

# CHAPTER 7 ENVIRONMENTAL REVIEW: HAMILTON AVENUE CONVERTED MTS

## 7.1 Introduction

The results of the environmental analyses of the Hamilton Avenue Converted MTS are presented in the following sections:

- 7.2 Land Use, Zoning and Public Policy
- 7.3 Socioeconomic Conditions
- 7.4 Community Facilities
- 7.5 Open Space and Parklands
- 7.6 Cultural Resources
- 7.7 Urban Design and Visual Quality
- 7.8 Neighborhood Character
- 7.9 Traffic and Transportation
- 7.10 Air Quality
- 7.11 Odor
- 7.12 Noise
- 7.13 Infrastructure and Energy
- 7.14 Natural Resources
- 7.15 Water Quality
- 7.16 Waterfront Revitalization Program
- 7.17 Hazardous Materials

Section 2.5 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.

## **7.2 Land Use, Zoning, and Public Policy**

### 7.2.1 Existing Conditions

#### *7.2.1.1 Definition of the Study Areas*

The primary study area for the land use, zoning, and public policy analyses is defined as the area within ¼ mile of the site (Figure 7.2-1). The secondary study area is defined as the area between ¼ mile and ½ mile of the site (Figure. 7.2-2). Section 3.4 describes the methodology used in these analyses and Section 2.5 provides information on existing land uses and operations on the site.

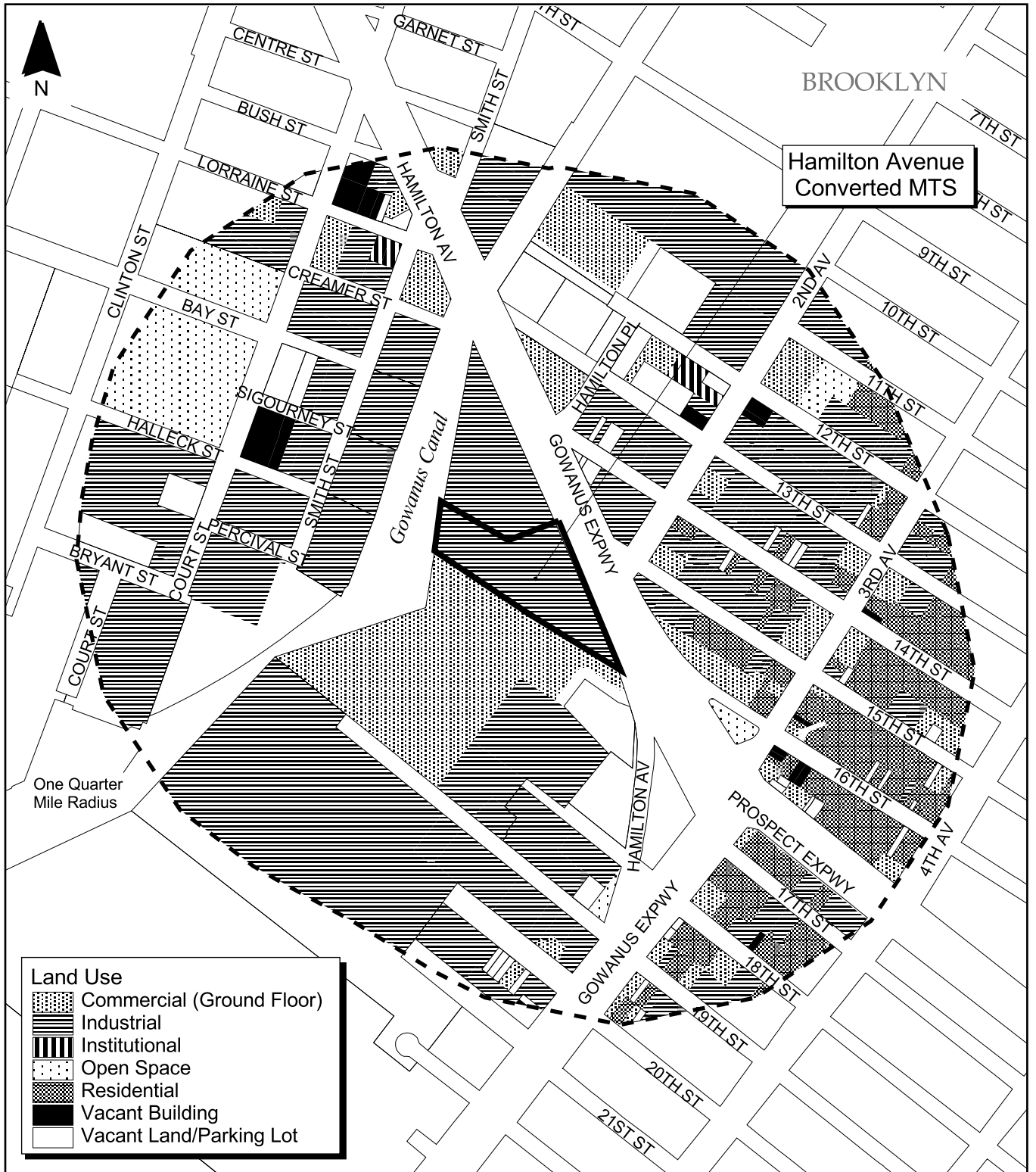
#### *7.2.1.2 Land Uses Patterns*

##### *7.2.1.2.1 General Context*

The site is in a predominantly industrial area on the southeastern side of Gowanus Canal in Brooklyn at the mouth of the Gowanus Bay. It is surrounded by industrial uses, primarily warehousing and transportation infrastructure, and is separated physically from residential areas located further inland.

##### *7.2.1.2.2 Land Uses in the Primary Study Area*

The site is bordered on the west by the Gowanus Canal and on the northeast by a DOT asphalt plant and storage yard. Hamilton Avenue, which is a busy arterial, and the elevated Gowanus Expressway define the eastern boundary of the site, separating it from various automotive service uses and warehouses beyond. The large, two-story parking lot/garage associated with a Home Depot on 19<sup>th</sup> Street borders the site on the south.



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

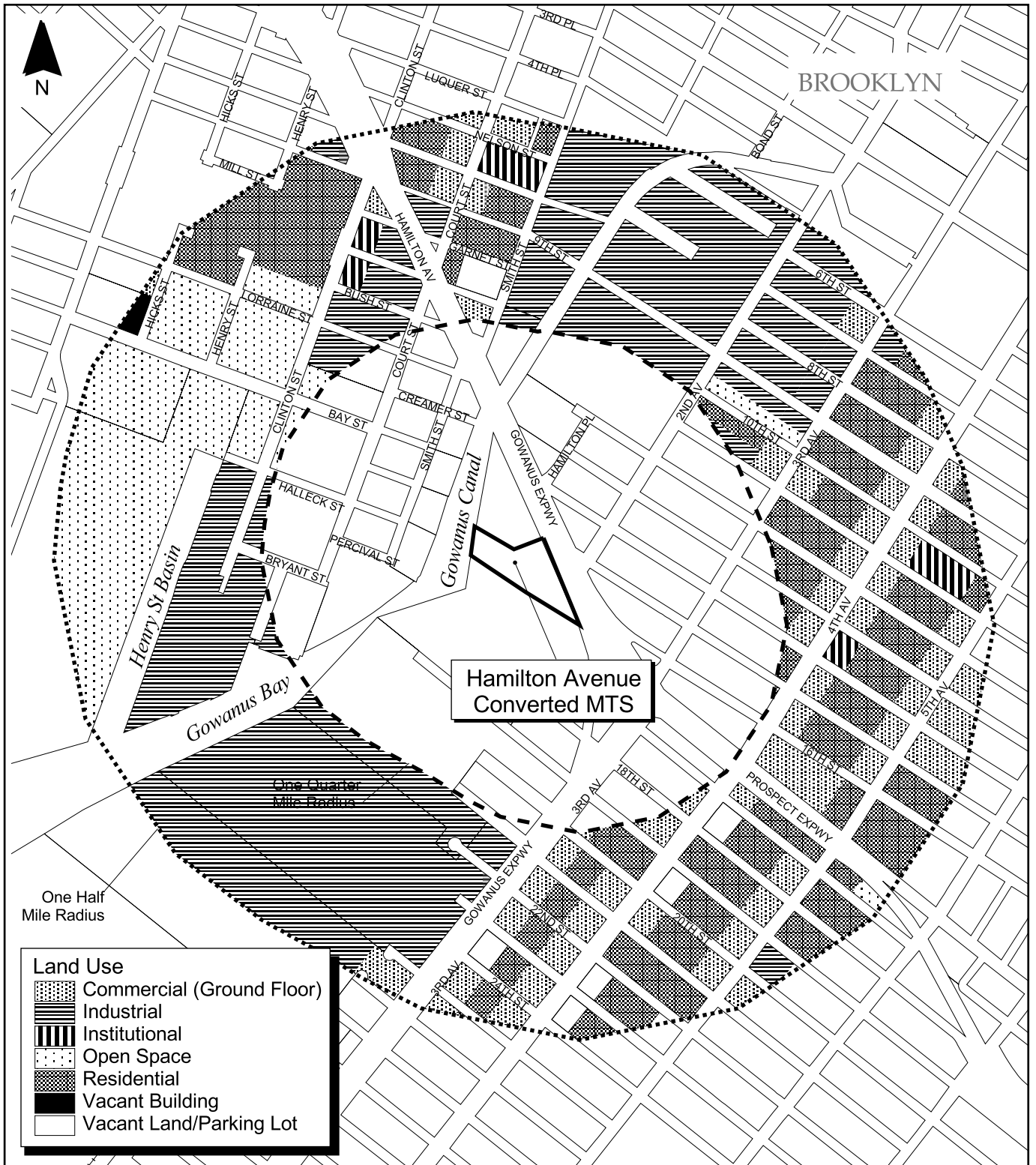
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**Figure 7.2-1 Land Use in the Primary Study Area**  
**Hamilton Avenue Converted MTS**

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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 at the secondary study area.



**Figure 7.2-2 Land Use in the Secondary Study Area**  
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Large lots in the northeastern portion of the primary study area contain industrial and warehouse uses. Automotive services are located along Hamilton Avenue just east of the site, including DSNY's Brooklyn 2 garage.

Warehouses, automotive services, and industrial uses, including Hess Industries oil tanks, are located in the northern portion of the primary study area, west of the canal. Further west is the Red Hook Houses Recreational Area (between Halleck Street, Court Street, Bay Street and Clinton Street). Southwest of the site, just beyond the Home Depot are the Sunset Industrial Park and surrounding large-lot warehouses. Smaller-lot warehouses line the northwestern side of 3<sup>rd</sup> Avenue/Gowanus Expressway. There is a mix of warehousing, vacant buildings, residences and commercial uses southeast of 2<sup>nd</sup> Avenue, with more residences located southeast of 3<sup>rd</sup> Avenue.

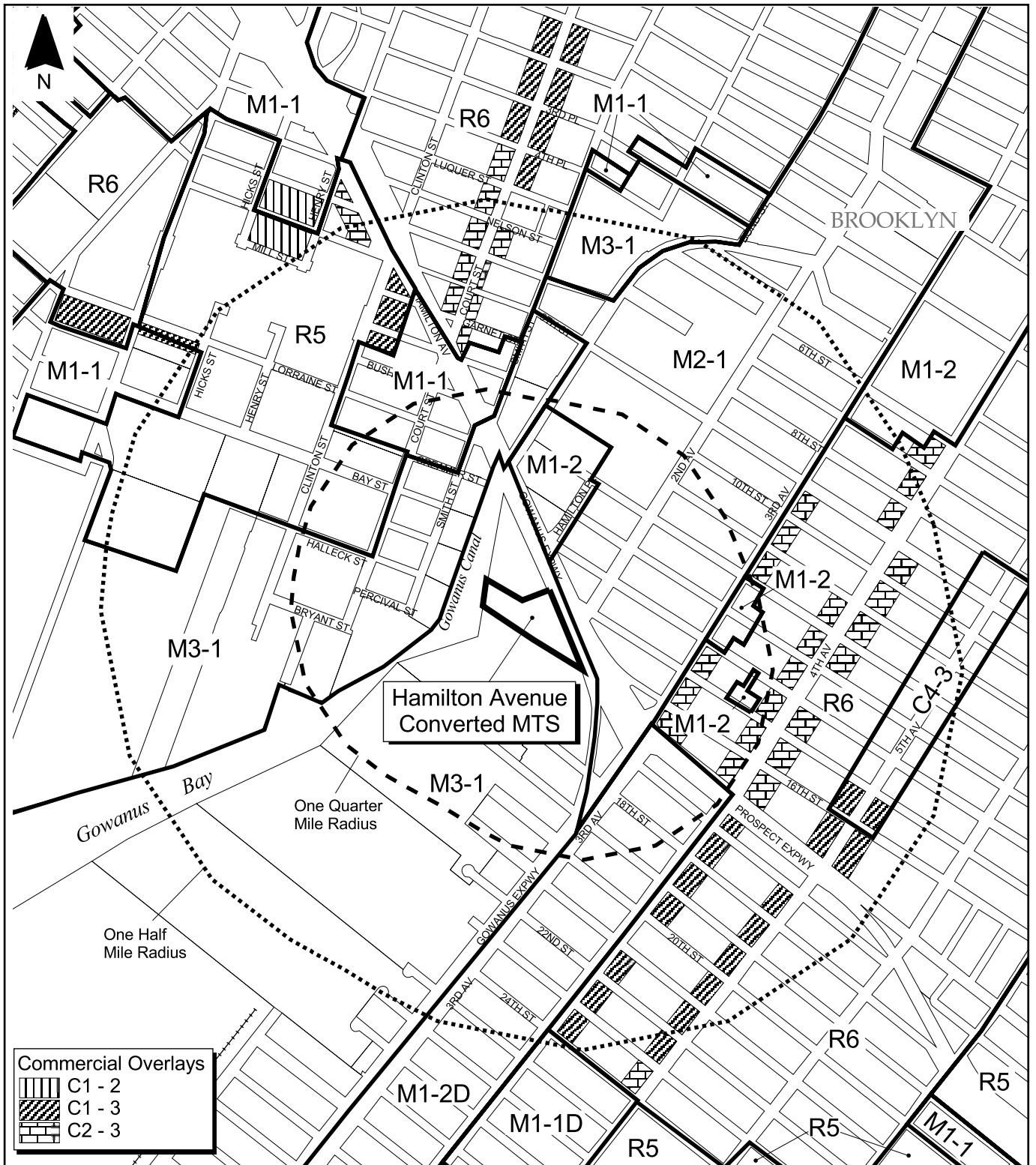
#### 7.2.1.2.3 Land Uses in the Secondary Study Area

Large-lot industrial uses line both sides of Gowanus Bay and Canal throughout the secondary study area southwest and northeast of the site. The area southeast of 3rd Avenue, in Park Slope, is almost exclusively residential with ground-floor commercial uses located on the avenues. The large Red Hook Houses complex is located west of Clinton Street, between Lorraine Street and West 9th Street, where it dominates the northwestern portion of the secondary study area. Vacant lots and large parkland areas surround the complex. A small portion of the large Carroll Gardens/South Brooklyn (Gowanus) neighborhood is included in the secondary study area northwest of the canal.

#### *7.2.1.3 Zoning on and near the Site*

##### 7.2.1.3.1 Zoning within the Primary Study Area

The primary study area is zoned primarily for manufacturing: M3-1, M1-2 and M2-1 zoning districts are southeast of Gowanus Bay and Gowanus Canal and M3-1 and M1-1 districts are to the west. A small portion of the larger R5 residential zoning district in Red Hook is just beyond these manufacturing districts. (See Figure 7.2-3 and Table 3.4-1: Zoning District Characteristics.) A small portion of a larger R6 district lies east of 3<sup>rd</sup> Avenue.



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

500 0 500 Feet

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|--|---|--|
|  | <p><b>Figure 7.2-3 Zoning</b><br/> <b>Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>         DEPARTMENT OF SANITATION</p> |  |
|--|---|--|

#### 7.2.1.3.2 Zoning within the Secondary Study Area

The majority of the secondary study area is zoned for manufacturing, although it includes portions of the residential zoning districts east of 3<sup>rd</sup> Avenue and west of the canal in Red Hook.

#### *7.2.1.4 Current Plans and Policies*

Community District 6 covers most of the primary and secondary study areas east and north of Gowanus Bay and north of the Prospect Expressway, but not the site. The FY 2002/2003 Community District Needs Statement for District 6 reports the community's desire to study the economic development potential of the Gowanus Canal, such as through the development of maritime light manufacturing. The community overall also notes the need to expand enforcement of truck traffic regulations, especially in the Red Hook neighborhood.

District 7 covers the site and the remainder of the study area. The FY 2002/2003 Community District Needs Statement for District 7 does not make specific reference to recommended or anticipated physical development affecting the site or study area. Specifically regarding the site, the community mentions its desire for long-term export by barge or rail to replace the current truck-dependent waste handling. The Board also requests that comprehensive air quality studies be undertaken. The CDNS reports that 197-a planning efforts have been initiated to ensure intelligent community-based economic development planning for the waterfront.

The Red Hook 197-a Plan, which is relevant to the portion of the study area northwest of the bay, contains no recommendations for land immediately across the canal from the site or for land within view of the site. It does, however, recommend the general preservation and expansion of industrial and maritime uses present in the southeast section of Red Hook. Specifically, the plan suggests that the Red Hook Marine Terminal and the waterfront between Erie Basin and Gowanus Bay be preserved and strengthened.

The site is located within the northernmost portion of the Sunset Park sub-area according to the *Plan for the Brooklyn Waterfront*, within Reach 14, which stretches from Brooklyn's northernmost East River shoreline to about 65<sup>th</sup> Street on the southern end. The plan notes that

there is no natural waterfront of significance and, although it does recommend development of public access, such public access is not recommended for the industrial waterfront within the study area. The plan recommends that Erie Basin and Sunset Park be designated as SMIA's to form the hub of Red Hook's working waterfront. Likewise, the plan specifically recommends investment in the infrastructure associated with the publicly owned land along the Gowanus Canal. (See Section 7.16 for a review of consistency with the Waterfront Revitalization Program.)

EDC plans for development of the Sunset Park waterfront (29<sup>th</sup> Street to about 65<sup>th</sup> Street) south of the secondary study area are described in its *Strategic Plan*. This development would potentially include a new auto terminal at the South Brooklyn Marine Terminal and a 90-acre container port.

#### 7.2.2 Future No-Build Conditions

The existing incinerators on the site will be demolished, though the existing MTS will remain, and the associated DSNY salt storage and parking area will continue to be fully utilized. It is reasonable to anticipate that the Future No-Build Conditions in the primary and secondary study areas will generally resemble Existing Conditions. Although several new developments may be realized, none would alter the land use of the study areas overall. The developments underway or anticipated are described as follows:

- On April 30, 2003, the City Planning Commission adopted the Park Slope Rezoning Proposal that would increase the permitted density for residential development on Fourth Avenue to 6.02 (R8A) from 3.0 (R6 with Quality Housing on a wide street). In its environmental review, DCP identified a number of development sites along the Fourth Avenue corridor, but its analysis showed that the most likely sites to be developed in the next 10 years would be north of the site, outside the secondary study area.
- A Lowe's Home Improvement Warehouse is under construction on a site on 2nd Avenue between 10th and 12th Streets, with construction expected to be complete in 2003. This as-of-right development would be about 157,600 square feet with 490 parking spaces.



Additionally, an IKEA warehouse is proposed for a site at Columbia Street and Halleck Street, outside the secondary study area, north of Gowanus Canal in Red Hook. It would be 300,000 square feet with 1400 parking spaces. This development would require a rezoning action, as well as various special permits and certifications through the ULURP process. Although IKEA has not yet filed for the ULURP action, DCP reports that the proposed build year is 2005 or 2006. Figure 7.2-4 shows the planned development sites.

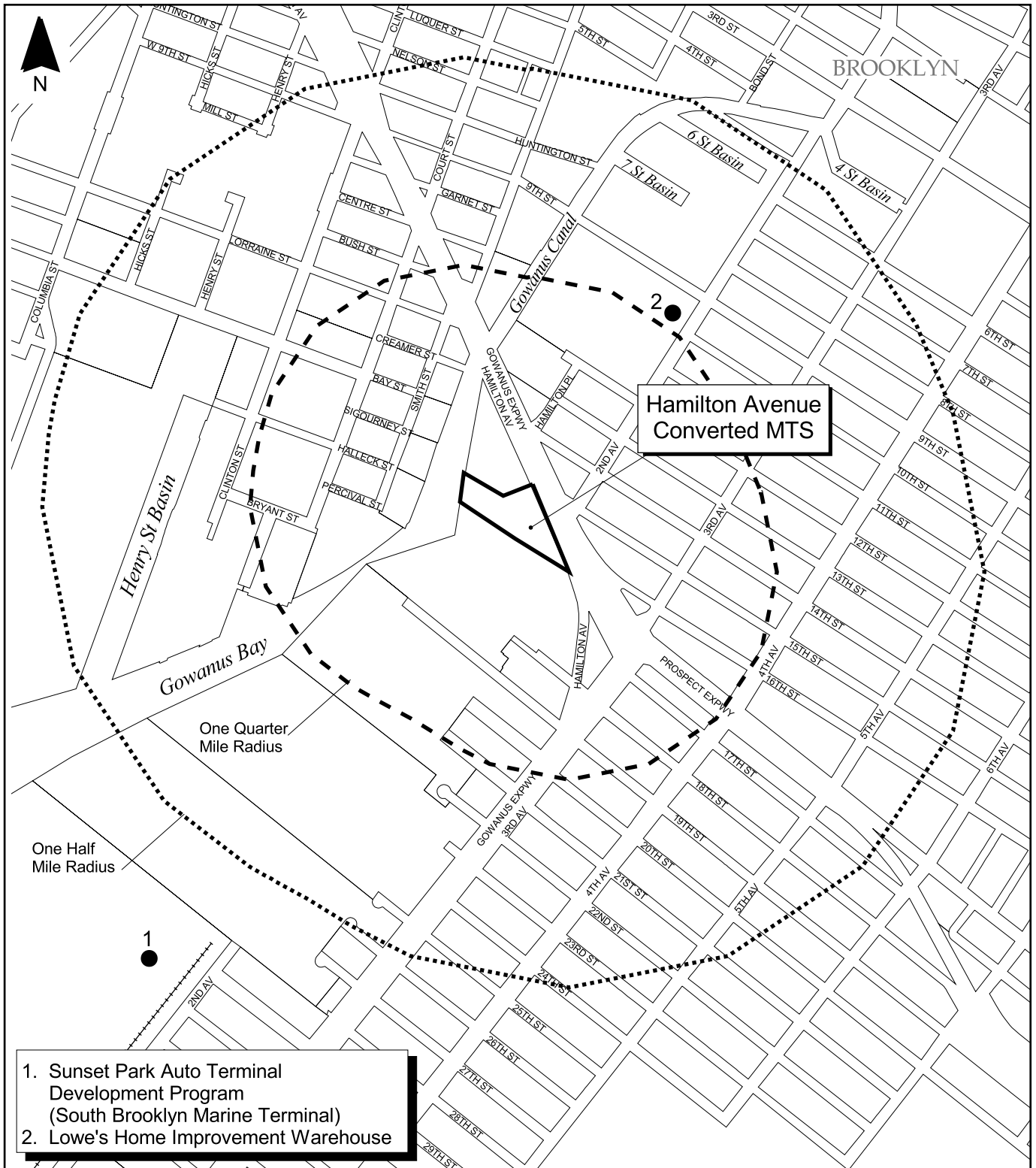
### 7.2.3 Potential Impacts with the Hamilton Avenue Converted MTS

#### 7.2.3.1 *Land Use and Zoning*

The Hamilton Avenue Converted MTS would entail replacing the existing deactivated MTS with a similar new one that would feature containerization functions. The new facility would be situated further inland, partly within the eastern portion of the site where the incinerator, which will have been demolished, now stands. Delivered waste would be containerized for transport on barges to disposal sites out of the City—a change from the previous practice of loading loose waste onto larger barges for intra-harbor transport to the now closed Fresh Kills Landfill. The reactivation of garbage handling at the site would not be likely to affect the surrounding land use or zoning patterns.

#### 7.2.3.2 *Consistency with Public Plans and Policies*

There are no recommendations stated in relevant plans and policies that specifically relate to the site, study areas, or proposed development, but the Hamilton Avenue Converted MTS would be consistent with the Red Hook 197-a Plan and the Plan for the Brooklyn Waterfront insofar as it would enhance existing public infrastructure and maritime industrial uses on the Gowanus Canal and Gowanus Bay.



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

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**Figure 7.2-4 Planned Development Sites**  
**Hamilton Avenue Converted MTS**

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## **7.3 Socioeconomic Conditions**

### 7.3.1 Existing Conditions

#### *7.3.1.1 Definition of the Study Area*

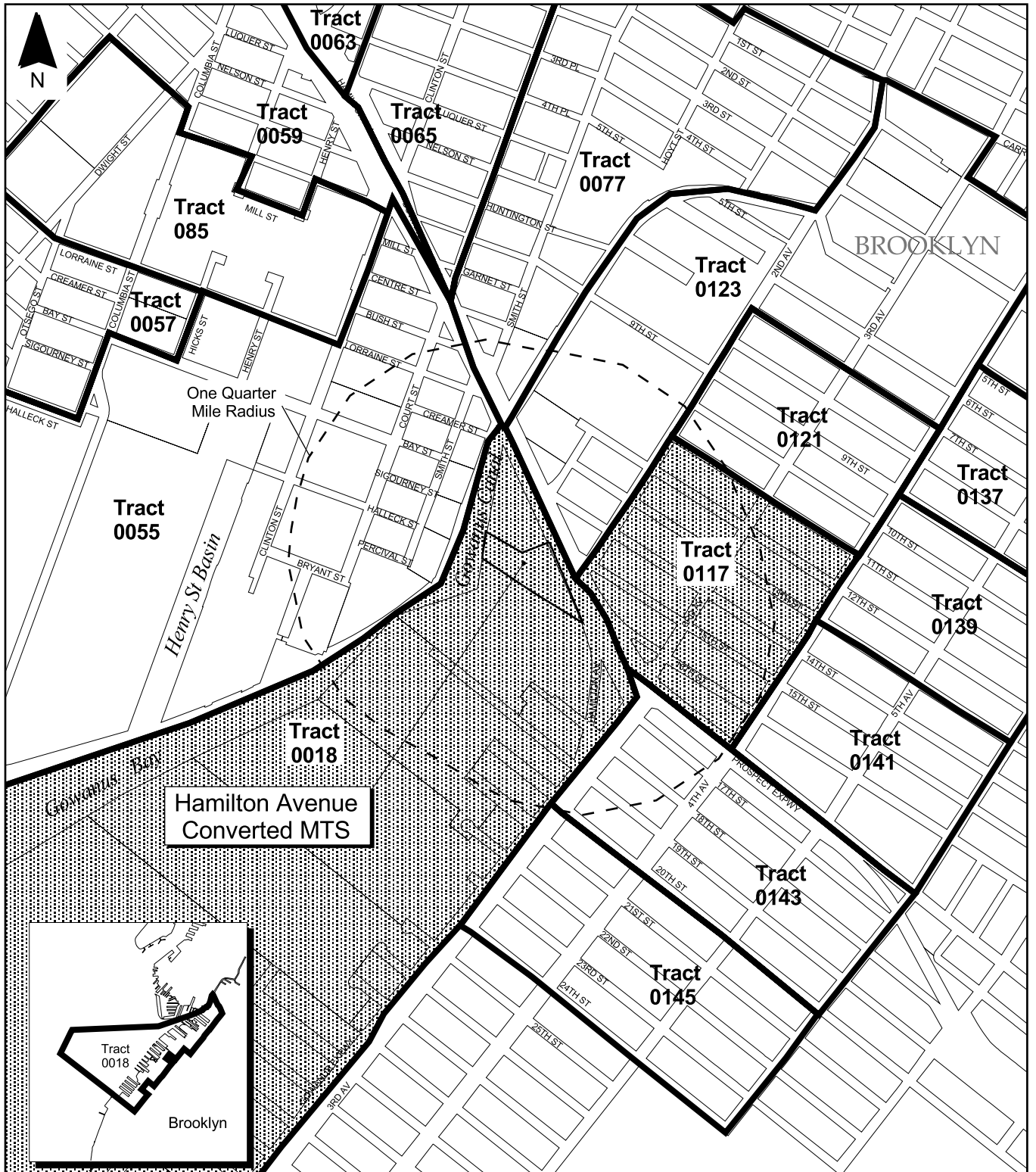
Two study areas were used for analysis of socioeconomic conditions: (1) a demographic study area based roughly on census tracts within ¼ mile of the site, and (2) a study area related to economic activity that generally covers a larger area that extends ½ mile from the site. (See Section 3.5 for a more detailed description of study area delineation.) In this case, the demographic study area is comprised of Census Tracts 18 and 117 (Figure 7.3-1). Census Tract 18 covers industrial waterfront areas between Gowanus Bay and approximately 65<sup>th</sup> Street, approximately to the west of 2<sup>nd</sup> Avenue. Census Tract 117 covers an area of approximately one dozen blocks northeast of the Gowanus Expressway and south of 10<sup>th</sup> Street, between 2<sup>nd</sup> Avenue and 4<sup>th</sup> Avenue. For comparison purposes, both 1990 and 2000 census data were also gathered at the Borough and City levels.

Detailed socioeconomic information referred to in the text but not presented in table format may be found in Appendix B.

#### *7.3.1.2 Demographic Characteristics*

##### 7.3.1.2.1 Population

The total 2000 study area population was 4,328 persons (see Table 7.3-1). In terms of total population growth from 1990 to 2000, the study area experienced a considerably greater percentage increase (88 percent) than did the Borough (7 percent) or the City (9 percent) during the same period.



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



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|  | <p><b>Figure 7.3-1 Census Tracts</b><br/> <b>Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>         DEPARTMENT OF SANITATION</p> |  |
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**Table 7.3-1  
1990-2000 Population**

|                | <b>Study Area</b> | <b>Brooklyn</b> | <b>City</b> |
|----------------|-------------------|-----------------|-------------|
| 2000           | 4,328             | 2,465,326       | 8,008,278   |
| 1990           | 2,304             | 2,300,664       | 7,322,564   |
| Percent Change | +87.8%            | +7.2%           | +9.4%       |

**Source:** U.S. Census, 1990, 2000

Whereas the two larger areas possessed a nearly equal ratio of males to females, the study area composition was distinctly uneven with 63 percent men compared to 37 percent women. The study area contained a smaller percentage of children and teenagers than the Borough or City; approximately 19 percent of the study area population was under the age of 20, compared to 30 percent for the Borough and 27 percent for the City.

7.3.1.2.2 Racial and Ethnic Characteristics

The 2000 study area population had a far greater proportion (53 percent) of people of Hispanic origin (all races) than did Brooklyn (20 percent) or the City (27 percent). Of the 47 percent not of Hispanic origin, 30 percent were Black, 46 percent were White, and 14 percent were Asian. In Brooklyn and the City, Blacks represented approximately 43 percent and 33 percent of the non-Hispanic populations, respectively, while Whites represented 43 percent and 48 percent, respectively.

From 1990 to 2000, the number of study area residents of Hispanic origin increased by a far greater rate than in the Borough and in the City during the same period. The percentage of people of Hispanic origin increased by 110 percent in the study area, compared with a 9 percent increase in the Borough and a 24 percent increase in the City. Because the 2000 Census introduced the option for respondents to identify themselves as two or more races, racial categories are not directly comparable with 1990.

#### 7.3.1.2.3 Households and Families

There were 591 families in the study area in 2000 and the percentage of these families that had children under the age of 18 (58 percent) was larger than those families in Brooklyn with children under 18 (51 percent) and in New York City (49 percent). There was a slightly smaller percentage of married-couple families in the study area (55 percent) than in the Borough (59 percent) or the City (62 percent), and 56 percent of these families had children, greater than Brooklyn (50 percent) and the City (48 percent).

The proportion of families headed by a female householder was roughly the same in the three areas: 32 percent in the study area, 33 percent in the Borough, and 30 percent in the City. Of these, 60 percent had children under the age of 18, compared to 55 percent in the Borough and the City.

There were 1,050 households in the study area in 2000, with an average household size of 2.8 persons, equivalent to Brooklyn and slightly greater than the City (2.6 persons).

From 1990 to 2000, the number of households in the study area increased by 32 percent, compared with a 6 percent increase in the Borough and a 7 percent increase in the City.

#### 7.3.1.2.4 Employment

Within the study area, 40 percent of people aged 16 and older participated in the labor force in 2000, compared to 55 percent in Brooklyn and 58 percent in the City. The majority of these people in all three areas were employed as private wage and salary workers.

There were proportionally fewer government workers in the study area, 12 percent of employed persons 16 years and over compared to Brooklyn (19 percent) and the City (16 percent). There were also fewer self-employed workers in the study area: 3 percent of the study area's working population as compared to 5 percent for the Borough and 6 percent for the City.

From 1990 to 2000, the number of employed persons increased by 37 percent in the study area, while it decreased by 41 percent in the Borough and remained the same in the City. Among employed persons, those engaged in government jobs decreased by 4 percent compared to a 14 percent decrease in the Borough and a 10 percent decrease in the City.

Current estimates indicate that about 87,618 employees worked in Brooklyn Community Districts 6 and 7 in 2002, which was about 12 percent of the borough's total employment.<sup>1</sup>

#### 7.3.1.2.5 Housing

Most of the housing units in the three areas were constructed before 1960. As of 2000, there were 1,129 housing units in the study area with a vacancy rate of about 8 percent, greater than either the Borough (5 percent) or the City (6 percent). Most of the housing units were renter-occupied (71 percent), slightly more than the Borough (69 percent), and the City (66 percent). Median monthly rent (\$755) was higher than in the Borough (\$672) and the City (\$705). The 2000 median value of housing units in the study area (\$173,300) was lower than in Brooklyn (\$224,100) or the City (\$211,900). In the study area, housing values increased by 23 percent compared to increases of 15 percent and 13 percent in Brooklyn and the City.

The turnover in the study area (52 percent) from 1995 until 2000 was greater than that of the Borough and the City (both 43 percent).

From 1990 to 2000, a total of 180 housing units were added in the study area, representing a 19 percent increase, markedly greater than the Borough and the City (both 7 percent).

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<sup>1</sup> New York Metropolitan Transportation Council, Employment Interim Projections data set, approved 7-17-03.

#### 7.3.1.2.6 Education

Consistent with the lower number of children in the area, there was a lower rate of school enrollment (22 percent) than in either the Borough (31 percent) or the City (29 percent). Of those enrolled in school within the study area in 2000, 60 percent were enrolled in elementary school or high school and 31 percent were enrolled in college or beyond. In Brooklyn, 64 percent were enrolled in elementary school, 24 percent in college or beyond, while 62 percent of the City's enrolled population was in elementary or high school and 27 percent in college or beyond.

The study area witnessed a 14 percent increase in the number of persons enrolled in school from 1990 to 2000, equal to the Borough and close to the City's (18 percent) growth.

The study area had a far lower educational attainment level than either the Borough or the City. A smaller proportion (34 percent) of the study area population age 25 and over had a college degree or some college education compared to Brooklyn (42 percent) and the City (48 percent). The study area had a similar percentage of people with only high school diplomas (27 percent) compared to the Borough (27 percent), but slightly greater than that of the City (24 percent).

The study area witnessed rising numbers of educational attainment from years 1990 to 2000. The number of college graduates increased 95 percent, and the same trend was evident in the Borough and the City, which experienced increases of 41 and 29 percent, respectively.

#### 7.3.1.2.7 Income and Poverty

In 2000, the median household income (\$30,833) and median family income (\$33,233) were lower than in Brooklyn (\$32,135 and \$36,188, respectively) and the City (\$38,293 and \$41,887, respectively). Compared to the larger two areas, a greater percentage of study area households were concentrated at the lowest income levels, with the majority of annual household incomes (57 percent) below \$35,000. Thirty percent of households in the study area had incomes of \$50,000 and above, compared with 33 percent in the Borough and 40 percent in the City.



Within the study area, the percentage of families living below the poverty level (8 percent) was nearly the same as that of Brooklyn (9 percent) and half of the City (19 percent). The percentage of families that have children under 18 living below the poverty level (33 percent) was greater than the percentages in Brooklyn (29 percent) or the City (26 percent).

A much greater percentage of persons in the study area under the age of 18 were living below the poverty level in 2000 (66 percent) compared to Brooklyn (34 percent) and the City (30 percent). The 2000 Census also reported that 33 percent of persons 65 and older were living below the poverty level in the study area compared to 22 percent in the Borough and 18 percent in the City.

Between 1990 and 2000, the percentage of people living below the poverty level grew 53 percent in the study area, far higher than in the Borough (19 percent) or the City (20 percent).

