3.16 TRANSIT AND PEDESTRIANS

INTRODUCTION

This chapter describes the transit and pedestrian travel characteristics and potential adverse impacts associated with the East 125th Street Development located on three blocks in East Harlem. As shown in Figure 2-7 in Chapter 2.0, "Project Description," the proposed project would occupy an approximately six-acre site located on two blocks bounded by East 125th Street on the south, East 127th Street on the north, Third Avenue on the west and Second Avenue on the east. A smaller site located at the southeast corner of East 125th Street and Third Avenue would also be developed as part of the proposed project. As described in Chapter 2.0, "Project Description", the proposed project would total approximately 1.7 million square feet of new mixed-use development, including residential, entertainment/retail, office, a small cultural component, open space and a small hotel. The transit and pedestrian analyses presented in this chapter examine the potential impact of the additional trips generated by the proposed project on the areas subway, bus and pedestrian facilities.

3.16.1 ANALYSIS FRAMEWORK

The transit and pedestrian analyses presented in this chapter focus on subway, local bus and pedestrian facilities where concentrations of new demand from the proposed project would occur. The analyses focus on the weekday 8-9 AM and 5-6 PM peak hours when the greatest concentration of demand from the proposed mixed-use development would coincide with overall peak demand at subway stations and on local bus routes in the study area. Because the added demand from the destination retail component of the East 125th Street Development would generate an appreciable number of new trips during the Saturday midday period, the analysis of pedestrian facilities also include a Saturday midday peak hour (1-2 PM). Future conditions without the proposed action (No Build conditions) in 2012 are presented for the transit and pedestrian facilities and account for general background growth, anticipated developments in and around the study area, and any changes to transit services and pedestrian facilities expected by 2012. The transit and pedestrian demand resulting from the proposed action (the project increment) is calculated based on the transportation demand forecast presented in Table 3.15-6 in Chapter 3.15, "Traffic and Parking". The project increment is added to the No Build condition minus any demand eliminated by the proposed project to develop the 2012 future conditions with the proposed action (Build conditions). Any significant adverse impacts resulting from the proposed project are then identified.

As the 125th Street IRT (4, 5, 6) station is located one block to the west of the project site at Lexington Avenue and East 125th Street, it is anticipated that most, if not all, subway travel to and from the project site would occur via this station. The demand added by the proposed project to the 125th Street IRT (4, 5, 6) station is projected to exceed the *CEQR Technical Manual's* 200 persons per hour threshold for detailed analysis during both the AM and PM peak hours. Therefore, the subway analysis focuses on the 125th Street IRT (4, 5, 6) station during the AM and PM peak periods. The subway analysis examines peak 15-minute flow conditions at the stairways that provide access to the subway station from the street and the fare arrays that would be used by concentrations of project-generated trips.

MTA New York City Transit operates eight local bus routes in the vicinity of the project site. The local bus analysis presented in this chapter focuses on the Bx15, M15, M35, M60, M98, M100, M101 and M103. The line haul capacity for each route is examined, and any shortfalls in available capacity are identified.

In addition to the subway and bus modes, Metro-North commuter rail service is available via the Harlem-125th Street station at East 125th Street and Park Avenue. According to the *CEQR Technical Manual,* projects that increase ridership on rail modes by 200 persons per hour would warrant detailed analysis. Because the railroad component of project demand would total less than the 200 persons per hour threshold, detailed analysis of the Metro-North commuter rail station is not warranted as impacts are considered unlikely.

The analysis of pedestrian facilities focuses on the sidewalks, corner areas and crosswalks where a concentration of project trips would occur. The analysis examines 15-minute flow conditions at pedestrian facilities near the proposed development, as well as those linking the project site to area transit facilities. In total, facilities at seven intersections are analyzed. These include East 125th Street at Lexington, Third and Second Avenues, and East 126th Street and East 127th Street at Third and Second Avenues. As mentioned earlier, because the destination retail component of the proposed project is expected to generate substantial weekend demand, an analysis of pedestrian facilities during the Saturday midday (1-2 PM) peak period is included along with the AM and PM peak period analyses.

3.16.2 DATA COLLECTION

The transit and pedestrian analyses in this EIS are based on data collected in June 2007 for this project, and data previously collected in November 2006 for NYCDCP's *125th Street Corridor Rezoning and Related Actions EIS.* Weekday AM and PM peak hour maximum load point data for the 125th Street IRT (4, 5, 6) line and the local bus routes serving the study area were obtained from MTA New York City Transit.

3.16.3 EXISTING CONDITIONS

Subway Service

As previously mentioned, most if not all subway trips to and from the proposed project would utilize the 125th Street IRT (4, 5, 6) station, as it is located one block to the west of the project site. Other subway stations in the area, which include the 125th Street IRT (2, 3), 125th Street IND (A, B, C, D) and 125th Street IRT (1) stations, are located one half-mile or more to the west of the project site and are unlikely to experience appreciable numbers of project-generated trips.

Table 3.16-1 shows the average weekday entering turnstile counts for the 125th Street IRT (4, 5, 6) station for the years 2003 through 2006 as well as the station's rank among the 423 subway stations system-wide. As shown in Table 3.16.1, ridership at the 125th Street IRT (4, 5, 6) station increased by 3.1 percent from 2005 to 2006.

Table 3.16-1
Average Weekday Entering Turnstile Counts

Subway Station	2006 Rank	2003	2004	2005	2006	Percent Change 2005 to 2006
125th Street IRT (4, 5, 6)	40	22,473	23,271	24,199	24,949	3.1%

Notes: Rank out of 423 subway stations system-wide by average weekday ridership.
Source NYCT 2006 Subway & Bus Ridership Report.

The analysis of subway station conditions at the 125th Street IRT (4, 5, 6) station employs the design capacities for stairs, turnstiles, high entry/exit turnstiles (HEETs) and high revolving exit gates specified in the *NYCTA Station Planning and Design Guidelines*, as well as procedures set forth in *Pedestrian Planning and Design* by John Fruin. All analyses reflect the peak 15-minute conditions in each peak period. Fruin's pedestrian level of service (LOS) methodology for stairways, which equates pedestrian flow rates per foot of effective width per minute (PFM) to measures of personal comfort, is used to analyze the stairways that provide access to the subway station. The stairways are then assigned a level of service ranging from A to F based on the calculated pedestrian flow rate. As shown in Table 3.16-2, LOS A represents free-flow conditions with no pedestrian conflicts and LOS F represents a complete breakdown in pedestrian traffic flow, indicative of substantial queuing. According to Fruin, an average pedestrian flow rate of less that 5 PFM is considered LOS A, with LOS F equating to a flow rate greater than 17 PFM. However, 15 PFM is typically regarded as the absolute capacity for stairways, as MTA New York City Transit's minimum standard for pedestrian conditions has traditionally been established as 10 PFM, the threshold between LOS C and LOS D.

Table 3.1-2
Stairway Level of Service Description

Level of Service	Stairway PFM	Description
A	Up to 5	Free-flow conditions.
B	5-7	Minor reverse flow will cause minor conflicts.
C	7-10	Slight restrictions in speed and difficulties in reversed flow.
D	10-13	Significant restriction in speed and difficulties in reverse flows.
E	13-17	Reduction of speeds, serious revere flow conflicts and intermittent stoppages.
F	More than 17	Complete breakdown in traffic flow.

Note: PFM-persons per foot of effective width per minute

Based on this design standard, the practical volume-to-capacity (v/c) ratio of stairways can be determined by dividing the calculated flow rate by the 10 PFM capacity. Using this methodology, LOS A, B and C result in v/c ratios less than 1.0. LOS D, E and F represent v/c ratios greater than 1.0 and indicate that demand at the analyzed stairway exceeds the design capacity.

Operating conditions for turnstiles, HEETs and high exit revolving gates are also described using LOS and volume-to-capacity ratios. For these station elements, LOS A corresponds to a v/c of

less than 0.2, LOS B ranges from a v/c of 0.2 to 0.4, LOS C from 0.4 to 0.6, LOS D from 0.6 to 0.8 and LOS E from 0.8 to 1.0. LOS F represents a v/c ratio greater that 1.0.

The following section describes the 125th Street IRT (4, 5, 6) subway station and existing pedestrian flow conditions at key station elements based on the above-mentioned methodologies. Line haul conditions during the AM and PM peak periods are also discussed.

125th Street IRT (4, 5, 6) Station

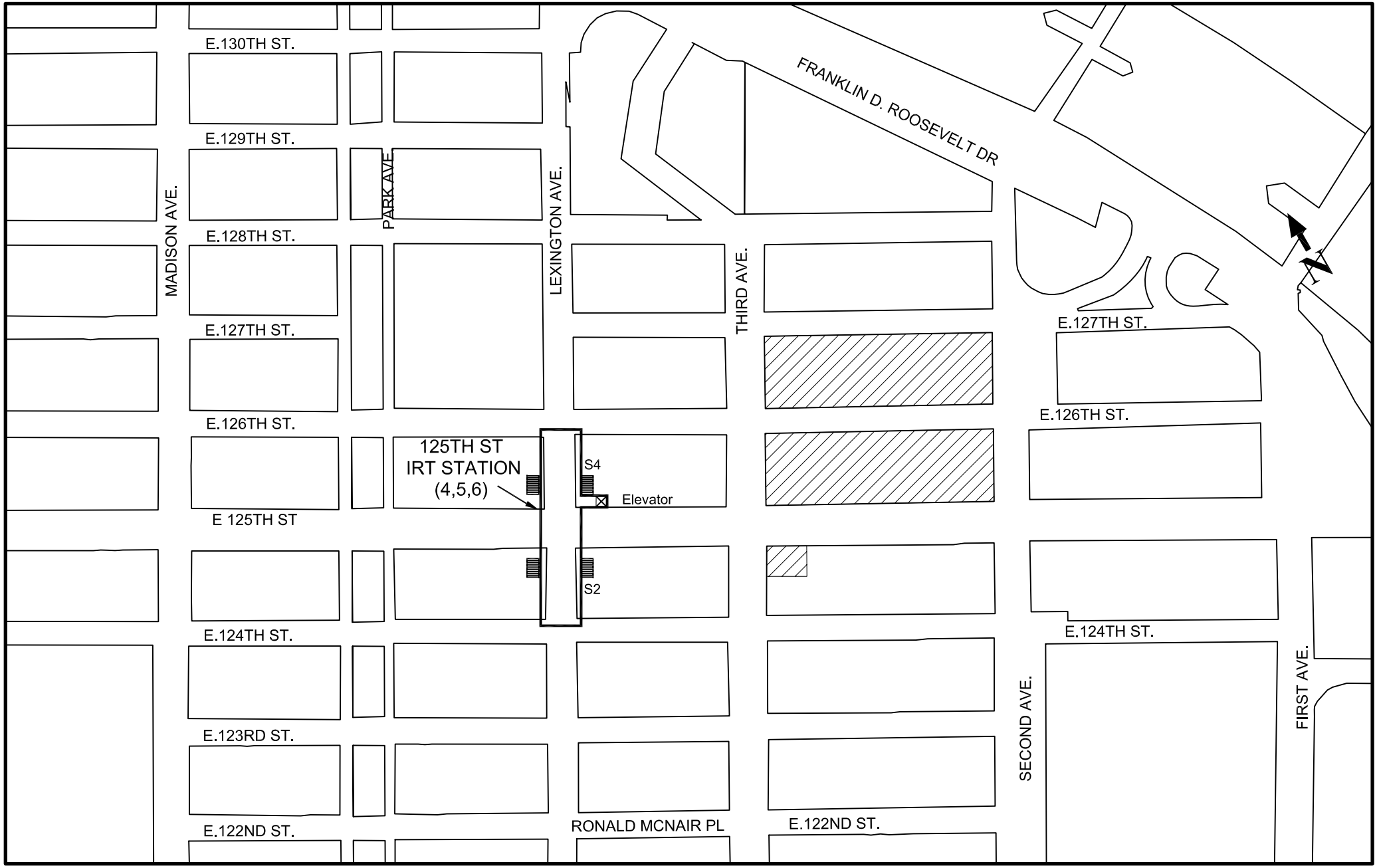
As shown in Figure 3.16.1, the 125th Street IRT (4, 5, 6) station is located beneath Lexington Avenue at East 125th Street and provides access to the Nos. 4 and 5 express trains and the No. 6 local train. The Nos. 4 and 5 express trains operate between eastern Brooklyn and the Bronx, and traverse the entire north-south length of Manhattan. The No. 6 train provides local service in Manhattan, operating between Brooklyn Bridge-City Hall and the Bronx. The 125th Street IRT (4, 5, 6) station consists of a mezzanine level located above two platform levels, each with a single island platform. One platform serves local and express trains operating in the uptown direction, while the second platform serves downtown trains. Access to the platform levels from the mezzanine is controlled by fare array R-258 consisting of a bank of four turnstiles and one high revolving exit gate on the north side of the mezzanine, a bank of five turnstiles and a high revolving exit gate on the south side of the mezzanine, and a 24-hour token booth.

