CHAPTER 15: TRAFFIC AND PARKING

A. INTRODUCTION

This chapter of the EIS describes the traffic and parking characteristics and potential impacts associated with the proposed actions, which involve zoning map and text amendments for an area encompassing 36 whole and four partial blocks in the Dutch Kills neighborhood located in Long Island City, Queens. The rezoning area, which is adjacent to the Sunnyside Yards and just north of Queens Plaza and the Long Island City central business district (CBD), is generally bounded by 36th Avenue on the north, 41st Avenue on the south, Northern Boulevard on the east, and 23rd Street on the west (see Figure 15-1). As described in detail in earlier chapters of this EIS, the goals of the proposed zoning map changes and text amendments are to encourage moderate and higher density development near public transportation, and to support continued economic growth in a mixed-use residential, commercial and light industrial community. Overall, the proposed zoning changes would result in an increase in permitted residential density on approximately 50 acres of land, representing 72 percent of the rezoning area, and a decrease in commercial and light industrial density on 39 acres of land representing approximately 53 percent of the rezoning area. Approximately 20 acres, or about 30 percent of the rezoning area would experience no change in permitted residential density, but residential development would be permitted as-of-right.

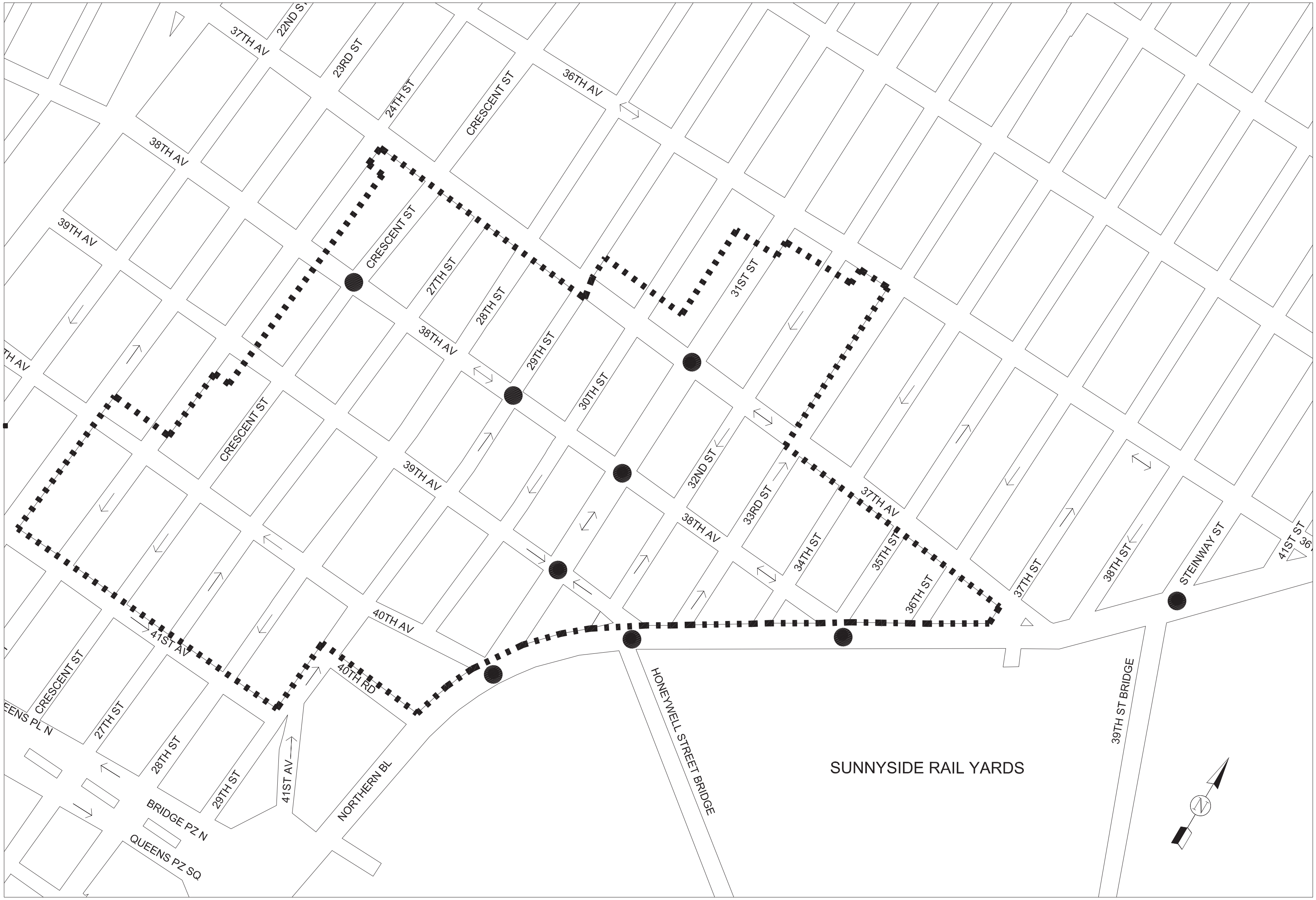
Typically, CEQR assessments of large area-wide zoning proposals not associated with specific development projects assume a 10-year build period. This is the time frame that can be reasonably predicted into the foreseeable future without engaging in highly speculative projections. Thus, the transportation analyses in this EIS address a development program that could reasonably be constructed by 2017, described as the reasonable worst case development scenario (RWCDS) in Chapter 1, "Project Description." Under the RWCDS, the proposed actions would result in a net increase of 1,555 dwelling units (DUs), 61,092 square feet of local retail and 70,606 square feet of destination (supermarket) retail uses on 40 projected development sites. Compared to the future without the proposed actions, there would be a net reduction of 132,848 square feet of office, 196,320 square feet of hotel, 180,536 square feet of light industrial, and 41,697 square feet of community facility uses. The traffic and parking analyses consider auto, taxi and truck trips, as well as parking demand and changes in supply related to this reasonable worst case development scenario. The locations of the 40 projected development sites and their anticipated uses are shown in Figure 1-6 and listed in Table 1-3 in Chapter 1.

This chapter describes in detail the existing traffic and parking conditions in the study area. Future conditions in the year 2017 without the proposed actions (the No-Action condition) are then determined, including additional transportation-system demand and any changes in the parking supply expected by the year 2017. The increase in travel demand resulting from the proposed actions is then projected and added to the No-Action condition to develop the 2017 future condition with the proposed actions. Significant adverse impacts from project-generated trips are then identified, and described in detail. Transit and pedestrian characteristics and potential impacts associated with the proposed actions are examined in Chapter 16 of this EIS.

B. OVERVIEW

TRAFFIC

Vehicle trips generated under the reasonable worst case development scenario would be most concentrated at intersections along the principal arterials providing access to, from and within the



Legend:
- Rezoning Area Boundary
- Street Direction
- Analyzed Intersection

New York City
Department of City Planning

Dutch Kills Rezoning and Related Actions

Traffic Study Area and Analyzed Intersections

The Louis Berger Group, Inc.

Figure 15-1

rezoning area – primarily Northern Boulevard, 31st Street and 38th Avenue. A total of nine signalized intersections along these corridors have been selected for analysis based on the assignment of project-generated traffic. The traffic impact analysis examines conditions during three weekday peak hours (7:30-8:30 AM, 12-1 PM and 4:30-5:30 PM), and one Saturday peak hour (12:30-1:30 PM).

TRAVEL DEMAND

In the future with the proposed actions, the RWCDS would result in a net reduction of 61 inbound vehicle trips and a net increase of 111 outbound vehicle trips in the weekday AM peak hour (auto, taxi and truck combined), 47 new inbound and 43 new outbound vehicle trips in the weekday midday, 143 new inbound and six new outbound vehicle trips in the weekday PM peak hour, and 114 new inbound and 87 new outbound vehicle trips in the Saturday midday peak hour.

IMPACT ANALYSIS

A total of four signalized intersections (all along Northern Boulevard) would have significant adverse impacts as a result of project-generated traffic during one or more peak hours. The weekday PM peak hour would have the highest number of impacted intersections with four, followed by the weekday midday with three, and the weekday AM and Saturday midday with two each. Measures to mitigate significant adverse impacts are presented in Chapter 21, “Mitigation.”

PARKING

The off-street public parking supply in the study area is expected to be 61 percent utilized in the weekday AM and 55 percent utilized in the Saturday midday in the future with the proposed actions. In the weekday midday, however, parking demand in the study area is expected to exceed capacity by approximately 1,283 spaces (a 157 percent utilization rate) compared to 1,083 spaces (a 144 percent utilization rate) under No-Action conditions. It is anticipated that all parking demand from development of the RWCDS under the future condition with the proposed actions would be accommodated in accessory parking facilities, and would not contribute to the projected deficit of off-street public parking in the weekday midday. The displacement of one existing off-street public parking facility under the RWCDS would, however, reduce available capacity in the study area by 200 spaces. As the proposed actions would not increase the demand for off-street public parking in the study area, and as the displacement of 200 parking spaces would represent a change of less than 10 percent compared to the capacity in the study area under No-Action conditions, the proposed actions would not result in a significant adverse impact to off-street public parking under *CEQR Technical Manual* criteria. The reduction in capacity may, however, result in additional vehicles parking on-street at metered parking spaces and non-metered parking spaces regulated by street cleaning rules in the weekday midday period, and motorists walking greater distances to their destinations.

The supply of on-street parking within the study area is expected to remain relatively unchanged in the future with the proposed actions. The 416 metered parking spaces located within the study area are expected to remain at capacity, as are the non-metered curbside parking spaces. There would be minimal curbside capacity available to relieve the projected over-capacity conditions on the off-street public parking system in the weekday midday.

C. METHODOLOGY

The traffic and parking analyses in this chapter consider the auto, taxi and truck trips generated by the proposed actions, as well the resulting changes in parking demand and supply.

TRAFFIC

TRAFFIC STUDY AREA

Within the traffic study area, vehicle trips generated under the reasonable worst case development scenario would be dispersed among projected development sites. They would be most concentrated at intersections along the principal arterials providing access to, from and within the rezoning area – primarily Northern Boulevard, 31st Street and 38th Avenue. A total of nine signalized intersections along these corridors have been selected for analysis based on the assignment of project-generated traffic. These intersections are shown in Figure 15-1.

PEAK HOURS FOR ANALYSIS

The traffic analyses examine conditions in the weekday AM and PM peak hours when commuter travel demand from the proposed project's residential components is expected to be greatest. The weekday midday and Saturday midday peak hours are also analyzed as these periods would experience the highest amount of demand from the proposed project's retail components. Based on existing peak traffic volumes along major corridors in the study area, the peak hours selected for the weekday analyses are 7:30-8:30 AM, 12-1 PM and 4:30-5:30 PM. The Saturday analysis focuses on the 12:30-1:30 PM peak hour.

INTERSECTION CAPACITY ANALYSES

The capacity analyses at study area intersections are based on the methodology presented in the *Highway Capacity Manual (HCM) Software 2000 Release 4.1f*. Traffic data required for these analyses include the hourly volumes on each approach and various other physical and operational characteristics. Signal timing plans for each signalized intersection were obtained from the New York City Department of Transportation (DOT). Field inventories were conducted to document the physical layout, lane markings, curbside parking regulations, and other relevant characteristics needed for the analysis.

The HCM methodology provides a volume-to-capacity (v/c) ratio for each signalized intersection approach. The v/c ratio represents the ratio of traffic volumes on an approach to the approach's carrying capacity. A ratio of less than 0.90 is generally considered indicative of non-congested conditions in dense urban areas; when higher than this value, the ratio reflects increasing congestion. At a v/c ratio of between 0.95 and 1.0, near-capacity conditions are reached and delays can become substantial. Ratios of greater than 1.0 indicate saturated conditions with queuing. The HCM methodology also expresses quality of flow in terms of level of service (LOS), which is based on the amount of delay that a driver typically experiences at an intersection. Levels of service range from A, with minimal delay (10 seconds or less per vehicle), to F, which represents long delays (greater than 80 seconds per vehicle).

For unsignalized intersections, the HCM methodology generally assumes that major street traffic is not affected by minor street flows. Left turns from the major street are assumed to be affected by the opposing, or oncoming major street flow. Minor street traffic is obviously affected by all conflicting movements. Similar to signalized intersections, the HCM methodology expresses the quality of flow at unsignalized intersections in terms of LOS based on the amount of delay that a driver experiences. This relationship differs somewhat from the criteria used for signalized intersections, primarily because drivers expect different levels of performance from the two different kinds of transportation facilities. For unsignalized intersections, levels of service range from A, with minimal delay (10 seconds or less per vehicle), to F, which represents long delays (over 50 seconds per vehicle).

Table 15-1 shows the LOS/delay relationship for signalized and unsignalized intersections using the HCM methodology. Levels of service A, B, and C generally represent highly favorable to fair levels of traffic flow. At LOS D, the influence of congestion becomes noticeable. LOS E is considered to be the limit of acceptable delay, and LOS F is considered to be unacceptable to most drivers. In this study, a signalized lane grouping operating at LOS E or F or a v/c ratio of 0.90 or above is identified as congested. For unsignalized intersections, a movement with LOS E or F is also identified as congested.

