Chapter 12: Transportation

12.1 Introduction

This chapter describes the transportation characteristics and potential impacts associated with the Proposed Action, which consists of zoning text and zoning map amendments within the East Midtown neighborhood of Manhattan Community Districts 5 and 6. The rezoning area affects 78 blocks and is generally bounded by East 57th Street to the north, East 39th Street to the south, Second and Third Avenues to the east, and Fifth Avenue to the west. As described in detail in other sections of this EIS, the Proposed Action is intended to reinforce the area's standing as a premier central business district, support the preservation of landmarks and provide for public realm improvements.

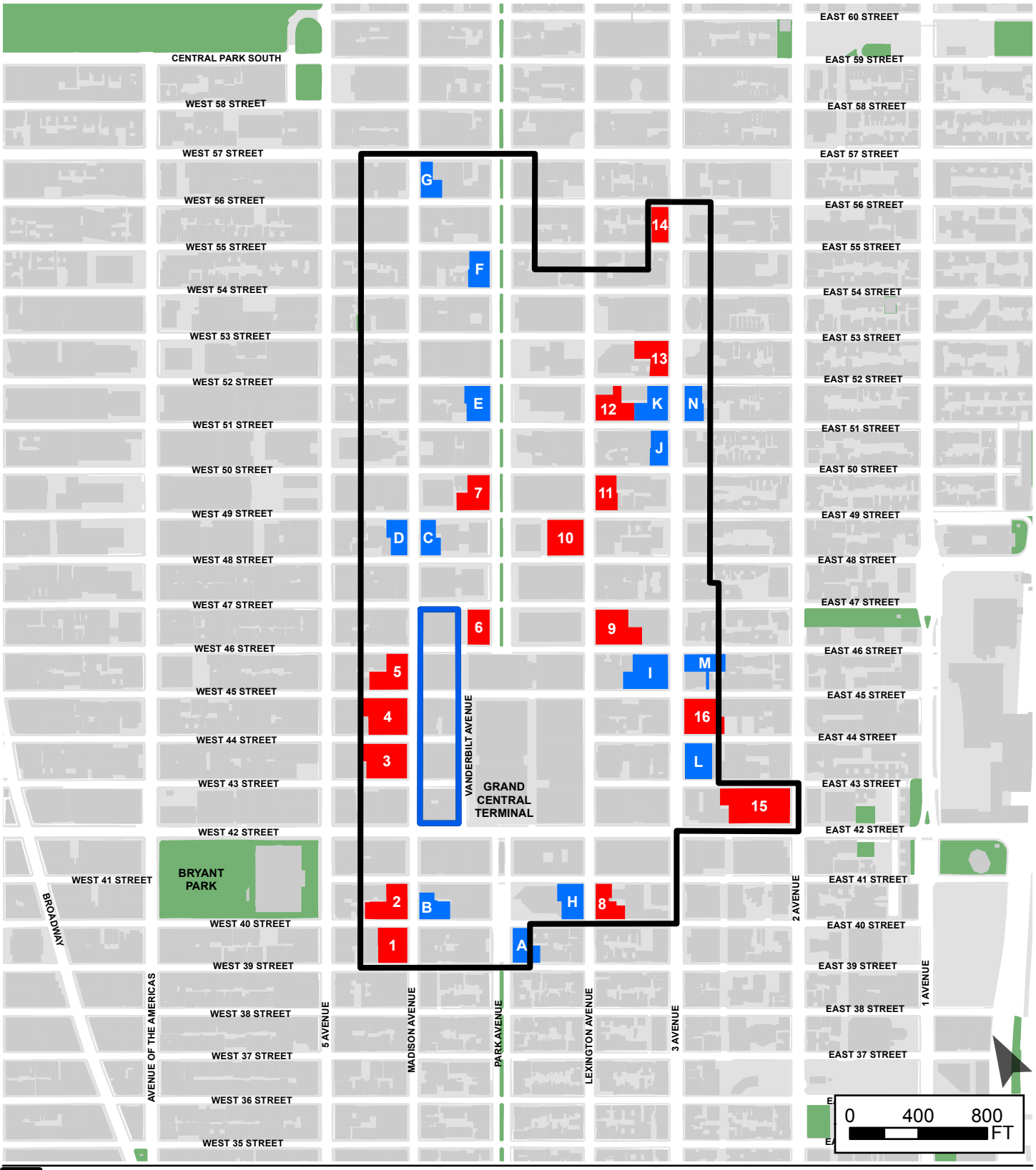
Typically, CEQR assessments of large area-wide zoning proposals not associated with specific development projects assume an approximately 20-year build period. This is the time frame that can be reasonably predicted into the foreseeable future without engaging in highly speculative projections. Thus, the transportation analyses in this EIS address a development program that could reasonably be constructed by 2036.

As discussed in Section 1.4 of Chapter 1 "Project Description," the New York City Department of City Planning (DCP) has developed a Reasonable Worst-Case Development Scenario (RWCDS) identifying 16 Projected Development Sites that are considered likely to be developed by 2036, the analysis year for the Proposed Action, and 14 Potential Development Sites that are considered less likely to be developed. This chapter analyzes only Projected Development Sites. Figure 12-1 shows the boundaries of the proposed rezoning area and the locations of Projected Development Sites and Potential Development Sites. Table 12.1 summarizes the No-Action Condition, With-Action Condition, and net incremental change of component sizes by land use for the RWCDS. As shown in the table, under the RWCDS, the Proposed Action would result in a net increase of approximately 6.6 million gross square feet (gsf) of office uses, 57,477 gsf of local retail uses, and 81,548 gsf of destination retail uses. The Proposed Action would also result in a net reduction of 1,246 hotel rooms, 44 residential dwelling units, and 564 parking spaces, compared to the No-Action condition.

Table 12.1: RWCDS Summary for Projected Development Sites

Land Use	No-Action Condition	With-Action Condition	Net Increment
Office	6,812,920 gsf	13,394,777 gsf	+6,581,857 gsf
Local Retail	390,599 gsf[1]	448,076 gsf	+57,477 gsf
Destination Retail	72,275 gsf	153,823 gsf	+81,548 gsf
Hotel	1,246 rooms	0 rooms	-1,246 rooms
Residential	163 dwelling units	119 dwelling units	-44 dwelling units
Parking Spaces	564	0	-564

Note:
[1] A portion of Projected Development Site 9 includes the Grand Central Branch of the New York Public Library. For trip generation purposes, this space is assumed as a local retail use based on the type of pedestrian traffic that it generates.



Proposed Greater East Midtown Rezoning Boundary

Vanderbilt Corridor (Existing Regulations Apply)

1 Projected Development Site (w/ I.D. Label)

A Potential Development Site (w/ I.D. Label)

Greater East Midtown Rezoning
Manhattan, New York

Proposed Rezoning Area
RWCDS Sites

Figure 12-1

vhb

This chapter describes in detail the existing transportation conditions in proximity to the rezoning area. Future conditions in the year 2036 without the Proposed Action (the No-Action Condition) are then determined, including additional transportation-system demand and any changes expected by the year 2036. The incremental increase in travel demand resulting from the Proposed Action is then projected and added to the No-Action Condition to develop the 2036 future with the Proposed Action (the With-Action Condition). Significant adverse impacts from project-generated trips are then identified and described in detail. Chapter 19, "Mitigation," addresses practicable measures to address these impacts.

Principal Conclusions

Traffic

Weekday AM, Midday, and PM peak hour traffic conditions were analyzed at 119 intersections in the traffic study area, where additional traffic resulting from the Proposed Action would be most heavily concentrated. As summarized in Table 12.2, the traffic impact analysis indicates the potential for significant adverse impacts at 116 intersections during one or more analyzed peak hours; specifically, the impact locations comprise 189 approach movements at 101 intersections during the AM peak hour, 179 approach movements at 101 intersections during the Midday peak hour, and 200 approach movements at 106 intersections during the PM peak hour. Chapter 19, "Mitigation," discusses standard traffic engineering measures that could be used to mitigate some of these significant adverse impacts.

As part of the Proposed Action, a public realm improvement fund would provide the ability to finance above-grade improvements as identified by the New York City Department of Transportation (DOT) (see Section 1.4 of Chapter 1, "Project Description.") These improvements include pedestrian plazas, shared streets, widening of the Park Avenue median, bus bulbs, bus lanes, crosswalk widenings, curb extensions and sidewalk widenings, pedestrian refuge islands, and turn bays. While the exact type and locations of above-grade improvements are not finalized, for purposes of analysis in this Draft EIS, a conceptual plan of these improvements is provided and qualitatively assessed. It is anticipated that some of these above-grade public realm improvements identified in the Concept Plan could result in new, different, or worsened traffic impacts at certain locations.

Table 12.2: Summary of Significant Adverse Traffic Impacts

Intersection	Peak Hour		
	AM	Midday	PM
1st Ave. & E. 40th St.	EB-L, NB-T	EB-L	EB-L, NB-T
1st Ave. & E. 42nd St.	WB-TR (East), WB-R (East), NB-LT (East)		NB-LT (East), NB-R (East), NB-L (West)
1st Ave. & E. 44th St.		EB-L	
1st Ave. & E. 46th St.		EB-L	EB-L, NB-T
1st Ave. & E. 47th St.			NB-T (East)
1st Ave. & E. 48th St.	EB-L (West)		NB-R (East)
1st Ave. & E. 49th St.	WB-T (East), NB-LT (West)		NB-T (East), NB-T (West)
1st Ave. & E. 54th St.		EB-LT	EB-LT
1st Ave. & E. 55th St.	NB-L		NB-T
1st Ave. & E. 57th St.	NB-T		NB-L
2nd Ave. & E. 36th St.	EB-TR, SB-L, SB-T		EB-TR, SB-T
2nd Ave. & E. 37th St.	SB-T	SB-TR	SB-T
2nd Ave. & E. 38th St.	EB-TR, SB-LT	SB-LT	EB-TR, SB-LT
2nd Ave. & E. 39th St.	WB-T, SB-T, SB-R	SB-TR	SB-T
2nd Ave. & E. 40th St.	SB-LT	EB-R, SB-LT	EB-T, EB-R, SB-LT
2nd Ave. & E. 41st St.	SB-T	SB-T	EB-TR, SB-T
2nd Ave. & E. 42nd St.	EB-TR, WB-LT, SB-LT	WB-LT, SB-L, SB-T, SB-R	EB-TR, WB-LT, SB-T
2nd Ave. & E. 43rd St.	SB-T, SB-R	SB-TR	SB-T, SB-R
2nd Ave. & E. 44th St.	SB-LT	EB-TR, SB-LT	EB-TR, SB-LT
2nd Ave. & E. 45th St.	WB-LT, SB-T, SB-R	SB-TR	SB-T, SB-R
2nd Ave. & E. 46th St.	SB-LT	EB-R, SB-T	EB-TR, SB-LT
2nd Ave. & E. 47th St.	SB-T, SB-R	SB-TR	SB-T, SB-R
2nd Ave. & E. 48th St.	EB-TR, SB-T	EB-TR, SB-T	EB-TR, SB-LT
2nd Ave. & E. 49th St.	WB-L, SB-T	SB-TR	WB-L
2nd Ave. & E. 50th St.	SB-T	SB-LT	SB-LT
2nd Ave. & E. 51st St.	SB-T	SB-TR	
2nd Ave. & E. 52nd St.	SB-T	SB-T	SB-T
2nd Ave. & E. 53rd St.	WB-LT, SB-T	WB-LT, SB-TR	SB-T
2nd Ave. & E. 54th St.	SB-T	SB-T	SB-T
2nd Ave. & E. 55th St.	SB-T	SB-TR	SB-T
2nd Ave. & E. 56th St.	EB-R, SB-T	SB-T	SB-T
2nd Ave. & E. 57th St.	EB-R, WB-L, WB-LT, SB-T	EB-TR, SB-T	EB-T
2nd Ave. & E. 59th St.	EB-L, SB-LT	EB-L, EB-TR, SB-LT	EB-L, SB-LT
2nd Ave. & E. 60th St.	WB-L (Bridge)	SB-LTR, WB-L (Bridge)	WB-L (Bridge)
Tunnel Exit St. & E. 39th St.	WB-TR	NB-L	
Tunnel Exit St. & E. 40th St.		EB-LT	EB-LT
3rd Ave. & E. 36th St.	EB-LT, NB-TR, NB-R	NB-TR	EB-LT, NB-R
3rd Ave. & E. 37th St.	WB-R	WB-R	WB-R
3rd Ave. & E. 39th St.	WB-T, WB-R, NB-LT	WB-T, NB-LT	WB-T

Table 12.2: Summary of Significant Adverse Traffic Impacts (Continued)

Intersection	Peak Hour		
	AM	Midday	PM
3rd Ave. & E. 40th St.	NB-T	NB-T, NB-R	EB-LT, NB-T
3rd Ave. & E. 41st St.	EB-LT, WB-R, NB-T	EB-L, WB-R	EB-LT, WB-R, NB-T
3rd Ave. & E. 42nd St.	EB-L, WB-R, NB-T	EB-T, WB-R, NB-T	EB-T, WB-R, NB-R
3rd Ave. & E. 43rd St.	NB-LT		
3rd Ave. & E. 44th St.	NB-R	NB-R	NB-T, NB-R
3rd Ave. & E. 45th St.	WB-T, NB-LT	NB-LT	NB-LT
3rd Ave. & E. 46th St.		NB-T, NB-R	NB-T
3rd Ave. & E. 47th St.	WB-T, NB-LT	WB-T, NB-LT	WB-T, NB-LT
3rd Ave. & E. 48th St.		NB-T, NB-R	NB-T, NB-R
3rd Ave. & E. 49th St.	WB-T, NB-LT	NB-LT	NB-LT
3rd Ave. & E. 50th St.	NB-T, NB-R	NB-T, NB-R	NB-T
3rd Ave. & E. 51st St.	NB-LT	NB-LT	WB-T, NB-LT
3rd Ave. & E. 52nd St.	NB-T, NB-R	NB-T, NB-R	EB-LT, NB-T, NB-R
3rd Ave. & E. 53rd St.	WB-T, WB-R, NB-LT	NB-LT	WB-T, WB-R, NB-LT
3rd Ave. & E. 54th St.	EB-L, NB-T	EB-L	NB-T
3rd Ave. & E. 55th St.	WB-T, WB-R, NB-LT	WB-R, NB-LT	WB-T, WB-R, NB-LT
3rd Ave. & E. 56th St.	NB-T (West)	NB-T (West)	EB-LT (West), NB-T (West), NB-TR (East)
3rd Ave. & E. 57th St.	NB-LT (West)	NB-LT (West), EB-T (East), NB-R (East)	EB-LT (West), NB-LT (West), NB-TR (East), NB-R (East), EB-T (East)
3rd Ave. & E. 59th St.	NB-R	NB-R	NB-R
Lexington Ave. & E. 36th St.	SB-LT	SB-LT	EB-TR, SB-LT
Lexington Ave. & E. 38th St.	EB-R, SB-T	EB-R	EB-R
Lexington Ave. & E. 39th St.	WB-L, WB-T, SB-T	WB-L, WB-T, SB-T	WB-T
Lexington Ave. & E. 40th St.	EB-T, SB-LT	SB-LT	EB-R, SB-LT
Lexington Ave. & E. 42nd St.	SB-T, SB-R	EB-T, SB-T	EB-T, WB-LT, SB-L, SB-R
Lexington Ave. & E. 44th St.	SB-LT	SB-LT	SB-LT
Lexington Ave. & E. 45th St.			WB-LT
Lexington Ave. & E. 46th St.	SB-LT	EB-T, SB-LT	EB-T, SB-LT
Lexington Ave. & E. 47th St.	SB-R	WB-L, WB-T, SB-T, SB-R	WB-L, WB-T, SB-T, SB-R
Lexington Ave. & E. 48th St.	EB-R, SB-LT	EB-T, EB-R	EB-T, EB-R
Lexington Ave. & E. 49th St.		SB-T	
Lexington Ave. & E. 50th St.	EB-TR, SB-LT	SB-LT	SB-LT
Lexington Ave. & E. 51st St.	SB-T	WB-L, SB-T, SB-R	WB-L, WB-T
Lexington Ave. & E. 52nd St.	SB-LT	EB-T	EB-R
Lexington Ave. & E. 53rd St.	WB-T, SB-T	SB-T, SB-R	WB-T
Lexington Ave. & E. 54th St.	EB-T, SB-LT	EB-T, SB-LT	SB-LT
Lexington Ave. & E. 55th St.	SB-T		WB-L, SB-T
Lexington Ave. & E. 56th St.	SB-LT		
Lexington Ave. & E. 57th St.	EB-R, SB-LT	SB-LT	EB-T
Park Ave. & E. 36th St.			EB-TR (West)
Park Ave. & E. 38th St.			EB-TR (West), NB-TR

Table 12.2: Summary of Significant Adverse Traffic Impacts (Continued)

Intersection	Peak Hour		
	AM	Midday	PM
Park Ave. & E. 39th St.	WB-TR (East), WB-LT (West), SB-R	WB-TR (East), WB-LT (West), SB-T	WB-TR (East), WB-LT (West), SB-R
Park Ave. & E. 40th St.	EB-TR (West), SB-T, EB-LT (Center), EB-LT (East), NB-TR	EB-TR (West), SB-T, EB-LT (Center), EB-LT (East)	EB-TR (West), SB-T, EB-LT (Center), EB-LT (East)
Park Ave. & E. 46th St.		EB-T (West), SB-T, EB-L (East), EB-T (East)	EB-T (West), SB-T, EB-T (East)
Park Ave. & E. 47th St.	NB-L, WB-LT (West)	WB-T (East), NB-T, WB-LT (West), SB-TR	WB-T (East), NB-L, WB-LT (West), SB-TR
Park Ave. & E. 48th St.	SB-L, SB-T, NB-TR	SB-L, SB-T	SB-L
Park Ave. & E. 49th St.	WB-T (East), NB-T, WB-LT (West), SB-TR	NB-T, SB-TR	WB-T (East), NB-L, WB-LT (West), SB-TR
Park Ave. & E. 50th St.	SB-T, NB-TR	EB-LT (East)	EB-LT (East), NB-TR
Park Ave. & E. 51st St.	SB-R	WB-T (East), WB-LT (West)	
Park Ave. & E. 52nd St.	SB-L, SB-T	EB-TR (West), SB-L, NB-TR	SB-L, SB-T, EB-LT (East)
Park Ave. & E. 53rd St.	WB-T (East), WB-R (East), WB-LT (West)	WB-LT (West)	NB-T, WB-LT (West)
Park Ave. & E. 54th St.	SB-T, EB-T (East)	SB-T, NB-TR	
Park Ave. & E. 55th St.	NB-L, SB-T	WB-TR (East), NB-L, NB-T, WB-LT (West)	WB-TR (East), NB-L, NB-T, WB-LT (West), SB-T
Park Ave. & E. 56th St.	SB-L, NB-TR	EB-TR (West), EB-LT (East), NB-TR	EB-TR (West), EB-LT (East)
Park Ave. & E. 57th St.	EB-T (East), NB-L (East)	EB-T (West), EB-T (East)	NB-T
Madison Ave. & E. 39th St.	WB-T, WB-R, NB-LT	WB-T, WB-R	WB-T, WB-R
Madison Ave. & E. 40th St.	EB-L, NB-TR	NB-TR	EB-L, NB-TR
Madison Ave. & E. 41st St.	NB-TR	NB-TR	NB-TR
Madison Ave. & E. 42nd St.	EB-LT, WB-T, NB-LT	EB-LT, WB-T, NB-LT, NB-R	EB-LT, WB-T, NB-LT
Madison Ave. & E. 43rd St.	WB-R, NB-L	WB-T, WB-R, NB-L, NB-T	NB-L, NB-T
Madison Ave. & E. 46th St.		NB-T	NB-T, NB-R
Madison Ave. & E. 48th St.	NB-T	EB-L, NB-T	NB-T
Madison Ave. & E. 49th St.		WB-TR	WB-TR
Madison Ave. & E. 53rd St.	WB-TR		NB-T
Madison Ave. & E. 54th St.	NB-R	EB-LT, NB-T	
5th Ave. & 38th St.	EB-R, SB-LT	SB-LT	SB-LT
5th Ave. & 39th St.	WB-L, SB-T, SB-R	WB-L, WB-T, SB-T	SB-T
5th Ave. & 40th St.	EB-TR, SB-LT	EB-TR	EB-TR, SB-LT
5th Ave. & 42nd St.	EB-T, WB-LT, SB-LT	WB-LT, SB-T	WB-LT, SB-LT
5th Ave. & 43rd St.	SB-TR, SB-R	SB-T, SB-R	SB-T, SB-R
5th Ave. & 44th St.	EB-R, SB-LT	EB-R, SB-LT	EB-R, SB-LT
5th Ave. & 47th St.	SB-T	WB-L, SB-T, SB-R	WB-L, WB-T, SB-T, SB-R
5th Ave. & 48th St.	SB-LT	SB-LT	EB-T, EB-R, SB-LT
5th Ave. & 49th St.	SB-T	SB-T	WB-LT, SB-T
5th Ave. & 54th St.	SB-LT	EB-TR, SB-LT	SB-LT
5th Ave. & 57th St.	EB-T, EB-R, WB-LT, SB-LT	EB-T, WB-LT	WB-LT, SB-LT
6th Ave. & W. 48th St.	EB-T	EB-T	
6th Ave. & W. 49th St.			WB-T, WB-R

Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left-turn; T = Through; R = Right-turn

Transit

Subway Stations

New demand from the Proposed Action would exceed the 200-trip *2014 CEQR Technical Manual* analysis threshold in the weekday AM and/or PM peak hours at five subway stations/station complexes:

- Grand Central 42nd Street;
- 42nd Street Bryant Park-Fifth Avenue;
- 47th-50th Streets-Rockefeller Center;
- Lexington Avenue-51st/53rd Streets; and
- Lexington Avenue-59th Street (PM peak hour only)

The results of the analysis show that additional trips resulting from Projected Development Sites would result in significant adverse transit impacts at three subway stations/station complexes in the weekday AM and PM commuter peak hours. At the Grand Central 42nd Street subway station, there would be a significant adverse transit impact at one of the 38 analyzed stairs during the PM peak hour (free zone stair KC). Additionally, a significant adverse transit impact would occur at all eight analyzed escalators during the AM peak hour (E203, E204, E205, E206, E208, E210, E255, and E256) and at three of the eight analyzed escalators during the PM peak hour (E204, E206, and 208). At the 42nd St-Bryant Park subway station, there would be a significant adverse transit impact at one of the 11 analyzed stairs during the PM peak hour at street Stair MB20. At the Lexington Avenue-53rd Street subway station, there would be a significant adverse transit impact at three of the six analyzed escalators during the AM peak hour (E243, E244, and E254X) and at three of the six analyzed escalators during the PM peak hour (E244, E246, and E269). Potential measures to mitigate these projected significant adverse transit impacts are described in Chapter 19, "Mitigation."

As described in Section 1.4 of Chapter 1, "Project Description," the proposed zoning text amendment will include a prioritized list of transit improvements that have been identified by MTA to address current issues that impact the area's transit network and anticipate potential needs of the area based on future development. These improvements would be funded by the public realm improvement fund or requirements for sites in close proximity to the area's transit nodes to construct pre-identified improvements and relate to improved access within station areas and circulation between platforms, new points of access into subway stations from street level, and handicap accessibility. The analysis also provides an assessment of subway station elements that would have potential future transit improvements. Although new subway demand from Projected Development Sites would not exceed the 200-trip *CEQR Technical Manual* analysis threshold at the Fifth Avenue-53rd Street station, this subway station is also analyzed to provide an assessment of the changes resulting from the transit improvements.

Subway Line Haul

Line haul is the volume of transit riders passing a defined point on a given transit route. Subway line haul is typically measured at the maximum load point on each route (the point where the trains carry the greatest number of passengers during the peak hour). All subway routes that are projected to exceed guideline capacity in the future are expected to experience fewer than five incremental trips per

car in each direction in each peak hour as a result of the Proposed Action, therefore significant adverse impacts to subway line haul conditions are not anticipated based on *CEQR Technical Manual* criteria.

Bus

The area of the Proposed Action is served by a total of approximately 15 MTA-NYCT local bus routes that operate exclusively within Manhattan, one NYCT local bus route that connects midtown Manhattan to Queens, and approximately 65 MTA-NYCT, MTA Bus, North Fork Express, Bee-Line Bus, and Monsey Trails express bus routes connecting Manhattan to New York City's outer boroughs, Long Island, Westchester and Rockland counties. A preliminary screening assessment concluded that a detailed examination of local and express bus conditions is not warranted, as new demand from the proposed rezoning would not exceed the 50-trip *CEQR Technical Manual* analysis threshold in the weekday AM or PM peak hours on any bus route. Therefore, significant adverse impacts to bus conditions are not anticipated under *CEQR Technical Manual* criteria.

Commuter Railroad

Additional commuter rail passengers resulting from Projected Development Sites is anticipated to amount to fewer than five additional persons per railcar during the peak hours, which does not constitute a significant adverse transit impact. For informational purposes, an assessment of pedestrian circulation elements at the 47th Street crosspassage within Grand Central Terminal has been included. The results of the analysis show that two stairs (S10 and S11) and two escalators (E10 and E11) leading to the entrance at the northeast corner of Park Avenue and East 48th Street, one escalator (E9) leading to an entrance at the lobby of 245 Park Avenue on the south side of East 47th Street (midway between Park and Lexington Avenues), and the passageway at the 47th Street crosspassage would be expected to deteriorate in exceedance of the CEQR impact thresholds; however, these are not considered to be significant adverse transit impacts in the context of CEQR as the analyses of these elements has been provided for informational purposes only.

Pedestrians

Weekday peak period pedestrian conditions were evaluated at a total of 67 sidewalks, 48 crosswalks, and 121 corner reservoir areas in proximity to projected development sites and along key corridors connecting these sites to area transit facilities. As summarized in Table 12.3, a total of 57 of the 236 pedestrian elements analyzed would be significantly adversely impacted during one or more peak hours. There would be 49 elements with significant adverse impacts during the AM peak hour, 21 during the Midday, and 49 during the PM peak hour.

Nine of the 67 analyzed sidewalks would experience a significant impact during one or more peak hours. There would be seven sidewalks with significant adverse impacts during the AM peak hour, three during the Midday, and nine during the PM peak hour. Five of these sidewalks are located along Lexington Avenue, with the remaining sidewalks located on East 43rd Street, East 45th Street, and East 46th Street.

Twenty-six of the 48 crosswalks analyzed would experience a significant adverse impact during one or more peak hours. There would be 23 crosswalks with significant adverse impacts during the AM peak hour, 10 during the Midday, and 22 during the PM peak hour. Ten of these crosswalks would be located

at intersections on Lexington Avenue, seven on Third Avenue, five on Madison Avenue, two on Fifth Avenue, and two on Park Avenue.

Lastly, 22 of the 121 corner areas analyzed would experience a significant adverse impact during one or more peak hours. There would be 19 significantly impacted corner areas at a total of 12 intersections during the AM peak hour, eight impacted corner areas at five intersections during the Midday, and 18 impacted corner areas at 10 intersections during the PM peak hour. Of the corner areas with significant impacts, ten would be located along Lexington Avenue, six along Madison Avenue, four along Third Avenue, and one each on Park and Second Avenues.

Potential measures to mitigate these projected significant adverse pedestrian impacts are described in Chapter 19, "Mitigation."

Table 12.3: Summary of Significant Adverse Pedestrian Impacts

Sidewalk/Intersection	Impacted Element	Impacted Peak Hour		
		AM	Midday	PM
E 43rd Street between 5th Avenue and Madison Avenue	North Sidewalk	X	X	X
E 43rd Street between Madison Avenue and Vanderbilt Avenue	North Sidewalk	X		X
E 45th Street between 5th Avenue and Madison Avenue	North Sidewalk			X
E 46th Street between 5th Avenue and Madison Avenue	South Sidewalk		X	X
Lexington Avenue between E 44th Street and E 45th Street	East Sidewalk	X		X
	West Sidewalk	X		X
Lexington Avenue between E 45th Street and E 46th Street	East Sidewalk	X		X
Lexington Avenue between E 48th Street and E 49th Street	East Sidewalk	X	X	X
Lexington Avenue between E 51st Street and E 52nd Street	East Sidewalk	X		X
5th Avenue and 42nd Street	North Crosswalk	X		X
5th Avenue and 43rd Street	East Crosswalk			X
Madison Avenue and E 41st Street	West Crosswalk			X
Madison Avenue and E 42nd Street	Northeast Corner			X
	Northwest Corner	X		X
Madison Avenue and E 43rd Street	Northeast Corner	X	X	X
	Southwest Corner	X	X	X
	North Crosswalk	X	X	X
	West Crosswalk	X	X	X
Madison Avenue and E 45th Street	Northeast Corner	X	X	X
	Southeast Corner	X		X
	South Crosswalk	X		X
Madison Avenue and E 53rd Street	North Crosswalk	X		
Park Avenue Southbound and E 46th Street	West Crosswalk	X		X
Park Avenue Southbound and E 49th Street	Northwest Corner	X		
Park Avenue Southbound and E 50th Street	West Crosswalk	X	X	X

Table 12.3: Summary of Significant Adverse Pedestrian Impacts (Continued)

Sidewalk/Intersection	Impacted Element	Impacted Peak Hour		
		AM	Midday	PM
Lexington Avenue and E 41st Street	Southwest Corner	X		X
Lexington Avenue and E 42nd Street	Southeast Corner	X		
	Northwest Corner	X		
Lexington Avenue and E 43rd Street	Southeast Corner			X
	South Crosswalk	X		X
Lexington Avenue and E 45th Street	Southeast Corner	X		X
	Southwest Corner	X		X
	West Crosswalk	X		X
Lexington Avenue and E 46th Street	Southeast Corner	X	X	
	East Crosswalk		X	X
Lexington Avenue and E 47th Street	East Crosswalk	X	X	X
	South Crosswalk	X	X	X
Lexington Avenue and E 48th Street	West Crosswalk	X		
Lexington Avenue and E 49th Street	East Crosswalk	X		X
	West Crosswalk	X		X
Lexington Avenue and E 50th Street	Southwest Corner	X		X
	Northwest Corner	X		X
	West Crosswalk	X		X
Lexington Avenue and E 51st Street	Northeast Corner	X		X
	North Crosswalk	X		X
3rd Avenue and E 42nd Street	North Crosswalk	X	X	X
	South Crosswalk	X		X
	West Crosswalk	X		
3rd Avenue and E 43rd Street	Northeast Corner		X	X
	Southeast Corner	X		X
	Southwest Corner	X	X	X
	Northwest Corner	X	X	X
	East Crosswalk	X	X	X
	South Crosswalk	X		
3rd Avenue and E 44th Street	East Crosswalk	X	X	X
3rd Avenue and E 53rd Street	West Crosswalk	X	X	X
2nd Avenue and E 42nd Street	Southwest Corner	X	X	X

As discussed in Chapter 19, "Mitigation," significant adverse impacts to some of the pedestrian elements impacted in the With-Action condition could be fully mitigated with corner/sidewalk extensions, removal of street furniture, crosswalk widenings, and/or signal timing adjustments.

As part of the Proposed Action, a public realm improvement fund would provide the ability to finance above-grade improvements as identified by DOT (see Chapter 1, "Project Description.") These improvements include pedestrian plazas, shared streets, widening of the Park Avenue median, bus bulbs, bus lanes, crosswalk widenings, curb extensions and sidewalk widenings, pedestrian refuge islands, and turn bays. While the exact type and locations of above-grade improvements are not finalized, for purposes of analysis in this Draft EIS, a conceptual plan of these improvements is provided and qualitatively assessed. It is anticipated that some of these above-grade public realm improvements could result in improved pedestrian conditions at some locations.

Vehicular and Pedestrian Safety

Crash data were obtained for the study area intersections from the New York City Department of Transportation (DOT) for the most recent three-year period in which data were available (January 2012 through December 2014). The data quantify the total number of reportable (involving a fatality, injury, or more than $1,000 in property damage) and non-reportable crashes as well as the total number of crashes involving injuries to pedestrians or bicyclists. During the three-year reporting period, a total of 2,107 reportable and non-reportable crashes, 2 fatalities, and 766 pedestrian/bicyclist-related injury crashes occurred at study area intersections.

A review of the crash data identified 32 intersections as high-crash locations (defined as those with 48 or more total reportable and non-reportable crashes or five or more pedestrian/bicyclist injury crashes occurring in any consecutive 12 months of the most recent three-year period for which data are available). As part of the Proposed Action, of the 32 high-crash locations, the following 16 intersections could experience significant increase in pedestrian traffic and/or turning vehicles conflicting with pedestrians:

- Second Avenue and East 39th Street;
- Second Avenue and East 42nd Street;
- Second Avenue and East 53rd Street;
- Second Avenue and East 57th Street;
- Third Avenue and East 42nd Street;
- Third Avenue and East 47th Street;
- Third Avenue and East 49th Street;
- Third Avenue and East 53rd Street;
- Third Avenue and East 54th Street;
- Third Avenue and East 57th Street;
- Lexington Avenue and East 42nd Street;
- Lexington Avenue and East 50th Street;
- Park Avenue and East 52nd Street;
- Park Avenue and East 57th Street;
- Madison Avenue and East 42nd Street; and
- Fifth Avenue and 42nd Street.

Four of these intersections are also categorized as high priority intersections as part of the NYC Vision Zero Program. All of these intersections have significant existing pedestrian volumes. While the addition of pedestrian trips and vehicle trips as a result of the Proposed Action at high-crash locations could result in increasingly unsafe conditions, pedestrian and bicycle safety improvements were made at these intersections by DOT subsequent to January 2012 and additional improvements could be further employed to increase pedestrian/bicyclist safety; potential measures may include the installation of "LOOK!" pavement markings on crosswalks and "Turning Vehicles Yield to Pedestrians" signage, implementing high visibility crosswalks, or improving lighting for better visibility outside of daylight hours. Furthermore, as part of its Vision Zero initiatives, the City will explore additional measures for potential implementation at these high-crash locations and others in the study area to enhance traffic and pedestrian safety.

Parking

The Proposed Action would generate a net incremental parking demand of 1,432 spaces during the weekday Midday and would displace 564 parking spaces at four existing public parking facilities. The parking analyses indicates that the combined incremental and displaced demand could be readily accommodated at off-street parking facilities within a quarter-mile radius of the Proposed Rezoning Area, and there would be no parking shortfall. The Proposed Action would not effect on-street parking utilization.

12.2 Methodology

Preliminary Analysis Methodology

The *CEQR Technical Manual* describes a two-step screening procedure for the preparation of a "preliminary analysis" to determine whether quantified operational analyses of transportation conditions are warranted. As discussed in the following sections, the preliminary analysis begins with a trip generation (Level 1) analysis to estimate the amount of person and vehicle trips generated by the proposed project. According to the *CEQR Technical Manual*, if the proposed project is expected to result in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (Level 2) are to be performed to estimate the incremental trips that could occur at specific transportation elements and to identify potential locations for further analyses. If the trip assignments show that the proposed project would generate 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a sidewalk, corner area or crosswalk, further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, parking, and vehicular and pedestrian safety.

Level 1 Screening Assessment

A Level 1 trip generation screening assessment was conducted to estimate the amount of person and vehicle trips expected to be generated by the Proposed Action during the weekday AM, Midday and PM peak hours. These estimates were then compared to the *CEQR Technical Manual* analysis thresholds

to determine if Level 2 screening and/or quantified operational analyses are warranted. The Level 1 screening assessment is described below.

Background

Overall, the rezoning area comprises 78 blocks and includes a total of 16 Projected Development sites (see Figure 12-1). As shown in Table 12.1, under the RWCDS, the Proposed Action would result in a net increase of 6.6 million gross square feet (gsf) of office uses, 57,477 gsf of local retail uses, and 81,548 gsf of destination retail uses. The Proposed Action would also result in a net reduction of 1,246 hotel rooms, 44 dwelling units, and 564 parking spaces.

Transportation Planning Factors

Table 12.4 details the transportation planning factors used to forecast travel demand generated by the Proposed Action during the weekday AM, Midday, and PM peak hours. These factors include daily person trip generation rates, temporal and directional distributions, mode choice, vehicle occupancies and truck trip generation rates for office, local retail, destination retail, hotel, and residential uses. The factors in Table 12.4 were developed based on established and published sources, including the *CEQR Technical Manual*, factors developed for the 2013 *East Midtown Rezoning and Related Actions FEIS*, and American Community Survey journey-to-work and reverse journey-to-work data for census tracts in the rezoning area. Factors are provided for the weekday AM and PM peak hours (the typical peak periods for commuter travel demand) and the weekday Midday peak hour (the typical peak period for retail establishments such as local eateries and shops). Additional detail on the process used to select trip generation rates is presented in the Transportation Planning Factors technical memorandum provided in Appendix F.1.

