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 and Services
5.5 Open Space
5.6 Cultural Resources
5.7 Urban Design, Visual Resources, and Shadows
5.8 Neighborhood Character
5.9 Natural Resources
5.10 Hazardous Materials
5.11 Water Quality
5.12 Waterfront Revitalization Program
5.13 Infrastructure, Solid Waste and Sanitation Services, and Energy
5.14 Traffic, Parking, Transit, and Pedestrians
5.15 Air Quality
5.16 Odor
5.17 Noise
5.18 Commercial Waste to the Southwest Brooklyn Converted MTS

Section 2.2.2 provides a summary description of the site and important characteristics of the facility design. A detailed discussion of the methodologies that were applied in conducting each analysis is provided in Chapter 3. Supplemental information on the site or the study area is provided in the following sections when appropriate to the analysis.

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 (see Figure 5.2-1). The secondary study area is defined as the area between ¼-mile and ½-mile of the site (see Figure 5.2-2). Section 3.4 describes the methodology employed in these analyses and Section 2.2.2 provides information on existing land uses and operations on the site.

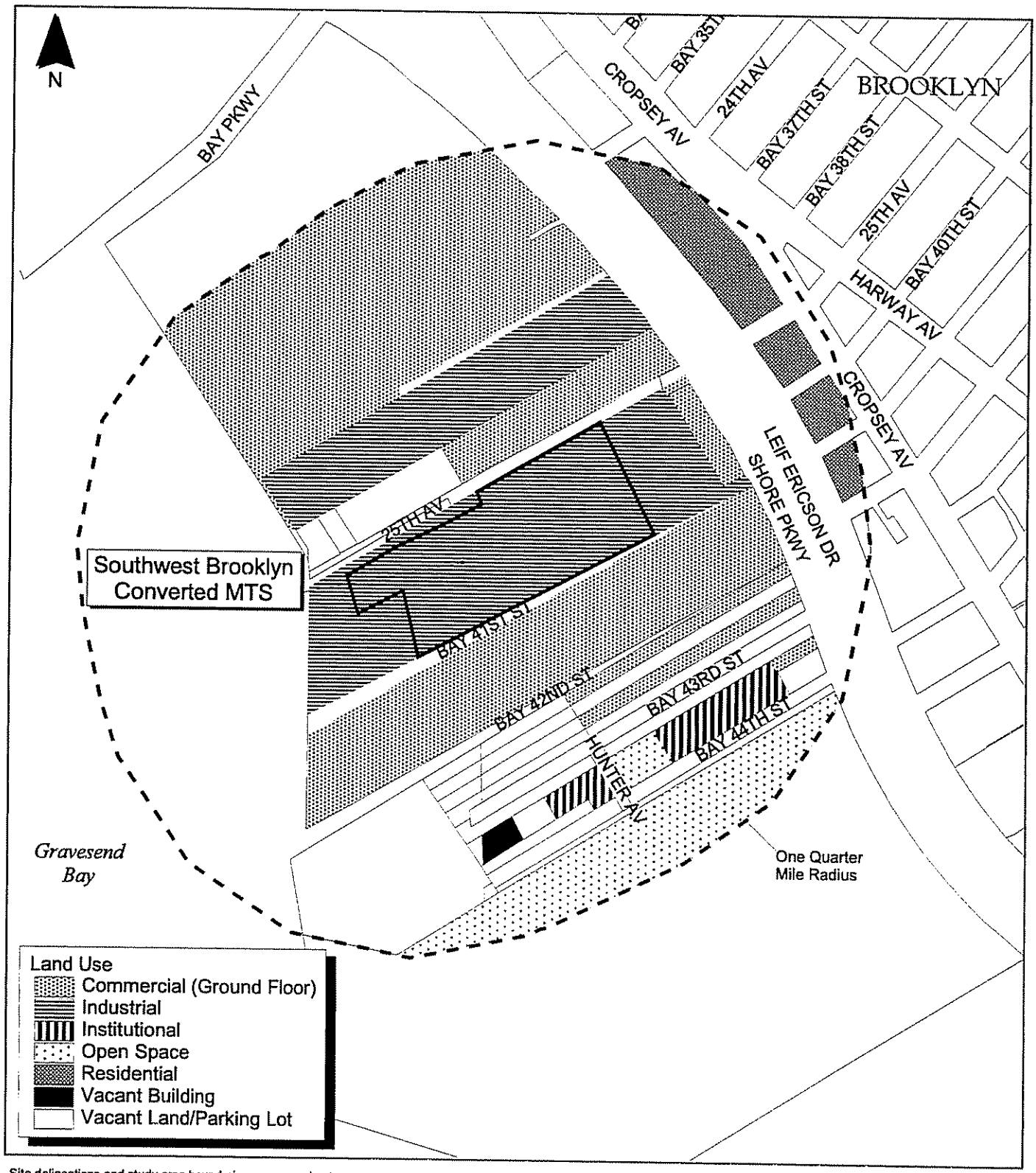
5.2.1.2 Land Use Patterns

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

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Figure 5.2-1 Land Use in the Primary Study Area
Southwest Brooklyn Converted MTS

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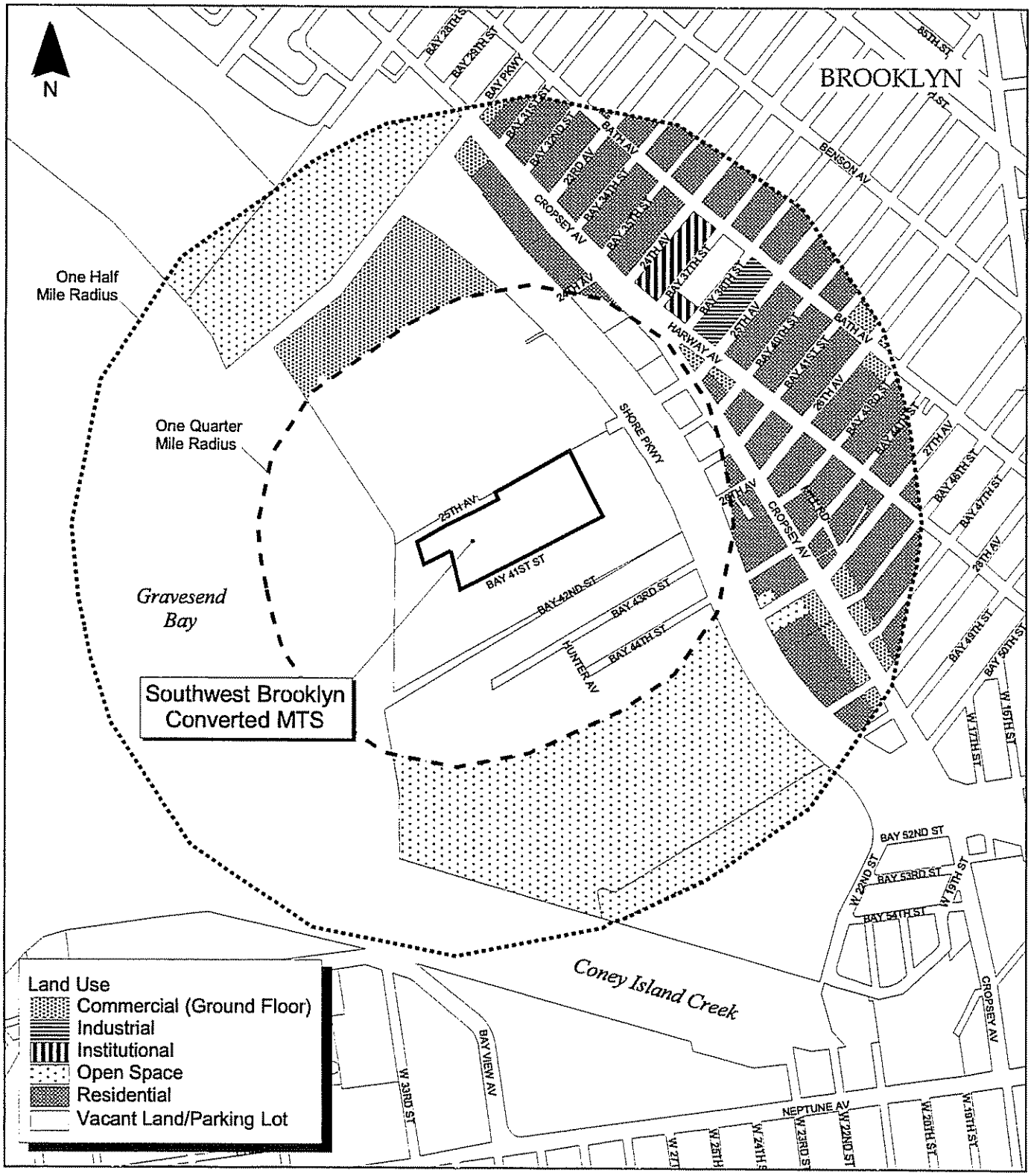

Site delineations and study area boundaries are approximate.
Base Map Source: New York City Department of City Planning
This figure illustrates generalized land uses in the secondary study area

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Figure 5.2-2 Land Use in the Secondary Study Area

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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 NYCT'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.)

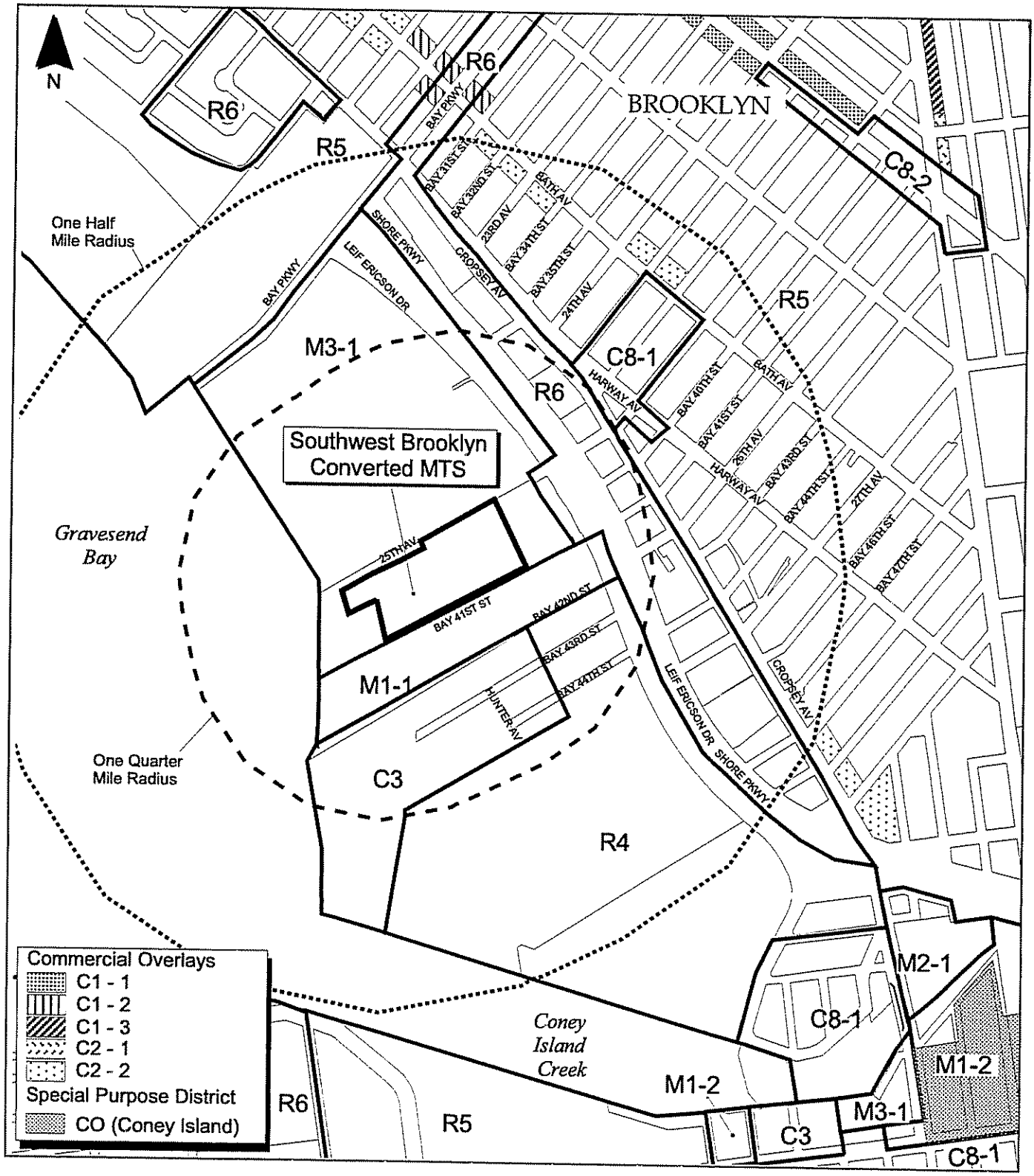
5.2.1.3.2 Zoning Within the Secondary Study Area

The surrounding residential communities of Bensonhurst, Gravesend and Coney Island are characterized by medium density R4, R5 and R6 residential; C8-1 (automotive-related) commercial; and M3-1 zoning districts.

5.2.1.4 Plans and Policies

The FY 2004 CDNS 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 2004 statement prepared by Brooklyn CD 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 City/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

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Figure 5.2-3 Zoning

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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 NYCDPR park plans and Section 5.12 for a review of consistency with the WRP.)

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, 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 (see Figure 5.3-1), which covers industrial waterfront areas southwest of Shore Parkway between approximately 15th Avenue and Coney Island Creek.

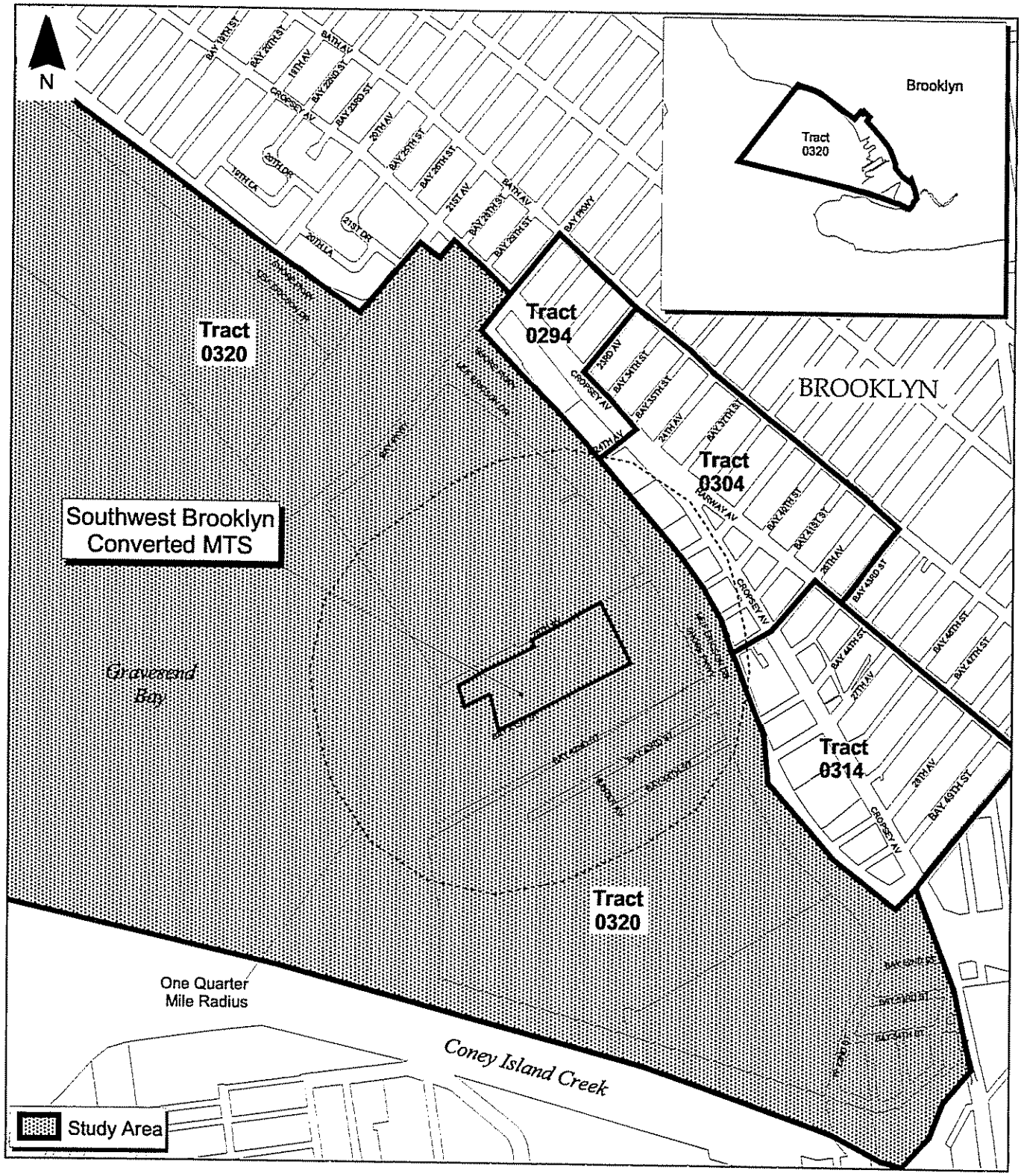
5.3.1.2 Demographic Characteristics

Because the total 2000 demographic study area population consisted of only 60 individuals and 14 families, none of who 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.



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

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Figure 5.3-1 Census Tracts
Southwest Brooklyn Converted MTS

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5.3.2 Future No-Build Conditions

5.3.2.1 Demographic Characteristics

Regional projections indicate that the population of Brooklyn CD 11 will remain about the same as current conditions.[1]

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 Brooklyn CD 11 will remain about 5% of the borough total.[2]

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.

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

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

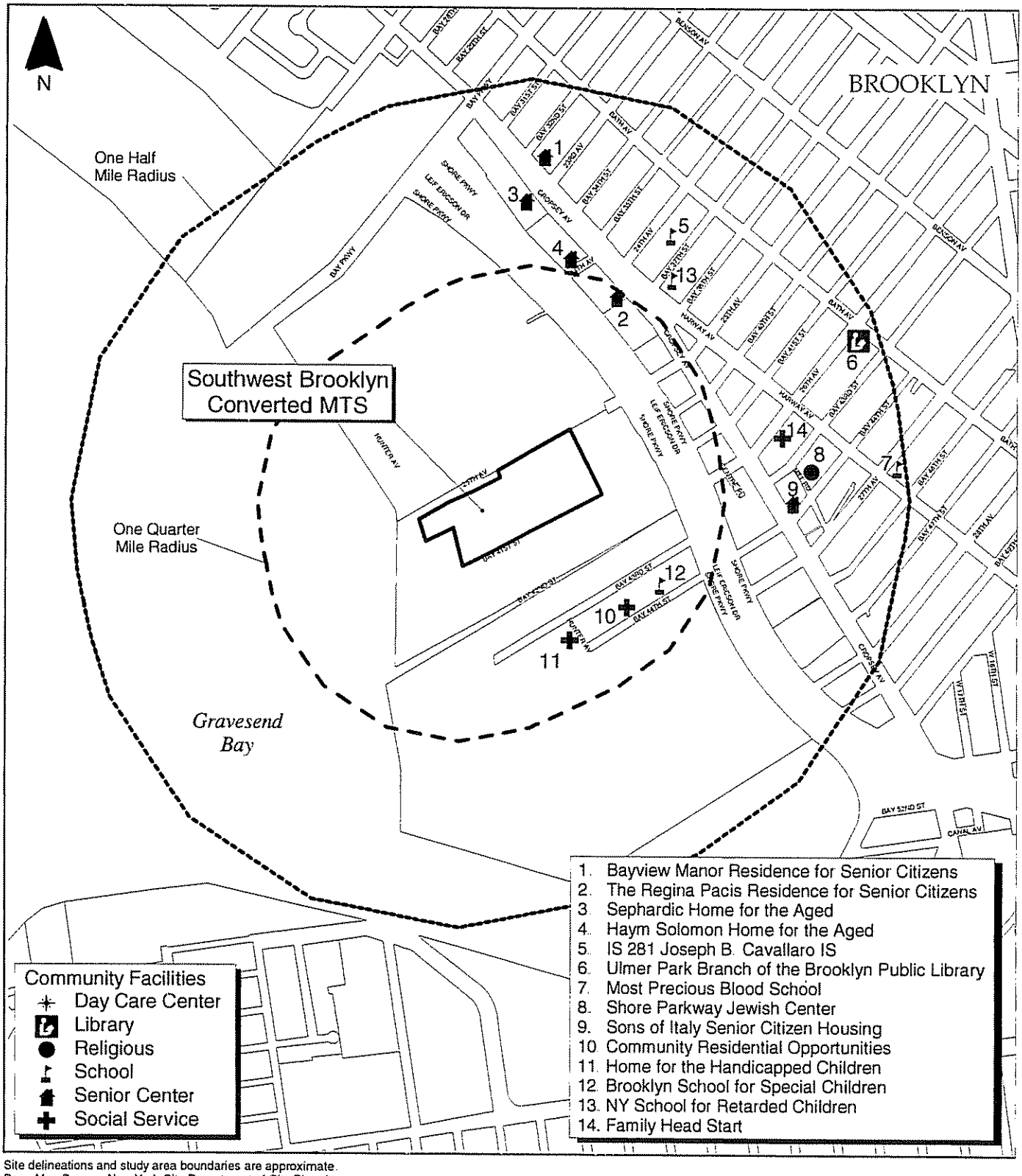
There are no known changes planned for the community facilities and services within the study areas by the Future No-Build year. Therefore, anticipated Future No-Build Conditions are expected to be fundamentally the same as Existing Conditions regarding availability of facilities and services and their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

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Figure 5.4-1 Community Facilities and Services

Southwest Brooklyn Converted MTS

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5.5 Open Space

5.5.1 Existing Conditions

5.5.1.1 Definition of the Study Area

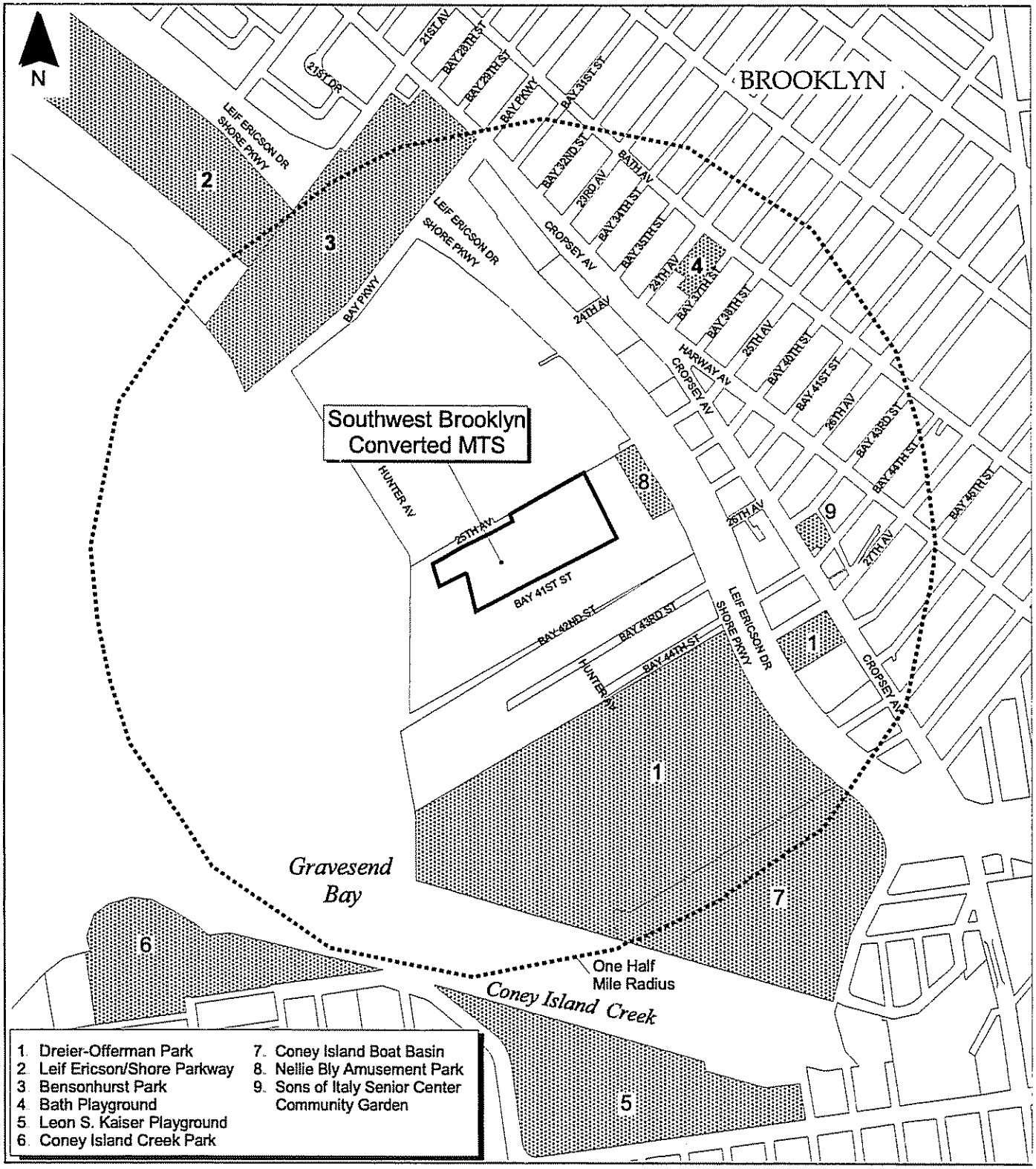
The study area for open space is defined as being the area within a ½-mile radius of the site.

5.5.1.2 Summary of Open Space in the Study Area

There are 10 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 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



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

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Figure 5.5-1 Open Space/Parkland
Southwest Brooklyn Converted MTS

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5.5.2 Future No-Build Conditions

The reconstruction of the Bath Playground and the reconstruction of ball fields 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 Cultural 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 SRHP and NR. The LPC has stated that the site contains no architectural or archeological significance (see Appendix A).

5.7 Urban Design, Visual Resources, and Shadows

5.7.1 Existing Conditions

5.7.1.1 Definition of the Study Area

The urban design and 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 (see 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, and 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 in the process of being demolished, with the two cylindrical incinerator stacks that rise approximately 200 feet to be taken down by September 2004.

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 Resources 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 (see 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 (see 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 (see 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 (see 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 (see 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 and 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

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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

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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

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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, which will be demolished by the time of MTS construction. 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.

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

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

5.8 Neighborhood Character

5.8.1 Existing Conditions

5.8.1.1 Definition of the Study Area

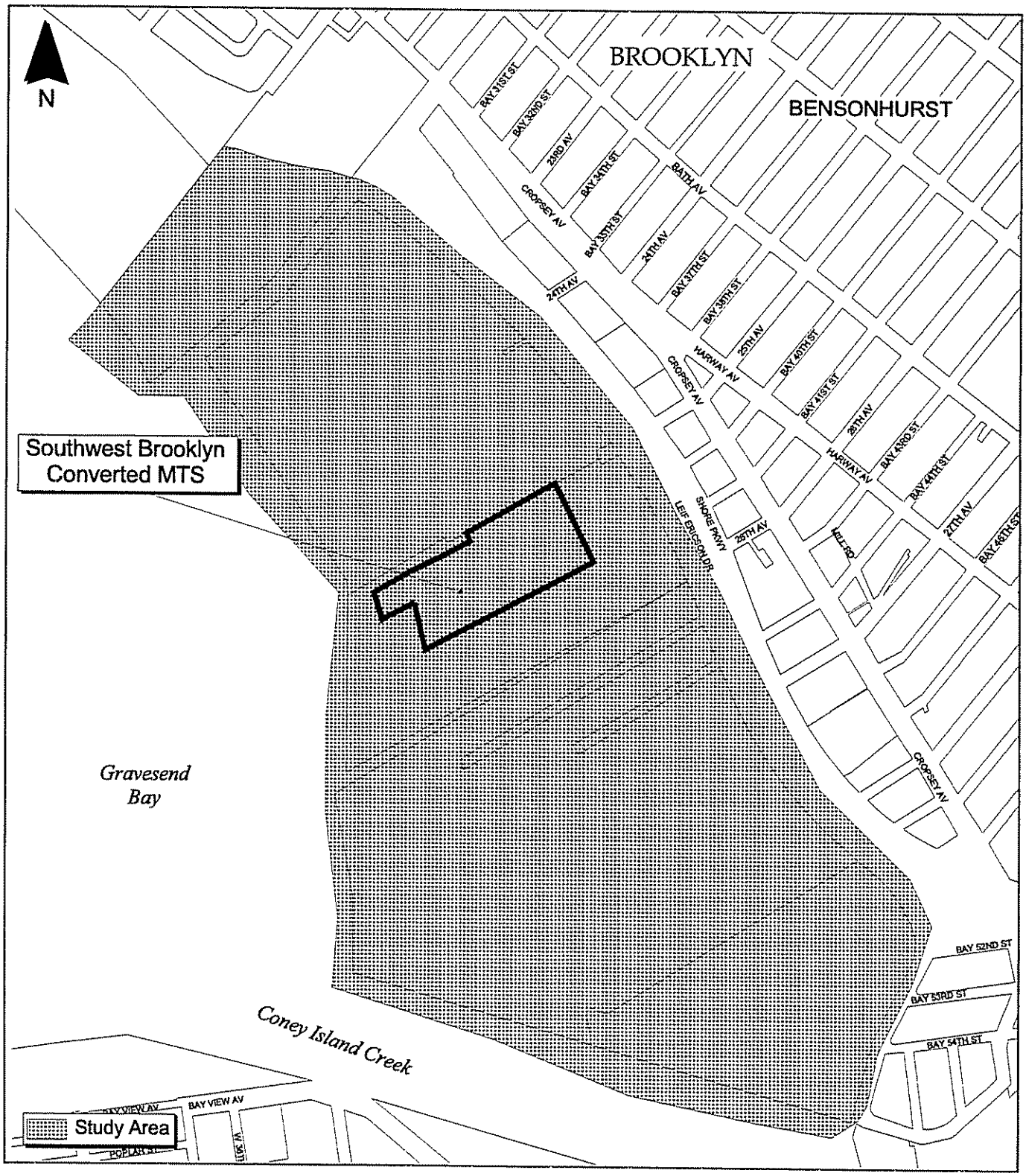
The site is on Gravesend Bay in Bensonhurst, a large mixed-use community in Southwest Brooklyn featuring mostly residential uses and water-related recreational activities. The site and other waterside uses are physically separated from the primary residential area inland by Shore Parkway, a six-lane 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 (see 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

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Figure 5.8-1 Neighborhood Location

Southwest Brooklyn Converted MTS

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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; there is also direct visual connection to the site from these areas.

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 Southwest Brooklyn Converted MTS would differ from Future No-Build Conditions in that it would accept the delivery of waste to the existing MTS, as it had in the past, 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 Natural Resources

5.9.1 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 within the defined study area to identify potential impacts that might arise from the Southwest Brooklyn Converted MTS.

5.9.1.1 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 (see Figure 2.2.2-1). 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 Future Build Conditions would include dredging of bottom sediment and construction of a new MTS, a description of aquatic communities is included.

5.9.1.2 Geology

Boring data from the City Department of Public Works entitled "Record of Borings, Southwest Brooklyn Sanitation Center" (December 5, 1956), indicates that bedrock was not encountered in borings drilled to varying depths up to 100 feet.[3] The uppermost layer (between one to eight feet thick) generally consisted of "uncontrolled fill," and its content varied greatly and included concrete, brick mixed with sand and gravel and deleterious material such as cinders, wood and vegetation. Borings performed within the upland portions of the site indicated a sand stratum underlying this fill material. In borings in the vicinity of the existing MTS, a sand stratum was encountered at the mud line. This stratum typically consists of a loose to medium dense, red brown poorly graded sand, to poorly graded sand with silt. All previous borings terminated in

[3] Geology and Hydrogeology discussions based on "Record of Borings, Southwest Brooklyn Sanitation Center," December 1956, by the New York City Department of Public Works, as cited in the "MTS Conversion Conceptual Design Report," April 2003, by Greeley and Hansen, LLC.

this stratum. Results of the sediment samples collected for analysis in 2003 show that surficial sediment is characterized as light gray to gray sludge consisting of clay and silt with trace amounts of sand, with approximately 92,250 mg/kg TOC.[4] A grain-size analysis of sediment surrounding the MTS indicated the material to be 87.3% silt and clay, 11.1% sand and 1.7% gravel. Sediment was found to be somewhat degraded due to contaminants in the sample material. Lead had the highest concentrations in the sediment (106.33 mg/kg), followed by chromium, barium and arsenic (71.17 mg/kg, 62.42 mg/kg and 20.72 mg/kg, respectively).

5.9.1.3 Floodplains

The site is constructed within the 100-year coastal floodplain (see Figure 5.9-1). No intertidal wetlands exist on the site. Gravesend Bay, which is a NYSDEC-designated littoral zone, is a part of the study area (see Figure 5.9-2).

5.9.1.4 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 took place in 2003. The program included monthly sampling for adult finfish, finfish eggs and larvae and water quality, and quarterly sampling for benthic organisms, sediment quality and sessile colonizing organisms. Results of the program are discussed in the following paragraphs.

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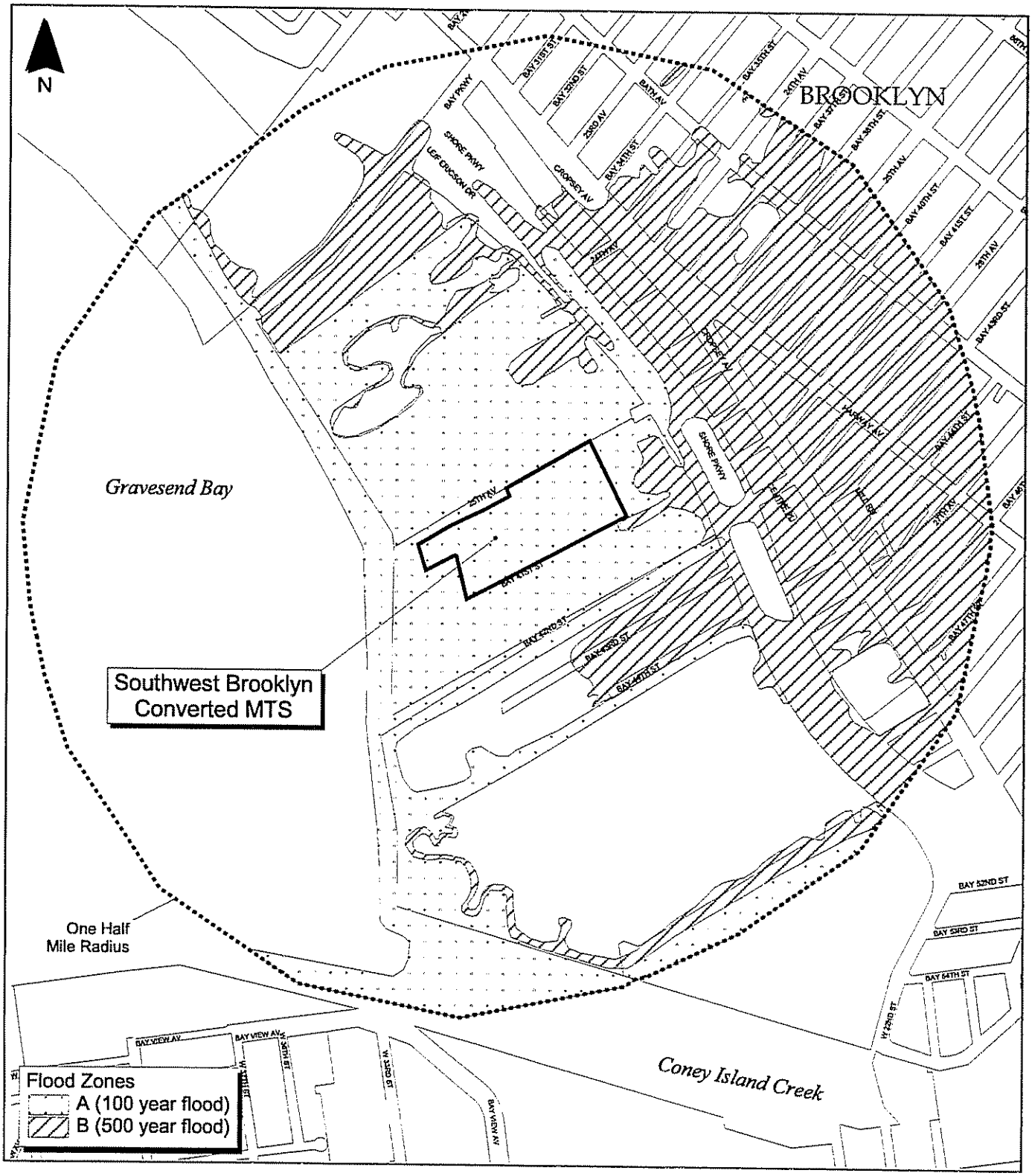
[4] New York City Department of Sanitation, March 2004. Marine Biological Studies of the Marine Transfer Stations Operated by the New York City Department of Sanitation. Prepared by EEA, Inc.



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

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Figure 5.9-1 Floodplains

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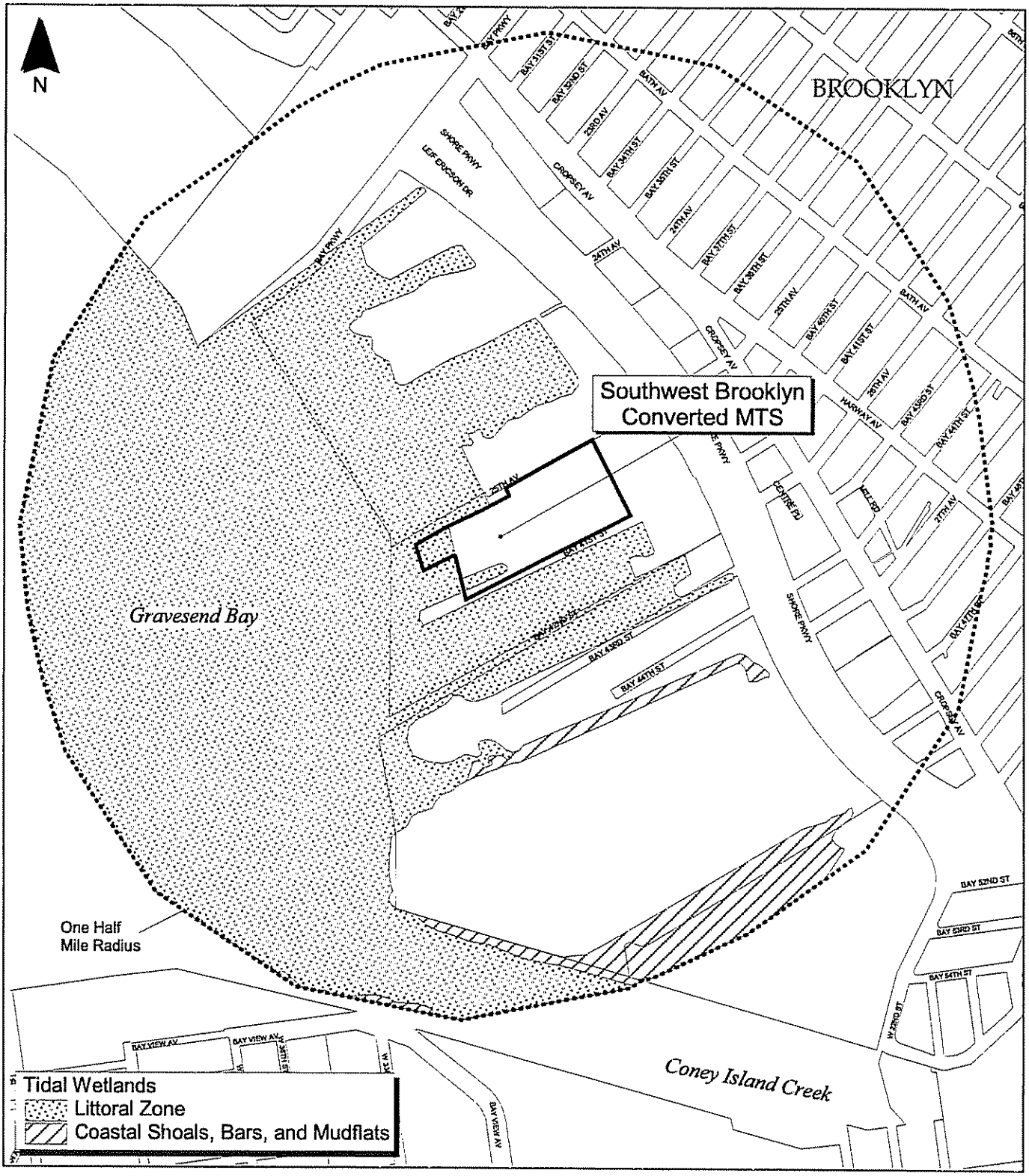

Site delineations and study area boundaries are approximate
Base Map Source: New York City Department of City Planning

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Figure 5.9-2 Wetlands

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The Southwest Brooklyn Converted MTS was one of three MTSs with the greatest biological integrity. It housed a diverse benthic, larval finfish and adult finfish community. It also had the greatest number of EFH-listed adult finfish (8) and larvae (4) and the highest number of *Dyspanopeus sayi* (a mud crab whose presence indicates suitable dissolved oxygen levels in the water column).

A diverse finfish community exists at the Southwest Brooklyn Converted MTS.[5] Of 1,293 adult finfish collected, 69% were bay anchovy (*Anchoa mitchilli*). Weakfish (*Cynoscion regalis*) and scup (*Stenotomus chrysops*) were also abundant at this site. The Southwest Brooklyn Converted MTS site housed the greatest number of EFH species (8). The species collected were: scup (*S. chrysops*), windowpane (*Scophthalmus aquosus*), summer flounder (*Paralichthys dentatus*), Atlantic herring (*Clupea harengus*), winter flounder (*Pleuronectes americanus*), Atlantic butterfish (*Peprilus triacanthus*), bluefish (*Pomatomus saltatrix*) and black sea bass (*Centropristis striata*). The larvae of four EFH-listed species were also found at the Southwest Brooklyn Converted MTS: winter flounder, windowpane, scup and Atlantic butterfish; eggs of windowpane were also collected. Some of the highest finfish egg and larval densities and the greatest larval species richness were found at the Southwest Brooklyn Converted MTS. A Shannon-Weaver Index[6] indicates this MTS to have the greatest finfish egg and larval species diversity and a Jaccard's Index[7] indicates that the finfish eggs and larvae were most dissimilar at the Southwest Brooklyn Converted MTS in comparison to the other MTSs sampled.

The Southwest Brooklyn Converted MTS had one of the greatest species richnesses in the benthic communities. The dominant benthic organism collected from the sediment surrounding the Southwest Brooklyn Converted MTS was *Streblispio benedicti*, a polychaete worm. There were approximately 13,500 *S. benedicti* per square meter of sediment. This species, however, is tolerant of polluted environments. Dominant epibenthic colonizers were *Polydora* sp. (polychaete worms), *Crepidula fornicata* (common Atlantic slippersnail), *Nereis succinea* (yellow-jawed clam worm), *Mytilus edulis* (blue mussel), and hydrozoa, mud, and algal film. Many of these species also are tolerant of degraded environmental conditions.

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[5] Ibid.

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

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

The peregrine falcon (*Falco peregrinus)*, a federally listed endangered species, was not listed as present for this site in the recent response from the USF&WS.

5.9.2 Future No-Build Conditions

If the Southwest Brooklyn Converted MTS were not to be constructed, the study area would remain as is, except that the incinerator would be demolished and removed from the site. The site would remain DSNY property and the existing MTS would remain. The limited aquatic and terrestrial natural resources would also remain and the study area would continue to be a moderately ecologically productive area in a stressed urban area.