Table 15-1
Intersection Level of Service Criteria

Level of Service (LOS)	Average Delay per Vehicle (seconds)	
	Signalized Intersections	Unsignalized Intersections
A	less than 10.1	less than 10.1
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	greater than 80.0	greater than 50.0

Source: *2000 Highway Capacity Manual.*

IMPACT CRITERIA

The identification of significant adverse traffic impacts at analyzed intersections is based on criteria presented in the *CEQR Technical Manual*. According to *CEQR Technical Manual* criteria, if the LOS deteriorates from LOS A, B, or C in the No-Action condition to marginally unacceptable mid-LOS D or unacceptable LOS E or F in the future condition with the proposed action, then a significant traffic impact has occurred. *CEQR* criteria further specify that for a No-Action LOS A, B, or C which declines to mid-LOS D (45 seconds of delay for signalized intersections and 30 seconds of delay for unsignalized intersections) or worse in the future condition with the proposed actions, mitigation to mid-LOS D is required to avoid significant adverse impacts. For No-Action LOS D, an increase of five or more seconds in a lane group in the future condition with the proposed actions should be considered significant if the delay exceeds mid-LOS D. For No-Action LOS E, an increase in delay of four seconds should be considered significant. For No-Action LOS F, three seconds of additional delay should be considered significant; however, if the No-Action LOS F condition already has delays in excess of 120 seconds, an increase of one second in delay should be considered significant, unless the proposed action would generate fewer than five vehicles through that intersection in the peak hour (signalized intersections) or fewer than five passenger car equivalents (PCE) in the peak hour along the critical approach (unsignalized intersections). In addition, for unsignalized intersections, for the minor street approach to generate a significant impact, 90 PCEs must be identified in the future condition with the proposed actions in any peak hour.

PARKING

Projected development with the proposed actions would generate new parking demand within the rezoning area as well as displace some existing public parking capacity. Any new demand not accommodated in accessory parking facilities would likely utilize existing public parking facilities in the vicinity. The study area for the analysis of off-street parking conditions therefore encompasses all off-street public parking facilities within one quarter mile of projected development sites. The periods selected for analysis include the weekday 7 AM period (as a measure of overnight residential demand), noon (a period of peak commercial demand), and the Saturday 2 PM period (a peak for retail parking demand). On-street parking conditions within one quarter mile of projected development sites are also assessed.

D. EXISTING CONDITIONS

DATA COLLECTION

Manual turning movement, vehicle classification, and automatic traffic recorder (ATR) counts, along with speed and delay surveys, were conducted during the weekday AM, midday and PM peak periods in June 2007. Similar data were collected for the Saturday midday peak period in February 2008. Field surveys of parking regulations, lane configurations, and other physical and operational characteristics of the street network were undertaken in January and February 2008. Current signal timing plans for signalized intersections within the study area were obtained from DOT. Surveys of off-street parking capacity and utilization were conducted in February 2008.

VEHICULAR TRAFFIC

STUDY AREA STREET NETWORK

The study area street system consists of urban arterials connecting with a grid network of local “streets” generally extending in a north-south direction, and “avenues” and “roads” generally extending in an east-west direction. The primary arterial serving the Dutch Kills neighborhood is Northern Boulevard, which forms the eastern boundary of the study area and extends eastward from Queens Plaza to the south of the study area through northern Queens into Nassau County (see Figure 15-1). Northern Boulevard is typically 70 feet in width and operates with two moving lanes in each direction plus left-turn lanes. Parking is allowed along portions of both curbs, with restrictions in peak periods. West of 31st Street, NYC Transit’s N and W (Astoria Line) subway trains operate on an elevated structure above Northern Boulevard, with support columns located along both sidewalks. At its western terminus, Northern Boulevard provides access to Queens Plaza and the Queensboro Bridge to Manhattan. To the east of the study area, it provides a connection to the Brooklyn-Queens Expressway (I-278). As shown in Figure 15-2, two-way peak hour traffic volumes along Northern Boulevard at 31st Street typically range from 2,650 to 3,000 vehicles per hour (vph) on weekdays, and total approximately 2,060 vph during the Saturday midday peak hour. Northern Boulevard is a designated through truck route, and NYC Transit’s Q101 and Q102 local bus services operate along all or portions of Northern Boulevard within the study area.

To the east of Northern Boulevard are the Sunnyside Rail Yards, which bisect Long Island City. As shown in Figure 15-1, two bridges spanning the rail yards connect Northern Boulevard and the Dutch Kills area to neighborhoods to the east. The Honeywell Street Bridge connects with Northern Boulevard at its intersection with 39th Avenue. Two-way peak hour volumes on the bridge range from 430 to 590 vph on weekdays, and total 290 vph during the Saturday midday peak hour. The 39th Street Bridge connects with Northern Boulevard at its intersection with Steinway Street. Two-way peak hour volumes on the 39th Street Bridge range from 700 to 750 vph on weekdays, and total 630 vph during the Saturday midday peak hour. Steinway Street is a bi-directional collector roadway that runs northward from Northern Boulevard into Astoria. It is approximately 40 feet in width and operates with one moving lane in each direction. It is a designated local truck route, and is traversed by NYC Transit's Q101 local bus route. Two-way peak hour volumes on Steinway Street near Northern Boulevard range from 440 to 540 vph on weekdays, and total approximately 600 vph during the Saturday midday peak hour.

Intersecting Northern Boulevard near the southeast corner of the study area is 31st Street, a bi-directional collector roadway that runs northward from Northern Boulevard into Astoria. The street is approximately 60 feet in width and typically operates with one moving lane in each direction. Columns supporting the elevated subway structure of NYC Transit's Astoria Line are located within the roadway approximately 13 feet from each curb. The roadway space between the curb and these columns is typically used for parking, although approaching some intersections, it functions as an additional moving lane (at Northern Boulevard for example). As shown in Figure 15-2, two-way peak hour traffic volumes along 31st Street at 38th Avenue typically range from 570 to 660 vehicles per hour (vph) on weekdays, and total approximately 500 vph during the Saturday midday peak hour. NYC Transit's Q102 local bus service operates along 31st Street within the study area.

Another bi-directional street providing access within the study area is 38th Avenue, which runs in a westward direction from Northern Boulevard. The avenue is approximately 40 feet in width and typically operates with one moving lane in each direction plus parking along both curbs. As shown in Figure 15-2, two-way peak hour traffic volumes along 38th Avenue at 31st Street typically range from 360 to 550 vehicles per hour (vph) on weekdays, and total 270 vph during the Saturday midday peak hour.

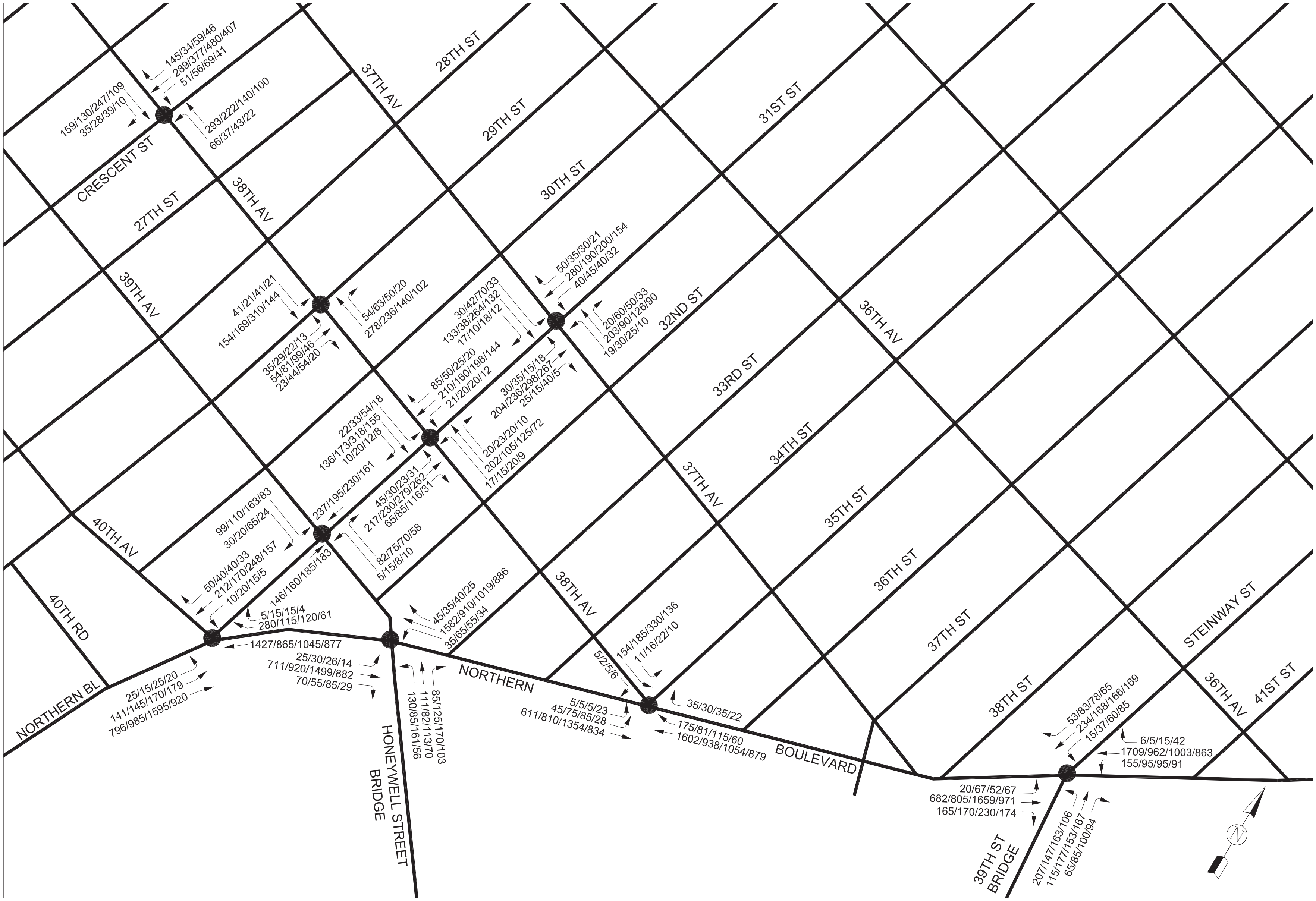
Near the western end of the study area, 38th Avenue intersects Crescent Street, a one-way southbound street that is approximately 40 feet in width and typically operates with one to two moving lanes. Crescent Street is notable in that it functions as an access route for the Queensboro Bridge, and often experiences queuing approaching Queens Plaza, especially in the AM. Southbound volumes on Crescent Street at 38th Avenue typically range from 460 to 610 vehicles per hour (vph) on weekdays, and total approximately 490 vph during the Saturday midday peak hour.

INTERSECTION CAPACITY ANALYSIS

Table 15-2 summarizes the results of the capacity analysis at the analyzed study area intersections during the weekday AM, midday and PM peak hours, and Saturday midday peak hour. The table indicates those intersections with one or more movements operating at LOS E or F and/or with a high v/c ratio—0.90 and above. Table 15-2 shows that under existing conditions, a total of four analyzed intersections have at least one congested movement in one or more peak hours. Two intersections experience congestion on one or more approaches in the weekday AM peak hour, one in the midday, four in the PM, and one in the Saturday midday peak hour. These congested locations are discussed in more detail below.

Northern Boulevard at 40th Avenue/31st Street

As shown in Table 15-2, in both the weekday AM and PM peak hours, the eastbound left-turn on Northern Boulevard at 40th Avenue/31st Street is congested, with level of service F conditions. This movement operates at capacity during these periods, with volume-to-capacity (v/c) ratios of 0.99 and 1.02 in the AM and PM, respectively. The southbound 31st Street approach also experiences congestion in the AM and PM peak hours, with LOS E conditions.



Legend:

25/15/25/20 = AM/MD/PM/Sat MD Peak Hour Volumes

● Analyzed Intersection

New York City
Department of City Planning

Dutch Kills Rezoning and Related Actions

Existing Peak Hour Traffic Volumes

The Louis Berger Group, Inc.