#### *7.3.1.3 Economic Conditions*

The study area contains a number of industrial and municipal activities on the southeastern side of Gowanus Bay in Brooklyn. The site is bordered by a DOT asphalt plant and storage yard, a Home Depot store and parking lot/garage, and major transportation infrastructure elements. Southwest of the site, just beyond the Home Depot store on 19<sup>th</sup> Street, is the Sunset Industrial Park, surrounded by large-lot loft factory buildings, with smaller warehouses lining the northwestern side of 3<sup>rd</sup> Avenue/Gowanus Expressway. Automotive services and warehouses are located north and east of the site. Hess Industries tanks are on the west side of the bay in Red Hook.

Portions of the study area fall within New York City's Southwest Brooklyn EDZ. The EDZ program was created to stimulate economic activity in distressed areas. It encourages business development through targeted incentives and benefits to new and expanding commercial and industrial firms.

State benefits are available through wage tax credits, investment tax credits, sales tax refunds (building/construction costs) and financial assistance. Utility discounts and free security surveys are also provided to relocating or expanding businesses.

## 7.3.2 Future No-Build Conditions

### 7.3.2.1 *Demographic Characteristics*

Regional projections indicate that the populations of census tracts 18 and 117 will remain the same as current estimates.<sup>2</sup>

### 7.3.2.2 *Economic Conditions*

Improvements are planned for industrial and port facilities in Sunset Park and other City ports as part of the EDC's Strategic Plan. In the near term, and potentially before 2006, an auto terminal is proposed at the South Brooklyn Marine Terminal about ½-mile from the site, at its closest. A subsequent phase of development at that property would include a 90-acre container terminal as part of the overall EDC Sunset Park Development Program. The terminal would increase the area's job base and bring additional economic activity to the area. Other transportation and infrastructure improvements in the Sunset Park environs that are expected to occur within the next several years, such as increased rail access and float bridge improvements, will make the area more viable for industrial and distribution-related firms.

Regional projections indicate that employment in Brooklyn Community Districts 6 and 7 will increase to 88,598, about a 1 percent increase in employment between 2002 and 2006.<sup>3</sup>

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

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<sup>2</sup> New York Metropolitan Transportation Council, Employment Interim Projections data set, approved 7-17-03.

<sup>3</sup> New York Metropolitan Transportation Council, Employment Interim Projections data set, approved 7-17-03.

### 7.3.3 Potential Impacts with the Hamilton Avenue Converted MTS

The Hamilton Avenue Converted MTS represents reactivation of solid waste transfer operations on the site with added containerization functions. Therefore, it would not result in socioeconomic changes in the study area. No significant direct or indirect impacts are anticipated related to socioeconomic conditions.

#### 7.3.3.1 *Residential Impacts*

No direct or indirect displacement of residential uses would occur as a result of the Hamilton Avenue Converted MTS and land use and neighborhood character analyses predict no adverse impacts.

#### 7.3.3.2 *Direct Business and Institutional Impacts*

No direct displacement of businesses or institutional uses is expected to occur as a result of the Hamilton Avenue Converted MTS.

#### 7.3.3.3 *Indirect Business and Institutional Impacts*

The Hamilton Avenue Converted MTS would not affect the adjacent and nearby businesses, which are industrial uses congruent with MTS operations and added containerization activities.

#### 7.3.3.4 *Employment Impacts*

The Hamilton Avenue Converted MTS is 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.

## 7.4 Community Facilities and Services

### 7.4.1 Existing Conditions

#### 7.4.1.1 *Definition of the Study Areas*

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

#### 7.4.1.2 *Summary of Community Facilities and Services*

Three community facilities are located within the primary study area and 13 within the secondary study area, which includes portions of the Red Hook, Carroll Gardens and Park Slope neighborhoods. Community facilities serving the area are listed in Table 7.4-1 and shown on Figure 7.4-1.

### 7.4.2 Future No-Build Conditions

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

### 7.4.3 Potential Impacts with the Hamilton Avenue Converted MTS

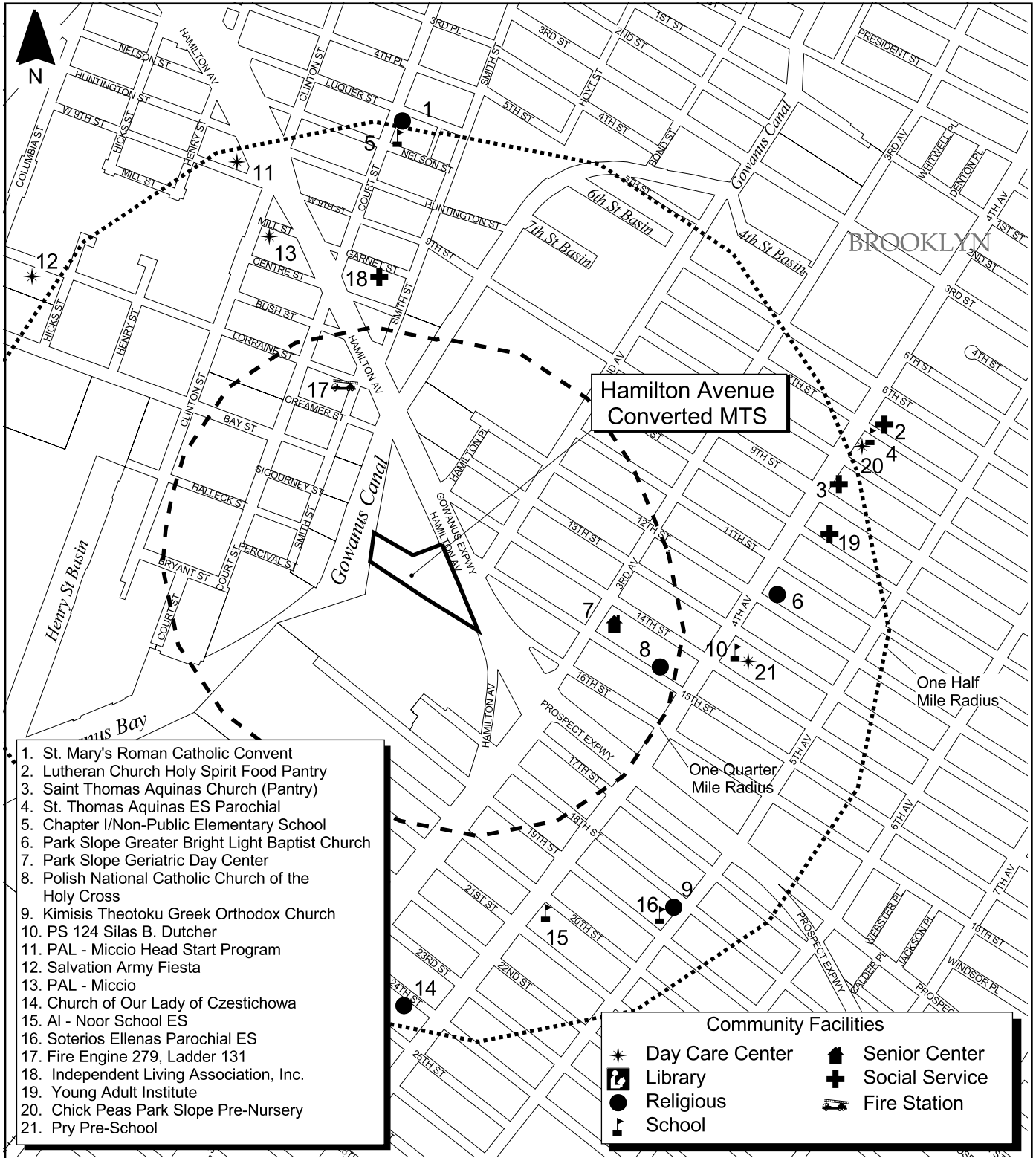
The Hamilton Avenue Converted MTS would not create any significant new demand on services and community facilities and would not displace facilities or disrupt services. No significant adverse impacts to service delivery are expected. The New York Fire Department states that it would have no problem supporting the Hamilton Avenue Converted MTS (see Appendix A).

**Table 7.4-1  
Community Facilities and Services**

| Name  | Address   |
|---|---|
| <b>Within the Primary Study Area</b>              |   |
| <b>Fire</b>                                       |   |
| Engine 279, Ladder 131                            | 252 Lorraine Street                               |
| <b>Religious and Cultural Institutions</b>        |   |
| Polish National Catholic Church of the Holy Cross | 159 15 <sup>th</sup> Street                       |
| <b>Senior Centers</b>                             |   |
| Park Slope Geriatric Day Center                   | 199 14 <sup>th</sup> Street                       |
| <b>Within the Secondary Study Area</b>            |   |
| <b>Schools</b>                                    |   |
| PS 124 Silas B. Dutcher                           | 515 4 <sup>th</sup> Avenue                        |
| Al-Noor School                                    | 675 4 <sup>th</sup> Avenue                        |
| Soterios Ellenas Parochial School                 | 224 18 <sup>th</sup> Street                       |
| Chapter I/Non-Public Elementary School            | Nelson Street & Court Street                      |
| <b>Day Care Centers</b>                           |   |
| Pry Pre-School                                    | 199 14 <sup>th</sup> Street                       |
| PAL-Miccio  | 595 Clinton Street                                |
| PAL-Miccio Head Start Program                     | 120 West 9 <sup>th</sup> Street                   |
| <b>Social Services</b>                            |   |
| Independent Living Association, Inc.              | 40 Garnet Street                                  |
| Lutheran Church Holy Spirit Food Pantry           | 267 7 <sup>th</sup> Street                        |
| St. Thomas Aquinas Church (pantry)                | 9 <sup>th</sup> Street and 4 <sup>th</sup> Avenue |
| <b>Religious and Cultural Institutions</b>        |   |
| Church of Our Lady of Czestochowa                 | 183 25th Street                                   |
| Kimisis Theotokou Greek Orthodox Church           | 224 18th Street                                   |
| Park Slope Greater Bright Light Baptist Church    | 251 12th Street                                   |

**Table 7.4-1 (continued)  
Community Facilities and Services**

| Name   | Address                    |
|--|----------------------------|
| <b>Outside the Secondary Study Area</b>  |                            |
| <b>Day Care Centers</b>  |                            |
| Chickpeas Park Slope Pre-Nursery   | 211 8 <sup>th</sup> Street |
| Salvation Army Fiesta  | 80 Lorraine Street         |
| <b>Schools</b>   |                            |
| St. Thomas Aquinas Parochial ES  | 211 Eighth Street          |
| <b>Hospitals</b>   |                            |
| Long Island College Hospital   | 340 Henry Street           |
| New York – Methodist Hospital  | 506 6 <sup>th</sup> Street |
| <b>Social Services</b>   |                            |
| Lutheran Church Holy Spirit Food Pantry  | 267 7 <sup>th</sup> Street |
| <b>Religious and Cultural Institutions</b>   |                            |
| St. Mary's Roman Catholic Church   | 467 Court Street           |
| <b>Police</b>  |                            |
| 72 <sup>nd</sup> Precinct  | 830 4 <sup>th</sup> Avenue |
| 76 <sup>th</sup> Precinct  | 191 Union Street           |
| 78 <sup>th</sup> Precinct  | 65 6 <sup>th</sup> Avenue  |
| <b>Fire</b>  |                            |
| 1st Engine Company – Engine Company 202 and<br>1st Ladder Company – Ladder Company 101 | 31 Richards Street         |
| 2nd Engine Company – Engine Company 204 and<br>2nd Ladder Company – Ladder Company 131 | 299 Degraw Street          |

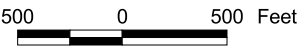


1. St. Mary's Roman Catholic Convent
2. Lutheran Church Holy Spirit Food Pantry
3. Saint Thomas Aquinas Church (Pantry)
4. St. Thomas Aquinas ES Parochial
5. Chapter I/Non-Public Elementary School
6. Park Slope Greater Bright Light Baptist Church
7. Park Slope Geriatric Day Center
8. Polish National Catholic Church of the Holy Cross
9. Kimisis Theotoku Greek Orthodox Church
10. PS 124 Silas B. Dutcher
11. PAL - Miccio Head Start Program
12. Salvation Army Fiesta
13. PAL - Miccio
14. Church of Our Lady of Czeslichowa
15. Al - Noor School ES
16. Soterios Ellenas Parochial ES
17. Fire Engine 279, Ladder 131
18. Independent Living Association, Inc.
19. Young Adult Institute
20. Chick Peas Park Slope Pre-Nursery
21. Pry Pre-School

**Community Facilities**

|                   |                  |
|-------------------|------------------|
| ★ Day Care Center | 🏠 Senior Center  |
| 📖 Library         | ⊕ Social Service |
| ● Religious       | 🚒 Fire Station   |
| 🎓 School          |                  |

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.



|  |   |  |
|--|---|--|
|  | <p><b>Figure 7.4-1 Community Facilities and Services</b></p> <p><b>Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>DEPARTMENT OF SANITATION</p> |  |
|--|---|--|

## 7.5 Open Space and Parklands

### 7.5.1 Existing Conditions

#### 7.5.1.1 Definition of the Study Area

The study area for open space and parklands is the area within ½ mile of the site.

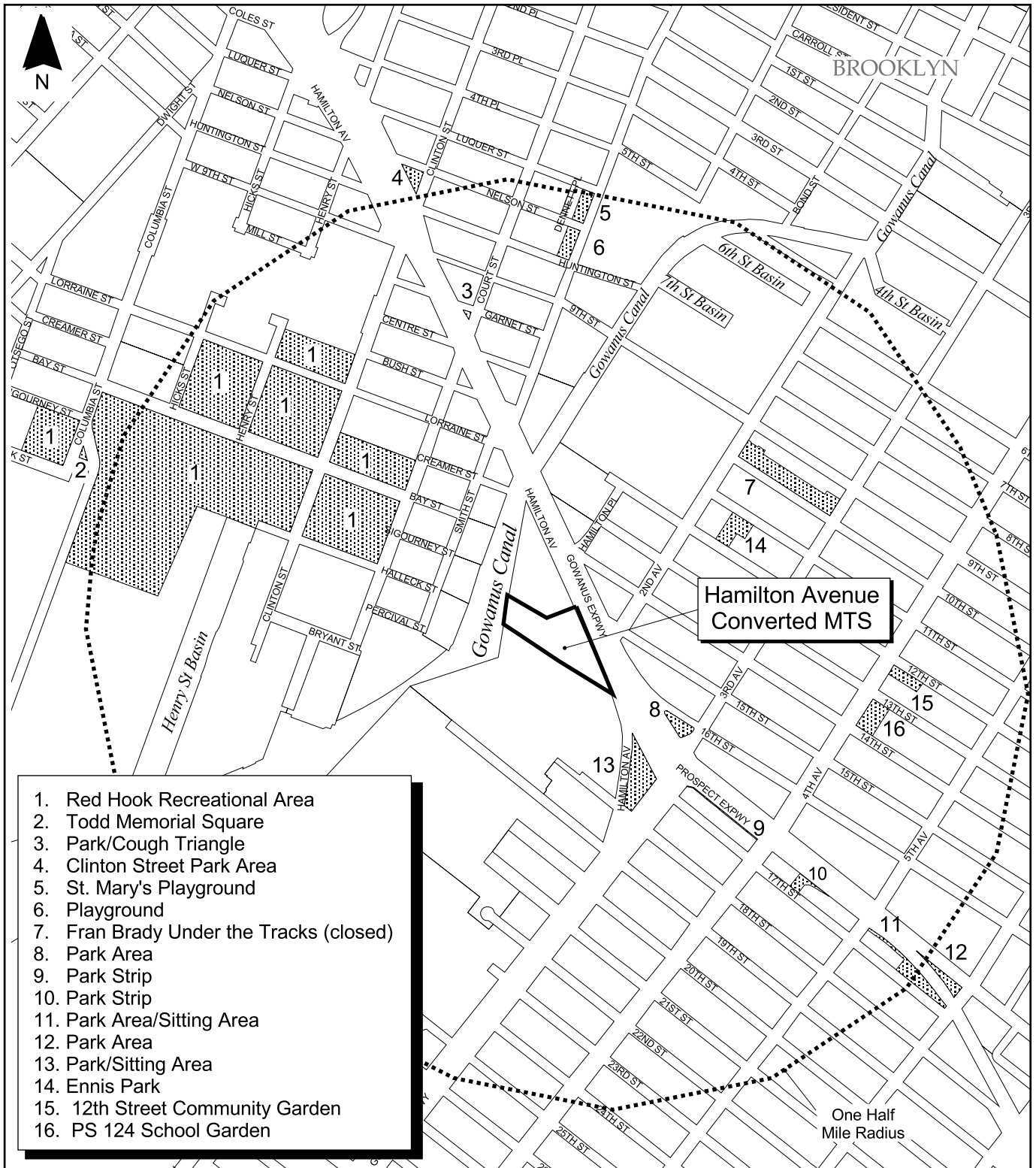
#### 7.5.1.2 Summary of Open Space and Parklands in the Study Area

There are 14 public parks and open spaces within the study area, including one large regional facility. They are listed below in Table 7.5-1 and shown on Figure 7.5-1.

**Table 7.5-1  
Public Parks and Open Spaces**

| Name                                     | Location   | Acreage |
|--|--|---------|
| Red Hook Recreational Area               | Between Columbia Street, Bay Street, Hicks Street, Lorraine Street, Court Street and Halleck Street                  | 58.5    |
| Todd Memorial Square                     | Intersection of Columbia and Halleck Streets   | 0.1     |
| Park/Cough Triangle                      | Hamilton Avenue, Court Street and Garnett Street   | 0.1     |
| Clinton Street Park Area                 | Clinton Street, Hamilton Avenue and Nelson Street  | 0.4     |
| St. Mary's Playground                    | Smith Street between Luquer Street and Nelson Street   | 0.3     |
| Playground                               | Smith Street between Nelson Street and Huntington Street   | 0.4     |
| Fran Brady Under the Tracks Playground   | 10 <sup>th</sup> Street between 2 <sup>nd</sup> Avenue and 3 <sup>rd</sup> Avenue                                    | 1.8     |
| Park Area                                | Hamilton Avenue, 16 <sup>th</sup> Street and 3 <sup>rd</sup> Avenue  | 0.3     |
| Park Strip                               | South side of Prospect Expressway between 3 <sup>rd</sup> Avenue and 4 <sup>th</sup> Avenue                          | 0.1     |
| Park Strip                               | South side of Prospect Expressway between 4 <sup>th</sup> Avenue and 5 <sup>th</sup> Avenue                          | 0.2     |
| Park Area (Sitting Area)                 | South side of Prospect Expressway between 5 <sup>th</sup> Avenue, 6 <sup>th</sup> Avenue and 17 <sup>th</sup> Street | 0.7     |
| Park Area                                | North side of Prospect Expressway west of 6 <sup>th</sup> Avenue at Prospect Avenue                                  | 0.3     |
| Park (Sitting Area)                      | Hamilton Avenue, 3 <sup>rd</sup> Avenue and 18 <sup>th</sup> Street  | 1.1     |
| Ennis Park                               | 11 <sup>th</sup> Street to 12 <sup>th</sup> Street between 2 <sup>nd</sup> Avenue and 3 <sup>rd</sup> Avenue         | 0.6     |
| 12 <sup>th</sup> Street Community Garden | 12 <sup>th</sup> Street and 4 <sup>th</sup> Avenue   | --      |
| PS 124 School Garden                     | 4 <sup>th</sup> Avenue between 13 <sup>th</sup> and 14 <sup>th</sup> Streets   | --      |





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

500 0 500 Feet



**Figure 7.5-1 Open Space/Parkland  
 Hamilton Avenue Converted MTS**

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### 7.5.2 Future No-Build Conditions

DPR has no long-term development plans or notable development projects associated with the open spaces in the study area. Currently, there is no ongoing work at these facilities nor capital funding allocated to them.

### 7.5.3 Potential Impacts with the Hamilton Avenue Converted MTS

The Hamilton Avenue Converted MTS would have no effect on any open space resources within the study area, nor would it physically change, diminish, or eliminate any open space or reduce its use or aesthetic value; or introduce a substantial new user population that might create or exacerbate over-utilization of open space resources.

## 7.6 Cultural Resources

### 7.6.1 Existing Conditions

#### 7.6.1.1 *Definition of the Study Area*

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

#### 7.6.1.2 *Development History of the Area*

The Gowanus Canal is an artificial waterway that lies to the northeast of the site and extends from Hamilton Avenue to Douglass Street. In the 1840s, the natural canal was enlarged by Edwin C. Litchfield, a prominent Brooklyn landowner, who transformed it into an industrial watercourse 5,700 feet long, 100 feet wide and up to 15 feet deep.

The land along the Gowanus Canal soon developed with heavy industries such as coal, lumber, brick and stone yards; paint and ink factories; foundries; electroplating shops; flour, plaster and paper mills; and an early purveyor of household heating and cooking gas. As a result of these noxious industries and disposal practices, the canal became one of the City's most polluted waterways, and earned the moniker "Lavender Lake."

By the late 1800s, the immediate neighborhood had earned a reputation for rowdiness and was nicknamed the Gashouse District. One 12-block section of Smith Street had 23 taverns and many rooming houses that catered to seamen and laborers.

Industrial activity along the canal declined in the early 1960s with the move toward containerized shipping elsewhere in the New York harbor. The canal continues to be an industrial venue lined with stone, gravel, and concrete yards, some foundries, and outdoor-loading petroleum facilities.

The elevated Gowanus Expressway and Prospect Expressway, built in the 1950s, serve to physically separate the site from its surrounding inland context of Red Hook to the northwest, Carroll Gardens to the north, and Park Slope to the southeast.

#### *7.6.1.3 Cultural Resources on the Site*

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

#### *7.6.1.4 Cultural Resources within the Study Area*

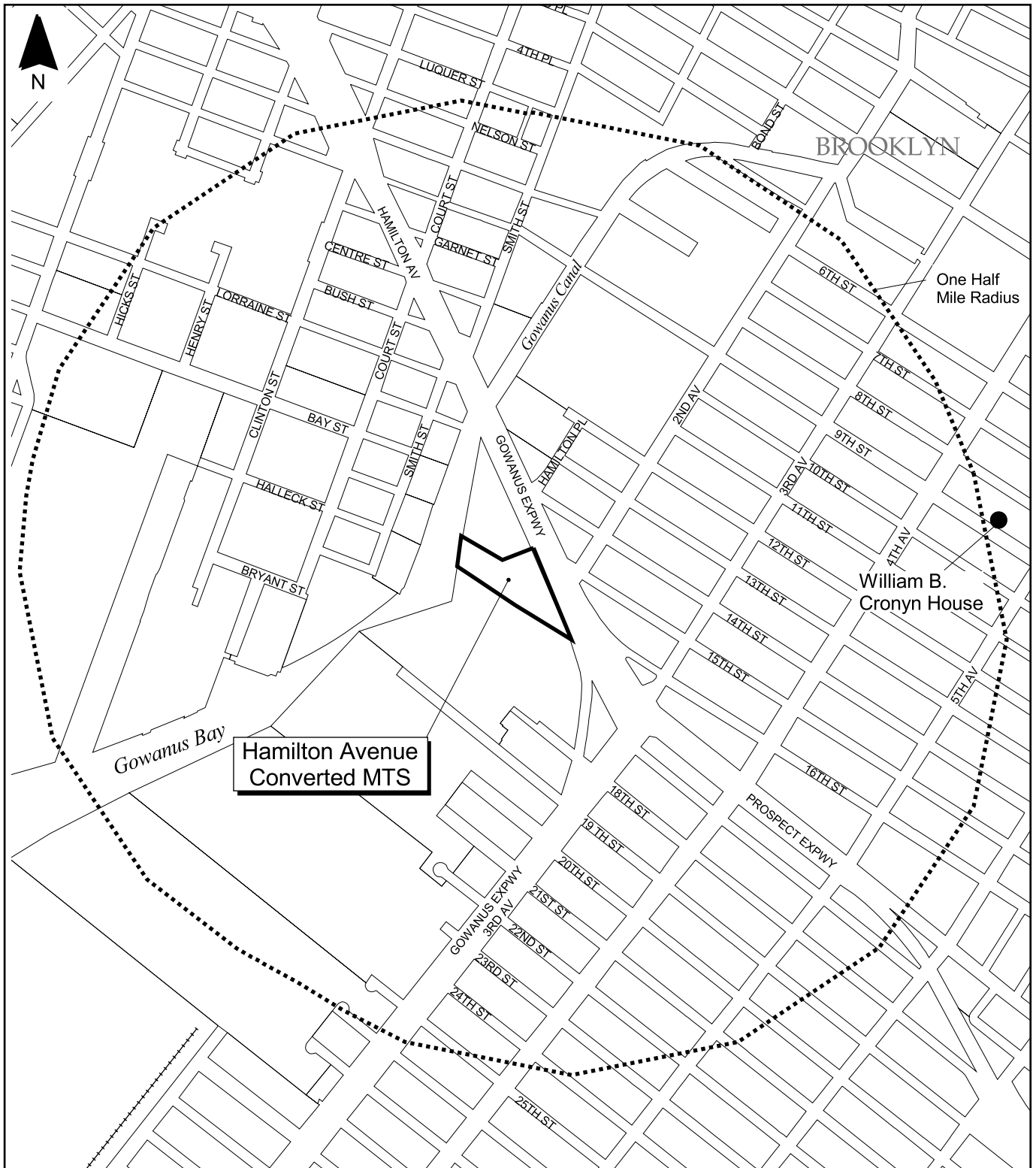
There are no state, national, or City designated landmarks or historic districts within ½ mile of the site, although the City-landmarked William B. Cronyn House at 271 9<sup>th</sup> Street is just outside the study area (Figure 7.6-1).

### **7.6.2 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.

### **7.6.3 Potential Impacts with the Hamilton Avenue Converted MTS**

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



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

500 0 500 Feet



**Figure 7.6-1 Cultural Resources  
 Hamilton Avenue Converted MTS**

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## **7.7 Urban Design and Visual Quality**

### **7.7.1 Existing Conditions**

#### *7.7.1.1 Definition of the Study Area*

The urban design and visual quality study area is the same as the neighborhood character study area (Figure 7.8-1). The site has been developed in a manner consistent with adjacent properties and the overall study area. It is a non-sensitive industrial area in terms of urban design and visual quality assessment. There are no sensitive view corridors or publicly accessible open areas or points of waterfront access that would likely experience visual-quality impacts from the Hamilton Avenue Converted MTS.

#### *7.7.1.2 Description of the Site*

The existing MTS and associated DSNY structures dominate the site (Figure 7.7-1). The permanently closed incinerator, which stands on the site between Hamilton Avenue and the curved existing MTS ramp at Prospect Avenue, is the most visible on-site structure (Figure 7.7-2). It largely blocks the existing MTS from inland views. The incinerator is comprised of a five-story square building and two cylindrical incinerator stacks that rise to approximately 200 feet, more than twice the height of the main building, and taper toward the top. There is an outdoor salt storage area adjacent to the incinerator on Hamilton Avenue (Figures 7.7-3), and the area between the incinerator and the existing MTS is used for employee parking and DSNY truck storage. The site, like its surroundings, which include elevated highway infrastructure, is paved and has no on-site landscaping or vegetation other than minimal growth of opportunistic plant species (Figure 7.7-4). Also visible from the interior of the site is the NYCDOT asphalt production plant, north of the site along Hamilton Avenue (Figure 7.7-5).



Figure 7.7-1 : View of the site interior, facing east from the Home Depot parking lot.



Figure 7.7-2: View of incinerator, facing southeast from the Home Depot parking lot.



**Figure 7.7-1 and 7.7-2  
Urban Design and Visual Quality  
Hamilton Avenue Converted MTS**

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Figure 7.7-3 : View of the southern most portion of the site (salt storage area).  
(Photo 2000)



Figure 7.7-4 : View southward along Hamilton Avenue  
(and beneath the elevated Gowanus Expressway), adjacent to the site. (Photo 2000)



**Figure 7.7-3 and 7.7-4  
Urban Design and Visual Quality  
Hamilton Avenue Converted MTS**

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Figure 7.7-5 : View of DOT property, looking northward from interior of the site.  
(Photo 2000)



**Figure 7.7-5 Urban Design and Visual Quality  
Hamilton Avenue Converted MTS**

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### 7.7.1.3 *Urban Design and Visual Quality of the Study Area*

There are no publicly accessible views through the site to the Gowanus Bay. Views from around the intersection of Hamilton and Prospect Avenues terminate at the incinerator, which blocks from sight the existing MTS, the fuel storage tanks west of the site along the shore, and the hulking Port Authority Grain Terminal (also to the northwest of the site).

The only publicly accessible views of the bay or into the site are from the two-story Home Depot parking lot.

### 7.7.2 *Future No-Build Conditions*

Although the on-site incinerator will be demolished, there are no plans for the site or surrounding environs that would lead to changes in urban design or visual quality conditions. The site will remain DSNY property, the existing MTS will remain, and the associated DSNY salt storage and garage facilities will continue to operate. The anticipated Future No-Build Conditions are fundamentally the same as Existing Conditions.

### 7.7.3 *Potential Impacts with the Hamilton Avenue Converted MTS*

The Hamilton Avenue Converted MTS would be compatible with the existing urban design context and visual conditions of this portion of the industrial Gowanus Bay waterfront. It would entail removing the existing MTS and replacing it with a similar, though larger, facility further upland that would include containerization functions. The Hamilton Avenue Converted MTS, therefore, would not result in significant adverse impacts on the urban design and visual quality of the study area.

## 7.8 Neighborhood Character

### 7.8.1 Existing Conditions

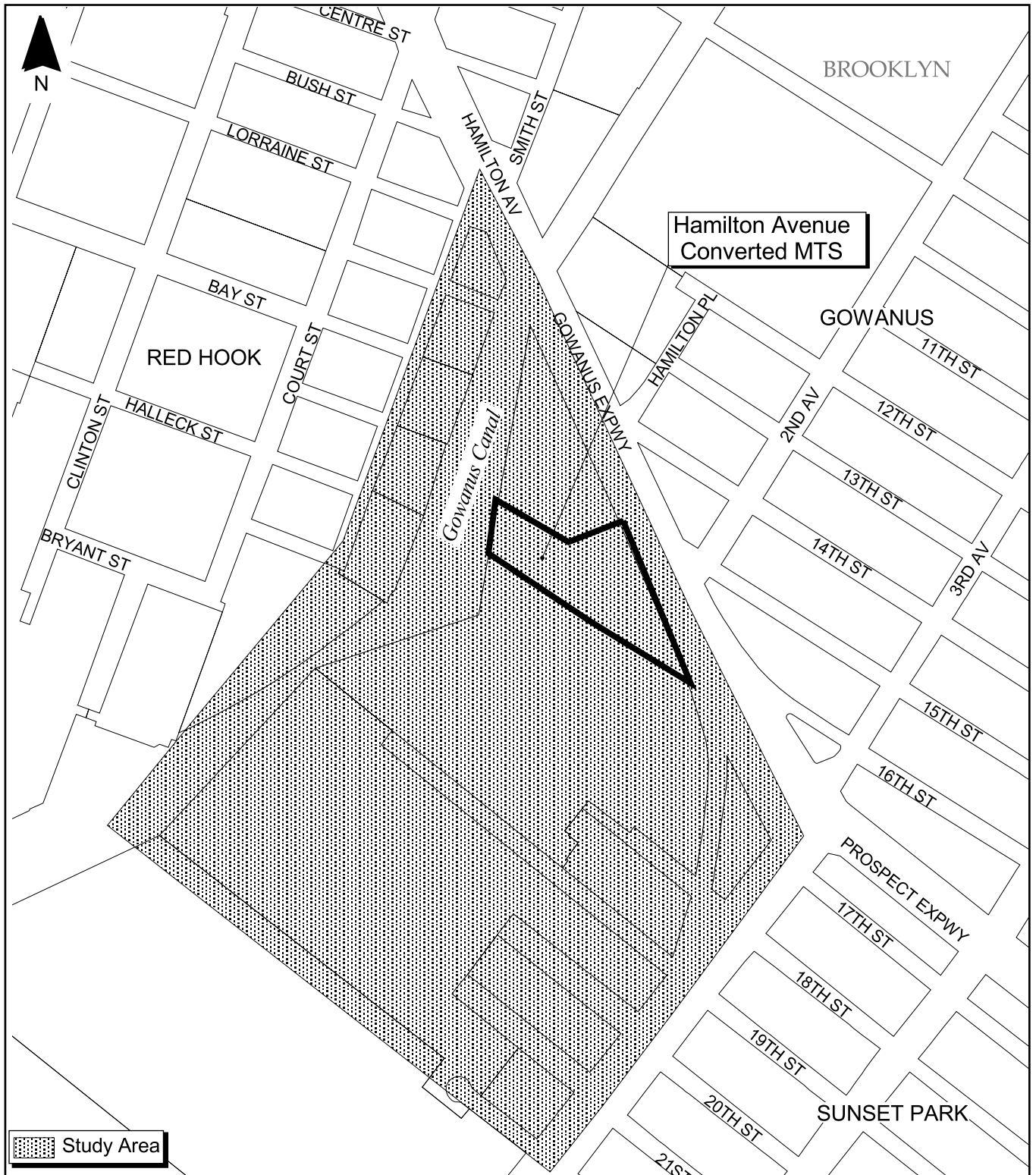
#### 7.8.1.1 *Definition of the Study Area*

The neighborhood character study area is defined by the predominance of industrial land uses and associated visual quality of the Gowanus Bay. The study area is defined by physical landscape elements that distinctly mark the edge of a specific neighborhood character, visually insulate the site and study area or physically obstruct pedestrian and vehicular access to it from outlying areas.

The study area is bounded by the Gowanus Expressway (and Hamilton Avenue) and 3<sup>rd</sup> Avenue to the north, east and southeast; 22<sup>nd</sup> Street (extended west across Gowanus Bay) to the south and southwest; and Smith Street to the west on the opposite side of the canal. Although the bay clearly is a physical barrier limiting access to the site from the west, this portion of the Gowanus Bay waterfront is included in the study area because it mirrors the industrial character of the study area east of the bay and is connected with it visually. While the land uses and visual quality along most of Gowanus Bay and Gowanus Canal extending beyond the study area are similar to those within the study area, Hamilton Avenue—the first major arterial roadway that crosses the canal north of the site—effectively defines the northern end of the study area (Figure 7.8-1).

#### 7.8.1.2 *Description of Neighborhood Character*

The study area is characterized by warehouses, large-scale, industrial uses on large lots and noisy, truck-dominated streets in a neighborhood named for the canal—Gowanus or South Brooklyn. The site, the adjacent DOT asphalt plant, and the adjacent Home Depot store are of a larger scale than any of the uses located east of the expressway. Hamilton Avenue and the elevated Gowanus Expressway separate the industrial and commercial uses along the Gowanus Bay from the mixed industrial, commercial, and residential uses to the east, outside the study area.



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

300 0 300 Feet



**Figure 7.8-1 Neighborhood Location  
 Hamilton Avenue Converted MTS**

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The streets are not well suited to pedestrians, although there are sidewalks along Hamilton Avenue near the site. Except for the Gowanus Expressway and major streets such as Hamilton and Prospect Avenues, local roads are used almost exclusively by trucks and area employees accessing the warehouses along the avenues or other industries that line the waterfront.

### 7.8.2 Future No-Build Conditions

While the on-site incinerator will be demolished by 2006, there are no known plans for development on the site or in the study area that would potentially lead to changes in neighborhood character. The site will remain DSNY property, the existing MTS will remain, and the associated DSNY salt storage and parking facilities will continue to be fully utilized. The Future No-Build Conditions are expected, therefore, to be the same as Existing Conditions.

### 7.8.3 Potential Impacts with the Hamilton Avenue Converted MTS

No change to industrial neighborhood character would be expected, though the Hamilton Avenue Converted MTS would reactivate MTS activities formerly accommodated on the site and add containerization functions. Since the character of the neighborhood will not have changed substantially under Future No-Build Conditions, it is reasonable to conclude that the reactivation of a similar facility on this site but with containerization would result in no significant adverse effect to neighborhood character.