Though four stairways provide access to the station, project-generated trips are expected to only utilize stairways, S2 and S4, respectively located on the southeast and northeast corners of the intersection of East 125th Street and Lexington Avenue. An ADA-compliant elevator located on the northeast corner along East 125th Street also provides access to the mezzanine, while additional elevators within the mezzanine's paid area provide access to the platform levels. Because the project site has components both to the north and to the south of East 125th Street, the stairway analysis will focus on stairways S2 and S4, as both are likely to experience project-generated subway trips.

As shown in Table 3.16-1, the 125th Street IRT (4, 5, 6) station ranks 40th among the 423 stations system-wide based on weekday ridership, with an average of approximately 24,949 entering passengers in 2006. Between 2005 and 2006, ridership increased by 3.1 percent. As shown in Table 3.16-3, stairways S2 and S4 and the station's fare array all currently operate at an acceptable LOS B during the AM and PM peak hours with the exception of stairway S2, which operates at LOS C during the PM peak period.

Line Haul

Line haul is the volume of riders passing a defined point on any given transit route. For subway routes to and from northern Manhattan, line haul capacity is measured either at the 60th Street cordon (the northern boundary of the Manhattan central business district) or at the actual maximum load point on each subway route (the point where the trains carry the greatest number of passengers during the peak hour). As the proposed project is located in northern Manhattan, the peak directions of travel are southbound during the AM peak hour and northbound during the



Legend

Project Site

S1 Subway Stair

Subway Elevator

Figure 3.16-1 125th Street IRT (4, 5, 6) Subway Station

East 125th Street Development DEIS
Economic Development Coorporation

Table 3.16.3
2007 Existing Conditions at the 125th Street IRT (4,5,6) Subway Station

Stairways

No.	Station Element/Location	Peak Period	Effective Width in Feet (1)	Maximum 15 Minute Capacity (2)	Peak 15 Minute Volume (3)	PFM (2)	V/C (5)	LOS
S2	Stairway @ SE Corner	8-9 AM	3.84	576	396	6.88	0.69	B
	Lexington Ave/E.125th St	5-6 PM	3.84	576	485	8.42	0.84	C
S4	Stairway @ NE Corner	8-9 AM	3.92	588	398	6.77	0.68	B
	Lexington Ave/E.125th St	5-6 PM	3.92	588	328	5.58	0.56	B

Fare Arrays and Exit Gates

No.	Station Element/Location	Peak Period	Maximum 15 Minute Capacity (4)	Peak 15 Minute Volume (3)	V/C	LOS
R-258	W.125th Street Fare Array	8-9 AM	5,220	1,869	0.36	B
	9 entry/exit turnstiles	5-6 PM	5,220	1,765	0.34	B
	2 high revolving exit gates					

Notes:

(1) Effective width measured as stairwell width less one foot to account for side handrails. Effective width is further reduced by 20 percent to account for friction where there are two-way flows.

(2) Stair capacity in persons per 15 minutes based on NYC Transit guidelines of 10 persons per foot-width per minute (PFM).

(3) Source: PHA November 2006 field counts.

(4) Fare array capacity based on 32 ppm for turnstiles, 20 ppm for high entry/exit turnstiles, and 30 ppm for high revolving exit gates as per NYCT guidelines.

(5) Stairway LOS - v/c ratio relationship:

LOS	V/C Ratio
A	0.00-0.50
B	0.51-0.70
C	0.71-1.00
D	1.01-1.30
E	1.31-1.70
F	>1.71

PM peak hour. The analysis of subway line haul conditions in this EIS is based on 2006 maximum load point ridership data provided by the MTA New York City Transit.

Table 3.16.4 shows the existing peak direction subway line haul conditions on the Nos. 4, 5 and 6 trains during the 8-9 AM and 5-6 PM peak commuting hours. As shown in Table 3.16-4, southbound Nos. 4 and 5 express trains have maximum load points just south the 86th Street-Lexington Avenue station during the AM peak hour, while the maximum load point for southbound No. 6 local trains in the AM is just south of the 68th St-Lexington Avenue station. In the PM peak hour, the maximum load point for northbound Nos. 4, 5 and 6 trains is located just north of the 59th Street-Lexington Avenue station.

NYC Transit calculates subway line haul capacity based on a guideline capacity of 110 passengers/car for 51-foot IRT subway cars. Using this standard, the practical capacity of the southbound Nos. 4, 5 and 6 lines are calculated to be approximately 15,400, 14,300 and 26,400 passengers per hour, respectively, during the AM peak hour. As shown in Table 3.16-4, the Nos. 4, 5 and 6 trains have volume-to-capacity ratios of 1.06, 1.00 and 0.94, respectively, during the AM peak hour. This data indicate that at the maximum load point, No. 4 trains are operating above their practical capacity, No. 5 trains are operating at capacity, and No. 6 trains are operating with some available capacity in the AM peak hour under existing conditions.

Peak direction v/c ratios are typically lower in the PM peak hour as subway demand in the AM tends to be more concentrated than in the PM. As shown in Table 3.16-4, during the PM peak hour, Nos. 4, 5 and 6 trains are all operating below capacity, with v/c ratios of 0.91, 0.78 and 0.92, respectively at the maximum load point.

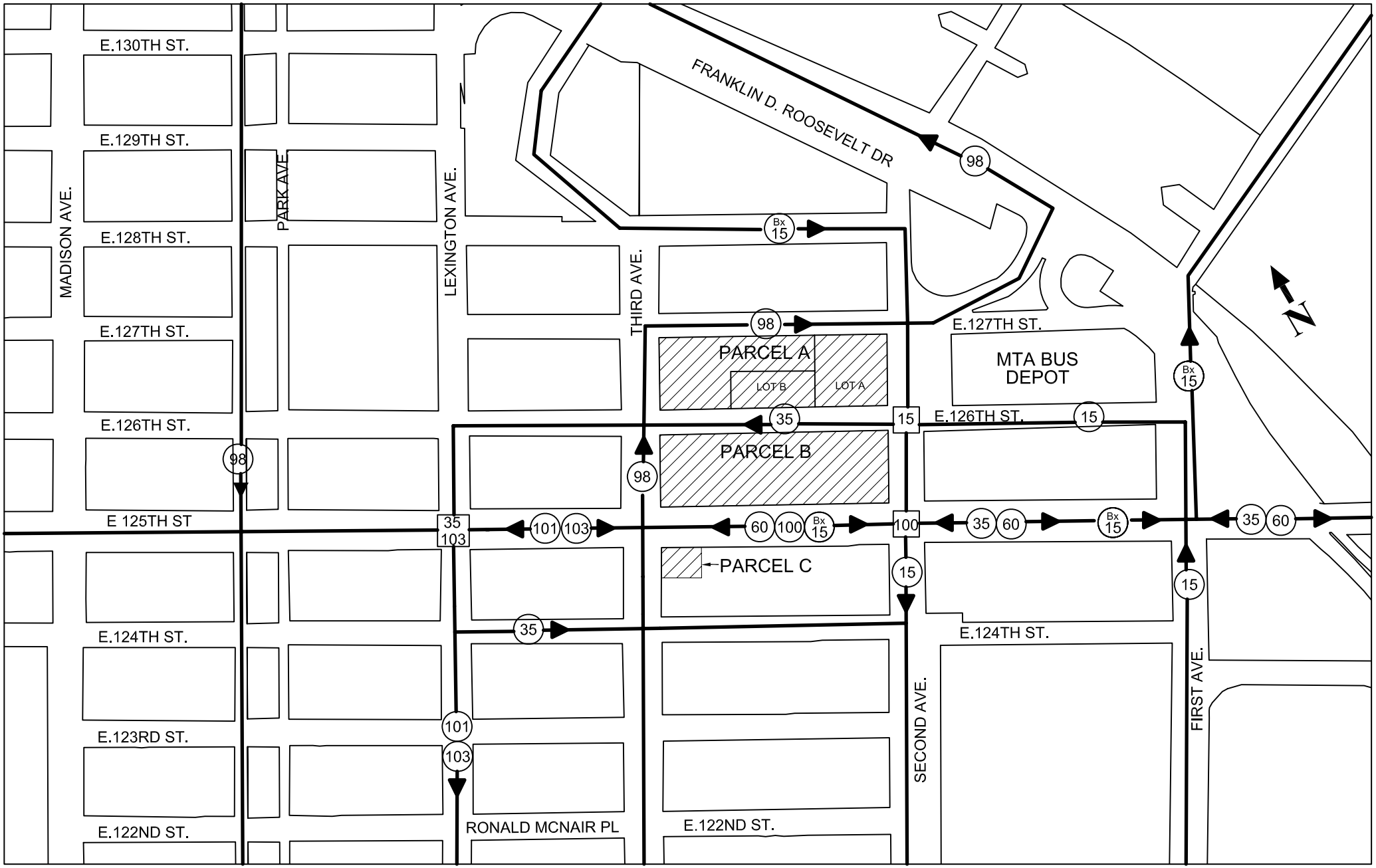
Table 3.16-4:
Existing Subway Line Haul Conditions

Peak Hour	Rte	Peak Direction	Maximum Load Point (Leaving Station)	Trains per Hour (1)	Cars per Hour (1)	Passengers per Hour (1)	Peak Hour Capacity (2)	v/c ratio (3)
AM	4	Southbound	86th St-Lexington Ave	14	140	16,381	15,400	1.06
	5	Southbound	86th St-Lexington Ave	13	130	14,287	14,300	1.00
	6	Southbound	68th St-Lexington Ave	24	240	24,820	26,400	0.94
PM	4	Northbound	59th St-Lexington Ave	14	140	13,961	15,400	0.91
	5	Northbound	59th St-Lexington Ave	14	140	12,045	15,400	0.78
	6	Northbound	59th St-Lexington Ave	21	210	21,261	23,100	0.92

Notes (1) Based on 2006 schedule and ridership data provided by NYC Transit
(2) Capacity based on NYC Transit guideline capacity of 110 passengers/car for 51' IRT subway cars.
(3) Volume-to-capacity ratio.

Bus Service

As shown in Figure 3.16-2, the study area is well served by local bus transit, with eight bus routes operating in the vicinity of the project site including the M15, M35, M60, M98, M100, M101, M103 and Bx15. The M60 and Bx15 operate primarily along 125th Street, as does the M35, which connects Roosevelt Island with the subway at Lexington Avenue. The remaining



Legend

- 35 Bus Route Number
- Direction of Service
- 15 Bus Route Terminus
- Project Site

Figure 3.16-2 Local Bus Routes

East 125th Street Development DEIS

Economic Development Coorporation

routes generally provide north-south service along major avenues, with the M100 and M101 also operating along a significant portion of 125th Street.

As the proposed project is located in northern Manhattan, the peak direction of travel during the AM peak hour is in the southbound direction, as commuters are generally traveling into the Manhattan central business district. In the PM peak hour, the peak direction of travel is typically northbound. With the exception of the M35 and M60 routes, all analyzed bus routes have maximum load points that correspond to the above-mentioned patterns. As the M35 and M60 routes provide east-west service between Manhattan and Randall's Island and Manhattan and Queens, respectively, the maximum load point on these routes occurs in the westbound direction during the AM peak period and in the eastbound direction during the PM peak hour.

The bus analysis examines the passenger conditions at the maximum load point (the point where the buses carry the greatest number of passengers in the peak hour) in the peak direction during the weekday 8-9 AM and 5-6 PM peak hours. Table 3.16-5 shows the average passengers per bus, and the available peak hour capacity for each route based on a maximum of 65 passengers per bus for standard buses and 93 passengers per bus for articulated buses, and includes both local and limited service buses. As an example, as shown in Table 3.16.5, the route with the greatest demand is the M15, which operates with articulated buses and carries approximately 1,471 passenger at its maximum load point in the peak southbound direction during the AM peak hour and 1,066 passengers in the peak northbound direction during the PM peak hour. The M15 averages 64 passengers per southbound bus in the AM peak hour and 59 passengers per northbound bus in the PM peak hour. A description of each bus route serving the project site is provided below along with existing peak hour peak direction ridership through the maximum load point.

M15

The M15, which is operated with articulated buses, provides daily service between South Ferry and an East Harlem terminus at Second Avenue/East 126th Street. On weekdays, some buses operate to and from Park Row/City Hall instead of South Ferry. Limited-Stop service is provided to and from South Ferry daily and to and from Park Row/City Hall on weekdays only. Limited-Stop service generally operates from 5:30 AM to 9:30 PM on weekdays, from 8:30 AM to 8:30 PM on Saturdays and from 10:30 AM to 8:30 PM on Sundays. The northbound M15 generally operates on Water and Allen Streets and First Avenue and the southbound M15 generally operates on Second Avenue, Allen Street and Water Street. As discussed later in this chapter, the proposed project would include the redevelopment of an existing overnight parking facility used for some of the M15 fleet near its northern terminus at Second Avenue/East 126th Street. During the AM peak hour, the maximum load point in the peak southbound direction occurs at Second Avenue/East 72nd Street with an average of 64 passengers per bus. During the PM peak hour, the maximum load point in the peak northbound direction occurs at First Avenue/East 57th Street, with an average of 59 passengers per bus.

