

A. INTRODUCTION AND PRINCIPAL CONCLUSIONS**INTRODUCTION**

This chapter evaluates the traffic and transportation conditions associated with the proposed redevelopment of the vacant Kings Theatre site into a live performance venue for concerts and shows. It addresses the potential traffic, parking, transit and pedestrian impacts of the proposed actions. First, it provides an assessment of existing conditions and future conditions without the proposed actions (2014 No Build conditions). It then provides a detailed description of the volume of trips expected to be generated by the proposed actions, and an assessment of future conditions with the proposed actions (2014 Build conditions), which addresses the potential for significant adverse impacts. Traffic capacity improvements needed to mitigate the potential significant adverse impacts are presented in Chapter 8, “Mitigation.” A discussion of partially mitigatable and unmitigatable significant adverse traffic impacts appears in Chapter 9, “Unavoidable Adverse Impacts.”

The project site is located in the Flatbush-Ditmas Park section of Brooklyn and is bounded by Flatbush Avenue on the west, Tilden Avenue on the north, East 22nd Street on the east, and Duryea Place on the south. The proposed actions would create a theatre on this block with up to 3,600 seats and would also entail the demapping and closure of a portion of East 22nd Street between Tilden Avenue and Duryea Place to accommodate an expansion of the theater’s stagehouse, back-of-house support areas, and loading areas into the street to support live theatre events.

The programming for the proposed theatre venue would potentially include weekend midday events and weekday or weekend evening events. A Saturday afternoon study period was chosen to analyze a weekend midday event condition, and a Saturday evening study period was chosen to analyze an evening event. Both of these periods were chosen because they represent the highest background volumes for each potential event time. For a midday event, both the arrival and departure peaks were analyzed. For an evening event, only the arrival period was analyzed. The departure period is not analyzed since it would occur in the late evening when background traffic and transportation activity would be much lower. These traffic analysis hours were determined in conjunction with, and approved by, the New York City Department of Transportation (NYCDOT). This analysis evaluates a worst-case scenario where a sold-out event would occur.

PRINCIPAL CONCLUSIONS*TRAFFIC*

Of the 14 study area intersections analyzed, the proposed actions would result in significant traffic impacts at 12 intersections in the Saturday midday arrival peak hour, 13 in the midday

departure peak hour, and 10 in the evening arrival peak hour. Traffic capacity improvements that would be needed to mitigate these significant adverse traffic impacts are addressed in Chapter 8, “Mitigation.” Significant adverse traffic impacts that could only be partially mitigated or would be unmitigatable are addressed in Chapter 9, “Unavoidable Adverse Impacts.”

PARKING

The parking demand generated by the proposed actions would be fully accommodated by available on-street and off-street parking within the study area. Additionally, the loss of on-street parking spaces that would result from the proposed closure of East 22nd Street would not adversely impact parking conditions.

TRANSIT

Based on the assessment performed in the EAS, it was determined that the number of bus and subway person trips expected to be generated by the proposed actions, and ridership levels during peak event periods would not have the potential for significant adverse bus or subway impacts and, therefore, no further analysis is warranted. However, transit trip assignments were conducted for the purpose of pedestrian analyses.

PEDESTRIANS

All crosswalk and corner reservoir areas analyzed for this study would operate at acceptable levels of service (LOS C or better) during all analysis periods under the future Build condition. Therefore, there would be no significant pedestrian impacts as a result of the proposed actions.

B. EXISTING CONDITIONS

TRAFFIC

ROADWAY NETWORK AND STUDY AREA

The traffic study area encompasses 13 signalized intersections and one unsignalized intersection. The specific analysis locations were selected based on observations of traffic patterns and expected trip patterns to the proposed theatre. The traffic study area primarily encompasses intersections along Flatbush, Bedford, and Ocean Avenues between Caton Avenue/Linden Boulevard and Foster Avenue.

Flatbush Avenue

Flatbush Avenue is a major commercial arterial that runs north-south through Brooklyn between the Manhattan Bridge in Downtown Brooklyn and Mill Basin at the southerly end of the borough. In the vicinity of the project site, Flatbush Avenue generally operates with two travel lanes and metered curb parking in each direction. Local and express bus routes travel along this corridor. It is also a designated through truck route.

Bedford Avenue

Bedford Avenue extends north-south through central Brooklyn, and has a diverse land use mix including residential, commercial, and institutional uses. Within the vicinity of the study area, Bedford Avenue passes the Sears parking lot, just east of the project site, and has one lane of traffic, a bicycle lane, and curbside parking in both directions.

Ocean Avenue

Ocean Avenue is a north-south arterial that generally carries one lane of traffic and curbside parking in each direction within the study area. This corridor is characterized by multi-family residential use. Several express bus routes and one local route travel along this corridor.

Caton Avenue

Caton Avenue is an east-west street that operates between Fort Hamilton Parkway and Bedford Avenue. Caton Avenue has one travel lane and a parking lane in each direction, and is a designated truck route.

Linden Boulevard

Linden Boulevard is an east-west street that operates with two lanes of traffic and parking in each direction. Linden Boulevard is also a designated local truck route through Brooklyn.

Church Avenue

Church Avenue is a major east-west commercial arterial and designated truck route within the project study area. It has one travel lane and metered parking in both directions. Church Avenue has high levels of pedestrian activity, especially during peak shopping hours. There is also a local bus route along this corridor.

Tilden Avenue

Tilden Avenue is a local east-west commercial street with one travel lane and metered parking in both directions between Flatbush and Bedford Avenues. East of Bedford Avenue, Tilden Avenue operates one-way westbound, and is primarily residential.

Beverley Road

Beverley Road is an east-west corridor that operates with one travel lane and parking in each direction. It is characterized by residential and commercial land uses.

Foster Avenue

Foster Avenue is an east-west street that operates with one travel lane and parking in each direction. This street is mostly residential and has local bus service.

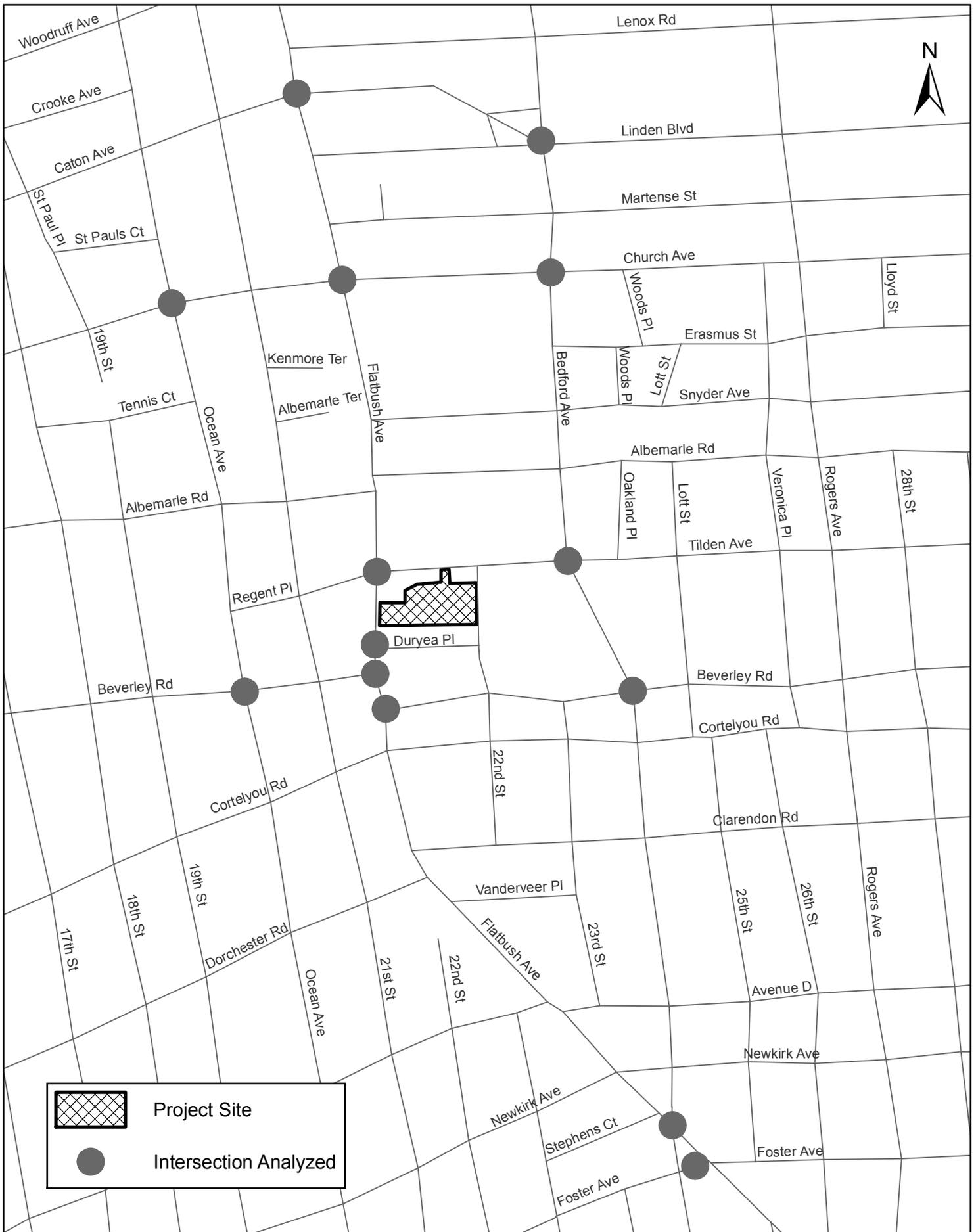
East 22nd Street

East 22nd Street is a southbound local street that has one travel lane and parking on both sides of the street. It is parallel to Flatbush Avenue and borders the project site to the east. East 22nd Street begins at Tilden Avenue and ends at Clarendon Road four blocks south. The proposed project would involve demapping a portion of this street in order to expand the theatre's stage.

The traffic study area analyzed in this study includes eight intersections (seven signalized and one unsignalized) along Flatbush Avenue, four intersections along Bedford Avenue, and two intersections along Ocean Avenue. The traffic analysis locations are shown in **Figure 3-1**.

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

Traffic counts were conducted for this study in June 2010 for Saturday midday arrival, Saturday midday departure, and Saturday evening arrival peak periods using manual intersection counts and 24-hour Automatic Traffic Recorder (ATR) machine counts. These volumes were used



along with observations of traffic conditions to determine levels of service for the Saturday 1 to 2 PM, 4:30 to 5:30 PM, and 7 to 8 PM peak hours. Overall, traffic volumes are relatively similar during each Saturday peak analysis hour. The following is a detailed summary of traffic volumes within the traffic study area during the Saturday peak hours.

Along Flatbush Avenue, southbound volumes are in the range of 550 to 700 vehicles during the Saturday midday arrival peak hour. During the Saturday midday departure and evening arrival peak hours, southbound volumes range from 600 to 775. Northbound traffic volumes along Flatbush Avenue are generally in the range of 675 to 875 vehicles within the study area, although they decrease to 550 to 600 vph for one block between Linden Boulevard and Caton Avenue.

Bedford Avenue has 275 to 425 vehicles per hour (vph) in the northbound direction and 425 to 575 vph in the southbound direction north of Newkirk Avenue during the peak analysis hours. South of Newkirk Avenue, traffic volumes along Bedford Avenue are 150 to 200 vph per direction.

Along Ocean Avenue, traffic volumes are in the range of 275 to 400 vph in the northbound direction and 375 to 475 vph in the southbound direction.

Caton Avenue has 325 to 450 vehicles per direction during the peak hours in the vicinity of the study area.

Linden Boulevard has 400 to 500 vph per direction during peak hours, east of Bedford Avenue. Linden Boulevard extends west of Bedford Avenue for one block and operates one-way eastbound. Traffic volumes for this stretch are approximately 100 vph during peak hours.

Along Church Avenue, traffic volumes are 375 to 450 vph in the eastbound direction during peak hours, east of Flatbush Avenue. West of Flatbush Avenue, eastbound traffic volumes decrease to the range of 250 to 350 vph during peak hours. Westbound traffic volumes along Church Avenue within the study area are 275 to 375 vph during peak hours.

Tilden Avenue is a two-way street between Flatbush and Bedford Avenues and has traffic volumes of 100 to 150 vph in the eastbound direction during Saturday peak hours. In the westbound direction, traffic volumes are 150 to 300 vehicles during the Saturday midday peak hours. East of Bedford Avenue, Tilden Avenue operates one-way westbound and has traffic volumes of approximately 250 vph during peak hours.

Along Beverley Road, traffic volumes are in the range of 150 to 300 vph per direction during peak hours.

Foster Avenue has 100 to 150 vph in the eastbound direction and 175 to 225 vph in the westbound direction within the study area during peak hours.

Existing traffic volume network maps are provided at the end of this chapter.

Levels of service (LOS) were determined using *2000 Highway Capacity Manual (HCM)* procedures, which is the analysis methodology approved for use by NYCDOT.

For signalized intersections, levels of service are defined in terms of average vehicle control delay, as follows:

- LOS A describes operations with very low delays, i.e., 10.0 seconds or less per vehicle. This occurs when signal progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all.

- LOS B describes operations with delays in excess of 10.0 seconds up to 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. Again, most vehicles do not stop at the intersection.
- LOS C describes operations with delays in excess of 20.0 seconds up to 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. The number of vehicles stopping is noticeable at this level, although many still pass through the intersection without stopping.
- LOS D describes operations with delays in excess of 35.0 seconds up to 55.0 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity (v/c) ratios. Many vehicles stop, and the proportion of vehicles not stopping declines.
- LOS E describes operations with delays in excess of 55.0 seconds up to 80.0 seconds per vehicle. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios.
- LOS F describes operations with delays in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with oversaturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios with cycle failures. Poor progression and long cycle lengths may also contribute to such delays. Often, vehicles do not pass through the intersection in one signal cycle.

For unsignalized intersections, delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line: LOS A describes operations with very low delay, i.e., 10.0 seconds or less per vehicle; LOS B describes operations with delays in the range of 10.1 to 15.0 seconds; LOS C has delays in the range of 15.1 to 25.0 seconds; LOS D, 25.1 to 35.0 seconds per vehicle; and LOS E, 35.1 to 50.0 seconds per vehicle, which is considered to be the limit of acceptable delay. LOS F describes operation with delays in excess of 50.0 seconds per vehicle, which is considered problematic to most drivers. This condition exists when there are insufficient gaps of suitable duration to allow side street traffic to cross safely through a major vehicular traffic stream.

Based on guidance in the 2010 *City Environmental Quality Review (CEQR) Technical Manual*, LOS A, B, and C are considered acceptable; LOS D is generally considered marginally acceptable up to mid-LOS D (45 seconds of delay for signalized intersections) and unacceptable above mid-LOS D; and LOS E and F indicate congestion. These guidelines are applicable to individual traffic movements and lane group levels of service.

Table 3-1 provides an overview of the levels of service that characterize existing “overall” intersection conditions during the Saturday midday arrival, midday departure, and evening arrival peak hours. Overall levels of service of an intersection represent a weighted average of individual traffic movements’ levels of service.

**Table 3-1
Existing Traffic Level of Service Summary**

Level of Service	Saturday Peak Hour		
	Midday Arrival	Midday Departure	Evening Arrival
Overall LOS A/B/C	10	11	11
Overall LOS D	4	3	3
Overall LOS E	0	0	0
Overall LOS F	0	0	0
Number of movements at LOS E or F (of approximately 59 movements analyzed)	6	4	4

This summary overview of existing conditions indicates that:

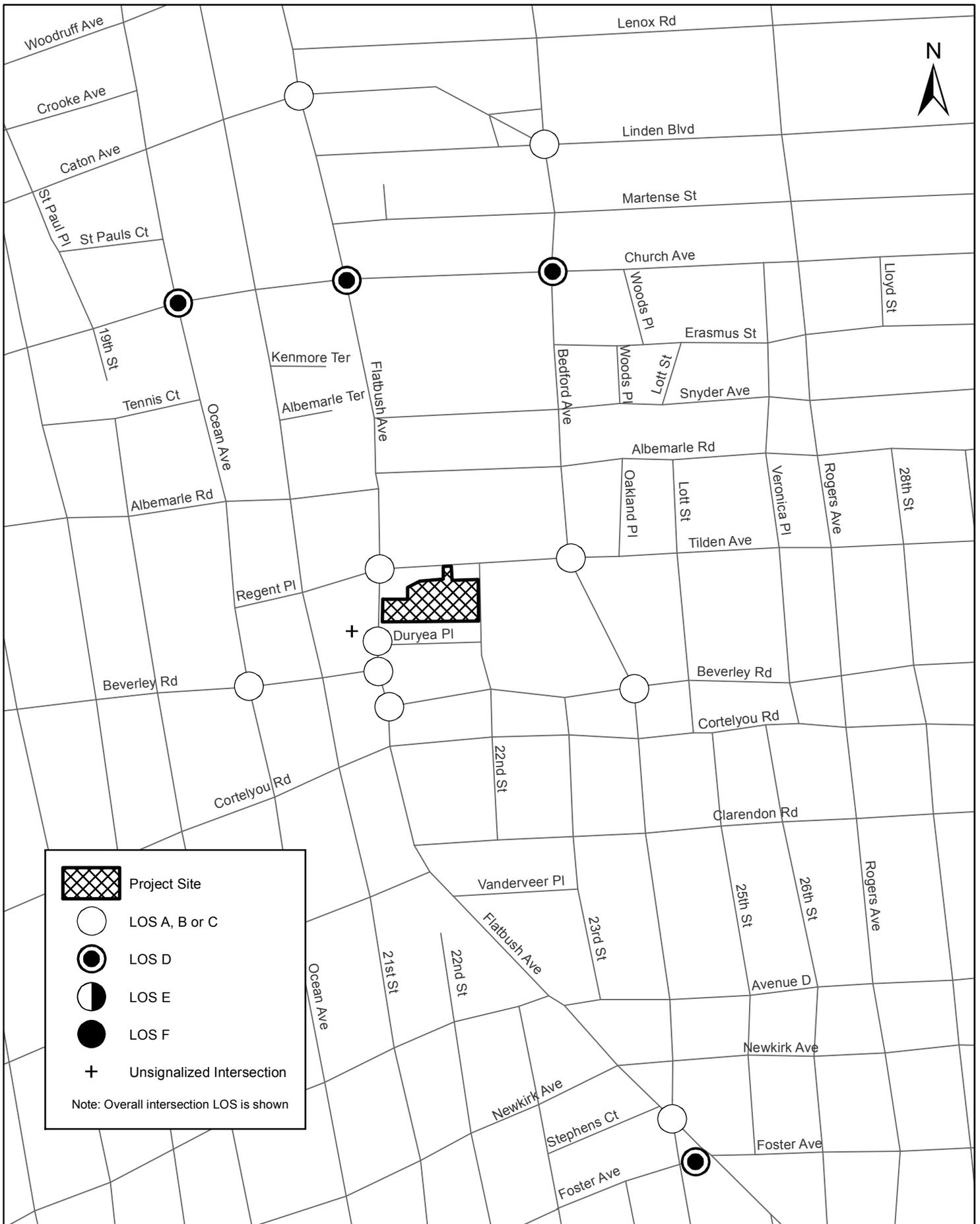
- During the Saturday midday arrival peak hour, none of the 14 intersections analyzed are operating at overall LOS E or F, and four intersections are operating at marginally acceptable/unacceptable LOS D. **Figure 3-2** shows the location of these intersections. Six individual traffic movements out of 59 such movements analyzed operate at LOS E or F (e.g., left turns from one street to another, through traffic on one street passing through the intersection, etc.).
- During the Saturday midday departure peak hour, none of the analyzed intersections operate at overall LOS E or F, and three intersections operate at marginally acceptable/unacceptable overall LOS D, as shown in **Figure 3-3**. Four individual traffic movements operate at LOS E or F.
- During the Saturday evening arrival peak hour, no intersections operate at overall LOS E or F, and three intersections operate at marginally acceptable/unacceptable overall LOS D as shown in **Figure 3-4**. Four individual movements operate at LOS E or F.

Seven intersections have individual movements that operate at LOS E or F during at least one time period including Flatbush Avenue and Church Avenue, Flatbush Avenue and Bedford Avenue/Foster Avenue, Bedford Avenue and Tilden Avenue, Bedford Avenue and Beverley Road, Ocean Avenue and Church Avenue, and Ocean Avenue and Beverley Road. Most of these movements are on the eastbound or westbound approaches.