Table 12.4: Transportation Planning Factors

Land Use:	Office	Local Retail	Destination Retail	Hotel	Residential
Trip Generation:	(1)	(1)	(1)	(1)	(1)
	Weekday	**Weekday**	**Weekday**	**Weekday**	**Weekday**
Daily Person Trips	18.0	205	78.2	9.4	8.075
Net Daily Person Trips*	18.0	154	78.2	9.4	8.075
	per 1,000 gsf	per 1,000 gsf	per 1,000 gsf	per room	per dwelling unit
Temporal Distribution:	(1)	(1)	(1)	(1)	(1)
AM	12%	3%	3%	8%	10%
MD	15%	19%	9%	14%	5%
PM	14%	10%	9%	13%	11%
In/Out Splits:	(2)	(2)	(2)	(2)	(2)
	In / Out	**In / Out**	**In / Out**	**In / Out**	**In / Out**
AM	96% / 4%	50% / 50%	61% / 39%	39% / 61%	15% / 85%
MD	48% / 52%	50% / 50%	55% / 45%	54% / 46%	50% / 50%
PM	5% / 95%	50% / 50%	47% / 53%	65% / 35%	70% / 30%
Modal Splits:	(3) / (2)	(2)	(2) / (2)	(2) / (2)	(4)
	AM/PM / MD	**AM/MD/PM**	**AM/PM / MD**	**AM/PM / MD**	**AM/MD/PM**
Auto	7.6% / 2.0%	2%	9.0% / 9%	9% / 8%	8.6%
Taxi (Yellow Cab)	1.1% / 1.5%	3%	4.0% / 4%	18% / 15%	4.1%
Taxi (Black Car)	1.1% / 1.5%	-	- / -	- / -	-
Bus	14.8% / 6.0%	6%	8.0% / 8%	3% / 3%	7.9%
Subway	48.2% / 6.0%	6%	26.5% / 20%	24% / 13%	29.2%
Railroad	19.2% / 0.0%	0%	2.0% / 0%	0% / 0%	3.1%
Walk	7.8% / 83.0%	83%	50.5% / 59%	46% / 61%	45.6%
Other	0.2% / 0.0%	0%	0.0% / 0%	0% / 0%	1.5%
	100.0% / 100.0%	100%	100.0% / 100%	100% / 100%	100.0%
Vehicle Occupancy:	(2,3)	(2)	(2)	(2)	(2,4)
Auto	1.15	1.65	2.00	1.40	1.14
Taxi (Yellow Cab)	1.40	1.40	2.00	1.80	1.40
Taxi (Black Car)	1.40	-	-	-	-
Truck Trip Generation:	(1)	(1)	(2)	(2)	(1)
	Weekday	**Weekday**	**Weekday**	**Weekday**	**Weekday**
	0.32	0.35	0.35	0.06	0.06
	per 1,000 gsf	per 1,000 gsf	per 1,000 gsf	per room	per dwelling unit
	(1)	(1)	(2)	(2)	(1)
AM	10%	8%	8%	12%	12%
MD	11%	11%	11%	9%	9%
PM	2%	2%	2%	1%	2%
	In / Out	**In / Out**	**In / Out**	**In / Out**	**In / Out**
	50% / 50%	50% / 50%	50% / 50%	50% / 50%	50% / 50%

Note:

* Includes 25% credit for linked trips to local retail

Sources:

1 CEQR Technical Manual (2014)

2 East Midtown Rezoning and Related Actions FEIS (2013)

3 U.S. Census Bureau, American Community Survey 2006-2010 Five-year estimates. Special Tabulation: Census Transportation Planning Reverse Journey-to-Work Data for Tracts 80, 82, 88, 90, 92, 94, 98, 100, 102, 108, 112.02 and 112.03 for workers arriving between 7:30-9:59 am

4 U.S. Census Bureau, American Community Survey 2010-2014 5-Year Estimates Journey-to-Work Data for Tracts 80, 82, 88, 90, 92, 94, 98, 100, 102, 108, 112.02 and 112.03

Travel Demand Forecast

Table 12.5 summarizes the results of the travel demand forecasting for the Proposed Action based on the net change in land uses in Table 12.1 and the transportation planning factors presented in Table 12.4. The data in Table 12.5 provides the net incremental increases with the Proposed Action in the numbers of peak hour person and vehicle trips that would be generated in 2036.

As shown in Table 12.5, the Proposed Action would result in an increase of 13,715, 18,379, and 16,500 person trips in the weekday AM, Midday, and PM peak hours, respectively. A high percentage of the peak hour person trips is expected to be made using transit modes, primarily subway, bus, and commuter rail. Most trips during the Midday peak hour are expected to be "walk-only" trips related to lunchtime and shopping activities.

In the peak commuter hours, nearly half of the increase in person trips is expected to be accommodated by subway—6,683 trips in the AM peak hour and 7,822 trips in the PM peak hour. Local and express buses are expected to handle 2,108 trips in the AM peak hour and 2,507 trips in the PM peak hour. Commuter rail, primarily at Grand Central Terminal, is expected to handle 2,736 and 3,199 person trips during the AM and PM peak hours, respectively. These transit trips also have a pedestrian component associated with walking between the development sites and subway stations, bus stops, and commuter rail stations.

Table 12.5 also provides an estimate of the incremental net change in peak hour vehicle trips (auto, taxi and truck) that would occur in 2036 with implementation of the Proposed Action. Inbound and outbound taxi (yellow cab and black car) trips were balanced to reflect that they consist of two trip ends (one in, one out) and that some taxis arrive or depart without passengers. As the rezoning area encompasses Grand Central Terminal, 75 percent of inbound occupied yellow cabs were assumed to be available for outbound demand (e.g., taxis dropping off passengers at adjacent office buildings in the AM peak hour could pick up passengers arriving at the train terminal). This assumption is based on guidance in the *CEQR Technical Manual*. For black cars, 90 percent of inbound occupied black cars were assumed to be available for outbound demand (these vehicles are dispatched and do not pick up passengers via street hails) based on the *East Midtown Rezoning and Related Actions FEIS*. As shown in Table 12.5, total vehicle trips generated by the Proposed Action would be 1,450 in the AM peak hour, 863 in the Midday peak hour, and 1,480 in the PM peak hour. Table 12.6 summarizes the estimated number of additional trips that would be generated by the Proposed Action during the AM, Midday, and PM peak hours by various modes of travel.

Since these numbers of peak hour trips exceed the *CEQR Technical Manual* thresholds of 50 peak hour vehicle trip ends, 200 peak hour subway/rail or bus riders, and 200 peak hour pedestrian trips, a Level 2 screening assessment was completed to identify specific locations where additional detailed analyses may be warranted.

Table 12.5: Travel Demand Forecast with the Proposed Action (2036)

Project Components:		Office	Local Retail	Destination Retail	Hotel	Residential
	Size:	6,581,857 gsf	57,477 gsf	81,548 gsf	-1,246 rooms	-44 dwelling units
Peak Hour Trips:						
	AM	14,222	266	195	-935	-33
	MD	17,766	1,694	575	-1,642	-14
	PM	16,590	890	576	-1,520	-36

		Office		Local Retail		Destination Retail		Hotel		Residential		Net		
Person Trips:		**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**Total**
AM	Auto	1,037	45	3	3	11	7	-33	-51	0	-3	1,018	1	1,019
	Taxi	301	12	5	5	3	3	-66	-103	0	-1	243	-84	159
	Bus	2,021	83	8	8	10	8	-11	-17	0	-2	2,028	80	2,108
	Subway	6,577	275	8	8	31	19	-87	-137	-2	-9	6,527	156	6,683
	Railroad	2,623	110	0	0	4	0	0	0	0	-1	2,627	109	2,736
	Walk	1,066	45	109	109	60	39	-168	-262	-1	-14	1,066	-83	983
	Other	27	0	0	0	0	0	0	0	0	0	27	0	27
	Total	13,652	570	133	133	119	76	-365	-570	-3	-30	13,536	179	13,715
MD	Auto	171	184	18	18	28	23	-71	-61	-1	-1	145	163	308
	Taxi	256	278	26	26	13	11	-133	-114	0	0	162	201	363
	Bus	511	553	52	52	25	21	-26	-23	-1	-1	561	602	1,163
	Subway	511	553	52	52	64	52	-116	-98	-2	-2	509	557	1,066
	Railroad	0	0	0	0	0	0	0	0	1	1	1	1	2
	Walk	7,080	7,669	699	699	187	151	-540	-460	-4	-4	7,422	8,055	15,477
	Other	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	8,529	9,237	847	847	317	258	-886	-756	-7	-7	8,800	9,579	18,379
PM	Auto	62	1,197	8	8	25	28	-89	-48	-2	-1	4	1,184	1,188
	Taxi	22	348	12	12	11	12	-178	-95	-1	0	-134	277	143
	Bus	125	2,330	27	27	21	25	-30	-15	-2	-1	141	2,366	2,507
	Subway	400	7,594	27	27	70	81	-237	-129	-8	-3	252	7,570	7,822
	Railroad	161	3,025	0	0	6	7	0	0	0	0	167	3,032	3,199
	Walk	67	1,228	371	371	136	154	-454	-245	-13	-5	107	1,503	1,610
	Other	0	31	0	0	0	0	0	0	0	0	0	31	31
	Total	837	15,753	445	445	269	307	-988	-532	-26	-10	537	15,963	16,500

		Office		Local Retail		Destination Retail		Hotel		Residential		Total Balanced		
Vehicle Trips:		**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**Total**
AM	Auto	901	36	1	1	4	4	-23	-36	0	-2	883	3	886
	Taxi	212	2	3	3	4	0	-36	-56	0	-1	183	183	366
	Truck	104	104	-1	-1	0	0	-4	-4	0	0	99	99	198
	Total	1,217	142	3	3	8	4	-63	-96	0	-3	1,165	285	1,450
MD	Auto	150	161	10	10	15	11	-51	-43	-1	-1	123	138	261
	Taxi	182	200	19	19	7	4	-74	-62	0	0	190	190	380
	Truck	115	115	-1	-1	0	0	-3	-3	0	0	111	111	222
	Total	447	476	28	28	22	15	-128	-108	-1	-1	424	439	863
PM	Auto	56	1,042	4	4	12	13	-64	-34	-2	-1	6	1,024	1,030
	Taxi	12	250	8	8	6	7	-99	-53	-1	0	202	202	404
	Truck	23	23	0	0	0	0	0	0	0	0	23	23	46
	Total	91	1,315	12	12	18	20	-163	-87	-3	-1	231	1,249	1,480

Note:

Taxi trips were balanced on a site-by-site basis for each of the projected development sites

Table 12.6: Summary of Incremental Trips Generated by the Proposed Action

Mode/Description	Trip Type	AM	Midday	PM
Auto/Taxi/Truck	vehicle trips	1,450	863	1,480
Subway	person trips	6,683	1,066	7,822
Railroad	person trips	2,736	2	3,199
Local and Express Bus	person trips	2,108	1,163	2,507
Walk Only	person trips	983	15,477	1,610
Other	person trips	27	0	31

Level 2 Screening Assessment

A Level 2 screening assessment involves the assignment of project-generated trips to the study area street network, transit facilities and pedestrian elements, and the identification of specific locations where the project-related increments exceeds the *CEQR Technical Manual* analysis thresholds beyond which a quantitative analysis is required. Based on the estimates of additional peak hour vehicular, transit and pedestrian trips generated by the Proposed Action, Level 2 screening assessments were performed to identify the intersections and transportation elements requiring a detailed analysis.

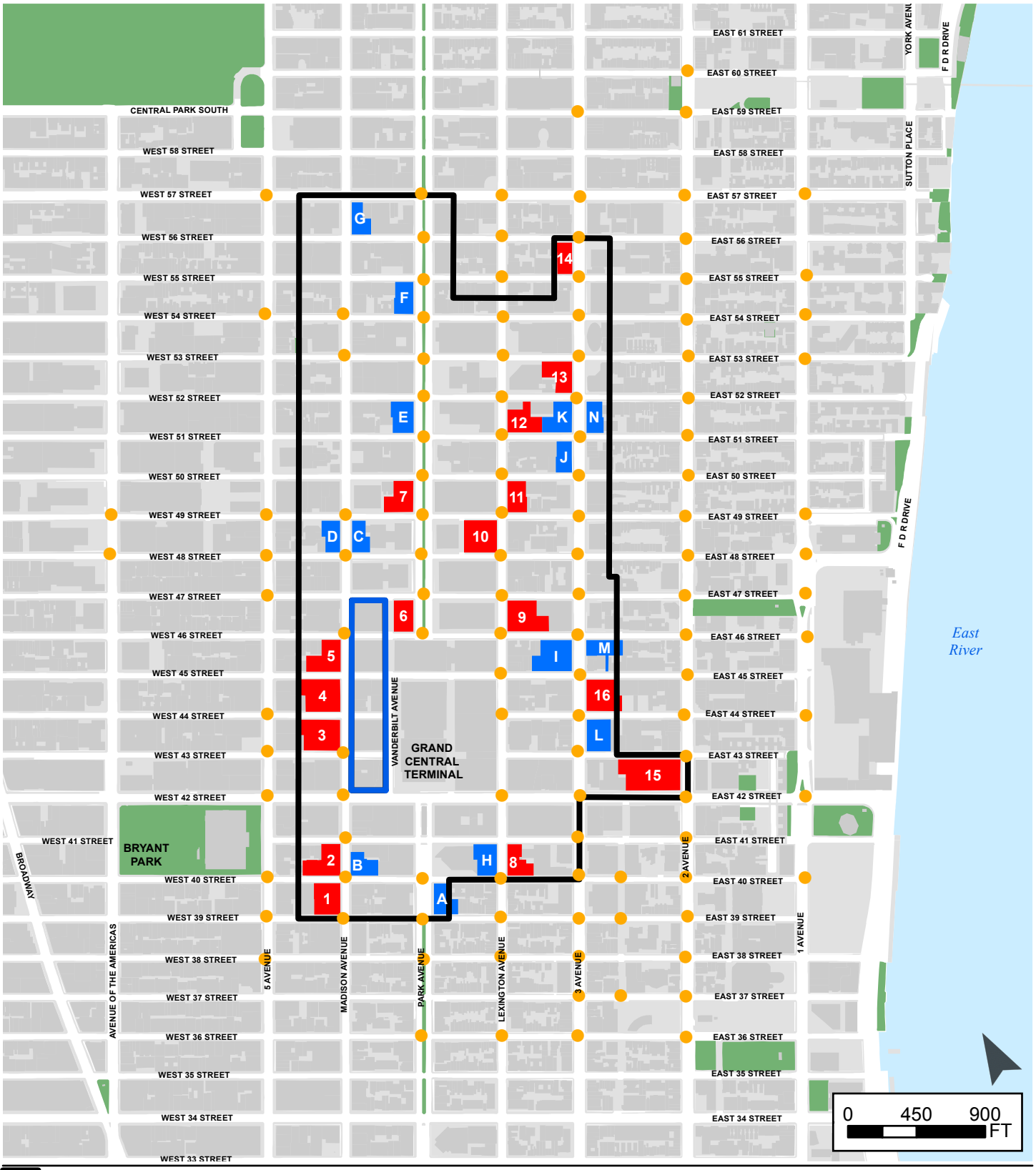
Vehicular Traffic

The CEQR Level 2 screening criterion of 50 peak hour vehicle trips applies to individual intersections rather than total trips generated, as is the case for the Level 1 screening. A preliminary assignment of traffic volumes was performed for the AM, Midday, and PM peak hours to identify the intersections that would exceed the 50 vehicle-trips threshold. The intersection analysis locations were finalized in consultation with DCP and the DOT, taking into consideration existing bottleneck locations and prevailing travel patterns in the study area. Figure 12-2 shows the locations of the 119 intersections that were determined, on the basis of the Level 2 screening, to require a detailed analysis. The area within which these intersections are located is generally bound by 60th Street on the north, 36th Street on the south, First Avenue on the east, and Sixth Avenue on the west.

Transit

Subway Stations

There are a total of eight New York City Transit (NYCT) subway stations or station complexes located in proximity to the Projected Development Sites. These stations and station complexes are listed in Table 12.5 along with the subway routes serving each facility; the Level 2 screening of weekday peak hour trip additions is shown as well. The locations of these stations are shown on Figure 12-3. Notable among these is the Grand Central 42nd Street subway station complex served by Nos. 4, 5, and 6 trains on the Lexington Avenue Line, No. 7 trains on the Flushing Line, and the 42nd Street Shuttle.



Proposed Greater East Midtown Rezoning Boundary

Traffic Analysis Location

Vanderbilt Corridor (Existing Regulations Apply)

1 Projected Development Site (w/ I.D. Label)

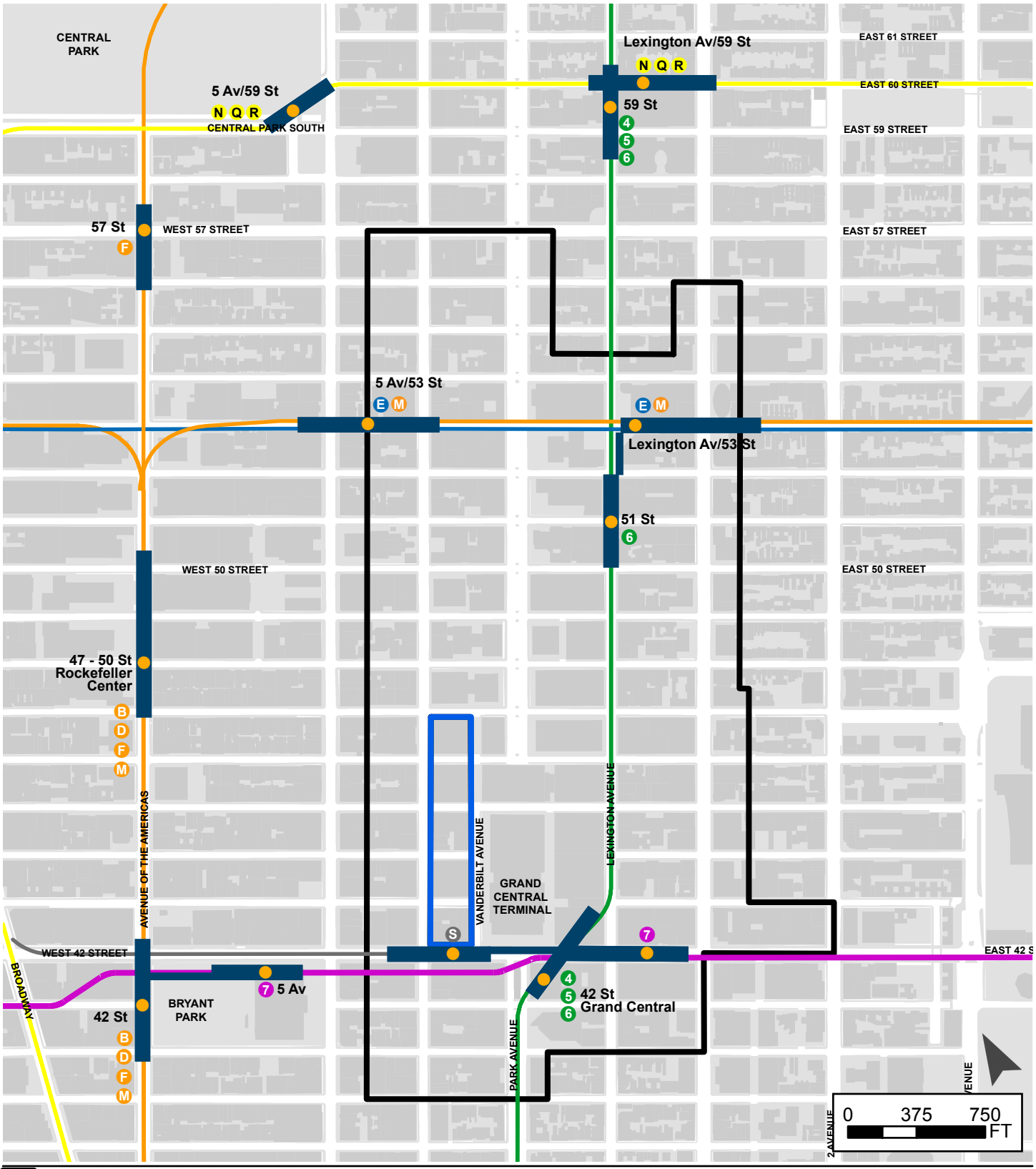
A Potential Development Site (w/ I.D. Label)

Greater East Midtown Rezoning
Manhattan, New York

Traffic Analysis Locations

Figure 12-2

vhb



Proposed Greater East Midtown Rezoning Boundary
Vanderbilt Corridor (Area Excluded from the Proposed Action)
Subway Station (w/ Station Name and Line Stops)
A / C / E Line
Grand Central Shuttle (S) Line
4 / 5 / 6 Line
B / D / F / M Line
7 Line
N / Q / R Line

Greater East Midtown Rezoning
Manhattan, New York

Study Area Subway Stations

Figure 12-3

vhb

Table 12.7: Net Incremental Peak Hour Subway Trips by Station or Station Complex

Subway Station	Route(s) Served	Weekday Peak Hour	
		AM	PM
Grand Central 42nd Street	4/5/6/7/S	**3,578**	**4,247**
42nd Street Bryant Park-Fifth Avenue	B/D/F/M/7	**596**	**693**
47th-50th Streets-Rockefeller Center	B/D/F/M	**426**	**487**
Lexington Avenue-51st/53rd Streets	E/M/6	**3,087**	**3,579**
Fifth Avenue-53rd Street	E/M	90	107
57th Street	F	0	0
Lexington Avenue-59th Street	4/5/6/N/R/W	193	**238**
Fifth Avenue-59th Street	N/R/W	0	0
	TOTAL	**7,970**	**9,351**

Source: MTA-NYCT

Transit analyses typically focus on the weekday AM and PM commuter peak hours as it is during these periods that overall demand on the subway and bus systems is usually highest. Table 12.7, above, shows the forecast of weekday AM and PM peak hour transit trips for the Projected Development Sites. As shown in Table 12.5, it is estimated that under the Proposed Action, Projected Development Sites would generate a total of 6,683 and 7,822 new subway trips in the weekday AM and PM peak hours, respectively. Data provided by NYCT were used to assign these trips to individual subway stations and station elements (i.e., stairs, escalators, passageways, and fare control areas), also accounting for transfer trips to subways from other modes (e.g., bus trips at the Port Authority Bus Terminal and commuter rail trips at Penn Station).

Table 12.7 shows the total net incremental subway trips generated by the Proposed Action during the AM and PM peak hours at each of the subway stations and station complexes serving the rezoning area. As shown in Table 12.7, the highest number of new peak hour subway trips would occur at the Grand Central 42nd Street station complex, which would experience approximately 3,578 new trips in the AM peak hour and 4,247 in the PM peak hour. The Lexington Avenue-51st/53rd Streets station complex would experience the second highest number of new peak hour subway trips with 3,087 and 3,579 in the AM and PM peak hours, respectively. Although the 57th Street and Fifth Avenue-59th Street stations also serve the rezoning area, no new subway trips are expected at these stations as they are not proximate to the location of the Projected Development Sites. Other stations assessed herein would have new peak hour trips in the 400-700 range (42nd Street Bryant Park-Fifth Avenue and 47th-50th Streets-Rockefeller Center stations), while the Lexington Avenue-59th Street station would experience 100-300 new peak hour trips.

According to the general thresholds used by the Metropolitan Transportation Authority (MTA) and specified in the *CEQR Technical Manual*, if a proposed action would result in an increase of 200 or more passengers at a single subway station or on a single subway line, a detailed subway analysis would be warranted. The Level 2 analysis indicates that detailed analysis of subway station conditions will focus on the five subway stations/station complexes at which new subway demand from the Projected Development Sites would exceed the 200-trip *CEQR Technical Manual* analysis threshold. As shown in Table 12.7, these are:

- Grand Central 42nd Street;
- 42nd Street Bryant Park-Fifth Avenue;

- 47th-50th Streets-Rockefeller Center;
- Lexington Avenue-51st/53rd Streets; and
- Lexington Avenue-59th Street (PM peak hour only)

As described in Chapter 1, "Project Description," the proposed zoning text amendment will include a prioritized list of transit improvements that have been identified by MTA to address current issues that impact the area's transit network and anticipate potential needs of the area based on future development. These improvements would be funded by the public realm improvement fund or requirements for sites in close proximity to the area's transit nodes to construct pre-identified improvements. Although new subway demand from Projected Development Sites would not exceed the 200-trip *CEQR Technical Manual* analysis threshold at the Fifth Avenue-53rd Street station, this subway station is also analyzed to provide an assessment of the changes resulting from the transit improvements.

Subway Line Haul

Line haul is the volume of transit riders passing a defined point on a given transit route. Subway line haul is typically measured at the maximum load point on each route (the point where the trains carry the greatest number of passengers during the peak hour). Maximum load point subway ridership data for 2015 was provided by NYCT.

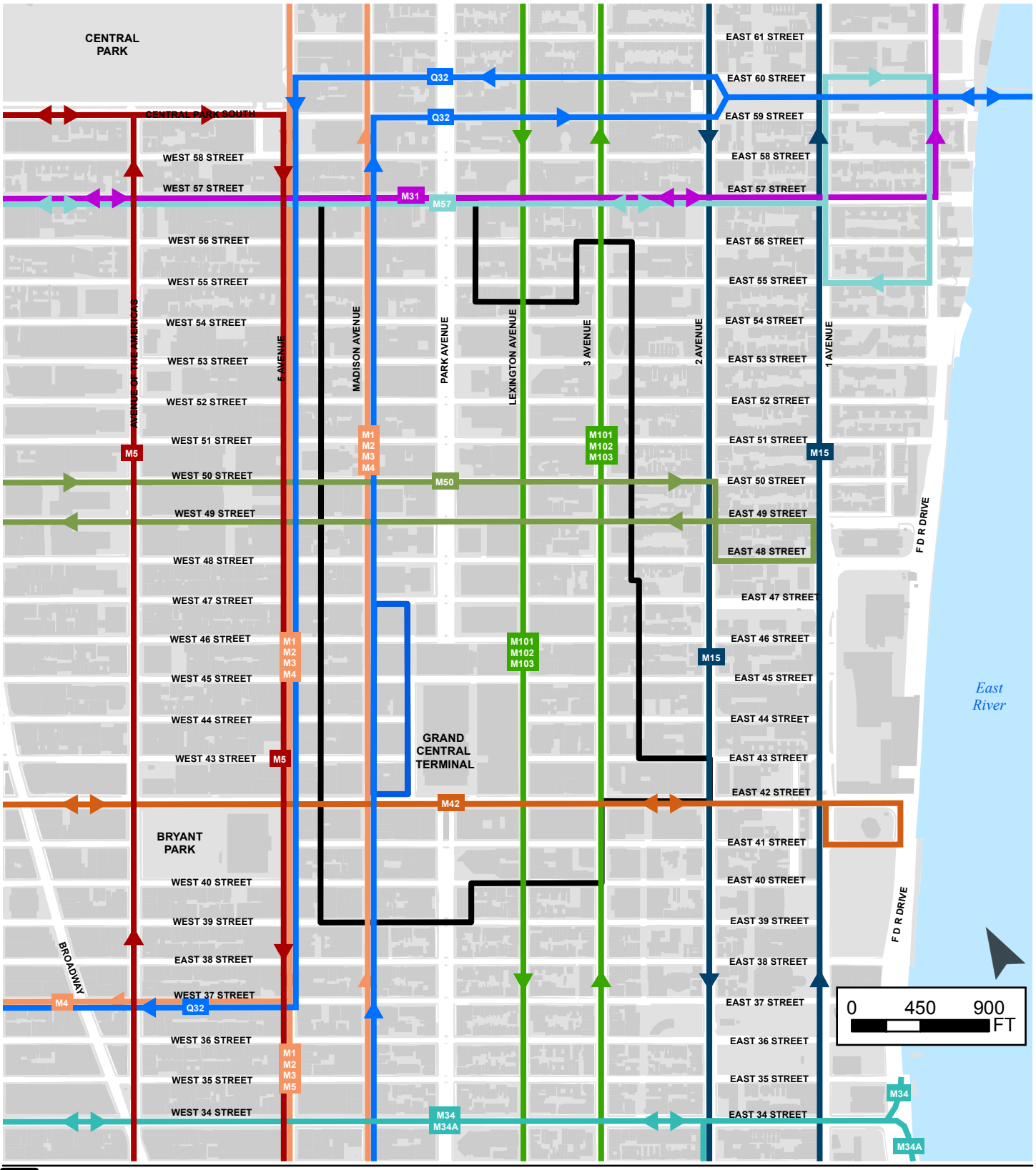
The proposed rezoning area is currently served by a total of 13 NYCT subway routes, including Nos. 4 and 5 express and No. 6 local services on the Lexington Avenue Line; No. 7 local and express services on the Flushing Line; the B and D express, and M and F local services on the Sixth Avenue Line; the E local service on the Eighth Avenue Line; the N express, and R and W local services on the Broadway line; and the 42nd Street Shuttle. As discussed later in this chapter, with completion of the first phase of the Second Avenue Subway Line project, service from East 96th Street to East 63rd Street will be provided as an extension of the Q train in the No-Action Condition.

According to the general thresholds used by the MTA and specified in the *CEQR Technical Manual*, a detailed analysis of subway line haul conditions is generally not required if a proposed action is projected to result in fewer than 200 peak hour trips being assigned to a single route (in one direction), as this level of new demand is considered unlikely to result in significant adverse transit impacts.

As shown in Table 12.7, it is estimated that under the RWCDS, all of the Projected Development Sites would generate a combined total of 7,970 and 9,351 new subway trips in the weekday AM and PM peak hours, respectively. Given the number of new subway trips generated by the Proposed Action in each peak hour, one or more of the 14 subway routes that will be serving the proposed rezoning area in year 2036 would potentially experience 200 or more incremental trips in either period. Therefore, a further screening analysis was conducted to determine the potential for the demand increments on each subway route to meet or exceed *CEQR Technical Manual* impact thresholds in either peak hour.

Bus

As shown on Figure 12-4, the Proposed Rezoning area is served by a total of approximately 15 MTA-NYCT local bus routes that operate exclusively within Manhattan, and one local route—the Q32—that connects midtown Manhattan to Jackson Heights, Queens via the Ed Koch Queensboro Bridge. In addition, as shown on Figure 12-5, a total of 65 MTA-NYCT, MTA Bus, North Fork Express, Bee-Line Bus, and Monsey Trails express routes connecting Manhattan to New York City's outer boroughs, Long



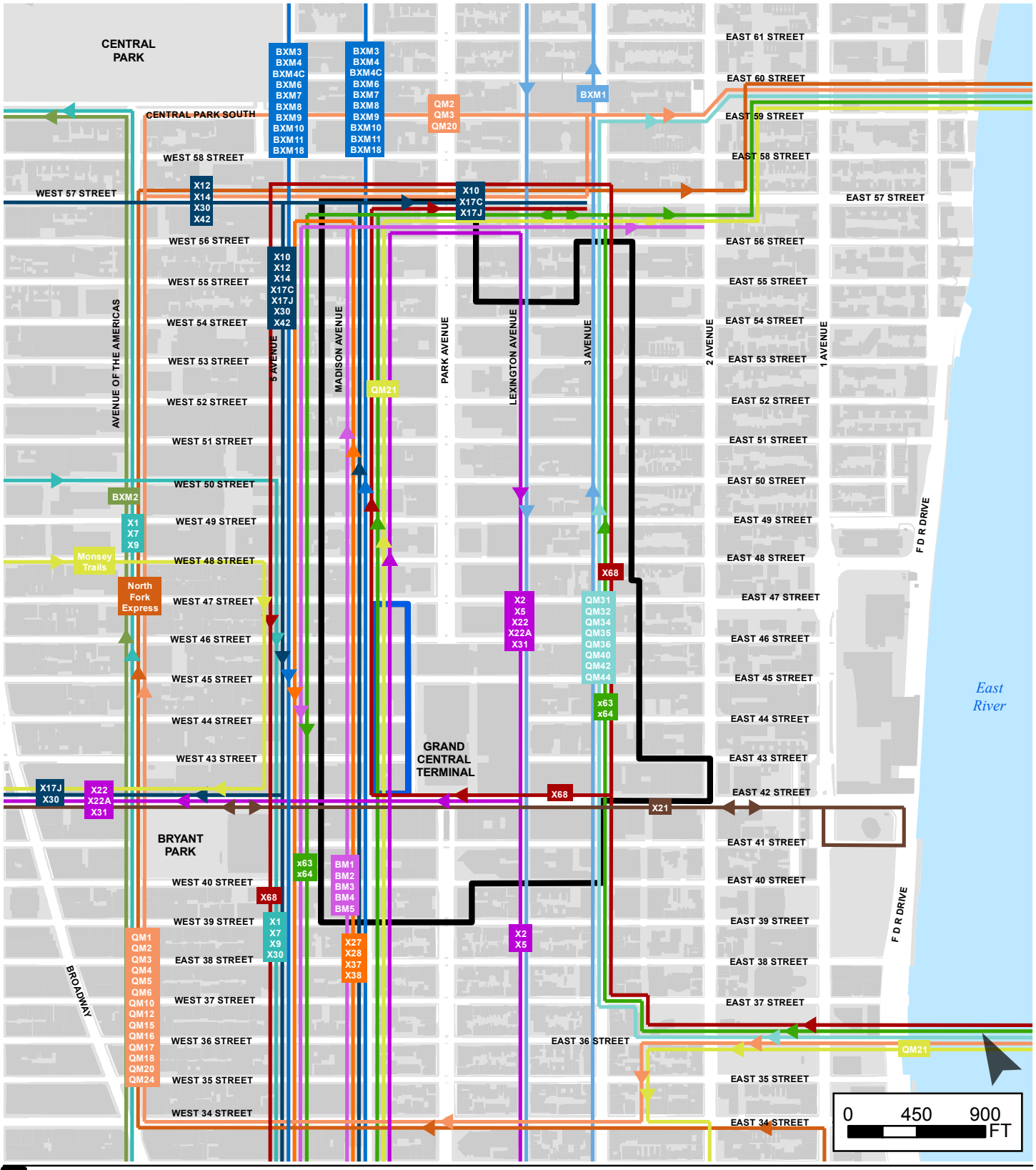
Proposed Greater East Midtown Rezoning Boundary
Vanderbilt Corridor (Existing Regulations Apply)
M1 / M2 / M3 / M4 / M5 / Q32 Bus Lines
M101 / 102 / 103 Bus Lines
M15 Bus Line
M31 Bus Line
Q32 Bus Line
M34 Bus Line
M42 Bus Lines
M5 Bus Line
M50 Bus Lines
M57 Bus Lines

Greater East Midtown Rezoning
Manhattan, New York

Study Area
Local Bus Routes

Figure
12-4

vhb



Proposed Greater East Midtown Rezoning Boundary
Vanderbilt Corridor (Existing Regulations Apply)
BM1 / BM2 / BM3 / BM4 / BM5 Bus Lines
BXM1 Bus Line
BXM2 Bus Line
Monsey Bus Line
North Fork Express Bus Line
X1 / X7 / X9 Bus Lines
X10 / X12 / X14 / X17C / X17J / X30 / X42 Bus Lines
X2 / X5 / X22 / X22A / X31 Bus Lines
X21 Bus Lines
X27 / X28 / X37 / X38 Bus Lines
X63 / X64 Bus Lines
X68 Bus Lines
BXM3 / BXM4 / BCM4C / BXM6 / BXM7 / BXM8 / BXM9 / BXM10 / BXM11 / BXM18 Bus Lines
QM1 / QM2 / QM3 / QM4 / QM5 / QM6 / QM10 / QM12 / QM 15 / QM16 / QM17 / QM18 / QM20 / QM24 Bus Lines
QM31 / QM32 / QM34 / QM35 / QM36 / QM40 / QM42 / QM44 Bus Lines

Greater East Midtown Rezoning
Manhattan, New York

Study Area
Express Bus Routes

Figure
12-5

vhb

Island, Westchester and Rockland counties also operate through the rezoning area, many along Madison and Fifth Avenues which are major north-south bus corridors. As shown in Table 12.5, the Projected Development Sites are expected to generate a net total of approximately 2,108 and 2,507 new bus trips during the weekday AM and PM peak hours, respectively. Based on 2006-2010 American Community Survey reverse journey-to-work data for commuters using buses to travel to workplaces in the study area, it is estimated that approximately 46 percent of these bus trips would be arriving from and departing to points west of the Hudson River and would therefore use the Port Authority Bus Terminal; approximately 33 percent would be arriving from or departing to the outer boroughs, Long Island, or Westchester County and are therefore expected to primarily use express bus routes; and approximately 21 percent of these bus trips would be intra-Manhattan and would therefore occur on local bus routes. Overall, the numbers of new bus trips using the 15 NYCT local bus routes operating within Manhattan are expected to total approximately 479 in the weekday AM peak hour and 609 during the PM peak hour. An additional 20 and 18 trips during these periods, respectively, are also expected to utilize the NYCT Q32 service to/from Queens.

