

A. INTRODUCTION

As described in Chapter 1, “Project Description,” the New York City School Construction Authority (SCA) proposes to convert a former courthouse into a 1,075-seat school facility in Downtown Brooklyn. The facility would accommodate general high school and special education students. The facility would be located on a block bounded by Johnson Street to the north, Jay Street to the east, Willoughby Street to the south, and Adams Street to the west. The proposed project is expected to be ready for occupancy in 2008. Potential impacts resulting from the proposed project on transit and pedestrian facilities in the vicinity of the project area were evaluated. Based on travel demand estimates, the proposed project is not expected to exceed the thresholds for transit analyses. Therefore, this chapter includes a qualitative transit assessment and a quantitative pedestrian assessment of the critical elements within the study area with a determination of significant adverse pedestrian impacts that require mitigation.

The analysis results show that new trips associated with the proposed project would not result in any significant pedestrian impacts at any analysis location.

B. METHODOLOGY

As described in Chapter 6, “Traffic and Parking,” a travel demand projection was developed to identify the transportation elements likely to be affected by the proposed project. Based on criteria specified in the 2001 *City Environmental Quality Review (CEQR) Technical Manual*, it was determined that a quantified assessment of pedestrian circulation was required. Since the estimated trips generated by the proposed project would not exceed impact thresholds for transit station operations, subway line-haul or bus line-haul, these elements were not analyzed.

PEDESTRIAN OPERATIONS

The adequacy of the study area’s sidewalks, crosswalks, and corner reservoir capacities in relation to the demand imposed on them was assessed using the methodologies presented in the *CEQR Technical Manual (December 2000)* and the *Highway Capacity Manual (HCM) Special Report 209 (Transportation Research Board, 1994)*. Sidewalks were analyzed in terms of pedestrian flow. The calculation of the average pedestrians per foot per minute (PFM) of effective walkway width is the basis for LOS analysis. However, due to the tendency of pedestrians to move in congregated groups, a platoon factor (+4 PFM) is applied in the calculation of pedestrian flow to more accurately estimate the dynamics of walking. This procedure generally results in a LOS one level poorer than the average flow.

Crosswalks and street corners are not easily measured in terms of free pedestrian flow, as they are influenced by the effects of traffic signals. Street corners must be able to provide sufficient space for a mix of standing pedestrians (queued to cross a street) and circulating pedestrians (crossing the street or moving around at the corner). The HCM methodologies apply a measure

of time and space availability based on the area of the corner, the timing of the intersection signal, and the estimated space used by circulating pedestrians.

The total “time-space” available for these activities is the net area of the corner (in square feet) multiplied by the cycle length, which is expressed in square feet per minute. The analysis then determines the total circulation time for all pedestrian movements at the corner (expressed as pedestrians per minute). The ratio of net time-space divided by pedestrian circulation time provides the LOS measurement of square feet per pedestrian (SFP).

Crosswalk LOS is also a function of time and space. Similar to the street corner analysis, crosswalk conditions are first expressed as a measurement of the available area (the crosswalk width multiplied by the width of the street) and the permitted crossing time. This measure is expressed in square feet per minute. The average time required for a pedestrian to cross the street is calculated based on the width of the street and an assumed walking speed. The ratio of time-space available in the crosswalk to the average crossing time is the LOS measurement of available square feet per pedestrian. The LOS analysis also accounts for vehicular turning movements that traverse the crosswalk. Additionally, in the first seconds of the “walk” cycle, the initial movements of pedestrians queued to cross the street create a surge effect. To account for this effect, the LOS analysis incorporates a “surge” factor to estimate worst-case conditions.

Table 7-1 shows the LOS standards¹ for sidewalks, corner reservoirs, and crosswalks. The description of these LOS is similar to those described above for subway station elements.

**Table 7-1
Level of Service Criteria for Pedestrian Elements**

LOS	Sidewalks	Corner Reservoirs and Crosswalks
A	5 PFM or less	60 SFP or More
B	5 to 7 PFM	40 to 60 SFP
C	7 to 10 PFM	24 to 40 SFP
D	10 to 15 PFM	15 to 24 SFP
E	15 to 23 PFM	8 to 15 SFP
F	More than 23 PFM	Less than 8 SFP

Notes:
 PFM = pedestrians per foot per minute.
 SFP = square feet per pedestrian.
Source: New York City Mayor’s Office of Environmental Coordination, City Environmental Quality Review Technical Manual (December 2001).

The *CEQR Technical Manual* specifies that a mid-LOS D condition or better is considered reasonable for sidewalks, corner reservoirs, and crosswalks outside of the Manhattan Central Business District (CBD). For crosswalks and corner reservoirs, a mid-LOS D condition requires a minimum of 20 SFP, while for sidewalks; a mid-LOS D condition requires a maximum of 13 PFM.

¹ The 1985 HCM provides different thresholds for LOS determination than the 2001 *CEQR Technical Manual*. The reported LOS results in this chapter are based on the latest CEQR LOS criteria, as defined in Table 7-2, which may differ from those determined in the HCS analysis outputs.

For areas akin to the study area, project-related sidewalk impacts are considered significant and require examination of mitigation if there is an increase of 2 PFM over No Build conditions that are characterized by flow rates greater than 13 PFM (mid-LOS D). For corners and crosswalks, a decrease of 1 SFP under the Build condition when the No Build condition has an average occupancy of less than 20 SFP (mid-LOS D) is considered significant. However, if there is less than a 200-person increase at a location within the peak hour, any impact is not considered significant since such increases would not typically be perceptible.

C. EXISTING CONDITIONS

Existing transit and pedestrian levels are based on field surveys conducted during in September 2005. Given that the proposed project would be a school facility, the peak analysis periods of 8 to 9 AM and 2 to 3 PM were selected to represent the hours in which peak trip generation is expected to occur.

TRANSIT STUDY AREA

The project site is located in an area served by several subway and bus routes. A description of each of these transit modes and how they would be affected by trips associated with the proposed project is provided below.

SUBWAY SERVICE

Based on the travel demand estimates detailed in Chapter 6, “Traffic and Parking,” it was determined that approximately 559-project generated subway trips are expected to result from the proposed project spread across several station elements at seven nearby stations. As specified by the *CEQR Technical Manual*, if the proposed project is considered unlikely to create any noticeable constraints on any subway station elements or to produce a significant transit impact a quantitative analysis is not required. Consequently, the proposed project is not expected to create any operational constraints on transit and the following section provides a qualitative discussion of the subway services in the study area.

Seven NYCT subway stations are situated in close proximity to the west, south and east of the project site, as shown in Figure 7-1. These stations are the Jay Street station (A/C/F), The Court Street station (M/R), The Borough Hall station (2/3/4/5), Hoyt Street station (2/3), Nevins Street station (2/3/4/5), and the Dekalb Avenue station (B/M/Q/R), respectively.