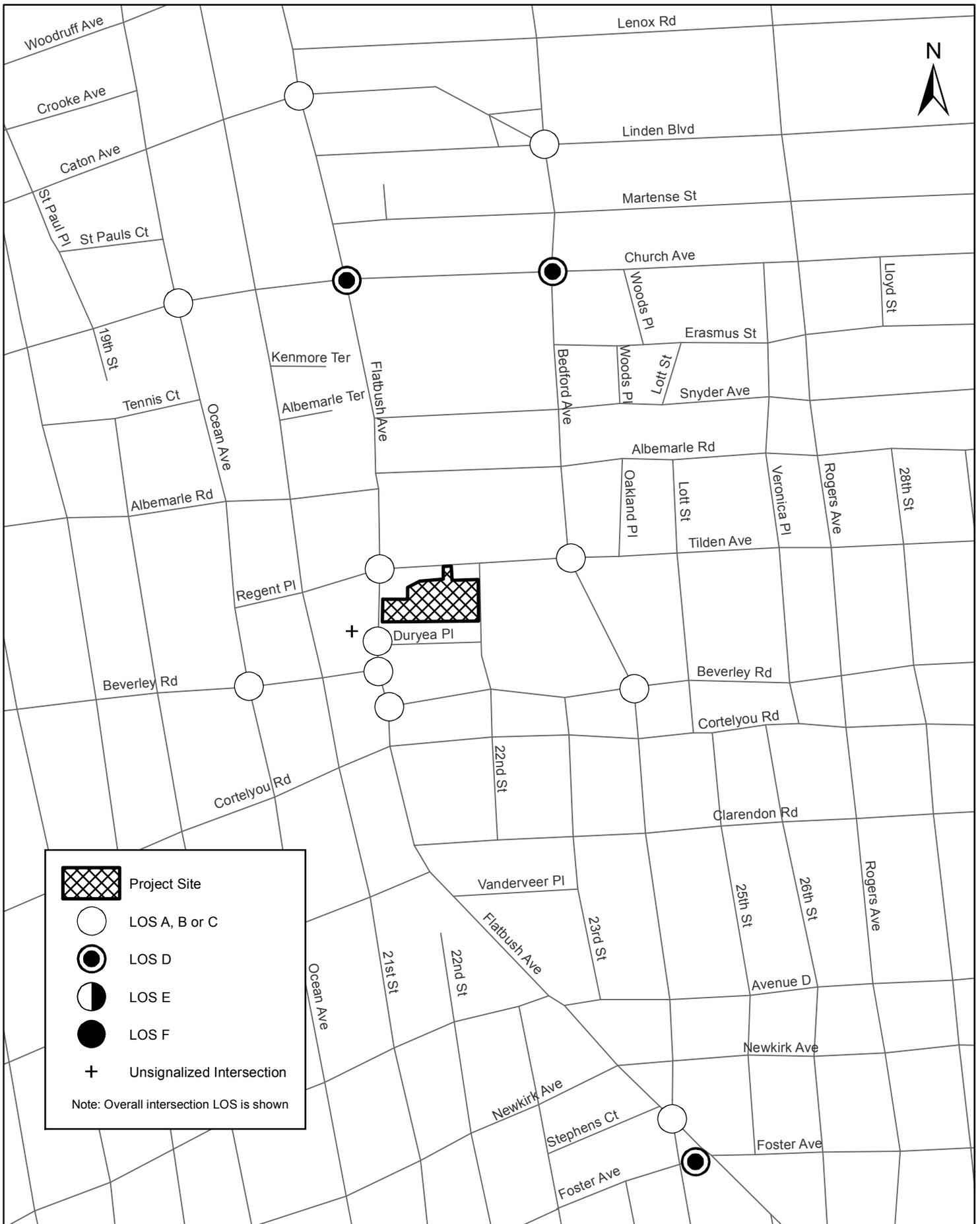
Detailed traffic levels of service, volume-to-capacity (v/c) ratios, and average vehicle delays for each traffic movement at each analysis location are presented at the end of this chapter.

PARKING

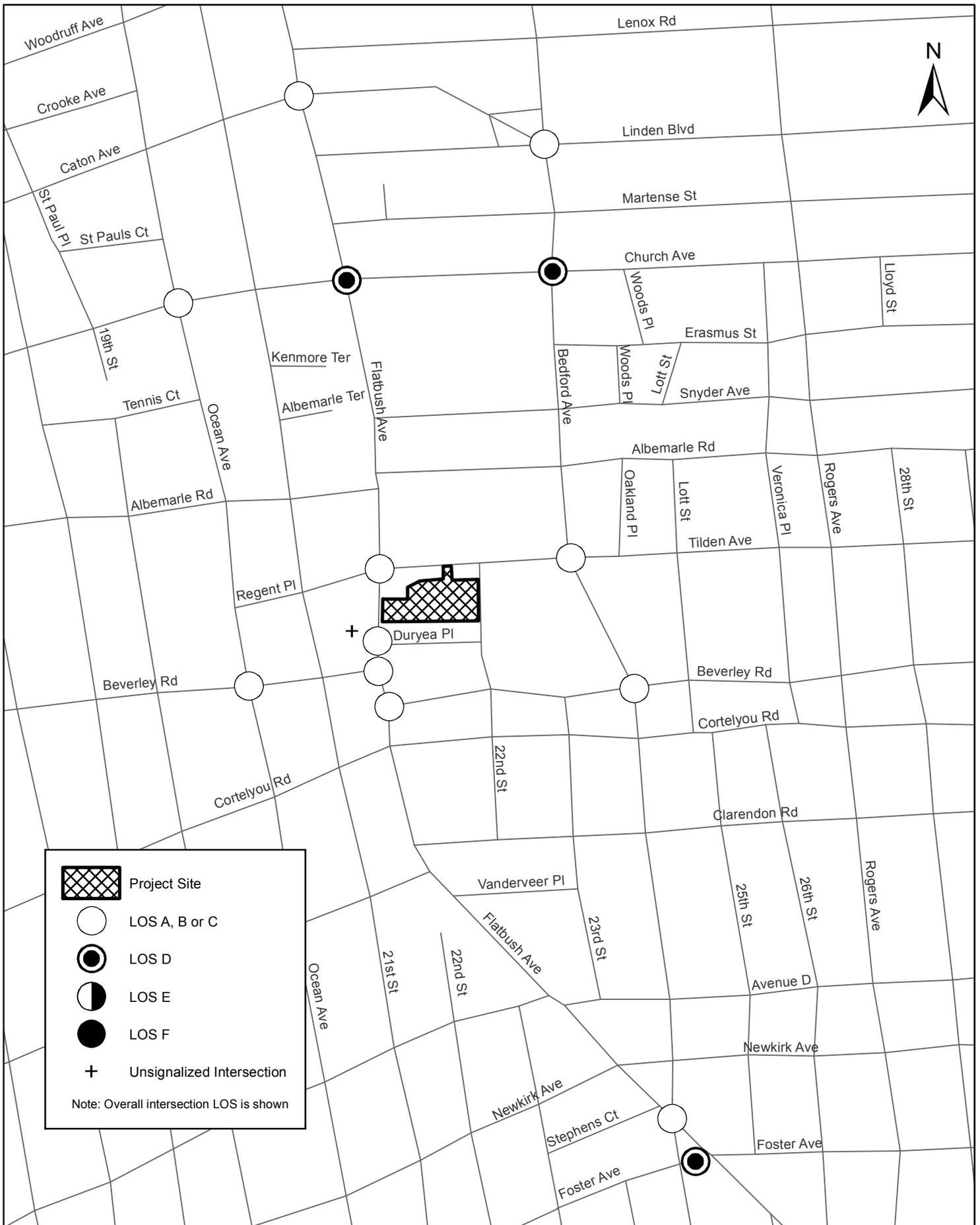
A detailed parking inventory of the area within a 5 to 10 minute walk of the project site was conducted. Initially, parking capacity and usage was collected within a primary study area encompassing a one-quarter mile radius (approximately a five minute walk) from the project site; this area is generally bounded by 18th Street to the west, Veronica Place to the east, Church Avenue to the north, and Dorchester Road to the south. In anticipation of project parking needs, data were also collected for an expanded secondary area which covers a walking distance from the site of five to ten minutes. **Figure 3-5** depicts the primary and secondary parking study areas. Parking data were collected during Saturday midday event arrival (12 to 2 PM) and departure (3 to 6 PM) parking periods, and during the Saturday evening event arrival (6 to 8:30 PM) period.



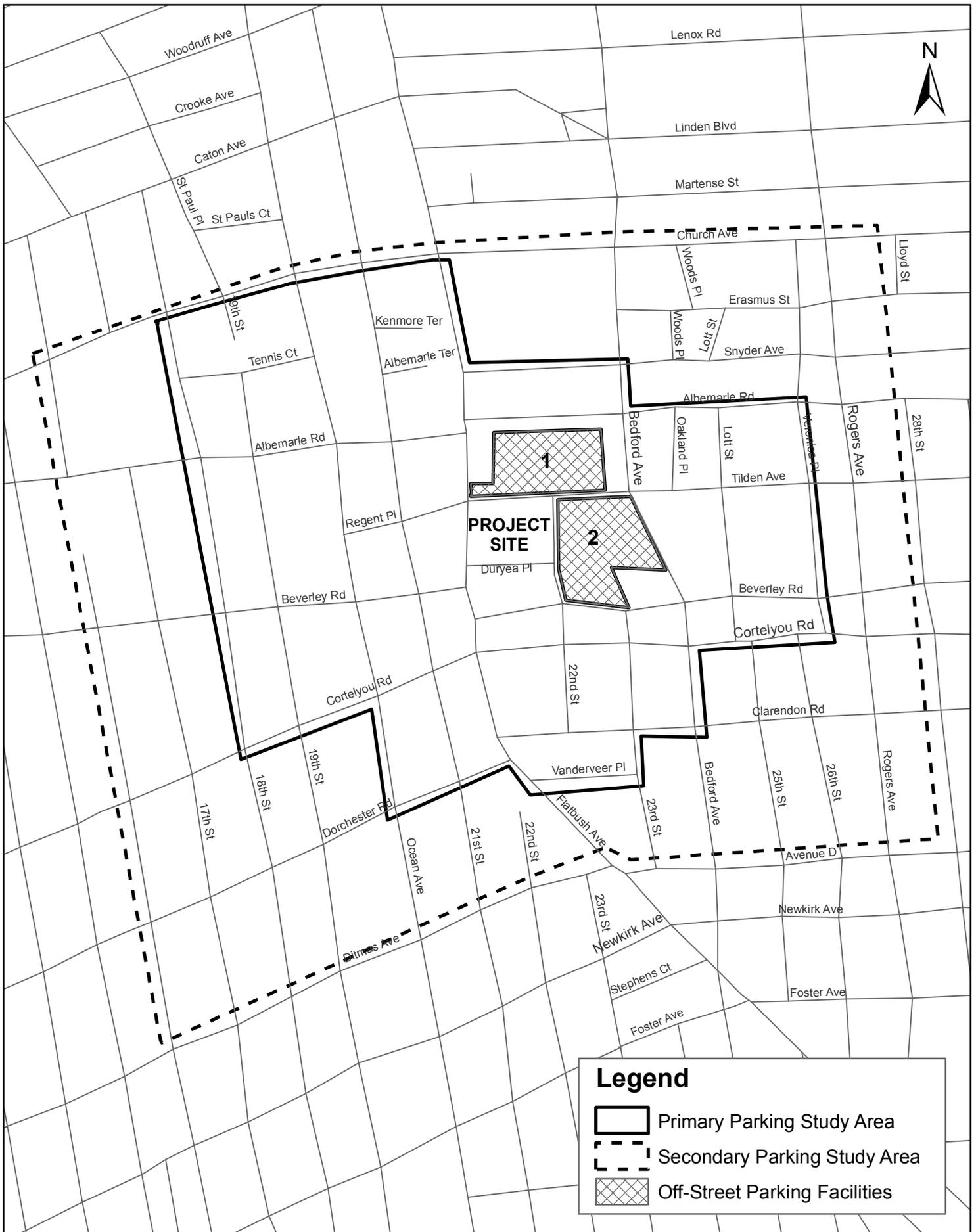
Existing Traffic Levels of Service
 Saturday Midday Arrival Peak Hour
 Figure 3-2



Existing Traffic Levels of Service
 Saturday Midday Departure Peak Hour
 Figure 3-3



Existing Traffic Levels of Service
 Saturday Evening Arrival Peak Hour
 Figure 3-4



Legend

-  Primary Parking Study Area
-  Secondary Parking Study Area
-  Off-Street Parking Facilities

There are two parking lots within the parking study area, and both facilities are within a block of the project site. These facilities are for the use of patrons of adjacent retailers, which would include the Kings Theatre. An existing Development and Operating Agreement dated as of July 15, 1997 which governs these lots provides a right exercisable by the Theatre owner to allow patrons to use the lot. As per the Interim Agreement dated February 1, 2010 between the New York City Economic Development Corporation (NYCEDC) and the developer, the developer is required to exercise this option prior to project completion.

In total, the off-street parking capacity within the study area is 678 spaces. As shown in **Table 3-2**, the peak off-street parking period is Saturday midday, when approximately 53 percent of the parking spaces are occupied. Demand decreases over the course of the day, dropping to approximately 39 percent during the midday departure period, and to 21 percent during the Saturday evening arrival period. This means that approximately 322 off-street spaces are available for theatre parking during the Saturday midday arrival period, 415 spaces are available during the Saturday midday departure period, and 533 spaces are available during the Saturday evening period.

**Table 3-2
Existing Parking Utilization: Off-Street Parking Facilities**

Location	Capacity	Saturday Occupancy (Percent Occupied)		
		Midday Arrival	Midday Departure	Evening Arrival
Sears Parking Lot (2360 Bedford Avenue)	425	207 (49%)	163 (38%)	89 (21%)
Stop & Shop Rooftop Lot (1007 Flatbush Avenue, parking entrance is on Tilden Avenue)	253	149 (59%)	100 (40%)	56 (22%)
Total	678	356 (53%)	263 (39%)	145 (21%)
Note: Official parking capacities were not available for these facilities so capacities were manually obtained in the field.				

On-street parking inventories were also collected for streets within the primary and secondary parking study areas. Overall, there are 1,780 to 2,215 legal on-street parking spaces within the primary parking study area. This does not include one- and two-hour metered parking spaces as live theatre events would typically run longer than two hours. Approximately 91 percent of non-metered on-street parking spaces are occupied during all Saturday peak periods. There are approximately 160 available on-street parking spaces during the Saturday midday arrival period, 150 spaces available during the Saturday midday departure period, and 210 spaces during the Saturday evening peak period. For the secondary parking study area, there are approximately 2,000 to 2,200 legal non-metered on-street parking spaces, with occupancies of 87 to 90 percent during Saturday peak periods. Overall, there are approximately 200 to 250 non-metered parking spaces available in the secondary parking study area on a Saturday.

As shown in **Table 3-3**, The overall parking availability in the parking study area is approximately 737 spaces (322 off-street and 415 on-street) during the Saturday midday arrival peak period, approximately 766 spaces (415 off-street and 351 on-street) during the Saturday midday departure peak period, and 970 spaces (533 off-street and 210 on-street) during the Saturday evening arrival period. All available off-street street parking is in the primary parking study area which also has 148 to 208 available on-street parking spaces during Saturday peak periods. Additionally, there are between 203 and 255 available on-street spaces in the secondary parking study area during the peak periods.

**Table 3-3
Existing Parking Availability**

Type	Saturday Parking Availability		
	Midday Arrival	Midday Departure	Evening Arrival
Off-Street	322	415	533
On-Street – Primary Study Area	160	148	208
On-Street – Secondary Study Area	255	203	229
Total	737	766	970

TRANSIT

The project area is served by MTA/NYCT bus and subway service. There are a total of nine bus routes that serve the project area. The B41 operates along Flatbush Avenue between Downtown Brooklyn and Mill Basin, and stops one block from the project site. The B23 and B35 are local east-west routes that operate on Cortelyou Road and Church Avenue, respectively. The B49 (along Bedford Avenue) and B103 (along Flatbush Avenue and Cortelyou Road) are local north-south routes. Additionally, the BM1, BM2, BM3, and BM4 routes provide express commuter service between Brooklyn and Midtown Manhattan and stop on Cortelyou Road within the project study area.

There are four subway lines that operate within the project study area. The Q train stops at the Beverley Road station which is the closest station to the project site, approximately seven blocks to the west. The Q train operates between Coney Island, Brooklyn and Astoria, Queens, and operates through Manhattan along Broadway.

The B train stops at the Church Avenue station approximately four blocks north and four blocks west of the project site. The B train operates between Coney Island, Brooklyn and Bedford Park, Bronx via Manhattan along Sixth Avenue. The B train does not run during the late-night period or on weekends.

The Number 2 and 5 trains stop at the Beverley Road station, approximately seven blocks east of the project site. Both lines operate between Brooklyn College and the Bronx, via Manhattan. The Number 2 train operates express in Manhattan along Seventh Avenue, and the Number 5 train runs express along Lexington Avenue.

Trip generation results for the proposed actions (discussed in detail in the Build Traffic Conditions section) indicate that 273 passenger trips by bus and 547 passenger trips by subway would be generated during the Saturday midday event arrival and Saturday evening event arrival peak hours. During the Saturday midday event departure hour, 324 passenger trips by bus and 648 passenger trips by subway would be generated. Bus and subway trips were assigned to the various lines serving the project site. Based on these assignments, it was determined that fewer than 50 bus passenger trips would be assigned to any single line; therefore, there would be no need for quantitative bus analysis according to 2010 *CEQR Technical Manual* guidelines. As many as 292 subway passenger trips would be assigned to at least one subway line, but since ridership volumes are substantially lower on Saturday as compared to weekdays (48 to 53

percent¹) at stations serving the project site, there is no potential for impacts at this level of passengers on a Saturday, and no quantitative subway analysis was performed.

PEDESTRIANS

The project area is primarily residential with commercial uses located along Flatbush and Church Avenues. Also, Tilden Avenue has commercial activity on the section between Flatbush and Bedford Avenues, just north of the project site. There are several schools located near the project site including a large public high school on Flatbush Avenue between Church and Snyder Avenues. The study area is not in a New York City Department of Transportation (NYCDOT) Senior Pedestrian Focus Area. During Saturday peak hours, pedestrian volumes varied from low to moderate-high depending on the period and location. Because significant increases in pedestrian volumes are expected as a result of the proposed actions, quantitative pedestrian analyses were performed.

Pedestrian analyses were performed for the Saturday midday arrival, midday departure, and evening arrival peak periods. Existing pedestrian conditions were assessed using pedestrian counts at the key pedestrian elements at two intersections adjacent to the project site: Flatbush Avenue and Tilden Avenue/Regent Place; and Flatbush Avenue and Beverley Road (north)

Pedestrian counts were collected for two consecutive Saturdays in June 2010. The counts determined the Saturday pedestrian peak hours to be similar to the traffic peak hours of 1-2 PM, 4:30-5:30 PM, and 7-8 PM. Within each of these peak hours, existing peak 15-minute volumes were identified. **Table 3-4** provides existing pedestrian volumes for the weekday AM and PM peak hours.

**Table 3-4
Existing Pedestrian Peak 15-Minute Volumes**

Location	Crosswalk or Corner	Saturday Peak Period Volume		
		Midday Arrival	Midday Departure	Evening Arrival
Flatbush Avenue and Tilden Avenue/Regent Place	North Crosswalk	175	142	128
	South Crosswalk	81	82	66
	East Crosswalk	243	222	217
	West Crosswalk	231	265	190
	Northeast Corner	100	79	66
	Northwest Corner	21	20	26
	Southeast Corner	31	21	27
Flatbush Avenue and Beverley Road (north)	Southwest Corner	10	4	4
	North Crosswalk	34	36	39
	South Crosswalk	54	44	41
	West Crosswalk	173	175	151
	Northwest Corner	28	30	18
	Southwest Corner	27	16	12

METHODOLOGY

Pedestrian level of service standards are determined on the basis of walking speed, pedestrian spacing, and probabilities of conflict. The level of service standards range from "A" (best) to "F"

¹ Source: MTA/NYCT 2009 Subway Ridership - http://www.mta.info/nyct/facts/ridership/ridership_sub.htm

(worst). These standards are primarily based on the space needs of people involved in various activities, and are widely used for planning and design of facilities for pedestrians.