5.9.3 Potential Impacts with the Southwest Brooklyn Converted MTS

The Southwest Brooklyn Converted MTS would be built at about the same location as the incinerator, which will have already been demolished and removed. The above-water platform for this facility will remain in place. Barges would be located along the dock on the southwest side of the study area. Since this facility will not require the removal of the old platform and construction of a new one, the impacts from suspended sediment, as a result of construction, will be minimal. There will, however, be construction of a king pile wall, a barrier to protect neighboring marina from wave action. Water depth in this area is approximately eight to ten feet, so dredging would be necessary to accept the retrofitted DSNY barges that would be used to transport the containerized waste. Dredging and construction of a king pile wall, however, will cause the upper organic silts to be disturbed to some degree, resulting in re-suspension of the sediments. Because of the swift currents in the area, mitigation measures, such as silt curtains, would not be feasible. However, the amount of re-suspended sediments is expected to be low and the impacts, if any, highly localized. Turbidity and short-term, lowered, dissolved oxygen are possible, but not measurable, against the normal background fluctuations.

5.9.3.1 Geology

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

5.9.3.2 *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 would not include any provisions for raising any portions of the site over this level.

5.9.3.3 *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.

Construction of the Southwest Brooklyn Converted MTS would involve dredging to accommodate the deeper draft of the coastal barges and construction of a king pile wall, resulting in an immediate, short-term destruction of the benthic invertebrates in the area. Because the benthic diversity is high and dredging and construction causes turbidity and siltation that could smother the benthic organisms, there is expected to be a short-term degree of impact. However, because there is no platform construction slated, the impact should be minimal and recolonization of the area by benthic invertebrates can be expected to occur within 6 to 12 months after cessation of dredging activities.[8] 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 plan to use the existing platform will prove beneficial to epibenthic organisms. Because the platform will remain, an already established, complex epibenthic community will remain in existence. This community will also colonize the new king pile wall.

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

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

Operational impacts will last the entire lifespan of the facility. The major impact is the footprint of the pier over water. The Southwest Brooklyn Converted MTS, however, does not have a proposed change in platform footprint. Therefore, there will be no impact as a result of increased shading of the water column at this MTS.

The existing MTS had operated as a solid waste transfer station for 35 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.

5.10 Hazardous Materials

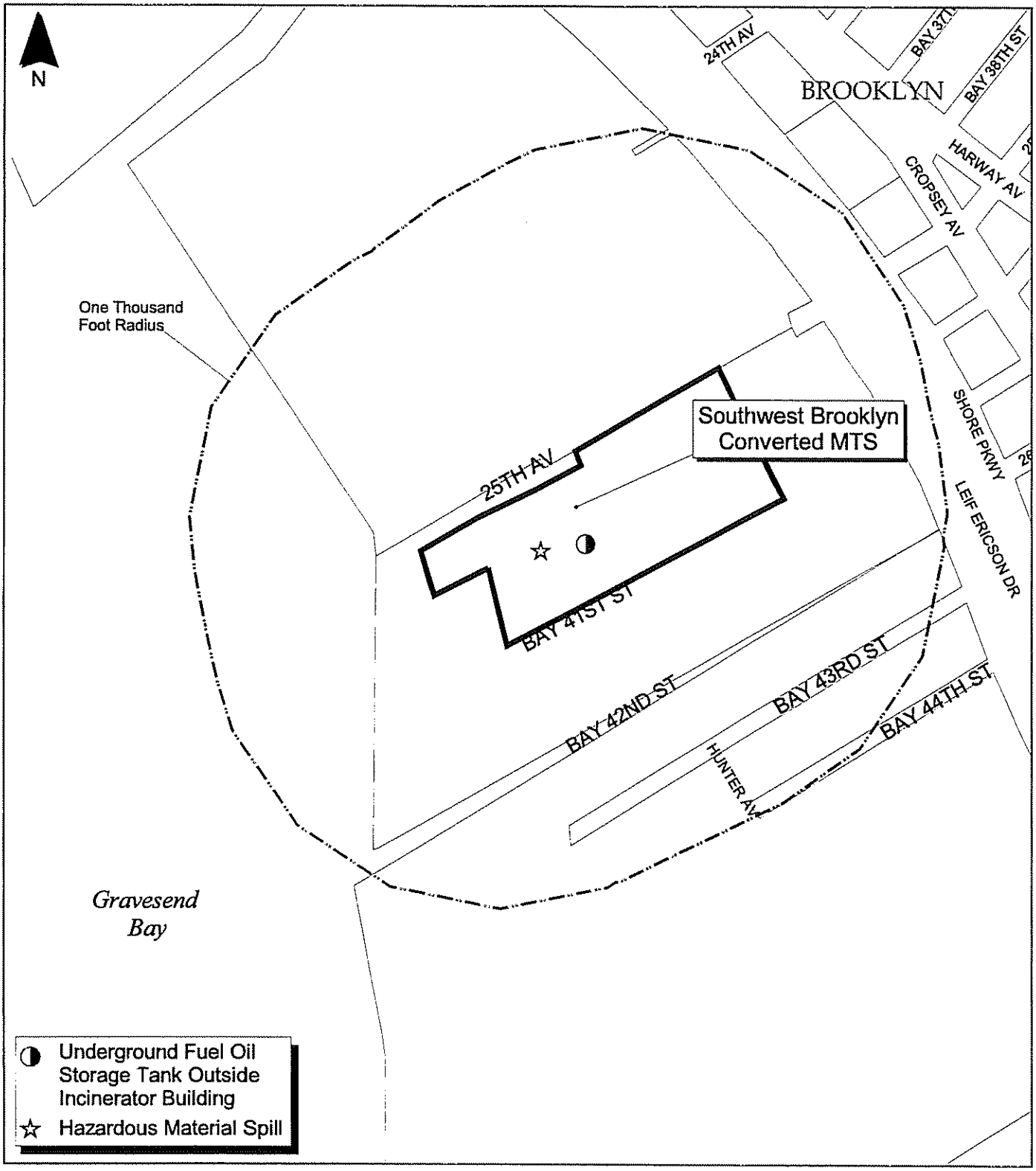
5.10.1 Existing Conditions

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

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

5.10.1.1 Definition of Study Area

The study area includes the site and neighboring properties within a 1,000-foot radius (see Figure 5.10-1).



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

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Figure 5.10-1 Hazardous Materials Sites
Southwest Brooklyn Converted MTS

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5.10.1.2 Delineation of Area of Concern

Areas of concern are defined as parts of the soil, groundwater and building components/equipment within the study area where the presence or likely presence of hazardous materials exists and implementation of the 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 USTs (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 USTs (#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 DSNY 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 USTs 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.

A field program to investigate the potential impacts to the soil and groundwater from the historic use of the property as an incinerator and MTS was completed in November 2003 in accordance with a NYSDEC-approved work plan.[9] The field investigation included:

- Performing a ground-penetrating radar and magnetometer survey over accessible areas of the site.
- Collection of one subsurface soil sample from 14 boring locations.
- Collection of one surface soil sample from four boring locations.
- Collection of one soil/ash sample for TCLP analysis.
- Collection of one groundwater sample from three boring locations.
- Collection of one groundwater sample from three permanent monitoring wells.
- Laboratory analysis of all soil samples for asbestos, VOCs, SVOCs, pesticides/PCBs, and RCRA metals.
- Laboratory analysis of all water samples for VOCs, SVOCs, pesticides/PCBs and RCRA metals.
- Determination of the direction of groundwater flow by land survey and measurement to the top of the groundwater surface.
- Comparison of the analytical results obtained from the soil and groundwater sampling program with the NYSDEC technical and TAGM guidelines.
- Preparation and submittal of a detailed site investigation report.[10]

Low-level soil and groundwater contamination was discovered during this investigation and is consistent with the historic construction and use of this facility as an incinerator and MTS.

5.10.2 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 USTs; however, DSNY has plans to close all USTs in accordance with New York State regulations (6 NYCRR 613.9).

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[9] New York City Department of Sanitation, October 2003. Final Phase II Site Investigation Work Plan, Southwest Brooklyn Marine Transfer Station, Brooklyn, New York.

[10] New York City Department of Sanitation, June 2004. Phase II Site Investigation, Southwest Brooklyn Marine Transfer Station, Brooklyn, New York. Prepared by EEA, Inc.

5.10.3 Potential Impacts with the Southwest Brooklyn Converted MTS

Historical low-level soil and groundwater contamination is 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 discovered would require appropriate disposal according to current regulatory guidelines 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.

5.11 Water Quality

5.11.1 Existing Conditions

5.11.1.1 Definition of the Study Area

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

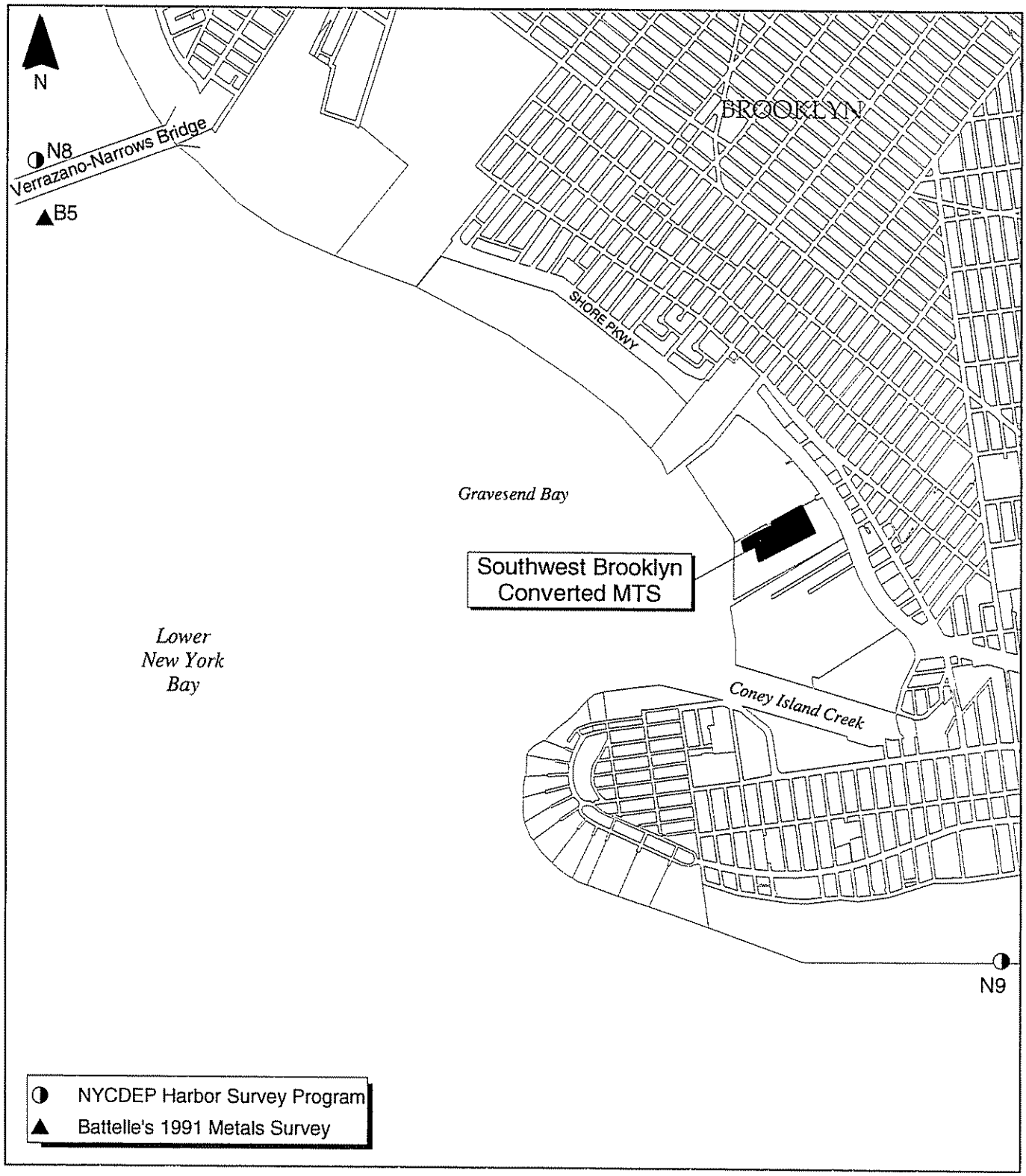
5.11.1.2 Water Quality

The water quality data for the following monitoring stations, shown in Figure 5.11-1, 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 5.11-1. The standards and guidance values for the waters in the vicinity of the site correspond to "Class I," which indicates waters suitable for secondary contact recreation (i.e., fishing and boating).

As shown in Table 5.11-1, 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

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Figure 5.11-1 Ambient Water Quality Stations
Southwest Brooklyn Converted MTS

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Table 5.11-1
Existing Water Quality Conditions and Standards
Southwest Brooklyn Converted MTS Study Area

Average Concentration					
Parameter	**Units**	**N-8[1]**	**N-9[2]**	**B-5[3]**	**NYS Class I Standards**
Dissolved Oxygen (surface/minimum)	mg/L	8.4[4]/5.6[5]	8.1[6]/ 6.1[5]	--------	4.0
Dissolved Oxygen (bottom/minimum)	mg/L	7.4 [4]/5.2[5]	7.9 [6]/6.0[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	17.9	6.6	--------	2,000
Fecal Coliform (bottom)	MF	2[9]	8[9]	--------	2,000
Total Suspended Solids (surface)	mg/L	6.2	6.9	--------	--------
Total Suspended Solids (bottom)	mg/L	13.3	10.7	--------	--------
NH_3-N	mg/L	0.319	0.169	--------	--------
(NO_3 + NO_2)	mg/L	0.346	0.138	--------	--------
Total Phosphorous	mg/L	0.120	0.092	--------	--------
Dissolved PO_4	mg/L	--------	--------	--------	--------
Chlorophyll-a	µg/L	4.1	3.7	--------	--------
Arsenic	µg/L	--------	--------	1.4 [10]	36 [10,11]
Cadmium	µg/L	--------	--------	0.059 [10]	7.7 [10,11]
Chromium	µg/L	--------	--------	--------	--------
Copper	µg/L	--------	--------	2.00 [12]	5.6 [11,12]
Lead	µg/L	--------	--------	1.23 [10]	8.0[10,11]
Mercury	µg/L	--------	--------	0.015 [10]	0.0026 [10,11]
Nickel	µg/L	--------	--------	0.86 [10]	8.2 [10,11]
Silver	µg/L	--------	--------	0.0596 [10]	------
Zinc	µg/L	--------	--------	4.32 [10]	66 [10,11]
Cyanide	µg/L	--------	--------	------	1.0 [11]

Notes for Table 5.11-1:

(1) Average concentrations for 2003 NYCDEP Harbor Survey Station N-8 located at the Verrazano Narrows.
(2) Average concentrations for 2003 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 October 2003.
(5) Minimum between June 1, 2003 and September 30, 2003.
(6) Represents average between January and December 2003.
(7) Latest available data 1997.
(8) Latest available data 1996.
(9) Latest available data 1999.
(10) Guidance values and data are for dissolved metals.
(11) NYSDEC Guidance Value (NYSDEC TOGS 1.1.1, June 1998, errata sheet January 1999 and addendum April 2000).
(12) Site-specific chronic and acute criteria for dissolved copper in New York/New Jersey Harbor.

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

5.11.1.3 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 listed in Table 5.11-2 and shown in Figure 5.11-2. 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 5.11-2
Existing Permitted Discharges
Southwest Brooklyn Converted MTS Study Area

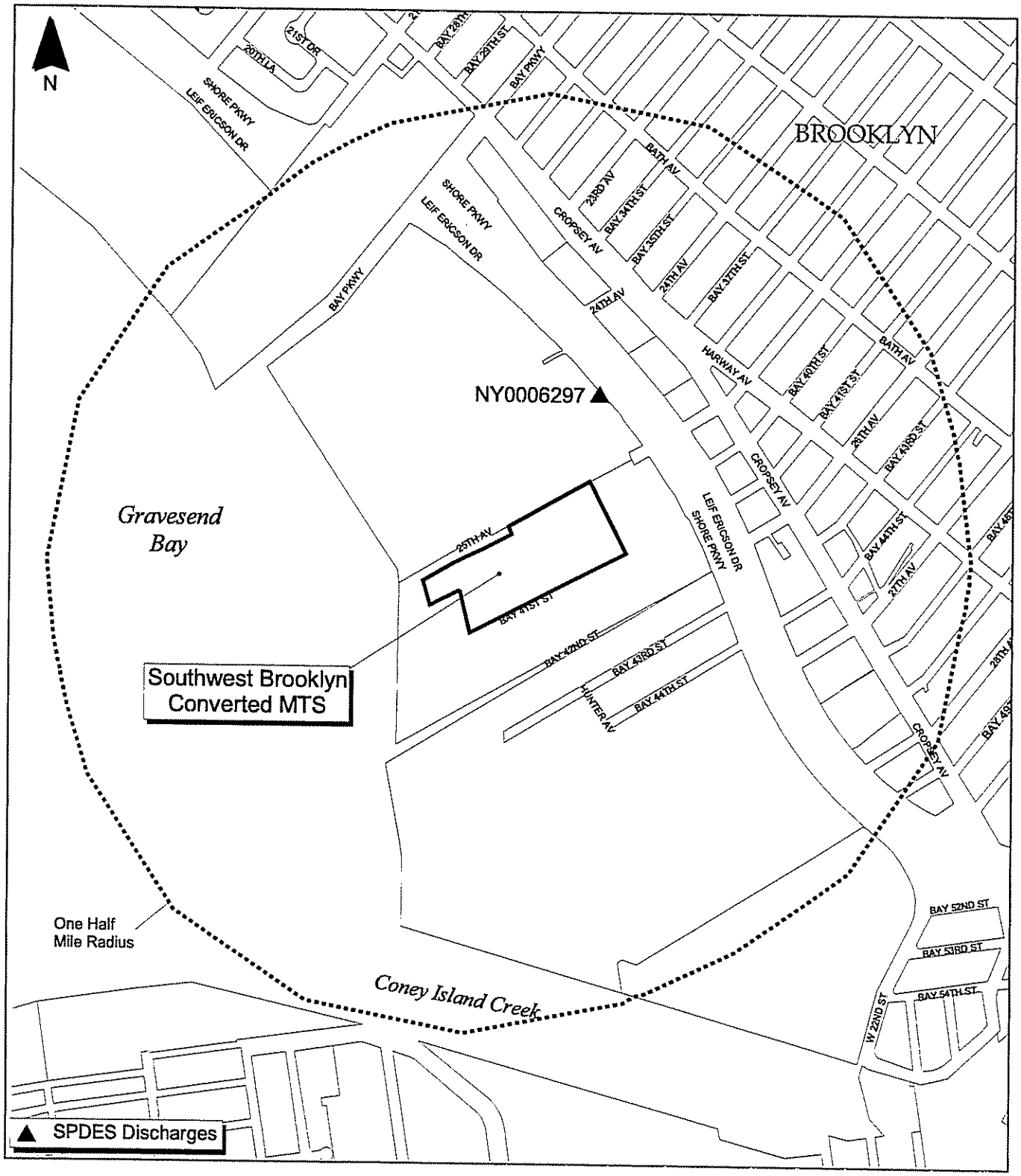
Point Sources			
Company Name	**Permit Number**	**County**	**Receiving Water Body**
Bayside Fuel Oil Depot Corp.	NY0006297	Kings	Gravesend Bay

5.11.1.4 Existing Pollutant Loads and Stormwater Runoff

Using available databases on stormwater pollutant concentrations and local precipitation data, an estimate of existing stormwater pollutant loadings was calculated. The existing paved areas were assumed to be completely impervious, and the existing unpaved areas were assumed to have 100% 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 5.11-3, represent the existing loads at the site.

5.11.2 Future No-Build Conditions

Water quality would be expected to remain the same or improve. Water quality improvements would be due to the 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 site 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

HDR URBITRAN EEA Hydroqual DD

Figure 5.11-2 Permitted Outfalls and CSO Locations Southwest Brooklyn Converted MTS

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Table 5.11-3
Estimated Existing Pollutant Loads and Runoff Flows
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 Intensity per Storm (inch/hour) = 0.06[2]		Runoff Flow (cfs) = 0.341

Notes:
[1] Coliform loads are not shown in lbs/day. Loading comparable to MPN/100 ml.
[2] Based on Central Park Rain Data (1969-2002); The National Climatic Data Center

5.11.3 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 5.11-4 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 5.11-4
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

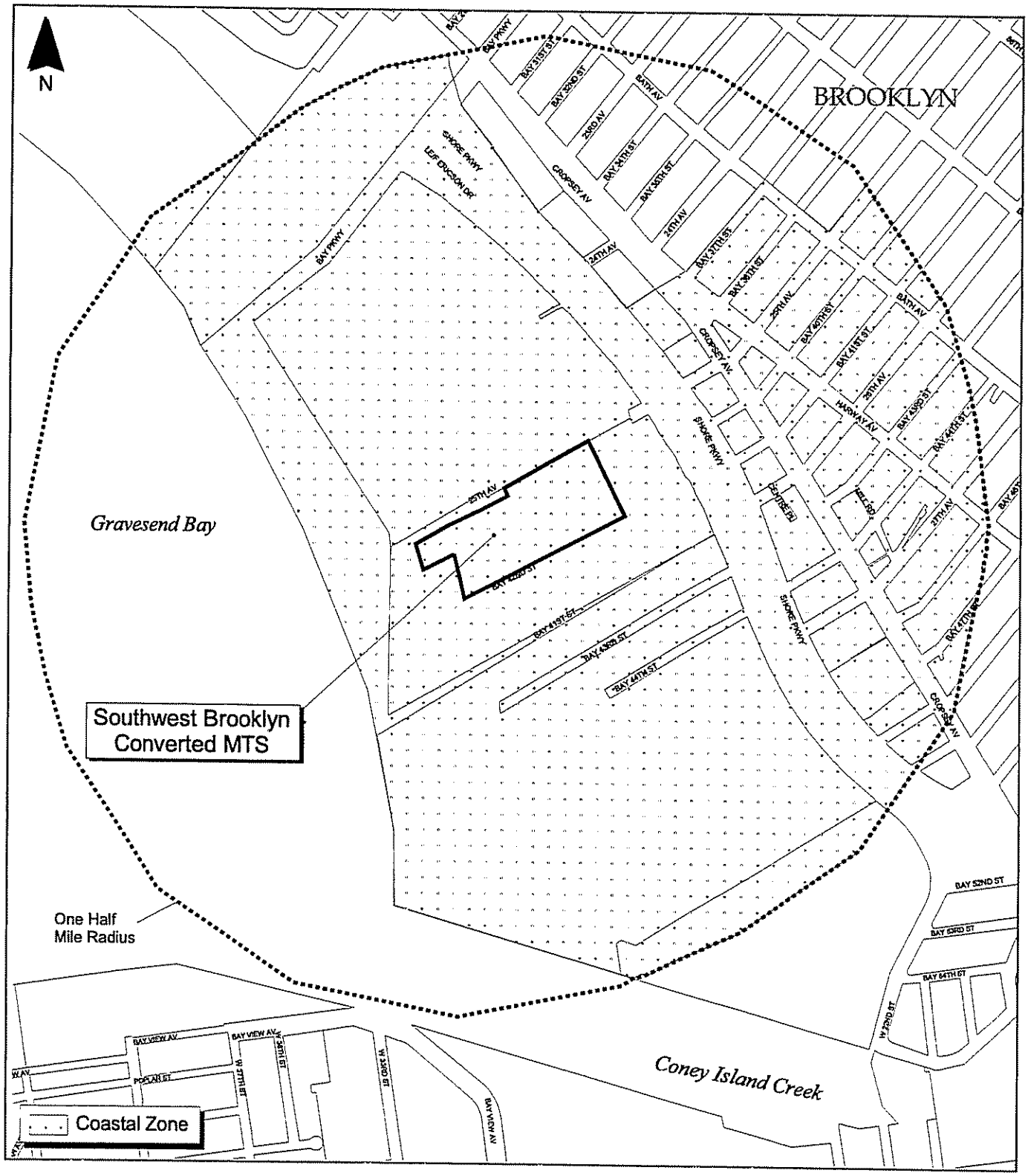
Notes:
[1] Incremental change refers to the difference in pollutant loading between the Existing Conditions and the Future Build Conditions.
[2] Coliform loads are not shown in lbs/day. Loading comparable to MPN/100 ml.
NA = Not Applicable

5.12 Waterfront Revitalization Program

5.12.1 Introduction

The Federal Coastal Zone Management Act of 1972 established coastal zone management programs to preserve, protect, develop and restore the coastal zone of the U.S. Due to its proximity to the waterfront of Gravesend Bay, the Southwest Brooklyn Converted MTS would be within the City's coastal zone boundary (see Figure 5.12-1). 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 an NYCDCP-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, 8.5 and 10.2. All policies and subpolicies, including those identified as not applicable, are listed in Table 3.14.1. 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 2.2.2.



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

500 0 500 Feet

HDR HydroQual URBITRAN PB PB28 EEA Cambridge Environmental Inc

Figure 5.12-1 Coastal Zone Boundary

Southwest Brooklyn Converted MTS

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5.12.2 Consistency Assessment

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

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

A review of available information indicates that there are sufficient public services and facilities to support the 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.

2.2 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 an NYCDCP-designated SMIA. The existing MTS would remain in its current configuration for potential future use by DSNY. Development of the Southwest Brooklyn Converted MTS would involve its construction within the upland portion of the site that is currently occupied by a former incinerator, which is in the process of being demolished. This incinerator previously had the ability to transport ash by barge from the site. The Southwest Brooklyn Converted MTS would involve the development of an upland 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 2.2.2, 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~~new fendering system and new ~~breakwater groin~~king pile wall. 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 involve the redevelopment of the former incinerator site with a new waterfront use that would expand the previous waterfront activities at the site, which are currently inactive 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 former incinerator, which is in the process of being demolished. 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~~ new fendering system and ~~breakwater groin~~king pile wall. In

addition, an 18-inch concrete stormwater outfall would be constructed within the bulkhead. It is likely the construction of the king pile wall, fendering system and new outfall would be done from a crane-mounted work barge. The stormwater outfall would drain stormwater runoff from the facility into the Gravesend Bay. Some of the stormwater would also drain to ~~tan~~ existing 8-foot by 8-foot storm outfall, located north of the site. Prior to discharging to these outfalls, the stormwater runoff would pass through a stormwater treatment 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. ~~Four or five~~Two 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 onto flat deck 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.

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

Based upon a review of SNWAs, as described in "The Waterfront Revitalization Program," as well as Recognized Ecological Complexes and SCFWH information, the Southwest Brooklyn Converted MTS is not within a designated area. The Southwest Brooklyn Converted MTS would involve the redevelopment of the former incinerator site, which is in the process of being taken down, with a new waterfront use that would expand the previous waterfront activities at the site. It 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 5.9.1, 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 former incinerator, which is in the process of being demolished. Required dredging associated with construction activities would result in limited, short-term ~~impact~~ effects to these tidal wetlands.

Construction of a 300-foot ~~breakwater groin~~king pile wall within Gravesend Bay would be needed to protect existing waterfront facilities located southeast of the site. The ~~breakwater~~ king pile wall would consist of the placement of steel sheet piling and rip rap.

Dredging activities associated with the development of the Southwest Brooklyn Converted MTS are not anticipated to have significant ~~impacts~~ effects on wetland areas in the vicinity of the site, primarily due to previous activities and dredging that historically occurred at the site. ~~Mitigation for potential~~Potential ~~impacts~~ effects upon wetlands would be ~~proposed~~ addressed 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.~~ DSNY in coordination with the NYSDEC and other involved agencies would determine the appropriate measure to address potential effects 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 NYSDEC NHP database 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 former incinerator, which is in the process of being demolished. Development of a new king pile wall and the replacement of the existing fendering system would be required. Dredging would also be required to accommodate ~~larger~~ barges and tugboats once the site is operational. As stated in Section 5.9.3, 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. A new stormwater outfall would be constructed in the bulkhead to manage stormwater runoff from the proposed action. In addition, some of the stormwater runoff from the Southwest Brooklyn Converted MTS would discharge to an existing 8-foot by 8-foot outfall located north of the site. The runoff to both of these outfalls would pass through a stormwater treatment system. Stormwater 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 activities associated with the Southwest Brooklyn Converted MTS would be conducted within an enclosed processing building. Only sealed, air- and watertight 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 eliminate 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.*

A 300 foot long king pile wall would be placed within Gravesend Bay, perpendicular to the southeastern corner of the existing bulkhead. Construction of the king pile wall would consist of the placement of steel sheet piling and rip rap. The king pile wall would serve to protect existing Marine structures, including a marina and a concrete seawall, located south and southeast of the site. The king pile wall would provide stability to the seawall during construction and dredging and will protect the seawall against wave action and tugboat prop-wash during facility operations. Development of this king pile wall would result in temporary impacts to water quality, which would be short-term and highly localized. It is likely that all construction activities associated with the king pile wall would occur from crane-mounted barges.

In addition, as part of the Southwest Brooklyn Converted MTS, dredging would be necessary to provide sufficient water depths for unimpeded operations. Dredging would be conducted with the use of an environmental bucket, which is an overlapping, sealed clamshell style bucket that prevents sediments from entering the waterway. 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 upland 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. A new stormwater outfall would be constructed within the existing bulkhead. In addition, stormwater runoff from the Southwest Brooklyn Converted MTS would also discharge to an existing

stormwater outfall located north of the site. Prior to being discharged to Gravesend Bay, stormwater would travel through a stormwater treatment system. Stormwater 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.

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

~~A 300-foot breakwater groin would be placed within Gravesend Bay, perpendicular to the southeastern corner of the existing bulkhead. Construction of the breakwater would consist of the placement of steel sheet piling and rip rap. The breakwater would serve to protect existing waterfront facilities located south of the site. Development of this breakwater would result in temporary impacts to water quality, which be short-term and highly localized.~~

~~In addition, as part of the Southwest Brooklyn Converted MTS, dredging would be necessary to provide sufficient water depths for unimpeded operations. 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 upland 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. Stormwater 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 a former incinerator, which is currently being demolished. 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. In addition, the proposed action would involve the construction of a 300-foot ~~breakwater groin~~ king pile wall that would be placed perpendicular to the existing bulkhead. The breakwater is intended to allow for dredging activities to take place, while protecting a rip-rap bulkhead on the adjacent property that is constructed of loose concrete blocks. Construction of the king pile wall would be done from crane-mounted barges. To the extent practicable, non-structural and, if necessary, structural, measures would be used to minimize damage from flooding and erosion during construction of the proposed facility. 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 watertight 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.

Soil and groundwater contamination is present at the existing site and is discussed in further detail in Section 5.10.3. Existing contamination would be addressed as part of the proposed development of the site, if required. This contamination

would not be expected to prevent the proposed development of the Southwest Brooklyn Converted MTS. Removal and disposal of contaminated materials, if required, would be done in accordance with applicable regulatory guidelines. In addition, as appropriate, health and safety measures would be used to mitigate and minimize any exposure risk to worker or the general public. Also 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 Subpolicies 7.1 and 7.2.

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 the Southwest Brooklyn Converted MTS would involve the redevelopment of the site of a former incinerator and the restoration of the waterfront uses at the site, 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 former incinerator, which is currently being demolished. 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 500 feet to the east of the site; Bensonhurst Park, located approximately 2,000 feet north of the site; and 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 involve the development of a new facility at the site of a former incinerator, and the restoration and expansion of waterfront use at the site. It would be compatible with the existing urban design context and visual conditions of this portion of the 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. The ongoing removal of the incinerator 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, the Southwest Brooklyn Converted MTS is consistent with this subpolicy.

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

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

The 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.

5.13 Infrastructure, Solid Waste and Sanitation Services, and Energy

5.13.1 Existing Conditions

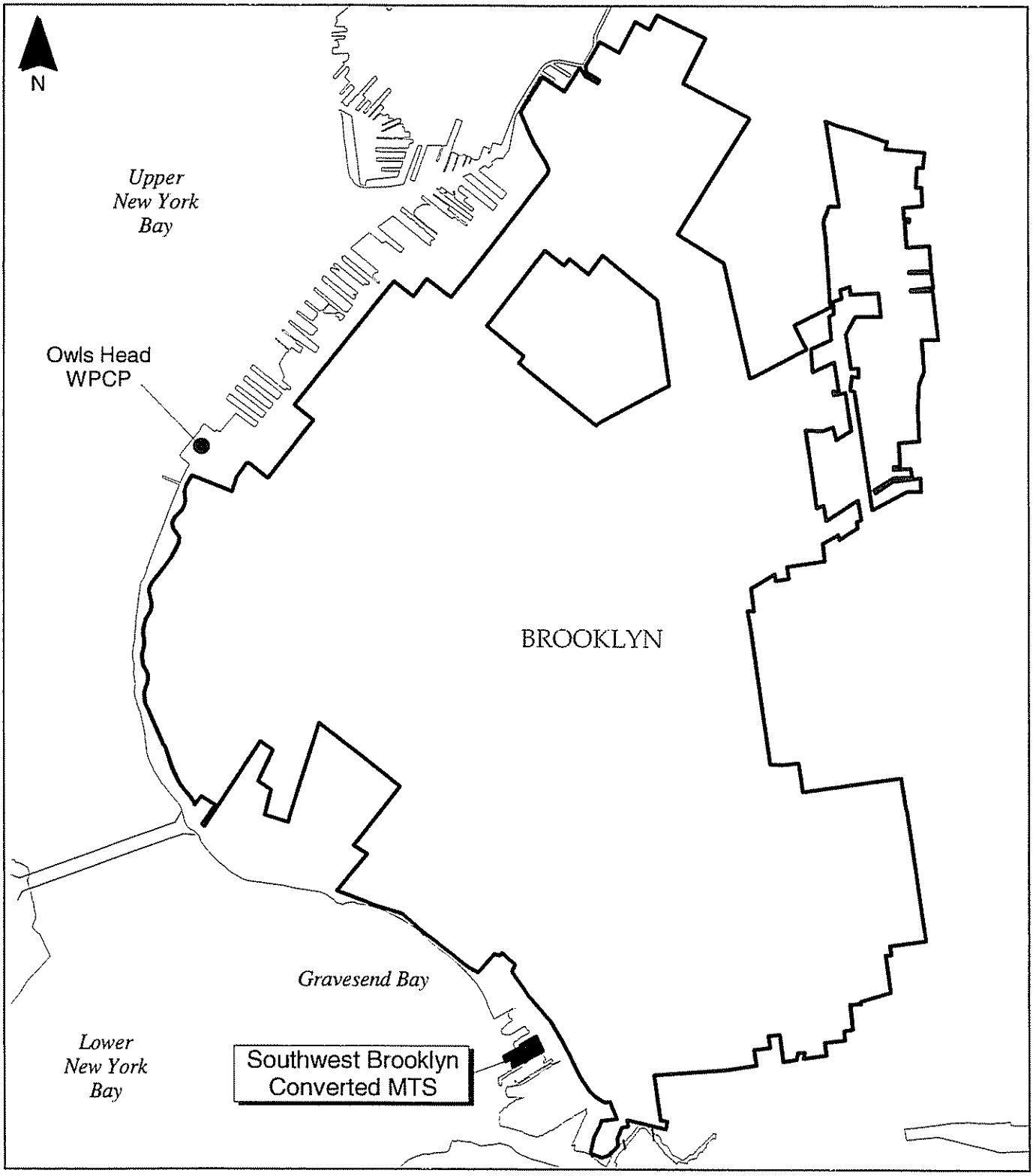
5.13.1.1 Water Supply

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

5.13.1.2 Sanitary Sewage and Stormwater

A review of NYCDEP 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 2002 through June 2003, the WPCP treated an average of 95 mgd of wastewater under dry weather flow conditions and an average flow of 104 mgd, which includes the sanitary and stormwater flows received by the WPCP during wet weather (Table 5.13-1). The maximum dry weather flow during this period was 99 mgd in October 2002 and the maximum average flow was 114 mgd during June 2003. Effluent from the plant is discharged to the Upper New York Bay and is regulated by NYSDEC under the 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 gpd. This estimate is based on three security employees (one guard per shift, three shifts per day) using 25 gallons per person per day (2001 CEQR Technical Manual). As the facility is not currently accepting waste, no additional potable water is used 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. Stormwater 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

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Table 5.13-1
Average Monthly Dry Weather and Average Flows
Owls Head Water Pollution Control Plant
Fiscal Year 2003

Month	Dry Weather Flow (mgd)	Average Monthly Flow[1] (mgd)
July 2002	90	93
August	94	99
September	97	107
October	99	113
November	96	111
December	96	104
January 2003	93	99
February	91	101
March	94	103
April	95	105
May	94	102
June	98	114
Average Effluent	**95**	**104**

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

5.13.1.3 Solid Waste

Based on solid waste generation information from the 2001 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 DSNY 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. Wastewater flows to the Owls Head WPCP would continue to increase and would be projected to be 104.6 mgd by 2006.

5.13.3 Potential 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 1,800 gpd for truck and tipping floor washdown and dust control. The combined total usage of 3,300 gpd of potable water would represent an increase of 3,225 gpd above current consumption levels.

The 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 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 3,300 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 projected wastewater flows at the WPCP would be anticipated to be approximately

104.6 mgd in 2006, which would be well below the permitted capacity of 120 mgd. In addition, the new wastewater flows due to the proposed action would not result in a significant increase in combined sewer overflows (CSO).

5.13.3.3 Solid Waste

Solid waste transfer station facility use is not cited under the solid waste generation rates provided in the 2001 CEQR Technical Manual, so rates for a commercial office building (1.3 lbs/day per employee) were used as a basis for a conservative estimate of waste generation. For an estimated 60 facility employees 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.

5.13.3.4 Energy

The Southwest Brooklyn Converted MTS would require approximately 5.51E+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.

Keyspan has been notified of the natural gas requirements of the Southwest Brooklyn Converted MTS and has stated that the facility could be supplied with natural gas with no adverse impacts on the utility.

5.14 Traffic, Parking, Transit, and Pedestrians

5.14.1 Introduction

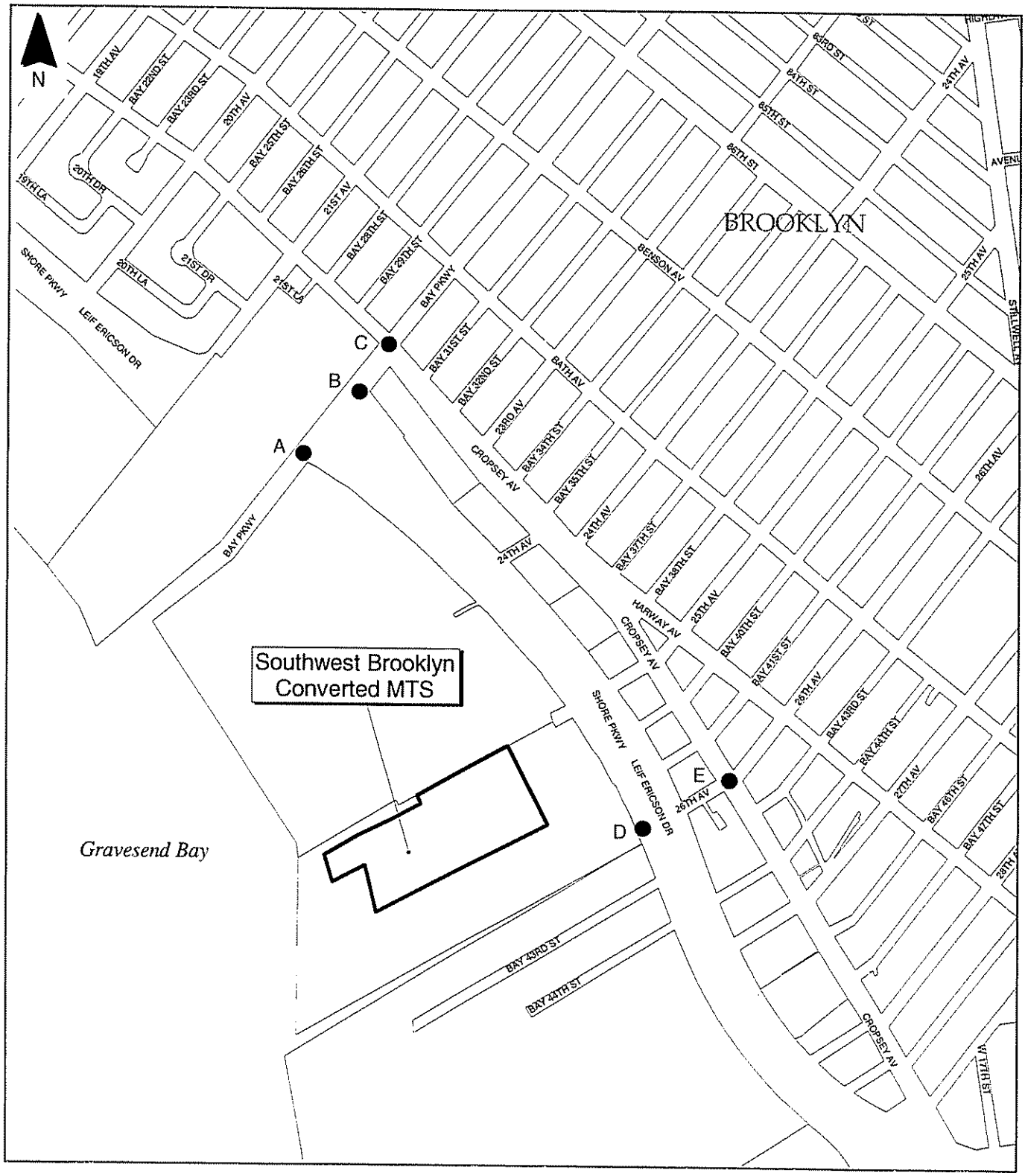
The Southwest Brooklyn Converted MTS would receive waste from DSNY and other agency collection vehicles. Therefore, pursuant to CEQR guidelines, a traffic analysis was performed on the projected net increase in collection vehicles in the study area (which is defined below) and on other site-generated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

5.14.2 Existing Conditions

5.14.2.1 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 5.14-1 shows the locations of the intersections selected for analysis (locations A through E). Intersections analyzed were selected using the procedures defined in Section 3.16.

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. Section 5.14.2.2 further discusses the specific routes used by DSNY and other agency collection vehicles to access the Southwest Brooklyn Converted MTS.



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

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Figure 5.14-1 Traffic Analysis Study Area
Southwest Brooklyn Converted MTS

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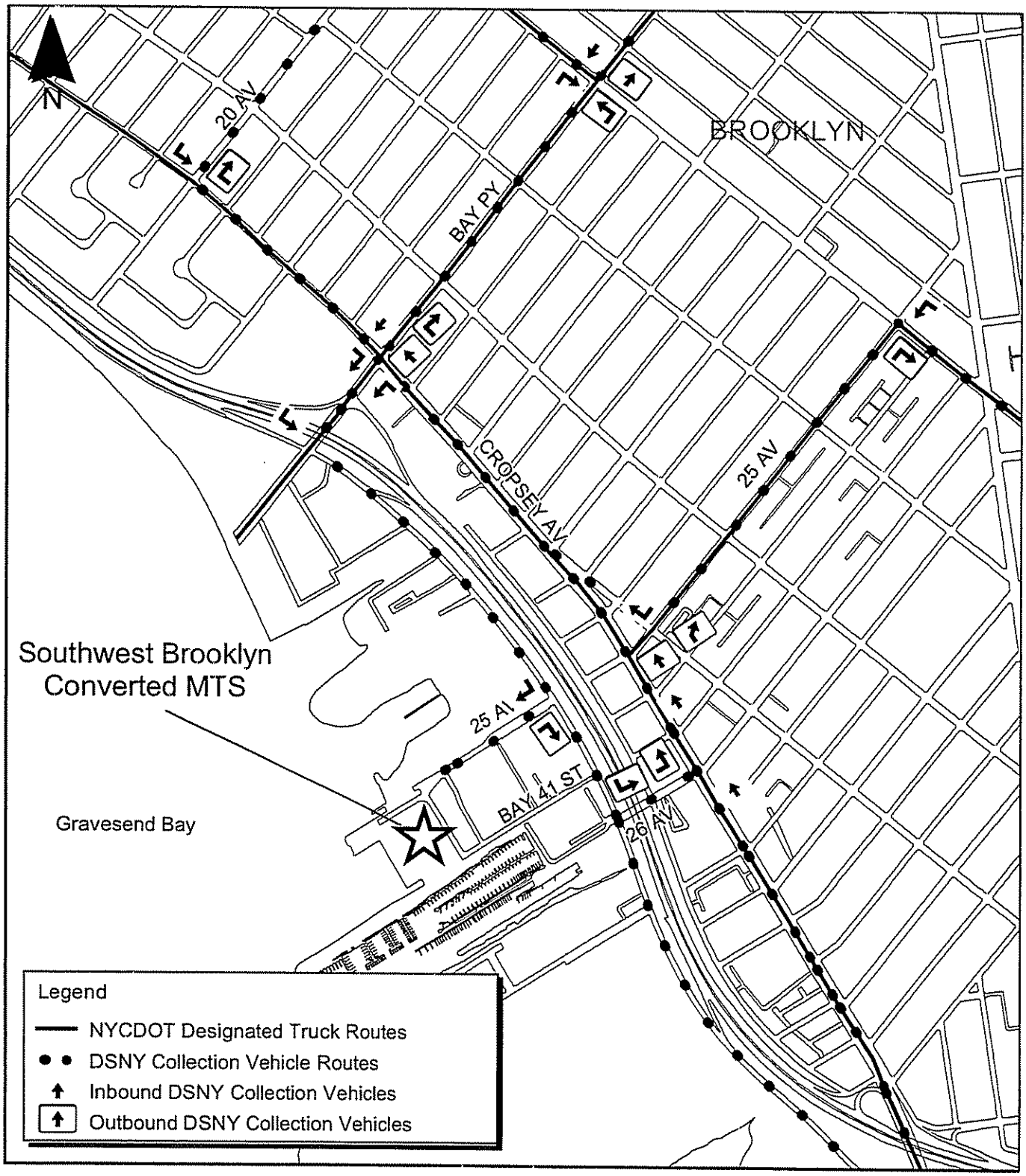
5.14.2.2 Surface Network

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 3.16 (see Figure 3.16-3).