Figure 15-2

Table 15-2
Existing Conditions
Levels of Service at Signalized Intersections

SIGNALIZED INTERSECTION	Lane Group	AM PEAK HOUR V/C Ratio	AM Delay (sec/veh)	AM LOS		MD PEAK HOUR V/C Ratio	MD Delay (sec/veh)	MD LOS		PM PEAK HOUR V/C Ratio	PM Delay (sec/veh)	PM LOS		SAT MD PEAK HOUR V/C Ratio	SAT MD Delay (sec/veh)	SAT MD LOS	
Northern Boulevard (E-W) @ 40th Avenue (W)/ 31st Street (SB)	EB-L	0.99	80.3	F	*	0.69	24.0	C		1.02	84.1	F	*	0.78	29.5	C	
	EB-T	0.44	8.1	A		0.53	9.1	A		0.53	8.8	A		0.48	8.5	A	
	WB-T	0.59	9.6	A		0.54	9.2	A		0.62	10.4	B		0.50	8.7	A	
	SB-LTR	0.78	59.7	E	*	0.67	52.6	D		0.85	66.0	E	*	0.56	48.3	D	
Northern Boulevard (E-W) @ 39th Avenue (N)/ Honeywell (N-S)	EB-L	0.27	12.4	B		0.13	6.7	A		0.13	6.7	A		0.06	5.7	A	
	EB-TR	0.43	8.0	A		0.53	9.1	A		0.53	8.8	A		0.48	8.5	A	
	WB-LTR	0.62	10.1	B		0.71	13.0	B		0.83	17.6	B		0.57	9.8	A	
	NB-LTR	0.57	46.3	D		0.56	46.4	D		0.79	54.9	D		0.43	43.5	D	
Northern Boulevard (E-W) @ 38th Avenue (N-S)/ 35th Street (N)	EB-L	0.67	45.9	D		0.38	11.7	B		0.51	16.9	B		0.20	7.6	A	
	EB-T	0.33	7.1	A		0.43	8.0	A		0.45	7.9	A		0.43	8.0	A	
	WB-TR	0.62	9.9	A		0.57	9.7	A		0.63	10.7	B		0.51	8.8	A	
	SB-LTR	0.56	49.2	D		0.68	54.2	D		0.99	89.2	F	*	0.51	47.5	D	
Northern Boulevard (E-W) @ Steinway Street (N-S)	EB-L	0.37	30.6	C		0.53	32.4	C		0.31	18.1	B		0.44	26.3	C	
	EB-TR	0.60	18.7	B		0.74	26.0	C		0.78	22.4	C		0.84	30.5	C	
	WB-L	0.74	38.5	D		0.75	52.6	D		0.94	96.8	F	*	1.02	124.5	F	*
	WB-TR	0.71	20.5	C		0.70	24.7	C		0.63	19.3	B		0.65	23.2	C	
	NB-L	0.96	97.9	F	*	0.54	48.2	D		0.72	63.9	E	*	0.37	43.3	D	
	NB-TR	0.79	70.2	E	*	0.91	78.0	E	*	1.02	111.0	F	*	0.89	72.9	E	*
	SB-LTR	0.77	62.2	E	*	0.80	64.5	E	*	0.80	64.7	E	*	0.87	71.7	E	*
39th Avenue (E-W) @ 31st Street (N-S)	EB-LR	0.25	16.9	B		0.26	17.0	B		0.44	19.9	B		0.21	16.3	B	
	WB-LR	0.18	16.1	B		0.19	16.1	B		0.16	15.8	B		0.14	15.6	B	
	NB-T	0.19	15.9	B		0.21	16.1	B		0.24	16.4	B		0.24	16.4	B	
	SB-T	0.31	17.2	B		0.26	16.6	B		0.30	17.1	B		0.21	16.1	B	
38th Avenue (E-W) @ 31st Street (N-S)	EB-LTR	0.31	17.6	B		0.43	19.6	B		0.69	26.6	C		0.32	17.7	B	
	WB-LTR	0.41	19.2	B		0.26	17.0	B		0.30	17.6	B		0.16	15.7	B	
	NB-LTR	0.50	20.6	C		0.51	20.5	C		0.59	22.4	C		0.46	19.7	B	
	SB-LTR	0.45	19.6	B		0.34	17.8	B		0.34	17.7	B		0.24	16.5	B	
37th Avenue (E-W) @ 31st Street (N-S)	EB-LTR	0.34	18.2	B		0.20	16.4	B		0.67	26.1	C		0.33	17.9	B	
	WB-LTR	0.42	19.4	B		0.35	18.4	B		0.39	18.9	B		0.24	16.7	B	
	NB-LTR	0.38	18.4	B		0.41	18.8	B		0.47	19.8	B		0.39	18.4	B	
	SB-LTR	0.52	20.8	C		0.41	18.8	B		0.39	18.6	B		0.30	17.3	B	
38th Avenue (E-W) @ Crescent Street (SB)	EB-LR	0.46	19.1	B		0.38	17.7	B		0.65	23.8	C		0.27	16.1	B	
	WB-LT	0.92	45.6	D	*	0.63	23.3	C		0.53	21.4	C		0.29	16.5	B	
	SB-L	0.08	7.1	A		0.09	7.2	A		0.11	7.3	A		0.06	7.0	A	
	SB-TR	0.62	13.7	B		0.57	12.3	B		0.73	16.6	B		0.62	13.4	B	
38th Avenue (E-W) @ 29th Street (NB)	EB-LT	0.39	13.7	B		0.35	13.1	B		0.64	18.7	B		0.30	12.4	B	
	WB-TR	0.58	16.9	B		0.55	16.1	B		0.34	13.0	B		0.22	11.5	B	
	NB-LTR	0.22	11.7	B		0.30	12.6	B		0.33	12.9	B		0.15	11.0	B	

Notes:
EB - eastbound, WB - westbound, NB - northbound, SB - southbound
L-left, T-through, R-right, DfL-analysis considers a defacto left lane on this approach.
V/C Ratio - Volume to capacity ratio, sec/veh - seconds per vehicle
Sec/veh - seconds per vehicle
LOS - Level of service
* Denotes a congested movement (LOS E or F, or V/C ratio greater than or equal to 0.9)
Analysis is based on the 2000 Highway Capacity Manual methodology (HCS 2000 4.1f).

Northern Boulevard at 38th Avenue/35th Street

The 38th Avenue approach at Northern Boulevard is congested in the PM peak hour, with LOS F conditions. This movement operates essentially at capacity during this period, with a v/c ratio of 0.99.

Northern Boulevard at Steinway Street/39th Avenue

The intersection of Northern Boulevard with Steinway Street and the 39th Street Bridge experiences congestion in all analyzed peak hours. As shown in Table 15-2, the westbound left-turn movement on Northern Boulevard operates at LOS F in the weekday PM and Saturday midday peak hours (with a v/c ratio 1.02 in the latter period). The northbound 39th Street approach operates at LOS E in the weekday AM, midday and Saturday midday peak hours, and LOS F (with a v/c ratio of 1.02) in the weekday PM peak hour. The left-turn movement on this approach is also congested in the AM and PM with LOS F and E conditions, respectively. Lastly, the southbound Steinway Street approach is congested with LOS E conditions in all four analyzed peak hours.

38th Avenue at Crescent Street

As shown in Table 15-2, westbound 38th Avenue experiences congestion in the AM peak hour at Crescent Street , with a v/c ratio of 0.92.

ACCIDENTS

The annual number of pedestrians and bicyclists injured or killed in motor vehicle accidents from 2005 through 2007 at study area intersections is shown in Table 15-3. (DOT accident data do not distinguish injuries from fatalities.) Accidents resulting in injuries or fatalities to pedestrians or bicyclists often involve turning vehicles, with failure to yield the right-of-way to pedestrians in crosswalks frequently cited as a causal factor. The New York City Department of Transportation considers any intersection at which five or more pedestrians or cyclists are killed or injured per year as a high accident location. As shown in Table 15-3, no study area intersection experienced more than four pedestrians or cyclists killed or injured in any year during the 2005 through 2007 period.

PARKING

Off-street public parking lots and garages within a one quarter mile radius of projected development sites were inventoried to determine their capacities and approximate utilization on a weekday at 7 AM (as a measure of overnight residential demand) and noon (a period of peak commercial demand), as well as on a Saturday at 2 PM period (a peak for retail parking demand). Figure 15-3 shows the locations of the 12 off-street public parking facilities in the study area and Table 15-4 shows their estimated AM and midday utilization levels under Existing conditions. As shown in Table 15-4, the 12 off-street public parking facilities within one quarter mile of projected development sites have a total licensed capacity of 2,250 spaces. The majority of these facilities serve transient commuter demand, and only four are open during the weekday overnight period, providing a total overnight capacity of 1,309 spaces. Seven of the facilities, with a total capacity of 1,601 spaces, are open during the Saturday midday period. Overall, as shown in Table 15-4, existing off-street public parking capacity within the study area is approximately 65 percent utilized during the weekday AM period, 80 percent utilized in the midday, and 32 percent utilized during the Saturday midday period.

Table 15-3
Annual Pedestrian and Bicyclist Injuries/Fatalities at Study Area Intersections, 2005-2007

Intersection		Bicyclists Killed / Injured 2005	2006	2007	Pedestrians Killed / Injured 2005	2006	2007
Northern Blvd at	41st Ave	0	0	0	0	0	0
	40th Rd	1	0	0	0	0	0
	40th Ave	0	0	0	0	0	0
	39th Ave	0	1	3	0	0	1
	38th Ave	0	0	0	0	0	0
	37th Ave & 37th St	0	0	0	0	0	0
	38th St	0	0	0	0	0	1
	Steinway St	1	0	0	0	2	0
41st Ave at	23rd St	0	0	0	1	0	0
	24th St	0	0	0	0	0	0
	Crescent St	0	0	0	0	0	0
	27th St	0	0	0	0	0	0
	28th St	0	1	0	0	1	0
	29th St	0	0	0	0	0	0
40th Road at	29th St	0	0	0	0	0	0
40th Ave at	23rd St	0	0	0	0	0	1
	24th St	0	0	0	0	0	0
	Crescent St	0	0	0	0	0	0
	27th St	0	0	0	0	0	0
	28th St	0	0	0	0	0	0
	29th St	0	0	0	0	0	0
	30th St	0	0	0	0	0	0
39th Ave at	24th St	0	0	0	0	0	0
	Crescent St	0	1	1	0	0	0
	27th St	0	0	0	0	0	0
	28th St	0	0	0	1	0	0
	29th St	0	0	0	0	0	0
	30th St	0	0	0	0	0	0
	31st St	0	0	0	0	1	0
38th Ave at	24th St	0	0	0	0	0	0
	Crescent St	0	0	0	0	0	0
	27th St	2	0	0	0	0	0
	28th St	0	0	1	0	0	0
	29th St	0	0	0	1	0	0
	30th St	0	0	0	1	0	0
	31st St	1	0	0	0	0	0
	32nd St	0	0	0	0	1	0
	33rd St	0	1	0	0	0	0
	34th St	0	1	0	0	0	0
37th Ave at	24th St	0	0	0	0	0	0
	Crescent St	0	0	0	0	1	0
	27th St	0	0	0	0	0	0
	28th St	0	0	0	0	2	0
	29th St	0	0	0	0	0	0
	30th St	0	0	0	0	0	0
	31st St	0	0	0	0	0	0
	32nd St	0	0	0	0	0	1
	33rd St	0	0	0	0	0	1
	34th St	0	0	0	0	0	2
	35th St	0	0	0	0	0	0
	36th St	0	0	0	0	0	0
36th Ave at	30th St	0	0	0	2	0	1
	31st St	1	0	1	0	1	1
	32nd St	0	0	0	0	0	0
	33rd St	0	0	1	0	0	0

Notes
Source: NYCDOT data.

Legend:

1/4 - Mile Parking Study Area Boundary

Rezoning Area Boundary

1 Existing Off-Street Public Parking Facility (see Table 15-4)

New York City
Department of City Planning

Dutch Kills Rezoning and Related Actions

Parking Study Area and
Existing Off-Street Public Parking Facilities

The Louis Berger Group, Inc.

Figure 15-3

Table 15-4
Existing Conditions
Off-Street Public Parking Facilities and Utilization

No.	Facility Operator	Address	License Number	Licensed Capacity	Weekday AM Estimated Utilization	Weekday AM Available Capacity	Weekday Midday Estimated Utilization	Weekday Midday Available Capacity	Saturday Midday Estimated Utilization	Saturday Midday Available Capacity
1	Boulevard Garage, Inc.	39-15 29th Street	1187425	130	(a)	(a)	85%	20	50%	65
2	Subway Parking	40-8 Crescent Street	854269	12	(a)	(a)	100%	0	50%	6
3	T.P.E.C. Corp.	41-10 Crescent Street	995385	125	50%	63	95%	6	35%	81
4	LIC Parking Corp.	23-02 42nd Road	696383	85	(a)	(a)	85%	13	(b)	(b)
5	QP Parking Corp.	27-02 Queens Bridge Plaza South	1249859	71	80%	14	80%	14	70%	21
6	4300 Crescent Street Parking Inc.	4300 Crescent Street	985797	250	(a)	(a)	80%	50	(b)	(b)
7	Alex Operating Corp.	27-50 Jackson Avenue	926484	150	(a)	(a)	85%	23	10%	135
8	MP Northern LLC	29-28 Northern Boulevard	1245066	115	(a)	(a)	85%	17	(b)	(b)
9	Queens Plaza Municipal Parking Garage (c)	28-10 Queens Plaza South	n.a.	913	28%	657	72%	256	25%	685
10	23rd Street Parking Corp.	42-02 23rd Street	949204	100	(a)	(a)	95%	5	(b)	(b)
11	Alert Garage Corp.	30-17 40th Avenue	368391	200	70%	60	90%	20	50%	100
12	Central Parking Systems	30-30 Northern Boulevard	n.a.	99	(a)	(a)	80%	20	(b)	(b)
			Totals:	**2,250**	**65%**	**794**	**80%**	**444**	**32%**	**1,093**

Notes:

(a) Parking facility closed overnight.

(b) Parking facility closed on Saturday.

(c) Total capacity excludes approximately 136 spaces reserved for City use. Garage surveyed in Spring 2006 and closed on February 15, 2008.

n.a. Data unavailable.

Source: PHA field counts conducted in February 2008, and PHA surveys at the Queens Plaza Municipal Garage in Spring 2006.

One facility of note is the Queens Plaza Municipal Parking Garage located at Queens Plaza South and Jackson Avenue (see Figure 15-3). This garage contains a total of 1,049 parking spaces of which approximately 136 spaces had been reserved for City use. As discussed later in this chapter, this garage was permanently closed on February 15, 2008 and will be replaced by a new commercial development with a public parking garage.

As shown in Figure 15-4, on-street parking within much of the study area is governed by no parking/no standing regulations to facilitate traffic flow, and alternate-side-of-the-street parking regulations to facilitate street cleaning. Regulations along key arterials such as Northern Boulevard are generally more restrictive, especially during the weekday AM and PM commuter peak periods. One-hour or two-hour metered parking is generally located in areas of commercial and retail activity, including segments of Jackson Avenue, Northern Boulevard, Queens Plaza, 36th Avenue, and 29th, 31st, 32nd and 33rd Streets. There are a total of approximately 416 metered parking spaces within the parking study area. Field observations indicate that these metered parking spaces are generally fully utilized during the weekday midday period. Some non-metered curbside parking capacity was observed to be available within the study area in the weekday midday, generally along blocks in residential areas.

E. FUTURE CONDITION WTIHOUT THE PROPOSED ACTIONS

Between 2007 and 2017, it is expected that traffic and parking demands in the study area would increase due to long-term background growth as well as development that could occur pursuant to existing zoning. Development on projected development sites is expected to add a net total of approximately 101,525 square feet of office space, 37,009 square feet of retail space, 81,470 square feet of community facility space and 285 hotel rooms over existing conditions. Approximately 80,800 square feet of existing light industrial space and five dwelling units would be displaced by this new development. In order to forecast the future conditions without the proposed actions (the No-Action condition), development on projected development sites, and developments listed on Table E-1 in Appendix E were considered, in addition to an annual background growth rate of 0.5 percent per year applied to existing travel demand for the 2007 to 2017 period. This background growth rate is applied to account for smaller projects and general increases in travel demand not attributable to specific development projects.