2 Subway Line:

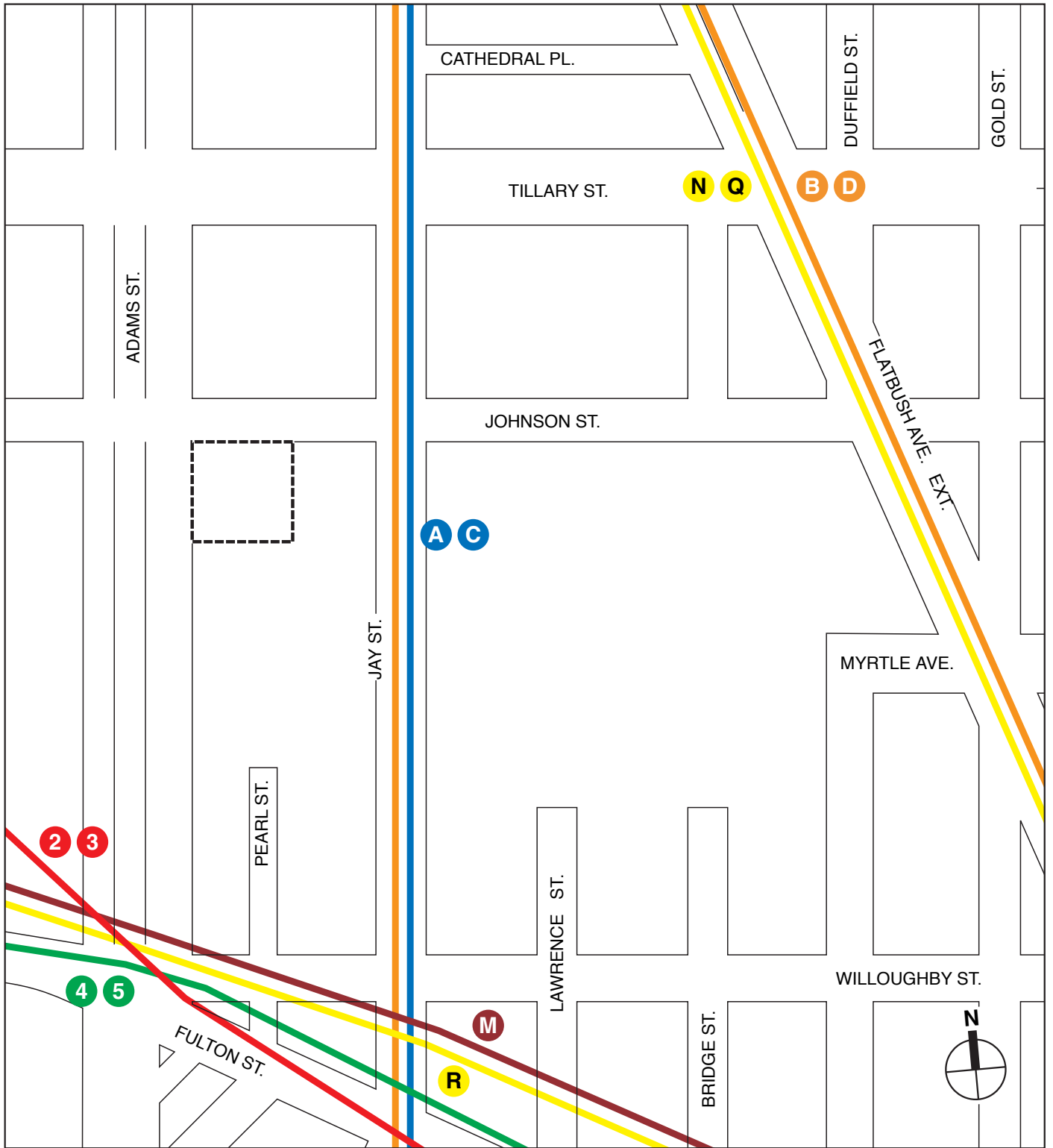
- The #2 train operates express service primarily along Seventh Avenue in Manhattan. Its full route is between Wakefield in the Bronx and Flatbush Avenue in Brooklyn.

3 Subway Line:

- The #3 train operates express service primarily along Seventh Avenue in Manhattan. Its full route is between Harlem in the Manhattan and New Lots Avenue in Brooklyn.

4 Subway Line:

- The #4 train operates express service primarily along Lexington and Park Avenues in Manhattan. Its full route is between Woodlawn in the Bronx and Crown Heights in Brooklyn.



----- Project Site Boundary

0 200 400 FEET
SCALE

Adams Street High School

5 Subway Line:

- The #5 train operates express service primarily along Lexington and Park Avenues in Manhattan. Its full route is between Eastchester in the Bronx and Flatbush Avenue in Brooklyn.

A Subway Line:

- The A train provides weekday service between 207th Street in the Manhattan and Rockaway Park in Queens. Within Manhattan, the route operates primarily along Eighth Avenue.

B Subway Line:

- The B train provides weekday service between Bedford Park Boulevard in the Bronx and Brighton Beach in Brooklyn. Within Manhattan, the route operates primarily along Sixth Avenue.

C Subway Line:

- The C train provides weekday service between Washington Heights in the Manhattan and Euclid Avenue in Brooklyn. Within Manhattan, the route operates primarily along Eighth Avenue.

M Subway Line:

- The M train operates local service primarily along Nassau Street in Brooklyn. The M train provides weekday service between Bay Parkway in Brooklyn and Metropolitan Avenue in Queens.

Q Subway Line:

- The Q train provides weekday service between 57th Street in Manhattan and Stillwell Avenue in Brooklyn. Within Manhattan, the route operates primarily along Broadway.

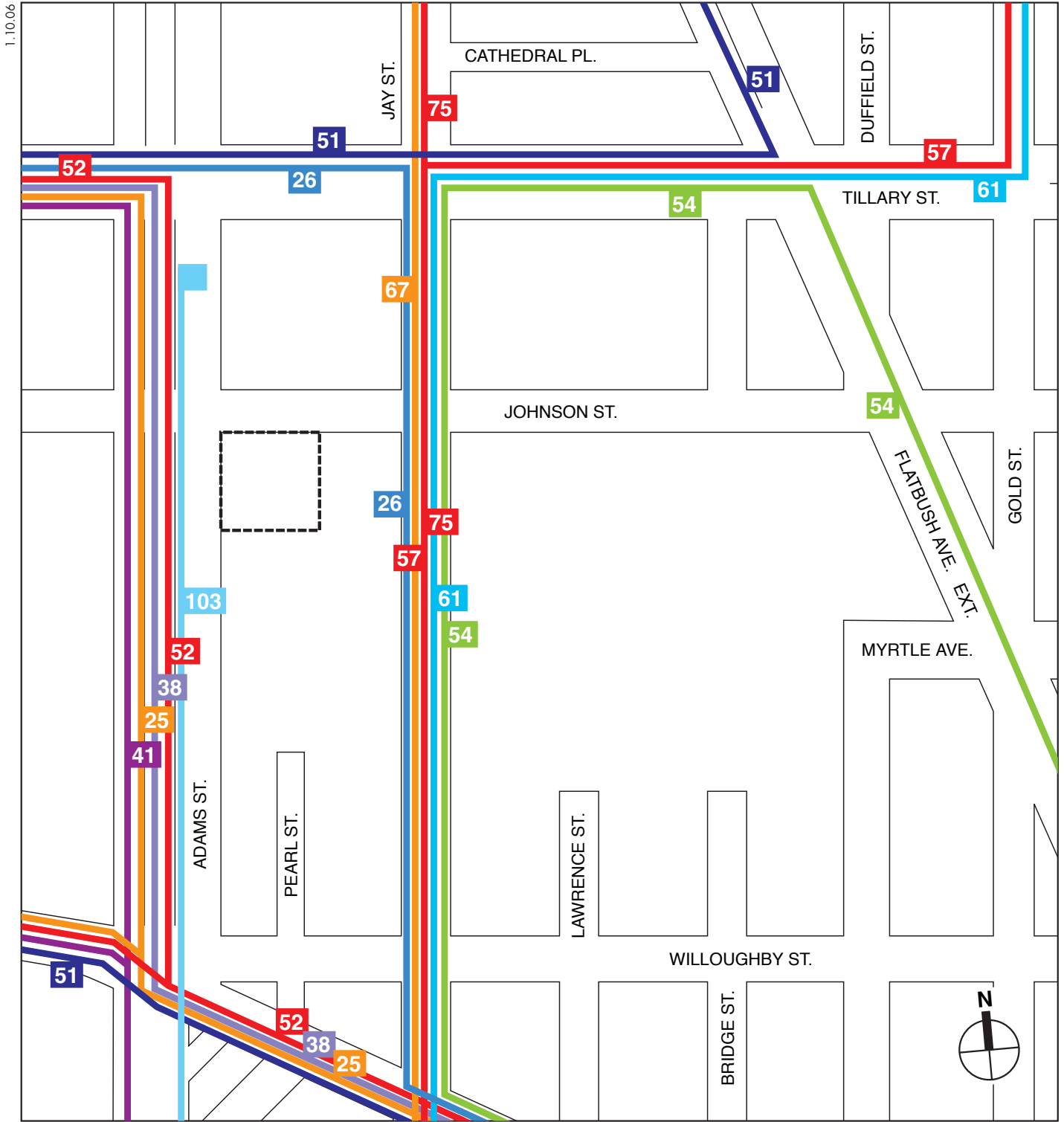
R Subway Line:

- The R train provides weekday service between Forest Hills in Queens and Bay Ridge in Brooklyn. Within Manhattan, the route operates primarily along Broadway.

BUS SERVICE

Based on the travel demand estimates detailed in Chapter 6, “Traffic and Parking,” it was determined that the fewer than 186-project generated bus trips would be distributed along twelve bus routes. Consequently, it is expected that the project would not create a noticeable constraint on bus capacity and a quantitative analysis is not required. The following section provides a qualitative discussion of publicly-operated local bus routes serving the study area.

The local bus routes operated by NYCT, which provide regular service to the study area, are shown in Figure 7-2. The majority of the routes use standard buses with a guideline capacity of 70 passengers per bus. Table 7-2 provides a summary of the NYCT local bus routes and their weekday frequencies of operation.



----- Project Site Boundary

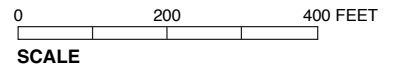


Table 7-2
NYCT Local Bus Routes Serving Lower Manhattan

Bus Route	Start Point	End Point	Routing	Freq. of Bus Service (Headway in Minutes)			
				AM	Midday	PM	Evening/Saturday
B25	East New York	Fulton Landing	via Fulton Street	10	10	10	8
B26	Ridgewood	Downtown Brooklyn	via Halsey and Fulton Streets	10	8	10	5
B37	Fort Hamilton	Downtown Brooklyn	via Third Avenue	4	4	4	2
B38	Ridgewood	Downtown Brooklyn	via Dekalb Avenue	15	15	15	6
B41	Kings Plaza	Downtown Brooklyn	via Flatbush Avenue	15	10	15	6
B51	Downtown Brooklyn	Lower Manhattan	via Tillary St., Flatbush Ave., Canal St., and Bowery	4	2	4	-
B52	Ridgewood	Downtown Brooklyn	via Gates Avenue and Fulton Street	10	10	12	4
B54	Ridgewood	Downtown Brooklyn	Via Myrtle Avenue	10	10	10	6
B61	Red Hook	Queens Plaza	via Jay and Tillary Street in study area	8	10	10	10
B67	Kensington	Downtown Brooklyn	via Smith and Jay Streets in study area	6	6	6	2
B75	Park Slope	Downtown Brooklyn	via Smith and Jay Streets in study area	6	6	6	2
B103	Canarsie	Downtown Brooklyn	via Adams Streets in study area	10	6	10	-

Source: New York City Transit, Bronx and Manhattan Bus Maps (2005).

PEDESTRIAN STUDY AREA

The pedestrian study area considers the sidewalks, corner reservoirs, and crosswalks that would be most affected by new trips generated by the proposed project. Since transit trips also contain a walking component, the pedestrian network considers the major routes from subway stations and bus stops. The resultant study area includes a total of six intersections along Adams and Jay Streets between Tillary Street and Fulton Mall.

ANALYSIS RESULTS

STREET-LEVEL PEDESTRIAN OPERATIONS

As described above, the study area sidewalks, corner reservoirs, and crosswalks were assessed for the AM and PM peak periods. Existing peak 15-minute volumes were developed for six study area intersections. As shown in Tables 7-3 through 7-7, all analyzed pedestrian elements are currently operating at acceptable levels or better during the both the AM and PM peak 15-minute periods with the exception of the east crosswalk of the Willoughby and Jay Street intersection which operates at LOS E with 12 SFP. This unacceptable LOS can be attributed to high levels of pedestrian activity observed at this location during AM peak hour.

Table 7-3
2005 Existing Conditions: Pedestrian LOS Analysis for Sidewalks

Location	Sidewalk	Effective Width (feet)	15-Minute Two-Way Volume	Average		Platoon	
				PFM	LOS	PFM	LOS
Existing AM							
Adams Street between Tillary Street and Red Cross Place	West	8.5	18	0	A	4	A
	East	8.5	75	1	A	5-	A
Tillary Street between Adams Street and Jay Street	North	8.5	72	1	A	5-	A
	South	13	33	0	A	4	A
Adams Street between Johnson Street and Tillary Street	West	8.5	18	0	A	4	A
	East	9.5	79	1	A	5-	A
Tillary Street between Cadman Plaza East and Adams Street	North	10	72	0	A	4	A
	South	9	29	0	A	4	A
Johnson Street between Adams Street and Jay Street	North	11	65	0	A	4	A
	South	17	180	1	A	5-	A
Adams Street between Willoughby Street and Johnson Street	West	7	13	0	A	4	A
	East	7.5	78	1	A	5-	A
Johnson Street between Cadman Plaza East and Adams Street	North	8.5	67	1	A	5-	A
	South	8.5	177	1	A	5+	B
Jay Street between Johnson Street and Tillary Street	West	12.5	331	2	A	6	B
	East	8.5	320	3	A	7-	B
Johnson Street between Jay Street and Lawrence Street	North	11.5	129	1	A	5-	A
	South	16	29	0	A	4	A
Jay Street between Myrtle Promenade and Johnson Street	West	15.5	335	1	A	5+	B
	East	8.5	319	3	A	7-	B
Jay Street between Johnson Street and Myrtle Promenade	West	15.5	396	2	A	6	B
	East	8.5	471	4	A	8	C
Johnson Street between Jay Street and Lawrence Street	West	15	81	0	A	4	A
	East	15	724	3	A	7+	C
Jay Street between Willoughby Street and Johnson Street	North	12	345	2	A	6	B
	South	9.5	621	4	A	8	C
Willoughby Street between Adams Street and Pearl Street	North	9	228	2	A	6	B
	South	10	154	1	A	5+	B
Willoughby Street between Jay Street and Lawrence Street	North	10	257	2	A	6	B
	South	9	592	4	A	8	C
Jay Street between Fulton Mall and Willoughby Street	West	9	268	2	A	6	B
	East	10	135	1	A	5-	A
Fulton Mall between Adams Street and Pearl Street	North	19	118	0	A	4	A
	South	18.5	134	0	A	4	A
Adams Street between Livingston Street and Fulton Mall	West	13.5	251	1	A	5+	B
	East	25	23	0	A	4	A
Fulton Mall between Court Street and Adams Street	North	17	556	2	A	6	B
	South	18.5	280	1	A	5+	B