Table 3.16.5
2007 Existing Local Bus Conditions

Peak Hour (1)	Route	Peak Direction	Maximum Load Point	Peak Hour Buses (2)	Peak Hour Passengers (2)	Average Passangers Per Bus	Available Capacity (3)	Notes
AM	M15	SB	2nd Ave & E.72nd St	23	1,471	64	668	(4,5)
	M35	WB	Wards Island	7	330	47	125	
	M60	WB	W.125th St & Lenox Ave	7	341	49	114	
	M98	SB	Lexington Ave & E.60th St	9	432	48	153	
	M100	SB	Amsterdam Ave & W.129th St	8	304	38	216	
	M101	SB	Lexington Ave & E.72nd St	10	655	66	275	(4)
	M103	SB	Lexington Ave & E.72nd St	6	225	38	333	(4)
	Bx15	SB	3rd Ave & 149th St	9	463	51	122	
PM	M15	NB	1st Ave & E.57th St	18	1,066	59	608	(4,5)
	M35	EB	Wards Island	6	212	35	178	
	M60	EB	E.125th St & Park Ave	6	280	47	110	
	M98	NB	3rd Ave & E.86th St	7	202	29	253	
	M100	NB	Amsterdam & W.129th St	8	354	44	166	
	M101	NB	3rd Ave & E.72nd St	10	718	72	212	(4)
	M103	NB	3rd Ave & E.60th St	7	331	47	320	(4)
	Bx15	NB	3rd Ave & 149th St	9	515	57	70	

Notes:

(1) Peak hours: weekday 8-9 AM and 5-6 PM.

(2) Based on most currently available NYC Transit ridership summaries, unless otherwide noted.

(3) Available capacity based on MTA NYCT loading guidelines of 65 passengers per standard bus unless otherwise noted.

(4) Available capacity based on MTA NYCT loading guidelines of 93 passengers per articulated bus.

(5) Combined Local and Limited Service

M35

The M35 provides daily service connecting Randall's and Ward's Islands to Manhattan, essentially functioning as a feeder service to the Nos. 4, 5 and 6 trains at the 125th Street station. The M35 generally operates from 5:30 AM to 1 AM and travels to and from a terminus at 125th Street and Lexington Avenue via the Triborough Bridge, East 126th Street (westbound) and East 124th Street (eastbound). The maximum load point for both the peak westbound direction during the AM peak hour and the peak eastbound direction in the PM peak hour occurs on Ward's Island, with an average of 47 westbound passengers per bus in the AM and 35 eastbound passengers per bus in the PM.

M60

The M60 provides daily service between LaGuardia Airport in Queens and a Manhattan terminus at West 106th Street and Broadway, generally operating from 4 AM to 2 AM. M60 buses traverse to and from Queens via the Triborough Bridge, 125th Street, Amsterdam Avenue and Broadway. The maximum load point in the peak westbound direction in the AM is located at West 125th Street/Lenox Avenue where there is an average of 49 passengers per bus. In the PM peak hour, the maximum load point in the peak eastbound direction is located at East 125th Street/Park Avenue where there is an average of 47 passengers per bus.

M98

The M98 provides weekday-only limited-stop service between a northern terminus at West 193rd Street/Fort Washington Avenue (Fort Tryon Park) and a southern terminus at East 34th Street/Lexington Avenue in Murray Hill, generally from 6 AM to 11 AM and from 3:30 PM to 7:30 PM. North of the 125th Street corridor, M98 buses operate via the Harlem River Drive. To the south of the corridor, M98 buses operate primarily along Lexington and Third Avenues, intersecting East 125th Street at Park Avenue (southbound) and Third Avenue (northbound). The maximum load point in the peak southbound direction in the AM is located at Lexington Avenue/East 60th Street where there is an average of 48 passengers per bus. In the PM peak hour, the maximum load point in the peak northbound direction is located at Third Avenue/East 86th Street where there is an average of 29 passengers per bus.

M100

The M100 provides daily service between East 125th Street/Second Avenue and West 220th Street/Broadway in Inwood, generally from 4 AM to 1 AM. This grid route operates primarily along the 125th Street corridor, Amsterdam Avenue and Broadway. Amsterdam Avenue/West 129th Street is the maximum load point for both the peak southbound direction in the AM peak hour (with an average of 38 passengers per bus), and for the peak northbound direction in the PM peak hour (with an average of 44 passengers per bus).

M101

The M101, which is operated with articulated buses, provides local service at all times between West 193rd Street/Amsterdam Avenue in Inwood and East 8th Street/Third Avenue in the East Village. Limited-stop service is provided between East 116th Street and East 8th Street, generally from 6 AM to 9 PM on weekdays, 10 AM to 7 PM on weekends. This grid route operates primarily along Third Avenue (northbound), Lexington Avenue (southbound), the 125th Street corridor and Amsterdam Avenue. The maximum load point in the peak southbound direction in the AM is located at Lexington Avenue/East 72nd Street where there is an average of 66 passengers per bus. In the PM peak hour, the maximum load point in the peak northbound direction is located at Third Avenue/East 72nd Street where there is an average of 72 passengers per bus.

M103

The M103, which is operated with articulated buses, provides service at all times between East 125th Street/Lexington Avenue in Harlem and Park Row/City Hall in lower Manhattan. This grid route operates primarily along Third Avenue (northbound), Lexington Avenue (southbound), Bowery and Park Row. The maximum load point in the peak southbound direction in the AM is located at Lexington Avenue/East 72nd Street where there is an average of 38 passengers per bus. In the PM peak hour, the maximum load point in the peak northbound direction is located at Third Avenue/East 60th Street where there is an average of 47 passengers per bus.

Bx15

The Bx15 is a crosstown route that operates at all times along the 125th street corridor between Twelfth Avenue in Manhattan and Third Avenue/Fordham Road (Fordham Plaza) in the Bronx. Bronx-bound, Bx15 buses utilize the Willis Avenue Bridge to cross the Harlem River, while Manhattan-bound they traverse the Third Avenue Bridge. Third Avenue/149th Street in the Bronx is the maximum load point for both the peak southbound direction in the AM peak hour (with an average of 51 passengers per bus), and for the peak northbound direction in the PM peak hour (with an average of 57 passengers per bus).

As shown in Figure 3.16.3, MTA New York City Transit (NYCT) presently utilizes part of the project site (the eastern portion of Parcel A on Third Avenue between East 126th and East 127th Streets) as parking for buses during off-peak and overnight periods. Two separate parking lots are located on Parcel A; Lot A, spanning the width of the block along Second Avenue with entrances on East 126th Street, East 127th Street and Second Avenue, and Lot B, located midblock with a single entrance on East 126th Street. These two parking facilities provide additional bus storage capacity for NYCT's 126th Street Depot located across Second Avenue from Parcel A (see Figure 3.16.3). As shown in Table 3.16.6, during field surveys conducted in October 2007, up to 77 buses were observed stored in the two parking lots on Parcel A during the overnight period. As buses depart from these lots during the AM peak period, the northern section of Lot A is used as parking for the vehicles of arriving NYCT employees. An additional bus parking lot is located on East 128th Street between Second and Third Avenues, and buses also utilize curbside parking on East 126th Street, East 127th Street, Second Avenue and Third

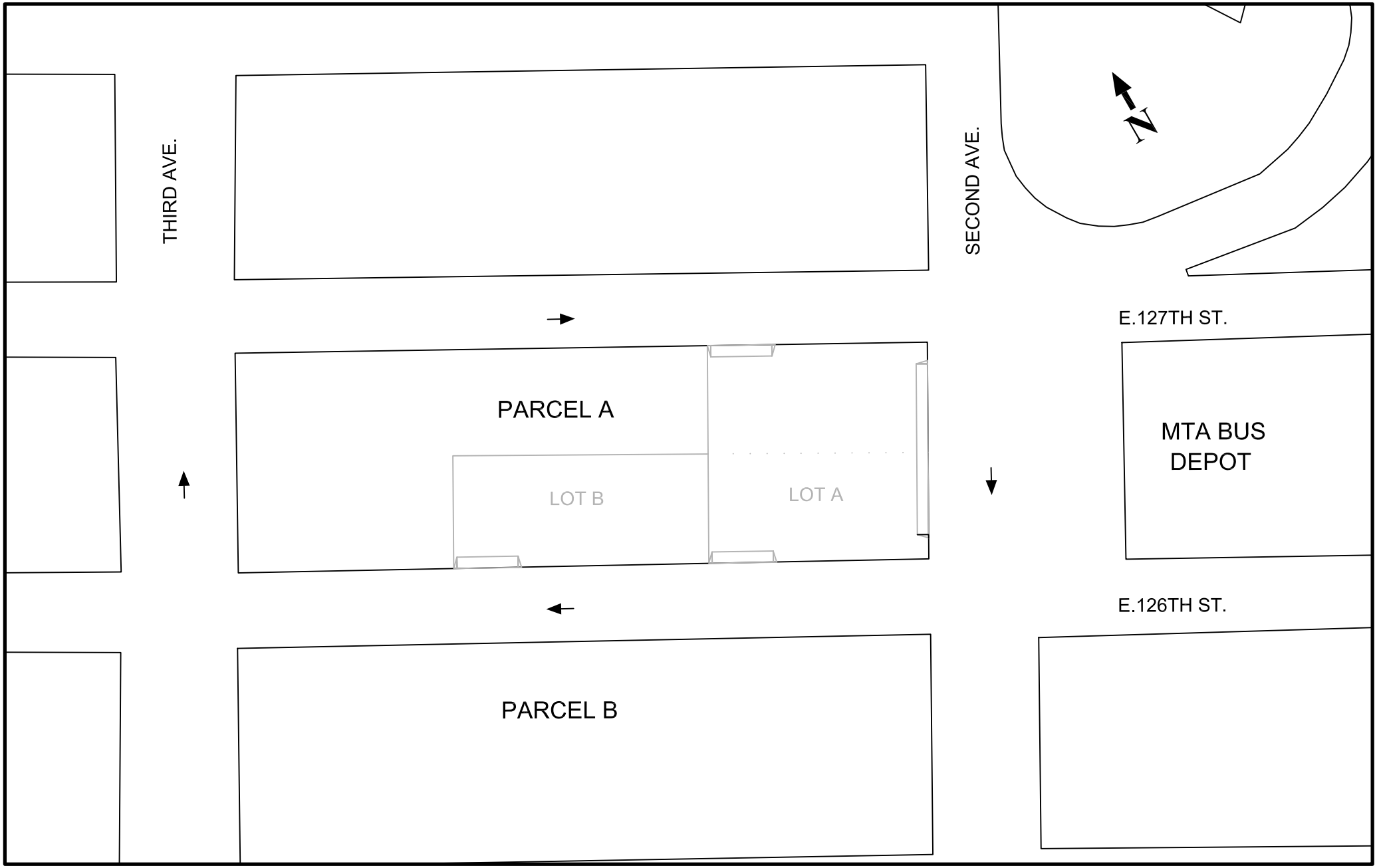


Figure 3.16-3 Existing MTA NYCT Bus Parking Facility

East 125th Street Development DEIS
Economic Development Coorporation

Table 3.16.6
Hourly Parking/Accumulation at Existing On-Site Bus Parking Facilities

	Bus									Auto		
Entrance Location	**E. 127th Street**		**E. 126th Street**		**2nd Avenue**		**Total**		**Accum.**	**2nd Avenue**		**Accum.**
Time	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**77**	**In**	**Out**	**1**
4:00AM to 5:00AM	0	1	0	0	0	2	0	3	74	0	0	1
5:00AM to 6:00AM	0	9	0	1	0	0	0	10	64	13	1	13
6:00AM to 7:00AM	0	0	0	47	0	0	0	47	17	12	6	19
7:00AM to 8:00AM	0	0	0	11	1	5	1	16	2	4	0	23
8:00AM to 9:00AM	0	0	1	0	0	0	1	0	3	0	0	23
9:00AM to 10:00AM	0	0	3	0	0	1	3	1	5	2	0	25
10:00AM to 11:00AM	0	0	7	1	1	0	8	1	12	0	1	24
11:00AM to 12:00PM	0	0	8	0	0	7	8	7	13	4	3	25
12:00PM to 1:00PM	0	0	3	0	0	4	3	4	12	4	0	29
1:00PM to 2:00PM	0	0	2	0	0	4	2	4	10	0	0	29
2:00PM to 3:00PM	0	0	1	0	0	4	1	4	7	10	17	22
3:00PM to 4:00PM	0	0	0	0	0	1	0	1	6	14	14	22
4:00PM to 5:00PM	0	0	0	0	0	0	0	0	6	1	6	17
5:00PM to 6:00PM	0	0	3	0	1	2	4	2	8	0	5	12
6:00PM to 7:00PM	0	0	2	6	7	1	9	7	10	0	3	9
7:00PM to 8:00PM	0	0	4	11	13	2	17	13	14	1	4	6
8:00PM to 9:00PM	0	0	0	0	20	0	20	0	34	1	4	3
9:00PM to 10:00PM	0	0	0	0	13	1	13	1	46	0	3	0

Notes:

Source: PHA field counts, October 2007

Existing NYCT bus parking facility is located on the eastern portion of Parcel A of the project site and is composed of two adjacent lots (Lot A and Lot B).