Local bus trips generated by the Proposed Action were assigned to each route based on proximity to individual Projected Development Sites and current ridership patterns. Table 12.8 shows the anticipated numbers of new riders expected to pass through the maximum load point on each local bus route in the AM and PM peak hours. (It should be noted that not all project-generated bus trips would pass through the maximum load point on a given route as some passengers may board after, or disembark prior to, a bus passing through its maximum load point.) According to the general thresholds used by the MTA and specified in the *CEQR Technical Manual*, a detailed analysis of bus conditions is generally not required if a proposed action is projected to result in fewer than 50 peak hour trips being assigned to a single bus route (in one direction), as this level of new demand is considered unlikely to result in significant adverse transit impacts. As shown in Table 12.8, no local bus route is expected to experience 50 or more new trips in one direction through their maximum load points in one or both peak hours and therefore no detailed bus analysis is required.

Table 12.8: Net Incremental Peak Hour Local Bus Trips by Route

Bus Route	Direction	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
M1	NB	6	2	8	9	48	57
	SB	49	8	57	5	10	15
M2	NB	11	4	15	2	20	22
	SB	24	2	26	5	9	14
M3	NB	7	3	10	3	22	25
	SB	14	1	15	5	10	15
M4	NB	8	3	11	7	41	48
	SB	37	5	42	6	11	17
M5	NB	7	3	10	1	11	12
	SB	15	1	16	2	5	7
M7	NB	4	2	6	2	16	18
	SB	8	1	9	3	8	11
M15	NB	4	2	6	2	12	14
	SB	9	1	10	4	6	10
M15 SBS	NB	16	7	23	3	20	23
	SB	34	3	37	7	9	16
M31	EB	2	1	3	1	6	7
	WB	6	0	6	1	2	4
M42	EB	14	8	22	3	32	35
	WB	35	3	38	9	13	22
M50	EB	2	1	3	1	7	8
	WB	6	0	6	2	3	5
M57	EB	1	0	1	0	5	5
	WB	2	0	2	1	2	3
M101	NB	12	5	17	7	45	52
	SB	26	2	28	16	21	37
M102	NB	7	3	10	5	30	35
	SB	16	1	17	10	14	24
M103	NB	7	3	10	4	24	28
	SB	14	1	15	8	12	20
Q32	EB	5	2	7	1	10	11
	WB	12	1	13	3	4	7

The numbers of new trips using express bus services are expected to be higher than those using local services—totaling approximately 681 and 795 in the weekday AM and PM peak hours, respectively—and these trips would be distributed among a total of 65 express routes operated by MTA-NYCT, MTA Bus, North Fork Express, Bee-Line Bus, and Monsey Trails. Table 12.9 shows the numbers of rezoning area express bus routes by borough/county served and the estimated distribution of new incremental demand based on 2006-2010 American Community Survey reverse journey-to-work data. For example, as shown in Table 12.7, in the weekday AM peak hour there would be a total of approximately 111 new express bus trips using the 11 bus routes serving the Bronx, and there would be 130 express bus trips in the weekday PM peak hour. There are 26 express bus routes available to serve the estimated 227 new AM peak hour trips and 265 PM peak hour trips that would travel between the rezoning area and Queens, although it should be noted that some of these trips en route to/from Queens are likely to utilize the Q32 local bus service.

Table 12.9: Number of Rezoning Area Express Bus Routes and Estimated Distribution of Net Incremental Peak Hour Express Bus Trips by Borough/County

Borough/County Served	Number of Express Bus Routes	Percentage Distribution	Estimated Project Increment Trips	
			AM Peak Hour	PM Peak Hour
Bronx	11	16.4	111	130
Brooklyn	9	14.9	102	119
Queens	26	33.3	227	265
Staten Island	16	28.1	192	224
Long Island	1	2.7	18	21
Westchester	1	4.6	31	36
Rockland[1]	1	-	-	-
TOTAL	65	100	681	795

Source: U.S. Census Bureau, American Community Survey 2006-2010 Five-Year Estimates. Special Tabulation: Census Transportation Planning

Notes:

[1] As most express bus trips from Rockland County use the Port Authority Bus Terminal, the percentage of trips stopping within the rezoning area is small and not included in this table.

Express bus trips would be widely distributed among the 65 express bus routes and it is, therefore, unlikely that any one express bus route would experience 50 or more new trips in one direction in any one peak hour. Consequently, the Proposed Action is not expected to result in any significant adverse impacts to express bus services based on *CEQR Technical Manual* criteria, and a detailed analysis of express bus conditions is not warranted.

Commuter Railroad

The number of passengers using commuter rail services would increase by approximately 2,736 during the weekday AM peak hour and 3,199 during the weekday PM peak hour as a result of the Proposed Action. Based on projections by MTA, approximately 41 percent of passengers are expected to use Metro-North Railroad (MNR) services, 39 percent of railroad passengers will use Long Island Rail Road (LIRR), and the remaining 20 percent will use NJ Transit. Of the passengers using LIRR, approximately 85 percent are expected to use Grand Central Terminal (revenue service is expected to open in 2022) and 15 percent are expected to use Penn Station. Commuter train lengths are adjusted to conform to loading standards using train-by-train ridership data, which is regularly monitored by LIRR and MNR. Where fiscally and operationally practicable, train lengths are modified to ensure that adequate seating is provided. Trains are lengthened if occupancy exceeds 95 percent of the train's seating; trains are shortened if the occupancy after the reduction in train length would not exceed 95 percent.

LIRR is expected to operate 24 12-car trains at Grand Central Terminal during the weekday AM and PM peak hour in year 2036. Consequently, the number of additional passengers per railcar will be fewer than five persons during the peak hour, which does not constitute a significant impact. The result is similar for MNR and NJ Transit based on current service; taking into account expected loads due to background growth and increased service, the additional load resulting from the Proposed Action also would be below five per railcar. Therefore, a detailed analysis of commuter rail service is not warranted.

For informational purposes, an assessment of pedestrian flows within Grand Central Terminal due to the Proposed Action has been included as part of this EIS. Please note that this assessment is provided

for informational purposes only and, as such, it does not necessarily conform to the guidelines of the *CEQR Technical Manual*.

Pedestrians

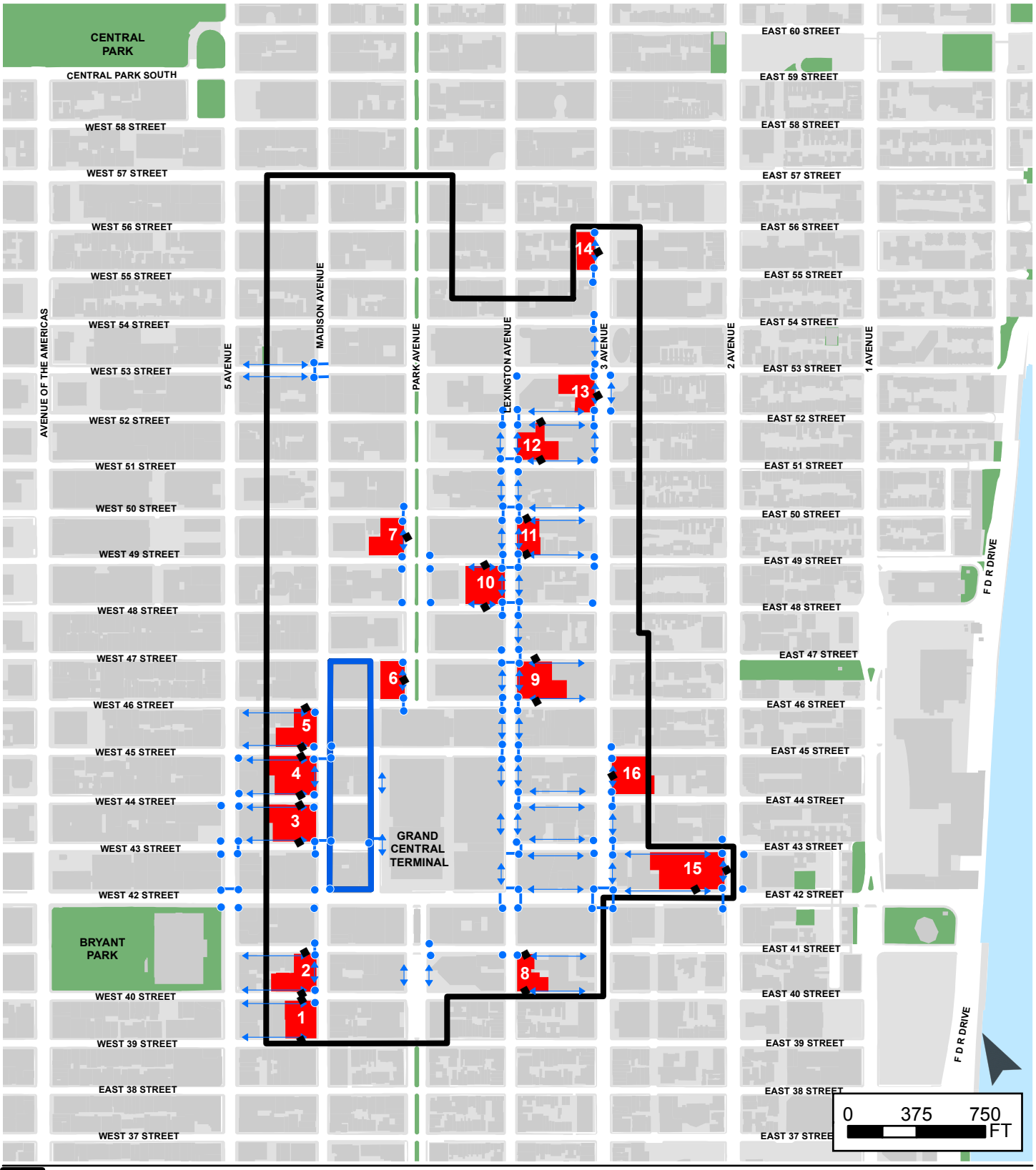
Under *CEQR Technical Manual* criteria, detailed pedestrian analyses are generally warranted if a proposed action is projected to result in 200 or more peak hour pedestrians at any sidewalk, corner area or crosswalk. As shown in Table 12.5, the Proposed Action is expected to generate approximately 983 walk-only trips in the weekday AM peak hour, 15,477 in the midday peak period, and 1,610 in the PM peak hour. Persons en route to and from subway and commuter rail station entrances, bus stops and parking facilities would add an additional 12,546 pedestrian trips to study area sidewalks and crosswalks in the AM peak hour, 2,539 in the midday peak period, and 14,716 in the PM. In the weekday AM and PM peak hours, new pedestrian trips would be most concentrated on sidewalks and crosswalks adjacent to Projected Development Sites as well as along corridors connecting these sites to area subway and commuter rail station entrances. In the midday period, pedestrian trips would tend to be more dispersed, as people travel throughout the area for lunch, shopping or errands.

A trip assignment of pedestrian trips generated by the projected increment of development was prepared in order to identify locations for analysis. Subway, commuter rail, and bus trips were assigned to the most direct routes between these transit services and Projected Development Sites. Walk-only trips to/from Projected Development Sites during the AM and PM peak hours were routed to destinations outside of the study area based on census journey-to-work data for existing workers in study area census tracts. Midday walk-only trips were assumed to be distributed evenly to blocks (destinations) throughout the area around each Projected Development Site. Pedestrian trips generated by the auto mode were assigned to the most direct paths between Projected Development Sites and public parking facilities in the vicinity.

The selection of analysis locations was determined based on sidewalks, corner areas, and crosswalks in proximity to Projected Development Sites and along corridors connecting these sites to area transit services, as it is along these corridors that new pedestrian demand from the Proposed Action is expected to be most concentrated. Based on the trip assignment, a total of 67 sidewalks, 121 corner reservoir areas, and 48 crosswalks along these corridors where project-generated pedestrian trips are expected to exceed the 200-trip *CEQR Technical Manual* analysis threshold were selected for quantitative analysis in this EIS. As shown on Figure 12-6, these pedestrian elements are generally concentrated along the Third Avenue, Lexington Avenue, and Madison Avenue corridors in proximity to Projected Development Sites and subway and commuter rail station entrances. Selected elements along Second, Park, Vanderbilt, and Fifth Avenues are also included in the analysis.

Parking

When a detailed traffic analysis is required, a detailed parking analysis may likely be warranted. Analyses of on-street (curbside) and off-street public parking conditions were also performed, focusing on existing and future parking capacity within walking distance of the rezoning area and its ability to accommodate additional parking demand generated by the Projected Development Sites, and parking demand at existing facilities that would be displaced by the Projected Development Sites.



Greater East Midtown Rezoning
Manhattan, New York

Pedestrian Study Areas

Figure 12-6

vhb

Transportation Analysis Methodologies

Traffic

Analysis Methodology

The traffic analysis examines conditions in the weekday AM, Midday, and PM peak hours when the increased travel demand attributable to the Proposed Action, especially the office components, is expected to be the greatest. The analysis peak hours are 8:00-9:00 a.m., 12:00-1:00 p.m., and 5:00-6:00 p.m. in accordance with the *CEQR Technical Manual* guidance for traffic analysis for areas in Manhattan south of 110th Street.

The capacity analyses at intersections were performed using Synchro 8 software. Traffic data required for these analyses include the hourly volumes on each approach, turning movements, the percentage of heavy vehicles (trucks and buses), and pedestrian volumes at crosswalks. Field inventories are also necessary to document the physical layout and street widths, lane markings, curbside parking regulations, and other relevant characteristics needed for the analysis.

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

For unsignalized intersections, the HCM methodology generally assumes that traffic on major streets is not affected by traffic flows on minor streets. Left turns from a major street are assumed to be affected by the opposing, or oncoming, traffic flow on that major street. Traffic on minor streets is affected by all conflicting movements. Similar to signalized intersections, the HCM methodology expresses the quality of traffic flow at unsignalized intersections in terms of LOS based on the amount of delay that a driver experiences. Level of service definitions used to characterize traffic flows at unsignalized intersections differ somewhat from those used for signalized intersections, primarily because drivers anticipate different levels of performance from the two different kinds of intersections. For unsignalized intersections, LOS ranges from A, representing minimal delay (10 seconds or less per vehicle, as it is for signalized intersections), to F, which represents long delays (greater than 50 seconds per vehicle, compared to greater than 80 seconds per vehicle for signalized intersections).

Table 12.10 shows the LOS/delay relationship for signalized and unsignalized intersections using the HCM methodology. Levels of service A, B, and C generally represent highly favorable to fair levels of traffic flow. At LOS D, the influence of congestion becomes noticeable. LOS E is considered to be the limit of acceptable delay, and LOS F is considered to be unacceptable to most drivers. In these traffic impact analyses, a signalized lane grouping operating at LOS E or F or a v/c ratio of 0.90 or more is identified as congested. For unsignalized intersections, a movement with LOS E or F is also identified as congested.

Table 12.10: Intersection Level of Service Criteria

Level of Service (LOS)	Description	Average Delay per Vehicle (seconds)	
		Signalized Intersections	Unsignalized Intersections
A	Satisfactory – Little/No Delay	less than 10.1	less than 10.1
B	Satisfactory – Minor Delay	10.1 to 20.0	10.1 to 15.0
C	Satisfactory – With Some Delay	20.1 to 35.0	15.1 to 25.0
D	Borderline Congestion	35.1 to 55.0	25.1 to 35.0
E	Marginally Acceptable Congestion	55.1 to 80.0	35.1 to 50.0
F	Unsatisfactory – Highly Congested	greater than 80.0	greater than 50.0

Source: 2000 *Highway Capacity Manual*.

Significant Impact Criteria

The identification of significant adverse traffic impacts at analyzed intersections is based on criteria presented in the *CEQR Technical Manual*. If a lane group in the With-Action Condition would be LOS A, B or C, or marginally acceptable LOS D (i.e., delay less than or equal to 45.0 seconds/vehicle for signalized intersections and 30.0 seconds/vehicle for unsignalized intersections), the impact is not considered significant. If the lane-group LOS would deteriorate from LOS A, B, or C in the No-Action Condition to worse than mid-LOS D or to LOS E or F in the With-Action Condition, a significant traffic impact is identified. For a lane group that would operate at LOS D in the No-Action Condition, an increase in delay of 5.0 or more seconds in the With-Action Condition is considered a significant impact if the With-Action delay would exceed mid-LOS D. For a lane group that would operate at LOS E in the No-Action Condition, a projected With-Action increase in delay of 4.0 or more seconds is considered a significant impact. For a lane group that would operate at LOS F in the No-Action Condition, a projected With-Action increase in delay of 3.0 or more seconds is considered a significant impact.

The same criteria apply to signalized and unsignalized intersections. However, for traffic on a minor street at an unsignalized intersection to result in a significant impact, 90 passenger car equivalents (PCEs) must be projected in the With-Action Condition in any peak hour.

Transit

Analysis Methodology

Subway

To determine Existing Conditions at subway station elements, subway ridership data was collected at subway stations in September and October 2016. The methodology for assessing subway station pedestrian circulation elements (stairs, escalators, and passageways) and fare control elements (regular turnstiles, high entry/exit turnstiles [HEETs], and high exit turnstiles) involves comparing existing and projected pedestrian volumes with the element's design capacity to yield a volume-to-capacity (v/c) ratio. All analyses reflect pedestrian flow volumes over a 15-minute interval during each peak hour. The peak analysis periods selected for each subway station condition are based on existing pedestrian volumes. (As noted previously, transit analyses typically focus on the weekday AM and PM commuter

peak hours as it is during these periods that overall demand on the subway and bus systems is usually highest.)

Under *CEQR Technical Manual* guidelines, the capacity of a stairway or passageway is determined based on four factors: the NYCT guideline capacity, the effective width, and surging and counter-flow factors, if applicable. NYCT guideline capacity is 10 passengers per minute per foot-width (pmf) for stairs and 15 pmf for passageways. The effective width of a stair or passageway is the actual width adjusted to reflect pedestrian avoidance of sidewalls and for center handrails, if present. A surging factor is applied to existing pedestrian volumes to reflect conditions where pedestrian flows tend to be concentrated (or surged) during shorter periods within the 15-minute analysis interval. This factor, which is based on the size of the station and the proximity of the pedestrian element to the station platforms, can reduce the calculated capacity by up to 25 percent. Lastly, a friction (or counter-flow) factor reducing calculated capacity by 10 percent is applied where minor opposing (interfering) pedestrian flows use the same stair or passageway. (No friction factor is applied if the flow is all or predominantly in one direction.)

By contrast with stairways and passageways, under *CEQR Technical Manual* guidelines, the capacity of an escalator or turnstile is determined based on only two factors: the NYCT guideline capacity for a 15-minute interval and a surging factor of up to 25 percent. Table 12.11 shows the *CEQR Technical Manual* level of service criteria for all subway station elements. As shown in Table 12.11, six levels of service are defined with letters A through F. LOS A is representative of free flow conditions without pedestrian conflicts and LOS F depicts severe congestion and queuing.

Table 12.11: Level of Service Criteria for Subway Station Elements

LOS	Description	V/C Ratio
A	Free Flow	0.00 to 0.45
B	Fluid Flow	0.45 to 0.70
C	Fluid, somewhat restricted	0.70 to 1.00
D	Crowded, walking speed restricted	1.00 to 1.33
E	Congested, some shuffling and queuing	1.33 to 1.67
F	Severely congested, queued	> 1.67

Source: *CEQR Technical Manual*

Subway Line Haul

Maximum load point subway ridership data were provided by NYCT. Line-haul capacity is based on the guideline capacity per subway car multiplied by the number of subway cars crossing the maximum load point in the peak hour. (Maximum guideline capacities established by NYCT for each car class are 110 passengers/car for a 51-foot subway car, 145 passengers/car for a 60-foot car, and 175 passengers/car for a 75-foot car.) The volume-to-capacity (v/c) ratio is determined by dividing the number of peak hour passengers traveling through the maximum load point by the line-haul capacity. The subway analyses focus on the weekday AM and PM commuter peak hours as it is during these periods that overall demand on the subway system is usually highest.

Bus

The operating conditions for bus service are measured in terms of the number of passengers carried per bus at the maximum load point for each route. This is determined by dividing the peak hour

passenger count by the number of buses during that hour. The bus load levels are compared with the NYCT loading guidelines of 54 passengers for a 40-foot standard bus and 85 passengers for a 60-foot articulated bus. The bus analyses focus on the weekday AM and PM commuter peak hours as it is during these periods that overall demand on the bus system is usually highest.

Significant Impact Criteria

Subway

The *CEQR Technical Manual* identifies a significant impact for stairways and passageways in terms of the minimum width increment threshold (WIT) based on the minimum amount of additional capacity that would be required to restore conditions to either their No-Action v/c ratio or to a v/c ratio of 1.00 (LOS C/D), whichever is greater. Stairways that are substantially degraded in level of service or which experience the formation of extensive queues are classified as significantly impacted. Significant adverse stairway or passageway impacts are typically considered to have occurred once the thresholds shown in Table 12.12 are reached or exceeded.

Table 12.12: Significant Impact Thresholds for Stairways and Passageways

With-Action V/C Ratio	WIT for Significant Impact (inches)	
	Stairway	Passageway
1.00-1.09	8	13
1.10-1.19	7	11.5
1.20-1.29	6	10
1.30-1.39	5	8.5
1.40-1.49	4	6
1.50-1.59	3	4.5
≥1.6	2	3

Source: *CEQR Technical Manual*

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

Subway Line Haul

For subway line-haul conditions, *CEQR Technical Manual* criteria specifies that any increases in load levels that remain within practical capacity limits are generally not considered significant. However, significant adverse subway line haul impacts can occur if a proposed action is expected to generate an increment averaging five or more riders per subway car on lines projected to carry loads at or exceeding guideline capacity. This is based on the general assumption that when subways are at or above practical capacity, the addition of even five or more riders per car is perceptible.

Bus

According to the *CEQR Technical Manual* and NYCT guidelines, additional bus service along a route is recommended when load levels exceed maximum capacity at the route's maximum load point. A significant impact is considered at the route's maximum load point where an increase in bus load levels would exceed the maximum capacity. NYCT's general policy is to provide additional bus service where demand warrants increased service, taking into account fiscal and operational constraints.

Pedestrians

Analysis Methodology

Peak period pedestrian flow volume data were collected along analyzed sidewalks, corner areas, and crosswalks in the rezoning area as part of previous DOT data collection efforts conducted in June 2014, February 2016, March 2016, and June 2016, supplemented by additional counts conducted in October 2016. Peak hours were determined by comparing rolling hourly averages, and the highest 15-minute volumes within the selected peak hours were used for analysis. Based on existing peak pedestrian volumes along major corridors in the study area, the peak hours selected for the analyses are 8:30-9:30 a.m., 12:15-1:15 p.m., and 5:15-6:15 p.m. Peak 15-minute pedestrian flow conditions during the weekday AM, Midday, and PM peak hours are analyzed using the *2010 Highway Capacity Manual* methodology and procedures outlined in the *CEQR Technical Manual*. Using this methodology, the congestion level of pedestrian facilities is determined by considering pedestrian volume, measuring the sidewalk or crosswalk width, determining the available pedestrian capacity and developing a ratio of volume flows-to-capacity conditions. The resulting ratio is then compared with LOS standards for pedestrian flow, which define a qualitative relationship at a certain pedestrian traffic concentration level. The evaluation of street crosswalks and corners is more complicated as these spaces cannot be treated as corridors due to the time incurred waiting for traffic signals. To effectively evaluate these facilities, a "time-space" analysis methodology is employed taking into consideration the traffic signal timing and cycle lengths at intersections.

LOS standards are based on the average area available per pedestrian during the analysis period, typically expressed as a 15-minute peak period. LOS grades from A to F are assigned, with LOS A representative of free flow conditions without pedestrian conflicts and LOS F depicting significant capacity limitations and inconvenience. Table 12.13 defines the CEQR LOS criteria for pedestrian crosswalk/corner area and sidewalk conditions, based on the *Highway Capacity Manual* methodology.

The analysis of sidewalk conditions includes 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 required them to wait. Platooning generally results in a level of service one level poorer than that determined for average flow rates.

Table 12.13: Pedestrian Crosswalk/Corner Area and Sidewalk Levels of Service Descriptions

LOS	Crosswalk/Corner	Crosswalk/Corner Area Criteria (sf/ped)	Non-Platoon Sidewalk Criteria (sf/ped)	Platoon Sidewalk Criteria (sf/ped)
A	(Unrestricted)	> 60	> 60	> 530
B	(Slightly Restricted)	> 40 to 60	> 40 to 60	> 90-530
C	(Restricted but fluid)	> 24 to 40	> 24 to 40	> 40-90
D	(Restricted, necessary to continuously alter walking stride and direction)	> 15 to 24	> 15 to 24	> 23-40
E	(Severely restricted)	> 8 to 15	> 8 to 15	> 11 to 23
F	(Forward progress only by shuffling; no reverse movement possible)	≤ 8	≤ 8	≤ 11

Source: *CEQR Technical Manual*

Notes:
Based on average conditions for 15 minutes
sf/ped – square feet of area per pedestrian

Significant Impact Criteria

Sidewalks

For areas of Manhattan within the Central Business District (which is typically defined as the area south of 60th Street), *CEQR Technical Manual* criteria define a significant adverse sidewalk impact to have occurred under platoon conditions if the average pedestrian space under the No-Action condition is greater than 39.2 square feet/pedestrian (sf/ped), and the average pedestrian space under the With-Action condition is less than 31.5 sf/ped (worse than mid-LOS D). If the average pedestrian space under the With-Action condition is greater than or equal to 31.5 sf/ped (mid-LOS D or better), the impact should not be considered significant. If the No-Action average pedestrian space is between 6.4 and 39.2 sf/ped, a decrease in average pedestrian space under the With-Action condition should be considered significant based the criteria presented in Table 12-14, which shows a sliding scale that identifies the increase that is considered a significant impact for a given reduction in pedestrian space. If the decrease in average pedestrian space is less than the value shown in Table 12-14, the impact should not be considered significant. If the average pedestrian space under the No-Action condition is less than 6.4 sf/ped, then a decrease in pedestrian space greater than or equal to 0.3 sf/ped should be considered significant.

Table 12.14: Significant Impact Criteria for Sidewalks with Platooned Flow in a CBD Location

No-Action Condition Pedestrian Space (sf/ped)			With-Action Condition Pedestrian Space Reduction to be Considered a Significant Impact (sf/ped)
> 39.2			With Action Condition < 31.5
38.7	to	39.2	Reduction ≥ 3.8
37.8	to	38.6	Reduction ≥ 3.7
36.8	to	37.7	Reduction ≥ 3.6
35.9	to	36.7	Reduction ≥ 3.5
34.9	to	35.8	Reduction ≥ 3.4
34.0	to	34.8	Reduction ≥ 3.3
33.0	to	33.9	Reduction ≥ 3.2
32.1	to	32.9	Reduction ≥ 3.1
31.1	to	32.0	Reduction ≥ 3.0
30.2	to	31.0	Reduction ≥ 2.9
29.2	to	30.1	Reduction ≥ 2.8
28.3	to	29.1	Reduction ≥ 2.7
27.3	to	28.2	Reduction ≥ 2.6
26.4	to	27.2	Reduction ≥ 2.5
25.4	to	26.3	Reduction ≥ 2.4
24.5	to	25.3	Reduction ≥ 2.3
23.5	to	24.4	Reduction ≥ 2.2
22.6	to	23.4	Reduction ≥ 2.1
21.6	to	22.5	Reduction ≥ 2.0
20.7	to	21.5	Reduction ≥ 1.9
19.7	to	20.6	Reduction ≥ 1.8
18.8	to	19.6	Reduction ≥ 1.7
17.8	to	18.7	Reduction ≥ 1.6
16.9	to	17.7	Reduction ≥ 1.5
15.9	to	16.8	Reduction ≥ 1.4
15.0	to	15.8	Reduction ≥ 1.3
14.0	to	14.9	Reduction ≥ 1.2
13.1	to	13.9	Reduction ≥ 1.1
12.1	to	13.0	Reduction ≥ 1.0
11.2	to	12.0	Reduction ≥ 0.9
10.2	to	11.1	Reduction ≥ 0.8
9.3	to	10.1	Reduction ≥ 0.7
8.3	to	9.2	Reduction ≥ 0.6
7.4	to	8.2	Reduction ≥ 0.5
6.4	to	7.3	Reduction ≥ 0.4
< 6.4			Reduction ≥ 0.3

Source: *CEQR Technical Manual*

Corners Area and Crosswalks

For the Manhattan CBD, *CEQR Technical Manual* criteria define a significant adverse impact at a corner area or crosswalk to have occurred if the average pedestrian space under the No-Action condition is greater than 21.5 square feet/pedestrian (sf/ped) and, under the With-Action condition, the average pedestrian space decreases to less than 19.5 sf/ped (worse than mid-LOS D). If the pedestrian space under the With-Action condition is greater than or equal to 19.5 sf/ped (mid-LOS D or better), the impact should not be considered significant. If the average pedestrian space under the No-Action condition is between 5.1 and 21.5 sf/ped, a decrease in pedestrian space under the With-Action condition should be considered significant based on the criteria presented in Table 12-15, which shows a sliding scale identifying where the decrease in pedestrian space is considered a significant adverse impact for a given amount of pedestrian space in the No-Action condition. For example, if the decrease in pedestrian space is less than the value in Table 12.15, the impact is not considered significant. If the average pedestrian space under the No-Action condition is less than 5.1 sf/ped, then a decrease in pedestrian space greater than or equal to 0.2 sf/ped should be considered significant.

Table 12.15: Significant Impact Criteria for Corners and Crosswalks in a CBD Location

No-Action Condition Pedestrian Space (sf/ped)			With-Action Condition Pedestrian Space Reduction to be Considered a Significant Impact (sf/ped)
> 21.5			With Action Condition < 19.5
21.3	To	21.5	Reduction ≥ 2.1
20.4	To	21.2	Reduction ≥ 2.0
19.5	To	20.3	Reduction ≥ 1.9
18.6	To	19.4	Reduction ≥ 1.8
17.7	To	18.5	Reduction ≥ 1.7
16.8	To	17.6	Reduction ≥ 1.6
15.9	To	16.7	Reduction ≥ 1.5
15.0	To	15.8	Reduction ≥ 1.4
14.1	To	14.9	Reduction ≥ 1.3
13.2	To	14.0	Reduction ≥ 1.2
12.3	To	13.1	Reduction ≥ 1.1
11.4	To	12.2	Reduction ≥ 1.0
10.5	To	11.3	Reduction ≥ 0.9
9.6	To	10.4	Reduction ≥ 0.8
8.7	To	9.5	Reduction ≥ 0.7
7.8	To	8.6	Reduction ≥ 0.6
6.9	To	7.7	Reduction ≥ 0.5
6.0	To	6.8	Reduction ≥ 0.4
5.1	To	5.9	Reduction ≥ 0.3
< 5.1			Reduction ≥ 0.2

Source: *CEQR Technical Manual*

Pedestrian and Vehicular Safety Evaluation

According to *CEQR Technical Manual* guidelines, an evaluation of vehicular and pedestrian safety is required for locations within the traffic and pedestrian study areas that have been identified as high-

crash locations. These are defined as locations with 48 or more total reportable and non-reportable crashes or with five or more pedestrian/bicyclist injury crashes having occurred in any consecutive 12 months of the most recent three-year period for which data is available. Crash trends are identified for such locations to determine whether Project-generated trips would adversely impact safety, or whether existing unsafe conditions could adversely impact the flow of future vehicular and/or pedestrian trips. The assessment of potential significant safety impacts depends on the location and nature of the impact, traffic and pedestrian volumes affected by or affecting such impacts, crash types and severity, and other contributing factors. Where appropriate, measures to improve traffic and pedestrian safety are identified and coordinated with DOT.

Parking

Analysis Methodology

The parking analysis identifies the supply of on-street and off-street public parking near a proposed project and determines the extent to which the supply is utilized in Existing, No-Action, and With-Action Conditions. The analysis considers anticipated changes in the study area's parking supply and demand, and compares project-generated parking demand with future parking availability to determine if a parking shortfall is likely to result. The displacement of existing parking capacity attributable to the Proposed Action is also considered. Typically, the analysis encompasses the parking facilities—public parking lots and garages and on-street curb spaces—that vehicular traffic destined to the project site or area would likely utilize. According to the *CEQR Technical Manual*, a quarter-mile radius around a project site is generally assumed as the distance that someone driving to the site would be willing to walk.

Impact Criteria

For proposed projects in Manhattan located in areas south of 110th Street, the inability of a proposed project or the surrounding area to accommodate a project's future parking demands is considered a parking shortfall. However, it is generally not considered a significant impact due to the magnitude of alternative modes of transportation available.

12.3 Traffic

Existing Conditions

Study Area Street Network

The street network within the study area comprises a grid of avenues and streets with the following general characteristics:

- **Avenues –** Avenues generally run north-south (uptown/downtown), most carrying one-way traffic with curb-to-curb street widths of 60 to 70 feet. These avenues generally carry three to seven travel lanes depending on location and time of day. The avenues alternate direction with First Avenue, Third Avenue, Madison Avenue, and Sixth Avenue running northbound and

Second Avenue, Lexington Avenue, and Fifth Avenue running southbound. Park Avenue is a two-way, north-south roadway with a center median.

Most avenues, except for Park Avenue, have dedicated bus lanes during the peak periods, and Madison Avenue has two dedicated bus lanes. First Avenue has a tunnel allowing through-traffic to bypass the intersections from East 42nd to East 48th Streets adjacent to the United Nations campus. Park Avenue has a one-way tunnel from East 33rd to East 40th Streets, allowing northbound through-traffic to bypass the intersections from East 34th to East 39th Streets, and a two-way viaduct running between East 40th and East 46th Streets, allowing through-traffic to bypass intersections in the Grand Central Terminal area. Tunnel Exit Street is a short north-south roadway, operating one-way northbound, which runs from East 39th to East 41st Streets and is primarily utilized by vehicles exiting the Queens Midtown Tunnel. Vanderbilt Avenue is a short north-south roadway, generally two-way, which runs along the west side of Grand Central Terminal between East 42nd and East 47th Streets.

- **Streets –** Streets generally run east-west (crosstown), most carrying one-way traffic with curb-to-curb street widths of 30 to 34 feet. These streets generally carry one to three lanes of traffic depending on location and time of day. Even-numbered streets generally serve eastbound traffic, while odd-numbered streets generally serve westbound traffic.

  There are two major two-way, east-west cross streets in the study area, 42nd and 57th Streets, which have a curb-to-curb width of about 70 feet. These streets operate with two to three lanes in each direction, depending location and on time of day. During peak periods, there are dedicated bus lanes on 42nd Street (west of Third Avenue) and 57th Street (west of Second Avenue).

Exceptions to the Grid System

The regular Midtown Manhattan street grid is interrupted by the following facilities that span more than one square block:

- Grand Central Terminal/MetLife Building (interrupts East 43rd and East 44th Streets between Lexington and Vanderbilt Avenues)
- Bryant Park/New York Public Library (interrupts West 41st Street between Fifth and Sixth Avenues).

Other Transportation Infrastructure

The study area lies adjacent to three major highway facilities: the Ed Koch Queensboro Bridge, Franklin D. Roosevelt (FDR) Drive, and Queens Midtown Tunnel.