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

DSNY and other agency collection vehicles traveling to the Southwest Brooklyn Converted MTS from the north or south would generally approach the area using either Cropsey Avenue or 86th Street. Vehicles approaching from the east would approach the area on Bay Parkway or 25th Avenue. All incoming traffic converges at the intersection of Cropsey Avenue and Bay Parkway and proceeds west along Bay Parkway to Shore Road (one-way southbound). Vehicles then access the Southwest Brooklyn MTS via 25th Avenue on the west side of Shore Parkway. Shore Road and 25th Avenue on the west side of Shore Parkway are not designated as truck routes. All DSNY and other agency collection vehicles exiting the facility must turn south onto Shore Road. At 26th Avenue, the vehicles turn east and then proceed to Cropsey Avenue. From Cropsey Avenue, vehicles proceed back to their respective CDs along the same truck routes that they used to access the area close to the Southwest Brooklyn Converted MTS. Figure 5.14-2 depicts NYCDOT-designated truck routes near the facility and the future DSNY and other agency collection vehicle routes to the facility.



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

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Figure 5.14-2 DSNY Collection Vehicle Routes
Southwest Brooklyn Converted MTS

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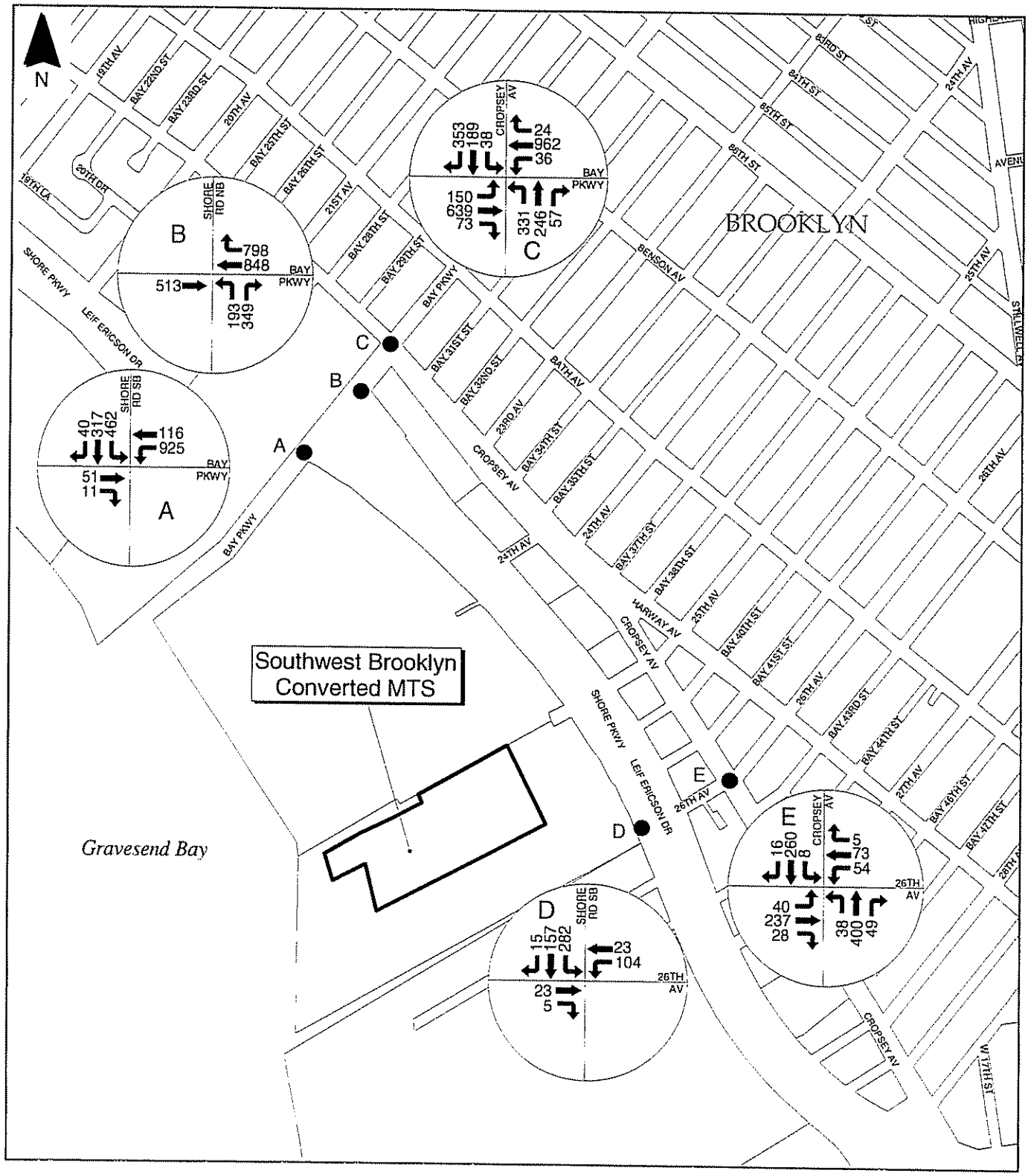
5.14.2.3 *Existing Traffic Operations*

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 (see Figure 5.14 -1 location A)
- Bayview Place (Shore Road - northbound) and Bay Parkway – Signalized Intersection (see Figure 5.14-1 – location B)
- Cropsey Avenue and Bay Parkway – Signalized Intersection (see Figure 5.14-1 - location C)
- Shore Road (southbound) and 26th Avenue – Unsignalized Intersection (see Figure 5.14-1 – location D)
- Cropsey Avenue and 26th Avenue – Signalized Intersection (see Figure 5.14-1 - 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 3.16 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 5.14-3, 5.14-4 and 5.14-5 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 5.14-1 presents the v/c ratio, delay and LOS for the five intersections during the AM, Facility, and PM peaks.



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

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Figure 5.14-3 Existing Traffic Volumes - AM Peak

Southwest Brooklyn Converted MTS

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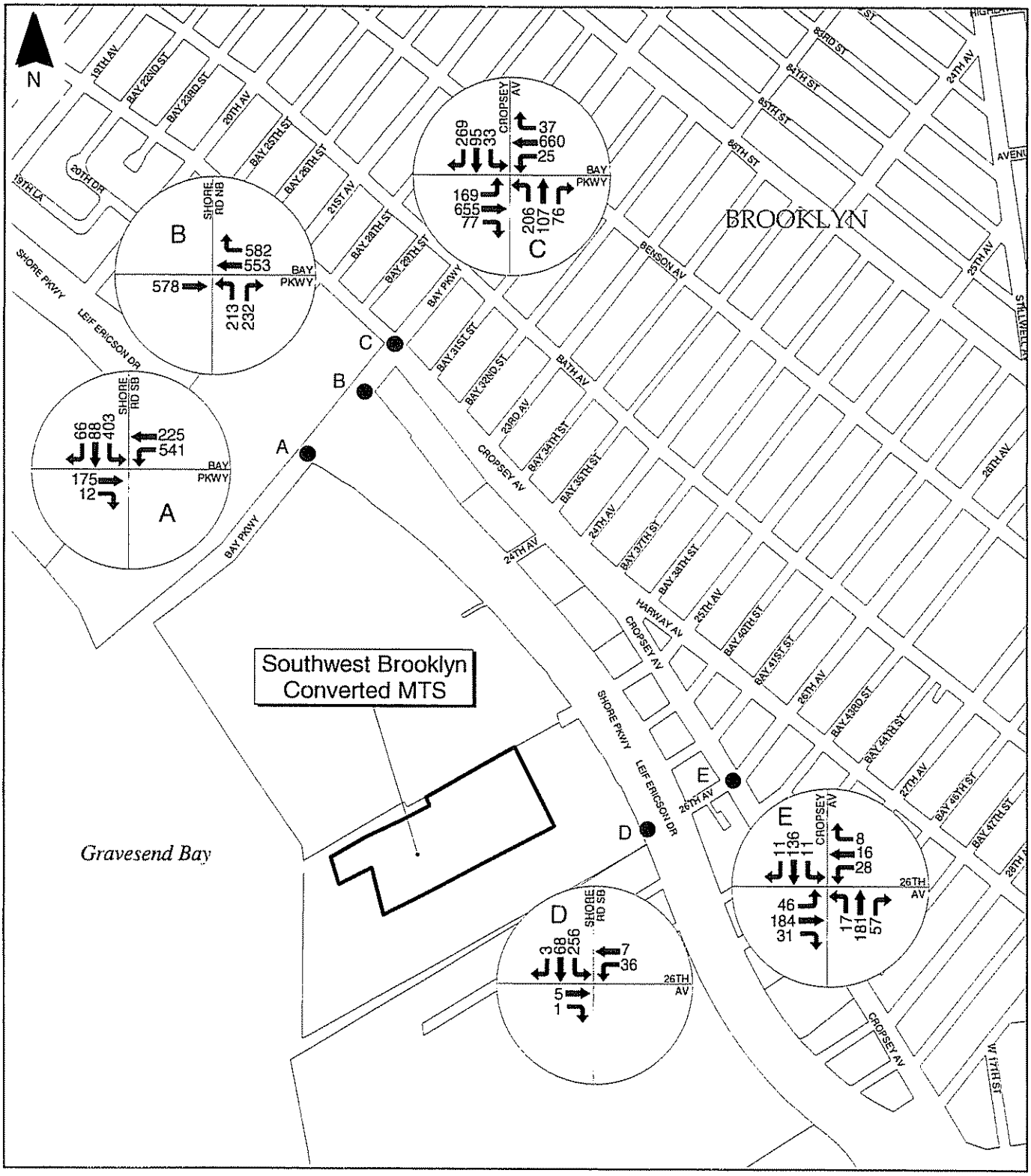

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 5.14-4 Existing Traffic Volumes Facility Peak Southwest Brooklyn Converted MTS

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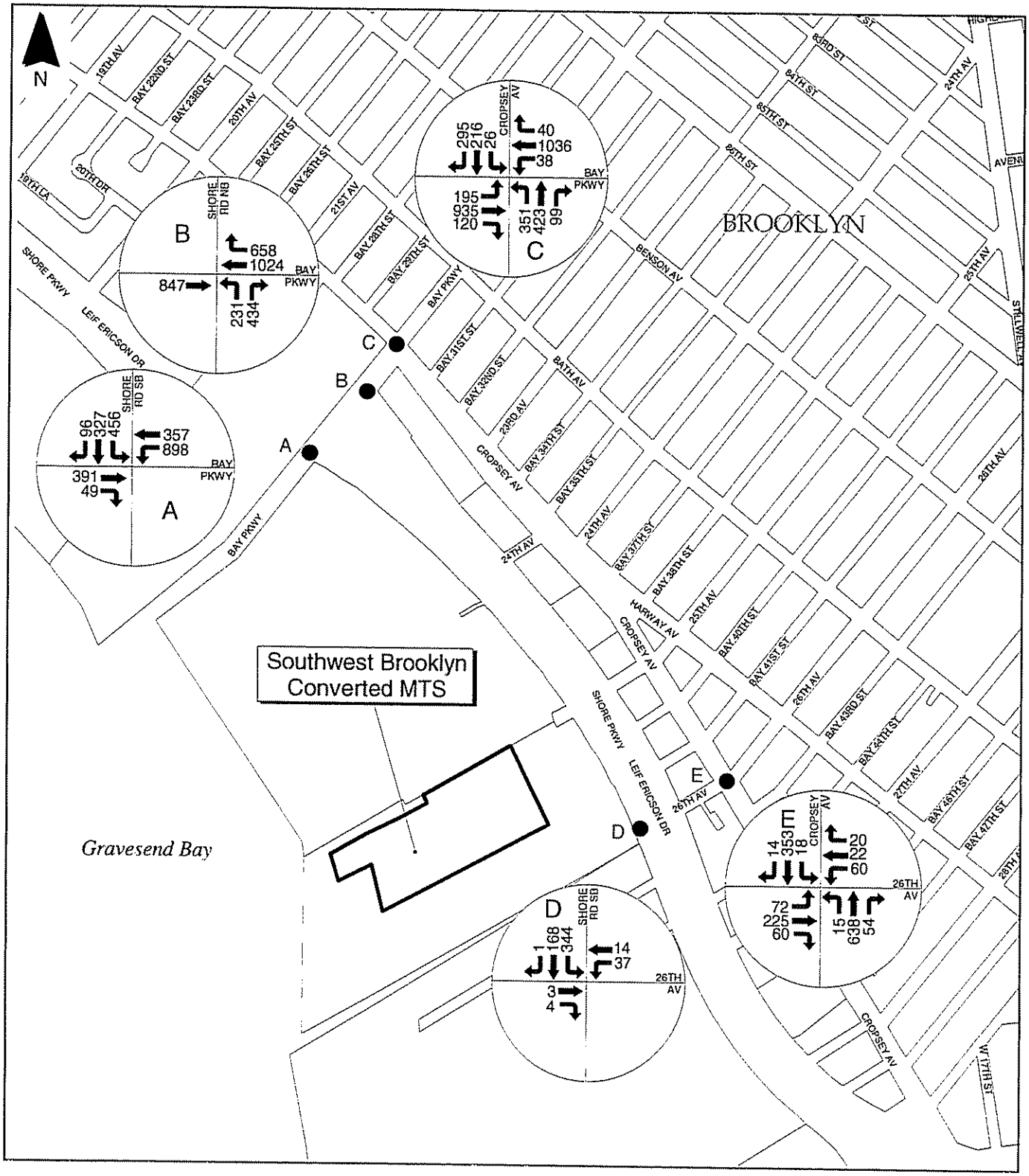

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 5.14-5 Existing Traffic Volumes - PM Peak

Southwest Brooklyn Converted MTS

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Table 5.14-1
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 for Table 5.14-1:
(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
LT = left through movement
L= left movement
TR = through right movement
R = right movement
T = through movement

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, remained between 15% and 25% during midday hours, and then decreased during the PM peak hours to 5% to 15%.

5.14.2.3.1 LOS at Signalized Intersections

Table 5.14-1 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.

5.14.2.3.2 LOS at Unsignalized Intersections

The one unsignalized intersection analyzed operates at LOS A or B throughout the day as shown in Table 5.14-1.

5.14.2.4 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.

5.14.2.5 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.

5.14.2.6 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.

5.14.3 Future No-Build Conditions

5.14.3.1 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.

Figures 5.14-6, 5.14-7 and 5.14-8 depict the Future No-Build traffic volumes for AM, Facility, and PM peaks at the intersections analyzed. Table 5.14-2 (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 five 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 Avenue intersection deteriorated from A to B.

5.14.3.2 Public Transportation

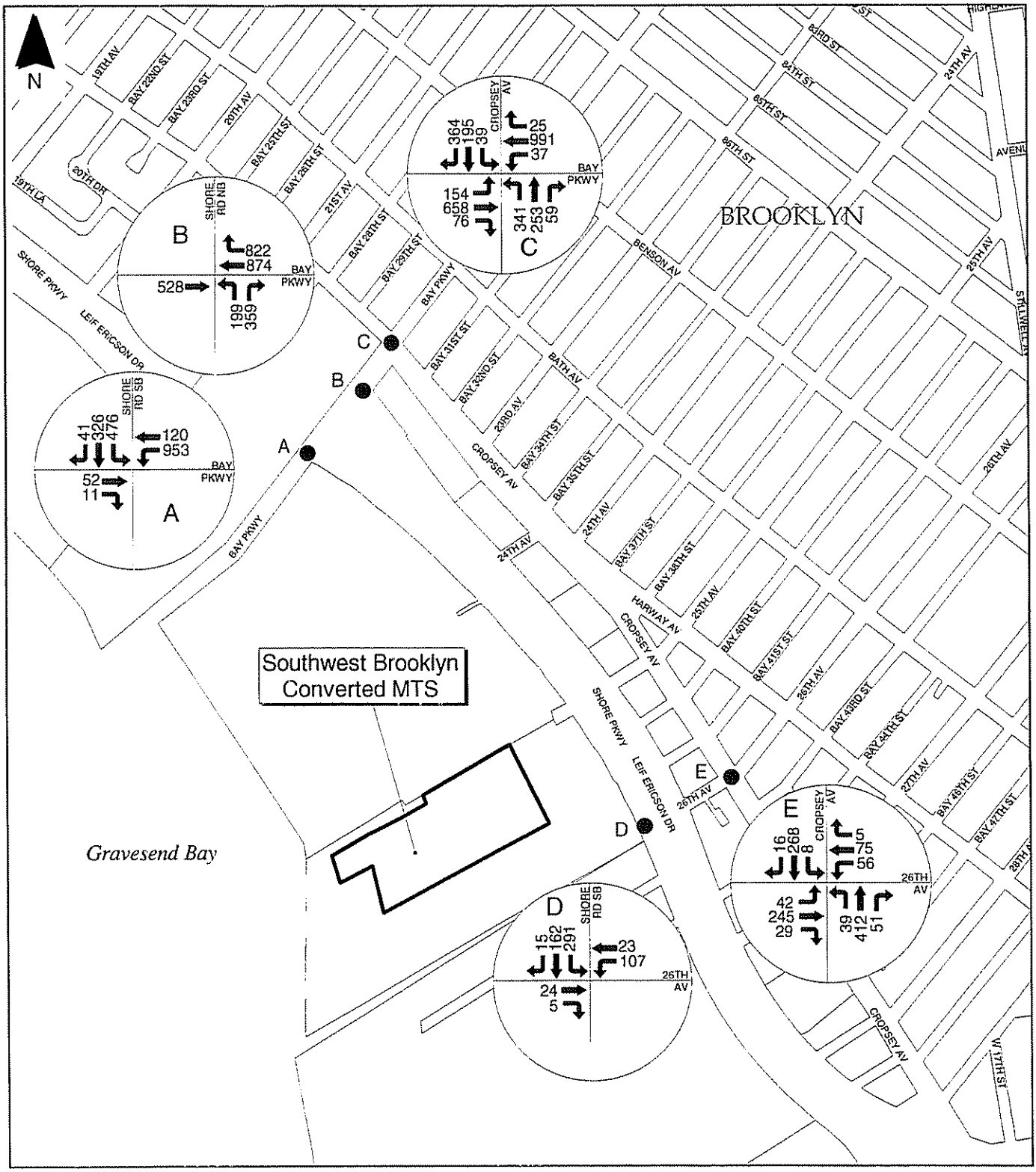
Future No-Build Conditions are expected to remain the same as Existing Conditions.

5.14.3.3 Pedestrian Activity

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

5.14.4 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 self-help bulk (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.



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

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Figure 5.14-6 Future No-Build Traffic Volumes
AM Peak
Southwest Brooklyn Converted MTS

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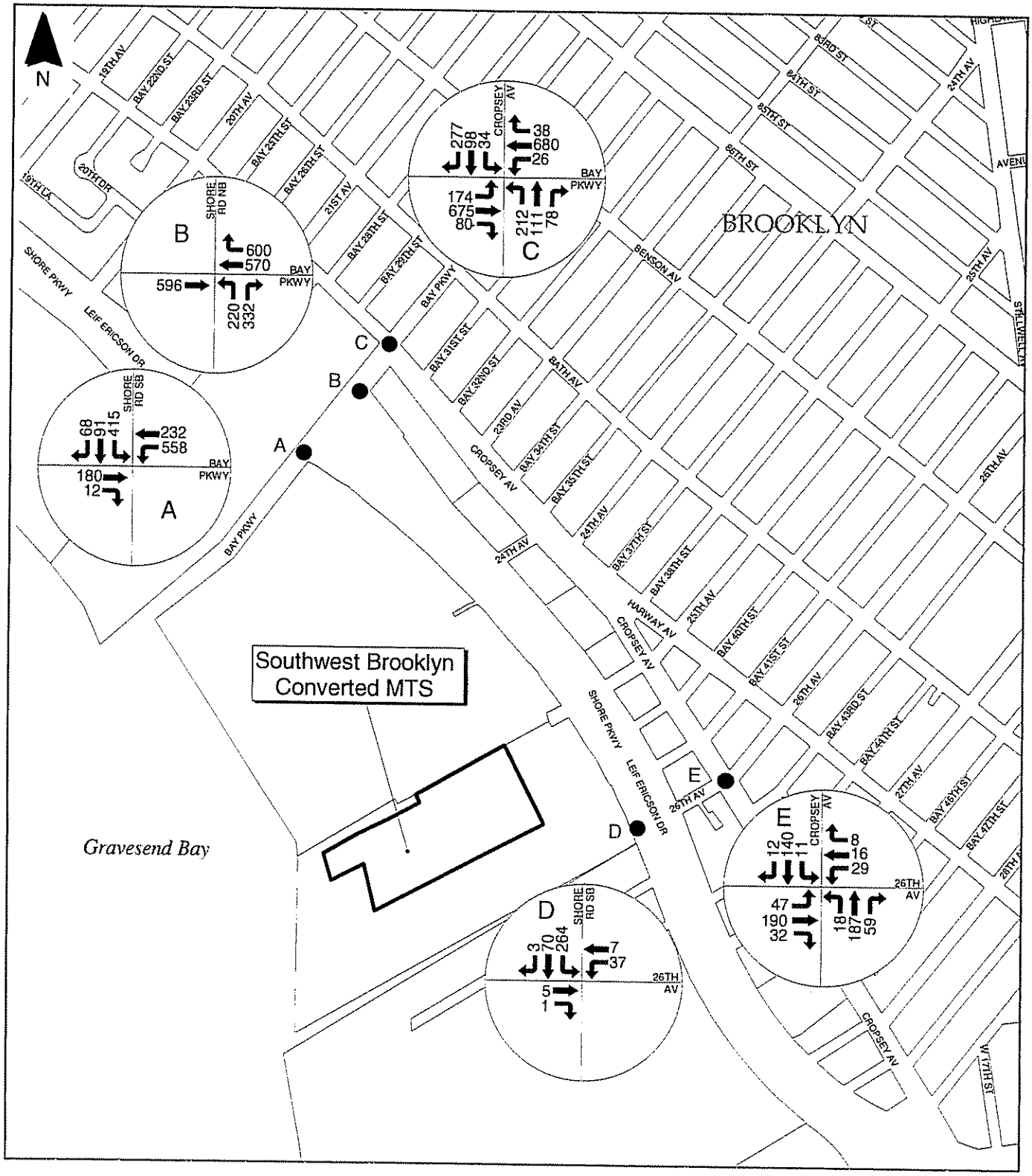

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 5.14-7 Future No-Build Traffic Volumes Facility Peak Southwest Brooklyn Converted MTS

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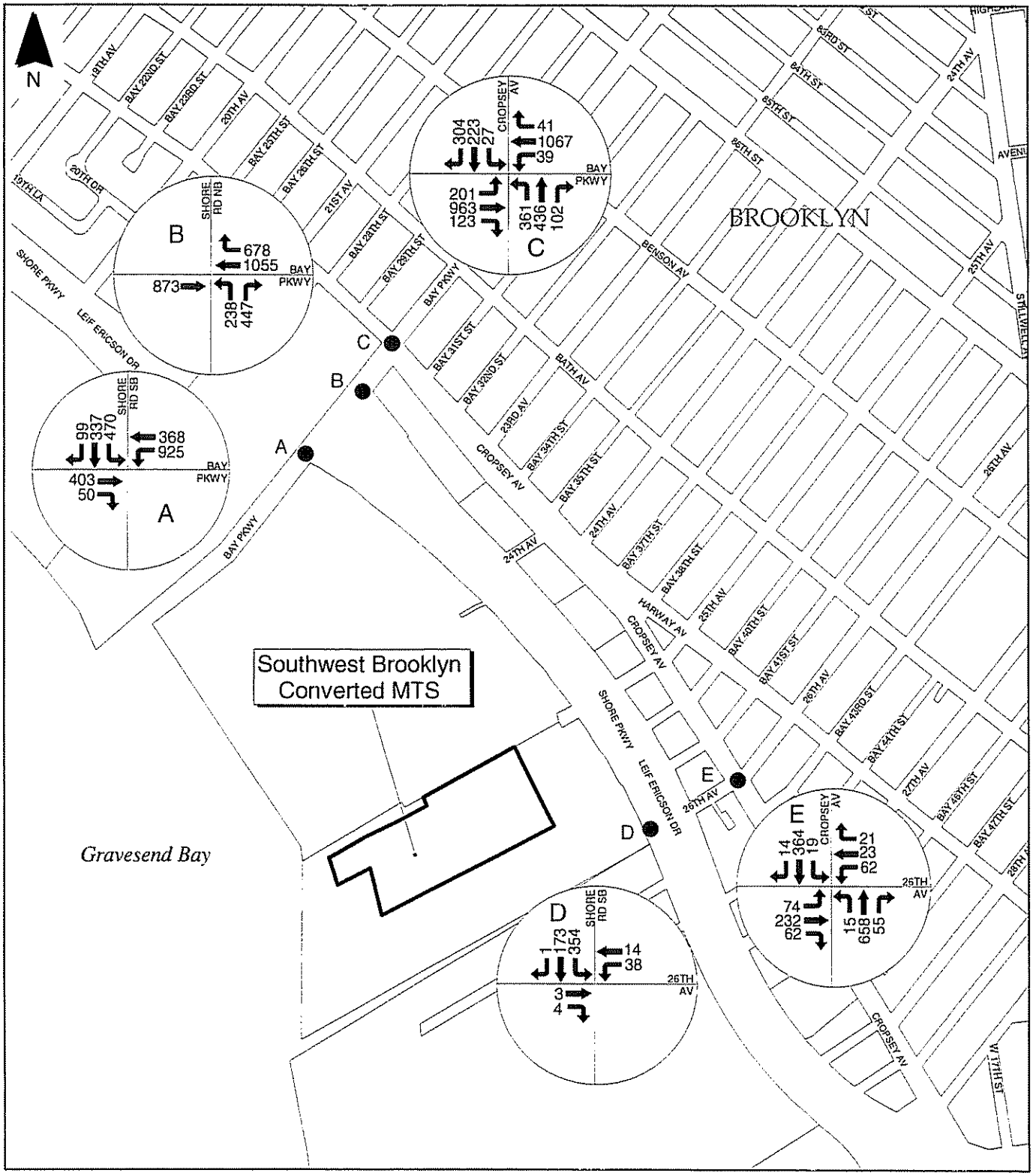

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 5.14-8 Future No-Build Traffic Volumes PM Peak Southwest Brooklyn Converted MTS

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Table 5.14-2
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.

DFL = defacto left

LTR = left, through and right movements

NB = northbound

SB = southbound

EB = eastbound

WB = westbound

LT = left through movement

L= left movement

Notes for Table 5.14-2 (Continued):
TR = through right movement
R = right movement
T = through movement

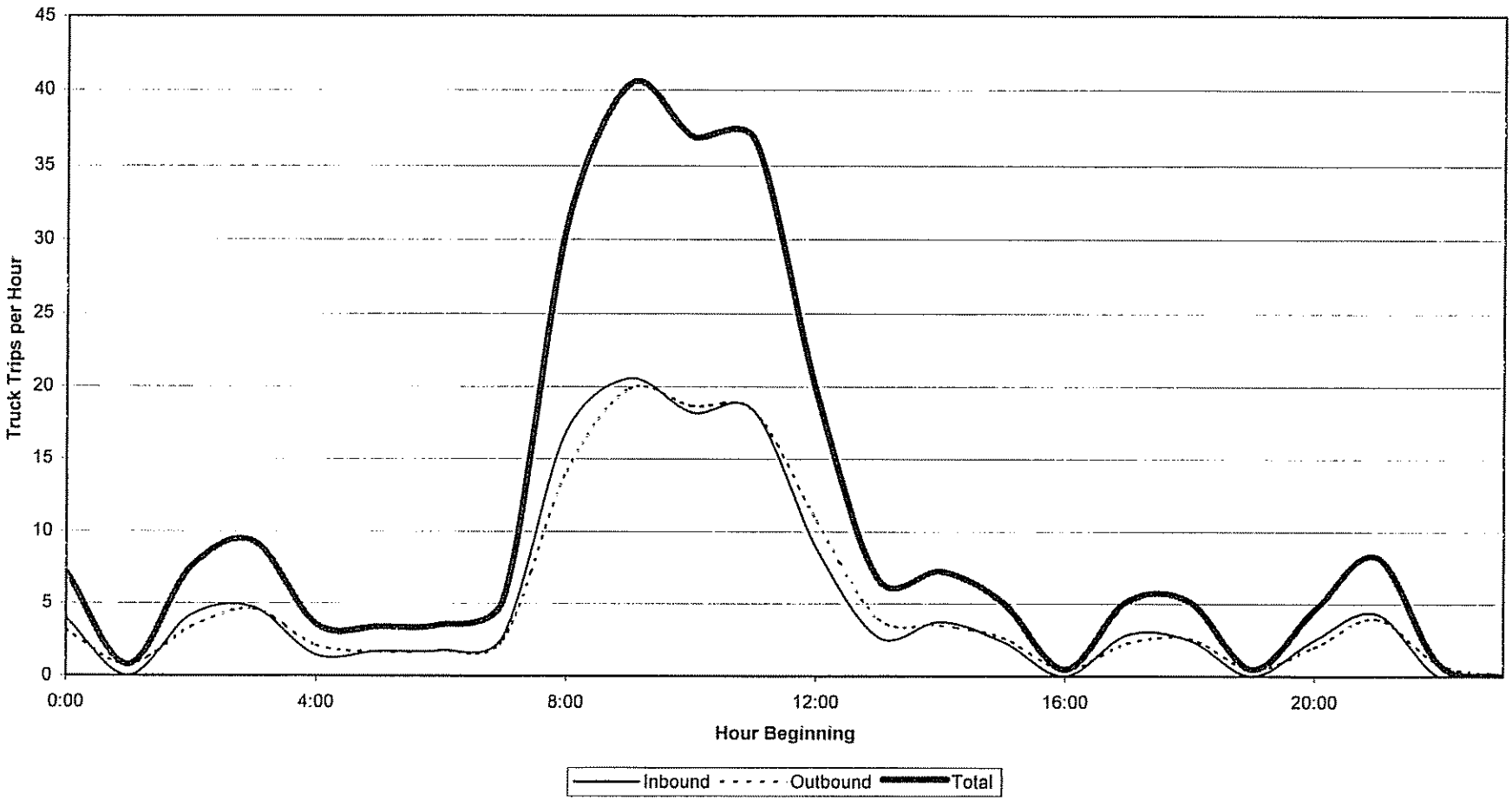
5.14.4.1 2006 Future Build Traffic Conditions

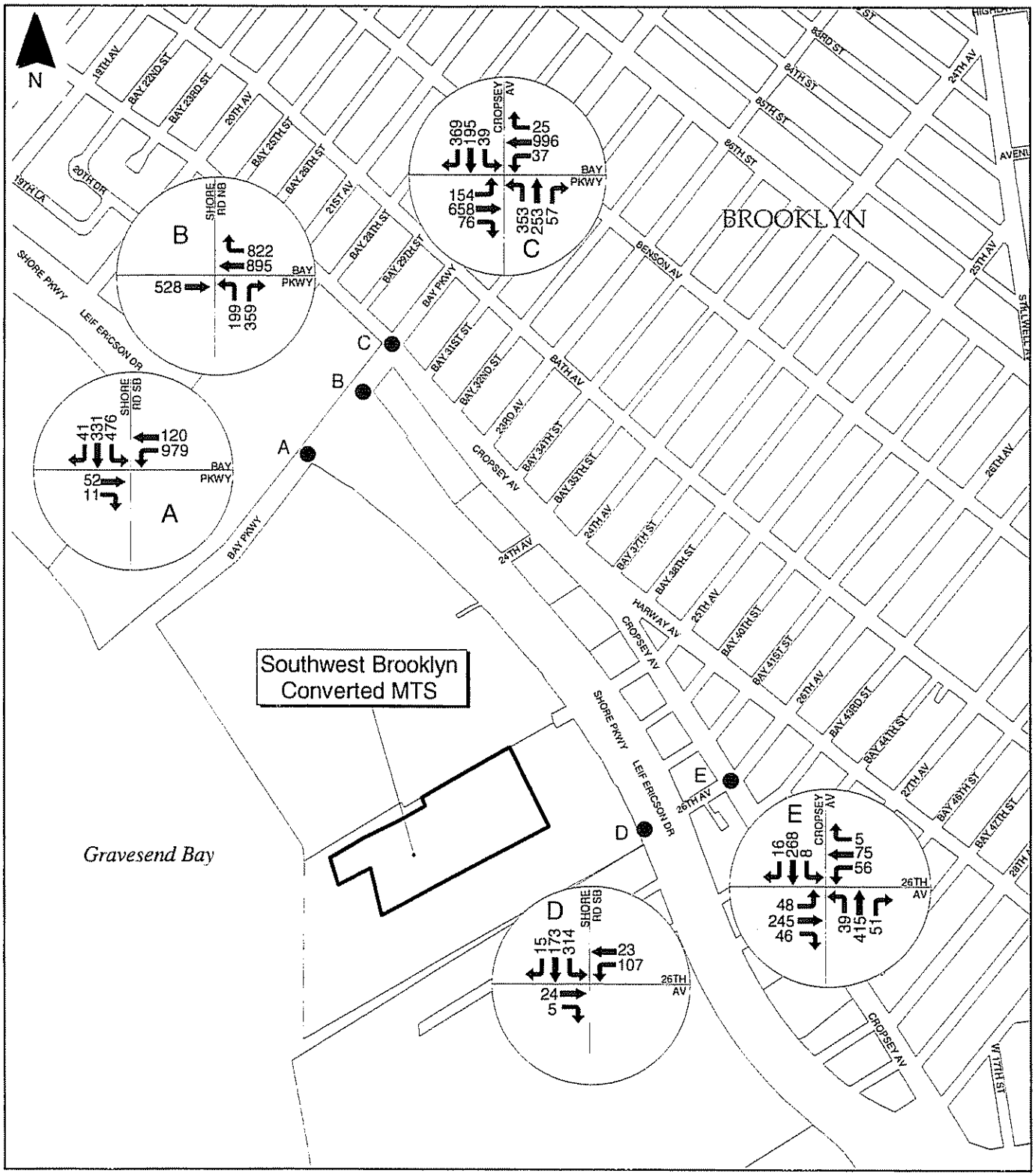
2006 Future Build Traffic Conditions assume that the Southwest Brooklyn Converted MTS would generate 166 net inbound collection vehicles per average peak day. As per NYCDOT Title 34, truck trips to and from the site are restricted to travel along local truck routes directly to the site of the intersection 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 5.14-2.

Figure 5.14-9 presents the average peak day temporal distribution of collection vehicles for the Southwest Brooklyn Converted MTS. Section 3.16 provides a detailed explanation of DSNY collection and delivery operational shifts (priority, non-priority and relay). As shown, the number of collection 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. Figures 5.14-10, 5.14-11 and 5.14-12 depict the Future Build traffic volumes for AM, Facility, and PM peaks at the intersections analyzed. Figures 5.14-13, 5.14-14 and 5.14-15 depict the net future traffic volumes added to the Future No-Build Conditions to generate Future Build Conditions for AM, Facility, and PM peaks at the intersections analyzed.

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% of the inbound loads delivered during a typical average peak day. Additionally, traffic data indicated that the weekend background traffic volumes were approximately 98% of weekday traffic volumes.

Figure 5.14-9
Truck Trips per Hour
Southwest Brooklyn Converted MTS





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

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Figure 5.14-10 2006 Future Build Traffic Volumes
AM Peak
Southwest Brooklyn Converted MTS

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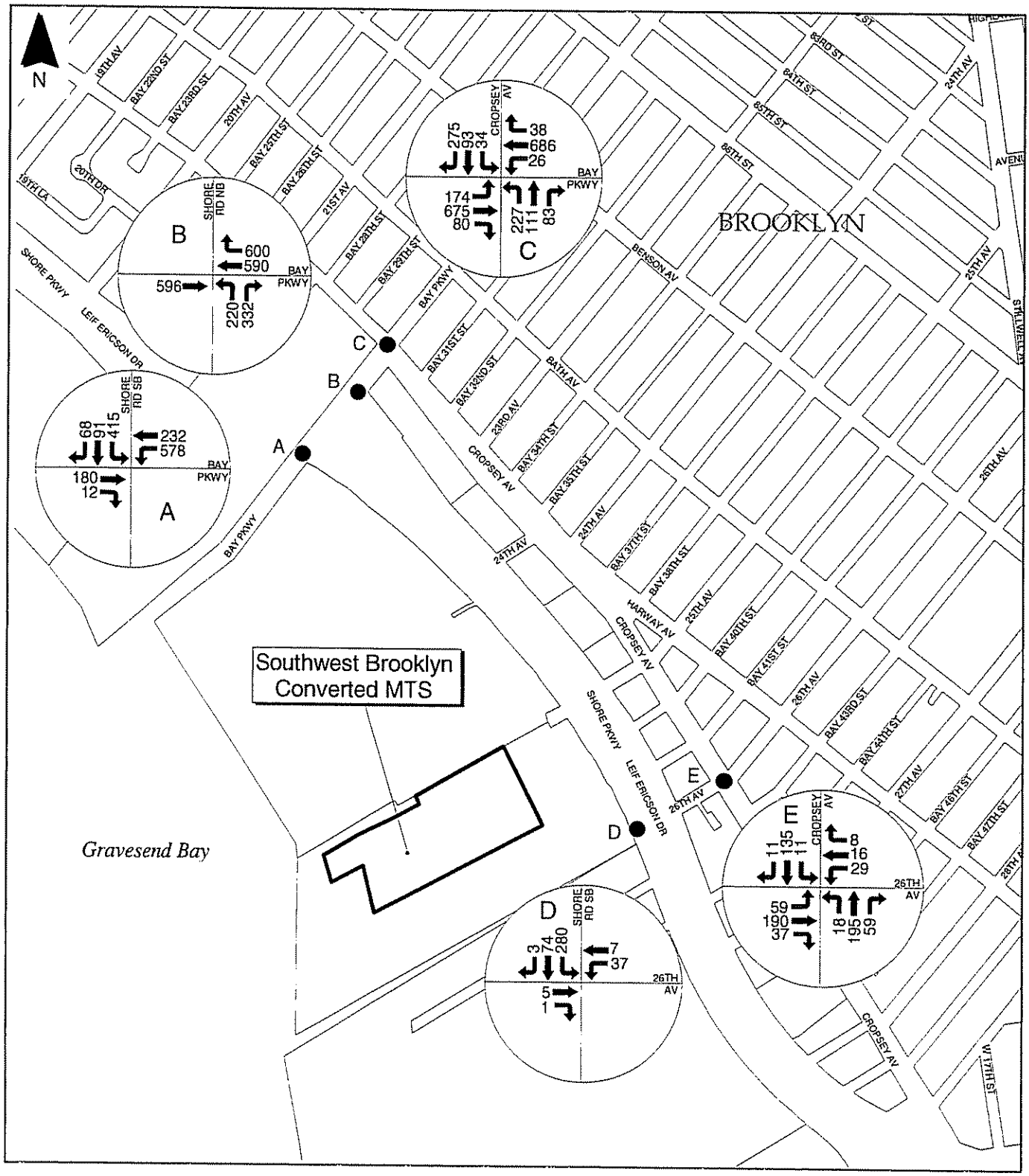

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 5.14-11 2006 Future Build Traffic Volumes
Facility Peak
Southwest Brooklyn Converted MTS

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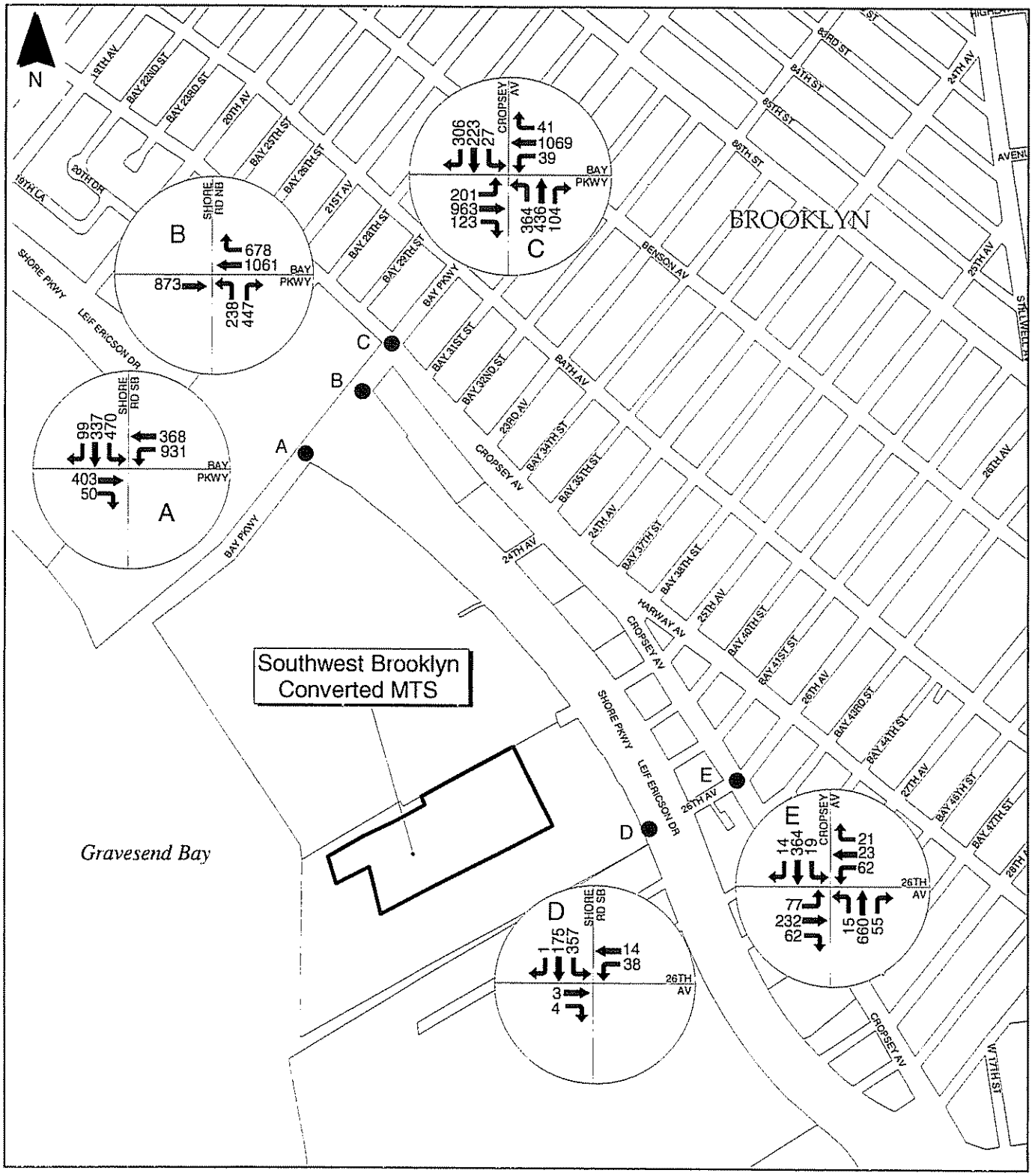

