CHAPTER 15 ENVIRONMENTAL REVIEW – REVIEW AVENUE SITE

15.1 Introduction

The Review Avenue TS is currently permitted for receipt and processing of waste into outbound transfer trailers at 958 tpd, and an increase in permitted capacity to 1,200 tpd is proposed. A Part 360 permit application to modify the facility for barge transport (Review Avenue Truck to Barge Transfer Station) and a capacity expansion from 958 to 1,200 tpd was submitted to NYSDEC in January 2003. Review Avenue is currently contracted to accept up to 958 tpd of DSNY-managed Waste under Interim Export and receives, on an average peak day, approximately 934 tons. The facility was subject to EAS review for Interim Export in June 2000, which did not consider $PM_{2.5}$. The facility would be modified to enable lidding of containers and transport of containerized waste by barge. Since Review Avenue was evaluated in the 2000 SWMP FEIS as a truck to barge operation at a planned average peak capacity of 1,200 tpd (37 collection vehicles during the peak hour), no on or off-site analysis is required, except for $PM_{2.5}$ (which was not evaluated in the 2000 SWMP FEIS).

The Review Avenue Truck to Rail TS would containerize DSNY-managed Waste and then dray the containers to the Maspeth Rail Yard in Queens CD 2, where the containers would be loaded onto rail cars. The 2000 SWMP FEIS analyzed a truck-to-rail design for this site at a capacity of 2,300 tpd, which included off-site air quality (PM_{10} and CO), traffic and noise analyses assuming 56 collection vehicles during the peak hour. The 56 collection vehicles assumption is equivalent to operating at 1,200 tpd and draying containers to Maspeth. The 2000 SWMP FEIS will be referred to as sufficient for evaluating impacts associated with the current proposal, except for $PM_{2.5}$, which will need to be reported in the New SWMP FEIS. Supplemental analyses will be conducted, as required, as detailed designs are developed, if the Review Avenue ~~Transfer Station~~TS is included in the Proposed Plan.

The RFP procurement issued by the City requires that proposers commit to exporting all waste (both DSNY and commercial) processed at their facility by rail or barge. The Maspeth Rail Yard will be permitted as an intermodal yard subject to DSNY's new rules, as a non-discretionary

action, and thus not subject to environmental review. An off-site traffic, air quality (including $PM_{2.5}$) and noise impact analysis for the Maspeth Rail Yard will be performed for the equivalent of 1,200 tpd in round-trip truck traffic.

The results of the environmental analyses of the facility options at the Review Avenue Site are presented in the following sections:

15.2 Land Use, Zoning, and Public Policy
15.3 Socioeconomic Conditions
15.4 Community Facilities and Services
15.5 Open Space
15.6 Cultural Resources
15.7 Urban Design, Visual Resources, and Shadows
15.8 Neighborhood Character
15.9 Natural Resources
15.10 Hazardous Materials
15.11 Water Quality
15.12 Waterfront Revitalization Program
15.13 Infrastructure, Solid Waste and Sanitation Services, and Energy
15.14 Traffic, Parking, Transit, and Pedestrians
15.15 Air Quality
15.16 Odor
15.17 Noise

A detailed discussion of the methodologies that were applied in conducting each analysis is provided in Chapter 3.

The facility options evaluated for this site are:

- Review Avenue Truck to Barge TS;
- Review Avenue Truck to Rail TS; and
- Maspeth Rail Yard.

Section 2.2.12 provides a summary description of the site and important characteristics of the design and operation of these options. Supplemental information on the site or the study area is provided in the following sections when appropriate.

15.2 Land Use, Zoning, and Public Policy

The 2000 SWMP FEIS evaluated this facility as a truck-to-barge and truck-to-rail operation and included an assessment of the land use, zoning, and public policy impacts.

15.3 Socioeconomic Conditions

The 2000 SWMP FEIS evaluated this facility as a truck-to-barge and truck-to-rail operation and included an assessment of the socioeconomic impacts.

15.4 Community Facilities and Services

The 2000 SWMP FEIS evaluated this facility as a truck-to-barge and truck-to-rail operation and included an assessment of the community facilities and services impacts.

15.5 Open Space

The 2000 SWMP FEIS evaluated this facility as a truck-to-barge and truck-to-rail operation and included an assessment of the open space impacts.

15.6 Cultural Resources

The 2000 SWMP FEIS evaluated this facility as a truck-to-barge and truck-to-rail operation and included an assessment of the cultural resources impacts.

15.7 Urban Design, Visual Resources, and Shadows

The 2000 SWMP FEIS evaluated this facility as a truck-to-barge and truck-to-rail operation and included an assessment of the urban design, visual resources, and shadows impacts.

15.8 Neighborhood Character

The 2000 SWMP FEIS evaluated this facility as a truck-to-barge and truck-to-rail operation and included an assessment of the neighborhood character impacts.

15.9 Natural Resources

The 2000 SWMP FEIS evaluated this facility as a truck-to-barge and truck-to-rail operation and included an assessment of the natural resources impacts.

15.10 Hazardous Materials

The 2000 SWMP FEIS evaluated this facility as a truck-to-barge and truck-to-rail operation and included an assessment of the hazardous materials impacts.

15.11 Water Quality

The 2000 SWMP FEIS evaluated this facility as a truck-to-barge and truck-to-rail operation and included an assessment of the water quality impacts.

15.12 Waterfront Revitalization Program

The 2000 SWMP FEIS evaluated this facility as a truck-to-barge and truck-to-rail operation and included an assessment of the waterfront revitalization program impacts.

15.13 Infrastructure, Solid Waste and Sanitation Services, and Energy

The 2000 SWMP FEIS evaluated this facility as a truck-to-barge and truck-to-rail operation and included an assessment of the infrastructure, solid waste and sanitation services, and energy impacts.

15.14 Traffic, Parking, Transit, and Pedestrians

15.14.1 Introduction

The Review Avenue ~~Site~~ TS 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 and other on-site-generated traffic in the study area. (See Section 3.16 for a discussion of CEQR analysis thresholds.)

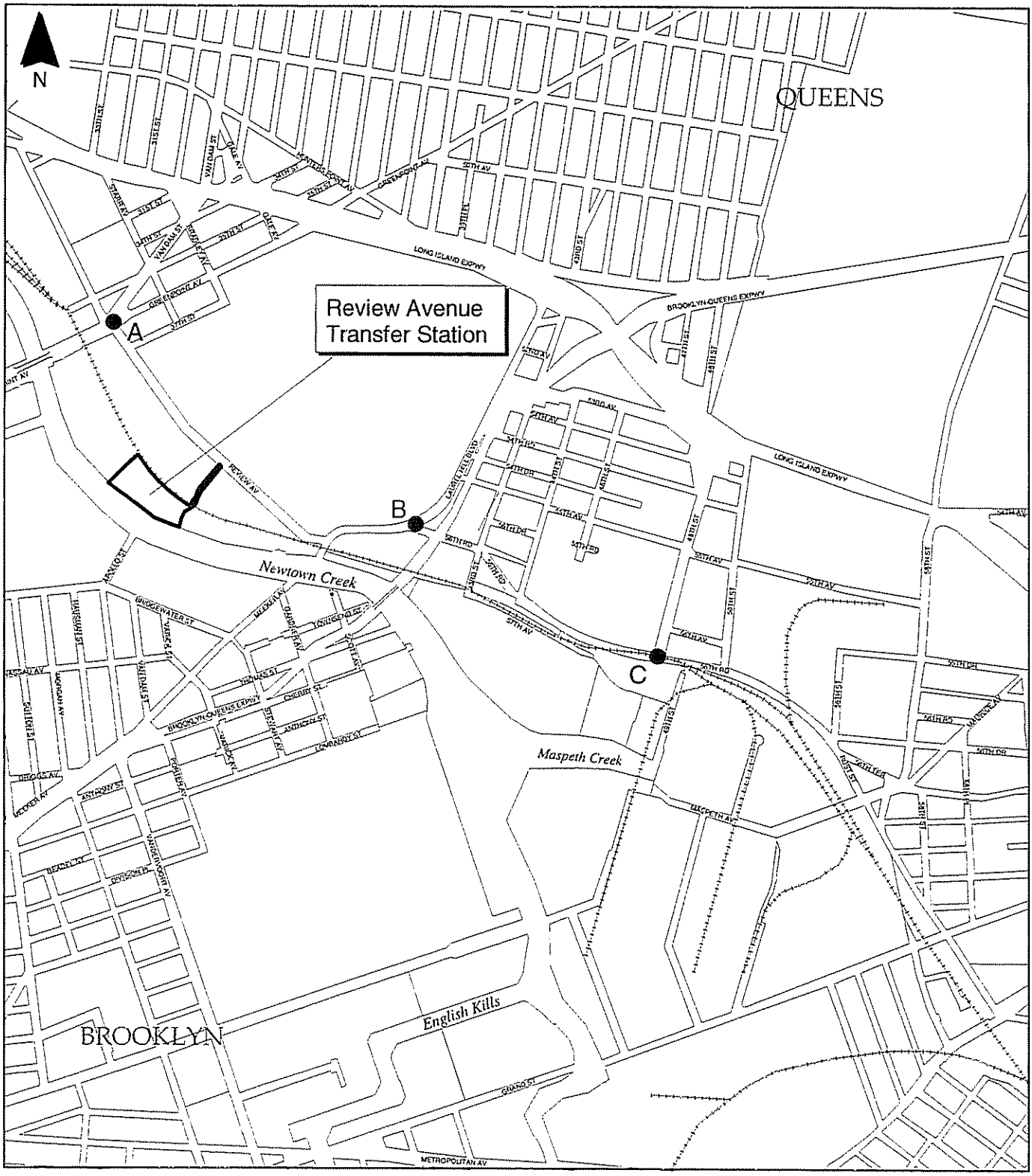
15.14.2 Existing Conditions

15.14.2.1 Definition of Study Area

The traffic analysis study area is broad and includes the Greenpoint and Maspeth neighborhoods of Brooklyn and Queens, respectively. It includes the corridor along Review Avenue, Laurel Hill Boulevard, and 56th Road that is bounded by Greenpoint Avenue on the west and 48th Street on the east. The traffic study area is predominantly light industrial in nature. There are no CEQR-defined areas of concern located within the study area. Figure 15.14-1 shows the locations of the intersections selected for analysis (locations A through C). Intersections analyzed were selected using the procedures defined in Section 3.16.

The analysis of collection vehicles routing to the site included highway access points more than ½-mile away in conjunction with local truck routes. Eastbound and southbound collection vehicles would approach the site along the BQE and Greenpoint Avenue and turn eastbound onto Review Avenue. Westbound collection vehicles would approach from the east via 56th Road, which turns into Laurel Hill Boulevard and then into Review Avenue.

~~The site is currently permitted to handle 558 tpd of solid waste and 400 tpd of recyclable materials as a truck transfer facility. Waste is exported from the site via transfer trailer. The site currently accepts up to 934 tpd of DSNY managed Waste under Interim Export.~~



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

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Figure 15.14-1 Traffic Analysis Study Area
Review Avenue Transfer Station

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15.14.2.2 Surface Network

Two major highways, the predominantly east-west LIE and the predominantly north-south BQE, service the traffic analysis study area. 48th Street and Greenpoint Avenue are local truck routes that provide access from the north of the site. Laurel Hill Boulevard and 56th Road are local truck routes that provide access from south of the site. Review Avenue is a local truck route that provides access to the site from the west. Maps showing all major truck routes and local truck routes in Brooklyn and Queens are provided in Section 3.16 (see Figures 3.16-3 and 3.16-5).

Greenpoint Avenue (and Van Dam Street in Queens) is a principal arterial that provides access to the LIE. Review Avenue, Laurel Hill Boulevard, and 56th Road are minor arterials and designated truck routes that service the industrial areas adjacent to Newtown Creek. 48th Street is a collector that provides access from 56th Road to points north in Queens.

DSNY and other agency collection vehicles approaching the Review Avenue TS from the LIE would exit at Greenpoint Avenue and proceed to Review Avenue to access the facility. Other collection vehicles approaching the TS follow Van Dam Street and Greenpoint Avenue to Review Avenue. DSNY and other agency vehicles traveling to the Review Avenue TS from the west use 48th Street to access 56th Road. Collection vehicles follow 56th Road west, which turns into Laurel Hill Boulevard and then Review Avenue. All inbound DSNY and other agency collection vehicles converge at the intersection of the facility entrance and Review Avenue. At this intersection, all vehicles would proceed south into the TS. Exiting vehicles would follow the same truck routes back to their respective CDs.

Dray vehicles transporting waste containers to and from the Review Avenue TS would travel to and from the facility along Review Avenue, Laurel Hill Boulevard, and 56th Road between Maspeth Avenue and the facility entrance.

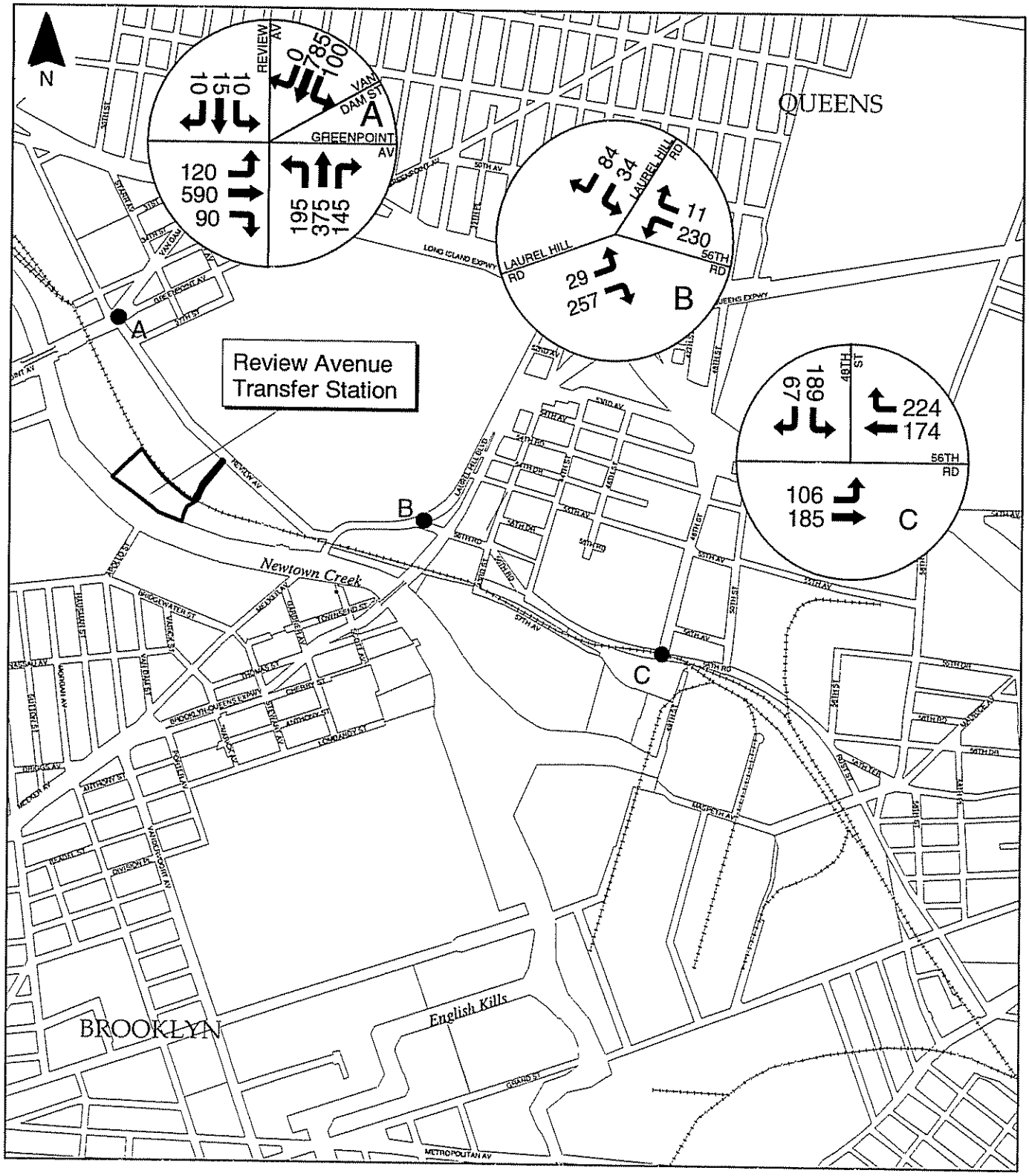
15.14.2.3 Existing Traffic Operations

The three intersections listed below were identified for analysis because they are the most likely to be impacted by the Review Avenue TS. Diagrams of these intersections are included in technical backup submitted to NYCDOT.

- Greenpoint Avenue and Review Avenue and Van Dam Street – Signalized Intersection (see Figure 15.14-1 – location A)
- Laurel Hill Boulevard and 56th Road – Unignalized Intersection (see Figure 15.14-1 – location B)
- 48th Street and 56th Road – Signalized Intersection (see Figure 15.14-1 – location C)

Greenpoint Avenue (and Van Dam Street in Queens) is a principal arterial that provides access to the LIE. Review Avenue, Laurel Hill Boulevard, and 56th Road are minor arterials that service the industrial areas adjacent to Newtown Creek. 48th Street is a collector that provides access to 56th Road from points north.

A traffic data collection program that consisted of manual turning movement counts with vehicle classifications and ATR counts was undertaken to define existing weekday traffic operations (see Section 3.16 for a discussion on traffic data collection). Manual turning movement counts were conducted between February 4 and February 6, 2003 and on June 10, 2004, while ATR counts were conducted between February 3 and February 7, 2003 and between June 9 and June 16, 2004. Figures 15.14-2, 15.14-3 and 15.14-4 depict the existing traffic volumes for AM, Facility, and PM peaks at the intersections analyzed. The AM peak generally occurred between 8:00 a.m. and 9:00 a.m., the Facility peak between 10:00 a.m. and 11:00 a.m., and the PM peak between 4:45 p.m. and 5:45 p.m. Table 15.14-1 presents the v/c ratio, delay and LOS for the three intersections during the AM, Facility, and PM peaks.