Conditions at crosswalks and street corners are also influenced by the effects of traffic signals. Crosswalk conditions are expressed as a measurement of the area available (the crosswalk width multiplied by the width of the street) and the signal timing. This measure is expressed as square feet per pedestrian. The average time it takes for a pedestrian to cross the street is calculated based on the width of the street and an assumed walking speed. A walking speed of 3.5 feet per second for standard crosswalks and 3.0 feet per second for school crosswalks was used as per 2010 *CEQR Technical Manual* guidelines. The measure of pedestrian volume (pedestrians per minute) to time and space available in the crosswalk is the level of service measurement of available square feet per pedestrian. Additionally, in the first seconds of the “walk” cycle, the pedestrians queued to cross the street create a surge effect as they begin to cross. Therefore, the crosswalk level of service analysis includes a factor that adjusts for this “surge” to estimate worst-case conditions during the initial start-up. After the initial surge, the level of service analysis also accounts for vehicles moving through the crosswalk.

Similar to crosswalks, street corners must provide sufficient space for a mix of standing pedestrians (queued to cross a street) and circulating pedestrians (crossing the other street or passing around the corner). The analysis applies a measure of time and space availability based on the area of the corner, signal timing, and the estimated time used by circulating pedestrians.¹ A summary of average 15-minute level of service conditions criteria is presented in **Table 3-5**, as per the *Highway Capacity Manual 2000 (HCM 2000)*.

Table 3-5
Level of Service Criteria for Crosswalks
And Corner Reservoir Spaces

LOS	Space (square feet/ pedestrian)
A	> 60
B	> 40-60
C	> 24-40
D	> 15-24
E	> 8-15
F	≤ 8

The pedestrian analysis determined that all analyzed crosswalks operate at LOS A or B during the Saturday midday arrival, midday departure, and evening arrival peak 15-minute periods. Corner reservoir area analyses resulted in LOS A at all analyzed corners and reservoir areas during peak periods. **Table 3-6** provides detailed pedestrian level of service analysis results for crosswalks and corners analyzed for the study area during the Saturday peak periods.

¹ The total “time-space” available for these activities is the net square footage of the corner multiplied by the cycle length and expressed as square feet per minute. The total circulation time for all pedestrian movements at the corner, expressed as pedestrians per minute, is then determined. The ratio of net time-space divided by pedestrian circulation time provides the level of service in square feet per pedestrian.

Table 3-6
Existing Conditions Pedestrian Levels of Service

Intersection	Crosswalk/Corner Reservoir	Midday Arrival Peak 15-Minutes		Midday Departure Peak 15-Minutes		Evening Arrival Peak 15-Minutes	
		SF/P (1)	LOS (2)	SF/P (1)	LOS (2)	SF/P (1)	LOS (2)
Flatbush Avenue and Tilden Avenue/Regent Place	North Crosswalk	40.9	B	48.9	B	56.7	B
	East Crosswalk	58.0	B	60.7	A	66.0	A
	West Crosswalk	51.6	B	44.3	B	65.2	A
	South Crosswalk	82.2	A	79.9	A	99.4	A
	Northwest Corner	65.5	A	64.5	A	84.2	A
	Southwest Corner	104.4	A	95.9	A	131.9	A
	Northeast Corner	70.3	A	81.3	A	88.9	A
	Southeast Corner	120.6	A	129.8	A	136.0	A
Flatbush Avenue and Beverley Road (north)	North Crosswalk	170.2	A	175.4	A	146.1	A
	West Crosswalk	72.8	A	69.7	A	83.4	A
	South Crosswalk	157.1	A	188.6	A	221.6	A
	Northwest Corner	132.0	A	128.0	A	150.9	A
	Southwest Corner	163.7	A	173.6	A	208.3	A

Notes: (1) SF/P = Square feet per pedestrian ; (2) LOS = Level of service

C. THE FUTURE WITHOUT THE PROPOSED ACTIONS (2014 NO BUILD CONDITION)

Future conditions without the proposed actions, i.e., No Build conditions, are established to provide the baseline against which the impacts of the project can be compared and to account for changes in conditions between the existing conditions and the future analysis year. Future conditions were analyzed for 2014.

TRAFFIC

Future No Build traffic volumes were developed by applying a background traffic growth rate of 0.5 percent per year, as stated in the 2010 *CEQR Technical Manual* for Brooklyn. No significant traffic generating background developments are anticipated to be built and occupied by 2014. Therefore, a two percent volume growth was applied.

Projected traffic volume increases are as follows:

- Flatbush Avenue volumes are expected to increase by 10 to 20 vehicles per hour (vph) per direction during the Saturday peak hours.
- Bedford, Ocean, Caton, and Church Avenue volumes, and Linden Boulevard volumes are expected to increase by 5 to 10 vph per direction during the Saturday peak hours.
- Tilden Avenue, Beverley Road and Foster Avenue volumes are expected to increase by approximately 5 vph per direction during the Saturday peak hours.

Based on these traffic volume increases, future No Build traffic levels of service were determined for the 14 analysis locations. No Build volume network maps are provided at the end of this chapter. **Table 3-7** shows a comparison of traffic levels of service for existing and future

No Build conditions. **Figures 3-6 through 3-8** provide an illustrative overview of overall intersection traffic levels of service.

Table 3-7
Traffic Level of Service Comparison
Existing vs. Future No Build Conditions (2014)

Level of Service	Existing			2014 No Build		
	Midday Arrival	Midday Departure	Evening Arrival	Midday Arrival	Midday Departure	Evening Arrival
Overall LOS A/B/C	10	11	11	10	11	10
Overall LOS D	4	3	3	4	3	4
Overall LOS E	0	0	0	0	0	0
Overall LOS F	0	0	0	0	0	0
Number of movements at LOS E or F (of approximately 59 movements analyzed)	6	4	4	8	9	6

This summary of future No Build conditions indicates that:

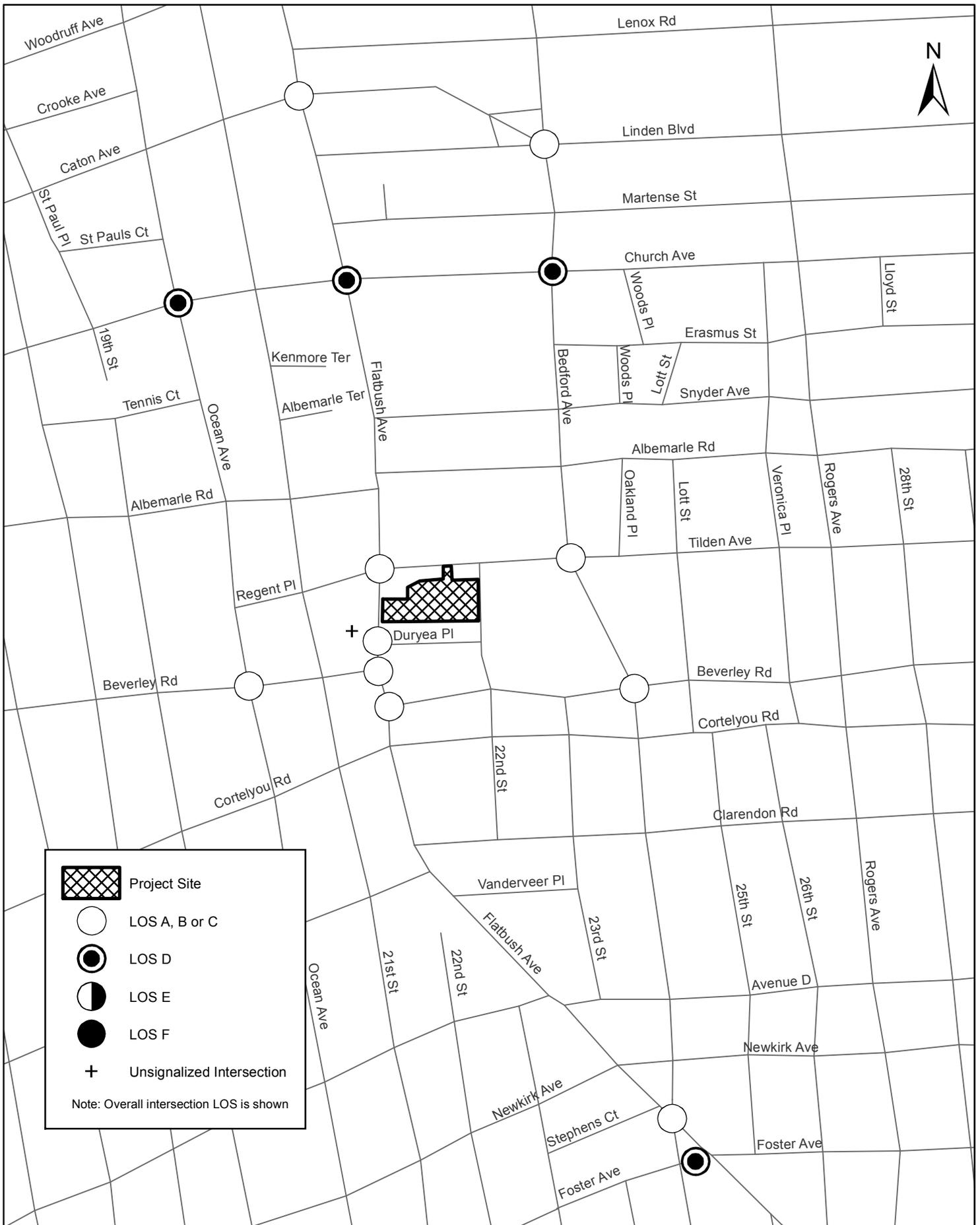
- During the Saturday midday arrival and departure peak hours, all intersections would continue to operate at the same levels of service as they do under existing conditions.
- During the Saturday evening arrival peak hour, four intersections would operate at marginally acceptable/unacceptable LOS D as compared to three intersections under existing conditions.
- The number of movements that would operate at LOS E or F would increase from six to eight during the Saturday midday arrival peak hour, from four to nine during the midday departure peak hour, and from four to six during the evening arrival peak hour under future No Build conditions.

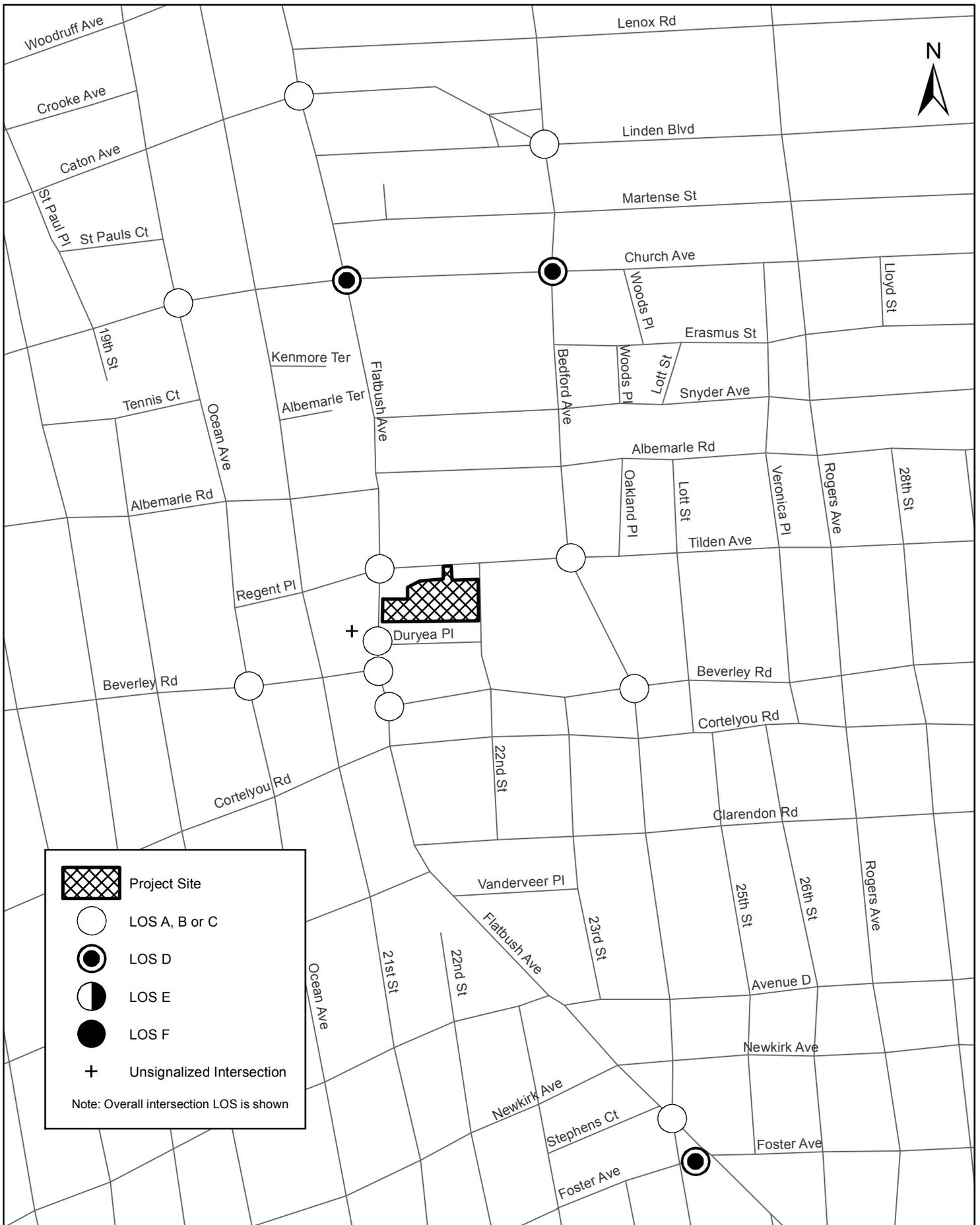
The overall levels of service would thus be expected to deteriorate slightly under No Build conditions as compared to existing conditions since increases in background growth would be modest.

PARKING

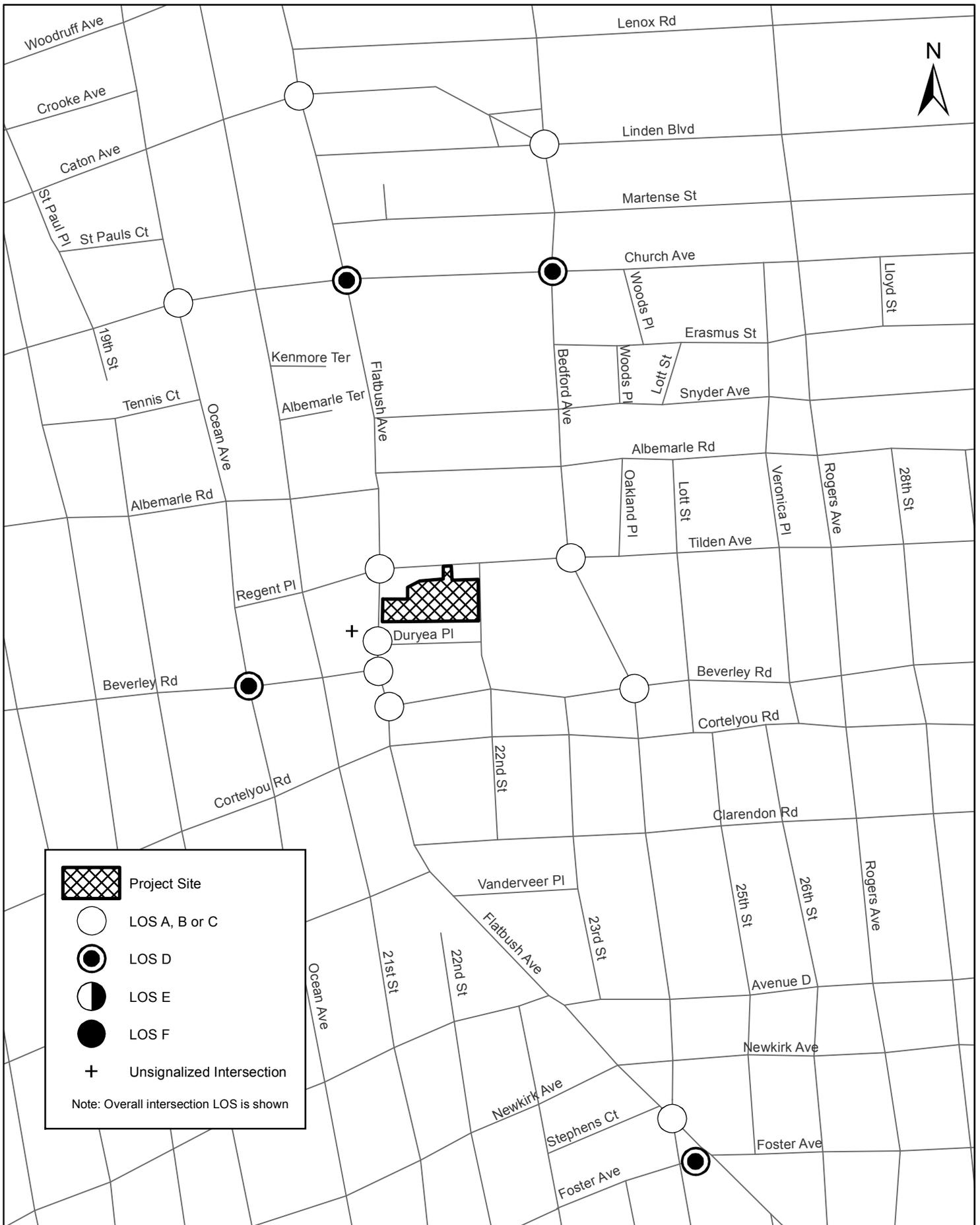
To estimate future No Build parking conditions, existing parking demand was increased by the traffic background growth rate of 0.5 percent per year. As shown in **Table 3-8**, off-street parking occupancies would increase by about one percent (five cars or less) under No Build conditions.

On-street occupancies would increase by approximately two percent under No Build conditions which means that occupancies would reach 92 to 94 percent in the primary study area and 89 to 92 percent in the secondary study area during the Saturday peak hours. As shown in **Table 3-9**, overall on- and off- street parking availability would decrease to 662 spaces (315 off-street and 347 on-street) during the Saturday midday arrival peak hour, 692 spaces (410 off-street and 282 on-street) during the Saturday midday departure peak hour, and 887 spaces (530 off-street and 357 on-street) during the Saturday evening arrival peak hour.





No Build Traffic Levels of Service
 Saturday Midday Departure Peak Hour
 Figure 3-7



No Build Traffic Levels of Service
 Saturday Evening Arrival Peak Hour
 Figure 3-8

Table 3-8
Existing vs. Future No Build Parking Utilization: Off-Street Parking Facilities

Location	Capacity	Saturday Occupancy (Percent Occupied) Existing Conditions			Saturday Occupancy (Percent Occupied) 2014 No Build Conditions		
		Midday Arrival	Midday Departure	Evening Arrival	Midday Arrival	Midday Departure	Evening Arrival
Sears Parking Lot (2360 Bedford Avenue)	425	207 (49%)	163 (38%)	89 (21%)	211 (50%)	166 (39%)	91 (21%)
Stop & Shop Rooftop Lot (1007 Flatbush Avenue, parking entrance is on Tilden Avenue)	253	149 (59%)	100 (40%)	56 (22%)	152 (60%)	102 (40%)	57 (23%)
Total	678	356 (53%)	263 (39%)	145 (21%)	363 (54%)	268 (40%)	148 (22%)

Table 3-9
Future No Build Parking Availability

Type	Saturday Parking Availability		
	Midday Arrival	Midday Departure	Evening Arrival
Off-Street	315	410	530
On-Street – Primary Study Area	127	115	168
On-Street – Secondary Study Area	220	167	189
Total	662	692	887

TRANSIT

As discussed earlier, there would be no potential for significant adverse transit impacts as a result of the proposed project, and no further assessment is needed.

PEDESTRIANS

Future No Build peak period pedestrian volumes were estimated by applying a background growth rate of 0.5 percent per year as per the 2010 *CEQR Technical Manual*. As described in the traffic section, no major background developments are anticipated in the area by 2014. The background growth rate resulted in minor increases in pedestrian volumes of approximately two percent. As shown in **Table 3-10**, pedestrian conditions would continue to operate without major conflicts. All corners and crosswalks would operate at LOS A, B, or C during Saturday midday arrival, midday departure, and evening arrival peak hours which are acceptable levels of service.

