbound

WB = westbound

5.9.2.4 Existing DSNY-Related Traffic

Under Brooklyn's interim export, there are no commercial vendors located close to the Southwest Brooklyn Converted MTS. However, DSNY and other agency collection vehicles pass through the traffic study area on truck routes from Queens CDs 11 and 13 to the commercial vendor, IESI, located at 110 50th Street in Brooklyn. Collection vehicles from these two CDs pass through all intersections analyzed in the study area. The existing routes to the commercial vendors are presented in Figure 5.9-5.

5.9.2.5 Public Transportation

Public transportation in the study area consists predominantly of bus trips. The B6 travels in a loop entering the study area going west on Bay Parkway, then south on Shore Road, east on 26th Avenue, north on Cropsey Avenue and exits the study area on Bay Parkway; and the X28, X38, and B82 run north-south along Cropsey Avenue. Bus stops are located at some of the study area intersections analyzed, and scheduled stops occur at various times during the day.

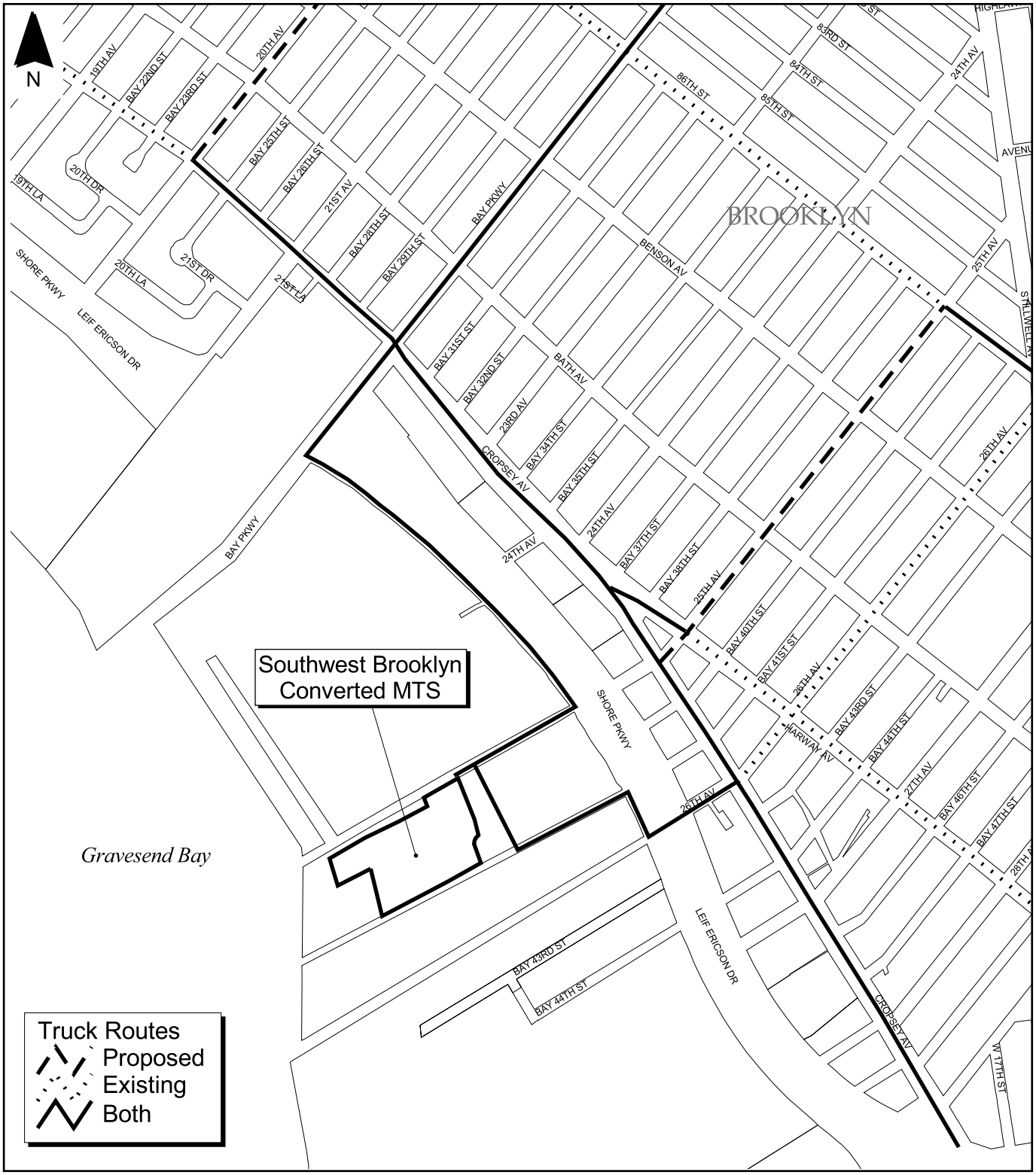
5.9.2.6 Pedestrian Activity

Light pedestrian activity occurs along Cropsey Avenue in the traffic study area where restaurants and commercial and residential areas produce and attract pedestrians throughout the day. During several field visits, pedestrian activity was minimal and it is not expected to affect the capacity analysis significantly.

5.9.3 Future No-Build Conditions

5.9.3.1 Traffic Conditions

Future No-Build traffic volumes were determined by applying a growth rate of 1% per year to existing traffic volumes in accordance with the 2001 CEQR Technical Manual. Additional traffic generated in the Future No-Build year (2006) generally amounted to less than 130 vehicles per intersection. There are no new developments planned in the study area that would affect Future No-Build traffic volumes in the study area.



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

500 0 500 Feet

Figure 5.9-5 Existing and Proposed Sanitation Truck Routes Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

Figures 5.9-6, 5.9-7 and 5.9-8 depict the Future No-Build traffic volumes for AM, Facility, and PM peaks at the intersections analyzed. Table 5.9-2 (Future No-Build Conditions) shows the Future No-Build V/C ratio, delay and LOS for the studied intersections. Overall, signalized intersections experienced relatively small increases in delay (less than 5 seconds) and are projected to remain at their existing condition LOS, with the following exceptions:

- During the PM peak hour, the overall LOS of the Shore Road (southbound) and Bay Parkway intersection deteriorated from D to E; and
- During the PM peak hour, the overall LOS of the Shore Road (southbound) and 26th 0Avenue intersection deteriorated from A to B.

5.9.3.2 Public Transportation

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

5.9.3.3 Pedestrian Activity

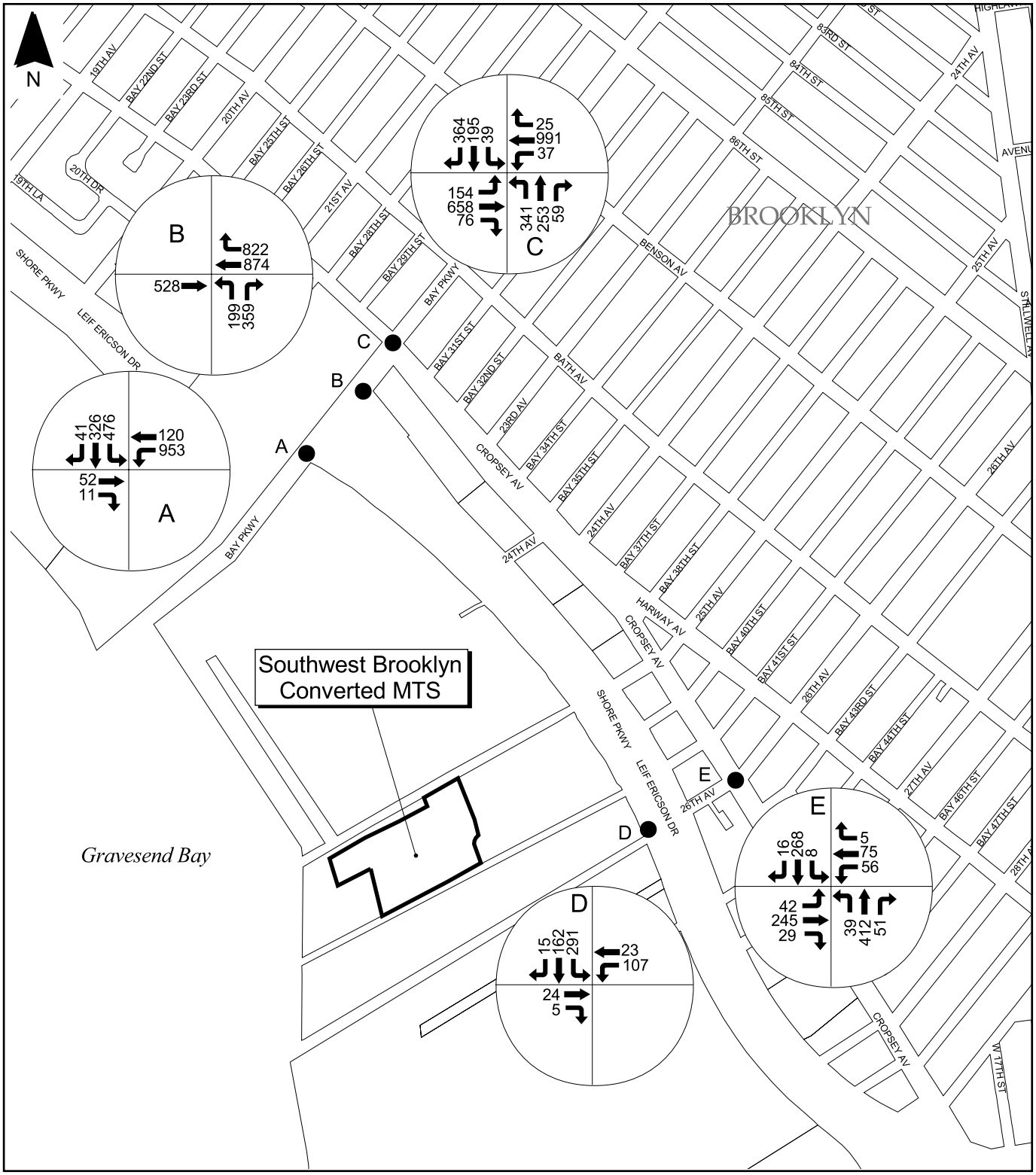
Future No-Build Conditions are expected to remain the same as Existing Conditions.

5.9.4 Potential Impacts with the Southwest Brooklyn Converted MTS

The Southwest Brooklyn Converted MTS would receive waste from four CDs in Brooklyn - BK 11 through BK 13 and BK 15. Additionally, the waste collected from Brooklyn SHBLK operations would be delivered to the Southwest Brooklyn 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. Employee trips to and from the site may also result in traffic impacts during the AM peak hour.

5.9.4.1 Traffic Conditions

2006 Future Build Conditions assume that the Southwest Brooklyn Converted MTS would generate 166 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 collection vehicle truck routes for the Southwest Brooklyn Converted MTS are shown in Figure 5.9-5.

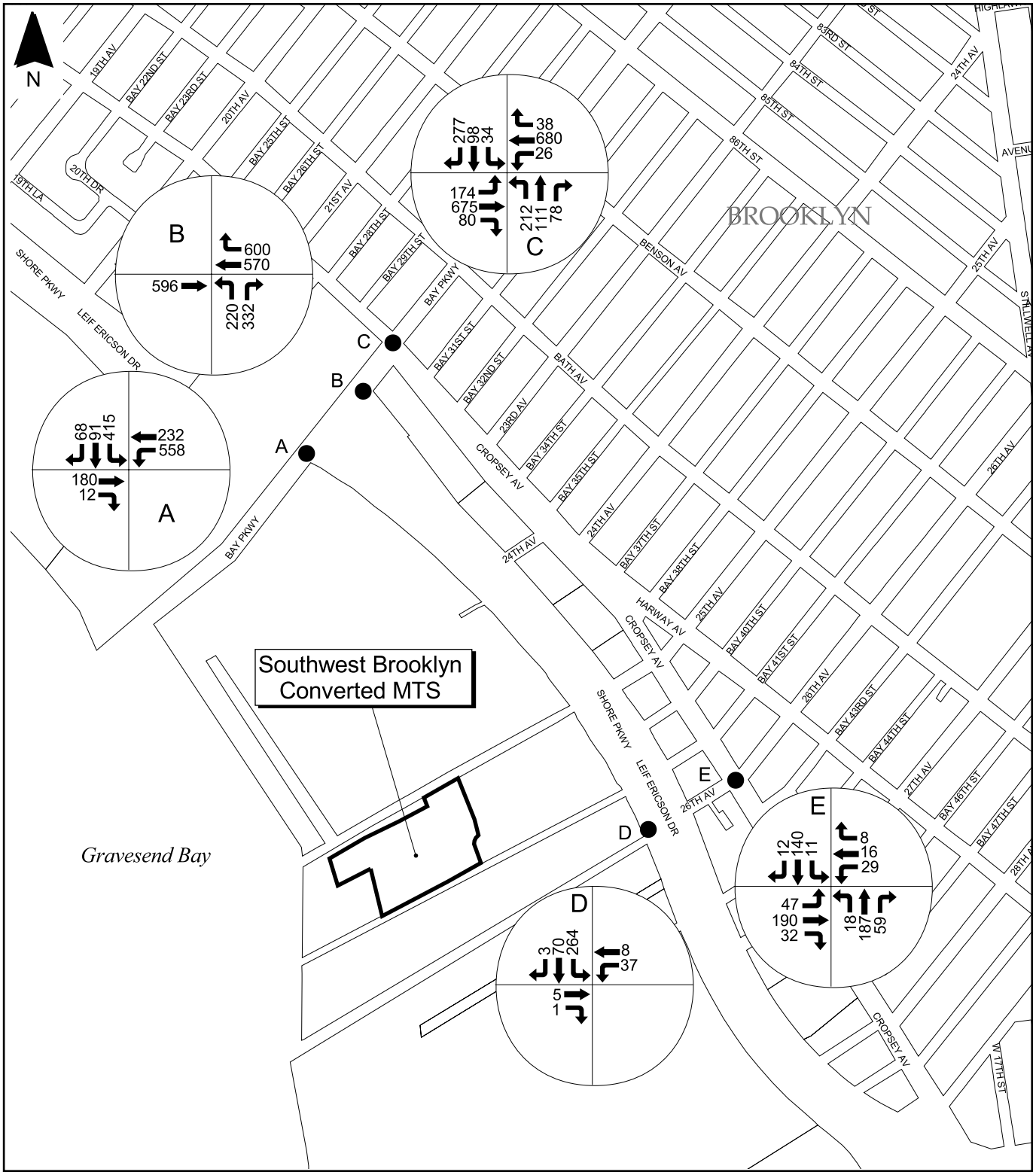


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 5.9-6 Future No-Build Traffic Volumes AM Peak Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

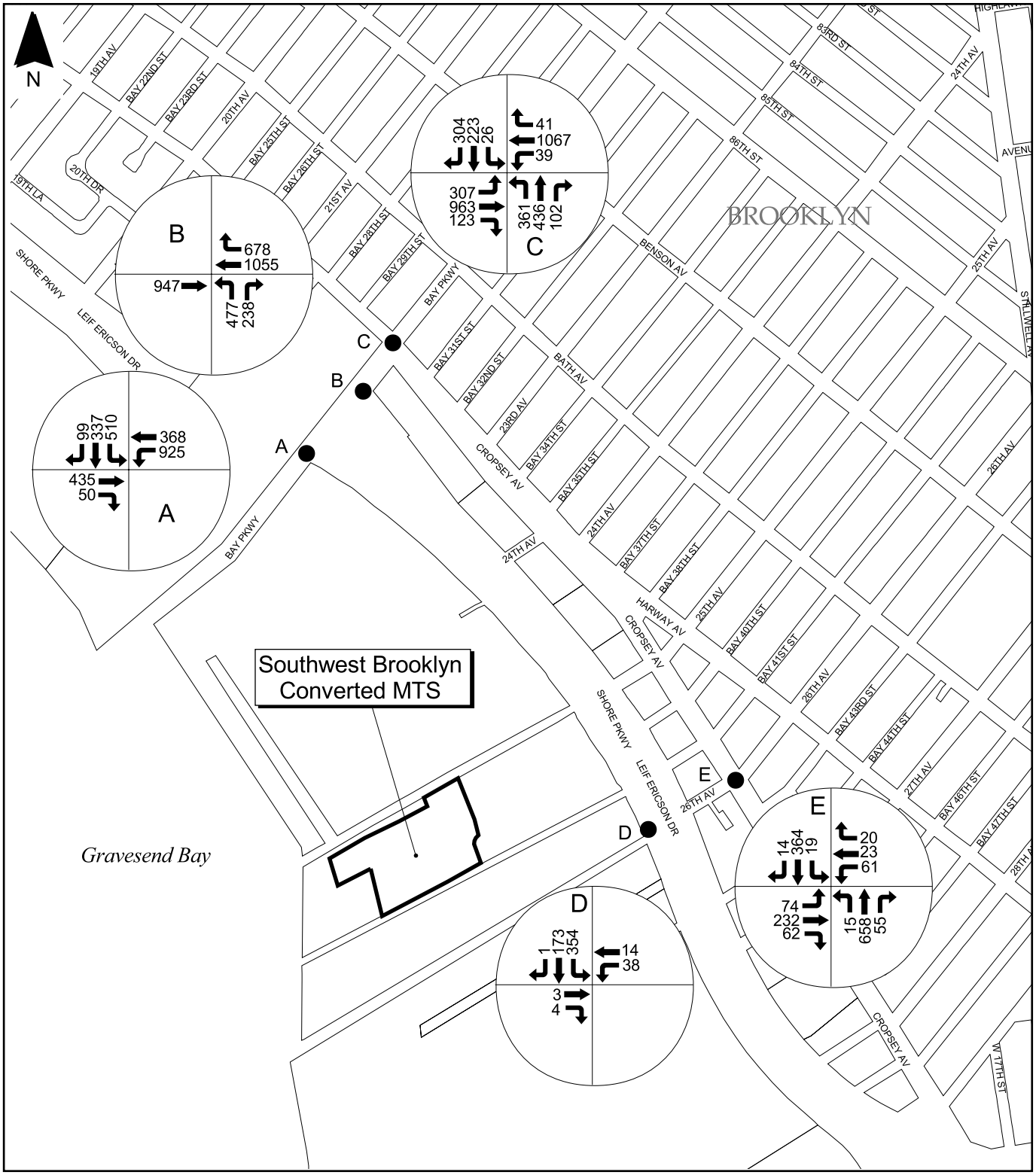


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 5.9-7 Future No-Build Traffic Volumes Facility Peak Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION



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

500 0 500 Feet

Figure 5.9-8 Future No-Build Traffic Volumes PM Peak Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

Table 5.9-2
HCM Analysis[(1)] – Future No-Build Conditions
Southwest Brooklyn Converted MTS

Lane Group	AM Peak Hour (7:45 a.m. – 8:45 a.m.)			Facility Peak Hour (10:00 a.m. – 11:00 a.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
Cropsey Avenue and Bay Parkway (signalized)									
EB L	0.84	59.4	E	0.71	29.2	C	1.08	122.4	F
EB TR	0.46	20.3	C	0.46	15.5	B	0.66	24.3	C
WB L	0.28	29.7	C	0.21	22.6	C	0.46	41.5	D
WB TR	0.87	42.4	D	0.66	26.7	C	0.96	53.5	D
NB L	0.89	61.1	E	0.53	25.9	C	1.01	88.0	F
NB LTR	0.40	25.8	C	0.26	19.4	B	0.55	28.6	C
SB L	0.17	34.5	C	0.19	28.5	C	0.18	35.0+	D
SB T	0.48	40.0	D	0.36	31.2	C	0.52	40.7	D
SB R	0.95	76.7	E	0.83	51.5	D	0.78	53.5	D
OVERALL		41.5	D		25.9	C		47.2	D
Cropsey Avenue and 26th Avenue (signalized)									
EB LTR	0.88	49.1	D	0.74	36.8	D	0.87	46.9	D
WB LTR	0.57	31.5	C	0.24	22.9	C	0.34	25.0	C
NB LTR	0.43	13.4	B	0.25	11.5	B	0.49	14.1	B
SB LTR	0.25	11.4	B	0.16	10.7	B	0.31	12.0	B
OVERALL		24.6	C		21.4	C		21.0	C
Bayview Place (Shore Road – northbound) and Bay Parkway (signalized)									
EB T	0.24	8.6	A	0.32	11.8	B	0.40	10.1	B
WB TR	0.87	21.9	C	0.71	17.7	B	0.89	23.2	C
NB L	0.47	38.3	D	0.44	23.3	C	0.50	38.7	D
NB R	0.87	62.7	E	0.56	27.9	C	0.97	79.0	E
OVERALL		25.8	C		18.3	B		27.6	C
Shore Road (southbound) and Bay Parkway (signalized)									
EB T	0.07	31.6	C	0.20	25.1	C	0.46	37.1	D
EB R	0.05	31.5	C	0.04	23.6	C	0.17	33.3	C
WB DFL	0.80	32.4	C	0.58	22.5	C	0.97	59.8	E
WB T	0.14	14.0	B	0.25	13.5	B	0.47	18.6	B
SB L	0.96	71.4	E	0.87	50.1	D	1.07	101.4	F
SB TR	0.79	49.0	D	0.37	28.1	C	0.89	59.0	E
OVERALL		43.6	D		29.5	C		57.9	E
Shore Road (southbound) and 26th Avenue (unsignalized)									
EB TR		8.6	A		8.1	A		7.9	A
WB LT		10.1	B		9.0	A		8.8	A
SB L		12.1	B		10.6	B		11.3	B
SB TR		9.1	A		8.3	A		8.2	A
OVERALL		10.6	B		9.6	A		10.1	B

Notes:

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

DefL = defacto left

LTR = left, through and right movements

NB = northbound

SB = southbound

EB = eastbound

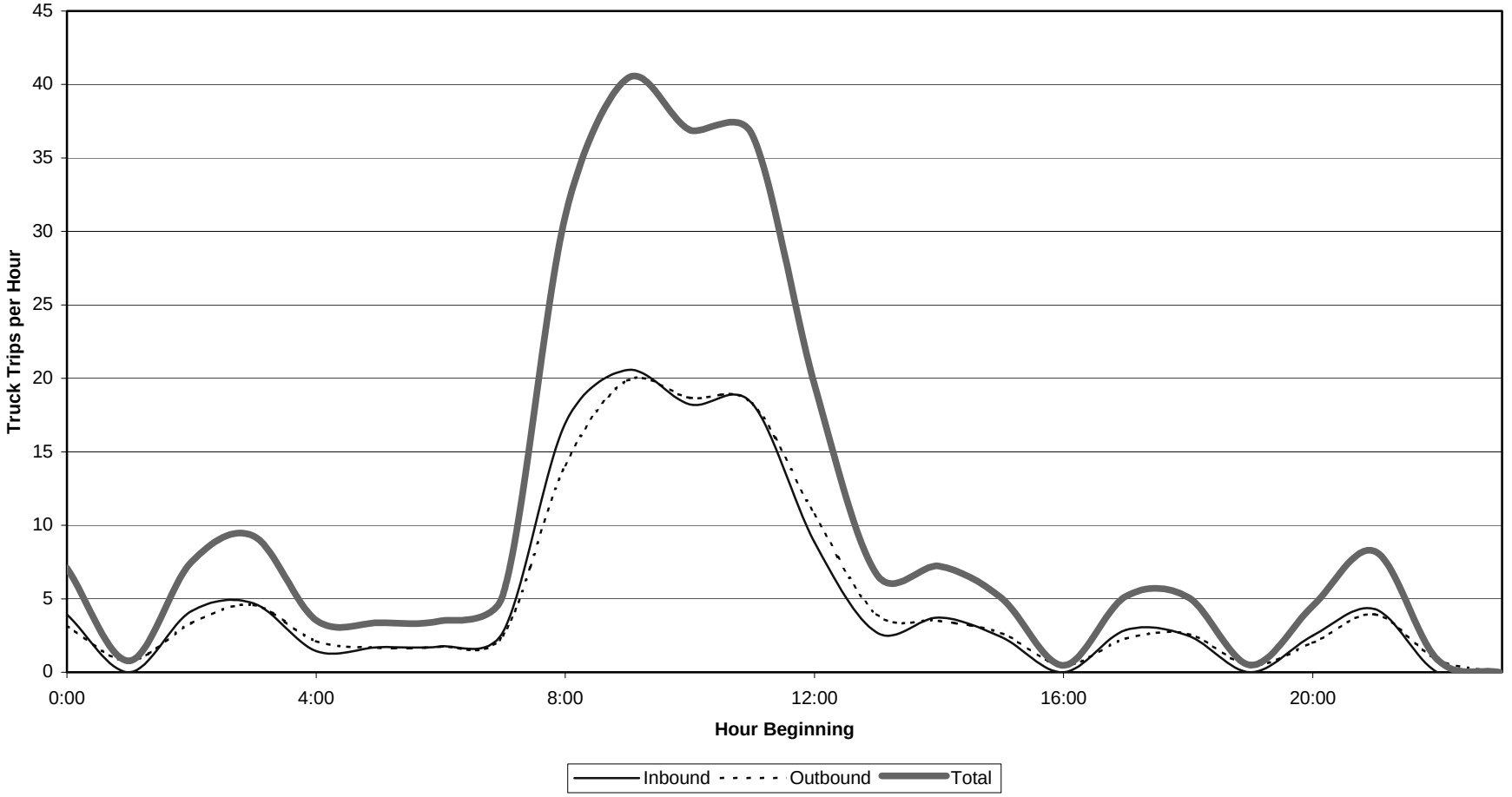
WB = westbound

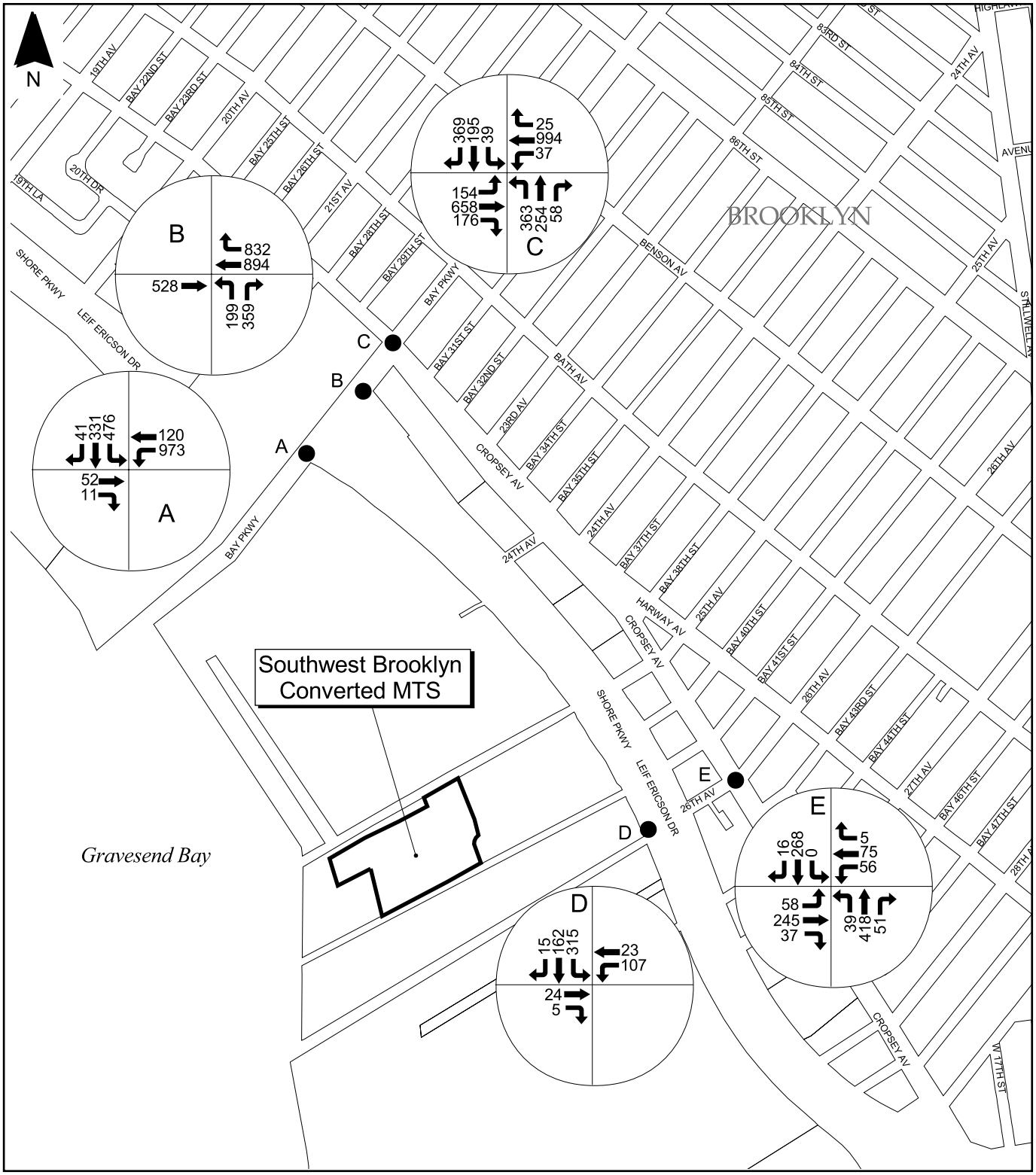
Figure 5.9-9 presents the average peak day temporal distribution of collection vehicles for the Southwest Brooklyn Converted MTS. Section 3.10.3.1 provides a detailed explanation of DSNY collection and delivery operational shifts (priority, non-priority, and relay). As shown, the number of collection vehicles generated by the Southwest Brooklyn Converted MTS is expected to vary between approximately 0 to 13 truck trips per hour in the late evening/early morning, 4 to 28 truck trips per hour in the mid-morning/early afternoon, and 1 to 5 truck trips per hour in the late afternoon/early evening. The peak hourly number of collection vehicle truck trips (28) occurs at approximately 10:00 a.m.

Employee trips generated as a result of the Southwest Brooklyn Converted MTS are expected to be about 44 per shift (22 entering 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. Therefore, during shift changes 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 (7:45 a.m. to 8:45 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 Southwest Brooklyn Converted MTS during the shift change (33) were considered as part of the net increase in site-generated traffic. Only part of the incoming employee trips were included due to the peak hour starting in the middle of the expected arrival time of incoming employees. Figures 5.9-10, 5.9-11, and 5.9-12 show the intersections analyzed with the net increase in site-generated traffic added to the Future No-Build traffic levels. Figures 5.9-13, 5.9-14, and 5.9-15 show the intersections analyzed with only the net increase in site generated traffic. Traffic volumes indicated by a dash (-) are the result of changing the disposal location from the existing commercial vendor facilities to the Southwest Brooklyn Converted MTS. These projected net increases were routed through the intersections for each of the three peak hours. The highest net increase in trucks in the ingress or egress direction was 28. The highest net increase at any one intersection was 37 trucks. Both of these net increases occurred at the intersection of Cropsey Avenue and Bay Parkway.

Figure 5.9-9
Truck Trips Per Hour
Southwest Brooklyn Converted MTS



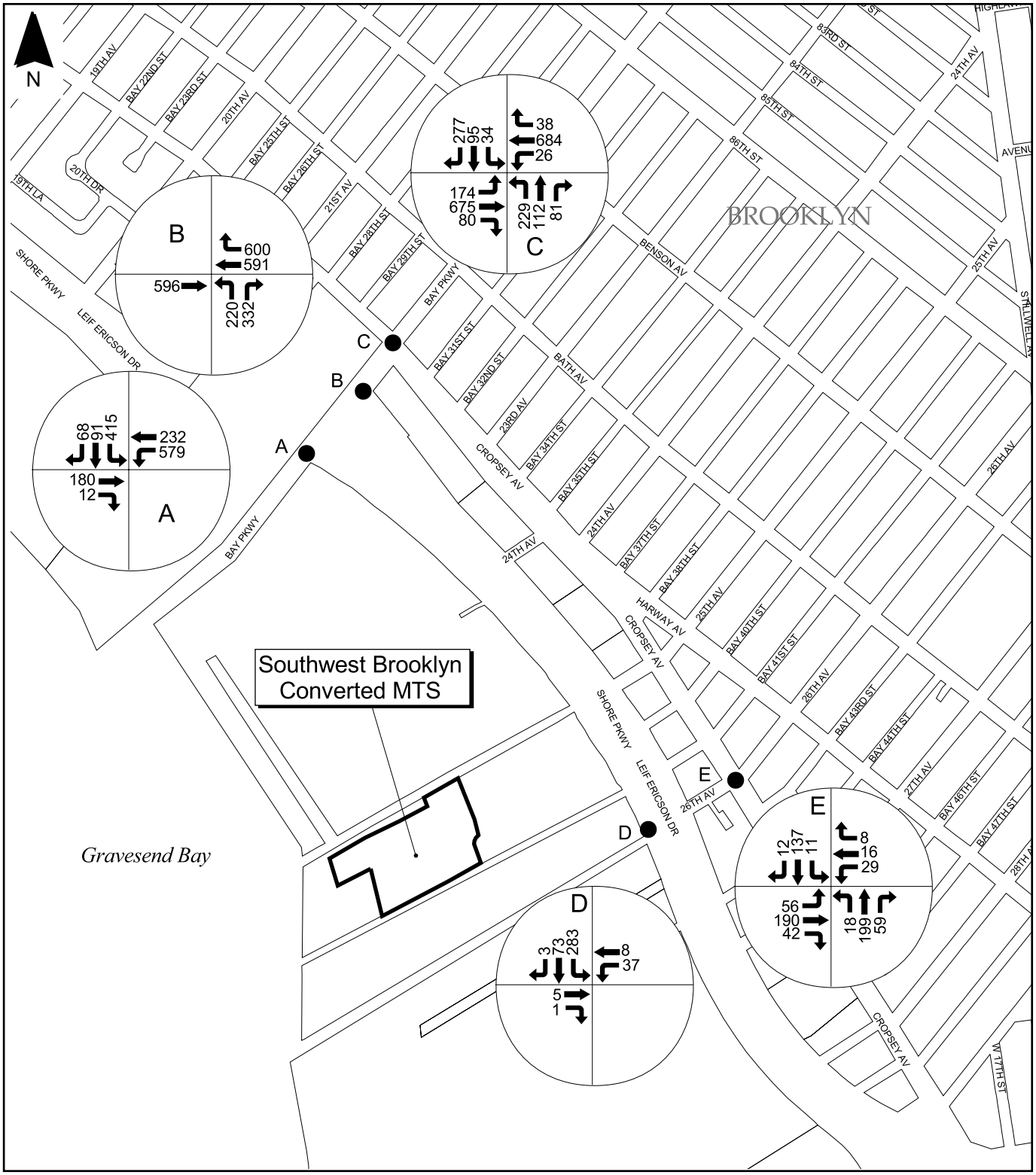


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 5.9-10 2006 Build Traffic Volumes AM Peak Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

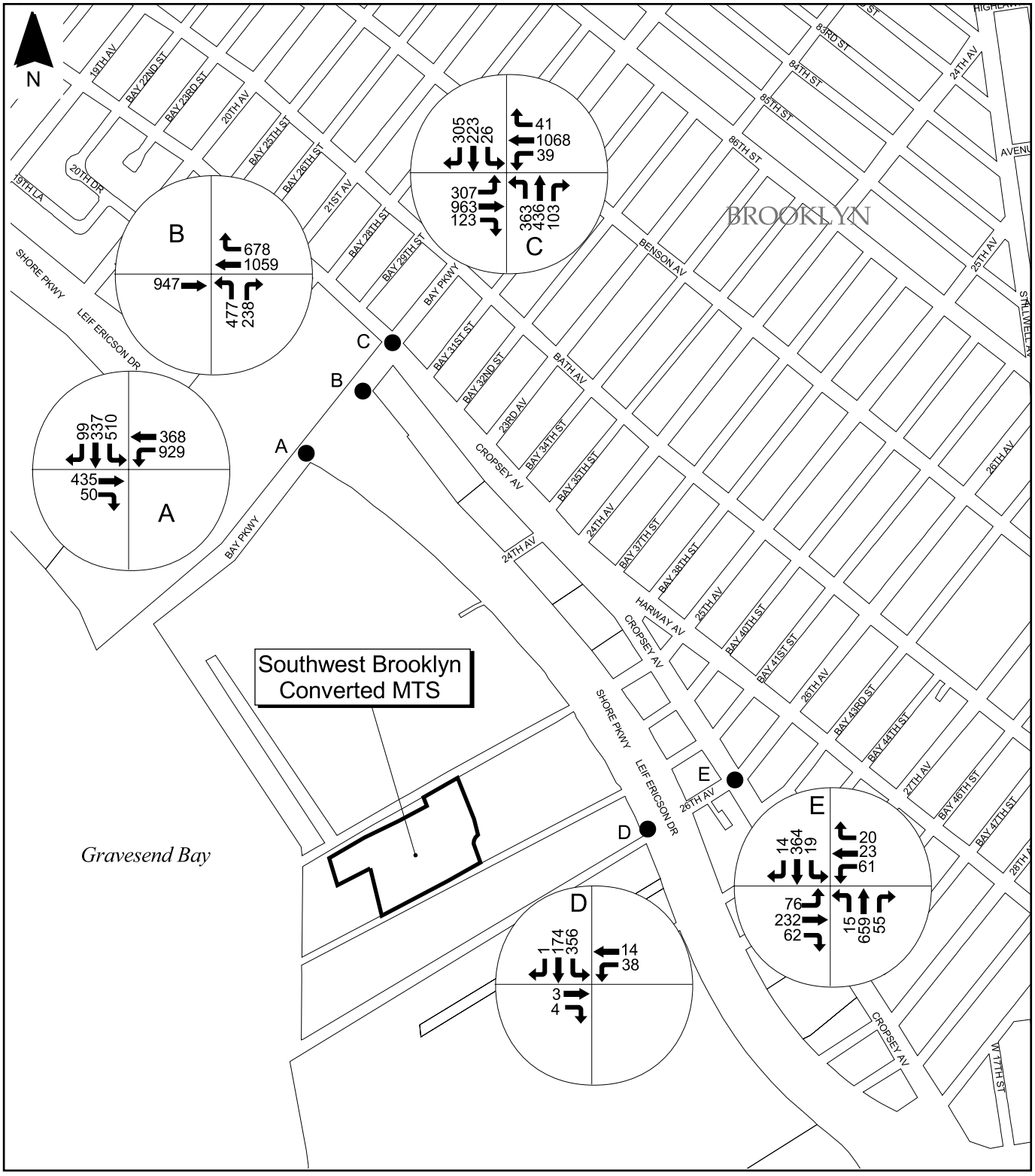


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 5.9-11 2006 Build Traffic Volumes Facility Peak Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

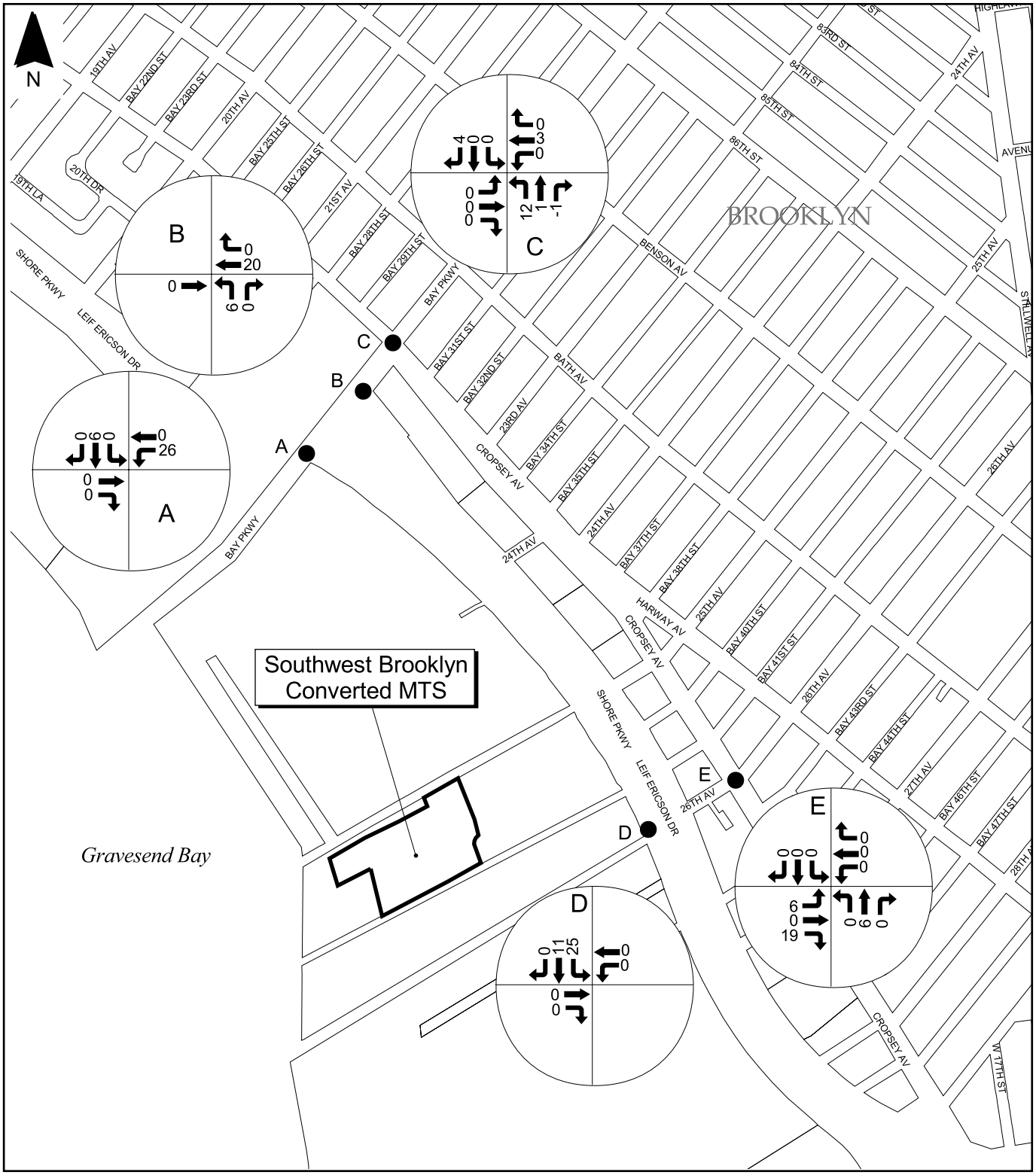


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 5.9-12 2006 Build Traffic Volumes PM Peak Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION



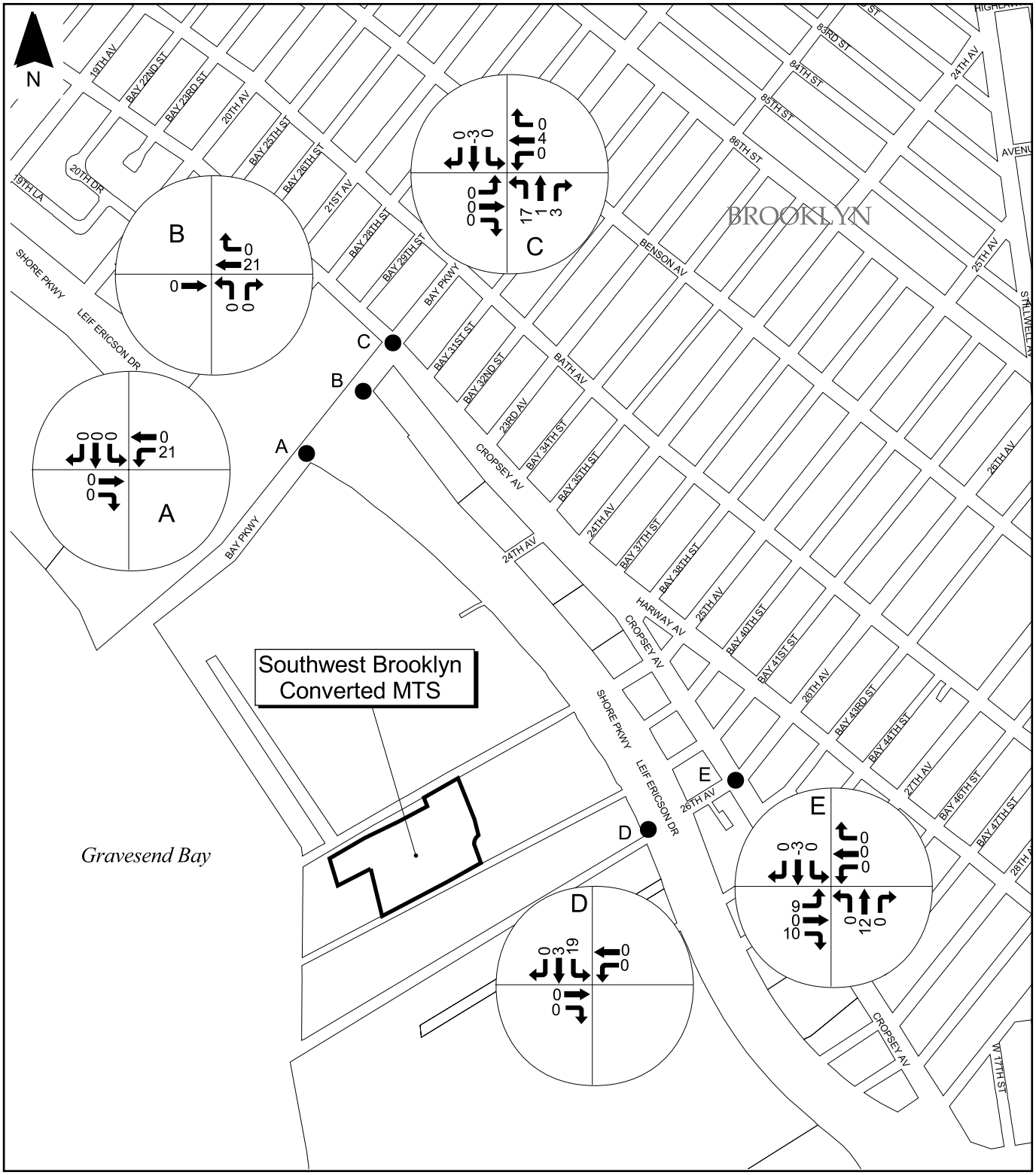
Site delineations are approximate.
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 5.9-13 2006 Net Traffic - AM Peak

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION



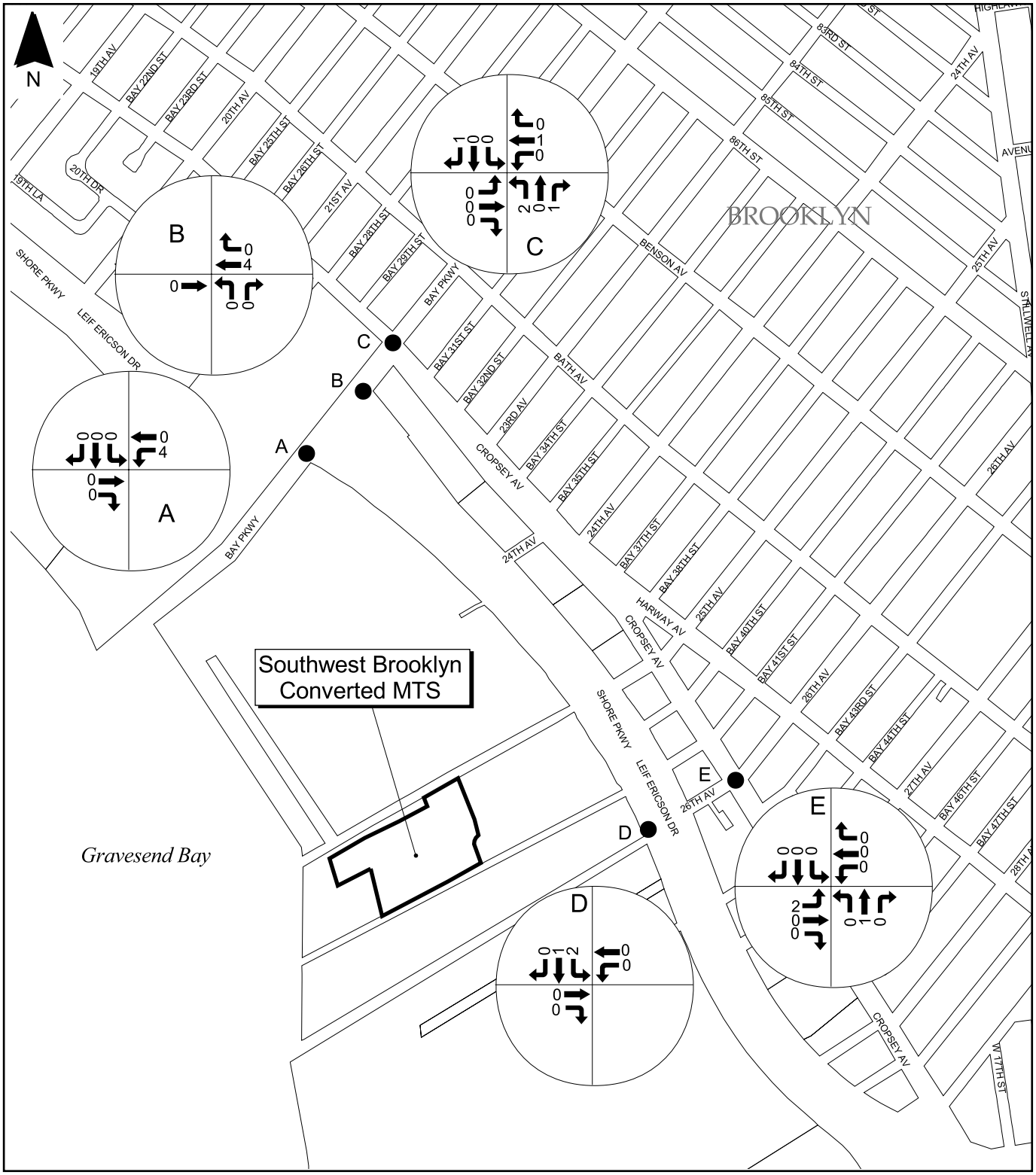
Site delineations are approximate.
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 5.9-14 2006 Net Traffic - Facility Peak

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION



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

500 0 500 Feet

Figure 5.9-15 2006 Net Traffic - PM Peak

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

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 85 percent of the inbound loads delivered during a typical average peak day. Additionally, traffic data indicated that the weekend background traffic volumes were approximately 98 percent of weekday traffic volumes. Table 5.9-3 illustrates the decrease in weekday background traffic and the decrease in DSNY and other agency collection vehicle traffic on the weekend. No analysis was performed for Sunday because the Southwest Brooklyn Converted MTS would not operate on Sundays. It was, therefore, judged that peak weekday analysis would represent the worst overall case conditions.

Table 5.9-3
Weekday and Weekend Traffic
Southwest Brooklyn Converted MTS

DSNY and Other Agency Collection Vehicle Traffic		**Background Traffic EB and WB on Bay Parkway [(1)]**	
Average Peak Day Trucks/ Day	Saturday Trucks/ Day	Weekday average vehicles/Day	Weekend average vehicles/Day
166	142	49,605	48,773

Note:
(1) EB and WB traffic data collected from ATR counts taken on Bay Parkway between Bayview Place and Cropsey Avenue from September 11 to 17, 2003.

Table 5.9-4 shows the 2006 Future Build V/C ratio, delay time and LOS for the intersections analyzed during the AM, Facility, and PM. peak times associated with the Southwest Brooklyn Converted MTS. Over an average peak day, the intersections should not experience an extended increase in delay. The three intersections that may experience potentially significant impacts are discussed in Section 5.9.4.2 and summarized in Table 5.9-5.

5.9.4.2 Impacts and Mitigation

Three of the five intersections may experience impacts great enough to be considered significant during only one of the peak times analyzed; however, 2001 CEQR Technical Manual Guideline requires mitigation for significant impacts regardless of the duration, as discussed in Section 3.10.1. The potential impacts identified and the mitigation measures analyzed are presented below; their effectiveness is summarized in Table 5.9-5.

Table 5.9-4
HCM Analysis[(1)]— Future Build Conditions
Southwest Brooklyn Converted MTS

Lane Group	AM Peak Hour (7:45 a.m. – 8:45 a.m.)			Facility Peak Hour (10:00 a.m. – 11:00 a.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
Cropsey Avenue and Bay Parkway (signalized)									
EB L	0.85	60.7	E	0.71	29.8	C	1.08	122.4	F
EB TR	0.46	20.3	C	0.46	15.5	B	0.66	24.3	C
WB L	0.28	29.7	C	0.21	22.6	C	0.46	41.5	D
WB TR	0.87	42.8	D	0.67	26.8	C	0.96	53.8	D
NB L	0.92	67.1	E	0.56	27.1	C	1.01	89.4	F
NB LTR	0.40	25.8	C	0.27	19.5	B	0.56	28.7	C
SB L	0.17	34.5	C	0.19	28.6	C	0.18	35.1	D
SB T	0.48	40.0	D	0.34	30.9	C	0.52	40.7	D
SB R	0.97	79.3	E	0.83	51.0	D	0.79	54.1	D
OVERALL		42.8	D		26.0	C		47.5	D
Cropsey Avenue and 26th Avenue (signalized)									
EB LTR	0.96	64.1	E	0.81	41.7	D	0.88	48.8	D
WB LTR	0.59	32.6	C	0.25	22.9	C	0.34	25.1	C
NB LTR	0.43	13.5	B	0.26	11.6	B	0.50	14.1	B
SB LTR	0.25	11.4	B	0.16	10.7	B	0.31	12.0	B
OVERALL		29.4	C		23.5	C		22.6	C
Bayview Place (Shore Road – northbound) and Bay Parkway (signalized)									
EB T	0.24	8.6	A	0.32	11.8	B	0.40	10.1	B
WB TR	0.88	22.6	C	0.72	18.0	B	0.89	23.5	C
NB L	0.47	38.3	D	0.44	23.3	C	0.50	38.7	D
NB R	0.87	62.7	E	0.56	27.9	C	0.97	79.0	E
OVERALL		26.2	C		18.4	B		27.8	C
Shore Road (southbound) and Bay Parkway (signalized)									
EB T	0.07	31.6	C	0.20	25.1	C	0.46	37.1	D
EB R	0.05	31.5	C	0.04	23.6	C	0.17	33.3	C
WB DFL	0.82	33.6	C	0.61	21.3	C	0.97	61.1	E
WB T	0.14	14.0	B	0.25	13.5	B	0.47	18.6	B
SB L	0.98	76.1	E	0.87	50.1	D	1.07	101.4	F
SB TR	0.80	49.7	D	0.37	28.1	C	0.89	59.0	E
OVERALL		45.4	D		29.4	C		58.3	E
Shore Road (southbound) and 26th Avenue (unsignalized)									
EB TR		8.7	A		8.1	A		7.9	A
WB LT		10.2	B		9.1	A		8.8	A
SB L		12.6	B		10.9	B		11.3	B
SB TR		9.2	A		8.4	A		8.2	A
OVERALL		11.0	B		9.8	A		10.1	B

Notes:

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

DefL = defacto left

LTR = left, through and right movements

NB = northbound

SB = southbound

EB = eastbound

WB = westbound

Table 5.9-5
HCM Analysis[(1)] — Future Build Conditions – with Mitigation
Southwest Brooklyn Converted MTS

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
Cropsey Avenue and Bay Parkway (signalized) – AM Peak									
EB L	0.84	59.4	E	0.85	60.7	E	0.81	56.1	E
EB TR	0.46	20.3	C	0.46	20.3	C	0.46	20.8	C
WB L	0.28	29.7	C	0.28	29.7	C	0.28	18.8	B
WB TR	0.87	42.4	D	0.87	42.8	D	0.90	46.5	D
NB L	0.89	61.1	E	0.92	67.1	E	0.90	63.3	E
NB LTR	0.40	25.8	C	0.40	25.8	C	0.41	25.7	C
SB L	0.17	34.5	C	0.17	34.5	C	0.12	21.5	C
SB T	0.48	40.0	D	0.48	40.0	D	0.47	39.5	D
SB R	0.95	76.7	E	0.97	79.3	E	0.66	34.6	D
OVERALL		41.5	D		42.8	D		37.9	D
Cropsey Avenue and 26th Avenue (signalized) – AM Peak									
EB LTR	0.88	49.1	D	0.96	64.1	D	0.90	51.0	D
WB LTR	0.57	31.5	C	0.59	32.6	C	0.53	28.5	C
NB LTR	0.43	13.4	B	0.43	13.5	B	0.45	14.8	B
SB LTR	0.25	11.4	B	0.25	11.4	B	0.26	12.6	B
OVERALL		24.6	C		29.4	C		26.0	C
Shore Road (southbound) and Bay Parkway (signalized) – AM Peak									
EB T	0.07	31.6	C	0.07	31.6	C	0.07	32.3	C
EB R	0.05	31.5	C	0.05	31.5	C	0.05	32.2	C
WB DFL	0.80	32.4	C	0.82	33.6	C	0.83	34.8	C
WB T	0.14	14.0	B	0.14	14.0	B	0.15	14.5	B
SB L	0.96	71.4	E	0.98	76.1	E	0.96	69.4	E
SB TR	0.79	49.0	D	0.80	49.7	D	0.78	47.4	D
OVERALL		43.6	D		45.4	D		44.0	D

Notes:
(1) HCM output is included in technical backup submitted to the NYCDOT.
DefL = defacto left
LTR = left, through and right movements
NB = northbound
SB = southbound
EB = eastbound
WB = westbound

Cropsey Avenue / Bay Parkway – During the AM peak hour, a potential impact was identified on the northbound left-turn lane group when the delay increased from 61.1 seconds to 67.1 seconds (LOS E in both cases). An increase in green time of one second for the northbound only approach should eliminate this unacceptable increase in delay. To avoid this timing change causing impacts to other lane groups it would be necessary to increase the eastbound only approach by on second and decrease the eastbound and westbound approach green time by one second. In addition to signal timing changes, new movements would be added to two of the signal phases. During the eastbound only phase, a southbound-right-turn-only movement would be added from the right turn only lane of the southbound approach. Also during the eastbound only phase, a semi-actuated left turn from the westbound left turn only approach would be added. During the northbound only phase, a semi-actuated movement would be added from the southbound approach. The two semi-actuated movements would create a left turn only phase during which vehicles would simultaneously make left turns from two directions when a queue forms in the semi-actuated lanes. When no queues are present in the semi-actuated left-turn only lanes, the signals would allow traffic movements from one direction only (eastbound or northbound) during the phase. Compared to Future No-build Conditions eastbound approach delay times would remain approximately the same, westbound and northbound approach delay times would increase between two and four seconds, and southbound approach times would decrease by over 25 seconds.

Cropsey Avenue / 26th Avenue – During the AM peak hour, a potential impact was identified on the eastbound left/ through/ right lane group when the delay increased from 49.1 seconds to 64.1 seconds. An increase in the green time of two seconds for the eastbound and westbound approaches should eliminate the delay increase. This mitigation measure decreases the northbound and southbound approach green time by two seconds. The northbound, southbound, and eastbound approach delay times would increase by approximately one to two seconds and the westbound approach delay would decrease by less than three seconds compared to Future No-build Conditions. This mitigation should not generate any adverse impacts on other lane groups during other time periods.

Shore Road (southbound) / Bay Parkway – During the AM peak hour, a potential impact was identified on the southbound left-turn lane group when the delay increased from 71.4 seconds to 76.1 seconds (LOS E in both cases). An increase in green time of one second for the southbound approach should eliminate this unacceptable increase in delay. This mitigation measure decreases the eastbound and westbound approach green time by one second. With this mitigation, the westbound and eastbound approach delay time would increase by one second and the southbound approach time would decrease three seconds compared to Future No-build Conditions. This mitigation should not generate any adverse impacts on other lane groups during other time periods.

In addition to the two intersections that may experience impacts, the Shore Road (southbound) and site entrance/ exit intersection (section of 25th Avenue) may also require low-cost and easily implemented mitigation. Even though traffic operations at this intersection should not affect traffic significantly along Shore Road, some improvements near the intersection would need to be considered, such as restricting parking along Shore Road within the vicinity of the intersection to improve site distance at the site entrance/ exit. There is an existing stop sign at the site exit. This mitigation should not generate any adverse impacts on other lane groups during any time periods.

Overall, the mitigation measures suggested would greatly enhance the intersection performance by reducing delays to LOSs similar to those under the Future No-Build Conditions.

5.9.4.3 Public Transportation

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

5.9.4.4 Pedestrian Activity

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

5.10 Air Quality

5.10.1 Definition of the 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 Southwest Brooklyn Converted MTS. The study area for the off-site air quality analysis is the intersections listed in Section 5.10.4.2.

5.10.2 Existing Conditions

Applicable air quality data collected at the monitoring station(s) nearest to the study area are shown in Table 5.10.1. These data were compiled by NYSDEC for 2002, the latest calendar year for which applicable data are currently available. The monitored levels do not exceed national and state ambient air quality standards.

5.10.3 Future No-Build Conditions

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

Table 5.10-1
Representative Ambient Air Quality Data (2001)
Southwest Brooklyn Converted MTS

Pollutant	Monitor	Averaging Time	Value	NAAQS
CO	Brooklyn	8-Hour	2,635 μg/m^3	10,000 μg/m^3
		1-Hour	3,781 μg/m^3	40,000 μg/m^3
NO_2	College Point Post Office	Annual	56 μg/m^3	100 μg/m^3
PM_{10}	P.S. 314	Annual	27 μg/m^3	50 μg/m^3
		24-Hour	91 μg/m^3	150 μg/m^3
SO_2	P.S. 321	3-Hour	152 μg/m^3	1,300 μg/m^3
		24-Hour	94 μg/m^3	365 μg/m^3
		Annual	24 μg/m^3	80 μg/m^3

Notes:
Values are the highest pollutant levels recorded during the 2001 calendar year.
Source: U.S. EPA Airdata Database.

5.10.4 Potential Impacts with the Southwest Brooklyn Converted MTS

5.10.4.1 On-site Analysis

5.10 4.1.1 Sources Considered in the Analysis

The sources of emissions and the number of each type of source that are anticipated to be in operation during the peak hour and under daily average conditions are provided in Table 5.10-2. Figure 5.10-1 shows the locations of these sources within the site.

For the 24-hour $PM_{2.5}$ analysis at this site, a refinement was performed in the modeling of the collection vehicles. Generally, moving and idling collection vehicles were modeled for this study using the ISCST3 volume source algorithm by combining moving source emissions (exhaust and fugitive) and idling emissions (exhaust only) into each volume source on the roadway. This approach is conservative in that it does not account for plume rise from exhaust emissions when trucks are stationary (idling). The refinement used for the Southwest Brooklyn Converted MTS kept the moving vehicle emissions within the volume sources, but modeled the idling emissions as stationary point sources in the ISCST3 model so that plume rise from the exhaust stacks of the stationary trucks could be accounted for.

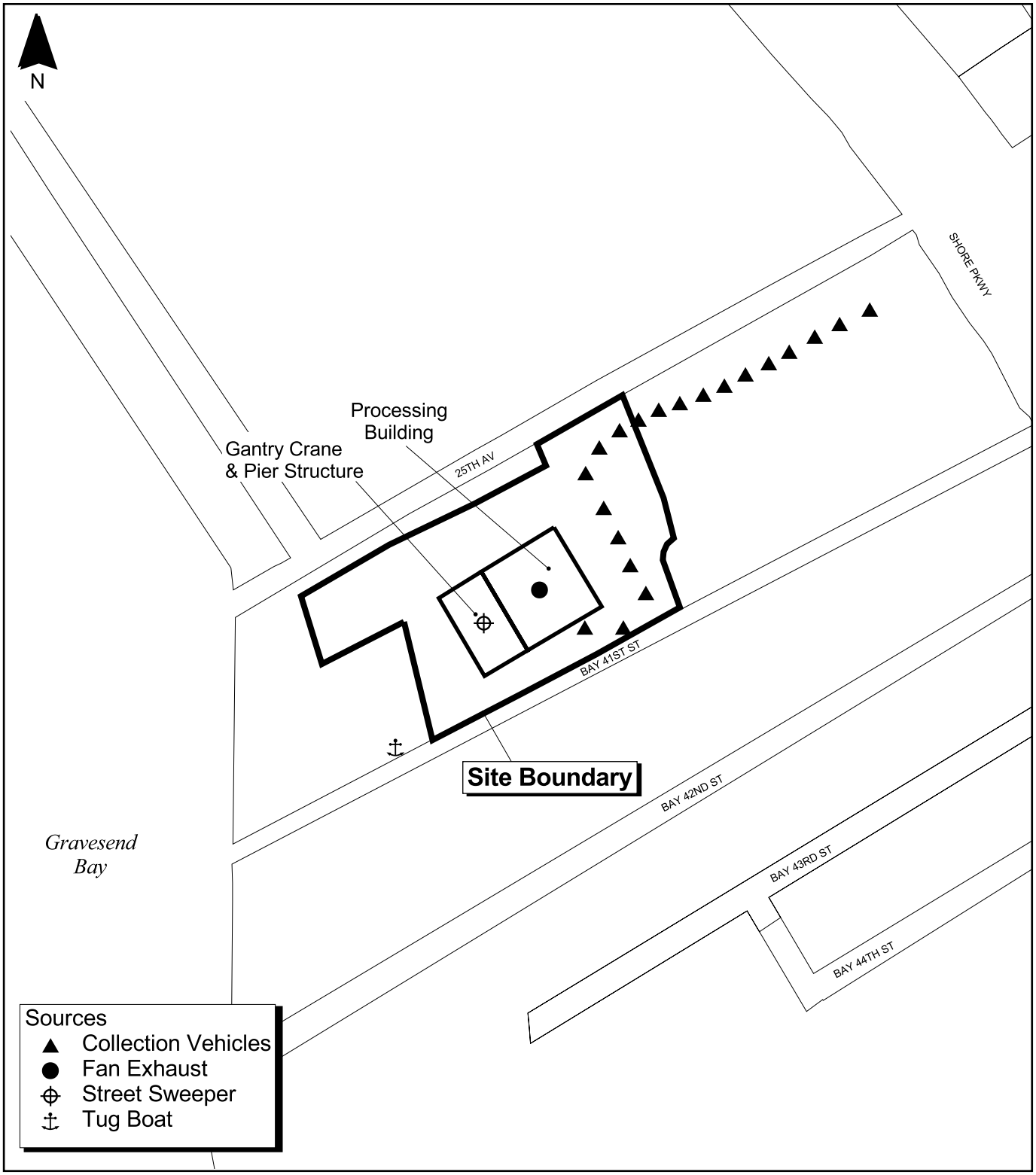
Table 5.10-2
Emission Sources Considered for On-site Air Quality Analysis[(1)]
Southwest Brooklyn Converted MTS

Type of Emission Source	Number of Sources Operated During Peak Hour	Number of Sources Operated Over 24-hour and Annual Average Periods
Within Processing Building		
Wheel Loaders	2	1
Tamping Cranes	1	1
Mini-Sweepers	1	1
Moving/Queuing Collection Vehicles	46	6
Space Heaters	10	10
Boiler	1	1
Outside Processing Building		
Moving Street Sweepers	1	1
Moving Collection Vehicles	46	18
Queuing Collection Vehicles[(2)]	23 in, 1 out	3 in, 1 out
Oceangoing Tugboats	1	1

Notes:

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

(2) Peak 8-hour and 3-hour average number of queuing collection vehicles outside building is 6. Theoretically, the 3-hour value should be no less than one-third of the peak 1-hour value (23), but for this analysis, the 3-hour and 8-hour values are more realistic estimates of actual peak queuing activity, while the 1-hour peak is simply a conservative assumption based on the maximum available physical queuing space on the entrance road/ramp.