The Ed Koch Queensboro Bridge is a toll-free facility connecting Midtown Manhattan with arterial roadways in Queens, including Northern Boulevard, Queens Boulevard, and 21st Street. The facility consists of five roadways and carries a total of nine lanes of traffic. Manhattan-bound access is provided to the intersection of Second Avenue and East 60th Street via the North Inner Lower Roadway and to East 62nd and East 63rd Streets via the North Upper Roadway. Queens-bound access is provided from the intersection of Second Avenue and East 59th Street via the South Inner Lower Roadway, from westbound East 59th Street off First Avenue via the South Outer Roadway, and from East 57th and East 58th Streets via the South Upper Roadway; however the South Upper Roadway is reversed in the

AM peak period to carry Manhattan-bound high occupancy vehicles. During the weekday AM peak period, the facility provides six inbound lanes to Manhattan and three outbound lanes to Queens. During the weekday Midday and PM peak periods, the bridge provides four inbound lanes to Manhattan and five outbound lanes to Queens.

The FDR Drive is a six-lane, limited-access highway restricted to autos. The highway runs north-south along the East River and provides several connections to the regional highway system, including the Brooklyn-Queens Expressway (via the Brooklyn Bridge), the Major Deegan Expressway (via the Willis Avenue Bridge), the New England Thruway (via the Robert F. Kennedy Bridge), and the George Washington Bridge (via the Harlem River Drive and the Trans-Manhattan Expressway). In the vicinity of the study area, the FDR Drive has northbound exits at East 34th Street, East 42nd Street, and East 61st Street. Entrance ramps to the northbound FDR Drive are located at East 34th Street, East 48th Street, and East 62nd Street. In the southbound direction, the FDR Drive has exits at East 63rd Street, East 53rd Street, East 49th Street, and East 34th Street. Entrances to the southbound FDR Drive are located at East 63rd Street and East 34th Street. The FDR Drive also has a southbound service road that is accessible via a ramp from East 42nd Street and provides access to the southbound entrance at East 34th Street.

The Queens Midtown Tunnel is a tolled facility operated by the Metropolitan Transportation Authority (MTA) Bridges and Tunnels, connecting Midtown Manhattan with the Long Island Expressway. The facility consists of two tubes, each of which carries two lanes of traffic. During the weekday AM peak period, the tunnel provides three inbound lanes into Manhattan and one outbound lane to Queens. During the weekday Midday and PM peak periods, two lanes are provided in each direction.

Special Roadway Operations

THRU Streets

During the hours of 10:00 a.m. to 6:00 p.m. on weekdays, vehicular traffic is not allowed to make most turns along the following pairs of east-west streets between Third and Sixth Avenues within the study area, which are designated by DOT as "THRU Streets":

- 36th Street/37th Street;
- 45th Street/46th Street;
- 49th Street/50th Street; and
- 53rd Street/54th Street.

Turns are permitted onto Park Avenue in both directions, except at 45th Street, which does not have access to Park Avenue. The THRU Streets program is designed to improve cross-town traffic flow and reduce pedestrian-vehicular conflicts.

Midtown in Motion

Midtown in Motion is a traffic management system used by DOT's Traffic Management Center to improve traffic conditions in the Midtown Manhattan area bound by 57th Street on the north, 42nd Street on the south, First Avenue on the east, and Ninth Avenue on the west. The system is operated via microwave sensors, traffic video cameras and E-ZPass readers to identify and respond to traffic conditions in real time and remotely adjust traffic signal patterns to smooth the flow of traffic.

Bicycle Lanes

Within the study area, bicycle routes are located along the following roadways:

- First Avenue (south of East 56th Street);
- Second Avenue (south of East 59th Street);
- 39th Street;
- 40th Street;
- 43rd Street (west of Vanderbilt Avenue);
- 44th Street (west of Vanderbilt Avenue);
- 48th Street;
- 51st Street;
- 54th Street; and
- 55th Street.

Within the study area, the bicycle route along First Avenue varies from a protected path (Class I) to a bike lane (Class II). The bicycle route along Second Avenue is marked as a shared lane (Class III). On crosstown streets, bicycle lanes are marked as bike lanes (Class II) or shared lanes (Class III); pavement markings vary from block to block along the length of the route.

Truck Routes

The City has established local and through truck routes to manage the flow of trucks and improve the quality of neighborhoods. Regulations that restrict trucks to local and through truck routes and other area-wide restrictions are in effect in parts of Midtown Manhattan. Through truck routes must be used by trucks that have neither an origin or destination within the borough. There are no designated through truck routes within the study area, although a through truck route is designated along 34th Street just south of the study area between the Queens Midtown Tunnel and Lincoln Tunnel; through trucks are prohibited from using this route between the hours of 11:00 a.m. and 6:00 p.m.

Local truck routes are designated routes for trucks with an origin or destination within a borough. Generally, trucks must travel on local truck routes but are allowed to travel on a street that is not a designated truck route for the purpose of arriving at their destination. In such instances, the truck must leave the designated truck route at the intersection that is nearest to their destination, proceed via the most direct route, and return to the nearest designated truck route via the most direct route. Designated local truck routes in the study area include:

- First Avenue;
- Second Avenue;
- Third Avenue;
- Lexington Avenue;
- 42nd Street;
- 57th Street;
- 59th Street; and
- 60th Street (between First and Lexington Avenues).

Traffic Conditions

To establish the existing conditions traffic network, traffic data was collected via a mix of automatic traffic recorder (ATR) counts, video turning movement counts, manual turning movement counts, vehicle classification counts, and travel time and delay surveys. The traffic analyses utilize traffic data collected by DOT in March 2016, as well as additional traffic data collected in September 2016. In addition, recent traffic counts in the study area were obtained from DOT to provide supplemental traffic data.

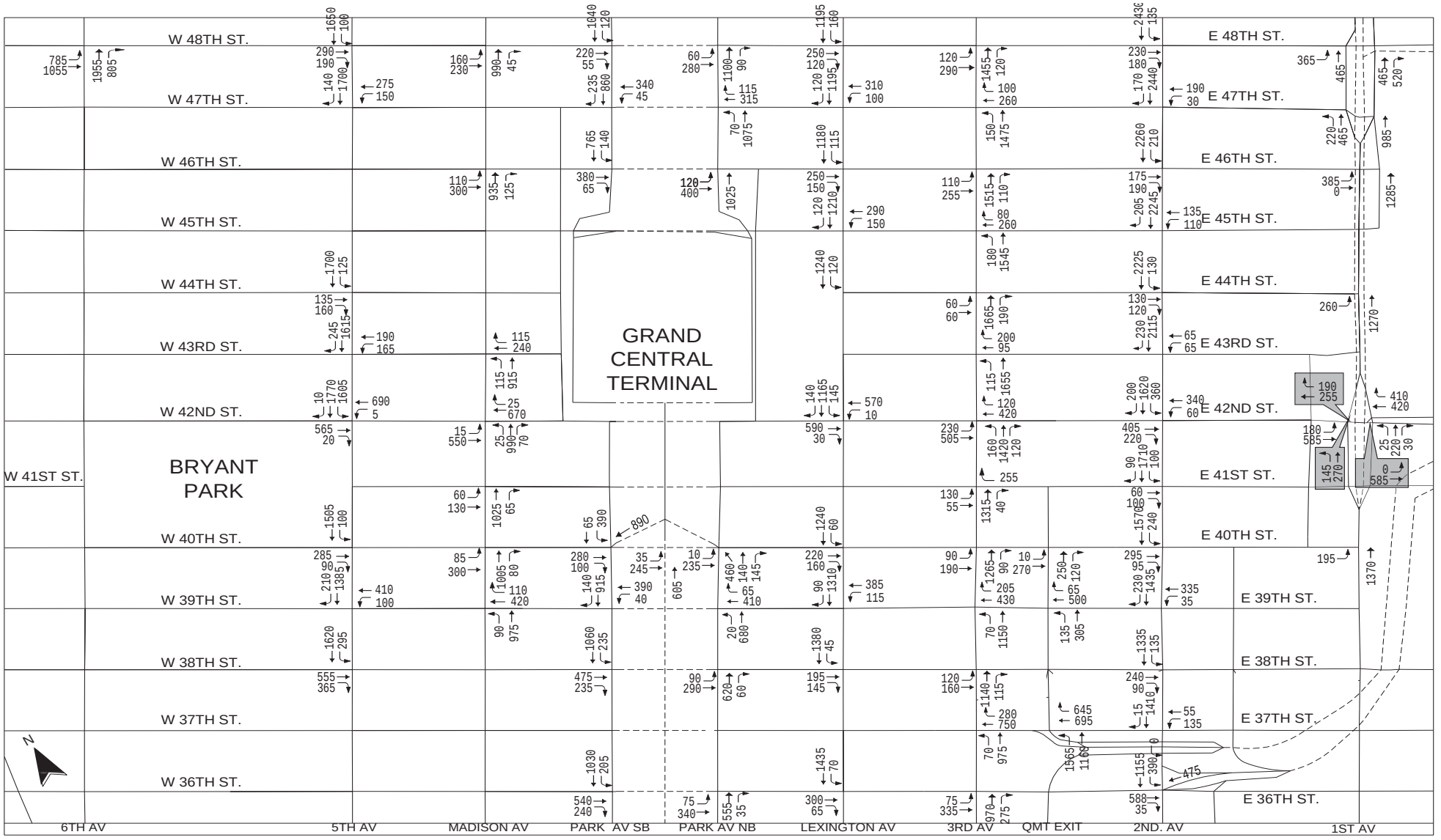
Physical inventory data needed for operational analysis—e.g., the number of traffic lanes, lane widths, pavement markings, turn prohibitions, bus stops, and typical parking regulations—was collected in March, August, and September 2016. Signal timing plans for signalized intersections within the study area were obtained from DOT.

Figure 12-7 through Figure 12-9 show existing traffic volumes during weekday AM, Midday, and PM peak hours.

Intersection Capacity Analysis

Table 12.16 summarizes existing LOS by approach "movements"[1] for signalized and unsignalized intersections in the traffic study area. The 119 intersections analyzed have a total of combined 1,325 movements during the AM, Midday, and PM peak hours (1,319 at signalized intersections and 6 at unsignalized intersections). Although most approach movements operate at overall acceptable levels, individual approach movements at a number of intersections are considered congested (i.e., operate at LOS E or F and/or have a v/c ratio of 0.90 or above) in one or more of the peak hours. At signalized intersections, there are 292 movements with LOS E or worse, with 209 movements operating at LOS E and 83 movements operating at LOS F. There are also 608 movements operating at a v/c ratio of 0.90 or above. At unsignalized intersections, there are no movements operating at LOS E or worse.

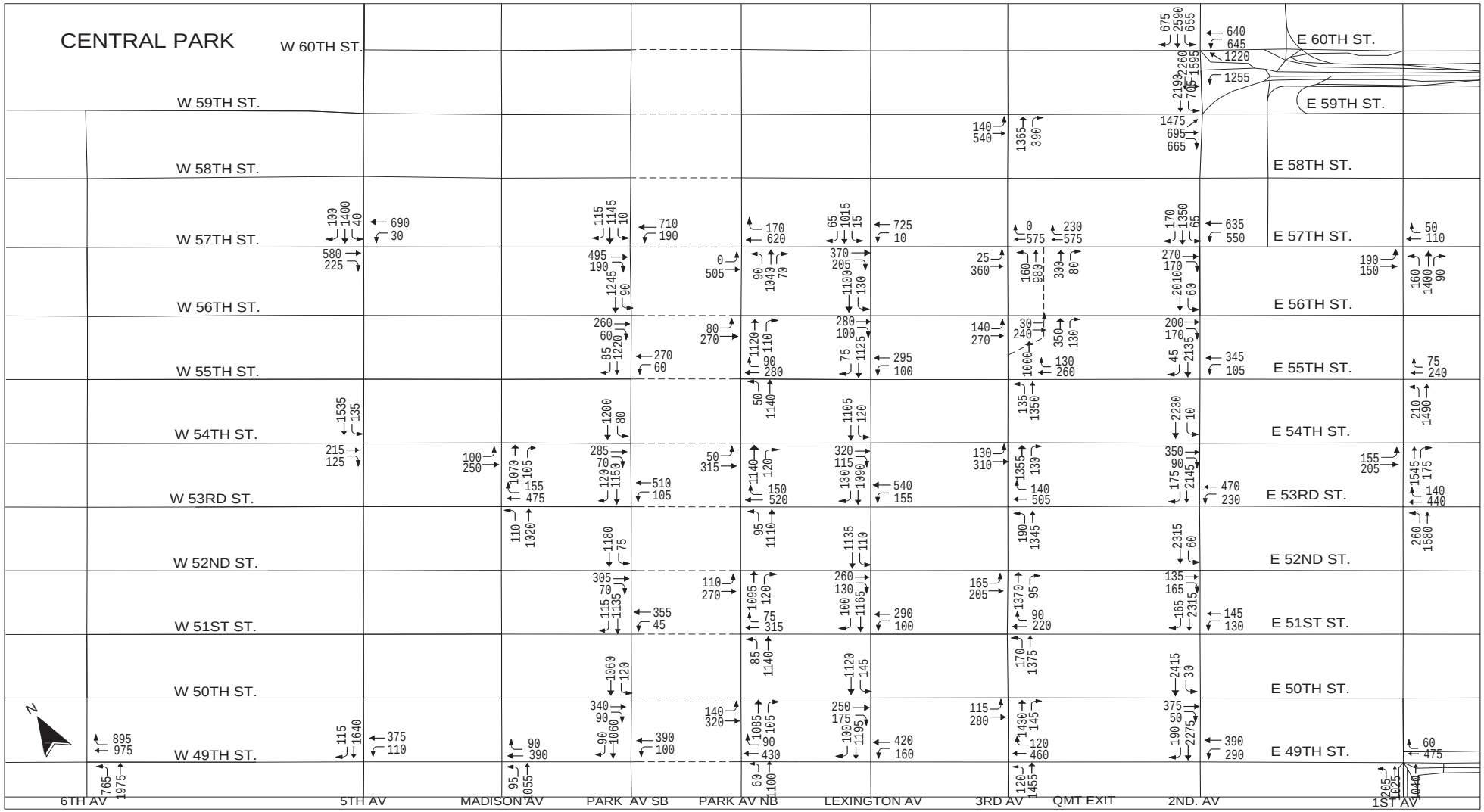
[1] A "movement" represents a component of intersection traffic flow at the approaches, for instance a through-, left-, or right-turn movement.



Greater East Midtown Rezoning
Manhattan, New York

2016 Existing Traffic Volumes
Weekday AM Peak Hour

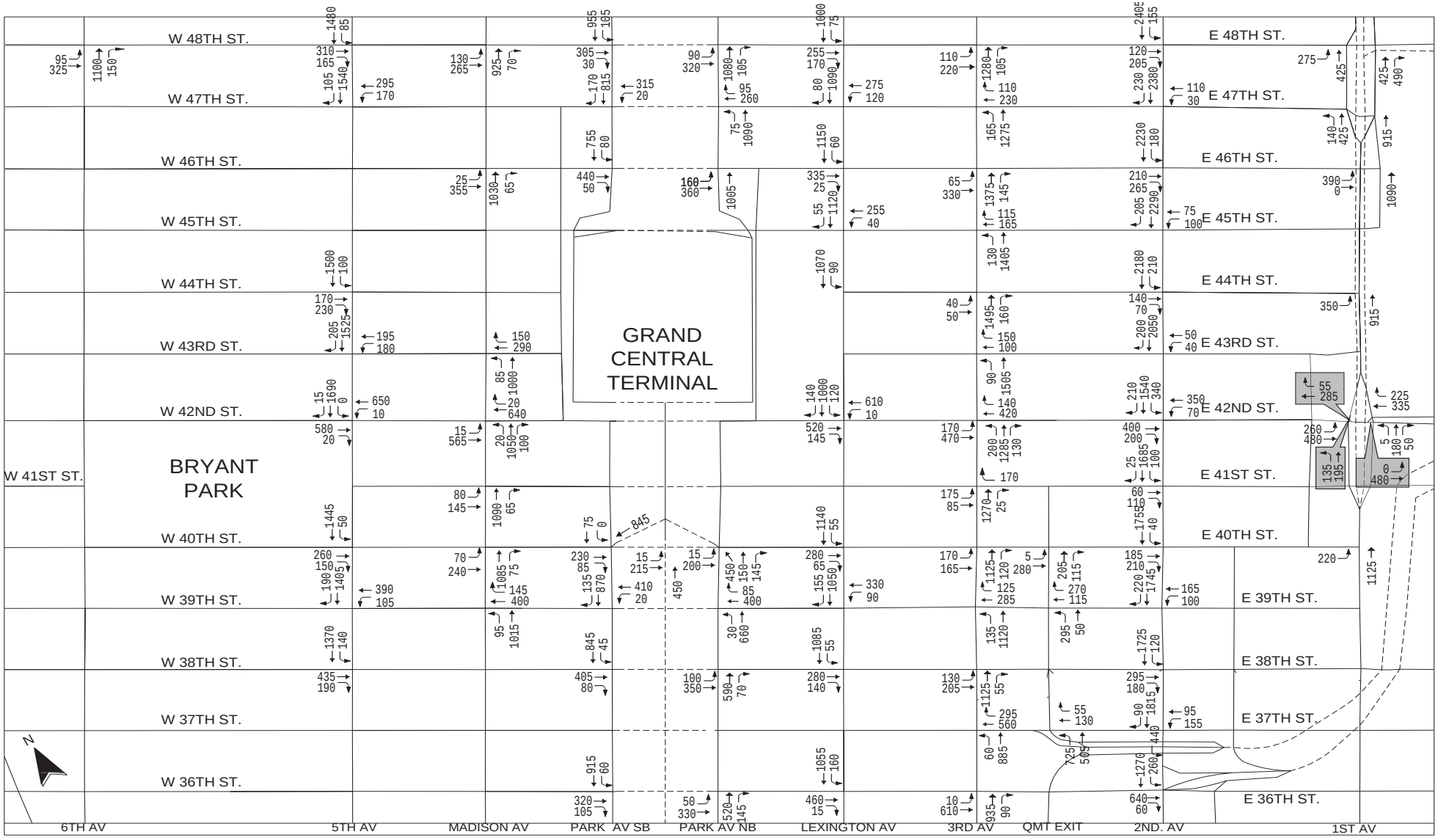
Figure 12-7a



Greater East Midtown Rezoning
Manhattan, New York

2016 Existing Traffic Volumes
Weekday AM Peak Hour

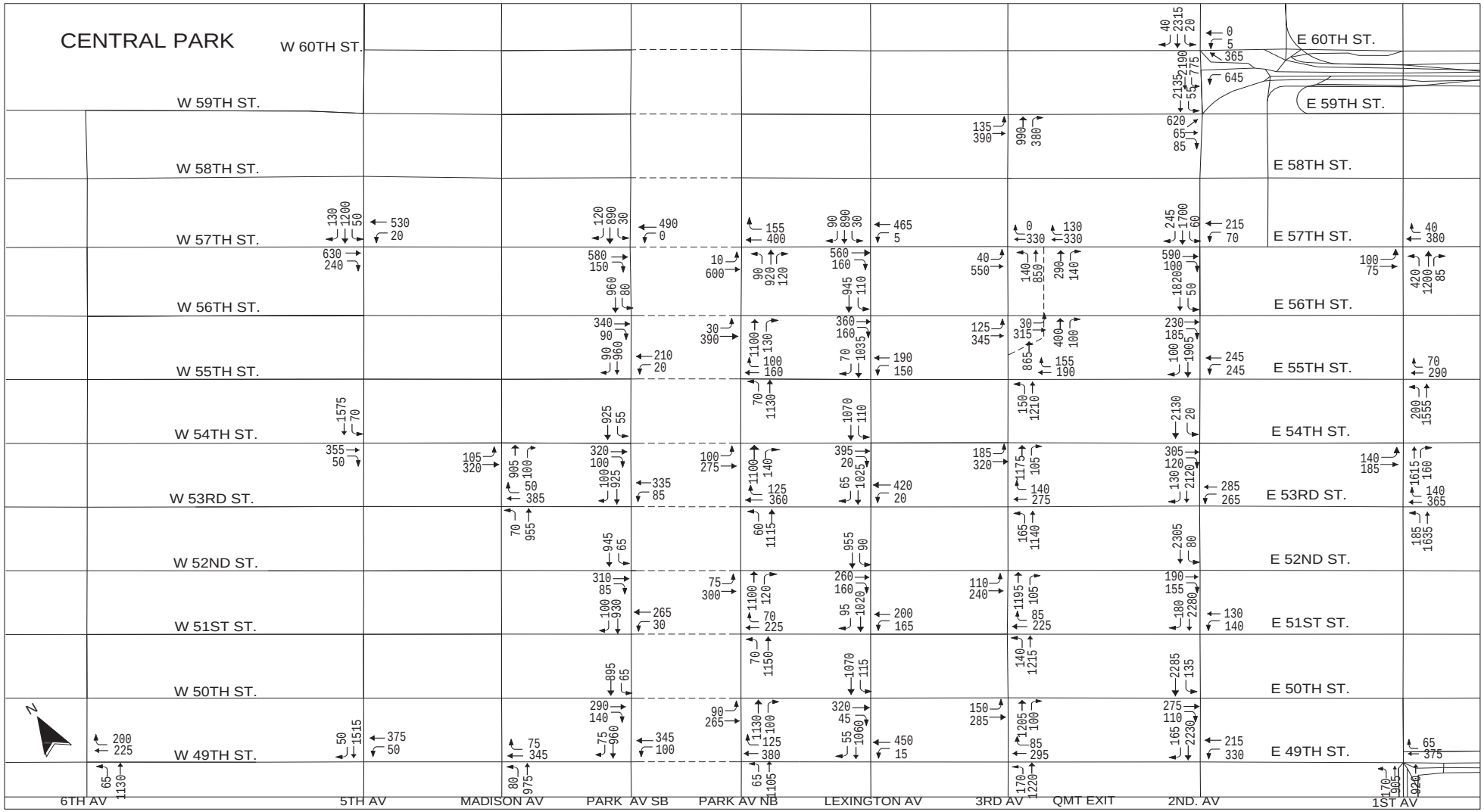
Figure 12-7b



Greater East Midtown Rezoning
Manhattan, New York

2016 Existing Traffic Volumes
Weekday Midday Peak Hour

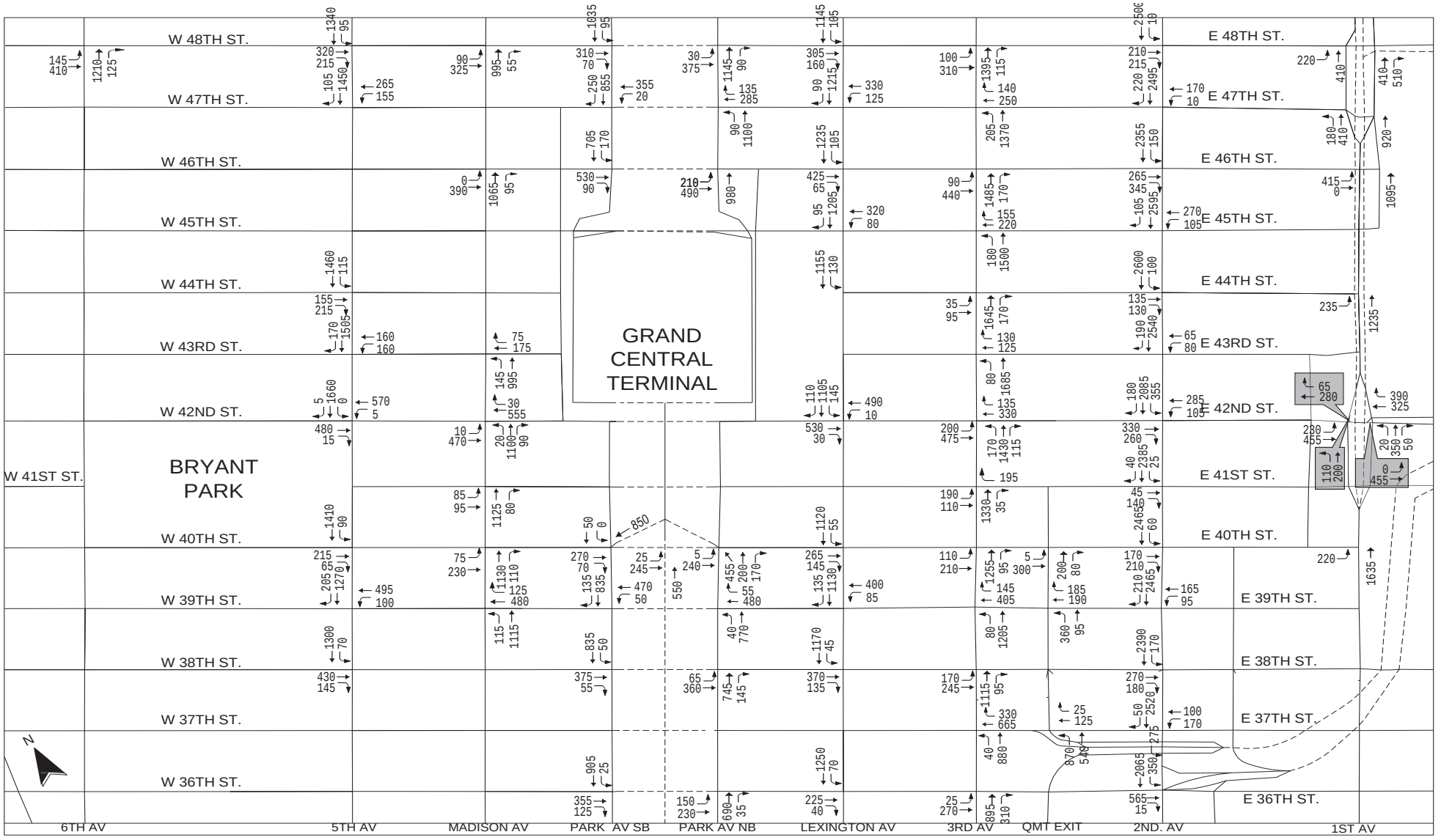
Figure 12-8a



Greater East Midtown Rezoning
Manhattan, New York

2016 Existing Traffic Volumes
Weekday Midday Peak Hour

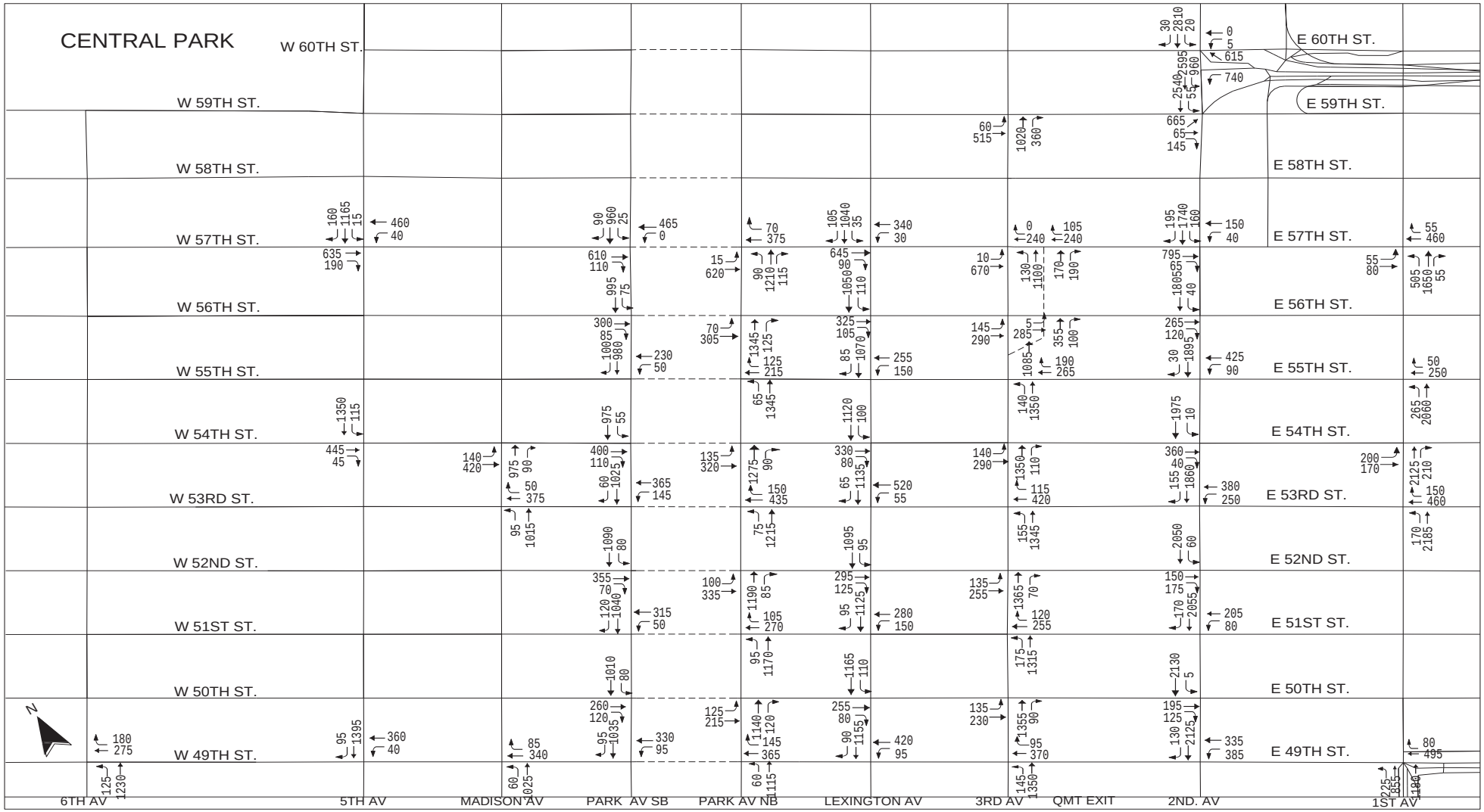
Figure 12-8b



Greater East Midtown Rezoning
Manhattan, New York

2016 Existing Traffic Volumes
Weekday PM Peak Hour

Figure 12-9a



Greater East Midtown Rezoning
Manhattan, New York

2016 Existing Traffic Volumes
Weekday PM Peak Hour

Figure 12-9b

Table 12.16: Summary of Existing Levels of Service by Movement

Level of Service (LOS)	Peak Hour			Total
	AM	Midday	PM	
SIGNALIZED INTERSECTIONS				
Movements at LOS A/B/C	254	217	223	694
Movements at LOS D	105	110	118	333
Movements at LOS E	63	72	74	209
Movements at LOS F	27	33	23	83
TOTAL	**449**	**432**	**438**	**1,319**
Movements at v/c ≥ 0.90	190	207	211	608
UNSIGNALIZED INTERSECTIONS				
Movements at LOS A/B/C	1	2	2	5
Movements at LOS D	1	0	0	1
Movements at LOS E	0	0	0	0
Movements at LOS F	0	0	0	0
TOTAL	**2**	**2**	**2**	**6**
Movements at v/c ≥ 0.90	0	0	0	0

Table 12.17 presents a more detailed analysis of individual intersections and movements operating at LOS E or worse and those with a v/c ratio of 0.90 or more, providing the v/c ratio, average delay, and LOS for each movement. These movements are listed below:

Table 12.17: Intersections with Existing Congested Approach Movements

Signalized Intersection	Approach	AM Peak Hour				Midday Peak Hour				PM Peak Hour			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
1st Avenue & East 40th Street	Northbound									T	1.05	60.4	E
1st Avenue & East 42nd Street	Eastbound (East Side)	T	0.90	30.5	C								
1st Avenue & East 42nd Street	Westbound (East Side)	TR	1.04	93.1	F								
1st Avenue & East 42nd Street	Westbound (East Side)	R	1.05	109.5	F	R	0.85	66.7	E	R	1.05	105.6	F
1st Avenue & East 42nd Street	Northbound (East Side)	LT	0.56	65.5	E					LT	0.87	96.1	F
1st Avenue & East 42nd Street	Eastbound (West Side)	L	1.05	133.1	F	L	1.05	110.6	F	L	1.05	112.2	F
1st Avenue & East 42nd Street	Northbound (West Side)	T	0.63	81.8	F					T	0.51	59.9	E
1st Avenue & East 44th Street	Eastbound					L	0.95	50.0	D				
1st Avenue & East 46th Street	Eastbound					L	1.02	70.1	E	L	1.05	71.8	E
1st Avenue & East 49th Street	Northbound (East Side)									T	1.00	81.4	F
1st Avenue & East 49th Street	Northbound (West Side)	LT	0.98	40.0	D					LT	1.02	51.1	D
1st Avenue & East 53rd Street	Northbound					LT	0.90	28.0	C	LT	1.05	75.2	E
1st Avenue & East 54th Street	Eastbound	LT	1.05	80.5	F	LT	1.04	79.2	E	LT	1.05	82.2	F
1st Avenue & East 54th Street	Northbound									T	0.92	27.5	C
1st Avenue & East 55th Street	Westbound					TR	0.99	71.0	E				
1st Avenue & East 55th Street	Northbound	L	1.03	69.2	E	L	0.92	37.9	D	L	1.04	58.0	E
1st Avenue & East 55th Street	Northbound	T	0.91	22.2	C								
1st Avenue & East 57th Street	Eastbound	LT	1.04dl	46.8	D	LT	1.00dl	39.8	D				
1st Avenue & East 57th Street	Northbound					L	0.99	57.9	E				
1st Avenue & East 57th Street	Northbound	T	0.94	24.8	C								
2nd Avenue & East 36th Street	Eastbound	TR	1.03	63.5	E					TR	1.00	55.1	E
2nd Avenue & East 36th Street	Southbound	L	1.05	63.6	E								
2nd Avenue & East 36th Street	Southbound	T	1.05	51.5	D					T	1.03	37.3	D
2nd Avenue & East 36th Street	Westbound (Tunnel Exit)	L	1.00	74.0	E								
2nd Avenue & East 37th Street	Southbound	T	1.04	29.9	C	TR	0.96	18.2	B	T	1.05	50.7	D
2nd Avenue & East 38th Street	Eastbound									TR	0.91	50.7	D
2nd Avenue & East 38th Street	Southbound	LT	1.05	63.6	E	LT	0.95	17.5	B	LT	1.05	54.3	D
2nd Avenue & East 39th Street	Southbound	T	1.04	62.7	E	TR	1.05	59.5	E	T	1.04	57.3	E
2nd Avenue & East 39th Street	Southbound	R	0.91	37.4	D								
2nd Avenue & East 40th Street	Southbound	LT	0.92	32.6	C	LT	0.96	54.4	D	LT	0.96	44.2	D
2nd Avenue & East 41st Street	Southbound	LT	1.04	50.9	D	LT	1.01	41.1	D	LT	1.04	59.9	E
2nd Avenue & East 42nd Street	Eastbound	TR	0.98	50.5	D								
2nd Avenue & East 42nd Street	Westbound									LT	0.90dl	22.9	C
2nd Avenue & East 42nd Street	Southbound					L	1.04	70.9	E				
2nd Avenue & East 42nd Street	Southbound	LT	0.94	39.3	D	T	0.98	49.8	D	LT	1.01	62.2	E
2nd Avenue & East 43rd Street	Southbound	T	0.95	27.5	C	TR	0.99	47.5	D	T	1.01	53.3	D
2nd Avenue & East 44th Street	Southbound	LT	1.01	39.9	D	LT	0.98	36.0	D	LT	1.03	49.9	D
2nd Avenue & East 45th Street	Westbound	LT	0.87	67.1	E					LT	1.00	62.4	E
2nd Avenue & East 45th Street	Southbound	T	0.99	36.2	D	TR	1.01	39.8	D	T	1.02	49.5	D
2nd Avenue & East 45th Street	Southbound	R	0.93	34.5	C								
2nd Avenue & East 46th Street	Eastbound									TR	1.05dr	46.6	D
2nd Avenue & East 46th Street	Eastbound					R	1.05	97.7	F				
2nd Avenue & East 46th Street	Southbound	LT	1.01	49.6	D	LT	0.96	41.1	D	LT	1.01	48.6	D
2nd Avenue & East 47th Street	Southbound	T	1.03	50.0	D	TR	1.05	42.6	D	T	1.03	36.9	D
2nd Avenue & East 47th Street	Southbound									R	0.97	34.9	C
2nd Avenue & East 48th Street	Eastbound	TR	1.04	73.9	E	TR	1.05	80.9	F	TR	1.05	83.4	F
2nd Avenue & East 48th Street	Southbound	LT	1.05	62.5	E	LT	1.05	55.3	E	LT	0.98	56.0	E
2nd Avenue & East 49th Street	Westbound					L	0.93	53.7	D	L	1.04	73.4	E
2nd Avenue & East 49th Street	Southbound	T	1.05	58.8	E	T	0.92	49.2	D	T	1.04	53.0	D
2nd Avenue & East 50th Street	Southbound	LT	1.04	42.1	D	LT	1.03	43.9	D	LT	1.01	42.6	D
2nd Avenue & East 51st Street	Westbound	L	0.76	57.0	E								
2nd Avenue & East 51st Street	Southbound	T	0.99	47.6	D	TR	0.95	39.6	D	T	0.94	25.2	C
2nd Avenue & East 52nd Street	Southbound	LT	1.01	41.1	D	LT	0.98	23.1	C	LT	0.95	13.4	B