E. 126th Street entrance volumes represent combined flows from Lot A and Lot B.

Avenue. Approximately 34 buses were observed stored in the parking lot on East 128th Street during the overnight period.

As discussed in more detail later in this chapter, the proposed project would replace the existing surface bus parking facilities on Parcel A with a below-grade bus garage. With an entrance on East 126th and an exit on East 127th streets near Second Avenue, this new facility would reduce the numbers of buses circulating on streets in the vicinity of the project site.

Pedestrians

The pedestrian analysis focuses on sidewalks, corner areas and crosswalks where new project-generated pedestrian trips would be most concentrated. Pedestrian facilities located immediately adjacent to the project site as well as those connecting the project site to the 125th Street IRT (4, 5, 6) subway station are analyzed. As shown in Figure 3.16-4, pedestrian facilities at three intersections on East 125th Street (at Lexington, Third and Second Avenues), and two intersections each on East 126th and East 127th Street (at Third and Second Avenues) are included in the analysis of pedestrian conditions.

The analysis of pedestrian facilities considers the peak 15-minute pedestrian flow conditions during the weekday 8-9 AM and 5-6 PM peak hours and the Saturday midday (1-2 PM) peak hour. Using the methodology outlined in the *Highway Capacity Manual*, the condition of each pedestrian facility is determined by considering pedestrian volumes, measuring the sidewalk or crosswalk widths, determining the available pedestrian capacity and developing a ratio of existing volume flow to capacity conditions. The ratios are then compared with level of service standards from pedestrian flow, which define a qualitative relationship at a certain pedestrian traffic concentration level. As the performance of a crosswalk depends on traffic signal patterns, the analysis of crosswalk conditions also considers the amount of time incurred waiting for traffic signals, as well as the effects of turning vehicles that intermittently occupy the crosswalk space. To effectively evaluate a corner area, a "time-space" analysis methodology is employed which accounts for traffic cycles and conflicting vehicular movements.

The pedestrian LOS standards are based on the average available area per pedestrian during the analysis period, typically expressed as a peak 15-minute period. Levels of service A through F are assigned, with LOS A corresponding to free flow conditions and LOS F corresponding to a complete breakdown of pedestrian traffic flow indicating that forward movement is only possible by shuffling. The LOS criteria for pedestrian sidewalk, corner area and crosswalks based on the *Highway Capacity Manual* methodology are presented in Table 3.16-7.

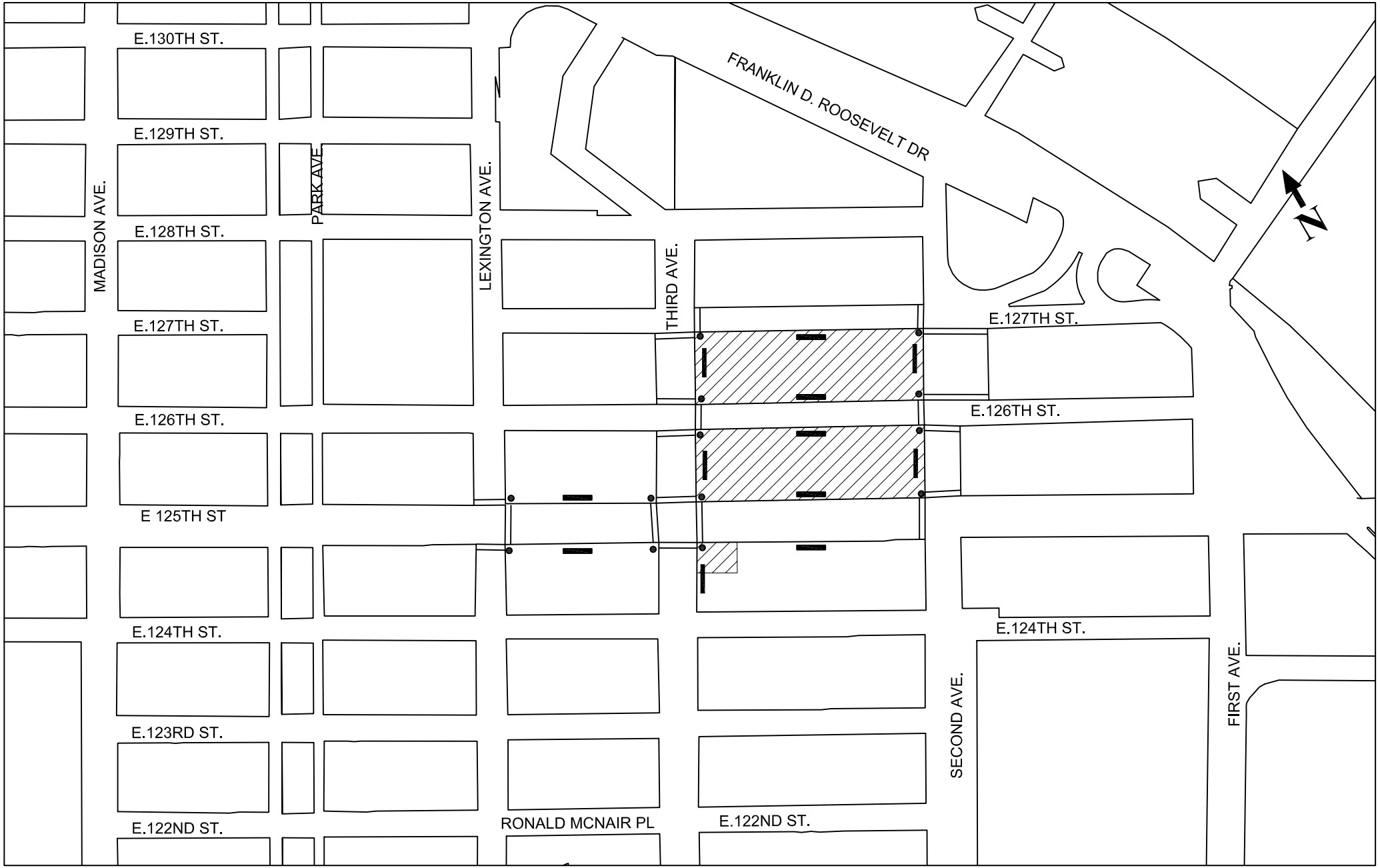


Figure 3.16-4 Analyzed Pedestrian Facilities

East 125th Street Development DEIS
Economic Development Coorporation

Table 3.16-7:
Pedestrian Crosswalk/Corner Area and Sidewalk Levels of Service Description*

Levels of Service		Crosswalk/Corner Area Criteria (sq.ft/ped)	Sidewalk Criteria (ped/min/ft)
A	Unrestricted.	≥ 60	≤ 5
B	Slightly restricted.	≥ 40	≤ 7
C	Restricted but fluid.	≥ 24	≤ 10
D	Restricted, necessary to continuously alter walking stride and direction.	≥ 15	≤ 15
E	Severely restricted.	≥ 8	≤ 23
F	Forward progress only by shuffling no reverse movement possible.	< 8	> 23

Notes: *Based on average conditions for the peak 15-minutes.
(sq.ft/ped)-square feet per pedestrian, (ped/min/ft)-pedestrian per minute per feet.
Source: *Highway Capacity Manual*

LOS analyses for sidewalk conditions include a "platoon" factor in the calculation of pedestrian flow to more accurately estimate the dynamics of walking. "Platooning" is the tendency of pedestrians to move in bunched groups or "platoons" once they cross a street where cross traffic requires them to wait. Platooning generally results in a level of service poorer than that determined by average flow rates.

Tables 3.16-8 through 3.16-10 show the existing pedestrian volumes and the resulting analysis of the sidewalks, corner areas and crosswalks during the weekday AM, weekday PM and Saturday midday peak hours under existing conditions. As shown in Tables 3.16.8 through 3.16.10, pedestrian demand is typically heavier along East 125th Street than on East 126th Street, East 127th Street and Second and Third Avenues, likely reflecting the fact that 125th Street is the primary commercial corridor within the study area. For example, peak 15-minute pedestrian volumes along the north sidewalk of East 125th Street between Lexington and Third Avenues total 189 in the weekday AM peak hour, 269 in the PM peak hour and 144 in the Saturday midday peak hour. By comparison, peak 15-minute pedestrian volumes on sidewalks along East 126th Street, East 127th Street, and Second and Third Avenues total 73 or fewer in any analyzed peak hour. Accordingly, the sidewalks and crosswalks along 125th Street are generally wider to accommodate the greater number of pedestrian trips. Sidewalks along 125th Street are approximately 20 feet in width in comparison to approximately 15 feet in width along the avenues and on East 126th and East 127th. Crosswalks in the study area range from approximately 12 to 19 feet in width, with the wider crosswalks found along East 125th Street.

As shown in Table 3.16-8, all analyzed sidewalks within the study area currently operate at LOS A in the AM, PM and Saturday midday peak hours under platoon conditions with the exception of the north and south sidewalks on 125th Street between Lexington Avenue and Third Avenue. In the existing condition, the north sidewalk on 125th Street between Lexington Avenue and Third Avenue operates at LOS B during all peak hours and the south sidewalk between Lexington Avenue and Third Ave operates at LOS B during the PM and Saturday midday. As shown in Table 3.16-9, all corner areas operate at LOS A in the existing condition and, as shown in Table 3.16-10, all analyzed crosswalks operate at LOS A with the exception of the north and

Table 3.16.8
2007 Existing Sidewalk Conditions

Intersection	Location	Effective Width (ft)	Peak 15-Minute Volumes			Flow Rate (per/min/ft)			Average Flow Level of Service			Platoon-Adjusted Level of Service		
			AM	PM	SAT MD	AM	PM	SAT MD	AM	PM	SAT MD	AM	PM	SAT MD
East 125th Street btw Lexington Ave. & Third Ave.	North	19	189	269	144	0.7	0.9	0.5	A	A	A	B	B	B
	South	17	63	161	196	0.2	0.6	0.8	A	A	A	A	B	B
East 125th Street btw Third Ave. & Second Ave.	North	17	33	35	37	0.1	0.1	0.1	A	A	A	A	A	A
	South	17	78	87	72	0.3	0.3	0.3	A	A	A	A	A	A
East 126th Street btw Third Ave. & Second Ave.	North	12	13	4	4	0.1	0.0	0.0	A	A	A	A	A	A
	South	11	14	16	13	0.1	0.1	0.1	A	A	A	A	A	A
East 127th Street btw Third Ave. & Second Ave.	South	12	3	2	6	0.0	0.0	0.0	A	A	A	A	A	A
Third Ave. btw East 124th St. & East 125th St.	East	12	32	47	73	0.2	0.3	0.4	A	A	A	A	A	A
Third Ave. btw East 125th St. & East 126th St.	East	12	13	17	17	0.1	0.1	0.1	A	A	A	A	A	A
Third Ave. btw East 126th St. & East 127th St.	East	12	14	11	15	0.1	0.1	0.1	A	A	A	A	A	A
Second Ave. btw East 125th St. & East 126th St.	West	12	26	37	57	0.1	0.2	0.3	A	A	A	A	A	A
Second Ave. btw East 126th St. & East 127th St.	West	12	11	11	15	0.1	0.1	0.1	A	A	A	A	A	A

Notes:

Effective width calculated by deducting 1.5 ft for wall avoidance, 1.5 ft for curbside obstructions and an additional 0.5 ft for other sidewalk obstacles from measured width.