## **7.9 Traffic and Transportation**

### 7.9.1 Introduction

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

### 7.9.2 Existing Conditions

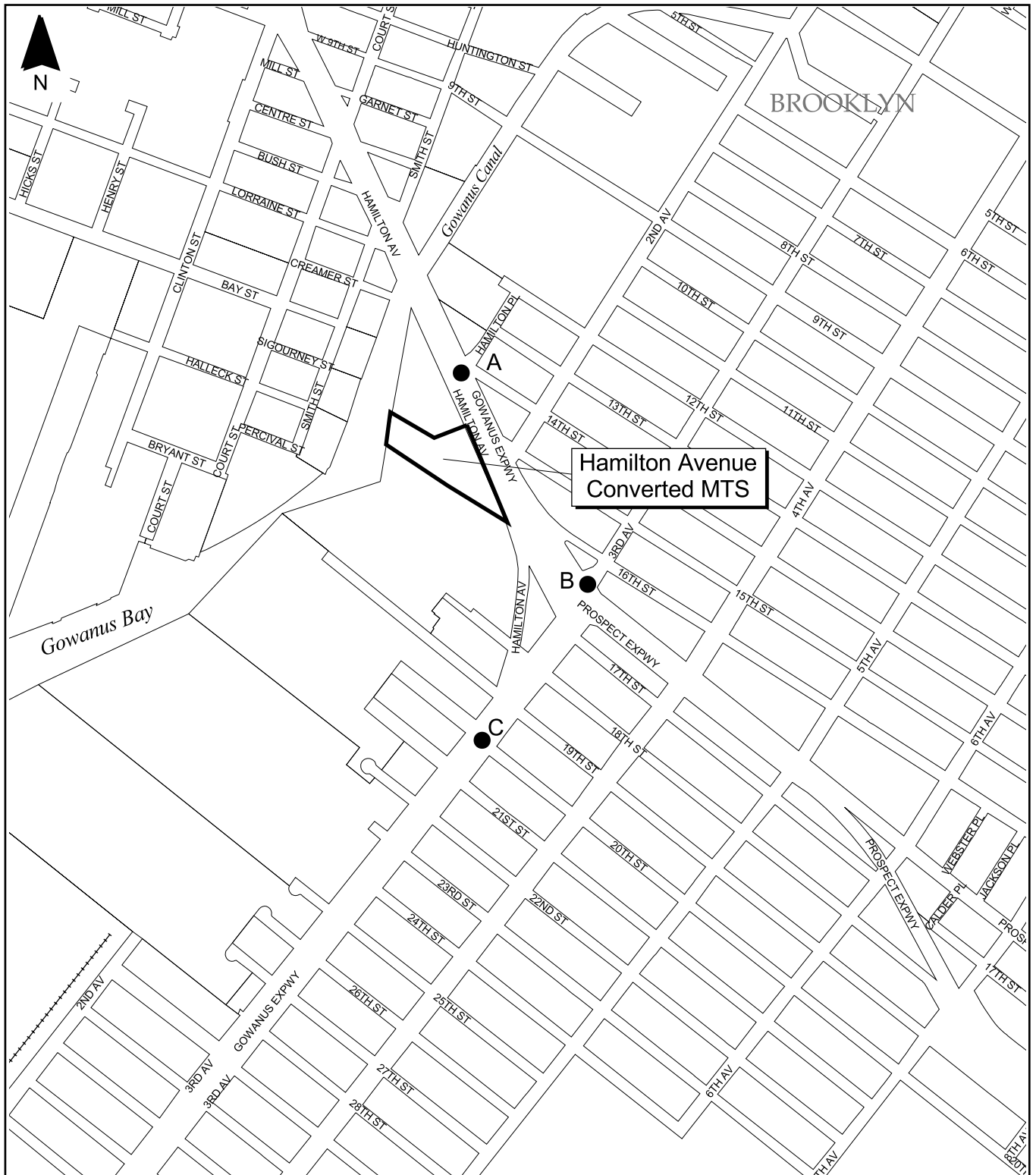
#### *7.9.2.1 Definition of Study Area*

The traffic analysis study area is relatively limited, existing entirely within the Gowanus area of Brooklyn. It includes the major corridors along the Gowanus Expressway, including Hamilton Avenue and Third Avenue. This study area is predominantly industrial in nature. There are no CEQR-defined areas of concern located within it. Figure 7.9-1 shows the locations of the intersections selected for analysis (locations A through C). Intersections analyzed were selected using the procedures defined in Section 3.10.2.

The analysis of collection vehicle routing to the site included highway access points in conjunction with local truck routes. Northbound collection vehicles would approach the site on Third Avenue and Fourth Avenue and turn onto Hamilton Avenue. Westbound collection vehicles would take Prospect Expressway, exit at Prospect Avenue, and then proceed to Hamilton Avenue. Southbound collection vehicles would approach the site on Second Avenue, turn onto 12<sup>th</sup> Street and Hamilton Place to Hamilton Avenue.

#### *7.9.2.2 Surface Network*

Two major highways, the Gowanus Expressway and Prospect Expressway, service the traffic analysis study area. Second Avenue, Third Avenue, Hamilton Avenue, Prospect Avenue, and 20th Street are local truck routes that provide access to and from the site. A map showing all major truck routes and local truck routes in Brooklyn is provided in Section 3.10.2.1 (Figure 3.10-3).



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



**Figure 7.9-1 Traffic Analysis Study Area**  
**Hamilton Avenue Converted MTS**

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### 7.9.2.3 Existing Traffic Operations

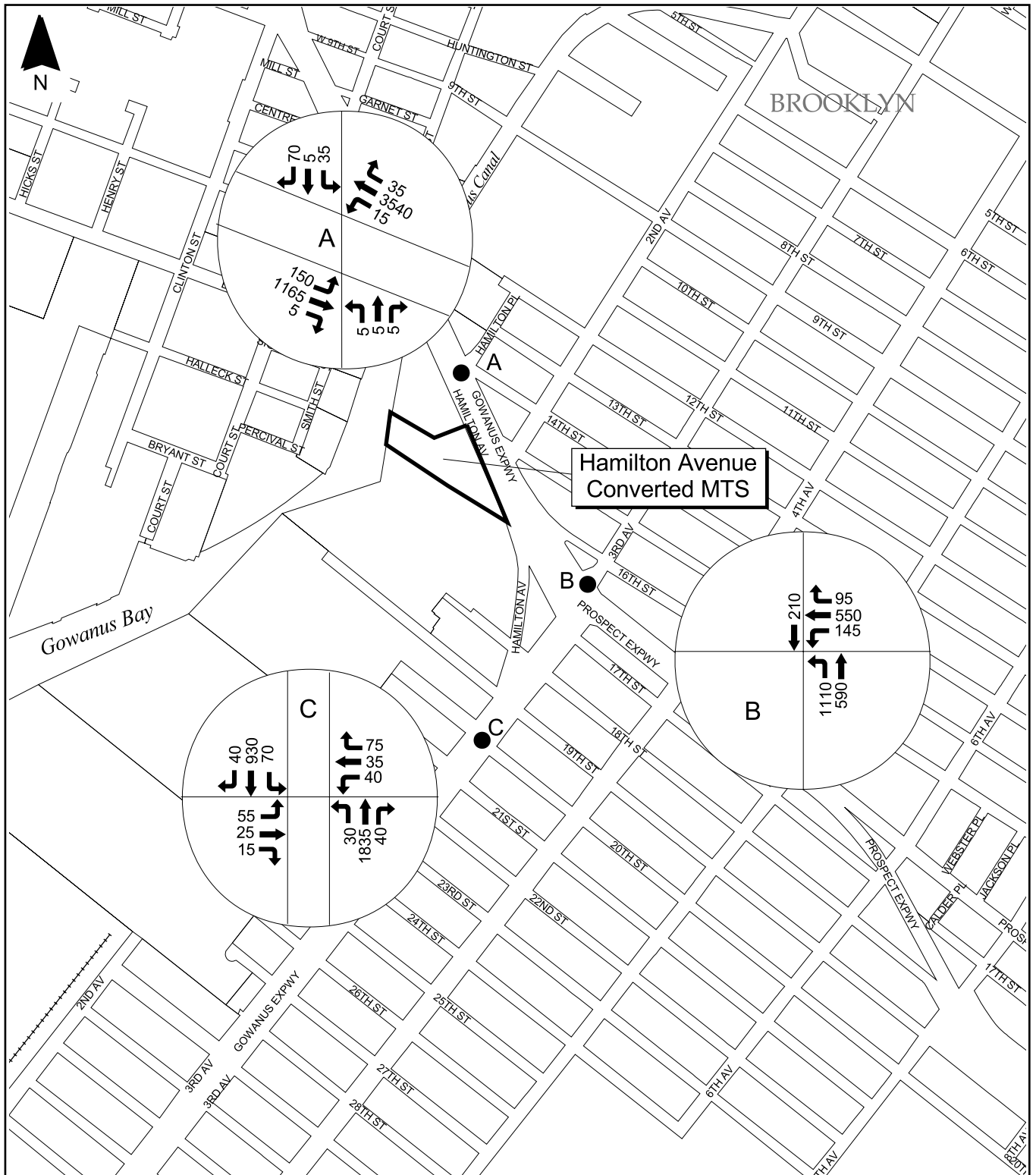
The three intersections listed below were identified for analysis because they are the most likely to be impacted from an increase in DSNY and other agency collection vehicle traffic to the Hamilton Avenue Converted MTS. All of them are on major arterials and/or collection vehicle routes. Diagrams of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

- Hamilton Avenue and Hamilton Place and 14th Street – Signalized Intersection (Figure 17.9-1 – location A);
- Prospect Avenue and Third Avenue – Signalized Intersection (Figure 10.9-1 – location B); and
- Third Avenue and 20<sup>th</sup> Street – Signalized Intersection (Figure 10.9-1 – location C).

Hamilton Avenue is a principal arterial that provides north-south access from Prospect Expressway to the industrial areas in Red Hook, Brooklyn. Third Avenue is a minor arterial that provides north-south access from Sunset Park and Bay Ridge to downtown Brooklyn. Prospect Avenue and 20<sup>th</sup> Street are minor arterials that provide access for local and commercial traffic on either side of the Prospect Expressway. Both Hamilton Place and 14<sup>th</sup> Street are local streets.

A traffic data collection program that consisted of manual turning movement counts with vehicle classifications and ATR counts was undertaken to define existing weekday traffic operations (see Section 3.10.6 for a discussion on traffic data collection). Manual turning movement counts were conducted between February 4 and February 6, 2003; ATR counts were conducted between February 3 and February 7, 2003. Figures 7.9-2, 7.9-3, and 7.9-4 depict the existing traffic volumes for AM, Facility, and PM peaks at the intersections analyzed. The AM peak generally occurred between 8:15 a.m. and 9:15 a.m., the Facility peak between 9:00 a.m. and 10:00 a.m., and the PM peak between 4:45 p.m. and 5:45 p.m. Table 7.9-1 presents the v/c ratio, delay, and LOS for the three intersections during the AM, Facility, and PM peaks.

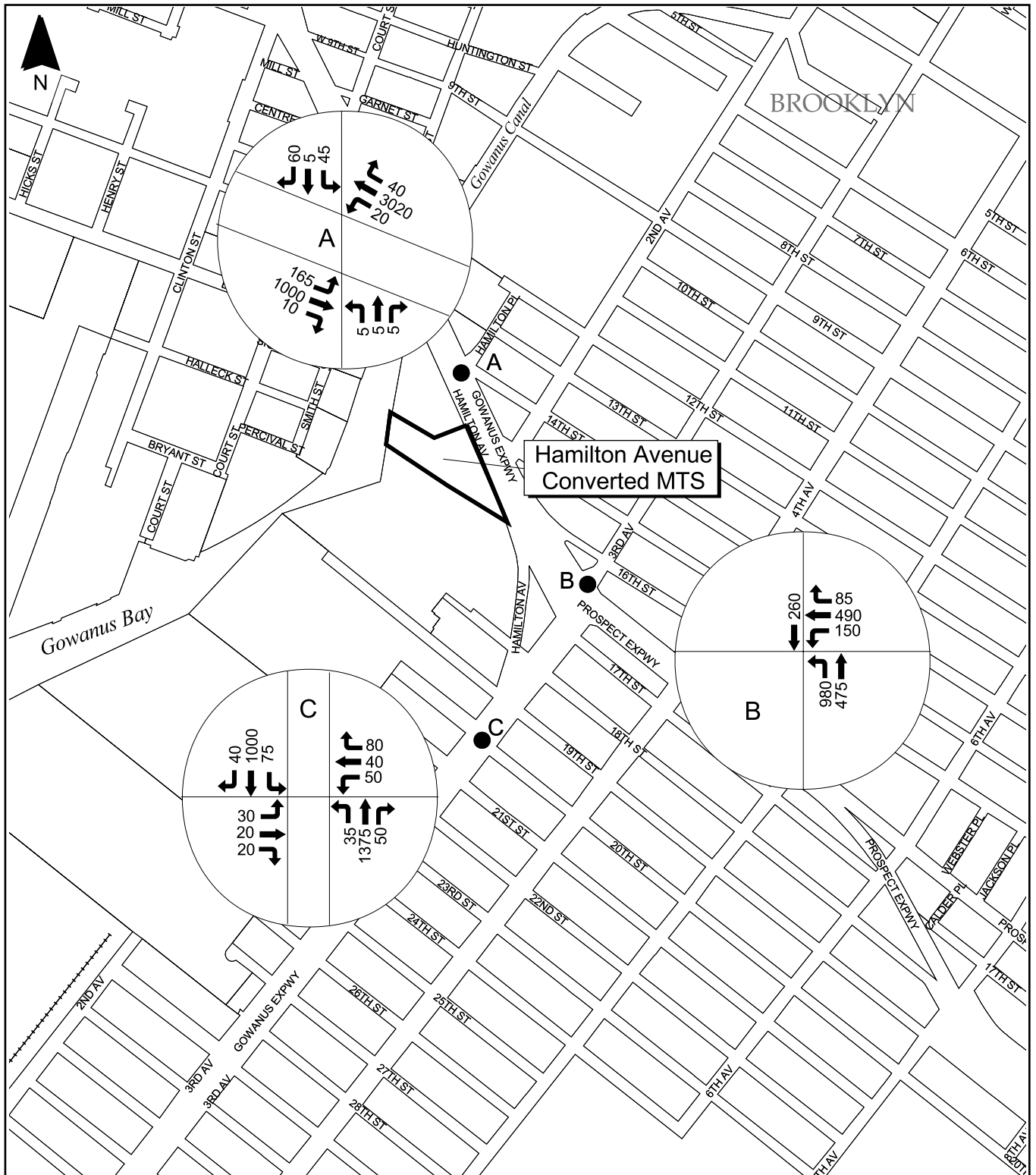
Existing truck traffic through most of the intersections was moderate. The percentages of trucks increases steadily during the morning hours, remaining at between 13 percent and 16 percent during mid-day hours, then decreasing to 7 percent or lower during the PM peak hours.



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



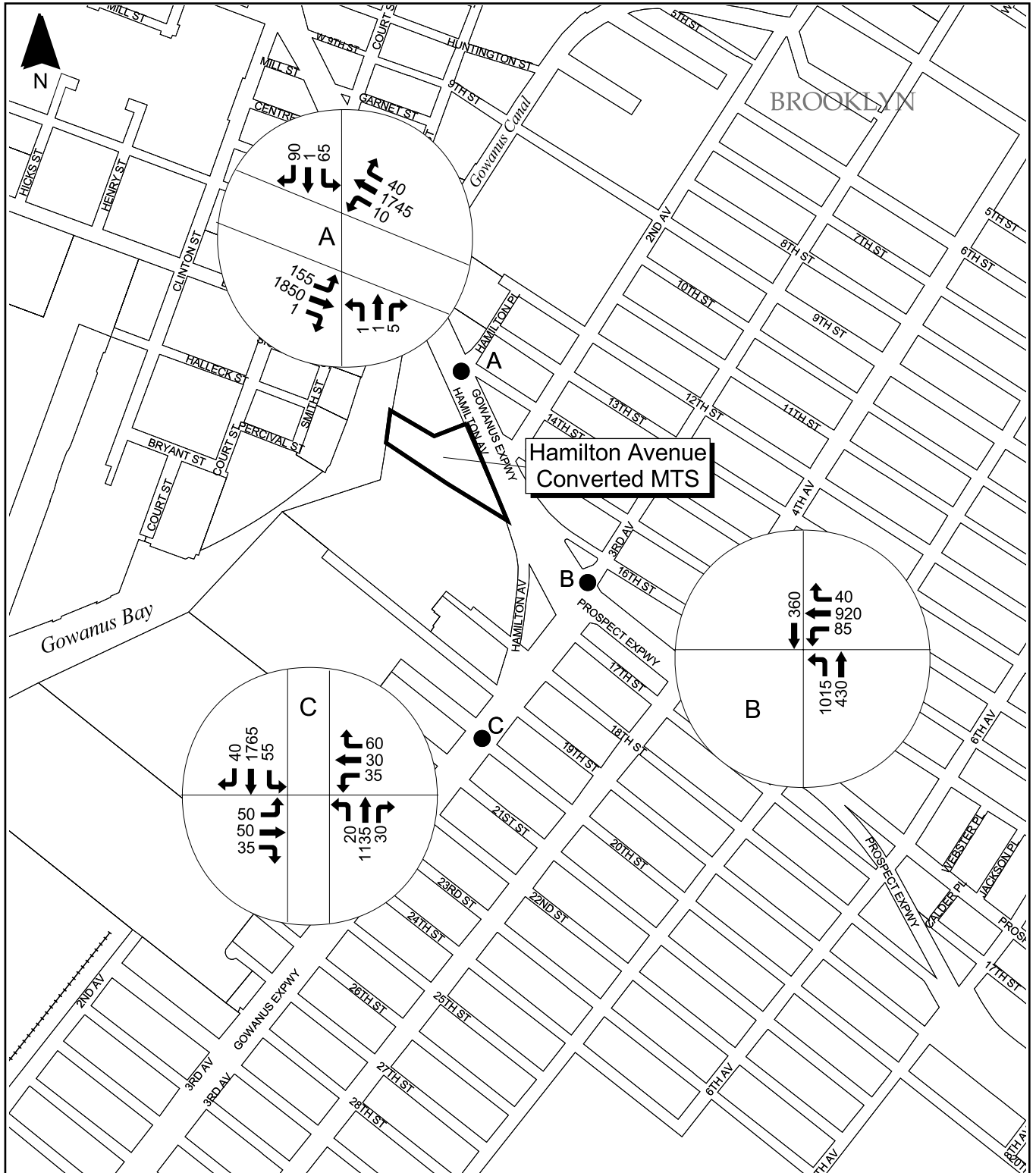
|  |  |  |
|--|--|--|
|  | <p><b>Figure 7.9-2 Existing Traffic Volumes - AM Peak</b></p> <p><b>Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>DEPARTMENT OF SANITATION</p> |  |
|--|--|--|



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



|  |  |  |
|--|--|--|
|  | <p><b>Figure 7.9-3 Existing Traffic Volumes - Facility Peak</b></p> <p><b>Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>DEPARTMENT OF SANITATION</p> |  |
|--|--|--|



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



|  |  |  |
|--|--|--|
|  | <p><b>Figure 7.9-4 Existing Traffic Volumes - PM Peak</b></p> <p><b>Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>DEPARTMENT OF SANITATION</p> |  |
|--|--|--|

**Table 7.9-1**  
**HCM Analysis<sup>(1)</sup> – Existing Conditions**  
**Hamilton Avenue Converted MTS**

| Intersection & Lane Group  | AM Peak Hour<br>(8:15 a.m. – 9:15 a.m.) |                 |     | Facility Peak Hour<br>(9:00 a.m. – 10:00 a.m.) |                 |     | PM Peak Hour<br>(4:45 p.m. – 5:45 p.m.) |                 |     |
|--|---|-----------------|-----|--|-----------------|-----|---|-----------------|-----|
|  | V/C Ratio                               | Delay (sec/veh) | LOS | V/C Ratio                                      | Delay (sec/veh) | LOS | V/C Ratio                               | Delay (sec/veh) | LOS |
| <b>Hamilton Avenue &amp; Hamilton Place/14th Street (signalized)</b> |   |                 |     |  |                 |     |   |                 |     |
| EB LTR   | 0.08                                    | 31.4            | C   | 0.07   | 31.2            | C   | 0.05                                    | 27.3            | C   |
| WB LTR   | 0.61                                    | 54.6            | D   | 0.50   | 50.8            | D   | 0.61                                    | 49.1            | D   |
| NB LTR   | 1.00                                    | 25.0            | C   | 0.85   | 11.8            | B   | 0.52                                    | 20.9            | C   |
| NB L   | -                                       | 39.0            | D   | -  | 36.6            | D   | -                                       | 36.0            | D   |
| SB LTR   | 0.42                                    | 16.9            | B   | 0.34   | 15.7            | B   | 0.63                                    | 11.0            | B   |
| SB L   | -                                       | 44.4            | D   | -  | 45.6            | D   | -                                       | 39.8            | D   |
| OVERALL  |   | 26.2            | C   |  | 16.7            | B   |   | 23.2            | C   |
| <b>Prospect Avenue &amp; Third Avenue (signalized)</b>               |   |                 |     |  |                 |     |   |                 |     |
| WB L   | 0.56                                    | 50.1            | D   | 0.60   | 51.9            | D   | 0.34                                    | 43.4            | D   |
| WB TR  | 0.78                                    | 52.2            | D   | 0.75   | 50.9            | D   | 1.03                                    | 82.7            | F   |
| NB L   | 0.81                                    | 8.1             | A   | 0.66   | 4.8             | A   | 0.83                                    | 40.4            | D   |
| NB LT  | 0.33                                    | 1.7             | A   | 0.26   | 1.5             | A   | 0.23                                    | 10.5            | B   |
| SB T   | 0.39                                    | 39.0            | D   | 0.42   | 39.7            | D   | 0.45                                    | 29.0            | C   |
| OVERALL  |   | 28.1            | C   |  | 22.8            | C   |   | 48.5            | D   |
| <b>Third Avenue &amp; 20th Street (signalized)</b>                   |   |                 |     |  |                 |     |   |                 |     |
| EB LTR   | 0.42                                    | 34.8            | C   | 0.21   | 29.7            | C   | 0.49                                    | 43.2            | D   |
| WB LTR   | 0.41                                    | 33.4            | C   | 0.44   | 34.1            | C   | 0.50                                    | 43.5            | D   |
| NB LTR   | 0.86                                    | 17.0            | B   | 0.76   | 13.9            | B   | 0.43                                    | 14.9            | B   |
| NB L   | -                                       | 36.4            | D   | -  | 36.6            | D   | -                                       | 42.0            | D   |
| SB LTR   | 0.56                                    | 22.3            | C   | 0.52   | 21.3            | C   | 0.77                                    | 7.5             | A   |
| SB L   | -                                       | 37.8            | D   | -  | 37.7            | D   | -                                       | 43.4            | D   |
| OVERALL  |   | 23.6            | C   |  | 22.2            | C   |   | 19.3            | C   |

**Notes:**

<sup>(1)</sup> HCM output is included in technical backup submitted to the NYCDOT.

LTR = left, through and right movements

NB = northbound

SB = southbound

EB = eastbound

WB = westbound

#### 7.9.2.3.1 LOS at Signalized Intersections

Table 7.9-1 shows that the signalized intersections generally operated at an overall LOS of C or D with the following exceptions. The lane group with the least favorable LOS was the westbound through and right movements at the intersection of Prospect Avenue and Third Avenue. During the PM peak hour, this approach operated at LOS F with a delay of 82.7 seconds. Several other lane groups at various intersections operated at a LOS of D during various peak hours.

#### 7.9.2.3.2 LOS at Unsignalized Intersections

No unsignalized intersections were analyzed.

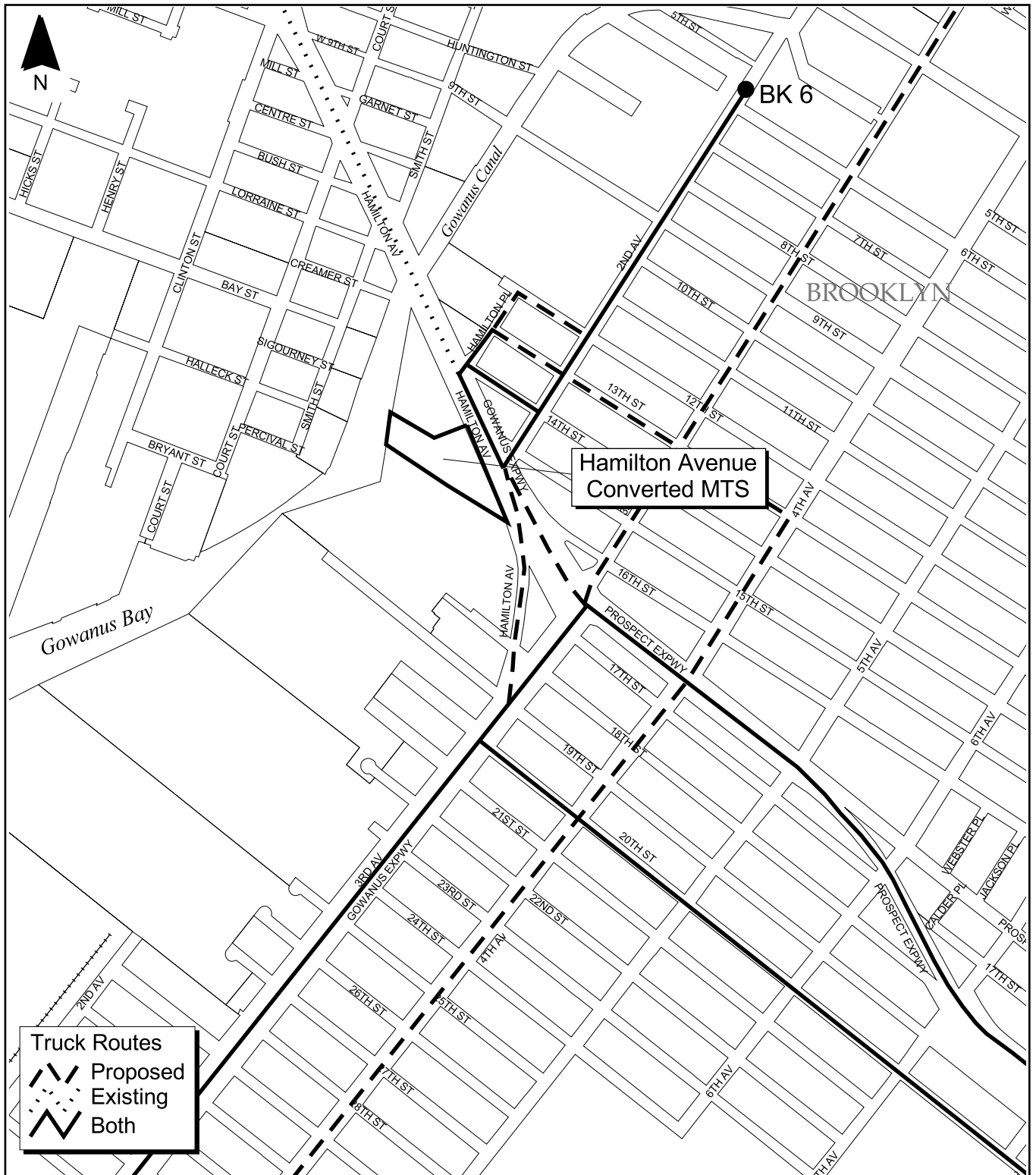
#### *7.9.2.4 Existing DSNY-Related Traffic*

The privately-owned IESI-Court transfer facility located at 577 Court Street in the nearby Red Hook section of Brooklyn accepts waste from Brooklyn Community District 6, the Auxiliary Field Force and EZ-Pack Operations (from Community Districts 10, 13, and 16). The existing DSNY-related traffic in the vicinity of the Hamilton Avenue Converted MTS is generated by DSNY and related facilities in the immediate study area, including the DSNY Brooklyn Districts 2 (465 Hamilton Avenue) and 6 (Second Avenue and 12<sup>th</sup> Street) Garages, and the Brooklyn District 6 Center at Second Avenue and 5<sup>th</sup> Street. Within the study area, DSNY-related traffic is primarily routed along Hamilton Avenue, Prospect Avenue, Second Avenue, Third Avenue, 20<sup>th</sup> Street, Gowanus Expressway and Prospect Expressway. The existing routes to the commercial vendors (located in New Jersey) are presented in Figure 7.9-5.

#### *7.9.2.5 Public Transportation*

Subway and bus service are provided within the vicinity of the site. The Prospect Avenue stop on MTA's "M", "N", and "R" subway lines is located approximately ¼-mile east of the site at the Prospect Avenue/Fourth Avenue intersection. MTA operates one local bus line, B37, through the study area, operating along Third Avenue. Bus stops are located at the Third Avenue/20<sup>th</sup> Street intersection and scheduled stops occur at various times during the day.





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



|  |   |  |
|--|---|--|
|  | <p><b>Figure 7.9-5 Existing and Proposed Sanitation Truck Routes<br/>Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>DEPARTMENT OF SANITATION</p> |  |
|--|---|--|

#### 7.9.2.6 *Pedestrian Activity*

Pedestrian activity is generally low within the study area. Striped crosswalks and pedestrian signals are provided at all signalized study intersections. During several field visits, pedestrian activity was minimal and it is not expected to affect the capacity analysis significantly.

### 7.9.3 Future No-Build Conditions

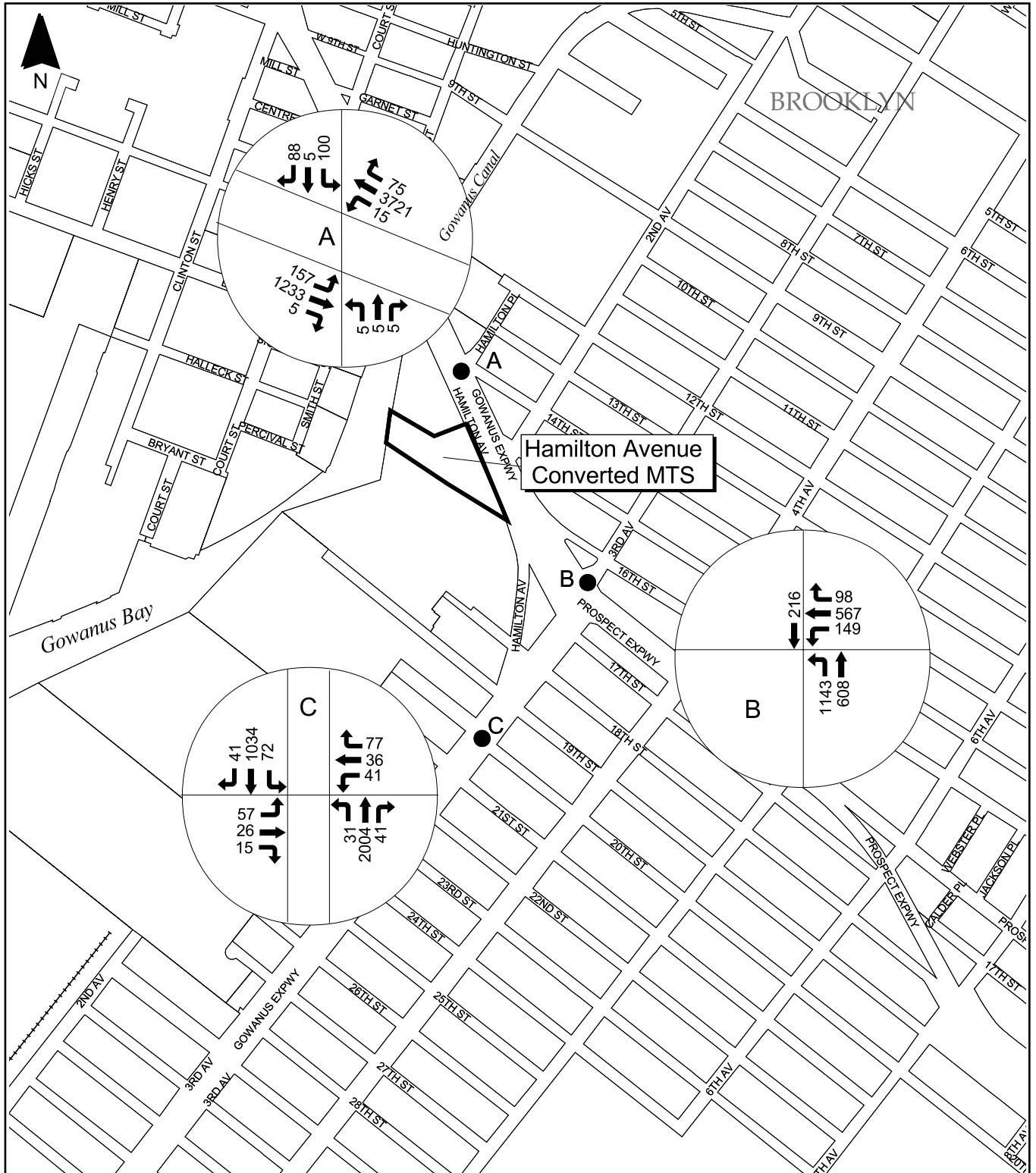
#### 7.9.3.1 *Traffic Conditions*

Future No-Build traffic volumes were determined by applying a growth rate of 1.0% per year to existing traffic volumes in accordance with the 2001 CEQR Technical Manual. In addition, additional traffic generated by proposed developments in the study expected to be completed by the Future No-Build year (2006) was also included. The following is a listing of the approved or in-process developments that are expected to generate significant volumes of traffic through the study area, and thus were specifically accounted for as part of this analysis:

- Lowe's (home improvement retail); and
- Red Hook Stores (residential and retail).

Figures 7.9-6, 7.9-7, and 7.9-8 depict the Future Baseline traffic volumes for the AM, Facility and PM peaks at the intersections analyzed. Table 7.9-2 (Future No-Build Conditions) shows the Future No-Build v/c ratio, delay and LOS for the studied intersections. Overall, unsignalized intersections experienced relatively small increases in delay (less than 5 seconds) and are projected to remain at their existing condition LOS, with the following exceptions:

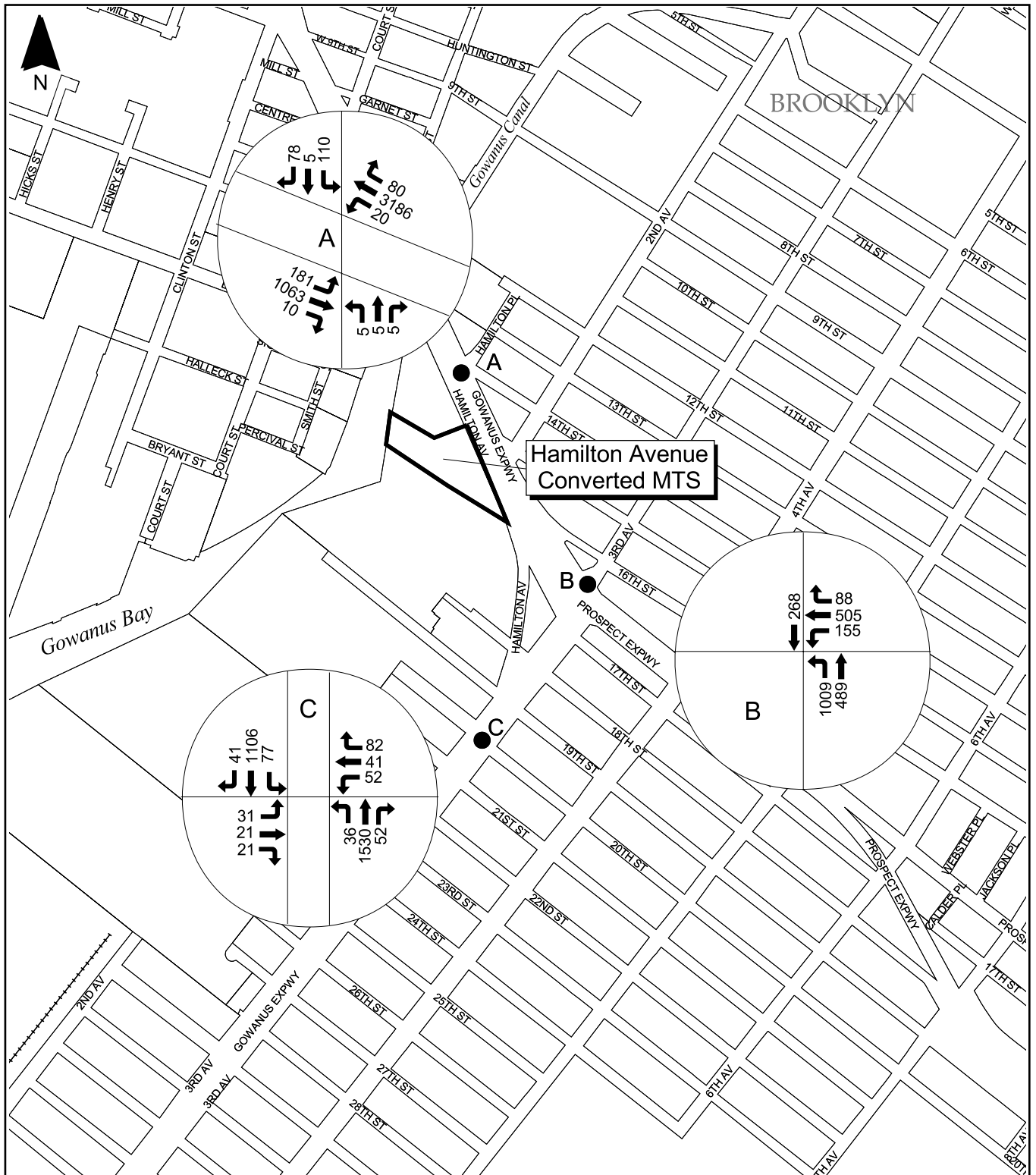
- During the AM peak hour, the delay of the westbound approach at the intersection of Hamilton Avenue and Hamilton Place and 14<sup>th</sup> Street increased from 54.6 seconds to 178.3 seconds (LOS D to LOS F).