Table 7-4

2005 Existing Conditions: Pedestrian LOS Analysis for Sidewalks

Location	Sidewalk	Effective Width (feet)	15-Minute Two-Way Volume	Average		Platoon	
				PFM	LOS	PFM	LOS
Existing PM							
Adams Street between Tillary Street and Red Cross Place	West	8.5	24	0	A	4	A
	East	8.5	46	0	A	4	A
Tillary Street between Adams Street and Jay Street	North	8.5	51	0	A	4	A
	South	13	30	0	A	4	A
Adams Street between Johnson Street and Tillary Street	West	8.5	22	0	A	4	A
	East	9.5	46	0	A	4	A
Tillary Street between Cadman Plaza East and Adams Street	North	10	53	0	A	4	A
	South	9	30	0	A	4	A
Johnson Street between Adams Street and Jay Street	North	11	81	0	A	4	A
	South	17	187	1	A	5-	A
Adams Street between Willoughby Street and Johnson Street	West	7	31	0	A	4	A
	East	7.5	79	1	A	5-	A
Johnson Street between Cadman Plaza East and Adams Street	North	8.5	76	1	A	5-	A
	South	8.5	195	2	A	6	B
Jay Street between Johnson Street and Tillary Street	West	12.5	401	2	A	6	B
	East	8.5	379	3	A	7-	B
Johnson Street between Jay Street and Lawrence Street	North	11.5	80	0	A	4	A
	South	16	56	0	A	4	A
Jay Street between Myrtle Promenade and Johnson Street	West	15.5	399	2	A	6	B
	East	8.5	374	3	A	7-	B
Jay Street between Johnson Street and Myrtle Promenade	West	15.5	391	2	A	6	B
	East	8.5	446	3	A	7+	C
Johnson Street between Jay Street and Lawrence Street	West	15	103	0	A	4	A
	East	15	569	3	A	7-	B
Jay Street between Willoughby Street and Johnson Street	North	12	334	2	A	6	B
	South	9.5	529	4	A	8	C
Willoughby Street between Adams Street and Pearl Street	North	9	321	2	A	6	B
	South	10	287	2	A	6	B
Willoughby Street between Jay Street and Lawrence Street	North	10	311	2	A	6	B
	South	9	490	4	A	8	C
Jay Street between Fulton Mall and Willoughby Street	West	9	288	2	A	6	B
	East	10	270	2	A	6	B
Fulton Mall between Adams Street and Pearl Street	North	19	157	1	A	5-	A
	South	18.5	341	1	A	5+	B
Adams Street between Livingston Street and Fulton Mall	West	13.5	204	1	A	5+	B
	East	25	77	0	A	4	A
Fulton Mall between Court Street and Adams Street	North	17	789	3	A	7+	C
	South	18.5	387	1	A	5+	B

Table 7-5

2005 Existing Conditions: Pedestrian LOS Analysis for Corner Reservoirs

Location	Corner	AM Peak Period		PM Peak Period	
		SFP	LOS	SFP	LOS
Adams Street at Tillary Street	Northeast	145	A	235	A
	Southeast	295	A	424	A
	Southwest	580	A	522	A
	Northwest	834	A	1004	A
Adams Street at Johnson Street	Northeast	246	A	209	A
	Southeast	133	A	124	A
	Southwest	102	A	93	A
	Northwest	339	A	275	A
Jay Street at Johnson Street	Northeast	70	A	67	A
	Southeast	176	A	148	A
	Southwest	153	A	124	A
	Northwest	64	A	55	B
Jay Street at Johnson Street	Northeast	104	A	106	A
	Southeast	40	B	49	B
Jay Street at Willoughby Street	Northeast	153	A	40	B
	Southeast	64	A	44	B
	Southwest	41	B	60	A
	Northwest	43	B	82	A
Adams Street at Fulton Mall	Northeast	343	A	234	A
	Southeast	1577	A	600	A
	Southwest	227	A	153	A
	Northwest	434	A	302	A

Table 7-6

2005 Existing Conditions: Pedestrian LOS Analysis for Crosswalks

Location	Crosswalk	Width (feet)	Without Vehicles		With Vehicles		Maximum Surge	
			SFP	LOS	SFP	LOS	SFP	LOS
Existing AM								
Adams Street at Tillary Street	North	21.5	202	A	116	A	284	A
	East	17	237	A	145	A	216	A
	South	16	372	A	342	A	524	A
	West	17	988	A	968	A	899	A
Adams Street at Johnson Street	North	15	349	A	345	A	281	A
	South	15	120	A	120	A	97	A
	West	13	2228	A	2166	A	510	A
Jay Street at Johnson Street	North	10	113	A	110	A	51	B
	East	12	84	A	82	A	21	D
	South	13.5	753	A	734	A	341	A
	West	14.5	98	A	95	A	25	C
Jay Street at Johnson Street	Mid-block	11	77	A	77	A	56	B
Jay Street at Willoughby Street	North	12	100	A	93	A	47	B
	East	12	47	B	46	B	12	E
	South	12	137	A	130	A	64	A
	West	12	108	A	99	A	29	C
Adams Street at Fulton Mall	North	35	64	A	63	A	51	B
	East	25	2812	A	2142	A	579	A
	South	20	157	A	155	A	133	A
	West	20	405	A	376	A	107	A

Note: SFP = square feet per pedestrian

**Table 7-7
2005 Existing Conditions: Pedestrian LOS Analysis for Crosswalks**

Location	Crosswalk	Width (feet)	Without Vehicles		With Vehicles		Maximum Surge	
			SFP	LOS	SFP	LOS	SFP	LOS
Existing PM								
Adams Street at Tillary Street	North	21.5	285	A	197	A	401	A
	East	17	387	A	272	A	352	A
	South	16	360	A	309	A	507	A
	West	17	808	A	779	A	735	A
Adams Street at Johnson Street	North	15	280	A	277	A	226	A
	South	15	114	A	114	A	92	A
	West	13	1259	A	1220	A	288	A
Jay Street at Johnson Street	North	10	199	A	194	A	90	A
	East	12	72	A	70	A	18	D
	South	13.5	369	A	360	A	167	A
	West	14.5	81	A	79	A	20	D
Jay Street at Johnson Street	Mid-block	11	77	A	77	A	56	B
Jay Street at Willoughby Street	North	12	73	A	69	A	34	C
	East	12	61	A	61	A	16	D
	South	12	72	A	66	A	34	C
	West	12	97	A	93	A	26	C
Adams Street at Fulton Mall	North	35	46	B	45	B	37	C
	East	25	904	A	725	A	186	A
	South	20	63	A	63	A	54	B
	West	20	296	A	274	A	78	A

Note: SFP = square feet per pedestrian

D. THE FUTURE WITHOUT THE PROPOSED PROJECT

Pedestrian conditions in the future without the proposed project were assessed to establish a baseline (“No Build”) condition against which to evaluate the potential project impacts. The No Build year incorporates general background growth, effects of nearby developments, and transportation improvements that may affect pedestrian movements in the study area.