Table 3-10
Future No Build (2014) Pedestrian Levels of Service

Intersection	Crosswalk/Corner Reservoir	Midday Arrival Peak 15-Minutes		Midday Departure Peak 15-Minutes		Evening Arrival Peak 15-Minutes	
		SF/P (1)	LOS (2)	SF/P (1)	LOS (2)	SF/P (1)	LOS (2)
Flatbush Avenue and Tilden Avenue/Regent Place	North Crosswalk	38.9	C	48.9	B	56.7	B
	East Crosswalk	56.3	B	60.7	A	63.0	A
	West Crosswalk	51.6	B	41.6	B	63.9	A
	South Crosswalk	82.2	A	79.9	A	99.4	A
	Northwest Corner	64.4	A	63.3	A	84.2	A
	Southwest Corner	104.4	A	93.9	A	131.9	A
	Northeast Corner	66.7	A	81.3	A	87.1	A
	Southeast Corner	118.1	A	129.8	A	132.9	A
Flatbush Avenue and Beverley Road (north)	North Crosswalk	170.2	A	175.4	A	137.5	A
	West Crosswalk	69.7	A	69.7	A	83.4	A
	South Crosswalk	157.1	A	188.6	A	221.6	A
	Northwest Corner	127.7	A	128.0	A	150.9	A
	Southwest Corner	159.0	A	173.6	A	208.3	A

Notes: (1) SF/P = Square feet per pedestrian ; (2) LOS = Level of service

D. PROBABLE IMPACTS OF THE PROPOSED ACTIONS (2014 BUILD CONDITIONS)

This section presents an analysis of the future transportation conditions with the proposed actions in place in 2014, i.e. the 2014 Build conditions. As described earlier, the proposed actions would redevelop a vacant movie theatre site to create a 3,600-seat live performance venue. As part of this action, a portion of the block of East 22nd Street between Tilden Avenue and Duryea Street would be demapped (closing the entire block to traffic) in order to accommodate an expanded stage for live performances. This section includes a determination of the volume and distribution of person and vehicle trips expected to be generated as a result of the proposed actions, and the analysis of future Build condition levels of service. This section also identifies any significant transportation impacts that would be incurred as a result of the proposed actions.

TRIP GENERATION AND MODAL SPLIT

In order to estimate the amount of vehicle and person trips that would be generated by the proposed live theatre, a trip generation analysis was performed. Trip generation estimates for the proposed live theatre use were developed using the results from a survey of a generally comparable site that was conducted for this study. The survey was performed because appropriate live theatre rates were not available. All trip generation-related assumptions were reviewed and approved by NYCDOT.

LIVE THEATRE SURVEY

In order to develop travel demand characteristics for the proposed live theatre, a door count and interview survey was conducted at the United Palace Theatre in the Washington Heights section of Manhattan on the evening of a concert event. Survey data were collected on Friday March 19 and Saturday March 20, 2010 during the arrival period before performances by the Allman Brothers Band.

The United Palace Theatre is a reasonably comparable site to the Kings Theatre because these theatres are similar in size and are located in neighborhoods that have reasonably similar density, demographic and transportation characteristics. Both theatres are served by subway and bus lines that are within walking distance; however, the Kings Theatre site is approximately a ten minute walk from the closest subway, while the United Palace Theatre is only one block away from a subway line and is in the vicinity of the George Washington Bridge Bus Station for bus service to and from Northern New Jersey.

Door counts were performed on a Friday evening (March 19, 2010) during the arrival period before a concert in order to determine the peak hour and temporal distribution. Counts were conducted from 6:45 to 8:45 PM covering the period from shortly before doors opened until shortly after the show began. There was no opening act at this event. The door counts indicated that 2,948 patrons attended the event, and that 2,489 attendees (84.4 percent) arrived during the hour of 7:30 to 8:30 PM. To calculate peak hour trips for the proposed Kings Theatre development, attendance was extrapolated to a potential sellout condition of up to 3,600 attendees. This translates to 3,039 person trips during the weekend arrival peak hour.

Additionally, a short travel pattern interview survey was performed on Friday and Saturday evenings during the event arrival period. The event and schedule were the same for both evenings. The survey contained travel pattern questions that were used to obtain a modal split, average auto and taxi occupancies, the use of on-street vs. off-street parking spaces, and trip origin information. In total, approximately 200 surveys were collected.

The survey results indicated the following travel characteristics for concert event attendees:

- A modal split of approximately 38 percent by auto, 26 percent by taxi, 33 percent by subway, 1.5 percent by George Washington Bridge Bus Station bus, 1 percent by MTA/NYCT bus, and 0.5 percent by walk.
- Vehicle occupancy rates of 2.46 persons per auto and 2.92 persons per taxi
- 64.4 percent of auto trips parked off-street (garage, lot, or valet parking service available by the theatre); 35.6 percent parked on-street.
- Approximately 43 percent of attendee trip origins were from within Manhattan; 20 percent were from New Jersey; 9 percent were from other boroughs; 7 percent were from Westchester County; 7 percent were from Long Island; 5 percent were from Connecticut; and 8 percent were from other areas around the region.

This data set was used as a basis for developing trip generation estimates for the proposed live theatre; however, some factors were modified in order to reflect project and site specific characteristics. The event surveyed at the United Palace Theatre was a concert performed by the Allman Brothers band -- a well known rock group -- and therefore drew attendance from areas throughout the New York/New Jersey region which consisted of a more affluent and suburban crowd than would typically be expected at the proposed Kings Theatre. Programming at the Kings Theatre, which is located on Flatbush Avenue between Tilden Avenue and Duryea Place

in Flatbush, Brooklyn, would cater heavily to local interests and is expected to attract a majority of trips from within the borough, many of which would originate within the neighborhood or surrounding neighborhoods. While these factors would be expected to result in reduced auto usage by Kings Theatre patrons as compared to the surveyed United Palace Theatre event, the total vehicle percentage obtained from the survey of the United Palace Theatre (auto plus taxi) was applied to Kings Theatre events as a conservative estimate of a vehicle-heavy event such as an Allman Brothers concert. One factor that was modified was the “split” between autos and taxis. Since the surveyed site is in Manhattan and the proposed Kings Theatre site is in Brooklyn, and taxi usage is higher in Manhattan than the outer boroughs, the auto share was increased and the taxi share was decreased.

Neither the United Palace Theatre nor the proposed Kings Theatre have or would have parking on the immediate site. There are two parking garages within easy walking distance of the United Palace Theatre, while there are two parking lots across the street from the proposed Kings Theatre that would accommodate theatre-goers there (as noted previously, lease arrangements would be made with the owners of these facilities). Therefore, the availability of parking was not deemed a significant difference between the two sites.

Transit and walk shares were also modified to reflect a lower subway share and higher walk and bus shares than what was obtained from the United Palace Theatre survey. As mentioned, the Kings Theatre is farther from subways and would attract more local patrons (hence, increased walk trips) as compared to the United Palace Theatre.

Taking these distinctions into account, a modified modal split of 50 percent by auto, 14 percent by taxi, 18 percent by subway, 9 percent by bus, and 9 percent by walk was used. Although the modal split was modified from the survey results, the vehicle-to-transit/walk ratio (approximately 2:1) was held constant.

The auto occupancy rate of 2.46 persons per auto was obtained from the live theatre survey results and used for the trip generation. A taxi occupancy rate of 2.80 persons per taxi was used; this rate was also based on the survey but was slightly modified to reflect a more conservative rate, as per NYCDOT request. No delivery trips were made during at the survey site during the peak hour, and none are expected at the project site.

These rates were developed from Friday and Saturday evening event arrival peak hours, and it is assumed that they would be similar for a Saturday midday event arrival as well. For a Saturday midday event departure peak hour, all assumptions are similar to Saturday midday and evening event arrival peak hours except for the temporal distribution (100 percent, since all patrons are assumed to depart within the peak hour), and the directional distribution (100 percent “out”). Travel demand factors used to calculate trips generated by the live performance theatre use are summarized in **Table 3-11**.

TRIP GENERATION SUMMARY

As shown in **Table 3-12**, the proposed actions would generate a total of 922 vehicles during the arrival peak hour of a sold-out event during the Saturday midday and evening arrival peak hours. This number is comprised of 618 inbound auto trips, 152 inbound taxi trips, and 152 outbound taxi trips (each taxi would make an inbound trip and an outbound trip). During the Saturday midday departure peak hour, 1,092 vehicle trips including 732 outbound auto trips, 180 inbound taxi trips, and 180 outbound taxi trips, as shown in **Table 3-13**.

Table 3-11
Travel Demand Characteristics: Live Theatre

Land Use	Live Theatre
Size	3,600 Seats
Person Trip Generation Rate	
	N/A (Assume 3,600 attendees per event)
Temporal Distribution	
Saturday Midday Arrival Peak Hour	84.4% ^{1,2}
Saturday Midday Departure Peak Hour	100.0% ³
Saturday Evening Arrival Peak Hour	84.4% ¹
Modal Split	
Auto	50.0% ¹
Taxi	14.0% ¹
Subway	18.0% ¹
Bus	9.0% ¹
Walk	9.0% ¹
Vehicle Occupancy	
Auto	2.46 ⁴
Taxi	2.80 ⁴
Directional Split (Ins)	
Saturday Midday Arrival Peak Hour	100.0% ^{1,2}
Saturday Midday Departure Peak Hour	0.0% ⁵
Saturday Evening Arrival Peak Hour	100.0% ¹
Truck Trip Generation Rate	
Saturday	N/A ⁶
Truck Temporal Distribution	
Saturday Midday Arrival Peak Hour	0.0% ⁶
Saturday Midday Departure Peak Hour	0.0% ⁶
Saturday Evening Arrival Peak Hour	0.0% ⁶
Truck Directional Split (Ins)	
Saturday Midday Arrival Peak Hour	N/A
Saturday Midday Departure Peak Hour	N/A
Saturday Evening Arrival Peak Hour	N/A
Notes:	
Trip Generation References	
1. Based on Survey of the United Palace Theatre (March, 2010) with modal split modifications to reflect program and location specific condition.	
2. Midday event assumed to be similar to evening.	
3. Project assumption.	
4. Based on United Palace Theatre survey results. Taxi rate modified as per NYCDOT request.	
5. Departure assumed to be reverse of arrival.	
6. No trucks trips would be generated during event arrival peak hour.	

Table 3-12
Saturday Midday and Evening Arrival Peak Hours
Vehicle Trip Generation Totals

Vehicle Class	In	Out	Total
Auto	618	0	618
Taxi	152	152	304
Truck	0	0	0
Total	770	152	922

Table 3-13
Saturday Midday Departure Peak Hour
Vehicle Trip Generation Totals

Vehicle Class	In	Out	Total
Auto	0	732	732
Taxi	180	180	360
Truck	0	0	0
Total	180	912	1,092

In addition to vehicular trip generation, a person trip generation was developed for the proposed live theatre. As shown in **Table 3-14**, 3,037 total person trips would be generated to the site during Saturday midday and evening arrival peak hours during a sold-out event. All trips generated during the peak hour would be “in” trips since it is the event arrival period. **Table 3-15** shows the person trips that 3,600 total person trips would be generated during the Saturday midday departure peak hour for a sold-out event.

Table 3-14
Saturday Midday/Evening Arrival Peak Hour
Person Trip Generation Totals

Travel Mode	In	Out	Total
Auto	1,519	0	1,519
Taxi	425	0	425
Bus	273	0	273
Subway	547	0	547
Walk	273	0	273
Total	3,037	0	3,037

Table 3-15
Saturday Midday Departure Peak Hour
Person Trip Generation Totals

Travel Mode	In	Out	Total
Auto	0	1,800	1,800
Taxi	0	504	504
Bus	0	324	324
Subway	0	648	648
Walk	0	324	324
Total	0	3,600	3,600

TRAFFIC

TRAFFIC ASSIGNMENT

The volume of vehicular traffic generated by the proposed actions was assigned to the project site from various points of origin through the local street network. Expected trip origins were determined based on the programming of the proposed live theatre which would cater heavily to the local population. Therefore, approximately 60 percent of project trips were assigned from within Brooklyn; 25 percent were assigned from other boroughs, and 15 percent were assigned from areas outside of New York City including Long Island, New Jersey, Westchester County,

and Connecticut. Based on this distribution, project-generated vehicle trips were assigned along reasonable and direct travel routes.

SITE ACCESS

The project site is located on Flatbush Avenue between Tilden Avenue and Duryea Place. There would be no parking on the project site; however, there are two nearby parking facilities within a block of the site that would be used for event parking. One site is the Sears parking lot which encompasses the block bounded by Tilden Avenue to the north, Beverley Road to the south, Bedford Avenue to the east, and East 22nd Street to the west. There are entrances to this facility on Bedford Avenue and on Beverley Road. The second parking facility is a rooftop lot located above the Super Stop & Shop/Bally's/Old Navy shopping complex on the north side of Tilden Avenue. The entrance is located on Tilden Avenue between East 22nd Street and Bedford Avenue. Parking trips (autos) were assigned to these lots according to their estimated availabilities. The parking demand for a sold-out event would exceed availability at these facilities during Saturday midday and evening arrival peak hours. Parking trips that would not fit in the parking lots were assigned to park on the street. It was assumed that half of the on-street parking trips would find an on-street parking space before reaching the site. The other half would first "touch the site" (or the parking lots in this case), realize there was no parking available in the lots, and then find parking on the street. Taxi drop-offs were assigned to the curb in front of the project site entrance on Flatbush Avenue. No truck delivery trips are expected during the event peak hours.

TRAFFIC DIVERSIONS/DEMAPPING OF EAST 22ND STREET

As mentioned, the proposed project would demap a portion of the block of East 22nd Street between Tilden Avenue and Duryea Place and close the street to traffic so that the theatre stage and backstage facilities could be extended. Traffic counts and observations were performed on this block during peak Saturday traffic periods in order to determine the amount of traffic that would be displaced by the proposed street closure.

As a result of the closure of East 22nd Street between Tilden Avenue and Duryea Place, the proposed actions would cause existing traffic on this street to be diverted to other streets. The existing traffic volumes on this block are relatively minor; most traffic on this street is parking related. Therefore, some of the traffic was rerouted to East 22nd Street south of the closure, while some of the traffic was diverted to other streets with on-street parking.

The proposed street closure would also result in the loss of approximately 30 on-street parking spaces, which is addressed in the Parking section.

PROJECT-GENERATED TRAFFIC VOLUMES

As a result of the trip generation-assignment and traffic diversion steps, roadway-by-roadway and intersection-by-intersection traffic volume projections were developed within the study area. These projections are summarized below. Specific turning movement volume projections are detailed at the end of this chapter.

The proposed actions would add approximately 90 to 140 vehicles along Flatbush Avenue during the Saturday midday and evening arrival peak hours, in directions approaching the site (i.e., in the southbound direction from north of the project site, and in the northbound direction from south of the site). Additionally, 15 to 80 vehicles would be generated in directions leading

away from the site. During the Saturday midday departure peak hour, there would be approximately 90 to 165 vehicles added along Flatbush Avenue in directions leading away from the site, and 30 to 120 vehicles added in directions approaching the site.

On Bedford Avenue, Saturday midday and evening arrival peak hour volumes would increase by 60 to 150 vehicles per hour in the northbound direction, south of Tilden Avenue. North of Tilden Avenue, northbound traffic volume increases would be approximately 20 vehicles during the Saturday midday and evening arrival peak hours. In the southbound direction, traffic increases would be 50 to 190 vph during the Saturday midday and evening arrival peak hours. During the Saturday midday departure peak hour, southbound volumes would increase by approximately 5 to 15 vehicles north of the site, and by 90 to 140 vehicles south of the site. In the northbound direction, volumes would increase by approximately 45 vehicles approaching the site from the south, and 150 to 270 vehicles north of the site.

Volume increases on Ocean Avenue would range from 5 to 70 vph during the Saturday midday arrival and departure peak hours. During the Saturday evening arrival peak hour, volume increases would be between 5 and 40 vehicles.

Along Caton Avenue/Linden Boulevard, volume increases would vary from 15 to 90 vph per direction during peak hours.

Volume increases along Church Avenue would be approximately 5 to 45 vph per direction during the Saturday midday and evening arrival peak hours, and 10 to 25 vehicles per direction during the Saturday midday departure peak hour.

Volumes along eastbound Tilden Avenue would increase by 75 to 175 vph during the Saturday midday and evening arrival peak hours, and by 40 to 100 vehicles during the Saturday midday departure peak hour. Volume increases along westbound Tilden Avenue would be approximately 50 to 100 vehicles during the Saturday midday arrival peak hour, and 10 to 110 vph during the Saturday midday departure and evening arrival peak hours.

Beverly Road would have volume increases of 40 to 100 vehicles during the Saturday midday arrival, midday departure, and evening arrival peak hours in the eastbound direction. In the westbound direction, traffic would increase by approximately 15 to 70 vph during the Saturday midday arrival and departure peak hours, and by 5 to 35 vehicles during the Saturday evening arrival peak hour.

Along Foster Avenue during the Saturday midday and evening arrival peak hours, traffic volumes would increase by approximately 30 vph in the eastbound direction and would not increase in the westbound direction. During the Saturday midday departure peak hour, traffic volumes would increase by approximately 5 vehicles in the eastbound direction and 30 vehicles in the westbound direction.

TRAFFIC LEVELS OF SERVICE AND IMPACTS

The assessment of potential significant traffic impacts of the proposed project is based on significant impact criteria defined in the 2010 *CEQR Technical Manual*. No Build LOS A, B, or C conditions that deteriorate to unacceptable LOS D, E, or F in the future Build conditions are considered a significant traffic impact.

For future No Build LOS A, B, or C conditions that deteriorate to unacceptable LOS D, mitigation to mid-LOS D (45.0 seconds of delay for signalized intersections and 30.0 seconds of delay for unsignalized intersections) needs to be considered to fully mitigate the impact.

For a No Build LOS D, an increase of delay by five or more seconds in the Build condition is considered a significant impact if the Build delay meets or exceeds 45.0 seconds. For a No Build LOS E, the threshold is a four-second increase in Build delay; for a No Build LOS F, a three-second increase in delay in the Build condition is significant. For unsignalized intersections, for the minor street to generate a significant impact, 90 passenger car equivalents (PCEs) must be identified in the Build condition in any peak hour.

The remainder of this section provides an overview of significant traffic impacts that would be generated under 2014 Build conditions. The proposed actions would have significant traffic impacts at 12 intersections during the Saturday midday arrival peak hour, 13 intersections during the Saturday midday departure peak hour, and 10 intersections during the Saturday evening arrival peak hour.