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



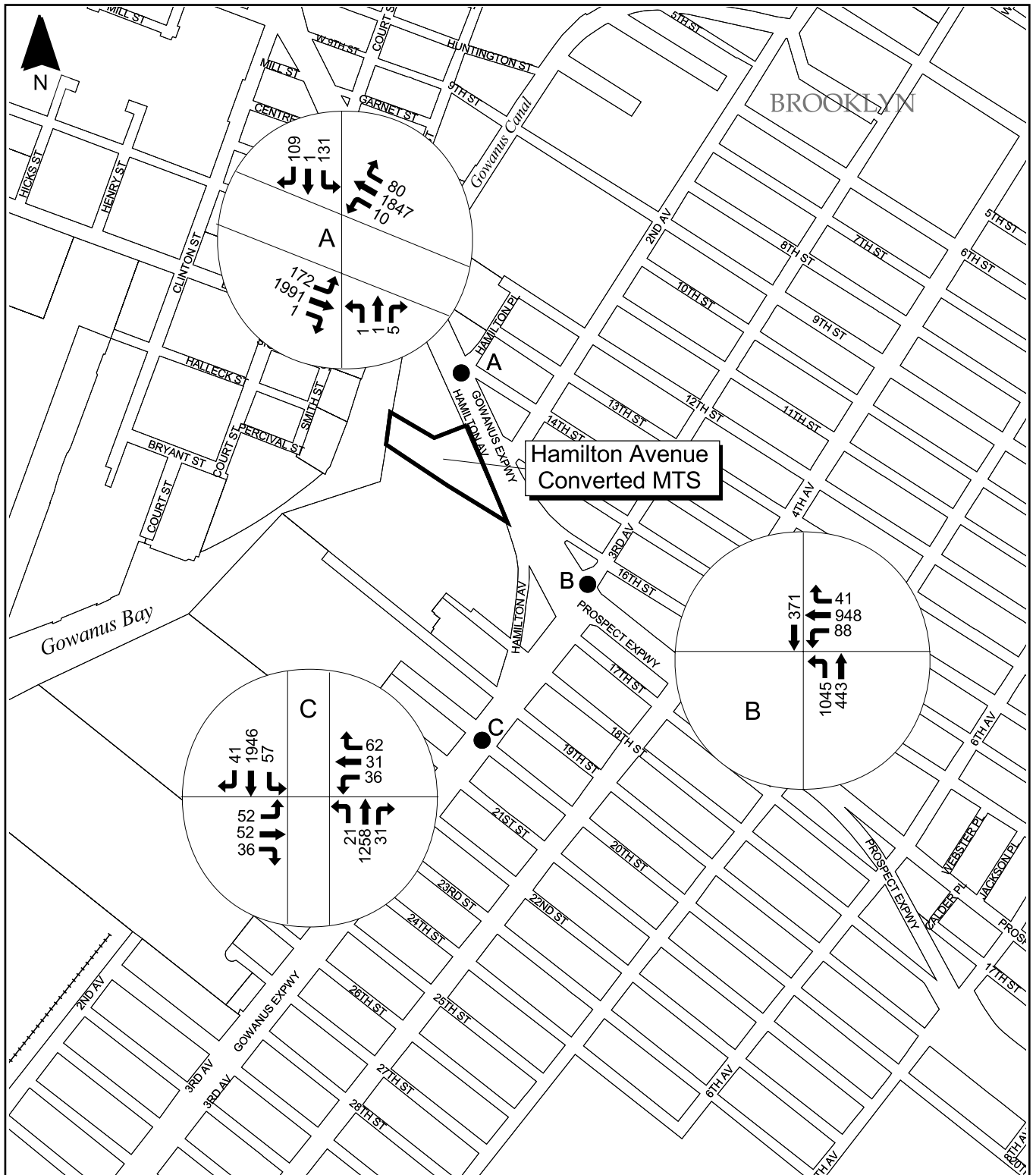
|  |  |  |
|--|--|--|
|  | <p><b>Figure 7.9-6 Future No-Build Traffic Volumes<br/>         AM Peak<br/>         Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>         DEPARTMENT OF SANITATION</p> |  |
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Site delineations are approximate.  
 Base Map Source: New York City Department of City Planning



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|  | <p><b>Figure 7.9-7 Future No-Build Traffic Volumes</b><br/> <b>Facility Peak</b><br/> <b>Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>       DEPARTMENT OF SANITATION</p> |  |
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Site delineations are approximate.  
 Base Map Source: New York City Department of City Planning



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|  | <p><b>Figure 7.9-8 Future No-Build Traffic Volumes<br/>         PM Peak<br/>         Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>         DEPARTMENT OF SANITATION</p> |  |
|--|--|--|

**Table 7.9-2**  
**HCM Analysis – Future No-Build Conditions**  
**Hamilton Avenue Converted MTS**

| Intersection & Lane Group  | AM Peak Hour<br>(8:15 a.m. – 9:15 a.m.) |                 |     | Facility Peak Hour<br>(9:00 a.m. – 10:00 a.m.) |                 |     | PM Peak Hour<br>(4:45 p.m. – 5:45 p.m.) |                 |     |
|--|---|-----------------|-----|--|-----------------|-----|---|-----------------|-----|
|  | V/C Ratio                               | Delay (sec/veh) | LOS | V/C Ratio                                      | Delay (sec/veh) | LOS | V/C Ratio                               | Delay (sec/veh) | LOS |
| <b>Hamilton Avenue &amp; Hamilton Place/14th Street (signalized)</b> |   |                 |     |  |                 |     |   |                 |     |
| EB LTR   | 0.07                                    | 31.3            | C   | 0.07   | 31.2            | C   | 0.04                                    | 27.3            | C   |
| WB LTR   | 1.22                                    | 178.3           | F   | 0.92   | 87.6            | F   | 1.02                                    | 99.0            | F   |
| NB LTR   | 1.06                                    | 45.1            | D   | 0.92   | 14.6            | B   | 0.57                                    | 21.9            | C   |
| NB L   | -                                       | 39.0            | D   | -  | 39.7            | D   | -                                       | 36.0            | D   |
| SB LTR   | 0.45                                    | 17.4            | B   | 0.36   | 16.0            | B   | 0.68                                    | 11.7            | B   |
| SB L   | -                                       | 45.3            | D   | -  | 46.6            | D   | -                                       | 40.3            | D   |
| OVERALL  |   | 44.6            | D   |  | 19.0            | B   |   | 24.8            | C   |
| <b>Prospect Avenue &amp; Third Avenue (signalized)</b>               |   |                 |     |  |                 |     |   |                 |     |
| WB L   | 0.57                                    | 50.7            | D   | 0.62   | 52.8            | D   | 0.35                                    | 43.6            | D   |
| WB TR  | 0.81                                    | 53.3            | D   | 0.78   | 51.8            | D   | 1.06                                    | 92.5            | F   |
| NB L   | 0.84                                    | 9.2             | A   | 0.68   | 5.2             | A   | 0.86                                    | 44.5            | D   |
| NB LT  | 0.34                                    | 1.7             | A   | 0.27   | 1.5             | A   | 0.24                                    | 10.6            | B   |
| SB T   | 0.40                                    | 39.2            | D   | 0.43   | 39.9            | D   | 0.46                                    | 29.3            | C   |
| OVERALL  |   | 22.6            | C   |  | 23.3            | C   |   | 53.2            | D   |
| <b>Third Avenue &amp; 20th Street (signalized)</b>                   |   |                 |     |  |                 |     |   |                 |     |
| EB LTR   | 0.44                                    | 35.4            | D   | 0.22   | 29.9            | C   | 0.51                                    | 44.0            | D   |
| WB LTR   | 0.42                                    | 33.6            | C   | 0.45   | 34.4            | C   | 0.52                                    | 44.3            | D   |
| NB LTR   | 0.94                                    | 22.3            | C   | 0.84   | 16.5            | B   | 0.47                                    | 15.6            | B   |
| NB L   | -                                       | 36.4            | D   | -  | 36.6            | D   | -                                       | 42.0            | D   |
| SB LTR   | 0.62                                    | 23.7            | C   | 0.57   | 22.4            | C   | 0.85                                    | 9.4             | A   |
| SB L   | -                                       | 37.9            | D   | -  | 37.8            | D   | -                                       | 43.5            | D   |
| OVERALL  |   | 24.8            | C   |  | 23.2            | C   |   | 19.8            | B   |

**Notes:**

<sup>(1)</sup> HCM output is included in technical backup submitted to the NYCDOT.

LTR = left, through and right movements

NB = northbound

SB = southbound

EB = eastbound

WB = westbound

- During the Facility peak hour, the delay of the westbound approach at the intersection of Hamilton Avenue and Hamilton Place and 14<sup>th</sup> Street increased from 50.8 seconds to 87.6 seconds (LOS D to LOS F).
- During the PM peak hour, the delay of the westbound approach at the intersection of Hamilton Avenue and Hamilton Place and 14<sup>th</sup> Street increased from 49.1 seconds to 99.0 seconds (LOS D to LOS F).
- During the PM peak hour, the delay of the westbound through and right movements at the intersection of Prospect Avenue and Third Avenue increased from 82.7 seconds to 92.5 seconds (LOS F in both cases).
- During the AM peak hour, the delay of the eastbound approach at the intersection of Third Avenue and 20<sup>th</sup> Street increased from 34.8 seconds to 35.4 seconds (LOS C to LOS D).

#### 7.9.3.2 *Public Transportation*

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

#### 7.9.3.3 *Pedestrian Activity*

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

### 7.9.4 Potential Impacts with the Hamilton Avenue Converted MTS

The Hamilton Avenue Converted MTS would receive waste from ten CDs in Brooklyn—Brooklyn Districts BKS02, BKS06, BKS07, BKN08, BKS09, BKS10, BKS14, BKS16, BKS17, and BKS18. 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.

#### 7.9.4.1 *2006 Build Traffic Conditions*

Future Build Conditions assume that the Hamilton Avenue Converted MTS would generate 534 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 or the intersection closest to the site if the streets adjacent to the site are not designated truck routes.

The proposed collection vehicle truck routes for the Hamilton Avenue Converted MTS are shown in Figure 7.9-5.

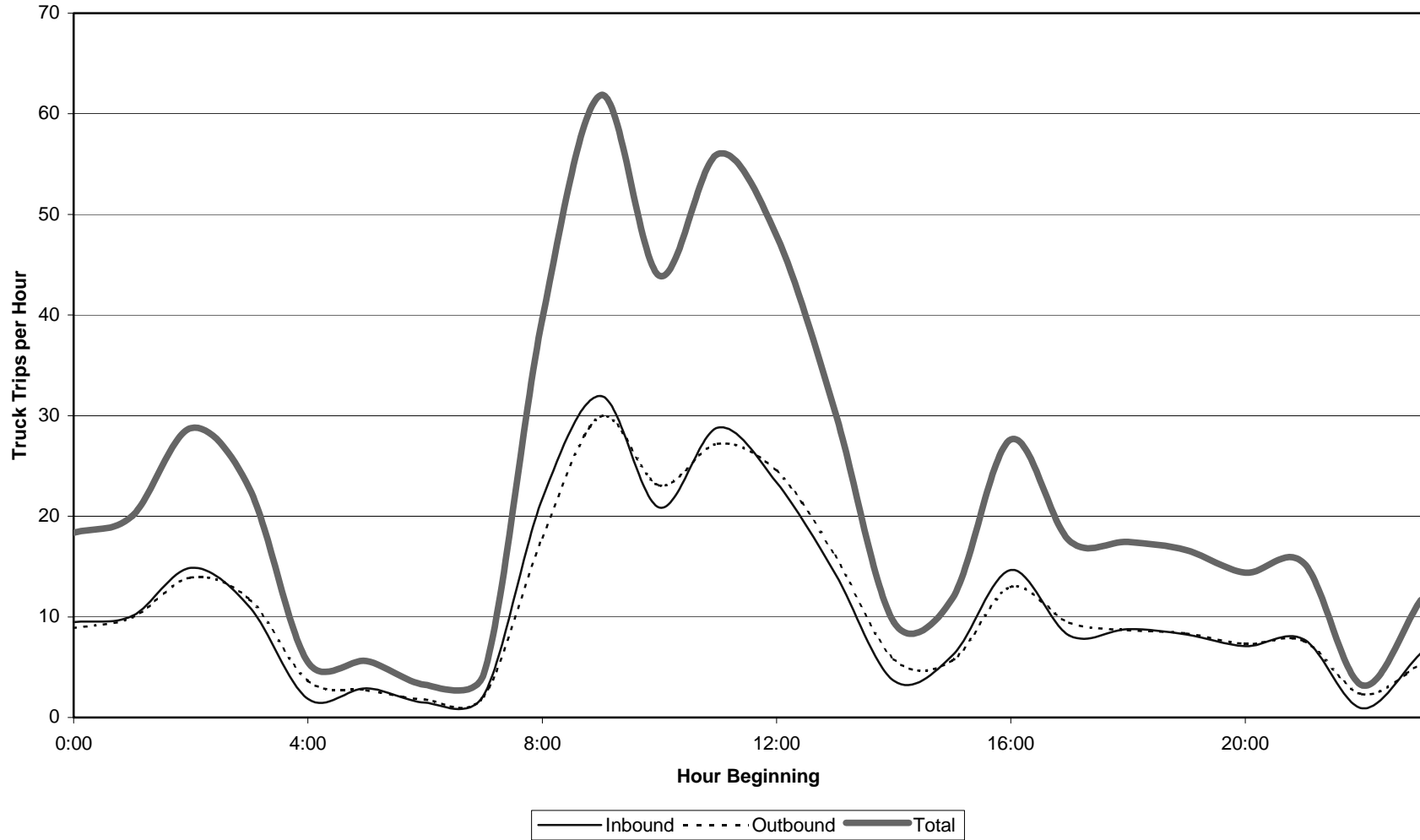
Figure 7.9-9 presents the average peak day temporal distribution of collection vehicles for the Hamilton Avenue Converted MTS. Section 3.10.3.1 provides a detailed explanation of DSNY collection and delivery operational shifts (priority, non-priority, and relay). As shown, the number of collection vehicles generated by the Hamilton Avenue Converted MTS is expected to vary from approximately 5 to 30 truck trips per hour in the late evening/early morning, 30 to 62 truck trips per hour in the mid-morning/early afternoon, and 10 to 30 truck trips per hour in the late afternoon/early evening. The peak hourly number of collection vehicle truck trips (62) occurs at approximately 9:00 a.m.

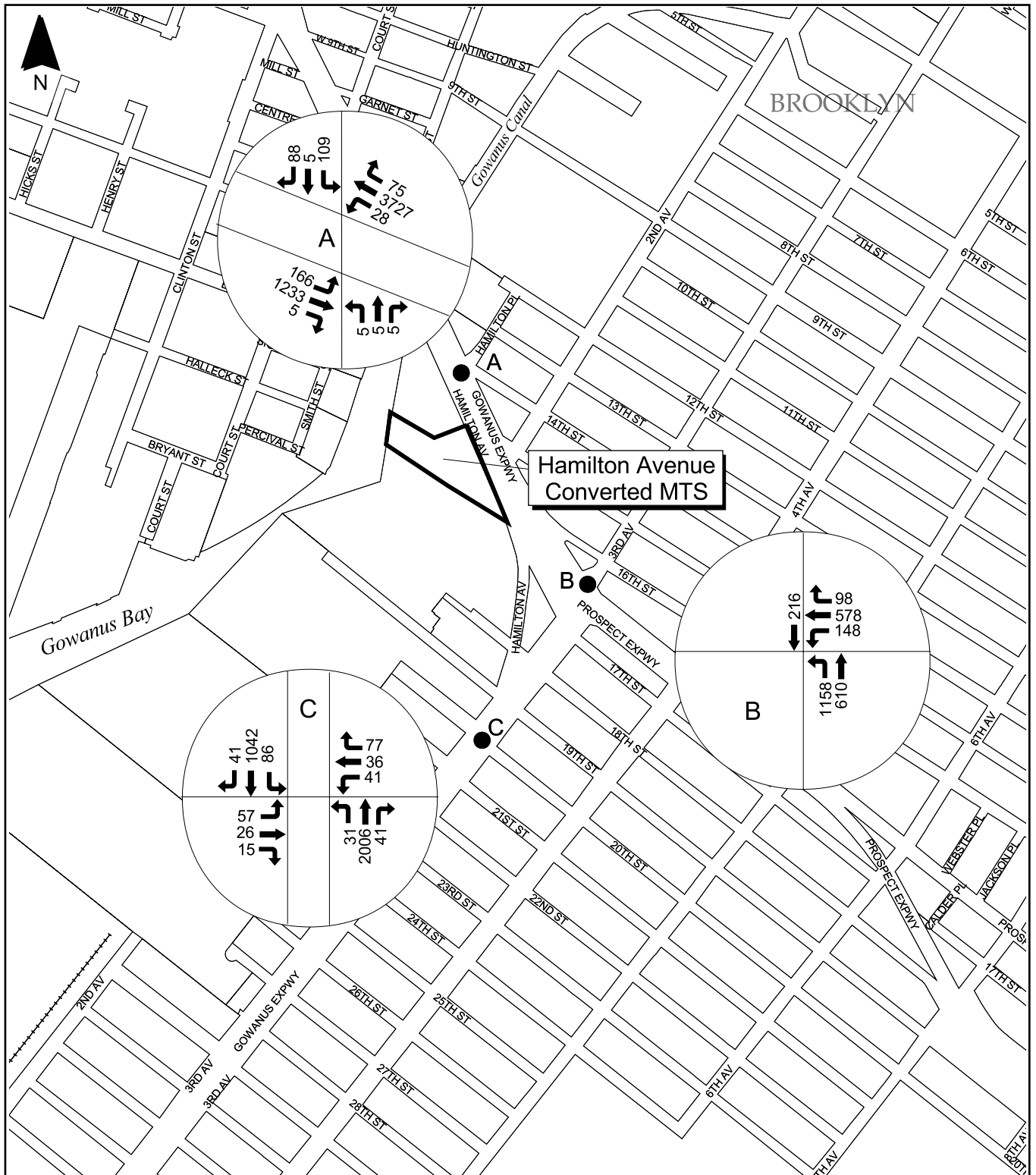
Employee trips generated as a result of the Hamilton Avenue Converted MTS are expected to be about 44 per shift (22 coming in and 22 leaving). Employee shifts are projected to run from 8:00 a.m. to 4:00 p.m., 4:00 p.m. to 12:00 a.m., and 12:00 a.m. to 8:00 a.m. Therefore, during shift changes employees would arrive about ½-hour before the start of a shift and leave about ½-hour after the end of a shift. With these projections, employee trips are expected between 7:30 a.m. and 8:30 a.m., 3:30 p.m. and 4:30 p.m., and 11:30 p.m. and 12:30 a.m.

Because only the AM peak (8:15 a.m. – 9:15 a.m.) coincided with a projected employee shift change (7:30 a.m. to 8:30 a.m.), employee trips from the Hamilton Avenue Converted MTS during the shift change (44) were considered as part of the net increase in site-generated traffic. Figures 7.9-10, 7.9-11, and 7.9-12 show the intersections analyzed with the net increase in site-generated traffic added to the Future No-Build traffic levels. Figures 7.9-13, 7.9-14, and 7.9-15 show the intersections analyzed with only the net increase in site generated traffic. Traffic volumes indicated by a dash (-) are the result of changing the disposal location from the existing commercial vendor facilities to the Hamilton Avenue Converted MTS. These projected net increases were routed through the intersections for each of the three peak hours. The highest net increase in trucks in the ingress or egress direction was 32. The highest net increase at any one intersection was 30 trucks. Both of these net increases occurred at the intersection of Hamilton Avenue and Hamilton Place and 14<sup>th</sup> Street.



**Figure 7.9-9**  
**Truck Trips Per Hour**  
**Hamilton Avenue Converted MTS**

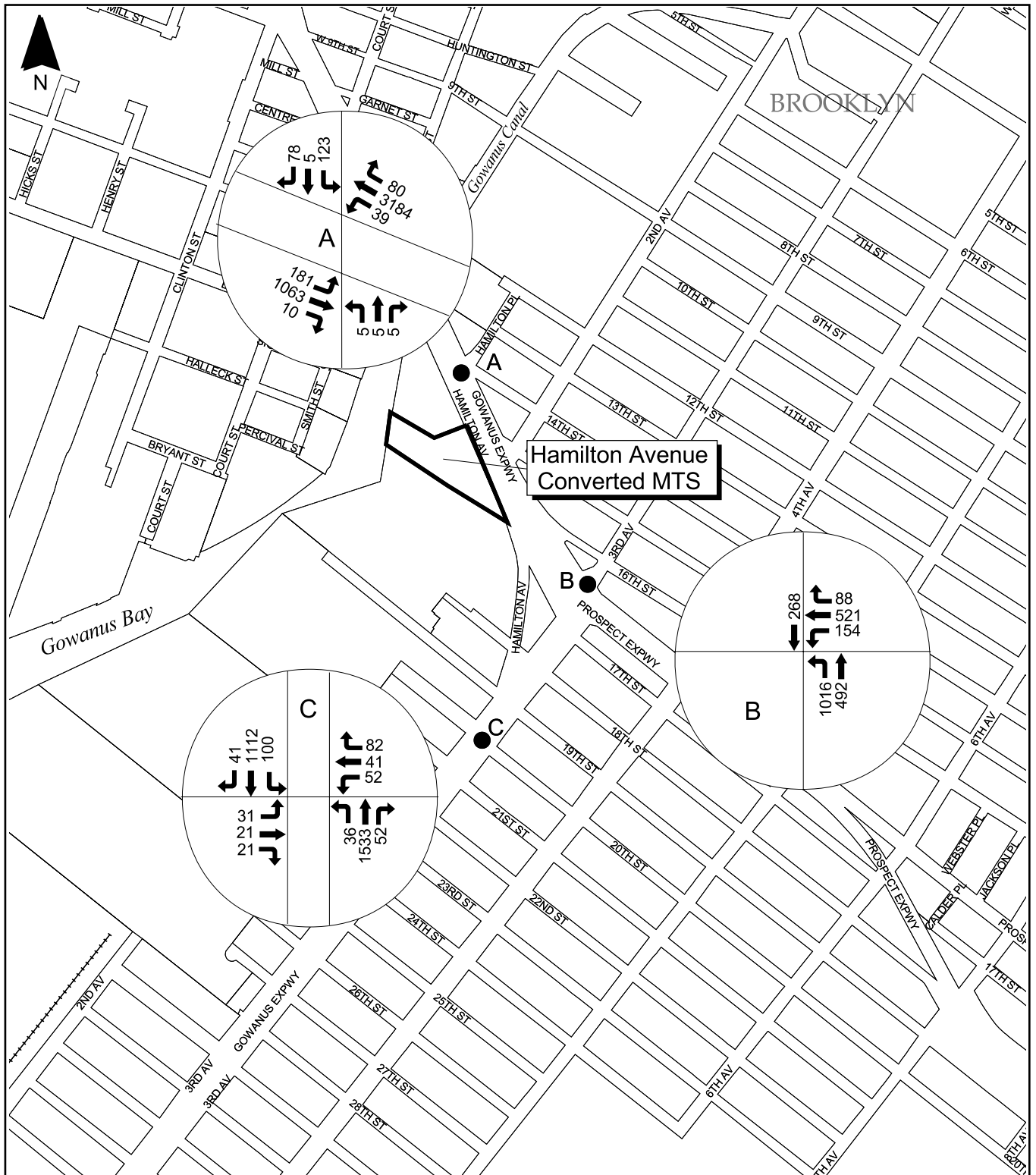




Site delineations are approximate.  
 Base Map Source: New York City Department of City Planning



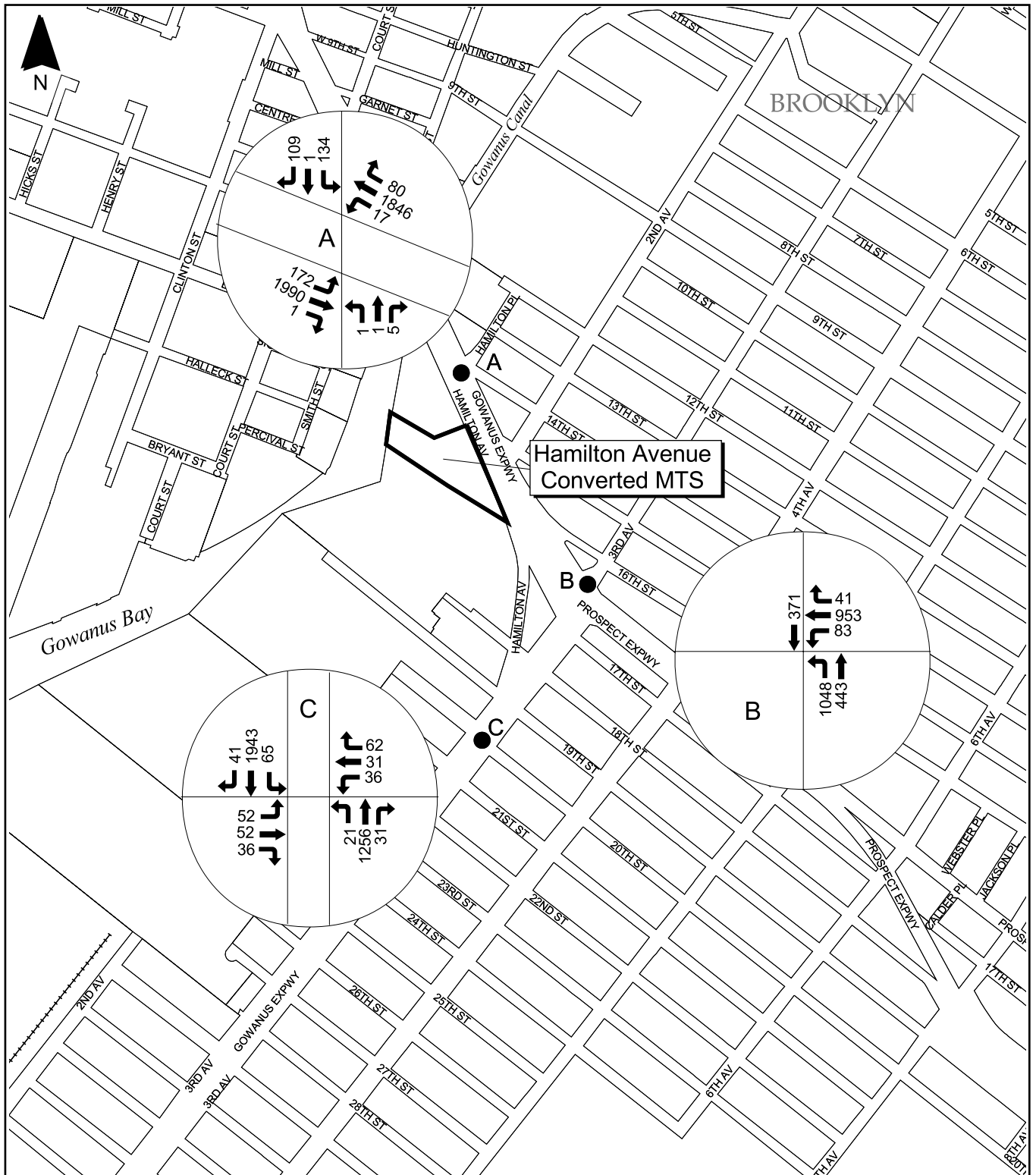
|  |  |  |
|--|--|--|
|  | <p><b>Figure 7.9-10 2006 Build Traffic Volumes - AM Peak</b></p> <p><b>Hamilton Avenue Converted MTS</b></p> <p><b>CITY OF NEW YORK</b><br/> <b>DEPARTMENT OF SANITATION</b></p> |  |
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Site delineations and are approximate.  
 Base Map Source: New York City Department of City Planning



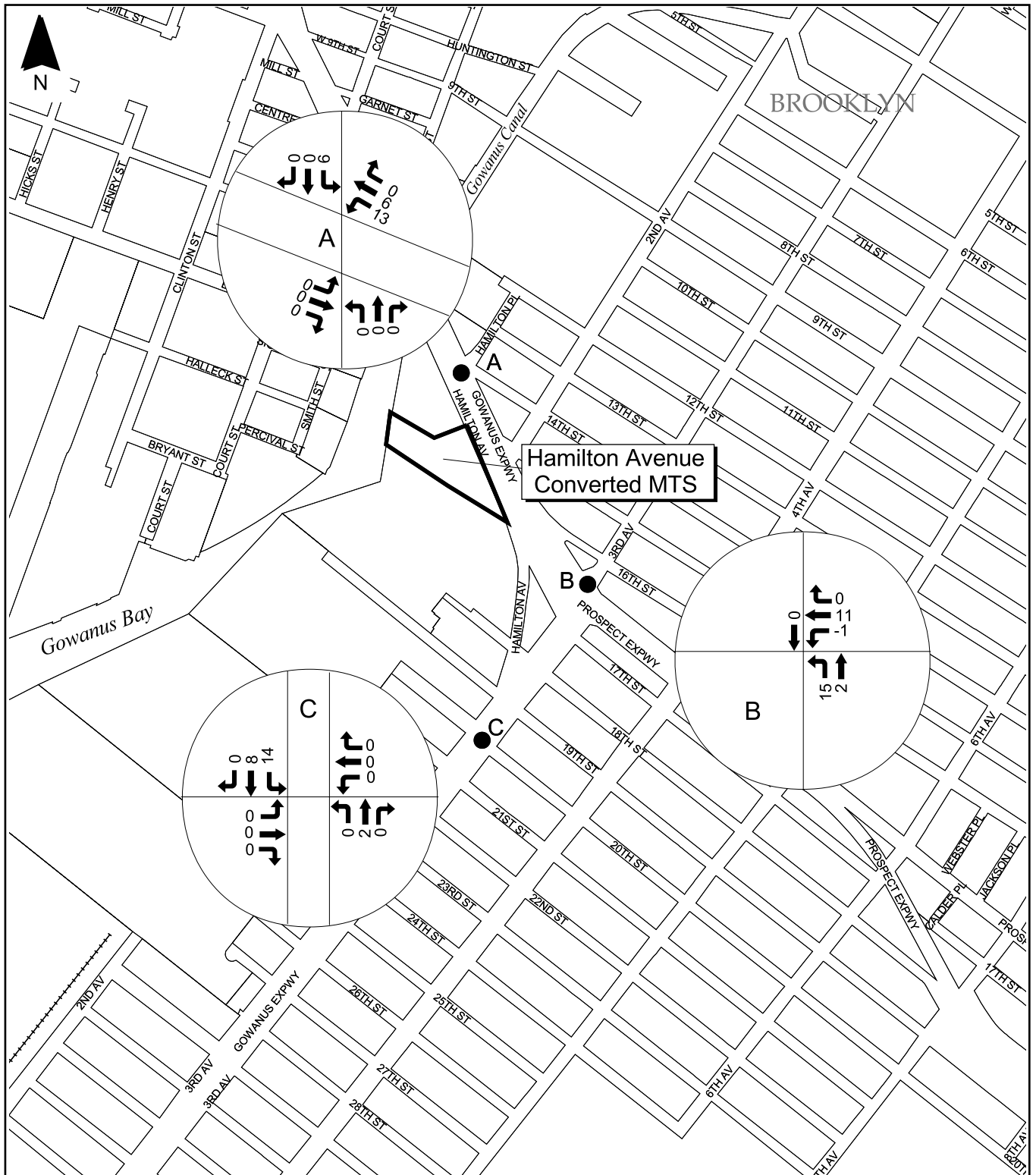
|  |  |  |
|--|--|--|
|  | <p><b>Figure 7.9-11 2006 Build Traffic Volumes</b><br/> <b>Facility Peak</b><br/> <b>Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>         DEPARTMENT OF SANITATION</p> |  |
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Site delineations are approximate.  
 Base Map Source: New York City Department of City Planning



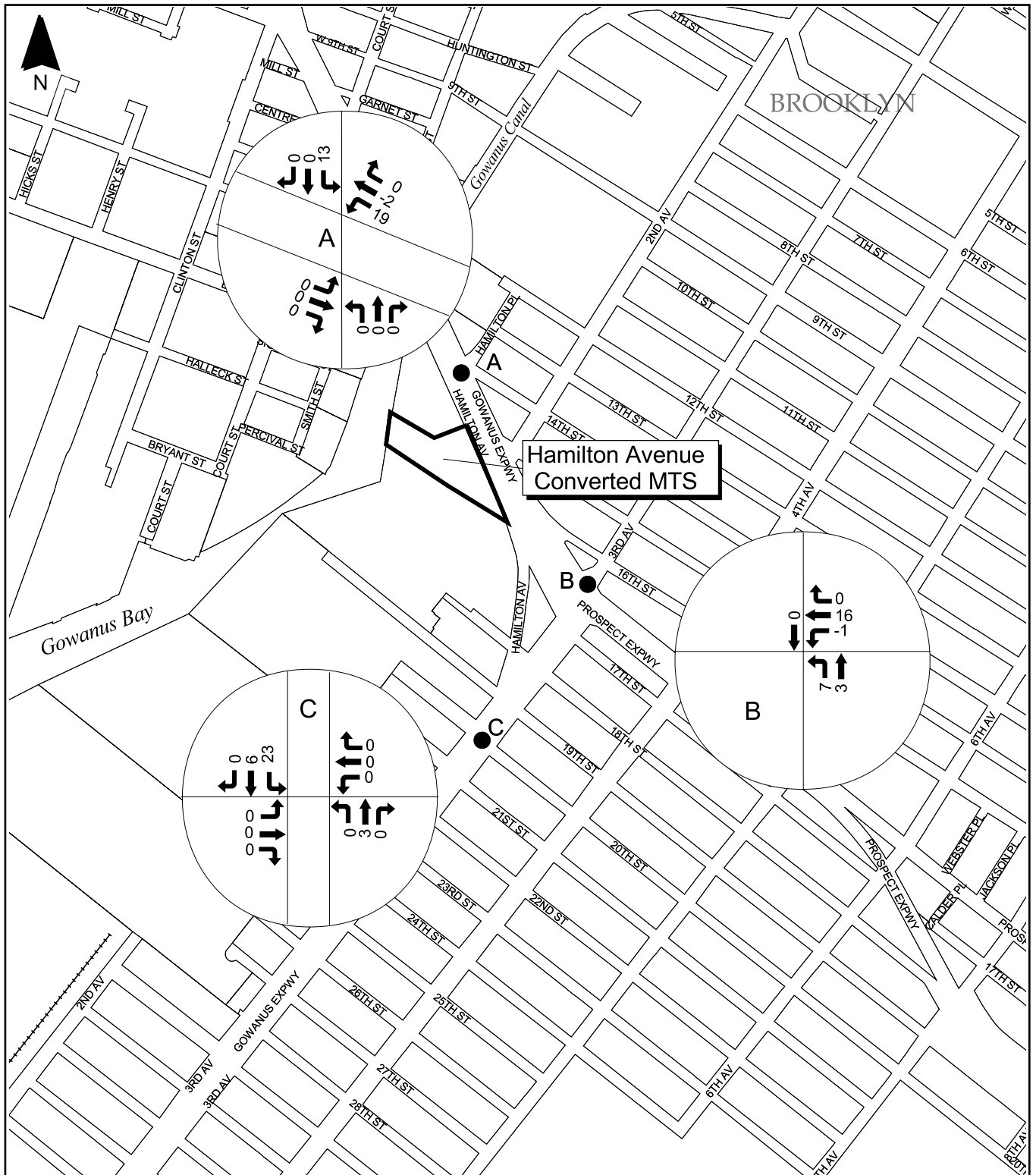
|  |   |  |
|--|---|--|
|  | <p><b>Figure 7.9-12 2006 Build Traffic Volumes - PM Peak</b></p> <p><b>Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>DEPARTMENT OF SANITATION</p> |  |
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Site delineations are approximate.  
 Base Map Source: New York City Department of City Planning



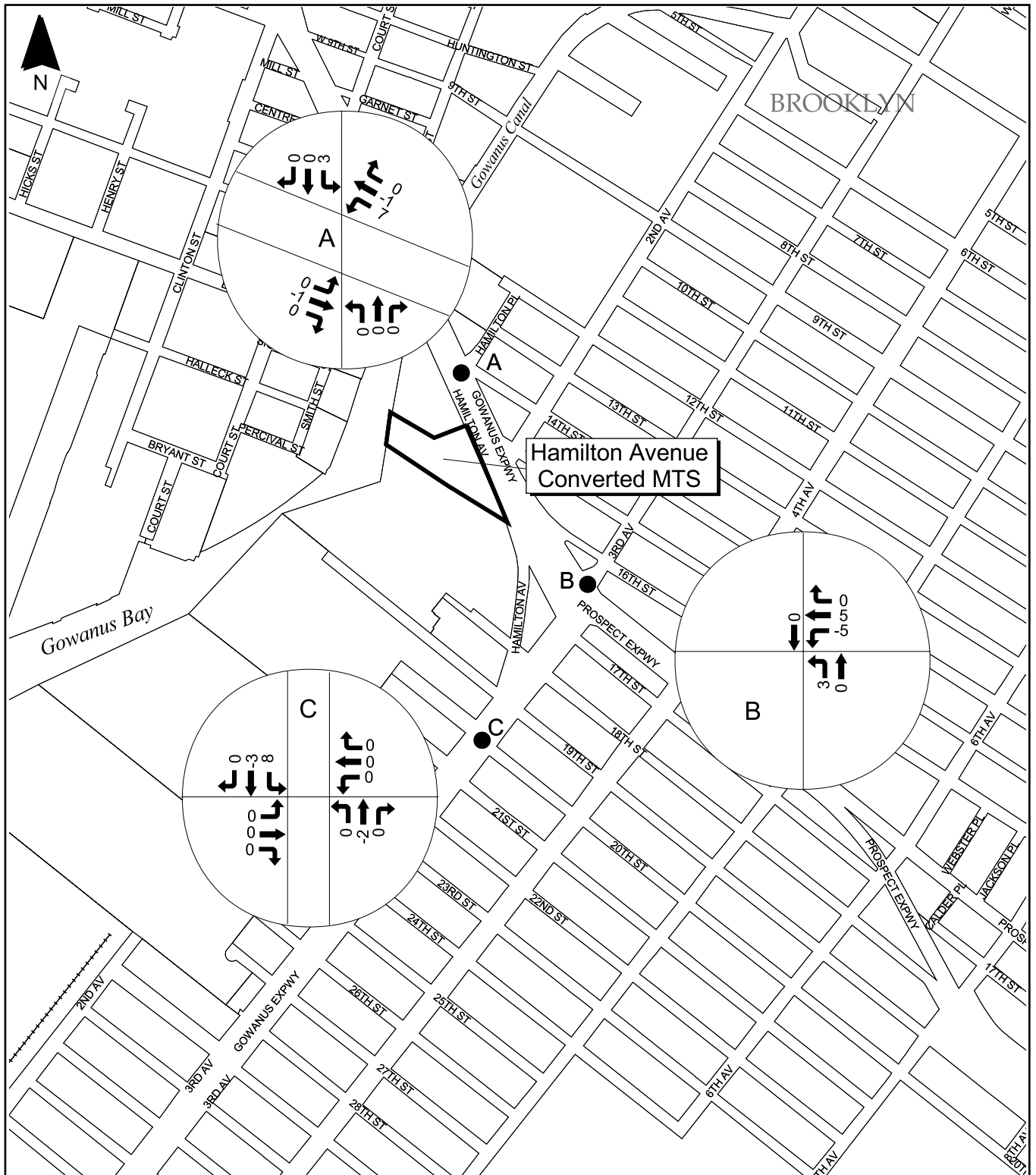
|  |  |  |
|--|--|--|
|  | <p><b>Figure 7.9-13 2006 Net Traffic - AM Peak</b><br/> <b>Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>         DEPARTMENT OF SANITATION</p> |  |
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Site delineations are approximate.  
 Base Map Source: New York City Department of City Planning



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|  | <p><b>Figure 7.9-14 2006 Net Traffic - Facility Peak</b><br/> <b>Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>         DEPARTMENT OF SANITATION</p> |  |
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Site delineations are approximate.  
 Base Map Source: New York City Department of City Planning



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|  | <p><b>Figure 7.9-15 2006 Net Traffic - PM Peak</b><br/> <b>Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>       DEPARTMENT OF SANITATION</p> |  |
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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 68 percent of the inbound loads delivered during a typical average peak day. Additionally, traffic data indicated that the weekend background traffic volumes were approximately 62 percent of weekday traffic volumes. Table 7.9-3 illustrates the decrease in weekday background traffic and the decrease in DSNY and other agency collection vehicle traffic on the weekend. No analysis was performed for Sunday because the Hamilton Avenue Converted MTS would not operate on Sundays. It was, therefore, judged that peak weekday analysis would represent the worst overall case conditions.