Persons per minute per foot of effective width

Table 3.16.9
2007 Existing Corner Conditions

Intersection	Corner	Curb Radii (feet)	Existing Peak 15-Minute Volumes			Average Pedestrian Space (sq-ft/ped)			Existing Level of Service		
			AM	PM	SAT MD	AM	PM	SAT MD	AM	PM	SAT MD
East 125th Street and Lexington Ave.	NE	12	90	121	46	203.4	156.9	142.7	A	A	A
	SE	12	73	67	57	517.6	369.1	304.3	A	A	A
East 125th Street and Third Ave.	NW	12	21	29	11	674.3	511.1	454.1	A	A	A
	SW	12	41	75	113	379.8	256.6	196.8	A	A	A
	NE	12	2	4	5	895.6	691.5	662.4	A	A	A
	SE	12	8	11	24	592.2	441.7	403.3	A	A	A
East 125th Street and Second Ave.	NW	12	6	9	30	1059.8	988.9	610.9	A	A	A
East 126th Street and Third Ave.	NE	12	4	1	1	1273.2	1978.8	2902.2	A	A	A
	SE	12	3	4	6	2005.8	1912.7	2009.8	A	A	A
East 126th Street and Second Ave.	NW	12	0	1	1	1753.2	1623.1	1855.1	A	A	A
	SW	12	2	11	9	1182.9	918.0	918.9	A	A	A
East 127th Street and Third Ave.	SE	12	4	3	7	2177.1	6232.8	3635.1	A	A	A
East 127th Street and Second Ave.	SW	12	3	2	2	13005.0	5906.5	5417.3	A	A	A

Table 3.16.10
2007 Existing Crosswalk Conditions

Location		Existing Peak 15-Minute Volumes			Average Pedestrian Space (sq-ft/ped)			Existing Level of Service		
		AM	PM	SAT MD	AM	PM	SAT MD	AM	PM	SAT MD
East 125th Street and Lexington Ave.	North	166	200	190	71.5	57.9	61.4	A	B	A
	South	126	214	186	87.0	49.9	58.9	A	B	B
	East	98	134	261	180.5	129.8	62.9	A	A	A
East 125th Street and Third Ave.	North	41	55	41	290.6	209.0	278.3	A	A	A
	West	52	66	38	388.0	331.4	197.3	A	A	A
	South	64	90	75	159.7	111.7	135.3	A	A	A
	East	29	34	49	800.9	578.8	410.6	A	A	A
East 125th Street and Second Ave.	North	11	12	34	1,271.2	1,164.5	405.6	A	A	A
	West	82	85	107	144.3	131.0	106.9	A	A	A
East 126th Street and Third Ave.	North	22	12	6	455.5	848.5	1,687.5	A	A	A
	South	9	8	6	1,247.6	1,404.4	1,874.6	A	A	A
	East	8	9	8	2,205.7	1,959.0	2,205.7	A	A	A
East 126th Street and Second Ave.	North	18	13	15	316.4	440.0	380.7	A	A	A
	West	19	26	19	555.2	403.4	572.7	A	A	A
	South	21	17	26	107.4	224.4	167.1	A	A	A
East 127th Street and Third Ave.	South	5	2	1	2,100.3	5,260.5	10,527.4	A	A	A
	East	11	2	4	1,054.6	4,937.5	3,321.0	A	A	A
East 127th Street and Second Ave.	West	2	9	10	10,769.3	2,381.9	2,142.3	A	A	A
	South	0	0	0	No marked crosswalk at this location					

south crosswalks on Lexington Avenue at East 125th Street, which operate at LOS B during one or more peak periods.

3.16.4 FUTURE WITHOUT THE PROPOSED ACTION (NO BUILD CONDITION)

In the future without the proposed action (the No Build condition), the demand at analyzed transit and pedestrian facilities is expected to increase due to background growth and new developments near the project site. The 2012 future without the proposed action considers the principal developments that would contribute demand to the analyzed subway station, pedestrian facilities, subway line haul and bus line haul. Included is the demand from the Kingsgate House (a 250 dwelling unit residential development at Second Avenue and East 124th Street), and projected developments related to the proposed 125th Street Rezoning and Related Actions that are in proximity to the project site. Developments that would occur by 2012 but are located at a distance from the proposed project, such as the East River Plaza (an approximately 500,000 gsf "big box' commercial development on the East River Drive between East 116th and East 119th Streets), the Kalahari (a 249 dwelling unit residential development near Fifth Avenue on 112th Street) and Fifth on the Park (a mixed-use development with 297,670 sf of residential space and an 1,800-seat church located on West 124th Street at Fifth Avenue), are considered in the subway line haul analysis and bus line haul analysis.

In addition to demand from new developments, an annual background growth of 0.5 percent per year was applied to the existing transit and pedestrian demand for the 2007 to 2012 period. This background growth rate, recommended in the *CEQR Technical Manual* for projects in Manhattan, is applied to account for smaller projects, as-of-right developments, and general increases in travel demand not attributed to specific development projects.

The following sections describe how the growth in travel demand in the vicinity of the proposed project is expected to affect transit and pedestrian facilities in the 2012 future without the proposed project.

Subway Service

Under the 2012 No Build condition, subway demand would grow as a result of background growth and new development. Developments in the immediate vicinity of the proposed project are expected to contribute demand at the 125th Street IRT (4, 5, 6) station. More distant projects, such as the East River Plaza, are not expected to contribute an appreciable number of trips at the analyzed subway station but would likely contribute to the line haul demand on the Nos. 4, 5 and 6 trains.

Although no major physical or operation changes are anticipated at the 125th Street IRT (4, 5, 6) station by 2012, it should be noted that the Metropolitan Transportation Authority (MTA) and MTA New York City Transit have commenced construction of the Second Avenue Subway Project. Once complete, the Second Avenue Subway will include an 8.5-mile, two track subway line along Second Avenue from East 125th Street to Hanover Square in the Lower Manhattan

Financial District. Sixteen new ADA-accessible stations will be constructed including a connection from the Second Avenue Line to the existing 63rd Street Line.

Under the current plan, the Second Avenue Subway will be built in four phases. Phase One, to be completed by 2013, will include tunnels from 105th Street and Second Avenue to 63rd Street and Third Avenue. Service will be provided at new stations to be located at 96th Street, 86th Street and 72nd Street, with a connection to existing tracks for the Broadway Line at the existing 63rd Street/Lexington Avenue station. Q service will be extended to operate along Second Avenue from 96th Street to 63rd Street, where it will divert west along the existing 63rd Street line to the Lexington Avenue/63rd Street station. It will then continue west under Central Park on tracks that are currently not being used for passenger service and then head south to the existing 57th Street/7th Avenue station, which is currently the northern terminus of Q Service. South of the 57th Street/7th Avenue station, this new, extended Q service will follow its current route, making stops at express stations along Seventh Avenue and Broadway before crossing the Manhattan Bridge into Brooklyn.

Under Phase Two, construction will occur from 125th Street to 105th Street. New stations will be located at 125th Street/Lexington Avenue (where transfers to Metro-North and Lexington Avenue Line 4, 5, 6 service will be available), 116th Street/Second Avenue and 106th Street/Second Avenue. Service will be provided from East 125th Street to West Midtown and Brooklyn via a further extension of the Q train service.

Under Phases Three and Four, additional tunnels and stations will be constructed along Second Avenue from 72nd Street to Houston Street and then to a terminus at Hanover Square in the Financial District. Q train service between East 125th Street and West Midtown and Brooklyn will be supplemented by a new T train service operating between East 125th Street and Hanover Square.

It is anticipated that the Second Avenue subway will reduce overcrowding and delays on the Lexington Avenue Line, improving travel for both city and suburban commuters, and provide better access to mass transit for residents of the Far East Side of Manhattan. Funding for Phase One of the project, which would not directly affect the proposed project, has been identified. Construction commenced in spring 2007 and is scheduled to be complete in 2013. Funding for Phase Two, which would extend service to the vicinity of the project site and involve construction of a new station beneath East 125th Street at Lexington Avenue, has not been identified, and a schedule for this Phase has not been finalized. Therefore, to be conservative, the analyses of the 125th Street IRT (4, 5, 6) station and subway line haul conditions with the proposed project do not assume implementation of the new subway service (and reduced overcrowding on the Lexington Avenue line).

Subway Station

Table 3.16-11 shows the results of the analysis of the 125th Street IRT (4, 5, 6) subway station elements in the AM and PM peak hours under 2012 No Build conditions. In the future without the proposed project, all station elements at the 125th Street IRT (4, 5, 6) subway station would operate at an acceptable LOS B or better in the AM and PM peak hours with the exception of

Table 3.16.11
2012 No Build Conditions at the 125th Street IRT (4,5,6) Subway Station

Stairways

No.	Station Element/Location	Peak Period	Effective Width in Feet (1)	Maximum 15 Minute Capacity (2)	Peak 15 Minute Volume (3)	PFM (2)	V/C (5)	LOS
S2	Stairway @ SE Corner	8-9 AM	3.84	576	471	8.18	0.82	C
	Lexington Ave/E.125th St	5-6 PM	3.84	576	572	9.93	0.99	C
S4	Stairway @ NE Corner	8-9 AM	3.92	588	408	6.94	0.69	B
	Lexington Ave/E.125th St	5-6 PM	3.92	588	336	5.71	0.57	B

Fare Arrays and Exit Gates

No.	Station Element/Location	Peak Period	Maximum 15 Minute Capacity (4)	Peak 15 Minute Volume (3)	V/C	LOS
R-258	W.125th Street Fare Array	8-9 AM	5,220	2,019	0.39	B
	9 entry/exit turnstiles	5-6 PM	5,220	1,943	0.37	B
	2 high revolving exit gates					

Notes:

(1) Effective width measured as stairwell width less one foot to account for side handrails. Effective width is further reduced by 20 percent to account for friction where there are two-way flows.

(2) Stair capacity in persons per 15 minutes based on NYC Transit guidelines of 10 persons per foot-width per minute (PFM).

(3) Assumes 0.5 percent/year background growth for the 2007 - 2012 period plus demand from No Build developments.

(4) Fare array capacity based on 32 ppm for turnstiles, 20 ppm for high entry/exit turnstiles, and 30 ppm for high revolving exit gates as per NYCT guidelines.

(5) Stairway LOS - v/c ratio relationship:

LOS	V/C Ratio
A	0.00-0.50
B	0.51-0.70
C	0.71-1.00
D	1.01-1.30
E	1.31-1.70
F	>1.71

stairway S2, which would operate at LOS C during both peak hours. As shown in Table 3.16-11, stairway S2, located on the southeast corner of 125th Street and Lexington Avenue, would operate with a v/c ratio of 0.82 in the AM peak hour, and essentially at capacity with a v/c ratio of 0.99 in the PM peak hour.

Line Haul

Table 3.16-12 shows the anticipated line haul conditions at the maximum load points on the Nos. 4, 5 and 6 trains in the future without the proposed project. The number of passengers at the maximum load points includes a 0.5 percent per year background growth rate for the 2007 to 2012 period and additional demand from projects that would be developed by 2012. As shown in Table 3.16-12, in the AM peak hour, the Nos. 4 and 5 lines would operate above their capacities with v/c ratios of 1.10 and 1.03, respectively. The No. 6 train would operate near capacity in the AM peak hour with a v/c ratio of 0.97 in the future without the proposed project. In the PM peak hour, the Nos. 4, 5 and 6 trains would operate below capacity with v/c ratios of 0.94, 0.81 and 0.95 respectively.

Bus Service

During the 2007 through 2012 period, it is anticipated that local bus demand would grow as a result of background growth and new developments that would occur in proximity to the project site. The 2012 No Build analysis also includes the demand from projects related to the 125th Street Rezoning and Related Actions project and more distant developments that would contribute to bus line haul demand, such as East River Plaza. In the future without the proposed action, it is anticipated that NYCT would continue to utilize the eastern portion of Parcel A as a bus parking facility.

Between 2007 and 2012, it is also anticipated that MTA New York City Transit (NYCT) will implement Bus Rapid Transit (BRT) service along at least one demonstration corridor in each of the five boroughs. The M15, which currently operates along First and Second Avenues, has been designated as the Manhattan BRT demonstration route. In the No Build condition, the M15 route would be extended along 125th Street from First Avenue to Twelfth Avenue. Although a concept plan for the proposed BRT service has been completed, an operation plan and a detailed travel demand forecast have not been finalized. The analyses of future bus conditions without and with the propose project therefore do not assume implementation of the demonstration BRT route or any improvements to bus service along 125th Street, First Avenue and Second Avenue. However, a qualitative discussion of the proposed BRT service in Manhattan is provided below.

NYCT, in cooperation with the city and state departments of transportation, has prepared a concept plan that identifies the M15 route along First and Second Avenues, with an extension along 125th Street, as the demonstration corridor for Manhattan. After crossing 125th Street, the proposed BRT route will replace the existing M15 limited service on First and Second Avenues between 125th and Houston Streets. Below Houston Street, the corridor will continue via Allen and Pike Streets to Madison Street and Water Street, terminating at Whitehall Street. The M15 local service would continue to operate as it does under existing conditions, making all stops and serving both the Whitehall and City Hall branch termini.

Table 3.16.12
2012 No Build Subway Line Haul Conditions

Peak Hour	Route	Peak Direction	Maximum Load Point (Leaving Station)	Trains per Hour (1)	Cars per Hour (1)	Passengers per Hour (2)	Peak Hour Capacity (3)	V/C Ratio (4)
AM	4	Southbound	86th St-Lexington Ave	14	140	16,911	15,400	1.10
	5	Southbound	86th St-Lexington Ave	13	130	14,763	14,300	1.03
	6	Southbound	68th St-Lexington Ave	24	240	25,650	26,400	0.97
PM	4	Northbound	59th St-Lexington Ave	14	140	14,447	15,400	0.94
	5	Northbound	59th St-Lexington Ave	14	140	12,475	15,400	0.81
	6	Northbound	59th St-Lexington Ave	21	210	21,985	23,100	0.95

Notes:

(1) Based on 2006 schedule and ridership data provided by NYC Transit.

(2) Based on 2006 NYCT ridership data increased by 0.5 percent/year background growth for the 2007 - 2012 period plus demand from No Build development sites.