PEDESTRIAN VOLUME PROJECTIONS

Future No Build peak hour pedestrian levels were estimated by first applying a background growth rate of 0.50 percent per year (as recommended by the *CEQR Technical Manual*), projected over three years. Two No Build projects in the vicinity of the project site, the Marriott Hotel and the Federal Courthouse expansion would be occupied by 2008. These projects would generate new pedestrian trips in the study area, which were assigned to the pedestrian analysis locations described earlier in this chapter.

ANALYSIS RESULTS

STREET-LEVEL PEDESTRIAN OPERATIONS

The No Build peak period volume projections were applied to the pedestrian analysis networks described previously. As shown in Tables 7-8 through 7-12, all sidewalks, crosswalks, and corner reservoir analysis locations would continue to operate at acceptable levels or better during the both the AM and PM peak 15-minute periods with the exception of the east crosswalk of the Willoughby and Jay Street intersection which would continue to operate at LOS E with 12 SFP.

Table 7-8
2008 No Build Conditions: Pedestrian LOS Analysis for Sidewalks

Location	Sidewalk	Effective Width (feet)	15-Minute Two-Way Volume	Average		Platoon	
				PFM	LOS	PFM	LOS
No Build AM							
Adams Street between Tillary Street and Red Cross Place	West	8.5	20	0	A	4	A
	East	8.5	78	1	A	5-	A
Tillary Street between Adams Street and Jay Street	North	8.5	73	1	A	5-	A
	South	13	35	0	A	4	A
Adams Street between Johnson Street and Tillary Street	West	8.5	20	0	A	4	A
	East	9.5	85	1	A	5-	A
Tillary Street between Cadman Plaza East and Adams Street	North	10	73	0	A	4	A
	South	9	29	0	A	4	A
Johnson Street between Adams Street and Jay Street	North	11	66	0	A	4	A
	South	17	189	1	A	5-	A
Adams Street between Willoughby Street and Johnson Street	West	7	13	0	A	4	A
	East	7.5	94	1	A	5-	A
Johnson Street between Cadman Plaza East and Adams Street	North	8.5	70	1	A	5-	A
	South	8.5	181	1	A	5+	B
Jay Street between Johnson Street and Tillary Street	West	12.5	336	2	A	6	B
	East	8.5	324	3	A	7-	B
Johnson Street between Jay Street and Lawrence Street	North	11.5	134	1	A	5-	A
	South	16	32	0	A	4	A
Jay Street between Myrtle Promenade and Johnson Street	West	15.5	341	1	A	5+	B
	East	8.5	323	3	A	7-	B
Jay Street between Johnson Street and Myrtle Promenade	West	15.5	402	2	A	6	B
	East	8.5	478	4	A	8	C
Johnson Street between Jay Street and Lawrence Street	West	15	82	0	A	4	A
	East	15	735	3	A	7+	C
Jay Street between Willoughby Street and Johnson Street	North	12	351	2	A	6	B
	South	9.5	631	4	A	8	C
Willoughby Street between Adams Street and Pearl Street	North	9	234	2	A	6	B
	South	10	156	1	A	5+	B
Willoughby Street between Jay Street and Lawrence Street	North	10	266	2	A	6	B
	South	9	605	4	A	8	C
Jay Street between Fulton Mall and Willoughby Street	West	9	277	2	A	6	B
	East	10	145	1	A	5-	A
Fulton Mall between Adams Street and Pearl Street	North	19	120	0	A	4	A
	South	18.5	136	0	A	4	A
Adams Street between Livingston Street and Fulton Mall	West	13.5	258	1	A	5+	B
	East	25	27	0	A	4	A
Fulton Mall between Court Street and Adams Street	North	17	564	2	A	6	B
	South	18.5	285	1	A	5+	B

Note: PFM = pedestrians per foot per minute

Table 7-9
2008 No Build Conditions: Pedestrian LOS Analysis for Sidewalks

Location	Sidewalk	Effective Width (feet)	15-Minute Two-Way Volume	Average		Platoon	
				PFM	LOS	PFM	LOS
No Build PM							
Adams Street between Tillary Street and Red Cross Place	West	8.5	24	0	A	4	A
	East	8.5	46	0	A	4	A
Tillary Street between Adams Street and Jay Street	North	8.5	51	0	A	4	A
	South	13	31	0	A	4	A
Adams Street between Johnson Street and Tillary Street	West	8.5	22	0	A	4	A
	East	9.5	48	0	A	4	A
Tillary Street between Cadman Plaza East and Adams Street	North	10	54	0	A	4	A
	South	9	30	0	A	4	A
Johnson Street between Adams Street and Jay Street	North	11	82	0	A	4	A
	South	17	193	1	A	5-	A
Adams Street between Willoughby Street and Johnson Street	West	7	31	0	A	4	A
	East	7.5	89	1	A	5-	A
Johnson Street between Cadman Plaza East and Adams Street	North	8.5	77	1	A	5-	A
	South	8.5	198	2	A	6	B
Jay Street between Johnson Street and Tillary Street	West	12.5	407	2	A	6	B
	East	8.5	384	3	A	7+	C
Johnson Street between Jay Street and Lawrence Street	North	11.5	83	0	A	4	A
	South	16	59	0	A	4	A
Jay Street between Myrtle Promenade and Johnson Street	West	15.5	405	2	A	6	B
	East	8.5	379	3	A	7-	B
Jay Street between Johnson Street and Myrtle Promenade	West	15.5	397	2	A	6	B
	East	8.5	452	4	A	8	C
Johnson Street between Jay Street and Lawrence Street	West	15	105	0	A	4	A
	East	15	578	3	A	7-	B
Jay Street between Willoughby Street and Johnson Street	North	12	339	2	A	6	B
	South	9.5	537	4	A	8	C
Willoughby Street between Adams Street and Pearl Street	North	9	328	2	A	6	B
	South	10	292	2	A	6	B
Willoughby Street between Jay Street and Lawrence Street	North	10	317	2	A	6	B
	South	9	499	4	A	8	C
Jay Street between Fulton Mall and Willoughby Street	West	9	294	2	A	6	B
	East	10	278	2	A	6	B
Fulton Mall between Adams Street and Pearl Street	North	19	159	1	A	5-	A
	South	18.5	346	1	A	5+	B
Adams Street between Livingston Street and Fulton Mall	West	13.5	209	1	A	5+	B
	East	25	80	0	A	4	A
Fulton Mall between Court Street and Adams Street	North	17	801	3	A	7+	C
	South	18.5	393	1	A	5+	B

Note: PFM = pedestrians per foot per minute

Table 7-10
2008 No Build Conditions: Pedestrian LOS Analysis for Corner Reservoirs