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

200 0 200 Feet

Figure 5.10-1 On-Site Air Quality Analysis

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

5.10.4.1.2 Results of the Criteria Pollutant Analysis

The highest estimated criteria pollutant concentrations at any of the receptor locations considered are presented in Table 5.10-3. These values are below the national and state ambient air quality standards for the appropriate averaging time periods. In addition, the highest estimated changes in 24-hour and annual $PM_{2.5}$ concentrations from Southwest Brooklyn Converted MTS-generated vehicles at any of the receptor locations considered, which are also presented in Table 5.10-3, are below the STV. Based on the results presented in Table 5.10-3, operations at the Southwest Brooklyn Converted MTS would not significantly impact air quality in the area.

5.10.4.1.3 Results of the Toxic Pollutant Analysis

The results of the toxic pollutant analysis are summarized in Table 5.10-4. The highest estimated non-carcinogenic toxic air pollutant impacts are below the short-term (acute) and long-term (chronic) hazard index thresholds specified in New York State's Air Guide 1. In addition, the highest estimated carcinogenic impacts are less than the one-in-a-million threshold level that is defined by USEPA as being significant. As such, the potential impacts of the toxic pollutant emissions from the on-site operations of the Southwest Brooklyn Converted MTS are not considered to be significant.

5.10.4.2 Off-Site Analysis

5.10.4.2.1 Pollutants Considered and Analyses Conducted

Locations that may be significantly impacted by DSNY and other agency collection vehicles were identified using *CEQR Technical Manual Guidelines* outlined in Section 3.11.5. Following these guidelines, detailed mobile source analyses were conducted at the following locations:

- The intersections of 26th Avenue at Cropsey Avenue, 26th Avenue at Shore Parkway Service Road South, Bay Parkway at Cropsey Avenue, and Bay Parkway at Shore Parkway (North and South) to determine whether Southwest Brooklyn Converted MTS-generated traffic has the potential to cause exceedances of NYCDEP's and NYSDEC's 24-hour and annual $PM_{2.5}$ STVs; and

Table 5.10-3
Highest Estimated Concentrations of the Criteria Pollutants from On-site Emissions
Southwest Brooklyn Modified 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]	1,391	3,781	5,172	40,000	NA
	8-hour[6]	419	2,635	3,054	10,000	NA
Nitrogen Dioxide (NO_2), $\mu g/m^3$	Annual	3	56	59	100	NA
Particulate Matter (PM_{10}), $\mu g/m^3$	24-hour[7]	22	91	113	150	NA
	Annual	3	27	30	50	NA
Particulate Matter ($PM_{2.5}$), $\mu g/m^3$	24-hour	2	NA	NA	NA	5
	Annual Neighborhood Average	0.015[5]	NA	NA	NA	0.1
Sulfur Dioxide (SO_2), $\mu g/m^3$	3-hour[6]	47	152	199	1,300	NA
	24-hour[6]	8	94	102	365	NA
	Annual	0.49	24	24	80	NA

Notes:

(1) The highest estimated pollutant concentrations found at any of the off-site receptor locations.

(2) Background concentrations were obtained from the NYCDEP on April 18, 2003.

(3) NAAQS = National Ambient Air Quality Standard

(4) Screening Threshold Value (STV) established by the NYCDEP and NYSDEC

(5) Average $PM_{2.5}$ concentration over 1 km x 1 km "neighborhood-scale" receptor grid.

(6) The standards for these averaging periods allow one exceedance per year, so the use of the overall maximum concentration in this provides a very conservative comparison with standards.

(7) The 24-hour PM10 NAAQS is based on a 99th percentile concentration, which means that the high, 4th high concentration is appropriate for comparison with the standard. Therefore, the use of the overall highest concentration in this comparison is quite conservative.

NA = Not Applicable

Table 5.10-4
Highest Estimated Non-Cancer Hazard Index and Cancer Risk of Toxic Air Pollutant from On-site Emissions
Southwest Brooklyn Converted MTS

		Acute Non-Cancer Risk			Chronic Non-Cancer Risk			Cancer Risk		
No.	Toxic Air Pollutants	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	7.42E-01	1.30E+03	5.71E-04	3.03E-03	1.30E-01	2.33E-02	3.03E-03	8.30E-06	2.51E-08
2	Formaldehyde	9.39E-01	3.00E+01	3.13E-02	3.83E-03	6.00E-02	6.38E-02	3.83E-03	1.30E-05	4.98E-08
3	1,3 Butadiene	3.11E-02	-	-	1.27E-04	3.60E-03	3.52E-02	1.27E-04	2.80E-04	3.55E-08
4	Acetaldehyde	6.10E-01	4.50E+03	1.36E-04	2.49E-03	4.50E-01	5.53E-03	2.49E-03	2.20E-06	5.47E-09
5	Benzo(a)pyrene	1.50E-04	-	-	6.10E-07	2.00E-03	3.05E-04	6.10E-07	1.70E-03	1.04E-09
6	Propylene	2.05E+00	-	-	8.37E-03	3.00E+03	2.79E-06	8.37E-03	NA	NA
Non-Carcinogenic Pollutants [10]										
7	Acrolein	7.36E-02	1.90E-01	3.87E-01	3.00E-04	2.00E-02	1.50E-02	3.00E-04	NA	NA
8	Toluene	3.25E-01	3.70E+04	8.80E-06	1.33E-03	4.00E+02	3.32E-06	1.33E-03	NA	NA
9	Xylenes	2.27E-01	4.30E+03	5.27E-05	9.24E-04	7.00E+02	1.32E-06	9.24E-04	NA	NA
10	Anthracene	1.49E-03	-	-	6.06E-06	2.00E-02	3.03E-04	6.06E-06	NA	NA
11	Benzo(a)anthracene	1.34E-03	-	-	5.45E-06	2.00E-02	2.72E-04	5.45E-06	NA	NA
12	Chrysene	2.81E-04	-	-	1.14E-06	2.00E-02	5.72E-05	1.14E-06	NA	NA
13	Naphthalene	6.75E-02	7.90E+03	8.54E-06	2.75E-04	3.00E+00	9.17E-05	2.75E-04	NA	NA
14	Pyrene	3.80E-03	-	-	1.55E-05	2.00E-02	7.75E-04	1.55E-05	NA	NA
15	Phenanthrene	2.34E-02	-	-	9.54E-05	2.00E-02	4.77E-03	9.54E-05	NA	NA
16	Dibenz(a,h)anthracene	4.64E-04	-	-	1.89E-06	2.00E-02	9.46E-05	1.89E-06	NA	NA
		Total Estimated Acute Non-Cancer Hazard Index		**4.20E-01**	**Total Estimated Chronic Non-Cancer Hazard Index**		**1.49E-01**	**Total Estimated Combined Cancer Risk**		**1.17E-07**
		Acute Non-Cancer Hazard Index Threshold [11]		**1.0E+00**	**Chronic Non-Cancer Hazard Index Threshold [11]**		**1.0E+00**	**Cancer Risk Threshold [11]**		**1.0E-06**

Notes to Table 5.10-4:

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

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

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

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

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

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

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

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

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

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

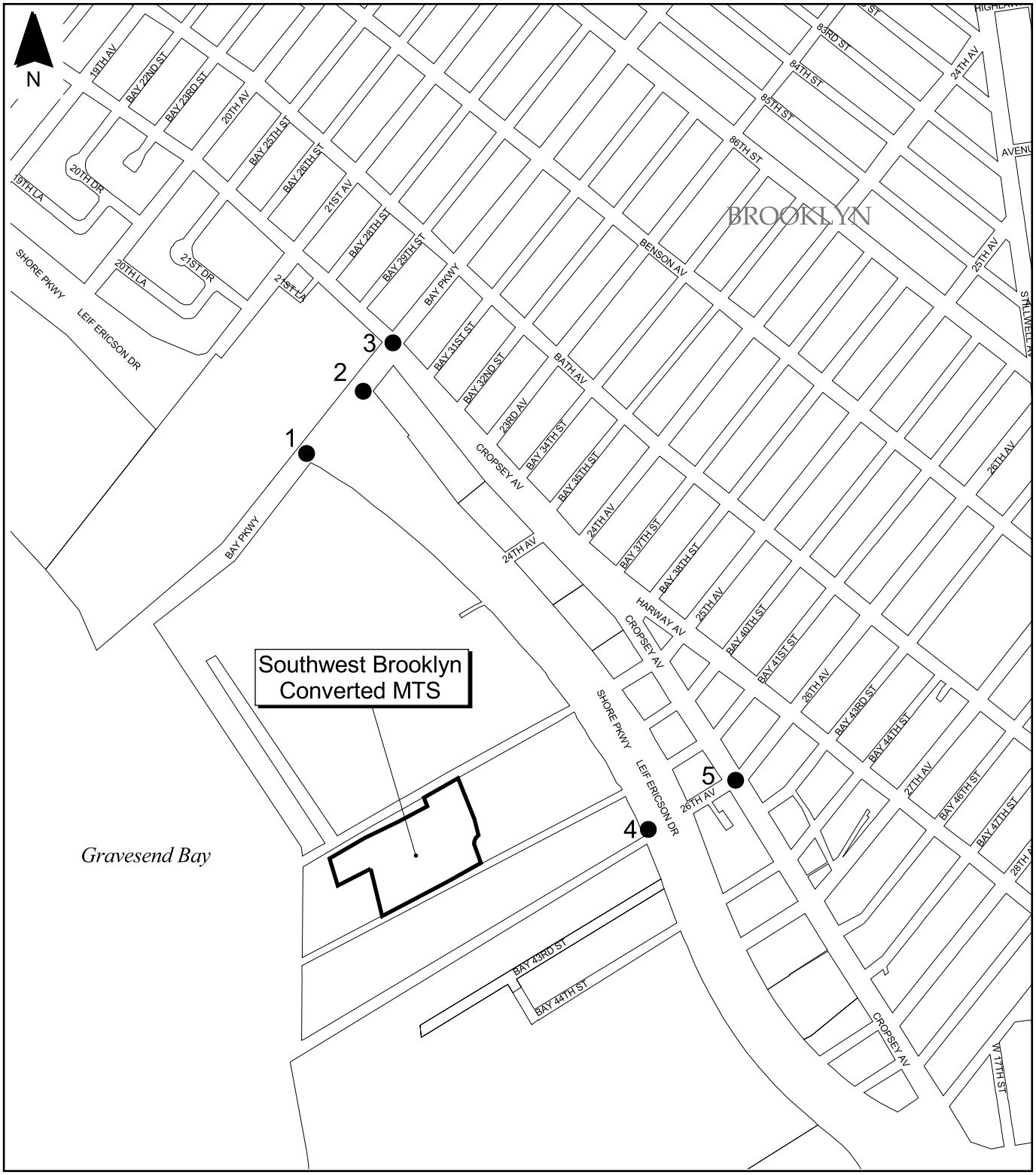
(11) Hazard index and cancer risk thresholds based on NYSDEC "Guidelines for the Control of Toxic Ambient Air Contaminants" dated November 12, 1997. Estimated values below these threshold limits are considered to be insignificant impacts.

- The intersections of 26th Avenue at Cropsey Avenue, 26th Avenue at Shore Parkway Service Road South, Bay Parkway at Cropsey Avenue, and Bay Parkway at Shore Parkway (North and South) to determine whether Southwest Brooklyn 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 5.10-2.

5.10.4.2.2 Results of the Off-Site Analysis

Applicable maximum pollutant concentrations estimated near the selected intersections are shown in Table 5.10-5. The results for all applicable pollutants at the intersections of 26th Avenue at Cropsey Avenue and 26th Avenue at Shore Parkway Service Road South were within (less than) the applicable state and federal ambient air quality standards and STVs (for $PM_{2.5}$). A Tier II analysis for the intersection at Bay Parkway at Cropsey Avenue and Shore Parkway (North and South) was necessary to determine the off-site annual and 24-hour impacts for PM_{10}. The results of this Tier II analysis for the 24-hour PM_{10} impacts are within the applicable state and federal ambient air quality standards. The results of the Tier II analysis for the annual PM_{10} concentrations at Bay Parkway at Cropsey Avenue and Shore Parkway (North and South) indicates that the applicable state and federal ambient air quality standards were exceeded for the Existing, Future No-Build, and Future Build Conditions. These exceedances were caused by the high volume of non-project related traffic on the Shore (or Leif Ericson) Parkway located adjacent to the intersection at Bay Parkway and the Shore Parkway Service Road (South), as well as the conservative nature of the dispersion model used in the analysis, and not by the Converted MTD-generated traffic. This finding is demonstrated by the results for this intersection shown in Table 5.10-5, which show there was no difference in the maximum annual PM_{10} concentration between the Future No-Build Conditions and the Future Build Conditions. Therefore, the off-site operations of the Southwest Brooklyn Converted MTS are not considered to be significant.



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

500 0 500 Feet

Figure 5.10-2 Off-Site Air Quality Intersections Studied Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

Table 5.10-5
Maximum Estimated Pollutant Concentrations Near Selected Roadway Intersection
Southwest Brooklyn 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 $\mu g/m^3$)
26th Ave., Cropsey Ave. & Shore Parkway									
Existing Conditions	N/A	137	47						
Future No Build Conditions	N/A	136	46						
Future Build Conditions	N/A	136	46						
Future Build Incremental				0.25	0.2[3]	0.45	0.016[3]	0.06	0.076
Bay Parkway, Cropsey Ave. & Shore Parkway									
Existing Conditions	N/A	147[3]	54[3]						
Future No Build Conditions	N/A	149[3]	55[3]						
Future Build Conditions	N/A	150[3]	55[3]						
Future Build Incremental				0.10	0.4	0.50	0.0036	0.03	0.034

Notes for Table 5.10-5:

(1) CO and PM_{10} concentrations are the Neighborhood concentrations estimated using the AM, Facility AM, and PM peak traffic information plus background concentration (8-hr CO=2.8ppm; 24-hr PM_{10} = 57 $\mu g/m^3$; Annual PM_{10}=23$\mu g/m^3$).

(2) The maximum incremental concentrations of the on-site emissions at the intersection considered.

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

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

ppm = Parts per million

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

5.11 Odor

5.11.1 Existing Conditions

The existing MTS is 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 for sensitive receptors in this analysis are the same as those used in the noise analysis. The nearest sensitive receptor is the rehabilitation center on Bay 44th Street, approximately 780 feet from the site boundary.

5.11.2 Future No-Build Conditions

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

5.11.3 Potential Impacts with the Southwest Brooklyn Converted MTS

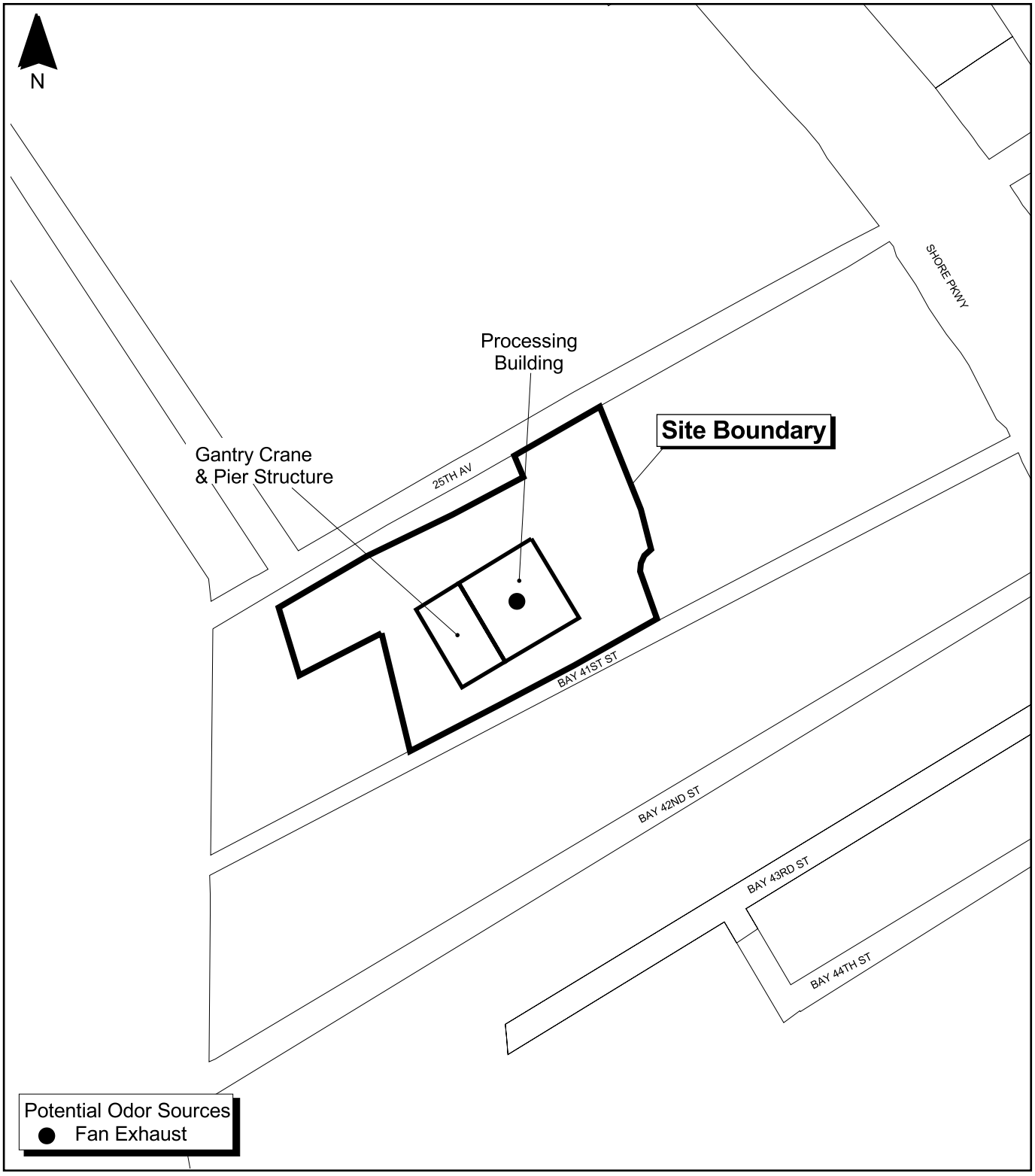
5.11.3.1 Odor Source Types and Locations Considered in the Analysis

The anticipated number and types of odor sources that would be associated with waste processing operations at peak design capacity at the Southwest Brooklyn Converted MTS are provided in Table 5.11-1. Figure 5.11-1 shows the locations of these sources within the site.

Table 5.11-1

Odor Sources Included in Odor Analysis
Southwest Brooklyn Converted MTS

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



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

200 0 200 Feet

Figure 5.11-1 Potential Odor Sources

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

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

5.11.3.2 Results of the Odor Analysis

The highest estimated odor concentrations at any of the receptor sites considered and the concentrations at the closest sensitive receptor are presented in Table 5.11-2. The predicted odor unit values at sensitive receptor locations are compared to an odor unit of 5, which represents the level of odor impact that would begin to be detected by an average observer. The highest predicted odor unit associated with the Southwest Brooklyn Converted MTS at any nearby sensitive receptor is less than 1, so odors from the Southwest Brooklyn 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 5.11-2
Highest Predicted Odor Concentration(s) from On-site Sources
Southwest Brooklyn Converted MTS

Parameter	**Resulting Odor Unit[(1)]**
Estimated Detectable Concentration	1.0
Highest Result	0.10
Type Of Receptor	Discrete Receptor
Location of Receptor[(2)]	Over Water
Closest Sensitive Receptor Result	0.07
Type Of Receptor	Rehabilitation Center
Distance To Receptor[(3)]	780 Feet

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

5.12 Noise

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

5.12.1 Existing Conditions

5.12.1.1 Introduction

Figure 5.12-1 shows the location of the Southwest Brooklyn Converted MTS and the surrounding area. The nearest noise-sensitive receptor is a rehabilitation center on Bay 44th Street west of the Shore Parkway, approximately 238 meters (780 feet) from the Southwest Brooklyn Converted MTS property line.