VEHICULAR TRAFFIC

Figure 15-5 shows the expected 2017 No-Action weekday AM, midday, PM and Saturday midday peak hour traffic volumes at analyzed intersections within the study area, while Table 15-5 shows the 2017 No-Action traffic conditions at these intersections. As shown in Table 15-5, with continued growth in travel demand, intersections that were congested under existing conditions would worsen, and there would be additional locations that would become congested in one or more peak hours by 2017. Of the nine intersections analyzed, four would have one or more congested movements in the weekday AM peak hour (versus three under existing conditions), four in the midday (one existing), five in the PM peak hour (three existing) and two in the Saturday midday peak hour (one existing). Newly congested movements are discussed below.

Along the Northern Boulevard corridor, the eastbound left-turn from Northern Boulevard onto 31st Street/40th Avenue would become newly congested in the weekday midday and Saturday midday peak hours. The westbound Northern Boulevard approach at 39th Avenue/Honeywell Street Bridge would become newly congested in the weekday midday and PM peak hours, while the northbound Honeywell Street Bridge approach at this intersection would become newly congested in the PM. At 38th Avenue/35th Street, the eastbound left-turn movement on Northern Boulevard would become newly congested in the

Legend:

1/4 - Mile Parking Study Area Boundary

Rezoning Area Boundary

New York City
Department of City Planning

Dutch Kills Rezoning and Related Actions

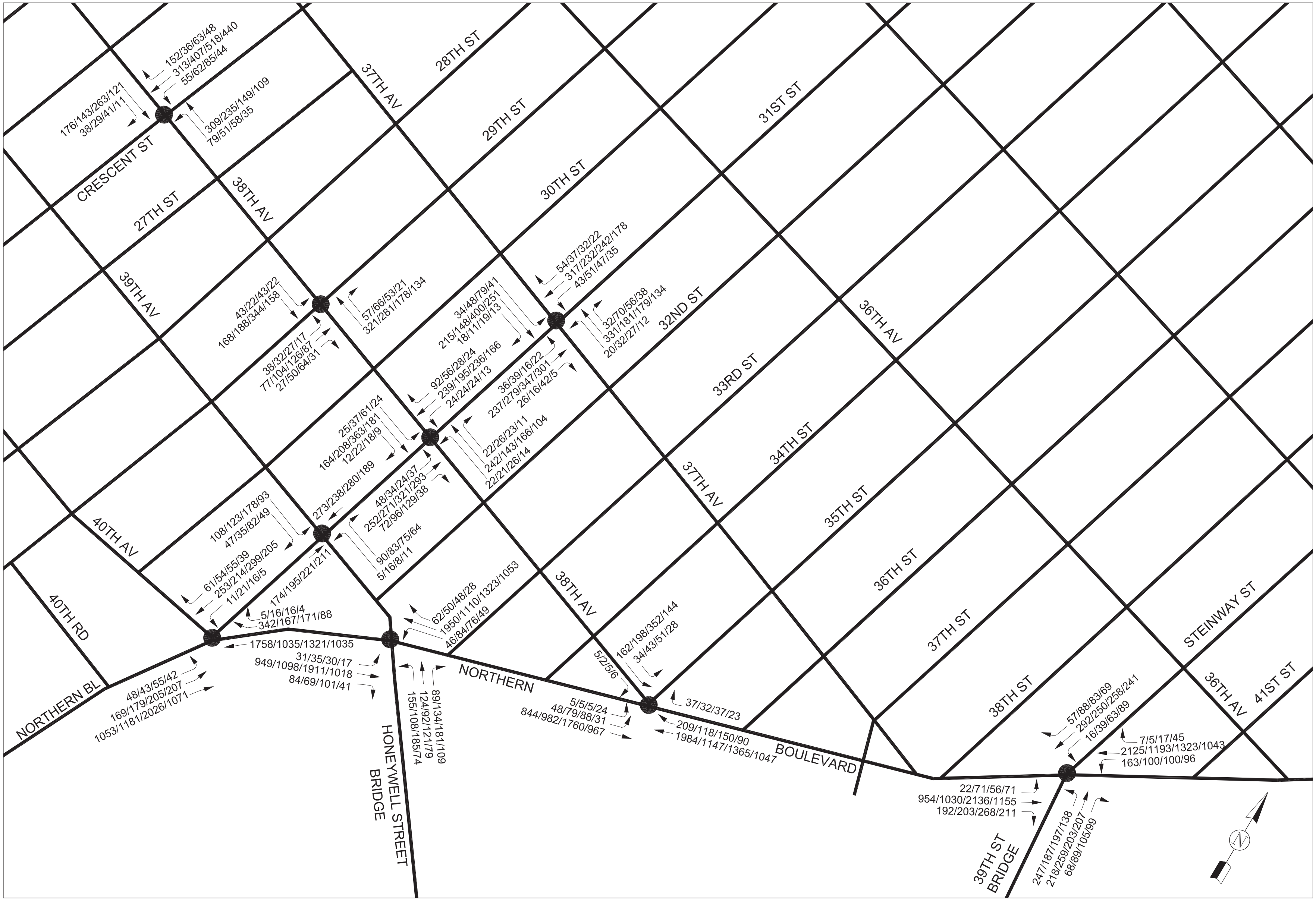
Curbside Parking Regulations

The Louis Berger Group, Inc.

Figure 15-4a

Figure 15-4b
Curbside Parking Regulations

No.	Regulation
1	No Standing Anytime
2	No Parking Anytime
3	No Parking 7AM-7PM Monday thru Friday
4	2 Hour Parking 8AM-7PM Except Sunday
5	Muni-Meter Parking
6	No Standing, Bus Stop
7	No Standing Except Trucks Loading & Unloading 7AM-5PM Monday thru Friday
8	2 Hour Parking 9AM-7PM Except Sunday
9	No Parking 8AM-6PM Monday thru Friday
10	No Standing 7AM-4PM School Days
11	No Standing 7AM-6PM Monday thru Friday
12	No Parking 7AM-4PM Monday thru Friday
13	1 Hour Parking 8AM-7PM Except Sunday
14	No Standing 7AM-7PM Monday thru Friday
15	1 Hour Parking 9AM-7PM Except Sunday
16	No Standing 7AM-6PM School Days
17	No Standing Except Trucks Loading & Unloading
18	No Standing Except Trucks Loading and Unloading 6AM-6PM Except Sunday
19	No Standing 7AM-10AM 4PM-7PM Except Sunday
20	No Parking 10AM-4PM Monday thru Friday
21	No Parking 7AM-6PM Monday thru Friday
22	No Parking 9AM-6PM Monday thru Friday
23	No Standing 9AM-4PM Monday thru Friday Except School Days
24	No Parking 7AM-5PM School Days
25	No Standing Except Trucks Loading & Unloading 7AM-4PM Monday thru Friday
26	No Parking 4PM-7PM Except Sunday
27	No Standing 3PM-7PM Monday thru Friday
28	No Standing Except Trucks Loading & Unloading 7AM-6PM Monday thru Friday
29	No Standing 7AM-9AM Wednesday & Friday
30	No Parking Except City Owned Dept of Transportation Vehicles 9AM-6PM Monday thru Friday
31	No Stopping Anytime
32	1 Hour Parking 9AM-3PM Monday thru Friday 9AM-7PM Saturday
33	No Standing 3PM-7PM Monday thru Friday
34	No Standing Except Trucks Loading & Unloading 10AM-4PM Monday thru Friday
35	No Standing Except Trucks Loading & Unloading 7AM-7PM Monday thru Friday
36	No Parking 8AM-4PM Monday thru Friday
37	No Standing 4PM-7PM Monday thru Friday
38	2 Hour Parking 9AM-4PM Monday thru Friday 9AM-7PM Saturday
39	No Standing 7AM-10AM Monday thru Friday
40	1 Hour Parking 10AM-7PM Monday thru Friday 9AM-7PM Saturday
41	2 Hour Parking 10AM-7PM Monday thru Friday 9AM-7PM Saturday
42	No Standing 6AM-7PM Monday thru Friday Except Authorized Vehicles



Legend:

48/43/55/42 = AM/MD/PM/Sat MD Peak Hour Volumes

● Analyzed Intersection

New York City
Department of City Planning

Dutch Kills Rezoning and Related Actions

2017 Future No-Action Peak Hour Traffic Volumes

The Louis Berger Group, Inc.

Figure 15-5

Table 15-5
Future Condition Without the Proposed Actions
Levels of Service at Signalized Intersections

		AM PEAK HOUR						MIDDAY PEAK HOUR						PM PEAK HOUR						SATURDAY MIDDAY PEAK HOUR					
		Existing			2017 No-Action			Existing			2017 No-Action			Existing			2017 No-Action			Existing			2017 No-Action		
SIGNALIZED INTERSECTION	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Northern Boulevard (E-W) @	EB-L	0.99	80.3	F *	1.30	184.4	F *	0.69	24.0	C	1.35	205.0	F *	1.02	84.1	F *	2.35	649.3	F *	0.78	29.5	C	1.27	170.8	F *
40th Avenue (W)/	EB-T	0.44	8.1	A	0.58	9.8	A	0.53	9.1	A	0.63	10.7	B	0.53	8.8	A	0.68	10.9	B	0.48	8.5	A	0.56	9.5	A
31st Street (SB)	WB-T	0.59	9.6	A	0.73	12.0	B	0.54	9.2	A	0.66	11.3	B	0.62	10.4	B	0.79	14.8	B	0.50	8.7	A	0.60	10.1	B
	SB-LTR	0.78	59.7	E	0.94	78.8	E	0.67	52.6	D	0.85	65.4	E	0.85	66.0	E	1.05	105.4	F	0.56	48.3	D	0.71	54.8	D
Northern Boulevard (E-W) @	EB-L	0.27	12.4	B	0.57	42.0	D	0.13	6.7	A	0.23	9.1	A	0.13	6.7	A	0.25	10.6	B	0.06	5.7	A	0.09	6.2	A
39th Avenue (N)/	EB-TR	0.43	8.0	A	0.57	9.7	A	0.53	9.1	A	0.63	10.7	B	0.53	8.8	A	0.67	10.9	B	0.48	8.5	A	0.55	9.4	A
Honeywell (N-S)	WB-LTR	0.62	10.1	B	0.80	14.1	B	0.71	13.0	B	1.01	42.9	D *	0.83	17.6	B	1.31	161.9	F *	0.57	9.8	A	0.72	13.1	B
	NB-LTR	0.57	46.3	D	0.64	48.3	D	0.56	46.4	D	0.64	48.6	D	0.79	54.9	D	0.86	60.6	E *	0.43	43.5	D	0.48	44.5	D
Northern Boulevard (E-W) @	EB-L	0.67	45.9	D	0.98	128.3	F *	0.38	11.7	B	0.59	24.0	C	0.51	16.9	B	0.95	90.5	F *	0.20	7.6	A	0.30	10.1	B
38th Avenue (N-S)/	EB-T	0.33	7.1	A	0.46	8.3	A	0.43	8.0	A	0.52	9.1	A	0.45	7.9	A	0.58	9.4	A	0.43	8.0	A	0.50	8.7	A
35th Street (N)	WB-TR	0.62	9.9	A	0.76	12.7	B	0.57	9.7	A	0.70	12.2	B	0.63	10.7	B	0.82	15.7	B	0.51	8.8	A	0.61	10.4	B
	SB-LTR	0.56	49.2	D	0.67	53.8	D	0.68	54.2	D	0.82	64.5	E *	0.99	89.2	F *	1.13	133.6	F *	0.51	47.5	D	0.60	50.7	D
Northern Boulevard (E-W) @	EB-L	0.37	30.6	C	0.40	33.3	C	0.53	32.4	C	1.00	129.0	F *	0.31	18.1	B	0.65	47.4	D	0.44	26.3	C	0.70	52.3	D
Steinway Street (N-S)	EB-TR	0.60	18.7	B	0.80	25.1	C	0.74	26.0	C	0.93	39.3	D *	0.78	22.4	C	0.99	40.0	D *	0.84	30.5	C	1.00	52.6	D *
	WB-L	0.74	38.5	D	1.36	229.2	F *	0.75	52.6	D	1.54	328.5	F *	0.94	96.8	F *	1.00	112.6	F *	1.02	124.5	F *	1.80	447.1	F *
	WB-TR	0.71	20.5	C	0.88	27.2	C	0.70	24.7	C	0.87	32.4	C	0.63	19.3	B	0.83	26.2	C	0.65	23.2	C	0.78	27.4	C
	NB-L	0.96	97.9	F *	1.13	148.1	F *	0.54	48.2	D	0.68	54.2	D	0.72	63.9	E *	0.85	78.0	E *	0.37	43.3	D	0.48	46.0	D
	NB-TR	0.79	70.2	E	1.21	176.0	F *	0.91	78.0	E	1.19	157.0	F *	1.02	111.0	F	1.22	176.3	F *	0.89	72.9	E	1.02	102.3	F *
	SB-LTR	0.77	62.2	E *	0.92	78.2	E *	0.80	64.5	E *	1.01	98.3	F *	0.80	64.7	E *	1.03	102.8	F *	0.87	71.7	E *	1.06	113.3	F *
39th Avenue (E-W) @	EB-LR	0.25	16.9	B	0.31	17.7	B	0.26	17.0	B	0.31	17.8	B	0.44	19.9	B	0.50	21.3	C	0.21	16.3	B	0.28	17.3	B
31st Street (N-S)	WB-LR	0.18	16.1	B	0.20	16.3	B	0.19	16.1	B	0.21	16.4	B	0.16	15.8	B	0.17	15.9	B	0.14	15.6	B	0.16	15.8	B
	NB-T	0.19	15.9	B	0.23	16.3	B	0.21	16.1	B	0.26	16.6	B	0.24	16.4	B	0.29	17.0	B	0.24	16.4	B	0.27	16.8	B
	SB-T	0.31	17.2	B	0.35	17.8	B	0.26	16.6	B	0.31	17.3	B	0.30	17.1	B	0.36	18.0	B	0.21	16.1	B	0.24	16.5	B
38th Avenue (E-W) @	EB-LTR	0.31	17.6	B	0.37	18.6	B	0.43	19.6	B	0.50	21.1	C	0.69	26.6	C	0.81	33.0	C	0.32	17.7	B	0.38	18.7	B
31st Street (N-S)	WB-LTR	0.41	19.2	B	0.50	20.9	C	0.26	17.0	B	0.36	18.3	B	0.30	17.6	B	0.40	19.2	B	0.16	15.7	B	0.23	16.6	B
	NB-LTR	0.50	20.6	C	0.57	22.0	C	0.51	20.5	C	0.59	22.4	C	0.59	22.4	C	0.67	24.6	C	0.46	19.7	B	0.53	21.0	C
	SB-LTR	0.45	19.6	B	0.51	20.7	C	0.34	17.8	B	0.41	18.8	B	0.34	17.7	B	0.41	18.7	B	0.24	16.5	B	0.28	17.0	B
37th Avenue (E-W) @	EB-LTR	0.34	18.2	B	0.51	21.3	C	0.20	16.4	B	0.42	19.7	B	0.67	26.1	C	0.93	47.8	D *	0.33	17.9	B	0.56	22.3	C
31st Street (N-S)	WB-LTR	0.42	19.4	B	0.66	25.3	C	0.35	18.4	B	0.54	22.1	C	0.39	18.9	B	0.50	21.1	C	0.24	16.7	B	0.33	18.0	B
	NB-LTR	0.38	18.4	B	0.44	19.4	B	0.41	18.8	B	0.48	20.0	B	0.47	19.8	B	0.54	21.1	C	0.39	18.4	B	0.44	19.2	B
	SB-LTR	0.52	20.8	C	0.59	22.2	C	0.41	18.8	B	0.48	20.1	C	0.39	18.6	B	0.47	19.9	B	0.30	17.3	B	0.34	17.8	B
38th Avenue (E-W) @	EB-LR	0.46	19.1	B	0.51	20.0	B	0.38	17.7	B	0.41	18.2	B	0.65	23.8	C	0.70	25.5	C	0.27	16.1	B	0.30	16.5	B
Crescent Street (SB)	WB-LT	0.92	45.6	D *	1.10	96.2	F *	0.63	23.3	C	0.72	27.0	C	0.53	21.4	C	0.69	28.8	C	0.29	16.5	B	0.36	17.5	B
	SB-L	0.08	7.1	A	0.08	7.2	A	0.09	7.2	A	0.10	7.3	A	0.11	7.3	A	0.13	7.5	A	0.06	7.0	A	0.07	7.1	A
	SB-TR	0.62	13.7	B	0.67	14.8	B	0.57	12.3	B	0.61	13.2	B	0.73	16.6	B	0.79	19.1	B	0.62	13.4	B	0.67	14.6	B
38th Avenue (E-W) @	EB-LT	0.39	13.7	B	0.42	14.3	B	0.35	13.1	B	0.39	13.6	B	0.64	18.7	B	0.71	21.0	C	0.30	12.4	B	0.33	12.7	B
29th Street (NB)	WB-TR	0.58	16.9	B	0.66	19.1	B	0.55	16.1	B	0.63	18.1	B	0.34	13.0	B	0.41	13.9	B	0.22	11.5	B	0.28	12.1	B
	NB-LTR	0.22	11.7	B	0.28	12.2	B	0.30	12.6	B	0.36	13.3	B	0.33	12.9	B	0.41	14.0	B	0.15	11.0	B	0.26	12.0	B