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

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Figure 15.14-2 Existing Traffic Volumes - AM Peak

Review Avenue Transfer Station

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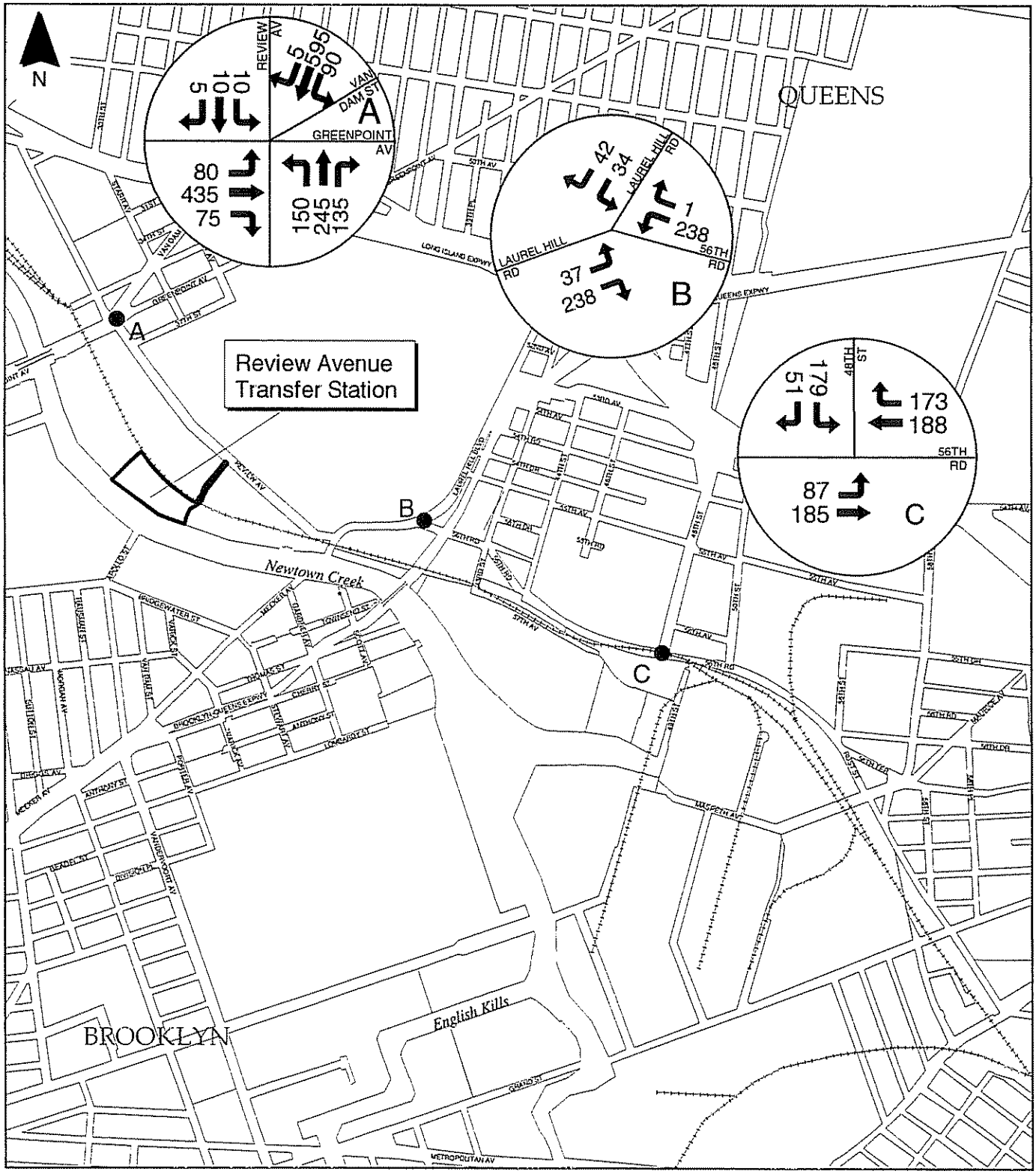

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 15.14-3 Existing Traffic Volumes
Facility Peak
Review Avenue Transfer Station

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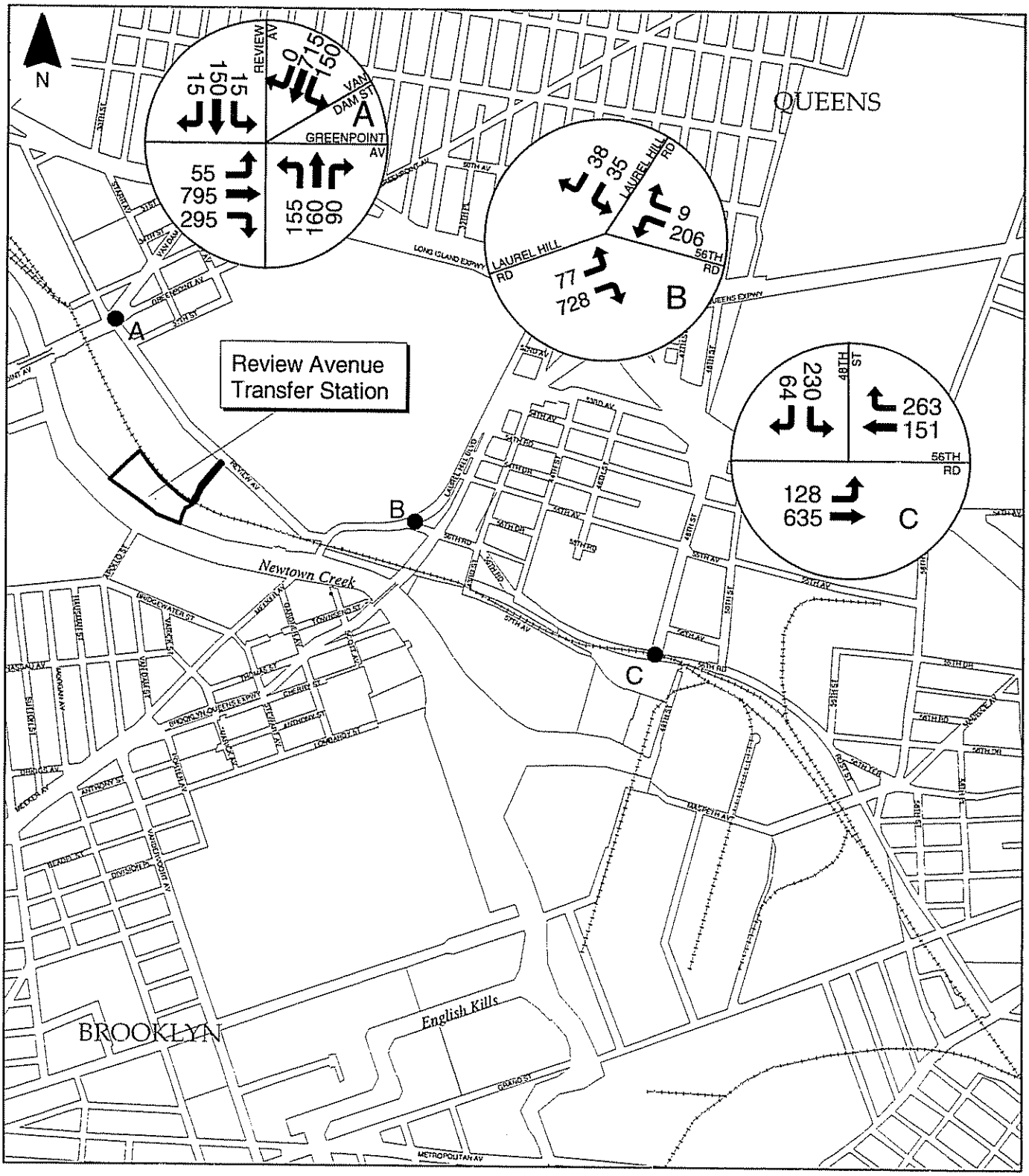

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 15.14-4 Existing Traffic Volumes - PM Peak

Review Avenue Transfer Station

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Table 15.14-1
HCM Analysis[1]— Existing Conditions
Review Avenue TS

Lane Group	AM Peak Hour (8:00 a.m. – 9:00 a.m.)			Facility Peak Hour (10:00 a.m. – 11:00 a.m.)			PM Peak Hour (4:45 p.m. – 5:45 p.m.)		
	V/C Ratio	Delay (sec)	LOS	V/C Ratio	Delay (sec)	LOS	V/C Ratio	Delay (sec)	LOS
Greenpoint Avenue and Review Avenue and Van Dam Street (signalized)									
EB LTR	0.98	36.9	D	0.67	12.8	B	0.97	29.7	C
WB LTR	0.88	20.6	C	0.71	13.5	B	1.05	57.5	E
NB LTR	0.76	21.5	C	0.63	18.4	B	0.44	15.2	B
SB LTR	0.08	12.1	B	0.07	12.1	B	0.34	14.4	B
OVERALL		26.2	C		14.6	B		35.1	D
56th Road and Laurel Hill Boulevard (unsignalized)									
WB LR	0.45	15.9	C	0.48	16.5	C	0.62	27.9	D
SB LT	0.04	8.3	A	0.05	8.3	A	0.07	10.3	B
OVERALL		-	-		-	-		-	-
56th Road and 48th Street (signalized)									
EB LT	-	-	-	0.27	6.7	A	0.60	10.0+	B
EB DFL	0.30	8.1	A	-	-	-	-	-	-
EB T	0.26	7.0	A	-	-	-	-	-	-
WB TR	0.28	6.7	A	0.26	6.5	A	0.28	6.6	A
SB LR	0.67	28.8	C	0.60	26.4	C	0.76	33.0	C
OVERALL		12.7	B		11.3	B		13.6	B

Notes:
[1] Highway Capacity Manual (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
LT = left through movement
L = left movement
TR = through right movement
T = through movement

Existing truck traffic through most of the intersections was relatively high. The percentages of trucks increase steadily during the morning hours, remaining between 25% and 30% during mid-day hours, then decreases to 17% or lower during the PM peak hours.

15.14.2.3.1 LOS at Signalized Intersections

Table 15.14-1 shows that the signalized intersections generally operated at an overall LOS of B or C with the following exception. At the intersection of Greenpoint Avenue, Review Avenue, and Van Dam Street during the AM peak hour, the eastbound approach operated at LOS D. During the PM peak, the westbound approach operates at LOS E.

15.14.2.3.2 LOS at Unsignalized Intersections

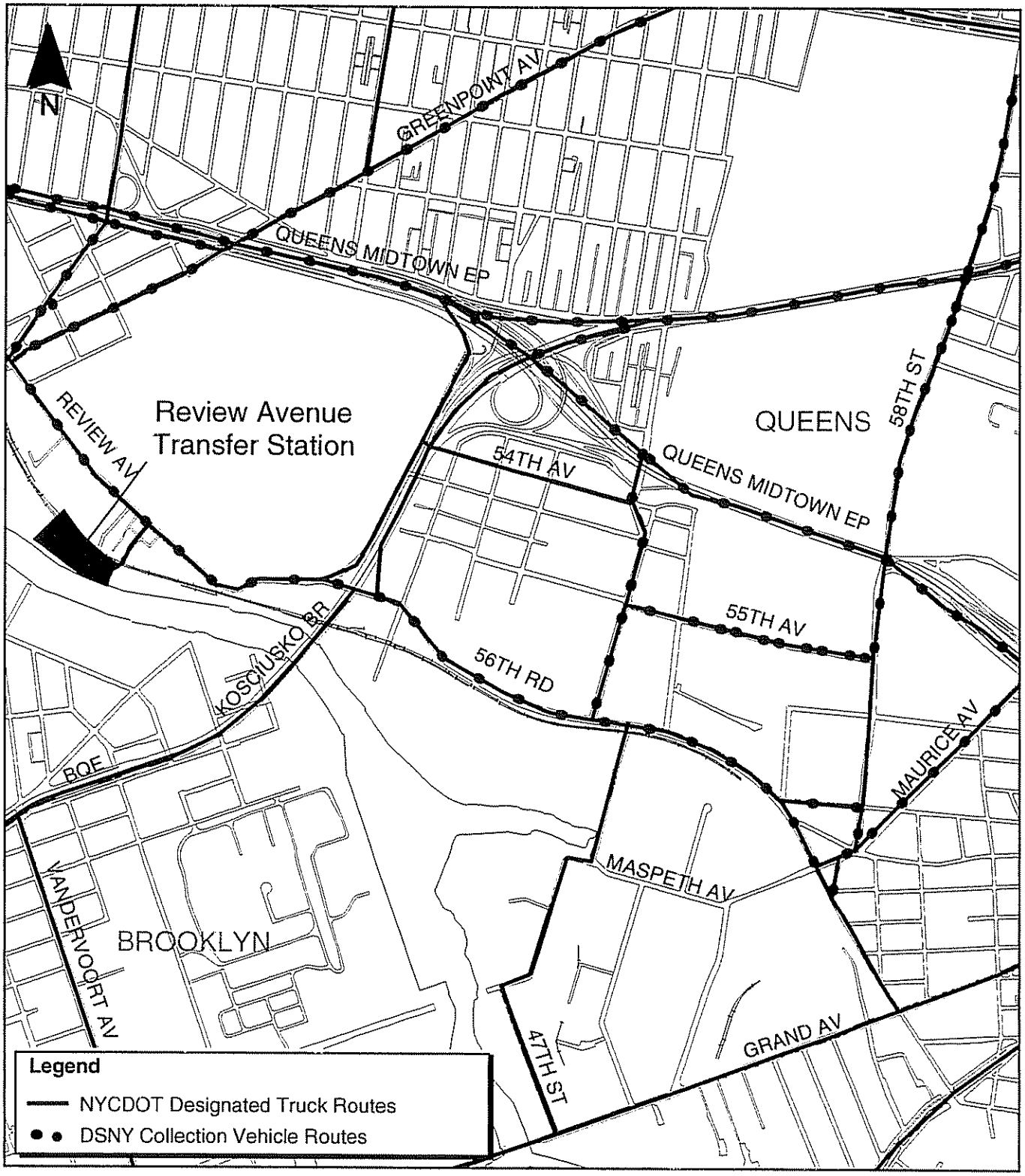
Table 15.14-1 shows that the unsignalized intersection generally operated at an overall LOS of B or C with the following exceptions. During the PM peak hour at the intersection of Laurel Hill Boulevard and 56th Road, the westbound approach operated at LOS D.

15.14.2.4 Existing DSNY-Related Traffic

The privately owned Waste Management Review transfer facility, located on Review Avenue in the West Maspeth section of Queens, currently accepts waste from Queens CDs 2, 3, 4, 5, 6 and 14 under the Interim Export Program. The existing DSNY-related traffic in the vicinity of the existing Review Avenue TS is generated by the Review Avenue facility. Within the study area, DSNY-related traffic is primarily routed along Greenpoint Avenue, Review Avenue and Van Dam Street. The NYCDOT designated truck routes in the area are presented in Figure 15.14-5.

15.14.2.5 Public Transportation

Subway and bus service are provided within the vicinity of the site. The "Greenpoint Avenue" stop on the MTA's "G" subway line is located approximately one mile southwest of the site at the Greenpoint Avenue/Manhattan Avenue intersection. The MTA operates one bus line, B24, along Greenpoint Avenue. A bus stop is located at the Greenpoint Avenue/Review Avenue/Van Dam Street intersection and scheduled stops occur at various times during the day.



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

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Figure 15.14-5 DSNY Collection Vehicle Routes
Review Avenue Transfer Station

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15.14.2.6 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.

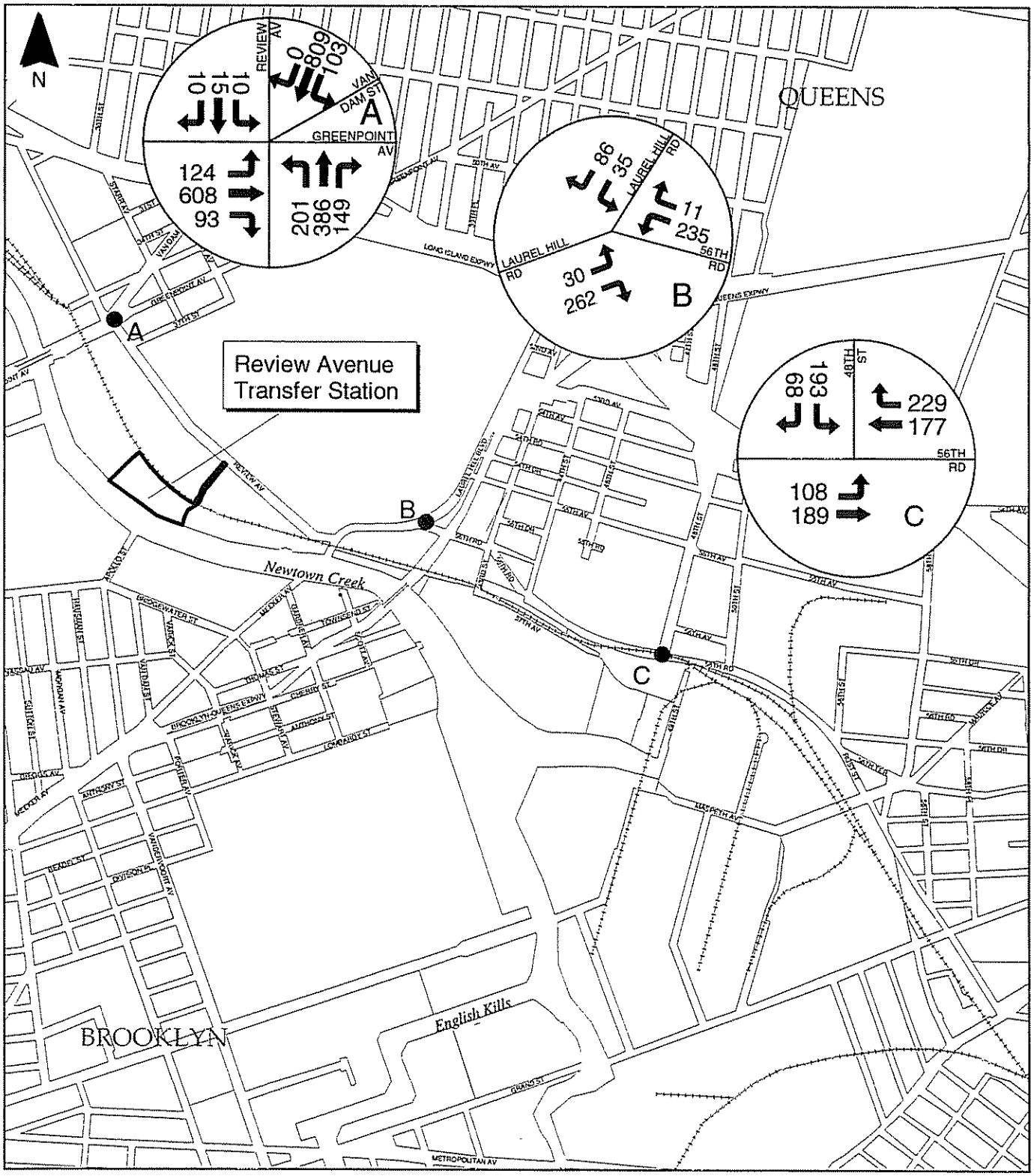
15.14.3 Future No-Build Conditions

15.14.3.1 Traffic Conditions

Future No-Build traffic volumes were determined by applying a growth rate of 1% per year to existing traffic volumes in accordance with the 2001 CEQR Technical Manual. Additional traffic generated in the Future No-Build year (2006) generally amounted to less than 100 vehicles per intersection. There are no new developments planned in the study area that would affect Future No-Build traffic volumes in the study area.