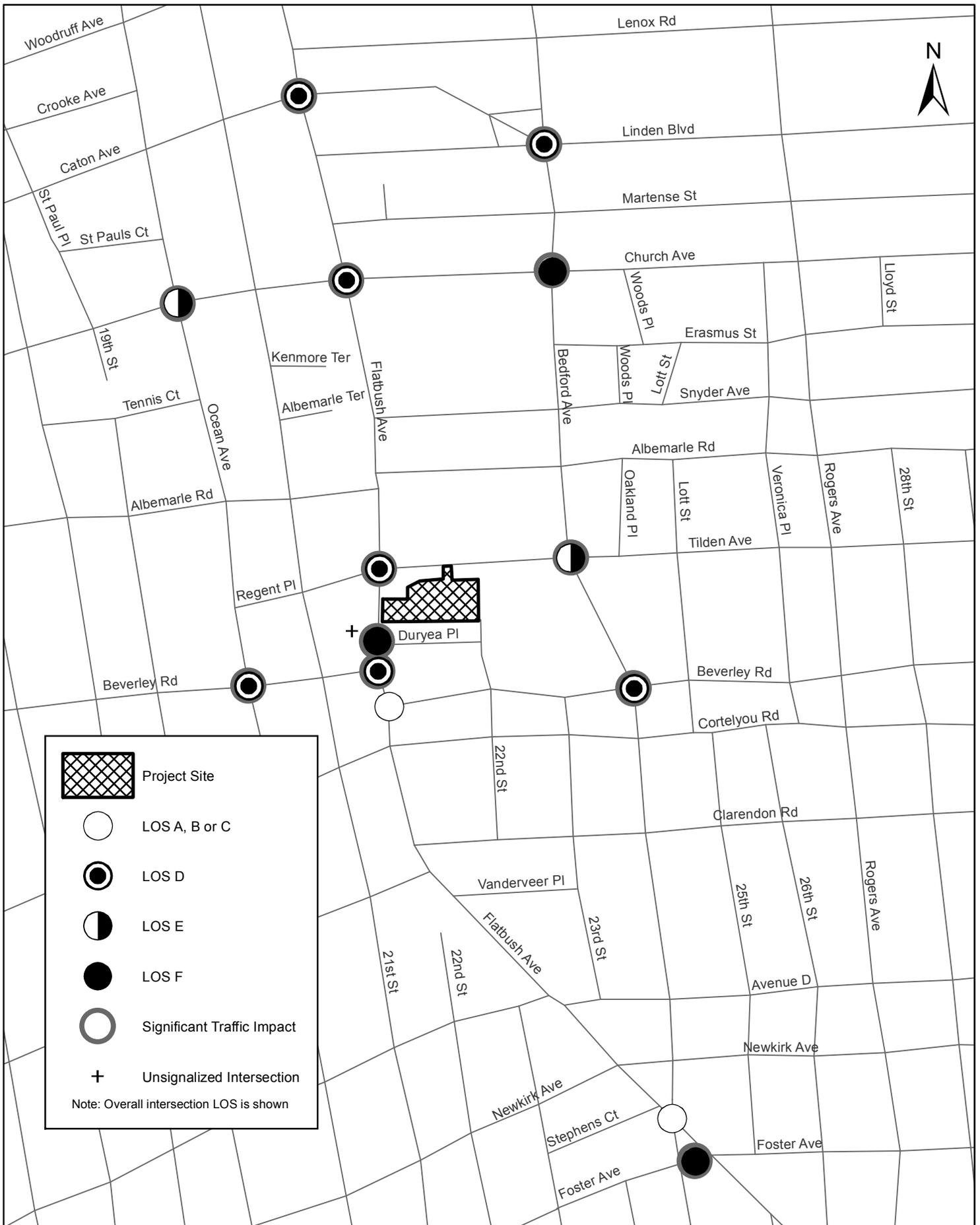
Detailed volume-to-capacity (v/c) ratios, average vehicle delay, and levels of service movement-by-movement at each intersection under the Build condition are provided at the end of this chapter. Generated traffic volume increment maps and total Build volume maps are also provided at the end of this chapter. A summary of level of service findings and significant traffic impacts for the 14 intersections analyzed is presented in **Table 3-16** and **Figures 3-9 through 3-11**.

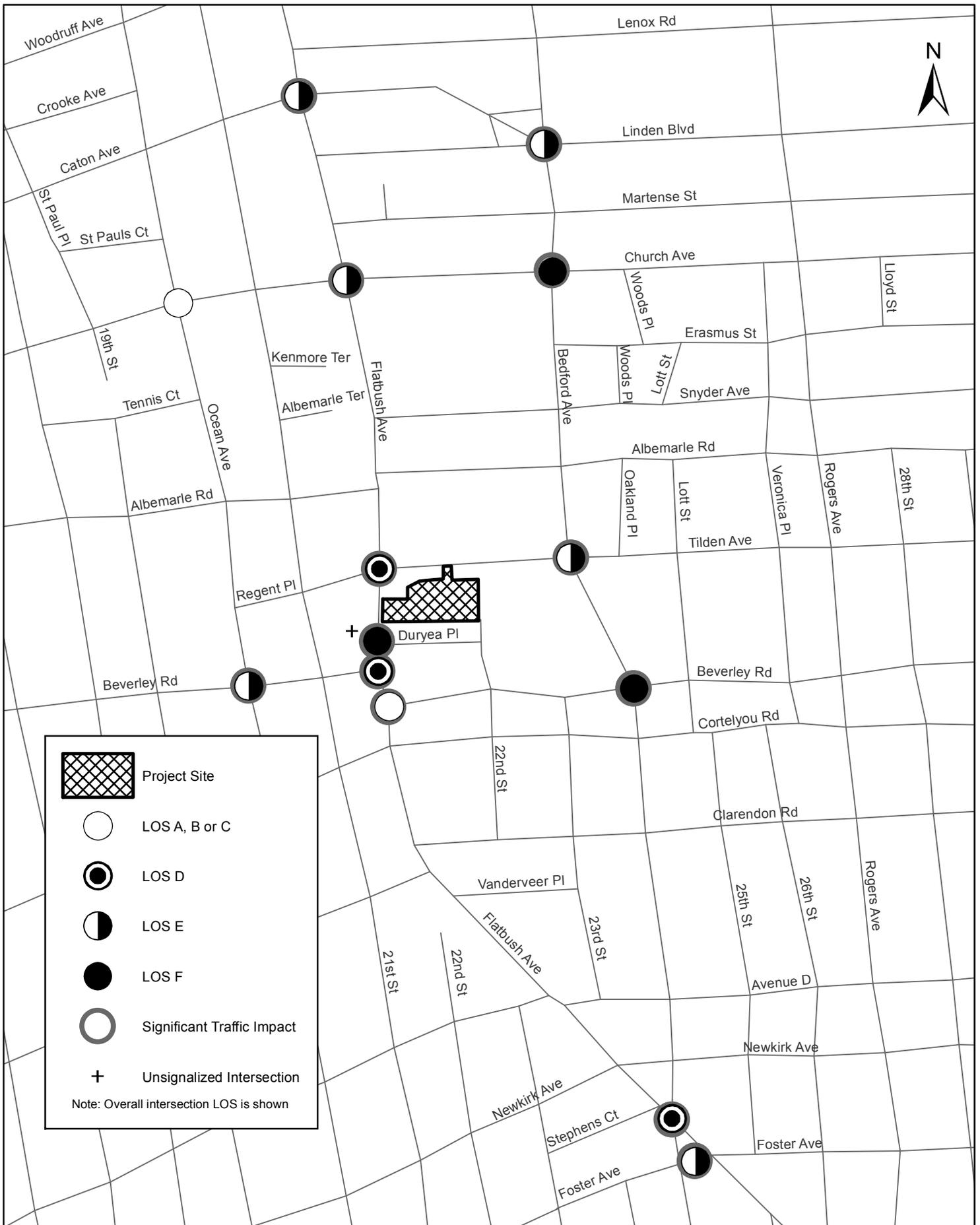
Table 3-16
Traffic Level of Service Summary Comparison
Future No Build vs. Future Build Conditions (2014)

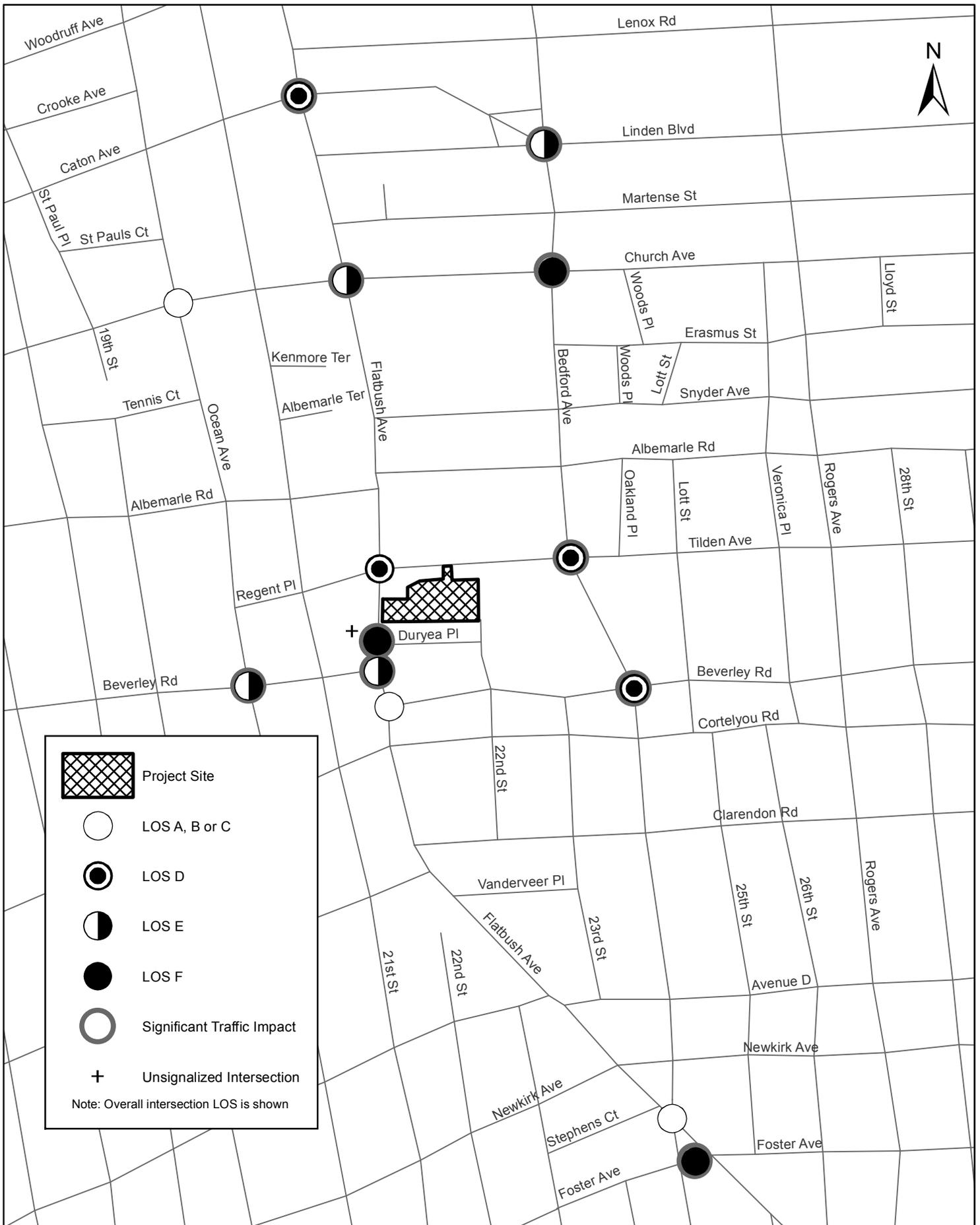
	2014 No Build			2014 Build		
	Saturday Midday Arrival	Saturday Midday Departure	Saturday Evening Arrival	Saturday Midday Arrival	Saturday Midday Departure	Saturday Evening Arrival
Overall LOS A/B/C	10	11	10	2	2	3
Overall LOS D	4	3	4	7	3	4
Overall LOS E	0	0	0	2	6	4
Overall LOS F	0	0	0	3	3	3
Number of intersections with significant impacts	-	-	-	12	13	10
Number of movements at LOS E or F (of approximately 59 movements analyzed)	8	9	6	21	20	20

This summary overview of Build conditions in **Table 3-16** indicates that:

- During the Saturday midday arrival peak hour, the number of intersections analyzed that are projected to operate at overall LOS E or F would increase from none under the No Build condition to five under the Build condition. “Overall” LOS E or F means that serious congestion exists—either one specific traffic movement has severe delays or two or more of the specific traffic movements at the intersection are at LOS E or F with very significant delays (the overall intersection LOS is a weighted average of all the individual traffic movements). The number of traffic movements projected to operate at LOS E or F would increase from eight under the No Build condition to twenty-one under the Build condition. Overall, 12 of the 14 intersections would have significant impacts. **Figure 3-9** shows overall levels of service and intersections where significant impacts would occur.
- During the Saturday midday departure peak hour, the number of intersections that would operate at overall LOS E or F would increase from none under the No Build condition to







Build Traffic Levels of Service
 Saturday Evening Arrival Peak Hour
 Figure 3-11

nine under the Build condition. The number of traffic movements at LOS E or F would increase from nine to twenty. Overall, 13 intersections would be significantly impacted, as shown in **Figure 3-10**.

- During the Saturday evening arrival peak hour, the number of intersections that are projected to operate at overall LOS E or F would increase from none under the No Build condition to seven under the Build condition. The number of traffic movements projected to operate at LOS E or F would increase from six to twenty. As shown in **Figure 3-11**, 10 intersections would experience significant impacts.

Detailed levels of service for each movement of each intersection is presented in the Build condition level of service tables provided at the end of this chapter, and in the No Build vs. Build condition levels of service comparison tables provided at the end of Chapter 8, “Mitigation.”

PARKING

The proposed actions would generate a parking demand of 618 vehicles (auto “in” trips from the Build trip generation) in the arrival peak hour for midday and evening events. This demand would last for the duration of the show, approximately 2.5 hours. The Saturday midday departure peak hour is not of concern since all project-generated auto trips are “out” trips that would be leaving parking spaces, not seeking them.

The proposed actions would not create any new parking; therefore, the existing parking supply within the surrounding area would be relied upon to accommodate the project-generated parking demand. As noted above, theatre patrons would be able to park at the two nearby off-street facilities. Therefore, parking trips were assigned to these lots to the extent possible. Any parking demand not accommodated by the lots was assigned to on-street spaces within the parking study area.

In addition to project-generated parking demand, approximately 30 parked vehicles would be displaced from on-street spaces on East 22nd Street as a result of the proposed street closure. This displaced parking demand would be accommodated by other on-street spaces within the study area.

The No Build parking availability rates were used to determine the extent to which project-generated parking could be accommodated. Based on the No Build off-street parking occupancies, there would be 315 spaces available in the lots during the Saturday midday arrival peak hour, and 530 spaces available during the Saturday evening arrival peak hour within a five-to-ten minute walk from the site, as shown in **Table 3-17**. Although off-street parking availability would not fully accommodate the Build parking demand, the shortfall would be fully accommodated by available on-street spaces within the parking study area during the Saturday midday and evening event arrival periods. Overall, parking demands generated by the proposed actions during Saturday and Midday peak arrival hours would be fully accommodated by available on- and off-street parking within the study area.

TRANSIT

As mentioned, quantitative transit analysis has been screened out for this study. There would be no significant transit impacts as a result of the proposed actions.

PEDESTRIANS

The Build condition pedestrian network incorporates project-generated increases in pedestrian volumes. Build pedestrian volume increases consist of walk-only trips generated by the proposed actions as well as walk trips from transit stations to the site, walk trips from some taxi drop-offs, and auto person trips walking to the site from their parked cars.

Table 3-17
Future Build Condition (2014) Parking Utilization:
Saturday Midday and Evening Event Arrival Periods

Time Period	Parking Demand (project generated + project displaced)	Parking Availability				Total Spaces (Off-Street + On-Street)
		Off-Street Spaces			On- Street Spaces	
		Sears Parking Lot	Stop & Shop Lot	Total		
Saturday Midday Arrival Peak Hour	648 (618 +30)	214	101	315	347	662
Saturday Evening Arrival Peak Hour	648 (618 +30)	334	196	530	357	887

Pedestrian trips would be most concentrated on Flatbush Avenue between Tilden Avenue and Beverley Road. The following assumptions were used to assign pedestrian trips:

- Walk trips from parking locations were assigned to the most direct route.
- Taxi drop-offs and pickups occurring on the opposite side of the street of or around the corner from the project site were then assigned to walk to the site entrance
- Subway trips were assigned to the Beverley Road Number 2 and 5 train station a few blocks southeast of the project site and the Q train station on Beverley Road a few blocks southwest of the project site. All subway trips were assigned to the project site via Beverley Road, turning up Flatbush Avenue to reach the project site.
- Bus trips were distributed among the routes serving the study area. These trips were assigned to walk on a direct route from the closest bus stop of each route to the site. Walking routes included Flatbush Avenue north of the site (from Church Avenue), Flatbush Avenue south of the site (from Beverley and Cortelyou Roads), and along Tilden Avenue (from Bedford and Rogers Avenues).
- Walk-only trips were distributed equally from points north, south, east, and west since the project site is surrounded by residential neighborhoods.

Based on these assignments, pedestrian trips generated by the proposed actions would result in increased pedestrian volumes at the analyzed locations. The analyses conducted for the Build condition account for the distribution of project-generated trips added to the No Build pedestrian volumes at the analyzed crosswalks and corner reservoir areas. **Table 3-18** shows Build condition pedestrian volumes at the locations analyzed during the peak 15-minute analysis periods.

As shown in **Table 3-19**, all pedestrian elements would continue to operate at acceptable levels of service during the analysis peak periods. Therefore, the proposed project would not result in any significant adverse pedestrian impacts.

Table 3-18
Future Build Condition (2014) Pedestrian Peak 15-Minute Volumes

Location	Crosswalk or Corner	Saturday Peak Period Volume		
		Midday Arrival	Midday Departure	Evening Arrival
Flatbush Avenue and Tilden Avenue/Regent Place	North Crosswalk	186	156	136
	South Crosswalk	151	171	130
	East Crosswalk	396	399	397
	West Crosswalk	247	289	202
	Northeast Corner	102	81	67
	Northwest Corner	21	20	26
	Southeast Corner	149	165	213
	Southwest Corner	10	4	4
Flatbush Avenue and Beverley Road (north)	North Crosswalk	150	176	134
	South Crosswalk	131	135	85
	West Crosswalk	223	237	186
	Northwest Corner	28	30	18
	Southwest Corner	27	16	12

Table 3-19
Future Build Condition (2014) Pedestrian Levels of Service

Intersection	Crosswalk/Corner Reservoir	Midday Arrival Peak 15-Minutes		Midday Departure Peak 15-Minutes		Evening Arrival Peak 15-Minutes	
		SF/P	LOS	SF/P	LOS	SF/P	LOS
		(1)	(2)	(1)	(2)	(1)	(2)
Flatbush Avenue and Tilden Avenue/Regent Place	North Crosswalk	36.3	C	42.7	B	52.1	B
	East Crosswalk	30.9	C	31.1	C	28.7	C
	West Crosswalk	46.8	B	37.6	C	57.2	B
	South Crosswalk	41.8	B	34.2	C	50.0	B
	Northwest Corner	60.4	A	58.3	B	77.9	A
	Southwest Corner	77.9	A	71.1	A	97.0	A
	Northeast Corner	50.2	B	56.7	B	58.3	B
	Southeast Corner	61.6	A	52.3	B	58.3	B
Flatbush Avenue and Beverley Road (north)	North Crosswalk	37.9	C	35.5	C	42.8	B
	West Crosswalk	52.9	B	49.6	B	68.5	A
	South Crosswalk	56.0	B	61.1	A	94.3	A
	Northwest Corner	69.3	A	69.2	A	87.4	A
	Southwest Corner	99.3	A	106.8	A	145.9	A

Notes: (1) SF/P = Square feet per pedestrian ; (2) LOS = Level of service

PEDESTRIAN SAFETY

According to 2010 *CEQR Technical Manual* criteria, any intersection with 48 or more total (reportable and non-reportable) crashes or five or more pedestrian/bicycle injury crashes in any consecutive 12 months of the most recent three-year period for which data are available is considered a high crash location. As shown on **Table 3-20**, none of the analyzed intersections have 48 or more total crashes for a 12-month period; however, five intersections have five or more annual pedestrian/bicycle related crashes within at least one of the last three years.

**Table 3-20
Intersection Crash Data**

Intersection	Total Crashes			Pedestrian/Bicycle Crashes		
	2007	2008	2009	2007	2008	2009
Flatbush Avenue and Caton Avenue	8	12	12	5	2	5
Flatbush Avenue and Church Avenue	9	22	21	2	15	5
Flatbush Avenue and Tilden Avenue	13	8	7	1	1	5
Flatbush Avenue and Beverley Road (north)/Duryea Place	4	1	9	1	0	3
Flatbush Avenue and Beverley Road (south)	1	12	3	1	1	1
Flatbush Avenue and Bedford Avenue	3	2	11	3	0	1
Flatbush Avenue and Foster Avenue	6	5	2	2	4	1
Bedford Avenue and Linden Boulevard	12	14	16	4	7	6
Bedford Avenue and Church Avenue	6	10	7	3	0	1
Bedford Avenue and Tilden Avenue	3	4	7	1	1	2
Bedford Avenue and Beverley Road	1	7	8	0	0	3
Ocean Avenue and Church Avenue	9	8	14	6	3	2
Ocean Avenue and Beverley Road	3	3	4	2	1	0

Source: New York State Department of Transportation (NYSDOT)

Project-generated traffic volume increases would occur at each of the five high crash locations; however, volume increases at movements that would conflict with pedestrians (i.e. turning movements) are generally low. Additionally, project-generated pedestrian activity is not expected to increase substantially at these locations, except for Flatbush Avenue and Tilden Avenue.