Table 12.17: Intersections with Existing Congested Approach Movements (Continued)

Signalized Intersection	Approach	AM Peak Hour				Midday Peak Hour				PM Peak Hour			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
2nd Avenue & East 53rd Street	Westbound	LT	0.95	47.4	D	LT	1.04dl	61.3	E				
2nd Avenue & East 53rd Street	Southbound	T	0.95	28.8	C	TR	0.94	24.1	C	T	0.97	23.2	C
2nd Avenue & East 54th Street	Southbound	LT	1.03	47.8	D	LT	1.01	46.3	D	LT	1.03	47.5	D
2nd Avenue & East 55th Street	Westbound					T	1.05	71.8	E	T	1.05	76.6	E
2nd Avenue & East 55th Street	Southbound	T	1.04	63.5	E	T	1.02	64.8	E	T	1.02	55.5	E
2nd Avenue & East 56th Street	Southbound	LT	0.99	53.2	D	LT	1.02	64.5	E	LT	0.94	52.6	D
2nd Avenue & East 57th Street	Eastbound	TR	1.02	96.7	F	TR	1.03	70.8	E	TR	1.04	66.5	E
2nd Avenue & East 57th Street	Westbound	L	1.05	92.7	F								
2nd Avenue & East 57th Street	Westbound	LT	1.05	77.1	E								
2nd Avenue & East 57th Street	Southbound					T	0.97	37.8	D	T	0.90	21.5	C
2nd Avenue & East 57th Street	Southbound	R	0.91	64.0	E								
2nd Avenue & East 59th Street	Eastbound	L	1.03	49.9	D	L	0.98	45.2	D	L	1.05	57.6	E
2nd Avenue & East 59th Street	Southbound	L	1.05	69.6	E	L	0.95	49.9	D	L	1.00	52.6	D
2nd Avenue & East 59th Street	Southbound	LT	1.05	64.0	E	LT	1.05	57.2	E	LT	1.05	56.6	E
2nd Avenue & East 60th Street	Southbound	T	0.97	81.9	F	LTR	1.05	80.0	F	T	1.05	79.1	E
2nd Avenue & East 60th Street	Westbound (Bridge Exit)					L	0.92	42.9	D	L	0.92	41.2	D
2nd Avenue & East 60th Street	Westbound (Bridge Exit)	T	1.03	68.8	E					T	0.98	59.5	E
Tunnel Exit Street & East 39th Street	Westbound	TR	1.05	89.9	F	TR	1.05	85.0	F				
Tunnel Exit Street & East 39th Street	Northbound					L	0.92	74.7	E				
Tunnel Exit Street & East 39th Street	Northbound									LT	1.02dl	14.0	B
3rd Avenue & East 36th Street	Northbound	R	0.94	88.0	F	R	0.70	55.7	E	R	1.04	113.8	F
3rd Avenue & East 37th Street	Westbound									R	0.90	83.2	F
3rd Avenue & East 37th Street	Northbound					LT	0.88	58.6	E				
3rd Avenue & East 39th Street	Westbound	T	1.01	80.8	F	T	1.05	71.8	E				
3rd Avenue & East 39th Street	Westbound	R	1.04	76.1	E								
3rd Avenue & East 39th Street	Northbound	LT	1.04	70.9	E	LT	1.04	69.2	E	LT	0.92	38.7	D
3rd Avenue & East 40th Street	Eastbound									LT	1.00	114.1	F
3rd Avenue & East 40th Street	Northbound	T	1.01	47.0	D	T	1.02	44.4	D	T	1.04	66.2	E
3rd Avenue & East 40th Street	Northbound									R	0.94	64.9	E
3rd Avenue & East 41st Street	Eastbound					L	0.93	87.3	F				
3rd Avenue & East 41st Street	Eastbound	LT	0.64	58.3	E					LT	1.01	69.6	E
3rd Avenue & East 41st Street	Westbound	R	1.01	88.6	F	R	1.03	99.5	F				
3rd Avenue & East 41st Street	Northbound	T	0.97	65.6	E					T	0.96	51.1	D
3rd Avenue & East 42nd Street	Eastbound	L	0.94	60.6	E	L	0.83	65.7	E	L	0.99	85.6	F
3rd Avenue & East 42nd Street	Eastbound					T	0.95	62.1	E				
3rd Avenue & East 42nd Street	Westbound	R	0.97	100.2	F	R	1.01	99.6	F	R	0.96	90.3	F
3rd Avenue & East 42nd Street	Northbound	LT	1.01	75.9	E	LT	1.00	67.0	E	LT	0.91	47.8	D
3rd Avenue & East 43rd Street	Northbound	LT	0.95	23.7	C	LT	0.95	22.4	C	LT	0.93	42.2	D
3rd Avenue & East 44th Street	Northbound	T	0.92	26.2	C	T	0.95	49.3	D	T	1.05	58.9	E
3rd Avenue & East 44th Street	Northbound					R	0.94	48.4	D	R	0.96	46.4	D
3rd Avenue & East 45th Street	Westbound	T	0.90	47.8	D								
3rd Avenue & East 45th Street	Westbound	R	0.66	57.7	E								
3rd Avenue & East 45th Street	Northbound	LT	1.00	47.2	D	LT	1.05	73.8	E	LT	1.02	59.9	E
3rd Avenue & East 46th Street	Northbound	T	0.93	42.6	D	T	1.00	58.3	E	T	1.04	57.5	E
3rd Avenue & East 46th Street	Northbound					R	0.99	41.8	D				
3rd Avenue & East 47th Street	Westbound	T	0.90	41.3	D								
3rd Avenue & East 47th Street	Northbound	LT	1.04	58.8	E	LT	1.03	67.8	E	LT	1.04	67.0	E
3rd Avenue & East 48th Street	Northbound	T	0.92	24.6	C	T	1.01	73.5	E	T	1.02	71.4	E
3rd Avenue & East 48th Street	Northbound									R	0.90	45.3	D
3rd Avenue & East 49th Street	Westbound	T	0.95	53.5	D								
3rd Avenue & East 49th Street	Northbound	LT	0.97	64.3	E	LT	1.04	74.6	E	LT	1.04	73.9	E
3rd Avenue & East 50th Street	Northbound	T	1.03	71.8	E	T	1.03	66.5	E	T	1.00	63.4	E
3rd Avenue & East 50th Street	Northbound	R	1.01	73.6	E	R	1.01	72.0	E				

Table 12.17: Intersections with Existing Congested Approach Movements (Continued)

Signalized Intersection	Approach	AM Peak Hour				Midday Peak Hour				PM Peak Hour			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
3rd Avenue & East 51st Street	Westbound									T	1.04	78.3	E
3rd Avenue & East 51st Street	Northbound	LT	1.05	68.6	E	LT	0.98	46.5	D	LT	1.00	74.9	E
3rd Avenue & East 52nd Street	Northbound	T	1.01	51.2	D	T	0.97	37.2	D	T	1.02	70.0	E
3rd Avenue & East 52nd Street	Northbound	R	0.97	52.4	D	R	0.96	60.8	E				
3rd Avenue & East 53rd Street	Westbound	T	1.01	65.5	E					T	0.95	38.4	D
3rd Avenue & East 53rd Street	Westbound	R	0.95	88.3	F								
3rd Avenue & East 53rd Street	Northbound	LT	0.99	50.0	D	LT	0.95	40.4	D	LT	1.04	70.6	E
3rd Avenue & East 54th Street	Eastbound					L	0.93	65.7	E	L	0.53	56.0	E
3rd Avenue & East 54th Street	Northbound	T	0.96	63.4	E	T	0.93	66.1	E	T	0.99	73.0	E
3rd Avenue & East 55th Street	Westbound	T	0.92	42.6	D					T	1.03	62.9	E
3rd Avenue & East 55th Street	Westbound					R	0.99	68.4	E	R	0.95	66.4	E
3rd Avenue & East 55th Street	Northbound	LT	1.02	48.4	D	LT	1.03	52.7	D	LT	1.04	61.9	E
3rd Avenue & East 56th Street	Eastbound (West Side)					LT	0.92	95.9	F	LT	1.04	69.7	E
3rd Avenue & East 56th Street	Northbound (West Side)	T	1.00	40.8	D	T	0.92	28.7	C	T	1.05	67.0	E
3rd Avenue & East 56th Street	Northbound (East Side)					TR	1.02	78.9	E	TR	1.04	41.1	D
3rd Avenue & East 57th Street	Eastbound (West Side)	LT	0.83	63.4	E	LT	0.92	115.9	F	LT	0.99	99.7	F
3rd Avenue & East 57th Street	Northbound (West Side)	LT	0.90	21.2	C	LT	0.99	39.1	D	LT	0.99	35.2	D
3rd Avenue & East 57th Street	Eastbound (East Side)					T	1.04	54.2	D				
3rd Avenue & East 57th Street	Northbound (East Side)					TR	1.05	68.1	E	TR	1.04	62.3	E
3rd Avenue & East 57th Street	Northbound (East Side)					R	1.04	81.8	F	R	1.05	67.5	E
3rd Avenue & East 59th Street	Eastbound	LT	0.94	45.8	D	LT	1.02	71.1	E	LT	1.00	64.4	E
3rd Avenue & East 59th Street	Northbound	R	1.01	65.2	E					R	1.04	78.7	E
Lexington Avenue & East 36th Street	Eastbound									TR	0.77	57.4	E
Lexington Avenue & East 36th Street	Southbound	LT	0.97	20.7	C	LT	0.95	21.4	C				
Lexington Avenue & East 38th Street	Eastbound	R	0.80	81.4	F	R	0.84	86.8	F	R	0.77	68.4	E
Lexington Avenue & East 38th Street	Southbound	T	0.98	16.5	B								
Lexington Avenue & East 39th Street	Westbound	L	1.03	66.4	E	L	1.03	74.5	E				
Lexington Avenue & East 39th Street	Westbound	T	1.04	43.6	D	T	1.05	54.4	D	T	1.03	84.9	F
Lexington Avenue & East 39th Street	Southbound	T	0.98	39.9	D	T	0.99	28.3	C	TR	0.94	19.4	B
Lexington Avenue & East 40th Street	Eastbound	R	1.04	100.5	F					R	1.05	98.3	F
Lexington Avenue & East 40th Street	Southbound	LT	1.04	70.0	E	LT	1.03	65.3	E				
Lexington Avenue & East 42nd Street	Eastbound					T	0.90	42.5	D				
Lexington Avenue & East 42nd Street	Eastbound					R	0.88	58.9	E				
Lexington Avenue & East 42nd Street	Westbound									LT	1.02	78.0	E
Lexington Avenue & East 42nd Street	Southbound	T	0.99	55.2	E					T	0.94	51.3	D
Lexington Avenue & East 44th Street	Southbound	LT	1.00	40.1	D	LT	1.05	66.1	E	LT	1.04	68.3	E
Lexington Avenue & East 45th Street	Westbound									LT	0.99	62.3	E
Lexington Avenue & East 45th Street	Southbound					T	0.96	49.6	D	T	0.92	37.8	D
Lexington Avenue & East 46th Street	Eastbound	T	0.64	56.9	E	T	0.82	56.1	E	T	1.00	43.2	D
Lexington Avenue & East 46th Street	Eastbound	R	0.65	61.1	E								
Lexington Avenue & East 46th Street	Southbound	LT	0.94	22.1	C	LT	0.99	33.2	C	LT	1.00	28.5	C
Lexington Avenue & East 47th Street	Westbound					L	1.03	94.4	F	L	0.97	85.4	F
Lexington Avenue & East 47th Street	Westbound					T	0.98	51.7	D	T	1.01	65.6	E
Lexington Avenue & East 47th Street	Southbound					T	0.97	37.0	D	T	1.02	46.0	D
Lexington Avenue & East 48th Street	Eastbound					T	1.03	84.1	F	T	0.97	66.2	E
Lexington Avenue & East 48th Street	Eastbound	R	0.92	89.8	F	R	1.05	112.7	F	R	0.99	99.2	F
Lexington Avenue & East 48th Street	Southbound	LT	0.98	40.1	D					LT	0.96	52.4	D
Lexington Avenue & East 49th Street	Southbound					T	0.97	29.9	C				
Lexington Avenue & East 50th Street	Eastbound	TR	0.93	44.9	D								
Lexington Avenue & East 50th Street	Southbound	LT	1.03	52.2	D	LT	0.94	26.0	C	LT	1.02	52.2	D
Lexington Avenue & East 51st Street	Westbound					L	0.93	76.7	E	L	0.90	51.2	D
Lexington Avenue & East 51st Street	Westbound									T	0.91	37.2	D
Lexington Avenue & East 51st Street	Southbound					T	1.00	53.6	D				
Lexington Avenue & East 51st Street	Southbound					R	1.04	98.0	F				

Table 12.17: Intersections with Existing Congested Approach Movements (Continued)

Signalized Intersection	Approach	AM Peak Hour				Midday Peak Hour				PM Peak Hour			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Lexington Avenue & East 52nd Street	Eastbound					R	0.91	65.6	E	R	0.87	57.1	E
Lexington Avenue & East 52nd Street	Southbound	LT	1.00	47.9	D					LT	0.96	32.3	C
Lexington Avenue & East 53rd Street	Westbound	T	1.04	69.7	E								
Lexington Avenue & East 53rd Street	Southbound	T	1.02	71.7	E	T	0.93	19.4	B				
Lexington Avenue & East 53rd Street	Southbound	R	0.78	96.0	F								
Lexington Avenue & East 54th Street	Southbound	LT	0.91	28.1	C	LT	0.94	22.6	C	LT	0.91	19.3	B
Lexington Avenue & East 55th Street	Westbound					L	0.97	75.2	E				
Lexington Avenue & East 55th Street	Southbound	T	0.96	27.1	C	T	0.92	24.8	C				
Lexington Avenue & East 56th Street	Eastbound					R	1.02	78.2	E				
Lexington Avenue & East 56th Street	Southbound	LT	0.99	63.6	E	LT	0.91	33.0	C	LT	0.93	38.6	D
Lexington Avenue & East 57th Street	Eastbound									T	1.02	57.7	E
Lexington Avenue & East 57th Street	Southbound	LT	0.93	55.2	E					LT	0.91	39.5	D
Park Avenue & East 39th Street	Westbound (East Side)	TR	1.03	73.7	E	TR	1.03	81.3	F	TR	1.03	74.1	E
Park Avenue & East 39th Street	Northbound (East Side)	LT	0.57	74.7	E								
Park Avenue & East 39th Street	Westbound (West Side)	LT	0.92	83.3	F	LT	0.77	74.4	E	LT	0.91	60.7	E
Park Avenue & East 39th Street	Southbound (West Side)									R	0.92	28.5	C
Park Avenue & East 40th Street	Eastbound (West Side)	TR	0.89	105.1	F	TR	1.00	116.2	F	TR	0.95	81.3	F
Park Avenue & East 40th Street	Southbound (West Side)	T	1.03	79.2	E	T	1.04	76.6	E	T	1.04	76.7	E
Park Avenue & East 40th Street	Eastbound (Tunnel Exit)					LT	1.02	46.7	D	LT	0.98	40.7	D
Park Avenue & East 40th Street	Eastbound (East Side)	LT	0.93	39.1	D	LT	0.95	25.9	C				
Park Avenue & East 40th Street	Northbound (East Side)									TR	1.01	48.0	D
Park Avenue & East 46th Street	Eastbound (West Side)									T	0.96	70.9	E
Park Avenue & East 46th Street	Southbound (West Side)	T	0.96	30.8	C	T	1.03	43.6	D	T	1.03	43.2	D
Park Avenue & East 46th Street	Eastbound (East Side)					T	1.05	72.4	E	T	1.04	50.9	D
Park Avenue & East 47th Street	Westbound (East Side)					T	0.96	56.1	E				
Park Avenue & East 47th Street	Northbound (East Side)					T	0.96	28.9	C	T	1.01	68.5	E
Park Avenue & East 47th Street	Westbound (West Side)					LT	1.04	66.7	E				
Park Avenue & East 47th Street	Southbound (West Side)									TR	0.96	43.2	D
Park Avenue & East 48th Street	Southbound (West Side)	L	0.36	101.8	F	L	0.23	93.6	F				
Park Avenue & East 48th Street	Southbound (West Side)	T	1.04	59.5	E	T	1.03	56.2	E	T	0.91	22.3	C
Park Avenue & East 48th Street	Northbound (East Side)	TR	0.90	22.3	C					TR	0.96	42.4	D
Park Avenue & East 49th Street	Westbound (East Side)	T	0.90	40.3	D								
Park Avenue & East 49th Street	Northbound (East Side)	T	0.94	26.2	C	T	0.97	30.1	C	T	1.00	38.0	D
Park Avenue & East 49th Street	Westbound (West Side)	LT	0.99	37.7	D					LT	0.94	32.8	C
Park Avenue & East 50th Street	Southbound (West Side)					T	0.97	32.1	C	T	0.97	34.0	C
Park Avenue & East 50th Street	Eastbound (East Side)					LT	0.97	47.3	D	LT	1.04	70.9	E
Park Avenue & East 50th Street	Northbound (East Side)	TR	0.94	24.2	C								
Park Avenue & East 51st Street	Westbound (East Side)					T	1.01	92.4	F				
Park Avenue & East 51st Street	Northbound (East Side)					T	0.99	43.9	D	T	1.00	66.5	E
Park Avenue & East 51st Street	Westbound (West Side)					LT	0.99	53.1	D				
Park Avenue & East 51st Street	Southbound (West Side)					TR	0.95	25.8	C				
Park Avenue & East 51st Street	Southbound (West Side)	R	0.91	28.1	C								
Park Avenue & East 52nd Street	Eastbound (West Side)					TR	0.90	38.6	D				
Park Avenue & East 52nd Street	Southbound (West Side)	T	1.02	38.6	D	T	0.90	24.9	C	T	0.93	20.8	C
Park Avenue & East 52nd Street	Eastbound (East Side)									LT	1.00	52.8	D
Park Avenue & East 52nd Street	Northbound (East Side)	TR	0.91	20.5	C	TR	0.95	27.9	C	TR	0.99	49.2	D
Park Avenue & East 53rd Street	Westbound (East Side)	T	1.05	62.5	E								
Park Avenue & East 53rd Street	Westbound (East Side)	R	0.93	49.7	D								
Park Avenue & East 53rd Street	Northbound (East Side)					T	1.01	46.9	D	T	1.04	62.2	E
Park Avenue & East 53rd Street	Westbound (West Side)	LT	1.00	32.8	C	LT	0.98	45.8	D	LT	0.94	32.1	C
Park Avenue & East 53rd Street	Southbound (West Side)	TR	0.95	26.9	C								
Park Avenue & East 54th Street	Southbound (West Side)	T	1.03	52.6	D	T	0.91	18.4	B	T	0.90	22.1	C
Park Avenue & East 54th Street	Northbound (East Side)					TR	0.92	30.2	C				

Table 12.17: Intersections with Existing Congested Approach Movements (Continued)

Signalized Intersection	Approach	AM Peak Hour				Midday Peak Hour				PM Peak Hour			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Park Avenue & East 55th Street	Westbound (East Side)					TR	1.02	105.6	F	TR	1.00	104.6	F
Park Avenue & East 55th Street	Northbound (East Side)					L	0.27	101.0	F				
Park Avenue & East 55th Street	Northbound (East Side)	T	1.01	57.6	E	T	1.05	67.4	E	T	1.03	66.6	E
Park Avenue & East 55th Street	Westbound (West Side)					LT	0.92	42.2	D	LT	0.98	50.4	D
Park Avenue & East 55th Street	Southbound (West Side)					TR	0.97	26.7	C	TR	1.04	48.6	D
Park Avenue & East 56th Street	Eastbound (West Side)					TR	1.01	69.4	E	TR	1.02	61.3	E
Park Avenue & East 56th Street	Southbound (West Side)	T	0.94	22.2	C	T	0.92	27.6	C	T	0.94	48.1	D
Park Avenue & East 56th Street	Eastbound (East Side)					LT	1.03	54.8	D	LT	1.03	57.7	E
Park Avenue & East 56th Street	Northbound (East Side)	TR	0.96	32.1	C					TR	0.95	45.5	D
Park Avenue & East 57th Street	Eastbound (West Side)					T	1.00	92.5	F	T	0.97	65.8	E
Park Avenue & East 57th Street	Eastbound (West Side)					R	1.03	97.3	F				
Park Avenue & East 57th Street	Westbound (West Side)	T	0.90	20.6	C	T	1.03	50.1	D				
Park Avenue & East 57th Street	Southbound (West Side)	LTR	0.81	74.2	E	LTR	0.88	81.8	F				
Park Avenue & East 57th Street	Eastbound (East Side)	LT	0.98	48.4	D	LT	1.03	42.4	D				
Park Avenue & East 57th Street	Westbound (East Side)					T	1.02	84.5	F				
Park Avenue & East 57th Street	Westbound (East Side)					R	0.99	93.7	F				
Park Avenue & East 57th Street	Northbound (East Side)					L	0.26	685.7	F				
Park Avenue & East 57th Street	Northbound (East Side)	T	0.90	22.5	C	T	0.95	25.5	C	T	1.02	34.9	C
Madison Avenue & East 39th Street	Westbound					T	1.00	66.5	E	T	1.04	56.1	E
Madison Avenue & East 39th Street	Westbound	R	0.86	61.5	E	R	1.04	114.3	F	R	0.88	55.3	E
Madison Avenue & East 39th Street	Northbound	LT	0.99	86.6	F	LT	0.92	39.9	D				
Madison Avenue & East 40th Street	Northbound	TR	1.02	64.9	E	TR	0.98	53.7	D	TR	0.98	46.2	D
Madison Avenue & East 41st Street	Northbound	TR	1.05	63.5	E	TR	1.02	63.1	E	TR	1.01	53.8	D
Madison Avenue & East 42nd Street	Eastbound	LT	0.94	56.9	E	LT	0.94	31.9	C				
Madison Avenue & East 42nd Street	Westbound	T	1.05	60.5	E	T	0.94	47.5	D				
Madison Avenue & East 42nd Street	Northbound	LT	1.05	62.3	E	LT	1.04	68.0	E	LT	1.02	68.4	E
Madison Avenue & East 43rd Street	Westbound					T	0.95	70.3	E				
Madison Avenue & East 43rd Street	Westbound					R	0.81	58.4	E				
Madison Avenue & East 43rd Street	Northbound									L	0.97	50.6	D
Madison Avenue & East 43rd Street	Northbound	T	0.96	51.3	D	T	0.98	32.1	C	T	1.04	52.8	D
Madison Avenue & East 46th Street	Eastbound	LT	0.95	75.4	E	LT	0.83	101.8	F				
Madison Avenue & East 46th Street	Northbound					T	1.02	46.9	D	T	0.94	22.4	C
Madison Avenue & East 46th Street	Northbound					R	0.32	78.8	E				
Madison Avenue & East 48th Street	Eastbound	L	1.02	94.7	F	L	0.84	60.5	E				
Madison Avenue & East 48th Street	Northbound	T	0.99	46.8	D					T	1.00	39.1	D
Madison Avenue & East 49th Street	Westbound					TR	0.99	48.0	D	TR	0.96	36.2	D
Madison Avenue & East 49th Street	Northbound	T	0.97	26.1	C	T	0.91	21.6	C				
Madison Avenue & East 53rd Street	Westbound	TR	1.04	60.9	E								
Madison Avenue & East 53rd Street	Northbound	T	0.91	24.1	C					T	0.93	23.7	C
Madison Avenue & East 54th Street	Eastbound					LT	1.05	79.1	E				
Madison Avenue & East 54th Street	Northbound	T	0.97	54.6	D	T	1.05	72.5	E	T	0.92	35.8	D
5th Avenue & 38th Street	Eastbound	R	1.00	112.3	F	R	1.02	110.5	F	R	0.98	105.4	F
5th Avenue & 38th Street	Southbound	LT	0.95	12.8	B	LT	0.97	26.2	C				
5th Avenue & 39th Street	Westbound	L	0.89	86.0	F	L	0.82	64.6	E	L	0.80	64.1	E
5th Avenue & 39th Street	Westbound					T	0.98	56.9	E				
5th Avenue & 39th Street	Southbound	T	0.92	37.1	D								
5th Avenue & 39th Street	Southbound	R	1.00	44.7	D					R	0.99	33.1	C
5th Avenue & 40th Street	Eastbound	TR	1.05	87.0	F	TR	1.05	85.6	F				
5th Avenue & 40th Street	Southbound	LT	1.04	67.3	E					LT	1.05	55.5	E
5th Avenue & 42nd Street	Westbound	LT	1.02	34.7	C	LT	1.05	54.0	D				
5th Avenue & 42nd Street	Southbound	LT	1.02	36.9	D	T	1.05	48.2	D	LT	1.04	36.3	D
5th Avenue & 43rd Street	Southbound									T	0.94	39.3	D
5th Avenue & 43rd Street	Southbound					R	0.99	57.3	E	R	1.04	47.1	D

Table 12.17: Intersections with Existing Congested Approach Movements (Continued)

Signalized Intersection	Approach	AM Peak Hour				Midday Peak Hour				PM Peak Hour			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
5th Avenue & 44th Street	Eastbound					R	0.92	68.5	E	R	0.97	83.6	F
5th Avenue & 44th Street	Southbound	LT	0.95	20.6	C	LT	0.96	25.4	C	LT	1.02	42.1	D
5th Avenue & 47th Street	Westbound	L	0.83	72.3	E	L	0.87	70.6	E	L	1.02	89.1	F
5th Avenue & 47th Street	Southbound	T	0.99	44.0	D	T	1.01	47.7	D	T	0.96	48.8	D
5th Avenue & 47th Street	Southbound					R	0.91	59.5	E				
5th Avenue & 48th Street	Eastbound	R	1.03	87.0	F	R	0.95	72.4	E	R	1.05	91.7	F
5th Avenue & 48th Street	Southbound	LT	0.96	51.6	D	LT	0.91	41.9	D	LT	0.92	21.1	C
5th Avenue & 49th Street	Westbound									LT	0.88	55.9	E
5th Avenue & 49th Street	Southbound	T	0.96	31.5	C	T	1.01	40.7	D	T	0.98	24.3	C
5th Avenue & 54th Street	Eastbound					TR	0.97	67.5	E				
5th Avenue & 54th Street	Southbound	LT	0.95	24.8	C	LT	0.97	27.3	C	LT	1.01	32.9	C
5th Avenue & 57th Street	Eastbound	T	0.96	56.5	E	T	1.01	67.8	E	T	1.00	65.0	E
5th Avenue & 57th Street	Eastbound					R	1.03	92.1	F				
5th Avenue & 57th Street	Westbound	LT	0.91	53.0	D					LT	0.95	57.9	E
5th Avenue & 57th Street	Southbound	LT	0.99	70.5	E					LT	1.01	72.0	E
6th Avenue & West 48th Street	Eastbound	T	1.00	75.0	E	T	0.92	55.6	E	T	0.91	50.0	D
6th Avenue & West 48th Street	Northbound									R	1.02	113.2	F
6th Avenue & West 49th Street	Northbound	LT	0.97	26.9	C	LT	0.97	25.6	C				

- First Avenue
  - The First Avenue northbound approach to East 40th Street operates at a v/c ratio of 1.05 and LOS E during the PM peak hour.
  - The through lanes on the East 42nd Street (East Side) eastbound approach to First Avenue operate at a v/c ratio of 0.90 during the AM peak hour.
  - The shared through and right-turn lanes on the East 42nd Street (East Side) westbound approach to First Avenue operate at a v/c ratio of 1.04 and LOS F during the AM peak hour.
  - The right-turn lane on the East 42nd Street (East Side) westbound approach to First Avenue operates at a v/c ratio of 1.05 and LOS F during the AM and PM peak hours, and LOS E during the Midday peak hour.
  - The shared left-turn and through lanes on the First Avenue northbound approach to East 42nd Street (East Side) operate at LOS E during the AM peak hour and LOS F during the PM peak hour.
  - The left-turn lane on the West 42nd Street (West Side) eastbound approach to First Avenue operates at a v/c ratio of 1.05 and LOS F during the AM, Midday, and PM peak hours.
  - The through lane on the First Avenue northbound approach to West 42nd Street (West Side) operates at LOS F during the AM peak hour and LOS E during the PM peak hour.
  - The left-turn lane on the East 44th Street eastbound approach to First Avenue operates at a v/c ratio of 0.95 during the Midday peak hour.
  - The left-turn lane on the East 46th Street eastbound approach to First Avenue operates at a v/c ratio of 1.02 and LOS E during the Midday peak hour and 1.05 and LOS E during the PM peak hour.
  - The through lanes on the First Avenue northbound approach to East 49th Street (East Side) operate at a v/c ratio of 1.00 and LOS F during the PM peak hour.

- The First Avenue northbound approach to West 49th Street (West Side) operates at a v/c ratio of 0.98 during the AM peak hour and 1.02 during the PM peak hour.
- The First Avenue northbound approach to East 53rd Street operates at a v/c ratio of 0.90 during the Midday peak hour and 1.05 and LOS E during the PM peak hour.
- The East 54th Street eastbound approach to First Avenue operates at a 1.05 and LOS F during the AM and PM peak hours and 1.04 and LOS E during the Midday peak hour.
- The through lanes on the First Avenue northbound approach to East 54th Street operate at a v/c ratio of 0.92 during the PM peak hour.
- The East 55th Street westbound approach to First Avenue operates at a v/c ratio of 0.99 and LOS E during the Midday peak hour.
- The left-turn lane on the First Avenue northbound approach to East 55th Street operates at a v/c ratio of 1.03 and LOS E during the AM peak hour, 0.92 during the Midday peak hour, and 1.04 and LOS E during the PM peak hour.
- The through lanes on the First Avenue northbound approach to East 55th Street operate at a v/c ratio of 0.91 during the AM peak hour.
- The East 57th Street eastbound approach to First Avenue operates at a v/c ratio of 1.04 during the AM peak hour and 1.00 during the Midday peak hour. A de facto left-turn lane is present during the AM and Midday peak hours.
- The left-turn lane on the First Avenue northbound approach to East 57th Street operates at a v/c ratio of 0.99 and LOS E during the Midday peak hour.
- The through lanes on the First Avenue northbound approach to East 57th Street operate at a v/c ratio of 0.94 during the AM peak hour.

- Second Avenue
  - The East 36th Street eastbound approach to Second Avenue operates at a v/c ratio of 1.03 and LOS E during the AM peak hour, and 1.00 at LOS E during the PM peak hour.
  - The left-turn lanes on the Second Avenue southbound approach to East 36th Street operate at a v/c ratio of 1.05 and LOS E during the AM peak hour.
  - The through lanes on the Second Avenue southbound approach to East 36th Street operate at a v/c ratio of 1.05 and LOS E during the AM peak hour and 1.03 during the PM peak hour.
  - The left-turn lanes on the Second Avenue westbound approach to East 36th Street (Tunnel Exit) operate at a v/c ratio of 1.00 and LOS E during the AM peak hour.
  - The through lanes on the Second Avenue southbound approach to East 37th Street operate at a v/c ratio of 1.04 during the AM peak hour and 1.05 during the PM peak hour.
  - The Second Avenue southbound approach to East 37th Street operates at a v/c ratio of 0.96 during the Midday peak hour.
  - The East 38th Street eastbound approach to Second Avenue operates at a v/c ratio of 0.91 during the PM peak hours.

- The Second Avenue southbound approach to East 38th Street operates at a v/c ratio of 1.05 and LOS E during the AM peak hour, 0.95 during the Midday peak hour, and 1.05 during the PM peak hour.
- The through lanes on the Second Avenue southbound approach to East 39th Street operate at a v/c ratio of 1.04 and LOS E during the AM and PM peak hours.
- The Second Avenue southbound approach to East 39th Street operates at a v/c ratio of 1.05 at LOS E during the Midday peak hour.
- The right-turn lane on the Second Avenue southbound approach to East 39th Street operates at a v/c ratio of 0.91 during the AM peak hour.
- The Second Avenue southbound approach to East 40th Street operates at a v/c ratio of 0.92 during the AM peak hour, 0.96 at LOS E during the Midday peak hour, and 0.96 during the PM peak hour.
- The shared left-turn and through lanes on the Second Avenue southbound approach to East 41st Street operate at a v/c ratio of 1.04 during the AM peak hour, 1.01 during the Midday peak hour, and 1.04 during the PM peak hour at LOS E.
- The East 42nd Street eastbound approach to Second Avenue operates at a v/c ratio of 0.98 during the AM peak hour.
- The East 42nd Street westbound approach to Second Avenue operates at a v/c ratio of 0.90 during the PM peak hour, which includes a de facto left-turn lane.
- The left-turn lane on the Second Avenue southbound approach to East 42nd Street operates at a v/c ratio of 1.04 and LOS E during the Midday peak hour.
- The shared left-turn and through lanes on the Second Avenue southbound approach to East 42nd Street operate at a v/c ratio of 0.94 during the AM peak hour and 1.01 with LOS E during the PM peak hour.
- The through lanes on the Second Avenue southbound approach to East 42nd Street operate at a v/c ratio of 0.98 during the Midday peak hour.
- The through lanes on the Second Avenue southbound approach to East 43rd Street operate at a v/c ratio of 0.95 during the AM peak hour and 1.01 during the PM peak hour.
- The Second Avenue southbound approach to East 43rd Street operates at a v/c ratio of 0.99 during the Midday peak hour.
- The Second Avenue southbound approach to East 44th Street operates at a v/c ratio of 1.01 during the AM peak hour, 0.98 during the Midday peak hour, and 1.03 during the PM peak hour.
- The East 45th Street westbound approach to Second Avenue operates at LOS E during the AM peak hour, and 1.00 at LOS E for the PM peak hour.
- The through lanes on the Second Avenue southbound approach to East 45th Street operate at a v/c ratio of 0.99 during the AM peak hour and 1.02 during the PM peak hour.
- The Second Avenue southbound approach to East 45th Street operates at a v/c ratio of 1.01 during the Midday peak hour.

- The right-turn lane on the Second Avenue southbound approach to East 45th Street operates at a v/c ratio of 0.93 during the AM peak hour.
- The right-turn lane on the East 46th Street eastbound approach to Second Avenue operates at a v/c ratio of 1.05 and LOS F during the Midday peak hour.
- The East 46th Street eastbound approach to Second Avenue operates at a v/c ratio of 1.05 during the PM peak hour, which includes a de facto right-turn lane.
- The Second Avenue southbound approach to East 46th Street operates at a v/c ratio of 1.01 during the AM peak hour, 0.96 during the Midday peak hour, and 1.01 during the PM peak hour.
- The through lanes on the Second Avenue southbound approach to East 47th Street operate at a v/c ratio of 1.03 during the AM and PM peak hours.
- The right-turn lane on Second Avenue southbound approach to East 47th Street operates at a v/c ratio of 0.97 during the PM peak hour.
- The Avenue southbound approach to East 47th Street operates at a v/c ratio of 1.05 during the Midday peak hour.
- The East 48th Street eastbound approach to Second Avenue operates at a v/c ratio of 1.04 and LOS E during the AM peak hour and 1.05 and LOS F during the Midday and PM peak hour.
- The Second Avenue southbound approach to East 48th Street operates at a v/c ratio of 1.05 and LOS E during the AM and Midday peak hours, and 0.98 and LOS E during the PM peak hour.
- The left-turn lane on the East 49th Street westbound approach to Second Avenue operates at a v/c ratio of 0.93 during the Midday peak hour, and 1.04 and LOS E during the PM peak hour.
- The through lanes on the Second Avenue southbound approach to East 49th Street operate at a v/c ratio of 1.05 at LOS E during the AM peak hour, 0.92 during the Midday peak hour, and 1.04 during the PM peak hour.
- The Second Avenue southbound approach to East 50th Street operates at a v/c ratio of 1.04 during the AM peak hour, 1.03 during the Midday peak hour, and 1.01 during the PM peak hour.
- The left-turn lane on East 51st Street westbound approach to Second Avenue operates at LOS E during the AM peak hour.
- The through lanes on the Second Avenue southbound approach to East 51st Street operate at a v/c ratio of 0.99 during the AM peak hour and 0.94 during the PM peak hour.
- The Second Avenue southbound approach to East 51st Street operates at a v/c ratio of 0.95 during the Midday peak hour.
- The Second Avenue southbound approach to East 52nd Street operates at a v/c ratio of 1.01 during the AM peak hour, 0.98 during the Midday peak hour, and 0.95 during the PM peak hour.