Figures 15.14-6, 15.14-7 and 15.14-8 depict the Future No-Build traffic volumes for AM, Facility, and PM peaks at the intersections analyzed. Table 15.14-2 (Future No-Build Conditions) shows the Future No-Build v/c ratio, delay and LOS for the studied intersections. Overall, signalized intersections experienced relatively small increases in delay (less than 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 eastbound approach at the intersection of Greenpoint Avenue and Review Avenue and Van Dam Street increased from 36.9 to 51.2 seconds (LOS D in both cases).
- During the PM peak hour, the eastbound and westbound approaches at the Greenpoint Avenue and Review Avenue and Van Dam Street intersection experienced an increase in delay (29.7 to 37.4 seconds, and 57.3 to 75.6 seconds, respectively). Also, the overall intersection delay increased from 34.5 to 44.3 (LOS C to LOS D).



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

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Figure 15.14-6 Future No-Build Traffic Volumes
AM Peak
Review Avenue Transfer Station

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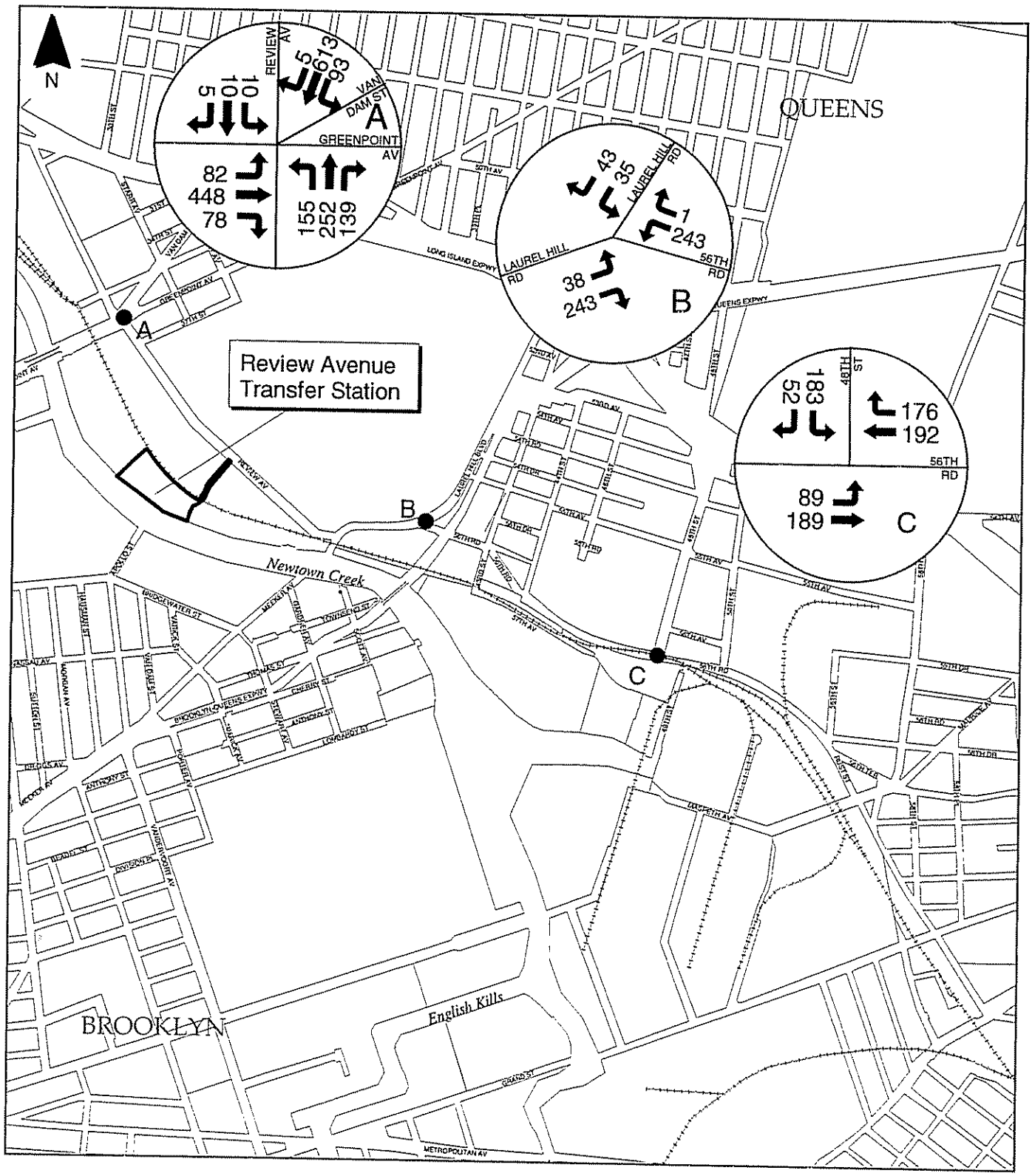

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 15.14-7 Future No-Build Traffic Volumes
Facility Peak
Review Avenue Transfer Station

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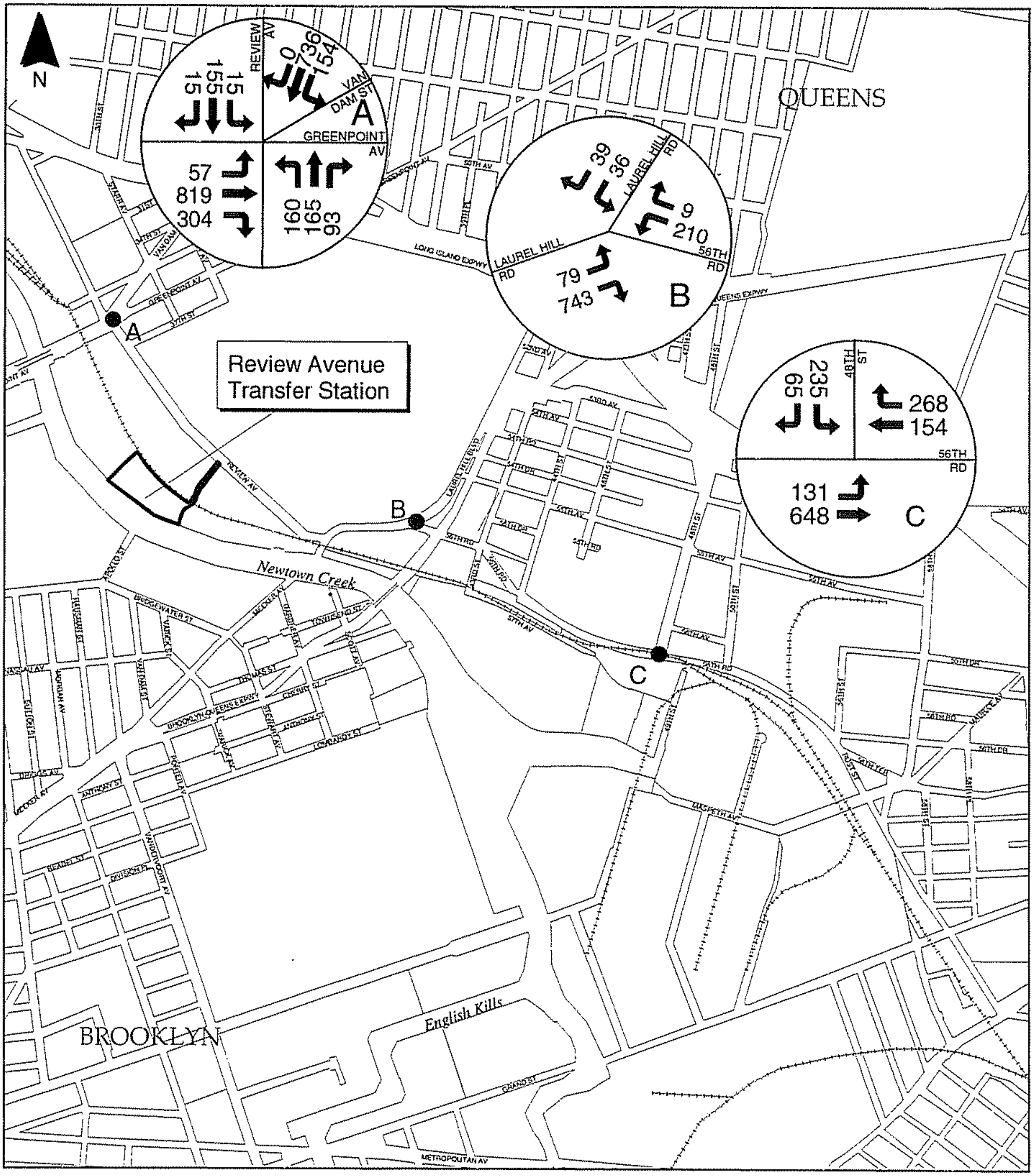

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 15.14-8 Future No-Build Traffic Volumes
PM Peak
Review Avenue Transfer Station

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Table 15.14-2
HCM Analysis[1]— Future No Build Conditions
Review Avenue TS

Lane Group	AM Peak Hour (8:00 a.m. – 9:00 a.m.)			Facility Peak Hour (10:00 a.m. – 11:00 a.m.)			PM Peak Hour (4:45 p.m. – 5:45 p.m.)		
	V/C Ratio	Delay (sec)	LOS	V/C Ratio	Delay (sec)	LOS	V/C Ratio	Delay (sec)	LOS
Greenpoint Avenue and Review Avenue and Van Dam Street (signalized)									
EB LTR	1.04	51.2	D	0.70	13.4	B	1.00	37.4	D
WB LTR	0.92	25.0	C	0.74	14.4	B	1.11	75.6	E
NB LTR	0.78	22.4	C	0.65	18.8	B	0.46	15.4	B
SB LTR	0.08	12.1	B	0.07	12.1	B	0.35	14.5	B
OVERAL L		32.9	C		15.3	B		44.3	D
56th Road and Laurel Hill Boulevard (unsignalized)									
WB LR	0.46	16.4	C	0.49	17.1	C	0.65	30.1	D
SB LT	0.04	8.3	A	0.05	8.3	A	0.07	10.4	B
OVERAL L		-	-		-	-		-	-
56th Road and 48th Street (signalized)									
EB LT	-	-	-	0.27	6.8	A	0.62	10.3	B
EB DFL	0.31	8.3	A	-	-	-	-	-	-
EB T	0.27	7.1	A	-	-	-	-	-	-
WB TR	0.29	6.7	A	0.26	6.5	A	0.28	6.6	A
SB LR	0.68	29.3	C	0.62	26.9	C	0.78	33.9	C
OVERAL L		12.9	B		11.5	B		13.9	B

Notes:

[1] Highway Capacity Manual (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

LT = left through movement

L = left movement

TR = through right movement

T = through movement

~~Because analysis of traffic impacts was not required for the Review Avenue Site, as discussed in Sections 15.14.4, 15.14.5 and 15.14.6, Future No-Build Conditions were not estimated.~~

15.14.3.2 Public Transportation

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

15.14.3.3 Pedestrian Activity

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

15.14.4 Potential Impacts with the Review Avenue Truck to Barge TS

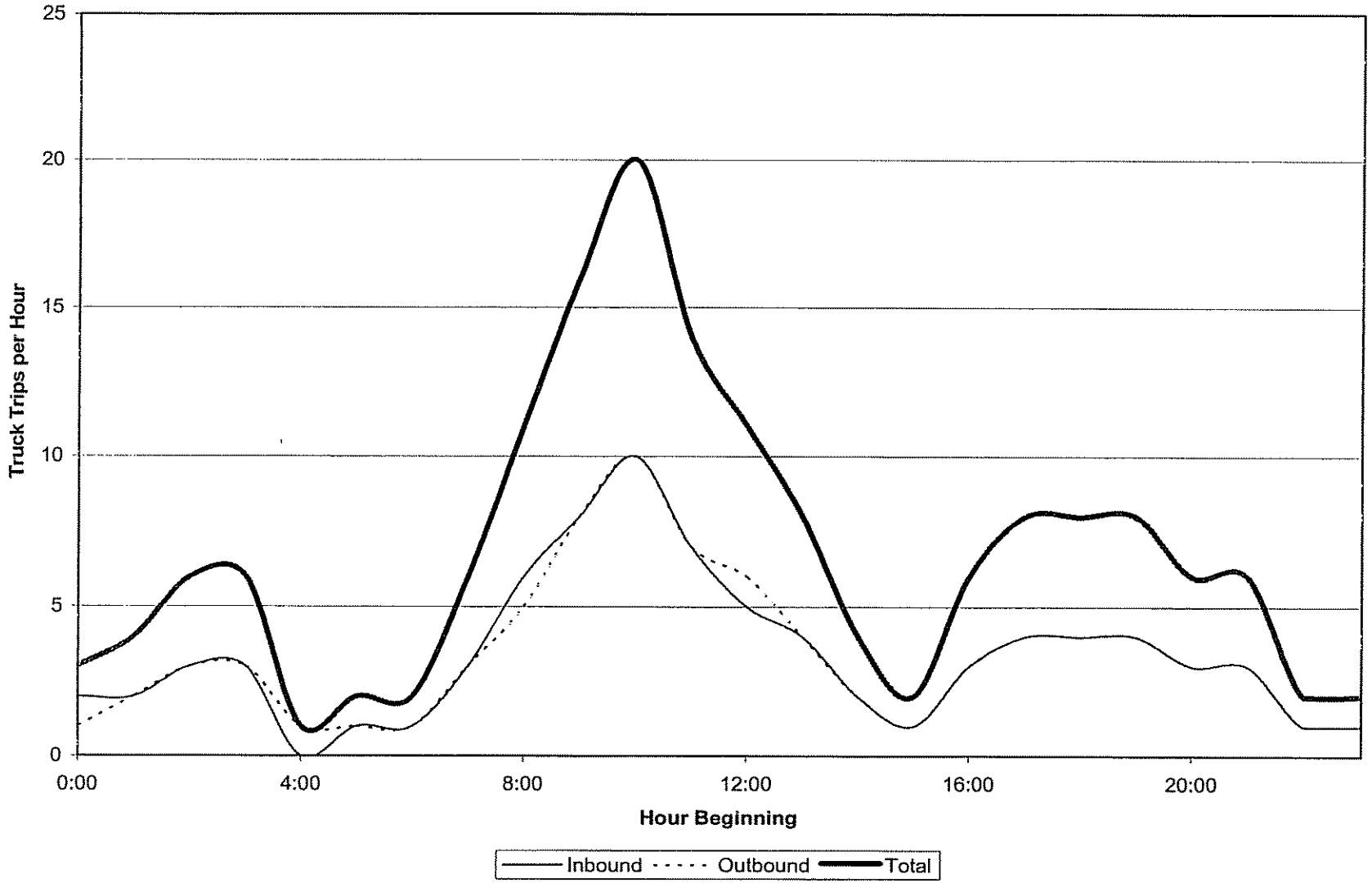
The Review Avenue Truck to Barge TS would receive waste from Queens CDs 1 through 6, (approximately 1,464 tons on an average peak day). The assumed 24-hour truck distribution to the Review Avenue TS Truck to Barge TS is depicted in Figure 15.14-9~~1~~. The assumed DSNY and other agency collection vehicle routes are depicted in Figure 15.14-5~~2~~.

Peak hour traffic generation for this facility is expected to be 30 PCEs, which falls below the CEQR screening threshold of 50 trip ends per hour. (See Table 3.16-2 in Section 3.16 for a listing of peak hour trip ends by facility.) Additionally, transfer trailer trips currently generated by the facility would be eliminated. Therefore, no additional traffic analysis is required at this site for this option.

15.14.5 Potential Impacts with the Review Avenue Truck to Rail TS

The Review Avenue TS would potentially receive waste from Queens (CDs 1, 2, 3, 4, 5 and 6). 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. The Review Avenue TS would also generate new trips from dray trucks transporting waste containers to and from the Maspeth Railyard located by the intersection of 56th Road, Rust Road, and Maspeth Avenue. Additionally, employee trips to and from the site may result in traffic impacts during the AM peak hour.