5.12.1.2 On-site Noise Sources

Existing on-site noise sources consist of noise created by the activities and events on and immediately surrounding the site. Existing noise levels were monitored hourly for a 24-hour period at the property line closest to the nearest noise-sensitive receptors. Noise monitoring data recorded hourly included: L_{eq}, L_{min}, L_{max},[4] and the statistical metrics of L_{10}, L_{50}, and L_{90}.[5] Table 5.12-1 presents monitored noise levels. As shown, the quietest hour at the monitoring location occurred between 4:00 a.m. and 5:00 a.m. and had an L_{eq}(h) of 51.3 dBA on January 15, 2003. Activities and events that contribute to the on-site noise levels are as follows:

- Traffic on Shore Parkway and the surrounding area.

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

Table 5.12-1
Existing Hourly (Monitored) Noise Levels On-site[(1)]
Southwest Brooklyn Converted MTS

Time of Measurement	L_{eq} (h) (dBA)	L_{90} (dBA)	L_{50} (dBA)	L_{10} (dBA)	L_{min} (dBA)	L_{max} (dBA)
11:00-12:00 p.m.	63.2	54.5	56.6	61.7	52.9	86.2
12:00-1:00 p.m.	63.5	54.0	56.9	64.1	51.6	82.3
1:00-2:00 p.m.	59.9	54.2	56.4	60.4	52.5	81.9
2:00-3:00 p.m.	60.5	52.9	56.3	63.2	50.8	78.6
3:00-4:00 p.m.	57.9	53.8	55.9	59.8	51.5	73.4
4:00-5:00 p.m.	61.7	54.2	56.0	62.6	52.6	81.4
5:00-6:00 p.m.	56.8	53.6	55.1	57.2	51.4	74.7
6:00-7:00 p.m.	59.9	53.9	55.9	58.4	52.3	81.5
7:00-8:00 p.m.	58.1	54.1	55.8	59.7	51.0	76.5
8:00-9:00 p.m.	56.8	52.5	54.1	56.4	50.7	81.2
9:00-10:00 p.m.	56.0	51.4	53.6	56.9	49.5	79.7
10:00-11:00 p.m.	55.9	50.3	52.4	56.5	47.9	79.9
11:00-12:00 a.m.	55.5	49.2	51.5	56.9	45.8	79.5
12:00-1:00 a.m.	58.2	48.1	51.2	55.7	43.7	81.0
1:00-2:00 a.m.	58.0	48.3	55.2	58.7	43.7	79.9
2:00-3:00 a.m.	52.7	45.1	48.2	52.4	41.7	76.8
3:00-4:00 a.m.	64.4	46.1	50.1	59.7	41.2	91.7
4:00-5:00 a.m.	51.3	47.4	49.9	52.8	44.4	70.9
5:00-6:00 a.m.	54.5	50.1	53.1	56.5	46.5	73.4
6:00-7:00 a.m.	57.9	53.2	56.2	60.4	51.4	75.9
7:00-8:00 a.m.	66.0	56.1	58.4	66.5	54.2	85.6
8:00-9:00 a.m.	57.2	52.6	54.7	58.7	50.9	77.7
9:00-10:00 a.m.	56.9	51.5	53.3	57.4	49.4	80.1
10:00-11:00 a.m.	57.1	51.2	53.2	57.6	49.2	76.2

Note:

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

5.12.1.3 Off-site Noise Sources

Existing off-site noise sources consist of the existing traffic and other background noise. A screening analysis was conducted to determine if noise monitoring would be required along the Southwest Brooklyn 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 3.14.5.2, off-site noise analysis was required, and was therefore conducted. Table 5.12-2 presents monitored noise levels near noise sensitive receptors during the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest) based on second level screening.

Table 5.12-2
Existing Noise Levels at the Nearest Noise-Sensitive Receptor
Southwest Brooklyn Converted MTS

Roadway ID	Existing Noise Levels During Quietest Hour (dBA)[(1),(2)]
26th Avenue South of Cropsey Avenue	54.7

Notes:
(1) A one hour noise level reading was measured at the closest sensitive receptor during the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest).
(2) The Existing noise level was measured on May 21, 2003 between 3:00 a.m. and 4:00 a.m.

5.12.2 Future No-Build Conditions

5.12.2.1 On-site Noise Levels

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

5.12.2.2 Off-site Noise Levels

Off-site noise levels for the Future No-Build Conditions in 2006 were calculated using the annual growth rates for traffic volume provided in Section O: Traffic of the CEQR Manual. Table 5.12-3 below presents the Existing traffic volume and the Future No-Build traffic volume for the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest) during the daytime (if any) and nighttime for roadways where there is a possible impact based on the second level screening.

Table 5.12-3
Off-site Noise Traffic Volume
Southwest Brooklyn Converted MTS

Location	Hour	Existing Traffic Volume	Future No-Build Traffic Volume
Cropsey Avenue northwest of 26th Avenue	2:00 a.m.	97	101
25th Avenue northeast of Harway Avenue	2:00 a.m.	29	30
25th Avenue northeast of Harway Avenue	9:00 a.m.	265	276
26th Avenue south of Cropsey Avenue	3:00 a.m.	26	27
26th Avenue south of Cropsey Avenue	9:00 a.m.	306	319
Cropsey Avenue south of Bay 34th Street	2:00 a.m.	104	109

5.12.3 Potential Impacts with the Southwest Brooklyn Converted MTS

5.12.3.1 On-site Noise Levels

Equipment assumed to be operating at the Southwest Brooklyn Converted MTS and its reference noise levels, which were used in the CEQR and Noise Code analysis, are shown in Table 5.12-4.

Spectral noise levels used in the Performance Standards analysis are shown in Table 5.12-5. The number and type of equipment assumed for this analysis was based on the Southwest Brooklyn Converted MTS's peak design capacity. Figure 5.12-1 shows the Southwest Brooklyn Converted MTS layout, locations of the points along its boundary where overall noise predictions were calculated, and the predicted 55 dBA contour line.

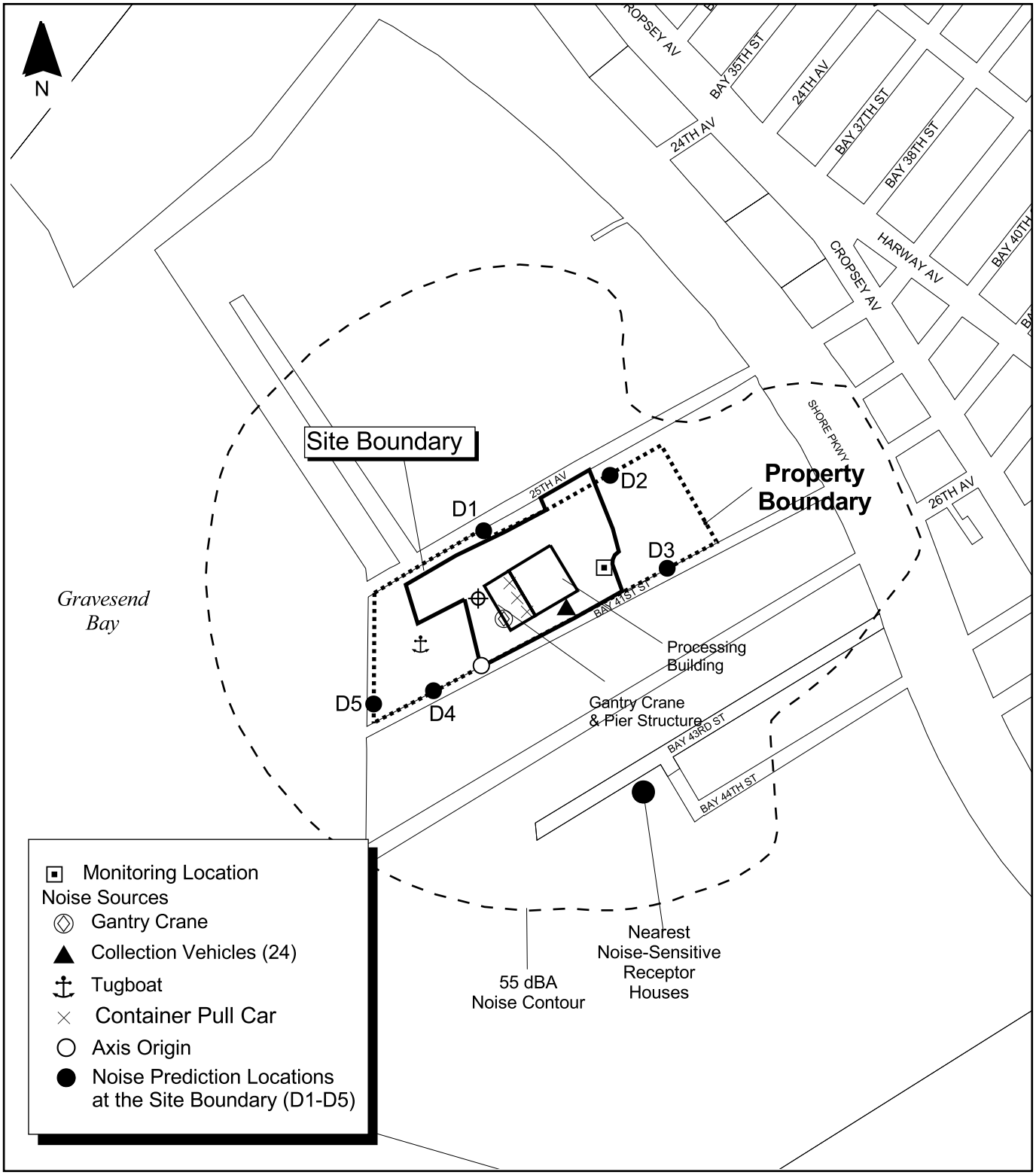
Table 5.12-4
Equipment Modeled in the Noise Analysis and Reference Noise Levels
Southwest Brooklyn Modified MTS

Equipment Name (quantity)	Reference Noise Level [(1)] at 50 feet (dBA)
Indoor	
Wheel Loaders (2)	81
Tamping Crane (1)	81
Bridge Crane (1)	70
Mini-Sweeper (1)	76
Moving/Queuing Collection Vehicle (7)	73
Outdoor	
Moving/Queuing Collection Vehicle (23)	67
Container Car Pullers (3)	45
Gantry Cranes (1)	78
Oceangoing Tugboats (1)	73

Note:
(1) See Section 3.14.7.1 for sources.

Table 5.12-5
Equipment Modeled in the Noise Analysis and Spectral Noise Levels
Southwest Brooklyn Converted MTS

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



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

500 0 500 Feet

Figure 5.12-1 Noise Sources and Receptors

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

5.12.3.2 CEQR Analysis

A screening analysis was conducted to determine if a detailed noise analysis would be required for the on-site operations at the Southwest Brooklyn 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 approximately 338 meters (1,110 feet) from the property boundary in the direction of the nearest noise-sensitive receptor, which is 238 meters (780 feet) from the site boundary. The 55 dBA contour line was selected as a limit for the study area because 55 dBA (i.e., the point off-site where noises generated on-site attenuate to 55 dBA), is considered an acceptable noise level in an urban environment. Section 3.14.5.1 discusses this concept in greater detail. The results of the screening analysis show that receptors are located within the 55 dBA contour line; therefore, an on-site noise analysis including noise monitoring at the nearest noise sensitive receptor was required to determine if there would be an impact.

Noise monitoring was conducted at the receptor during the quietest hour based on monitoring data provided in Table 5.12-1 above. Table 5.12-6 below identifies the existing background noise level during the quietest hour. The table shows the distance from the Southwest Brooklyn Converted MTS to the receptor, Southwest Brooklyn Converted MTS-related noise levels at the receptor, the monitored existing background noise level, and the predicted noise levels with both facility noise and background noise combined. The difference between this combined noise level and the existing noise level at the receptor represents the predicted incremental change in noise level from the Southwest Brooklyn Converted MTS. Because this incremental change is greater than the CEQR threshold of 3 dBA at the nearest noise sensitive receptor, there is a predicted impact that would be caused by the Southwest Brooklyn Converted MTS on-site operations.

Table 5.12-6
Existing and Predicted Noise Levels at the Nearest Noise-Sensitive Receptor
Southwest Brooklyn Converted MTS

Receptor ID	Distance from Facility (meters/ feet)	Existing Noise Levels During Quietest Hour (dBA)[1][2]	Predicted Facility Noise Level at Sensitive Receptor (dBA)[3]	Combined Facility and Background Noise Level at the Sensitive Receptor (dBA)	Increase over Existing Noise Levels (dBA)	Impact[4] (yes or no)
Rehabilitation Center	238/780	44.8	49.0	50.4	5.6	Yes

Notes:
(1) Twenty-minute noise level readings measured at the closest sensitive receptor during the quietest hour determined from the 24-hour noise level readings.
(2) Existing noise levels measured on February 10, 2004 at 2:00 a.m.
(3) Predicted noise level calculations at sensitive receptor include on-site and off-site shielding from structures.
(4) According to CEQR, an increase of 3 dBA at nighttime is considered an impact. The impact analysis compares the loudest noise emissions from daily operations at the facility with the quietest background noise levels that occur during facility operation. The quietest hour of background noise levels occurred during the nighttime hours; therefore, only nighttime impact criteria are discussed in this analysis.

5.12.3.2.1 Mitigation Measures

Noise barrier calculations were performed to estimate the noise attenuation that would be provided by a noise barrier at the Southwest Brooklyn Converted MTS property line in the direction of the sensitive receptor. Assuming a 20-foot high (from the ramp surface) 539 feet long concrete noise barrier located along the southeast property line would provide an attenuation of 3.6 dBA, the sensitive receptor would then be shielded from the noise generated by the Southwest Brooklyn Converted MTS. Table 5.12-7 shows the existing noise level at the receptor, the Southwest Brooklyn Converted MTS-related noise levels with a 3.6 dBA attenuation provided by the noise barrier, and the combined noise level. As shown in Table 5.12-7, this noise barrier mitigates the impacts found at the sensitive receptor.

Table 5.12-7
Existing and Predicted Noise Levels at the Nearest Noise-Sensitive Receptor with Attenuation from a 20-foot High, 539-feet long Noise Barrier at the Property Line Southwest Brooklyn Converted MTS

Receptor ID	Distance from Facility (meters/ feet)	Existing Noise Levels During Quietest Hour (dBA)[1][2]	Predicted Facility Noise Level at Sensitive Receptor (dBA)[3]	Combined Facility and Background Noise Level at the Sensitive Receptor (dBA)	Increase over Existing Noise Levels (dBA)	Impact[4] (yes or no)
Rehabilitation Center	238/780	44.8	44.5	47.7	2.9	No

Notes:
(1) Twenty-minute noise level readings measured at the closest sensitive receptor during the quietest hour determined from the 24-hour noise level readings.
(2) Existing noise levels measured on February 10, 2004 at 2:00 a.m.
(3) Predicted noise level calculations at sensitive receptor include on-site and off-site shielding from structures.
(4) According to CEQR, an increase of 3 dBA at nighttime is considered an impact. The impact analysis compares the loudest noise emissions from daily operations at the facility with the quietest background noise levels that occur during facility operation. The quietest hour of background noise levels occurred during the nighttime hours; therefore, only nighttime impact criteria are discussed in this analysis.

According to CEQR, an increase of 3 dBA at nighttime is considered an impact. The impact analysis compares the loudest noise emissions from daily operations at the facility with the quietest background noise levels that occur during facility operation. The quietest hour of background noise levels occurred during the nighttime hours; therefore, only nighttime impact criteria are discussed in this analysis.

5.12.3.3 Performance Standards for Zoning Code Analysis

Overall noise predictions were calculated at the locations of the points along the facility boundary to determine the total noise level for each octave band from indoor and outdoor sources, not including DSNY and other agency collection vehicles, in accordance with the New York City Zoning Code Performance Standards for Manufacturing Districts (see Table 5.12-8 below). Based on this analysis, no exceedances to the Performance Standards are predicted in the direction of a noise sensitive receptor.

Table 5.12-8
Spectral Noise Analysis
Southwest Brooklyn Converted MTS

Manufacturing District Regulation (M3)	Frequency Range							
	63	**125**	**250**	**500**	**1K**	**2K**	**4K**	**8K**
	79	**74**	**69**	**63**	**57**	**52**	**48**	**45**
Total Lp dB: D1	71.6	65.7	58.9	55.7	53.1	46.7	36.4	26.7
Total Lp dB: D2	68.8	59.1	54.1	50.5	48.0	41.4	29.7	18.0
Total Lp dB: D3	69.3	61.1	53.2	49.6	45.8	37.9	27.1	16.1
Total Lp dB: D4	77.7	67.2	62.6	59.1	56.9	50.8	40.8	31.4
Total Lp dB: D5	77.6	66.5	61.5	57.8	55.3	49.0	39.1	29.5

5.12.3.4 Noise Code Analysis

Overall noise predictions were calculated at the locations of the points along the facility boundary to determine the Total L_{eq} from all indoor and outdoor sources. This is shown in Table 5.12-9 below. Based on this analysis, the Total L_{eq} does not exceed the Noise Code Standard of 70 dBA.

Table 5.12-9
Stationary Noise Analysis
Southwest Brooklyn Converted MTS

Location at Plant Boundary	Total L_{eq} Contribution at Plant Boundary (dBA)
D1	65.5
D2	62.2
D3	60.2
D4	61.8
D5	60.0

5.12.3.5 Off-site Noise Analysis

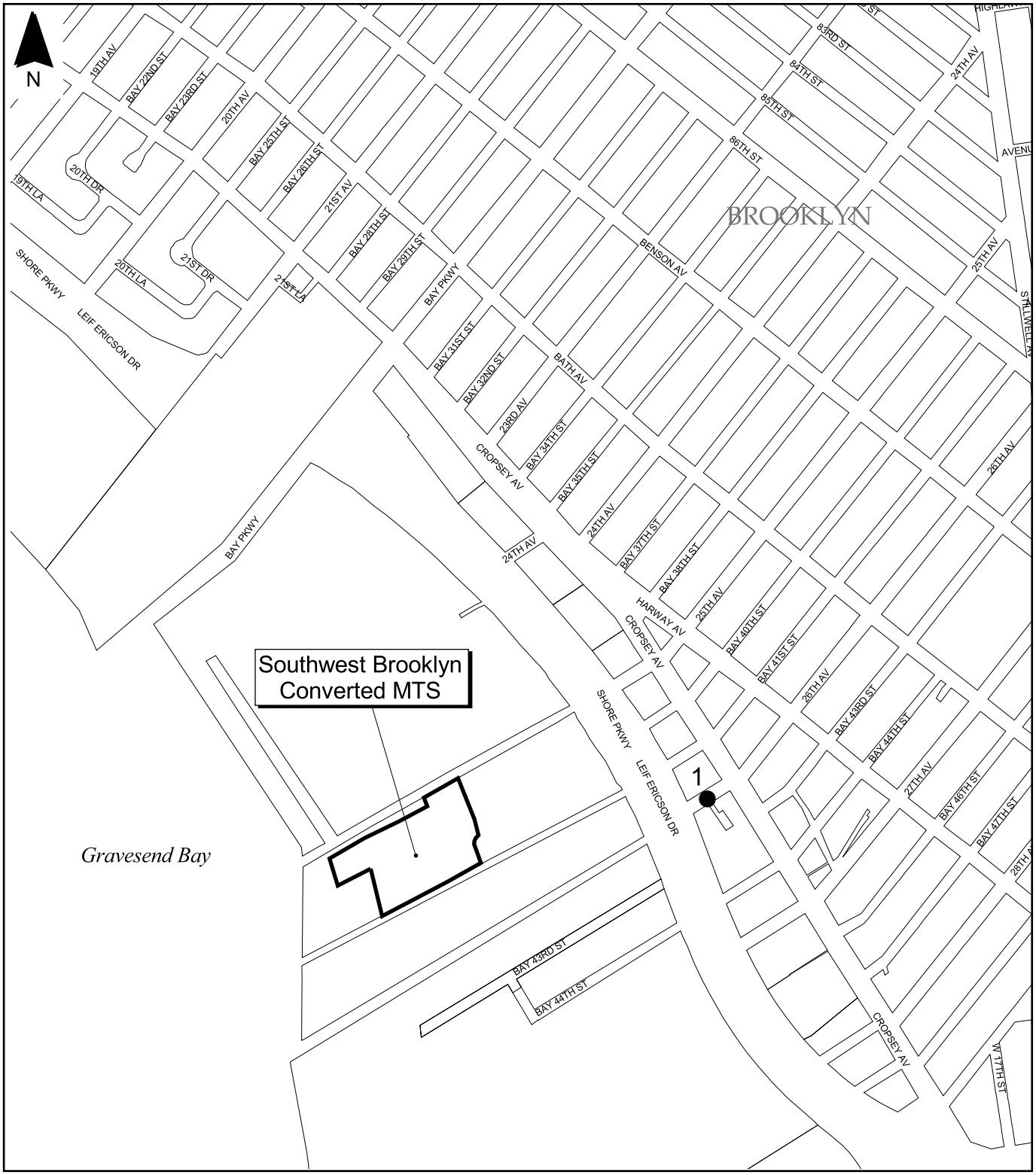
A screening analysis was conducted to determine if noise monitoring would be required along the truck routes serving the Southwest Brooklyn Converted MTS. As a result of this screening, which is described in Section 3.14.5.2, an off-site noise analysis was required. Screening results for the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest) during the daytime (if any) and nighttime for roadways where there is a possible impact based on the second level screening are provided in Table 5.12-10 below.

Table 5.12-10
Off-site Noise Screening Results
Southwest Brooklyn Converted MTS

Location	Hour	Future No-Build PCEs[(1)]	Collection Vehicles	Employee Vehicles	Future Build PCEs[(1)(2)]	Possible Impact[(3)]
Cropsey Avenue northwest of 26th Avenue	2:00 a.m.	732	4	0	188	No
25th Avenue northeast of Harway Avenue	2:00 a.m.	1155	4	0	188	No
25th Avenue northeast of Harway Avenue	9:00 a.m.	3038	8	0	376	No
26th Avenue south of Cropsey Avenue	3:00 a.m.	36	3	0	141	Yes
26th Avenue south of Cropsey Avenue	9:00 a.m.	1210	10	0	893	No
Cropsey Avenue south of Bay 34th Street	2:00 a.m.	184	4	0	188	Yes

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

Since the screening results presented above showed that the PCEs would double on a roadway due to DSNY and other agency collection vehicles coming to or going from the Southwest Brooklyn Converted MTS, a detailed off-site noise analysis was performed at that roadway 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) by running TNM (See Figure 5.12-2).