At the intersection of Flatbush Avenue and Tilden Avenue, substantial project-generated pedestrians would be generated to the south and east crosswalks (226 to 312 and 537 to 635) during peak hours. Also, as many as 49 vph would be generated to turning movements conflicting with the south crosswalk, and up to 165 vph would be generated to turning movements conflicting with the east crosswalk during peak hours. However, based on an analysis of the contributing factors for crashes occurring at this location between 2007 and 2009, pedestrian-turning vehicle conflicts was not a major contributing factor to pedestrian related crashes occurring at this intersection. Therefore, no significant pedestrian safety impacts would be anticipated at this location as a result of the proposed actions.

A substantial number of pedestrian trips would also be generated across the east crosswalk of Duryea Place at Flatbush Avenue which is an unsignalized crosswalk. However, this is not a high crash location. Therefore, no significant pedestrian safety impacts would be anticipated at this location as a result of the proposed actions. Additionally, potential conflicting vehicle movements would decrease at this location (turns from Flatbush Avenue to Duryea Place) as a result of turning prohibitions proposed in the traffic mitigation plan (see Chapter 8, "Mitigation").

Kings Theatre DEIS

There is one bicycle route within the study area which runs north-south along Bedford Avenue. This route has a Class-II striped bicycle lane operating between a parking lane and travel lane in each direction. Project-generated traffic volume increases along Bedford Avenue would be substantial; however, increases to turning movements from Bedford Avenue (the movements most likely to conflict with bicycles) would generally be low. No modifications would be made to the bicycle facility as a result of this project. Therefore, no significant bicycle safety impacts would be anticipated as a result of the proposed actions. *

Traffic LOS Tables and Volume Maps

**TABLE D-1
KINGS THEATRE DEIS
2010 EXISTING SATURDAY TRAFFIC LEVELS OF SERVICE**

INTERSECTION & APPROACH	Midday Arrival (1:00 - 2:00 PM)				Midday Departure (4:30 - 5:30 PM)				Evening Arrival (7:00 - 8:00 PM)				
	Mvt.	V/C	Control		Mvt.	V/C	Control		Mvt.	V/C	Control		
			Delay	LOS			Delay	LOS			Delay	LOS	
SIGNALIZED INTERSECTIONS													
FLATBUSH AVENUE													
1 FLATBUSH AVENUE & CATON AVENUE													
Flatbush Avenue	NB	LTR	0.53	17.2	B	LTR	0.53	17.2	B	LTR	0.57	17.8	B
	SB	LTR	0.57	18.7	B	LTR	0.67	20.9	C	LTR	0.60	19.3	B
Caton Avenue	EB	LTR	1.00	51.2	D	LTR	0.96	44.6	D	LTR	0.98	47.5	D
	WB	LTR	0.97	52.8	D	LTR	0.98	55.0	D	LTR	0.90	48.0	D
Overall Intersection	-		0.74	31.5	C	-	0.79	31.1	C	-	0.75	29.4	C
2 FLATBUSH AVENUE & CHURCH AVENUE													
Flatbush Avenue	NB	L	0.38	22.9	C	L	0.49	25.3	C	L	0.64	36.4	D
	T		0.83	32.9	C	T	0.83	31.0	C	T	0.83	33.6	C
	R		0.62	30.9	C	R	0.63	29.0	C	R	0.57	29.4	C
	SB	L	0.58	32.3	C	L	0.86	52.2	D	L	0.62	33.5	C
	T		0.69	26.2	C	T	0.77	28.1	C	T	0.79	29.7	C
	R		0.49	24.8	C	R	0.56	25.8	C	R	0.47	24.2	C
Church Avenue	EB	LT	0.93	62.4	E	LT	0.88	60.3	E	LT	0.83	53.5	D
	R		0.53	45.1	D	R	0.44	45.2	D	R	0.42	46.2	D
	WB	LT	0.89	58.5	E	LT	0.92	54.7	D	LT	0.99	86.0	F
	R		0.55	45.8	D	R	0.60	46.7	D	R	0.54	46.6	D
Overall Intersection	-		0.88	38.9	D	-	0.89	38.4	D	-	0.90	41.3	D
3 FLATBUSH AVENUE & TILDEN AVENUE/REGENT PLACE													
Flatbush Avenue	NB	LTR	0.68	16.8	B	LTR	0.69	17.5	B	LTR	0.63	15.4	B
	SB	LTR	0.59	15.7	B	LTR	0.67	17.3	B	LTR	0.60	15.4	B
Tilden Avenue	WB	LTR	0.63	41.0	D	LTR	0.74	44.8	D	LTR	0.54	38.0	D
Overall Intersection	-		0.66	19.3	B	-	0.71	21.1	C	-	0.60	17.8	B
4 FLATBUSH AVENUE & BEVERLEY ROAD NORTH													
Flatbush Avenue	NB	LT	0.89	28.0	C	LT	0.81	22.9	C	LT	0.97	40.0	D
	SB	TR	0.46	13.5	B	TR	0.52	14.2	B	TR	0.53	14.6	B
Beverley Road North	EB	LR	0.57	35.7	D	LR	0.55	37.5	D	LR	0.59	36.8	D
	SB	LT	-	19.5	C	LT	-	17.3	C	LT	-	16.0	C
Overall Intersection	-		0.78	23.9	C	-	0.72	21.0	C	-	0.84	29.8	C
5 FLATBUSH AVENUE & BEVERLEY ROAD SOUTH													
Flatbush Avenue	NB	TR	0.61	16.0	B	TR	0.59	15.7	B	TR	0.56	15.1	B
	SB	LT	0.57	15.7	B	LT	0.60	16.2	B	LT	0.63	16.9	B
Beverley Road South	WB	LR	0.69	38.7	D	LR	0.70	39.8	D	LR	0.57	38.4	D
Overall Intersection	-		0.64	19.2	B	-	0.63	19.4	B	-	0.61	18.8	B
6 FLATBUSH AVENUE & BEDFORD AVENUE/STEPHEN COURT													
Flatbush Avenue	NB	LTR	0.51	8.7	A	LTR	0.62	10.1	B	LTR	0.54	8.9	A
	SB	LTR	0.71	33.5	C	LTR	0.72	32.0	C	LTR	0.65	30.7	C
Bedford Avenue	WB	TR	0.65	51.5	D	TR	0.74	50.7	D	TR	0.71	49.8	D
Overall Intersection	-		0.77	23.8	C	-	0.80	23.5	C	-	0.75	22.4	C
7 FLATBUSH AVENUE & BEDFORD AVENUE/FOSTER AVENUE													
Flatbush Avenue	NB	LTR	0.94	40.7	D	LTR	0.90	38.5	D	LTR	0.91	38.8	D
	SB	LT	0.66	30.3	C	LT	0.75	32.6	C	LT	0.63	30.0	C
Bedford Avenue	NB	LR	0.45	42.4	D	LR	0.52	44.2	D	LR	0.70	50.7	D
	SB	LTR	0.12	5.7	A	LTR	0.15	5.8	A	LTR	0.18	6.0	A
Foster Avenue	EB	LTR	0.96	66.2	E	LTR	1.01	69.5	E	LTR	0.91	54.1	D
	WB	LTR	1.03	73.9	E	LTR	0.95	64.0	E	LTR	1.03	72.7	E
Overall Intersection	-		0.82	41.3	D	-	0.82	39.4	D	-	0.87	39.1	D

**TABLE D-1
KINGS THEATRE DEIS
2010 EXISTING SATURDAY TRAFFIC LEVELS OF SERVICE**

INTERSECTION & APPROACH	Midday Arrival (1:00 - 2:00 PM)				Midday Departure (4:30 - 5:30 PM)				Evening Arrival (7:00 - 8:00 PM)				
	Mvt.	V/C	Control		Mvt.	V/C	Control		Mvt.	V/C	Control		
			Delay	LOS			Delay	LOS			Delay	LOS	
BEDFORD AVENUE													
8 BEDFORD AVENUE & LINDEN BOULEVARD/CATON AVENUE													
Bedford Avenue	NB	LTR	0.59	16.3	B	LTR	0.64	15.6	B	LTR	0.57	15.3	B
	SB	LTR	0.79	23.1	C	LTR	0.77	22.1	C	LTR	0.66	19.0	B
Linden Boulevard	EB	LTR	0.88	41.2	D	LTR	0.84	40.1	D	LTR	0.65	36.3	D
	WB	LTR	0.90	44.1	D	LTR	0.89	44.0	D	LTR	0.84	44.5	D
Overall Intersection	-		0.83	31.5	C	-	0.81	30.7	C	-	0.72	29.4	C
9 BEDFORD AVENUE & CHURCH AVENUE													
Bedford Avenue	NB	LTR	0.72	32.2	C	LTR	0.89	43.5	D	LTR	0.85	41.4	D
	SB	LTR	0.93	44.2	D	LTR	0.98	54.4	D	LTR	0.90	44.4	D
Church Avenue	EB	LTR	0.91	44.9	D	LTR	0.90	44.0	D	LTR	0.88	43.5	D
	WB	LTR	0.70	30.7	C	LTR	0.80	34.1	C	LTR	0.57	27.2	C
Overall Intersection	-		0.92	38.7	D	-	0.94	44.7	D	-	0.89	40.2	D
10 BEDFORD AVENUE & TILDEN AVENUE													
Bedford Avenue	NB	LT	0.46	12.0	B	LT	0.55	13.5	B	LT	0.46	12.0	B
	SB	TR	0.65	13.1	B	TR	0.83	16.8	B	TR	0.59	12.4	B
Tilden Avenue	EB	LR	0.89	77.2	E	LR	0.74	54.9	D	LR	0.76	60.6	E
	WB	LTR	0.77	48.7	D	LTR	0.80	50.1	D	LTR	0.81	50.0	D
Overall Intersection	-		0.72	27.4	C	-	0.82	25.7	C	-	0.65	25.9	C
11 BEDFORD AVENUE & BEVERLEY ROAD													
Bedford Avenue	NB	LTR	0.39	11.6	B	LTR	0.46	12.5	B	LTR	0.40	11.8	B
	SB	LTR	0.65	15.5	B	LTR	0.72	16.5	B	LTR	0.70	17.5	B
Beverley Road	EB	LTR	0.77	48.3	D	LTR	0.91	46.5	D	LTR	0.77	43.9	D
	WB	LTR	0.85	44.1	D	LTR	0.96	56.6	E	LTR	0.69	44.5	D
Overall Intersection	-		0.71	25.7	C	-	0.79	28.8	C	-	0.72	25.9	C
OCEAN AVENUE													
12 OCEAN AVENUE & CHURCH AVENUE													
Ocean Avenue	NB	L	0.33	23.7	C	L	0.37	24.6	C	L	0.25	21.8	C
		TR	0.56	26.1	C	TR	0.69	30.7	C	TR	0.57	26.5	C
	SB	LTR	0.68	28.9	C	LTR	0.67	28.8	C	LTR	0.73	30.4	C
Church Avenue	EB	LTR	0.99	65.8	E	LTR	0.62	28.3	C	LTR	0.68	29.8	C
	WB	LTR	0.97	47.5	D	LTR	0.63	25.8	C	LTR	0.69	26.4	C
Overall Intersection	-		0.82	41.8	D	-	0.66	28.3	C	-	0.71	28.2	C
13 OCEAN AVENUE & BEVERLEY ROAD													
Ocean Avenue	NB	LTR	0.57	14.8	B	LTR	0.52	14.0	B	LTR	0.51	13.7	B
	SB	LTR	0.57	14.0	B	LTR	0.55	13.9	B	LTR	0.56	13.9	B
Beverley Road	EB	LTR	0.90	44.8	D	LTR	0.86	50.9	D	LTR	1.05	73.5	E
	WB	LTR	0.57	41.3	D	LTR	0.61	42.2	D	LTR	0.75	47.1	D
Overall Intersection	-		0.67	24.7	C	-	0.65	26.1	C	-	0.71	32.9	C
UNSIGNALIZED INTERSECTIONS													
14 FLATBUSH AVENUE & DURYEY PLACE													
Flatbush Avenue	NB	TR	FREE	FLOW	A	TR	FREE	FLOW	A	TR	FREE	FLOW	A
	SB	LT	-	19.5	C	LT	-	17.3	C	LT	-	16.0	C
Overall Intersection	-	-	0.4	A	-	-	0.4	A	-	-	0.3	A	

(1) Control delay is measured in seconds per vehicle.

(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.

**TABLE D-2
KINGS THEATRE DEIS
2014 NO BUILD SATURDAY TRAFFIC LEVELS OF SERVICE**

INTERSECTION & APPROACH	Midday Arrival (1:00 - 2:00 PM)				Midday Departure (4:30 - 5:30 PM)				Evening Arrival (7:00 - 8:00 PM)				
	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
SIGNALIZED INTERSECTIONS													
FLATBUSH AVENUE													
1 FLATBUSH AVENUE & CATON AVENUE													
Flatbush Avenue	NB	LTR	0.55	17.5	B	LTR	0.55	17.5	B	LTR	0.58	18.0	B
	SB	LTR	0.58	19.1	B	LTR	0.69	21.5	C	LTR	0.62	19.7	B
Caton Avenue	EB	LTR	1.02	58.7	E	LTR	0.99	48.7	D	LTR	1.01	53.9	D
	WB	LTR	0.99	57.8	E	LTR	1.01	62.9	E	LTR	0.93	51.0	D
Overall Intersection	-		0.76	34.0	C	-	0.82	33.7	C	-	0.77	31.4	C
2 FLATBUSH AVENUE & CHURCH AVENUE													
Flatbush Avenue	NB	L	0.40	23.5	C	L	0.51	26.2	C	L	0.66	38.7	D
	T		0.85	34.0	C	T	0.85	32.0	C	T	0.85	34.7	C
	R		0.65	32.3	C	R	0.65	30.1	C	R	0.60	30.7	C
	SB	L	0.61	34.7	C	L	0.91	62.8	E	L	0.66	36.6	D
	T		0.70	26.7	C	T	0.79	28.7	C	T	0.80	30.5	C
	R		0.51	25.6	C	R	0.58	26.6	C	R	0.49	24.6	C
Church Avenue	EB	LT	0.96	69.3	E	LT	0.91	64.0	E	LT	0.87	56.9	E
	R		0.54	45.6	D	R	0.45	45.9	D	R	0.43	46.7	D
	WB	LT	0.93	64.5	E	LT	0.95	60.5	E	LT	1.04	98.1	F
	R		0.57	46.7	D	R	0.62	47.6	D	R	0.55	47.2	D
Overall Intersection	-		0.89	41.3	D	-	0.94	40.7	D	-	0.91	43.9	D
3 FLATBUSH AVENUE & TILDEN AVENUE/REGENT PLACE													
Flatbush Avenue	NB	LTR	0.70	17.3	B	LTR	0.71	18.0	B	LTR	0.64	15.6	B
	SB	LTR	0.61	16.1	B	LTR	0.69	17.8	B	LTR	0.61	15.7	B
Tilden Avenue	WB	LTR	0.64	41.4	D	LTR	0.76	45.8	D	LTR	0.55	38.3	D
Overall Intersection	-		0.68	19.7	B	-	0.72	21.7	C	-	0.61	18.0	B
4 FLATBUSH AVENUE & BEVERLEY ROAD NORTH													
Flatbush Avenue	NB	LT	0.91	30.6	C	LT	0.84	24.5	C	LT	0.99	46.3	D
	SB	TR	0.47	13.6	B	TR	0.53	14.4	B	TR	0.54	14.8	B
Beverley Road North	EB	LR	0.58	35.8	D	LR	0.56	37.8	D	LR	0.60	37.1	D
Overall Intersection	-		0.80	25.3	C	-	0.74	21.9	C	-	0.86	33.0	C
5 FLATBUSH AVENUE & BEVERLEY ROAD SOUTH													
Flatbush Avenue	NB	TR	0.62	16.3	B	TR	0.60	15.9	B	TR	0.57	15.3	B
	SB	LT	0.58	16.1	B	LT	0.61	16.6	B	LT	0.65	17.3	B
Beverley Road South	WB	LR	0.71	39.1	D	LR	0.71	40.2	D	LR	0.59	38.7	D
Overall Intersection	-		0.65	19.5	B	-	0.65	19.7	B	-	0.63	19.1	B
6 FLATBUSH AVENUE & BEDFORD AVENUE/STEPHEN COURT													
Flatbush Avenue	NB	LTR	0.53	8.8	A	LTR	0.63	10.3	B	LTR	0.55	9.0	A
	SB	LTR	0.73	33.9	C	LTR	0.74	32.4	C	LTR	0.67	31.1	C
Bedford Avenue	WB	TR	0.66	52.1	D	TR	0.76	51.4	D	TR	0.72	50.5	D
Overall Intersection	-		0.78	24.1	C	-	0.81	23.8	C	-	0.76	22.7	C
7 FLATBUSH AVENUE & BEDFORD AVENUE/FOSTER AVENUE													
Flatbush Avenue	NB	LTR	0.98	46.0	D	LTR	0.93	41.2	D	LTR	0.94	41.4	D
	SB	LT	0.67	30.6	C	LT	0.76	33.1	C	LT	0.65	30.3	C
Bedford Avenue	NB	LR	0.46	42.5	D	LR	0.53	44.3	D	LR	0.72	51.4	D
	SB	LTR	0.12	5.7	A	LTR	0.15	5.9	A	LTR	0.18	6.1	A
Foster Avenue	EB	LTR	0.98	69.8	E	LTR	1.04	80.8	F	LTR	0.93	55.7	E
	WB	LTR	1.05	81.0	F	LTR	0.96	66.7	E	LTR	1.04	77.8	E
Overall Intersection	-		0.84	44.4	D	-	0.84	41.7	D	-	0.89	40.7	D

**TABLE D-2
KINGS THEATRE DEIS
2014 NO BUILD SATURDAY TRAFFIC LEVELS OF SERVICE**

INTERSECTION & APPROACH	Midday Arrival (1:00 - 2:00 PM)				Midday Departure (4:30 - 5:30 PM)				Evening Arrival (7:00 - 8:00 PM)				
	Control				Control				Control				
	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
BEDFORD AVENUE													
8 BEDFORD AVENUE & LINDEN BOULEVARD/CATON AVENUE													
Bedford Avenue	NB	LTR	0.61	16.6	B	LTR	0.66	15.9	B	LTR	0.58	15.6	B
	SB	LTR	0.81	24.2	C	LTR	0.79	23.0	C	LTR	0.68	19.5	B
Linden Boulevard	EB	LTR	0.91	42.5	D	LTR	0.87	40.8	D	LTR	0.67	36.5	D
	WB	LTR	0.93	46.5	D	LTR	0.92	46.0	D	LTR	0.87	46.0	D
Overall Intersection	-		0.85	32.8	C	-	0.83	31.6	C	-	0.74	30.1	C
9 BEDFORD AVENUE & CHURCH AVENUE													
Bedford Avenue	NB	LTR	0.74	33.0	C	LTR	0.91	45.6	D	LTR	0.87	43.2	D
	SB	LTR	0.95	48.0	D	LTR	1.00	59.9	E	LTR	0.92	48.2	D
Church Avenue	EB	LTR	0.93	47.7	D	LTR	0.92	46.8	D	LTR	0.90	45.8	D
	WB	LTR	0.72	31.3	C	LTR	0.83	35.9	D	LTR	0.58	27.5	C
Overall Intersection	-		0.94	40.9	D	-	0.96	47.8	D	-	0.91	42.5	D
10 BEDFORD AVENUE & TILDEN AVENUE													
Bedford Avenue	NB	LT	0.47	12.2	B	LT	0.56	13.8	B	LT	0.48	12.3	B
	SB	TR	0.66	13.3	B	TR	0.85	17.4	B	TR	0.60	12.6	B
Tilden Avenue	EB	LR	0.92	82.9	F	LR	0.76	56.7	E	LR	0.79	63.5	E
	WB	LTR	0.79	49.9	D	LTR	0.82	51.1	D	LTR	0.83	51.4	D
Overall Intersection	-		0.74	28.4	C	-	0.84	26.4	C	-	0.67	26.7	C
11 BEDFORD AVENUE & BEVERLEY ROAD													
Bedford Avenue	NB	LTR	0.40	11.7	B	LTR	0.47	12.7	B	LTR	0.41	11.9	B
	SB	LTR	0.67	15.9	B	LTR	0.74	16.9	B	LTR	0.72	18.0	B
Beverley Road	EB	LTR	0.79	49.3	D	LTR	0.94	48.4	D	LTR	0.80	45.1	D
	WB	LTR	0.88	45.0	D	LTR	0.99	61.9	E	LTR	0.71	45.3	D
Overall Intersection	-		0.73	26.2	C	-	0.81	30.4	C	-	0.74	26.4	C
OCEAN AVENUE													
12 OCEAN AVENUE & CHURCH AVENUE													
Ocean Avenue	NB	L	0.34	23.9	C	L	0.38	24.9	C	L	0.26	22.0	C
		TR	0.57	26.5	C	TR	0.71	31.3	C	TR	0.58	26.8	C
	SB	LTR	0.69	29.4	C	LTR	0.69	29.1	C	LTR	0.74	30.9	C
Church Avenue	EB	LTR	1.01	71.8	E	LTR	0.63	28.9	C	LTR	0.69	30.3	C
	WB	LTR	1.00	53.7	D	LTR	0.65	26.1	C	LTR	0.71	26.8	C
Overall Intersection	-		0.84	45.0	D	-	0.68	28.7	C	-	0.73	28.6	C
13 OCEAN AVENUE & BEVERLEY ROAD													
Ocean Avenue	NB	LTR	0.58	15.0	B	LTR	0.53	14.2	B	LTR	0.52	13.9	B
	SB	LTR	0.58	14.3	B	LTR	0.56	14.1	B	LTR	0.57	14.1	B
Beverley Road	EB	LTR	0.92	46.5	D	LTR	0.89	53.5	D	LTR	1.08	84.2	F
	WB	LTR	0.58	41.6	D	LTR	0.62	42.5	D	LTR	0.77	48.1	D
Overall Intersection	-		0.69	25.3	C	-	0.66	26.8	C	-	0.73	35.6	D
UNSIGNALIZED INTERSECTIONS													
14 FLATBUSH AVENUE & DURYEA PLACE													
Flatbush Avenue	NB	TR	FREE	FLOW	A	TR	FREE	FLOW	A	TR	FREE	FLOW	A
	SB	LT	-	20.2	C	LT	-	17.9	C	LT	-	16.4	C
Overall Intersection	-		-	0.4	A	-	-	0.4	A	-	-	0.3	A

(1) Control delay is measured in seconds per vehicle.