(3) Capacity based on a NYC Transit guideline capacity of 110 passengers/car for 51' IRT cars.

(4) Volume-to-capacity ratio.

Along 125th Street, the proposed concept plan would create bus lanes along both curbs of 125th Street from Twelfth Avenue on the west to First Avenue on the east for the westbound BRT/bus lane, and to Second Avenue for the eastbound BRT/bus lane. The bus lanes on 125th Street would operate during the peak periods of 7 AM to 10 AM and 4 PM to 7 PM in both directions, Monday through Friday. Weekend operation is also under consideration. (The curb lanes would be unavailable for parking or deliveries during these periods.) BRT stations along 125th Street would be located primarily at intersections with subway stations, and would be designated separately from local bus stops. Sidewalk bulb-outs currently present at three midblock locations between Fifth Avenue and Frederick Douglass Boulevard would be removed to accommodate the new bus lanes. (The signalized pedestrian midblock crossings at each of these locations would, however, remain.)

Along First and Second Avenues, a dedicated bus lane one lane away from the curb lane (referred to as an "interior running lane") would be provided under the BRT concept plan. This lane would be in operation 24 hours a day, 7 days per week. During peak periods, parking would be prohibited along the curb lane to provide additional capacity for transit. Sidewalk bulb-outs would be implemented at BRT stations to allow the buses to load without pulling to the curb, and to allow for a larger customer waiting area. (Local buses would stop at the curb, not at the bulb-outs, and on a different block face than the BRT stations.) In a typical configuration, three general traffic lanes plus curbside access on the left-side curb would still be maintained. BRT bus lanes would be designated through appropriate pavement markings and unique signage (including overhead signs) that would be developed for each corridor.

Bus Rapid Transit stations would be constructed from available existing sidewalk space or from agreements with other city/state agencies or private interests. BRT stations would be separate from other bus stops and would include a range of features/elements beyond what is provided at existing NYCT bus stops. (The exact location of each of the stations proposed for 125th Street and First and Second Avenues has not yet finalized.) At a minimum, each station would include a unique identifier for the BRT service (a "BRT Icon"), passenger information systems providing information on the next bus arrival, and a route map. Where space allows, additional amenities such as an expanded station shelter and possibly ticket vending machines would be provided.

The BRT system would initially utilize the existing NYCT bus fleet, however, NYCT is moving forward on purchasing low-floored articulated buses. Implementation of transit signal priority (giving BRT buses priority at signalized intersections) is also under consideration.

It is anticipated that demand for the BRT service would be comprised primarily of the ridership using the existing M15 limited service. Travel-time savings and improved reliability would also likely attract some demand from the existing M15 local bus service, the Lexington Avenue Subway Line, and other modes such as auto and taxi.

As mentioned previously, although a concept plan for the proposed BRT demonstration corridor along 125th Street and First and Second Avenues has been completed, a detailed travel demand forecast and an operating plan for the proposed BRT service are still under development. The analyses of future bus conditions without and with the proposed action therefore do not assume

implementation of any of the improvements in M15 bus service associated with the BRT proposal.

Table 3.16-13 shows the estimated peak hour, peak direction ridership at the maximum load point of each local bus route that operates in the vicinity of the project site in the 2012 future without the proposed project. The demand on NYC Transit local bus routes is expected to increase during the 2007 thru 2012 period as a result of new development and background growth. The local bus demand in the future No Build condition includes the demand from discrete projects and the 0.5 percent per year growth rate recommended by the *CEQR Technical Manual* to account for general background growth. As shown in Table 3.16-13, all local bus routes are expected to operate with available peak direction capacity in the AM and PM peak hours with the exception of the Bx15, which would experience a capacity shortfall of 26 passengers in the peak northbound direction in the PM peak hour.

As standard practice, NYC Transit routinely conducts periodic ridership counts and increases service where operationally warranted and fiscally feasible. It is therefore anticipated that the in 2012 No Build condition, NYC Transit would increase PM peak hour frequency on the Bx15 to address its capacity shortfall. As shown in Table 3.16-13, one additional northbound bus in the PM peak hour would fully address the capacity shortfall on this route in the 2012 future without the proposed project.

Pedestrians

The pedestrian flow conditions at analyzed sidewalks, corner areas and crosswalks in the 2012 future without the proposed project are determined using demand that incorporates a 0.5 percent per year background growth rate for the 2007 thru 2012 period (as recommended by the *CEQR Technical Manual*), and anticipated demand from new developments. The analysis of pedestrian facilities in the No Build condition also incorporates mitigation measures proposed for analyzed locations in the *125th Street Rezoning and Related Actions DEIS*. The resulting pedestrian conditions at analyzed sidewalks, corner areas and crosswalks in the AM, PM and Saturday midday peak hours are shown in Tables 3.16.14 through 3.16.16. As shown in Tables 3.16.14 through 3.16.16, all analyzed sidewalks, corner areas and crosswalks would operate with an acceptable LOS A or B in all peak hours in the future without the proposed project.

3.16.5 FUTURE WITH THE PROPOSED ACTION (BUILD CONDITION)

This section provides an analysis of transit and pedestrian conditions in the 2012 future with the proposed project (the Build condition). As described in Chapter 2.0, "Project Description," the proposed project is comprised of open space, residential, entertainment/retail, office, hotel and cultural facility components that would total approximately 1.7 million square feet when completed in 2012. The analysis in this section focuses on the potential for significant adverse impacts on the subway, local bus, and pedestrian facilities where concentrations of new project trips would occur.

Table 3.16.13
2012 No Build Local Bus Conditions

Peak Hour (1)	Route	Peak Direction	Maximum Load Point	2012 Peak Hour Passengers (2)	No Build Conditions with Current Service Levels: Peak Hour Buses (3)	No Build Conditions with Current Service Levels: Average Passengers per Bus	No Build Conditions with Current Service Levels: Available Capacity (4)	No Build Conditions with Potential Service Adjustments: Peak Hour Buses (6)	No Build Conditions with Potential Service Adjustments: Average Passengers per Bus	No Build Conditions with Potential Service Adjustments: Available Capacity (4)	Notes
AM	M15	SB	2nd Ave & E.72nd St	1,519	23	66	620	23	66	620	(5,7)
	M35	WB	Wards Island	338	7	48	117	7	48	117	
	M60	WB	W.125th St & Lenox Ave	386	7	55	69	7	55	69	
	M98	SB	Lexington Ave & E.60th St	453	9	50	132	9	50	132	
	M100	SB	Amsterdam Ave & W.129th St	322	8	40	198	8	40	198	
	M101	SB	Lexington Ave & E.72nd St	695	10	69	235	10	69	235	(5)
	M103	SB	Lexington Ave & E.72nd St	238	6	40	320	6	40	320	(5)
	Bx15	SB	3rd Ave & 149th St	507	9	56	78	9	56	78	
PM	M15	NB	1st Ave & E.57th St	1,121	18	62	553	18	62	553	(5,7)
	M35	EB	Wards Island	221	6	37	169	6	37	169	
	M60	EB	E.125th St & Park Ave	352	6	59	38	6	59	38	
	M98	NB	3rd Ave & E.86th St	218	7	31	237	7	31	237	
	M100	NB	Amsterdam & W.129th St	404	8	50	116	8	50	116	
	M101	NB	3rd Ave & E.72nd St	782	10	78	148	10	78	148	(5)
	M103	NB	3rd Ave & E.60th St	351	7	50	300	7	50	300	(5)
	Bx15	NB	3rd Ave & 149th St	611	9	68	-26	10	61	39	

Notes:

(1) Peak hours: weekday 8-9 AM and 5-6 PM.

(2) Assumes 0.5 percent per year background growth plus demand from No Build sites developed by 2012.

(3) Based on most currently available NYC Transit ridership summaries, unless otherwide noted.

(4) Available capacity based on MTA NYCT loading guidelines of 65 passengers per standard bus unless otherwise noted.

(5) Available capacity based on MTA NYCT loading guidelines of 93 passengers per articulated bus.

(6) Assumes service levels adjusted to address capacity shortfalls during the 2007 through 2012 period.

(7) Combined local and limited service.

Table 3.16.14
2012 No Build Sidewalk Conditions

Intersection	Location	Effective Width (ft)	Peak 15-Minute Volumes			Flow Rate (per/min/ft)			Average Flow Level of Service			Platoon-Adjusted Level of Service		
			AM	PM	SAT MD	AM	PM	SAT MD	AM	PM	SAT MD	AM	PM	SAT MD
East 125th Street btw Lexington Ave. & Third Ave.	North	19	209	299	182	0.7	1.0	0.6	A	A	A	B	B	B
	South	17	97	222	227	0.4	0.9	0.9	A	A	A	A	B	B
East 125th Street btw Third Ave. & Second Ave.	North	17	45	51	61	0.2	0.2	0.2	A	A	A	A	A	A
	South	17	125	173	136	0.5	0.7	0.5	A	A	A	A	B	B
East 126th Street btw Third Ave. & Second Ave.	North	12	13	4	4	0.1	0.0	0.0	A	A	A	A	A	A
	South	11	22	28	44	0.1	0.2	0.3	A	A	A	A	A	A
East 127th Street btw Third Ave. & Second Ave.	South	12	3	2	6	0.0	0.0	0.0	A	A	A	A	A	A
Third Ave. btw East 124th St. & East 125th St.	East	12	37	54	82	0.2	0.3	0.5	A	A	A	A	A	A
Third Ave. btw East 125th St. & East 126th St.	East	12	14	20	20	0.1	0.1	0.1	A	A	A	A	A	A
Third Ave. btw East 126th St. & East 127th St.	East	12	15	14	18	0.1	0.1	0.1	A	A	A	A	A	A
Second Ave. btw East 125th St. & East 126th St.	West	12	29	40	64	0.2	0.2	0.4	A	A	A	A	A	A
Second Ave. btw East 126th St. & East 127th St.	West	12	13	13	21	0.1	0.1	0.1	A	A	A	A	A	A

Notes:

Effective width calculated by deducting 1.5 ft for wall avoidance, 1.5 ft for curbside obstructions and an additional 0.5 ft for other sidewalk obstacles from measured width.

Persons per minute per foot of effective width

Table 3.16.15
2012 No Build Corner Conditions

Intersection	Corner	Curb Radii (feet)	No Build Peak 15-Minute Volumes			Average Pedestrian Space (sq-ft/ped)			No Build Level of Service		
			AM	PM	SAT MD	AM	PM	SAT MD	AM	PM	SAT MD
East 125th Street and Lexington Ave.	NE	12	92	124	47	190.1	146.0	130.5	A	A	A
	SE	12	75	69	58	492.3	336.5	288.9	A	A	A
East 125th Street and Third Ave.	NW	12	22	30	11	559.7	410.8	354.7	A	A	A
	SW	12	42	77	116	305.2	197.0	172.8	A	A	A
	NE	12	2	4	5	630.1	444.1	391.0	A	A	A
	SE	12	8	11	25	405.6	274.1	287.7	A	A	A
East 125th Street and Second Ave.	NW	12	6	9	31	1038.2	987.3	606.0	A	A	A
East 126th Street and Third Ave.	NE	12	4	1	1	1202.3	1553.8	2071.7	A	A	A
	SE	12	3	4	6	1333.5	1026.6	699.8	A	A	A
East 126th Street and Second Ave.	NW	12	0	1	1	1663.2	1545.7	1583.3	A	A	A
	SW	12	2	11	9	1129.0	885.1	826.8	A	A	A
East 127th Street and Third Ave.	SE	12	4	3	7	2177.1	6232.8	3635.1	A	A	A
East 127th Street and Second Ave.	SW	12	3	2	2	9288.0	3820.2	3610.0	A	A	A

Table 3.16.16
2012 No Build Crosswalk Conditions

Location		No Build Peak15-min. Volumes			Average Pedestrian Space (sq-ft/ped)			No Build Level of Service		
		AM	PM	SAT MD	AM	PM	SAT MD	AM	PM	SAT MD
East 125th Street and Lexington Ave.	North	186	227	225	62.9	59.1	56.0	A	B	B
	South	137	249	204	71.4	47.2	55.5	A	B	B
	East	100	137	268	176.7	109.1	53.9	A	A	B
East 125th Street and Third Ave.	North	62	88	86	211.3	167.4	155.3	A	A	A
	West	53	68	117	412.8	292.6	192.0	A	A	A
	South	100	153	109	108.7	77.2	99.2	A	A	A
	East	38	52	72	531.9	338.2	276.0	A	A	A
East 125th Street and Second Ave.	North	11	12	35	1,354.9	1,394.8	459.2	A	A	A
	West	84	85	106	141.4	97.9	106.6	A	A	A
East 126th Street and Third Ave.	North	22	12	6	455.2	847.9	1,686.3	A	A	A
	South	17	20	37	657.5	558.0	298.7	A	A	A
	East	10	15	14	1,761.7	1,169.7	1,254.3	A	A	A
East 126th Street and Second Ave.	North	18	13	15	316.4	440.0	380.7	A	A	A
	West	21	28	25	493.9	372.5	430.0	A	A	A
	South	21	17	26	229.7	222.5	166.3	A	A	A
East 127th Street and Third Ave.	South	5	2	1	2,100.3	5,260.5	10,527.4	A	A	A
	East	11	2	4	1,034.4	4,699.6	3,226.7	A	A	A
East 127th Street and Second Ave.	West	4	15	16	5,377.4	1,423.4	1,333.6	A	A	A
	South	0	0	0	No marked crosswalk at this location					

Table 3.15-6 in Chapter 3.15, "Traffic and Parking," shows the transportation planning assumptions that were used to forecast the number of new transit and pedestrian trips that would result from the proposed project. As shown in Table 3.15-7 in Chapter 3.15, "Traffic and Parking," the proposed project would result in approximately 1,072, 1,921 and 1,206 new person trips by subway (inbound and outbound combined) in the weekday AM, PM and Saturday midday peak hours, respectively, and approximately 295, 645 and 1,294 new person trips by local bus during these periods, respectively. Approximately 521, 1,528, and 2,431 persons are also expected to walk to and from the proposed project in the weekday AM and PM and Saturday midday peak hours, respectively. Travel demand during the weekday AM peak hour would be predominantly journey-to-work trips, whereas the higher numbers in the weekday PM peak hour reflect the combination of commuter trips and trips generated by the proposed project's entertainment/retail components.