Figure 15.14-~~9~~1
Truck Trips per Hour
Review Avenue Truck to Barge ~~Rail~~ TS

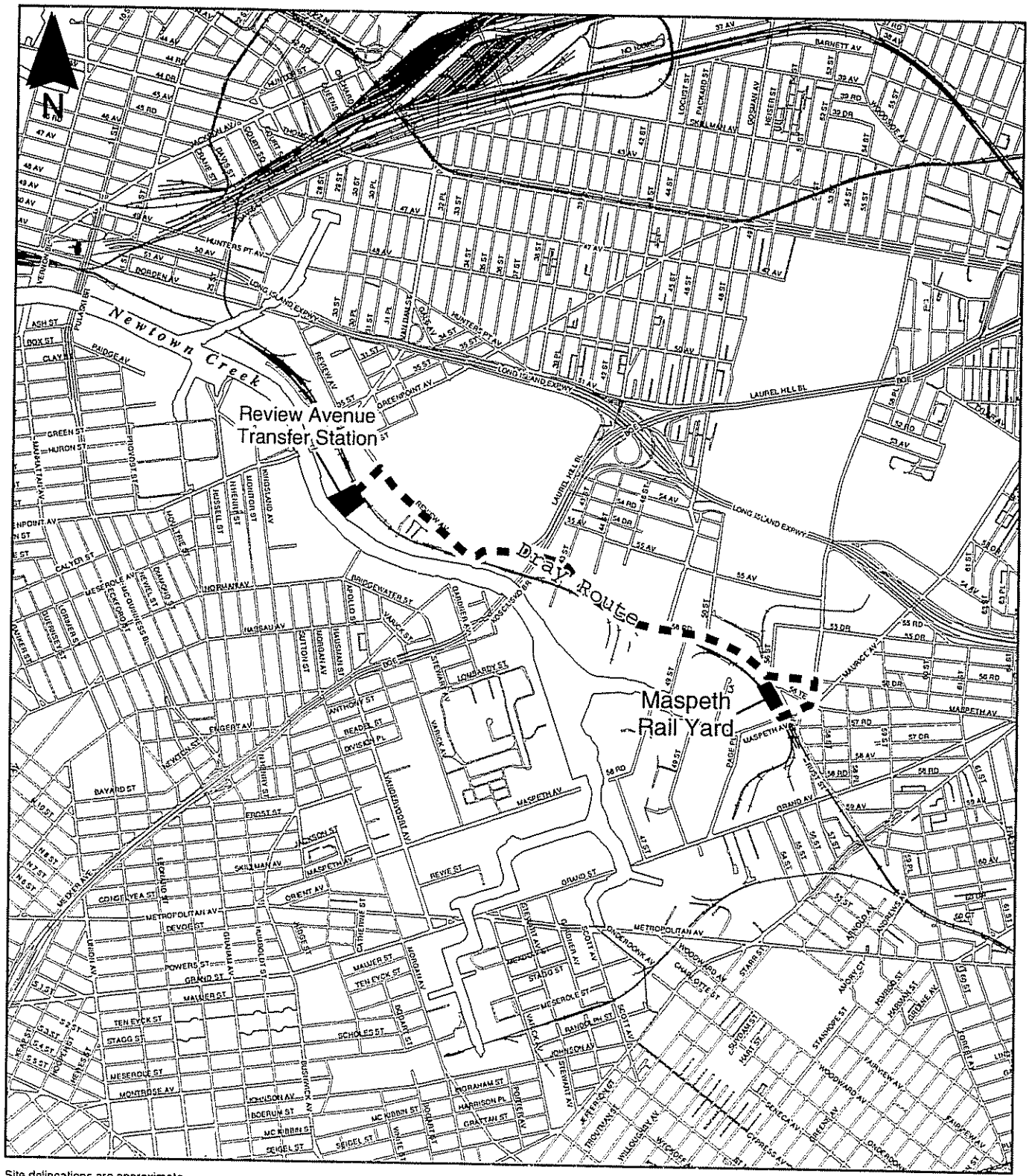


15.14.5.1 2006 Future Build Traffic Conditions

2006 Future Build Conditions assume that the Review Avenue TS would generate 81 net inbound collection vehicles per average peak day. The facility would also generate 144 inbound dray truck trips per day transporting waste containers to the facility from the Maspeth Railyard. 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 Review Avenue TS are shown in Figure 15.14-5. The proposed dray truck route to Maspeth Rail Yard from the Review Avenue Transfer Station is shown in Figure 15.14-10.

Figure 15.14-11 presents the average peak day temporal distribution of additional collection vehicles for the Review Avenue TS. Section 3.16 provides a detailed explanation of DSNY collection and delivery operational shifts (priority, non-priority and relay). As shown, the additional number of collection vehicles generated by the Review Avenue TS is expected to vary between approximately 2 to 18 truck trips per hour in the late evening/early morning, 18 to 42 truck trips per hour in the mid-morning/early afternoon, and 5 to 17 truck trips per hour in the late afternoon/early evening. The peak hourly net number of collection vehicle truck trips (42) occurs at approximately 10:00 a.m.

Increased employee trips generated as a result of the Review Avenue TS are expected to be about 12 per shift (6 entering and 6 departing). 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.



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

1,000 0 1,000 Feet

Figure 15.14-10 Truck to Rail Dray Route
Review Avenue Transfer Station

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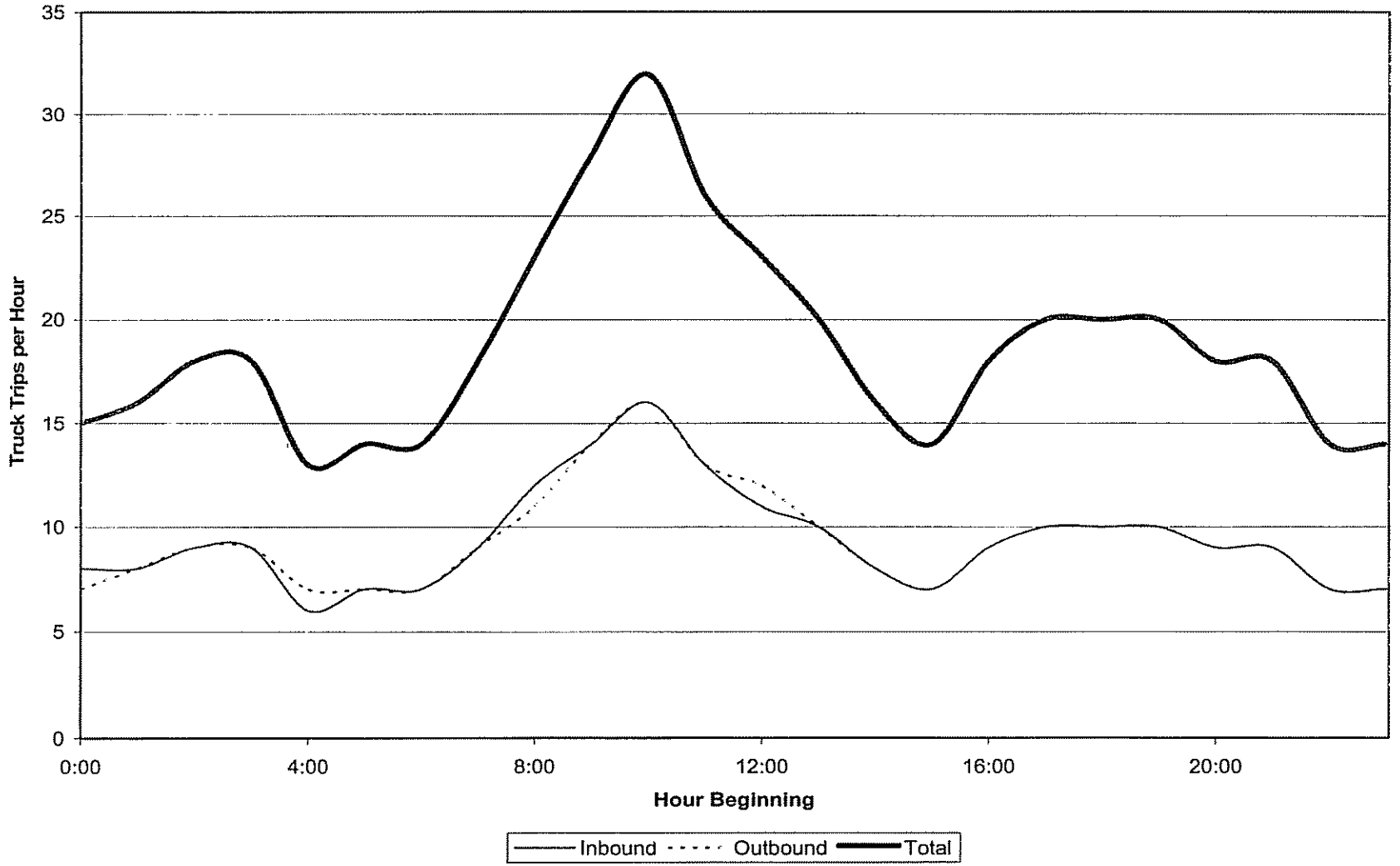
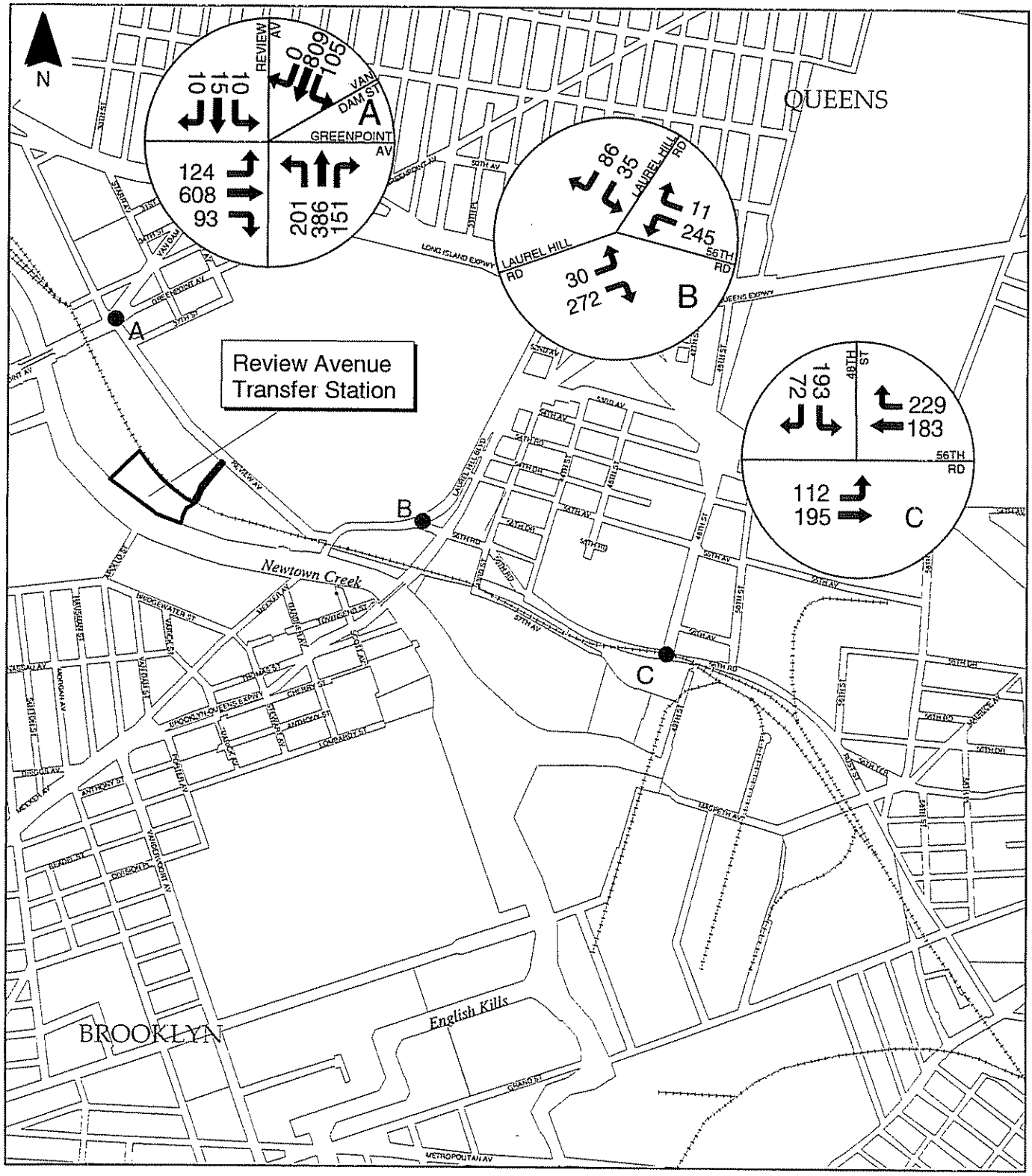
Figure 15.14-11
Truck Trips per Hour
Review Avenue Truck to Rail TS



ruck Trips per Hour

Because only the AM peak (8:00 a.m. to 9:00 a.m.) coincided with a projected employee shift change (7:30 a.m. to 8:30 a.m.), employee trips both to and from the Review Avenue TS during the shift change (6) were considered as part of the net increase in site-generated traffic. Figures 15.14-12, 15.14-13 and 15.14-14 show the intersections analyzed with the net increase in site-generated traffic added to the Future No-Build traffic levels. Figures 15.14-15, 15.14-16 and 15.14-17 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 Review Avenue TS. 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 13. The highest net increase at any one intersection was 26 trucks. Both of these net increases occurred at the intersection of Laurel Hill Boulevard and 56th Road.



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

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Figure 15.14-12 2006 Build Traffic Volumes AM Peak Review Avenue Transfer Station

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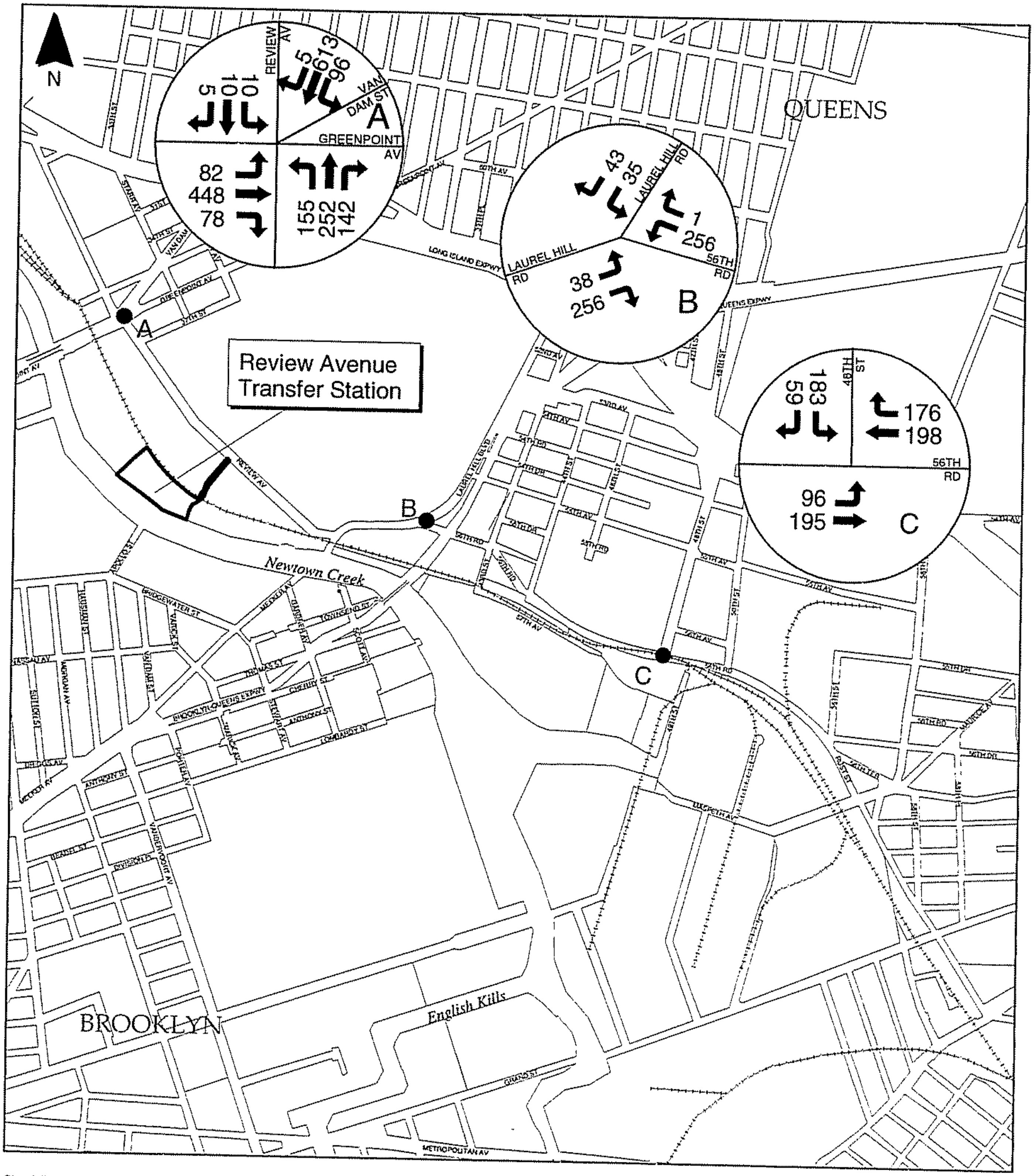

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 15.14-13 2006 Build Traffic Volumes
Facility Peak
Review Avenue Transfer Station

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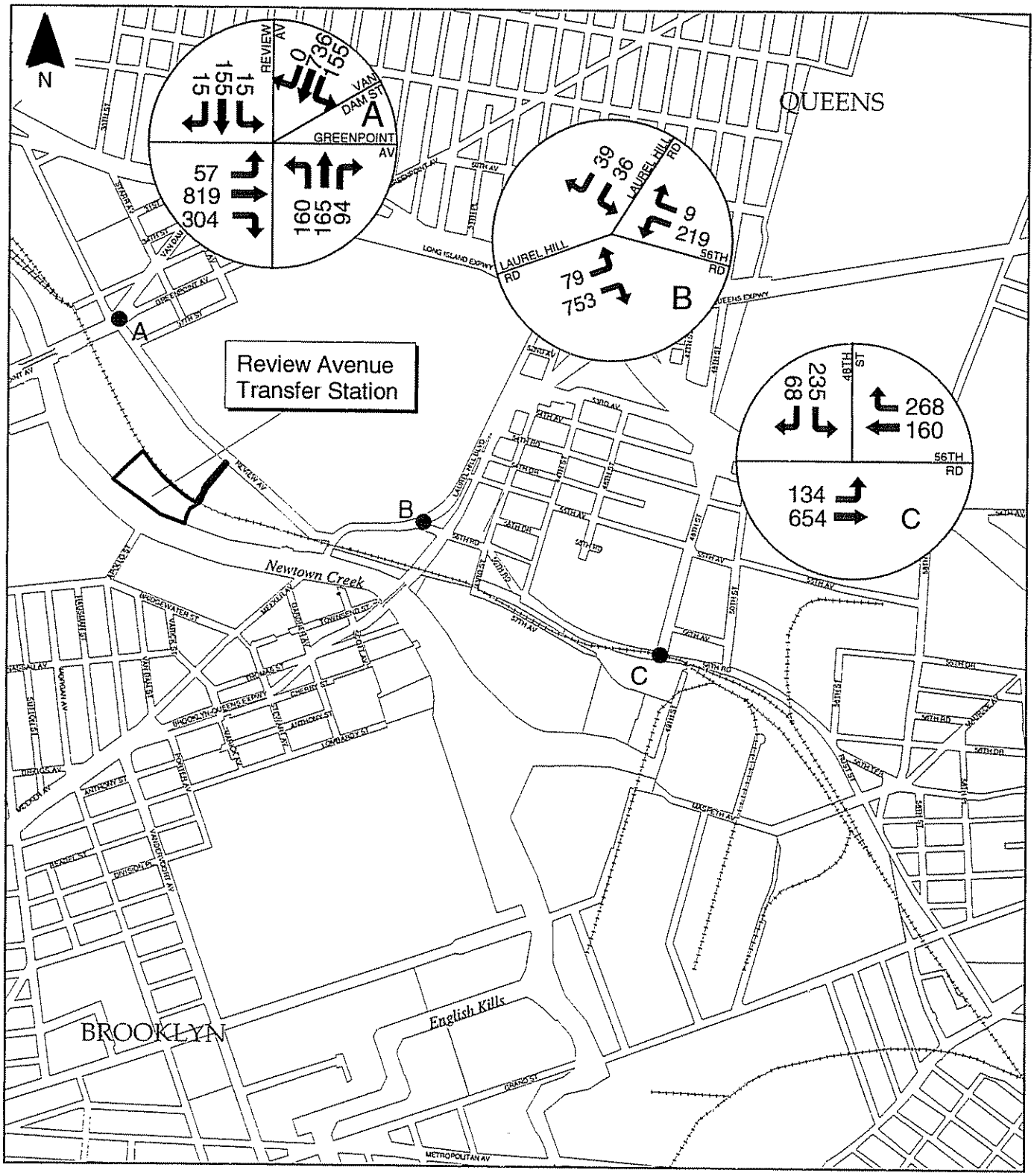