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

500 0 500 Feet

Figure 5.12-2 Mobile Noise Analysis Intersections Analyzed Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

TNM results for locations/hour that resulted in a possible impact based on second level screening are presented in Table 5.12-11 below. The table shows existing background noise levels monitored at the nearest sensitive receptor at the roadway, TNM predicted noise levels for the existing traffic, TNM predicted Future No-Build noise levels for 2006 for the roadway, the number of Southwest Brooklyn Converted MTS collection vehicles and employee vehicles, TNM predicted Future Build noise levels for 2006 as a result of the Southwest Brooklyn Converted MTS-related collection vehicles, and the incremental change caused by these trucks, which is calculated by obtaining the difference between this TNM Future Build noise level and the TNM predicted Future No-Build noise level. Because this incremental change is not greater than the CEQR threshold of 3 dBA at the nearest sensitive receptor for any of the analyzed roadways, an impact is not predicted based on the detailed off-site noise analysis.

Table 5.12-11
Off-site Noise Analysis TNM Results
Southwest Brooklyn Converted MTS

Location	Hour	Existing Background Noise Level[1] (Measured)	TNM Predicted Noise Level for Existing Traffic	TNM Future No-Build Noise Level	Collection Vehicles	Employee Vehicles	TNM Future Build Noise Level	Impact (Noise Level Difference)
26th Avenue South of Cropsey Avenue	3:00 a.m. to 4:00 a.m.	54.7	58	58	3	0	60.1	No (2.1)

Note:
(1) Existing noise level and traffic count used for input into TNM was recorded on May 21, 2003.

5.13 Infrastructure & Energy

5.13.1 Existing Conditions

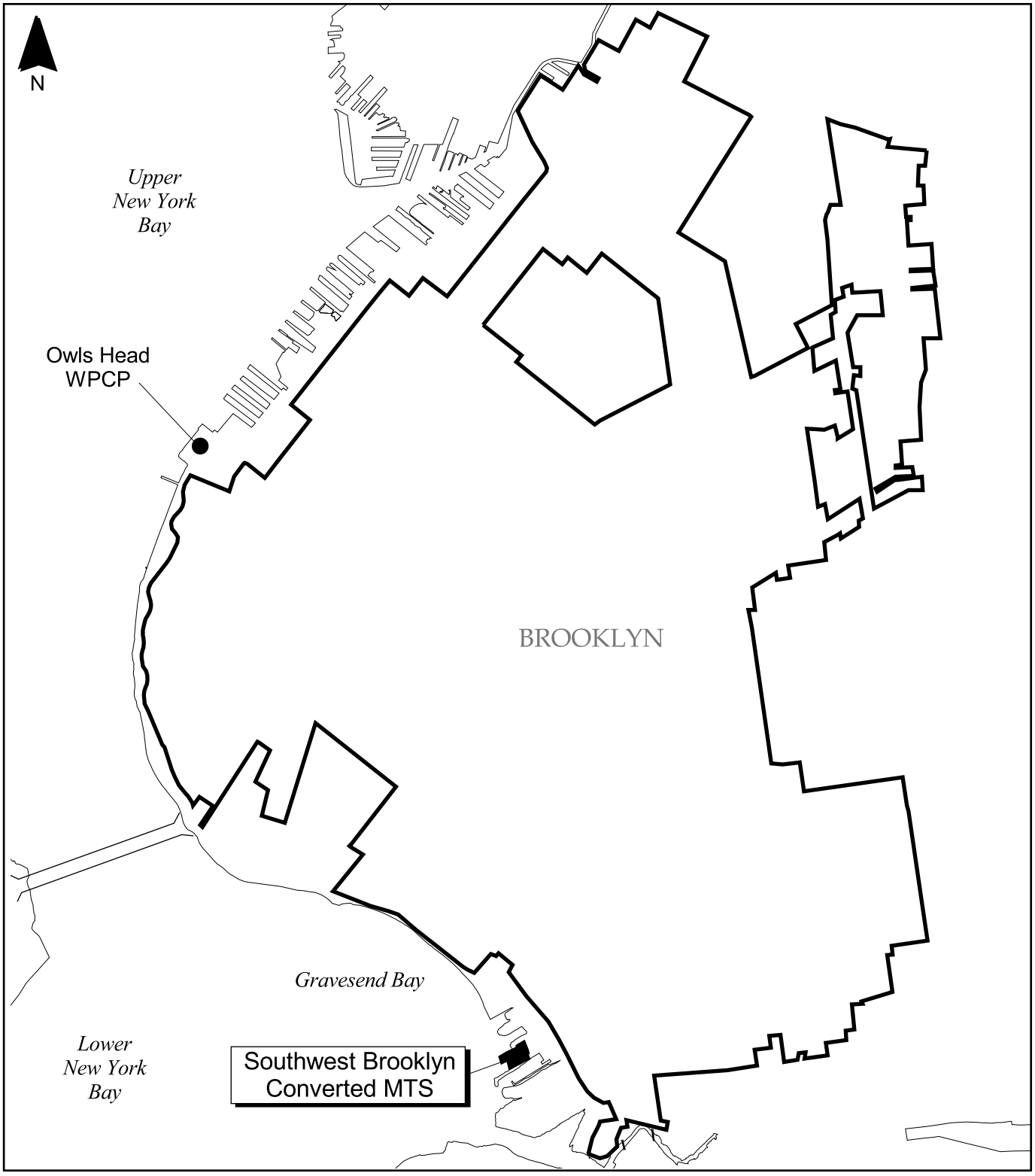
5.13.1.1 Water Supply

Water is supplied to the existing Southwest Brooklyn MTS from the Delaware and Catskill reservoir systems through the City's municipal water distribution system. A 12-inch diameter water main line along Shore Parkway provides potable water for both process and sanitary requirements. A pump is used on-site to maintain adequate pressure. Water pressure throughout the City system is generally maintained at about 20 pounds per square inch (psi), which is the minimum pressure acceptable for uninterrupted service (CEQR Technical Manual, 2001).

5.13.1.2 Sanitary Sewage and Storm Water

A review of NYCDEP infiltration and inflow (I&I) maps shows that the site is served by the Owls Head WPCP, which serves the southwestern portion of Brooklyn. The WPCP drainage area is illustrated in Figure 5.13-1. From July 2001 through June 2002, the WPCP treated an average of 96 million gallons per day (mgd) of wastewater during dry weather flow (Table 5.13-). The maximum dry weather flow during this period was 104 mgd in September 2001. Effluent from the plant is discharged to the Upper New York Bay and is regulated by NYSDEC under the State Pollutant Discharge Elimination System (SPDES). The current SPDES permit limit for flow to the Owls Head WPCP is 120 mgd. It is estimated that current on-site employee water usage is about 75 gallons per day (gpd). This estimate is based on three security employees (one guard per shift, three shifts per day) using 25 gallons per person per day (CEQR Technical Manual, 2001). As the facility is not accepting waste currently, no other significant potable water is used for process operations and no operational personnel are assigned to the site.

As shown on the I&I maps, the site is served by a 6-inch diameter pipe that flows to a 36-inch sanitary sewer line that flows in a southeast direction along Shore Parkway. Storm water runoff discharges to a 96-inch storm sewer line flowing southeast along Shore Parkway. Wastewater is eventually discharged to the Owls Head WPCP for treatment.



Site delineations are approximate.

3000 0 3000 Feet

Figure 5.13-1 Existing WPCP Drainage Area
Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

Table 5.13-1
Average Monthly Dry Weather Flows
Owls Head Water Pollution Control Plant
Fiscal Year 2002

Month	Dry Weather Flow (mgd)
July 2001	95
August	99
September	104
October	98
November	100
December	100
January 2002	98
February	90
March	92
April	92
May	93
June	95
Average Effluent	**96**

5.13.1.3 Solid Waste

Based on solid waste generation information from the CEQR Technical Manual, it was estimated that each of the three security employees at the existing MTS produces approximately 9 pounds of solid waste per week for a facility total of 27 pounds per week (approximately 4 pounds per day). The solid waste is collected by DNSY personnel and transported by truck to an appropriately licensed solid waste management facility.

5.13.1.4 Energy

Consolidated Edison of New York supplies electricity to the facility. A review of utility maps from Consolidated Edison shows electric lines along the Shore Parkway service road. Utility maps from KeySpan, which supplies gas to the existing MTS, show a 1.5-inch gas main that extends from the Shore Parkway Service Road and runs along 25th Avenue serving the facility. The existing Southwest Brooklyn MTS utilizes a negligible amount of gas and electricity due to the current staffing levels used for security purposes only.

5.13.2 Future No-Build Conditions

The existing Southwest Brooklyn MTS would continue to not accept waste. Potable water use, process and sanitary wastewater generation, solid waste generation and energy use would remain at or near the Existing Conditions levels for security employees.

5.13.3 Impacts with the Southwest Brooklyn Converted MTS

5.13.3.1 Water Supply

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

The Southwest Brooklyn Converted MTS would have no impact on the existing system's ability to supply water reliably. According to NYCDEP, the water pressure in the area is about 45 pounds per square inch (psi). Under worst-case conditions, the increased usage would not have significant impacts on water pressure in the system.

5.13.3.2 Sanitary Sewage

Based on the estimated water usage of 1,680 gpd for the Southwest Brooklyn Converted MTS, the small quantities of wastewater sent to the Owl's Head WPCP would not significantly impact the sewage flow rate or the ability of the Owl's Head WPCP to meet its SPDES permit limits. The Owl's Head facility treated an average of 96 mgd in fiscal year 2002 and has a design operating capacity of 120 mgd.

5.13.3.3 Solid Waste

Solid waste transfer station facility use is not cited under the solid waste generation rates provided in the CEQR Technical Manual, so rates for a commercial office building (1.3 lbs/day per employee) were used as a basis for a conservative estimate of waste generation. For an estimated 60 facility employees per day, 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 Southwest Brooklyn Converted MTS and would not significantly impact the system.

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

5.13.3.4 Energy

The Southwest Brooklyn Converted MTS would require approximately 1.11E+10 BTU/year of electricity to operate the facility. Natural gas facility 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 Southwest Brooklyn Converted MTS and has stated that all demands generated by the facility could be met without an impact on the power requirements of the surrounding community and without the need for additional power generation capacity.

Brooklyn Union Gas has been notified of the gas requirements for the Southwest Brooklyn Converted MTS, but had not responded at the time of this writing.

5.14 Natural Resources

5.14.1 Existing Conditions

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

5.14.1.1 Definition of Study Area

The study area includes the site and the waterfront sections that are bounded by the waters of Gravesend Bay to the west (Figure 2.3-1). The upland sections of the study area and surrounding neighborhood are fully developed and, therefore, have very limited terrestrial natural resources. Such resources that do exist will be discussed in following sections. Because the Future Build Condition would include dredging of bottom sediment and construction of a new MTS, a description of aquatic communities is included.

5.14.1.2 Geology

According to the permit renewal report prepared by DSNY in October 1995, bedrock was not encountered in borings drilled to varying depths of up to 100 feet.[6] The majority of subsurface materials are fine sands and silts with traces of organic matter. Five feet of black organic silt and peat exist at a depth ranging from 39 feet to 50 feet in the vicinity of Bay 41st Street. Results of the sediment samples collected for analysis in 2003 show that surficial sediment is characterized as light grey to grey sludge consisting of clay and silt with trace amounts of sand, with approximately 36,000 mg/Kg total organic carbon. Sediment was found to be somewhat degraded due to contaminants in the sample material.

[6] Engineering Report on the Southwest Brooklyn Marine Transfer Station Solid Waste Management Facility, 1995. Prepared for NYSDEC and DSNY by HydroQual, Inc.

5.14.1.3 Floodplains

The site is constructed within the 100-year coastal floodplain (Figure 5.14-1). No intertidal wetlands exist on the site. Gravesend Bay, which is a NYSDEC-designated littoral zone, is a part of the study area (Figure 5.14-2).

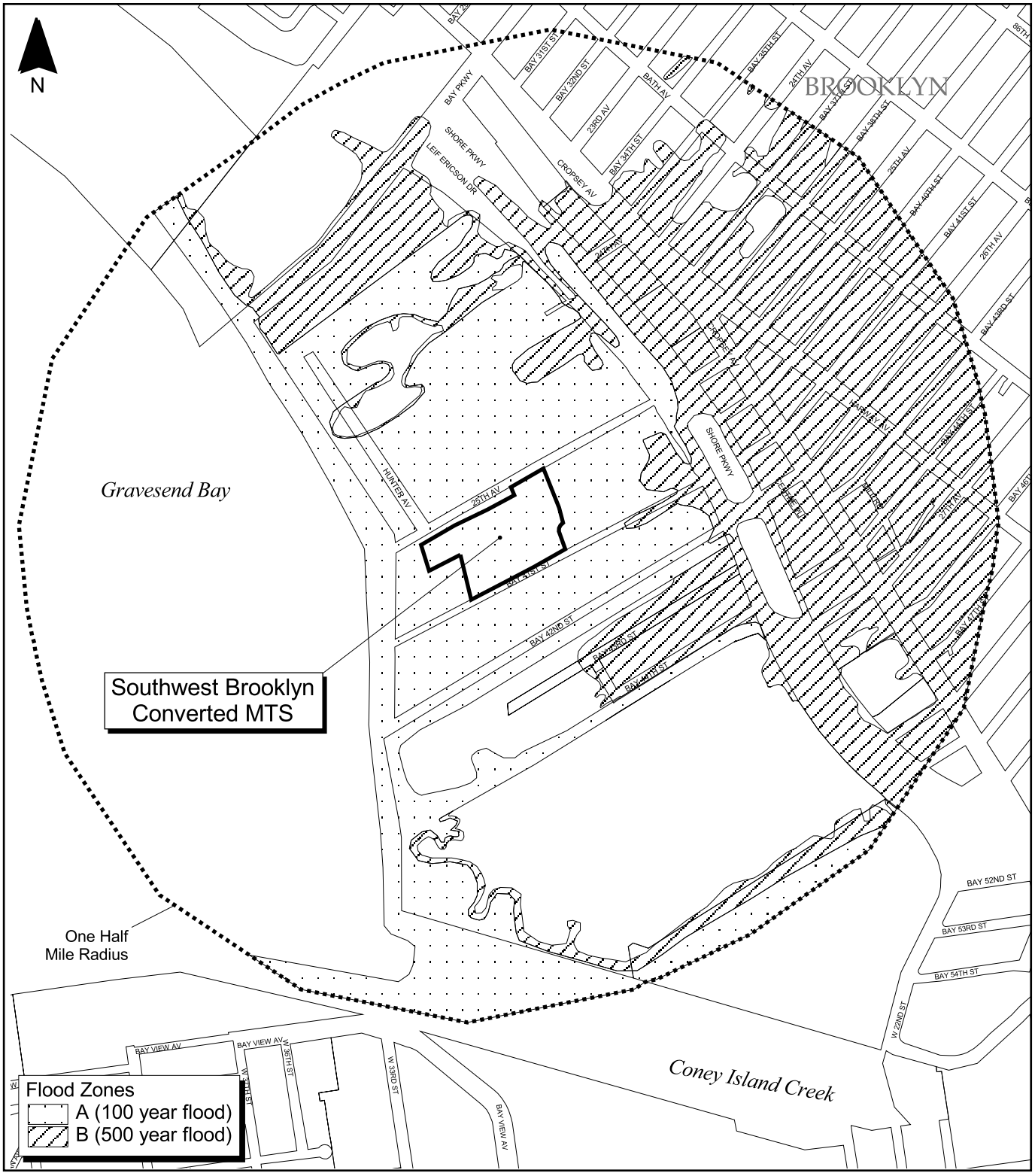
5.14.1.4 Ecosystems

Vegetative resources are virtually absent because nearly the entire site is covered with buildings or pavement. The few areas that are not hard surfaced exhibit typical opportunistic (weed) species including mugwort (*Artemisia vulgaris*) and tree-of-heaven (*Ailanthus altissima*). The vegetative cover in these areas was too sparse to be mapped.

The headwater of Gravesend Bay/Coney Island Creek is grossly contaminated, although the lower reaches exhibit adequate to good water quality. The reason for the good water quality is the proximity of the Upper Bight to the oceanic waters. Because Gravesend Bay has a large opening, the resultant tidal exchange facilitates circulation and replenishment.

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

The results of benthic invertebrate studies for the current field program directly around the study area had not been fully analyzed at the time of this writing, but were expected to show that the study area supports reasonably healthy and diverse communities of polychaete worms (*Streblospio benedicti*) and, to a lesser extent, mollusks. Several species of finfish reside or migrate through Gravesend Bay, predominantly striped bass (*Marone saxatilis*) and tomcod (*Microgadus tomcod*). The site is most likely to support a community of baitfish, such as silverside (*Menidia menidia*), killifish (*Fundulus hetreoclitis*), and bay anchovy (*Anchoa*



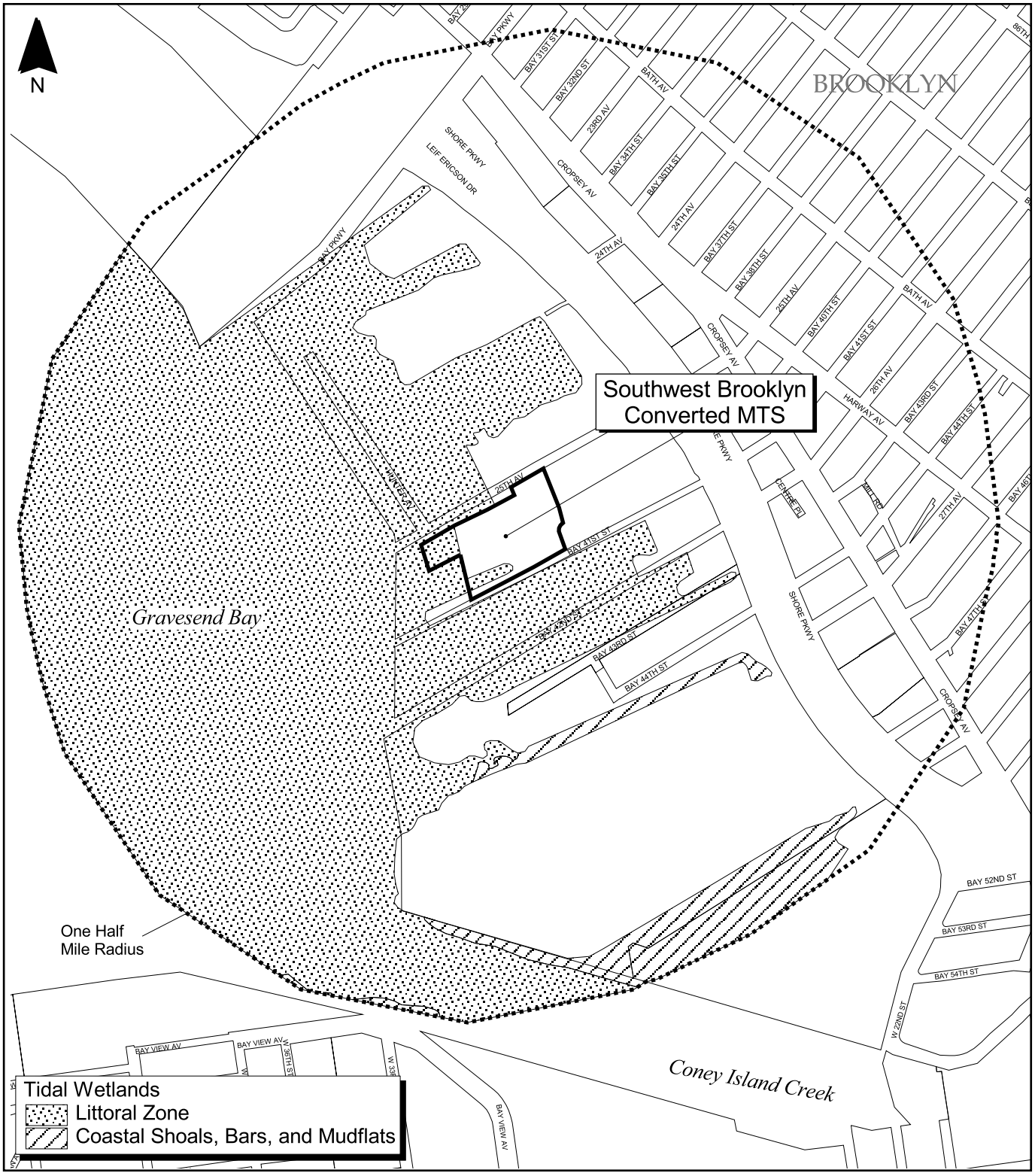
Site delineations and study area boundaries are approximate.
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 5.14-1 Floodplains

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION



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

500 0 500 Feet

Figure 5.14-2 Wetlands

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

mitchilli), which favor the protection from predators afforded by the piles that support the existing MTS. Preliminary findings showed evidence of a number of finfish species, including little skate (*Raja erinacea*), Atlantic silverside (*Menidia menidia*), spotted hake (*Urophycis regia*), northern pipefish (*Syngnathus fuscus*), winter skate (*Raja ocellata*), weakfish (*Synoscion regalis*), striped searobin (*Prionotus evolans*), bay anchovy (*Anchoa mitchilli*) and smallmouth flounder (*Etropus microstomus*). Species listed on the EFH for the study area that were caught include windowpane (*Scopthalmus aquosus*), summer flounder (*Paralichthys dentatus*), black sea bass (*Centropristis striata*), Atlantic butterfish (*Peprilus triacanthus*), and Atlantic Herring (*Clupea harengus*); and several species of invertebrates, including seven spine bay shrimp (*Crangon septemspinosa*), Say mud crab (*Dyspanopeus sayi*), eastern mud snail (*Ilyanassa obsolete*), horseshoe crab (*Limulus polyphemus*), common sea star (*Asterias forbesii*), blue crab (*Callinectes sapidus*) and common Atlantic slipper snail (*Crepidula fornicata*). Larvae of rock gunnel (*Pholis gunnelis*), northern pipefish (*Syngnathus fuscus*), American sand lance (*Ammodytes americanus*), Atlantic Herring (*Clupea harengus*), windowpane (*Scopthalmus aquosus*), winter flounder (*Pseudopleuronectes americanus*), and sculpin (*Myoxocephalus sp.*) were also found in the study area. The results of infaunal benthic invertebrate studies had not been fully analyzed at the time of this writing, but preliminary results indicate polychaete worms (*Streblospia benedicti, Capitellida* and *Haploscolopos robustus)* and the gastropod (*Nassarius obsoletus).*

The peregrine falcon (*Falco peregrinus),* a federally listed endangered species, was not listed as present for this site in the recent response from the U.S. Department of the Interior Fish and Wildlife Service.