Subway Service

As mentioned above, the proposed project would generate a total of 1,072 and 1,921 new subway trips (inbound and outbound combined) in the AM and PM peak hours, respectively. In the Build condition, subway trips to and from the proposed project would be concentrated at the 125th Street IRT (4, 5, 6) station, as it is the nearest subway station located one block to the west of the project site. The 125th Street IRT (2, 3), 125th Street IND (A, B, C, D) and 125th Street IRT (1) stations are located a half-mile or more to the west of the project site and are unlikely to experience appreciable numbers of project-generated trips.

The *CEQR Technical Manual* typically requires a detailed subway station analysis when the incremental increase in peak hour subway trips totals 200 persons per hour or more. As the proposed project is expected to exceed this threshold at the 125th Street IRT (4, 5, 6) station during the AM and PM peak hours, a quantitative analysis of this station is provided below. Any significant adverse impacts to subway service that result from the proposed project are identified.

According to the *CEQR Technical Manual*, a significant impact for a stairway is identified in terms of the width increment threshold (WIT) need to restore conditions to their No Action state. Stairways that are substantially degraded in level of service or which experience the formation of extensive queues are classified as significantly impacted. Significant stairway impacts are typically considered to have occurred once the following thresholds are reached; for a With Action LOS D condition, a WIT of six inches or more is considered significant; for LOS E, a WIT of three inches is considered significant; and for LOS F, a WIT of one inch is considered significant. For stairways operating at LOS A, B or C in the No Action condition, a refined methodology that was used for the *Hudson Yards Rezoning & Development Program GEIS* (June 2004) is employed. This methodology is based on bringing these stairways to an acceptable LOS (v/c ratio of less than 1.00), not to the LOS projected for the No Action condition.

For turnstiles, escalators, and high-wheel exit gates, the *CEQR Technical Manual* defines a significant impact as an increase of a No Action volume-to-capacity ratio of below 1.00 to a v/c ratio of greater than 1.00. Where a facility is already at a v/c ratio greater than 1.00, a 0.01 change in v/c ratio is also considered significant.

Subway Station

Table 3.16-17 shows the 2012 Build condition at the 125th Street IRT (4, 5, 6) subway station. As shown in Table 3.16-17, the fare array and exit gates would continue to operate with available capacity at an acceptable LOS C during both peak hours in the future with the proposed project. Stairway S2, located at the southeast corner of Lexington Avenue and East 125th Street, would operate at LOS C (v/c ratio of 0.84) in the AM peak and LOS D (v/c ratio of 1.02) in the PM peak hour. As the width increment threshold required to return this stairway to an acceptable level of service (a v/c ratio of less than 1.00) in the PM would total 1.4-inches, below the *CEQR Technical Manual* impact threshold of six inches for LOS D, this stairway would not be considered significantly adversely impacted.

As shown in Table 3.16-17, stairway S4, located at the northeast corner of Lexington Avenue at East 125th Street would operate at LOS D (a v/c ratio of 1.24) and LOS E (a v/c ratio of 1.57) in the AM and PM peak hours, respectively, in the future with the proposed project. As the width increment threshold required to return this stairway to an acceptable level of service (a v/c ratio of less than 1.00) in the AM peak hour would total 11.8 inches, greater than the *CEQR Technical Manual* impact threshold of six inches for LOS D, this stairway would be considered significantly adversely impacted in the AM. Similarly, as the width increment threshold required to return stairway S4 to an acceptable level of service in the PM would total 27.3 inches, greater than the *CEQR Technical Manual* impact threshold of three inches for LOS E, this stairway would also be considered significantly adversely impacted by project-generated demand in the PM peak hour. Mitigation for this significant adverse impact is discussed in Chapter 22, "Mitigation".

Line Haul

In the 2012 Build condition, the proposed project would generate a total of approximately 1,072 subway trips in the AM peak hour (646 in and 426 out) and 1,921 in the PM peak hour (777 in and 1,144 out). Because the 125th Street IRT (4, 5, 6) subway station is located one block from the project site and all other stations are located one-half mile or more to the west, the analysis conservatively assumes that all project-generated subway trips would be concentrated on the Nos. 4, 5 and 6 trains.

Table 3.16-18 shows the results of the analysis of subway line haul conditions at the maximum load points on the Nos. 4, 5 and 6 trains in the 2012 future with the proposed action. As shown in Table 3.16-18, Nos. 4, 5 and 6 trains would have v/c ratios of 1.10, 1.04 and 0.98 respectively in the peak southbound direction in the AM peak hour in the future with the proposed project, compared to 1.10, 1.03 and 0.97 respectively in the future without the proposed project. In the PM peak hour, Nos. 4, 5 and 6 trains would operate below capacity in the peak northbound direction, with v/c ratios of less than 1.00.

Under *CEQR Technical Manual* criteria, any increase in load levels that remain within practical capacity limits are generally not considered significant impacts. (A guideline capacity of 110 passengers/car established by NYCT for the 51-foot IRT subway cars used for Nos. 4, 5 and 6

Table 3.16.17
2012 Build Conditions at the 125th Street IRT (4,5,6) Subway Station

Stairways

No.	Station Element/Location	Peak Period	Effective Width in Feet (1)	Maximum 15 Minute Capacity (2)	No Build Pk 15 Min Volume	Pk 15 Min Project Increment	Build Pk 15 Min Volume	2017 No Build PFM (2)	2017 No Build V/C	2017 No Build LOS	2017 Build PFM (2)	2017 Build V/C	2017 Build LOS	Width Increment Threshold in Inches (3)
S2	Stairway @ SE Corner	8-9 AM	3.84	576	471	15	486	8.18	0.82	C	8.44	0.84	C	
	Lexington Ave/E.125th St	5-6 PM	3.84	576	572	18	590	9.93	0.99	C	10.24	1.02	D	1.4 < 6
S4	Stairway @ NE Corner	8-9 AM	3.92	588	408	320	728	6.94	0.69	B	12.38	1.24	D	11.8 < 6 *
	Lexington Ave/E.125th St	5-6 PM	3.92	588	336	585	921	5.71	0.57	B	15.66	1.57	E	27.3 > 3 *

Fare Arrays and Exit Gates

No.	Station Element/Location	Peak Period	Maximum 15 Minute Capacity (4)	No Build Pk 15 Min Volume	Pk 15 Min Project Increment	Build Pk 15 Min Volume	2017 No Build V/C	2017 No Build LOS	2017 Build V/C	2017 Build LOS
R-258	W.125th Street Fare Array	8-9 AM	5,220	2,019	335	2,354	0.39	B	0.45	C
	9 entry/exit turnstiles	5-6 PM	5,220	1,943	603	2,546	0.37	B	0.49	C
	2 high revolving exit gates									

Notes:

(1) Effective width measured as stairwell width less one foot to account for side handrails. Effective width is further reduced by 20 percent to account for friction where there are two-way flows.

(2) Stair capacity in persons per 15 minutes based on NYC Transit guidelines of 10 persons per foot-width per minute (PFM).

(3) Width increment threshold needed to restore processor to No Build conditions.

(4) Fare array capacity based on 32 ppm for turnstiles, 20 ppm for high entry/exit turnstiles, and 30 ppm for high revolving exit gates as per NYCT guidelines.

(5) Stairway LOS - v/c ratio relationship:

LOS	V/C Ratio
A	0.00-0.50
B	0.51-0.70
C	0.71-1.00
D	1.01-1.30
E	1.31-1.70
F	>1.71

* Denotes a significant adverse impact based on *CEQR Technical Manual* criteria.

Table 3.16.18
2012 Build Subway Line Haul Conditions

							No Build		Build		
Peak Hour	Route	Peak Direction	Maximum Load Point (Leaving Station)	Trains per Hour (1)	Cars per Hour (1)	Peak Hour Capacity (2)	Passengers per Hour (2)	V/C Ratio (4)	Passengers per Hour (2)	V/C Ratio (4)	Avg. Added Passengers per Car
AM	4	Southbound	86th St-Lexington Ave	14	140	15,400	16,911	1.10	17,009	1.10	0.7
	5	Southbound	86th St-Lexington Ave	13	130	14,300	14,763	1.03	14,848	1.04	0.7
	6	Southbound	68th St-Lexington Ave	24	240	26,400	25,650	0.97	25,800	0.98	0.6
PM	4	Northbound	59th St-Lexington Ave	14	140	15,400	14,447	0.94	14,602	0.95	1.1
	5	Northbound	59th St-Lexington Ave	14	140	15,400	12,475	0.81	12,610	0.82	1.0
	6	Northbound	59th St-Lexington Ave	21	210	23,100	21,985	0.95	22,222	0.96	1.1

Notes:

(1) Based on 2006 schedule and ridership data provided by NYC Transit.

(2) Based on 2006 NYCT ridership data increased by 0.5 percent/year background growth for the 2007 - 2012 period plus demand from No Build development sites.

(3) Capacity based on a NYC Transit guideline capacity of 110 passengers/car for 51' IRT cars.

(4) Volume-to-capacity ratio.

trains was assumed for the analysis.) Projected increases from No Action conditions to a With Action condition that exceed practical capacity may be considered significant impacts if the proposed action generates five or more additional passengers per car. Table 3.16-18 shows that in the peak direction in the AM and PM peak hours, the proposed project is expected to add no more than 1.1 peak hour passengers per car. As the proposed project is expected to add less than the *CEQR Technical Manual* threshold of five peak hour passengers per car, no significant adverse impacts to peak direction subway line haul service is expected to result from implementation of the proposed action.

Local Bus

The proposed action is expected to generate approximately 161 inbound and 134 outbound local bus trips in the AM peak hour and approximately 290 inbound and 355 outbound local bus trips in the PM peak hour. These trips were assigned to the eight local bus routes serving the project site based on existing demand patterns and the proximity of each route to the proposed project. Table 3.16-19 shows conditions at the maximum load point on each route with this increased demand in the 2012 future with the proposed action. As shown in Table 3.16-19, the proposed project would add up to 34 peak direction passengers in the AM peak hour and up to 51 peak direction passengers in the PM peak hour on each of the eight analyzed bus routes. However, all local bus routes would continue to operate with available capacity through their maximum load points in the peak direction in both the AM and PM peak hours.

According to current NYCT guidelines, increases in bus load levels to above their maximum capacity at any load point is considered a significant adverse impact as it would necessitate the addition of more bus service along that route. As all analyzed local bus routes are expected to operate with available capacity through their maximum load points in all peak hours in the 2012 Build condition, no significant adverse impacts to local bus service would result from the proposed project.

As noted previously, with implementation of the proposed project, the two at-grade NYCT bus parking lots (Lot A and Lot B) located on Parcel A would be replaced by a single, below-grade bus garage at the same location. As shown in Figure 3.15-15 in Chapter 3.15, "Traffic and Parking," buses would enter this facility from East 126th Street near Second Avenue, and exit onto East 127th Street. Between the garage exit and Second Avenue, the south sidewalk along East 127th Street would be set back by approximately 10 feet to accommodate an additional curbside lane for vehicles making the right turn onto the avenue. This recessed sidewalk would be connected to the remaining sidewalk along East 127th Street by a short crosswalk at the exit to the proposed garage. It is anticipated that the capacity of the proposed bus garage would be comparable to the existing parking lots on the site, and that it would therefore be able to fully accommodate the existing on-site bus parking demand.