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 15.14-14 2006 Build Traffic Volumes PM Peak Review Avenue Transfer Station

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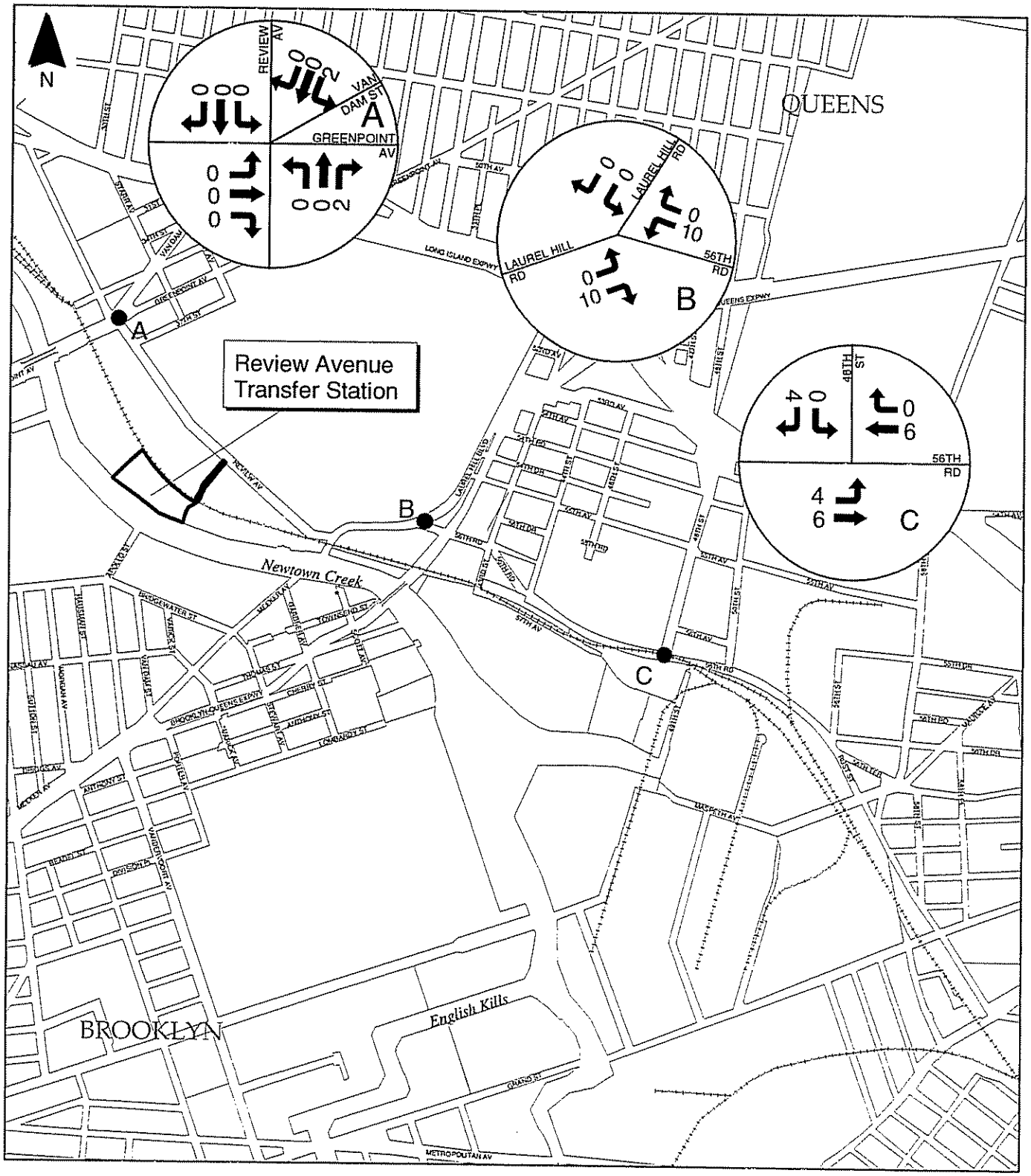

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 15.14-15 2006 Net Traffic - AM Peak

Review Avenue Transfer Station

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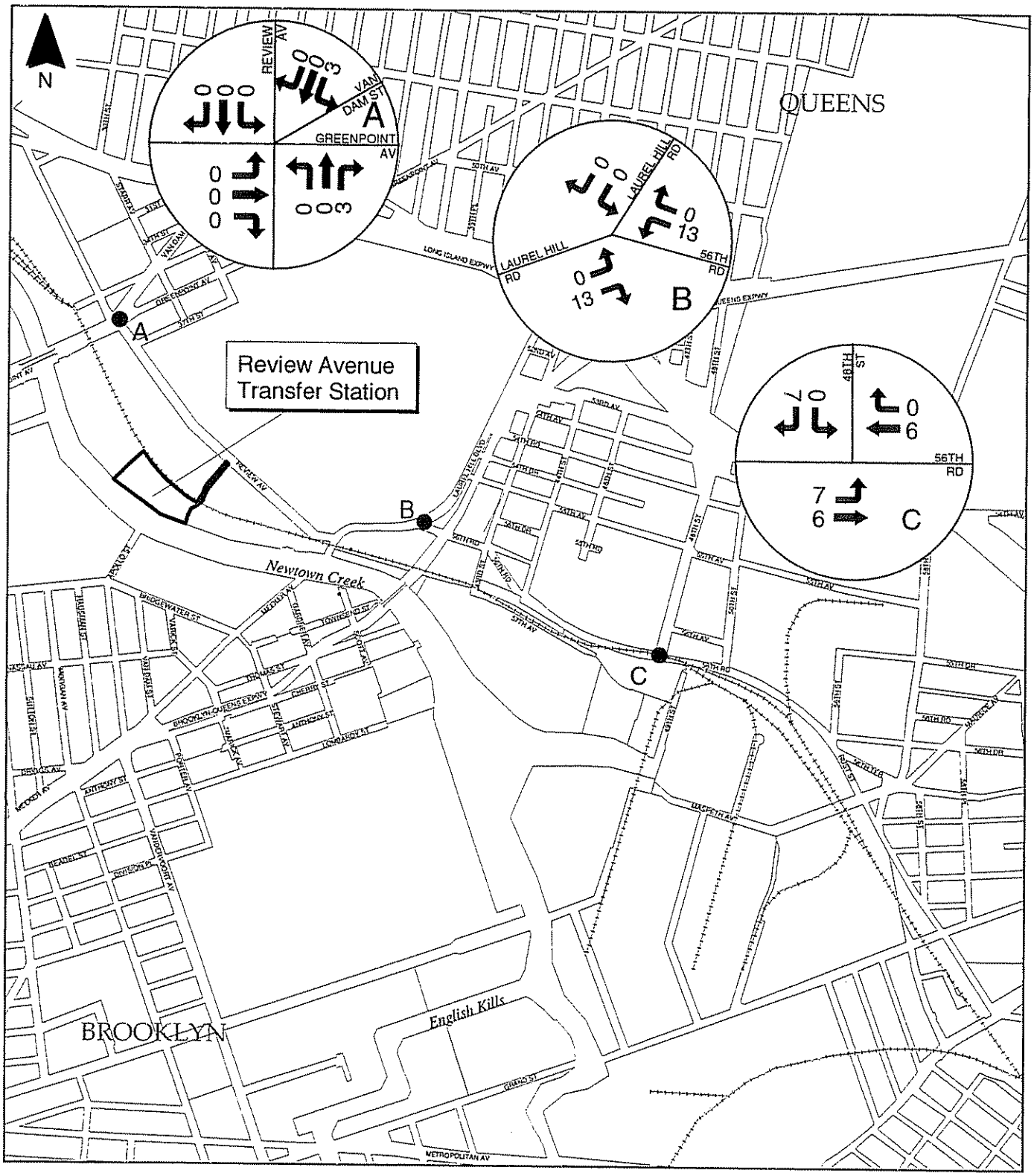

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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Figure 15.14-16 2006 Net Traffic - Facility Peak

Review Avenue Transfer Station

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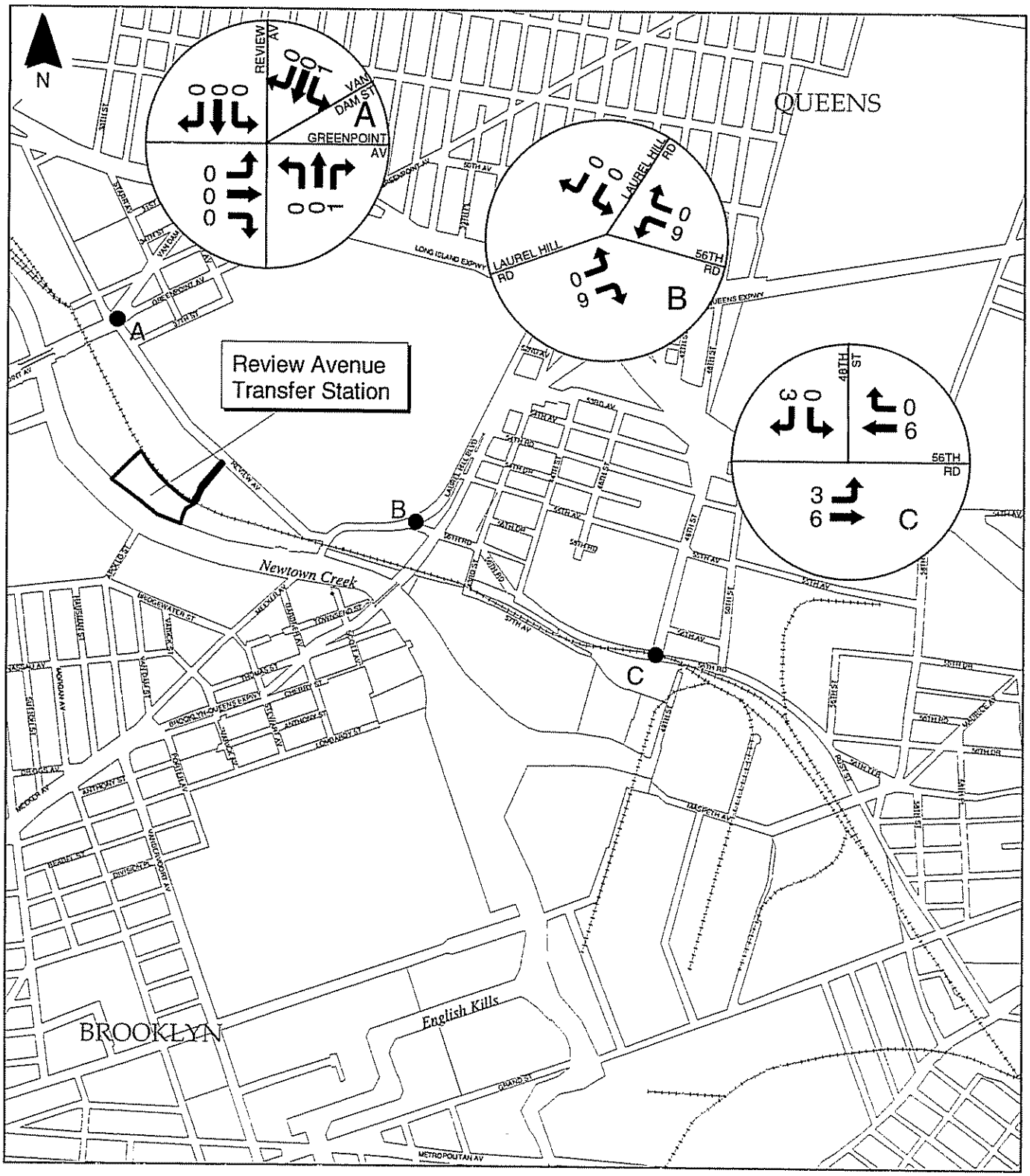

Site delineations are approximate
Base Map Source: New York City Department of City Planning

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HDR URBITRAN EEA HydroQual PB Cambridge Environmental Inc

Figure 15.14-17 2006 Net Traffic - PM Peak

Review Avenue Transfer Station

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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 75% of the inbound loads delivered during a typical average peak day. Additionally, traffic data indicated that the weekend background traffic volumes were approximately 55% of weekday traffic volumes. Table 15.14-3 illustrates the decrease in weekday background traffic and the decrease in DSNY and other agency collection vehicle traffic on the weekend. No analysis was performed for Sunday because the Review Avenue TS would not operate on Sundays for receipt of DSNY-managed Waste. It was, therefore, judged that peak weekday analysis would represent the overall worst-case conditions.

Table 15.14-3
Weekday and Weekend Traffic
Review Avenue TS

DSNY and Other Agency Collection Vehicle Traffic		**Background Traffic EB and WB on Greenpoint Avenue [1]**	
Average Peak Day Trucks/Day	Saturday Trucks/ Day	Weekday average vehicles/Day	Weekend average vehicles/Day
172	129	29,296	16,171

Note:
(1) EB and WB traffic data collected from ATR counts taken on Greenpoint Avenue between Kingsland Avenue and Monitor Street from September 11 to 17, 2003.

Table 15.14-4 shows the 2006 Future Build v/c ratio, delay time and LOS for the intersections analyzed during the AM, Facility, and PM peak times associated with the Review Avenue TS. Over an average peak day, the intersections should not experience an extended increase in delay.

Table 15.14-4
HCM Analysis[1]— Future Build Conditions
Review Avenue Transfer Station

Lane Group	AM Peak Hour (8:00 a.m. – 9:00 a.m.)			Facility Peak Hour (10:00 a.m. – 11:00 a.m.)			PM Peak Hour (4:45 p.m. – 5:45 p.m.)		
	V/C Ratio	Delay (sec)	LOS	V/C Ratio	Delay (sec)	LOS	V/C Ratio	Delay (sec)	LOS
Greenpoint Avenue and Review Avenue and Van Dam Street (signalized)									
EB LTR	1.04	52.0	D	0.70	13.5	B	1.00	37.4	D
WB LTR	0.94	26.6	C	0.76	14.9	B	1.11	77.1	E
NB LTR	0.79	22.5	C	0.66	19.0	B	0.46	15.4	B
SB LTR	0.08	12.1	B	0.07	12.1	B	0.35	14.5	B
OVERALL		33.8	C		15.6	B		44.7	D
56th Road and Laurel Hill Boulevard (unsignalized)									
WB LR	0.50	17.5	C	0.55	18.8	C	0.71	34.8	D
SB LT	0.04	8.4	A	0.05	8.4	A	0.07	10.5	B
OVERALL		-	-		-	-		-	-
56th Road and 48th Street (signalized)									
EB LT	-	-	-	0.30	7.0	A	0.64	10.6	B
EB DFL	0.33	8.6	A	-	-	-	-	-	-
EB T	0.29	7.2	A	-	-	-	-	-	-
WB TR	0.30	6.8	A	0.27	6.6	A	0.29	6.7	A
SB LR	0.70	30.2	C	0.65	28.0	C	0.79	34.7	C
OVERALL		13.2	B		11.9	B		14.2	B

Notes:

[1] Highway Capacity Manual (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

LT = left through movement

L = left movement

TR = through right movement

T = through movement

15.14.4.3 Public Transportation

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

15.14.4.4 Pedestrian Activity

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

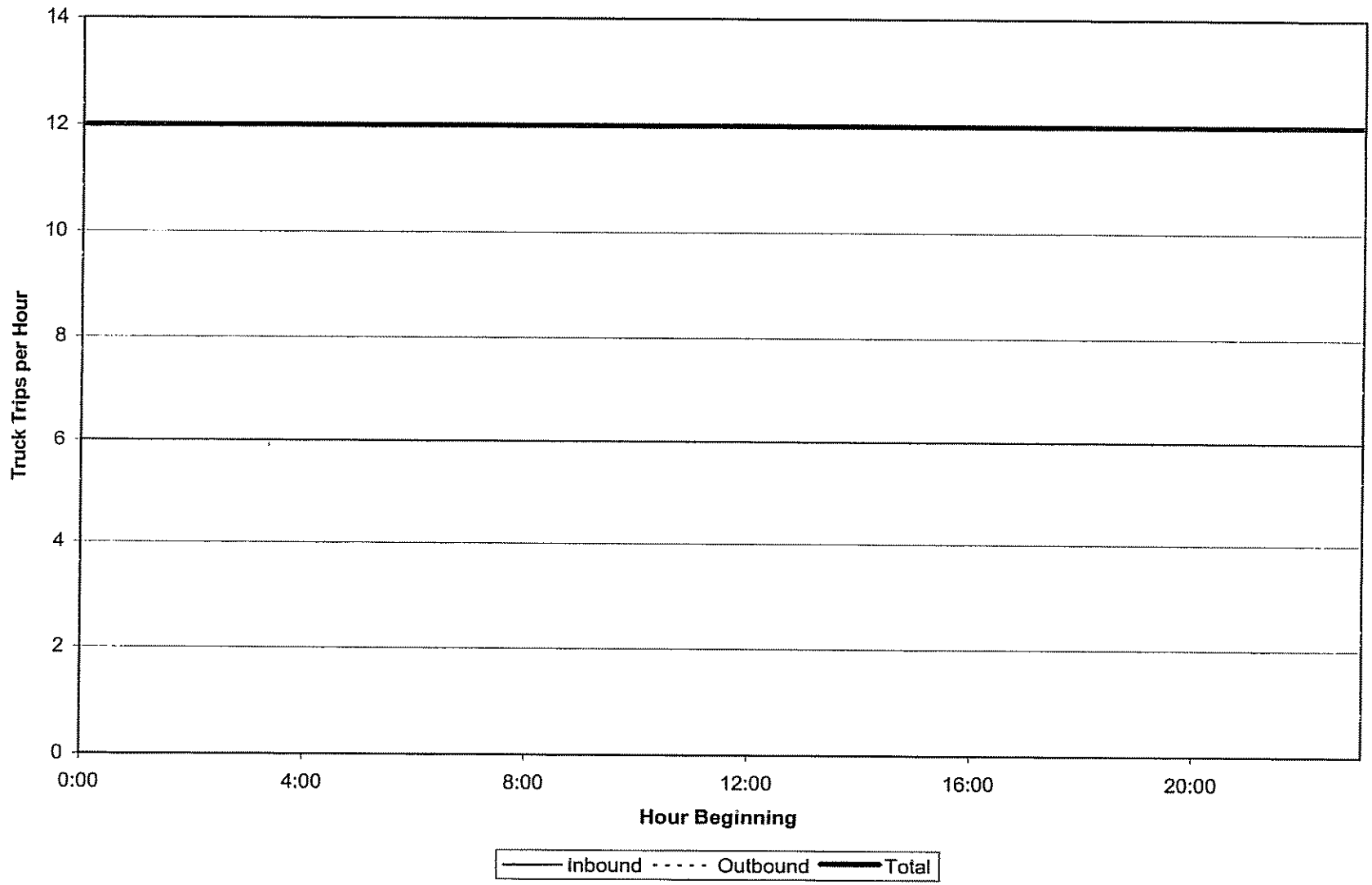
~~The assumed 24-hour truck distribution to the Review Avenue Truck to Rail TS is depicted in Figure 15.14-3. The assumed 24-hour truck distribution included dray trucks used to transport containers between the Maspeth Rail Yard and Review Avenue Truck to Rail TS. . The assumed dray truck route to and from the Maspeth Rail Yard is depicted in Figure 15.14-4.~~