Location	Corner	AM Peak Period		PM Peak Period	
		SFP	LOS	SFP	LOS
Adams Street at Tillary Street	Northeast	141	A	235	A
	Southeast	282	A	419	A
	Southwest	555	A	522	A
	Northwest	807	A	1004	A
Adams Street at Johnson Street	Northeast	237	A	203	A
	Southeast	124	A	118	A
	Southwest	96	A	89	A
	Northwest	326	A	266	A
Jay Street at Johnson Street	Northeast	69	A	66	A
	Southeast	172	A	145	A
	Southwest	147	A	121	A
	Northwest	62	A	54	B
Jay Street at Johnson Street	Northeast	103	A	104	A
	Southeast	39	C	48	B
Jay Street at Willoughby Street	Northeast	40	B	39	C
	Southeast	42	B	43	B
	Southwest	88	A	58	B
	Northwest	89	A	81	A
Adams Street at Fulton Mall	Northeast	334	A	229	A
	Southeast	1511	A	587	A
	Southwest	222	A	150	A
	Northwest	423	A	296	A

Note: SFP = square feet per pedestrian

Table 7-11
2008 No Build Conditions: Pedestrian LOS Analysis for Crosswalks

Location	Crosswalk	Width (feet)	Without Vehicles		With Vehicles		Maximum Surge	
			SFP	LOS	SFP	LOS	SFP	LOS
No Build AM								
Adams Street at Tillary Street	North	21.5	199	A	114	A	280	A
	East	17	228	A	138	A	207	A
	South	16	372	A	310	A	524	A
	West	17	889	A	857	A	809	A
Adams Street at Johnson Street	North	15	349	A	348	A	281	A
	South	15	116	A	116	A	94	A
	West	13	1810	A	1768	A	414	A
Jay Street at Johnson Street	North	10	108	A	107	A	49	B
	East	12	83	A	81	A	21	D
	South	13.5	673	A	670	A	304	A
	West	14.5	96	A	93	A	24	C
Jay Street at Johnson Street	Mid-block	11	76	A	75	A	55	B
Jay Street at Willoughby Street	North	12	97	A	88	A	45	B
	East	12	47	B	47	B	12	E
	South	12	131	A	124	A	61	A
	West	12	107	A	98	A	28	C
Adams Street at Fulton Mall	North	35	63	A	63	A	50	B
	East	25	2201	A	1805	A	453	A
	South	20	155	A	154	A	131	A
	West	20	389	A	369	A	103	A

Note: SFP = square feet per pedestrian

Table 7-12
2008 No Build Conditions: Pedestrian LOS Analysis for Crosswalks

Location	Crosswalk	Width (feet)	Without Vehicles		With Vehicles		Maximum Surge	
			SFP	LOS	SFP	LOS	SFP	LOS
No Build PM								
Adams Street at Tillary Street	North	21.5	285	A	196	A	401	A
	East	17	387	A	271	A	352	A
	South	16	360	A	308	A	507	A
	West	17	808	A	775	A	735	A
Adams Street at Johnson Street	North	15	276	A	273	A	223	A
	South	15	111	A	111	A	89	A
	West	13	1158	A	1126	A	265	A
Jay Street at Johnson Street	North	10	191	A	187	A	86	A
	East	12	71	A	70	A	18	D
	South	13.5	349	A	342	A	158	A
	West	14.5	79	A	78	A	20	D
Jay Street at Johnson Street	Mid-block	11	57	B	57	B	41	B
Jay Street at Willoughby Street	North	12	72	A	68	A	34	C
	East	12	60	A	60	A	16	D
	South	12	70	A	64	A	33	C
	West	12	95	A	91	A	25	C
Adams Street at Fulton Mall	North	35	45	B	45	B	36	C
	East	25	858	A	686	A	177	A
	South	20	62	A	61	A	53	B
	West	20	287	A	271	A	76	A

Note: SFP = square feet per pedestrian

E. PROBABLE IMPACTS OF THE PROPOSED PROJECT

The future with the proposed project would result in increased pedestrian trips compared to the No Build condition. This section describes the projected travel patterns of the site-related trips and assesses their potential impacts on nearby pedestrian facilities.

TRIP DISTRIBUTION AND ASSIGNMENT

As described in Chapter 1, “Project Description,” pedestrian access to the project site would be provided from along the east sidewalk of Adams Street between Johnson and Willoughby Streets along the western boundary of the project site. Auto, school bus, and school van person trips would only appear as pedestrian trips on the sidewalk adjacent to the project site and would not affect other pedestrian elements within the study area.

As described in Chapter 6, “Traffic and Parking,” the following assumptions were used to assign auto, school bus, transit, and walk-only trips to the school campus.

- Auto drop-off trips were assumed to use pedestrian facilities located along the east sidewalk of Adams Street between Johnson and Willoughby Streets as they enter or exit the school facility. As detailed in Chapter 6, “Traffic and Parking,” 50 project-generated auto drop-off trips were estimated during both the AM and PM peak 15-minute periods.
- Auto drive trips were assumed to use on-street parking facilities located along Adams and Jay Street, Tillary Street, and Johnson Street. These trips were then assigned to the pedestrian facilities adjacent to the project site as they enter or exit the school. In total, 39 auto drive trips were estimated for both the AM and PM peak 15-minute periods.

Adams Street High School

- As with the auto drop-off trips, school bus and van trips would be distributed along the east sidewalk of Adams Street between Johnson and Willoughby Streets. These person trips were estimated at approximately 29 during both the AM and PM peak 15-minute periods.
- Subway trips would use the seven stations in the study area. The assignments of these trips are based on the available routes within the study area and transfer opportunities within the New York City subway system. In total, 251 project-generated subway trips were projected during both the AM and PM peak 15-minute periods. Based on the geographic location of the project site and the specific routing of nearby subway lines, approximately 50 percent of the subway trips were assumed to arrive via Brooklyn-bound trains or depart via Manhattan-bound trains. The 2/3/4/5 subway lines are expected to absorb the majority of the project-generated subway trips (approximately 70 percent of the total) at the Court Street, Borough Hall, Hoyt, and Nevins Street stations. The remaining 30 percent would be distributed to the A/B/C/M/Q/R subway lines at the Jay Street and Dekalb Avenue stations.
- As with the subway person trips, bus person trips would be distributed to the numerous bus routes available in the study area. In total, 83 project-generated bus trips were estimated during both the AM and PM peak 15-minute periods. The assignment of bus person trips began with designating specific bus stops at which users would access the nearby bus routes, then tracing these trips through logical walking routes to the project site.
- While all trips would require a walking component that connects the origins and destinations with their respective mode of transportation, a portion of the trips are made only by walking. These trips were estimated at 20 total walk only project-generated trips during both the AM and PM peak 15-minute periods. The assignment of these trips accounted for the area's pedestrian network, employment centers, and populated neighborhoods nearby.

ANALYSIS RESULTS

STREET-LEVEL PEDESTRIAN OPERATIONS

Pedestrian trips associated with the proposed project would result in increased volumes at the analysis locations. The analysis conducted for the Build conditions accounts for the distribution of project-generated trips overlaid onto the No Build network's sidewalks, corner reservoirs, and crosswalks. Tables 7-13 to 7-17 present the future build operating conditions for the analysis elements.