Notes:
EB - eastbound, WB - westbound, NB - northbound, SB - southbound
L-left, T-through, R-right, DfL-analysis considers a defacto left lane on this approach.
V/C Ratio - Volume to capacity ratio, sec/veh - seconds per vehicle
Sec/veh - seconds per vehicle
LOS - Level of service
* Denotes a congested movement (LOS E or F, or V/C ratio greater than or equal to 0.9)
Analysis is based on the 2000 Highway Capacity Manual methodology (HCS 2000 4.1f).

weekday AM and PM peak hours, while the southbound 38th Avenue approach would become newly congested in the weekday midday.

At the intersection of Northern Boulevard and Steinway Street/39th Street Bridge, movements that would become newly congested in the No-Action condition include the eastbound left-turn (in the weekday midday peak hour), the eastbound through-right movement (weekday midday, PM and Saturday midday), the westbound left-turn (weekday AM and midday), and the northbound through-right movement (in all periods). Lastly, at the intersection of 37th Avenue and 31st Street, the eastbound 37th Avenue approach would become newly congested in the PM peak hour.

PARKING

Demand for public parking spaces in the study area is expected to increase as a result of new developments ("soft sites") as well as general background growth. Four existing public parking facilities (Nos. 1, 6, 9 and 12 in Figure 15-3) with a total of 1,392 spaces would be displaced by new development, while three new public parking facilities with a total of 1,600 spaces would be developed. These include the 913-space Queens Plaza Municipal Parking Garage (No. 9), which closed on February 15, 2008 and would be replaced by new development including a new public parking garage with 1,150 spaces. Table 15-6 shows changes to the supply of, and demand for, off-street public parking in the 2017 future without the proposed actions. As shown in Table 15-6, the off-street public parking supply in the study area is expected to be 55 percent utilized in the weekday AM and 50 percent utilized in the Saturday midday. In the weekday midday, however, parking demand in the study area is expected to exceed capacity by approximately 1,083 spaces compared to a surplus 444 spaces under existing conditions. All parking demand from No-Action development on projected development sites is expected to be accommodated in accessory parking facilities, and would not contribute to the deficit of off-street public parking in the weekday midday.

Demand for metered and non-metered curbside parking spaces in the study area is also expected to increase under No-Action conditions. It is expected that the utilization of metered parking would remain at capacity in the weekday midday due to general background growth and new development, and that non-metered curbside parking capacity would also be fully utilized.

F. FUTURE CONDITION WITH THE PROPOSED ACTIONS

This section provides an analysis of traffic and parking conditions in 2017 with the development resulting from the proposed actions in place. As described in detail in Chapter 1, "Project Description," under the reasonable worst case development scenario, the proposed actions are expected to result in the development of approximately 1,555 dwelling units (DUs), 61,092 square feet of local retail and 70,606 square feet of destination (supermarket) retail uses on 40 projected development sites. There would be a net reduction of 132,848 square feet of office, 196,320 square feet of hotel, 180,536 square feet of light industrial, and 41,697 square feet of community facility uses compared to the future conditions without the proposed actions. The analyses in this section examine future traffic and parking conditions in 2017 with the full build-out of this reasonable worst case development scenario.

TRIP GENERATION

The trip generation rates, temporal distributions and mode choice factors used to estimate the travel demand that would be generated by the RWCDS are shown in Table 15-7. These factors were based on accepted *CEQR Technical Manual* criteria, standard professional references, data from the 2000 Census,

Table 15-6
Future Condition Without the Proposed Actions
Off-Street Public Parking Utilization

Period	Existing Conditions				No-Action Conditions							
	Total Capacity (a)	Estimated Demand (a)	Spaces Available	Utilization	Public Spaces Displaced (b)	New Public Spaces Provided (c)	Total Capacity	Soft Site Demand (d)	No Action Increment Demand (e)	Total Estimated Demand (f)	Net Spaces Available	Utilization
Weekday AM	1,309	515	794	65%	913	1,600	1,996	558	0	1,097	899	55%
Weekday Midday	2,250	1,806	444	80%	1,392	1,600	2,458	1,652	0	3,541	-1,083	144%
Saturday Midday	1,601	508	1,093	32%	1,043	1,600	2,158	544	0	1,075	1,083	50%

Notes:
(a) Source: PHA field counts conducted in February 2008, and PHA surveys at the Queens Plaza Municipal Garage in Spring 2006.
(b) Includes public parking capacity displaced by soft site and No Action development.
(c) Includes new capacity at public parking facilities planned for the Gotham Center I and II and Rockrose development sites.
(d) Demand from soft sites in proximity to the study area not accommodated by accessory parking.
(e) Includes No Action incremental demand from projected development sites not accommodated by accessory parking.
(f) Includes 0.5 percent/year background growth for the 2008 through 2017 period.

Table 15-7
Transportation Planning Factors

Land Use:		Community Facility		Residential		Office		Hotel		Local Retail		Destination Retail		Light Industrial	
		(1)		(2,13)		(2,15)		(11)		(2)		(8)		(12,15)	
		Staff	Visitors												
Trip Generation:	**Weekday**	10.0	33.6	8.075		18.00		5.82		205		130		11.50	
	Saturday	4.3	14.5	7.678		3.87		8.61		205		131		2.18	
(Person-trips)		(trips/1,000 gsf)		(trips/dwelling unit)		(trips/1,000 gsf)		(trips/room)		(trips/1,000 gsf)		(trips/1,000 gsf)		(trips/1,000 gsf)	
		(1)		(2,5)		(2,5)		(11)		(14)		(8)		(14)	
Temporal Distribution:	**AM**	24.0%	6.0%	9.1%		11.8%		6.6%		3.1%		3.7%		13.2%	
	MD	17.0%	9.0%	4.7%		14.5%		8.3%		19.0%		6.4%		11.0%	
	PM	24.0%	5.0%	10.7%		13.7%		7.7%		9.6%		6.8%		14.2%	
	Sat MD	17.0%	9.0%	7.0%		15.0%		8.5%		9.5%		9.8%		10.7%	
		(1)		(3)		(7,10)		(11)		(6)		(9)		(7,10)	
Modal Split:		**All Periods**		**All Periods**		**AM/PM/Sat**	**MD**	**All Periods**		**All Periods**		**All Periods**		**AM/PM/Sat**	**MD**
	Auto	20.0%	25.0%	20.0%		17.2%	2.0%	30.1%		2.0%		65.0%		17.2%	2.0%
	Taxi	10.0%	25.0%	1.0%		1.0%	1.0%	12.3%		3.0%		2.0%		1.0%	1.0%
	Subway	30.0%	29.0%	57.0%		68.0%	7.0%	18.8%		6.0%		10.0%		68.0%	7.0%
	Commuter Rail	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%		0.0%		0.0%		0.0%	0.0%
	Bus	30.0%	11.0%	2.0%		4.0%	7.0%	5.5%		6.0%		5.0%		4.0%	7.0%
	Walk	10.0%	10.0%	20.0%		9.8%	83.0%	33.3%		83.0%		18.0%		9.8%	83.0%
		100.0%	100.0%	100.0%		100.0%	100.0%	100.0%		100.0%		100.0%		100.0%	100.0%
		(1)		(3,4)		(10)		(11)		(6)		(9)		(14)	
		All Periods		**All Periods**		**All Periods**		**All Periods**		**All Periods**		**All Periods**		**All Periods**	
Vehicle Occupancy:	**Auto**	1.00	1.65	1.35		1.42		1.60		2.00		2.60		1.30	
	Taxi	1.40	1.20	1.50		1.42		1.40		2.00		2.60		1.30	
		(1)		(5)		(5,10)		(5,11)		(6)		(14)		(12,13)	
Directional		**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**
Distribution:	**AM**	94%	6%	20%	80%	96%	4%	41%	59%	50%	50%	61%	39%	88%	12%
	MD	50%	50%	51%	49%	39%	61%	68%	32%	50%	50%	55%	45%	50%	50%
	PM	12%	88%	65%	35%	5%	95%	59%	41%	50%	50%	47%	53%	12%	88%
	Sat MD	50%	50%	50%	50%	60%	40%	35%	65%	50%	50%	55%	45%	47%	53%
		(1)		(5)		(5)		(5)		(5)		(5)		(12)	
Daily Truck Trip		0.29		0.03		0.15		0.06		0.35		0.35		0.52	
Generation:		(trips/1,000 gsf)		(trips/dwelling unit)		(trips/1,000 gsf)		(trips/1,000 gsf)		(trips/1,000 gsf)		(trips/1,000 gsf)		(trips/1,000 gsf)	
		(1)		(14)		(14)		(5)		(14)		(14)		(14)	
Truck Trip	**AM**	9.6%		12.2%		9.6%		12.2%		7.7%		7.7%		14.0%	
Temporal Distribution:	**MD**	11.0%		8.7%		11.0%		8.7%		11.0%		11.0%		8.6%	
	PM	1.0%		1.0%		2.0%		0.0%		1.0%		1.0%		1.0%	
	Sat MD	0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	

Notes:

(1) Assumes medical office uses. Source: Jamaica Plan FEIS, June 2007.
(2) Source: City Environmental Quality Review (CEQR) Technical Manual, Appendix 3, 2001.
(3) Based on 2000 Census journey-to-work data.
(4) Source: Hunters Point Waterfront Development FEIS, June 1990.
(5) Source: Coliseum Redevelopment FSEIS, July 1997.
(6) Source: Hunters Point Subdistrict Rezoning EAS, February 6, 2004.
(7) Source: Data from Long Island City Zoning Changes and Related Actions FEIS, May 2001.
(8) Source: Hunts Point Rezoning EAS.
(9) Based on data from Northern Boulevard Stores FTEIS, September 1995.
(10) Source: Downtown Brooklyn Development FEIS, April 2004.
(11) Source: Renaissance Plaza Expansion EAS, March 2003, and Marriott Hotel Transportation Survey, AKRF, August 1999.
(12) Source: Hudson Square Rezoning FEIS, June 2003.
(13) Saturday factors based on data from Jamaica Plan FEIS, June 2007.
(14) Source: Jamaica Plan FEIS, June 2007.
(15) Saturday factors based on ratio of weekday/Saturday trip rates for office and light industrial uses from ITE Trip Generation, 7th Edition.

and studies that have been done for similar uses in the Long Island City area as well as other areas of the City. Tables 15-8 and 15-9 show the incremental change in peak hour person trips and vehicle trips, respectively, that would occur with the development proposed under the RWCDS.