~~Peak hour traffic generation for this facility is expected to be 54 PCEs, which does not fall below the CEQR screening threshold of 50 trip ends per hour, which includes the outbound container dray trips. (See Table 3.16-2 in Section 3.16 for a listing of peak hour trip ends by facility.) However, no intersection in the study area would experience an increase of more than 45 PCEs, which falls below the CEQR screening threshold. The 2000 SWMP FEIS also contained an analysis of 56 peak trips per hour, with no unmitigatible significant adverse environmental impacts. Finally, an inspection of the intersections within the study area did not indicate that significant increases in delay would result from the addition of less than 50 PCEs, based on the type of traffic control and characteristics of the intersecting streets. Therefore, no additional traffic analysis is required at this site for this option.~~

15.14.5~~6~~ Potential Impacts with the Maspeth Rail Yard

Dray trucks would transport containers filled with waste to the Maspeth Rail Yard from the Review Avenue Truck to Rail TS and deliver empty containers from the Maspeth Rail Yard to the Review Avenue Truck to Rail TS. The Maspeth Rail Yard would receive an average of 1,200 tpd (or approximately 1,440 tpd with a 20% contingency) of containerized waste. The assumed 24-hour truck distribution to the Maspeth Rail Yard is depicted in Figure 15.14-5~~1~~8. The assumed dray truck route to and from the Maspeth Rail Yard is depicted in Figure 15.14-4-10 (shown earlier). Peak hour traffic generation for this facility is expected to be 24 PCEs, which falls below the CEQR screening threshold of 50 trip ends per hour. (See Table 3.16-2 in Section 3.16 for a listing of peak hour trip ends by facility.) Therefore, no additional traffic analysis is required at this site for this option.

Figure 15.14-~~5~~18
Truck Trips per Hour
Maspeth~~Review~~ Rail Yard ~~Truck to Rail TS~~



15.15 Air Quality

The 2000 SWMP FEIS evaluated this facility as a truck-to-barge and truck-to-rail operation and included an assessment of the on- and off-site air quality impacts, except for the analysis of $PM_{2.5}$.

15.15.1 Definition of Study Areas

The study area for the on-site air quality analysis for criteria pollutants (except $PM_{2.5}$) is defined as the area within 500 meters (0.3 miles) of the property line in all directions. The study area for the on-site analysis for $PM_{2.5}$ is defined as the area within 500 meters from the highest impact location of the Review Avenue Truck to Barge TS and Truck to Rail TS. The study area for the off-site air quality analysis is defined as the area or intersection listed in Section 15.15.5.2.

15.15.2 Existing Conditions

Applicable air quality data collected at the monitoring station(s) nearest to the study area are shown in Table 15.15-1. These data were compiled by NYSDEC for the latest calendar year for which applicable data are currently available. The monitored levels do not exceed national and state ambient air quality standards.

15.15.3 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 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.

Table 15.15-1
Representative Ambient Air Quality Data
Review Avenue Truck to Barge TS and Review Avenue Truck to Rail TS

Pollutant	Monitor	Averaging Time	Value	NAAQS
CO	MTA, Flatbush Avenue Between Tillary Street and Johnson Avenue	8-Hour	3,436 $\mu g/m^3$	10,000 $\mu g/m^3$
		1-Hour	4,695 $\mu g/m^3$	40,000 $\mu g/m^3$
NO_2	College Point Post Office	Annual	56 $\mu g/m^3$	100 $\mu g/m^3$
PM_{10}	Greenpoint	Annual	23 $\mu g/m^3$	50 $\mu g/m^3$
		24-Hour	51 $\mu g/m^3$	150 $\mu g/m^3$
SO_2	Greenpoint	3-Hour	188 $\mu g/m^3$	1,300 $\mu g/m^3$
		24-Hour	84 $\mu g/m^3$	365 $\mu g/m^3$
		Annual	18 $\mu g/m^3$	80 $\mu g/m^3$

Notes:
Source: NYCDEP, April 2003 & USEPA Air data – Monitor Values Report (http://oaspub.epa.gov/airdata)
(1) Values are the highest pollutant levels recorded during the 2003 calendar year.
(2) Values are the highest pollutant levels recorded during the 1999 calendar year.

15.15.4 Potential Impacts with the Review Avenue Truck to Barge TS

15.15.4.1 On-Site Emissions

Based on the 2000 SWMP FEIS, at 1,200 tpd, the potential impacts from the operation of the Review Avenue Truck to Barge TS were estimated for criteria pollutants and found to be within applicable standards and guidelines, impacts under the Truck to Rail TS would also be within standards and guidelines, so an analysis of this facility would likewise not result in a finding of significant impacts.

15.15.4.1.1 Sources Considered in the Analysis

The sources of emissions and the number of each type of source that are anticipated to be operating during the peak hour and in an average hour are provided in Table 15.15-2. Figure 15.15.1 shows the locations of these sources within the site.

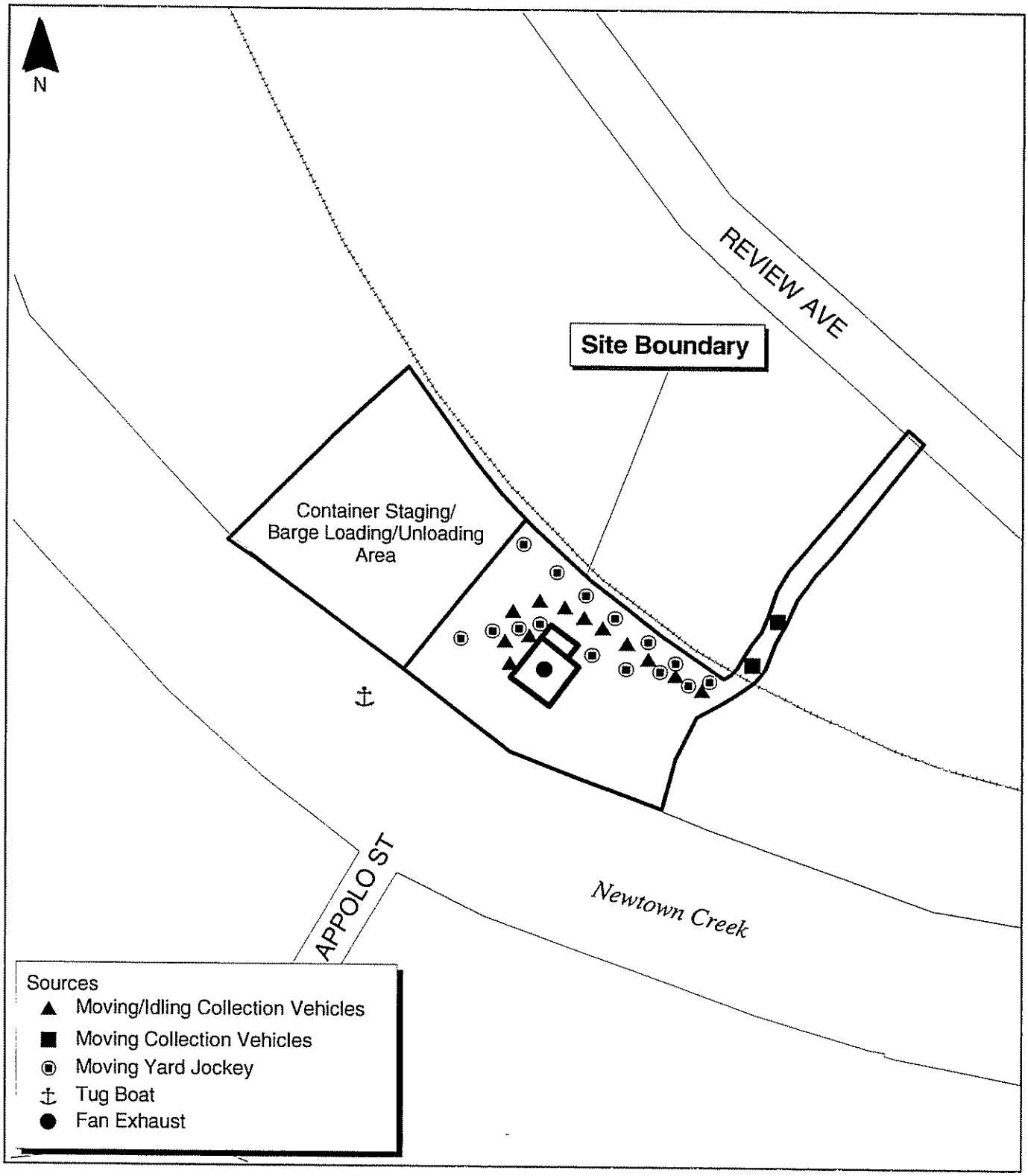
Table 15.15-2
Emission Sources Considered for On-Site Air Quality Analysis[1]
Review Avenue Truck to Barge TS

Type of Emission Source	Maximum Number of Sources Operated During a Single Peak Hour	Number of Sources Operated During Annual Average Hour
Within Processing Building		
Moving/Queuing Collection Vehicles [2]	15	5
Wheel Loaders	1	1
Track Loaders	1	1
Grapples	1	1
Moving Street Sweepers	1	1
Outside Processing Building		
Moving/Queuing Collection Vehicles [2]	15	5
Moving Yard Jockey	6	3
Stick Crane	1	1
Container Handler	1	1
Tug Boat	1	1

Notes:
(1) Emission factors used and emission rates estimated for each of these sources are included in technical backup ~~provided to the NYCDEP~~to be provided upon request.
(2) Peak 24-hour average number of moving collection vehicles: 6.
Peak 24-hour and annual average number of queuing collection vehicles: 3.

15.15.4.1.2 Results of the Criteria Pollutant Analysis

The highest estimated criteria pollutant concentrations at any one of the receptor sites considered are provided in 2000 SWMP FEIS. These values are compared with the applicable standards for the appropriate averaging time periods. $PM_{2.5}$ results are presented in Table 15.15-3. Based on the results presented in Table 15.15-3 and 2000 SWMP FEIS, operations proposed at this facility would not adversely impact air quality in the area. The total predicted concentrations (including appropriate background concentrations) are below the national and state ambient air quality standards.



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

Figure 15.15-1 On-Site Air Quality Analysis

Review Avenue Truck to Barge Transfer Station

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Table 15.15-3
Highest Estimated Concentrations of the Criteria Pollutants from On-Site Emissions
Review Avenue Truck to Barge TS

Pollutant	Averaging Time Period	Maximum Impacts from On-Site Emission Sources	STV[2]
Particulate Matter ($PM_{2.5}$), $\mu g/m^3$[3]	24-hour [1]	~~4.96~~2.94	5
	Annual Neighborhood Average[3]	~~0.07~~0.03	0.1

Notes:
(1) The highest estimated incremental pollutant concentrations found at any of the ~~off-site~~ receptor locations.
(2) Screening threshold value (STV) established by the NYCDEP and NYSDEC.
(3) Incremental Average $PM_{2.5}$ concentration over 1 km x 1 km "neighborhood-scale" receptor grid.

15.15.5 Potential Impacts with the Review Avenue Truck to Rail TS

15.15.5.1 On-Site Emissions

Based on 2000 SWMP FEIS, at 1,200 tpd, the potential impacts from the operation of the Review Avenue Truck to Rail TS were estimated and found to be within applicable standards and guidelines for criteria pollutants, impacts under the Truck to Rail TS would also be within standards and guidelines, so an analysis of this facility would likewise not result in a finding of significant impacts.

15.15.5.1.1 Sources Considered in the Analysis

The sources of emissions and the number of each type of source that are anticipated to be operating during the peak hour and in an average hour are provided in Table 15.15-4. Figure 15.15.2 shows the locations of these sources within the site.

Table 15.15-4

Emission Sources Considered for On-Site Air Quality Analysis[1]
Review Avenue Truck to Rail TS

Type of Emission Source	Number of Sources Operated During Peak Hour	Number of Sources Operated During Annual Average Hour
Within Processing Building		
Moving/Queuing Collection Vehicles [2]	15	5
Wheel Loaders	1	1
Track Loaders	1	1
Grapples	1	1
Moving Street Sweepers	1	1
Outside Processing Building		
Moving/Queuing Collection Vehicles [2]	15	5
Container Handler	1	1
Moving Yard Tractors	6	3
Moving Yard Jockey	6	3

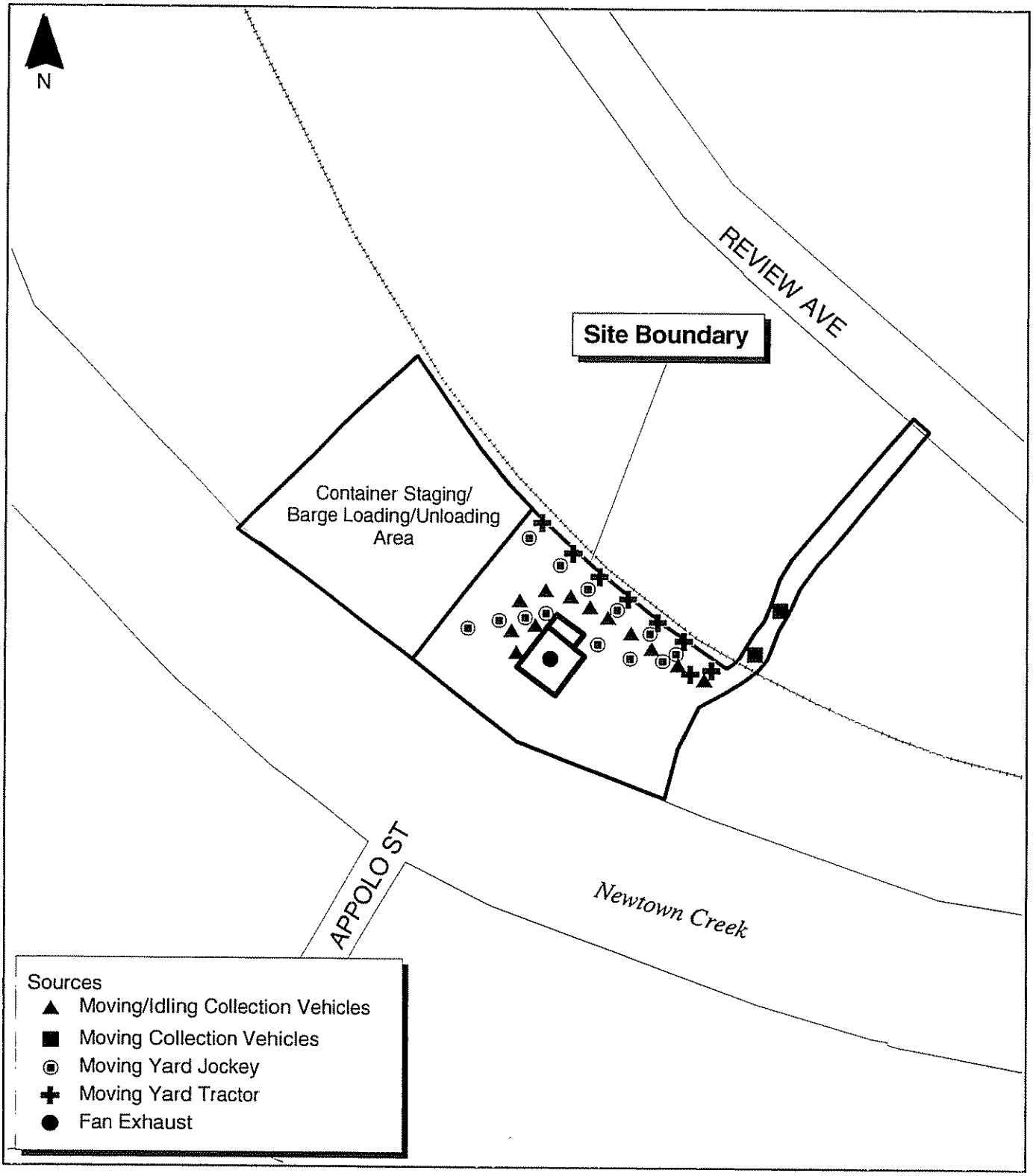
Notes:
(1) Emission factors used and emission rates estimated for each of these sources are included in technical backup ~~provided to the NYCDEP~~to be provided upon request.
(2) ~~—~~Peak 24-hour average number of moving collection vehicles: 6.
~~—~~Peak 24-hour and annual average number of queuing collection vehicles: 3.

15.15.5.1.2 Results of the Criteria Pollutant Analysis

The highest estimated criteria pollutant concentrations at any one of the receptor sites considered are provided in 2000 SWMP FEIS. These values are compared with the applicable standards for the appropriate averaging time periods. $PM_{2.5}$ results are presented in Table 15.15-5. Based on the results presented in Table 15.15-5 and 2000 SWMP FEIS, operations proposed at this facility would not adversely impact air quality in the area. The total predicted concentrations (including appropriate background concentrations) are below the national and state ambient air quality standards.

15.15.5.1.3 Results of the Toxic Pollutant Analysis

Based on 2000 SWMP FEIS, the potential impacts of the toxic pollutant emissions from the on-site operations of the Review Avenue Truck to Rail TS are not considered to be significant.