**Table 7.9-3  
Weekday and Weekend Traffic  
Hamilton Avenue Converted MTS**

| <b>DSNY and Other Agency<br/>Collection Vehicle Traffic</b> |                         | <b>Background Traffic NB and SB on<br/>Hamilton Avenue <sup>(1)</sup></b> |                                 |
|---|-------------------------|---|---------------------------------|
| Average Peak Day<br>Trucks/ Day                             | Saturday Trucks/<br>Day | Weekday average<br>vehicles/Day   | Weekend average<br>vehicles/Day |
| 267   | 181                     | 59,819  | 37,339                          |

**Note:**

<sup>(1)</sup> NB and SB traffic data collected from ATR counts taken on Hamilton Avenue between Hamilton Place and 2<sup>nd</sup> Avenue from September 15 to 21, 2003.

Table 7.9-4 shows the 2006 Future Build v/c ratio, delay time and LOS for the intersections analyzed during the AM, Facility, and PM peak times associated with the Hamilton Avenue 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 7.9.4.2 and summarized in Table 7.9-5.

*7.9.4.2 Impacts and Mitigation*

Two of the three intersections may experience impacts great enough to be considered significant during only one of the peak times analyzed; however, 2001 CEQR Technical Manual Guideline requires mitigation for significant impacts regardless of the duration, as discussed in Section 3.10.1. The potential impacts identified and the mitigation measures analyzed are presented below. Their effectiveness is summarized in Table 7.9-5.



**Table 7.9-4**  
**HCM Analysis<sup>(1)</sup> – Future Build Conditions**  
**Hamilton Avenue Converted MTS**

| Intersection & Lane Group  | AM Peak Hour<br>(8:15 a.m. – 9:15 a.m.) |                 |     | Facility Peak Hour<br>(9:00 a.m. – 10:00 a.m.) |                 |     | PM Peak Hour<br>(4:45 p.m. – 5:45 p.m.) |                 |     |
|--|---|-----------------|-----|--|-----------------|-----|---|-----------------|-----|
|  | V/C Ratio                               | Delay (sec/veh) | LOS | V/C Ratio                                      | Delay (sec/veh) | LOS | V/C Ratio                               | Delay (sec/veh) | LOS |
| <b>Hamilton Avenue &amp; Hamilton Place/14th Street (signalized)</b> |   |                 |     |  |                 |     |   |                 |     |
| EB LTR   | 0.07                                    | 31.2            | C   | 0.07   | 31.2            | C   | 0.04                                    | 27.3            | C   |
| WB LTR   | 1.34                                    | 225.6           | F   | 1.02   | 111.4           | F   | 1.04                                    | 106.1           | F   |
| NB LTR   | 1.07                                    | 48.4            | D   | 0.93   | 15.6            | B   | 0.57                                    | 21.9            | C   |
| NB L   | -                                       | 40.1            | D   | -  | 41.0            | D   | -                                       | 36.5            | D   |
| SB LTR   | 0.45                                    | 17.4            | B   | 0.36   | 16.0            | B   | 0.68                                    | 11.7            | B   |
| SB L   | -                                       | 45.3            | D   | -  | 46.6            | D   | -                                       | 40.3            | D   |
| OVERALL  |   | 51.4            | D   |  | 21.2            | C   |   | 24.9            | C   |
| <b>Prospect Avenue &amp; Third Avenue (signalized)</b>               |   |                 |     |  |                 |     |   |                 |     |
| WB L   | 0.56                                    | 50.3            | D   | 0.61   | 52.3            | D   | 0.32                                    | 42.9            | D   |
| WB TR  | 1.19                                    | 147.3           | F   | 0.81   | 53.3            | D   | 1.07                                    | 95.2            | F   |
| NB L   | 0.85                                    | 9.8             | A   | 0.69   | 5.4             | A   | 0.86                                    | 44.9            | D   |
| NB LT  | 0.34                                    | 1.7             | A   | 0.27   | 1.5             | A   | 0.24                                    | 10.6            | B   |
| SB T   | 0.40                                    | 39.2            | D   | 0.43   | 39.9            | D   | 0.46                                    | 29.3            | C   |
| OVERALL  |   | 44.2            | D   |  | 23.7            | C   |   | 53.9            | D   |
| <b>Third Avenue &amp; 20th Street (signalized)</b>                   |   |                 |     |  |                 |     |   |                 |     |
| EB LTR   | 0.44                                    | 35.4            | D   | 0.22   | 29.9            | C   | 0.51                                    | 44.0            | D   |
| WB LTR   | 0.42                                    | 33.6            | C   | 0.45   | 34.4            | C   | 0.52                                    | 44.3            | D   |
| NB LTR   | 0.94                                    | 22.4            | C   | 0.85   | 16.6            | B   | 0.47                                    | 15.6            | B   |
| NB L   | -                                       | 36.4            | D   | -  | 36.6            | D   | -                                       | 42.0            | D   |
| SB LTR   | 0.64                                    | 24.2            | C   | 0.60   | 22.9            | C   | 0.85                                    | 9.5             | A   |
| SB L   | -                                       | 38.7            | D   | -  | 39.1            | D   | -                                       | 44.2            | D   |
| OVERALL  |   | 25.2            | C   |  | 23.5            | C   |   | 19.9            | B   |

**Notes:**

<sup>(1)</sup> HCM output is included in technical backup submitted to the NYCDOT.

LTR = left, through and right movements

NB = northbound

SB = southbound

EB = eastbound

WB = westbound

**Table 7.9-5**  
**HCM Analysis<sup>(1)</sup> – Future Mitigated Conditions**  
**Hamilton Avenue Converted MTS**

| Intersection & Lane Group  | 2006 Future No-Build |                 |     | 2006 Future Build |                 |     | 2006 Future Build after Mitigation |                 |     |
|--|----------------------|-----------------|-----|-------------------|-----------------|-----|------------------------------------|-----------------|-----|
|  | V/C Ratio            | Delay (sec/veh) | LOS | V/C Ratio         | Delay (sec/veh) | LOS | V/C Ratio                          | Delay (sec/veh) | LOS |
| <b>Hamilton Avenue &amp; Hamilton Place/14th Street (signalized) – AM Peak</b>       |                      |                 |     |                   |                 |     |                                    |                 |     |
| EB LTR   | 0.07                 | 31.3            | C   | 0.07              | 31.2            | C   | 0.07                               | 31.2            | C   |
| WB LTR   | 1.22                 | 178.3           | F   | 1.34              | 225.6           | F   | 0.83                               | 57.4            | E   |
| NB LTR   | 1.06                 | 45.1            | D   | 1.07              | 48.4            | D   | 1.07                               | 48.4            | D   |
| NB L   | -                    | 39.0            | D   | -                 | 40.1            | D   | -                                  | 40.1            | D   |
| SB LTR   | 0.45                 | 17.4            | B   | 0.45              | 17.4            | B   | 0.45                               | 17.4            | B   |
| SB L   | -                    | 45.3            | D   | -                 | 45.3            | D   | -                                  | 45.3            | D   |
| OVERALL  |                      | 44.6            | D   |                   | 51.4            | D   |                                    | 48.1            | D   |
| <b>Hamilton Avenue &amp; Hamilton Place/14th Street (signalized) – Facility Peak</b> |                      |                 |     |                   |                 |     |                                    |                 |     |
| EB LTR   | 0.07                 | 31.2            | C   | 0.07              | 31.2            | C   | 0.07                               | 29.7            | C   |
| WB LTR   | 0.92                 | 87.6            | F   | 1.02              | 111.4           | F   | 0.93                               | 87.2            | F   |
| NB LTR   | 0.92                 | 14.6            | B   | 0.93              | 15.6            | B   | 0.96                               | 19.8            | B   |
| NB L   | -                    | 39.7            | D   | -                 | 41.0            | D   | -                                  | 41.0            | D   |
| SB LTR   | 0.36                 | 16.0            | B   | 0.36              | 16.0            | B   | 0.37                               | 17.1            | B   |
| SB L   | -                    | 46.6            | D   | -                 | 46.6            | D   | -                                  | 44.9            | D   |
| OVERALL  |                      | 19.0            | B   |                   | 21.2            | C   |                                    | 23.6            | C   |
| <b>Hamilton Avenue &amp; Hamilton Place/14th Street (signalized) – PM Peak</b>       |                      |                 |     |                   |                 |     |                                    |                 |     |
| EB LTR   | 0.04                 | 27.3            | C   | 0.04              | 27.3            | C   | 0.04                               | 26.6            | C   |
| WB LTR   | 1.02                 | 99.0            | F   | 1.04              | 106.1           | F   | 1.01                               | 94.7            | F   |
| NB LTR   | 0.57                 | 21.9            | C   | 0.57              | 21.9            | C   | 0.58                               | 22.6            | C   |
| NB L   | -                    | 36.0            | D   | -                 | 36.5            | D   | -                                  | 35.9            | D   |
| SB LTR   | 0.68                 | 11.7            | B   | 0.68              | 11.7            | B   | 0.69                               | 12.5            | B   |
| SB L   | -                    | 40.3            | D   | -                 | 40.3            | D   | -                                  | 39.7            | D   |
| OVERALL  |                      | 24.8            | C   |                   | 24.9            | C   |                                    | 25.3            | C   |
| <b>Prospect Avenue &amp; Third Avenue (signalized) – AM Peak</b>                     |                      |                 |     |                   |                 |     |                                    |                 |     |
| WB L   | 0.57                 | 50.7            | D   | 0.56              | 50.3            | D   | 0.42                               | 39.4            | D   |
| WB TR  | 0.81                 | 53.3            | D   | 1.19              | 147.3           | F   | 0.88                               | 55.2            | E   |
| NB L   | 0.84                 | 9.2             | A   | 0.85              | 9.8             | A   | 0.95                               | 24.9            | C   |
| NB LT  | 0.34                 | 1.7             | A   | 0.34              | 1.7             | A   | 0.38                               | 4.9             | A   |
| SB T   | 0.40                 | 39.2            | D   | 0.40              | 39.2            | D   | 0.44                               | 41.7            | D   |
| OVERALL  |                      | 22.6            | C   |                   | 44.2            | D   |                                    | 29.9            | C   |

**Notes:**

<sup>(1)</sup> HCM output is included in technical backup submitted to the NYCDOT.

LTR = left, through and right movements

NB = northbound

SB = southbound

EB = eastbound

WB = westbound

Hamilton Avenue/Hamilton Place/14<sup>th</sup> Street– During the AM peak hour, a potential impact was identified on the westbound approach when the delay is expected to increase from 178.3 seconds to 225.6 seconds (LOS F in both cases). During the Facility peak hour, the same (westbound) approach is expected to experience an increase in delay from 87.6 seconds to 111.4 seconds (LOS F in both cases). During the PM peak hour, the delay of the westbound approach is expected to increase from 99.0 seconds to 106.1 seconds (LOS F in both cases). During the AM peak hour, an increase in green time of thirteen seconds for the eastbound and westbound approaches should eliminate this unacceptable increase in delay. This mitigation measure would eliminate the 13-second exclusive eastbound phase, leaving the northbound and southbound approach green time unchanged. This mitigation would improve the LOS for the westbound approach to below Future No-Build Condition levels. During the Facility peak hour, an increase in green time of two seconds for the eastbound and westbound approaches should eliminate this unacceptable increase in delay. This mitigation measure would detract two seconds from the northbound and southbound approach green time, but would improve the LOS for the westbound approach to below Future No-Build Condition levels with minimal increases to the delay of the northbound and southbound approaches. During the PM peak hour, an increase in green time of one second for the eastbound and westbound approaches should eliminate this unacceptable increase in delay. This mitigation measure would detract one second from the northbound and southbound approach green time, but would improve the LOS for the westbound approach (again) to below Future No-Build Condition levels with minimal increases to the delay of the northbound and southbound approaches.

Prospect Avenue/Third Avenue – During the AM peak hour, a potential impact was identified on the westbound through and right movements when the delay increased from 53.3 seconds to 147.3 seconds (LOS D to LOS F). An increase in green time of eight seconds for the westbound approach should eliminate this unacceptable increase in delay. This mitigation measure would detract five seconds of green time from the northbound left and through movements and three seconds of green time from the northbound and southbound approach phases, but would reduce the delay for the westbound through and right movements from 147.3 seconds to 55.2 seconds. The delay of both the northbound and southbound approaches would increase within acceptable levels. This mitigation should not generate any adverse impacts on other lane groups during other 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 Condition.

#### *7.9.4.3 Public Transportation*

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

#### *7.9.4.4 Pedestrian Activity*

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

## 7.10 Air Quality

### 7.10.1 Definition of the Study Areas

The study area for the on-site air quality analysis for criteria pollutants (except PM<sub>2.5</sub>) is defined as the area within 500 meters (0.3 miles) from the property line in all directions. The study area for the on-site analysis for PM<sub>2.5</sub> is defined as the area within 500 meters from the highest impact location of the Hamilton Avenue Converted MTS. The study area for the off-site air quality analysis is defined as the area or intersections listed in Section 7.10.4.2.

### 7.10.2 Existing Conditions

Applicable air quality data collected at the monitoring station(s) nearest to the study area are shown in Table 7.10.1. These data were compiled by NYSDEC for 2002, the latest calendar year for which applicable data are currently available. The monitored levels do not exceed national and state ambient air quality standards.

**Table 7.10.1  
Representative Ambient Air Quality Data (2001)  
Hamilton Avenue Converted MTS**

| Pollutant        | Monitor                 | Averaging Time | Value                   | NAAQS                    |
|------------------|-------------------------|----------------|-------------------------|--------------------------|
| CO               | Brooklyn                | 8-Hour         | 2,635 µg/m <sup>3</sup> | 10,000 µg/m <sup>3</sup> |
|                  |                         | 1-Hour         | 3,321 µg/m <sup>3</sup> | 40,000 µg/m <sup>3</sup> |
| NO <sub>2</sub>  | College Pt. Post Office | Annual         | 56 µg/m <sup>3</sup>    | 100 µg/m <sup>3</sup>    |
| PM <sub>10</sub> | P.S. 321                | Annual         | 22 µg/m <sup>3</sup>    | 50 µg/m <sup>3</sup>     |
|                  |                         | 24-Hour        | 82 µg/m <sup>3</sup>    | 150 µg/m <sup>3</sup>    |
| SO <sub>2</sub>  | P.S. 321                | 3-Hour         | 152 µg/m <sup>3</sup>   | 1,300 µg/m <sup>3</sup>  |
|                  |                         | 24-Hour        | 94 µg/m <sup>3</sup>    | 365 µg/m <sup>3</sup>    |
|                  |                         | Annual         | 24 µg/m <sup>3</sup>    | 80 µg/m <sup>3</sup>     |

**Note:**

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

### 7.10.3 Future No-Build Conditions

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

### 7.10.4 Potential Impacts with the Hamilton Avenue Converted MTS

#### *7.10.4.1 On-Site Analysis*

##### 7.10.4.1.1 Sources Considered in the Analysis

The sources of emissions and the number of each type of source that are anticipated to be in operation during the peak hour and under daily average conditions are provided in Table 7.10-2. Figure 7.10-1 shows the locations of these sources within the site.

##### 7.10.4.1.2 Results of the Criteria Pollutant Analysis

The highest estimated criteria pollutant concentrations at any of the receptor locations considered are presented in Table 7.10-3. These values are below the national and state ambient air quality standards for the appropriate averaging time periods. In addition, the highest estimated changes in 24-hour and annual PM<sub>2.5</sub> concentrations from Hamilton Avenue Converted MTS-generated vehicles at any of the receptor locations considered, which are also presented in Table 7.10-3, are below the STVs. The Hamilton Avenue Converted MTS would not, therefore, significantly impact air quality in the area.

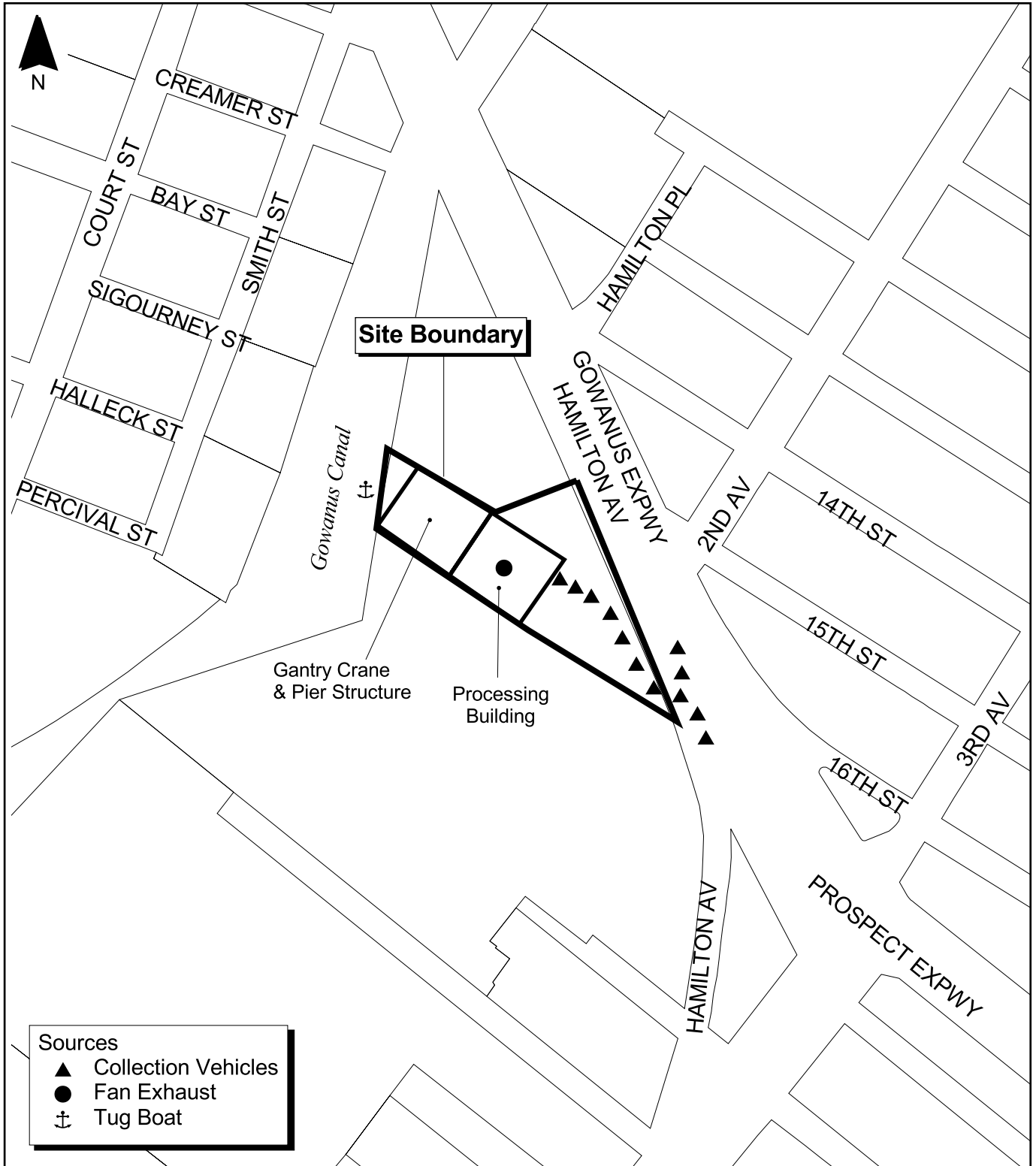
**Table 7.10-2**  
**Emission Sources Considered for On-site Air Quality Analysis<sup>(1)</sup>**  
**Hamilton Avenue Converted MTS**

| Type of Emission Source                    | Number of Sources Operated During Peak Hour | Number of Sources Operated During 24-hour and Annual Average Hour |
|--|---|---|
| <b>Within Processing Building</b>          |   |   |
| Wheel Loaders                              | 2   | 1   |
| Tamping Cranes                             | 1   | 1   |
| Mini-Sweepers                              | 1   | 1   |
| Moving/Queuing Collection Vehicles         | 46  | 18  |
| Space Heaters                              | 10  | 10  |
| Boiler                                     | 1   | 1   |
| <b>Outside Processing Building</b>         |   |   |
| Moving Street Sweepers                     | 1   | 1   |
| Moving Collection Vehicles                 | 46  | 18  |
| Queuing Collection Vehicles <sup>(2)</sup> | 17 in, 1 out                                | 3 in, 1 out   |
| Oceangoing Tugboats                        | 1   | 1   |

**Notes:**

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

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



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

100 0 100 Feet



**Figure 7.10-1 On-Site Air Quality Analysis**  
**Hamilton Avenue Converted MTS**

CITY OF NEW YORK  
 DEPARTMENT OF SANITATION





**Table 7.10-3  
Highest Estimated Concentrations of the Criteria Pollutants from On-site Emissions  
Hamilton Avenue Converted MTS**

| <b>Pollutant</b>  | <b>Averaging Time Period</b> | <b>Maximum Impacts from On-site Emission Sources <sup>(1)</sup></b> | <b>Background Pollutant Concentrations <sup>(2)</sup></b> | <b>Highest Estimated On-site Pollutant Concentrations</b> | <b>NAAQS<sup>(3)</sup></b> | <b>STV<sup>(4)</sup></b> |
|---|------------------------------|---|---|---|----------------------------|--------------------------|
| Carbon Monoxide (CO),<br>µg/m <sup>3</sup>                    | 1-hour <sup>(6)</sup>        | 1,334   | 2,635   | 3,968   | 40,000                     | NA                       |
|   | 8-hour <sup>(6)</sup>        | 393   | 3,321   | 3,714   | 10,000                     | NA                       |
| Nitrogen Dioxide (NO <sub>2</sub> ),<br>µg/m <sup>3</sup>     | Annual                       | 3   | 56  | 59  | 100                        | NA                       |
| Particulate Matter (PM <sub>10</sub> ),<br>µg/m <sup>3</sup>  | 24-hour <sup>(7)</sup>       | 21  | 82  | 103   | 150                        | NA                       |
|   | Annual                       | 3   | 22  | 25  | 50                         | NA                       |
| Particulate Matter (PM <sub>2.5</sub> ),<br>µg/m <sup>3</sup> | 24-hour                      | 2   | NA  | NA  | NA                         | 5                        |
|   | Annual Neighborhood Average  | 0.025 <sup>(5)</sup>  | NA  | NA  | NA                         | 0.1                      |
| Sulfur Dioxide (SO <sub>2</sub> ),<br>µg/m <sup>3</sup>       | 3-hour <sup>(6)</sup>        | 45  | 152   | 197   | 1,300                      | NA                       |
|   | 24-hour <sup>(6)</sup>       | 9   | 94  | 103   | 365                        | NA                       |
|   | Annual                       | 1   | 24  | 25  | 80                         | NA                       |

**Notes:**

- <sup>(1)</sup> The highest estimated pollutant concentrations found at any of the off-site receptor locations.
- <sup>(2)</sup> Background concentrations were obtained from the NYCDEP on April 14, 2003.
- <sup>(3)</sup> NAAQS = National Ambient Air Quality Standard
- <sup>(4)</sup> Screening Threshold Value (STV) established by the NYCDEP and NYSDEC
- <sup>(5)</sup> Average PM<sub>2.5</sub> concentration over 1 km x 1 km “neighborhood-scale” receptor grid.
- <sup>(6)</sup> The standards for these averaging periods allow one exceedance per year, so the use of the overall maximum concentration in this provides a very conservative comparison with standards.
- <sup>(7)</sup> The 24-hour PM<sub>10</sub> NAAQS is based on a 99th percentile concentration, which means that the high, 4th high concentration is appropriate for comparison with the standard. Therefore, the use of the overall highest concentration in this comparison is quite conservative.

NA = Not Applicable

#### 7.10.4.1.3 Results of the Toxic Pollutant Analysis

The results of the toxic pollutant analysis are summarized in Table 7.10-4. The highest estimated non-carcinogenic toxic air pollutant impacts are below the short-term (acute) and long-term (chronic) hazard index thresholds specified in New York State's Air Guide 1. In addition, the highest estimated carcinogenic impacts are less than the one-in-a-million threshold level that is defined by NYSDEC as being significant. As such, the potential impacts of the toxic pollutant emissions from the on-site operations of the Hamilton Avenue Converted MTS are not considered to be significant.

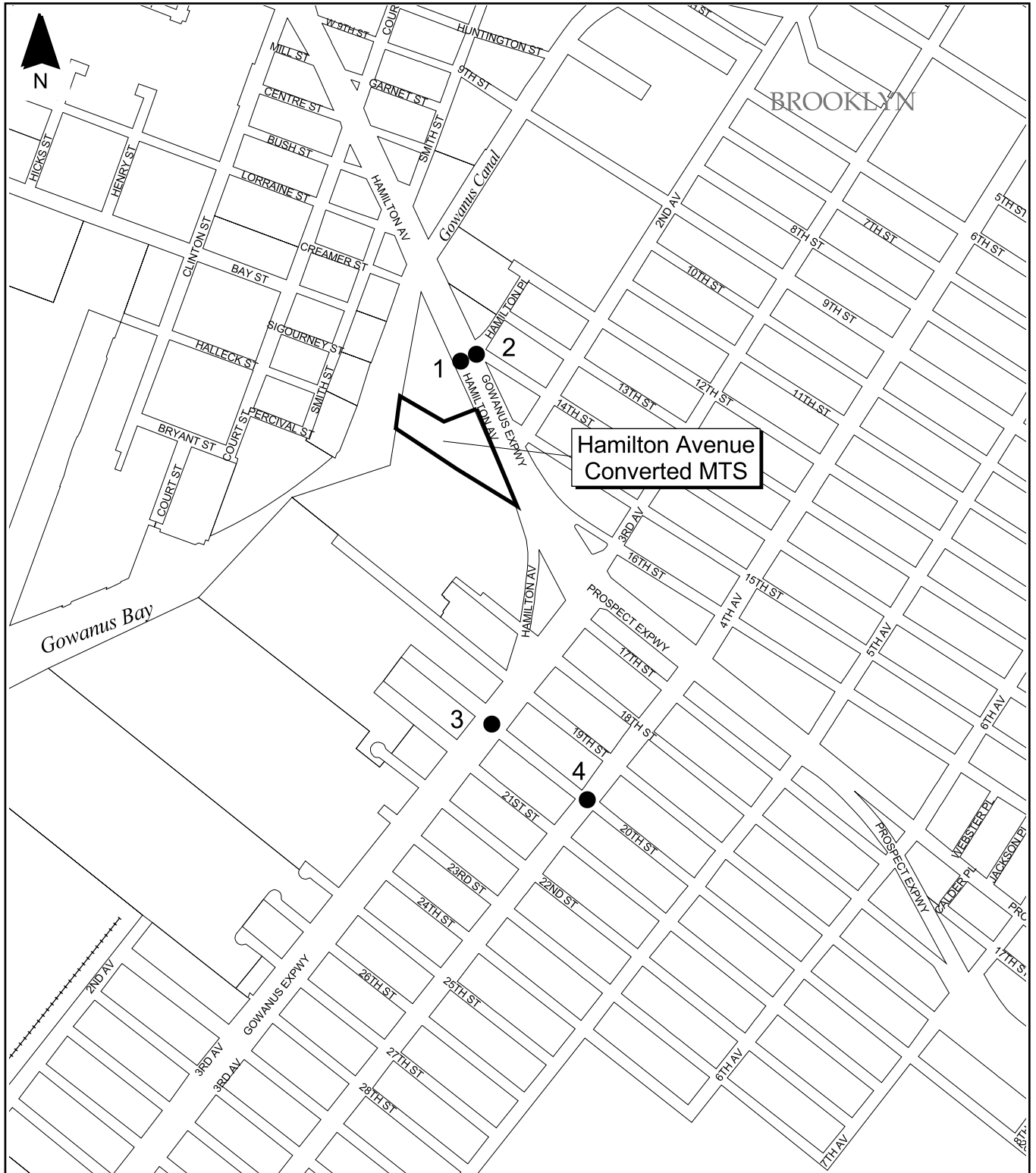
#### 7.10.4.2 Off-Site Analysis

##### 7.10.4.2.1 Pollutants Considered and Analyses Conducted

Locations potentially affected by DSNY and other agency collection vehicles were identified using *CEQR Technical Manual Guidelines* that are outlined in Section 3.11.5. Following these guidelines, the following detailed mobile source analyses were conducted:

- An analysis of the intersections of Hamilton Avenue at Hamilton Place and 14<sup>th</sup> Street, and 20<sup>th</sup> Street at 3<sup>rd</sup> Avenue and 4<sup>th</sup> Avenue, to determine whether Hamilton Avenue Converted MTS-generated traffic has the potential to cause exceedances of NYCDEP's and NYSDEC's 24-hour and annual PM<sub>2.5</sub> STVs; and
- An analysis for the intersections of Hamilton Avenue at Hamilton Place and 14<sup>th</sup> Street, and 20<sup>th</sup> Street at 3<sup>rd</sup> Avenue and 4<sup>th</sup> Avenue, to determine whether Hamilton Avenue Converted MTS-generated traffic has the potential to cause exceedances of the 24-hour and annual PM<sub>10</sub> NAAQS.

The roadway intersections selected for the mobile source analysis are shown in Figure 7.10-2. This selection was in accordance with the PM<sub>10</sub> and PM<sub>2.5</sub> screening criteria discussed in Section 3.11.5.