As shown in Table 15-8, the RWCDS would result in a net increase of 664 person trips within the study area in the weekday AM peak hour, 834 in the midday, 1,252 in the PM, and 1,459 in the Saturday midday peak hour. These include trips made by the auto, taxi, transit (subway and bus) and walk modes. The proposed project's transit and pedestrian travel demand, and its probable impacts on subway, bus and pedestrian facilities are discussed in detail in Chapter 16, "Transit and Pedestrians."

As shown in Table 15-9, the RWCDS would result in a net reduction of 61 inbound vehicle trips and a net increase of 111 outbound vehicle trips in the weekday AM peak hour (auto, taxi and truck combined), 47 new inbound and 43 new outbound vehicle trips in the midday, 143 new inbound and six new outbound vehicle trips in the PM peak hour, and 114 new inbound and 87 new outbound vehicle trips in the Saturday midday peak hour.

TRIP ASSIGNMENT

Figure 15-6 shows the assignment of net project increment peak hour vehicle trips (auto, taxi and truck, combined) at analyzed intersections within the study area. The assignments of auto and taxi trips were based on the locations of individual projected development sites (or groups of projected development sites), and the anticipated origins and destinations of vehicle trips associated with the different uses projected for each site (e.g., residential, retail, office, etc.). The origins/destinations of residential trips were determined based upon 2000 Census journey-to-work data, while data from the *Long Island City Rezoning and Related Actions FEIS* were used to assign trips generated by office, light industrial and other commercial uses. The assignment of retail-based auto and taxi trips was based on trip assignment patterns from the *Northern Boulevard Stores FTEIS*.

Truck trips en route to and from individual projected development sites (or groups of development sites) were assigned based on the most direct paths to and from designated local and through truck routes. These routes include Northern Boulevard, 21st Street, Queens Plaza and portions of Crescent Street and 41st Avenue.

VEHICULAR TRAFFIC

Figure 15-7 shows the weekday AM, midday, PM and Saturday midday peak hour traffic networks in the future condition with the proposed actions. The volumes shown are the combination of the net incremental traffic generated by the RWCDS and the 2017 No-Action traffic network.

IMPACT ANALYSIS

Table 15-10 shows the weekday AM, midday, PM and Saturday midday peak hour volume-to-capacity ratios, delays and levels of service at analyzed intersections in the future condition with the proposed actions. The table also identifies those locations that would be impacted based on the criteria discussed above in the "Methodology" section. A summary of significantly impacted intersections is provided in Table 15-11.

Table 15-8
With-Action Increment Peak Hour Travel Demand
(Person Trips)

Land Use:		Community Facility -41,697 gsf Staff			Community Facility Visitors			Residential 1,591,319 gsf 1,555 D.U.			Office -132,848 gsf			Hotel -196,320 gsf -285 Rooms			Local Retail1 61,092 gsf			Destination Retail2 70,606 gsf			Light Industrial -180,536 gsf			Total Trips		
	Total Weekday Trips			-417			-1,401			12,549			-2,391			-1,659			3,757			6,884			-2,076			15,246
	Total Saturday Trips			-179			-605			11,932			-514			-2,454			3,757			6,937			-394			18,480
Peak Hour Trips by Mode:		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
AM	Auto	-19	-1	-20	-20	-1	-21	46	183	228	-47	-2	-49	-14	-19	-33	1	1	2	101	65	166	-41	-6	-47	8	219	227
	Taxi	-9	-1	-10	-20	-1	-21	2	9	11	-3	0	-3	-6	-8	-13	2	2	3	3	2	5	-2	0	-3	-33	3	-30
	Subway	-28	-2	-30	-23	-1	-24	130	521	651	-184	-8	-192	-8	-12	-21	3	3	7	16	10	25	-164	-22	-186	-259	489	230
	Bus	-28	-2	-30	-9	-1	-9	5	18	23	-11	0	-11	-2	-4	-6	3	3	7	8	5	13	-10	-1	-11	-44	19	-25
	Walk	-9	-1	-10	-8	-1	-8	46	183	228	-27	-1	-28	-15	-22	-36	48	48	97	28	18	46	-24	-3	-27	40	222	262
	Total	-94	-6	-100	-79	-5	-84	228	914	1,142	-271	-11	-282	-45	-65	-109	58	58	116	155	99	255	-241	-33	-274	-288	952	664
MD	Auto	-7	-7	-14	-16	-16	-32	60	58	118	-3	-4	-7	-28	-13	-41	7	7	14	158	129	286	-2	-2	-5	169	151	320
	Taxi	-4	-4	-7	-16	-16	-32	3	3	6	-1	-2	-3	-12	-5	-17	11	11	21	5	4	9	-1	-1	-2	-15	-10	-25
	Subway	-11	-11	-21	-18	-18	-37	171	165	336	-9	-15	-24	-18	-8	-26	21	21	43	24	20	44	-8	-8	-16	153	146	299
	Bus	-11	-11	-21	-7	-7	-14	6	6	12	-9	-15	-24	-5	-2	-8	21	21	43	12	10	22	-8	-8	-16	-1	-6	-7
	Walk	-4	-4	-7	-6	-6	-13	60	58	118	-112	-176	-288	-31	-15	-46	296	296	592	44	36	79	-95	-95	-190	152	95	247
	Total	-35	-35	-71	-63	-63	-126	301	289	590	-135	-212	-347	-94	-44	-138	357	357	714	242	198	441	-114	-114	-228	458	376	834
PM	Auto	-2	-18	-20	-2	-15	-18	175	94	269	-3	-54	-56	-23	-16	-38	4	4	7	143	161	304	-6	-45	-51	285	112	397
	Taxi	-1	-9	-10	-2	-15	-18	9	5	13	0	-3	-3	-9	-6	-16	5	5	11	4	5	9	0	-3	-3	5	-21	-16
	Subway	-4	-26	-30	-2	-18	-20	497	268	765	-11	-212	-223	-14	-10	-24	11	11	22	22	25	47	-24	-176	-200	475	-139	336
	Bus	-4	-26	-30	-1	-7	-8	17	9	27	-1	-12	-13	-4	-3	-7	11	11	22	11	12	23	-1	-10	-12	29	-26	3
	Walk	-1	-9	-10	-1	-6	-7	175	94	269	-2	-30	-32	-25	-17	-43	150	150	299	40	45	84	-3	-25	-29	332	200	532
	Total	-12	-88	-100	-8	-62	-70	873	470	1,343	-16	-311	-328	-75	-52	-128	180	180	361	220	248	468	-35	-259	-295	1,126	126	1,252
Sat MD	Auto	-3	-3	-6	-7	-7	-14	84	84	167	-8	-5	-13	-22	-41	-63	4	4	7	243	199	442	-3	-4	-7	287	226	513
	Taxi	-2	-2	-3	-7	-7	-14	4	4	8	0	0	-1	-9	-17	-26	5	5	11	7	6	14	0	0	0	-1	-10	-11
	Subway	-5	-5	-9	-8	-8	-16	238	238	476	-31	-21	-52	-14	-25	-39	11	11	21	37	31	68	-13	-15	-29	215	205	420
	Commuter Rail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Bus	-5	-5	-9	-3	-3	-6	8	8	17	-2	-1	-3	-4	-7	-11	11	11	21	19	15	34	-1	-1	-2	24	17	41
	Walk	-2	-2	-3	-3	-3	-5	84	84	167	-5	-3	-8	-24	-45	-69	148	148	296	67	55	122	-2	-2	-4	264	232	496
	Total	-15	-15	-30	-27	-27	-54	418	418	835	-46	-31	-77	-73	-136	-209	178	178	357	374	306	680	-20	-22	-42	789	670	1,459

Notes:

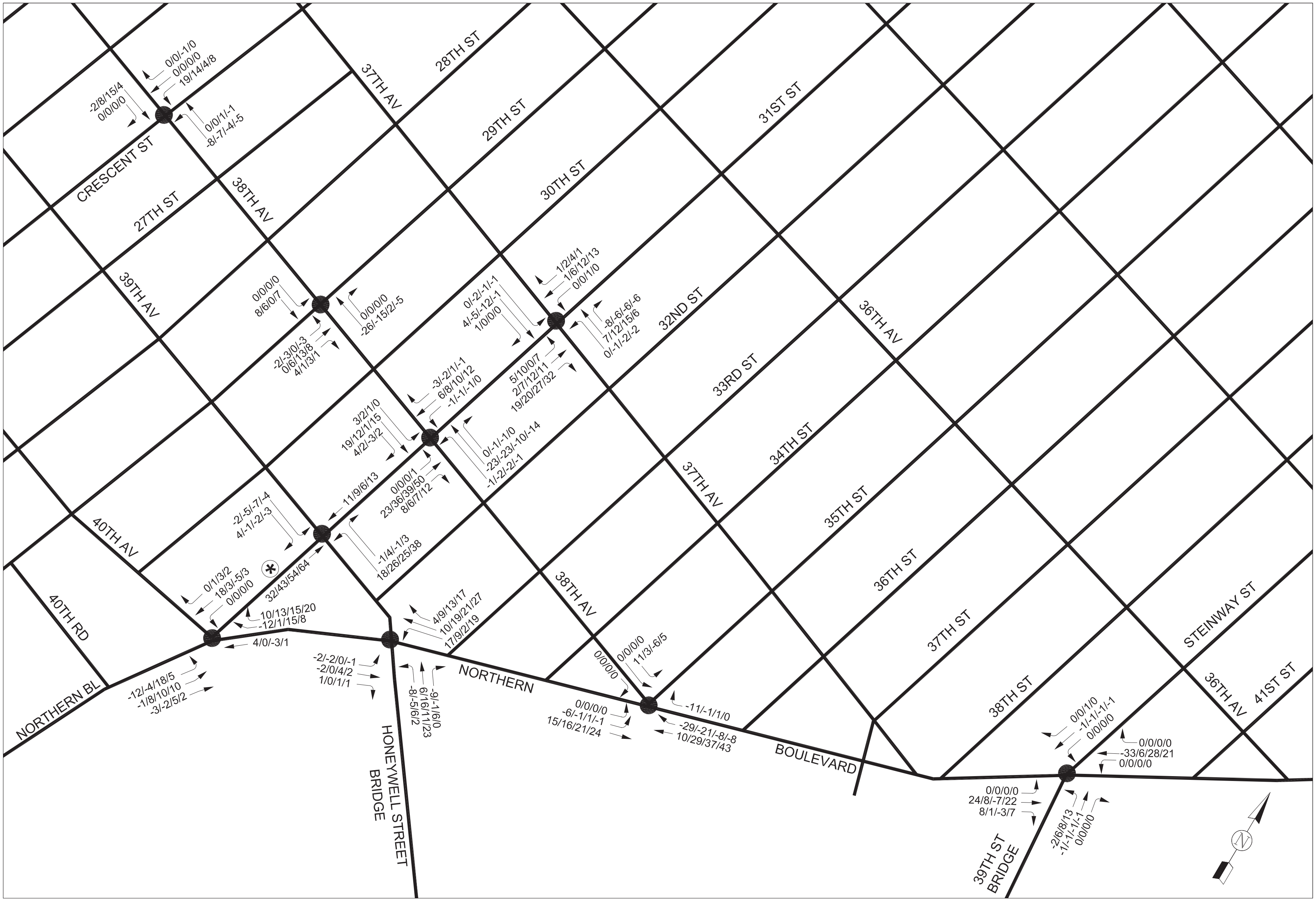
(1) Local retail travel demand assumes that 70% of trips are not linked trips and are new to the study area.

(2) Destination retail travel demand assumes that 25% of trips are not linked trips and are new to the study area.

Table 15-9
With-Action Increment Peak Hour Travel Demand
(Vehicle Trips)

Component:		Community Facility -41,697 gsf Staff			Visitors			Residential 1,591,319 gsf 1,555 D.U.			Office -132,848 gsf			Hotel -196,320 gsf -285 Rooms			Local Retail (2) 61,092 gsf			Destination Retail (3) 70,606 gsf			Light Industrial -180,536 gsf			Total Trips		
Peak Hour Vehicle Trips		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
AM	Auto	-19	-1	-20	-12	-1	-13	34	135	169	-33	-1	-34	-8	-12	-20	1	1	2	39	25	64	-32	-4	-36	-30	142	112
	Taxi (1)	-7	-7	-14	-16	-16	-32	7	7	14	-2	-2	-4	-10	-10	-20	2	2	4	2	2	4	-2	-2	-4	-26	-26	-52
	Truck	-1	-1	-2	0	0	0	3	3	6	-1	-1	-2	-1	-1	-2	1	1	2	1	1	2	-7	-7	-14	-5	-5	-10
	Total																									**-61**	**111**	**50**
MD	Auto	-7	-7	-14	-10	-10	-20	45	43	88	-2	-3	-5	-18	-8	-26	4	4	8	61	50	111	-2	-2	-4	71	67	138
	Taxi (1)	-5	-5	-10	-20	-20	-40	4	4	8	-2	-2	-4	-8	-8	-16	9	9	18	3	3	6	-2	-2	-4	-21	-21	-42
	Truck	-1	-1	-2	0	0	0	2	2	4	-1	-1	-2	-1	-1	-2	1	1	2	1	1	2	-4	-4	-8	-3	-3	-6
	Total																									**47**	**43**	**90**
PM	Auto	-2	-18	-20	-1	-9	-10	129	70	199	-2	-38	-40	-14	-10	-24	2	2	4	55	62	117	-5	-34	-39	162	25	187
	Taxi (1)	-6	-6	-12	-14	-14	-28	6	6	12	-2	-2	-4	-8	-8	-16	4	4	8	3	3	6	-2	-2	-4	-19	-19	-38
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																									**143**	**6**	**149**
Sat MD	Auto	-3	-3	-6	-4	-4	-8	62	62	124	-6	-4	-10	-14	-26	-40	2	2	4	93	76	169	-3	-3	-6	127	100	227
	Taxi (1)	-2	-2	-4	-10	-10	-20	5	5	10	0	0	0	-15	-15	-30	5	5	10	4	4	8	0	0	0	-13	-13	-26
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																									**114**	**87**	**201**

Note:
(1) Balanced taxi trips assume that 50% of taxis arrivng with passengers site are available to accommodate outbound riders. Taxis are balanced on a site-by-site basis.
(2) Local retail travel demand assumes that 70% of trips are linked trips and are not new to the study area.
(3) Destination retail travel demand assumes 25% of trips are linked trips and are not new to the study area.