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

100 0 100 Feet

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Figure 15.15-2 On-Site Air Quality Analysis

Review Avenue Truck to Rail Transfer Station

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Table 15.15-5
Highest Estimated Concentrations of the Criteria Pollutants from On-Site Emissions
Review Avenue Truck to Rail TS

Pollutant	Averaging Time Period	Maximum Impacts from On-Site Emission Sources	STV[2]
Particulate Matter ($PM_{2.5}$), $\mu g/m^3$[3]	24-hour [1]	~~2.6~~4.3	5
	Annual Neighborhood Average	0.03	0.1

Notes:
(1) The highest estimated incremental pollutant concentrations found at any of the off-site receptor locations.
(2) Screening threshold value (STV) established by the NYCDEP and NYSDEC.
(3) Incremental a~~A~~verage $PM_{2.5}$ concentration over 1 km x 1 km "neighborhood-scale" receptor grid.

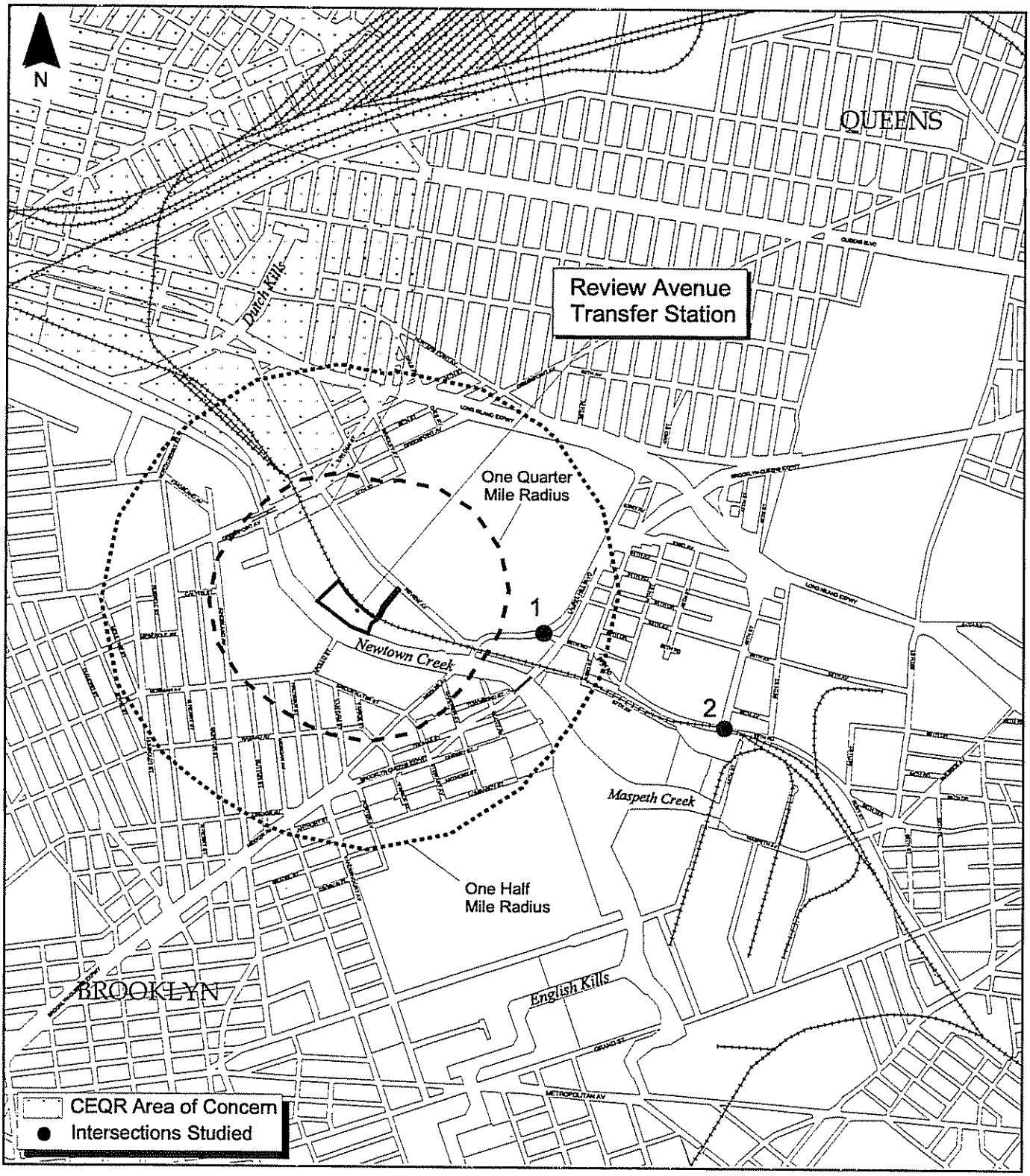
15.15.5.2 Off-Site Emission Sources

15.15.5.2.1 Pollutants Considered and Analyses Conducted

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

- The intersections of Laurel Hill Boulevard west of the BQE and 48th Street at 56th Road to determine whether TS-generated traffic has the potential to cause exceedances of NYCDEP's and NYSDEC's 24-hour and annual $PM_{2.5}$ STVs; and
- The intersections of Laurel Hill Boulevard west of the BQE and 48th Street at 56th Road to determine whether TS-generated traffic has the potential to cause exceedances of the 24-hour and annual PM_{10} NAAQS.

The roadway intersections selected for the mobile source analysis are shown in Figure 15.15-3.



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

1000 0 1000 Feet

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Figure 15.15-3 Off-Site Air Quality Intersections Studied Review Avenue Transfer Station

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15.15.5.2.2 Results of the Off-Site Analysis

Applicable pollutant concentrations estimated near each selected intersection, which are shown in Table 15.15-6, are all within (less than) the applicable state and federal ambient air quality standards and STVs (for $PM_{2.5}$). The off-site operations of the Review Avenue Truck to Barge and Truck to Rail TS, therefore, are not considered to be significant.

Table 15.15-6
Estimated Pollutant Concentrations Near Selected Roadway Intersections
Review Avenue Truck to Barge and Truck to Rail TS

Air Quality Receptor Site	CO	PM_{10}		24-hr $PM_{2.5}$ Impacts			Max Annual Neighborhood $PM_{2.5}$ Impacts		
	8-hr CO Conc.[1] ppm (NAAQS: 9 ppm)	24-hr PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 150 $\mu g/m^3$)	Annual PM_{10} Conc.[1] $\mu g/m^3$ (NAAQS: 50 $\mu g/m^3$)	Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Impacts from Off-Site Emission Sources[3] $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Total Combined Impacts from On- and Off-Site Emission Sources $\mu g/m^3$ (STV: 5 $\mu g/m^3$)	Impacts from On-Site Emission Sources[2] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)	Impacts from Off-Site Emission Sources[4] $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)	Total Combined Impacts from On- and Off-Site Emission Sources $\mu g/m^3$ (STV: 0.1 $\mu g/m^3$)
Laurel Hill Boulevard & BQE									
Existing Conditions	NA[5]	91	35						
Future No-Build Conditions	NA[5]	90	34						
Future Build Conditions	NA[5]	88	34						
Future Build Incremental				0.13	0.26	0.39	0.01	0.021	0.031
48th Street & 56th Road									
Existing Conditions	NA[5]	77	31						
Future No-Build Conditions	NA[5]	76	30						
Future Build Conditions	NA[5]	76	30						
Future Build Incremental				0.066	0.40	0.47	0.005	0.036	0.041

Notes for Table 15.15-6:

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

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

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

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

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

ppm = parts per million

$\mu g/m^2$ = microgram per cubic meter

15.16 Odor

15.16.1 Existing Conditions

Although the existing Review Avenue TS is located at the site, the analyses of the Review Avenue Truck to Barge and Truck to Rail TS assume there are no existing on-site sources of odor. 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 an apartment building at the intersection of Varick Street and Nassau Avenue, approximately, 312 meters (1,023) feet from the property boundary.

15.16.2 Future No-Build Conditions

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

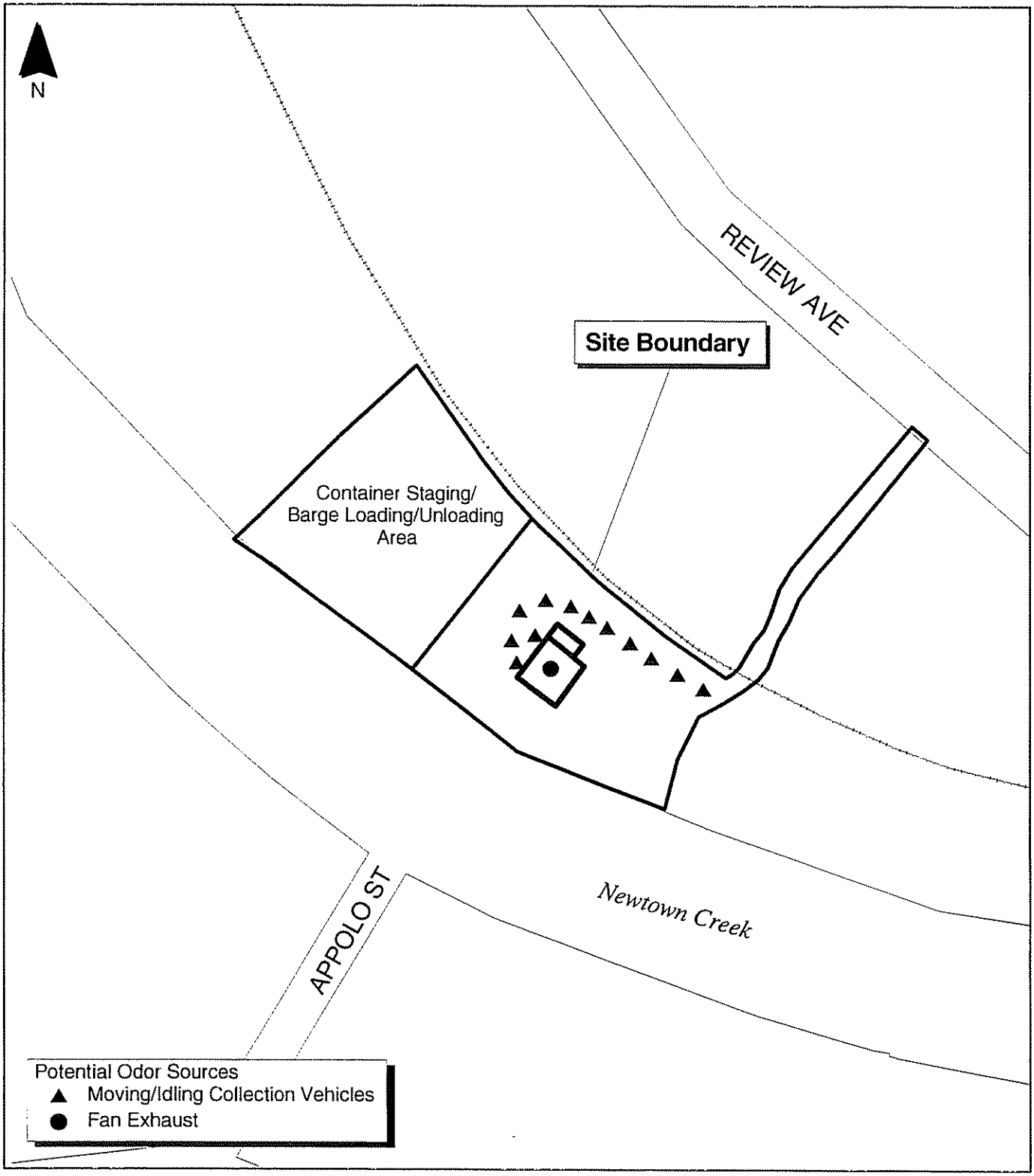
15.16.3 Potential Impacts with the Review Avenue TS~~South Bronx Converted MTS~~

15.16.3.1 Odor Source Types and Locations Considered in the Analysis

The anticipated number and types of odor sources that would be associated with waste processing operations at peak design capacity at the Review Avenue TS are provided in Table 15.16-1. The odor sources are the same for Review Avenue Truck to Barge and Truck to Rail TS. Figures 15.16-1 and 15.16-2 show the locations of these sources within the site.

Table 15.16-1
Odor Sources Included in Odor Analysis
Review Avenue TS

Type of Emission Source	Number of Sources Operated During Peak Design Capacity
Exhaust Fans from Processing Building	1
Moving /Idling Collection Vehicles	1



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

100 0 100 Feet

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Figure 15.16-1 Potential Odor Sources

Review Avenue Truck to Barge Transfer Station

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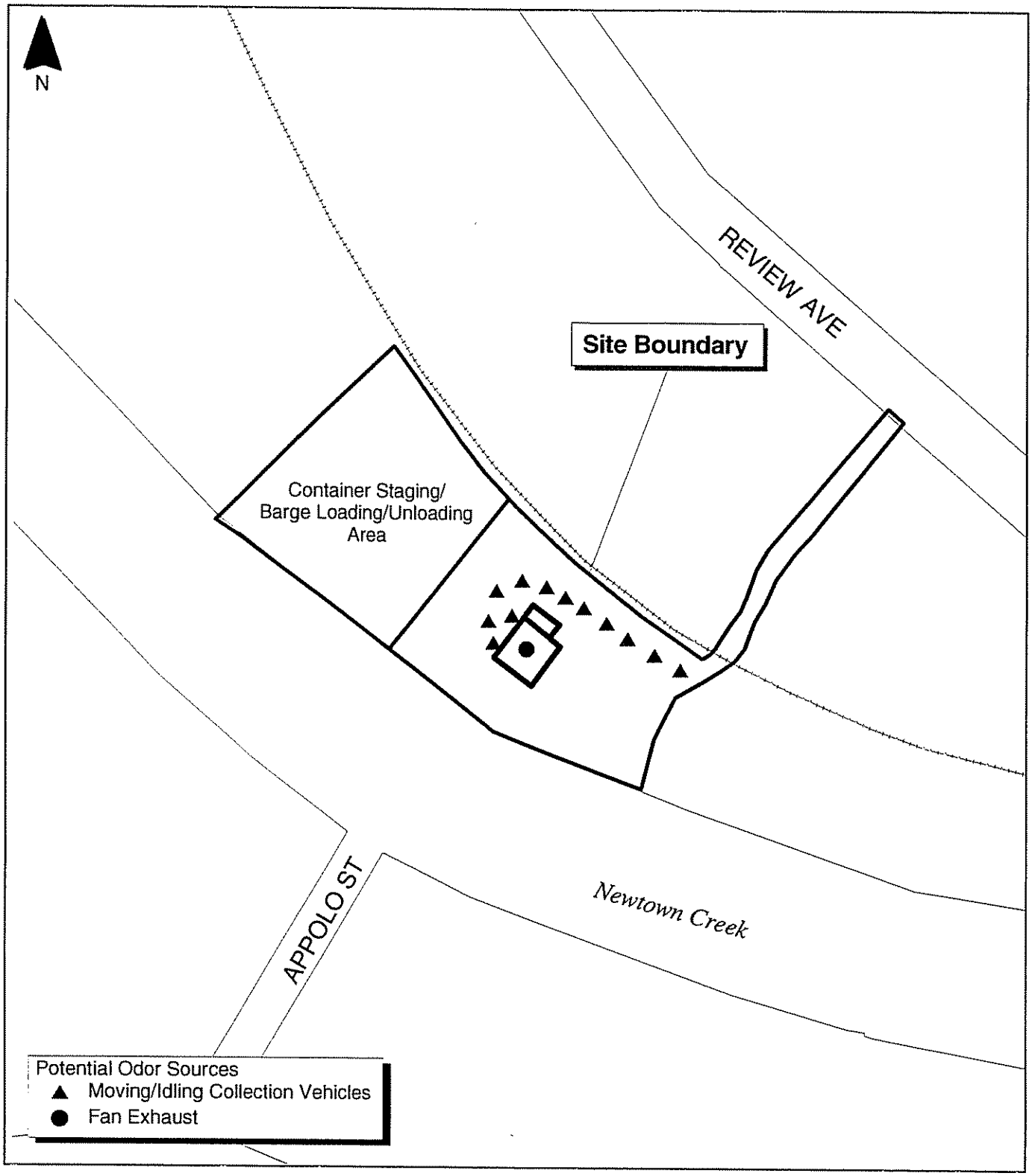


Site delineations are approximate.
Base Map Source: New York City Department of City Planning

Figure 15.16-2 Potential Odor Sources
Review Avenue Truck to Rail Transfer Station
CITY OF NEW YORK
DEPARTMENT OF SANITATION

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

15.16.3.2 Results of the Odor Analysis

The highest estimated odor concentrations at any of the receptor sites considered and the concentrations at the closest sensitive receptor are presented in Table 15.16-2. The predicted OU values at sensitive receptor locations are compared to an OU of 5, which represents the level of odor impact that would begin to be detected by an average observer. The highest predicted OU associated with the Review Avenue TS at any nearby sensitive receptor is less than 1, so odors from the Review Avenue TS 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 15.16-2
Highest Predicted Odor Concentration(s) from On-Site Sources
Review Avenue TS

Parameter	Resulting Odor Unit[1]
Estimated Detectable Concentration	5.0
Highest Result	0.27
Type of Receptor	Fence Line Receptor
Location of Receptor[2]	Site Boundary
Closest Sensitive Receptor Result[2]	0.03
Type of Receptor	Apartment Buildings
Distance to Receptor[3]	1,023 Feet

Notes:
(1) Odor Unit is defined as concentration that an average person in a laboratory setting could just barely detect.
(2) Sensitive receptors in this analysis are the same as sensitive receptors in the noise analysis.
~~(1) D/T ratio is dimensionless.~~
~~(2) Measured from the site boundary.~~
~~(3) Measured from the site property line.~~

15.17 Noise

The noise analysis addresses on-site and off-site sources of noise emissions from the Review Avenue TS-related solid waste management activities. It is based on Section R of the 2001 CEQR Technical Manual for on-site and off-site sources for both the Review Avenue Truck to Barge TS option and the Review Avenue Truck ~~t~~To Rail TS option. Section 3.19 provides a general discussion of the relevant regulatory standards and methodologies applied in this analysis.