Table 7-13

2008 Build Conditions: Pedestrian LOS Analysis for Sidewalks

Location	Sidewalk	Effective Width (feet)	15-Minute Two-Way Volume	Average		Platoon	
				PFM	LOS	PFM	LOS
Build AM							
Adams Street between Tillary Street and Red Cross Place	West	8.5	21	0	A	4	A
	East	8.5	79	1	A	5-	A
Tillary Street between Adams Street and Jay Street	North	8.5	73	1	A	5-	A
	South	13	59	0	A	4	A
Adams Street between Johnson and Tillary Streets	West	8.5	21	0	A	4	A
	East	9.5	103	1	A	5-	A
Tillary Street between Cadman Plaza East and Adams Street	North	10	78	1	A	5-	A
	South	9	29	0	A	4	A
Johnson Street between Adams Street and Jay Street	North	11	66	0	A	4	A
	South	17	394	2	A	6	B
Adams Street between Willoughby Street and Johnson Street	West	7	112	1	A	5+	B
	East	7.5	202	2	A	6	B
Johnson Street between Cadman Plaza East and Adams Street	North	8.5	71	1	A	5-	A
	South	8.5	182	1	A	5+	A
Jay Street between Johnson Street and Tillary Street	West	12.5	350	2	A	6	B
	East	8.5	324	3	A	7-	B
Johnson Street between Jay Street and Lawrence Street	North	11.5	136	1	A	5-	A
	South	16	34	0	A	4	A
Jay Street between Myrtle Promenade and Johnson Street	West	15.5	476	2	A	6	B
	East	8.5	368	3	A	7-	B
Jay Street between Johnson Street and Myrtle Promenade	West	15.5	527	2	A	6	B
	East	8.5	513	4	A	8	C
Johnson Street between Jay Street and Lawrence Street	West	15	82	0	A	4	A
	East	15	735	3	A	7+	C
Jay Street between Willoughby Street and Johnson Street	North	12	430	2	A	6	B
	South	9.5	674	5+	B	9	C
Willoughby Street between Adams Street and Pearl Street	North	9	249	2	A	6	B
	South	10	156	1	A	5+	B
Willoughby Street between Jay Street and Lawrence Street	North	10	302	2	A	6	B
	South	9	642	5+	B	9	C
Jay Street between Fulton Mall and Willoughby Street	West	9	277	2	A	6	B
	East	10	145	1	A	5-	A
Fulton Mall between Adams Street and Pearl Street	North	19	120	0	A	4	A
	South	18.5	136	0	A	4	A
Adams Street between Livingston Street and Fulton Mall	West	13.5	260	1	A	5+	B
	East	25	30	0	A	4	A
Fulton Mall between Court Street and Adams Street	North	17	602	2	A	6	B
	South	18.5	320	1	A	5+	B

Note: PFM = pedestrians per foot per minute

Table 7-14
2008 Build Conditions: Pedestrian LOS Analysis for Sidewalks

Location	Sidewalk	Effective Width (feet)	15-Minute Two-Way Volume	Average		Platoon	
				PFM	LOS	PFM	LOS
Build PM							
Adams Street between Tillary Street and Red Cross Place	West	8.5	25	0	A	4	A
	East	8.5	47	0	A	4	A
Tillary Street between Adams Street and Jay Street	North	8.5	51	0	A	4	A
	South	13	55	0	A	4	A
Adams Street between Johnson Street and Tillary Street	West	8.5	23	0	A	4	A
	East	9.5	66	0	A	4	A
Tillary Street between Cadman Plaza East and Adams Street	North	10	59	0	A	4	A
	South	9	30	0	A	4	A
Johnson Street between Adams Street and Jay Street	North	11	82	0	A	4	A
	South	17	398	2	A	6	B
Adams Street between Willoughby Street and Johnson Street	West	7	130	1	A	5+	B
	East	7.5	197	2	A	6	B
Johnson Street between Cadman Plaza East and Adams Street	North	8.5	78	1	A	5-	A
	South	8.5	199	2	A	6	B
Jay Street between Johnson Street and Tillary Street	West	12.5	421	2	A	6	B
	East	8.5	384	3	A	7+	C
Johnson Street between Jay Street and Lawrence Street	North	11.5	85	0	A	4	A
	South	16	61	0	A	4	A
Jay Street between Myrtle Promenade and Johnson Street	West	15.5	540	2	A	6	B
	East	8.5	424	3	A	7+	C
Jay Street between Johnson Street and Myrtle Promenade	West	15.5	522	2	A	6	B
	East	8.5	487	4	A	8	C
Johnson Street between Jay Street and Lawrence Street	West	15	105	0	A	4	A
	East	15	578	3	A	7-	B
Jay Street between Willoughby Street and Johnson Street	North	12	418	2	A	6	B
	South	9.5	580	4	A	8	C
Willoughby Street between Adams Street and Pearl Street	North	9	343	3	A	7-	B
	South	10	292	2	A	6	B
Willoughby Street between Jay Street and Lawrence Street	North	10	353	2	A	6	B
	South	9	536	4	A	8	C
Jay Street between Fulton Mall and Willoughby Street	West	9	294	2	A	6	B
	East	10	278	2	A	6	B
Fulton Mall between Adams Street and Pearl Street	North	19	159	1	A	5-	A
	South	18.5	346	1	A	5+	B
Adams Street between Livingston Street and Fulton Mall	West	13.5	211	1	A	5+	B
	East	25	83	0	A	4	A
Fulton Mall between Court Street and Adams Street	North	17	839	3	A	7+	C
	South	18.5	428	2	A	6	B

Note: PFM = pedestrians per foot per minute

Table 7-15
2008 Build Conditions: Pedestrian LOS Analysis for Corner Reservoirs

Location	Corner	AM Peak Period		PM Peak Period	
		SFP	LOS	SFP	LOS
Adams Street at Tillary Street	Northeast	130	A	209	A
	Southeast	243	A	337	A
	Southwest	544	A	512	A
	Northwest	755	A	930	A
Adams Street at Johnson Street	Northeast	207	A	180	A
	Southeast	86	A	74	A
	Southwest	54	B	61	A
	Northwest	318	A	261	A
Jay Street at Johnson Street	Northeast	68	A	66	A
	Southeast	149	A	131	A
	Southwest	97	A	83	A
	Northwest	59	B	52	B
Jay Street at Johnson Street	Northeast	96	A	96	A
	Southeast	37	C	46	B
Jay Street at Willoughby Street	Northeast	36	C	36	C
	Southeast	39	C	41	B
	Southwest	76	A	53	B
	Northwest	77	A	69	A
Adams Street at Fulton Mall	Northeast	318	A	220	A
	Southeast	1485	A	583	A
	Southwest	201	A	141	A
	Northwest	366	A	267	A