(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.

**TABLE D-3
KINGS THEATRE DEIS
2014 BUILD SATURDAY TRAFFIC LEVELS OF SERVICE**

INTERSECTION & APPROACH	Midday Arrival (1:00 - 2:00 PM)				Midday Departure (4:30 - 5:30 PM)				Evening Arrival (7:00 - 8:00 PM)				
	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
SIGNALIZED INTERSECTIONS													
FLATBUSH AVENUE													
1 FLATBUSH AVENUE & CATON AVENUE													
Flatbush Avenue	NB	LTR	0.58	18.0	B	LTR	0.63	19.0	B	LTR	0.61	18.5	B
	SB	LTR	0.88	32.7	C	LTR	0.75	23.5	C	LTR	0.89	32.7	C
Caton Avenue	EB	LTR	1.13	99.4	F	LTR	1.12	95.1	F	LTR	1.11	93.6	F
	WB	LTR	1.11	98.9	F	LTR	1.32	186.5	F	LTR	1.05	80.5	F
Overall Intersection	-		0.98	53.6	D	-	0.97	70.3	E	-	0.98	48.2	D
2 FLATBUSH AVENUE & CHURCH AVENUE													
Flatbush Avenue	NB	L	0.52	29.9	C	L	0.68	36.2	D	L	0.98	102.8	F
	T		0.87	35.7	D	T	0.96	44.1	D	T	0.87	36.4	D
	R		0.65	32.3	C	R	0.65	30.1	C	R	0.60	30.7	C
	SB	L	0.73	44.6	D	L	1.23	169.5	F	L	0.70	41.2	D
	T		0.87	35.1	D	T	0.88	33.4	C	T	0.97	47.3	D
	R		0.54	26.7	C	R	0.58	26.6	C	R	0.50	25.0	C
Church Avenue	EB	LT	1.03	86.5	F	LT	1.19	149.2	F	LT	0.94	68.7	E
	R		0.72	56.1	E	R	0.58	51.9	D	R	0.65	57.8	E
	WB	LT	1.11	115.5	F	LT	1.17	128.8	F	LT	1.23	169.3	F
	R		0.57	46.7	D	R	0.62	47.6	D	R	0.55	47.2	D
Overall Intersection	-		0.96	52.6	D	-	1.23	69.1	E	-	1.08	60.6	E
3 FLATBUSH AVENUE & TILDEN AVENUE/REGENT PLACE													
Flatbush Avenue	NB	LTR	1.00	41.4	D	LTR	0.99	42.6	D	LTR	0.96	28.7	C
	SB	LTR	0.95	36.6	D	LTR	0.77	20.2	C	LTR	0.99	41.4	D
Tilden Avenue	WB	LTR	0.89	59.0	E	LTR	1.04	89.4	F	LTR	0.66	41.8	D
Overall Intersection	-		0.96	42.0	D	-	1.01	41.1	D	-	0.88	35.5	D
4 FLATBUSH AVENUE & BEVERLEY ROAD NORTH													
Flatbush Avenue	NB	LT	1.10	79.5	E	LT	1.04	60.2	E	LT	1.14	98.4	F
	SB	TR	0.55	14.9	B	TR	0.64	16.5	B	TR	0.63	16.3	B
Beverley Road North	EB	LR	0.85	42.6	D	LR	0.79	47.1	D	LR	0.91	50.7	D
Overall Intersection	-		1.02	51.9	D	-	0.96	40.4	D	-	1.07	60.3	E
5 FLATBUSH AVENUE & BEVERLEY ROAD SOUTH													
Flatbush Avenue	NB	TR	0.73	18.8	B	TR	0.64	16.8	B	TR	0.67	17.4	B
	SB	LT	0.87	29.0	C	LT	0.84	25.7	C	LT	0.92	33.4	C
Beverley Road South	WB	LR	0.76	40.4	D	LR	0.92	51.9	D	LR	0.61	39.3	D
Overall Intersection	-		0.83	25.4	C	-	0.87	26.1	C	-	0.81	26.4	C
6 FLATBUSH AVENUE & BEDFORD AVENUE/STEPHEN COURT													
Flatbush Avenue	NB	LTR	0.69	11.0	B	LTR	0.69	11.2	B	LTR	0.71	11.2	B
	SB	LTR	0.75	34.8	C	LTR	0.89	38.9	D	LTR	0.68	31.4	C
Bedford Avenue	WB	TR	0.72	55.4	E	TR	1.06	99.1	F	TR	0.79	53.5	D
Overall Intersection	-		0.80	24.6	C	-	0.96	35.6	D	-	0.79	23.3	C
7 FLATBUSH AVENUE & BEDFORD AVENUE/FOSTER AVENUE													
Flatbush Avenue	NB	LTR	1.17	115.6	F	LTR	1.07	76.0	E	LTR	1.11	90.5	F
	SB	LT	0.70	31.4	C	LT	0.94	44.0	D	LT	0.68	31.0	C
Bedford Avenue	NB	LR	0.54	45.4	D	LR	0.56	45.5	D	LR	0.80	57.6	E
	SB	LTR	0.13	5.7	A	LTR	0.23	6.3	A	LTR	0.19	6.1	A
Foster Avenue	EB	LTR	1.50	278.1	F	LTR	1.20	141.9	F	LTR	1.58	311.7	F
	WB	LTR	1.06	84.2	F	LTR	0.97	67.4	E	LTR	1.05	82.2	F
Overall Intersection	-		1.06	92.1	F	-	0.94	60.0	E	-	1.12	82.0	F

**TABLE D-3
KINGS THEATRE DEIS
2014 BUILD SATURDAY TRAFFIC LEVELS OF SERVICE**

INTERSECTION & APPROACH	Midday Arrival (1:00 - 2:00 PM)				Midday Departure (4:30 - 5:30 PM)				Evening Arrival (7:00 - 8:00 PM)				
	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
BEDFORD AVENUE													
8 BEDFORD AVENUE & LINDEN BOULEVARD/CATON AVENUE													
Bedford Avenue	NB	LTR	0.65	17.7	B	LTR	1.22	123.3	F	LTR	0.62	16.3	B
	SB	LTR	0.90	30.8	C	LTR	0.88	29.8	C	LTR	0.76	22.9	C
Linden Boulevard	EB	LTR	0.99	49.8	D	LTR	0.88	41.2	D	LTR	0.82	39.5	D
	WB	DefL	1.29	182.9	F	-	-	-	-	-	-	-	-
	TR		1.01	62.5	E	LTR	0.95	48.6	D	LTR	1.20	140.6	F
Overall Intersection	-		1.03	49.7	D	-	1.13	67.1	E	-	0.91	57.0	E
9 BEDFORD AVENUE & CHURCH AVENUE													
Bedford Avenue	NB	LTR	0.80	36.3	D	LTR	1.54	282.2	F	LTR	0.95	56.2	E
	SB	LTR	1.26	154.9	F	LTR	1.12	98.7	F	LTR	1.24	149.7	F
Church Avenue	EB	LTR	1.02	66.7	E	LTR	0.93	47.1	D	LTR	0.98	59.7	E
	WB	LTR	0.92	48.8	D	LTR	0.84	36.6	D	LTR	0.73	33.9	C
Overall Intersection	-		1.14	86.5	F	-	1.23	143.1	F	-	1.11	84.6	F
10 BEDFORD AVENUE & TILDEN AVENUE													
Bedford Avenue	NB	LT	0.77	21.7	C	LT	0.74	18.7	B	LT	0.71	18.9	B
	SB	TR	0.94	21.5	C	TR	0.86	17.7	B	TR	0.94	23.1	C
Tilden Avenue	EB	LR	1.50	287.0	F	LR	1.51	290.4	F	LR	1.21	169.7	F
	WB	LTR	0.79	50.4	D	LTR	0.82	51.5	D	LTR	0.83	51.8	D
Overall Intersection	-		1.10	64.9	E	-	1.04	60.6	E	-	1.02	45.8	D
11 BEDFORD AVENUE & BEVERLEY ROAD													
Bedford Avenue	NB	LTR	0.59	15.2	B	LTR	0.60	15.8	B	LTR	0.61	15.8	B
	SB	LTR	0.88	26.1	C	LTR	0.88	23.3	C	LTR	0.84	24.2	C
Beverley Road	EB	LTR	1.20	151.0	F	LTR	1.53	284.0	F	LTR	1.06	86.4	F
	WB	LTR	0.98	54.1	D	LTR	1.07	86.2	F	LTR	0.77	48.4	D
Overall Intersection	-		0.98	49.8	D	-	1.08	87.6	F	-	0.91	36.5	D
OCEAN AVENUE													
12 OCEAN AVENUE & CHURCH AVENUE													
Ocean Avenue	NB	L	0.37	24.7	C	L	0.53	29.8	C	L	0.29	22.5	C
	TR		0.60	27.2	C	TR	0.82	37.9	D	TR	0.61	27.5	C
	SB	LTR	0.70	29.8	C	LTR	0.69	29.2	C	LTR	0.76	31.7	C
Church Avenue	EB	LTR	1.12	108.2	F	LTR	0.66	29.5	C	LTR	0.79	35.0	D
	WB	LTR	1.05	69.7	E	LTR	0.68	26.9	C	LTR	0.74	27.5	C
Overall Intersection	-		0.88	59.1	E	-	0.75	31.2	C	-	0.78	30.4	C
13 OCEAN AVENUE & BEVERLEY ROAD													
Ocean Avenue	NB	LTR	0.69	18.0	B	LTR	0.69	18.5	B	LTR	0.59	15.6	B
	SB	LTR	0.66	16.0	B	LTR	0.61	15.1	B	LTR	0.62	15.0	B
Beverley Road	EB	LTR	1.14	108.3	F	LTR	1.31	192.4	F	LTR	1.29	177.8	F
	WB	LTR	0.76	49.8	D	LTR	0.85	56.3	E	LTR	0.95	68.7	E
Overall Intersection	-		0.83	42.2	D	-	0.88	63.0	E	-	0.83	63.2	E
UNSIGNALIZED INTERSECTIONS													
14 FLATBUSH AVENUE & DURYEA PLACE													
Flatbush Avenue	NB	TR	FREE	FLOW	A	TR	FREE	FLOW	A	TR	FREE	FLOW	A
	SB	LT	-		F	LT	-		F	LT	-		F
Overall Intersection	-		-	Note (3)	F	-	-	Note (3)	F	-	-	Note (3)	F

(1) Control delay is measured in seconds per vehicle.

(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3) Overall delay cannot be calculated since the delay for some movements is beyond the threshold delay of HCS methodology.

**TABLE D-4
KINGS THEATRE DEIS
2014 NO BUILD VS. BUILD TRAFFIC LEVELS OF SERVICE COMPARISON (MIDDAY ARRIVAL PEAK HOUR)**

INTERSECTION & APPROACH	2014 No Build				2014 Build				
	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
SIGNALIZED INTERSECTIONS									
FLATBUSH AVENUE									
1 FLATBUSH AVENUE & CATON AVENUE									
Flatbush Avenue	NB	LTR	0.55	17.5	B	LTR	0.58	18.0	B
	SB	LTR	0.58	19.1	B	LTR	0.88	32.7	C
Caton Avenue	EB	LTR	1.02	58.7	E	LTR	1.13	99.4	F
	WB	LTR	0.99	57.8	E	LTR	1.11	98.9	F
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	0.76	34.0	C	-	0.98	53.6	D	
2 FLATBUSH AVENUE & CHURCH AVENUE									
Flatbush Avenue	NB	L	0.40	23.5	C	L	0.52	29.9	C
		T	0.85	34.0	C	T	0.87	35.7	D
		R	0.65	32.3	C	R	0.65	32.3	C
	SB	L	0.61	34.7	C	L	0.73	44.6	D
		T	0.70	26.7	C	T	0.87	35.1	D
		R	0.51	25.6	C	R	0.54	26.7	C
Church Avenue	EB	LT	0.96	69.3	E	LT	1.03	86.5	F
		R	0.54	45.6	D	R	0.72	56.1	E
	WB	LT	0.93	64.5	E	LT	1.11	115.5	F
		R	0.57	46.7	D	R	0.57	46.7	D
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	0.89	41.3	D	-	0.96	52.6	D	
3 FLATBUSH AVENUE & TILDEN AVENUE/REGENT PLACE									
Flatbush Avenue	NB	LTR	0.70	17.3	B	LTR	1.00	41.4	D
	SB	LTR	0.61	16.1	B	LTR	0.95	36.6	D
Tilden Avenue	WB	LTR	0.64	41.4	D	LTR	0.89	59.0	E
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	0.68	19.7	B	-	0.96	42.0	D	
4 FLATBUSH AVENUE & BEVERLEY ROAD NORTH									
Flatbush Avenue	NB	LT	0.91	30.6	C	LT	1.10	79.5	E
	SB	TR	0.47	13.6	B	TR	0.55	14.9	B
Beverley Road North	EB	LR	0.58	35.8	D	LR	0.85	42.6	D
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	0.80	25.3	C	-	1.02	51.9	D	
5 FLATBUSH AVENUE & BEVERLEY ROAD SOUTH									
Flatbush Avenue	NB	TR	0.62	16.3	B	TR	0.73	18.8	B
	SB	LT	0.58	16.1	B	LT	0.87	29.0	C
Beverley Road South	WB	LR	0.71	39.1	D	LR	0.76	40.4	D
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	0.65	19.5	B	-	0.83	25.4	C	
6 FLATBUSH AVENUE & BEDFORD AVENUE/STEPHEN COURT									
Flatbush Avenue	NB	LTR	0.53	8.8	A	LTR	0.69	11.0	B
	SB	LTR	0.73	33.9	C	LTR	0.75	34.8	C
Bedford Avenue	WB	TR	0.66	52.1	D	TR	0.72	55.4	E
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	0.78	24.1	C	-	0.80	24.6	C	
7 FLATBUSH AVENUE & BEDFORD AVENUE/FOSTER AVENUE									
Flatbush Avenue	NB	LTR	0.98	46.0	D	LTR	1.17	115.6	F
	SB	LT	0.67	30.6	C	LT	0.70	31.4	C
Bedford Avenue	NB	LR	0.46	42.5	D	LR	0.54	45.4	D
	SB	LTR	0.12	5.7	A	LTR	0.13	5.7	A
Foster Avenue	EB	LTR	0.98	69.8	E	LTR	1.50	278.1	F
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	WB	LTR	1.05	81.0	F	LTR	1.06	84.2	F
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	0.84	44.4	D	-	1.06	92.1	F	

**TABLE D-4
KINGS THEATRE DEIS
2014 NO BUILD VS. BUILD TRAFFIC LEVELS OF SERVICE COMPARISON (MIDDAY ARRIVAL PEAK HOUR)**

INTERSECTION & APPROACH	2014 No Build				2014 Build				
	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
BEDFORD AVENUE									
8 BEDFORD AVENUE & LINDEN BOULEVARD/CATON AVENUE									
Bedford Avenue	NB	LTR	0.61	16.6	B	LTR	0.65	17.7	B
	SB	LTR	0.81	24.2	C	LTR	0.90	30.8	C
Linden Boulevard	EB	LTR	0.91	42.5	D	LTR	0.99	49.8	D
	WB	LTR	0.93	46.5	D	DefL	1.29	182.9	F
	-	-	-	-	-	TR	1.01	62.5	E
Overall Intersection	-	0.85	32.8	C	-	1.03	49.7	D	
9 BEDFORD AVENUE & CHURCH AVENUE									
Bedford Avenue	NB	LTR	0.74	33.0	C	LTR	0.80	36.3	D
	SB	LTR	0.95	48.0	D	LTR	1.26	154.9	F
Church Avenue	EB	LTR	0.93	47.7	D	LTR	1.02	66.7	E
	-	-	-	-	-	-	-	-	-
	WB	LTR	0.72	31.3	C	LTR	0.92	48.8	D
Overall Intersection	-	0.94	40.9	D	-	1.14	86.5	F	
10 BEDFORD AVENUE & TILDEN AVENUE									
Bedford Avenue	NB	LT	0.47	12.2	B	LT	0.77	21.7	C
	SB	TR	0.66	13.3	B	TR	0.94	21.5	C
Tilden Avenue	EB	LR	0.92	82.9	F	LR	1.50	287.0	F
	-	-	-	-	-	-	-	-	-
	WB	LTR	0.79	49.9	D	LTR	0.79	50.4	D
Overall Intersection	-	0.74	28.4	C	-	1.10	64.9	E	
11 BEDFORD AVENUE & BEVERLEY ROAD									
Bedford Avenue	NB	LTR	0.40	11.7	B	LTR	0.59	15.2	B
	SB	LTR	0.67	15.9	B	LTR	0.88	26.1	C
Beverley Road	EB	LTR	0.79	49.3	D	LTR	1.20	151.0	F
	-	-	-	-	-	-	-	-	-
	WB	LTR	0.88	45.0	D	LTR	0.98	54.1	D
Overall Intersection	-	0.73	26.2	C	-	0.98	49.8	D	
OCEAN AVENUE									
12 OCEAN AVENUE & CHURCH AVENUE									
Ocean Avenue	NB	L	0.34	23.9	C	L	0.37	24.7	C
	-	-	-	-	-	TR	0.60	27.2	C
	SB	LTR	0.69	29.4	C	LTR	0.70	29.8	C
Church Avenue	EB	LTR	1.01	71.8	E	LTR	1.12	108.2	F
	WB	LTR	1.00	53.7	D	LTR	1.05	69.7	E
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	0.84	45.0	D	-	0.88	59.1	E	
13 OCEAN AVENUE & BEVERLEY ROAD									
Ocean Avenue	NB	LTR	0.58	15.0	B	LTR	0.69	18.0	B
	SB	LTR	0.58	14.3	B	LTR	0.66	16.0	B
Beverley Road	EB	LTR	0.92	46.5	D	LTR	1.14	108.3	F
	-	-	-	-	-	-	-	-	-
	WB	LTR	0.58	41.6	D	LTR	0.76	49.8	D
Overall Intersection	-	0.69	25.3	C	-	0.83	42.2	D	
UNSIGNALIZED INTERSECTIONS									
14 FLATBUSH AVENUE & DURYEY PLACE									
	NB	TR	FREE	FLOW	A	TR	FREE	FLOW	A
	SB	LT	-	20.2	C	LT	-	-	F
Overall Intersection	-	-	0.4	A	-	-	Note (3)	F	

(1) Control delay is measured in seconds per vehicle.