15.17.1 Existing Conditions

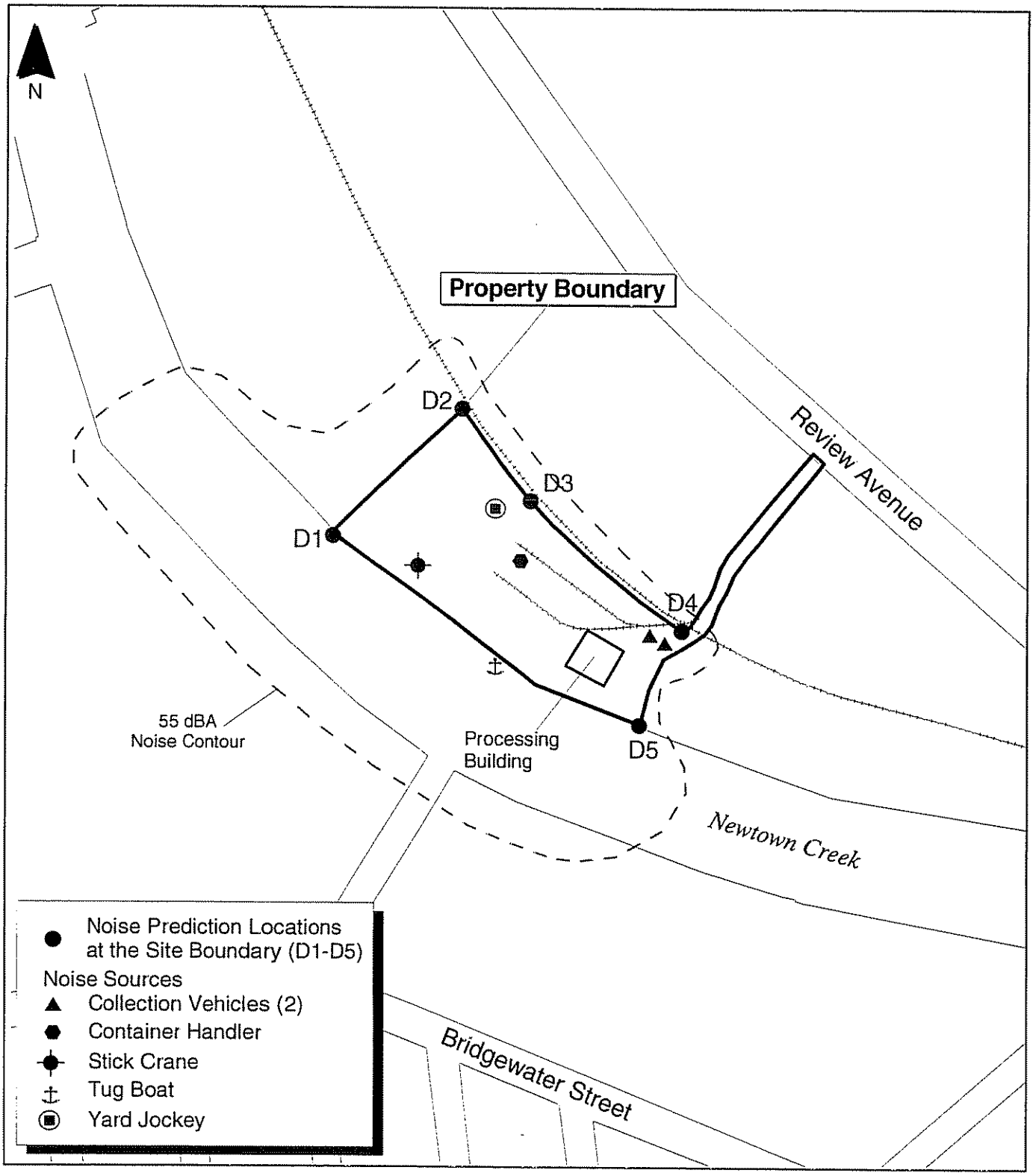
15.17.1.1 Introduction

Figure 15.17-1 shows the location of the Review Avenue Truck to Barge TS, the surrounding area and the points that represent the property boundary (D1, etc.) for all noise analyses. Figure 15.17-2 shows the location of the Review Avenue Truck to Rail TS, the surrounding area and the points that represent the property boundary (D1, etc.) for all noise analyses. The nearest noise-sensitive receptor is an apartment building at the intersection of Varick Street and Nassau Avenue, approximately, 312 meters (1,023) feet from the property boundary.

15.17.1.2 On-Site Noise Levels

Existing on-site noise levels consist of noise created by the activities and events on and immediately surrounding the site. Existing noise levels were monitored hourly for a 24-hour period at the property line closest to the nearest noise-sensitive receptor. Noise monitoring data recorded hourly included: $L_{eq(1)}$, L_{min} and L_{max},[1] and the statistical metrics of L_{10}, L_{50} and L_{90}.[2]

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



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

200 0 200 Feet

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Figure 15.17-1 Noise Sources and Receptors

Review Avenue Truck to Barge TS

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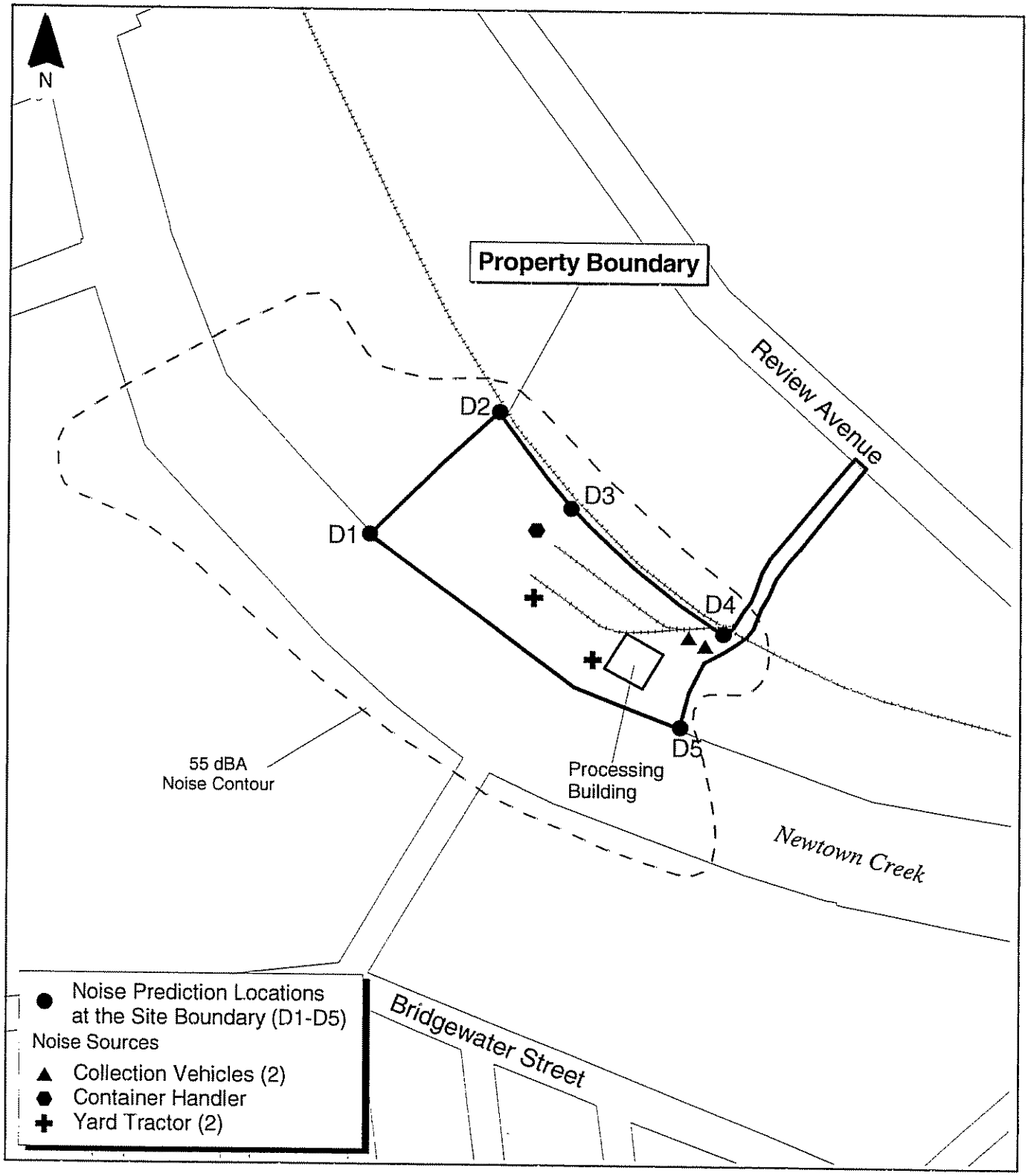

Site delineations are approximate
Base Map Source: New York City Department of City Planning

200 0 200 Feet

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Figure 15.17-2 Noise Sources and Receptors

Review Avenue Truck to Rail TS

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Table 15.17-1 presents monitored noise levels. As shown, the quietest hour at the monitoring location occurred between 1:00 a.m. and 2:00 a.m. and had an $L_{eq(1)}$ of 49 dBA on March 10, 1999. Activities and events that contribute to the on-site noise levels include:

- Industrial activities across Newtown Creek and along Review Avenue;
- Train traffic on the LIRR tracks located between the Existing Review Avenue TS and Review Avenue;
- Commercial watercraft traffic on Newtown Creek; and
- Other noise sources associated with activities in the surrounding industrial areas.

15.17.1.3 Off-Site Noise Levels

Existing off-site noise levels consist of the noise from existing traffic and other background noise. A screening analysis was conducted to determine if off-site noise monitoring would be required along the Review Avenue TS-related truck routes due to an increase in traffic caused by DSNY and other agency collection vehicles. As a result of this screening, which is described in Section 3.19.5.2, no off-site noise analysis was required, and therefore, off site noise monitoring was not conducted.

15.17.2 Future No-Build Conditions

15.17.2.1 On-Site Noise Levels

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

15.17.2.2 Off-Site Noise Levels

Off-site noise levels for the Future No-Build Conditions in 2006 were calculated using the annual growth rates for traffic volume provided in Section O: Traffic of the 2001 CEQR Technical Manual. Table 15.17-2 presents the existing traffic volume and the Future No-Build traffic volume for the hour expected to receive the largest change in noise levels (when the difference between the traffic noise levels and background noise levels is greatest) based on the first-level screening.

Table 15.17-1
Existing Hourly (Monitored) Noise Levels On Site[1]
Review Avenue TS

Time of Measurement	$L_{eq(1)}$ (dBA)	L_{90} (dBA)	L_{50} (dBA)	L_{10} (dBA)	L_{min} (dBA)	L_{max} (dBA)
12:00-1:00 a.m.	50	48.4	50.0	53.1	46	66
1:00-2:00 a.m.	49	48.0	49.3	51.2	45	75
2:00-3:00 a.m.	50	47.1	48.6	50.3	45	66
3:00-4:00 a.m.	52	47.4	49.2	50.9	46	78
4:00-5:00 a.m.	52	48.3	49.7	51.3	48	70
5:00-6:00 a.m.	58	49.7	51.5	53.6	51	73
6:00-7:00 a.m.	60	53.2	55.2	60.5	52	84
7:00-8:00 a.m.	57	54.1	56.6	62.3	51	78
8:00-9:00 a.m.	56	53.3	55.7	59.5	49	84
9:00-10:00 a.m.	57	52.0	53.9	58.2	50	78
10:00-11:00 a.m.	58	52.5	54.6	58.4	50	80
11:00 a.m.-12:00 p.m.	60	52.4	54.4	58.2	51	92
12:00-1:00 p.m.	52	52.4	54.3	57.4	48	67
1:00-2:00 p.m.	53	48.6	50.1	53.9	46	72
2:00-3:00 p.m.	51	48.1	49.8	54.4	46	70
3:00-4:00 p.m.	56	48.2	49.6	52.3	47	79
4:00-5:00 p.m.	61	49.3	51.1	55.3	47	87
5:00-6:00 p.m.	53	49.5	51.5	56.7	48	83
6:00-7:00 p.m.	52	49.6	51.2	54.3	47	66
7:00-8:00 p.m.	54	49.2	50.8	54.0	48	84
8:00-9:00 p.m.	53	49.8	51.3	54.5	48	72
9:00-10:00 p.m.	52	49.8	51.3	54.7	48	73
10:00-11:00 p.m.	52	49.3	50.7	53.1	47	68
11:00 p.m.-12:00 a.m.	54	49.1	50.7	54.3	47	90

~~Note for Table 15.17-1:~~

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

Table 15.17-2
Off-Site Noise Traffic Volume
Review Avenue TS

Location	Hour	Existing Traffic Volume [1] (Vehicles/Hour)	Future No-Build Traffic Volume [2] (Vehicles/Hour)
Greenpoint Avenue eEast of Bradley Avenue	3:00 a.m.	114	119
Van Dam Street between Star Avenue and Bradley Avenue	2:00 a.m.	87	89

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

15.17.3 Potential Impacts with the Review Avenue Truck to Barge TS

15.17.3.1 On-Site Noise Levels

Proposed equipment assumed to be operating at the Review Avenue Truck to Barge TS and its reference noise levels used in the CEQR analysis are shown in Table 15.17-3. The number and type of equipment assumed for this analysis was based on the Review Avenue Truck to Barge TS's average design capacity. Shown earlier, Figure 15.17-1 indicates the Review Avenue Truck to Barge TS layout, the locations of the points along its boundary where overall noise predictions were calculated and the predicted 55 dBA contour line.

15.17.3.2 CEQR Analysis

A screening analysis was conducted to determine if a detailed noise analysis would be required for the on-site operations at the Review Avenue Truck to Barge TS. 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 65 meters (213 feet) from the property line in the direction of the nearest noise-sensitive receptor, which is 312 meters (1,023 feet) from the site boundary. The 55 dBA contour line was selected as a limit for the study area because 55 dBA (i.e., the point off site where noises generated on site attenuate to 55 dBA) is considered an acceptable noise level in an urban environment. Section 3.19.5.1 discusses this concept in greater detail. The results of the screening analysis show that noise-sensitive receptors are not located within the 55 dBA contour line (See Figure 15.17-1); therefore, an on-site noise analysis, including noise monitoring at the nearest noise-sensitive receptor, was not required.

Table 15.17-3
Equipment Modeled in the Noise Analysis and Reference Noise Levels (L_{eq})
Review Avenue Truck to Barge TS

Equipment Name (quantity)[1]	Reference Sound Pressure Noise Level at 50 feet (dBA)[2]
Indoor	
Track Loader (1)	80.6
Overhead Crane (1)	70
Outdoor	
Yard Jockey (1)	73.8
Container Handler (1)	76.2
Stick Crane (1)	77.2
Tugboat (1)	73
Collection Vehicles (moving/idling) (2)	67

Notes:
(1) Instantaneous maximum number of pieces of equipment on site at any given time.
(2) Noise level representative of each piece of equipment.

15.17.3.3 Off-Site Noise Levels

A screening analysis was conducted to determine if a detailed off-site noise analysis including noise monitoring would be required along the truck routes serving the Review Avenue Truck to Barge TS. The assumed DSNY and other agency collection vehicles routes are provided in Section 14 of this chapter. As a result of this screening, which is described in Section 3.19.5.2, a second-level screening was not required; therefore an off-site noise analysis and off-site noise monitoring was not required. Results of the first-level screening for the hour expected to receive the largest change in noise levels (when the difference between the traffic noise levels and background noise levels is greatest) are provided in Table 15.17-4.

15.17.3.4 Combined On-Site and Off-Site Noise Levels

The on- and off-site screening analyses performed for the Review Avenue Truck to Barge TS, neither on- or off-site noise analyses were required; therefore, a combined noise analysis was not performed.

Table 15.17-4
Off-Site Noise Screening[1] Results
Review Avenue Truck to Barge TS

Location	Hour	Future No-Build PCEs[2]	Collection Vehicles	Employee Vehicles	Total Net DSNY Collection Vehicles PCEs[2][3]	Future Build PCEs[2][3]	Possible Impact[4]
Greenpoint Avenue East of Bradley Avenue	3:00 a.m.	222	4	0	188	410	No
Van Dam Street between Star Avenue and Bradley Avenue	2:00 a.m.	142	2	0	94	236	No

Notes:
(1) Based on first-level screening, since a second-level screening was not required.
(2) Total PCEs are rounded to the nearest whole number.
(3) Future Build PCEs include Review Avenue TS-related collection vehicles and employee vehicles. Per CEQR, collection vehicles are converted to PCEs using a factor of 47 and employee vehicles are converted using a factor of 1.
(4) There is a possible impact if the Future Build PCEs are double the Future No Build PCEs or more.

15.17.4 Potential Impacts with the Review Avenue Truck to Rail TS

15.17.4.1 On-Site Noise Levels

Proposed equipment assumed to be operating at the Review Avenue Truck to Rail TS and its reference noise levels used in the CEQR analysis are shown in Table 15.17-5. The number and type of equipment assumed for this analysis was based on the Review Avenue Truck to Rail TS's average design capacity. Shown earlier, Figure 15.17-2 indicates the Review Avenue Truck to Rail TS layout, the locations of the points along its boundary where overall noise predictions were calculated and the predicted 55 dBA contour line.

Table 15.17-5
Equipment Modeled in the Noise Analysis and Reference Noise Levels (L_{eq})
Review Avenue Truck to Rail TS

Equipment Name (quantity)[1]	Reference Sound Pressure Noise Level at 50 feet (dBA)[2]
Indoor	
Track Loader (1)	80.6
Overhead Crane (1)	70
Yard Jockey (1)	73
Outdoor	
Container Handler (1)	76.2
Tractor (2)	80.6
Collection Vehicles (moving/idling) (2)	67

Notes:
(1) Instantaneous maximum number of pieces of equipment on site at any given time.
(2) Noise level representative of each piece of equipment.

15.17.4.2 CEQR Analysis

A screening analysis was conducted to determine if a detailed noise analysis would be required for the on-site operations at the Review Avenue Truck to Rail TS. 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 94 meters (307 feet) from the property line in the direction of the nearest

noise-sensitive receptor, which is 312 meters (1,023 feet) from the site boundary. The 55 dBA contour line was selected as a limit for the study area because 55 dBA (i.e., the point off site where noises generated on site attenuate to 55 dBA) is considered an acceptable noise level in an urban environment. Section 3.19.5.1 discusses this concept in greater detail. The results of the screening analysis show that noise-sensitive receptors are not located within the 55 dBA contour line (see Figure 15.17-2); therefore, an on-site noise analysis, including noise monitoring, at the nearest noise-sensitive receptor, was not required.

15.17.4.3 Off-Site Noise Levels

The Review Avenue Truck to Rail TS option includes DSNY and other agency collection vehicles en route to and from the Review Avenue Truck to Rail TS, as well as trucks hauling loaded containers to the Maspeth Railyard for loading onto locomotives. Since noise-sensitive receptors are not located along the truck route from the Review Avenue Truck to Rail TS to the Maspeth Railyard, an off-site noise analysis was not required for those routes. Therefore, the off-site noise analysis for the Review Avenue Truck to Rail TS is the same as the off-site noise analysis for the Review Avenue Truck to Barge TS, which is presented in Section 15.17.3.3.

15.17.4.4 Combined On-Site and Off-Site Noise Levels

As a result of both the on- and off-site screening analyses performed for the Review Avenue Truck to Rail TS, neither the on- or the off-site noise analyses were required; therefore, a combined noise analysis was not performed.