Legend:

-12/-4/18/5 = AM/MD/PM/Sat MD Peak Hour Volumes

● Analyzed Intersection

✱ 390-space accessory parking garage proposed at this site

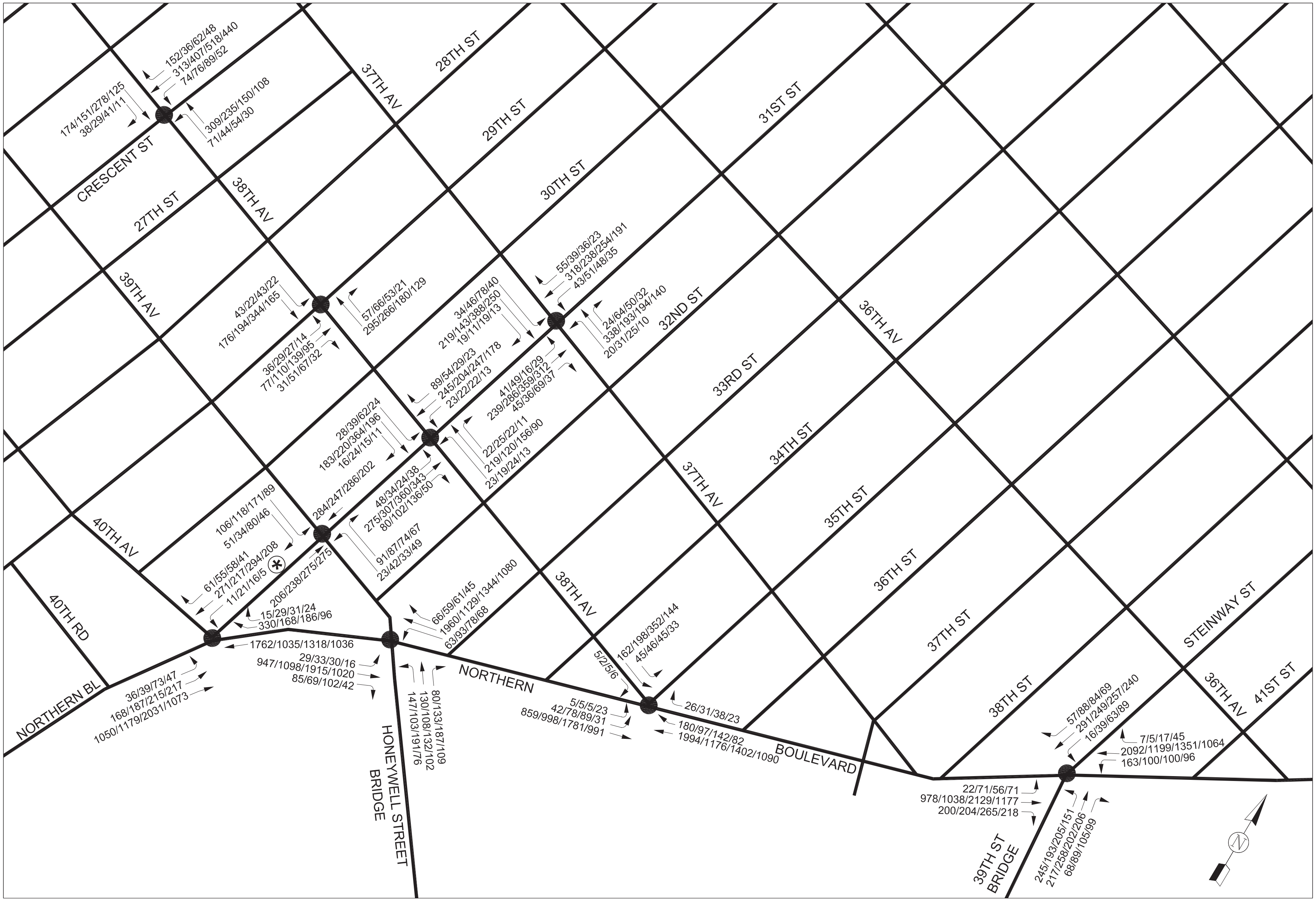
New York City
Department of City Planning

Dutch Kills Rezoning and Related Actions

Net Project Increment Peak Hour Traffic Volumes

The Louis Berger Group, Inc.

Figure 15-6



Legend:

36/39/73/47 = AM/MD/PM/Sat MD Peak Hour Volumes

● Analyzed Intersection

(*) 390-space accessory parking garage proposed at this site

New York City
Department of City Planning

Dutch Kills Rezoning and Related Actions

2017 Future With-Action Peak Hour Traffic Volumes

The Louis Berger Group, Inc.

Figure 15-7

Table 15-10
Comparison of Future Condition Without and With the Proposed Actions
Levels of Service at Signalized Intersections

		AM PEAK HOUR						MIDDAY PEAK HOUR						PM PEAK HOUR						SATURDAY MIDDAY PEAK HOUR					
		2017 No-Action			2017 With-Action			2017 No-Action			2017 With-Action			2017 No-Action			2017 With-Action			2017 No-Action			2017 With-Action		
SIGNALIZED INTERSECTION	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Northern Boulevard (E-W) @	EB-L	1.30	184.4	F	1.22	155.3	F	1.35	205.0	F	1.37	215.9	F *	2.35	649.3	F	2.67	790.8	F *	1.27	170.8	F	1.37	209.9	F *
40th Avenue (W)/	EB-T	0.58	9.8	A	0.58	9.8	A	0.63	10.7	B	0.63	10.7	B	0.68	10.9	B	0.68	10.9	B	0.56	9.5	A	0.56	9.5	A
31st Street (SB)	WB-T	0.73	12.0	B	0.72	11.9	B	0.66	11.3	B	0.66	11.3	B	0.79	14.8	B	0.80	15.1	B	0.60	10.1	B	0.60	10.2	B
	SB-LTR	0.94	78.8	E	0.98	89.3	F *	0.85	65.4	E	0.86	67.2	E	1.05	105.4	F	1.04	104.7	F	0.71	54.8	D	0.73	55.7	E
Northern Boulevard (E-W) @	EB-L	0.57	42.0	D	0.53	38.2	D	0.23	9.1	A	0.23	9.3	A	0.25	10.6	B	0.26	11.4	B	0.09	6.2	A	0.09	6.4	A
39th Avenue (N)/	EB-TR	0.57	9.7	A	0.57	9.7	A	0.63	10.7	B	0.63	10.7	B	0.67	10.9	B	0.68	10.9	B	0.55	9.4	A	0.55	9.4	A
Honeywell (N-S)	WB-LTR	0.80	14.1	B	0.85	16.2	B	1.01	42.9	D	1.08	65.5	E *	1.31	161.9	F	1.36	184.3	F *	0.72	13.1	B	0.84	17.8	B
	NB-LTR	0.64	48.3	D	0.62	47.6	D	0.64	48.6	D	0.65	49.1	D	0.86	60.6	E	0.90	65.2	E *	0.48	44.5	D	0.52	45.4	D
Northern Boulevard (E-W) @	EB-L	0.98	128.3	F	0.87	95.5	F	0.59	24.0	C	0.59	23.9	C	0.95	90.5	F	1.01	108.8	F *	0.30	10.1	B	0.31	10.6	B
38th Avenue (N-S)/	EB-T	0.46	8.3	A	0.47	8.4	A	0.52	9.1	A	0.53	9.2	A	0.58	9.4	A	0.59	9.5	A	0.50	8.7	A	0.51	8.9	A
35th Street (N)	WB-TR	0.76	12.7	B	0.74	12.4	B	0.70	12.2	B	0.70	12.2	B	0.82	15.7	B	0.83	16.4	B	0.61	10.4	B	0.63	10.7	B
	SB-LTR	0.67	53.8	D	0.70	55.8	E	0.82	64.5	E	0.83	65.8	E	1.13	133.6	F	1.12	128.2	F	0.60	50.7	D	0.61	51.3	D
Northern Boulevard (E-W) @	EB-L	0.40	33.3	C	0.40	33.3	C	1.00	129.0	F	1.01	133.1	F *	0.65	47.4	D	0.69	55.0	D *	0.70	52.3	D	0.74	59.0	E *
Steinway Street (N-S)	EB-TR	0.80	25.1	C	0.83	26.3	C	0.93	39.3	D	0.94	40.3	D	0.99	40.0	D	0.98	39.0	D	1.00	52.6	D	1.02	58.2	E *
	WB-L	1.36	229.2	F	1.46	271.7	F *	1.54	328.5	F	1.61	357.3	F *	1.00	112.6	F	1.00	112.6	F	1.80	447.1	F	1.80	447.1	F
	WB-TR	0.88	27.2	C	0.87	26.4	C	0.87	32.4	C	0.87	32.7	C	0.83	26.2	C	0.85	27.2	C	0.78	27.4	C	0.80	28.1	C
	NB-L	1.13	148.1	F	1.12	145.3	F	0.68	54.2	D	0.70	55.3	E	0.85	78.0	E	0.89	83.0	F *	0.48	46.0	D	0.52	47.4	D
	NB-TR	1.21	176.0	F	1.21	174.5	F	1.19	157.0	F	1.18	155.9	F	1.22	176.3	F	1.21	174.9	F	1.02	102.3	F	1.02	100.7	F
	SB-LTR	0.92	78.2	E	0.92	77.8	E	1.01	98.3	F	1.01	98.3	F	1.03	102.8	F	1.03	102.8	F	1.06	113.3	F	1.06	112.6	F
39th Avenue (E-W) @	EB-LR	0.31	17.7	B	0.31	17.8	B	0.31	17.8	B	0.30	17.6	B	0.50	21.3	C	0.49	20.9	C	0.28	17.3	B	0.27	17.1	B
31st Street (N-S)	WB-LR	0.20	16.3	B	0.23	16.7	B	0.21	16.4	B	0.27	17.1	B	0.17	15.9	B	0.22	16.5	B	0.16	15.8	B	0.24	16.8	B
	NB-T	0.23	16.3	B	0.27	16.8	B	0.26	16.6	B	0.31	17.3	B	0.29	17.0	B	0.36	17.9	B	0.27	16.8	B	0.36	17.9	B
	SB-T	0.35	17.8	B	0.37	18.0	B	0.31	17.3	B	0.32	17.5	B	0.36	18.0	B	0.37	18.1	B	0.24	16.5	B	0.26	16.7	B
38th Avenue (E-W) @	EB-LTR	0.37	18.6	B	0.42	19.4	B	0.50	21.1	C	0.53	21.7	C	0.81	33.0	C	0.81	32.8	C	0.38	18.7	B	0.41	19.1	B
31st Street (N-S)	WB-LTR	0.50	20.9	C	0.47	20.2	C	0.36	18.3	B	0.31	17.6	B	0.40	19.2	B	0.37	18.7	B	0.23	16.6	B	0.21	16.3	B
	NB-LTR	0.57	22.0	C	0.61	23.2	C	0.59	22.4	C	0.65	24.0	C	0.67	24.6	C	0.73	26.8	C	0.53	21.0	C	0.62	23.0	C
	SB-LTR	0.51	20.7	C	0.52	20.7	C	0.41	18.8	B	0.41	18.8	B	0.41	18.7	B	0.42	18.9	B	0.28	17.0	B	0.30	17.2	B
37th Avenue (E-W) @	EB-LTR	0.51	21.3	C	0.51	21.4	C	0.42	19.7	B	0.41	19.4	B	0.93	47.8	D	0.91	44.6	D	0.56	22.3	C	0.55	22.2	C
31st Street (N-S)	WB-LTR	0.66	25.3	C	0.66	25.1	C	0.54	22.1	C	0.55	22.1	C	0.50	21.1	C	0.51	21.2	C	0.33	18.0	B	0.32	17.8	B
	NB-LTR	0.44	19.4	B	0.49	20.3	C	0.48	20.0	B	0.55	21.4	C	0.54	21.1	C	0.60	22.5	C	0.44	19.2	B	0.53	20.8	C
	SB-LTR	0.59	22.2	C	0.59	22.4	C	0.48	20.1	C	0.50	20.4	C	0.47	19.9	B	0.50	20.5	C	0.34	17.8	B	0.36	18.1	B
38th Avenue (E-W) @	EB-LR	0.51	20.0	B	0.50	19.9	B	0.41	18.2	B	0.43	18.5	B	0.70	25.5	C	0.73	27.1	C	0.30	16.5	B	0.31	16.6	B
Crescent Street (SB)	WB-LT	1.10	96.2	F	1.03	71.5	E	0.72	27.0	C	0.69	25.6	C	0.69	28.8	C	0.68	28.3	C	0.36	17.5	B	0.34	17.2	B
	SB-L	0.08	7.2	A	0.11	7.4	A	0.10	7.3	A	0.12	7.4	A	0.13	7.5	A	0.14	7.5	A	0.07	7.1	A	0.08	7.1	A
	SB-TR	0.67	14.8	B	0.67	14.8	B	0.61	13.2	B	0.61	13.2	B	0.79	19.1	B	0.79	19.0	B	0.67	14.6	B	0.67	14.6	B
38th Avenue (E-W) @	EB-LT	0.42	14.3	B	0.43	14.4	B	0.39	13.6	B	0.40	13.7	B	0.71	21.0	C	0.71	21.0	C	0.33	12.7	B	0.34	12.8	B
29th Street (NB)	WB-TR	0.66	19.1	B	0.62	17.8	B	0.63	18.1	B	0.60	17.4	B	0.41	13.9	B	0.42	13.9	B	0.28	12.1	B	0.27	12.0	B
	NB-LTR	0.28	12.2	B	0.28	12.3	B	0.36	13.3	B	0.37	13.4	B	0.41	14.0	B	0.44	14.4	B	0.26	12.0	B	0.27	12.1	B

Notes:
EB - eastbound, WB - westbound, NB - northbound, SB - southbound
L-left, T-through, R-right, DfL-analysis considers a defacto left lane on this approach.
V/C Ratio - Volume to capacity ratio, sec/veh - seconds per vehicle
Sec/veh - seconds per vehicle
LOS - Level of service
* Denotes a significant adverse impact based on CEQR Technical Manual criteria.
Analysis is based on the 2000 Highway Capacity Manual methodology (HCS 2000 4.1f).