- The East 53rd Street westbound approach to Second Avenue operates at a v/c ratio of 0.95 during the AM peak hour and at a v/c ratio of 1.04 and LOS E during the Midday peak hour. A de facto left-turn lane is present in the Midday peak hour.
- The through lanes on the Second Avenue southbound approach to East 53rd Street operate at a v/c ratio of 0.95 during the AM peak hour and 0.97 during the PM peak hour.
- The Second Avenue southbound approach to East 53rd Street operates at a v/c ratio of 0.94 during the Midday peak hour.
- The Second Avenue southbound approach to East 54th Street operates at a v/c ratio of 1.03 during the AM peak hour, 1.01 during the Midday peak hour, and 1.03 during the PM peak hour.
- The through lane on the East 55th Street westbound approach to Second Avenue operates at a v/c ratio of 1.05 and LOS E during the Midday and PM peak hours.
- The through lanes on the Second Avenue southbound approach to East 55th Street operate at a v/c ratio of 1.04 and LOS E during the AM peak hour, and 1.02 and LOS E during the Midday and PM peak hours.
- The Second Avenue southbound approach to East 56th Street operates at a v/c ratio of 0.99 during the AM peak hour, 1.02 and LOS E during the Midday peak hour, and 0.94 during the PM peak hour.
- The East 57th Street eastbound approach to Second Avenue operates at a v/c ratio of 1.02 and LOS F during the AM peak hour, 1.03 and LOS E during the Midday peak hour, and 1.04 and LOS E during the PM peak hour.
- The left-turn lane on the East 57th Street westbound approach to Second Avenue operates at a v/c ratio of 1.05 and LOS F during the AM peak hour.
- The shared left-turn and through lanes on the East 57th Street westbound approach to Second Avenue operate at a v/c ratio of 1.05 and LOS E during the AM peak hour.
- The through lanes on the Second Avenue southbound approach to East 57th Street operate at a v/c ratio of 0.97 during the Midday peak hour and 0.90 during the PM peak hour.
- The right-turn lane on the Second Avenue southbound approach to East 57th Street operates at a v/c ratio of 0.91 and LOS E during the AM peak hour.
- The left-turn lanes on the East 59th Street eastbound approach to Second Avenue operate at a v/c ratio of 1.03 during the AM peak hour, 0.98 during the Midday peak hour, and 1.05 and LOS E during the PM peak hour.
- The left-turn lane on the Second Avenue southbound approach to East 59th Street operates at a v/c ratio of 1.05 and LOS E during the AM peak hour, 0.95 during the Midday peak hour, and 1.00 during the PM peak hour.
- The shared left-turn and through lanes on the Second Avenue southbound approach to East 59th Street operate at a v/c ratio of 1.05 and LOS E during the AM, Midday, and PM peak hours.
- The through lanes on the Second Avenue southbound approach to East 60th Street operate at a v/c ratio of 0.97 and LOS F during the AM peak hour and 1.05 and LOS E during the PM peak hour.

- The Second Avenue southbound approach to East 60th Street operates at a v/c ratio of 1.05 and LOS F during the Midday peak hour.
- The left-turn lanes on the East 60th Street (bridge exit) westbound approach to Second Avenue operate at a v/c ratio of 0.92 during the Midday and PM peak hour.
- The through lanes on the East 60th Street (bridge exit) westbound approach to Second Avenue operate at a v/c ratio of 1.03 and LOS E during the AM peak hour, and 0.98 and LOS E during the PM peak hour.

- Tunnel Exit Street
  - The East 39th Street westbound approach to Tunnel Exit Street operates at a v/c ratio of 1.05 and LOS F during the AM and Midday peak hours.
  - The left-turn lane on the Tunnel Exit Street northbound approach to East 39th Street operates at a v/c ratio of 0.92 and LOS E during the Midday peak hour.
  - The Tunnel Exit Street northbound approach to East 39th Street operates at a v/c ratio of 1.02 during the PM peak hour, which includes a de facto left-turn lane.
- Third Avenue
  - The right-turn lane on the Third Avenue northbound approach to East 36th Street operates at a v/c ratio of 0.94 and LOS F during the AM peak hour, LOS E during the Midday peak hour, and 1.04 and LOS F during the PM peak hour.
  - The right-turn lane on the East 37th Street westbound approach to Third Avenue operates at a v/c ratio of 0.90 and LOS F during the PM peak hour.
  - The Third Avenue northbound approach to East 37th Street operates at LOS E during the Midday peak hour.
  - The through lane on the East 39th Street westbound approach to Third Avenue operates at a v/c ratio of 1.01 and LOS F during the AM peak hour, and 1.05 and LOS E during the Midday peak hour.
  - The right-turn lane on the East 39th Street westbound approach to Third Avenue operates at a v/c ratio of 1.04 and LOS E during the AM peak hour.
  - The Third Avenue northbound approach to East 39th Street operates at a v/c ratio of 1.04 and LOS E during the AM and Midday peak hours, and 0.92 during the PM peak hour.
  - The East 40th Street eastbound approach to Third Avenue operates at a v/c ratio of 1.00 and LOS F during the PM peak hour.
  - The through lanes on the Third Avenue northbound approach to East 40th Street operate at a v/c ratio of 1.01 during the AM peak hour, 1.02 during the Midday peak hour, and 1.04 and LOS E during the PM peak hour.
  - The right-turn lane on the Third Avenue northbound approach to East 40th Street operates at a v/c ratio of 0.94 and LOS E during the PM peak hour.
  - The left-turn lane on the East 41st Street eastbound approach to Third Avenue operates at a v/c ratio of 0.93 and LOS F during the Midday peak hour.

- The East 41st Street eastbound approach to Third Avenue operates at LOS E during the AM peak hour, and at a v/c ratio of 1.01 and LOS E during the PM peak hour.
- The right-turn lane on the East 41st Street westbound approach to Third Avenue operates at a v/c ratio of 1.01 and LOS F during the AM peak hour, and 1.03 and LOS F during the Midday peak hour.
- The through lanes on the Third Avenue northbound approach to East 41st Street operate at a v/c ratio of 0.97 and LOS E during the AM peak hour, and 0.96 during the PM peak hour.
- The left-turn lane on the East 42nd Street eastbound approach to Third Avenue operates at a v/c ratio of 0.94 and LOS E during the AM peak hour, LOS E during the Midday peak hour, and at 0.99 and LOS F during the PM peak hour.
- The through lane on the East 42nd Street eastbound approach to Third Avenue operates at a v/c ratio of 0.95 and LOS E during the Midday peak hour.
- The right-turn on the East 42nd Street westbound approach to Third Avenue operates at a v/c ratio of 0.97 and LOS F during the AM peak hour, 1.01 and LOS F during the Midday Peak Hour, and 0.96 and LOS F during the PM peak hour.
- The shared left-turn and through lanes on the Third Avenue northbound approach to East 42nd Street operate at a v/c ratio of 1.01 and LOS E during the AM peak hour, 1.00 and LOS E during the Midday peak hour, and 0.91 during the PM peak hour.
- The Third Avenue northbound approach to East 43rd Street operates at a v/c ratio of 0.95 during the AM and Midday peak hours, and 0.93 during the PM peak hour.
- The through lanes on the Third Avenue northbound approach to East 44rd Street operate at a v/c ratio of 0.92 during the AM peak hour, 0.95 during the Midday peak hour, and 1.05 and LOS E during the PM peak hour.
- The right-turn lane on the Third Avenue northbound approach to East 44th Street operates at a v/c ratio of 0.94 during the Midday peak hour and 0.96 during the PM peak hour.
- The through lane on the East 45th Street westbound approach to Third Avenue operates at a v/c ratio 0.90 during the AM peak hour.
- The right-turn lane on the East 45th Street westbound approach to Third Avenue operates at LOS E during the AM peak hour.
- The Third Avenue northbound approach to East 45th Street operates at a v/c ratio of 1.00 during the AM peak hour, 1.05 and LOS E during the Midday peak hour, and 1.02 and LOS E during the PM peak hour.
- The through lanes on the Third Avenue northbound approach to East 46th Street operate at a v/c ratio of 0.93 during the AM peak hour, 1.00 and LOS E during the Midday peak hour, and 1.04 and LOS E during the PM peak hour.
- The right-turn lane on the Third Avenue northbound approach to East 46th Street operates at a v/c ratio of 0.99 during the Midday peak hour.
- The East 47th Street westbound approach to Third Avenue operates at a v/c ratio of 0.90 during the AM peak hour.

- The Third Avenue northbound approach to East 47th Street operates at a v/c ratio of 1.04 and LOS E during the AM and PM peak hours, and 1.03 and LOS E during the Midday peak hour.
- The through lanes on the Third Avenue northbound approach to East 48th Street operate at a v/c ratio of 0.92 during the AM peak hour, 1.01 and LOS E during the Midday peak hour, and 1.02 and LOS E during the PM peak hour.
- The right-turn lane on the Third Avenue northbound approach to East 48th Street operates at a v/c ratio of 0.90 during the PM peak hour.
- The East 49th Street westbound approach to Third Avenue operates at a v/c ratio of 0.95 during the AM peak hour.
- The Third Avenue northbound approach to East 49th Street operates at a v/c ratio of 0.97 and LOS E during the AM peak hour, and 1.04 and LOS E during the Midday and PM peak hours.
- The through lanes on the Third Avenue northbound approach to East 50th Street operate at a v/c ratio of 1.03 and LOS E during the AM and Midday peak hours, and 1.00 and LOS E during the PM peak hour.
- The right-turn lane on the Third Avenue northbound approach to East 50th Street operates at a v/c ratio of 1.01 and LOS E for AM and Midday peak hours.
- The East 51st Street westbound approach to Third Avenue operates at a v/c ratio of 1.04 and LOS E during the PM peak hour.
- The Third Avenue northbound approach to East 51st Street operates at a v/c ratio of 1.05 and LOS E during the AM peak hour, 0.98 during the Midday peak hour, and 1.00 and LOS E during the PM peak hour.
- The through lanes on the Third Avenue northbound approach to East 52nd Street operate at a v/c ratio of 1.01 during the AM peak hour, 0.97 during the Midday peak hour, and 1.02 and LOS E during the PM peak hour.
- The right-turn lane on the Third Avenue northbound approach to East 52nd Street operates at a v/c ratio of 0.97 during the AM peak hour and 0.96 and LOS E during the Midday peak hour.
- The through lanes on the East 53rd Street westbound approach to Third Avenue operate at a v/c ratio of 1.01 and LOS E during the AM peak hour, and 0.95 during the PM peak hour.
- The right-turn lane on the East 53rd Street westbound approach to Third Avenue operates at a v/c ratio of 0.95 and LOS F during the AM peak hour.
- The Third Avenue northbound approach to East 53rd Street operates at a v/c ratio of 0.99 during the AM peak hour, 0.95 during the Midday peak hour, and 1.04 and LOS E during the PM peak hour.
- The left-turn lane on the East 54th Street eastbound approach to Third Avenue operates at a v/c ratio of 0.93 and LOS E during the Midday peak hour and LOS E during the PM peak hour.

- The through lanes on the Third Avenue northbound approach to East 54th Street operates at a v/c ratio 0.96 and LOS E during the AM peak hour, 0.93 and LOS E during the Midday peak hour, and 0.99 and LOS E during the PM peak hour.
- The through lanes on the East 55th Street westbound approach to Third Avenue operate at a v/c ratio of 0.92 during the AM peak hour, and 1.03 at LOS E during the PM peak hour.
- The right-turn lane on the East 55th Street westbound approach to Third Avenue operates at a v/c ratio of 0.99 and LOS E during the Midday peak hour, and a v/c ratio of 0.95 and LOS E during the PM peak hour.
- The Third Avenue northbound approach to East 55th Street operates at a v/c ratio of 1.02 during the AM peak hour, 1.03 during the Midday peak hour, and 1.04 and LOS E during the PM peak hour.
- The East 56th Street (West Side) eastbound approach to Third Avenue operates at a v/c ratio of 0.92 and LOS F during the Midday peak hour and 1.04 and LOS E during the PM peak hour.
- The Third Avenue (West Side) northbound approach to East 56th Street operates at a v/c ratio of 1.00 during the AM peak hour, 0.92 during the Midday peak hour, and 1.05 and LOS E during the PM peak hour.
- The Third Avenue (East Side) northbound approach to East 56th Street operates at a v/c ratio 1.02 and LOS E during the Midday peak hour and 1.04 during the PM peak hour.
- The East 57th Street (West Side) eastbound approach to Third Avenue operates at LOS E during the AM peak hour, at a v/c ratio of 0.92 and LOS F during the Midday peak hour, and at a v/c ratio of 0.99 and LOS F during the PM peak hour.
- The Third Avenue (West Side) northbound approach to East 57th Street operates at a v/c ratio of 0.90 during the AM peak hour, and 0.99 during the Midday and PM peak hours.
- The through lanes on the East 57th Street (East Side) eastbound approach operate at a v/c ratio of 1.04 during the Midday peak hour.
- The shared through and right-turn lanes on the Third Avenue (East Side) northbound approach to East 57th Street operate at a v/c ratio of 1.05 and LOS E during the Midday peak hour, and 1.04 and LOS E during the PM peak hour.
- The right-turn lane on the Third Avenue (East Side) northbound approach to East 57th Street operates at a v/c ratio of 1.04 and LOS F during the Midday peak hour, and 1.05 and LOS E during the PM peak hour.
- The East 59th Street eastbound approach to Third Avenue operates at a v/c ratio of 0.94 during the AM peak hour, 1.02 and LOS E during the Midday peak hour, and 1.00 and LOS E during the PM peak hour.
- The right-turn lanes on the Third Avenue northbound approach to East 59th Street operate at a v/c ratio of 1.01 and LOS E during the AM peak hour, and 1.04 and LOS E during the PM peak hour.

- Lexington Avenue
  - The East 36th Street eastbound approach to Lexington Avenue operates at LOS E during the PM peak hour.

- The Lexington Avenue southbound approach to East 36th Street operates at a v/c ratio of 0.97 during the AM peak hour and 0.95 during the Midday peak hour.
- The right-turn lane on the East 38th Street eastbound approach to Lexington Avenue operates at LOS F during the AM and Midday peak hours, and LOS E during the PM peak hour.
- The through lanes on the Lexington Avenue southbound approach to East 38th Street operate at a v/c of 0.98 during the AM peak hour.
- The left-turn lane on the East 39th Street westbound approach to Lexington Avenue operates at a v/c ratio of 1.03 and LOS E during the AM and Midday peak hours.
- The through lane on the East 39th Street westbound approach to Lexington Avenue operates at a v/c ratio of 1.04 during the AM peak hour. 1.05 during the Midday peak hour, and 1.03 and LOS F during the PM peak hour.
- The through lanes on the Lexington Avenue southbound approach to East 39th Street operate at a v/c ratio of 0.98 during the AM peak hour, 0.99 during the Midday peak hour.
- The Lexington Avenue southbound approach to East 39th Street operates at a v/c ratio of 0.94 during the PM peak hour.
- The right-turn lane on the East 40th Street eastbound approach to Lexington Avenue operates at a v/c ratio of 1.04 and LOS F during the AM, and 1.05 and LOS F during the PM peak hours.
- The Lexington Avenue southbound approach to East 40th Street operates at a v/c ratio of 1.04 and LOS E during the AM peak hour, 1.03 and LOS E during the Midday peak hour.
- The through lanes on the East 42nd Street eastbound approach to Lexington Avenue operate at a v/c ratio of 0.90 during the Midday peak hour.
- The right-turn lane on the East 42nd Street eastbound approach to Lexington Avenue operates at LOS E during the Midday peak hour.
- The East 42nd Street westbound approach to Lexington Avenue operates at a v/c ratio of 1.02 and LOS E during the PM peak hour.
- The through lanes on the Lexington Avenue southbound approach to East 42nd Street operate at a v/c ratio of 0.99 and LOS E during the AM peak hour, and 0.94 during the PM peak hour.
- The Lexington Avenue southbound approach to East 44th Street operates at a v/c ratio of 1.00 during the AM peak hour, 1.05 and LOS E during the Midday peak hour, and 1.04 and LOS E during the PM peak hour.
- The East 45th Street westbound approach to Lexington Avenue operates at a v/c ratio of 0.99 and LOS E during the PM peak hour.
- The through lanes on the Lexington Avenue southbound approach to East 45th Street operate at a v/c ratio of 0.96 during the Midday peak hour and 0.92 during the PM peak hour.

- The through lane on the East 46th Street eastbound approach to Lexington Avenue operate at LOS E during the AM and Midday peak hours, and at a v/c ratio of 1.00 during the PM peak hour.
- The right-turn lane on the East 46th Street eastbound approach to Lexington Avenue operates at LOS E during the AM peak hour.
- The Lexington Avenue southbound approach to East 46th Street operates at a v/c ratio of 0.94 during the AM peak hour, 0.99 during the Midday peak hour, and 1.00 during the PM peak hour.
- The left-turn lane on the East 47th Street westbound approach to Lexington Avenue operates at a v/c ratio of 1.03 and LOS F during the Midday peak hour, and 0.97 and LOS F during the PM peak hour.
- The through lanes on the East 47th Street westbound approach to Lexington Avenue operate at a v/c ratio of 0.98 and LOS E during the Midday peak hour, and 1.01 and LOS E during the PM peak hour.
- The through lanes on the Lexington Avenue southbound approach to East 47th Street operate at a v/c ratio of 0.97 during the Midday peak hour, and 1.02 during the PM peak hour.
- The through lane on the East 48th Street eastbound approach to Lexington Avenue operate at a v/c ratio of 1.03 and LOS F during the Midday peak hour, and 0.97 and LOS E during the PM peak hour.
- The right-turn lane on the East 48th Street eastbound approach to Lexington Avenue operates at a v/c ratio of 0.92 and LOS F during the AM peak hour, 1.05 and LOS F during the Midday peak hour, and 0.99 and LOS F during the PM peak hour.
- The Lexington Avenue southbound approach to East 48th Street operates at a v/c ratio of 0.98 during the AM peak hour, and 0.96 during the PM peak hour.
- The through lanes on the Lexington Avenue southbound approach to East 49th Street operate at a v/c ratio of 0.97 during the Midday peak hour.
- The East 50th Street eastbound approach to Lexington Avenue operates at a v/c ratio of 0.93 during the AM peak hour.
- The Lexington Avenue southbound approach to East 50th Street operates at a v/c ratio of 1.03 during the AM peak hour, 0.94 during the Midday peak hour, and 1.02 during the PM peak hour.
- The left-turn lane on the East 51st Street westbound approach to Lexington Avenue operates at a v/c ratio of 0.93 and LOS E during the Midday peak hour, and 0.90 during the PM peak hour.
- The through lanes on the East 51st Street westbound approach to Lexington Avenue operate at a v/c ratio of 0.91 during the PM peak hour.
- The through lanes on the Lexington Avenue southbound approach to East 51st Street operate at a v/c ratio of 1.00 during the Midday peak hour.
- The right-turn lane on the Lexington Avenue southbound approach to East 51st Street operates at a v/c ratio of 1.04 and LOS F during the Midday peak hour.

- The right-turn lane on the East 52nd Street eastbound approach to Lexington Avenue operates at a v/c ratio of 0.91 and LOS E during the Midday peak hour, and LOS E during the PM peak hour.
- The Lexington Avenue southbound approach to East 52nd Street operates at a v/c ratio of 1.00 during the AM peak hour, and 0.96 during the PM peak hour.
- The through lane on the East 53rd Street westbound approach to Lexington Avenue operates at a v/c ratio of 1.04 and LOS E during the AM peak hour.
- The through lanes on the Lexington Avenue southbound approach to East 53rd Street operate at a v/c ratio of 1.02 and LOS E during the AM peak hour, and 0.93 during the Midday peak hour.
- The right-turn lane on the Lexington Avenue southbound approach to East 53rd Street operates at LOS F during the AM peak hour.
- The Lexington Avenue southbound approach to East 54th Street operates at a v/c ratio of 0.91 during the AM and PM peak hours, and 0.94 during the Midday peak hour.
- The left-turn lane on the East 55th Street westbound approach to Lexington Avenue operates at a v/c ratio of 0.97 and LOS E during the Midday peak hour.
- The through lanes on the Lexington Avenue southbound approach to East 55th Street operate at a v/c ratio of 0.96 during the AM peak hour, and 0.92 during the Midday peak hour.
- The right-turn lane on the East 56th Street eastbound approach to Lexington Avenue operates at a v/c ratio of 1.02 and LOS E during the Midday peak hour.
- The Lexington Avenue southbound approach to East 56th Street operates at a v/c ratio of 0.99 and LOS E during the AM peak hour, 0.91 during the Midday peak hour, and 0.93 during the PM peak hour.
- The East 57th Street eastbound approach to Lexington Avenue operates at a v/c ratio of 1.02 and LOS E during the PM peak hour.
- The through lanes on the Lexington Avenue southbound approach to East 57th Street operate at a v/c ratio of 0.93 and LOS E during the AM peak hour, and 0.91 during the PM peak hour.

- Park Avenue
  - The East 39th Street (East Side) westbound approach to Park Avenue operates at a v/c ratio of 1.03 and LOS E during the AM and Midday peak hours, and v/c ratio of 1.03 and LOS F during the PM peak hour.
  - The Park Avenue northbound approach to East 39th Street operates at LOS E during the AM peak hour.
  - The East 39th Street (West Side) westbound approach to Park Avenue operates at a v/c ratio of 0.92 and LOS F during the AM peak hour, and LOS E for the Midday peak hour, and 0.91 and LOS E during the PM peak hour.
  - The right-turn on the Park Avenue southbound approach to East 39th Street operates at a v/c ratio of 0.92 during the PM peak hour.

- The East 40th Street (East Side) eastbound approach to Park Avenue operates at a v/c ratio of 0.93 during the AM peak hour and 0.95 during the Midday peak hour.
- The Park Avenue northbound approach to East 40th Street operates at a v/c ratio of 1.01 during the PM peak hour.
- The East 40th Street (Tunnel Exit) eastbound approach to Park Avenue operates at a v/c ratio of 1.02 during the Midday peak hour and 0.98 during the PM peak hour.
- The East 40th Street (West Side) eastbound approach to Park Avenue operates at LOS F during the AM, Midday and PM peak hours, with a v/c ratio of 1.00 during the Midday peak hour and 0.95 during the PM peak hour.
- The through lanes on the Park Avenue southbound approach to East 40th Street operate at a v/c ratio of 1.03 and LOS E during the AM peak hour, and 1.04 and LOS E during the Midday and PM peak hours.
- The through lane on the East 46th Street (East Side) eastbound approach to Park Avenue operates at a v/c ratio of 1.05 and LOS E during the Midday peak hour, and at a v/c ratio of 1.04 during the PM peak hour.
- The through lanes on the East 46th Street (West Side) eastbound approach to Park Avenue operate at a v/c ratio of 0.96 and LOS E during the PM peak hour.
- The through lanes on the Park Avenue southbound approach to East 46th Street operate at a v/c ratio of 0.96 during the AM peak hour, and 1.03 during the Midday and PM peak hours.
- The through lane on the East 47th Street (East Side) westbound approach to Park Avenue operates at a v/c ratio of 0.96 and LOS E during the Midday peak hour.
- The through lanes on the Park Avenue northbound approach to East 47th Street operate at a v/c ratio of 0.96 during the Midday peak hour and 1.01 and LOS E during the PM peak hour.
- The East 47th Street (West Side) westbound approach to Park Avenue operates at a v/c ratio of 1.04 and LOS E during the Midday peak hour.
- The through lanes on the Park Avenue southbound approach to East 47th Street operate at a v/c ratio of 0.96 during the PM peak hour.
- The Park Avenue northbound approach to East 48th Street operates at a v/c ratio of 0.90 during the AM peak hour, and 0.96 during the PM peak hour.
- The left-turn on the Park Avenue southbound approach to East 48th Street operates at LOS F during the AM and Midday peak hours.
- The through lanes on the Park Avenue southbound approach to East 48th Street operate at a v/c ratio of 1.04 and LOS E during the AM peak hour, 1.03 and LOS E during the Midday peak hour, and at a v/c ratio of 0.91 during the PM peak hour.
- The through lanes on the East 49th Street (East Side) westbound approach to Park Avenue operate at a v/c ratio of 0.90 during the AM peak hour.

- The through lanes on the Park Avenue northbound approach to East 49th Street operate at a v/c ratio of 0.94 during the AM peak hour, 0.97 during the Midday peak hour, and 1.00 during the PM peak hour.
- The East 49th Street (West Side) westbound approach to Park Avenue operates at a v/c ratio of 0.99 during the AM peak hour and 0.94 during the PM peak hour.
- The East 50th Street (East Side) eastbound approach to Park Avenue operates at a v/c ratio of 0.97 during the Midday peak hour, and 1.04 and LOS E during the PM peak hour.
- The Park Avenue northbound approach to East 50th Street operates at a v/c ratio of 0.94 during the AM peak hour.
- The through lanes on the Park Avenue southbound approach to East 50th Street operate at a v/c ratio of 0.97 during the Midday and PM peak hours.
- The through lane on the East 51st Street (East Side) westbound approach to Park Avenue operates at a v/c ratio of 1.01 and LOS F during the Midday peak hour.
- The through lanes on the Park Avenue northbound approach to East 51st Street operate at a v/c ratio of 0.99 during the Midday peak hour and 1.00 and LOS E during the PM peak hour.
- The East 51st Street (West Side) westbound approach to Park Avenue operates at a v/c ratio of 0.99 during the Midday peak hour.
- The through lanes on the Park Avenue southbound approach to East 51st Street operate at a v/c ratio of 0.95 during the Midday peak hour.
- The right-turn lane on the Park Avenue southbound approach to East 51st Street operates at a v/c ratio of 0.91 during the AM peak hour.
- The East 52nd Street (East Side) eastbound approach to Park Avenue operates at a v/c ratio of 1.00 during the PM peak hour.
- The Park Avenue northbound approach to East 52nd Street operates at a v/c ratio of 0.91 during the AM peak hour, 0.95 during the Midday peak hour, and 0.99 during the PM peak hour.
- The East 52nd Street (West Side) eastbound approach to Park Avenue operates at a v/c ratio of 0.90 during the Midday peak hour.
- The through lanes on the Park Avenue southbound approach to East 52nd Street operate at a v/c ratio of 1.02 during the AM peak hour, 0.90 during the Midday peak hour, and 0.93 during the PM peak hour.
- The through lanes on the East 53rd Street (East Side) westbound approach to Park Avenue operate at a v/c ratio of 1.05 and LOS E during the AM peak hour.
- The right-turn lane on the East 53rd Street (East Side) westbound approach to Park Avenue operates at a v/c ratio of 0.93 during the AM peak hour.
- The Park Avenue northbound approach to East 53rd Street operates at a v/c ratio of 1.01 during the Midday peak hour, and 1.04 and LOS E during the PM peak hour.

- The East 53rd Street (West Side) westbound approach to Park Avenue operates at a v/c ratio of 1.00 during the AM peak hour, 0.98 during the Midday peak hour, and 0.94 during the PM peak hour.
- The Park Avenue southbound approach to East 53rd Street operates at a v/c ratio of 0.95 during the AM peak hour.
- The Park Avenue northbound approach to East 54th Street operates at a v/c ratio of 0.92 during the Midday peak hour.
- The through lanes on the Park Avenue southbound approach to East 54th Street operate at a v/c ratio of 1.03 during the AM peak hour, 0.91 during the Midday peak hour, and 0.90 during the PM peak hour.
- The East 55th Street (East Side) westbound approach to Park Avenue operates at LOS F for both the Midday and PM peak hours, with a v/c ratio of 1.02 during the Midday peak hour and 1.00 during the PM peak hour.
- The left-turn lane on the Park Avenue northbound approach to East 55th Street operates at LOS F during the Midday peak hour.
- The through lanes on the Park Avenue northbound approach to East 55th Street operate at LOS E during all AM, Midday and PM peak hours, with a v/c ratio of 1.01 during the AM peak hour, 1.05 during the Midday peak hour, and 1.03 during the PM peak hour.
- The East 55th Street (West Side) westbound approach to Park Avenue operates at a v/c ratio of 0.92 during the Midday peak hour and 0.98 during the PM peak hour.
- The Park Avenue southbound approach to East 55th Street operate at a v/c ratio of 0.97 during the Midday peak hour and 1.04 during the PM peak hour.
- The East 56th Street (East Side) eastbound approach to Park Avenue operates at a v/c ratio of 1.03 during the Midday and PM peak hours, and at LOS E during the PM peak hour.
- The Park Avenue northbound approach to East 56th Street operates at a v/c ratio of 0.96 during the AM peak hour and 0.95 during the PM peak hour.
- The East 56th Street (West Side) eastbound approach to Park Avenue operates at a v/c ratio of 1.01 and LOS E during the Midday peak hour, and 1.02 and LOS E during the PM peak hour.
- The through lanes on the Park Avenue southbound approach to East 56th Street operate at a v/c ratio of 0.94 during the AM and PM peak hours, and 0.92 during the Midday peak hour.
- The East 57th (East Side) eastbound approach to Park Avenue operates at a v/c ratio of 0.98 during the AM peak hour, and 1.03 during the Midday peak hour.
- The through lanes on the East 57th Street (East Side) westbound approach to Park Avenue operate at a v/c ratio of 1.02 and LOS F during the Midday peak hour.
- The right-turn lane on the East 57th Street (East Side) westbound approach to Park Avenue operates at a v/c ratio of 0.99 and LOS F during the Midday peak hour.
- The left-turn lane on the Park Avenue northbound approach to East 57th Street operates at LOS F during the Midday peak hour.

- The through lanes on the Park Avenue northbound approach to East 57th Street operate at a v/c ratio of 0.90 during the AM peak hour, 0.95 during the Midday peak hour, and 1.02 during the PM peak hour.
- The through lanes on the East 57th Street (West Side) eastbound approach to Park Avenue operate at a v/c ratio of 1.00 and LOS F during the Midday peak hour, and 0.97 and LOS E during the PM peak hour.
- The right-turn lane on the East 57th Street (West Side) eastbound approach to Park Avenue operates at a v/c ratio of 1.03 and LOS F during the Midday peak hour.
- The East 57th Street (West Side) westbound approach to Park Avenue operates at a v/c ratio of 0.90 during the AM peak hour, and 1.03 during the Midday peak hour.
- The Park Avenue southbound approach to East 57th Street operates at LOS E during the AM peak hour, and LOS F during the Midday peak hour.

- Madison Avenue
  - The through lanes on the East 39th Street westbound approach to Madison Avenue operate at a v/c ratio of 1.00 and LOS E during the Midday peak hour, and 1.04 and LOS E during the PM peak hour.
  - The right-turn lane on the East 39th Street westbound approach to Madison Avenue operates at LOS E during the AM and PM peak hours, and at a v/c ratio of 1.04 and LOS F during the Midday peak hour.
  - The Madison Avenue northbound approach to East 39th Street operates at a v/c ratio of 0.99 and LOS F during the AM peak hour, and 0.92 during the Midday peak hour.
  - The Madison Avenue northbound approach to East 40th Street operates at a v/c ratio of 1.02 and LOS E during the AM peak hour, and 0.98 during the Midday and PM peak hours.
  - The Madison Avenue northbound approach to East 41st Street operates at a v/c ratio of 1.05 and LOS E during the AM peak hour, 1.02 and LOS E during the Midday peak hour, and 1.01 during the PM peak hour.
  - The East 42nd Street eastbound approach to Madison Avenue operates at a v/c ratio of 0.94 and LOS E during the AM peak hour, and 0.94 during the Midday peak hour.
  - The through lanes on the East 42nd Street westbound approach to Madison Avenue operate at a v/c ratio of 1.05 and LOS E during the AM peak hour, and 0.94 during the Midday peak hour.
  - The Madison Avenue northbound approach to East 42nd Street operates at a v/c ratio of 1.05 and LOS E during the AM peak hour, 1.04 and LOS E during the Midday peak hour, and 1.02 and LOS E during the PM peak hour.
  - The through lanes on the East 43rd Street westbound approach to Madison Avenue operate at a v/c ratio of 0.95 and LOS E during the Midday peak hour.
  - The right-turn lane on the East 43rd Street westbound approach to Madison Avenue operates at LOS E during the Midday peak hour.
  - The left-turn lane on the Madison Avenue northbound approach to East 43rd Street operates at a v/c ratio of 0.97 during the PM peak hour.

- The through lanes on the Madison Avenue northbound approach to East 43d Street operate at a v/c ratio of 0.96 during the AM peak hour, 0.98 during the Midday peak hour, and 1.04 during the PM peak hour.
- The East 46th Street eastbound approach to Madison Avenue operates at a v/c ratio of 0.95 and LOS E during the AM peak hour, and at LOS F during the Midday peak hour.
- The through lanes on the Madison Avenue northbound approach to East 46th Street operate at a v/c ratio of 1.02 during the Midday peak hour, and 0.94 during the PM peak hour.
- The right-turn lane on the Madison Avenue northbound approach to East 46th Street operates at LOS E during the Midday peak hour.
- The left-turn lane on the East 48th Street eastbound approach to Madison Avenue operates at a v/c ratio of 1.02 and LOS F during the AM peak hour, and LOS E during the Midday peak hour.
- The through lanes on the Madison Avenue northbound approach to East 48th Street operate at a v/c ratio of 0.99 during the AM peak hour and 1.00 during the PM peak hour.
- The East 49th Street westbound approach to Madison Avenue operates at a v/c ratio of 0.99 during the Midday peak hour, and 0.96 during the PM peak hour.
- The through lanes on the Madison Avenue northbound approach to East 49th Street operate at a v/c ratio of 0.97 during the AM peak hour and 0.91 during the Midday peak hour.
- The East 53rd Street westbound approach to Madison Avenue operates at a v/c ratio of 1.04 and LOS E during the AM peak hour.
- The through lanes on the Madison Avenue northbound approach to East 53rd Street operate at a v/c ratio of 0.91 during the AM peak hour, and 0.93 during the PM peak hour.
- The East 54th Street eastbound approach to Madison Avenue operates at a v/c ratio of 1.05 and LOS E during the Midday peak hour.
- The through lanes on the Madison Avenue northbound approach to East 54th Street operate at a v/c ratio of 0.97 during the AM peak hour, 1.05 and LOS E during the Midday peak hour, and 0.92 during the PM peak hour.

- Fifth Avenue
  - The right-turn lane on the 38th Street eastbound approach to Fifth Avenue operates at a v/c ratio of 1.00 and LOS F during the AM peak hour, 1.02 and LOS F during the Midday peak hour, and 0.98 and LOS F during the PM peak hour.
  - The Fifth Avenue southbound approach to 38th Street operates at a v/c ratio of 0.95 during the AM peak hour and 0.97 during the Midday peak hour.
  - The left-turn lane on the 39th Street westbound approach to Fifth Avenue operates at LOS F during the AM peak hour and LOS E during the Midday and PM peak hours.
  - The through lanes on the 39th Street westbound approach to Fifth Avenue operate at a v/c ratio of 0.98 and LOS E during the Midday peak hour.