5.14.2 Future No-Build Conditions

The study area would remain as it is, except that the incinerator will be demolished and removed from the site. The site will remain DSNY property, and the existing MTS will remain. The limited aquatic and terrestrial natural resources would remain, and the study area would continue to be a moderately ecologically unproductive area in a stressed urban area.

5.14.3 Potential Impacts with the Southwest Brooklyn Converted MTS

The Southwest Brooklyn Converted MTS would to be built at about the same location as the incinerator, which will have already been demolished and removed. Barges would be located along the dock on the southwest side of the study area. Water depth in this area is approximately 8 feet to 10 feet, so dredging would be necessary to accept the retrofitted DSNY barges that would be used to transport the containerized waste.

5.14.3.1 Geology

The geology of the study area would not be impacted as a result of the Southwest Brooklyn Converted MTS other than the removal of dredge spoil to accommodate the barges and tugboats. The dredging activity would remove layers of sediment deposited over time and further alter the profile of the submarine geological features of the study area, but no significant impact would occur.

5.14.3.2 Floodplains

Implementation of the Southwest Brooklyn Converted MTS would not affect the elevation of the site. It would be constructed within the 100-year floodplain, and it would not include any provisions for raising any portions of the site over this level.

5.14.3.3 Ecosystems

The limited vegetative resources that are present on the small patches of unpaved areas of the study area are not rare, endangered, or particularly important species from an ecological perspective. Development of the Southwest Brooklyn Converted MTS would produce no consequences to the natural resources. Existing on-site buildings and paved parking areas have precluded any opportunity for natural resources to establish themselves and, as such, native species of vegetation have probably been absent from the study area since the original construction of the buildings in 1965.

Dredging activities would result in an immediate, short-term destruction of the macrobenthic invertebrates in the area. Recolonization of the area by macrobenthic invertebrates can be expected to occur within 6 months to 12 months after cessation of dredging activities. Given the relatively small size of the project and the fact that periodic maintenance dredging has been performed repeatedly at the study area since its original construction, minimal impact is expected from the Southwest Brooklyn Converted MTS.

The existing MTS had operated as a solid waste transfer station for 34 years and does not contain or abut any environmentally-sensitive areas. Modifications to the study area would pose little, if any, adverse ecological impacts and no loss of habitat to rare or endangered species or habitat.

5.15 Water Quality

5.15.1 Existing Conditions

5.15.1.1 Definition of Study Area

The water quality study area encompassed Gravesend Bay and Lower New York Bay, and also included discharges from point sources located within ½ mile of the site.

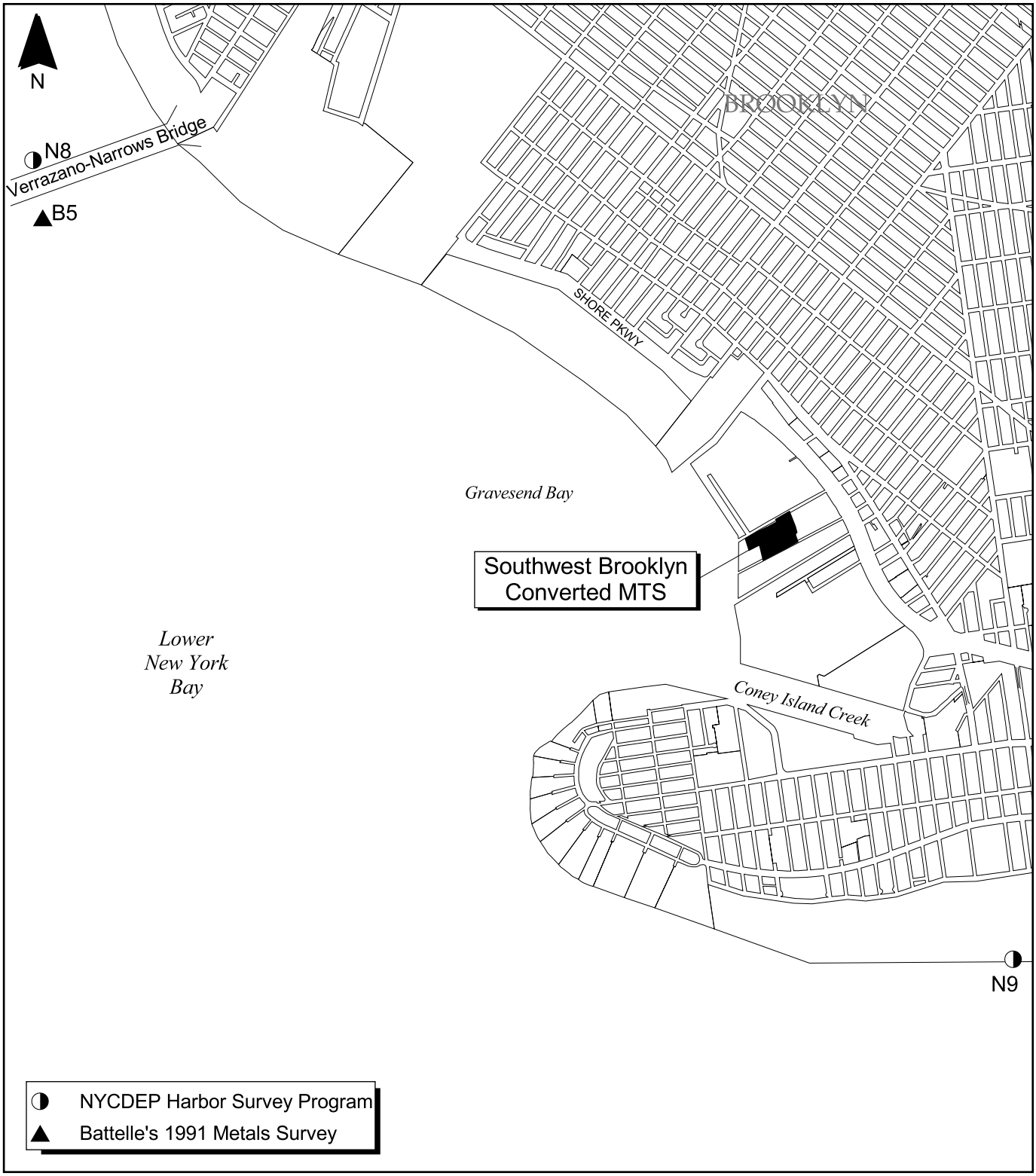
5.15.1.2 Water Quality

The water quality data for the following monitoring stations, shown in Figure 5.15-1, are generally representative of water quality conditions in the study area:

- NYCDEP Harbor Survey Program – Stations N-8 at the Verrazano Narrows and N-9 at Steeplechase Pier in Lower New York Bay; and
- Battelle's 1991 Metals Survey – Station B-5 in the Lower New York Bay.

These data along with NYSDEC's water quality standards and guidance values are presented in Table 5.15-1. The standards and guidance values for the waters in the vicinity of the site correspond to "Class I," which indicates waters suitable for secondary contact recreation (i.e., fishing and boating).

As shown in Table 5.15-1, on average, NYSDEC standards and guidance values are met. The mercury concentration for Battelle Station B-5, however, did not conform to the water quality standard for mercury.



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

1000 0 1000 Feet

Figure 5.15-1 Ambient Water Quality Stations
Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

Table 5.15-1
Existing Water Quality Conditions and Standards
Southwest Brooklyn Converted MTS Study Area

Average Concentration					
Parameter	**Units**	**N8[1]**	**N9[2]**	**B5[3]**	**NYS Class I Standards**
Dissolved Oxygen (surface/minimum)	mg/L	7.7[4]/5.3[5]	7.6[4]/5.6[5]	-------	4.0
Dissolved Oxygen (bottom/minimum)	mg/L	6.7 [6]/5.1[5]	7.3 [4]/5.24[5]	-------	4.0
BOD (surface)	mg/L	2.4 [7]	2.0 [7]	-------	-------
BOD (bottom)	mg/L	2.5 [7]	2.2 [7]	-------	-------
Total Coliform (surface)	MPN / 100 mL	362 [8]	536[8]	-------	10,000
Total Coliform (bottom)	MPN / 100 mL	358[8]	174[8]	-------	10,000
Fecal Coliform (top)	MF	27	7	-------	2,000
Fecal Coliform (bottom)	MF	2[9]	8[9]	-------	2,000
Total Suspended Solids (surface)	mg/L	14	20	-------	-------
Total Suspended Solids (bottom)	mg/L	24	20	-------	-------
NH3-N	mg/L	0.298	0.155	-------	-------
(NO3 + NO2)	mg/L	0.311	0.124	-------	-------
Total Phosphorous	mg/L	0.264[10]	0.142[10]	-------	-------
Dissolved PO4	mg/L	-------	-------	-------	-------
Chlorophyll-a	µg/L	7.8	9.94	-------	-------
Arsenic	µg/L	-------	-------	1.4 [11]	36 [11,12]
Cadmium	µg/L	-------	-------	0.059 [11]	7.7 [11,12]
Chromium	µg/L	-------	-------	-------	-------
Copper	µg/L	-------	-------	2.00 [13]	5.6 [12,,13]
Lead	µg/L	-------	-------	1.23 [11]	8.0[11,12]
Mercury	µg/L	-------	-------	0.015 [11]	0.0026 [11,12]
Nickel	µg/L	-------	-------	0.86 [11]	8.2 [11,12
Silver	µg/L	-------	-------	0.0596 [11]	-----
Zinc	µg/L	-------	-------	4.32 [11]	66 [11,12]
Cyanide	µg/L	-------	-------	-----	1.0 [12]

Notes:

[1] Average concentrations for 2002 NYCDEP Harbor Survey Station N-8 located at the Verrazano Narrows.

[2] Average concentrations for 2002 NYCDEP Harbor Survey Station N-9 located at Steeplechase Pier, in Lower New York Bay.

[3] Average concentrations for 1991 Battelle Ambient Survey Station B-5 located in the Lower New York Bay.

[4] Represents average between January and December 2002.

[5] Minimum between June 1, 2002 and September 30, 2002.

[6] Represents average between June and December 2002.

[7] Latest available data 1997.

[8] Latest available data 1996.

[9] Latest available data 1999.

[10] Latest available data 1998.

[11] Guidance values and data are for dissolved metals.

[12] NYSDEC Guidance Value (NYSDEC TOGS 1.1.1, June 1998, errata sheet January 1999 and addendum April 2000).

[13] Site-specific chronic and acute criteria for dissolved copper in NY/NJ Harbor.

5.15.1.3 Permitted Discharges

A review of the most recently available NYSDEC and USEPA databases indicated that there is one permitted discharge in the vicinity of the site. The existing discharge within a ½-mile radius is shown in Figure 5.15-2 and listed in Table 5.15-2. This discharge consists of one industrial site, which is permitted by the NYSDEC. It is located in Brooklyn, north of the site, and discharges into Gravesend Bay.

Table 5.15-2
Existing Permitted Discharges
Southwest Brooklyn Converted MTS Study Area

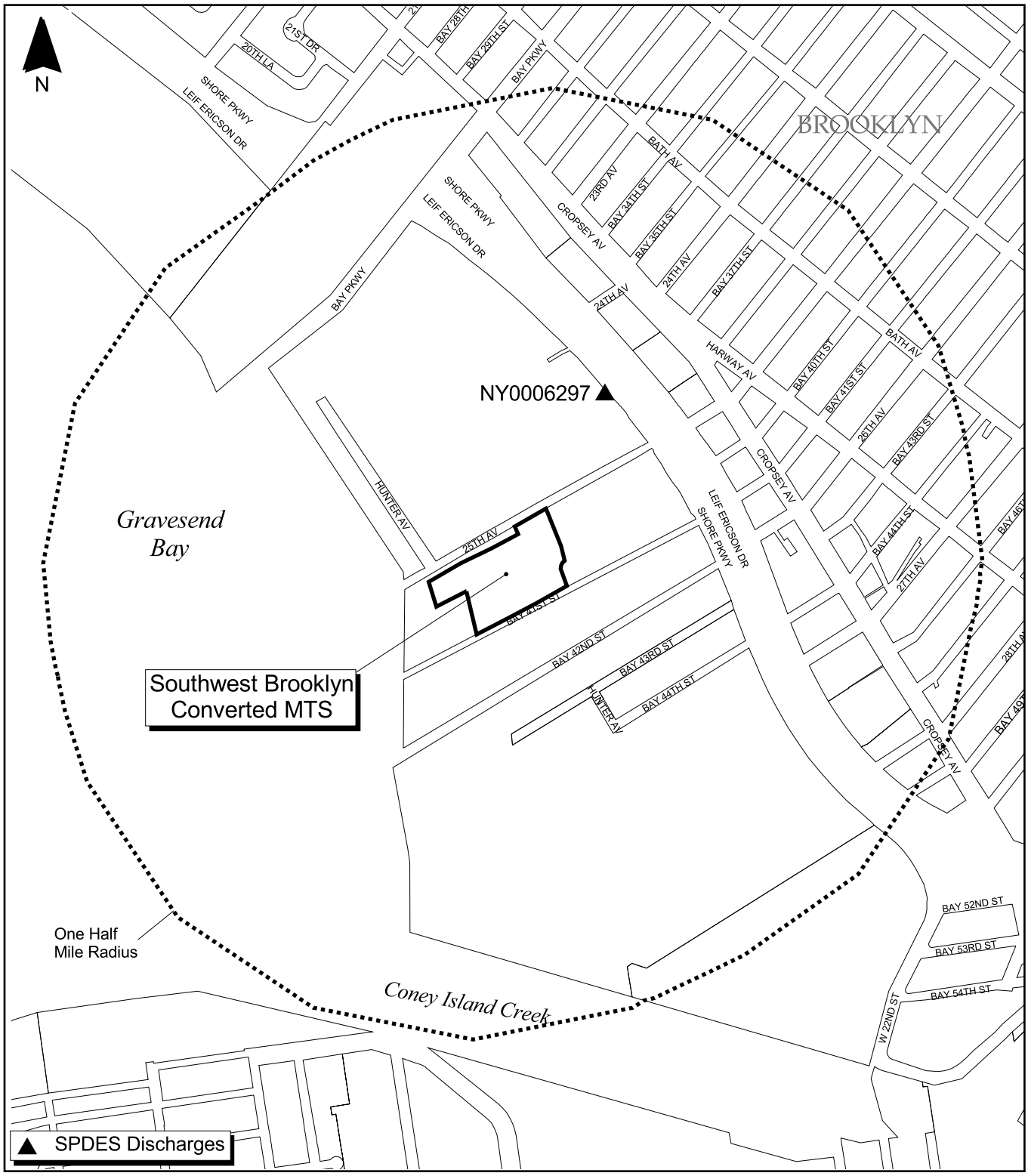
Point Sources			
Company Name	**Permit Number**	**County**	**Receiving Water Body**
Bayside Fuel Oil Depot Corp.	NY0006297	Kings	Gravesend Bay

5.15.1.4 Existing Pollutant Loads and Stormwater Runoff

Using available databases on stormwater pollutant concentrations and local precipitation data, an estimate of existing stormwater pollutant loadings was calculated. The existing paved areas were assumed to be completely impervious, and the existing unpaved areas were assumed to have 100% infiltration and/or storage. A runoff flow of 0.341 cfs was calculated using the impervious site area (6.5 acres), an average rainfall intensity of 0.06 inches/hour, and a runoff coefficient of 1. The resulting stormwater loads, shown in Table 5.15-3, represent the existing loads at the site.

5.15.2 Future No-Build Conditions

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



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

500 0 500 Feet

Figure 5.15-2 Permitted Outfalls and CSO Locations Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

Table 5.15-3
Estimated Existing Pollutant Loads and Runoff Flows for an Average Storm
Southwest Brooklyn Converted MTS Study Area

Pollutant	Concentration	Pollutant Loading (lbs/day)
Fecal Coliform MPN/100 mL	34,000	71,446[(1)]
BOD mg/L	11	23
Heavy Metals		
Copper (μg/l)	35	0.074
Lead (μg/l)	28	0.059
Zinc (μg/l)	154	0.324
Total Impervious Area (acre) = 6.5		Runoff Coefficient (C) = 1.00
Average Rainfall per Storm (inch/hour) = 0.06 [(2)]		Runoff Flow (cfs) = 0.341

Notes:
(1) Coliform loads are not shown in pounds/day. Values shown are input to the 208 Model, with output results comparable to MPN/100 ml.
(2) Based on Central Park Rain Data (1969 – 2002); The National Climatic Data Center.
μg/l = micrograms per liter

5.15.3 Potential Impacts with the Southwest Brooklyn Converted MTS

With the development and operation of the Southwest Brooklyn Converted MTS, there would be no change to the impervious area and, therefore, the stormwater loadings at the site would remain unchanged. Table 5.15-4 shows the existing impervious area, the change in impervious area, and pollutant loads. With the development of the Southwest Brooklyn Converted MTS, conditions would not be significantly different from Future No-Build Conditions. After treatment, the processed wastewater would be discharged to the municipal sewer system and, ultimately, to the Owls Head WPCP, where it would be treated prior to discharge to the Lower New York Bay and, therefore, would not adversely affect water quality.

The Southwest Brooklyn Converted MTS may also require dredging activities to construct 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 prior to any proposed dredging activities. Applicable and appropriate measures (e.g., closed clamshell buckets, silt curtains, etc.) would be implemented during any and all dredging activities to minimize and/or eliminate any short-term impacts to local 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.

Table 5.15-4
Impervious Area and Estimated Pollutant Loads
Southwest Brooklyn Converted MTS

Impervious Area Change			Estimated Pollutant Loadings/Incremental Change [1]				
Condition	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	6.5	0.0	71,446/NA	23/NA	0.074/NA	0.059/NA	0.324/NA
Future Build Conditions	6.5	0.0	71,446/0	23/0	0.074/0	0.059/0	0.324/0

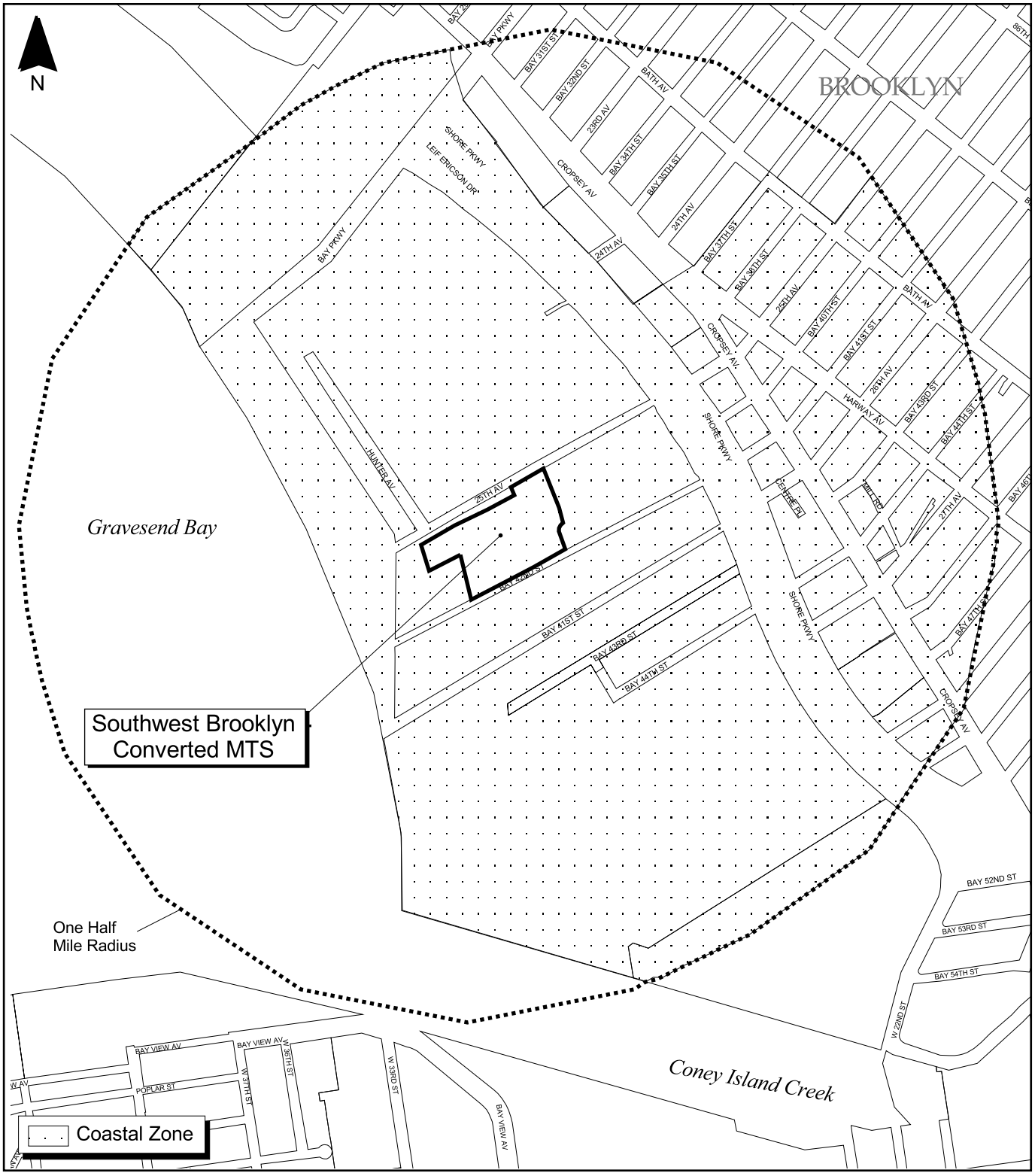
Notes:
(1) Incremental change refers to the difference in pollutant loading between the Existing Conditions and the Future Build Conditions.
(2) Coliform loads are not shown in pounds/day. Values shown are input to the 208 Model, with output results comparable to MPN/100 ml.