Table 15-11
Summary of Impacted Intersections

Intersection	WEEKDAY AM	WEEKDAY MD	WEEKDAY PM	SATURDAY MD
Northern Blvd. at 40th Ave/31st Street	X	X	X	X
Northern Blvd. at 39th Ave/Honeywell Street Bridge		X	X	
Northern Blvd. at 38th Avenue/35th Street			X	
Northern Blvd. at Steinway Street/39th Street Bridge	X	X	X	X

X - denotes significant impacts to one or more movements in the peak hour.

As shown in Tables 15-10 and 15-11, a total of four analyzed intersections (all along Northern Boulevard) would be significantly adversely impacted by project-generated traffic in one or more peak hours. The weekday PM peak hour would have the highest number of impacted intersections with four, followed by the weekday midday with three, and the weekday AM and Saturday midday with two each. The significant adverse traffic impacts in each peak hour are discussed below. Measures to mitigate significant adverse impacts are presented in Chapter 21, "Mitigation."

Northern Boulevard at 40th Avenue/31st Street

As shown in Table 15-10, the southbound 31st Street approach to Northern Boulevard would be significantly impacted in the AM peak hour. This movement would operate at LOS F with 89.3 seconds of delay in the future condition without the proposed actions condition compared to LOS E and 78.8 seconds of delay in the No-Action. The eastbound left-turn on Northern Boulevard would be impacted in the weekday midday, PM and Saturday midday peak hours. Under future condition with the proposed actions, this movement would operate at LOS F in each of these periods, with 215.9 seconds of delay in the weekday midday (versus 205.0 seconds in the No-Action), 790.8 seconds of delay in the PM (649.3 seconds in the No-Action) and 209.9 seconds in the Saturday midday peak hour (170.8 seconds in the No-Action).

Northern Boulevard at 39th Avenue/Honeywell Street Bridge

The westbound Northern Boulevard approach to 39th Avenue would be significantly adversely impacted in the weekday midday and PM peak hours, with LOS E conditions and 65.5 seconds of delay in the midday, and LOS F conditions and 184.3 seconds of delay in the PM. This compares to LOS D and 42.9 seconds of delay in the midday and LOS F and 161.9 seconds of delay in the PM under No-Action conditions. In addition, the northbound Honeywell Street Bridge approach to Northern Boulevard would be significantly impacted in the PM peak hour, with LOS E conditions and 65.2 seconds of delay compared to LOS E and 60.6 seconds of delay in the No-Action.

Northern Boulevard at 38th Avenue/35th Street

The eastbound left-turn movement from Northern Boulevard onto 38th Avenue and 35th Street would be significantly impacted in the weekday PM peak hour when this movement would operate at LOS F with 108.8 seconds of delay, compared to LOS F and 90.5 seconds of delay in the No-Action.

Northern Boulevard at Steinway Street/39th Street Bridge

The eastbound left-turn movement from Northern Boulevard onto Steinway Street would be significantly impacted in the weekday midday, PM and Saturday midday peak hours. This movement would operate at LOS F with 133.1 seconds of delay in the weekday midday compared to LOS F and 129 seconds of delay in the No-Action; LOS D with 55 seconds of delay in the PM compared to LOS D and 47.4 seconds of delay in the No-Action; and LOS E with 59.0 seconds of delay in the Saturday midday compared to LOS D and 52.3 seconds of delay in the No-Action. The eastbound through-right movement would be impacted in the Saturday midday peak hour, with LOS E conditions and 58.2 seconds of delay compared to LOS D and 52.6 seconds in the No-Action. The northbound left-turn movement would be impacted in the weekday PM peak hour, with LOS F conditions and 83 seconds of delay compared to LOS E and 78 seconds in the No-Action. Lastly, the westbound left-turn movement would be significantly impacted in the weekday AM and midday. This movement would operate at LOS F in both of these periods with 271.7 and 357.3 seconds of delay, respectively, compared to LOS F in both periods with 229.2 and 328.5 seconds of delay, respectively in the No-Action.

PARKING

In the future condition with the proposed actions, the RWCDS would generate new parking demand at projected development sites. As shown in Table 15-12, during weekdays, the net increase in parking demand would total 540 spaces at 7 AM and 267 spaces in the midday (12 noon), and would peak at 633 spaces at 9 PM. On Saturdays, the net increase in parking demand would total 456 spaces in the midday (2 PM), and would peak at 622 spaces at 9 PM. Typically, any project-generated parking demand not accommodated by accessory parking is assumed to utilize off-street public parking facilities in the vicinity. However, as shown in Table 15-12, a total of approximately 715 accessory parking spaces would be developed under the RWCDS, a sufficient number to accommodate all of the anticipated parking demand associated with the new development. The proposed actions would therefore not increase the overall demand at off-street public parking facilities in the study area compared to No-Action conditions. It should be noted, however, that development under the RWCDS would displace one existing public parking facility – the Alert Garage Corp. parking lot at 30-17 40th Avenue (see No. 11 on Table 15-4 and Figure 15-3). As no new off-street public parking is proposed for development under the RWCDS, the net effect of the RWCDS would be a 200-space reduction in the overall supply of off-street public parking capacity compared to the No-Action condition.

Table 15-13 shows conditions in the parking study area in the future condition with the proposed actions. As shown in Table 15-13, the off-street public parking supply in the study area is expected to be 61 percent utilized in the weekday AM and 55 percent utilized in the Saturday midday, compared to utilization rates of 55 percent and 50 percent, respectively, in the No-Action. In the weekday midday, however, parking demand in the study area is expected to exceed capacity by approximately 1,283 spaces (a 157 percent utilization rate) compared to 1,083 spaces (a 144 percent utilization rate) under No-Action conditions.

Table 15-12
With-Action Increment Parking Demand

WEEKDAY

	Community Facility (a)	Residential	Office	Local Retail	Destination Retail (b)	Hotel	Light Industrial	**Total Demand**	**Accessory Spaces**	**Excess Demand**
12-1 AM	0	643	0	0	0	-57	0	586	715	0
1-2	0	653	0	0	0	-57	0	596	715	0
2-3	0	653	0	0	0	-57	0	596	715	0
3-4	0	653	0	0	0	-57	0	596	715	0
4-5	0	653	0	0	0	-57	0	596	715	0
5-6	0	643	0	0	0	-54	0	589	715	0
6-7	0	592	0	0	0	-52	0	540	715	0
7-8	-2	510	-3	0	17	-51	-3	468	715	0
8-9	-31	409	-35	0	31	-47	-31	296	715	0
9-10	-28	368	-61	0	59	-43	-57	238	715	0
10-11	-28	358	-62	0	85	-39	-58	256	715	0
11-12	-29	358	-58	0	85	-35	-54	267	715	0
12-1 PM	-29	360	-57	0	96	-45	-54	271	715	0
1-2	-31	350	-59	0	96	-45	-55	256	715	0
2-3	-30	371	-62	0	80	-42	-57	260	715	0
3-4	-30	423	-61	1	60	-42	-56	295	715	0
4-5	-30	486	-43	1	31	-44	-37	364	715	0
5-6	-6	545	-7	1	24	-48	-8	501	715	0
6-7	-2	608	-1	1	31	-50	-2	585	715	0
7-8	0	630	0	1	42	-50	0	623	715	0
8-9	0	652	0	1	34	-54	0	633	715	0
9-10	0	653	0	0	26	-58	0	621	715	0
10-11	0	643	0	0	9	-57	0	595	715	0
11-12	0	633	0	0	0	-57	0	576	715	0

SATURDAY

	Community Facility (a)	Residential	Office	Local Retail	Destination Retail (b)	Hotel	Light Industrial	**Total Demand**	**Accessory Spaces**	**Excess Demand**
12-1 AM	0	643	0	0	0	-57	0	586	715	0
1-2	0	653	0	0	0	-57	0	596	715	0
2-3	0	653	0	0	0	-57	0	596	715	0
3-4	0	653	0	0	0	-57	0	596	715	0
4-5	0	653	0	0	0	-57	0	596	715	0
5-6	0	644	0	0	0	-57	0	587	715	0
6-7	0	596	0	0	0	-54	0	542	715	0
7-8	0	529	-1	0	21	-56	-1	492	715	0
8-9	-1	433	-8	0	47	-64	-8	399	715	0
9-10	-12	394	-14	0	73	-62	-14	365	715	0
10-11	-12	384	-14	1	114	-59	-14	400	715	0
11-12	-12	384	-12	1	129	-52	-13	425	715	0
12-1 PM	-13	384	-9	1	127	-52	-9	429	715	0
1-2	-13	384	-11	1	144	-40	-9	456	715	0
2-3	-14	404	-12	1	132	-36	-11	464	715	0
3-4	-13	453	-12	1	121	-36	-11	503	715	0
4-5	-13	500	-8	1	101	-40	-8	533	715	0
5-6	-13	567	-1	1	101	-42	-1	612	715	0
6-7	-3	614	0	0	50	-45	0	616	715	0
7-8	-1	633	0	0	32	-49	0	615	715	0
8-9	0	652	0	0	23	-53	0	622	715	0
9-10	0	652	0	0	7	-58	0	601	715	0
10-11	0	642	0	0	0	-57	0	585	715	0
11-12	0	633	0	0	0	-57	0	576	715	0

Notes:

Parking accumulation patterns based on data from Jamaica Plan FEIS unless otherwise noted.

(a) Assumes medical office uses.

(b) Parking accumulation pattern based on data for a proposed Pathmark from the March 3, 2006 Van Cortlandt Center EAS.

Table 15-13
Future Condition With the Proposed Actions
Off-Street Public Parking Utilization

	No-Action Conditions				With-Action Conditions						
Period	Total Capacity (a)	Estimated Demand (b)	Spaces Available	Utilization	Public Spaces Displaced (c)	New Public Spaces Provided (d)	Total Capacity	With Action Increment Demand (e)	Total Estimated Demand	Net Spaces Available	Utilization
Weekday AM	1,996	1,097	899	55%	200	0	1,796	0	1,097	699	61%
Weekday Midday	2,458	3,541	-1,083	144%	200	0	2,258	0	3,541	-1,283	157%
Saturday Midday	2,158	1,075	1,083	50%	200	0	1,958	0	1,075	883	55%

Notes:

(a) Reflects existing parking facilities displaced by new development, and new public parking facilities planned by 2017.

(b) Includes 0.5 percent/year background growth for the 2008 through 2017 period.

(c) Reflects displacement of 200-space public parking facility on Projected Development Site 4.

(d) No new public parking is projected in the With Action condition.

(e) All incremental demand from projected development sites is expected to be accommodated in accessory parking facilities.

Under *CEQR Technical Manual* criteria, for proposed actions in outlying business districts outside of Manhattan, a parking shortfall resulting from a proposed action that exceeds more than 50 percent of the available on-street and off-street parking spaces within ¼-mile of the site may be considered significant. As noted above, it is anticipated that all parking demand from development of the RWCDS under the future condition with the proposed actions is expected to be accommodated in accessory parking facilities, and would not contribute to the projected deficit of off-street public parking in the weekday midday. The displacement of one existing off-street public parking facility under the RWCDS would, however, reduce available capacity in the study area by 200 spaces. As the proposed actions would not increase the demand for off-street public parking in the study area, and as the displacement of 200 parking spaces would represent a change of less than 10 percent compared to the capacity in the study area under No-Action conditions, the proposed actions would not result in a significant adverse impact to off-street public parking under *CEQR Technical Manual* criteria. The reduction in capacity may, however, result in additional demand for on-street parking at metered parking spaces and at non-metered parking spaces regulated by street cleaning rules in the weekday midday period, and motorists walking greater distances to their destinations.

The supply of on-street parking within the study area is expected to remain relatively unchanged in the future with the proposed actions. The 416 metered parking spaces located within the study area are expected to remain at capacity, as are the non-metered curbside parking spaces. There would be minimal curbside capacity available to relieve the projected over-capacity conditions on the off-street public parking system in the weekday midday.