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 5.14-12 2006 Future Build Traffic Volumes PM Peak Southwest Brooklyn Converted MTS

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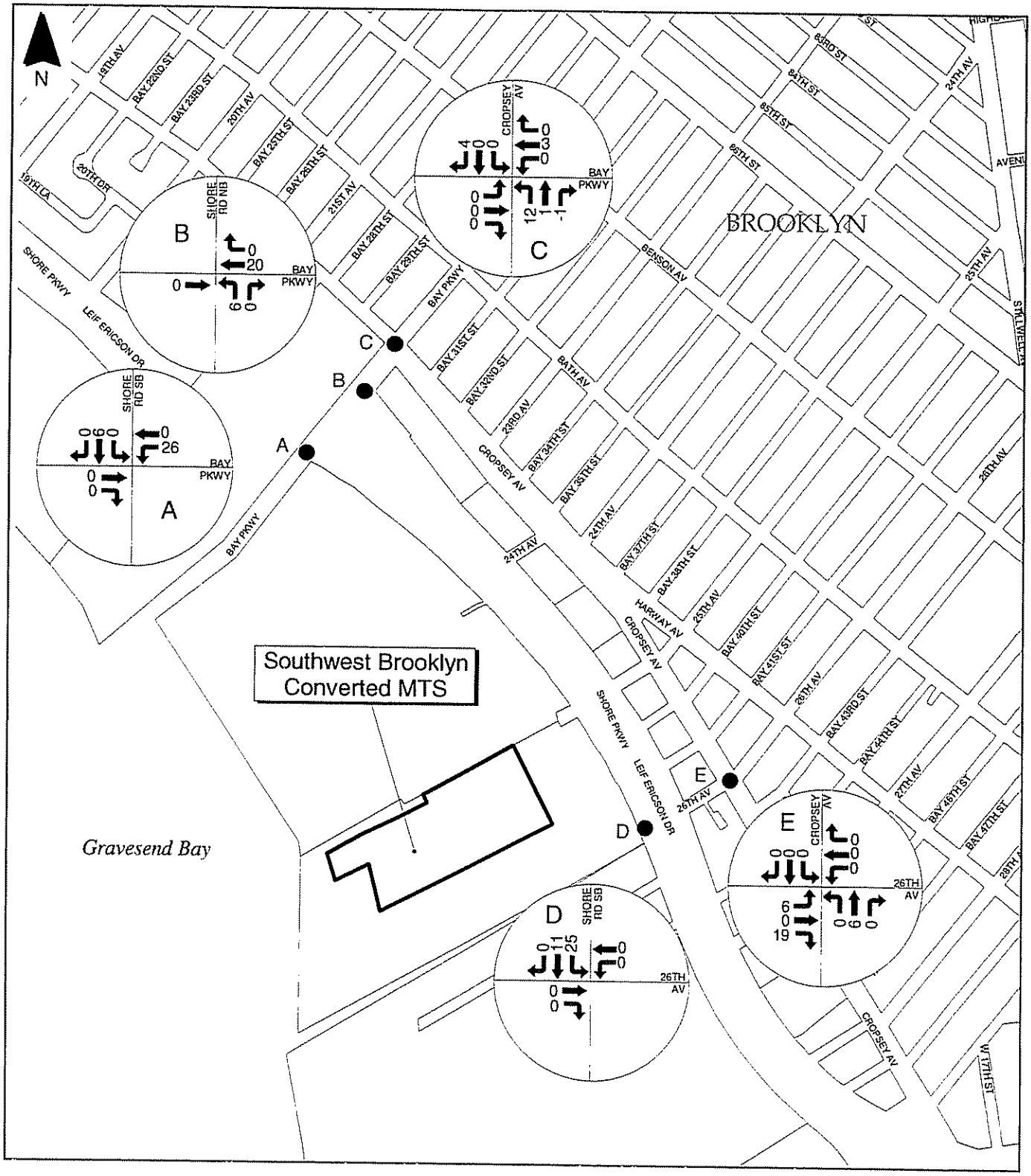

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 5.14-13 2006 Net Traffic - AM Peak

Southwest Brooklyn Converted MTS

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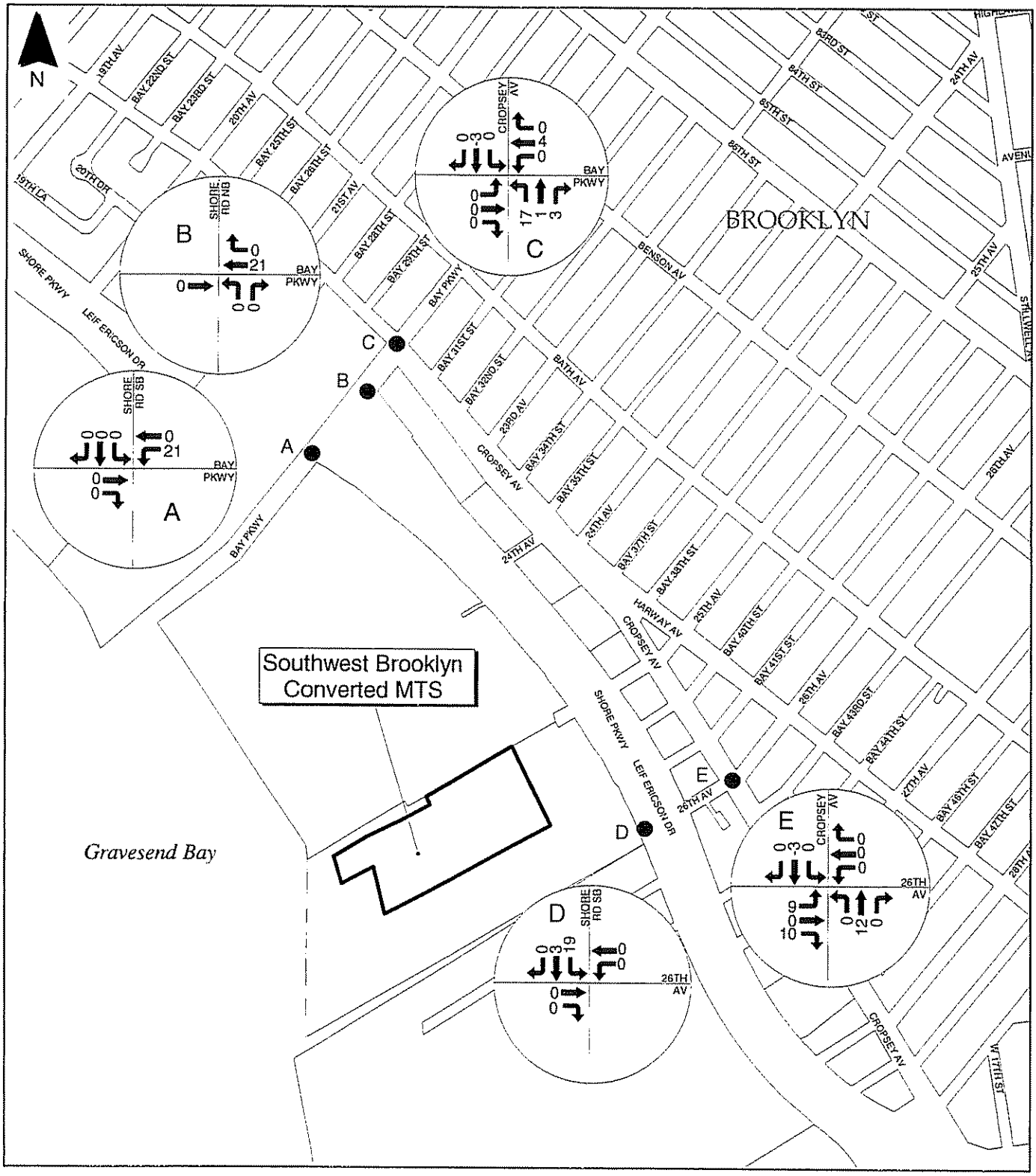

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 5.14-14 2006 Net Traffic - Facility Peak

Southwest Brooklyn Converted MTS

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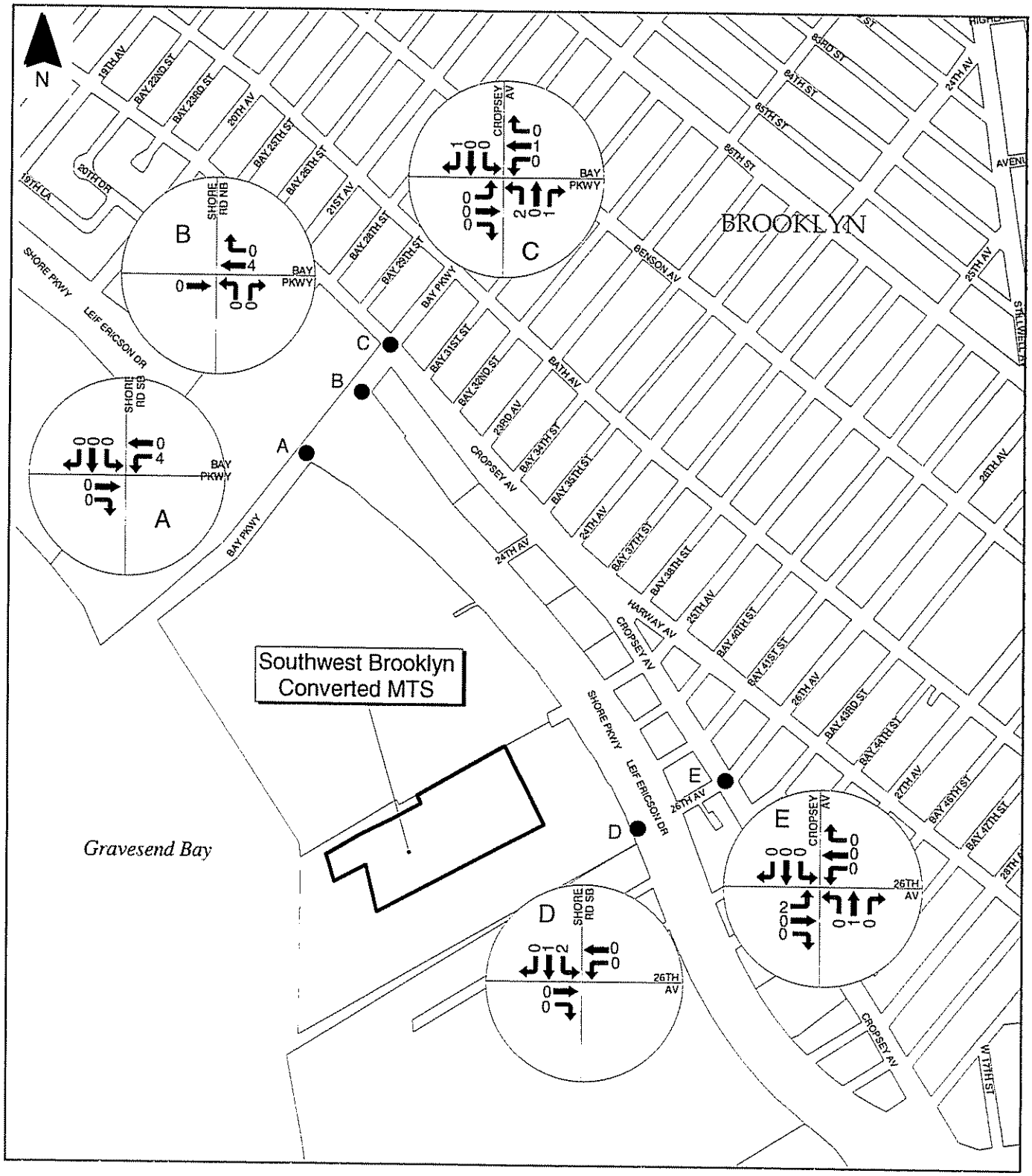

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 5.14-15 2006 Net Traffic - PM Peak

Southwest Brooklyn Converted MTS

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Table 5.14-3 illustrates the decrease in weekday background traffic and the decrease in DSNY and other agency collection vehicle traffic on the weekend. No analysis was performed for Sunday because the Southwest Brooklyn Converted MTS would not operate on Sundays. It was~~,~~ therefore~~,~~ ~~judged~~ determined that a peak weekday analysis would represent the worst overall case conditions.

Table 5.14-3
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 5.14-4 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 5.14.4.2 and summarized in Table 5.14-5.

5.14.4.2 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 guidelines require mitigation for significant impacts regardless of the duration, as discussed in Section 3.16. The potential impacts identified and the mitigation measures analyzed are presented below; their effectiveness is summarized in Table 5.14-5.

Table 5.14-4
HCM Analysis[1]— 2006 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.

DFL = defacto left

LTR = left, through and right movements

NB = northbound

SB = southbound

EB = eastbound

WB = westbound

TR = through right movement

LT = left through movement

R = right movement

L= left movement

T = through movement

Table 5.14-5
HCM Analysis[1] — 2006 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.

DFL = defacto left

LTR = left, through and right movements

NB = northbound

SB = southbound

EB = eastbound

WB = westbound

L= left movement

TR = through right movement

R = right movement

T = through movement

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 one 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.

5.14.4.3 Public Transportation

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

5.14.4.4 Pedestrian Activity

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

5.14a Traffic, Parking, Transit, and Pedestrians - Alternative Route

5.14a.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 3.16 for a discussion of CEQR analysis thresholds.)

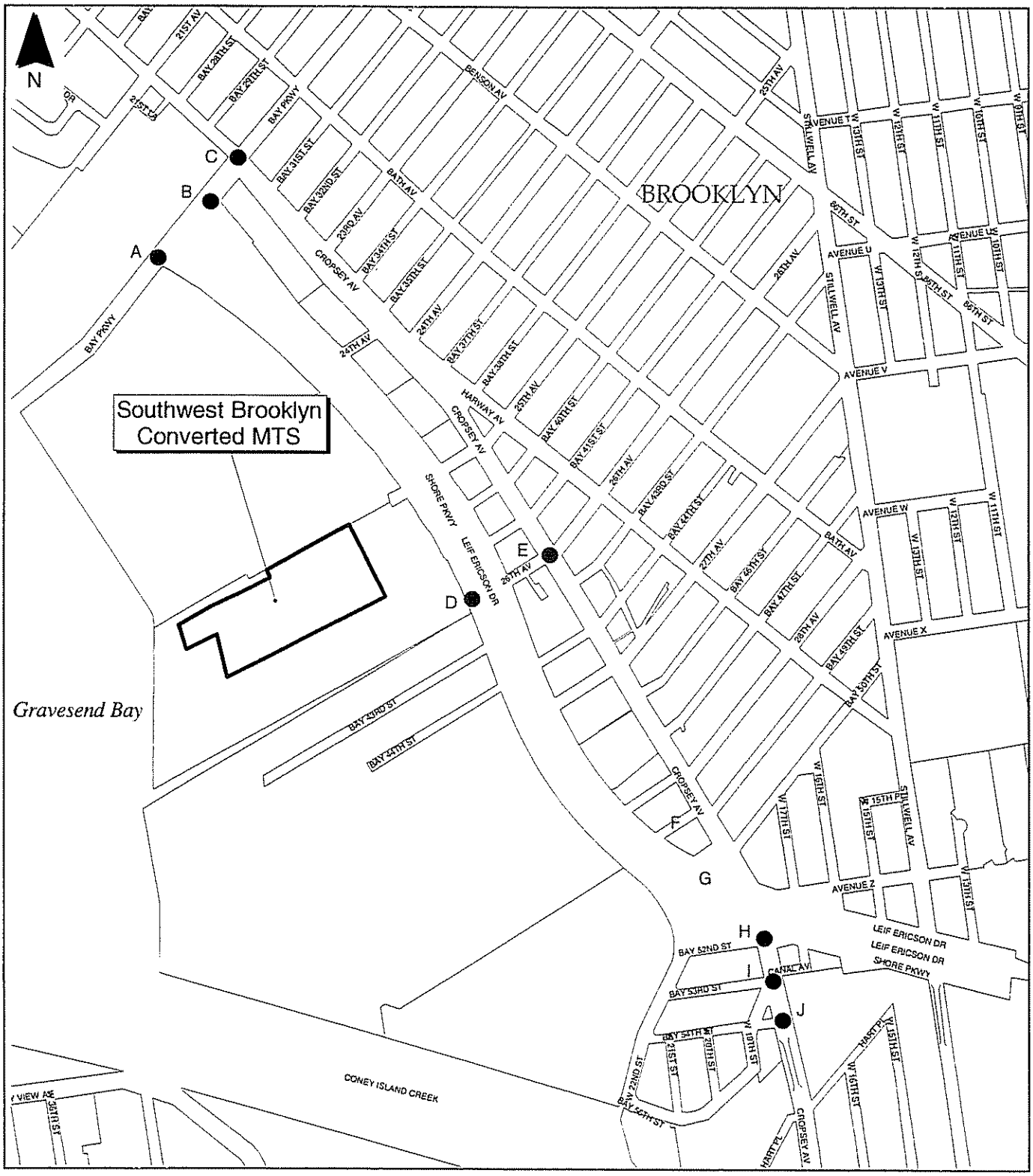
Due to comments received at the CB 11 ULURP public meeting, an alternate route for vehicles exiting the facility was selected for analysis. The original and alternate routes are described below in section 5.14a2.2.

5.14a.2 Existing Conditions

5.14a.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 Bay 54th Street 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 5.14a.-1 shows the locations of the intersections selected for analysis (locations A through J). Intersections analyzed were selected using the procedures defined in Section 3.16.

The analysis of collection vehicle routing to the site included highway access points within ¾-mile of the site in conjunction with local truck routes. Section 5.14a.2.2 further discusses the specific routes used by DSNY and other agency collection vehicles to access the Southwest Brooklyn Converted MTS.



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

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Figure 5.14A-1 Traffic Analysis Study Area

Southwest Brooklyn Converted MTS

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5.14a.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 3.16 (see Figure 3.16-3).

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

For this Alternate route, DSNY and other agency collection vehicles traveling to the Southwest Brooklyn Converted MTS from the north or south would generally approach the area using either Cropsey Avenue or 86th Street. Vehicles approaching from the east would approach the area on Bay Parkway or 25th Avenue. All incoming traffic converges at the intersection of Cropsey Avenue and Bay Parkway and proceeds west along Bay Parkway to Shore Road (one-way southbound). Vehicles then access the Southwest Brooklyn MTS via 25th Avenue on the west side of Shore Parkway. Shore Road and 25th Avenue on the west side of Shore Parkway are not designated as truck routes. All DSNY collection vehicles exiting the facility must turn south onto Shore Road. At 26th Avenue, the collection vehicles from only CD 11 turn east and then proceed to Cropsey Avenue. All collection vehicles from CDs 12, 13, and 15 will continue south on Shore Road past 26th Avenue to Bay 52nd Street. Shore Road merges into Bay 52nd Street and then intersects Cropsey Avenue.[11] From Cropsey Avenue, collection vehicles from all CDs proceed back to their respective CDs along the same truck routes that they used to access the area close to

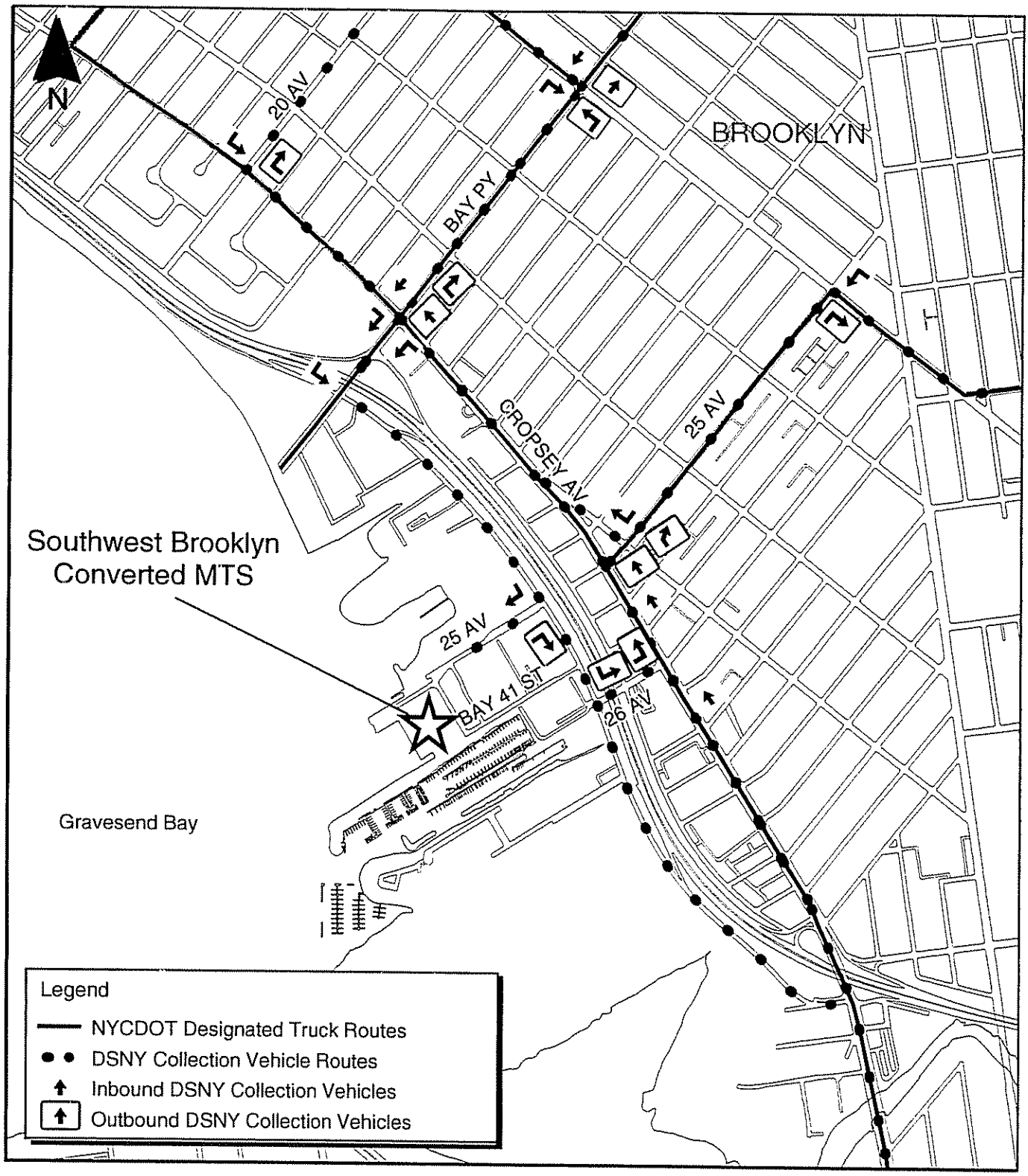
[11] In the original traffic analysis discussed in Section 5.14, collection vehicles from all CDs assigned to the Southwest Brooklyn converted TMS turned east onto 26th Avenue from Shore Road to proceed to Cropsey Avenue.

the Southwest Brooklyn Converted MTS. Figure 5.14a-2 depicts NYCDOT-designated truck routes near the facility and the future DSNY and other agency collection vehicle routes to the facility.

5.14a.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 (see Figure 5.14a -1 location A)
- Bayview Place (Shore Road - northbound) and Bay Parkway – Signalized Intersection (see Figure 5.14a-1 – location B)
- Cropsey Avenue and Bay Parkway – Signalized Intersection (see Figure 5.14a-1 - location C)
- Shore Road (southbound) and 26th Avenue – Unsignalized Intersection (see Figure 5.14a-1 – location D)
- Cropsey Avenue and 26th Avenue – Signalized Intersection (see Figure 5.14a-1 - location E)
- Cropsey Avenue and Bay 49th Street – Signalized Intersection (see Figure 5.14a-1 - location F)
- Cropsey Avenue and Bay 50th Street – Signalized Intersection (see Figure 5.14a-1 - location G)
- Cropsey Avenue and Canal Avenue and Bay 52nd Street – Signalized Intersection (see Figure 5.14a-1 - location H)
- Cropsey Avenue and Bay 53rd Street – Signalized Intersection (see Figure 5.14a-1 - location I)
- Cropsey Avenue and Bay 54th Street – Signalized Intersection (see Figure 5.14a-1 - location J)



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

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Figure 5.14A-2 DSNY Collection Vehicle Routes
Southwest Brooklyn Converted MTS

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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. Bay 49th, 50th, 52nd, 53rd, and 54th Streets, and Canal Avenue are all local roads.

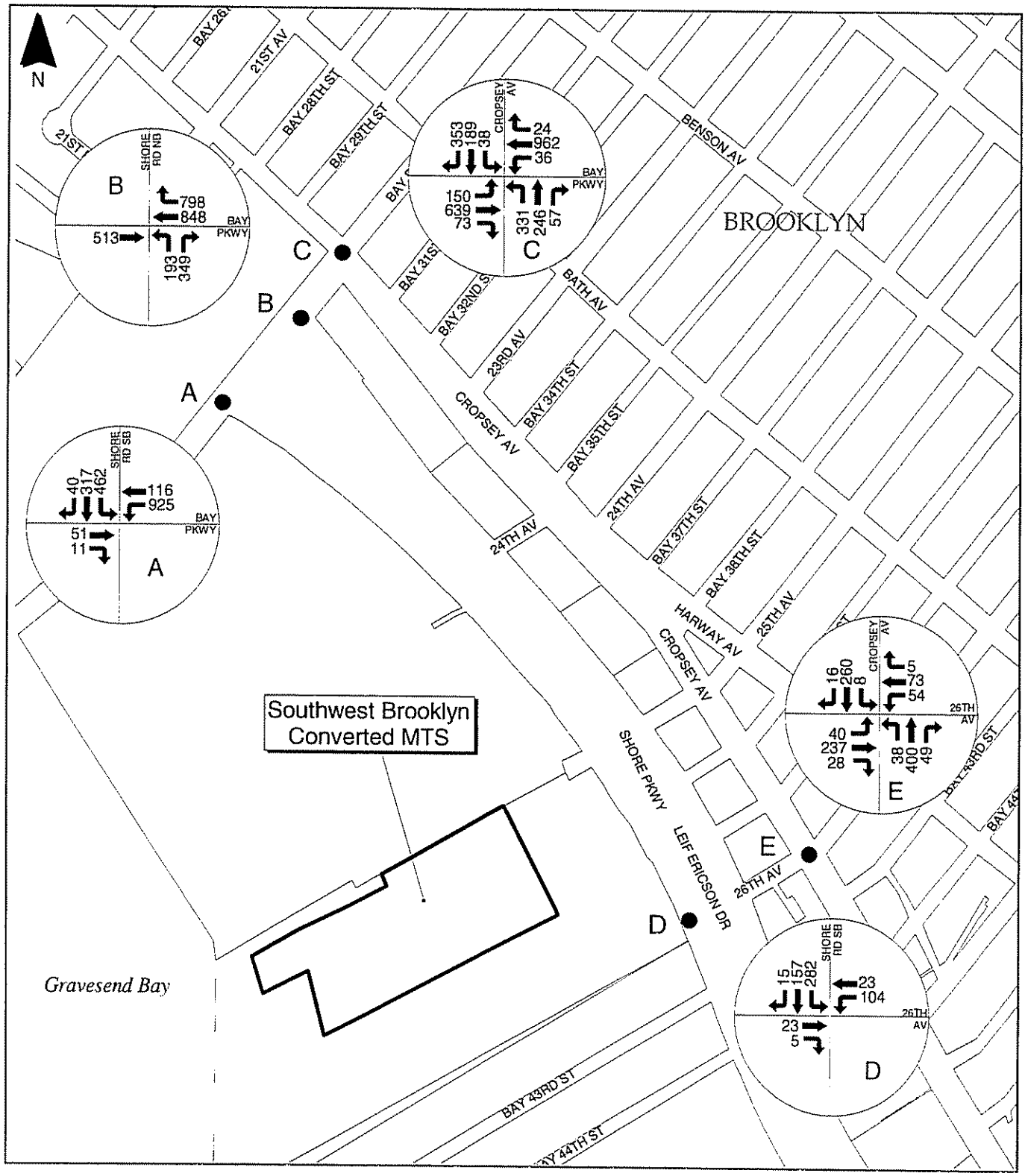
A traffic data collection program that consisted of manual turning movement counts with vehicle classifications and ATR counts was undertaken to define existing weekday traffic operations (see Section 3.16 for a discussion on traffic data collection). For locations A through E, manual turning movement counts were conducted between February 5, 2003 and February 11, 2003, while ATR counts were conducted between February 3, 2003 and February 9, 2003. Since this Alternate route was proposed in January 2005, for additional locations F through J, manual turning movement counts were conducted on January 27, 2005, while ATR counts were conducted between January 26, 2005 and February 2, 2005. Figures 5.14a-3, through 5.14a-8 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 5.14a-1 presents the v/c ratio, delay and LOS for the ten 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, remained between 15% and 25% during midday hours, and then decreased during the PM peak hours to 5% to 15%.

5.14a.2.3.1 LOS at Signalized Intersections

Table 5.14a-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;



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

500 0 500 Feet

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

Figure 5.14A-3 Existing Traffic Volumes - AM Peak

Southwest Brooklyn Converted MTS

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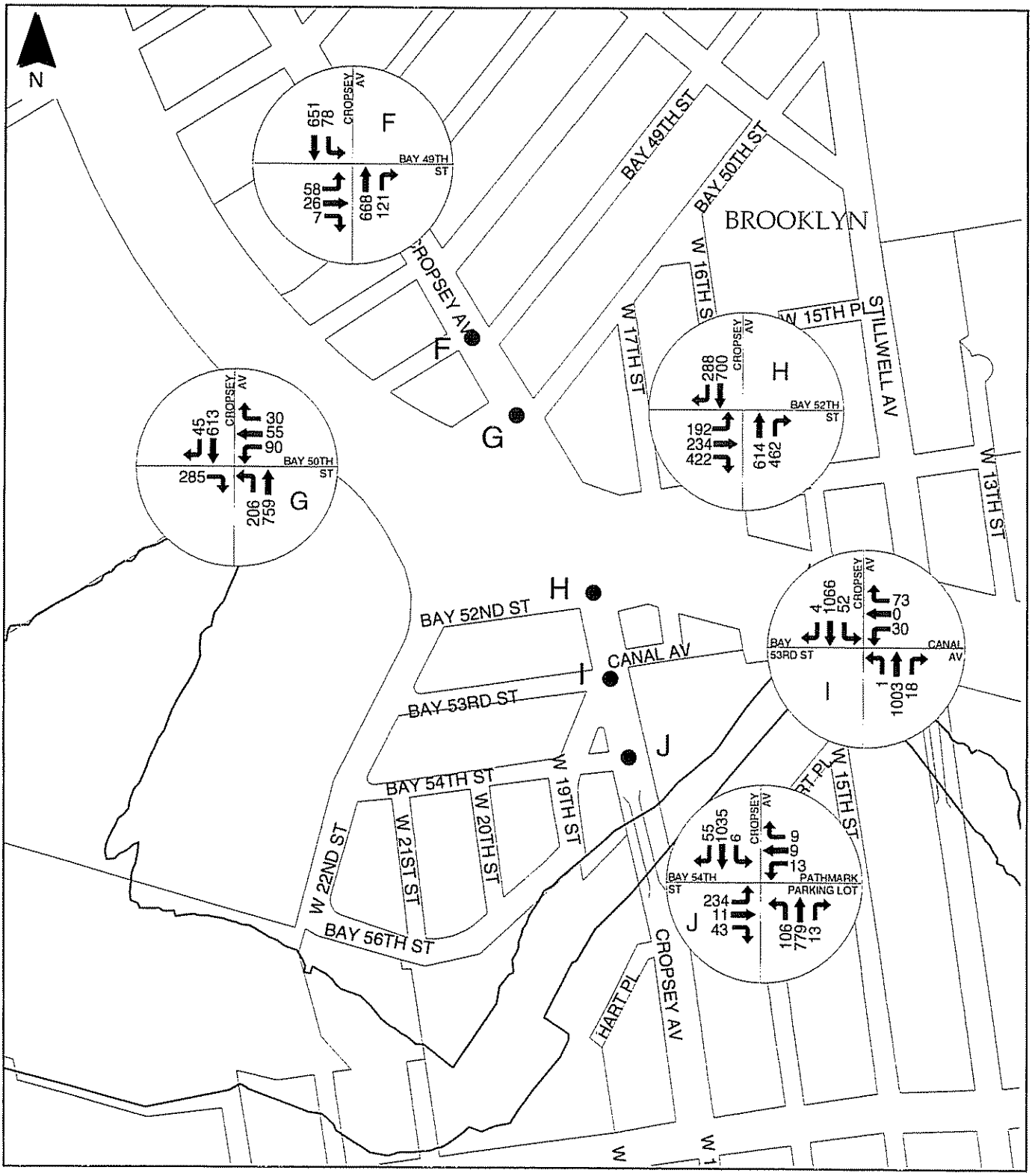

Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

HDR URBITRAN EEA Cambridge Environmental Inc HydroQual DP

Figure 5.14A-4 Existing Traffic Volumes- AM Peak

Southwest Brooklyn Converted MTS

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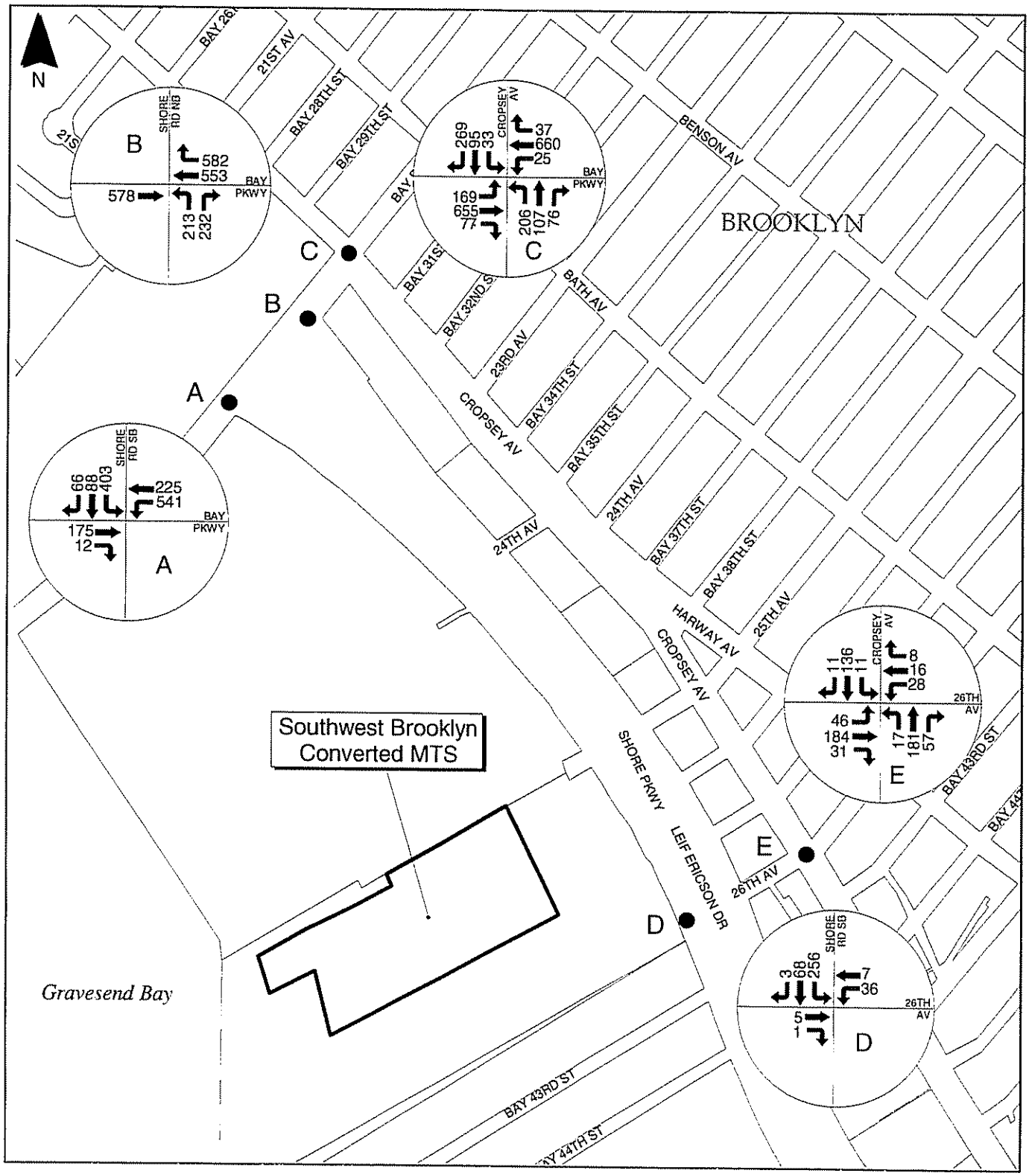

Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

HDR HydroQual URBITRAN DB EEA Cambridge Environmental Inc

Figure 5.14A-5 Existing Traffic Volumes
Facility Peak
Southwest Brooklyn Converted MTS

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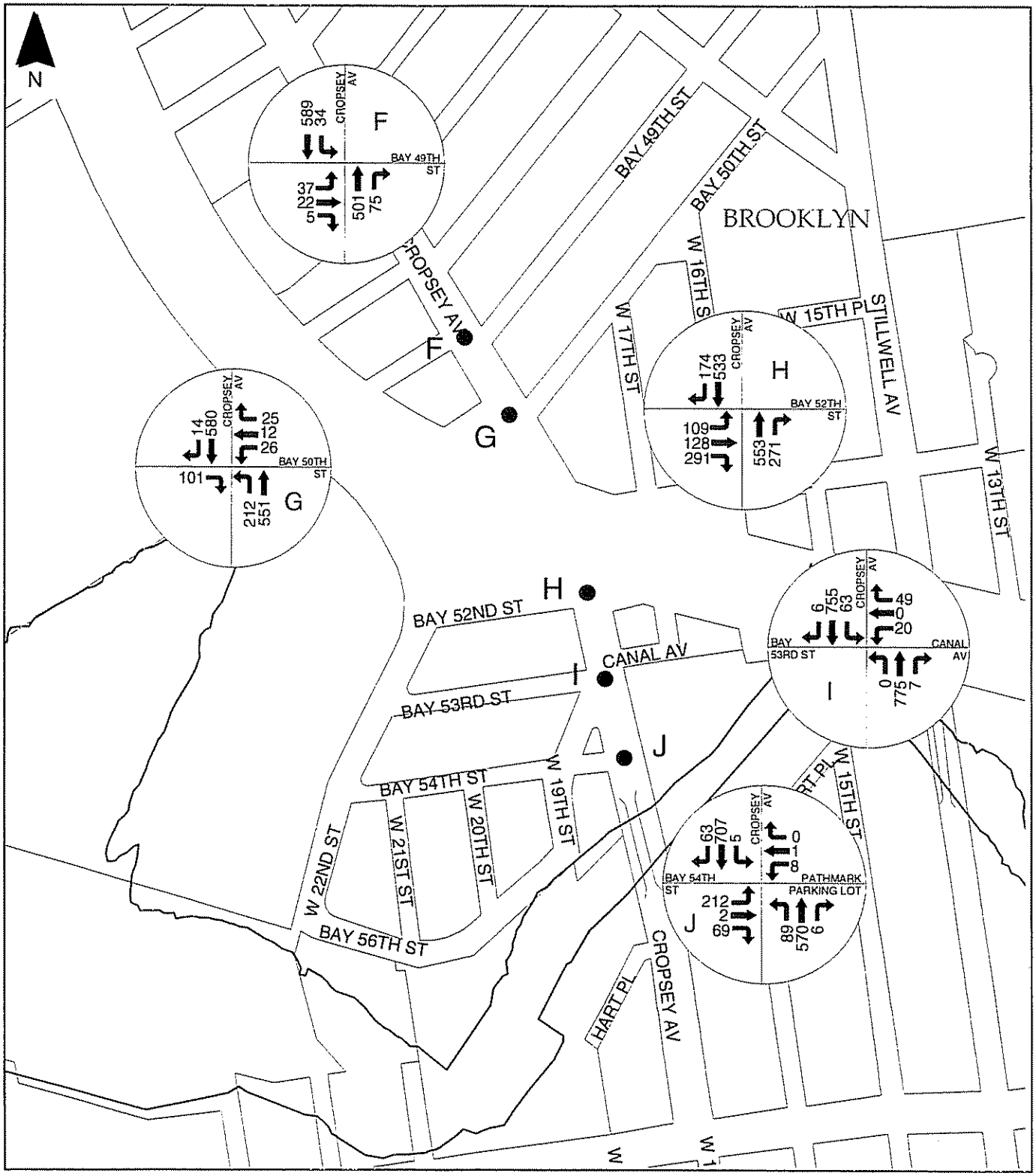

Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

HDR URBITRAN EEA Cambridge Environmental Inc

Figure 5.14A-6 Existing Traffic Volumes Facility Peak Southwest Brooklyn Converted MTS

CITY OF NEW YORK
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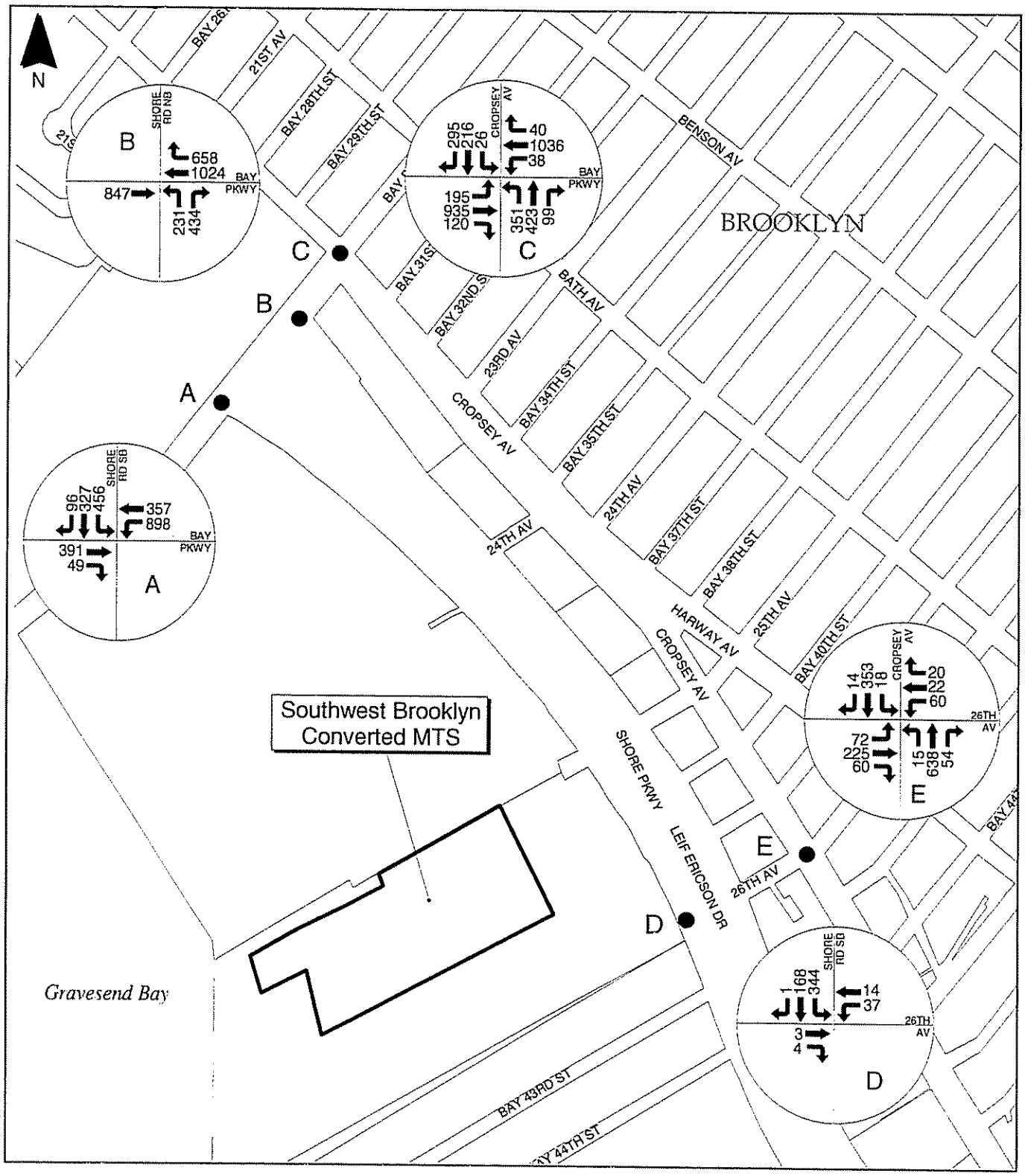

Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

HDR URBITRAN EEA HydroQual PB Cambridge Environmental Inc

Figure 5.14A-7 Existing Traffic Volumes - PM Peak
Southwest Brooklyn Converted MTS

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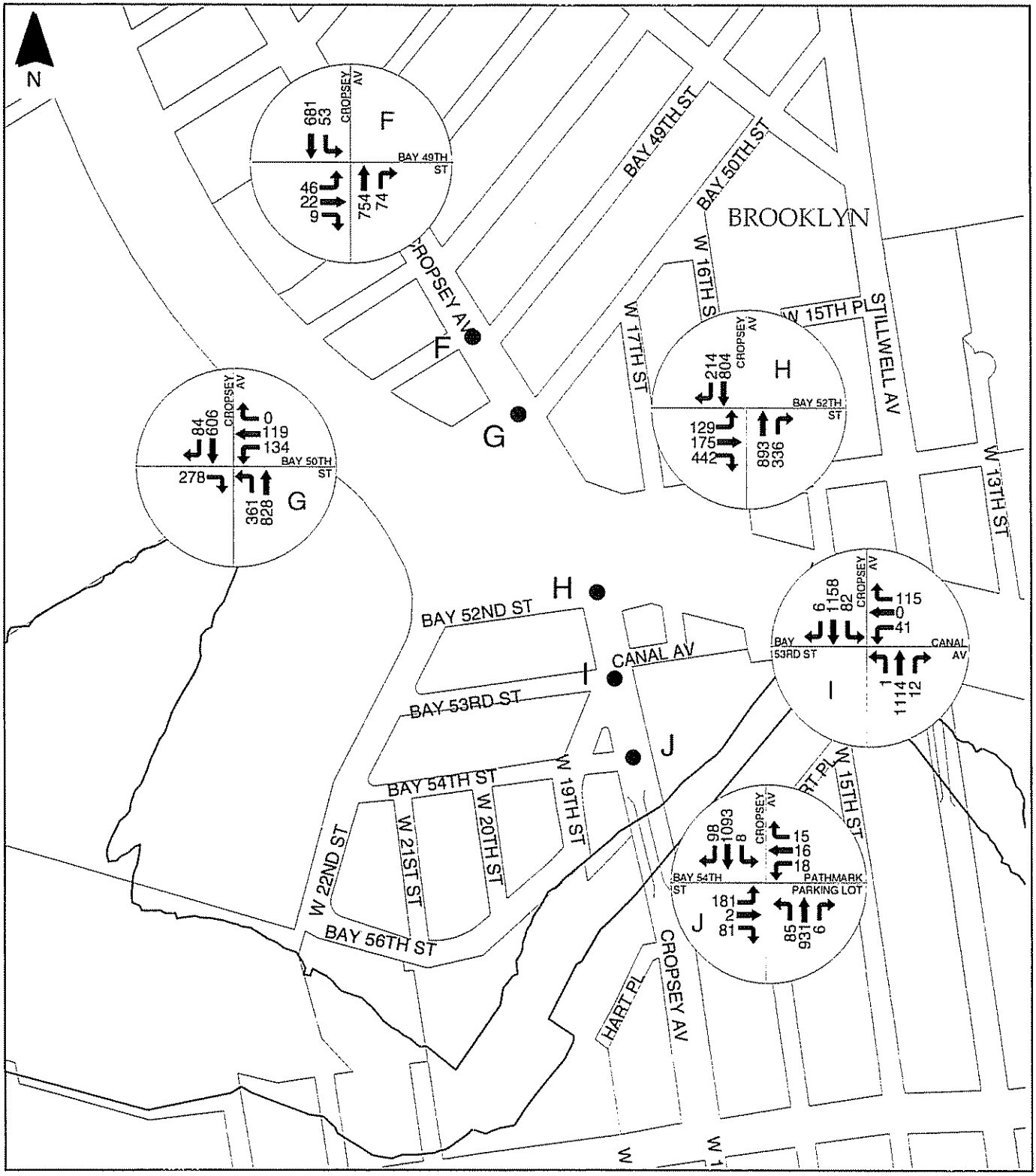

Site delineations are approximate
Base Map Source: New York City Department of City Planning

Figure 5.14A-8 Existing Traffic Volumes- PM Peak

Southwest Brooklyn Converted MTS

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Table 5.14a-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

Table 5.14a-1 (continued)
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 49th Street (signalized)									
EB LTR	0.24	19.2	B	0.18	18.2	B	0.27	19.7	B
NB TR	0.63	18.1	B	0.44	14.7	B	0.60	17.2	B
SB LT	0.89	31.6	C	0.55	16.7	B	0.73	21.5	C
OVERALL		24.6	C		15.8	B		192	B
Cropsey Avenue and Bay 50th Street (signalized)									
EB R	0.18	0.2	A	0.06	0.1	A	0.18	0.2	A
WB LTR	0.48	28.1	C	0.21	23.2	C	0.68	34.6	C
NB L	0.52	24.6	C	0.50	22.1	C	0.97	63.8	E
NB LT	0.36	10.1	B	0.27	9.1	A	0.37	10.2	B
SB TR	0.60	20.9	C	0.54	19.9	B	0.58	20.5	C
OVERALL		15.5	B		15.7	B		23.8	C
Cropsey Avenue and Canal Avenue and Bay 52nd Street (signalized)									
EB L	0.38	21.9	C	0.20	19.5	B	0.24	20.0-	B
EB TR	0.65	28.2	C	0.40	22.5	C	0.54	25.1	C
EB R	0.54	25.2	C	0.44	23.5	C	0.61	26.9	C
NB TR	0.55	14.8	B	0.41	13.1	B	0.51	14.3	B
SB T	0.50	14.4	B	0.37	12.8	B	0.51	14.6	B
SB R	0.43	14.4	B	0.27	12.2	B	0.27	12.2	B
OVERALL		17.8	B		15.4	B		17.1	B
Cropsey Avenue and Bay 53rd Street (signalized)									
WB LTR	0.20	19.7	B	0.15	18.9	B	0.32	21.1	C
NB LTR	0.53	14.6	B	0.33	12.3	B	0.51	14.3	B
SB L	0.33	16.7	B	0.23	13.0	B	0.55	26.1	C
SB TR	0.50	14.0	B	0.34	12.3	B	0.51	14.2	B
OVERALL		14.6	B		12.7	B		15.1	B
Cropsey Avenue and Bay 54th Street (signalized)									
EB L	0.73	43.4	D	0.54	34.3	C	0.44	31.6	C
EB LTR	0.40	30.1	C	0.35	29.0	C	0.41	30.0	C
WB LTR	0.09	25.2	C	0.04	24.7	C	0.18	26.3	C
NB L	0.40	19.7	B	0.29	11.8	B	0.35	18.7	B
NB TR	0.34	12.3	B	0.24	11.4	B	0.38	12.7	B
SB L	0.02	8.0	A	0.02	6.6	A	0.03	8.9	A
SB TR	0.49	13.9	B	0.34	12.3	B	0.50	14.1	B
OVERALL		17.4	B		15.4	B		16.0	B

Notes for Table 5.14a-1:

[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

LT = left through movement

L= left movement

TR = through right movement

R = right movement

T = through movement

- 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;
- During the AM and PM peak hours, the intersection of Shore Road and Bay Parkway operates at an overall LOS D or E;
- The northbound left lane group at Cropsey Avenue and Bay 50th Street operates at LOS E for the PM peak hour; and
- The eastbound left lane group at Cropsey Avenue and Bay 54th Street operates at LOS D for the AM peak hour.

5.14a.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 5.14a-1.

5.14a.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 currently pass through all intersections analyzed in the study area under the Interim Export Program.

5.14a.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.

5.14a.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.

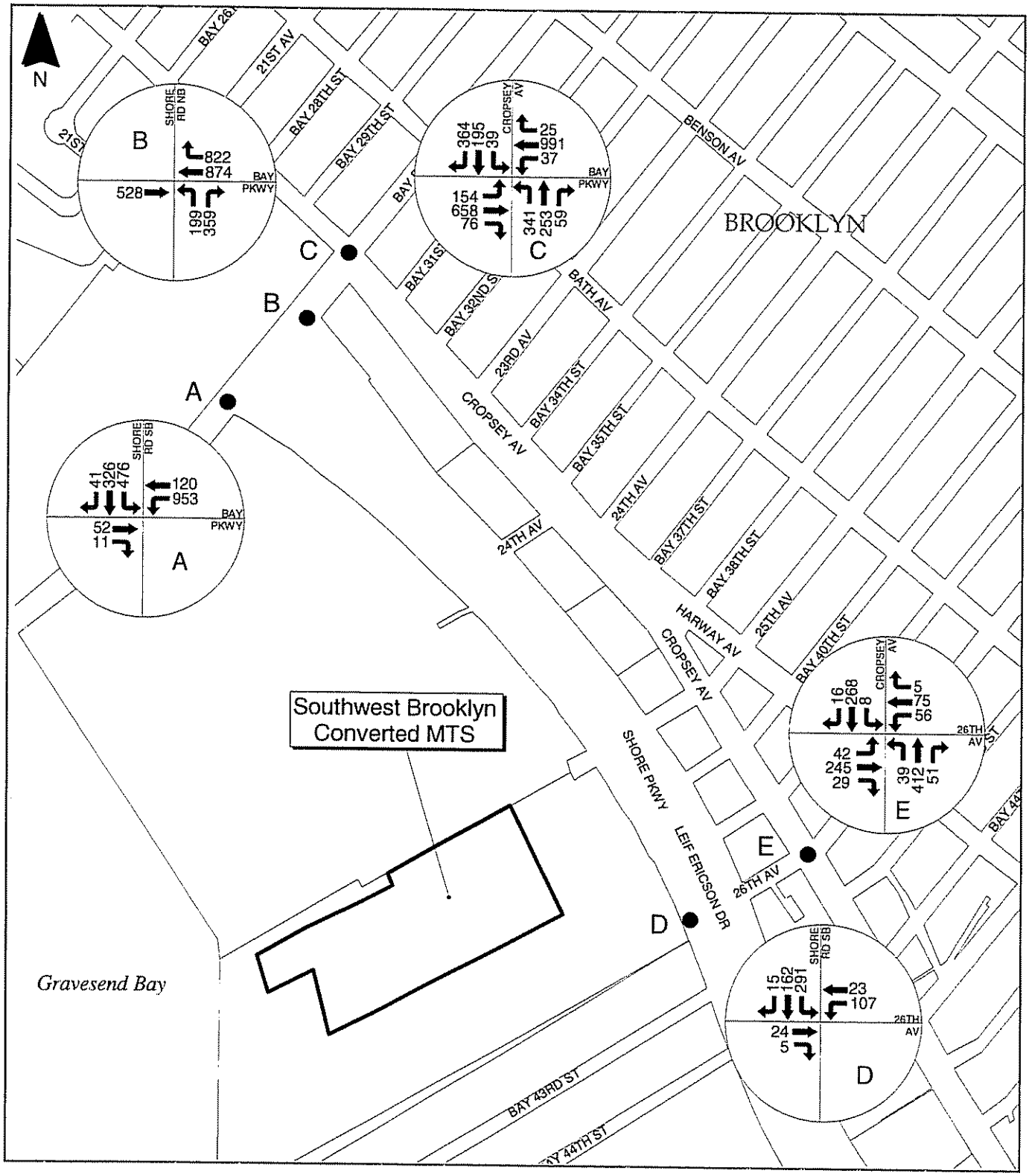
5.14a.3 Future No-Build Conditions

5.14a.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.

Figures 5.14a-9 through 5.14a-14 depict the Future No-Build traffic volumes for AM, Facility, and PM peaks at the intersections analyzed. Table 5.14a-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 five 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;
- During the PM peak hour, the overall LOS of the Shore Road (southbound) and 26th Avenue intersection deteriorated from A to B;
- During the AM peak hour, the LOS of the southbound left/ through lane group at the intersection of Cropsey Avenue and Bay 49th Street deteriorated from C to D;
- During the Facility peak hour, the LOS of the southbound through/ right lane group at the intersection of Cropsey Avenue and Bay 50th Street deteriorated from B to C;
- During the PM peak hour, the LOS of the westbound left/ through/ right lane group at the intersection of Cropsey Avenue and Bay 50th Street deteriorated from C to D;
- During the PM peak hour, the LOS of the northbound left lane group at the intersection of Cropsey Avenue and Bay 50th Street deteriorated from D to E;
- During the PM peak hour, the LOS of the eastbound left lane group at the intersection of Cropsey Avenue and Bay 52nd Street deteriorated from B to C; and
- During the AM peak hour, the LOS of the northbound left lane group at the intersection of Cropsey Avenue and Bay 54th Street deteriorated from B to C.



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

500 0 500 Feet

HDR URBITRAN EEA Cambridge Environmental Inc HydroQual PB

Figure 5.14A-9 Future No-Build Traffic Volumes
AM Peak
Southwest Brooklyn Converted MTS

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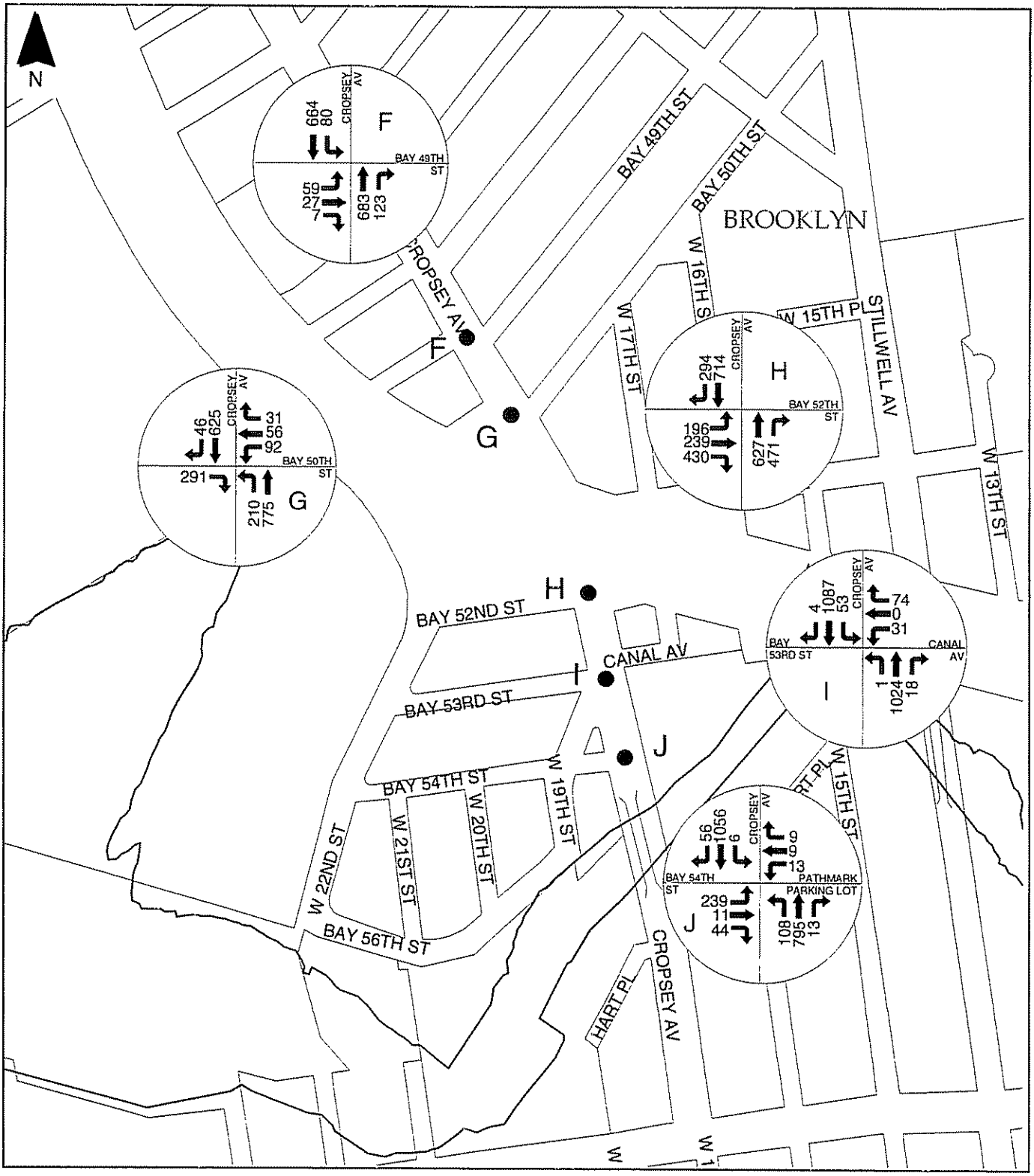

Site delineations are approximate
Base Map Source: New York City Department of City Planning

Figure 5.14A-10 Future No-Build Traffic Volumes
AM Peak
Southwest Brooklyn Converted MTS

CITY OF NEW YORK
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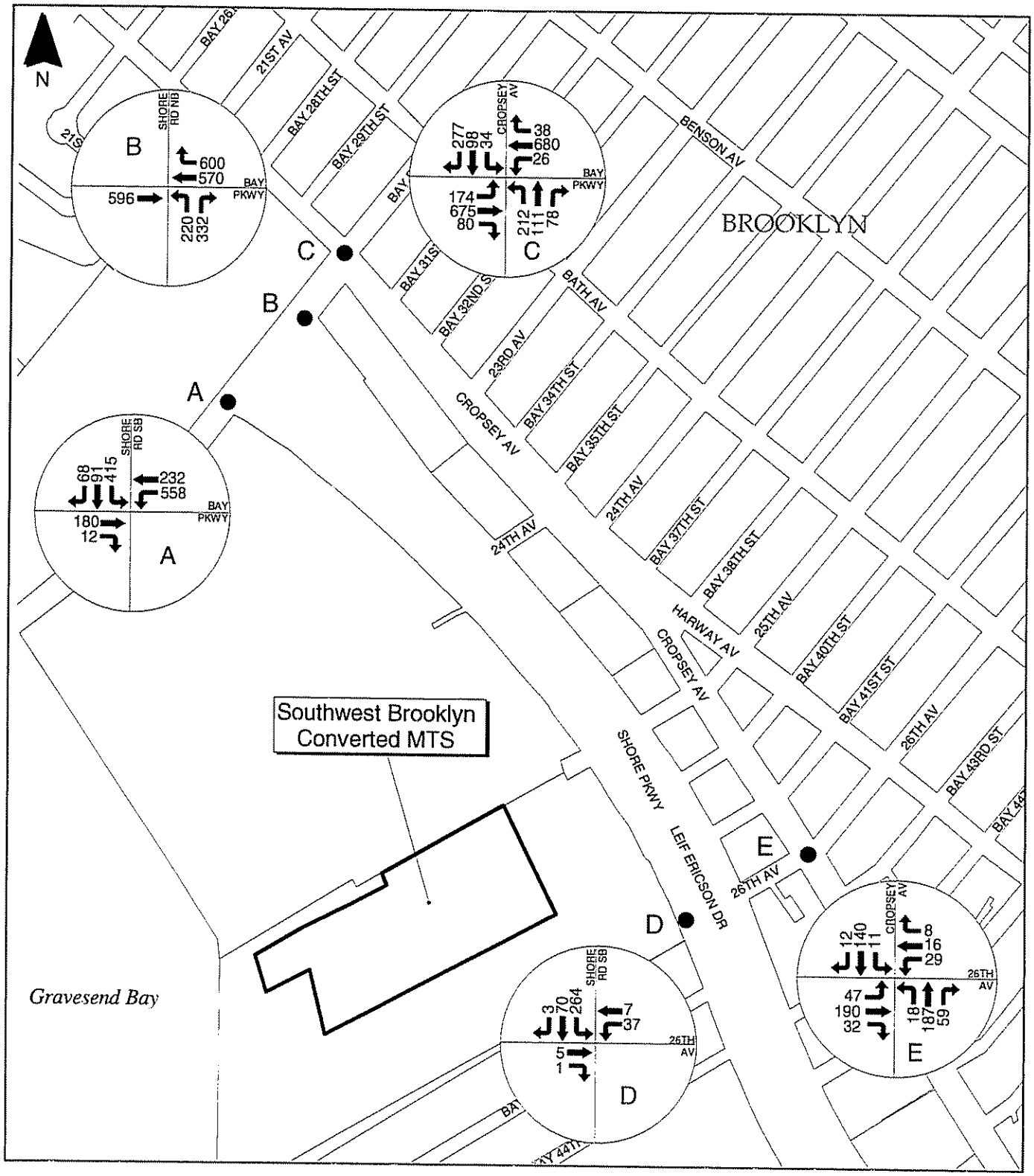

Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

HDR HydroQual URBITRAN PB EEA Cambridge Environmental Inc

Figure 5.14A-11 Future No-Build Traffic Volumes Facility Peak Southwest Brooklyn Converted MTS

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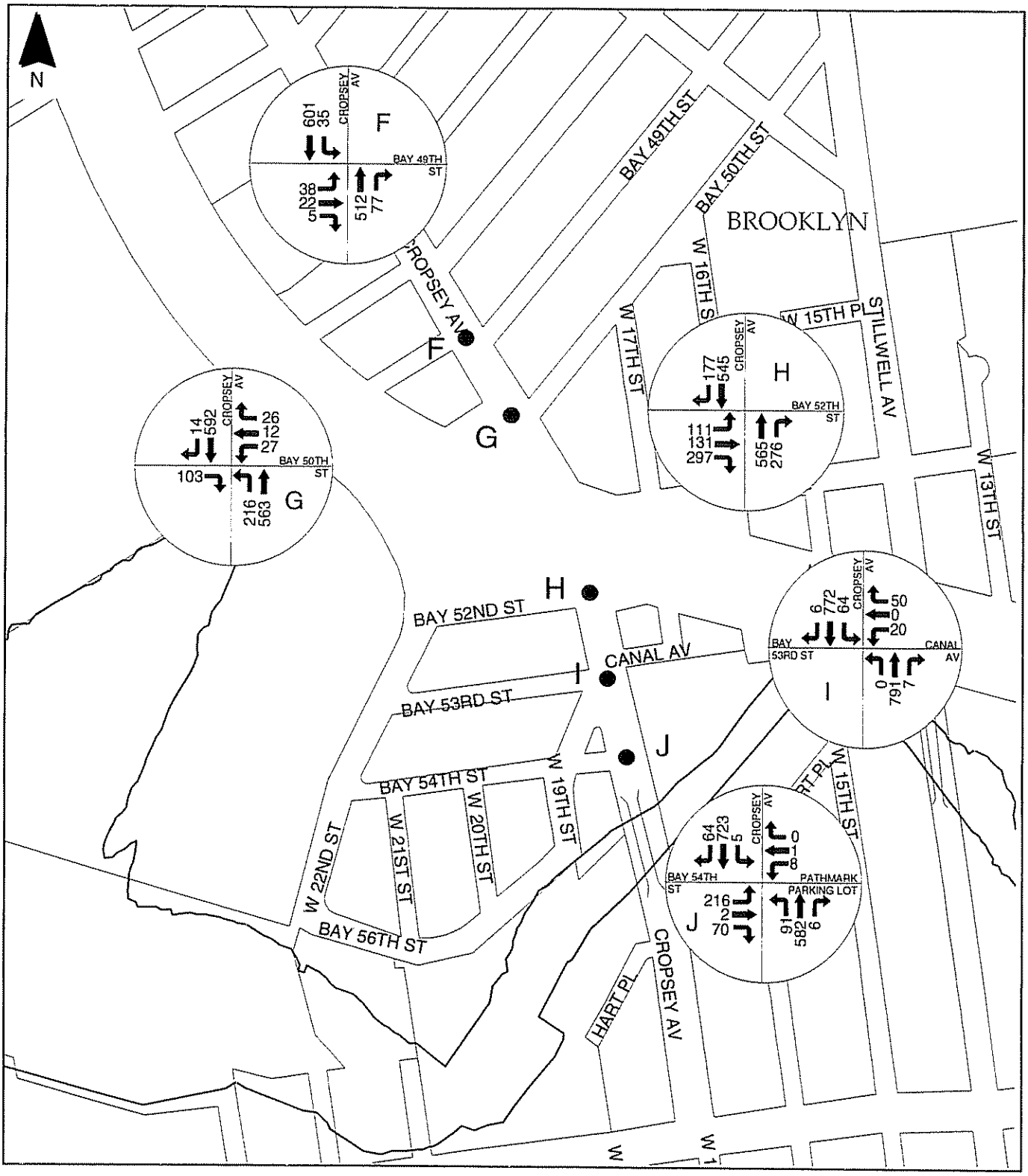

Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 5.14A-12 Future No-Build Traffic Volumes Facility Peak Southwest Brooklyn Converted MTS

CITY OF NEW YORK
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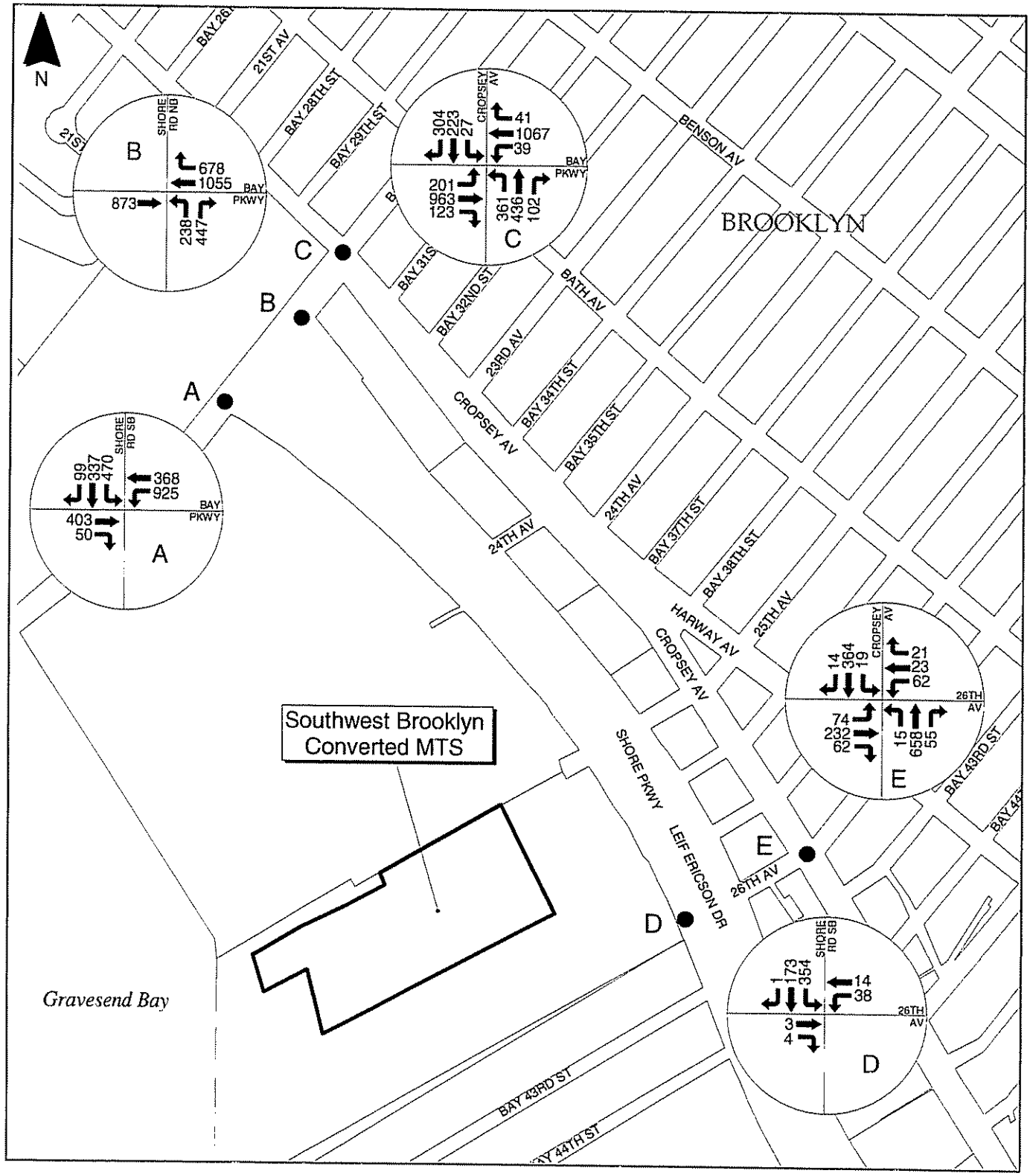

Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 5.14A-13 Future No-Build Traffic Volumes PM Peak Southwest Brooklyn Converted MTS

CITY OF NEW YORK
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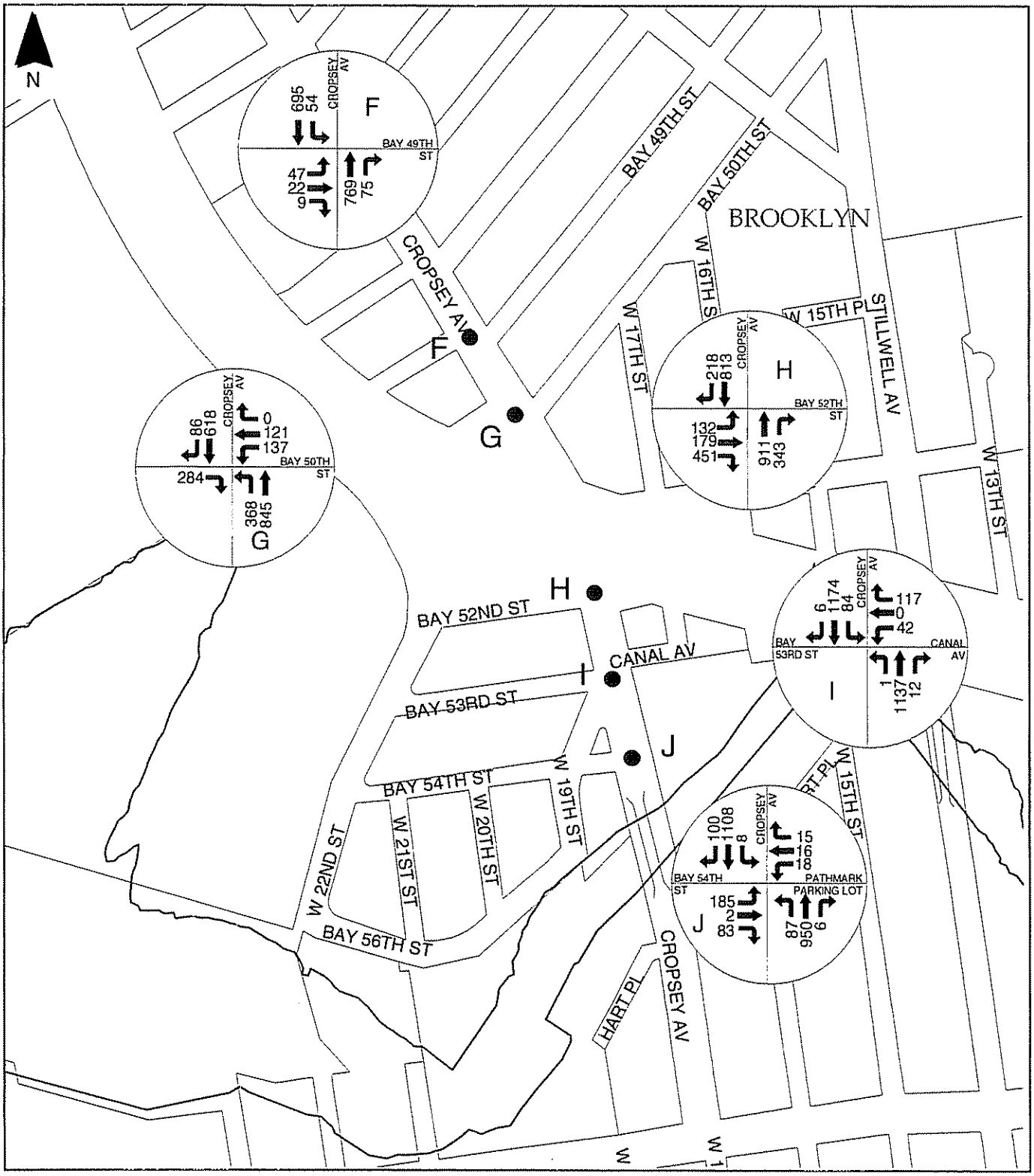

Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 5.14A-14 Future No-Build Traffic Volumes PM Peak Southwest Brooklyn Converted MTS

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Table 5.14a-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

Table 5.14a-2 (continued)
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 49th Street (signalized)									
EB LTR	0.25	19.2	B	0.18	18.3	B	0.27	19.7	B
NB TR	0.65	18.3	B	0.44	14.8	B	0.61	17.4	B
SB LT	0.93	35.8	D	0.56	16.9	B	0.76	22.5	C
OVERALL		26.7	C		16.0	B		19.8	B
Cropsey Avenue and Bay 50th Street (signalized)									
EB R	0.18	0.2	A	0.06	0.1	A	0.19	0.3	A
WB LTR	0.49	28.4	C	0.22	23.3	C	0.70	35.3	D
NB L	0.53	25.6	C	0.52	23.0	C	1.00	70.3	E
NB LT	0.37	10.1	B	0.27	9.4	A	0.38	10.3	B
SB TR	0.61	21.1	C	0.55	20.0+	C	0.58	20.6	C
OVERALL		15.7	B		15.9	B		25.0	C
Cropsey Avenue and Canal Avenue and Bay 52nd Street (signalized)									
EB L	0.39	22.0	C	0.20	19.6	B	0.24	20.1	C
EB TR	0.67	28.7	C	0.41	22.6	C	0.55	25.4	C
EB R	0.55	25.5	C	0.47	23.6	C	0.62	27.3	C
NB TR	0.56	14.9	B	0.42	13.2	B	0.53	14.4	B
SB T	0.51	14.5	B	0.38	12.9	B	0.52	14.7	B
SB R	0.44	14.5	B	0.27	12.3	B	0.27	12.3	B
OVERALL		18.0	B		15.5	B		17.3	B
Cropsey Avenue and Bay 53rd Street (signalized)									
WB LTR	0.21	19.7	B	0.15	18.9	B	0.32	21.2	C
NB LTR	0.54	14.7	B	0.35	12.4	B	0.52	14.4	B
SB L	0.35	17.4	B	0.25	13.3	B	0.59	28.9	C
SB TR	0.51	14.2	B	0.35	12.4	B	0.52	14.3	B
OVERALL		14.7	B		12.8	B		15.4	B
Cropsey Avenue and Bay 54th Street (signalized)									
EB L	0.74	44.2	D	0.55	34.6	C	0.45	31.8	C
EB LTR	0.41	30.2	C	0.36	29.1	C	0.42	30.2	C
WB LTR	0.09	25.2	C	0.04	24.7	C	0.18	26.3	C
NB L	0.41	20.7	C	0.30	12.1	B	0.37	19.5	B
NB TR	0.35	12.4	B	0.24	11.5	B	039	.12.8	B
SB L	0.02	8.1	A	0.02	6.7	A	0.03	9.0	A
SB TR	0.50	14.0	B	0.35	12.4	B	0.51	14.2	B
OVERALL		17.5	B		15.4	B		16.1	B

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

LT = left through movement

L= left movement

TR = through right movement

R = right movement

T = through movement

5.14a.3.2 Public Transportation

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

5.14a.3.3 Pedestrian Activity

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

5.14a.4Potential 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 self-help bulk (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.

5.14a.4.1 2006 Future Build Traffic Conditions

2006 Future Build Traffic 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 5.14a-2.

Figure 5.14-9 in Section 5.14 presents the average peak day temporal distribution of collection vehicles for the Southwest Brooklyn Converted MTS. Section 3.16 provides a detailed explanation of DSNY collection and delivery operational shifts (priority, non-priority and relay). As shown, the number of collection 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. Figures 5.14a-15, through 5.14a-20 depict the Future Build traffic volumes for AM, Facility, and PM peaks at the intersections analyzed. Figures 5.14a-21 through 5.14a-26 depict the net future traffic volumes added to the Future No-Build Conditions to generate Future Build Conditions for AM, Facility, and PM peaks at the intersections analyzed.

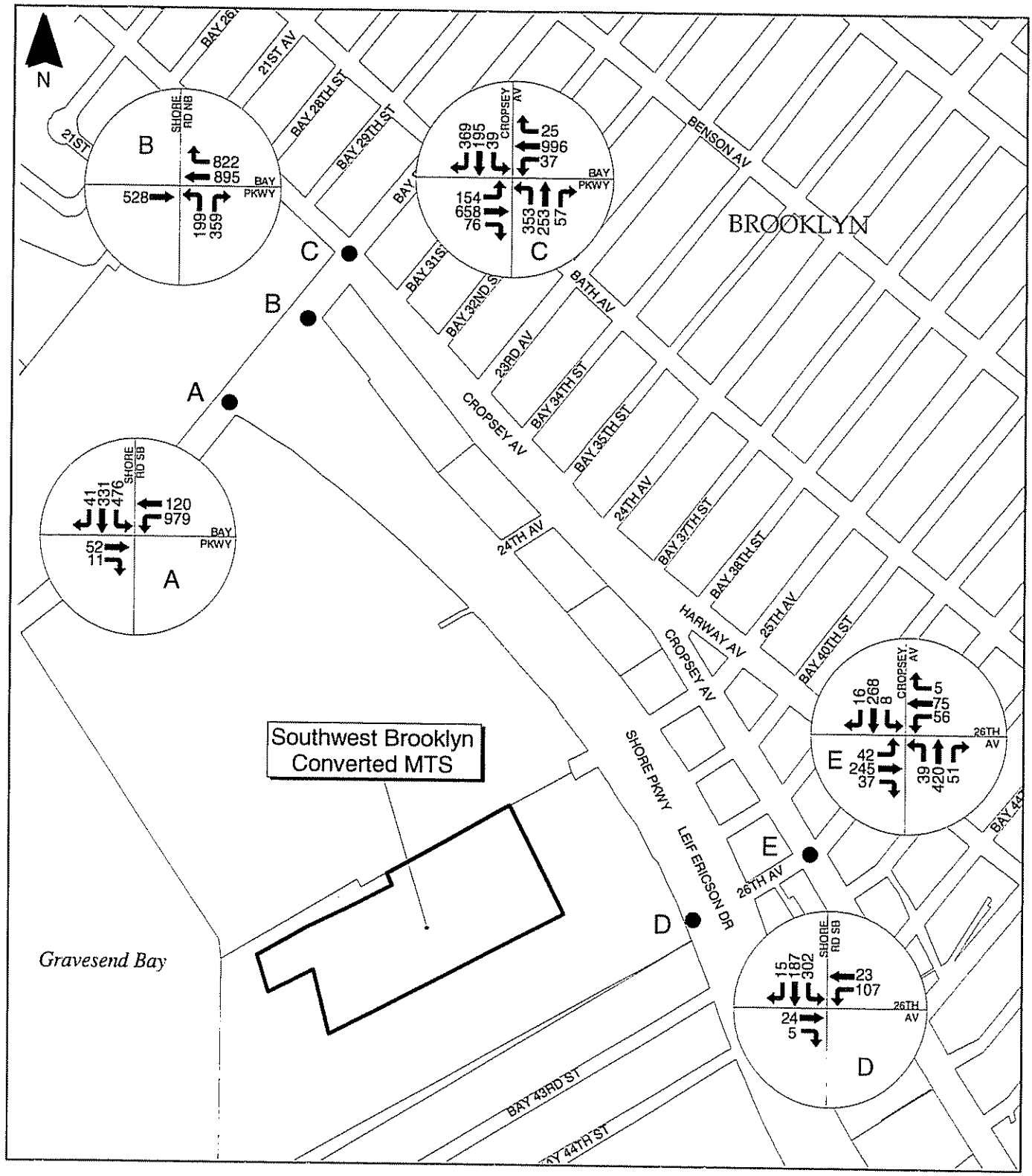
The need for Saturday analysis was considered. However, a traffic analysis was not performed on the projected net increases on Saturday truck trips because the total net increase in collection vehicles delivering waste on Saturdays would be approximately 85% of the inbound loads delivered during a typical average peak day. Additionally, traffic data indicated that the weekend background traffic volumes were approximately 98% of weekday traffic volumes.

Table 5.14a-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 5.14a-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 two intersections that may experience potentially significant impacts are discussed in Section 5.14a.4.2 and summarized in Table 5.14a-5.

5.14a.4.2 Impacts and Mitigation

Two of the ten intersections may experience impacts great enough to be considered significant during only one of the peak times analyzed; however, 2001 CEQR Technical Manual guidelines require mitigation for significant impacts regardless of the duration, as discussed in Section 3.16. The potential impacts identified and the mitigation measures analyzed are presented below; their effectiveness is summarized in Table 5.14a-5.