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



|  |  |  |
|--|--|--|
|  | <p><b>Figure 7.10-2 Off-Site Air Quality Intersections Studied</b><br/> <b>Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>       DEPARTMENT OF SANITATION</p> |  |
|--|--|--|

**Table 7.10-4  
Highest Estimated Non-Cancer Hazard Index and Cancer Risk of Toxic Air Pollutant from On-site Emissions  
Hamilton Avenue Converted MTS**

| No.  | Toxic Air Pollutants  | Acute Non-Cancer Risk   |  |  | Chronic Non-Cancer Risk  |   |  | Cancer Risk  |   |                                   |
|--|-----------------------|---|--|--|--|---|--|--|---|-----------------------------------|
|  |                       | Highest Estimated Short-Term (1-hr) Pollutant Conc. <sup>(1)</sup> (µg/m <sup>3</sup> ) | Short-Term (1-hr) Guideline Conc. (SGCs) <sup>(2)</sup> (µg/m <sup>3</sup> ) | Acute Non-Cancer Hazard Index <sup>(3)</sup> | Highest Estimated Long-Term (Annual) Pollutant Conc. <sup>(4)</sup> (µg/m <sup>3</sup> ) | Long-Term (Annual) Guideline Conc. (AGCs) <sup>(5)</sup> (µg/m <sup>3</sup> ) | Chronic Non-Cancer Hazard Index <sup>(6)</sup> | Highest Estimated Long-Term (Annual) Pollutant Conc. <sup>(4)</sup> (µg/m <sup>3</sup> ) | Unit Risk Factors <sup>(7)</sup> (µg/m <sup>3</sup> ) | Max. Cancer Risk <sup>(8,9)</sup> |
| <b>Carcinogenic Pollutants</b>                     |                       |   |  |  |  |   |  |  |   |                                   |
| 1  | Benzene               | 4.75E-01  | 1.30E+03   | 3.65E-04                                     | 4.16E-03   | 1.30E-01  | 3.20E-02                                       | 4.16E-03   | 8.30E-06  | 3.46E-08                          |
| 2  | Formaldehyde          | 6.01E-01  | 3.00E+01   | 2.00E-02                                     | 5.27E-03   | 6.00E-02  | 8.78E-02                                       | 5.27E-03   | 1.30E-05  | 6.85E-08                          |
| 3  | 1,3 Butadiene         | 1.99E-02  | -  | -  | 1.74E-04   | 3.60E-03  | 4.85E-02                                       | 1.74E-04   | 2.80E-04  | 4.89E-08                          |
| 4  | Acetaldehyde          | 3.90E-01  | 4.50E+03   | 8.67E-05                                     | 3.42E-03   | 4.50E-01  | 7.61E-03                                       | 3.42E-03   | 2.20E-06  | 7.53E-09                          |
| 5  | Benzo(a)pyrene        | 9.57E-05  | -  | -  | 8.39E-07   | 2.00E-03  | 4.20E-04                                       | 8.39E-07   | 1.70E-03  | 1.43E-09                          |
| 6  | Propylene             | 1.31E+00  | -  | -  | 1.15E-02   | 3.00E+03  | 3.84E-06                                       | 1.15E-02   | NA  | NA                                |
| <b>Non-Carcinogenic Pollutants <sup>(10)</sup></b> |                       |   |  |  |  |   |  |  |   |                                   |
| 7  | Acrolein              | 4.71E-02  | 1.90E-01   | 2.48E-01                                     | 4.13E-04   | 2.00E-02  | 2.06E-02                                       | 4.13E-04   | NA  | NA                                |
| 8  | Toluene               | 2.08E-01  | 3.70E+04   | 5.63E-06                                     | 1.83E-03   | 4.00E+02  | 4.56E-06                                       | 1.83E-03   | NA  | NA                                |
| 9  | Xylenes               | 1.45E-01  | 4.30E+03   | 3.37E-05                                     | 1.27E-03   | 7.00E+02  | 1.82E-06                                       | 1.27E-03   | NA  | NA                                |
| 10   | Anthracene            | 9.52E-04  | -  | -  | 8.35E-06   | 2.00E-02  | 4.17E-04                                       | 8.35E-06   | NA  | NA                                |
| 11   | Benzo(a)anthracene    | 8.55E-04  | -  | -  | 7.50E-06   | 2.00E-02  | 3.75E-04                                       | 7.50E-06   | NA  | NA                                |
| 12   | Chrysene              | 1.80E-04  | -  | -  | 1.58E-06   | 2.00E-02  | 7.88E-05                                       | 1.58E-06   | NA  | NA                                |
| 13   | Naphthalene           | 4.32E-02  | 7.900E+03  | 5.46E-06                                     | 3.78E-04   | 3.00E+00  | 1.26E-04                                       | 3.78E-04   | NA  | NA                                |
| 14   | Pyrene                | 2.43E-03  | -  | -  | 2.13E-05   | 2.00E-02  | 1.07E-03                                       | 2.13E-05   | NA  | NA                                |
| 15   | Phenanthrene          | 1.50E-02  | -  | -  | 1.31E-04   | 2.00E-02  | 6.56E-03                                       | 1.31E-04   | NA  | NA                                |
| 16   | Dibenz(a,h)anthracene | 2.97E-04  | -  | -  | 2.60E-06   | 2.00E-02  | 1.30E-04                                       | 2.60E-06   | NA  | NA                                |
|  |                       | <b>Total Estimated Acute Non-Cancer Hazard Index</b>                                    |  | <b>2.68E-01</b>                              | <b>Total Estimated Chronic Non-Cancer Hazard Index</b>                                   |   | <b>2.06E-01</b>                                | <b>Total Estimated Combined Cancer Risk</b>  |   | <b>1.61E-07</b>                   |
|  |                       | <b>Acute Non-Cancer Hazard Index Threshold <sup>(11)</sup></b>                          |  | <b>1.0E+00</b>                               | <b>Chronic Non-Cancer Hazard Index Threshold <sup>(11)</sup></b>                         |   | <b>1.0E+00</b>                                 | <b>Cancer Risk Threshold <sup>(11)</sup></b>   |   | <b>1.0E-06</b>                    |

**Notes to Table 7.10-4:**

- (1) Estimated by multiplying the total 1-hr HCs concentration by the ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.
- (2) Short-term (1-hr) guideline concentrations (SGC) established by NYSDEC
- (3) Estimated by dividing the maximum 1-hr concentrations of each pollutant by the SGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.
- (4) Estimated by multiplying the total annual HCs concentration by ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.
- (5) Long-term (annual) guideline concentrations (AGC) established by NYSDEC
- (6) Estimated by dividing the maximum annual concentration of each of the individual pollutants by the AGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.
- (7) Unit risk factors established by USEPA and other governmental agencies for the inhalation of carcinogenic air pollutants.
- (8) The maximum cancer risk of each of the individual pollutant was estimated by multiplying the estimated annual concentration of each pollutant by its unit risk factor.
- (9) The total incremental cancer risk from all of the pollutants combined was estimated by summing the maximum cancer risk of each of the individual pollutants.
- (10) Some of the pollutants included in the group of non-carcinogenic pollutants, such as anthracene, benzo(a)anthracene and chrysene, may also have carcinogenic effects. As these pollutants do not have established unit risk factors, they were evaluated using the hazard index approach for non-carcinogens.
- (11) Hazard index and cancer risk thresholds based on NYSDEC "Guidelines for the Control of Toxic Ambient Air Contaminants" dated November 12, 1997. Estimated values below these threshold limits are considered to be insignificant impacts.

#### 7.10.4.2.2 Results of the Off-Site Analysis

Applicable pollutant concentrations estimated near each selected intersection, which are shown in Table 7.10-5, are all within (less than) the applicable state and federal ambient air quality standards and STVs (for PM<sub>2.5</sub>). A Tier II analysis of the intersections at Hamilton Avenue and Hamilton Place and 14<sup>th</sup> Street, and 20<sup>th</sup> Street at 3<sup>rd</sup> Avenue and 4<sup>th</sup> Avenue was necessary to determine the off-site annual and 24-hour impacts for PM<sub>10</sub>. The results of this Tier II analysis are within the applicable state and federal ambient air quality standards for PM<sub>10</sub>. The off-site operations of the Hamilton Avenue MTS, therefore, are not considered to be significant.

**Table 7.10-5  
Hamilton Avenue Converted MTS  
Estimated Pollutant Concentration Near Selected Roadway Intersection**

| Air Quality Receptor Site   | CO  | PM <sub>10</sub>  |   | 24-hr PM <sub>2.5</sub> Impacts  |   |  | Max Annual Neighborhood PM <sub>2.5</sub> Impacts  |   |  |
|---|---|---|---|--|---|--|--|---|--|
|   | 8-hr CO Conc. <sup>(1)</sup><br>ppm<br>(NAAQS: 9 ppm) | 24-hr PM <sub>10</sub> Conc. <sup>(1)</sup><br>µg/m <sup>3</sup><br>(NAAQS: 150 µg/m <sup>3</sup> ) | Annual PM <sub>10</sub> Conc. <sup>(1)</sup><br>µg/m <sup>3</sup><br>(NAAQS: 50 µg/m <sup>3</sup> ) | Impacts from On-Site Emission Sources <sup>(2)</sup><br>µg/m <sup>3</sup><br>(STV: 5 µg/m <sup>3</sup> ) | Impacts from Off-Site Emission Sources <sup>(3)</sup><br>µg/m <sup>3</sup><br>(STV: 5 µg/m <sup>3</sup> ) | Total Combined Impacts from On and Off-Site Emission Sources<br>µg/m <sup>3</sup><br>(STV: 5 µg/m <sup>3</sup> ) | Impacts from On-Site Emission Sources <sup>(2)</sup><br>µg/m <sup>3</sup><br>(STV: 0.1 µg/m <sup>3</sup> ) | Impacts from Off-Site Emission Sources <sup>(4)</sup><br>µg/m <sup>3</sup><br>(STV: 0.1 µg/m <sup>3</sup> ) | Total Combined Impacts from On and Off-Site Emission Sources<br>µg/m <sup>3</sup><br>(STV: 0.1 µg/m <sup>3</sup> ) |
| <b>20<sup>th</sup> Street, 3<sup>rd</sup> Avenue &amp; 4<sup>th</sup> Avenue.</b> |   |   |   |  |   |  |  |   |  |
| Existing Conditions   | NA <sup>(6)</sup>                                     | 128 <sup>(5)</sup>  | 37 <sup>(5)</sup>   |  |   |  |  |   |  |
| Future No Build Conditions  | NA <sup>(6)</sup>                                     | 127 <sup>(5)</sup>  | 38 <sup>(5)</sup>   |  |   |  |  |   |  |
| Future Build Conditions   | NA <sup>(6)</sup>                                     | 127 <sup>(5)</sup>  | 38 <sup>(5)</sup>   |  |   |  |  |   |  |
| Future Build Incremental  |   |   |   | 0.075  | 0.6   | 0.68   | 0.0046   | 0.10  | 0.10   |
| <b>Hamilton Ave, Hamilton Place, &amp; 14<sup>th</sup> Street</b>                 |   |   |   |  |   |  |  |   |  |
| Existing Conditions   | NA <sup>(6)</sup>                                     | 137 <sup>(5)</sup>  | 43 <sup>(5)</sup>   |  |   |  |  |   |  |
| Future No Build Conditions  | NA <sup>(6)</sup>                                     | 141 <sup>(5)</sup>  | 45 <sup>(5)</sup>   |  |   |  |  |   |  |
| Future Build Conditions   | NA <sup>(6)</sup>                                     | 142 <sup>(5)</sup>  | 45 <sup>(5)</sup>   |  |   |  |  |   |  |
| Future Build Incremental  |   |   |   | 0.46   | 0.3   | 0.76   | 0.082  | 0.05  | 0.13   |

**Notes for Table 7.10-5:**

- (1) CO and PM<sub>10</sub> concentrations are the maximum concentrations estimated using the AM, Facility AM, and PM peak traffic information plus background concentration (8-hr CO=2.8ppm; 24-hr PM<sub>10</sub> = 57 µg/m<sup>3</sup>; Annual PM<sub>10</sub>=23µg/m<sup>3</sup>).
- (2) The maximum incremental concentrations of the on-site emissions at the intersection considered.
- (3) The PM<sub>2.5</sub> concentrations are the maximum modeled incremental PM<sub>2.5</sub> impacts (due to project-induced (or future build) traffic only) estimated by taking the difference between the maximum PM<sub>2.5</sub> concentrations for the Future No Build and Future Build scenarios at any receptor 3 meters from the edge of the roadways using AM, midday or PM peak traffic information.
- (4) The PM<sub>2.5</sub> concentrations are the maximum modeled incremental PM<sub>2.5</sub> impacts (due to project-induced (or future build) traffic only) estimated by taking the difference between the maximum PM<sub>2.5</sub> concentrations for the Future No Build and Future Build scenarios at any receptor 15 meters from the edge of the roadways using AM, midday or PM peak traffic information.
- (5) Results determined by performing a TIER II analysis.
- (6) Incremental 1-hour vehicular trips were below CEQR CO air quality screening thresholds.

Ppm = Parts per million

µg/m<sup>3</sup> = Microgram per cubic meter



## 7.11 Odor

### 7.11.1 Existing Conditions

The existing MTS is not in operation, and there are no existing sources of odor at the site. The study area is within 500 meters (0.3 miles) from the facility boundary. The locations for sensitive receptors in this analysis are the same as those used in the noise analysis. The nearest sensitive receptor is the row of apartment buildings located on 15<sup>th</sup> Street between 2<sup>nd</sup> Avenue and 3<sup>rd</sup> Avenue, approximately 372 feet from the site boundary.

### 7.11.2 Future No-Build Conditions

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

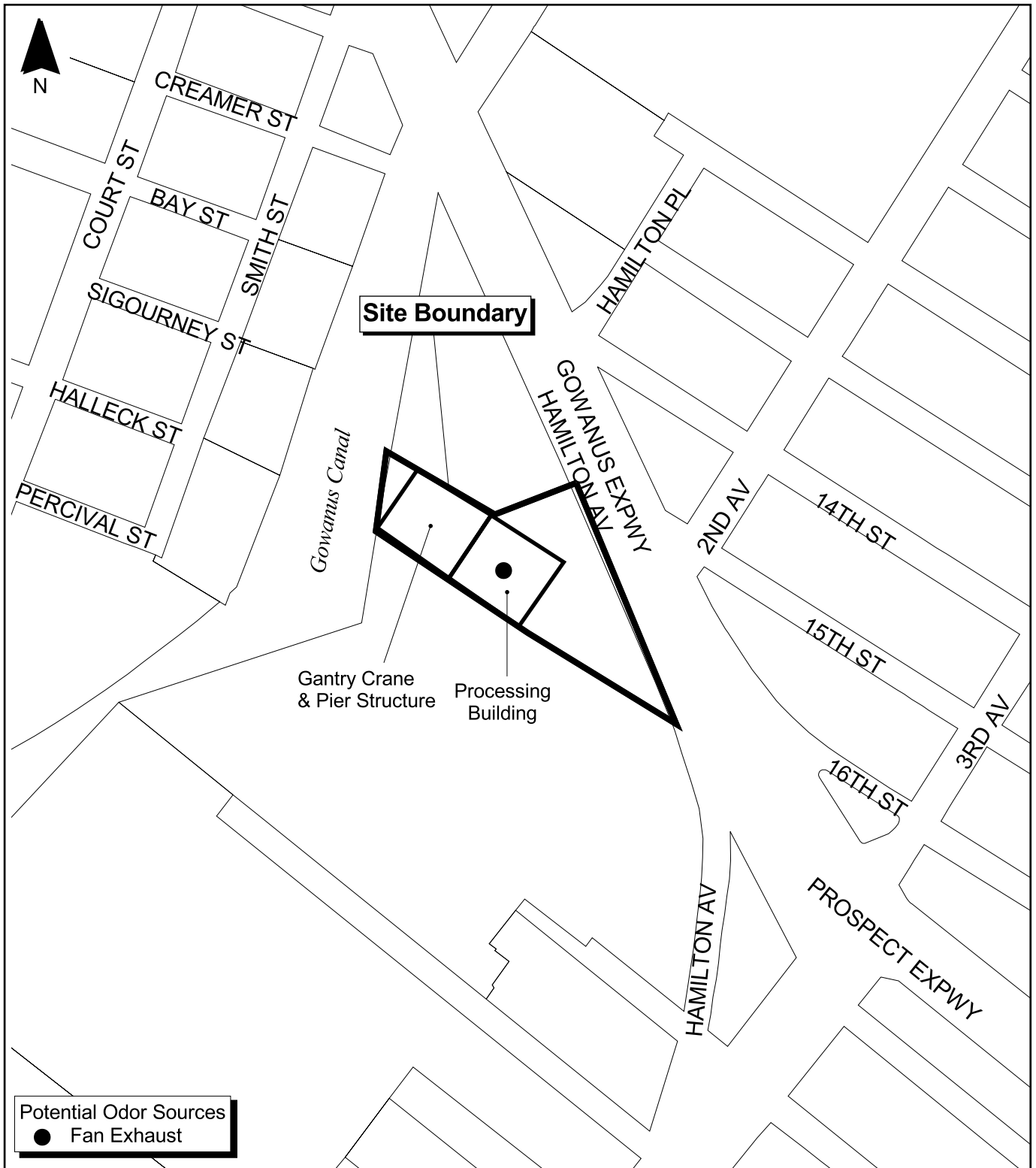
### 7.11.3 Potential Impacts with the South Bronx Converted MTS

#### 7.11.3.1 *Odor Source Types and Locations Considered in the Analysis*

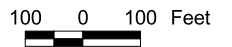
The anticipated number and type of odor sources that would be associated with waste processing operations at peak design capacity at the Hamilton Avenue Converted MTS are provided in Table 7.11-1. Figure 7.11-1 shows the locations of these sources within the site.

**Table 7.11-1  
Odor Sources Included in Odor Analysis  
Hamilton Avenue Converted MTS**

| <b>Type of Emission Source</b>        | <b>Number of Sources Operated During Peak Design Capacity</b> |
|---------------------------------------|---|
| Exhaust Fans from Processing Building | 1   |



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



**Figure 7.11-1 Potential Odor Sources**  
**Hamilton Avenue Converted MTS**

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

7.11.3.2 *Results of the Odor Analysis*

The highest estimated odor concentrations at any of the receptor sites considered and the concentrations at the closest sensitive receptor are presented in Table 7.11-2. The predicted odor unit values at sensitive receptor locations are compared to an odor unit of 5, which represents the level of odor impact that would begin to be detected by an average observer. The highest predicted odor unit associated with the Hamilton Avenue Converted MTS at any nearby sensitive receptor is less than 1, so odors from the Hamilton Avenue 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 7.11-2  
Highest Predicted Odor Concentration(s) from On-site Sources  
Hamilton Avenue Converted MTS**

| <b>Parameter</b>                          | <b>Resulting Odor Unit<sup>(1)</sup></b> |
|---|--|
| <b>Estimated Detectable Concentration</b> | 1.0                                      |
| <b>Highest Result</b>                     | 0.12                                     |
| Type Of Receptor                          | Fence Line Receptor                      |
| Location of Receptor <sup>(2)</sup>       | Site Boundary                            |
| <b>Closest Sensitive Receptor Result</b>  | 0.07                                     |
| Type Of Receptor                          | Apartment Buildings                      |
| Distance To Receptor <sup>(3)</sup>       | 372 Feet                                 |

**Notes:**

- <sup>(1)</sup> D/T ratio is dimensionless.
- <sup>(2)</sup> Measured from the site boundary.
- <sup>(3)</sup> Measured from the site property line.

## 7.12 Noise

The noise analysis addresses on-site and off-site sources of noise emissions from Hamilton Avenue Converted MTS-related solid waste management activities. It is based on Section R of the CEQR Technical Manual for both on-site and off-site sources, and for on-site sources only the Performance Standards of the New York City Zoning Code for Manufacturing Districts, and the New York City Noise Code. Section 3.14.3 provides a general discussion of the relevant regulatory standards and methodologies used in this analysis.

### 7.12.1 Existing Conditions

#### 7.12.1.1 Introduction

Figure 7.12-1 shows the location of the Hamilton Avenue Converted MTS and the surrounding area. The nearest noise-sensitive receptor is a row of apartment buildings on 15<sup>th</sup> Street between 2<sup>nd</sup> Avenue and 3<sup>rd</sup> Avenue, 113 meters (372 feet) from the Hamilton Avenue Converted MTS property line.

#### 7.12.1.2 On-site Noise Sources

Existing on-site noise sources consist of noise created by the activities and events on and immediately surrounding the site. Existing noise levels were monitored hourly for a 24-hour period at the property line closest to the nearest noise-sensitive receptor. Noise monitoring data recorded hourly included:  $L_{eq}$ ,  $L_{min}$ ,  $L_{max}$ ,<sup>4</sup> and the statistical metrics of  $L_{10}$ ,  $L_{50}$ , and  $L_{90}$ .<sup>5</sup> Table 7.12-1 presents monitored noise levels. As shown, the quietest hours at the monitoring location occurred between 2:00 a.m. and 3:00 a.m. and had an  $L_{eq}(h)$  of 81.0 dBA on January 15, 2003. Activities and events that contribute to the on-site noise levels are as follows:

- Traffic due to the proximity of industrial and commercial areas and the Brooklyn Queens Expressway; and
- Boat traffic on Gowanus Bay.

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<sup>4</sup> Terms  $L_{eq}$ ,  $L_{min}$ ,  $L_{max}$  are defined in Section 3.13.2.

<sup>5</sup> Terms  $L_{10}$ ,  $L_{50}$ , and  $L_{90}$  are defined in Section 3.13.2.

**Table 7.12-1**  
**Existing Hourly (Monitored) Noise Levels On-site<sup>(1)</sup>**  
**Hamilton Avenue Converted MTS**

| <b>Time of Measurement</b> | <b>L<sub>eq</sub> (h)</b><br><b>(dBA)</b> | <b>L<sub>90</sub></b><br><b>(dBA)</b> | <b>L<sub>50</sub></b><br><b>(dBA)</b> | <b>L<sub>10</sub></b><br><b>(dBA)</b> | <b>L<sub>min</sub></b><br><b>(dBA)</b> | <b>L<sub>max</sub></b><br><b>(dBA)</b> |
|----------------------------|---|---------------------------------------|---------------------------------------|---------------------------------------|--|--|
| 12:00-1:00 p.m.            | 86.0                                      | 82.0                                  | 84.9                                  | 88.5                                  | 78.3                                   | 101.9                                  |
| 1:00-2:00 p.m.             | 86.0                                      | 81.9                                  | 84.9                                  | 88.3                                  | 78.4                                   | 101.8                                  |
| 2:00-3:00 p.m.             | 85.2                                      | 81.3                                  | 84.1                                  | 87.7                                  | 78.1                                   | 95.9                                   |
| 3:00-4:00 p.m.             | 84.5                                      | 80.8                                  | 83.4                                  | 86.7                                  | 78.1                                   | 99.3                                   |
| 4:00-5:00 p.m.             | 83.8                                      | 80.7                                  | 83.1                                  | 85.7                                  | 77.5                                   | 96.5                                   |
| 5:00-6:00 p.m.             | 84.4                                      | 80.9                                  | 83.6                                  | 86.6                                  | 77.1                                   | 98.0                                   |
| 6:00-7:00 p.m.             | 85.2                                      | 82.0                                  | 84.5                                  | 87.4                                  | 78.4                                   | 99.5                                   |
| 7:00-8:00 p.m.             | 83.7                                      | 80.5                                  | 82.8                                  | 86.0                                  | 77.4                                   | 94.4                                   |
| 8:00-9:00 p.m.             | 82.3                                      | 78.8                                  | 81.3                                  | 84.5                                  | 76.5                                   | 97.2                                   |
| 9:00-10:00 p.m.            | 81.9                                      | 78.2                                  | 80.6                                  | 84.2                                  | 74.6                                   | 95.2                                   |
| 10:00-11:00 p.m.           | 81.4                                      | 77.8                                  | 80.2                                  | 83.9                                  | 73.0                                   | 91.6                                   |
| 11:00-12:00 a.m.           | 81.3                                      | 77.4                                  | 80.1                                  | 83.7                                  | 74.2                                   | 95.7                                   |
| 12:00-1:00 a.m.            | 82.0                                      | 76.8                                  | 80.7                                  | 84.9                                  | 71.3                                   | 95.7                                   |
| 1:00-2:00 a.m.             | 81.3                                      | 75.6                                  | 79.7                                  | 84.6                                  | 67.5                                   | 91.7                                   |
| 2:00-3:00 a.m.             | 81.0                                      | 75.3                                  | 79.3                                  | 84.2                                  | 70.5                                   | 93.1                                   |
| 3:00-4:00 a.m.             | 81.4                                      | 75.0                                  | 79.7                                  | 84.6                                  | 68.8                                   | 93.7                                   |
| 4:00-5:00 a.m.             | 82.8                                      | 75.9                                  | 81.1                                  | 85.4                                  | 67.1                                   | 104.0                                  |
| 5:00-6:00 a.m.             | 83.4                                      | 79.3                                  | 82.4                                  | 86.1                                  | 74.4                                   | 92.4                                   |
| 6:00-7:00 a.m.             | 84.5                                      | 80.4                                  | 83.7                                  | 87.1                                  | 76.8                                   | 94.6                                   |
| 7:00-8:00 a.m.             | 85.2                                      | 81.9                                  | 84.5                                  | 87.4                                  | 77.1                                   | 98.3                                   |
| 8:00-9:00 a.m.             | 85.8                                      | 82.3                                  | 84.6                                  | 87.6                                  | 78.7                                   | 105.0                                  |
| 9:00-10:00 a.m.            | 84.8                                      | 81.7                                  | 84.0                                  | 87.0                                  | 78.6                                   | 95.4                                   |
| 10:00-11:00 a.m.           | 85.7                                      | 82.7                                  | 84.9                                  | 87.8                                  | 79.9                                   | 99.7                                   |
| 11:00-12:00 p.m.           | 85.6                                      | 82.1                                  | 84.8                                  | 87.8                                  | 78.2                                   | 101.1                                  |

**Note:**

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

7.12.1.3 *Off-site Noise Sources*

Existing off-site noise sources consist of the existing traffic and other background noise. A screening analysis was conducted to determine if noise monitoring would be required along the Hamilton Avenue Converted MTS-related truck routes due to an increase in traffic caused by DSNY and other agency collection vehicles. . As a result of this screening, which is described in Section 3.14.5.2, off-site noise monitoring was required and, was therefore conducted. Table 7.12-2 presents monitored noise levels near noise sensitive receptors during the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest) based on second level screening.

**Table 7.12-2  
Existing Noise Levels at the Nearest Noise-Sensitive Receptor  
Hamilton Avenue Converted MTS**

| <b>Roadway ID</b>                                      | <b>Existing Noise Levels<br/>During Quietest Hour<br/>(dBA)<sup>(1)(2)</sup></b> |
|--|--|
| 20 <sup>th</sup> Street West of 4 <sup>th</sup> Avenue | 65.0   |

**Notes:**

- <sup>(1)</sup> A one hour noise level reading was measured at the closest sensitive receptor during the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest).
- <sup>(2)</sup> The Existing noise level was measured on May 15, 2003 between 2:00 a.m. and 3:00 a.m.

7.12.2 Future No-Build Conditions

7.12.2.1 *On-site Noise Levels*

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

7.12.2.2 *Off-site Noise Levels*

Off-site noise levels for the Future No-Build Conditions in 2006 were calculated utilizing the annual growth rates for traffic volume provided in Section O: Traffic of the CEQR Manual. Table 7.12-3 below presents the existing traffic volume and the Future No-Build traffic volume for the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest) during the daytime (if any) and nighttime.

**Table 7.12-3  
Off-site Noise Traffic Volume  
Hamilton Avenue Converted MTS**

| <b>Location</b>  | <b>Hour</b> | <b>Existing Traffic Volume</b> | <b>Future No Build Traffic Volume</b> |
|--|-------------|--------------------------------|---------------------------------------|
| <b>20<sup>th</sup> Street<br/>west of 4<sup>th</sup> Avenue</b>        | 2:00 a.m.   | 19                             | 20                                    |
| <b>20<sup>th</sup> Street<br/>west of 4<sup>th</sup> Avenue</b>        | 12:00 p.m.  | 307                            | 319                                   |
| <b>13<sup>th</sup> Street<br/>west of 4<sup>th</sup> Avenue</b>        | 9:00 a.m.   | 104                            | 109                                   |
| <b>13<sup>th</sup> Street<br/>west of 4<sup>th</sup> Avenue</b>        | 2:00 a.m.   | 14                             | 15                                    |
| <b>Prospect Avenue<br/>Westbound east of<br/>3<sup>rd</sup> Avenue</b> | 3:00 a.m.   | 89                             | 93                                    |

7.12.3 Potential Impacts with the Hamilton Avenue Converted MTS

7.12.3.1 *On-site Noise Levels*

Equipment assumed to be operating at the Hamilton Avenue Converted MTS and its reference noise levels used in the CEQR and Noise Code analysis are shown in Table 7.12-4. Spectral noise levels which were used in the Performance Standards analysis are shown in Table 7.12-5. The number and type of equipment assumed for this analysis was based on the Hamilton Avenue Converted MTS's peak design capacity.

Figure 7.12-1 shows the Hamilton Avenue Converted MTS layout and the locations of the points along the Hamilton Avenue Converted MTS boundary where overall noise predictions were calculated, and the predicted 55 dBA contour line.



**Table 7.12-4  
Equipment Modeled in the Noise Analysis and Referenced Noise Levels  
Hamilton Avenue Converted MTS**

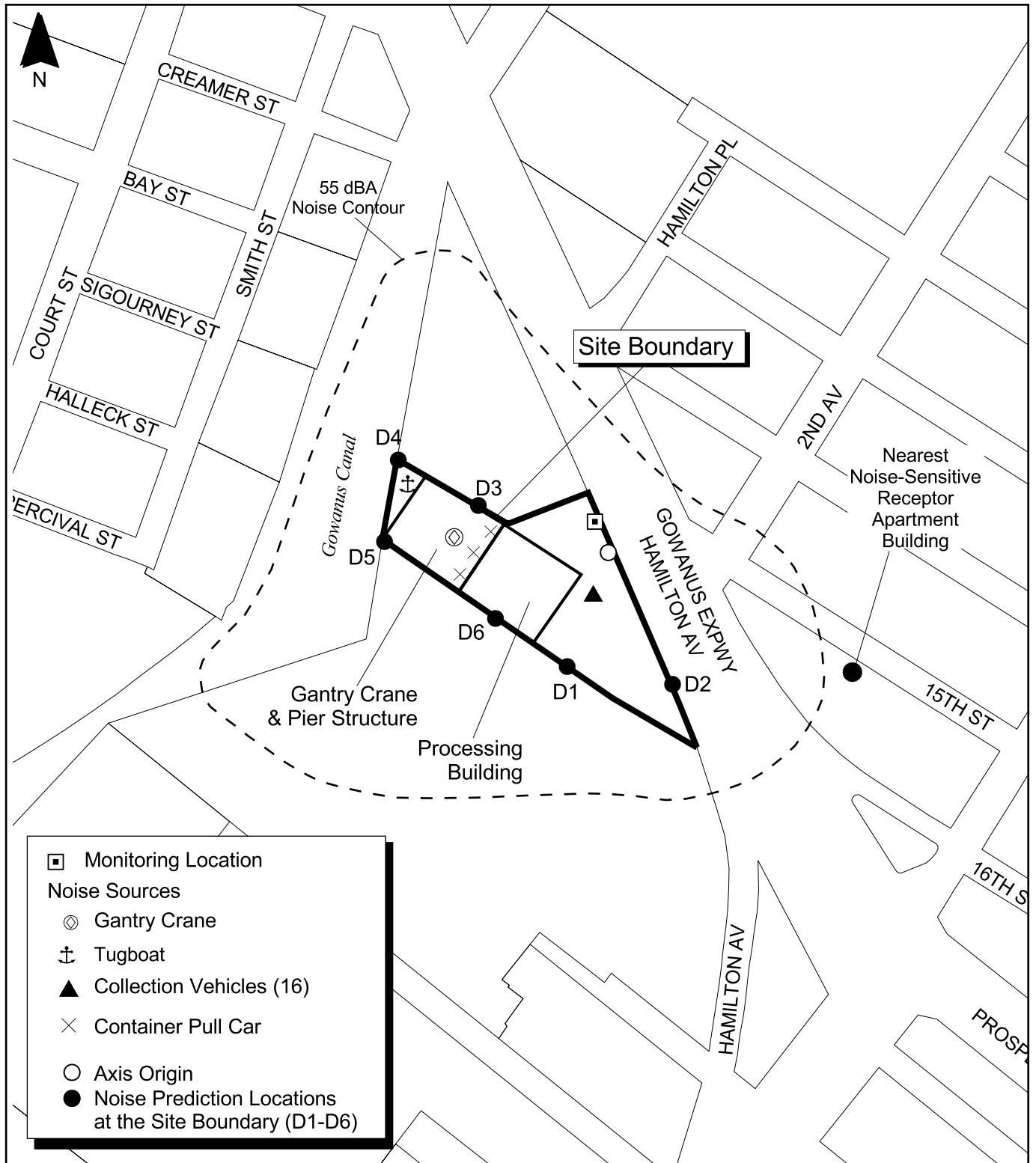
| <b>Equipment Name (quantity)</b>      | <b>Reference Noise Level <sup>(1)</sup><br/>at 50 feet (dBA)</b> |
|---------------------------------------|--|
| <b>Indoor</b>                         |  |
| Wheel Loaders (2)                     | 81   |
| Tamping Crane (1)                     | 81   |
| Bridge Crane (1)                      | 70   |
| Mini-Sweeper (1)                      | 76   |
| Moving/Queing Collection Vehicle (7)  | 73   |
| <b>Outdoor</b>                        |  |
| Moving/Queing Collection Vehicle (16) | 67   |
| Container Car Pullers (3)             | 45   |
| Gantry Cranes (1)                     | 78   |
| Oceangoing Tugboats (1)               | 73   |

**Note:**

<sup>(1)</sup> See Section 3.14.7.1 for sources.

**Table 7.12-5  
Equipment Modeled in the Noise Analysis and Spectral Noise Levels  
Hamilton Avenue Converted MTS**



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



- ▣ Monitoring Location
- Noise Sources
  - ⊙ Gantry Crane
  - ⚓ Tugboat
  - ▲ Collection Vehicles (16)
  - × Container Pull Car
- Axis Origin
- Noise Prediction Locations at the Site Boundary (D1-D6)

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



|   |  |   |
|---|--|---|
|  | <p><b>Figure 7.12-1 Noise Sources and Receptors</b></p> <p><b>Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>DEPARTMENT OF SANITATION</p> |  |
|---|--|---|

### *7.12.3.2 CEQR Analysis*

A screening analysis was conducted to determine if a detailed noise analysis would be required for the on-site operations at the Hamilton Avenue Converted MTS. Noise levels from indoor and outdoor sources were combined to determine the location of the 55 dBA contour line. The 55 dBA contour line is 214 meters (702 feet) from the property line in the direction of the nearest noise-sensitive receptor, which is 113 meters (372 feet) from the site boundary. The 55 dBA contour line was selected as a limit for the study area because 55 dBA, (i.e., the point off-site where noises generated on-site attenuate to 55 dBA), is considered an acceptable noise level in an urban environment. Section 3.14.5.1 discusses this concept in greater detail. The results of the screening analysis show that receptors are not located within the 55 dBA contour line, therefore, on-site noise monitoring and an on-site noise analysis was not required.

### *7.12.3.3 Performance Standards for Zoning Code Analysis*

Overall noise predictions were calculated at the locations of the points along the Hamilton Avenue Converted MTS boundary to determine the total noise level for each octave band from indoor and outdoor sources, not including DSNY and other agency collection vehicles, in accordance with the New York City Zoning Code Performance Standards for Manufacturing Districts (see Table 7.12-6). Based on this analysis, an exceedance of the Performance Standards is predicted. However, Hamilton Avenue Converted MTS is surrounded by water, Home Depot, a Highway and an Asphalt Plant, none of which are noise sensitive receptors. Therefore based on the Performance Standards, an impact is not predicted to occur at a noise sensitive receptor.

### *7.12.3.4 Noise Code Analysis*

Overall noise predictions were calculated at the locations of the points along the facility boundary to determine the Total  $L_{eq}$  from all indoor and outdoor sources. This is shown in Table 7.12-7. Based on this analysis, the Total  $L_{eq}$  does not exceed the Noise Code Standard of 70 dBA.

**Table 7.12-6  
Spectral Noise Analysis  
Hamilton Avenue Converted MTS**

| Manufacturing District<br>Regulation (M3) | Frequency Range |      |      |      |      |      |      |      |
|---|-----------------|------|------|------|------|------|------|------|
|   | 63              | 125  | 250  | 500  | 1K   | 2K   | 4K   | 8K   |
|   | 79              | 74   | 69   | 63   | 57   | 52   | 48   | 45   |
| Total Lp dB: D1                           | 73.1            | 68.4 | 58.9 | 55.7 | 51.2 | 41.9 | 33.1 | 23.0 |
| Total Lp dB: D2                           | 69.4            | 64.6 | 55.3 | 52.1 | 47.8 | 38.9 | 29.5 | 18.9 |
| Total Lp dB: D3                           | 82.0            | 74.2 | 71.7 | 68.5 | 67.1 | 61.8 | 52.4 | 44.2 |
| Total Lp dB: D4                           | 87.7            | 75.9 | 70.3 | 66.4 | 63.7 | 57.7 | 49.6 | 41.7 |
| Total Lp dB: D5                           | 81.0            | 71.0 | 67.1 | 63.7 | 61.9 | 56.3 | 46.7 | 37.9 |
| Total Lp dB: D6                           | 82.3            | 77.4 | 69.9 | 66.7 | 64.0 | 57.6 | 48.1 | 39.1 |

**Table 7.12-7  
Stationary Noise Analysis  
Hamilton Avenue Converted MTS**

| Location at Plant Boundary | Total L <sub>eq</sub> Contribution at Plant Boundary (dBA) |
|----------------------------|--|
| D1                         | 66.5   |
| D2                         | 65.3   |
| D3                         | 69.8   |
| D4                         | 66.7   |
| D5                         | 64.7   |
| D6                         | 66.3   |

7.12.3.5 Off-site Noise Analysis

A screening analysis was conducted to determine if a detailed analysis including noise monitoring would be required along the truck routes serving the Hamilton Avenue Converted MTS. As a result of this screening, which is described in Section 3.14.5.2, an off-site noise analysis was required. Screening results for the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest) during the daytime (if any) and nighttime are provided in Table 7.12-8 below.