Note: SFP = square feet per pedestrian

Table 7-16
2008 Build Conditions: Pedestrian LOS Analysis for Crosswalks

Location	Crosswalk	Width (feet)	Without Vehicles		With Vehicles		Maximum Surge	
			SFP	LOS	SFP	LOS	SFP	LOS
Build AM								
Adams Street at Tillary Street	North	21.5	186	A	107	A	262	A
	East	17	212	A	123	A	193	A
	South	16	372	A	310	A	524	A
	West	17	847	A	817	A	770	A
Adams Street at Johnson Street	North	15	343	A	337	A	277	A
	South	15	75	A	75	A	60	A
	West	13	1703	A	1651	A	390	A
Jay Street at Johnson Street	North	10	106	A	104	A	48	B
	East	12	83	A	81	A	21	D
	South	13.5	251	A	245	A	114	A
	West	14.5	92	A	88	A	23	D
Jay Street at Johnson Street	Mid-block	11	69	A	69	A	50	B
Jay Street at Willoughby Street	North	12	81	A	75	A	38	C
	East	12	45	B	45	B	12	E
	South	12	121	A	115	A	57	B
	West	12	90	A	83	A	24	C
Adams Street at Fulton Mall	North	35	60	A	59	B	48	B
	East	25	1947	A	1479	A	401	A
	South	20	155	A	153	A	131	A
	West	20	287	A	272	A	76	A

Note: SFP = square feet per pedestrian

Table 7-17
2008 Build Conditions: Pedestrian LOS Analysis for Crosswalks

Location	Crosswalk	Width (feet)	Without Vehicles		With Vehicles		Maximum Surge	
			SFP	LOS	SFP	LOS	SFP	LOS
Build PM								
Adams Street at Tillary Street	North	21.5	259	A	178	A	365	A
	East	17	342	A	230	A	311	A
	South	16	360	A	307	A	507	A
	West	17	773	A	742	A	703	A
Adams Street at Johnson Street	North	15	273	A	268	A	220	A
	South	15	73	A	73	A	59	B
	West	13	1114	A	1074	A	255	A
Jay Street at Johnson Street	North	10	186	A	181	A	84	A
	East	12	71	A	69	A	18	D
	South	13.5	186	A	182	A	84	A
	West	14.5	77	A	74	A	19	D
Jay Street at Johnson Street	Mid-block	11	53	B	53	B	39	C
Jay Street at Willoughby Street	North	12	63	A	58	B	29	C
	East	12	57	B	57	B	15	D
	South	12	68	A	62	A	32	C
	West	12	82	A	78	A	22	D
Adams Street at Fulton Mall	North	35	44	B	43	B	35	C
	East	25	817	A	653	A	168	A
	South	20	62	A	62	A	53	B
	West	20	228	A	210	A	60	A

Note: SFP = square feet per pedestrian

As described in Section B, “Methodology” of this chapter, impacts to corners and crosswalks are considered significant if the proposed project would result in a deterioration in level-of-service from No Build mid-LOS D or better to less than a Build mid-LOS D (15 SFP), Build LOS E or F, or when the available circulation space is decreased by 1 SFP or more at a location with a No Build operation of mid-LOS D (15 SFP) or worse. Since the pedestrian facilities in the study area would operate at acceptable levels or better during the both the AM and PM peak 15-minute periods with the exception of the east crosswalk of the Willoughby and Jay Street intersection, which would continue to operate at LOS E with 12 SFP, the proposed project would not result in significant adverse impacts during either the AM or PM peak 15-minute periods.

PEDESTRIAN SAFETY

The *CEQR Technical Manual* considers a location to be a high-pedestrian-accident location if five or more pedestrian-related accidents occurred within a 12-month period in the most recent three years. Data on traffic accidents for the intersections in the vicinity of the project site were compiled from New York State Department of Transportation (NYSDOT) records for the period of June 1999 through May 2002. Based on this information, the intersections of Willoughby Street at Jay Street and Flatbush Avenue are considered high vehicle/pedestrian accident locations within the project study area (see Table 7-18).

With the proposed action in place, the Willoughby Street/Jay Street intersection is projected to experience peak-hour volume increases of approximately 54 vehicular trips during both peak hours and 105 and 115 pedestrian trips during the AM and PM peak hours, respectively. The Willoughby Street/Flatbush Avenue intersection will have an increase of approximately 62 and 63 vehicular trips during the AM and PM peak hours respectively. In terms of pedestrian trips,

the Willoughby Street/Flatbush Avenue intersection would experience 15 pedestrian trips during both the AM and PM periods.

**Table 7-18
Vehicle – Pedestrian Accident Summary**

Inter-section	Year	Date	Time	Accident Class		Action of Vehicle	Action of Pedestrian	Cause of Accident					
				Injured	Killed			Signal Disregard		Driver In-attention	Other		
								Vehicle	Ped				
Jay Street at Willoughby Street	1999	06/10	11AM	x		Making right – South/East	Crossing-with signal					x	
		8/20	3PM	x		Making left-West	N/A					x	
		10/2	4PM	x		Going straight-South	Crossing-with signal			x			
		10/28	4PM	x		Making left-South/West	N/A					x	
		11/23 Bi-cycle	11AM	x	x	Bicyclist	Going straight-North	Along highway against traffic					x
	2000	04/4	5PM	x		Start from parking-West	Crossing outside crosswalk						x
		10/6	2PM	x		Making U-Turn-South	Crossing outside crosswalk						x
		10/27	12PM	x		Going straight-West	Crossing outside crosswalk			x			
	2001	2/7	7AM	x		Making right-West	Crossing-against signal		x				
		3/13	11AM	x		Making right-South	Crossing-with signal	x					
		3/22	1PM	x		Making right-West	Crossing-with signal			x			
		5/22	9AM	x		Making left-South	Crossing-with signal						x
		9/7	5PM	x		Going straight-West	Crossing-with signal						x
10/16		4PM	x		Making left-South/West	Crossing-with signal			x				
		12/24	9PM	x		Start in traffic-South	Crossing-against signal					x	
Flatbush Avenue at Willoughby Street	1999	8/9	5PM	x		Going straight-North	Pushing/work ing on car					x	
	2000	2/9	2PM	x		Going straight-South	Crossing-with signal					x	
		4/4	3AM	x		Making right-South/West	Crossing outside crosswalk			x			
		8/28	1PM	x		Making left-South	Crossing-with signal					x	
		10/11	1PM	x		Making right-South/West	Crossing-with signal					x	
		11/10	10PM	x		Slowed or stopping-North	Other						x

**Table 7-18 (cont'd)
Vehicle – Pedestrian Accident Summary**

Inter-section	Year	Date	Time	Accident Class		Action of Vehicle	Action of Pedestrian	Cause of Accident			
				Injured	Killed			Signal Disregard		Driver In-attention	Other
								Vehicle	Ped		
Flatbush Avenue at Willoughby Street	2001	2/5	12PM	x		Making right-West	Crossing-with signal				x
		3/22	3PM	x		Going straight-North	N/A			x	
		4/9	5PM	x		Making left-South/West	Crossing-with signal				x
		4/29	7PM	x		Unknown-North	Crossing against signal		x		
		5/1	5PM	x		Going straight-South	N/A				x
	2002	1/25	1PM	x		Going straight-West	Crossing-with signal			x	
		2/28	3PM	x		Making left-Unknown	Crossing-with signal			x	

Approximately forty percent of the pedestrian-related accidents were caused by inattentiveness and signal disregard by either the driver or the pedestrian. With respect to geometric deficiencies that could potentially cause safety hazards, the above intersections are signaled with clearly painted crosswalks. In the review of the accident history there are no prevailing trends that could be identified as the primary causes of recorded accidents. Therefore, it was concluded that the anticipated increases in vehicular and pedestrian activities, would not result in significant safety impacts at this study area location. *