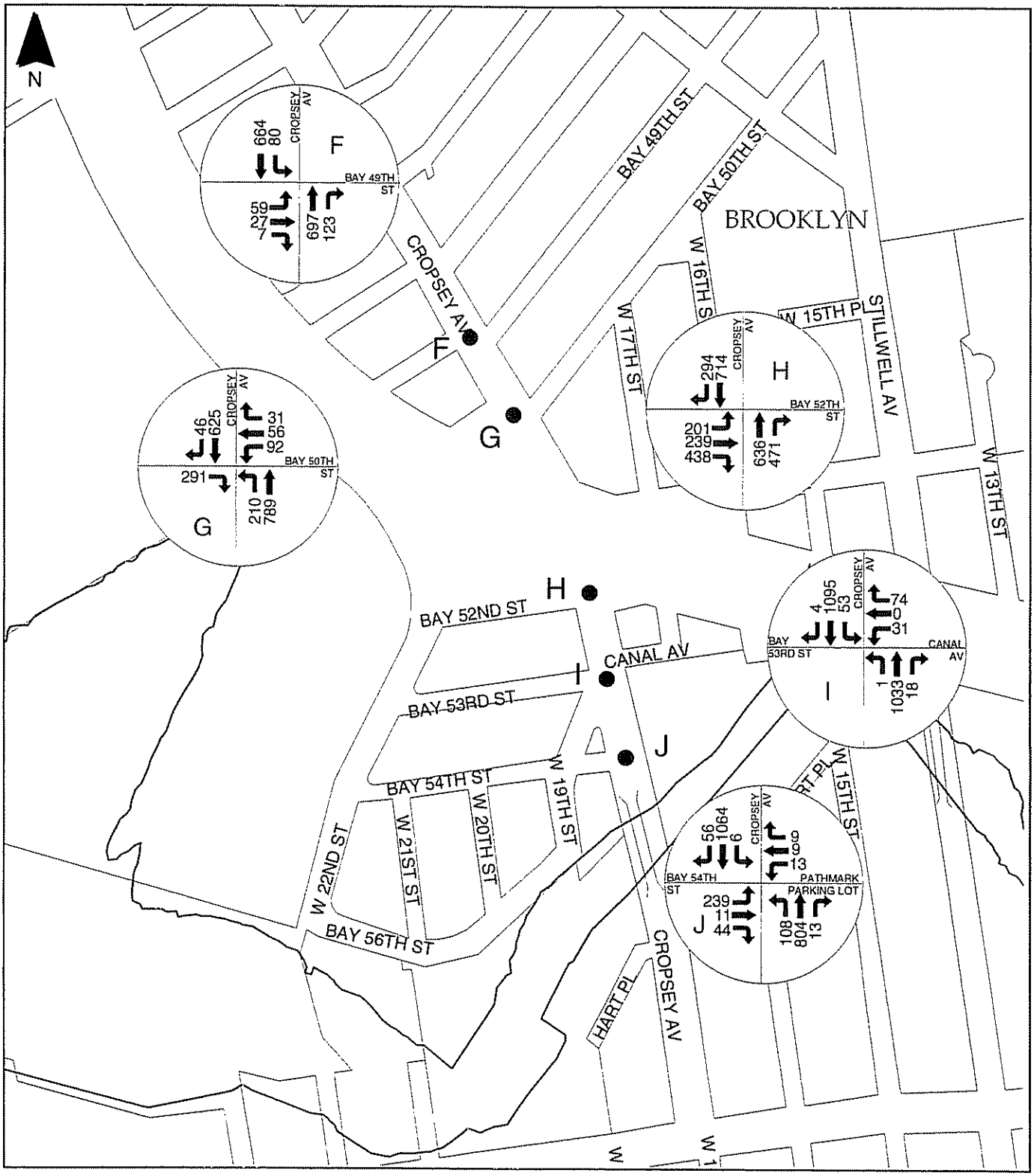


Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 5.14A-15 2006 Future 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

HDR URBITRAN EEA Cambridge Environmental Inc

Figure 5.14A-16 2006 Future Build Traffic Volumes
AM Peak
Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

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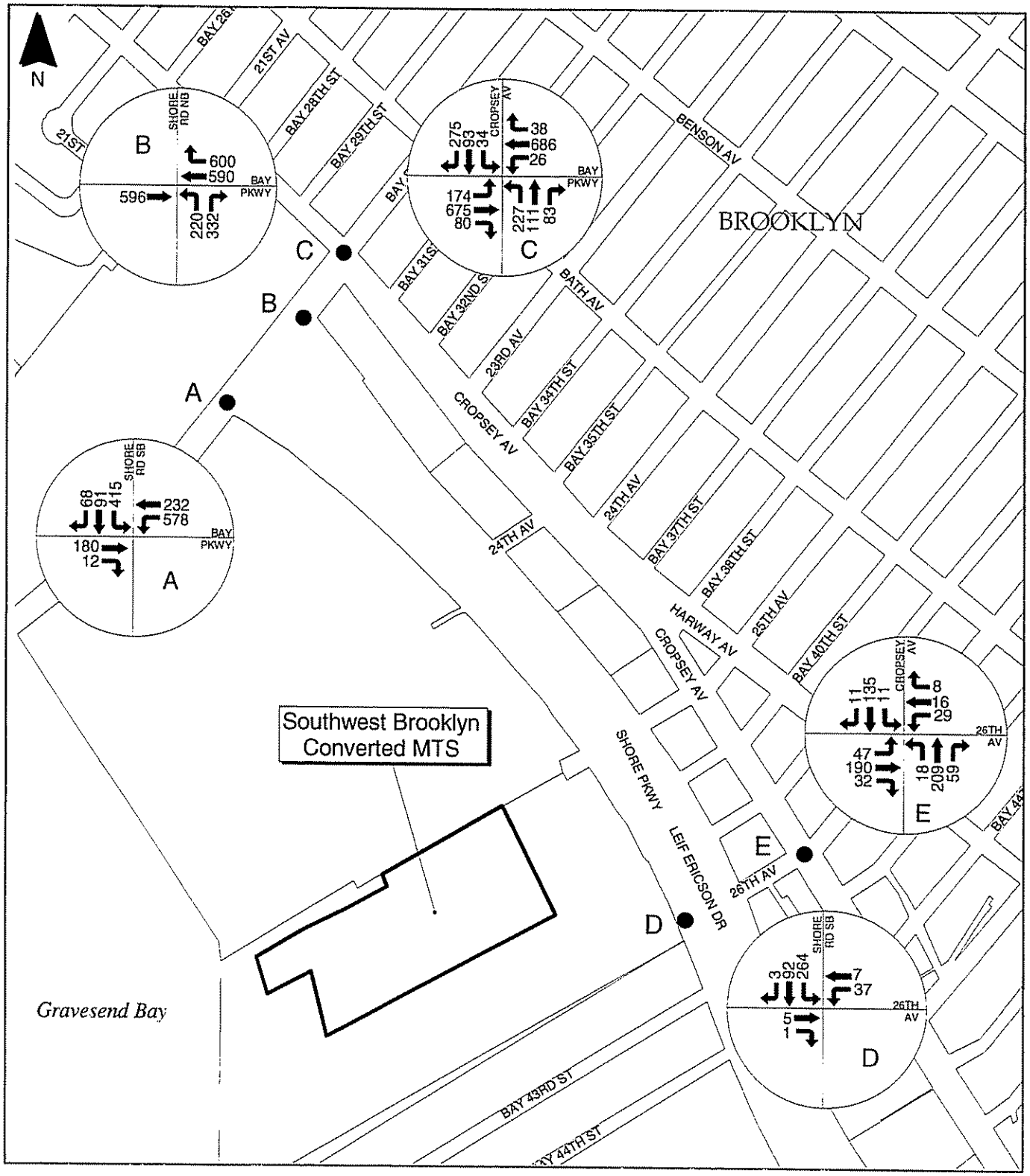
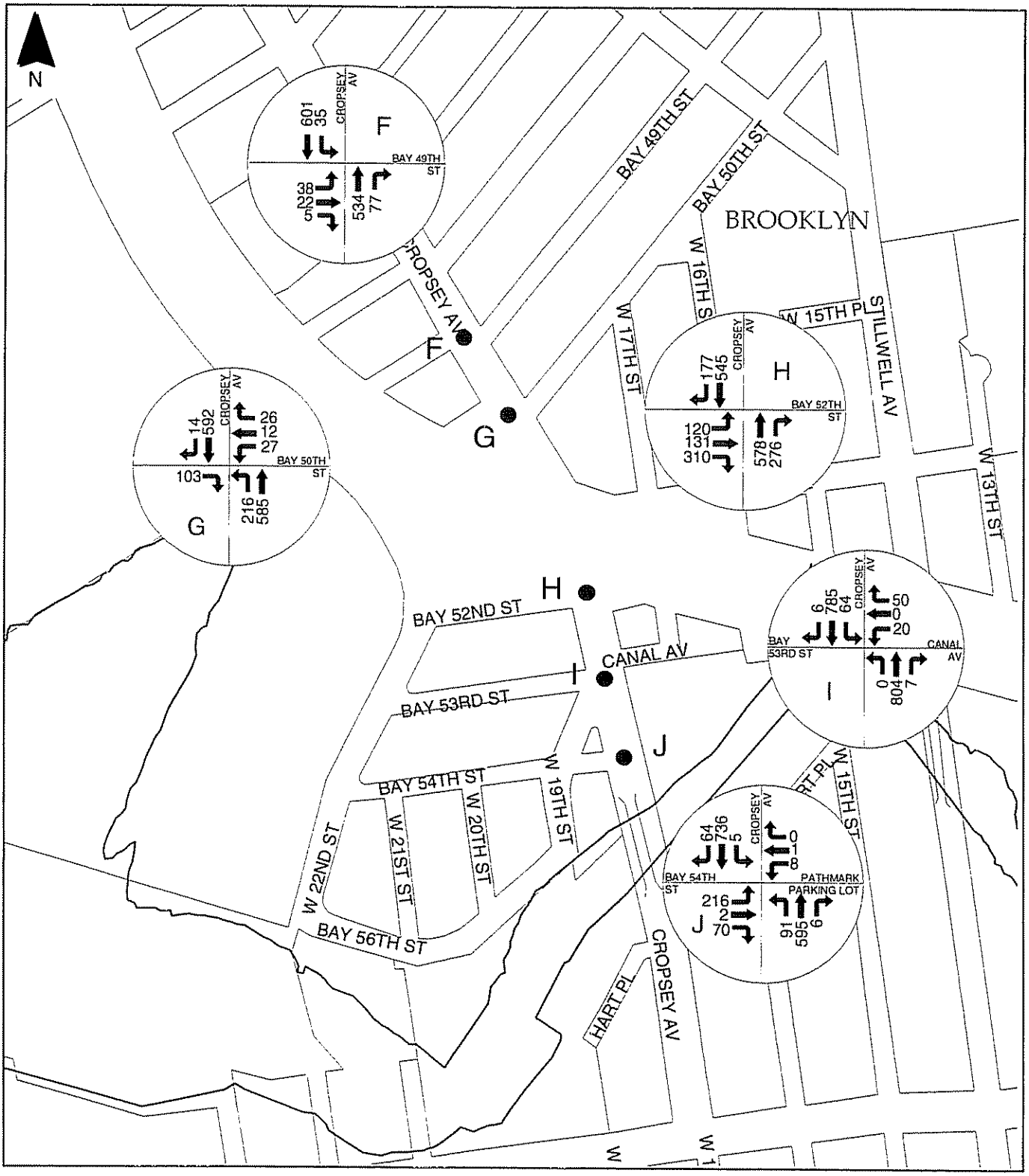


Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 5.14A-17 2006 Future 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

HDR URBITRAN EEA Hydroqual PB Cambridge Environmental Inc

Figure 5.14A-18 2006 Future Build Traffic Volumes
Facility Peak
Southwest Brooklyn Converted MTS

CITY OF NEW YORK
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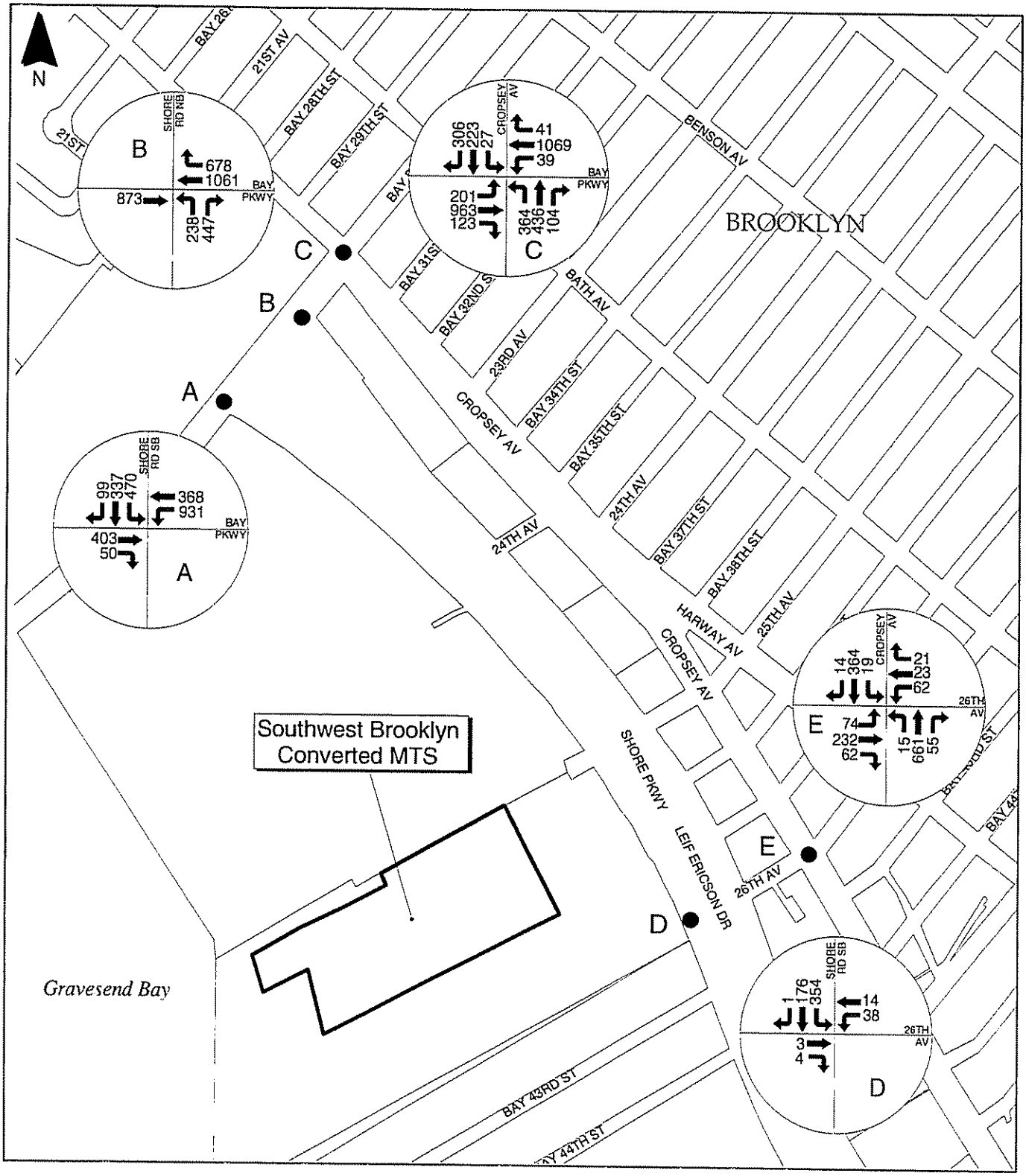

Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

Figure 5.14A-19 2006 Future Build Traffic Volumes
PM Peak
Southwest Brooklyn Converted MTS

CITY OF NEW YORK
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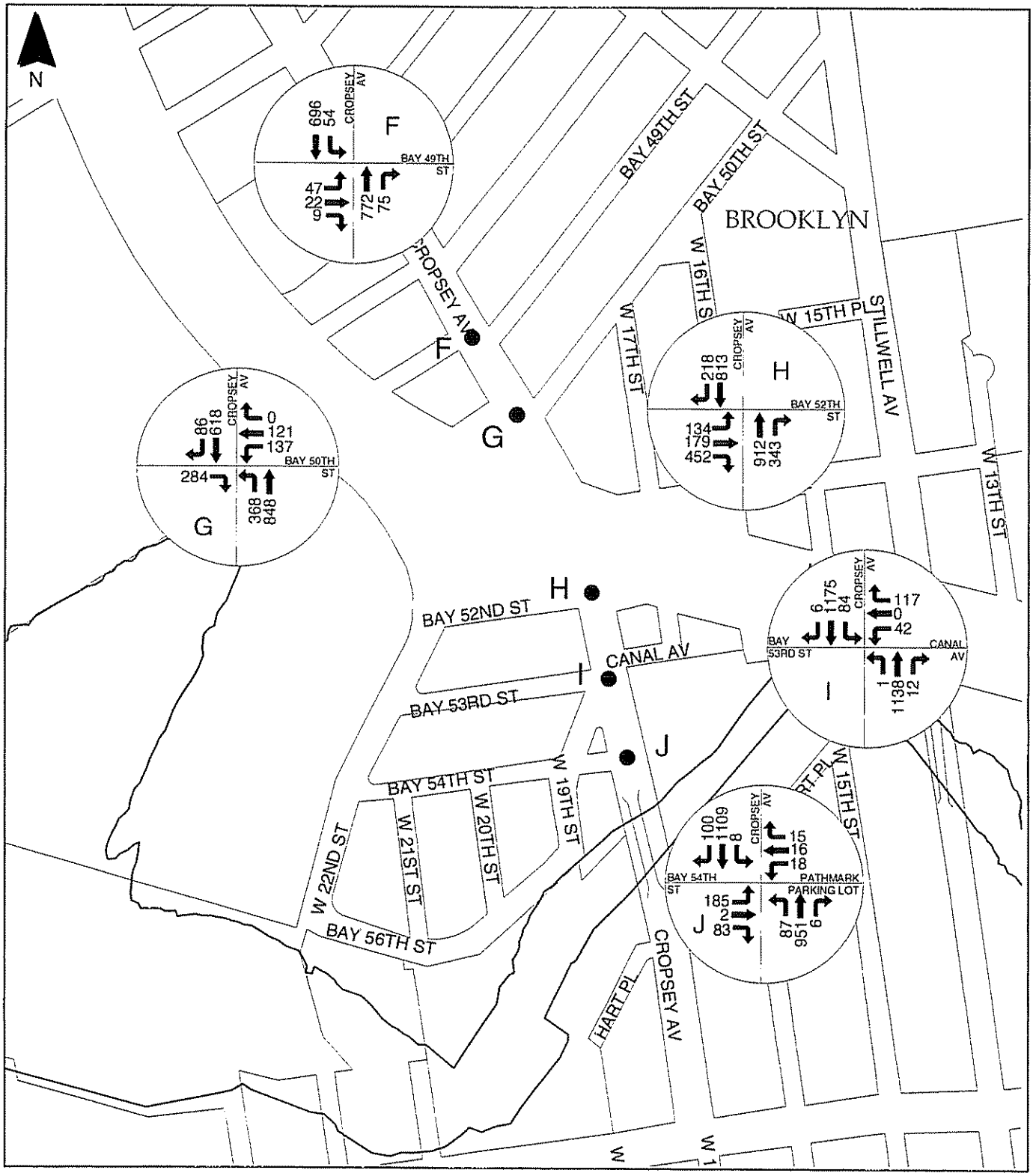

Figure 5.14A-20 2006 Future Build Traffic Volumes PM Peak Southwest Brooklyn Converted MTS

CITY OF NEW YORK
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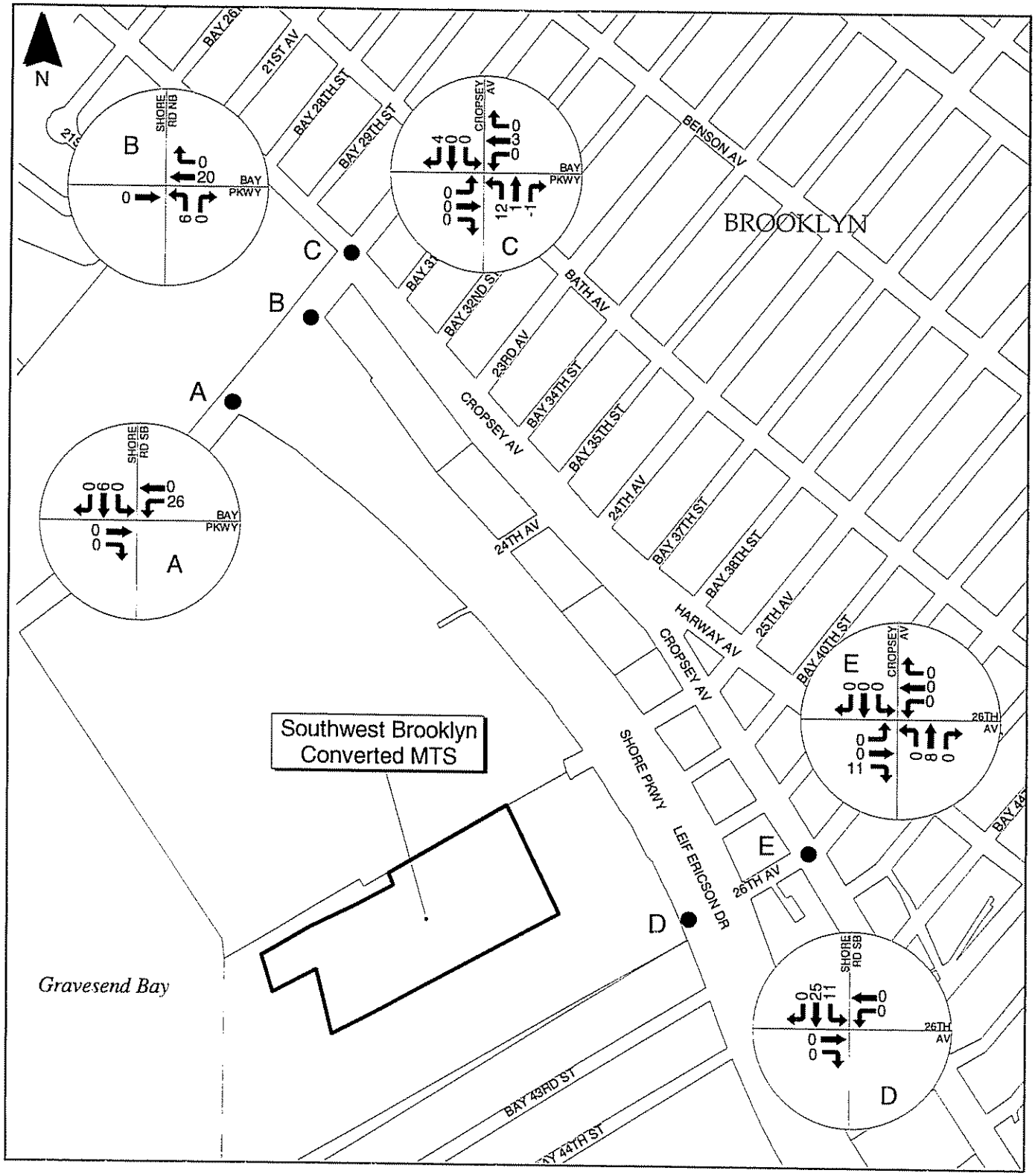

Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

HDR URBITRAN EEA HydroQual PB

Figure 5.14A-21 2006 Net Traffic - AM Peak
Southwest Brooklyn Converted MTS

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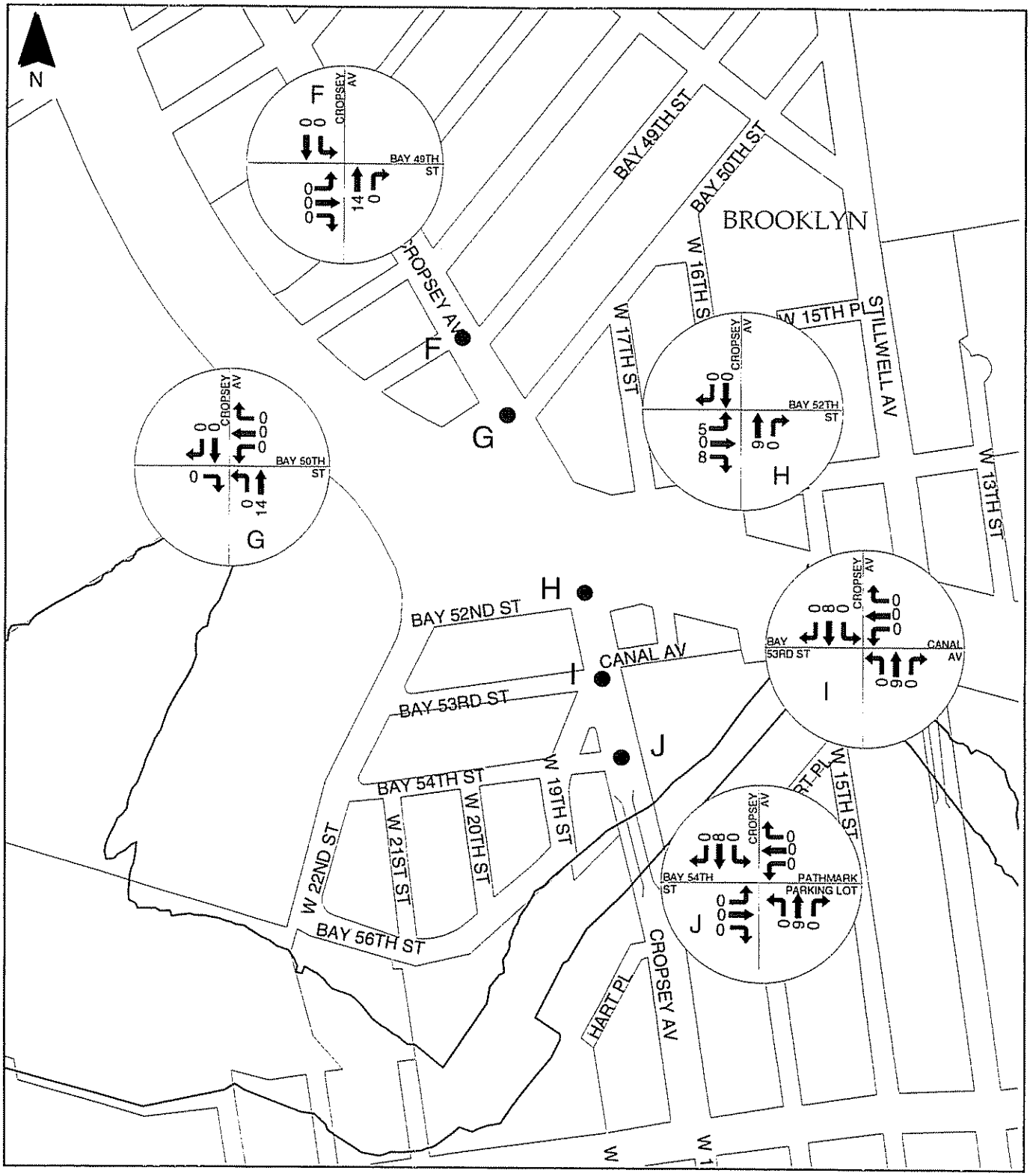

Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

HDR URBITRAN EEA Cambridge Environmental Inc

Figure 5.14A-22 2006 Net Traffic - AM Peak

Southwest Brooklyn Converted MTS

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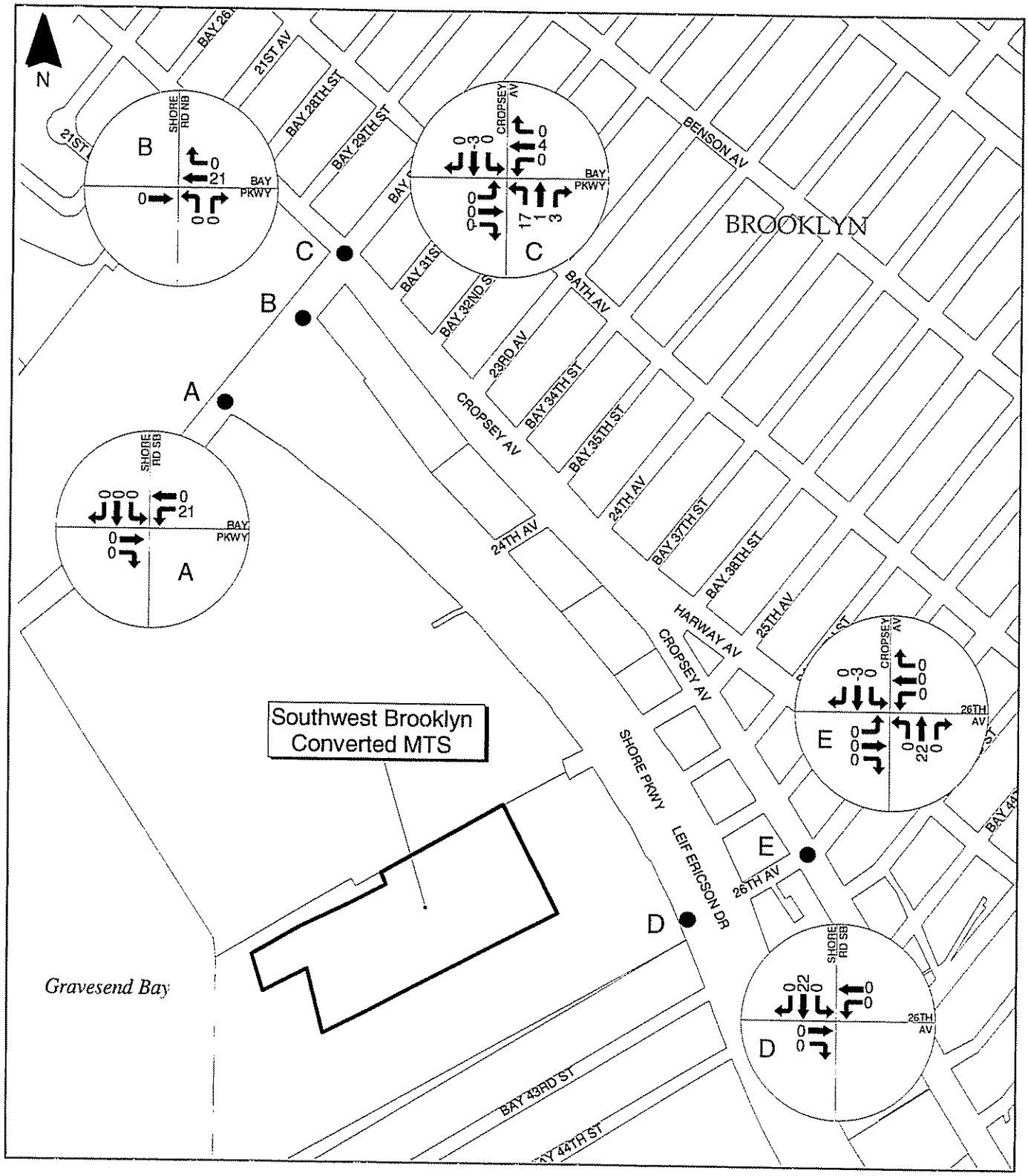

Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

HDR URBITRAN EEA Cambridge Environmental Inc HydroQual DD ESE

Figure 5.14A-23 2006 Net Traffic - Facility Peak

Southwest Brooklyn Converted MTS

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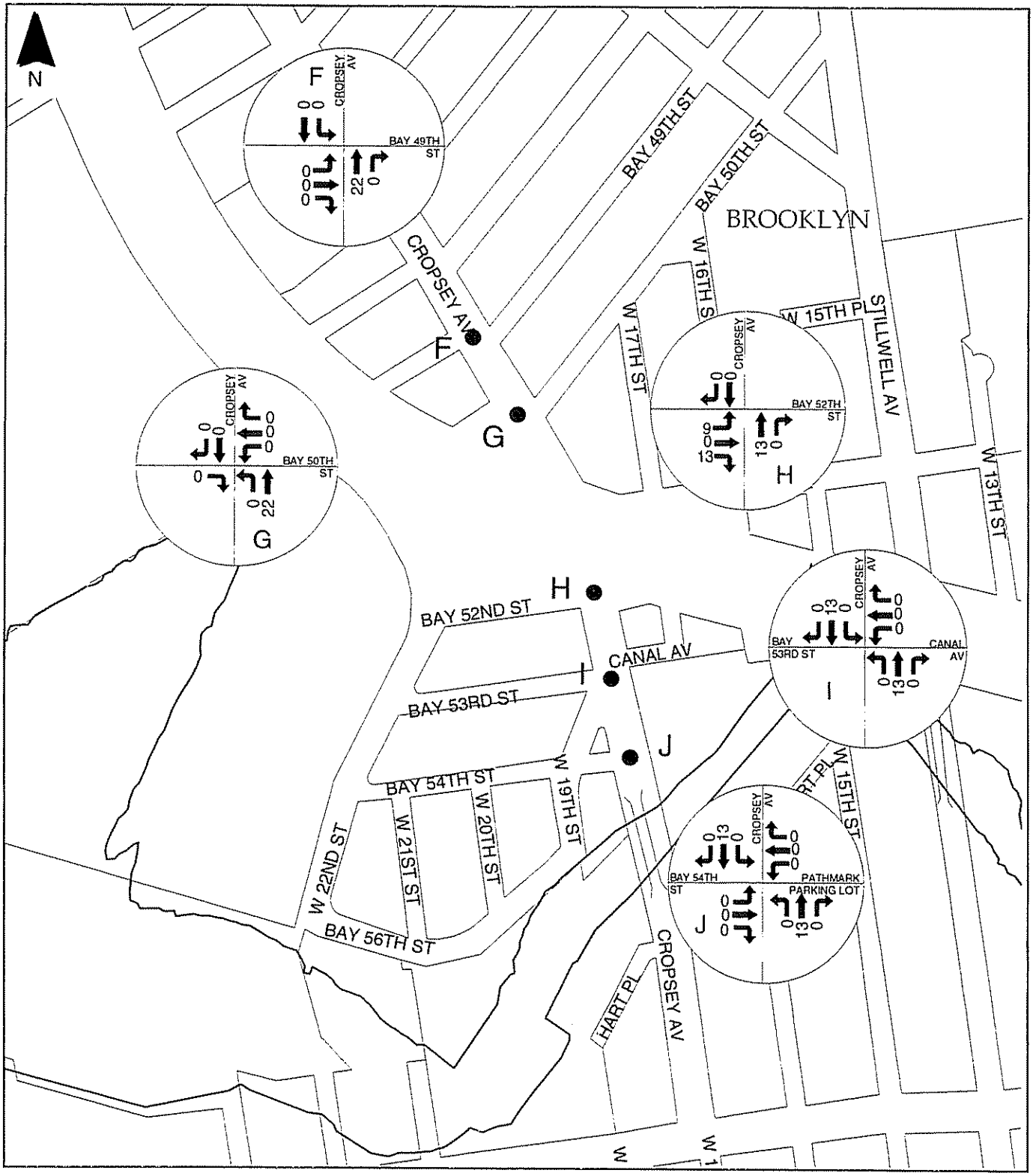

Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

HDR Hydroacoustic URBITRAN DMJM+ EEA Cambridge Environmental Inc

Figure 5.14A-24 2006 Net Traffic - Facility Peak

Southwest Brooklyn Converted MTS

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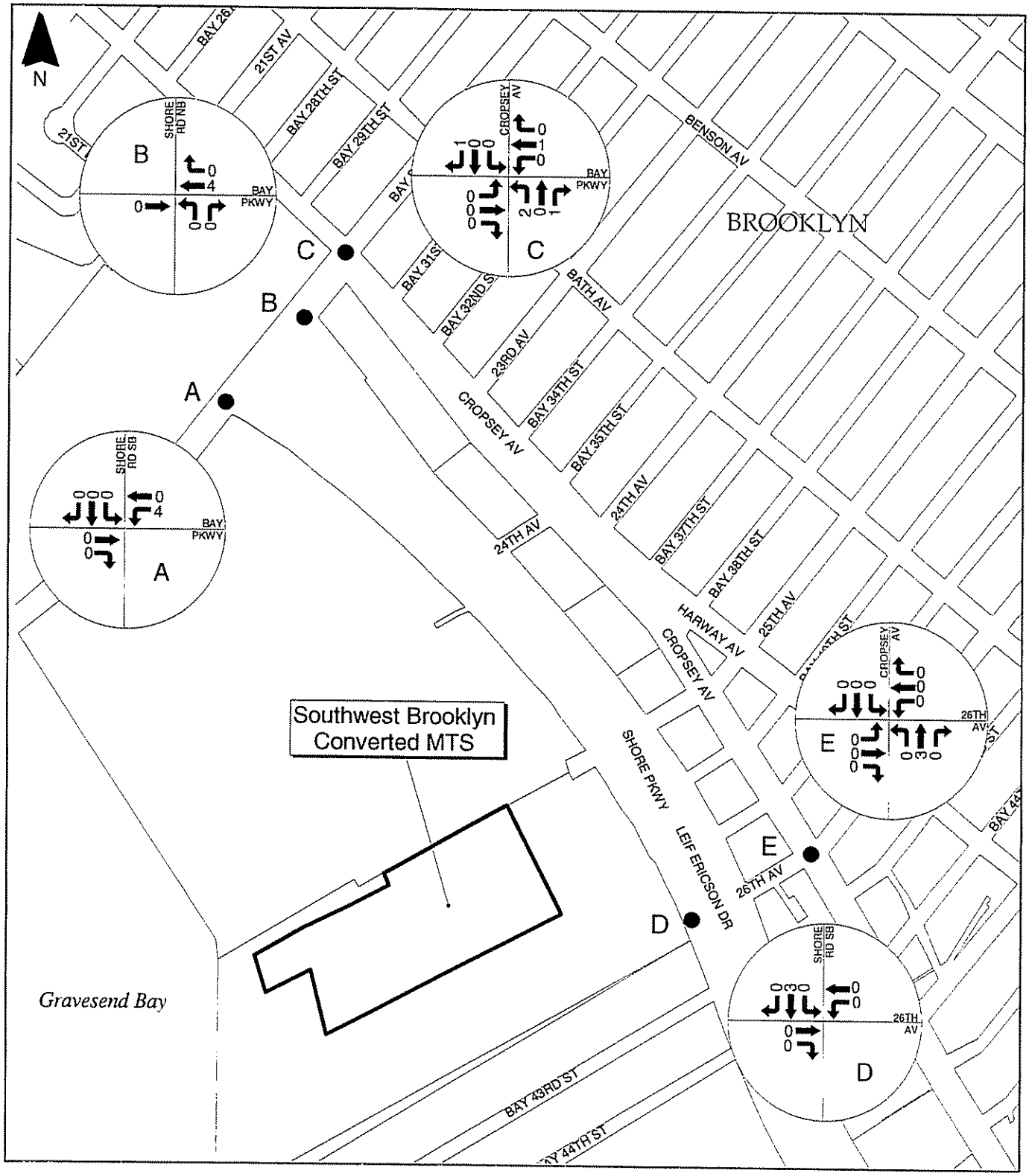

Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

HDR URBITRAN EEA Cambridge Environmental Inc

Figure 5.14A-25 2006 Net Traffic - PM Peak
Southwest Brooklyn Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION

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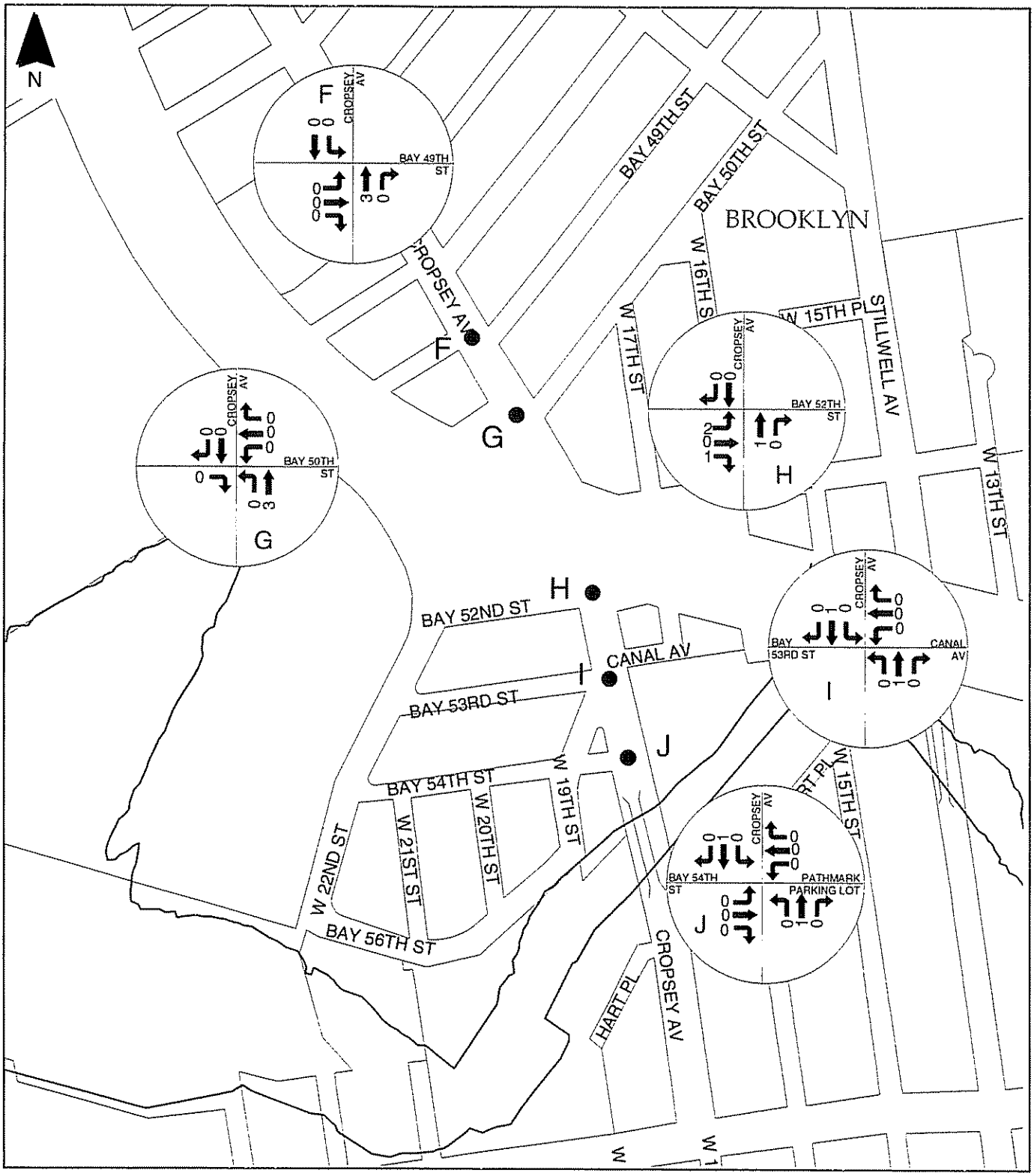

Site delineations are approximate
Base Map Source: New York City Department of City Planning

500 0 500 Feet

HDR URBITRAN EEA Cambridge Environmental Inc

Figure 5.14A-26 2006 Net Traffic - PM Peak

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
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Table 5.14a-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 5.14a-4
HCM Analysis[1]— 2006 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	0.91	54.0	D	0.74	36.8	D	0.87	46.9	D
WB LTR	0.58	32.1	C	0.24	22.9	C	0.34	24.9	C
NB LTR	0.45	13.6	B	0.28	11.8	B	0.50	14.2	B
SB LTR	0.25	11.4	B	0.16	10.7	B	0.31	12.0	B
OVERALL		26.1	C		21.2	C		22.0	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	0.88	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	-	8.2	A	-	7.9	A
WB LT	-	10.2	B	-	9.2	A	-	8.8	A
SB L	-	12.5	B	-	10.6	B	-	11.3	B
SB TR	-	9.2	A	-	9.1	A	-	8.3	A
OVERALL		10.9	B		9.8	A		10.1	B

Table 5.14a-4 (continued)
HCM Analysis[1]— 2006 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 49th Street (signalized)									
EB LTR	0.25	19.2	B	0.18	18.3	B	0.27	19.7	B
NB TR	0.66	18.7	B	0.47	15.2	B	0.61	17.5	B
SB LT	0.94	37.3	D	0.57	17.0	B	0.76	22.6	C
OVERALL		27.5	C		16.2	B		19.9	B
Cropsey Avenue and Bay 50th Street (signalized)									
EB R	0.18	0.2	A	0.06	0.1	A	0.19	0.3	A
WB LTR	0.49	28.4	C	0.22	23.3	C	0.70	35.3	D
NB L	0.53	25.6	C	0.52	23.0	C	1.00	70.3	E
NB LT	0.38	10.2	B	0.29	9.5	A	0.38	10.3	B
SB TR	0.61	21.1	C	0.55	20.0+	C	0.58	20.6	C
OVERALL		15.7	B		15.8	B		25.0	C
Cropsey Avenue and Canal Avenue and Bay 52nd Street (signalized)									
EB L	0.40	22.3	C	0.23	19.9	B	0.25	20.1	C
EB TR	0.67	28.9	C	0.43	22.9	C	0.55	25.4	C
EB R	0.57	25.8	C	0.50	24.3	C	0.63	27.3	C
NB TR	0.56	15.0	B	0.43	13.3	B	0.53	14.4	B
SB T	0.51	14.5	B	0.38	12.9	B	0.52	14.7	B
SB R	0.44	14.5	B	0.27	12.3	B	0.27	12.3	B
OVERALL		18.2	B		15.8	B		17.3	B
Cropsey Avenue and Bay 53rd Street (signalized)									
WB LTR	0.21	19.7	B	0.15	18.9	B	0.32	21.2	C
NB LTR	0.55	14.8	B	0.36	12.5	B	0.52	14.4	B
SB L	0.35	17.7	B	0.25	13.5	B	0.59	28.9	C
SB TR	0.51	14.2	B	0.36	12.5	B	0.52	14.3	B
OVERALL		14.8	B		12.9	B		15.4	B
Cropsey Avenue and Bay 54th Street (signalized)									
EB L	0.74	44.2	D	0.55	34.6	C	0.45	31.8	C
EB LTR	0.41	30.2	C	0.36	29.1	C	0.42	30.2	C
WB LTR	0.09	25.2	C	0.04	24.7	C	0.18	26.3	C
NB L	0.42	21.2	C	0.30	12.4	B	0.37	19.5	B
NB TR	0.35	12.5	B	0.25	11.5	B	039	.12.8	B
SB L	0.02	8.2	A	0.02	6.8	A	0.03	9.0	A
SB TR	0.50	14.1	B	0.36	12.5	B	0.51	14.2	B
OVERALL		17.6	B		15.4	B		16.1	B

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 TR = through right movement
LT = left through movement R = right movement
L= left movement T = through movement

Table 5.14a-5
HCM Analysis[1] — 2006 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
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.
DFL = defacto left
LTR = left, through and right movements
NB = northbound
SB = southbound
EB = eastbound
WB = westbound
L= left movement
TR = through right movement
R = right movement
T = through movement

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 one 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.