5.16 Waterfront Revitalization Program

5.16.1 Introduction

The Federal Coastal Zone Management Act of 1972 established coastal zone management programs to preserve, protect, develop and restore the coastal zone of the U.S. Due to its proximity to the waterfront of Gravesend Bay, the Southwest Brooklyn Converted MTS would be within New York City's coastal zone boundary (Figure 5.16-1). According to "The New Waterfront Revitalization Program," the Southwest Brooklyn Converted MTS, once operational, would be classified as a water-dependent, industrial use. It would be located within Reach 15 Brooklyn/Lower Bay as indicated within the "New York City Comprehensive Waterfront Plan" and the "Plan for the Brooklyn Waterfront." It is not currently within a DCP-designated SNWA or SMIA. Due to its location, it 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 Southwest Brooklyn 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, 2.1, 3.1, 4.4, 6.2, 6.3 and 8.5. All policies and subpolicies, including those identified as not applicable, are listed in Table 3.18.1. In instances where a component of the Southwest Brooklyn Converted MTS required clarification or was inconsistent with a specific policy or subpolicy, further discussion is provided below. A description of waste handling operations that would occur at the Southwest Brooklyn Converted MTS is provided in Section 2.3.



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

500 0 500 Feet

Figure 5.16-1 Coastal Zone Boundary
Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

5.16.2 Consistency Assessment

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

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

A review of available information indicates that there are sufficient public services and facilities to support the new Southwest Brooklyn Converted MTS. As part of the Southwest Brooklyn Converted MTS, connections from the new facility to existing utilities (e.g., sewer 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 Encourage working waterfront uses at appropriate sites outside the Significant Maritime and Industrial Areas.

The site of the Southwest Brooklyn Converted MTS is not located within a DCP designated SMIA. Development of the Southwest Brooklyn Converted MTS would involve its construction within the upland portion of the site that is currently occupied by the incinerator, which will be demolished under the Future No-Build Conditions. The Southwest Brooklyn Converted MTS would involve the development of an upland truck-to-container-to-barge (TCB) transfer station that would transport DSNY-managed waste by marine transport to remote out-of-City disposal facilities.

The site redevelopment, as described in Section 2.3.2, would help to restore and revitalize industrial waterfront property and would be compatible with existing industrial and maritime uses. The majority of reconstruction activity would occur

within the upland portions of the site and would consist of four primary components: (1) an enclosed processing building which would include a tipping floor, loading floor and pier level; (2) an elevated access ramp with accompanying retaining walls; (3) a gantry crane, outside of the processing building and at the waterfront; and (4) a rehabilitated bulkhead and fendering system. The Southwest Brooklyn Converted MTS would be consistent with existing land uses in the vicinity of the site and with the "Plan for the Brooklyn Waterfront," which recommends the continued industrial use of the area. Although it would not encourage or facilitate the siting of any additional water-dependent uses, the Southwest Brooklyn Converted MTS would represent an upland expansion and reactivation of a historic water-dependent use and would be compatible with surrounding uses.

The Southwest Brooklyn Converted MTS would, therefore, be consistent with this subpolicy.

2.3 Provide infrastructure improvements necessary to support working waterfront uses.

The Southwest Brooklyn Converted MTS would involve the development of a new facility within the upland portion of the site that is currently occupied by the incinerator, which will be demolished under the Future No-Build Conditions. It would allow for marine transport of solid waste to licensed out-of-City disposal facilities. The development would consist of four primary components: (1) an enclosed processing building which would include the tipping floor, loading floor and pier level; (2) an elevated access ramp; (3) a gantry crane; and (4) a rehabilitated bulkhead and fendering system. The Southwest Brooklyn Converted MTS would be consistent with existing waterfront uses at and in the vicinity of the site.

In addition, the Southwest Brooklyn Converted MTS would require dredging to improve existing water depths at and in the immediate vicinity of the site to allow for unimpeded operation of barges and tugboats once it became operational. All required dredging would be conducted in compliance with applicable federal, state and local regulations and required permits would be acquired prior to any dredging activities.

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 development of the Southwest Brooklyn Converted MTS would involve the reactivation of a historic waterfront use and would not interfere with any maritime industrial, commercial or recreational vessel activities in the area. Activities within Gravesend Bay resulting from the Southwest Brooklyn Converted MTS would be limited to barge loading along the pier level and the periodic swapping of loaded barges at the slips. Four or 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 waterbody would be anticipated. The Southwest Brooklyn 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 Southwest Brooklyn Converted MTS would be an upland TCB transfer station where DSNY-managed waste would be transferred into containers that would be sealed and placed into modified hopper barges, then transported to out-of-City disposal locations and, therefore, would be protective of the aquatic environment and surrounding land and water uses. All solid waste handling would occur within an enclosed processing building. All waste would be placed in sealed containers before leaving the building for loading on barges.

Building ventilation would be maintained under negative pressure, which would maintain dust inside the enclosed processing building. Additional dust, odor and vector control systems would also be used to minimize impacts to the surrounding environment. Litter control methods, such as routine sweeping and washing of the tipping floor, would be implemented to minimize or eliminate the potential for litter entering surface waters. All process wastewaters generated on-site (e.g. washdown waters, etc.) would be treated prior to their discharge to the

municipal sewer system. In addition, on-site storage of petroleum products and hazardous materials related to the operation of the Southwest Brooklyn Converted MTS would be done in accordance with applicable federal, state and local regulations. Therefore, the Southwest Brooklyn Converted MTS would be consistent with this subpolicy.

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

1.4 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, as described in "The Waterfront Revitalization Program", as well as Recognized Ecological Complexes and Significant Coastal Fish & Wildlife Habitat information, the Southwest Brooklyn Converted MTS is not within a designated area. The Southwest Brooklyn Converted MTS would represent an up-land expansion of a previous over-water use and would not be anticipated to result in any long-term impacts to natural resources in the vicinity of the site. The Southwest Brooklyn Converted MTS would, therefore, be consistent with this subpolicy.

4.2 Protect and restore tidal and freshwater wetlands.

A review of NYSDEC tidal and freshwater wetland maps was conducted to determine the presence of wetlands within the site. As noted in Section 5.13.1, the Southwest Brooklyn Converted MTS would front Gravesend Bay, a NYSDEC-designated littoral zone. No freshwater wetlands exist on the site. The Southwest Brooklyn Converted MTS would involve the construction of a new facility within the upland portion of the site that is currently occupied by the incinerator, which would be demolished under the Future No-Build Conditions. Required dredging associated with construction activities would result in limited, short-term impact to these tidal wetlands.

Dredging activities associated with the development of the Southwest Brooklyn Converted MTS are not anticipated to have significant impacts on wetland areas in the vicinity of the site, primarily due to previous and ongoing activities and dredging that historically occurred at the site. Mitigation for potential impacts would be proposed during the environmental review and permitting of the Southwest Brooklyn Converted MTS. This mitigation, if required, would address potential impacts that may occur due to the Southwest Brooklyn Converted MTS and would effectively restore these wetlands and their associated value. The Southwest Brooklyn Converted MTS would, therefore, be consistent with this subpolicy.

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.

A review of U.S. Fish & Wildlife and NYSDEC Natural Heritage Program databases indicates that no known species of concern were located in the vicinity of the site. The Southwest Brooklyn Converted MTS would be constructed within the upland portion of the site that is currently occupied by the incinerator, which will be demolished under the Future No-Build Conditions. Dredging would also be required to accommodate larger barges once the site is operational. As stated in section 5.14.3, modifications to the site would pose little, if any, adverse ecological impacts or loss of habitat to rare or endangered species. 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 Southwest Brooklyn Converted MTS and the storage of any petroleum products would be conducted in accordance with applicable federal, state and local regulations. The Southwest Brooklyn Converted MTS would not introduce hazardous wastes or other pollutants into the environment that could adversely impact fish and wildlife resources within the coastal area.

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

5.1 Manage direct or indirect discharges to waterbodies.

The Southwest Brooklyn Converted MTS would be developed in accordance with applicable federal, state and local regulations. Consistent with this subpolicy, sanitary and process wastewaters (e.g., floor washdown waters, etc.) would be conveyed to an on-site treatment system, which may consist of oil/water separators, etc., discharging eventually to the municipal sewer system. In addition, the slope of the tipping floor would prevent the build-up of free liquids by directing all liquids to drains. Storm water runoff from the Southwest Brooklyn Converted MTS would be managed in accordance with all applicable federal, state and local regulations.

In addition, the majority of activity associated with the Southwest Brooklyn Converted MTS would be conducted within an enclosed processing building. Only sealed, air- and water-tight containers would be transferred to barges outside of the processing building by gantry cranes installed at the pier level. Inside the facility, several measures would be taken to minimize the potential for environmental degradation as a result of the facility. Building ventilation would be maintained under negative pressure, which would be intended to keep dust inside the enclosed processing building. Litter control methods, such as routine sweeping and washing of the tipping floor would be implemented to minimize or evaluate the potential for litter entering surface waters. The Southwest Brooklyn Converted MTS would be consistent with this subpolicy.

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

BMPs would be used to the extent possible during all phases of construction and operation of the Southwest Brooklyn Converted MTS in order to minimize any nonpoint discharges. The Southwest Brooklyn Converted MTS would comply with federal, state and local requirements concerning the management of stormwater runoff and erosion. All handling and containerization of solid waste would be conducted within an enclosed processing building. During construction, non-structural and, if necessary, structural measures would be used to minimize nonpoint source pollution.

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

As part of the Southwest Brooklyn Converted MTS, dredging would be necessary to provide sufficient water depths for unimpeded operations of the Southwest Brooklyn Converted MTS. Any dredging done as part of construction would result in temporary impacts and would be conducted in a manner to minimize siltation and erosion and other short-term impacts to water quality. Non-structural and, if necessary, structural measures would be used to minimize siltation and potential adverse impacts to tidal wetlands in the vicinity. All dredged materials would be disposed of at a permitted facility in accordance with applicable federal, state and local regulations. Therefore, the Southwest Brooklyn Converted MTS would be consistent with this subpolicy.

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

The Southwest Brooklyn Converted MTS would have no impact on the quality or quantity of surface or ground waters. Process wastewaters (e.g. washdown waters, etc.) would be conveyed to an on-site treatment system and would then discharge to the municipal sewer system. Storm water runoff from the Southwest Brooklyn Converted MTS would be managed in accordance with all applicable federal, state and local regulations. No surface or ground waters in the vicinity of the site constitute a primary or sole source aquifer or water supply. The Southwest Brooklyn Converted MTS would be consistent with this policy.

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 Southwest Brooklyn Converted MTS would be situated within the 100-year floodplain boundary (Zone A). It would be constructed within the upland portion

of the site that is currently occupied by the incinerator, which will be demolished under the Future No-Build Conditions. Dredging would be required to provide sufficient water depths in the vicinity of the Southwest Brooklyn Converted MTS for unimpeded barge and tugboat operations once the facility is operational. To the extent practicable, non-structural measures would be used to minimize damage from flooding and erosion during its construction. Construction of the new Southwest Brooklyn Converted MTS would not affect the potential for flooding or erosion. All structures would comply with applicable building code requirements.

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 Southwest Brooklyn Converted MTS would not involve the storage, treatment or disposal of hazardous waste, but would facilitate the management and processing of solid waste through a TCB system and marine transport to out-of-City disposal sites. 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 Southwest Brooklyn Converted MTS. The majority of activities would occur within the enclosed processing building. 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. Only sealed, air- and water-tight containers would be used outside of the facility.

On-site storage of petroleum or hazardous materials related to the operation of the Southwest Brooklyn Converted MTS would be in accordance with applicable federal, state and local regulation. The Southwest Brooklyn 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 industrial uses at and in the immediate vicinity of the Southwest Brooklyn Converted MTS, public access would generally not be compatible with the principal use of the site. The Excelsior Yacht Club and Marina is located adjacent and immediately south of the site; however, the Southwest Brooklyn Converted MTS would not impact this marina or other existing, public water-related recreational resources or access and, therefore, would be consistent with this subpolicy.

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

According to "The New Waterfront Revitalization Plan" the Southwest Brooklyn Converted MTS would be a stand alone, water-dependent and industrial facility fronting Gravesend Bay. Public access would not be compatible with the

Southwest Brooklyn Converted MTS; however, its development would not preclude any future development of public access at other locations along the Gravesend Bay waterfront.

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

Development of a new Southwest Brooklyn Converted MTS site would be considered a revitalization of an existing waterfront use and would not impair visual access to coastal lands, waters or open space. The new building would be constructed upland in about the same location as the incinerator, which will be demolished under of the Future No-Build Conditions. It would not allow for additional visual access, but its development would not preclude visual access from other locations along the Gravesend Bay waterfront. See also response to Subpolicy 9.1.

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

Several open space and outdoor recreational areas have been identified within the study area. The nearest areas include the Nellie Bly Amusement Park, located approximately 750 feet to the east of the site, Bensonhurst Park, located approximately 2,000 feet north of the site, and the Dreier-Offerman Park, approximately 1,000 feet to the south of the site. It is not anticipated that the Southwest Brooklyn Converted MTS, once operational, would have any impact on these facilities. Waterfront activities associated with the new facility would be centralized in the vicinity of the MTS and, as such, would not result in adverse impacts to these parklands or open space areas. Therefore, the Southwest Brooklyn Converted MTS would be consistent with this subpolicy.

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 Southwest Brooklyn Converted MTS would be an upland expansion and rehabilitation of an existing waterfront facility and would be compatible with the existing urban design context and visual conditions of this portion of Gravesend Bay waterfront, as noted in Section 5.7.3. Based on the information presented in that section, the Southwest Brooklyn Converted MTS would be consistent with this subpolicy.

9.2 Protect scenic values associated with natural resources.

The Southwest Brooklyn Converted MTS would pose no impact to scenic values associated with natural resources. Removal of the incinerator under the Future No-Build Conditions would open views westward, but would not necessarily create additional visual access because the Southwest Brooklyn Converted MTS would be constructed in approximately the same location. The Southwest Brooklyn Converted MTS would be compatible with existing uses in the vicinity, which do not allow for scenic views. Therefore, this subpolicy is consistent with this policy.

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 Southwest Brooklyn Converted MTS would have no effect on any cultural resources on or near the site, as noted in Section 5.6.3. Based on the information presented in that section, the Southwest Brooklyn 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 study area. This subpolicy, therefore, is not applicable.

5.17 Hazardous Materials

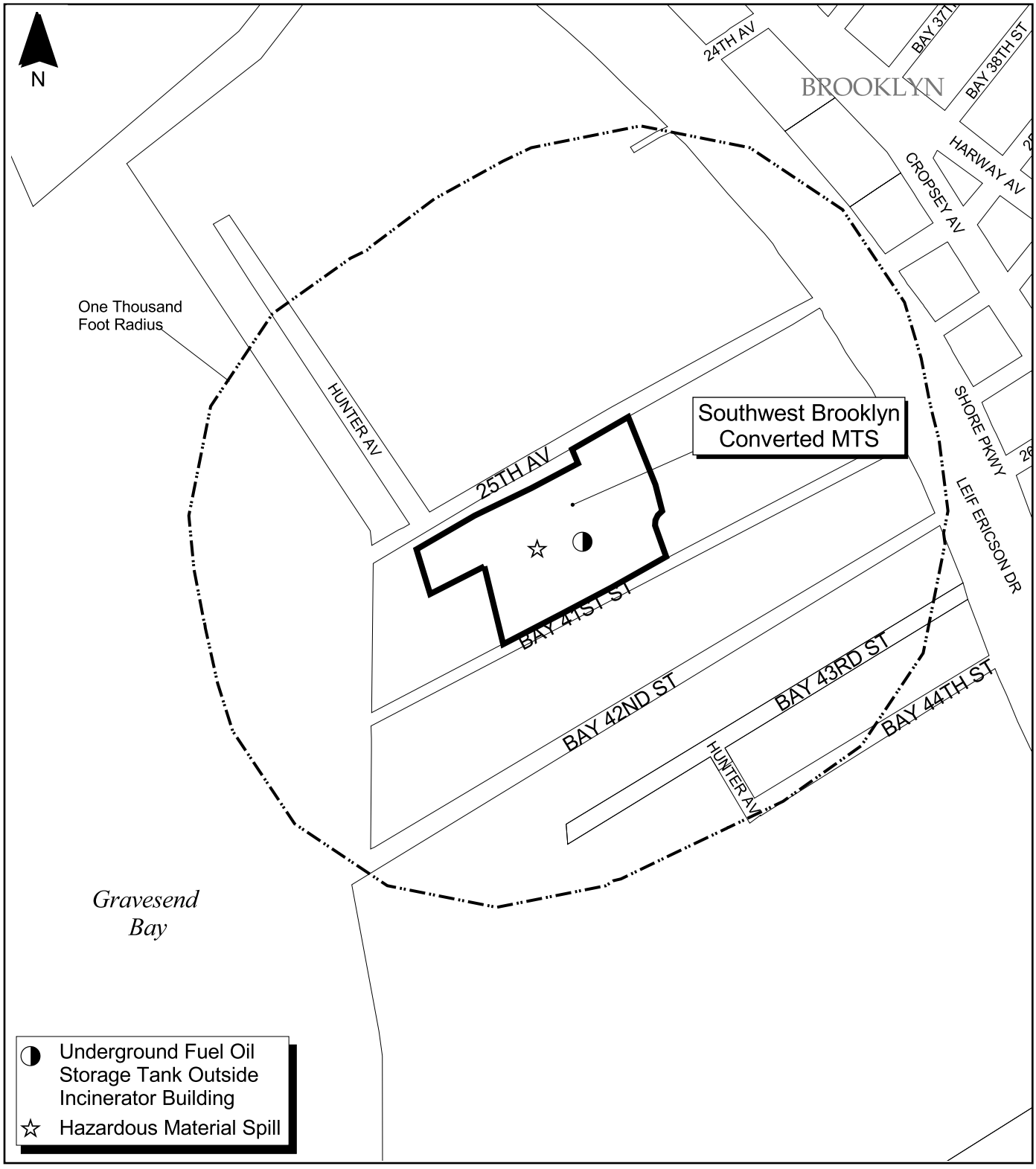
5.17.1 Existing Conditions

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

The historical land use review included an assessment of *Sanborn* fire insurance maps for the study area, if available, and a Freedom-of-Information Law request to the New York City Fire Department for underground storage tank records. Standard federal and state environmental databases were assessed for records of sites within the study area that had evidence of hazardous waste activity or spills. A written request to NYCDEP was made to solicit records pertaining to hazardous or toxic materials activities within the study area. A 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.

5.17.1.1 Definition of Study Area

The study area includes the site and neighboring properties within a 1,000-foot radius (Figure 5.17-1).



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

300 0 300 Feet

Figure 5.17-1 Hazardous Materials Sites

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

5.17.1.2 Delineation of Area of Concern

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

Possible groundwater contamination migrating beneath the site from the adjacent DSNY Garage and Borough Command Facility on the east side. Evidence of on-site underground storage tanks (i.e., fuel pumps, fills and vents, and NYSDEC Petroleum Bulk Storage listings) was noted at the Borough Command Facility site. Numerous monitoring wells were noted inside and around this facility, strongly suggesting the presence and/or a release of contaminants to the environment. Four "active status" NYSDEC spill incidents consisting of test failure of underground storage tanks (#2 fuel oil, gasoline, and hoist oil) are believed to have occurred at this facility. These include Spill No. 8911519 dated March 7, 1990, at 1824 Shore Parkway; Spill No. 9001807 dated May 15, 1990, at 380 Bay 41st Street / DSNY); and Spill Nos. 0001699 and 0001700 dated April 25, 2000, at 1824 Shore Parkway / NYSDEC. An "active status" spill listing NYCDOS as the spiller, and noted during the April 1999 assessment, was not found during the 2003 assessment.

Potential subsurface contamination associated with what appeared in 1999 to be underground storage tanks within the fenced-in exterior areas of the closed Southwest Brooklyn Incinerator building.

The probable presence of lead-based paint in underlying layers of the existing MTS (based on the age of the building). Painted surfaces were in relatively good condition, with only minor areas of damaged paint noted. Underlying paint in good condition does not represent any risk to current employees.

Probable presence of lead-based paint on the Southwest Brooklyn Incinerator building based on its age (circa 1960). In addition, due to the age and nature of operations performed within this building, it is highly likely that its interior portions contain ACMs. Suspected asbestos-containing corrugated cement panels in relatively good condition were noted on exterior portions of the building and adjacent conveyor structure at the time of the site visit in 1999.

5.17.2 Future No-Build Conditions

The site would remain as is except for the demolition of the on-site incinerator. Any ACMs that are found in the incinerator building would be removed prior to demolition in a manner that is consistent with City building codes and practices. Contamination may exist on the subject site from suspected on-site underground storage tanks; however, DSNY has plans to close all underground storage tanks in accordance with New York State Regulations 6 NYCRR 613.9.

5.17.3 Potential Impacts with the Southwest Brooklyn Converted MTS

Historical contamination is most likely present at the existing MTS facility; however, this contamination should not prevent development of the site. If the Southwest Brooklyn Converted MTS were implemented, any residual contaminated soil would require appropriate disposal in a manner that is consistent with the level of contamination found during the demolition/construction phase. The necessary and appropriate health and safety measures would be used to mitigate and minimize any exposure risk to workers or the general public.