- The through lanes on the Fifth Avenue southbound approach to 39th Street operate at a v/c ratio of 0.92 during the AM peak hour.
- The right-turn lane on the Fifth Avenue southbound approach to 39th Street operates at a v/c ratio of 1.00 during the AM peak hour, and 0.99 during the PM peak hour.
- The 40th Street eastbound approach to Fifth Avenue operates at a v/c ratio of 1.05 and LOS F during the AM and Midday peak hours.
- The Fifth Avenue southbound approach to 40th Street operates at a v/c ratio of 1.04 and LOS E during the AM peak hour and 1.05 and LOS E during the PM peak hour.
- The 42nd Street westbound approach to Fifth Avenue operates at a v/c ratio of 1.02 during the AM peak hour and 1.05 during the Midday peak hour.
- The through lanes on the Fifth Avenue southbound approach to 42nd Street operate at a v/c ratio of 1.02 during the AM peak hour, 1.05 during the Midday peak hour, and 1.04 during the PM peak hour.
- The through lanes on the Fifth Avenue southbound approach to 43rd Street operate at a v/c ratio of 0.94 during the PM peak hour.
- The right-turn lane on the Fifth Avenue southbound approach to 43rd Street operates at a v/c ratio of 0.99 and LOS E during the Midday peak hour, and v/c ratio of 1.04 during the PM peak hour.
- The right-turn lane on the 44th Street eastbound approach to Fifth Avenue operates at a v/c ratio of 0.92 and LOS E during the Midday peak hour, and 0.97 and LOS F during the PM peak hour.
- The Fifth Avenue southbound approach to 44th Street operates at a v/c ratio of 0.95 during the AM peak hour, 0.96 during the Midday peak hour, and 1.02 during the PM peak hour.
- The left-turn on the 47th Street westbound approach to Fifth Avenue operates at LOS E during the AM and Midday peak hours, and at a v/c ratio of 1.02 and LOS F during the PM peak hour.
- The through lanes on the Fifth Avenue southbound approach to 47th Street operate at a v/c ratio of 0.99 during the AM peak hour, 1.01 during the Midday peak hour, and 0.96 during the PM peak hour.
- The right-turn lane on the Fifth Avenue southbound approach to 47th Street operates at a v/c ratio of 0.91 and LOS E during the Midday peak hour.
- The right-turn lane on the 48th Street eastbound approach to Fifth Avenue operates at a v/c ratio of 1.03 and LOS F during the AM peak hour, 0.95 and LOS E during the Midday peak hour, and 1.05 and LOS F during the PM peak hour.
- The Fifth Avenue southbound approach to 48th Street operates at a v/c ratio of 0.96 during the AM peak hour, 0.91 during the Midday peak hour, and 0.92 during the PM peak hour.
- The 49th Street westbound approach to Fifth Avenue operates at LOS E during the PM peak hour.

- The through lanes on the Fifth Avenue southbound approach to 49th Street operate at a v/c ratio of 0.96 during the AM peak hour, 1.01 during the Midday peak hour, and 0.98 during the PM peak hour.
- The 54th Street eastbound approach to Fifth Avenue operates at a v/c ratio of 0.97 and LOS E during the Midday peak hour.
- The Fifth Avenue southbound approach to 54th Street operates at a v/c ratio of 0.95 during the AM peak hour, 0.97 during the Midday peak hour, and 1.01 during the PM peak hour.

- Sixth Avenue
  - The through lanes on the West 48th Street eastbound approach to Sixth Avenue operate at a v/c ratio of 1.00 and LOS E during the AM peak hour and 0.92 and LOS E during the Midday peak hour.
  - The right-turn lane on the Sixth Avenue northbound approach to West 48th Street operates at a v/c ratio of 1.02 and LOS F during the PM peak hour.
  - The Sixth Avenue northbound approach to West 49th Street operates at a v/c ratio of 0.97 during the AM and Midday peak hours.

Future Traffic Conditions without the Proposed Action (No-Action Condition)

Future No-Action Traffic Growth

Between 2016 and 2036, it is expected that traffic demand in the study area will increase due to background growth, development that could occur pursuant to existing zoning (i.e., as-of-right-development), and development projects likely to occur within and in the vicinity of the study area in the No-Action Condition. In consultation with DCP and DOT, general background traffic growth rates within and through the study area were developed. Based on this consultation, annual background growth rates of one-quarter of a percent were assumed for the first 5 years (2016-2021), one-eighth of a percent for the second 5 years (2021-2026), and one-sixteenth of one percent for year 10 and beyond (2026-2036). When compounded, this represents a total background growth rate of approximately 2.5 percent from 2016 to 2036. This background growth rate is applied to existing traffic volumes and accounts for smaller projects and general increases in travel demand. In addition to background growth, the effects of projected future development independent of the Proposed Action were included in the No-Action traffic analysis. This includes development on projected development sites pursuant to existing zoning, 22 No-Action development projects in East Midtown, and two major development projects outside of the study area, as further described below. Where No-Action developments (excluding those on Projected Development Sites) were found to generate relatively little new traffic through analyzed intersections, demand from these sites was also assumed to be reflected as part of general background growth.

Table 12.18 summarizes the No-Action Condition development projects in East Midtown that were included in the analysis of No-Action traffic conditions. As shown in Table 12.18, these represent a net total of 5,192,798 gsf of office space, 333,262 gsf of retail space, 1,565 hotel rooms, 8,443 dwelling units, and 119,936 gsf of community facility space. The locations of these No-Action Condition projects are shown on Figure 2-9 in Chapter 2, "Land Use, Zoning and Public Policy." Also included in the No-

Action traffic analyses are traffic reassignments associated with proposed changes to enhance security at the United Nations. The Hudson Yards Rezoning and Western Rail Yard projects were also accounted for in the No-Action traffic analysis due to their large size and the potential effect on study area traffic volumes. Traffic growth attributable to these projects was accounted for incorporating vehicle trips that would pass through the study area (i.e., traffic traveling to or from the Ed Koch Queensboro Bridge and Queens Midtown Tunnel) into the No-Action Condition analyses.

Table 12.18: East Midtown Development Projects Included in the No-Action Condition Traffic Analysis

Project Name / Address	Office (gsf)	Retail (gsf)	Hotel (rooms)	Dwelling Units	Community Facility (gsf)
434 Park Avenue[1]	0	75,000	0	144	0
Art & Design HS & PS 59, 252 East 57th Street	0	0	0	320	0
53 West 53rd Street (Tower Verre)	0	0	167	300	0
John Pierce Residences, 11 East 51st Street	0	19,322	0	269	0
614 Lexington Avenue (100 East 53rd Street)	0	0	347	48	0
Waldorf-Astoria Hotel	0	0	-1,013	1,349	0
138 East 50th Street	0	0	764	0	0
Stanford Hotels, 120 West 41st Street	0	0	130	0	0
7 Bryant Park	471,000	0	0	0	0
516-520 Fifth Avenue	0	35,000	234	145	0
14-20 West 40th Street	0	4,500	215	91	0
343 Madison Avenue	914,361	25,051	0	0	0
One Vanderbilt	1,325,000	80,000	0	0	0
686-700 Third Avenue[2]	0	7,500	361	0	0
212-214 East 44th Street	0	2,300	0	429	0
219 East 44th Street	0	0	230	11	0
227-235 East 44th Street	0	0	130	0	0
225 East 39th Street	0	0	0	372	0
Perlbinder, 245 East 36th Street	0	0	0	480	0
UNDC Project/Robert Moses Playground	950,000	0	0	0	0
First Avenue Properties	1,532,437	71,167	0	4,166	119,936
160 Madison Avenue	0	13,422	0	319	0
TOTAL	**5,192,798**	**333,262**	**1,565**	**8,443**	**119,936**

Notes:

[1] Construction of the 434 Park Avenue is substantially complete and the building is currently operating under a Temporary Certificate of Occupancy (TCO), but was not fully occupied at the time of traffic data collection.

[2] In the future with the Proposed Action, it is likely that this No-Action site would not be redeveloped, however for conservative purposes the No-Action development on this site is included in the With-Action analysis.

Changes to the Study Area Street Network

The following modifications to the traffic study area's street network are anticipated in the No-Action Condition.

Street Modifications/Closures

- Pershing Square: The eastern and western at-grade portions of Park Avenue between East 41st and East 42nd Streets will be converted into a permanent pedestrian plaza. These street segments are already closed to traffic under existing conditions.
- Vanderbilt Avenue: The portion of Vanderbilt Avenue between East 42nd and 43rd Streets will be closed to vehicular traffic and a pedestrian plaza will be created to improve pedestrian safety and circulation. No-Action Condition traffic volumes were adjusted to reroute traffic using this street segment to other roadways.

Bus Lane Improvements

- Fifth Avenue Bus Lane Improvements: This project will expand the number of bus lanes from one lane to dual bus lanes along the west side of Fifth Avenue between 60th Street and 26th Street. These bus lanes will be in effect during the AM, Midday, and PM peak hours.

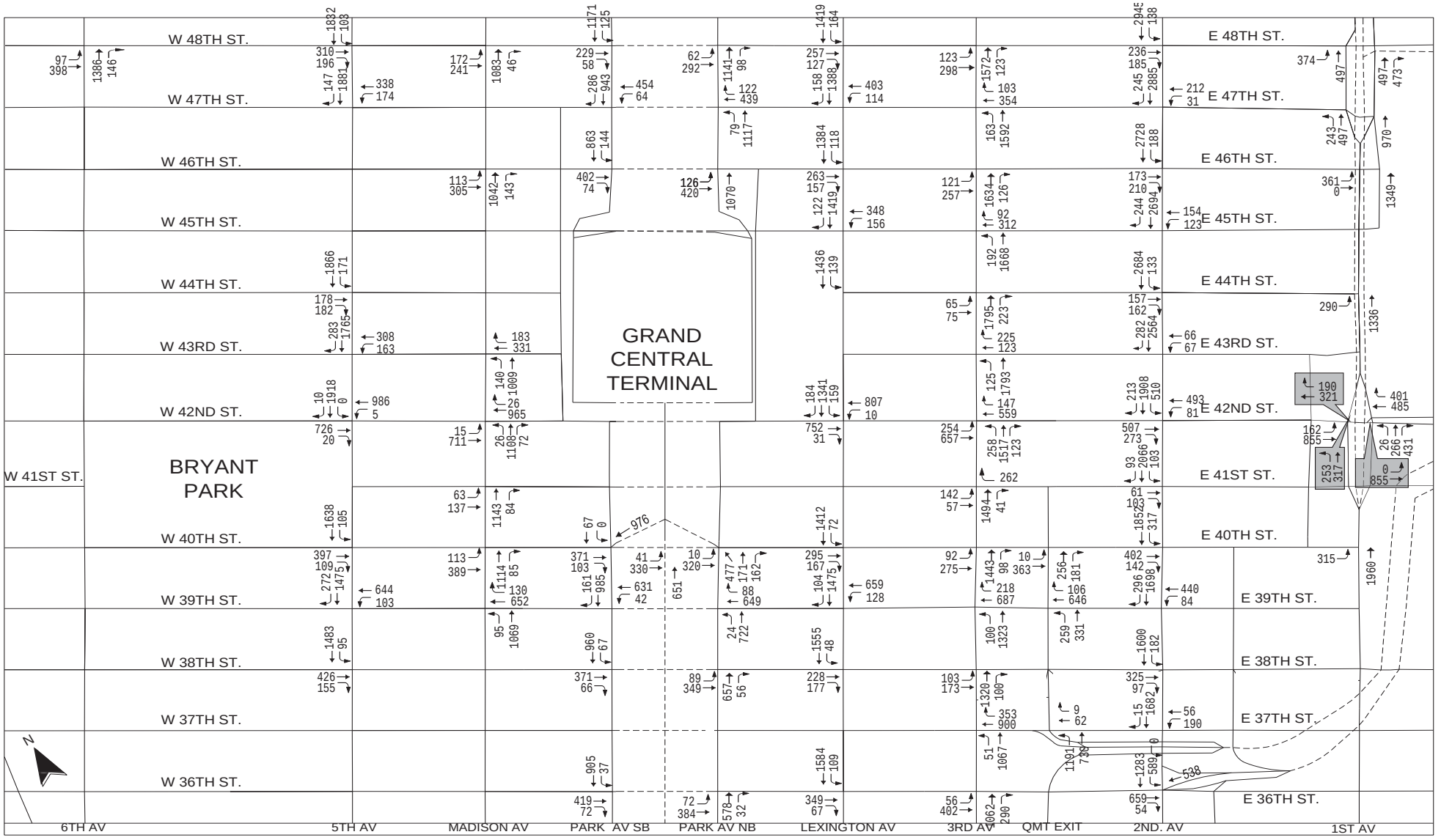
Bicycle Lane/Route Improvements

- Protected bike lanes will be installed along two portions of First Avenue: between East 47th and East 48th Streets; and between East 55th and East 59th Streets.
- Curbside bike lanes will be installed on Second Avenue from East 43rd to East 59th Streets. Between East 43rd and East 48th Streets, the bike lane will be protected during off-peak times, except during the AM and PM peak periods when the adjacent parking lane is used as a rush hour lane. Between East 48th and East 52nd Streets, the bike lane will be protected during off-peak times, except during the PM peak period when the adjacent parking lane is used as a rush hour lane. Between East 52nd and East 59th Streets, the bike lane will be protected by a parking lane at all times.
- Shared bike lanes will be installed on Second Avenue from East 59th to East 68th Streets upon completion of construction related to the Second Avenue Subway.

Mitigation Measures Associated with No-Action Condition Development Projects

No-Action Condition development projects in the study area include various mitigation measures, as identified through review of the EISs prepared for the development projects and consultation with DCP. Intersection mitigation measures identified in the respective environmental review documents for One Vanderbilt project were incorporated in the No-Action Condition. Appendix F.3 includes a listing of the specific changes included in the No-Action Condition.

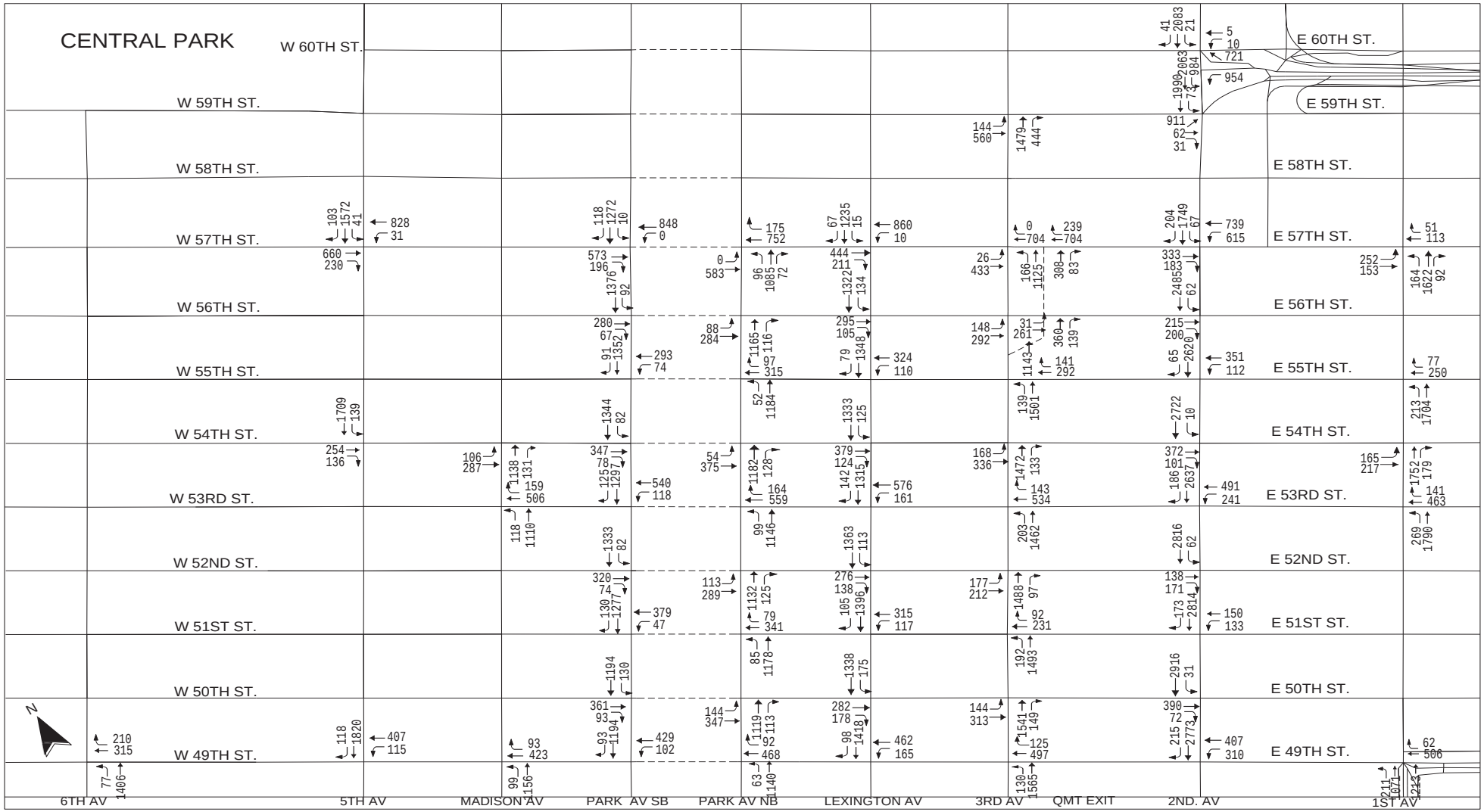
Figure 12-10 through Figure 12-12 show the expected No-Action weekday AM, Midday, and PM traffic volumes at analyzed intersections in the study area.



Greater East Midtown Rezoning
Manhattan, New York

2036 No-Action Traffic Volumes
Weekday AM Peak Hour

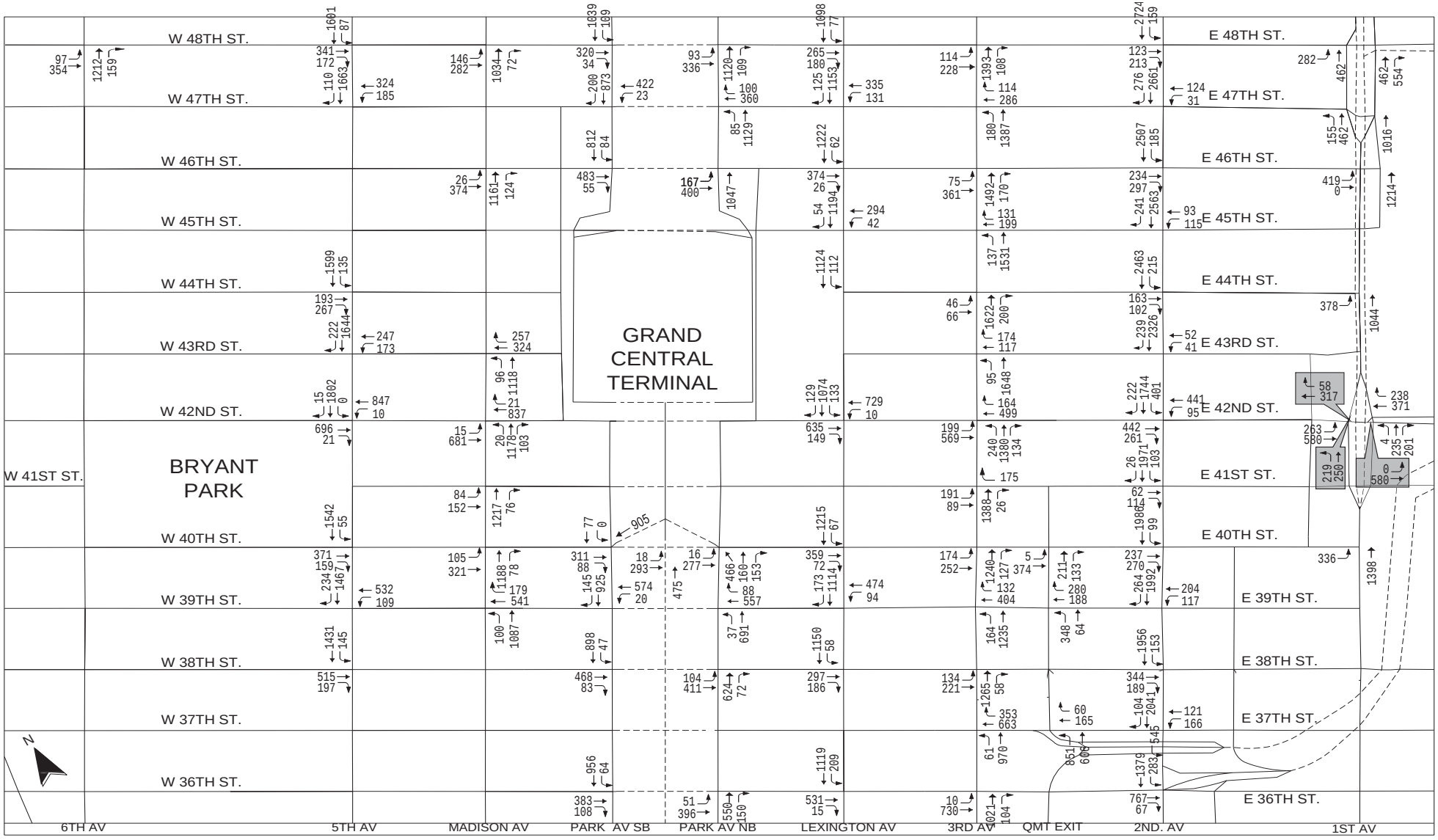
Figure 12-10a



Greater East Midtown Rezoning
Manhattan, New York

2036 No-Action Traffic Volumes
Weekday AM Peak Hour

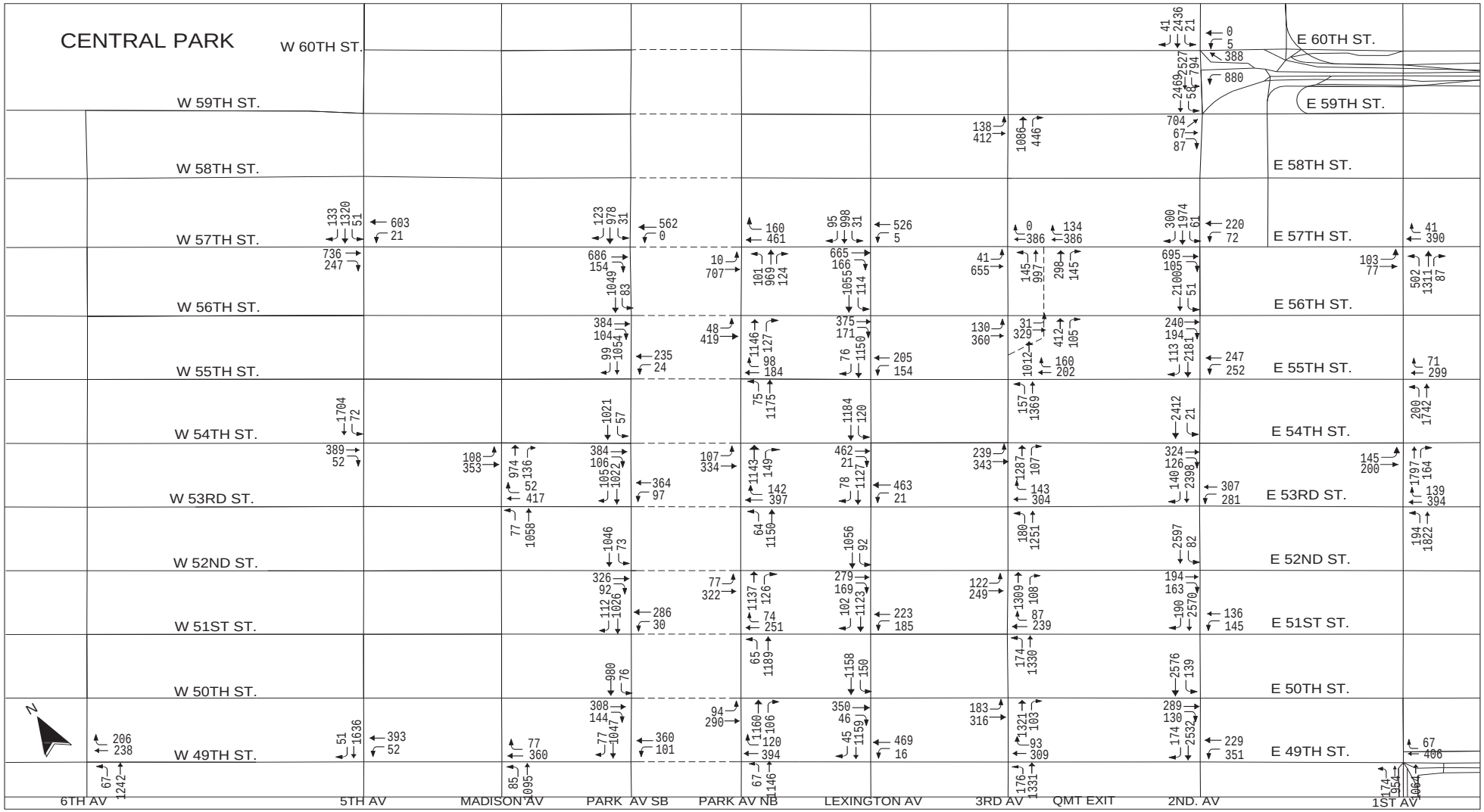
Figure 12-10b



Greater East Midtown Rezoning
Manhattan, New York

2036 No-Action Traffic Volumes
Weekday Midday Peak Hour

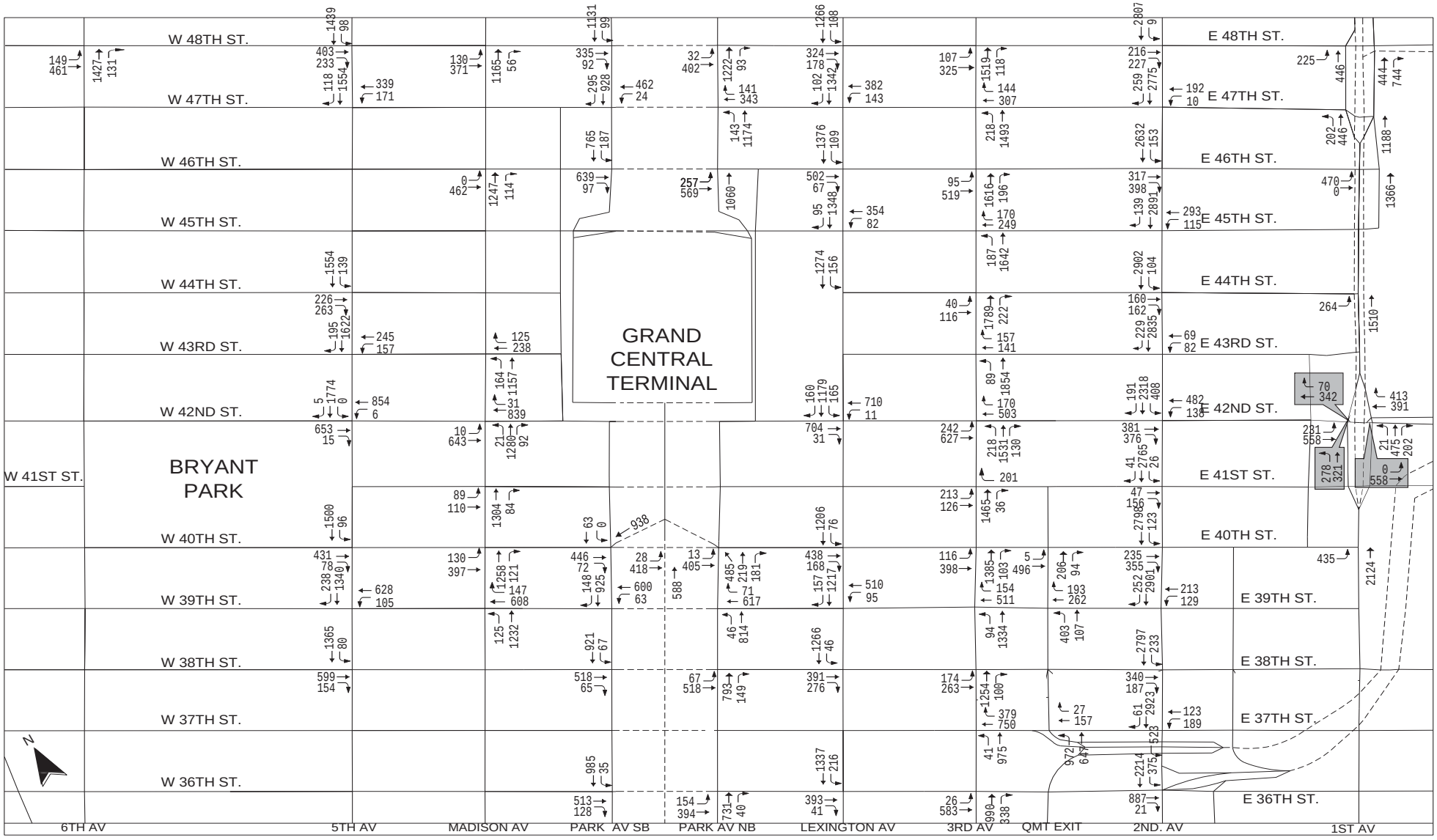
Figure 12-11a



Greater East Midtown Rezoning
Manhattan, New York

2036 No-Action Traffic Volumes
Weekday Midday Peak Hour

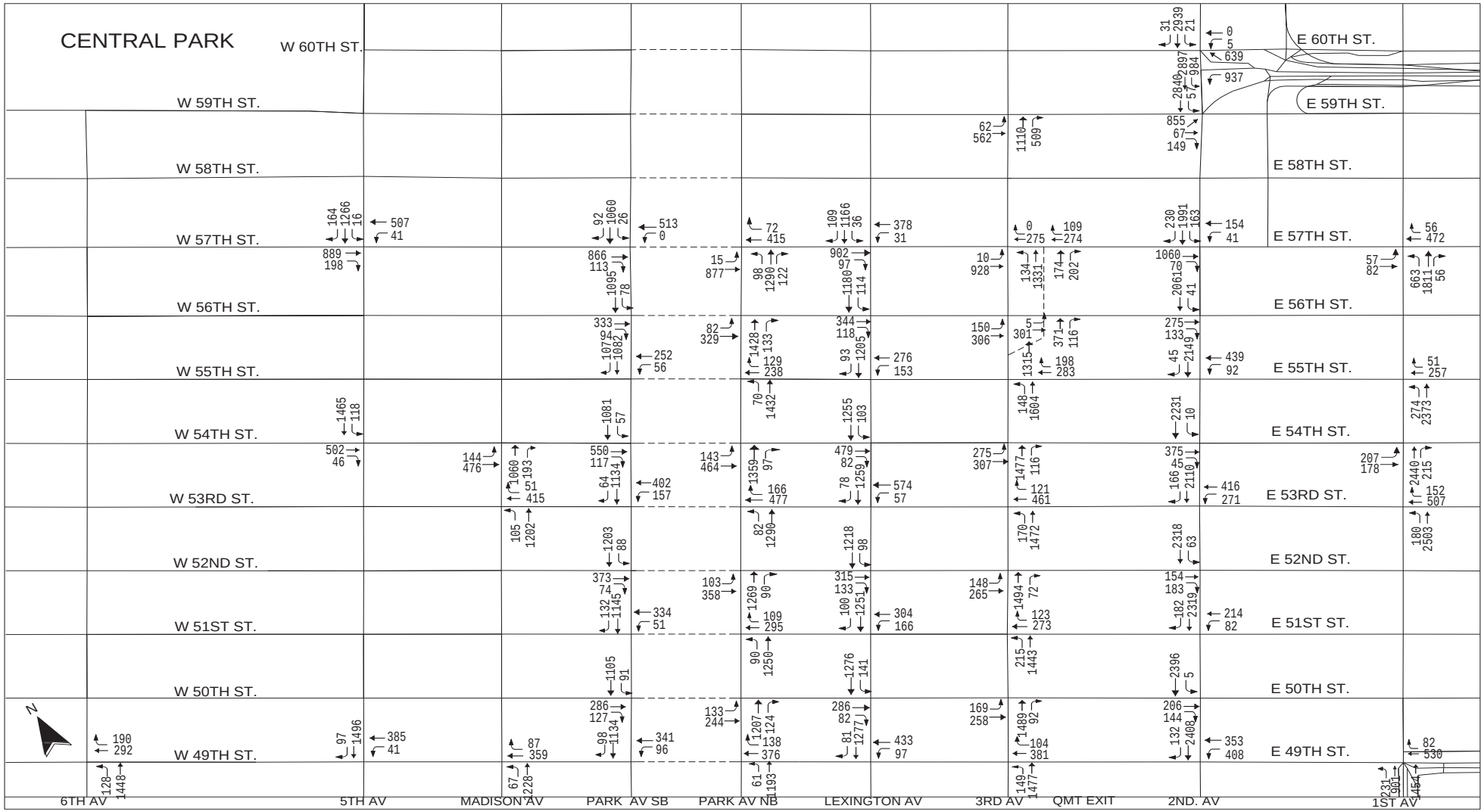
Figure 12-11b



Greater East Midtown Rezoning
Manhattan, New York

2036 No-Action Traffic Volumes
Weekday PM Peak Hour

Figure 12-12a



Greater East Midtown Rezoning
Manhattan, New York

2036 No-Action Traffic Volumes
Weekday PM Peak Hour

Figure 12-12b

Intersection Capacity Analysis

Table 12.19 summarizes LOS by approach movements at signalized and unsignalized intersections for existing and future No-Action conditions. The 119 intersections analyzed have a total of combined 1,340 movements (1,334 at signalized intersections and 6 at unsignalized intersections).[2] In the No-Action condition, 647 approach movements at signalized intersections will operate at LOS E or worse, compared to 292 approach movements in existing conditions, with 262 movements operating at LOS E and 385 movements operating at LOS F. There will also be 832 movements operating at a v/c ratio of 0.90 or above, compared to 608 existing movements. At unsignalized intersections, one movement will operate at LOS E or worse, compared to none in existing conditions. Table 12.20 through Table 12.22 provide details on existing and No-Action conditions of individual intersections and movements that currently or in the future will operate at LOS E or worse and those with a v/c ratio of 0.90 or more; Table 12.15 through Table 12.16 provide the v/c ratio, average delay, and LOS for each movement.

Table 12.19: Summary of Existing and No-Action Levels of Service by Movement

	2016 Existing				2036 No-Action			
	Peak Hour				Peak Hour			
Level of Service (LOS)	AM	Midday	PM	Total	AM	Midday	PM	Total
Signalized Intersections								
Movements at LOS A/B/C	254	217	223	694	182	166	161	509
Movements at LOS D	105	110	118	333	54	62	62	178
Movements at LOS E	63	72	74	209	79	89	94	262
Movements at LOS F	27	33	23	83	140	120	125	385
TOTAL	449	432	438	1,319	455	437	442	1,334
Movements at v/c ≥0.90	190	207	211	608	266	277	289	832
Unsignalized Intersections								
Movements at LOS A/B/C	1	2	2	5	1	2	2	5
Movements at LOS D	1	0	0	1	0	0	0	0
Movements at LOS E	0	0	0	0	1	0	0	1
Movements at LOS F	0	0	0	0	0	0	0	0
TOTAL	2	2	2	6	2	2	2	6
Movements at v/c ≥0.90	0	0	0	0	0	0	0	0

[2] The number of movements would increase from 1,319 to 1,331 from existing to No-Action conditions due to changes in the roadway network and operational changes.