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.

5.14a.4.3 Public Transportation

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

5.14a.4.4 Pedestrian Activity

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

5.15 Air Quality

5.15.1 Definition of Study Areas

The study area for the on-site air quality analysis for criteria pollutants (except $PM_{2.5}$) is defined as the area within 500 meters (0.3 miles) of the property line in all directions. The study area for the on-site analysis for $PM_{2.5}$ is defined as the area within 500 meters from the highest impact location of the Southwest Brooklyn Converted MTS. The study area for the off-site air quality analysis is the intersections listed in Section 5.15.4.2.

5.15.2 Existing Conditions

Applicable air quality data collected at the monitoring station(s) nearest to the study area are shown in Table 5.15.1. These data were compiled by NYSDEC for the latest calendar year for which applicable data are currently available. The monitored levels do not exceed national and state ambient air quality standards.

Table 5.15-1
Representative Ambient Air Quality Data
Southwest Brooklyn Converted MTS

Pollutant	Monitor	Averaging Time	Value	NAAQS
CO[(1)]	MTA, Flatbush Avenue between Tillary Street and Johnson Avenue	8-Hour	3,436 $\mu g/m^3$	10,000 $\mu g/m^3$
		1-Hour	4,695 $\mu g/m^3$	40,000 $\mu g/m^3$
NO_2	College Point Post Office	Annual	56 $\mu g/m^3$	100 $\mu g/m^3$
PM_{10}[(2)]	P.S. 314	Annual	25 $\mu g/m^3$	50 $\mu g/m^3$
		24-Hour	55 $\mu g/m^3$	150 $\mu g/m^3$
SO_2	P.S. 321	3-Hour	152 $\mu g/m^3$	1,300 $\mu g/m^3$
		24-Hour	94 $\mu g/m^3$	365 $\mu g/m^3$
		Annual	24 $\mu g/m^3$	80 $\mu g/m^3$

Notes:
Source: NYCDEP, April 2003 & USEPA Airdata – Monitor Values Report (http://oaspub.epa.gov/airdata)
(1) Values are the highest pollutant levels recorded during the 2003 calendar year.
(2) Values are the highest pollutant levels recorded during the 1998 calendar year.

5.15.3 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.

5.15.4 Potential Impacts with the Southwest Brooklyn Converted MTS

5.15.4.1 On-Site Analysis

5.15.4.1.1 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 5.15-2. Figure 5.15-1 shows the locations of these sources within the site.

5.15.4.1.2 Results of the Criteria Pollutant Analysis

The highest estimated criteria pollutant concentrations at any of the receptor locations considered are presented in Table 5.15-3. These values are below the national and state ambient air quality standards for the appropriate averaging time periods. In addition, the highest estimated changes in 24-hour and annual $PM_{2.5}$ concentrations from Southwest Brooklyn Converted MTS-generated vehicles at any of the receptor locations considered, which are also presented in Table 5.15-3, are below the STVs. Based on the results presented in Table 5.15-3, operations at the Southwest Brooklyn Converted MTS would not significantly impact air quality in the area.

Table 5.15-2
Emission Sources Considered for On-Site Air Quality Analysis[1]
Southwest Brooklyn Converted MTS

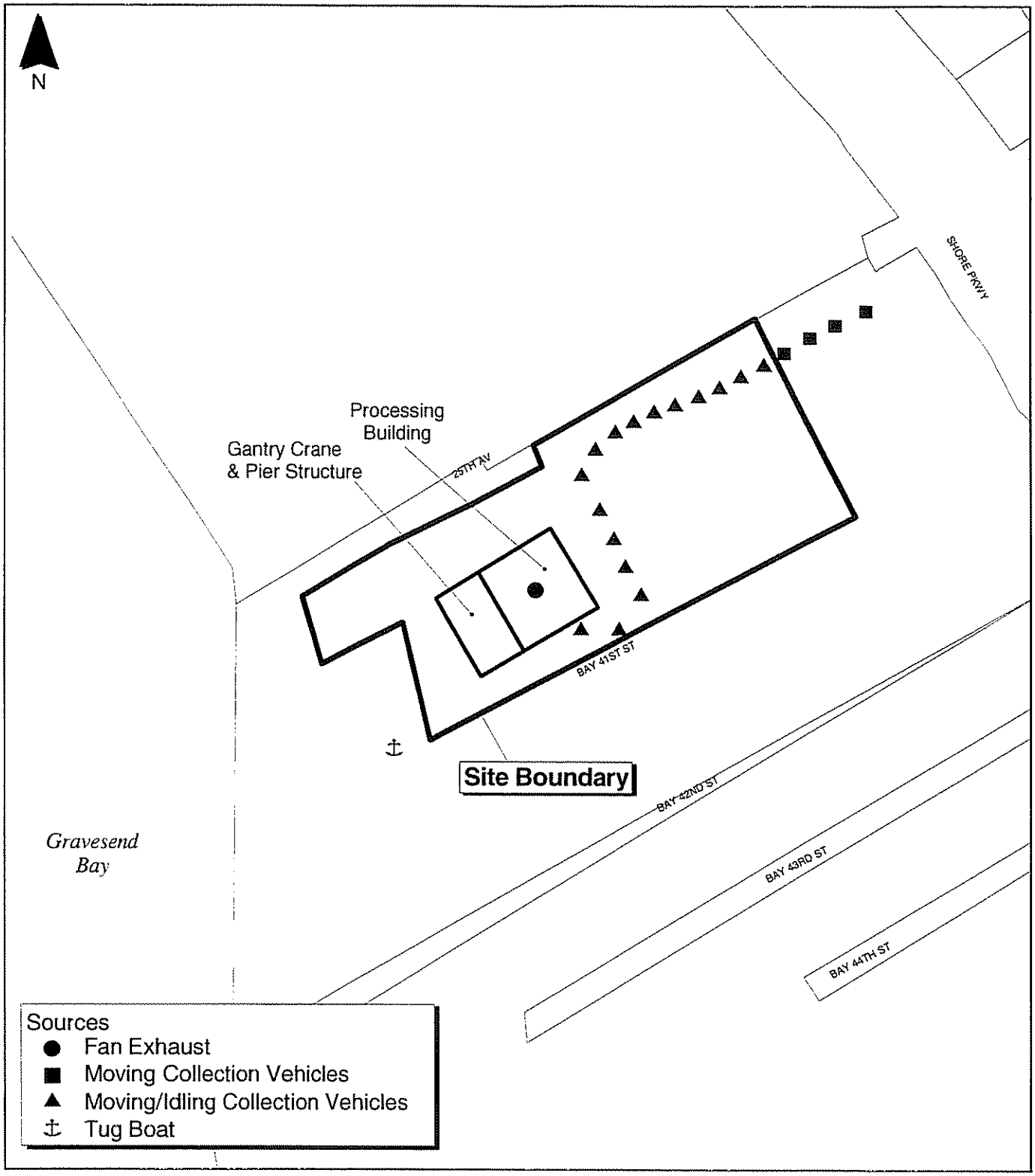
Type of Emission Source	Maximum Number of Sources Operated During a Single Hour[2]	Number of Sources Operated Over 24-hour and Annual Average Periods
Within Processing Building		
Wheel Loaders	2	1
Mini Loaders	1	1
Tamping Cranes	1	1
Mini-Sweepers	1	1
Vacuum Sweepers	1	1
Moving/Queuing Collection Vehicles	46	6
Space Heaters	6	4
Boiler	1	1
Outside Processing Building		
Moving Collection Vehicles	46	18
Queuing Collection Vehicles[3]	35 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~~to be provided upon request.

(2) This is based on design capacity of the Converted MTS, not analyzed truck arrival rates.

(3) Peak 8-hour and 3-hour average number of queuing collection vehicles outside building is 6. Theoretically, the 3-hour value should be no less than one-third of the peak 1-hour value (one third of 35), but for this analysis, the 3-hour and 8-hour values are more realistic estimates of actual peak queuing activity, while the 1-hour peak is simply a conservative assumption based on the maximum available physical queuing space on the entrance road/ramp.



Site delineations are approximate
Base Map Source: New York City Department of City Planning
Note: These are modeled source locations used in the on-site air quality analysis and do not represent individual collection vehicles

200 0 200 Feet

HDR URBITRAN EEA Cambridge Environmental Inc HydroQual PB

Figure 5.15-1 On-Site Air Quality Analysis

Southwest Brooklyn Converted MTS

CITY OF NEW YORK
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Table 5.15-3
Highest Estimated Concentrations of the Criteria Pollutants from On-Site Emissions
Southwest Brooklyn Converted MTS

Pollutant	Averaging Time Period	Maximum Impacts from On-Site Emission Sources [1]	Background Pollutant Concentrations [2]	Highest Estimated On-Site Pollutant Concentrations	NAAQS[3]	STV[4]
Carbon Monoxide (CO), $\mu g/m^3$	1-hour[6]	~~650~~893	3,781	~~4,431~~4,674	40,000	NA
	8-hour[6]	~~148~~221	2,635	~~2,783~~2,856	10,000	NA
Nitrogen Dioxide (NO_2), $\mu g/m^3$	Annual	45	56	~~60~~61	100	NA
Particulate Matter (PM_{10}), $\mu g/m^3$	24-hour[7]	~~28~~41	~~91~~90	~~119~~131	150	NA
	Annual	~~3~~5	~~27~~20	~~30~~25	50	NA
Particulate Matter ($PM_{2.5}$), $\mu g/m^3$	24-hour	~~1.6~~2.9	NA	NA	NA	5
	Annual Neighborhood Average	0.025[5]	NA	NA	NA	0.1
Sulfur Dioxide (SO_2), $\mu g/m^3$	3-hour[6]	35	~~152~~186	~~187~~221	1,300	NA
	24-hour[6]	2	~~94~~107	~~96~~109	365	NA
	Annual	0.3	~~24~~18	~~24~~18	80	NA

Notes:
(1) The highest estimated pollutant concentrations found at any of the off-site receptor locations.
(2) Background concentrations were obtained from the NYCDEP ~~in April 2003~~ memorandum dated February 18, 2005..
(3) NAAQS = National Ambient Air Quality Standard.
(4) Screening threshold value (STV) established by the NYCDEP and NYSDEC.
(5) Average $PM_{2.5}$ concentration over 1 km x 1 km "neighborhood-scale" receptor grid.
(6) The standards for these averaging periods allow one exceedance per year, so the use of the overall maximum concentration provides a very conservative comparison with standards.
(7) The 24-hour PM_{10} NAAQS is based on a 99_{th} percentile concentration, which means that the high, 4th high concentration is appropriate for comparison with the standard. Therefore, the use of the overall highest concentration in this comparison is ~~quite~~ very conservative.
NA = Not Applicable

5.15.4.1.3 Results of the Toxic Pollutant Analysis

The results of the toxic pollutant analysis are summarized in Table 5.15-4. The highest estimated non-carcinogenic toxic air pollutant impacts are below the short-term (acute) and long-term (chronic) hazard index thresholds specified in New York State's Air Guide 1. In addition, the highest estimated carcinogenic impacts are less than the one-in-a-million threshold level that is defined by 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.

5.15.4.2 Off-Site Analysis

5.15.4.2.1 Pollutants Considered and Analyses Conducted

Locations that may be significantly impacted by DSNY and other agency collection vehicles were identified using 2001 CEQR Technical Manual guidelines outlined in Section 3.17. Following these guidelines, detailed mobile source analyses were conducted at the following locations for the applicable (i.e., worst-case) time periods:

- 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

- 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.

Table 5.15-4
Highest Estimated Non-Cancer Hazard Index and Cancer Risk of Toxic Air Pollutants from On-Site Emissions
Southwest Brooklyn Converted MTS

No.	Toxic Air Pollutants	Acute Non-Cancer Risk			Chronic Non-Cancer Risk			Cancer Risk		
		Highest Estimated Short-Term (1-hr) Pollutant Conc.[1] ($\mu g/m^3$)	Short-Term (1-hr) Guideline Conc. (SGCs) [2] ($\mu g/m^3$)	Acute Non-Cancer Hazard Index[3]	Highest Estimated Long-Term (Annual) Pollutant Conc.[4] ($\mu g/m^3$)	Long-Term (Annual) Guideline Conc. (AGCs) [5] ($\mu g/m^3$)	Chronic Non-Cancer Hazard Index [6]	Highest Estimated Long-Term (Annual) Pollutant Conc. [4] ($\mu g/m^3$)	Unit Risk Factors [7] ($\mu g/m^3$)	Maximum Cancer Risk [8,9]
Carcinogenic Pollutants										
1	Benzene	2.50E-01	1.30E+03	1.92E-04	2.03E-03	1.30E-01	1.56E-02	2.03E-03	8.30E-06	1.69E-08
2	Formaldehyde	3.16E-01	3.00E+01	1.05E-02	2.57E-03	6.00E-02	4.29E-02	2.57E-03	1.30E-05	3.34E-08
3	1,3 Butadiene	1.05E-02	-	-	8.52E-05	3.60E-03	2.37E-02	8.52E-05	2.80E-04	2.39E-08
4	Acetaldehyde	2.06E-01	4.50E+03	4.57E-05	1.67E-03	4.50E-01	3.71E-03	1.67E-03	2.20E-06	3.68E-09
5	Benzo(a)pyrene	5.04E-05	-	-	4.10E-07	2.00E-03	2.05E-04	4.10E-07	1.70E-03	6.96E-10
Non-Carcinogenic Pollutants [10]										
6	Propylene	6.92E-01	-	-	5.62E-03	3.00E+03	1.87E-06	5.62E-03	NA	NA
7	Acrolein	2.48E-02	1.90E-01	1.31E-01	2.02E-04	2.00E-02	1.01E-02	2.02E-04	NA	NA
8	Toluene	1.10E-01	3.70E+04	2.96E-06	8.91E-04	4.00E+02	2.23E-06	8.91E-04	NA	NA
9	Xylenes	7.64E-02	4.30E+03	1.78E-05	6.21E-04	7.00E+02	8.87E-07	6.21E-04	NA	NA
10	Anthracene	5.01E-04	-	-	4.07E-06	2.00E-02	2.04E-04	4.07E-06	NA	NA
11	Benzo(a)anthracene	4.50E-04	-	-	3.66E-06	2.00E-02	1.83E-04	3.66E-06	NA	NA
12	Chrysene	9.46E-04	-	-	7.69E-07	2.00E-02	3.85E-05	7.69E-07	NA	NA
13	Naphthalene	2.27E-02	7.90E+03	2.88E-06	1.85E-04	3.00E+00	6.16E-05	1.85E-04	NA	NA
14	Pyrene	1.28E-03	-	-	1.04E-05	2.00E-02	5.21E-04	1.04E-05	NA	NA
15	Phenanthrene	7.88E-03	-	-	6.41E-05	2.00E-02	3.20E-03	6.41E-05	NA	NA
16	Dibenz(a,h)anthracene	1.56E-04	-	-	1.27E-06	2.00E-02	6.35E-05	1.27E-06	NA	NA
		Total Estimated Acute Non-Cancer Hazard Index		**1.41E-01**	**Total Estimated Chronic Non-Cancer Hazard Index**		**1.00E-01**	**Total Estimated Combined Cancer Risk**		**7.85E-08**
		Acute Non-Cancer Hazard Index Threshold [11]		**1.0E+00**	**Chronic Non-Cancer Hazard Index Threshold [11]**		**1.0E+00**	**Cancer Risk Threshold [11]**		**1.0E-06**

Notes to Table 5.15-4:

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

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

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

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

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

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

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

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

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

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

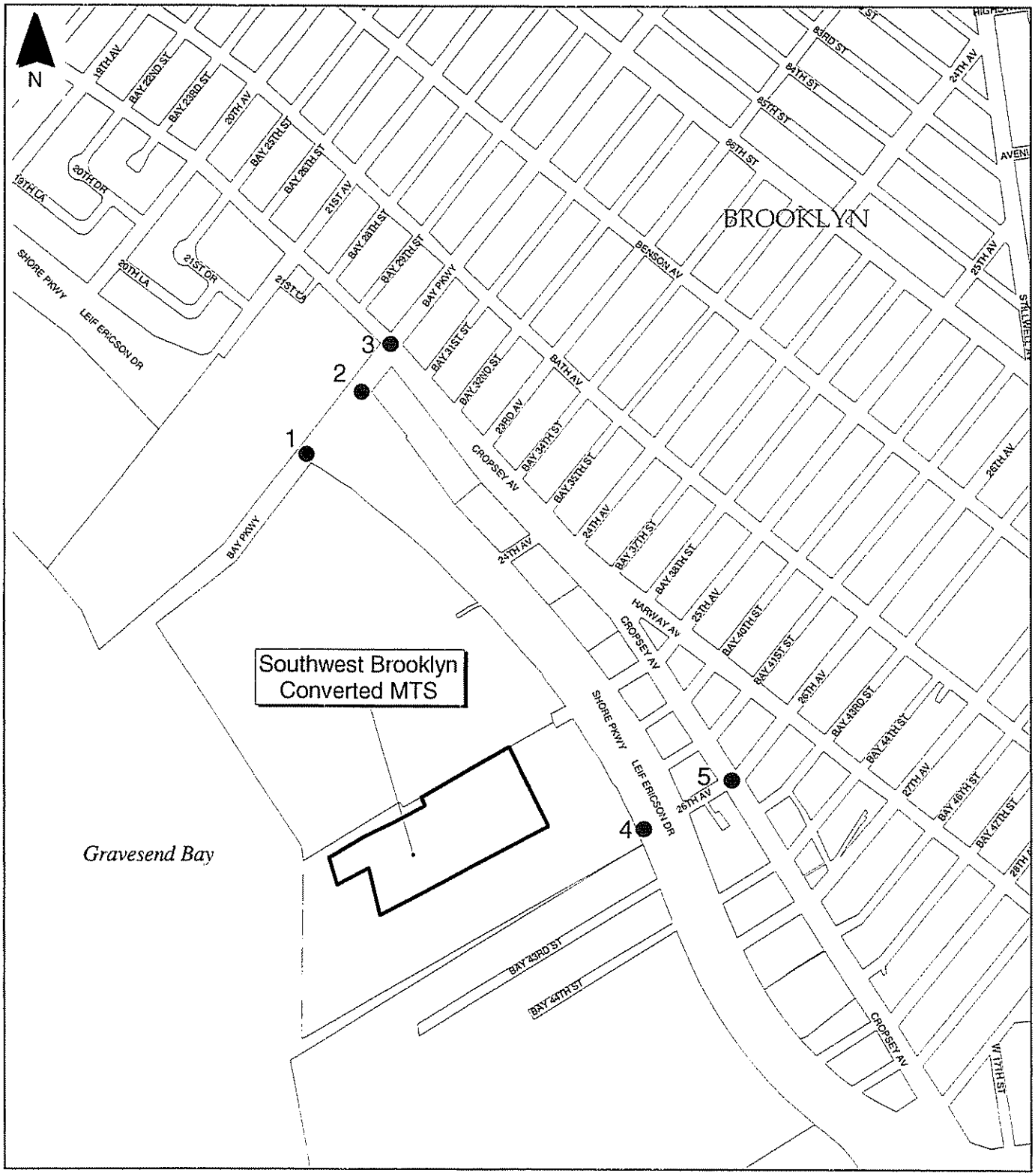
(11) Hazard index and cancer risk thresholds based on NYSDEC "Guidelines for the Control of Toxic Ambient Air Contaminants" dated November 12, 1997. Estimated values below these threshold limits are considered to be insignificant impacts.

NA = Not Applicable

The roadway intersections selected for the mobile source analysis are shown in Figure 5.15-2.

5.15.4.2.2 Results of the Off-Site Analysis

Applicable maximum pollutant concentrations estimated near the selected intersections are shown in Table 5.15-5. 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}, and the annual neighborhood impacts for $PM_{2.5}$. The results of this Tier II analysis for all pollutants at this intersection are within the applicable state and federal ambient air quality standards STVs (for $PM_{2.5}$). 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 5.15-2 Off-Site Air Quality Intersections Studied Southwest Brooklyn Converted MTS

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Table 5.15-5
Maximum Estimated Pollutant Concentrations Near Selected Roadway Intersections
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 Avenue, Cropsey Avenue & Shore Parkway									
Existing Conditions	~~NA~~	~~137~~143	~~47~~43						
Future No-Build Conditions	~~NA~~	~~136~~135	46~~40~~						
Future Build Conditions	~~NA~~	~~136~~136	46~~40~~						
Future Build Incremental				0.32	1.38	1.70	0.030	0.025	0.055
Bay Parkway, Cropsey Avenue & Shore Parkway									
Existing Conditions	NA	147[5]~~149~~[5]	42~~50~~[5]						
Future No-Build Conditions	NA	143[5]~~147~~[5]	41~~49~~[5]						
Future Build Conditions	NA	144[5]~~147~~[5])	41~~49~~[5]						
Future Build Incremental				0.15	0.62	0.77	0.0069	0.030	0.037

Notes for Table 5.15-5:

(1) CO and PM_{10} concentrations are the maximum concentrations estimated using the AM, Facility, and PM peak traffic information plus background concentration (8-hr CO = 2.8 ppm; 24-hr PM_{10} = ~~57~~ 90 $\mu g/m^3$; Annual PM_{10} = 20~~3~~ $\mu g/m^3$).

(2) The maximum incremental concentrations of 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 three meters from the edge of the roadways using AM, Facility, or PM peak traffic conditions.

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

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

(5) Results determined by performing a Tier II analysis.

(6) Concentration resulting from rounding of 49.9 $\mu g/m^3$.

ppm = parts per million

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

NA = Not Applicable

5.15a Air Quality - Alternative Route

5.15a.1 Definition of Study Areas

The study area for the on-site air quality analysis for criteria pollutants (except $PM_{2.5}$) is defined as the area within 500 meters (0.3 miles) of the property line in all directions. The study area for the on-site analysis for $PM_{2.5}$ is defined as the area within 500 meters from the highest impact location of the Southwest Brooklyn Converted MTS. The study area for the off-site air quality analysis of this Alternative route is the intersections listed in Section 5.15a.4.2.

5.15a.2 Existing Conditions

Applicable air quality data collected at the monitoring station(s) nearest to the study area are shown in Table 5.15a.1. These data were compiled by NYSDEC for the latest calendar year for which applicable data are currently available. The monitored levels do not exceed national and state ambient air quality standards.

Table 5.15a-1
Representative Ambient Air Quality Data
Southwest Brooklyn Converted MTS

Pollutant	Monitor	Averaging Time	Value	NAAQS
CO[1]	MTA, Flatbush Avenue between Tillary Street and Johnson Avenue	8-Hour	3.436 µg/m^3	10.000 µg/m^3
		1-Hour	4.695 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}[2]	P.S. 314	Annual	25 µg/m^3	50 µg/m^3
		24-Hour	55 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:
Source: NYCDEP. April 2003 & USEPA Airdata – Monitor Values Report (http://oaspub.epa.gov/airdata)
(3) Values are the highest pollutant levels recorded during the 2003 calendar year.
(4) Values are the highest pollutant levels recorded during the 1998 calendar year.

5.15a.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.

5.15a.4 Potential Impacts with the Southwest Brooklyn Converted MTS

5.15a.4.1 On-Site Analysis

5.15a.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 the same as those in Table 5.1.5-2 and the locations of these sources within the site are the same as those shown in Figure 5.15-1.

5.15a.4.1.2 Results of the Criteria Pollutant Analysis

The highest estimated criteria pollutant concentrations at any of the receptor locations considered are the same as those presented in Table 5.15-3. These values are below the national and state ambient air quality standards for the appropriate averaging time periods. In addition, the highest estimated changes in 24-hour and annual $PM_{2.5}$ concentrations from Southwest Brooklyn Converted MTS-generated vehicles at any of the receptor locations considered, which are also presented in Table 5.15-3, are below the STVs. Based on the results presented in Table 5.15-3, operations at the Southwest Brooklyn Converted MTS using this Alternative route would not significantly impact air quality in the area.

5.15a.4.1.3 Results of the Toxic Pollutant Analysis

The results of the toxic pollutant analysis are the same as those presented in Table 5.15-4. The highest estimated non-carcinogenic toxic air pollutant impacts are below the short-term (acute) and long-term (chronic) hazard index thresholds specified in New York State's Air Guide 1. In addition, the highest estimated carcinogenic impacts are less than the one-in-a-million threshold level that is defined by 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 using this Alternative route are not considered to be significant.

5.15a.4.2 Off-Site Analysis

5.15a.4.2.1 Pollutants Considered and Analyses Conducted

Locations that may be significantly impacted by DSNY and other agency collection vehicles were identified using 2001 CEQR Technical Manual guidelines outlined in Section 3.17. Following these guidelines, detailed mobile source analyses were conducted at the following locations for the applicable (i.e., worst-case) time periods:

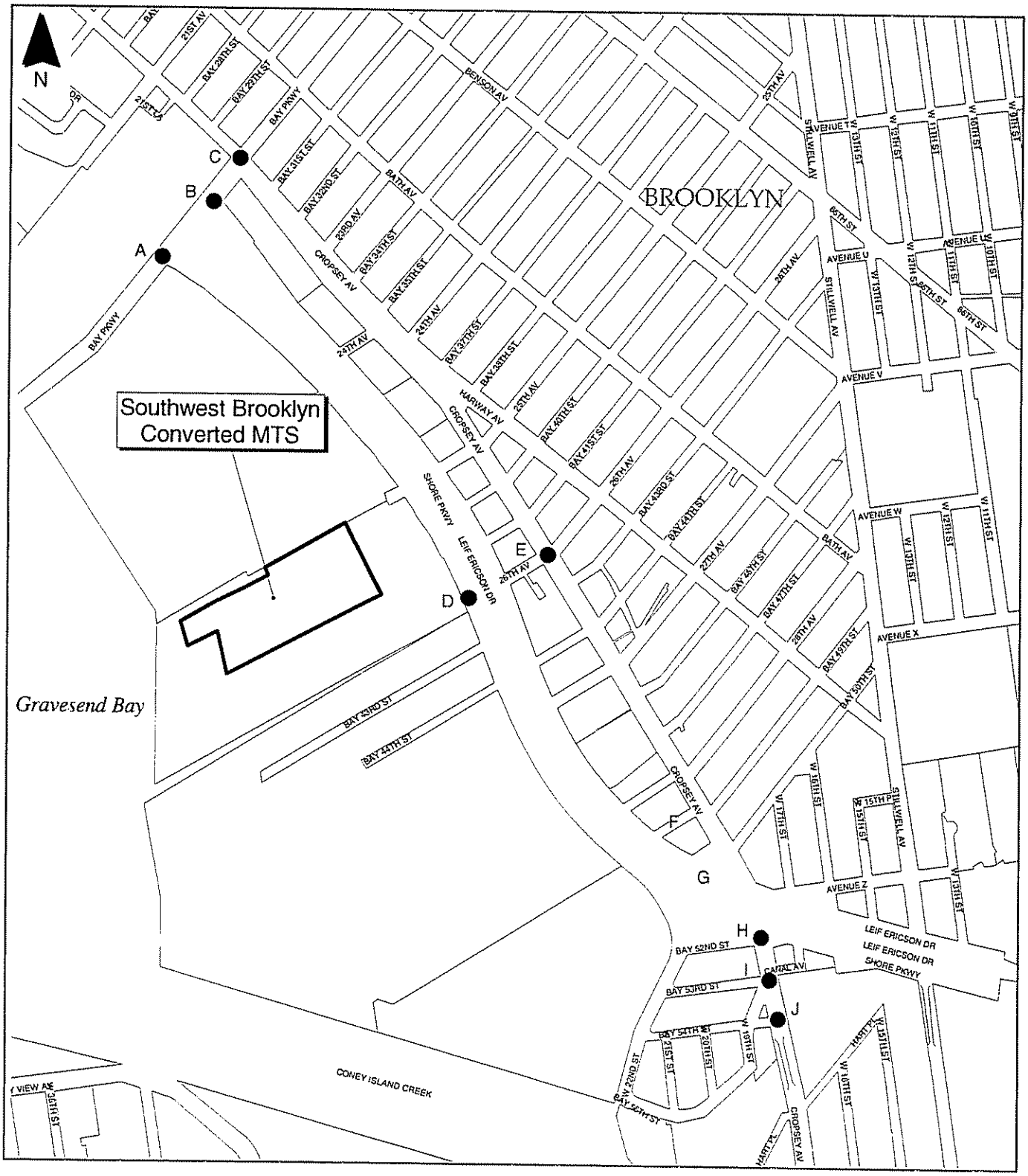
- The intersections of 26th Avenue at Cropsey Avenue, 26th Avenue at Shore Parkway Service Road South, Bay Parkway at Cropsey Avenue, Bay Parkway at Shore Parkway (North and South), and Cropsey Avenue at Bay 52nd Street, to determine whether Southwest Brooklyn Converted MTS-generated traffic has the potential to cause exceedances of NYCDEP's and NYSDEC's 24-hour and annual $PM_{2.5}$ STVs; and

- The intersections of 26th Avenue at Cropsey Avenue, 26th Avenue at Shore Parkway Service Road South, Bay Parkway at Cropsey Avenue, Bay Parkway at Shore Parkway (North and South), and Cropsey Avenue at Bay 52nd Street, 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 5.15a-2.

5.15a.4.2.2 Results of the Off-Site Analysis

Applicable maximum pollutant concentrations estimated near the selected intersections are shown in Table 5.15a-2. 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) and Cropsey Avenue at Bay 52nd Street was necessary to determine the off-site annual and 24-hour impacts for PM_{10}, and the annual neighborhood impacts for $PM_{2.5}$. The results of this Tier II analysis for all pollutants at this intersection are within the applicable state and federal ambient air quality standards STVs (for $PM_{2.5}$). Therefore, the off-site operations of the Southwest Brooklyn Converted MTS using this Alternative route 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 5.15A-2 Off-Site Air Quality

Southwest Brooklyn Converted MTS

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Table 5.15a-2
Maximum Estimated Pollutant Concentrations Near Selected Roadway Intersections
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 Avenue, Cropsey Avenue & Shore Parkway									
Existing Conditions	NA	143	43						
Future No-Build Conditions	NA	135	40						
Future Build Conditions	NA	136	40						
Future Build Incremental				0.32	1.35[3]	0.45	0.030	0.024	0.054
Bay Parkway, Cropsey Avenue & Shore Parkway									
Existing Conditions	NA	147[5]	42[5]						
Future No-Build Conditions	NA	143[5]	41[5]						
Future Build Conditions	NA	144[5]	41[5]						
Future Build Incremental				0.15	0.62	0.50	0.0069	0.030[5]	0.037
Bay 52nd St at Cropsey Avenue									
Existing Conditions	NA	145	43						
Future No-Build Conditions	NA	140	41						
Future Build Conditions	NA	140	41						
Future Build Incremental				0.11	1.35	1.46	0.006	0.02	0.026

Notes for Table 5.15a-2:

(1) CO and PM_{10} concentrations are the maximum concentrations estimated using the AM, Facility, and PM peak traffic information plus background concentration (8-hr CO = 2.8 ppm; 24-hr PM_{10} = 90 $\mu g/m^3$; Annual PM_{10} = 20 $\mu g/m^3$).

(2) The maximum incremental concentrations of 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 three meters from the edge of the roadways using AM, Facility, or PM peak traffic conditions.

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

(5) Results determined by performing a Tier II analysis.

ppm = parts per million

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

NA = Not Applicable

5.16 Odor

5.16.1 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 noise-sensitive receptors are a rehabilitation center on Bay 44th Street west of the Shore Parkway, approximately 277 meters (910 feet) from the Southwest Brooklyn Converted MTS property boundary, a residential house on Bay 44th Street west of the Shore Parkway, approximately 239 meters (785 feet) from the Southwest Brooklyn Converted MTS property boundary and a public school on Bay 44th Street west of the Shore Parkway, approximately 228 meters (749 feet) from the Southwest Brooklyn Converted MTS property boundary, and a baseball field on Bay 44th Street west of the Shore Parkway, approximately 340 meters (1,114 feet) from the Southwest Brooklyn MTS property boundary. The nearest sensitive receptor is the rehabilitation center on Bay 44th Street, approximately 780 feet from the site boundary.

5.16.2 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.

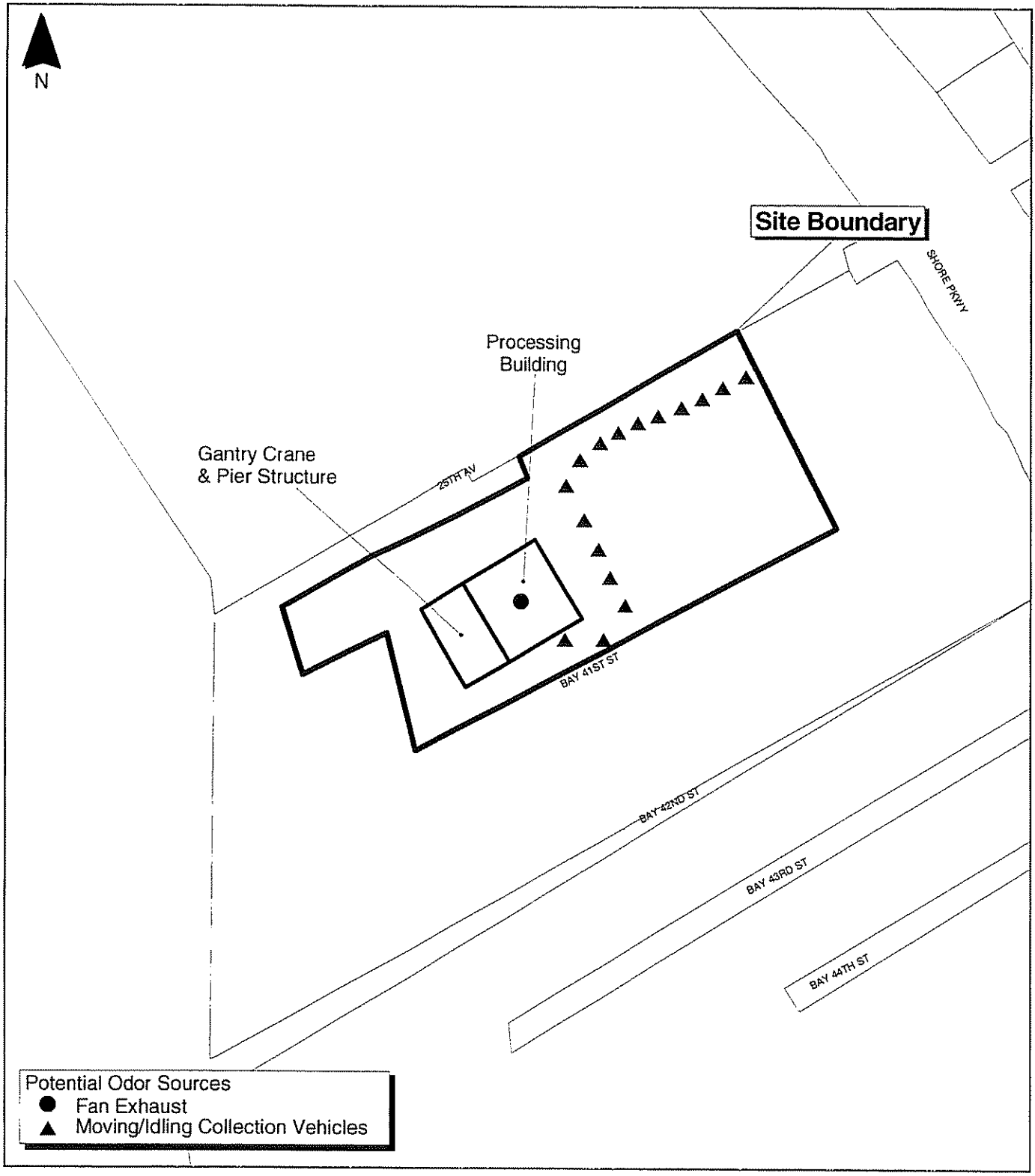
5.16.3 Potential Impacts with the Southwest Brooklyn Converted MTS

5.16.3.1 Odor Source Types and Locations Considered in the Analysis

The anticipated number and types of odor sources that would be associated with waste processing operations at peak design capacity at the Southwest Brooklyn Converted MTS are provided in Table 5.16-1. Figure 5.16-1 shows the locations of these sources within the site.

Table 5.16-1
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
Moving & Idling Collection Vehicles	36



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

200 0 200 Feet

HDR Hydroqual URBITRAN DD EEA Cambridge Environmental Inc

Figure 5.16-1 Potential Odor Sources

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

5.16.3.2 Results of the Odor Analysis

The highest estimated odor concentrations at any of the receptor sites considered and the concentrations at the closest sensitive receptor are presented in Table 5.16-2. The predicted OU values at sensitive receptor locations are compared to an OU of 5, which represents the level of odor impact that would begin to be detected by an average observer. The highest predicted OU associated with the 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 5.16-2
Highest Predicted Odor Concentration(s) from On-Site Sources
Southwest Brooklyn Converted MTS

Parameter	Resulting Odor Unit[1]
Estimated Detectable Concentration	5.0
Highest Result	~~0.29~~0.47
Type of Receptor	Discrete Receptor
Location of Receptor[2]	Over Water
Closest Sensitive Receptor[2] ~~Result~~	0.061
~~Type of Receptor~~Rehabilitation Center	~~Rehabilitation Center~~0.11
~~Distance to Receptor[2]~~Residential House	~~780 Feet~~ 0.12
Baseball Field	0.066
School	0.094

[1] Odor Unit is defined as concentration that an average person in a laboratory setting could just barely detect.
[2]~~Measured from the site boundary.~~ Receptor at the same locations as noise sensitive receptor.
~~[2]~~[1] ~~Measured from the site property line~~.

5.17 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 2001 CEQR Technical Manual for both on-site and off-site sources, and, for on-site sources only, the Performance Standards of the New York City Zoning Code for Manufacturing Districts and the Current New York City Noise Code. Section 3.19 provides a general discussion of the relevant regulatory standards and methodologies used in this analysis.

5.17.1 Existing Conditions

5.17.1.1 Introduction

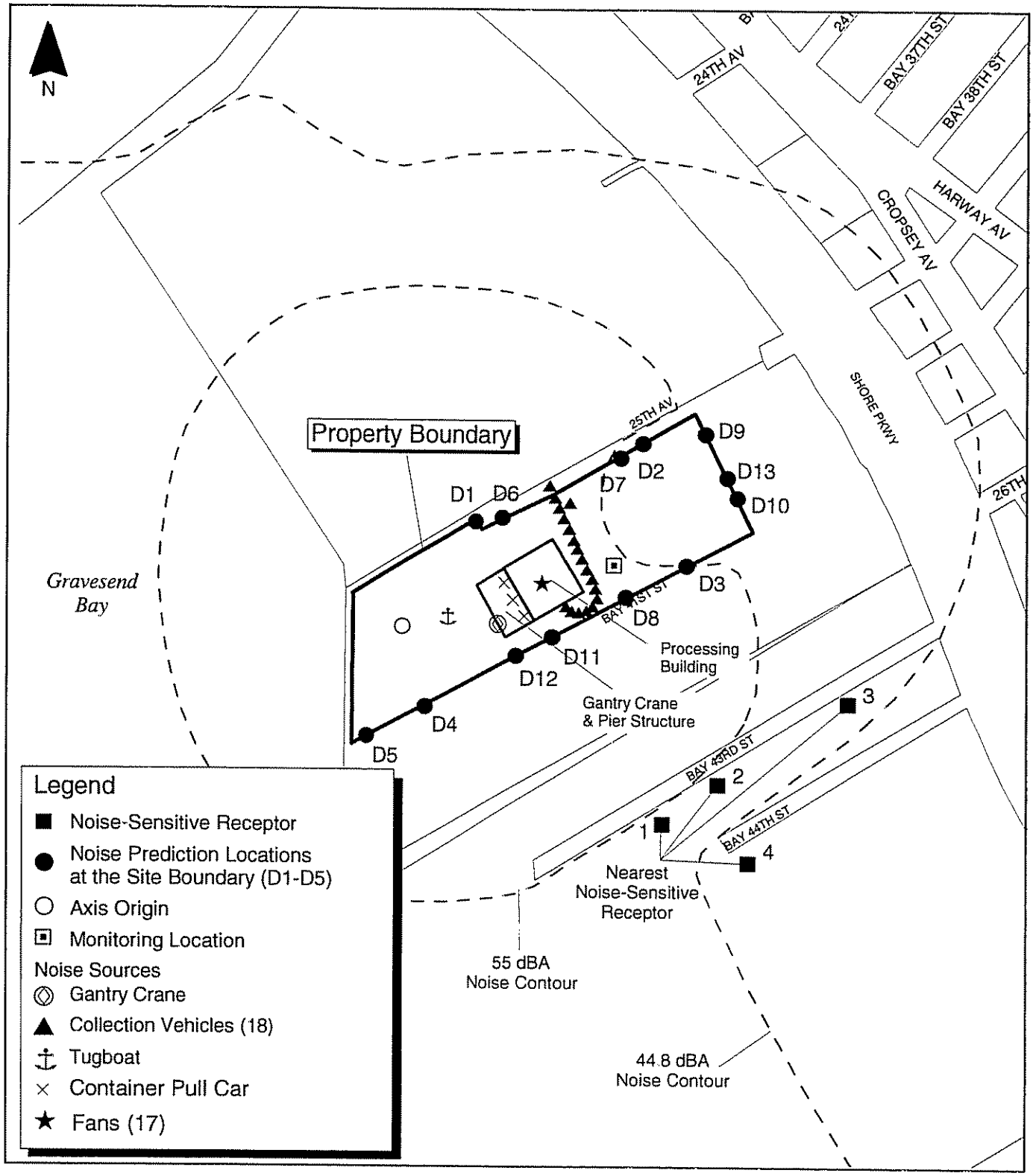
Figure 5.17-1 shows the location of the Southwest Brooklyn Converted MTS, the surrounding area and the points that represent the property boundary (D1, etc.) for all noise analyses. The nearest noise-sensitive receptors are a rehabilitation center on Bay 44th Street west of the Shore Parkway, approximately 277 meters (910 feet) from the Southwest Brooklyn Converted MTS property boundary, a residential house on Bay 44th Street west of the Shore Parkway, approximately 239 meters (785 feet) from the Southwest Brooklyn Converted MTS property boundary and a public school on Bay 44th Street west of the Shore Parkway, approximately 228 meters (749 feet) from the Southwest Brooklyn Converted MTS property boundary, and a baseball field on Bay 44th Street west of the Shore Parkway, approximately 340 meters (1,114 feet) from the Southwest Brooklyn MTS property boundary.

5.17.1.2 On-Site Noise Levels

Existing on-site noise levels consist of noise created by the activities and events on and immediately surrounding the site. Existing noise levels were monitored hourly for a 24-hour period at the property line closest to the nearest noise-sensitive receptors. Noise monitoring data recorded hourly included $L_{eq(1)}$, L_{min} and L_{max},[12] and the statistical metrics of L_{10}, L_{50} and L_{90}.[13] Table 5.17-1 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 $L_{eq(1)}$ 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.

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



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

500 0 500 Feet

HDR HydroQual URBITRAN PB EEA Cambridge Environmental Inc

Figure 5.17-1 Noise Sources and Receptors

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Table 5.17-1
Existing Hourly (Monitored) Noise Levels On Site[1]
Southwest Brooklyn Converted MTS

Time of Measurement	$L_{eq\ (1)}$ (dBA)	L_{90} (dBA)	L_{50} (dBA)	L_{10} (dBA)	L_{min} (dBA)	L_{max} (dBA)
11:00 a.m.-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 p.m.-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 noise-sensitive receptor to identify the quietest background hour.