As shown in Figure 3.16-3, the existing Lot A has entrances on East 126th Street, East 127th Street and Second Avenue. Buses currently enter and exit Lot A from both Second Avenue and East 126th Street. Buses also exit Lot A onto East 127th Street in the AM only (this entrance is typically closed at other times). All access to and from Lot B is via East 126th Street. Many of the buses exiting both Lot A and Lot B onto westbound East 126th Street are en route to First or

Table 3.16.19
2012 Build Local Bus Conditions

Peak Hour (1)	Route	Peak Direction	Maximum Load Point	Build Conditions with Current Service Levels				Notes
				Peak Hour Buses (2)	No Build Available Capacity (3)	Project Increment	Build Available Capacity (3)	
AM	M15	SB	2nd Ave & E.72nd St	23	620	34	586	(4,5)
	M35	WB	Wards Island	7	117	9	108	
	M60	WB	W.125th St & Lenox Ave	7	69	7	62	
	M98	SB	Lexington Ave & E.60th St	9	132	10	122	
	M100	SB	Amsterdam Ave & W.129th St	8	198	8	190	
	M101	SB	Lexington Ave & E.72nd St	10	235	15	220	(4)
	M103	SB	Lexington Ave & E.72nd St	6	320	5	315	(4)
	Bx15	SB	3rd Ave & 149th St	9	78	13	65	
PM	M15	NB	1st Ave & E.57th St	18	553	51	502	(4,5)
	M35	EB	Wards Island	6	169	13	156	
	M60	EB	E.125th St & Park Ave	6	38	13	25	
	M98	NB	3rd Ave & E.86th St	7	237	9	228	
	M100	NB	Amsterdam & W.129th St	8	116	21	95	
	M101	NB	3rd Ave & E.72nd St	10	148	33	115	(4)
	M103	NB	3rd Ave & E.60th St	7	300	16	284	(4)
	Bx15	NB	3rd Ave & 149th St	10	39	30	9	

Notes:

(1) Peak hours: weekday 8-9 AM and 5-6 PM.

(2) Assumes service levels adjusted to address capacity shortfalls in the No Build condition.

(3) Available capacity based on MTA NYCT loading guidelines of 65 passengers per standard bus unless otherwise noted.

(4) Available capacity based on MTA NYCT loading guidelines of 93 passengers per articulated bus.

(5) Combined Local and Limited Service

* Denotes a significant adverse impact based on current NYC Transit guidelines.

Second Avenues, and circulate around the block turning right onto northbound Third Avenue, and right again onto eastbound East 127th Street.

With implementation of the proposed project, it is anticipated that all buses using the proposed below-grade bus garage would enter the facility from westbound East 126th Street and exit onto eastbound East 127th Street, providing for convenient access to and from Second Avenue. As all buses would be able to exit directly onto East 127th Street, there would no longer be a need for any buses to circulate around the block via Third Avenue to travel eastbound. As a result, it is anticipated that there would be fewer bus turning movements along Third Avenue adjacent to the project site compared to existing and No Build conditions.

Pedestrians

Under 2012 Build conditions, the analyzed sidewalks, corner areas and crosswalks would experience an increase in pedestrian volumes as a result of new demand from the proposed project. This new pedestrian demand would include trips made solely by walking as well as pedestrian trips en route to and from subway station entrances, bus stops, and Metro-North. In total, the proposed project is expected to generate (inbound and outbound) approximately 521 walk-only trips, 1,072 subway trips, 295 local bus trips and 22 commuter rail trips in the AM peak hour, and 1,528 walk-only trips, 1,921 subway trips, 645 local bus trips and 54 commuter rail trips in the PM peak hour. In the Saturday midday peak hour, the proposed project would generate approximately 2,431 walk-only trips, 1,206 subway trips, 1,294 local bus trips and 71 commuter rail trips, many en route to and from the proposed project's entertainment/retail component.

Pedestrian demand generated by the proposed project would be most concentrated on sidewalks, corner areas and crosswalks in the immediate vicinity of the project site, especially along East 125th Street, which provides access to subway station entrances and several bus routes. The greatest numbers of new pedestrian trips would occur along the north sidewalk of East 125th Street between Lexington Avenue and Third Avenue and the east sidewalk of Third Avenue between East 125th Street and East 126th Street. These two sidewalks would experience an increase in peak 15-minute volumes of 331 and 282 trips, respectively, in the AM peak hour, 642 and 906 trips, respectively, in the PM peak hour, and 490 and 1,388 trips, respectively, in the Saturday midday peak hour. The smallest increases in pedestrian volumes on sidewalks in the vicinity of the project site would occur along the south sidewalk of East 127th Street between Third Avenue and Second Avenue and the west sidewalk of Second Avenue between East 126th Street and East 127th Street. Project-generated demand on these sidewalks would total no more than 45 trips in the peak 15 minutes in any analyzed peak hour.

For sidewalks outside of the Manhattan CBD (the area of Manhattan below 60th Street) and downtown Brooklyn, the *CEQR Technical Manual* defines a significant adverse impact to have occurred when the flow rate increases by two or more pedestrians per foot per minute (PFM) over No Action conditions characterized by flow rates over 13 PFM (mid-LOS D). Increments of one PFM may be perceptible, but not necessarily a significant impact.

As shown in Table 3.16-20, all analyzed sidewalks would operate at an acceptable LOS C or better under platoon conditions during all analyzed peak hours with the exception of the east sidewalk on Third Avenue between East 125th Street and East 126th Street. This sidewalk would operate at LOS D in the Saturday midday peak hour with a flow rate of approximately 7.8 PFM. However, as this and all other analyzed sidewalks would continue to operate with flow rates of less that 13 PFM in all periods, no significant adverse sidewalk impacts are anticipated to result from implementation of the proposed action.

For crosswalk and corner areas outside of the Manhattan CBD and downtown Brooklyn, the *CEQR Technical Manual* defines a significant adverse impact as a decrease in pedestrian space of one or more square feet per pedestrian when the No Action condition has an average occupancy under 20 square feet per pedestrian (mid-LOS D). Increments of one square foot or more applied to No Action conditions within LOS D, or any deterioration from LOS C or better to LOS D, may be perceptible but not necessarily significant impacts.

As shown in Table 3.16-21, all analyzed corner areas would continue to operate at an acceptable LOS A or B in all peak periods under 2012 Build conditions. Therefore, no significant adverse impacts to corner areas are expected with implementation of the proposed project.

As shown in Table 3.16-22, in the future with the proposed action, all analyzed crosswalks would continue to operate at an acceptable LOS C or better during all analyzed peak hours, except for the north crosswalk at East 125th Street and Third Avenue, which would operate at LOS D in both the weekday PM and Saturday midday peak hours (15.4 and 16.0 square feet per pedestrian, respectively). However, as discussed above, the deterioration from LOS C to LOS D at this facility would not constitute a significant adverse crosswalk impact based on *CEQR Technical Manual* criteria. Therefore, no significant adverse impacts to analyzed crosswalk locations are anticipated to result from implementation of the proposed action.

Table 3.16.20
2012 Build Sidewalk Conditions

Intersection	Location	Effective Width (ft)	Peak 15-Minute Volumes			Flow Rate (per/min/ft)			Average Flow Level of Service			Platoon-Adjusted Level of Service		
			AM	PM	SAT MD	AM	PM	SAT MD	AM	PM	SAT MD	AM	PM	SAT MD
East 125th Street btw Lexington Ave. & Third Ave.	North	19	540	941	672	1.9	3.3	2.4	A	A	A	B	C	B
	South	17	138	305	349	0.5	1.2	1.4	A	A	A	B	B	B
East 125th Street btw Third Ave. & Second Ave.	North	17	103	160	202	0.4	0.6	0.8	A	A	A	A	B	B
	South	17	143	230	243	0.6	0.9	1.0	A	A	A	B	B	B
East 126th Street btw Third Ave. & Second Ave.	North	12	58	75	67	0.3	0.4	0.4	A	A	A	A	A	A
	South	11	53	82	114	0.3	0.5	0.7	A	A	A	A	A	B
East 127th Street btw Third Ave. & Second Ave.	South	12	7	7	11	0.0	0.0	0.1	A	A	A	A	A	A
Third Ave. btw East 124th St. & East 125th St.	East	12	60	118	194	0.3	0.7	1.1	A	A	A	A	B	B
Third Ave. btw East 125th St. & East 126th St.	East	12	296	926	1408	1.6	5.1	7.8	A	B	C	B	C	D
Third Ave. btw East 126th St. & East 127th St.	East	12	69	145	215	0.4	0.8	1.2	A	A	A	A	B	B
Second Ave. btw East 125th St. & East 126th St.	West	12	64	88	107	0.4	0.5	0.6	A	A	A	A	A	B
Second Ave. btw East 126th St. & East 127th St.	West	12	28	48	66	0.2	0.3	0.4	A	A	A	A	A	A

Notes:

Effective width calculated by deducting 1.5 ft for wall avoidance, 1.5 ft for curbside obstructions and an additional 0.5 ft for other sidewalk obstacles from measured width.

Persons per minute per foot of effective width

Table 3.16.21
2012 Build Corner Conditions

Intersection	Corner	Curb Radii (feet)	Build Peak 15-Minute Volumes			Average Pedestrian Space (sq-ft/ped)			Build Level of Service		
			AM	PM	SAT MD	AM	PM	SAT MD	AM	PM	SAT MD
East 125th Street and Lexington Ave.	NE	12	404	707	430	101.4	62.6	67.6	A	A	A
	SE	12	91	87	67	435.8	283.7	233.6	A	A	A
East 125th Street and Third Ave.	NW	12	52	68	31	146.0	76.7	76.1	A	A	A
	SW	12	42	77	116	225.2	117.3	83.3	A	A	A
	NE	12	34	79	115	122.6	53.5	49.1	A	B	B
	SE	12	12	15	25	225.3	107.2	73.0	A	A	A
East 125th Street and Second Ave.	NW	12	28	34	41	675.1	503.0	339.5	A	A	A
East 126th Street and Third Ave.	NE	12	18	37	63	212.0	104.6	73.2	A	A	A
	SE	12	12	15	15	215.0	105.2	72.6	A	A	A
East 126th Street and Second Ave.	NW	12	22	32	22	830.9	654.9	697.1	A	A	A
	SW	12	9	26	34	729.5	510.4	430.6	A	A	A
East 127th Street and Third Ave.	SE	12	15	17	21	547.1	315.5	203.0	A	A	A
East 127th Street and Second Ave.	SW	12	7	6	6	3247.7	1802.5	1582.9	A	A	A

Table 3.16.22
2012 Build Crosswalk Conditions

Location		Build Peak15-min. Volumes AM	PM	SAT MD	Average Pedestrian Space (sq-ft/ped) AM	PM	SAT MD	Build Level of Service AM	PM	SAT MD
East 125th Street and Lexington Ave.	North	204	287	334	56.6	45.0	35.1	B	B	C
	South	161	314	317	59.7	36.0	33.2	B	C	C
	East	100	137	268	176.7	109.1	55.8	A	A	B
East 125th Street and Third Ave.	North	378	747	661	30.3	15.4	16.0	C	D	D
	West	69	125	225	331.5	164.3	96.0	A	A	A
	South	151	287	335	69.9	38.4	28.6	A	C	C
	East	96	231	400	205.8	71.0	44.2	A	A	B
East 125th Street and Second Ave.	North	20	41	89	741.3	402.0	175.5	A	A	A
	West	107	132	175	78.3	50.7	41.5	A	B	B
East 126th Street and Third Ave.	North	69	116	160	137.4	76.8	54.0	A	A	B
	South	58	105	162	188.4	101.4	63.8	A	A	A
	East	112	243	335	145.2	60.9	41.6	A	A	B
East 126th Street and Second Ave.	North	22	18	20	212.2	241.0	236.2	A	A	A
	West	34	49	51	267.6	160.8	153.0	A	A	A
	South	25	22	30	208.7	237.8	173.1	A	A	A
East 127th Street and Third Ave.	South	42	84	124	244.5	119.3	79.0	A	A	A
	East	22	34	62	462.8	197.5	156.0	A	A	A
East 127th Street and Second Ave.	West	13	30	35	1,644.6	704.6	602.0	A	A	A
	South	0	0	0	No marked crosswalk at this location					

3.16.6 CONCLUSION

This chapter analyzes the effects of added travel demand from the proposed action on subway service, local bus services and pedestrian facilities in the vicinity of the project site. The results of the analyses show that this new demand would not result in any significant adverse impacts to subway line haul conditions, local bus services or pedestrian facilities (sidewalks, corner areas and crosswalks) in any analyzed peak hour in the 2012 future with the proposed action. However, project-generated subway trips at the 125th Street IRT (4, 5, 6) subway station would result in significant adverse impacts to stair S4 at the northeast corner of East 125th Street and Lexington Avenue in both the AM and PM peak hours. Mitigation measures to address subway station stairway impacts typically involve physically widening an affected stair to increase its capacity, or implementing measures that would decrease demand, typically by providing new and/or more convenient access points. Between the Draft EIS and Final EIS, the feasibility of widening stair S4 and other potential mitigation measures will be evaluated in consultation with NYC Transit. If widening stair S4 and other potential mitigation measures should prove infeasible, the proposed action's significant adverse impacts to this stair in the AM and PM peak hours would remain unmitigated.