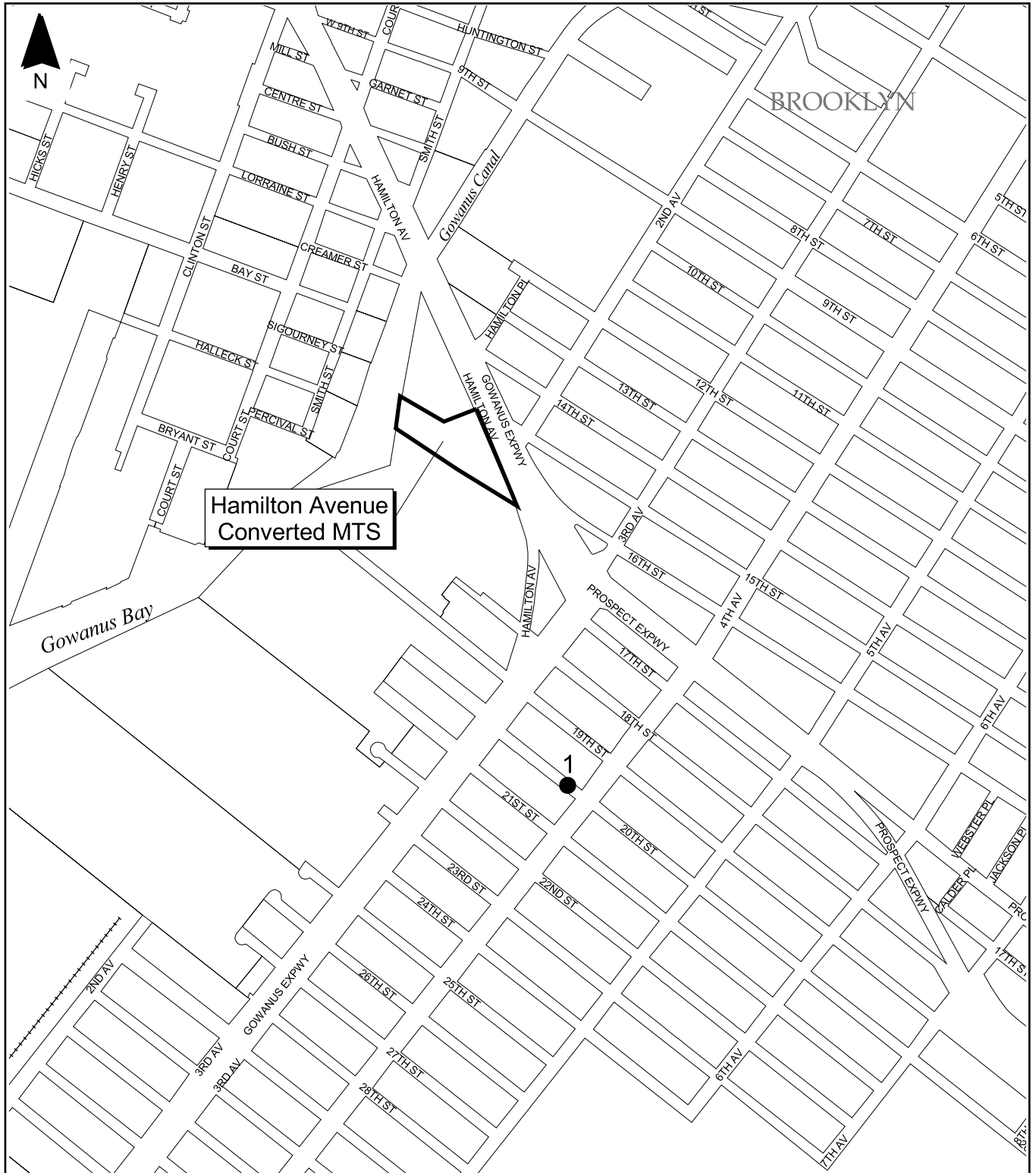
**Table 7.12-8  
Off-site Noise Screening Results  
Hamilton Avenue Converted MTS**

| Location   | Hour       | Future No-Build PCEs <sup>(1)</sup> | Collection Vehicles | Employee Vehicles | Future Build PCEs <sup>(1)(2)</sup> | Possible Impact <sup>(3)</sup> |
|--|------------|-------------------------------------|---------------------|-------------------|-------------------------------------|--------------------------------|
| 20 <sup>th</sup> Street west of 4 <sup>th</sup> Avenue | 2:00 a.m.  | 30                                  | 6                   | 0                 | 282                                 | Yes                            |
| 20 <sup>th</sup> Street west of 4 <sup>th</sup> Avenue | 12:00 p.m. | 2159                                | 13                  | 0                 | 611                                 | No                             |
| 13 <sup>th</sup> Street west of 4 <sup>th</sup> Avenue | 9:00 a.m.  | 312                                 | 5                   | 0                 | 235                                 | No                             |
| 13 <sup>th</sup> Street west of 4 <sup>th</sup> Avenue | 2:00 a.m.  | 131                                 | 0                   | 0                 | 0                                   | No                             |
| Prospect Avenue Westbound east of 3rd Avenue           | 3:00 a.m.  | 276                                 | 5                   | 0                 | 235                                 | No                             |

**Note:**

- <sup>(1)</sup> Total PCEs are rounded to the nearest whole number.
- <sup>(2)</sup> Future Build PCEs include Hamilton Avenue Converted MTS-related collection vehicles and employee vehicles.
- <sup>(3)</sup> There is a possible impact if the Future Build PCEs are double the Future No-Build PCEs

Because the screening results presented above showed that the PCEs would double on a roadway due to DSNY and other agency collection vehicles coming to or going from the Hamilton Avenue 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). Figure 7.12-2 shows the intersections analyzed. TNM results for locations/hours that resulted in a possible impact are presented in Table 7.12-9 below. The table shows existing background noise levels monitored at the nearest sensitive receptor at the roadway, TNM predicted noise levels for the existing traffic,



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



**Figure 7.12-2 Mobile Noise Analysis  
 Intersections Analyzed  
 Hamilton Avenue Converted MTS**

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TNM predicted Future No-Build noise levels for 2006 for the roadway, the number of Hamilton Avenue Converted MTS-related collection Vehicles and employee vehicles, TNM predicted Future Build noise levels for 2006 as a result of the Hamilton Avenue Converted MTS-related collection and employee vehicles, and the incremental change caused by these trucks, which is calculated by obtaining the difference between this TNM Future Build noise level and the TNM predicted Future No-Build noise level. Because this incremental change is greater than the CEQR threshold of 3 dBA at the nearest sensitive receptor an impact is predicted from the Hamilton Avenue Converted MTS -related collection and employee vehicles.

**Table 7.12-9  
Off-site Noise Analysis TNM Results  
Hamilton Avenue Converted MTS**

| <b>Location</b>   | <b>Hour</b>            | <b>Existing Background Noise Level<sup>(1)</sup> (Measured)</b> | <b>TNM Predicted Noise Level for Existing Traffic</b> | <b>TNM Future No-Build Noise Level</b> | <b>Collection Vehicles</b> | <b>Employee Vehicles</b> | <b>TNM Future Build Noise Level</b> | <b>Impact (Noise Level Difference)</b> |
|---|------------------------|---|---|--|----------------------------|--------------------------|-------------------------------------|--|
| <b>20<sup>th</sup> Street West of 4<sup>th</sup> Avenue</b> | 2:00 a.m. to 3:00 a.m. | 65.0  | 60.8  | 60.8                                   | 6                          | 0                        | 65.8                                | Yes (5)                                |

**Note:**

<sup>(1)</sup> Existing noise level and traffic count used for input into TNM was recorded on May 15, 2003.

To determine if this TNM predicted impact was accurate, site-specific truck simulations, were conducted with DSNY Collection Vehicles, as described in Section 3.14.7.2 for each roadway and hour identified by the first stage screening analysis to have potential impacts. The truck simulation analysis provides a more realistic determination of DSNY Collection Vehicle noise impacts based on the proposed number of DSNY Collection Vehicles expected to travel through the roadways during the nighttime hours. Table 7.12-10 below contains the results of the site-specific DSNY Collection Vehicle simulations, which show that only the 2:00 am to 3:00 am hour would have an impact as a result of the Hamilton Avenue Converted MTS-related collection vehicles. For comparison purposes, Table 7.12-11 contains the simulation results for the 2:00 am to 3:00 am hour and the TNM results for the same traffic conditions and background noise levels estimated from recordings during the simulations. As can be seen, TNM also predicts an impact during this hour, however TNM over predicted the incremental change caused by the Hamilton

Avenue Converted MTS-related collection vehicles for the roadways analyzed. The higher incremental change predicted by TNM, as discussed further in Section 3.14.7.2, can be attributed to the default assigned noise level for each type of vehicle, which appears to be greater than the actual noise levels that would be emitted by the Hamilton Avenue Converted MTS-related collection vehicles.

**Table 7.12-10**  
**Off-site Noise Analysis Truck Simulation**  
**20<sup>th</sup> Street West of 4<sup>th</sup> Avenue**  
**Hamilton Avenue Converted MTS**

| <b>Hour</b>     | <b>Existing Background Noise Level<sup>(1)</sup> (Estimated)</b> | <b>Collection Vehicles</b> | <b>Truck Simulation<sup>(2)</sup> Noise Level for Existing Traffic plus Collection Vehicles</b> | <b>Impact (Noise Level Difference)</b> |
|-----------------|--|----------------------------|---|--|
| <b>11:00 am</b> | 65.5   | 3                          | 67.1  | No (1.6)                               |
| <b>12:00 am</b> | 65.1   | 5                          | 66.9  | No (1.8)                               |
| <b>1:00 am</b>  | 65.3   | 4                          | 67.2  | No (1.9)                               |
| <b>2:00 am</b>  | 63.4   | 6                          | 67.0  | Yes (3.6)                              |
| <b>3:00 am</b>  | 67.0   | 4                          | 68.1  | No (1.1)                               |

**Note:**

- <sup>(1)</sup> Existing background noise levels were estimated from noise monitoring performed during the simulations.
- <sup>(2)</sup> Simulations performed on August 19, 2003 and August 20, 2003.



**Table 7.12-11**  
**Hamilton Avenue Converted MTS**  
**Off-site Noise Analysis – Comparison of Truck Simulation and TNM Results**

| <b>Location</b>  | <b>Hour</b> | <b>Existing Background Noise Level<sup>(1)</sup> (Measured)</b> | <b>Collection Vehicles</b> | <b>Truck Simulation Noise Level for Existing Traffic plus Collection Vehicles</b> | <b>Simulation Impact (Noise Level Difference)</b> | <b>TNM Predicted Existing Noise Level</b> | <b>TNM Predicted Noise Level for Build Condition</b> | <b>TNM Impact (Noise Level Difference)</b> | <b>Noise Level Difference between TNM and Truck Simulation<sup>(2)</sup></b> |
|--|-------------|---|----------------------------|---|---|---|--|--|--|
| 20 <sup>th</sup> Street West of 4 <sup>th</sup> Avenue | 2:00 a.m.   | 65.0  | 6                          | 67.0  | Yes (3.6)   | 60.8                                      | 65.8   | Yes (5)                                    | 3.1  |

**Notes:**

- <sup>(1)</sup> Existing noise level and traffic count used for input into TNM was recorded on August 19, 2003 and August 20, 2003.
- <sup>(2)</sup> The difference between Simulation Impact and Calibrated TNM Impact demonstrates that TNM over-predicts results.

Since both TNM and the site-specific truck simulations predict an impact at a receptor during the 2:00 am to 3:00 am hour for the 20<sup>th</sup> Street West of 4<sup>th</sup> Avenue location, adjustments were made to the distribution of trucks. Only the number of trucks that can be routed through this location without causing an impact will be allowed. The remaining collection vehicles will be routed through this location during the 3:00 am to 4:00 am hour without causing an impact. This location was reanalyzed during both of these hours with the adjustments using the average truck acoustic energy as described in Section 3.14.7.2 to confirm that off-site noise impacts would not be caused by the collection vehicles at this location. Table 7.12-12 shows the results of this analysis. Therefore, there is no predicted impact that would be caused by the Hamilton Avenue Converted MTS collection vehicles en route to and from the facility.

**Table 7.12-12**  
**Off-site Noise Analysis Truck Simulation**  
**20<sup>th</sup> Street West of 4<sup>th</sup> Avenue**  
**Hamilton Avenue Converted MTS**

| Hour             | Existing Background Noise Level <sup>(1)</sup> (Estimated) | Adjusted Collection Vehicles | Calculated <sup>(2)</sup> Noise Level for Existing Traffic plus Adjusted Collection Vehicles | Impact (Noise Level Difference) |
|------------------|--|------------------------------|--|---------------------------------|
| <b>2:00 a.m.</b> | 63.4   | 4                            | 66.1   | No (2.7)                        |
| <b>3:00 a.m.</b> | 67.0   | 6                            | 68.6   | No (1.6)                        |

**Note:**

- <sup>(1)</sup> Existing background noise levels were estimated from noise monitoring performed during the simulations.
- <sup>(2)</sup> Noise Levels for Existing traffic plus adjusted collection vehicles were calculated utilizing the per truck acoustic energy determined from the truck simulation data for this location.

## **7.13 Infrastructure & Energy**

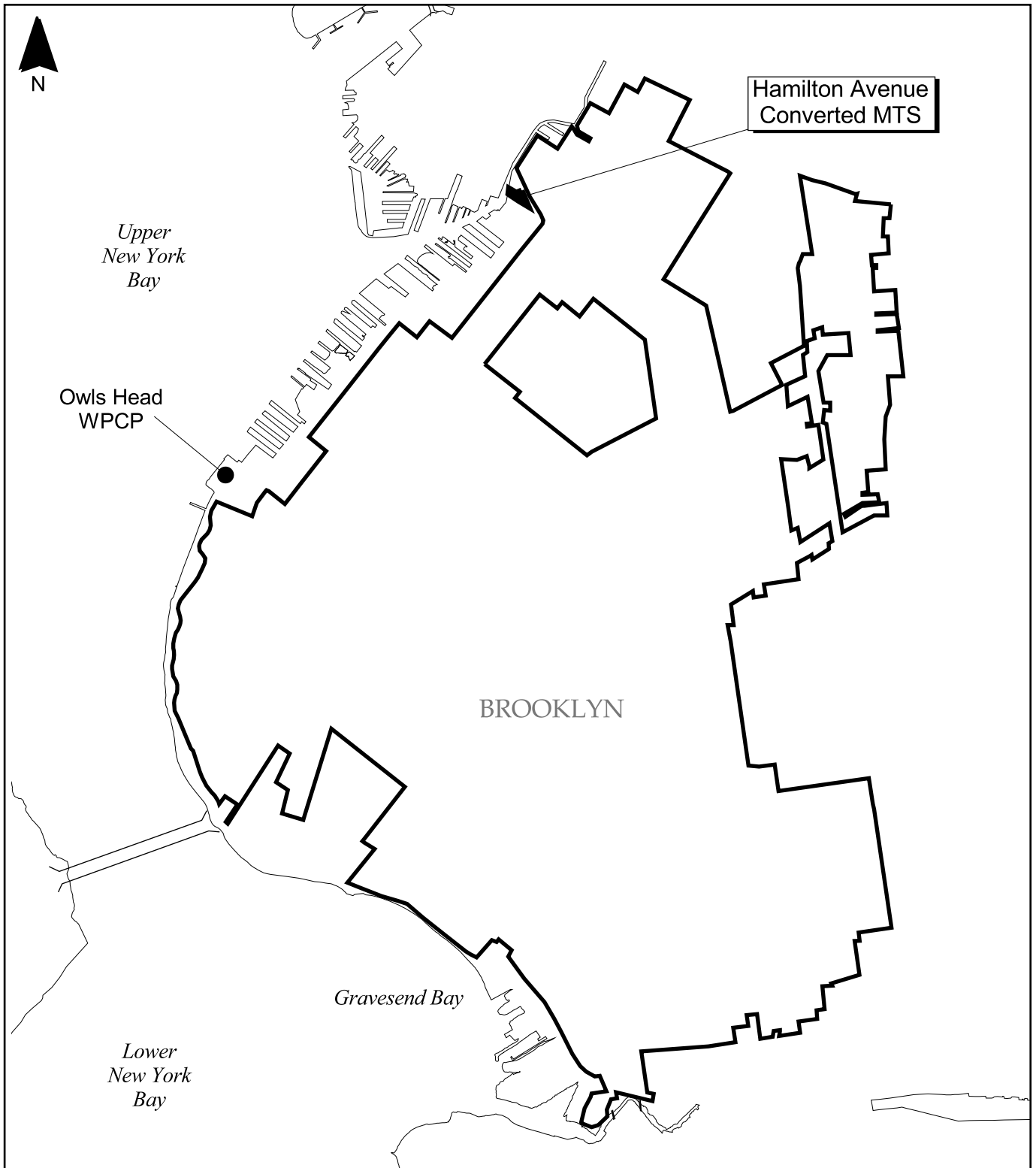
### 7.13.1 Existing Conditions

#### *7.13.1.1 Water Supply*

Water is supplied to the existing Hamilton Avenue MTS from the Delaware and Catskill reservoir systems through the City's municipal water distribution system. An 8-inch diameter pipe that runs along Hamilton Avenue provides potable water for both potable and sanitary requirements. There is a 20-inch high-pressure fire system water main that flows south under the Gowanus Expressway along 3<sup>rd</sup> Avenue. Water pressure throughout the City system is generally about 20 pounds per square inch (psi), which is the minimum pressure acceptable for uninterrupted service (CEQR Technical Manual, 2001).

#### *7.13.1.2 Sanitary Sewage and Storm Water*

A review of NYCDEP infiltration and inflow (I&I) maps shows that the site is served by the Owls Head WPCP, which serves a large portion of Brooklyn. The WPCP drainage area is illustrated in Figure 7.13-1. From July 2001 through June 2002, the WPCP treated an average of 96 million gallons per day (mgd) of wastewater during dry weather flow (Table 7.13-1). The maximum dry weather flow during this period was 104 mgd during September 2001. Effluent from the plant is discharged to Upper New York Bay and is regulated by NYSDEC under the State Pollutant Discharge Elimination System (SPDES). The current SPDES permit limit for flow to the Owls Head WPCP is 120 mgd. It is estimated that current on-site employee water usage at the existing Hamilton Avenue MTS is about 75 gallons per day (gpd). This estimate is based on three security employees (one employee per shift, three shifts per day) using 25 gallons per person per day (CEQR Technical Manual, 2001). As the facility is not currently accepting waste, no additional potable water is used and no operational personnel are assigned to the site.



Site delineations are approximate.

3000 0 3000 Feet



**Figure 7.13-1 Existing WPCP Drainage Area  
Hamilton Avenue Converted MTS**

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**Table 7.13-1**  
**Average Monthly Dry Weather Flows**  
**Owls Head Water Pollution Control Plant**  
**Fiscal Year 2002**

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

*7.13.1.3 Solid Waste*

ased on solid waste generation information from the CEQR Technical Manual, it was estimated that each of the three security employees at the existing MTS produces approximately nine 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.

*7.13.1.4 Energy*

Consolidated Edison supplies electricity to the facility through electric lines running along Hamilton Avenue. The Hamilton Avenue MTS currently utilizes a negligible amount of electricity due to the low staffing levels for security purposes only. No gas is currently supplied to the facility, but utility maps from KeySpan show that there is a 1.5-inch gas main that runs southbound along Hamilton Avenue.

### 7.13.2 Future No-Build Conditions

The Hamilton Avenue 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.

### 7.13.3 Potential Impacts with the Hamilton Avenue Converted MTS

#### *7.13.3.1 Water Supply*

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

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

#### *7.13.3.2 Sanitary Sewage*

Based on the estimated water usage of 1,605 gpd for the Hamilton Avenue Converted MTS, the small quantities of wastewater sent to the Owl's Head WPCP would not significantly impact the sewage flow rate or the ability of the Owl's Head WPCP to meet its SPDES permit limits. The Owl's Head facility treated an average of 96 mgd for fiscal year 2002 and has a design operating capacity of 120 mgd.

#### *7.13.3.3 Solid Waste*

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

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

#### *7.13.3.4 Energy*

The Hamilton Avenue Converted MTS would require approximately 1.14E+10 BTU/year of electricity. Natural gas facility heating would be used with an estimated demand of 1.34E+07 BTU/year.

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

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

## 7.14 Natural Resources

### 7.14.1 Existing Conditions

Existing Conditions include 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 Hamilton Avenue Converted MTS.

#### 7.14.1.1 *Definition of Study Area*

The study area includes the site and the waterfront section that is bounded by the Gowanus Canal to the north (Figure 2.5.1). The upland portions of the site and the surrounding neighborhood parcels are fully developed and contain very limited terrestrial natural resources. Such resources that do exist are discussed in following sections. Because Future Build Conditions would include dredging of bottom sediments and construction of a new MTS, a description of aquatic communities is included.

#### 7.14.1.2 *Geology*

Based upon site borings prepared by the City's DPW Subsurface Exploration Section, the depth to bedrock at the site is in excess of 100 feet.<sup>6</sup> Overburden consists of unconsolidated alternating sands, silts, and clays of glacial or pre-glacial origin, which extend more than 60 feet in depth. Soft gray organic silts of suspected recent origin with an average thickness of approximately 6 feet overlie the glacial deposits. These deposits are overlain by miscellaneous fill comprised of sand, gravel, and cinders, which range from 5 feet to 10 feet in thickness.

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<sup>6</sup> Engineering Report on the Hamilton Avenue Marine Transfer Station Solid Waste Management Facility, 1995. Prepared for NYSDEC and DSNY by HydroQual, Inc.



Results of the sediment samples collected for analysis in 2003 show that surficial sediment is characterized as dark brown, gravelly sand with traces of silt on the east side of the study area and grey to dark brown silt and clay with traces of fine grained sand in front of and to the west of the existing MTS. Sediment was found to contain approximately 40,000 mg/Kg total organic carbon and were somewhat degraded by contaminants in the sample material.

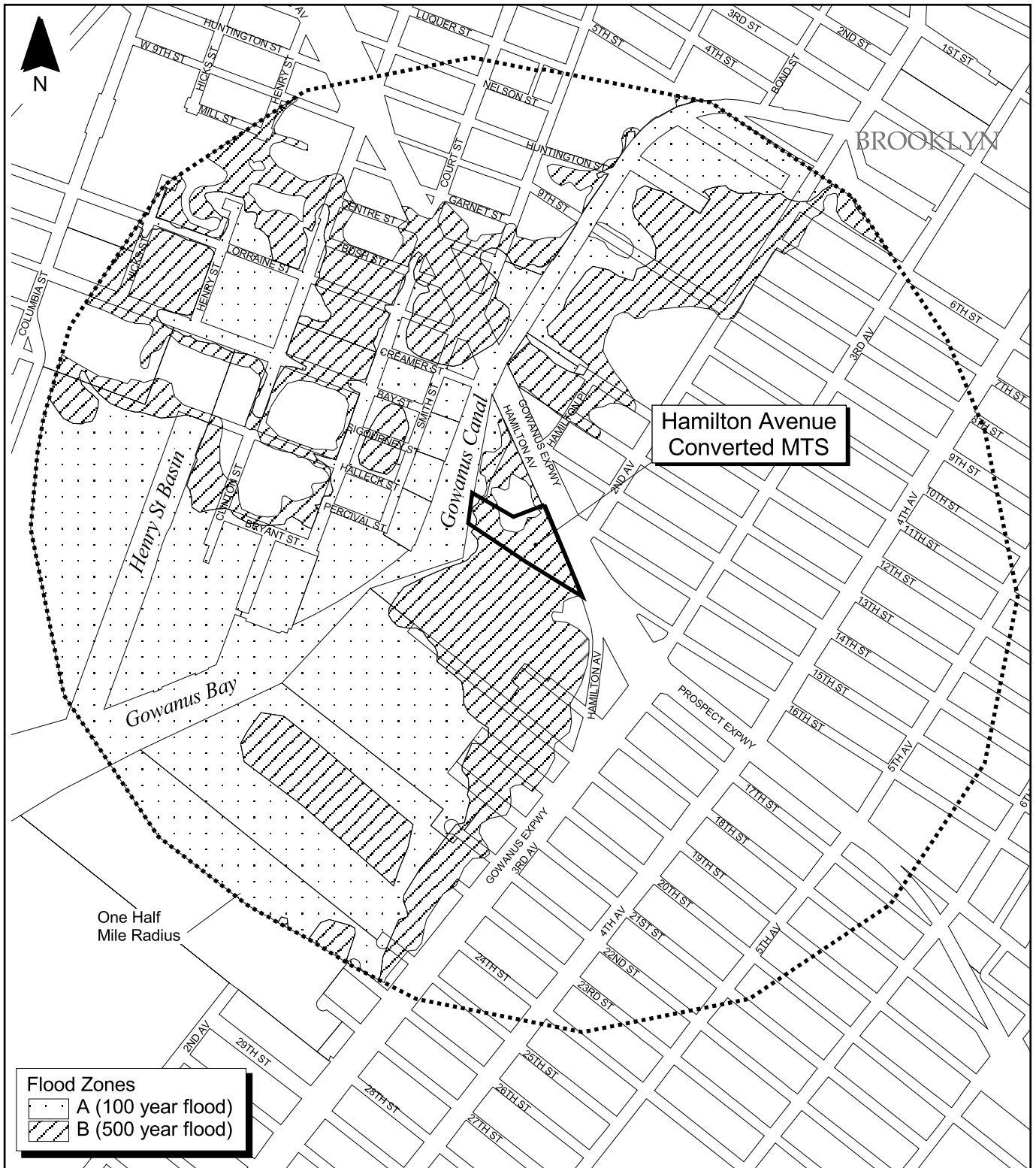
#### 7.14.1.3 Floodplains

The site is constructed within the 100-year coastal floodplain (Figure 7.14-1). No intertidal wetlands exist on the site. Gowanus Canal, which is a NYSDEC-designated littoral zone, is a part of the study area (Figure 7.14-2).

#### 7.14.1.4 Ecosystems

Vegetative cover on the site was confined to the outer edges of the upland portions between the existing MTS and the fence, and around the outer edges of the incinerator building. The vegetative cover was too sparse in these areas to be mapped. Various opportunistic plant species are present on the site, including mugwort (*Artemisia vulgaris*), Queen Anne's lace (*Daucus carota*), poor-man's pepper (*Lepidium virginicum*), seaside goldenrod (*Solidago semper virens*), green foxtail (*Setaria viridis*), common reed (*Phragmites australis*), pokeweed (*Phytolacca americana*), and poison ivy (*Rhus radicans*). Saplings of tree-of-heaven (*Ailanthus altissima*) were observed in the vicinity of the ramp to the existing MTS and along the outside of the incinerator building. The NYSDEC Natural Heritage Program does not list any rare or endangered plant species as being present in the study area.

A field program that commenced in January 2003 and is scheduled to end in December 2003 was designed to fully characterize the marine biological resources of the study area. The program includes monthly sampling for finfish eggs and larvae and quarterly sampling for benthic organisms and sessile colonizing organisms. Results of the program through the second quarter samplings are included in this Draft MTS Environmental Review. Results of the annual program will be included in the Final MTS Environmental Review. The results of benthic invertebrate studies for the current program directly around the study area were not fully analyzed at the time of this writing, but are expected to show that the study area supports primarily stressed, opportunistic species of polychaete worms (*Streblospio benedicti*).



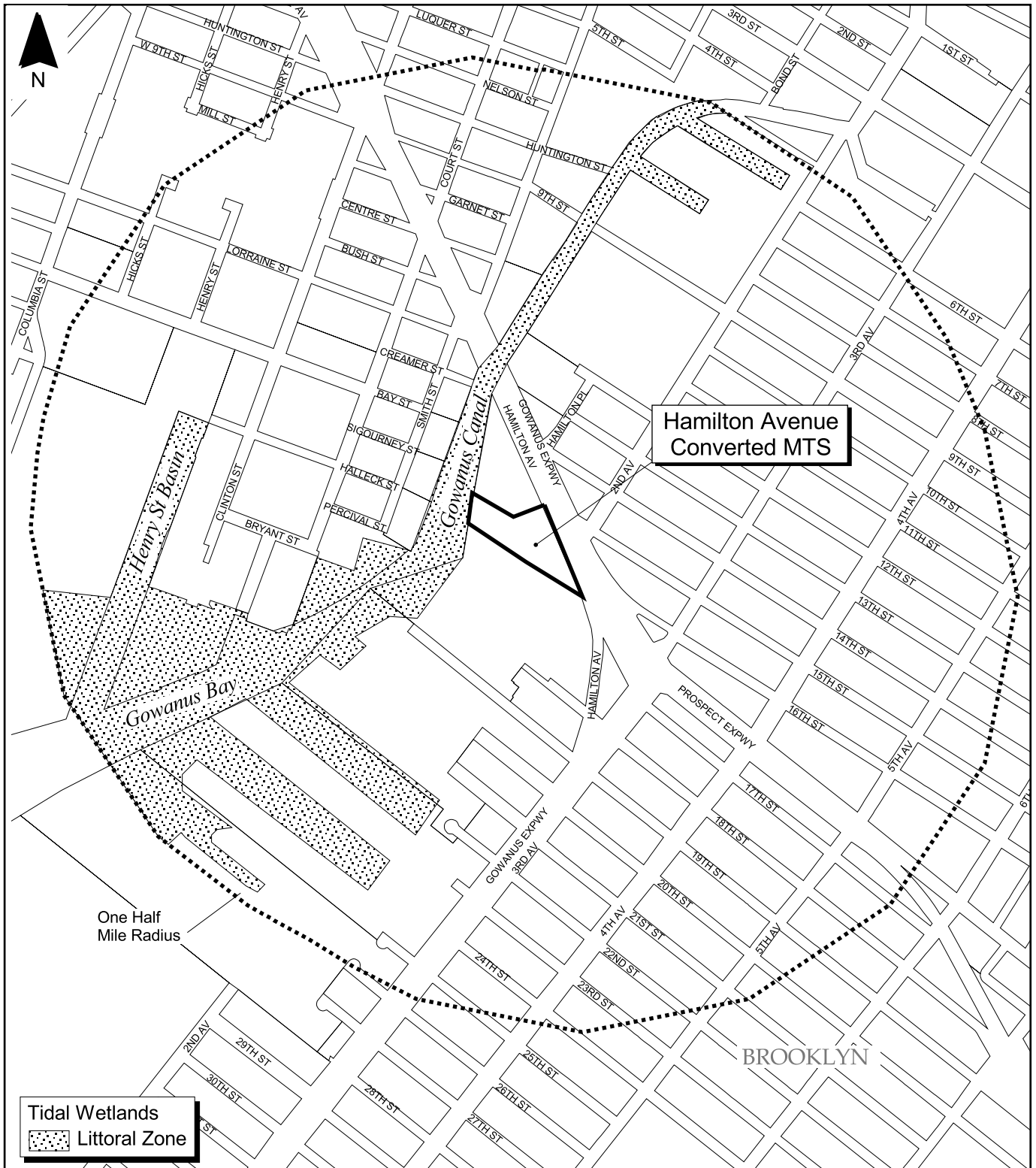
Site delineations and study area boundaries are approximate.  
 Base Map Source: New York City Department of City Planning



**Figure 7.14-1 Floodplains**  
**Hamilton Avenue Converted MTS**

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

500 0 500 Feet



**Figure 7.14-2 Wetlands**  
**Hamilton Avenue Converted MTS**

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Smaller forms, such as *ampeliscids* are undoubtedly present. Larvae of winter flounder (*Pseudopleuronectes americanus*) and Atlantic herring (*Clupea harengus*), two EFH listed species, were collected from the study area. Additionally, larvae of the American sand lance (*Ammodytes americanus*), fourbeard rockling (*Enchelyopus cimbrius*), and sculpin (*Myoxocephalus sp.*), and eggs and larvae of the rock gunnel (*Pholis gunnelus*) were found to be present.

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

#### 7.14.2 Future No-Build Conditions

The study area would remain as it is at present, except for removal of the incinerator. The limited aquatic and terrestrial natural resources would remain, and the study area would continue to be an impacted urban area dominated by opportunistic species of vegetation and marine organisms.

#### 7.14.3 Potential Impacts with the Hamilton Avenue Converted MTS

The Hamilton Avenue Converted MTS would involve removal of the existing MTS and construction of a new facility on the incinerator site. A new pier that would be constructed in the area of the existing MTS building would occupy a little more than half the space of the present over-water structure. Dredging may also be necessary to accommodate the barges. The Hamilton Avenue Converted MTS would result in an increase of ecologically productive open water space and pose no adverse ecological impacts other than the temporary loss of benthic organisms from dredging activities and no loss of habitat to rare or endangered species.

##### 7.14.3.1 Geology

The geology of the study area would not be impacted other than dredging activities, which would remove layers of sediments deposited over time, but not result in any significant impact.

#### *7.14.3.2 Floodplains*

Implementation of the Hamilton Avenue Converted MTS would have no effect on the elevation of the site. The facility would be constructed within the 100-year floodplain, and it would not include any provisions for raising any portions of the site over this level.

#### *7.14.3.3 Ecosystems*

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 site since its original construction. Therefore, no impacts on the terrestrial natural resources are anticipated.

Dredging activities would result in an immediate, short-term destruction of the macrobenthic invertebrates in the area, and the removal of the existing pilings and MTS would result in loss of habitat for attached organisms. Recolonization of the area by macrobenthic invertebrates can be expected to occur within 6 months to 12 months after cessation of dredging activities. Given the relatively small size of the project, minimal impact is expected from the removal of the existing MTS, and the new pier structure would provide habitat for attached organisms. In addition, the increase in open water area should create more ecologically productive habitat for finfish.

## 7.15 Water Quality

### 7.15.1 Existing Conditions

#### 7.15.1.1 Definition of Study Area

The water quality study area encompassed Gowanus Bay, Gowanus Channel and Upper New York Bay, and included discharges from point sources and CSOs located within ½ mile of the site.

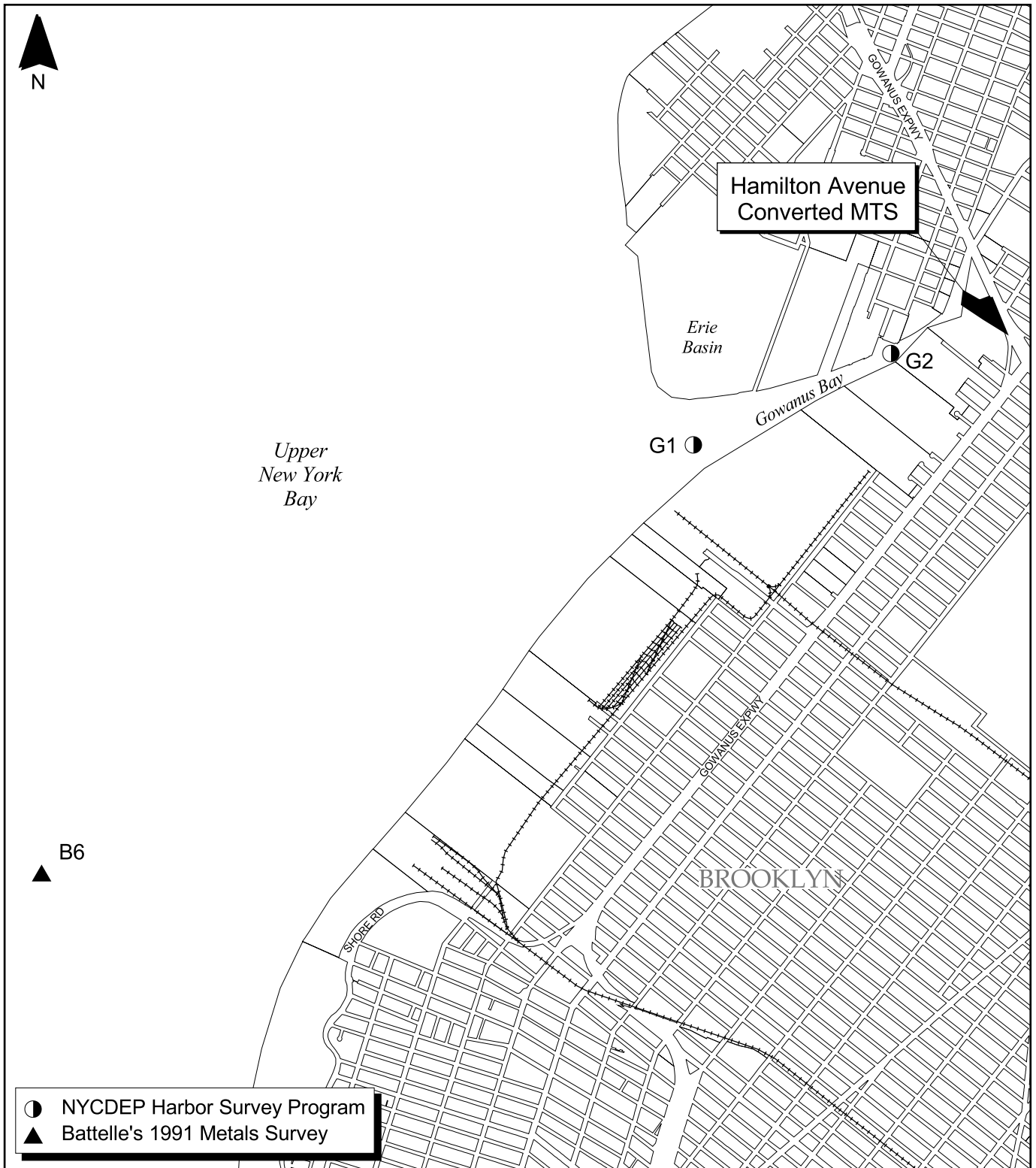
#### 7.15.1.2 Water Quality

The water quality data for the following monitoring stations, shown in Figure 7.15-1, are generally representative of conditions in the study area:

- NYCDEP Harbor Survey Program – Stations G-1 at Gowanus Bay and G-2 at Gowanus Channel; and
- Battelle’s 1991 Metals Survey – Station B-6 in Upper New York Bay.