5.17.1.3 Off-Site Noise Levels

Existing off-site noise levels consist of the noise from existing traffic and other background noise. A screening analysis was conducted to determine if off-site 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 3.19.5.2, an off-site noise analysis was required and, therefore, off-site noise monitoring was conducted. Table 5.17-2 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 first-level screening.

Table 5.17-2
Existing Noise Levels (L_{eq}) at the Nearest Noise-Sensitive Receptor for Off-site Analysis
Southwest Brooklyn Converted MTS

Location	Existing Noise Levels During Quietest Hour (dBA)[1]
26th Avenue South of Cropsey Avenue[2]	54.7
Cropsey Avenue South of Bay 34th Street[3]	64.1

Notes:
(1) A 1-hour noise level reading was measured at the closest noise-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.
(3) The existing noise level was measured on August 13, 2003 between 2:00 a.m. and 3:00 a.m.

5.17.2 Future No-Build Conditions

5.17.2.1 On-Site Noise Levels

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

5.17.2.2 Off-Site Noise Levels

Off-site noise levels for the Future No-Build Conditions in 2006 were calculated using the annual growth rates for traffic volume provided in Section O: Traffic of the 2001 CEQR Technical Manual. Table 5.17-3 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 locations where there is a possible impact based on the first-level screening.

Table 5.17-3
Off-Site Noise Traffic Volume
Southwest Brooklyn Converted MTS

Location	Hour Beginning	Existing Traffic Volume [1] (Vehicles / Hour)	Future No-Build Traffic Volume [2] (Vehicles / Hour)
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

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

5.17.3 Potential Impacts with the Southwest Brooklyn Converted MTS

5.17.3.1 On-Site Noise Levels

Equipment assumed to be operating at the Southwest Brooklyn Converted MTS and its reference noise levels used in the CEQR and Current Noise Code Noise Code analysis are shown in Table 5.17-4. The number and types of equipment assumed for this analysis were based on the Southwest Brooklyn Converted MTS's peak design capacity. As described in Section 3.19, an analysis was performed to determine if the number and type of trucks queuing on the ramp that was analyzed in the DEIS is more conservative than the greatest number of DSNY and

Commercial Waste trucks expected to be queuing on the ramp based on the number of trucks that might be routed to the facility. The DEIS analysis was based on DSNY trucks queuing along the entire length of the ramp. For the Southwest Brooklyn Converted MTS, the analysis of the greatest number of DSNY and Commercial Waste trucks that might be expected to be queuing on the ramp (based on the number of trucks that might be routed to the facility), is more conservative. Therefore, the results presented for the on-site analysis in this FEIS are based on the greatest number of DSNY and Commercial Waste trucks that might be expected to be queuing on the ramp.

Spectral noise levels used in the Performance Standards analysis are shown in Table 5.17-5. The number and types of equipment assumed for this analysis were based on the Southwest Brooklyn Converted MTS's peak design capacity. Shown earlier, Figure 5.17-1 indicates the Southwest Brooklyn Converted MTS layout, the locations of the points along its boundary where overall noise predictions were calculated and the predicted 55 dBA contour line.

Table 5.17-4
Equipment Modeled in the Noise Analysis and Reference Noise Levels (L_{eq})
Southwest Brooklyn Converted MTS

Equipment Name (quantity)[1]	Reference Sound Pressure Noise Level at 50 feet (dBA)[2]
Indoor	
Tip Floor Wheel Loaders type CAT 966G (2)	80.6
Mini-Loader type CAT 908 (1)	69.3
Tamping Cranes type CAT 325 (1)	81
Spreader Crane/Hoist (1)	70
Skid Steer Loader (Bobcat S300) (1)	76
Vacuum Sweeper (1)	64.3
Exhaust Fans (17)	74[3]
Moving/Queuing DSNY Collection Vehicles (7)	79
Outdoor	
Container Shuttle Cars (3)	45
Gantry Cranes (1)[4]	67
Harbor Tug Boat (1)[5]	69
Exhaust Fans (17)	76[3]
Inbound Moving/Queuing DSNY Collection Vehicles (see Table 5.17-4(a))	67
Inbound Moving/Queuing Commercial Waste Collection Vehicles (see Table 5.17-4(a))	71.3
Outbound Moving/Queuing Collection Vehicle (1)	67 or 71.3[6]

Notes for Table 5.17-4:

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

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

(3) Noise level representative of a total of 17 exhaust fans.

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

(5) Noise level will be specified for the harbor tug boat in DSNY's plans and specifications for construction of the Converted MTSs.

(6) For each hour, the type of truck assumed to be queuing on the outbound scale varied depending on the type of trucks entering the facility. If both DSNY and Commercial Waste trucks enter the facility, the outbound truck was assumed to be a Commercial Waste truck, to be conservative. However, if only DSNY trucks enter the facility, the outbound truck was assumed to be a DSNY truck. Similarly, if only Commercial Waste trucks enter the facility, the outbound truck was assumed to be a Commercial Waste truck. If a Commercial Waste truck was assumed, 71.3 dBA was used as a noise level. If a DSNY truck was assumed, 67 dBA was used as a noise level.

Table 5.17.4(a)
Collection Vehicle Volumes Modeled in the
Refined CEQR Noise Analysis of the Residential House Noise-Sensitive Receptor
Southwest Brooklyn Converted MTS

Hour Beginning	DSNY Collection Vehicles		Commercial Waste Collection Vehicles	
	Number of Trucks Entering Facility	Number of Trucks Queuing Outside - Inbound [1]	Number of Trucks Entering Facility	Number of Trucks -Queuing Outside – Inbound [1]
12:00 AM	13	6	1	1
1:00 AM	0	0	2	0
2:00 AM	7	0	0	0
3:00 AM	8	1	0	0
4:00 AM	6	0	2	1
5:00 AM	5	0	5	3
6:00 AM	5	0	10	8
7:00 AM	0	0	5	0
8:00 AM	20	13	0	0
9:00 AM	26	19	0	0
10:00 AM	28	21	0	0
11:00 AM	21	14	0	0
12:00 PM	8	1	0	0
1:00 PM	0	0	0	0
2:00 PM	2	0	0	0
3:00 PM	4	0	0	0
4:00 PM	1	0	0	0
5:00 PM	5	0	0	0
6:00 PM	5	0	0	0
7:00 PM	5	0	0	0
8:00 PM	3	0	13	9
9:00 PM	3	0	13	9
10:00 PM	0	0	10	3
11:00 PM	0	0	5	0

Note:
[1] Assumes first 7 collection vehicles to arrive are DSNY vehicles immediately entering building.

Table 5.17-5
Equipment Modeled in the Noise Analysis and Spectral Noise Levels (L_{max})
Southwest Brooklyn Converted MTS

Equipment[1] Name (quantity)[1],[2]	Reference Sound Pressure Noise Level at 50 feet (dB)[3]							
	Frequency (Hz)							
	63	125	250	500	1K	2K	4K	8K
Indoor								
Tip Floor Loaders type CAT 966G (2)	78	77	75	76	77	74	68	60
Mini-Loader type CAT 908 (1)	78	77	75	76	77	74	68	60
Tamping Cranes type CAT 325 (1)	95	90	85	85	81	78	73	64
Spreader Crane/Hoist (1)	77	78	77	71	74	71	69	57
Skid Steer Loader (Bobcat S300) (1)	71	74	69	74	71	68	64	56
Vacuum Sweeper (1)	71	74	69	74	71	68	64	56
Exhaust Fans (17) [4]	70	72	74	74	70	67	62	57
Outdoor								
Container Shuttle Cars (3)	31	30	47	44	36	35	42	46
Gantry Crane (1) [2],[5]	78	81	78	71	66	60	55	55
Exhaust Fans (17) [4]	70	72	74	74	70	67	62	57

Notes:
[1] Instantaneous maximum number of pieces of equipment on site at any given time.
~~[2] This is the noise level that will be specified for the gantry crane in DSNY's plans and specification for construction of the converted MTS's.~~
[2] Trucks and tugboats are not included in the Performance Standard analysis because they are transportation facilities
[3] Noise level representative of each piece of equipment.
[4] Noise level representative of a total of 17 exhaust fans.
[5] Noise level will be specified for the gantry crane in DSNY's plans and specification for construction of the Converted MTSs.
Hz = Hertz
K = Thousand

5.17.3.2 CEQR Analysis

A screening analysis was conducted to determine if a detailed noise analysis would be required for the on-site operations at the 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 148 meters (487 feet) from the property boundary in the direction of the Rehabilitation Center, approximately 205 meters 673 feet) from the property boundary in the direction of the residential house, approximately 207 meters (680 feet) from the

property boundary in the direction of the school and approximately 207 meters (680 feet) from the property boundary in the direction of the baseball field. The distance from these noise-sensitive receptors to the property boundary is provided in Section 5.17.1.1. The 55 dBA contour line was selected as a limit for the study area because 55 dBA (i.e., the point off site where noises generated on site attenuate to 55 dBA), is considered an acceptable noise level in an urban environment. Section 3.19.5.1 discusses this concept in greater detail. Background noise monitoring was conducted at the nearest noise-sensitive receptor. Since the background noise level at the receptor is 44.8 dBA, which is less than 55 dBA, the contour of the predicted facility L_{eq} equivalent to the background noise level is also shown in Figure 5.17-1. The results of the screening analysis show that noise-sensitive receptors are not located within the 55 dBA contour line, however they are located within the contour based on the background noise level (see Figure 5.17-1); therefore, an on-site noise analysis, including noise monitoring at the nearest noise-sensitive receptors, was required to determine if an impact is predicted under Section R of the 2001 CEQR Technical Manual.

Noise monitoring was conducted at the noise-sensitive receptor during the quietest hour based on monitoring data provided in Table 5.17-1 above. A detailed noise analysis was performed to calculate the Southwest Brooklyn Converted MTS-related predicted noise levels at the noise-sensitive receptor, and the predicted noise levels with both facility noise and background noise combined. The difference between this combined noise level and the existing noise level at the noise-sensitive receptor represents the predicted incremental change in noise level from the Southwest Brooklyn Converted MTS. According to CEQR, an increase of 3 dBA or more at nighttime is considered an impact. In addition, if the daytime background noise level is 62 dBA or more, an increase of 3 dBA or more is considered an impact. Because this incremental change is greater than the CEQR threshold of 3 dBA at the nearest noise-sensitive receptor for the quietest nighttime hour, there is a predicted impact that would be caused by the Southwest Brooklyn Converted MTS on-site operations based on this conservative analysis.

On-site queuing collection vehicles were further analyzed to refine the calculated noise levels from the Southwest Brooklyn Converted MTS facility truck ramp on the ~~Rehabilitation Center and Residential House~~noise sensitive receptors. Individual, position-specific utilization factors were assigned to each inbound collection vehicle position on the inbound side of the ramp, and

to one collection vehicle position on the outbound scale based on the processing time at the Southwest Brooklyn Converted MTS. The utilization factor for each truck was ~~estimated~~ calculated for each hour on a 24-hour basis based on the ~~peak hour of~~actual number of inbound collection vehicles~~, totaling 20 trucks and conservatively assuming these utilization factors would occur for 24 hours.~~ The assumption was made that each inbound truck would be queuing on-site for approximately two minutes before proceeding one truck length further up the ramp towards the facility. The actual number of DSNY and Commercial collection vehicles used in the 24-hour analysis is shown in Table 5.17-4(a). A restriction on the number of: (1) relayed DSNY collection vehicles delivering waste between 2:00 a.m. and 3:00 a.m.; and (2) commercial waste hauling vehicles at certain hours between 8:00 p.m. and 8:00 a.m. will mitigate predicted on-site impacts at nearby noise sensitive receptors.

Table 5.17-6 below shows the results of the CEQR analysis for the quietest hour with the ~~conservative~~ refined queuing analysis at the Public School and Baseball Field. Table 5.17-6(a) below shows the results of the CEQR analysis with ~~and~~ a refined ~~queuing~~ 24-hour analysis at the ~~Rehabilitation Center and~~ Residential House. Since the Rehabilitation Center and the Residential House are across the street from each other, the background noise levels used for both are the same. Therefore, the results provided in Table 5.17-6(a) represent the noise levels predicted for both the Residential House and the Rehabilitation Center. The Tables includes the existing noise level at the noise-sensitive receptors, ~~and~~ the Southwest Brooklyn Converted MTS-related noise levels and the combined noise level. The table also provides the difference between this combined noise level and the existing noise level at the sensitive receptors. This difference represents the predicted incremental change in noise level from the Southwest Brooklyn Converted MTS. Because this incremental change is less than the CEQR threshold of 3 dBA during nighttime hours, or during daytime hours when the daytime background noise level is greater than 62 dBA, for all of the noise-sensitive receptors analyzed, there is no predicted impact that would be caused by the Southwest Brooklyn Converted MTS on-site operations.

5.17.3.3 Performance Standards for Zoning Code Analysis

Overall noise predictions were calculated at the locations of the points representative of the Southwest Brooklyn Converted MTS boundary (D1, etc.) to determine the total noise level for each octave band from indoor and outdoor sources, not including DSNY and other agency collection vehicles and tugboats, in accordance with the New York City Zoning Code Performance Standards for

Manufacturing Districts (assuming ~~tugboats~~ both are transportation facilities) (see Table 5.17-7). Based on this analysis, no exceedances to the Performance Standards are predicted.

5.17.3.4 NYC Noise Code Analysis – Current

Overall noise predictions were calculated at the locations of the points (D1, etc.) representative of the Southwest Brooklyn Converted MTS boundary to determine the total L_{eq} from all indoor and outdoor sources for comparison to the current Noise Code. The overall noise predictions were based on the refined queuing analysis. ~~This is~~ The results are shown in Table 5.17-8. Based on this conservative analysis, the total L_{eq} does not exceed the current Noise Code Standard of 70 dBA at the property boundary.

Table 5.17-6
CEQR Analysis
Existing and Predicted Noise Levels (L_{eq}) at the Nearest Noise-Sensitive Receptors
Southwest Brooklyn Converted MTS

Noise Sensitive Receptor ID	Distance from Facility (meters/ feet)	Existing Noise Levels During Quietest Hour (dBA)[1]	Predicted Facility Noise Level at Noise-Sensitive Receptor (dBA)[4]	Combined Facility and Background Noise Level at the Noise-Sensitive Receptor (dBA)	Increase over Existing Noise Level (dBA)	Impact[5] (yes or no)
~~Rehabilitation Center [2][6]~~	~~277 / 910~~	~~44.8~~	~~44.2~~	~~47.5~~	~~2.7~~	~~No~~
Rehabilitation Center [2]	277 / 910	See Table 5.17-6(a)				
~~Residential House [2][6]~~	~~239 / 785~~	~~44.8~~	~~44.1~~	~~47.5~~	~~2.7~~	~~No~~
Residential House [2]	239 / 785	See Table 5.17-6(a)				
Public School [3]	228 / 749	50.5~~64.6~~	44.3~~57.3~~	51.4~~65.4~~	0.9~~0.8~~	No
Baseball Field [3]	340 / 1114	50.5~~64.6~~	43.0~~55.7~~	51.2~~65.1~~	0.7~~0.5~~	No

Notes:

(1) Twenty-minute noise level readings measured at the closest noise-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) Existing noise levels were measured on February 10th, 2004 at ~~9~~1:00 a~~p~~.m. This was the quietest daytime hour. The quietest nighttime hour was not used since the Baseball Field and Public School are assumed to be closed during nighttime hours.

(4) Predicted noise level calculations at noise-sensitive receptor include on-site and off-site shielding from structures.

(5) According to CEQR, an increase over 65 dBA at daytime is considered an impact. However, if the existing noise level at the receptor during the daytime is 62 dBA or greater or if the analysis is for a nighttime hour, an increase over 3 dBA would be considered an impact. The impact analysis compares the loudest noise emissions from daily operations at the Southwest Brooklyn Converted MTS with the quietest background noise levels that occur during facility operation.

~~(6) These results are based on refined on-site queuing collection vehicles utilization factors.~~

Table 5.17-6(a)
CEQR Analysis
Existing and Predicted Noise Levels (Leq) at the Residential House[1] Noise-Sensitive Receptor
Southwest Brooklyn Converted MTS

Hour Beginning	Existing Noise Levels During Quietest Hour (dBA) [2]	Predicted Facility Noise Level at Noise-Sensitive Receptor (dBA) [3]	Combined Facility and Background Noise Level at the Noise-Sensitive Receptor (dBA)	Increase over Existing Noise Level (dBA)	Impact (yes or no) [4]
12:00 AM	49.8	49.1	52.5	2.7	No
1:00 AM	45.6	44.4	48.1	2.5	No
2:00 AM	44.8	44.5	47.7	2.9	No
3:00 AM	45.3	44.7	48.0	2.7	No
4:00 AM	46	45.6	48.8	2.8	No
5:00 AM	48.1	47.1	50.7	2.6	No
6:00 AM	52	51.5	54.8	2.8	No
7:00 AM	61.6	44.8	61.7	0.1	No
8:00 AM	60	51.0	60.5	0.5	No
9:00 AM	64.6	53.3	64.9	0.3	No
10:00 AM	53.7	53.9	56.8	3.1	No
11:00 AM	54.8	51.4	56.4	1.6	No
12:00 PM	57.3	44.7	57.5	0.2	No
1:00 PM	50.5	44.1	51.4	0.9	No
2:00 PM	63.2	44.2	63.3	0.1	No
3:00 PM	55	44.3	55.4	0.4	No
4:00 PM	62.3	44.2	62.4	0.1	No
5:00 PM	52	44.4	52.7	0.7	No
6:00 PM	50.8	44.4	51.7	0.9	No
7:00 PM	58.9	44.4	59.1	0.2	No
8:00 PM	50.9	52.3	54.6	3.7	No
9:00 PM	53.1	52.3	55.7	2.6	No
10:00 PM	50.9	47.1	52.4	1.5	No
11:00 PM	49	44.8	50.4	1.4	No

Notes:

(1) This analysis is also applicable to the Rehabilitation Center.

(2) Twenty-minute noise level readings measured at the residential house receptor on February 9-10, 2004.

(3) Predicted noise level calculations at noise-sensitive receptor include on-site and off-site shielding from structures.

(4) According to CEQR, an increase over 65 dBA at daytime is considered an impact. However, if the existing noise level at the receptor during the daytime is 62 dBA or greater or if the analysis is for a nighttime hour, an increase over 3 dBA would be considered an impact. The impact analysis compares the loudest noise emissions from daily operations at the Southwest Brooklyn Converted MTS with the quietest background noise levels that occur during facility operation.

Table 5.17-7
Zoning Code Analysis
Predicted Spectral Noise Levels (L_{max}) at the Property Boundary
Southwest Brooklyn Converted MTS[1]

Manufacturing District Regulation (M3)								
Frequency Range (Hz)	**63**	**125**	**250**	**500**	**1K**	**2K**	**4K**	**8K**
M1 Threshold	**78**	**73**	**64**	**57**	**52**	**46**	**40**	**38**
M3 Threshold	**79**	**74**	**69**	**63**	**57**	**52**	**48**	**45**
Total Lp dB: D1[2]	69.4	64.3	56.0	50.7	44.8	39.4	32.7	27.9
Total Lp dB: D2[2]	57.7	52.8	45.3	40.1	34.4	28.9	21.5	16.4
Total Lp dB: D3[1]	57.5	54.0	48.6	43.5	38.3	33.2	25.5	19.2
Total Lp dB: D4[1]	62.9	60.9	56.6	50.6	45.4	39.8	32.7	28.9
Total Lp dB: D5[1]	59.0	56.9	52.4	46.5	41.1	35.2	26.8	21.4
Total Lp dB: D6 [2]	70.5	65.3	56.8	51.5	45.6	40.2	33.6	28.7
Total Lp dB: D7 [2]	59.2	55.3	49.4	43.3	37.7	31.8	24.5	19.9
Total Lp dB: D8 [2]	56.0	51.1	43.7	38.4	32.7	27.1	19.2	13.9
Total Lp dB: D9 [2]	58.6	53.3	44.4	38.8	32.2	25.6	16.5	11.3
Total Lp dB: D10 [2]	48.9	45.6	40.4	35.1	29.7	24.3	16.2	11.3
Total Lp dB: D11 [1]	71.4	67.3	61.1	54.9	49.3	43.4	36.9	33.9
Total Lp dB: D12 [1]	69.4	66.9	62.4	56.3	51.2	45.9	39.8	37.2
Total Lp dB: D13 [2]	58.9	53.6	44.6	39.1	32.5	25.8	16.8	11.5

Notes:
[1] M1 NYC Zoning Resolution Performance Regulation is applicable.
[2] M3 NYC Zoning Resolution Performance Regulation is applicable.
Hz = Hertz
Lp = Sound pressure level
dB = Decibel
[1] D1 through ~~D5~~ D13 are points ~~representative of~~ on the Southwest Brooklyn Converted MTS boundary that are used in all noise analyses.
K = Thousand
Bold = Exceedance

Table 5.17-8
Current Noise Code Analysis
Southwest Brooklyn Converted MTS[1]

Location at Plant Boundary	Total L_{eq} Contribution at Plant Boundary (dBA)
D1	62.2 ~~64.4~~
D2	58.8 ~~61.4~~
D3	60.7 ~~61.3~~
D4	58.8 ~~58.7~~
D5	56.1 ~~55.9~~
D6	63.8
D7	59.0
D8	55.7
D9	56.5
D10	52.4
D11	67.4
D12	63.6
D13	51.5

Notes:
[1] D1 through D13 are points on the Southwest Brooklyn Converted MTS boundary that are used in all noise analyses.

5.17.3.5 Off-Site Noise Levels

A screening analysis was conducted to determine if a detailed off-site noise analysis including noise monitoring would be required along the truck routes serving the Southwest Brooklyn Converted MTS. The assumed DSNY and other agency collection vehicle routes are provided in Section 14 of this chapter. As a result of this screening, which is described in Section 3.19.5.2, an off-site noise analysis was required. Results of the second-level screening for the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest) during the daytime (if any) and nighttime are provided in Table 5.17-9.

Because the screening results presented above showed that the PCEs would double on a roadway due to DSNY and other agency collection vehicles ~~coming~~ traveling to or departing ~~going~~ from the Southwest Brooklyn Converted MTS, a detailed off-site noise analysis was performed at that roadway using TNM for the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest) during the daytime and nighttime. Figure 5.17-2 depicts the locations of the roadways where a detailed off-site noise analysis was performed.

TNM results for locations/hour that resulted in a possible impact based on second-level screening are presented in Table 5.17-10. The table shows existing background noise levels monitored at the nearest noise-sensitive receptor at the location, TNM-predicted noise levels for the existing traffic, TNM-predicted Future No-Build noise levels for 2006 for the location, 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 the incremental noise-level change that would be caused by the Southwest Brooklyn Converted MTS is not greater than the CEQR threshold of 3 dBA at the nearest noise-sensitive receptor for any of the analyzed roadways, no impact is predicted based on the detailed off-site noise analysis.

Table 5.17-9
Off-Site Noise Screening Results
Southwest Brooklyn Converted MTS

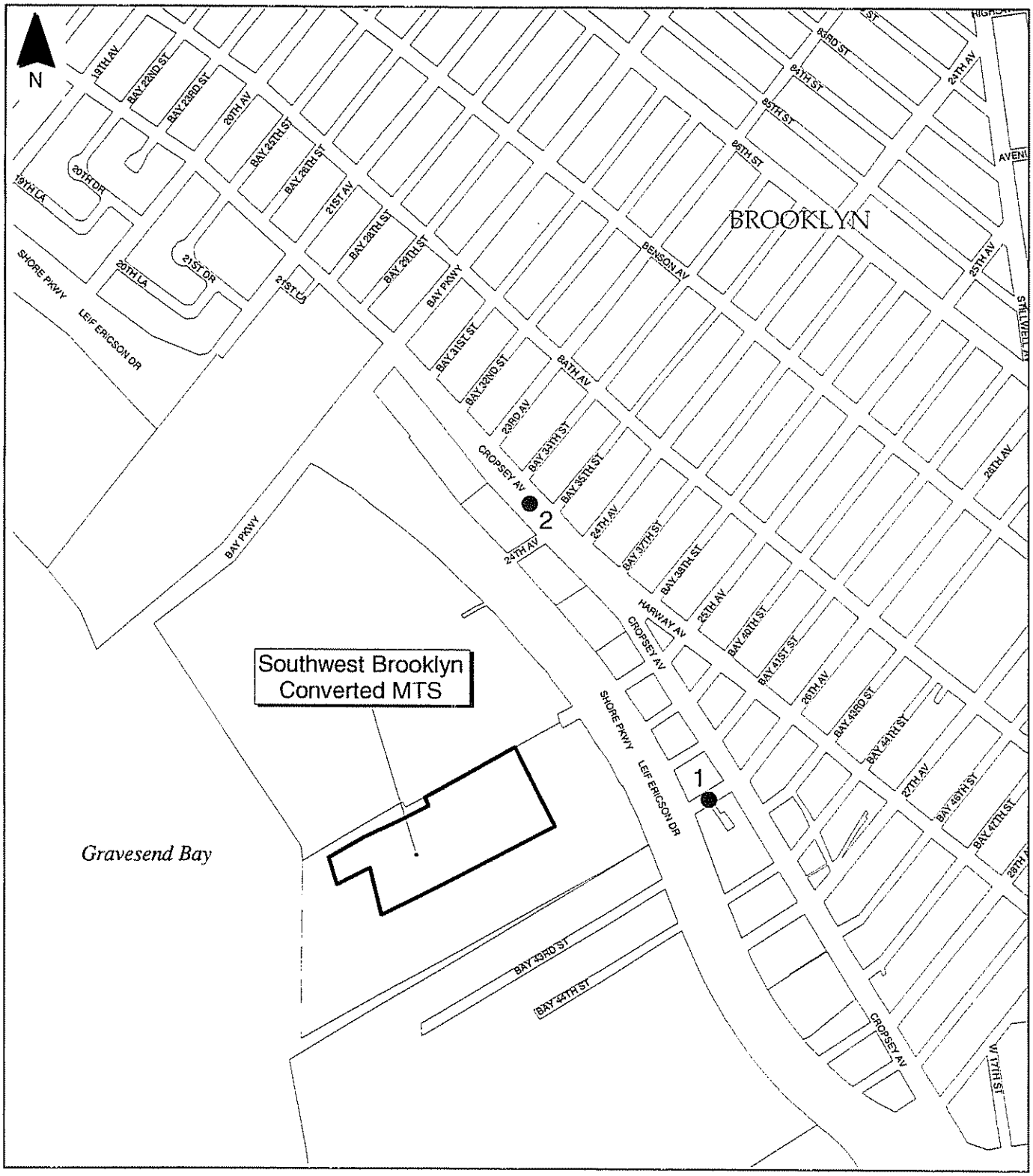
Location	Hour Beginning	Future No-Build PCEs[1]	Collection Vehicles	Employee Vehicles	Total Net DSNY Collection Vehicle PCEs[1]	Future Build PCEs[1][2]	Possible Impact[3]
Cropsey Avenue northwest of 26th Avenue	2:00 a.m.	732	4	0	188	920	No
25th Avenue northeast of Harway Avenue	2:00 a.m.	1,155	4	0	188	1,343	No
25th Avenue northeast of Harway Avenue	9:00 a.m.	3,038	8	0	376	3,414	No
26th Avenue south of Cropsey Avenue	3:00 a.m.	36	3	0	141	177	Yes
26th Avenue south of Cropsey Avenue	9:00 a.m.	1,210	19	0	893	2,103	No
Cropsey Avenue south of Bay 34th Street	2:00 a.m.	184	4	0	188	372	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. Per CEQR, collection vehicles are converted to PCEs using a factor of 47, and employee vehicles are converted to PCEs using a factor of 1.

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



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

500 0 500 Feet

HDR URBITRAN EEA HydroQual DD PE Cambridge Environmental Inc

Figure 5.17-2 Mobile Noise Analysis Intersections Analyzed Southwest Brooklyn Converted MTS

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Table 5.17-10
Off-Site Noise Analysis TNM Results
Southwest Brooklyn Converted MTS

Location	Hour Beginning	Existing Background Noise Level[1] (L_{eq}) (Measured) (dBA)	TNM-Predicted Noise Level (L_{eq}) for Existing Traffic (dBA)	TNM Future No-Build Noise Level (L_{eq}) (dBA)	Collection Vehicles	Employee Vehicles	TNM Future Build Noise Level (L_{eq}) (dBA)	Impact (Noise Level Difference) (dBA)
26th Avenue South of Cropsey Avenue	3:00 a.m.	54.7	~~58~~56.5	~~58~~56.5	3	0	~~60.1~~58.3	No (~~2.1~~1.8)
Cropsey Avenue South of Bay 34th Street	2:00 a.m.	64.1	~~61.6~~58.5	~~61.7~~58.7	4	0	~~62~~59.3	No (~~0.7~~0.6)

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

5.17.3.6 Combined On-Site and Off-Site Noise Levels

On- and off-site noise analyses were performed for the Southwest Brooklyn Converted MTS, however the potential impacts of these analyses did not affect the same noise-sensitive receptor. Therefore, a combined noise analysis was not performed.

5.17a Noise - Alternative Route

The noise analysis addresses off-site sources of noise emissions from the increase in traffic caused by DSNY and other agency collection vehicles traveling from the Southwest Brooklyn Converted MTS using the Alternative truck route. It is based on Section R of the 2001 CEQR Technical Manual for off-site sources. Section 3.19 provides a general discussion of the relevant regulatory standards and methodologies used in this analysis. An analysis was performed only for: (1) new locations; or (2) locations identified in Section 5.17 with revised DSNY and other agency collection vehicle totals.

5.17a.1 Existing Conditions

5.17a.1.1 Off-Site Noise Levels

Existing off-site noise levels consist of the noise from existing traffic and other background noise. A screening analysis was conducted to determine if off-site noise monitoring would be required along the Alternative truck route due to an increase in traffic caused by DSNY and other agency collection vehicles. As a result of this screening, which is described in Section 3.19.5.2, an off-site noise analysis was required, therefore, off-site noise monitoring was conducted. Table 5.17a-1 presents monitored noise levels near noise-sensitive receptors during the hour expected to receive the largest noise levels (when the difference between traffic noise levels and background noise levels is the greatest) based on first-level screening.

5.17a.2 Future No-Build Conditions

5.17a.2.1 Off-Site Noise Levels

Off-site noise levels for the Future No-Build Conditions in 2006 were calculated using the annual growth rates for traffic volume provided in Section O: Traffic of the 2001 CEQR Technical Manual. Table 5.17a-2 presents the existing traffic volume and the Future No-Build traffic volume for the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest) during the daytime (if any) and nighttime for locations where there is a possible impact based on the first-level screening.

Table 5.17a-1
Existing Noise Levels (L_{eq}) at the Nearest Noise-Sensitive Receptor for Off-Site Analysis
Southwest Brooklyn Converted MTS
Alternative Route

Location	Existing Noise Levels During Quietest Hour (dBA)[1]
Shore Road between 26th Avenue & Bay 43rd Street[2]	70.1
Shore Road South of Shore Parkway exit[3]	62.3
Bay 52nd Street between Shore Road & Cropsey Avenue[3]	61.7

Notes for Table 5.17a-1:

[1] A 1-hour noise level reading was measured at the closest noise-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 February 18, 2005 between 10:00 a.m. and 11:00 a.m. The school is not in operation during nighttime hours, therefore the quietest nighttime hour was not analyzed.

[3] The existing noise level was measured on February 17, 2005 between 3:00 a.m. and 4:00 a.m.

Table 5.17a-2
Off-Site Noise Traffic Volume
Southwest Brooklyn Converted MTS
Alternative Route

Location	Hour Beginning	Existing Traffic Volume [1] (Vehicles / Hour)	Future No-Build Traffic Volume [2] (Vehicles / Hour)
26th Avenue South of Crospey Avenue	3:00 a.m.	26	27
Cropsey Avenue South of Bay 34th Street	2:00 a.m.	104	109
Shore Road between 26th Avenue & Bay 43rd Street	10:00 a.m.	156	159
Shore Road South of Shore Parkway exit	3:00 a.m.	66	67
Bay 52nd Street between Shore Road & Cropsey Avenue	3:00 a.m.	63	64
Cropsey Avenue between Bay 53rd Street & Bay 54th Street	2:00 a.m.	238	243
Cropsey Avenue between Bay 49th Street & Bay 50th Street	3:00 a.m.	116	118

Notes for Table 5.17a-2:
[1] Existing Traffic Volumes are based on ATR data.
[2] Future No-Build Traffic Volumes are based on CEQR annual traffic growth rates.

5.17a.3 Potential Impacts with the Southwest Brooklyn Converted MTS – Alternative Route

5.17a.3.1 Off-Site Noise Levels

A screening analysis was conducted to determine if a detailed off-site noise analysis including noise monitoring would be required along the truck routes serving the Southwest Brooklyn Converted MTS alternative route. The assumed DSNY and other agency collection vehicle routes are provided in Section 14 of this chapter. As a result of this screening, which is described in Section 3.19.5.2, an off-site noise analysis was required. Results of the second-level screening for the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest) during the daytime (if any) and nighttime are provided in Table 5.17a-3.

Table 5.17a-3
Off-Site Noise Screening Results
Southwest Brooklyn Converted MTS – Alternative Route

Location	Hour Beginning	Future No-Build PCEs[1]	Collection Vehicles	Employee Vehicles	Total Net DSNY Collection Vehicle PCEs[1]	Future Build PCEs[1][2]	Possible Impact[3]
Shore Road between 26th Avenue & Bay 43rd Street	10:00 a.m.	528	22	0	1034	1562	Yes
Shore Road South of Shore Parkway exit	3:00 a.m.	205	5	0	235	440	Yes
Bay 52nd Street between Shore Road & Cropsey Avenue	3:00 a.m.	64	5	0	235	299	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. Per CEQR, collection vehicles are converted to PCEs using a factor of 47, and employee vehicles are converted to PCEs using a factor of 1.

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

Because the screening results presented above showed that the PCEs would double on a roadway due to DSNY and other agency collection vehicles traveling to or departing from the Southwest Brooklyn Converted MTS via the alternative route, a detailed off-site noise analysis was performed at that roadway using TNM for the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest) during the daytime and nighttime. Figure 5.17a-1 depicts the locations of the roadways where a detailed off-site noise analysis was performed.

TNM results for locations/hour that resulted in a possible impact based on second-level screening are presented in Table 5.17a-4. The table shows existing background noise levels monitored at the nearest noise-sensitive receptor at the location, TNM-predicted noise levels for the existing traffic, TNM-predicted Future No-Build noise levels for 2006 for the location, 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

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

500 0 500 Feet

Figure 5.17a-1 Mobile Noise Analysis
Intersections Analyzed
Southwest Brooklyn Converted MTS
Alternative Truck Route

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the TNM-predicted Future No-Build noise level. Because the incremental noise-level change that would be caused by the Southwest Brooklyn Converted MTS is predicted by TNM to be greater than the CEQR threshold of 3 dBA at the nearest noise-sensitive receptor for two of the analyzed roadways, TNM predicts an impact.

Table 5.17a-4
Off-Site Noise Analysis TNM Results
Southwest Brooklyn Converted MTS – Alternative Route

Location	Hour Beginning	Existing Background Noise Level[1] (L_{eq}) (Measured) (dBA)	TNM-Predicted Noise Level (L_{eq}) for Existing Traffic (dBA)	TNM Future No-Build Noise Level (L_{eq}) (dBA)	Collection Vehicles	Employee Vehicles	TNM Future Build Noise Level (L_{eq}) (dBA)	Impact (Noise Level Difference) (dBA)
Shore Road between 26th Avenue & Bay 43rd Street	10:00 a.m.	70.1	62.7	62.7	22	0	65.9	Yes (3.2)
Shore Road South of Shore Parkway exit	3:00 a.m.	62.3	56.2	56.2	5	0	58.6	No (2.4)
Bay 52nd Street between Shore Road & Cropsey Avenue	3:00 a.m.	61.7	52.1	52.2	5	0	55.6	Yes (3.4)

Note:
[1] Existing noise level and traffic count used for input into TNM was recorded on February 17th and 18th, 2004.

To determine if these TNM-predicted impacts were overpredicted, site-specific truck simulations would normally be conducted at the noise sensitive receptors, based on the methodology described in Section 3.19. However, due to the precipitation (noise monitoring cannot be conducted when it is raining) and the lack of time, a site-specific truck simulation analysis could not be performed for the FEIS. Based on: (1) the truck simulations performed for other Converted MTS facilities; and (2) the small increment of 0.2 and 0.4 dBA over the CEQR 3 dBA threshold that has been predicted by TNM, it is expected that the truck simulation analysis would not predict an impact at the two nearest noise-sensitive receptors where TNM predicts impacts.

5.17a.3.2 Combined On-Site and Off-Site Noise Levels

On-site and off-site noise analyses were performed for the Southwest Brooklyn Converted MTS. Since the potential impacts of these analyses can affect the same noise-sensitive receptor, a screening analysis was conducted to determine if a combined noise analysis would be required for the operations at the Southwest Brooklyn Converted MTS. The combined analysis study area was defined by the 55 dBA isopleth contours from the on-site source and the bottom driveway entrance to the site. The other limits for the combined analysis study area were defined by the first row of buildings along the roadway between the 55 dBA contour and the driveway entrance to the site. The results of the screening analysis show that the School on the corner of Shore Road and Bay 44th Street is the nearest noise-sensitive receptor located within the study area that can be impacted by both on-site and off-site Southwest Brooklyn Converted MTS operations; therefore, a combined noise analysis, was required to determine if an impact is predicted under Section R of the 2001 CEQR Technical Manual.

Noise monitoring was conducted at the noise-sensitive receptor during the quietest daytime hour based on the off-site analysis discussed in Section 6.17.3.5 above. The school is not in operation during nighttime hours, therefore the quietest nighttime hour was not analyzed. Table 5.17a-5 shows the distance from the Southwest Brooklyn Converted MTS to the noise-sensitive receptor, the monitored existing background noise level at the noise-sensitive receptor, Southwest Brooklyn Converted MTS predicted noise levels at the noise-sensitive receptor, and the predicted off-site noise level at the noise-sensitive receptor. The table also provides the combined on-site and off-site noise level and the difference between these combined noise levels. This difference

represents the predicted incremental change in noise level from the Southwest Brooklyn Converted MTS on-site and off-site operations at the noise-sensitive receptor. Because this incremental change is not greater than the CEQR threshold of 3 dBA during nighttime hours for the school receptor analyzed, there is no predicted impact that would be caused by the Southwest Brooklyn Converted MTS combined on-site operations and off-site operations.

Table 5.17a-5
Combined On-Site and Off-Site Noise Analysis
Existing and Predicted Noise Levels (Leq) at the Nearest Noise-Sensitive Receptor with Southwest Brooklyn Converted MTS based on the Alternative Truck Route

Noise-Sensitive Receptor ID	Distance from Facility (meters /feet)	Hour Analyzed	Existing Noise Levels During Quietest Hour (dBA)[1]	Predicted On-Site Noise Level at Noise-Sensitive Receptor (dBA)[2]	Collection Vehicles	Predicted Off-site Noise Level at Noise-Sensitive Receptor (dBA)	Combined On-Site and Off-Site Noise Level at the Noise-Sensitive Receptor (dBA)	Increase over Existing Noise Levels (dBA)	Impact[3] (yes or no)
School on Shore Road between 26th Avenue and Bay 44th Street	228 / 749	10:00 a.m.	70.1	53.6	22	65.9	71.6	1.5	No

Notes:
(1) Existing noise level and traffic count used for input into TNM was recorded on February 18th, 2004.
(2) Predicted noise level calculations at noise-sensitive receptor include on-site and off-site shielding from structures.
(3) According to CEQR, an increase over 3 dBA during daytime hours where the existing noise level is 62 dBA or greater is considered an impact.

5.18 Commercial Waste to the Southwest Brooklyn Converted MTS

5.18.1 Existing Conditions

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

5.18.2 Future No-Build Conditions

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

5.18.3 Potential Impacts of Sending Commercial Waste to the Southwest Brooklyn Converted MTS

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

5.18.3.1 On-Site Air Quality, Odor and Noise

Under Future Build Conditions, the Southwest Brooklyn Converted MTS was evaluated for on-site air quality, odor and noise impacts at its maximum design capacity of approximately 4,290 tpd (see Sections 5.15, 5.16 and 5.17). Results showed no unmitigatible adverse on-site air quality, odor or noise impacts. Although the peak hourly arrival rates of collection vehicles are not sustained over a 24-hour period, the analysis of on-site impacts conservatively modeled these peak hour conditions to predict the potential for on-site noise and odor impacts, and air quality impacts for short-term (1-hour, 3-hour, 8-hour and 24-hour) averaging periods. Because the

analysis of short-term averaging periods was based on facility operations at the design capacity, no additional evaluation of on-site noise was required.

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

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

5.18.3.2 Off-Site Traffic, Air Quality and Noise

Potential off-site traffic, air quality and noise impacts of deliveries of DSNY-managed Waste to the Southwest Brooklyn Converted MTS were evaluated in Sections 5.14, 5.15 and 5.17 based on temporal distributions of DSNY and other agency collection vehicles identified in Section 5.14.

The greatest number of DSNY and other agency collection vehicles analyzed for traffic impacts during all three periods (AM, midday and PM peak hours) was 27 (inbound trip ends) per hour, which occurred during the AM peak. These 27 DSNY and other agency collection vehicles are also more than the 23 peak hour DSNY and other agency collection vehicle and commercial waste hauling vehicle inbound trip ends that can be processed per hour at the Southwest Brooklyn Converted MTS during the 8:00 p.m. to 8:00 a.m. shift. In addition, the intersection LOS is lower (i.e., poorer) and the background volumes of traffic are higher during the AM peak than the 8:00 p.m. to 8:00 a.m. hours, so the AM peak analysis represents worst-case conditions. As reported above, there were no unmitigatible significant adverse environmental impacts from the 27 DSNY and other collection agency vehicle trip ends at the Southwest Brooklyn Converted MTS. Therefore, the addition of the 23 DSNY and other agency collection vehicles and

commercial waste hauling vehicles at the Southwest Brooklyn Converted MTS during the 8:00 p.m. to 8:00 a.m. shift — during a period with a better LOS and lower background traffic volumes — would also have no unmitigatible significant adverse traffic impacts.

Likewise, the 27 inbound DSNY and other agency collection vehicles analyzed for off-site air quality impacts during the AM peak hour was the highest number of collection vehicles analyzed for all three periods (AM, midday and PM peak hours). For off-site air quality modeling, a Tier I analysis assumed conservatively that the 27 inbound DSNY and other agency collection vehicles would travel through the analyzed intersections each hour over a 24-hour period for most of the analyzed intersections. Results showed there would be no unmitigatible significant adverse environmental impacts at several analyzed intersections. Consequently, because the 23 inbound DSNY and other agency collection vehicles and commercial waste hauling vehicles that can travel through these intersections per hour during the 8:00 p.m. to 8:00 a.m. shift would be fewer than the number of such vehicles analyzed for the AM peak over a 24-hour period, there would be no significant adverse off-site air quality impacts.

For the intersection of Bay Parkway at Cropsey Avenue and Shore Parkway (north and south), a Tier II analysis was required. The estimated actual hourly distribution over 24 hours included the estimated 23 inbound DSNY and other agency collection vehicles and commercial waste hauling vehicles that could potentially be processed at the Southwest Brooklyn Converted MTS, and no unmitigatible significant adverse environmental impacts were identified.

Evaluating the potential for off-site noise impacts required the use of a second-level noise screening analysis. The results of this analysis indicate that the potential number of commercial waste hauling vehicles that could be routed to the Southwest Brooklyn Converted MTS during various hours within the 8:00 p.m. to 8:00 a.m. period must be limited to less than the available excess capacity to avoid causing potential impacts at noise-sensitive receptors on the approach routes these vehicles would take to the Converted MTS. Based on the revised analysis in this FEIS, ~~T~~the amount of available capacity that can be used to process commercial waste during the hours of 8:00 p.m. to 8:00 a.m., without causing any significant adverse noise impacts, is ~~828~~ 718 tons (or approximately ~~766~~ commercial waste hauling vehicles, assuming an average of 11 tons per truck) over this 12-hour period.