(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3) Overall delay cannot be calculated since the delay for some movements is beyond the threshold delay of HCS methodology.

Denotes a significant impact

**TABLE D-5
KINGS THEATRE DEIS
2014 NO BUILD VS. BUILD TRAFFIC LEVELS OF SERVICE COMPARISON (MIDDAY DEPARTURE PEAK HOUR)**

INTERSECTION & APPROACH	2014 No Build				2014 Build				
	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
SIGNALIZED INTERSECTIONS									
FLATBUSH AVENUE									
1 FLATBUSH AVENUE & CATON AVENUE									
Flatbush Avenue	NB	LTR	0.55	17.5	B	LTR	0.63	19.0	B
	SB	LTR	0.69	21.5	C	LTR	0.75	23.5	C
Caton Avenue	EB	LTR	0.99	48.7	D	LTR	1.12	95.1	F
	-	-	-	-	-	-	-	-	-
	WB	LTR	1.01	62.9	E	LTR	1.32	186.5	F
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	-	0.82	33.7	C	-	0.97	70.3	E
2 FLATBUSH AVENUE & CHURCH AVENUE									
Flatbush Avenue	NB	L	0.51	26.2	C	L	0.68	36.2	D
	T		0.85	32.0	C	T	0.96	44.1	D
	R		0.65	30.1	C	R	0.65	30.1	C
	SB	L	0.91	62.8	E	L	1.23	169.5	F
	T		0.79	28.7	C	T	0.88	33.4	C
	R		0.58	26.6	C	R	0.58	26.6	C
Church Avenue	EB	LT	0.91	64.0	E	LT	1.19	149.2	F
	R		0.45	45.9	D	R	0.58	51.9	D
	WB	LT	0.95	60.5	E	LT	1.17	128.8	F
	R		0.62	47.6	D	R	0.62	47.6	D
Overall Intersection	-	-	0.94	40.7	D	-	1.23	69.1	E
3 FLATBUSH AVENUE & TILDEN AVENUE/REGENT PLACE									
Flatbush Avenue	NB	LTR	0.71	18.0	B	LTR	0.99	42.6	D
	SB	LTR	0.69	17.8	B	LTR	0.77	20.2	C
Tilden Avenue	WB	LTR	0.76	45.8	D	LTR	1.04	89.4	F
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	-	0.72	21.7	C	-	1.01	41.1	D
4 FLATBUSH AVENUE & BEVERLEY ROAD NORTH									
Flatbush Avenue	NB	LT	0.84	24.5	C	LT	1.04	60.2	E
	SB	TR	0.53	14.4	B	TR	0.64	16.5	B
Beverley Road North	EB	LR	0.56	37.8	D	LR	0.79	47.1	D
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	-	0.74	21.9	C	-	0.96	40.4	D
5 FLATBUSH AVENUE & BEVERLEY ROAD SOUTH									
Flatbush Avenue	NB	TR	0.60	15.9	B	TR	0.64	16.8	B
	SB	LT	0.61	16.6	B	LT	0.84	25.7	C
Beverley Road South	WB	LR	0.71	40.2	D	LR	0.92	51.9	D
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	-	0.65	19.7	B	-	0.87	26.1	C
6 FLATBUSH AVENUE & BEDFORD AVENUE/STEPHEN COURT									
Flatbush Avenue	NB	LTR	0.63	10.3	B	LTR	0.69	11.2	B
	SB	LTR	0.74	32.4	C	LTR	0.89	38.9	D
Bedford Avenue	WB	TR	0.76	51.4	D	TR	1.06	99.1	F
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	-	0.81	23.8	C	-	0.96	35.6	D
7 FLATBUSH AVENUE & BEDFORD AVENUE/FOSTER AVENUE									
Flatbush Avenue	NB	LTR	0.93	41.2	D	LTR	1.07	76.0	E
	SB	LT	0.76	33.1	C	LT	0.94	44.0	D
Bedford Avenue	NB	LR	0.53	44.3	D	LR	0.56	45.5	D
	SB	LTR	0.15	5.9	A	LTR	0.23	6.3	A
Foster Avenue	EB	LTR	1.04	80.8	F	LTR	1.20	141.9	F
	-	-	-	-	-	-	-	-	-
	WB	LTR	0.96	66.7	E	LTR	0.97	67.4	E
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	-	0.84	41.7	D	-	0.94	60.0	E

**TABLE D-5
KINGS THEATRE DEIS
2014 NO BUILD VS. BUILD TRAFFIC LEVELS OF SERVICE COMPARISON (MIDDAY DEPARTURE PEAK HOUR)**

INTERSECTION & APPROACH	2014 No Build				2014 Build				
	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
BEDFORD AVENUE									
8 BEDFORD AVENUE & LINDEN BOULEVARD/CATON AVENUE									
Bedford Avenue	NB	LTR	0.66	15.9	B	LTR	1.22	123.3	F
	SB	LTR	0.79	23.0	C	LTR	0.88	29.8	C
Linden Boulevard	EB	LTR	0.87	40.8	D	LTR	0.88	41.2	D
	WB	LTR	0.92	46.0	D	LTR	0.95	48.6	D
Overall Intersection	-	-	0.83	31.6	C	-	1.13	67.1	E
9 BEDFORD AVENUE & CHURCH AVENUE									
Bedford Avenue	NB	LTR	0.91	45.6	D	LTR	1.54	282.2	F
	SB	LTR	1.00	59.9	E	LTR	1.12	98.7	F
Church Avenue	EB	LTR	0.92	46.8	D	LTR	0.93	47.1	D
	-	-	-	-	-	-	-	-	-
	WB	LTR	0.83	35.9	D	LTR	0.84	36.6	D
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	-	0.96	47.8	D	-	1.23	143.1	F
10 BEDFORD AVENUE & TILDEN AVENUE									
Bedford Avenue	NB	LT	0.56	13.8	B	LT	0.74	18.7	B
	SB	TR	0.85	17.4	B	TR	0.86	17.7	B
Tilden Avenue	EB	LR	0.76	56.7	E	LR	1.51	290.4	F
	-	-	-	-	-	-	-	-	-
	WB	LTR	0.82	51.1	D	LTR	0.82	51.5	D
Overall Intersection	-	-	0.84	26.4	C	-	1.04	60.6	E
11 BEDFORD AVENUE & BEVERLEY ROAD									
Bedford Avenue	NB	LTR	0.47	12.7	B	LTR	0.60	15.8	B
	SB	LTR	0.74	16.9	B	LTR	0.88	23.3	C
Beverley Road	EB	LTR	0.94	48.4	D	LTR	1.53	284.0	F
	-	-	-	-	-	-	-	-	-
	WB	LTR	0.99	61.9	E	LTR	1.07	86.2	F
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	-	0.81	30.4	C	-	1.08	87.6	F
OCEAN AVENUE									
12 OCEAN AVENUE & CHURCH AVENUE									
Ocean Avenue	NB	L	0.38	24.9	C	L	0.53	29.8	C
	-	-	-	-	-	-	-	-	-
	TR	-	0.71	31.3	C	TR	0.82	37.9	D
	SB	LTR	0.69	29.1	C	LTR	0.69	29.2	C
Church Avenue	EB	LTR	0.63	28.9	C	LTR	0.66	29.5	C
	WB	LTR	0.65	26.1	C	LTR	0.68	26.9	C
Overall Intersection	-	-	0.68	28.7	C	-	0.75	31.2	C
13 OCEAN AVENUE & BEVERLEY ROAD									
Ocean Avenue	NB	LTR	0.53	14.2	B	LTR	0.69	18.5	B
	SB	LTR	0.56	14.1	B	LTR	0.61	15.1	B
Beverley Road	EB	LTR	0.89	53.5	D	LTR	1.31	192.4	F
	-	-	-	-	-	-	-	-	-
	WB	LTR	0.62	42.5	D	LTR	0.85	56.3	E
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	-	0.66	26.8	C	-	0.88	63.0	E
UNSIGNALIZED INTERSECTIONS									
14 FLATBUSH AVENUE & DURYEY PLACE									
Flatbush Avenue	NB	TR	FREE	FLOW	A	TR	FREE	FLOW	A
	SB	LT	-	17.9	C	LT	-	-	F
Overall Intersection	-	-	-	0.4	A	-	-	Note (3)	F

(1) Control delay is measured in seconds per vehicle.

(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3) Overall delay cannot be calculated since the delay for some movements is beyond the threshold delay of HCS methodology.

Denotes a significant impact

**TABLE D-6
KINGS THEATRE DEIS
2014 NO BUILD VS. BUILD TRAFFIC LEVELS OF SERVICE COMPARISON (EVENING ARRIVAL PEAK HOUR)**

INTERSECTION & APPROACH	2014 No Build				2014 Build				
	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
SIGNALIZED INTERSECTIONS									
FLATBUSH AVENUE									
1 FLATBUSH AVENUE & CATON AVENUE									
Flatbush Avenue	NB	LTR	0.58	18.0	B	LTR	0.61	18.5	B
	SB	LTR	0.62	19.7	B	LTR	0.89	32.7	C
Caton Avenue	EB	LTR	1.01	53.9	D	LTR	1.11	93.6	F
	-	-	-	-	-	-	-	-	-
	WB	LTR	0.93	51.0	D	LTR	1.05	80.5	F
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	-	0.77	31.4	C	-	0.98	48.2	D
2 FLATBUSH AVENUE & CHURCH AVENUE									
Flatbush Avenue	NB	L	0.66	38.7	D	L	0.98	102.8	F
	T		0.85	34.7	C	T	0.87	36.4	D
	R		0.60	30.7	C	R	0.60	30.7	C
	SB	L	0.66	36.6	D	L	0.70	41.2	D
	T		0.80	30.5	C	T	0.97	47.3	D
	R		0.49	24.6	C	R	0.50	25.0	C
Church Avenue	EB	LT	0.87	56.9	E	LT	0.94	68.7	E
	R		0.43	46.7	D	R	0.65	57.8	E
	WB	LT	1.04	98.1	F	LT	1.23	169.3	F
	R		0.55	47.2	D	R	0.55	47.2	D
Overall Intersection	-	-	0.91	43.9	D	-	1.08	60.6	E
3 FLATBUSH AVENUE & TILDEN AVENUE/REGENT PLACE									
Flatbush Avenue	NB	LTR	0.64	15.6	B	LTR	0.96	28.7	C
	SB	LTR	0.61	15.7	B	LTR	0.99	41.4	D
Tilden Avenue	WB	LTR	0.55	38.3	D	LTR	0.66	41.8	D
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	-	0.61	18.0	B	-	0.88	35.5	D
4 FLATBUSH AVENUE & BEVERLEY ROAD NORTH									
Flatbush Avenue	NB	LT	0.99	46.3	D	LT	1.14	98.4	F
	SB	TR	0.54	14.8	B	TR	0.63	16.3	B
Beverley Road North	EB	LR	0.60	37.1	D	LR	0.91	50.7	D
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	-	0.86	33.0	C	-	1.07	60.3	E
5 FLATBUSH AVENUE & BEVERLEY ROAD SOUTH									
Flatbush Avenue	NB	TR	0.57	15.3	B	TR	0.67	17.4	B
	SB	LT	0.65	17.3	B	LT	0.92	33.4	C
Beverley Road South	WB	LR	0.59	38.7	D	LR	0.61	39.3	D
Overall Intersection	-	-	0.63	19.1	B	-	0.81	26.4	C
6 FLATBUSH AVENUE & BEDFORD AVENUE/STEPHEN COURT									
Flatbush Avenue	NB	LTR	0.55	9.0	A	LTR	0.71	11.2	B
	SB	LTR	0.67	31.1	C	LTR	0.68	31.4	C
Bedford Avenue	WB	TR	0.72	50.5	D	TR	0.79	53.5	D
Overall Intersection	-	-	0.76	22.7	C	-	0.79	23.3	C
7 FLATBUSH AVENUE & BEDFORD AVENUE/FOSTER AVENUE									
Flatbush Avenue	NB	LTR	0.94	41.4	D	LTR	1.11	90.5	F
	SB	LT	0.65	30.3	C	LT	0.68	31.0	C
Bedford Avenue	NB	LR	0.72	51.4	D	LR	0.80	57.6	E
	SB	LTR	0.18	6.1	A	LTR	0.19	6.1	A
Foster Avenue	EB	LTR	0.93	55.7	E	LTR	1.58	311.7	F
	-	-	-	-	-	-	-	-	-
	WB	LTR	1.04	77.8	E	LTR	1.05	82.2	F
	-	-	-	-	-	-	-	-	-
Overall Intersection	-	-	0.89	40.7	D	-	1.12	82.0	F

**TABLE D-6
KINGS THEATRE DEIS
2014 NO BUILD VS. BUILD TRAFFIC LEVELS OF SERVICE COMPARISON (EVENING ARRIVAL PEAK HOUR)**

INTERSECTION & APPROACH	2014 No Build				2014 Build				
	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
BEDFORD AVENUE									
8 BEDFORD AVENUE & LINDEN BOULEVARD/CATON AVENUE									
Bedford Avenue	NB	LTR	0.58	15.6	B	LTR	0.62	16.3	B
	SB	LTR	0.68	19.5	B	LTR	0.76	22.9	C
Linden Boulevard	EB	LTR	0.67	36.5	D	LTR	0.82	39.5	D
	WB	LTR	0.87	46.0	D	LTR	1.20	140.6	F
Overall Intersection	-	0.74	30.1	C	-	0.91	57.0	E	
9 BEDFORD AVENUE & CHURCH AVENUE									
Bedford Avenue	NB	LTR	0.87	43.2	D	LTR	0.95	56.2	E
	SB	LTR	0.92	48.2	D	LTR	1.24	149.7	F
Church Avenue	EB	LTR	0.90	45.8	D	LTR	0.98	59.7	E
	WB	LTR	0.58	27.5	C	LTR	0.73	33.9	C
Overall Intersection	-	0.91	42.5	D	-	1.11	84.6	F	
10 BEDFORD AVENUE & TILDEN AVENUE									
Bedford Avenue	NB	LT	0.48	12.3	B	LT	0.71	18.9	B
	SB	TR	0.60	12.6	B	TR	0.94	23.1	C
Tilden Avenue	EB	LR	0.79	63.5	E	LR	1.21	169.7	F
	WB	LTR	0.83	51.4	D	LTR	0.83	51.8	D
Overall Intersection	-	0.67	26.7	C	-	1.02	45.8	D	
11 BEDFORD AVENUE & BEVERLEY ROAD									
Bedford Avenue	NB	LTR	0.41	11.9	B	LTR	0.61	15.8	B
	SB	LTR	0.72	18.0	B	LTR	0.84	24.2	C
Beverley Road	EB	LTR	0.80	45.1	D	LTR	1.06	86.4	F
	WB	LTR	0.71	45.3	D	LTR	0.77	48.4	D
Overall Intersection	-	0.74	26.4	C	-	0.91	36.5	D	
OCEAN AVENUE									
12 OCEAN AVENUE & CHURCH AVENUE									
Ocean Avenue	NB	L	0.26	22.0	C	L	0.29	22.5	C
	SB	LTR	0.74	30.9	C	LTR	0.76	31.7	C
Church Avenue	EB	LTR	0.69	30.3	C	LTR	0.79	35.0	D
	WB	LTR	0.71	26.8	C	LTR	0.74	27.5	C
Overall Intersection	-	0.73	28.6	C	-	0.78	30.4	C	
13 OCEAN AVENUE & BEVERLEY ROAD									
Ocean Avenue	NB	LTR	0.52	13.9	B	LTR	0.59	15.6	B
	SB	LTR	0.57	14.1	B	LTR	0.62	15.0	B
Beverley Road	EB	LTR	1.08	84.2	F	LTR	1.29	177.8	F
	WB	LTR	0.77	48.1	D	LTR	0.95	68.7	E
Overall Intersection	-	0.73	35.6	D	-	0.83	63.2	E	
UNSIGNALIZED INTERSECTIONS									
14 FLATBUSH AVENUE & DURYEY PLACE									
Flatbush Avenue	NB	TR	FREE	FLOW	A	TR	FREE	FLOW	A
	SB	LT	-	16.4	C	LT	-	-	F
Overall Intersection	-	-	0.3	A	-	-	Note (3)	F	

(1) Control delay is measured in seconds per vehicle.

(2) Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3) Overall delay cannot be calculated since the delay for some movements is beyond the threshold delay of HCS methodology.

Denotes a significant impact

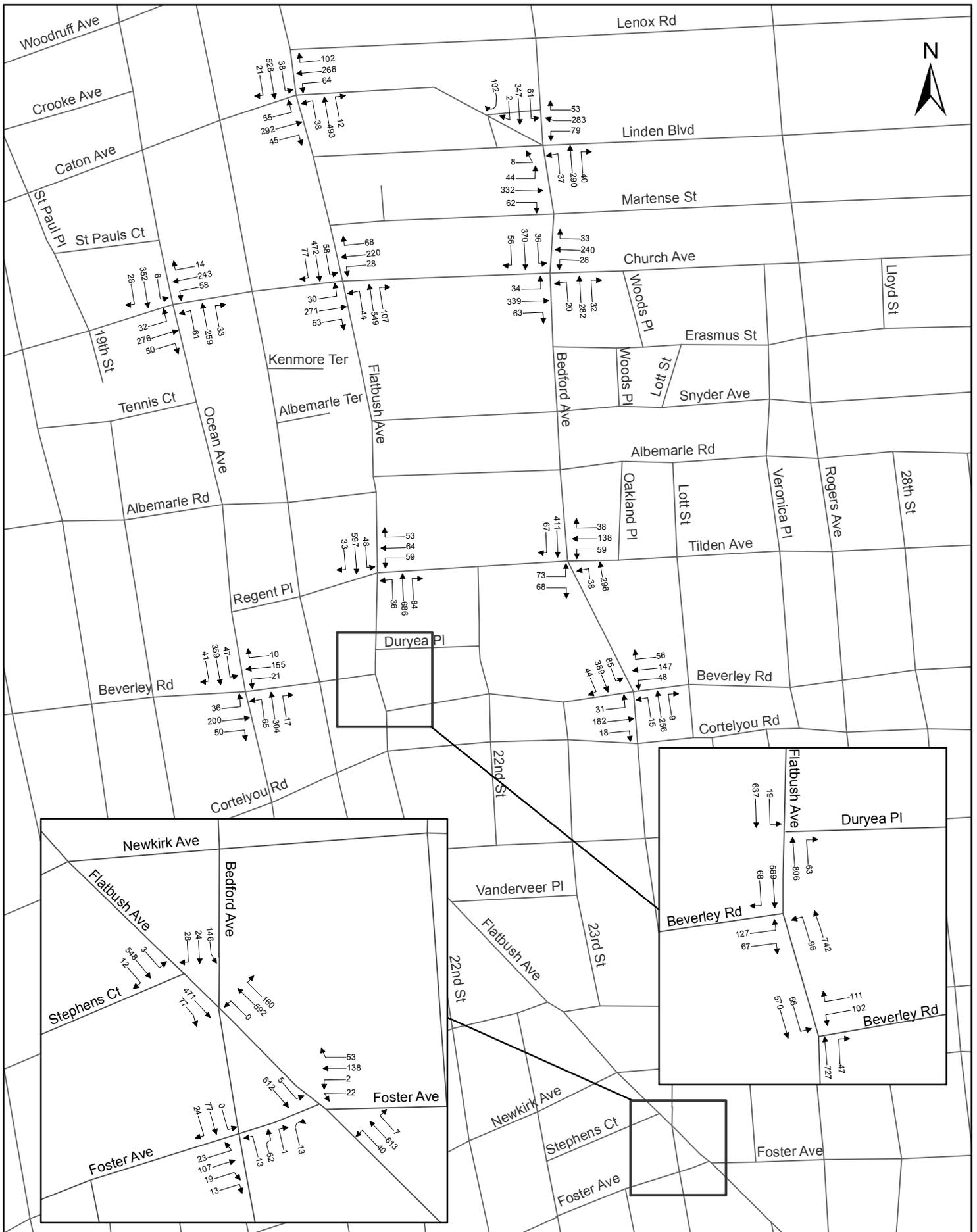


Figure 6-1
2010 Existing Traffic Volumes
Saturday Midday Arrival Peak Hour
Kings Theatre EIS