These data, along with NYSDEC’s water quality standards and guidance values are presented in Table 7.15-1. The standards and guidance values for the waters in the vicinity of the site correspond to “Class SD,” which indicates fish survival only.

As shown in Table 7.15-1, on average NYSDEC standards and guidance values are met. For Harbor Survey Program station G2, however, the minimum surface and bottom dissolved oxygen between June 1, 2002, and September 30, 2002, did not meet the water quality standards for dissolved oxygen. In addition, the mercury concentration for Battelle Station B-6 did not conform to the water quality standard for mercury.



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

1000 0 1000 Feet



**Figure 7.15-1 Ambient Water Quality Stations**  
**Hamilton Avenue Converted MTS**

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**Table 7.15-1  
Existing Water Quality Conditions and Standards  
Hamilton Avenue Converted MTS Study Area**

| Average Concentration              |         |  |  |                           |                           |
|------------------------------------|---------|--|--|---------------------------|---------------------------|
| Parameter                          | Units   | Station G1 <sup>(1)</sup>              | Station G2 <sup>(2)</sup>                | Station B6 <sup>(3)</sup> | NYS Class SD Standard     |
| Dissolved Oxygen (surface/minimum) | mg/L    | 7.2 <sup>(4)</sup> /4.0 <sup>(5)</sup> | 6.74 <sup>(6)</sup> / 2.5 <sup>(7)</sup> | -----                     | 3.0                       |
| Dissolved Oxygen ((bottom/minimum) | mg/L    | 7.0 <sup>(8)</sup> /3.7 <sup>(5)</sup> | 5.5 <sup>(9)</sup> / 2.8 <sup>(7)</sup>  | -----                     | 3.0                       |
| BOD (surface)                      | mg/L    | 2.4 <sup>(10)</sup>                    | 2.3 <sup>(10)</sup>                      | -----                     | -----                     |
| BOD (bottom)                       | mg/L    | 2.4 <sup>(10)</sup>                    | 2.5 <sup>(10)</sup>                      | -----                     | -----                     |
| Total Coliform (surface)           | MPN/100 | 970 <sup>(11)</sup>                    | 1,945 <sup>(11)</sup>                    | -----                     | -----                     |
| Total Coliform (bottom)            | MPN/100 | 407 <sup>(11)</sup>                    | 985 <sup>(11)</sup>                      | -----                     | -----                     |
| Fecal Coliform (top)               | MF      | 15                                     | 236                                      | -----                     | -----                     |
| Fecal Coliform (bottom)            | MF      | 5                                      | 20 <sup>(12)</sup>                       | -----                     | -----                     |
| Total Suspended Solids (surface)   | mg/L    | 6                                      | 129                                      | -----                     | -----                     |
| Total Suspended Solids (bottom)    | mg/L    | 8                                      | 17                                       | -----                     | -----                     |
| NH3-N                              | mg/L    | 0.362                                  | 0.301                                    | -----                     | -----                     |
| (NO3 + NO2)                        | mg/L    | 0.341                                  | 0.369                                    | -----                     | -----                     |
| Total Phosphorous                  | mg/L    | 0.468 <sup>(13)</sup>                  | 0.510 <sup>(13)</sup>                    | -----                     | -----                     |
| Dissolved PO4                      | mg/L    | -----                                  | -----                                    | -----                     | -----                     |
| Chlorophyll-a                      | µg/L    | 5.5                                    | 9.6                                      | -----                     | -----                     |
| Arsenic                            | µg/L    | -----                                  | -----                                    | 1 <sup>(14)</sup>         | 120 <sup>(14,15)</sup>    |
| Cadmium                            | µg/L    | -----                                  | -----                                    | 0.06 <sup>(14)</sup>      | 21 <sup>(14,15)</sup>     |
| Chromium                           | µg/L    | -----                                  | -----                                    | -----                     | -----                     |
| Copper                             | µg/L    | -----                                  | -----                                    | 1.15 <sup>(16)</sup>      | 7.9 <sup>(15,16)</sup>    |
| Lead                               | µg/L    | -----                                  | -----                                    | 1.14 <sup>(14)</sup>      | 204 <sup>(14,15)</sup>    |
| Mercury                            | µg/L    | -----                                  | -----                                    | 0.0039 <sup>(14)</sup>    | 0.0026 <sup>(14,15)</sup> |
| Nickel                             | µg/L    | -----                                  | -----                                    | 0.78 <sup>(14)</sup>      | 74 <sup>(14,15)</sup>     |
| Silver                             | µg/L    | -----                                  | -----                                    | 1.1000 <sup>(17)</sup>    | 2.3 <sup>(15,17)</sup>    |
| Zinc                               | µg/L    | -----                                  | -----                                    | 4.85 <sup>(14)</sup>      | 95 <sup>(14,15)</sup>     |
| Cyanide                            | µg/L    | -----                                  | -----                                    | -----                     | 1.0 <sup>(15)</sup>       |

**Notes:**

- <sup>(1)</sup> Average concentrations for 1999 NYCDEP Harbor Survey Station G-1, located in Gowanus Bay.
- <sup>(2)</sup> Average concentrations for 2002 NYCDEP Harbor Survey Station G-2, located in the Gowanus Channel.
- <sup>(3)</sup> Average concentrations for 1991 Battelle Ambient Survey Station B-6, located in Upper New York Bay.
- <sup>(4)</sup> Represents average between February and December 1999.
- <sup>(5)</sup> Minimum between June 1, 1999 and September 30, 1999
- <sup>(6)</sup> Represents average between January and December 2002.
- <sup>(7)</sup> Minimum between June 1, 2002 and September 30, 2002.
- <sup>(8)</sup> Represents average between February and October 1999.
- <sup>(9)</sup> Represents average between June and December 2002.
- <sup>(10)</sup> Latest available data 1997.
- <sup>(11)</sup> Latest available data 1996.
- <sup>(12)</sup> Latest available data 1999.
- <sup>(13)</sup> Latest available data 1998.
- <sup>(14)</sup> Guidance value and data are for dissolved metals.
- <sup>(15)</sup> NYSDEC Guidance value (NYSDEC TOGS 1.1.1, June 1998, errata sheet January 1999 and addendum April 2000).
- <sup>(16)</sup> Site specific chronic and acute criteria for dissolved copper in NY/NJ Harbor.
- <sup>(17)</sup> Guidance value and data are for acid-soluble metal.



### *7.15.1.3 Permitted Discharges*

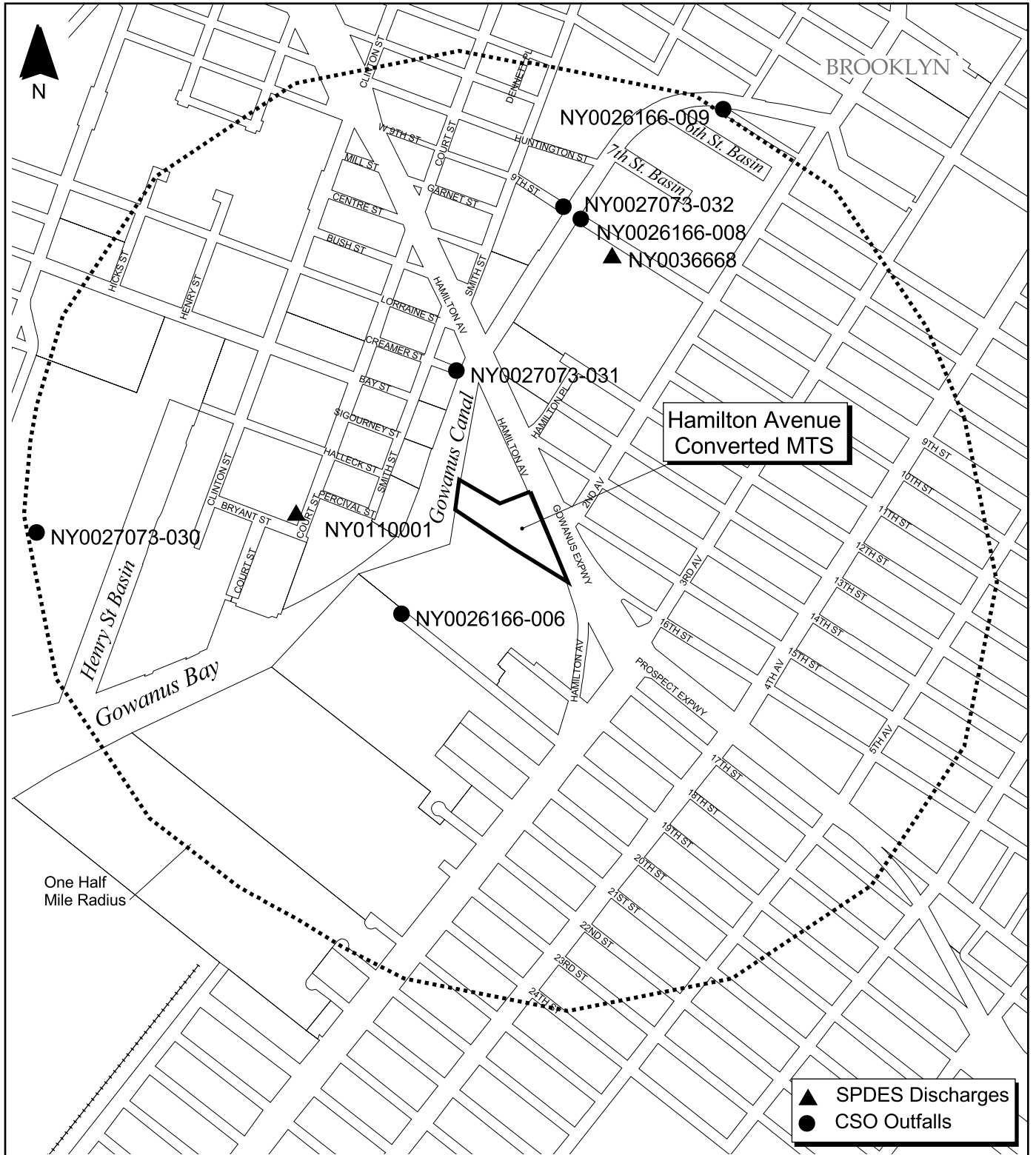
A review of the most recently available NYSDEC and USEPA databases indicated that there are several permitted discharges in the vicinity of the site. Those within a ½-mile radius of the Hamilton Avenue Converted MTS site are shown in Figure 7.15-2 and listed in Table 7.15-2. These discharges consist of six combined sewer outflows (CSO) and two industrial sites, all of which are permitted by the NYSDEC.

### *7.15.1.4 Existing Pollutant Loads and Stormwater Runoff*

Using available databases on stormwater pollutant concentrations and local precipitation data, estimates of stormwater pollutant loadings were calculated. The existing paved areas were assumed to be completely impervious, and the existing unpaved areas were assumed to have 100 percent storage and infiltration. A runoff flow of 0.255 cfs was calculated using the impervious site area (4.24 acres), an average rainfall intensity per storm of 0.06 inches/hour, and a runoff coefficient set equal to one. The resulting stormwater loads, shown in Table 7.15-3, represent the existing loads at the site.

## **7.15.2 Future No-Build Conditions**

Water quality would be expected to remain the same or improve. Water quality improvements would be due to ongoing water improvement programs, such as NYCDEP CSO Abatement Program, which will reduce untreated discharges to the receiving waterways, nitrogen removal activities, which will reduce nitrogen loads from New York City WPCPs, and other programs. Stormwater loads from the 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



**Figure 7.15-2 Permitted Outfalls  
 and CSO Locations  
 Hamilton Avenue Converted MTS**

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**Table 7.15-2  
Existing Permitted Discharges  
Hamilton Avenue Converted MTS Study Area**

| <b>Combined Sewer Overflows (CSOs)</b> |                      |               |                             |
|--|----------------------|---------------|-----------------------------|
| <b>WPCP/Outfall Location</b>           | <b>Permit Number</b> | <b>County</b> | <b>Receiving Water Body</b> |
| Owl's Head/5th St.                     | NY0026166-009        | Kings         | Gowanus Canal               |
| Owl's Head/19 <sup>th</sup> St.        | NY0026166-006        | Kings         | Gowanus Canal               |
| Red Hook/Creamer St. G.                | NY0027073-031        | Kings         | Gowanus Canal               |
| Red Hook/W. 9th St.                    | NY0027073-032        | Kings         | Gowanus Canal               |
| Owl's Head/E. 9th St.                  | NY0026166-008        | Kings         | Gowanus Canal               |
| Red Hook/Port Authority Grain Terminal | NY0027073-030        | Kings         | Gowanus Bay                 |
| <b>Point Sources</b>                   |                      |               |                             |
| <b>Company Name</b>                    | <b>Permit Number</b> | <b>County</b> | <b>Receiving Water Body</b> |
| Universal Fixture Corp.                | NY0036668            | Kings         | Gowanus Canal               |
| Amerada Hess Corp.                     | NY0110001            | Kings         | Gowanus Canal               |

**Table 7.15-3  
Estimated Existing Pollutant Loads and Runoff Flows  
Hamilton Avenue Converted MTS Study Area**

| <b>Pollutant</b>   | <b>Concentration</b> | <b>Pollutant Loading (lbs/day)</b> |
|--|----------------------|------------------------------------|
| Fecal Coliform MPN/100 mL  | 34,000               | 46,659 <sup>(1)</sup>              |
| BOD mg/L   | 11                   | 15                                 |
| <b>Heavy Metals</b>  |                      |                                    |
| Copper µg/L  | 35                   | 0.048                              |
| Lead µg/L  | 28                   | 0.038                              |
| Zinc µg/L  | 154                  | 0.211                              |
| Total Impervious Area (acre) = 4.24                                    |                      | Runoff Coefficient (C) = 1.00      |
| Average Rainfall Intensity per Storm (inch/hour) = 0.06 <sup>(2)</sup> |                      | Runoff Flow (cfs) = 0.255          |

**Notes:**

<sup>(1)</sup> Coliform loads are not shown in pounds/day. Values shown are input to the 208 Model, with output results comparable to MPN/100 mL.

<sup>(2)</sup> Based on Central Park Rain Data (1969-1993); The National Climatic Data Center.

### 7.15.3 Potential Impacts with the Hamilton Avenue Converted MTS

With the development and operation of the Hamilton Avenue Converted MTS, the overall area of the site would decrease. This would effectively decrease the impervious area and therefore the stormwater loadings at the site. Table 7.15-4 shows the existing impervious area, the change in impervious area, and pollutant loads. With the development of the, conditions would not be significantly different from Future No-Build conditions.

All solid waste processing at the Hamilton Avenue Converted MTS would occur within the structures on the site. All process wastewater from waste handling operations at the facility, such as washdown water, would be routed to an on-site pretreatment system (e.g., oil/water separation). After pretreatment, the process water would be discharged to the municipal sewer system and, ultimately, to the Owl's Head WPCP, where it would be treated prior to discharge to New York Bay. Therefore, the Hamilton Avenue Converted MTS would not affect water quality.

**Table 7.15-4  
Impervious Area and Estimated Pollutant Loads  
Hamilton Avenue Converted MTS**

| Conditions              | Total Impervious Area (acres) | Change in Impervious Area (acres) | Estimated Pollutant Loadings/Incremental Change <sup>(1)</sup> |               |                  |                |                |
|-------------------------|-------------------------------|-----------------------------------|--|---------------|------------------|----------------|----------------|
|                         |                               |                                   | Fecal Coliform <sup>(2)</sup>                                  | BOD (lbs/day) | Copper (lbs/day) | Lead (lbs/day) | Zinc (lbs/day) |
| Existing Conditions     | 4.24                          | 0.0                               | 46,659/NA  | 15/NA         | 0.048/NA         | 0.038/NA       | 0.211/NA       |
| Future Build Conditions | 3.87                          | -0.37                             | 42,513/-4,146  | 14/-1         | 0.044/-0.004     | 0.035/-0.003   | 0.193/-0.018   |

**Notes:**

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

Unimpeded operation of the Hamilton Avenue Converted MTS may also require dredging activities to construct the waterfront structures and to improve existing water depths in the immediate vicinity of the site. All dredging activities would be conducted in compliance with applicable federal, state, and local regulations and required permits would be acquired before any

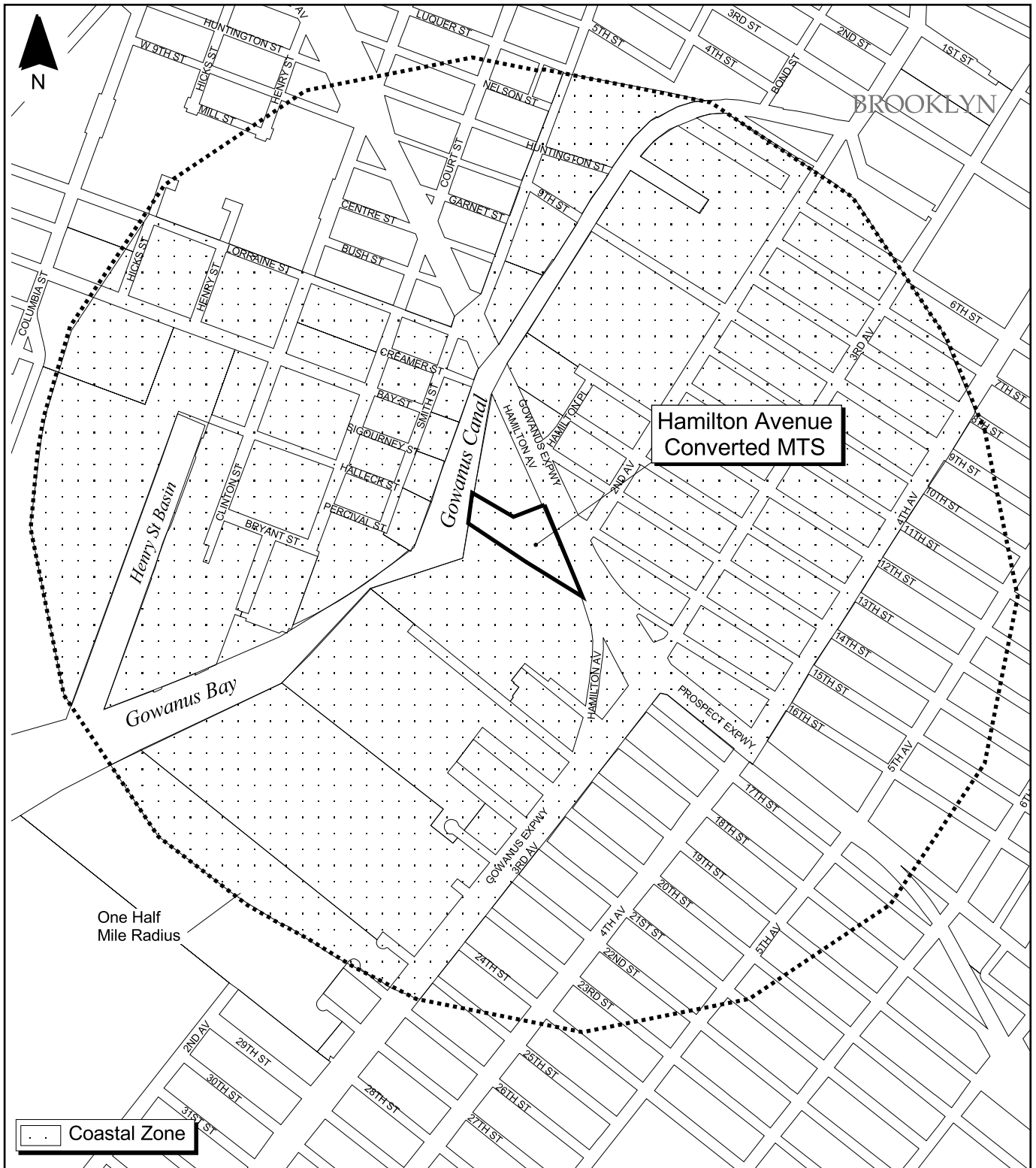
such activities commenced. Applicable and appropriate measures (e.g., closed clamshell buckets, silt curtains, etc.) would be implemented during any and all dredging activities to minimize and/or eliminate any short-term impacts to local water quality. Short-term impacts could include an increase in turbidity during active dredging operations; however, dredging would not be expected to result in any significant adverse long-term impacts.

## **7.16 Waterfront Revitalization Program**

### 7.16.1 Introduction

The Federal Coastal Zone Management Act of 1972 established coastal zone management programs to preserve, protect, develop and restore the coastal zone of the U.S. Due to its proximity to the waterfront of Gowanus Canal and Gowanus Bay, the Hamilton Avenue Converted MTS would be within New York City's coastal zone boundary (Figure 7.16-1). According to the "New Waterfront Revitalization Program," the Hamilton Avenue Converted MTS would be classified as a water-dependent, industrial use. It would be located within the DCP-designated Sunset Park SMIA, within Reach 14 East River/Upper Bay as indicated within the "New York City Comprehensive Waterfront Plan" and the "Plan for the Brooklyn Waterfront." It is, therefore, 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 Hamilton Avenue 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. These included subpolicies 1.1, 1.2, 2.2, 3.1, 4.4, 6.2, 6.3 and 8.5. All policies and subpolicies, including those identified as not applicable, are listed in Table 3.18.1. In instances where a component of the Hamilton Avenue Converted MTS required clarification or was inconsistent with a specific policy or subpolicy, further discussion is provided below. A description of waste handling operations is provided in Section 2.5.



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

500 0 500 Feet



**Figure 7.16-1 Coastal Zone Boundary  
 Hamilton Avenue Converted MTS**

**CITY OF NEW YORK  
 DEPARTMENT OF SANITATION**



## 7.16.2 Consistency Assessment

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

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

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

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

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

According to the “The New Waterfront Revitalization Program,” the Hamilton Avenue Converted MTS would be located within the Sunset Park SMIA. Its development would involve the demolition of the existing over water truck to barge MTS and construction of a new TCB MTS located primarily within the upland portions of the site for marine transport of DSNY-managed waste to remote out-of-City disposal facilities.

The demolition and site redevelopment, as described in Section 2.5.2, would help to restore and revitalize industrial waterfront property and would be compatible with existing and neighboring heavy industrial 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, to the truck gallery; (3) a gantry crane, outside of the processing building and at the waterfront; and (4) bulkhead and fendering systems for barge slips. A gantry crane would be used in the loading and unloading of DSNY barges at the site. The Hamilton Avenue Converted MTS would be consistent with existing land uses in the vicinity of its 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 Hamilton Avenue Converted MTS would represent an upland expansion and reactivation of an existing water-dependent use and would be compatible with surrounding uses. The Hamilton Avenue Converted MTS would be therefore, consistent with this subpolicy.

2.3 *Provide infrastructure improvements necessary to support working waterfront uses.*

The Hamilton Avenue Converted MTS would involve the demolition of the existing MTS and the development of a new and expanded facility within the upland portions of the site. It would allow for marine transport of solid waste to licensed out-of-City disposal facilities. The development would consist of four major components: (1) an enclosed processing building which would include a tipping floor, loading floor and pier level; (2) an elevated access ramp; (3) a gantry crane located at the waterfront and adjacent to the processing building; and (4) bulkhead and fendering systems. The pilings that support the existing MTS would be removed as part of the demolition of the existing MTS.

In addition, the Hamilton Avenue Converted MTS would require dredging to improve existing water depths at and in the immediate vicinity of the site and allow for the unimpeded operations 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 proposed 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 Hamilton Avenue Converted MTS would involve the revitalization of an existing waterfront use and would not interfere with any maritime industrial, commercial or recreational vessel activities in the vicinity of the proposed site. Activities within Gowanus Canal and Gowanus Bay resulting from the Hamilton Avenue Converted MTS would be limited to barge loading along the pier level and the periodic swapping of loaded barges at the slips. Approximately four or five barges would be loaded on a daily basis at the Hamilton Avenue Converted MTS. Barge swapping activities would be conducted in close proximity to the Hamilton Avenue Converted MTS and be comparable in nature to previous barge activities at the existing MTS. Therefore, no adverse impacts upon other uses within the waterbody would be anticipated. The Hamilton Avenue Converted MTS would, therefore, 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 Hamilton Avenue Converted MTS would involve the conversion of an existing over-water facility from a truck-to-barge waste transfer station where loose waste was placed in open barges into an upland TCB transfer station where waste would be transferred into containers that would be sealed and placed into

modified hopper barges for marine transport 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. Additionally, 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 properly 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 Hamilton Avenue Converted MTS would be done in accordance with applicable federal, state and local regulations. Therefore, the Hamilton Avenue 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 New Waterfront Revitalization Program,” as well as Recognized Ecological Complexes and Significant Coastal Fish & Wildlife Habitat information, the Hamilton Avenue Converted MTS would not be located within a designated area. The Hamilton Avenue Converted MTS would represent an upland expansion in size of a

previous over-water use and would not be anticipated to result in any long-term impacts to natural resources in the vicinity of the site. The Hamilton Avenue 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 7.13.1, the Hamilton Avenue Converted MTS would be located adjacent to Gowanus Canal, a NYSDEC-designated littoral zone. No freshwater wetlands exist on the site. The Hamilton Avenue Converted MTS would involve the demolition of the existing over-water MTS and development of a new MTS within the upland portions of the site. These activities and anticipated dredging would result in limited, short-term impacts to these tidal wetlands.

Dredging activities associated with the development of the Hamilton Avenue Converted MTS are not anticipated to have significant impacts on wetlands in the vicinity of the site, primarily due to previous and ongoing activities and previous dredging that has historically occurred at the existing MTS and adjacent staging area. Mitigation for potential impacts would be proposed during the environmental review and permitting of the Hamilton Avenue Converted MTS. This mitigation, if required, would address potential impacts that may occur due to the construction of the Hamilton Avenue Converted MTS. The Hamilton Avenue 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 Natural Heritage database indicates that there are no known species of special concern in the vicinity of the site. As part of the Hamilton Avenue Converted MTS development, the existing MTS and its support pilings would be removed. In addition, dredging would be required to improve existing water depths in the vicinity of the site for barge and tugboat operations. As stated in Section 7.13.3, modifications to the site would pose little, if any, adverse ecological impacts or loss of habitat for 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 Hamilton Avenue Converted MTS and the storage of any petroleum products would be conducted in accordance with applicable federal, state and local regulations. Further, the Hamilton Avenue 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 Hamilton Avenue Converted MTS would be developed in accordance with applicable federal, state and local regulations. Consistent with this subpolicy, process wastewaters (e.g. floor washdown waters, etc) would be conveyed to an on-site treatment system, which would consist of oil/water separators, etc., discharging eventually to the municipal sewer system. In addition, the slope of the tipping floor would prevent the build-up of free liquids by directing all liquids to drains. Storm water runoff from the Hamilton Avenue Converted MTS would be managed in accordance with all applicable federal, state and local regulations.

In addition, the majority of activity associated with the Hamilton Avenue Converted MTS would be conducted within an enclosed processing building. Only sealed, air- and water-tight containers would be transferred to barges outside of the processing building by gantry cranes installed at the pier level. Inside the facility, several measures would be taken to minimize the potential for environmental degradation as a result of the facility. Building ventilation would be maintained under negative pressure, which would 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 Hamilton Avenue 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, including demolition of the existing MTS, and operation of the Hamilton Avenue Converted MTS in order to minimize any nonpoint discharges. The Hamilton Avenue Converted MTS would comply with federal, state and local requirements concerning the management of storm water 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.*

The pilings that support the existing MTS would be removed and dredging would be necessary to provide sufficient water depths for unimpeded operations once the Hamilton Avenue Converted MTS is operational. Any dredging undertaken as part of development of the Hamilton Avenue Converted MTS 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. All possible non-structural and, if necessary, structural measures would be used to minimize siltation and potential adverse impacts to tidal wetlands in the vicinity. All dredged materials would be disposed of at a permitted facility in accordance with applicable federal, state and local regulations. Therefore, the Hamilton Avenue 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 Hamilton Avenue 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 Hamilton Avenue 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 of water supply. The Hamilton Avenue Converted MTS would be consistent with this subpolicy.

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

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

According to a review of FEMA National Flood Insurance Program maps, the Hamilton Avenue Converted MTS would be situated within portions of both the 100-year (Zone A) and 500-year (Zone B) floodplain boundaries. As part of its development, the existing over-water MTS would be demolished and a new MTS

would be constructed within the upland portions of the project site. The pilings that support the existing MTS would also be removed and dredging would be necessary to provide sufficient water depths for unimpeded operations once the Hamilton Avenue Converted MTS is operational. To the extent practicable, non-structural measures would be used to minimize impacts due to flooding and erosion during the demolition and subsequent construction of the Hamilton Avenue Converted MTS. Construction of the Hamilton Avenue Converted MTS within the upland portions of the site 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 Hamilton Avenue 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 Hamilton Avenue Converted MTS. The majority of proposed activities would occur within an enclosed processing building. Radiation detection equipment would be located at the facility, and contingency plans would be in place in the event of unauthorized waste and/or other situations that could disrupt the operation of the facility. Only sealed, air and water tight containers would be utilized outside the facility.



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

**7.2 *Prevent and remediate discharge of petroleum products.***

See response to Subpolicy 7.1.

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

See response to Subpolicy 7.1.

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

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

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

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

The Hamilton Avenue Converted MTS would be a stand alone, water-dependent, industrial facility fronting Gowanus Canal. Public access would not be compatible with Hamilton Avenue Converted MTS; however, its development would not preclude any future development of public access at other locations along the Gowanus Canal or Gowanus Bay waterfront.

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

Development of the Hamilton Avenue Converted MTS site would represent an upland expansion in size of an existing waterfront use and would not impair visual access to coastal lands, waters or existing open space. The existing MTS would be removed and a new MTS would be constructed within the upland portions of the site. Hamilton Avenue Converted MTS is not anticipated to significantly impact visual access within the area. See also response to Subpolicy 9.1.

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

A cluster of several small parks and open spaces collectively known as the Red Hook Recreational Area is located west of the Hamilton Avenue Converted MTS. In addition, various playgrounds and other parks and open space areas are scattered within the study area. There would be no impacts to these areas because the facilities are located across either Gowanus Canal or the Gowanus Expressway and are generally screened by existing, industrial *buildings*. *In addition, the reactivation of an existing MTS use within an established and existing industrial area, located approximately one-quarter mile from these parks areas would not result in no impacts to mapped parklands or open space resources. Therefore, the Hamilton Avenue 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 Hamilton Avenue Converted MTS would be an upland expansion in size and rehabilitation of an existing waterfront use and, therefore, would be compatible with the existing urban design context and visual conditions of this portion of the industrialized Gowanus Canal and Bay waterfront, as noted in Section 7.7.3. Based on the information presented in that section, the Hamilton Avenue Converted MTS would be consistent with this subpolicy.

***9.2 Protect scenic values associated with natural resources.***

The Hamilton Avenue Converted MTS would pose no impact to scenic values associated with natural resources. It would be compatible with existing uses in the vicinity of the site, which do not allow for scenic views. Therefore, this subpolicy is not applicable.

***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 Hamilton Avenue Converted MTS would have no effect on any cultural resources on or near the site, as noted in Section 7.6.3. Based on the information presented in that section, the Hamilton Avenue 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 is, therefore, not applicable.

## 7.17 Hazardous Materials

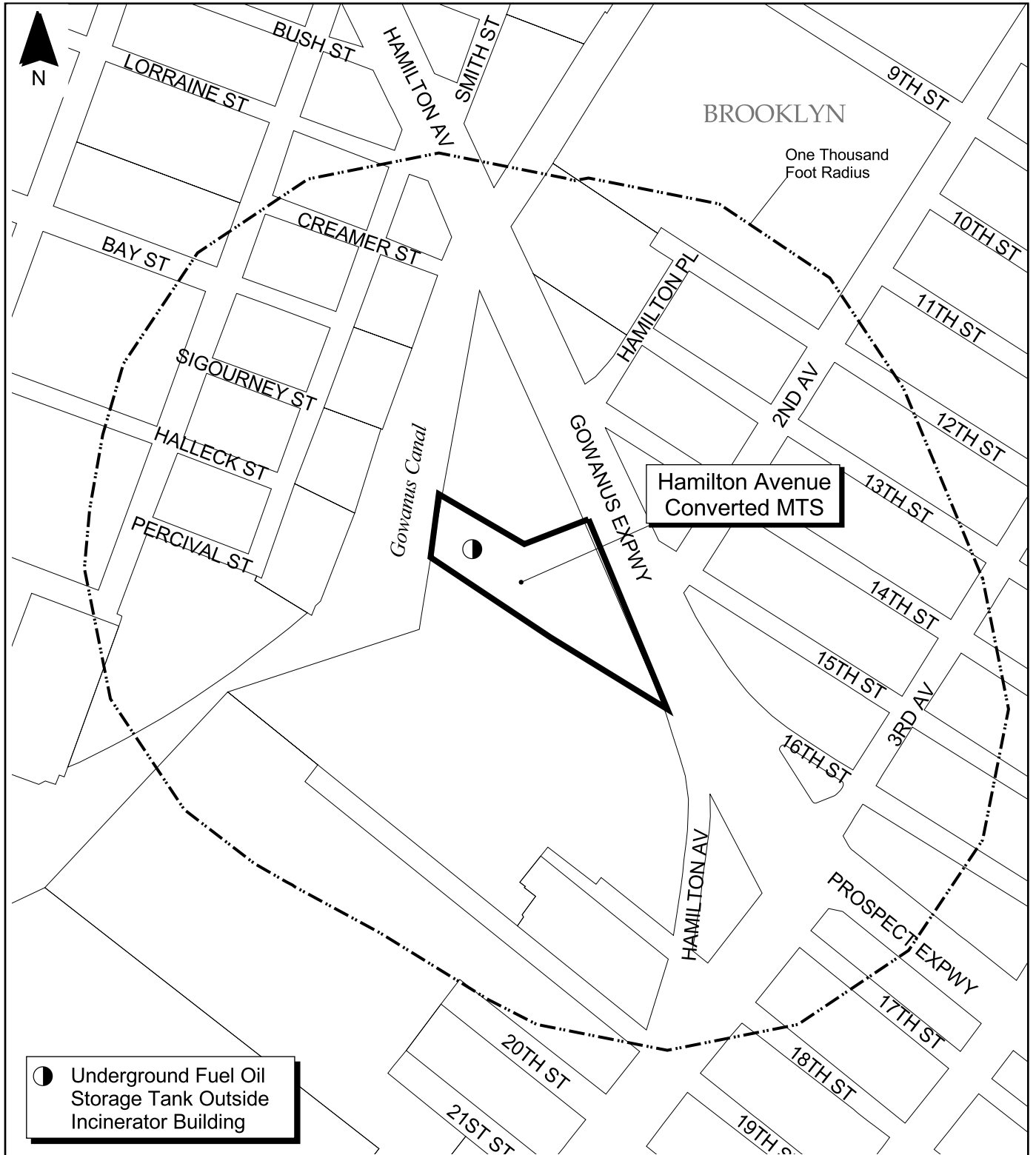
### 7.17.1 Existing Conditions

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

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

#### 7.17.1.1 Definition of Study Area

The study area encompasses the site and neighboring properties within a 1,000-foot radius (Figure 7.17-1).



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



|  |   |  |
|--|---|--|
|  | <p><b>Figure 7.17-1 Hazardous Materials Sites</b><br/> <b>Hamilton Avenue Converted MTS</b></p> <p>CITY OF NEW YORK<br/>         DEPARTMENT OF SANITATION</p> |  |
|--|---|--|

### *7.17.1.2 Delineation of Area of Concern*

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

- Probability of ACMs in the incinerator building.
- Probability of underlying layers of lead-based paint on the incinerator building.
- The incinerator's listing as a CERCLIS site.
- An "active" spill report, no. 9711052, of 200 gallons of possibly transformer oil spilled into the water in early 1998. Also, a stain of oil was noticed during the February 2003 reconnaissance near the fill port of the existing MTS's 5,000-gallon fuel-oil tank.

### *7.17.2 Future No-Build Conditions*

The property would remain in its present state except for the demolition and removal of the incinerator. Any asbestos containing building materials found in the incinerator would be removed prior to demolition in a manner that is consistent with City building codes and practices. Any contamination present at the site would remain.

### *7.17.3 Potential Impacts with the Hamilton Avenue Converted MTS*

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