Table 12.20: Existing and No-Action Intersections with LOS E/F or V/C ≥ 0.90 in the AM Peak Hour

		Existing 2016				No-Action 2036			
Signalized Intersection	Approach	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
1st Avenue & East 40th Street	Eastbound	L	0.59	27.2	C	L	1.13	100.3	F
1st Avenue & East 40th Street	Northbound	T	0.86	26.2	C	T	1.23	134.5	F
1st Avenue & East 42nd Street	Eastbound (East Side)	T	0.90	30.5	C	T	1.32	174.0	F
1st Avenue & East 42nd Street	Westbound (East Side)	TR	1.04	93.1	F	TR	1.15	116.7	F
1st Avenue & East 42nd Street	Westbound (East Side)	R	1.05	109.5	F	R	1.12	134.7	F
1st Avenue & East 42nd Street	Northbound (East Side)	LT	0.56	65.5	E	LT	0.67	92.7	F
1st Avenue & East 42nd Street	Northbound (East Side)	R	0.12	20.1	C	R	1.66	327.1	F
1st Avenue & East 42nd Street	Eastbound (West Side)	L	1.05	133.1	F	L	0.95	113.1	F
1st Avenue & East 42nd Street	Eastbound (West Side)	T	0.55	21.6	C	T	0.80	74.6	E
1st Avenue & East 42nd Street	Westbound (West Side)	TR	0.86	11.4	B	TR	0.99	21.2	C
1st Avenue & East 42nd Street	Northbound (West Side)	T	0.63	81.8	F	T	0.73	81.9	F
1st Avenue & East 49th Street	Westbound (East Side)	T	0.88	41.1	D	T	0.94	50.0	D
1st Avenue & East 49th Street	Northbound (East Side)	T	0.86	43.7	D	T	1.00	80.4	F
1st Avenue & East 49th Street	Westbound (West Side)	T	0.88	12.4	B	T	0.94	16.5	B
1st Avenue & East 49th Street	Northbound (West Side)	LT	0.98	40.0	D	LT	1.02	49.9	D
1st Avenue & East 54th Street	Eastbound	LT	1.05	80.5	F	LT	1.12	102.5	F
1st Avenue & East 54th Street	Northbound	T	0.88	20.1	C	T	0.99	63.8	E
1st Avenue & East 55th Street	Northbound	L	1.03	69.2	E	L	1.06	69.8	E
1st Avenue & East 55th Street	Northbound	T	0.91	22.2	C	T	1.04	61.4	E
1st Avenue & East 57th Street	Eastbound	LT	1.04dl	46.8	D	LT	1.20dl	57.9	E
1st Avenue & East 57th Street	Northbound	T	0.94	24.8	C	T	1.37	190.7	F
2nd Avenue & East 36th Street	Eastbound	TR	1.03	63.5	E	TR	1.31	168.3	F
2nd Avenue & East 36th Street	Southbound	L	1.05	63.6	E	L	1.65	316.8	F
2nd Avenue & East 36th Street	Southbound	T	1.05	51.5	D	T	1.17	97.5	F
2nd Avenue & East 36th Street	Westbound (Tunnel Exit)	L	1.00	74.0	E	L	1.14	113.9	F
2nd Avenue & East 37th Street	Westbound	T	0.48	36.9	D	LT	0.97dl	44.1	D
2nd Avenue & East 37th Street	Southbound	T	1.04	29.9	C	T	1.24	119.4	F
2nd Avenue & East 38th Street	Eastbound	TR	0.89	51.8	D	TR	1.13	112.7	F
2nd Avenue & East 38th Street	Southbound	LT	1.05	63.6	E	LT	1.28	139.7	F
2nd Avenue & East 39th Street	Southbound	T	1.04	62.7	E	T	1.23	122.3	F
2nd Avenue & East 39th Street	Southbound	R	0.91	37.4	D	R	1.01	37.5	D
2nd Avenue & East 40th Street	Southbound	LT	0.92	32.6	C	LT	1.11	68.8	E
2nd Avenue & East 41st Street	Southbound	LT	1.04	50.9	D	LT	1.25	127.4	F
2nd Avenue & East 42nd Street	Eastbound	TR	0.98	50.5	D	TR	1.36	191.6	F
2nd Avenue & East 42nd Street	Westbound	LT	0.69	17.5	B	LT	1.63dl	112.1	F
2nd Avenue & East 42nd Street	Southbound	LT	0.94	39.3	D	LT	1.16	100.0	F
2nd Avenue & East 43rd Street	Southbound	T	0.95	27.5	C	T	1.12	74.1	E
2nd Avenue & East 43rd Street	Southbound	R	0.80	21.4	C	R	1.01	39.1	D
2nd Avenue & East 44th Street	Eastbound	TR	0.72	36.6	D	TR	0.95	58.1	E
2nd Avenue & East 44th Street	Southbound	LT	1.01	39.9	D	LT	1.17	93.0	F
2nd Avenue & East 45th Street	Westbound	LT	0.87	67.1	E	LT	0.98	87.5	F
2nd Avenue & East 45th Street	Southbound	T	0.99	36.2	D	T	1.16	87.8	F
2nd Avenue & East 45th Street	Southbound	R	0.93	34.5	C	R	1.13	84.4	F
2nd Avenue & East 46th Street	Southbound	LT	1.01	49.6	D	LT	1.16	86.0	F
2nd Avenue & East 47th Street	Southbound	T	1.03	50.0	D	T	1.19	99.8	F
2nd Avenue & East 47th Street	Southbound	R	0.64	8.9	A	R	0.95	21.7	C
2nd Avenue & East 48th Street	Eastbound	TR	1.04	73.9	E	TR	1.07	84.0	F
2nd Avenue & East 48th Street	Southbound	LT	1.05	62.5	E	T	1.48	234.8	F
2nd Avenue & East 49th Street	Southbound	T	1.05	58.8	E	T	1.28	145.5	F
2nd Avenue & East 49th Street	Southbound	R	0.85	21.1	C	R	0.97	31.5	C
2nd Avenue & East 50th Street	Southbound	LT	1.04	42.1	D	T	1.55	269.1	F
2nd Avenue & East 51st Street	Westbound	L	0.76	57.0	E	L	0.79	60.3	E
2nd Avenue & East 51st Street	Southbound	T	0.99	47.6	D	T	1.55	266.7	F
2nd Avenue & East 51st Street	Southbound	R	0.84	25.1	C	R	0.90	22.8	C
2nd Avenue & East 52nd Street	Southbound	LT	1.01	41.1	D	T	1.49	239.1	F

Table 12.20: Existing and No-Action Intersections with LOS E/F or V/C ≥ 0.90 in the AM Peak Hour (Continued)

		Existing 2016				No-Action 2036			
Signalized Intersection	Approach	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
2nd Avenue & East 53rd Street	Westbound	LT	0.95	47.4	D	LT	0.99	55.6	E
2nd Avenue & East 53rd Street	Southbound	T	0.95	28.8	C	T	1.48	234.6	F
2nd Avenue & East 54th Street	Southbound	LT	1.03	47.8	D	T	1.58	281.0	F
2nd Avenue & East 55th Street	Southbound	T	1.04	63.5	E	T	1.60	292.0	F
2nd Avenue & East 56th Street	Southbound	LT	0.99	53.2	D	T	1.49	239.1	F
2nd Avenue & East 57th Street	Eastbound	TR	1.02	96.7	F	T	0.57	54.2	D
2nd Avenue & East 57th Street	Eastbound					R	1.34	226.5	F
2nd Avenue & East 57th Street	Westbound	L	1.05	92.7	F	L	1.19	140.6	F
2nd Avenue & East 57th Street	Westbound	LT	1.05	77.1	E	LT	1.13	103.6	F
2nd Avenue & East 57th Street	Southbound	T	0.89	31.8	C	T	1.19	116.3	F
2nd Avenue & East 57th Street	Southbound	R	0.91	64.0	E	R	1.10	110.9	F
2nd Avenue & East 59th Street	Eastbound	L	1.03	49.9	D	L	1.12	80.4	F
2nd Avenue & East 59th Street	Southbound	L	1.05	69.6	E	L	1.08	66.3	E
2nd Avenue & East 59th Street	Southbound	LT	1.05	64.0	E	LT	1.30	154.7	F
2nd Avenue & East 60th Street	Southbound	T	0.97	81.9	F	T	1.04	83.1	F
2nd Avenue & East 60th Street	Westbound (Bridge Exit)	L	0.89	39.8	D	L	1.37	200.0	F
2nd Avenue & East 60th Street	Westbound (Bridge Exit)	T	1.03	68.8	E	T	1.26	156.7	F
Tunnel Exit Street & East 39th Street	Westbound	TR	1.05	89.9	F	TR	0.78	69.6	E
Tunnel Exit Street & East 40th Street	Eastbound	LT	0.73	50.4	D	LT	0.97	100.7	F
3rd Avenue & East 36th Street	Eastbound	LT	0.88	41.6	D	LT	1.09	86.6	F
3rd Avenue & East 36th Street	Northbound	R	0.94	88.0	F	R	1.06	117.6	F
3rd Avenue & East 37th Street	Westbound	R	0.67	54.3	D	R	0.90	85.6	F
3rd Avenue & East 37th Street	Northbound	LT	0.88	23.1	C	LT	0.97	65.2	E
3rd Avenue & East 38th Street	Northbound	T	0.83	17.6	B	T	0.98	65.8	E
3rd Avenue & East 39th Street	Westbound	T	1.01	80.8	F	T	1.62	306.1	F
3rd Avenue & East 39th Street	Westbound	R	1.04	76.1	E	R	1.17	132.1	F
3rd Avenue & East 39th Street	Northbound	LT	1.04	70.9	E	LT	1.23	124.4	F
3rd Avenue & East 40th Street	Eastbound	LT	0.71	41.5	D	LT	0.92	89.1	F
3rd Avenue & East 40th Street	Northbound	T	1.01	47.0	D	T	1.16	89.9	F
3rd Avenue & East 40th Street	Northbound	R	0.65	25.8	C	R	0.71	101.5	F
3rd Avenue & East 41st Street	Eastbound	LT	0.64	58.3	E	LT	0.70	61.5	E
3rd Avenue & East 41st Street	Westbound	R	1.01	88.6	F	R	1.05	108.7	F
3rd Avenue & East 41st Street	Northbound	T	0.97	65.6	E	T	1.10	64.6	E
3rd Avenue & East 42nd Street	Eastbound	L	0.94	60.6	E	L	1.04	76.2	E
3rd Avenue & East 42nd Street	Eastbound	T	0.85	21.0	C	T	1.11	76.5	E
3rd Avenue & East 42nd Street	Westbound	T	0.68	40.5	D	T	0.91	42.2	D
3rd Avenue & East 42nd Street	Westbound	R	0.97	100.2	F	R	1.19	131.0	F
3rd Avenue & East 42nd Street	Northbound	LT	1.01	75.9	E	LT	1.18	107.0	F
3rd Avenue & East 43rd Street	Northbound	LT	0.95	23.7	C	LT	1.03	59.0	E
3rd Avenue & East 44th Street	Northbound	T	0.92	26.2	C	T	0.99	65.3	E
3rd Avenue & East 44th Street	Northbound	R	0.82	30.8	C	R	1.04	65.5	E
3rd Avenue & East 45th Street	Westbound	T	0.90	47.8	D	T	1.09	85.7	F
3rd Avenue & East 45th Street	Westbound	R	0.66	57.7	E	R	0.76	58.6	E
3rd Avenue & East 45th Street	Northbound	LT	1.00	47.2	D	LT	1.09	68.6	E
3rd Avenue & East 46th Street	Northbound	T	0.93	42.6	D	T	1.01	65.0	E
3rd Avenue & East 47th Street	Westbound	T	0.90	41.3	D	T	1.22	137.1	F
3rd Avenue & East 47th Street	Northbound	LT	1.04	58.8	E	LT	1.13	82.5	F
3rd Avenue & East 48th Street	Northbound	T	0.92	24.6	C	T	0.99	63.7	E
3rd Avenue & East 49th Street	Westbound	T	0.95	53.5	D	T	1.03	69.4	E
3rd Avenue & East 49th Street	Northbound	LT	0.97	64.3	E	LT	1.05	71.9	E
3rd Avenue & East 50th Street	Northbound	T	1.03	71.8	E	T	1.11	73.9	E
3rd Avenue & East 50th Street	Northbound	R	1.01	73.6	E	R	1.07	70.6	E
3rd Avenue & East 51st Street	Northbound	LT	1.05	68.6	E	LT	1.16	92.5	F
3rd Avenue & East 52nd Street	Northbound	T	1.01	51.2	D	T	1.10	68.8	E
3rd Avenue & East 52nd Street	Northbound	R	0.97	52.4	D	R	1.05	61.4	E

Table 12.20: Existing and No-Action Intersections with LOS E/F or V/C ≥ 0.90 in the AM Peak Hour (Continued)

		Existing 2016				No-Action 2036			
Signalized Intersection	Approach	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
3rd Avenue & East 53rd Street	Westbound	T	1.01	65.5	E	T	1.07	79.6	E
3rd Avenue & East 53rd Street	Westbound	R	0.95	88.3	F	R	0.97	100.2	F
3rd Avenue & East 53rd Street	Northbound	LT	0.99	50.0	D	LT	1.07	68.9	E
3rd Avenue & East 54th Street	Eastbound	L	0.67	46.8	D	L	0.87	55.8	E
3rd Avenue & East 54th Street	Northbound	T	0.96	63.4	E	T	1.04	76.9	E
3rd Avenue & East 55th Street	Westbound	T	0.92	42.6	D	T	1.03	70.2	E
3rd Avenue & East 55th Street	Westbound	R	0.87	50.9	D	R	0.95	68.1	E
3rd Avenue & East 55th Street	Northbound	LT	1.02	48.4	D	LT	1.14	84.2	F
3rd Avenue & East 56th Street	Northbound (West Side)	T	1.00	40.8	D	T	1.14	83.3	F
3rd Avenue & East 56th Street	Eastbound (East Side)	LT	0.89	29.0	C	LT	0.96	39.7	D
3rd Avenue & East 57th Street	Eastbound (West Side)	LT	0.83	63.4	E	LT	1.08	111.7	F
3rd Avenue & East 57th Street	Westbound (West Side)	TR	0.79	12.8	B	TR	0.97	27.3	C
3rd Avenue & East 57th Street	Northbound (West Side)	LT	0.90	21.2	C	LT	1.01	38.5	D
3rd Avenue & East 57th Street	Westbound (East Side)	T	0.76	17.8	B	T	0.93	64.4	E
3rd Avenue & East 59th Street	Eastbound	LT	0.94	45.8	D	LT	0.97	52.2	D
3rd Avenue & East 59th Street	Northbound	R	1.01	65.2	E	R	1.15	108.8	F
Lexington Avenue & East 36th Street	Southbound	LT	0.97	20.7	C	LT	1.10	60.8	E
Lexington Avenue & East 38th Street	Eastbound	R	0.80	81.4	F	R	0.97	111.5	F
Lexington Avenue & East 38th Street	Southbound	T	0.98	16.5	B	T	1.11	57.6	E
Lexington Avenue & East 39th Street	Westbound	L	1.03	66.4	E	L	1.14	107.1	F
Lexington Avenue & East 39th Street	Westbound	T	1.04	43.6	D	T	1.78	372.5	F
Lexington Avenue & East 39th Street	Southbound	T	0.98	39.9	D	T	1.10	66.6	E
Lexington Avenue & East 40th Street	Eastbound	T	0.72	26.7	C	T	0.96	32.7	C
Lexington Avenue & East 40th Street	Eastbound	R	1.04	100.5	F	R	1.09	87.2	F
Lexington Avenue & East 40th Street	Southbound	LT	1.04	70.0	E	LT	1.20	109.0	F
Lexington Avenue & East 42nd Street	Westbound	LT	0.75	20.3	C	LT	1.02	44.4	D
Lexington Avenue & East 42nd Street	Southbound	T	0.99	55.2	E	T	1.17	104.1	F
Lexington Avenue & East 42nd Street	Southbound	R	0.87	39.7	D	R	1.26	147.6	F
Lexington Avenue & East 44th Street	Southbound	LT	1.00	40.1	D	LT	1.16	90.4	F
Lexington Avenue & East 45th Street	Southbound	T	0.89	23.2	C	T	1.04	61.6	E
Lexington Avenue & East 46th Street	Eastbound	T	0.64	56.9	E	T	0.67	57.5	E
Lexington Avenue & East 46th Street	Eastbound	R	0.65	61.1	E	R	0.68	61.6	E
Lexington Avenue & East 46th Street	Southbound	LT	0.94	22.1	C	LT	1.09	60.0	E
Lexington Avenue & East 47th Street	Southbound	T	0.89	25.2	C	T	1.04	64.0	E
Lexington Avenue & East 47th Street	Southbound	R	0.70	24.5	C	R	1.01	47.6	D
Lexington Avenue & East 48th Street	Eastbound	R	0.92	89.8	F	R	0.98	99.7	F
Lexington Avenue & East 48th Street	Southbound	LT	0.98	40.1	D	LT	1.13	82.1	F
Lexington Avenue & East 49th Street	Southbound	T	0.86	18.8	B	T	1.02	59.1	E
Lexington Avenue & East 50th Street	Eastbound	TR	0.93	44.9	D	TR	1.01	56.8	E
Lexington Avenue & East 50th Street	Southbound	LT	1.03	52.2	D	LT	1.24	126.8	F
Lexington Avenue & East 51st Street	Southbound	T	0.87	21.8	C	T	1.04	60.7	E
Lexington Avenue & East 52nd Street	Southbound	LT	1.00	47.9	D	LT	1.17	97.7	F
Lexington Avenue & East 53rd Street	Westbound	T	1.04	69.7	E	T	1.11	77.3	E
Lexington Avenue & East 53rd Street	Southbound	T	1.02	71.7	E	T	1.23	124.7	F
Lexington Avenue & East 53rd Street	Southbound	R	0.78	96.0	F	R	0.89	96.4	F
Lexington Avenue & East 54th Street	Eastbound	T	0.80	24.7	C	T	0.95	36.7	D
Lexington Avenue & East 54th Street	Southbound	LT	0.91	28.1	C	LT	1.07	60.9	E
Lexington Avenue & East 55th Street	Southbound	T	0.96	27.1	C	T	1.15	87.7	F
Lexington Avenue & East 56th Street	Eastbound	R	0.73	52.6	D	R	0.77	55.4	E
Lexington Avenue & East 56th Street	Southbound	LT	0.99	63.6	E	LT	1.17	103.5	F
Lexington Avenue & East 57th Street	Eastbound	T	0.75	24.9	C	T	0.90	26.9	C
Lexington Avenue & East 57th Street	Eastbound	R	0.76	29.4	C	R	0.79	81.4	F
Lexington Avenue & East 57th Street	Westbound	LT	0.81	45.8	D	LT	0.96	53.7	D
Lexington Avenue & East 57th Street	Southbound	LT	0.93	55.2	E	LT	1.12	91.8	F
Park Avenue & East 38th Street	Southbound (West Side)	LT	0.86	16.9	B	LT	0.93	23.7	C

Table 12.20: Existing and No-Action Intersections with LOS E/F or V/C ≥ 0.90 in the AM Peak Hour (Continued)

		Existing 2016				No-Action 2036			
Signalized Intersection	Approach	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Park Avenue & East 39th Street	Westbound (East Side)	TR	1.03	73.7	E	TR	1.54	262.3	F
Park Avenue & East 39th Street	Northbound (East Side)	LT	0.57	74.7	E	LT	0.63	74.5	E
Park Avenue & East 39th Street	Westbound (West Side)	LT	0.92	83.3	F	LT	1.39	200.1	F
Park Avenue & East 39th Street	Southbound (West Side)	T	0.64	39.4	D	T	0.70	68.9	E
Park Avenue & East 39th Street	Southbound (West Side)	R	0.89	43.4	D	R	1.12	90.9	F
Park Avenue & East 40th Street	Eastbound (West Side)	TR	0.89	105.1	F	TR	1.12	115.8	F
Park Avenue & East 40th Street	Southbound (West Side)	T	1.03	79.2	E	T	1.15	102.6	F
Park Avenue & East 40th Street	Eastbound (Tunnel Exit)	LT	0.87	41.0	D	LT	1.15	100.6	F
Park Avenue & East 40th Street	Eastbound (East Side)	LT	0.93	39.1	D	LT	1.29	153.7	F
Park Avenue & East 40th Street	Northbound (East Side)	TR	0.88	34.9	C	TR	0.99	52.8	D
Park Avenue & East 42nd Street	Eastbound (West Side)	T	0.50	34.4	C	T	0.63	60.5	E
Park Avenue & East 42nd Street	Westbound (West Side)	T	0.78	29.5	C	T	1.09	69.1	E
Park Avenue & East 46th Street	Southbound (West Side)	T	0.96	30.8	C	T	1.08	69.8	E
Park Avenue & East 47th Street	Westbound (West Side)	LT	0.69	14.2	B	LT	0.97	36.4	D
Park Avenue & East 47th Street	Southbound (West Side)	TR	0.89	29.5	C	TR	0.99	60.0	E
Park Avenue & East 48th Street	Southbound (West Side)	L	0.36	101.8	F	L	0.38	101.6	F
Park Avenue & East 48th Street	Southbound (West Side)	T	1.04	59.5	E	T	1.18	96.2	F
Park Avenue & East 48th Street	Northbound (East Side)	TR	0.90	22.3	C	TR	0.95	31.9	C
Park Avenue & East 49th Street	Westbound (East Side)	T	0.90	40.3	D	T	0.98	55.9	E
Park Avenue & East 49th Street	Northbound (East Side)	T	0.94	26.2	C	T	0.98	37.1	D
Park Avenue & East 49th Street	Westbound (West Side)	LT	0.99	37.7	D	LT	1.07	58.4	E
Park Avenue & East 49th Street	Southbound (West Side)	TR	0.88	23.7	C	TR	0.98	56.9	E
Park Avenue & East 50th Street	Southbound (West Side)	L	0.16	39.2	D	L	0.17	82.3	F
Park Avenue & East 50th Street	Southbound (West Side)	T	0.85	16.0	B	T	0.96	45.0	D
Park Avenue & East 50th Street	Eastbound (East Side)	LT	0.87	28.9	C	LT	0.92	36.4	D
Park Avenue & East 50th Street	Northbound (East Side)	TR	0.94	24.2	C	TR	0.98	33.2	C
Park Avenue & East 51st Street	Northbound (East Side)	T	0.89	23.2	C	T	0.92	31.1	C
Park Avenue & East 51st Street	Southbound (West Side)	R	0.91	28.1	C	R	1.10	78.6	E
Park Avenue & East 52nd Street	Southbound (West Side)	L	0.14	41.2	D	L	0.16	89.3	F
Park Avenue & East 52nd Street	Southbound (West Side)	T	1.02	38.6	D	T	1.15	86.2	F
Park Avenue & East 52nd Street	Northbound (East Side)	TR	0.91	20.5	C	TR	0.95	24.9	C
Park Avenue & East 53rd Street	Westbound (East Side)	T	1.05	62.5	E	T	1.13	87.7	F
Park Avenue & East 53rd Street	Westbound (East Side)	R	0.93	49.7	D	R	1.02	57.0	E
Park Avenue & East 53rd Street	Northbound (East Side)	T	0.89	21.3	C	T	0.92	25.8	C
Park Avenue & East 53rd Street	Westbound (West Side)	LT	1.00	32.8	C	LT	1.07	52.5	D
Park Avenue & East 53rd Street	Southbound (West Side)	TR	0.95	26.9	C	TR	1.05	59.5	E
Park Avenue & East 54th Street	Southbound (West Side)	T	1.03	52.6	D	T	1.16	87.0	F
Park Avenue & East 54th Street	Eastbound (East Side)	T	0.79	20.9	C	T	0.94	35.1	D
Park Avenue & East 55th Street	Westbound (East Side)	TR	0.86	52.8	D	TR	0.96	72.3	E
Park Avenue & East 55th Street	Northbound (East Side)	L	0.20	19.3	B	L	0.21	550.1	F
Park Avenue & East 55th Street	Northbound (East Side)	T	1.01	57.6	E	T	1.05	69.3	E
Park Avenue & East 55th Street	Westbound (West Side)	LT	0.81	21.5	C	LT	0.91	29.5	C
Park Avenue & East 55th Street	Southbound (West Side)	T	0.89	21.4	C	T	0.98	52.6	D
Park Avenue & East 56th Street	Southbound (West Side)	L	0.14	19.7	B	L	0.14	93.3	F
Park Avenue & East 56th Street	Southbound (West Side)	T	0.94	22.2	C	T	1.03	65.6	E
Park Avenue & East 56th Street	Northbound (East Side)	TR	0.96	32.1	C	TR	1.00	43.3	D
Park Avenue & East 57th Street	Westbound (West Side)	T	0.90	20.6	C	T	1.07	60.8	E
Park Avenue & East 57th Street	Southbound (West Side)	LTR	0.81	74.2	E	LTR	0.89	77.7	E
Park Avenue & East 57th Street	Eastbound (East Side)	LT	0.98	48.4	D	LT	1.13	92.7	F
Park Avenue & East 57th Street	Northbound (East Side)	L	0.17	11.8	B	L	0.18	400.0	F
Park Avenue & East 57th Street	Northbound (East Side)	T	0.90	22.5	C	T	0.94	29.8	C
Madison Avenue & East 39th Street	Westbound	T	0.78	23.5	C	T	1.22	121.3	F
Madison Avenue & East 39th Street	Westbound	R	0.86	61.5	E	R	1.01	66.2	E
Madison Avenue & East 39th Street	Northbound	LT	0.99	86.6	F	LT	1.08	85.5	F
Madison Avenue & East 40th Street	Northbound	TR	1.02	64.9	E	TR	1.13	76.9	E

Table 12.20: Existing and No-Action Intersections with LOS E/F or V/C ≥ 0.90 in the AM Peak Hour (Continued)

Signalized Intersection	Approach	Existing 2016				No-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Madison Avenue & East 41st Street	Northbound	TR	1.05	63.5	E	TR	1.14	80.0	E
Madison Avenue & East 42nd Street	Eastbound	LT	0.94	56.9	E	LT	1.50	254.2	F
Madison Avenue & East 42nd Street	Westbound	T	1.05	60.5	E	T	1.52	257.6	F
Madison Avenue & East 42nd Street	Northbound	LT	1.05	62.3	E	LT	1.17	95.3	F
Madison Avenue & East 43rd Street	Westbound	R	0.51	29.6	C	R	0.97	120.8	F
Madison Avenue & East 43rd Street	Northbound	L	0.83	27.9	C	L	1.05	60.4	E
Madison Avenue & East 43rd Street	Northbound	T	0.96	51.3	D	T	1.02	59.1	E
Madison Avenue & East 46th Street	Eastbound	LT	0.95	75.4	E	LT	0.97	81.8	F
Madison Avenue & East 46th Street	Northbound	T	0.87	27.3	C	T	0.97	64.5	E
Madison Avenue & East 46th Street	Northbound	R	0.64	30.7	C	R	0.90	127.1	F
Madison Avenue & East 48th Street	Eastbound	L	1.02	94.7	F	L	1.09	112.9	F
Madison Avenue & East 48th Street	Northbound	T	0.99	46.8	D	T	1.09	65.2	E
Madison Avenue & East 49th Street	Northbound	T	0.97	26.1	C	T	1.06	57.7	E
Madison Avenue & East 53rd Street	Westbound	TR	1.04	60.9	E	TR	1.10	75.6	E
Madison Avenue & East 53rd Street	Northbound	T	0.91	24.1	C	T	0.99	54.6	D
Madison Avenue & East 54th Street	Northbound	T	0.97	54.6	D	T	1.03	66.9	E
5th Avenue & 38th Street	Eastbound	R	1.00	112.3	F	R	1.04	121.4	F
5th Avenue & 38th Street	Southbound	LT	0.95	12.8	B	LT	1.35	170.7	F
5th Avenue & 39th Street	Westbound	L	0.89	86.0	F	L	0.92	59.0	E
5th Avenue & 39th Street	Southbound	T	0.92	37.1	D	T	1.30	163.7	F
5th Avenue & 39th Street	Southbound	R	1.00	44.7	D	R	1.33	175.3	F
5th Avenue & 40th Street	Eastbound	TR	1.05	87.0	F	TR	1.41	226.1	F
5th Avenue & 40th Street	Southbound	LT	1.04	67.3	E	LT	1.50	250.5	F
5th Avenue & 42nd Street	Eastbound	T	0.85	38.1	D	T	1.09	89.1	F
5th Avenue & 42nd Street	Westbound	LT	1.02	34.7	C	LT	1.45	224.3	F
5th Avenue & 42nd Street	Southbound	LT	1.02	36.9	D	LT	1.47	233.7	F
5th Avenue & 43rd Street	Southbound	TR	0.88	23.1	C	T	1.25	137.7	F
5th Avenue & 43rd Street	Southbound	R	0.87	30.7	C	R	1.54	268.1	F
5th Avenue & 44th Street	Eastbound	R	0.63	35.3	D	R	0.77	61.1	E
5th Avenue & 44th Street	Southbound	LT	0.95	20.6	C	LT	1.40	200.5	F
5th Avenue & 47th Street	Westbound	L	0.83	72.3	E	L	0.97	106.0	F
5th Avenue & 47th Street	Southbound	T	0.99	44.0	D	T	1.43	213.3	F
5th Avenue & 48th Street	Eastbound	R	1.03	87.0	F	R	1.06	101.2	F
5th Avenue & 48th Street	Southbound	LT	0.96	51.6	D	LT	1.42	211.3	F
5th Avenue & 49th Street	Southbound	T	0.96	31.5	C	T	1.42	209.8	F
5th Avenue & 54th Street	Southbound	LT	0.95	24.8	C	LT	1.40	202.5	F
6th Avenue & West 48th Street	Eastbound	T	1.00	75.0	E	T	1.08	99.8	F

Table 12.20: Existing and No-Action Intersections with LOS E/F or V/C ≥ 0.90 in the AM Peak Hour (Continued)

Unsignalized Intersection	Approach	Existing 2016				No-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
1st Avenue & East 48th Street	Eastbound (West Side)	L	0.82	34.5	D	L	0.88	42.1	E

Table 12.21: Existing and No-Action Intersections with LOS E/F or V/C ≥ 0.90 in the Midday Peak Hour

		Existing 2016				No-Action 2036			
Signalized Intersection	Approach	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
1st Avenue & East 40th Street	Eastbound	L	0.6	36	D	L	0.99	71.4	E
1st Avenue & East 40th Street	Northbound	T	0.73	20.9	C	T	0.91	29.8	C
1st Avenue & East 42nd Street	Westbound (East Side)	R	0.85	66.7	E	R	1.50	286.8	F
1st Avenue & East 42nd Street	Eastbound (West Side)	L	1.05	110.6	F	L	1.06	94.5	F
1st Avenue & East 44th Street	Eastbound	L	0.95	50	D	L	1.03	72.8	E
1st Avenue & East 46th Street	Eastbound	L	1.02	70.1	E	L	1.09	94.0	F
1st Avenue & East 49th Street	Northbound (East Side)	T	0.80	25.3	C	T	0.92	65.0	E
1st Avenue & East 49th Street	Northbound (West Side)	LT	0.88	24.8	C	LT	0.92	29.1	C
1st Avenue & East 53rd Street	Northbound	LT	0.90	28.0	C	T	0.85	25.5	C
1st Avenue & East 54th Street	Eastbound	LT	1.04	79.2	E	LT	1.10	98.6	F
1st Avenue & East 54th Street	Northbound	TR	0.85	7.8	A	TR	0.94	11.9	B
1st Avenue & East 55th Street	Westbound	TR	0.99	71.0	E	TR	1.00	73.5	E
1st Avenue & East 55th Street	Northbound	L	0.92	37.9	D	L	0.95	37.4	D
1st Avenue & East 57th Street	Eastbound	LT	1.00dl	39.8	D	LT	1.06dl	39.2	D
1st Avenue & East 57th Street	Northbound	L	0.99	57.9	E	L	1.03	65.0	E
2nd Avenue & East 36th Street	Eastbound	TR	0.80	19.5	B	TR	0.95	37.1	D
2nd Avenue & East 37th Street	Southbound	TR	0.96	18.2	B	TR	1.08	56.1	E
2nd Avenue & East 38th Street	Southbound	LT	0.95	17.5	B	LT	1.09	55.5	E
2nd Avenue & East 39th Street	Southbound	TR	1.05	59.5	E	TR	1.18	100.6	F
2nd Avenue & East 40th Street	Eastbound	R	0.76	37.7	D	R	1.01	73.5	E
2nd Avenue & East 40th Street	Southbound	LT	0.96	54.4	D	LT	1.12	72.2	E
2nd Avenue & East 41st Street	Southbound	LT	1.01	41.1	D	LT	1.18	95.9	F
2nd Avenue & East 42nd Street	Eastbound	TR	0.79	45.2	D	TR	1.04	69.9	E
2nd Avenue & East 42nd Street	Westbound	LT	0.72	47.3	D	LT	1.09	99.3	F
2nd Avenue & East 42nd Street	Southbound	L	1.04	70.9	E	L	1.23	133.2	F
2nd Avenue & East 42nd Street	Southbound	T	0.98	49.8	D	T	1.11	75.4	E
2nd Avenue & East 42nd Street	Southbound	R	0.89	39.0	D	R	0.94	35.4	D
2nd Avenue & East 43rd Street	Southbound	TR	0.99	47.5	D	TR	1.44	216.7	F
2nd Avenue & East 44th Street	Southbound	LT	0.98	36.0	D	T	1.16	90.4	F
2nd Avenue & East 45th Street	Southbound	TR	1.01	39.8	D	TR	1.43	212.3	F
2nd Avenue & East 46th Street	Eastbound	R	1.05	97.7	F	R	1.18	138.5	F
2nd Avenue & East 46th Street	Southbound	LT	0.96	41.1	D	T	1.21	112.4	F
2nd Avenue & East 47th Street	Southbound	TR	1.05	42.6	D	TR	1.49	238.1	F
2nd Avenue & East 48th Street	Eastbound	TR	1.05	80.9	F	TR	1.09	92.3	F
2nd Avenue & East 48th Street	Southbound					L	1.28	149.2	F
2nd Avenue & East 48th Street	Southbound	LT	1.05	55.3	E	T	1.34	173.2	F
2nd Avenue & East 49th Street	Westbound	L	0.93	53.7	D	L	0.99	101.3	F
2nd Avenue & East 49th Street	Southbound	T	0.92	49.2	D	TR	1.17	92.5	F
2nd Avenue & East 50th Street	Southbound	LT	1.03	43.9	D	T	1.33	171.0	F
2nd Avenue & East 51st Street	Southbound	TR	0.95	39.6	D	TR	1.34	172.6	F
2nd Avenue & East 52nd Street	Southbound	LT	0.98	23.1	C	T	1.33	167.8	F
2nd Avenue & East 53rd Street	Westbound	LT	1.04dl	61.3	E	LT	1.10dl	80.6	F
2nd Avenue & East 53rd Street	Southbound	TR	0.94	24.1	C	TR	1.33	168.2	F
2nd Avenue & East 54th Street	Southbound	LT	1.01	46.3	D	T	1.42	208.7	F
2nd Avenue & East 55th Street	Westbound	T	1.05	71.8	E	T	1.06	73.3	E
2nd Avenue & East 55th Street	Southbound	T	1.02	64.8	E	TR	1.63	302.4	F
2nd Avenue & East 56th Street	Southbound	LT	1.02	64.5	E	T	1.42	210.4	F
2nd Avenue & East 57th Street	Eastbound	TR	1.03	70.8	E	TR	1.18	130.0	F
2nd Avenue & East 57th Street	Southbound	T	0.97	37.8	D	T	1.13	90.3	F
2nd Avenue & East 57th Street	Southbound	R	0.84	42.3	D	R	1.04	77.5	E
2nd Avenue & East 59th Street	Eastbound	L	0.98	45.2	D	L	1.12	84.7	F
2nd Avenue & East 59th Street	Southbound	L	0.95	49.9	D	L	1.05	62.3	E
2nd Avenue & East 59th Street	Southbound	LT	1.05	57.2	E	LT	1.17	94.9	F
2nd Avenue & East 60th Street	Southbound	LTR	1.05	80.0	F	LTR	1.10	80.0	E
2nd Avenue & East 60th Street	Westbound (Bridge Exit)	L	0.92	42.9	D	L	1.26	151.7	F

Table 12.21: Existing and No-Action Intersections with LOS E/F or V/C ≥ 0.90 in the Midday Peak Hour (Continued)

Signalized Intersection	Approach	Existing 2016				No-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Tunnel Exit Street & East 39th Street	Westbound	TR	1.05	85.0	F	TR	0.90dr	33.2	C
Tunnel Exit Street & East 39th Street	Northbound	L	0.92	74.7	E	L	1.09	113.2	F
Tunnel Exit Street & East 40th Street	Eastbound	LT	0.70	31.0	C	LT	0.93	77.1	E
3rd Avenue & East 36th Street	Northbound	TR	0.87	33.7	C	TR	0.94	48.0	D
3rd Avenue & East 36th Street	Northbound	R	0.70	55.7	E	R	0.56	45.6	D
3rd Avenue & East 37th Street	Westbound	R	0.69	54.9	D	R	0.82	68.7	E
3rd Avenue & East 37th Street	Northbound	LT	0.88	58.6	E	LT	0.96	60.7	E
3rd Avenue & East 38th Street	Northbound	T	0.89	45.2	D	T	1.00	72.4	E
3rd Avenue & East 39th Street	Westbound	T	1.05	71.8	E	T	1.45	232.5	F
3rd Avenue & East 39th Street	Northbound	LT	1.04	69.2	E	LT	1.17	100.3	F
3rd Avenue & East 40th Street	Eastbound	LT	0.79	53.6	D	LT	0.97	105.7	F
3rd Avenue & East 40th Street	Northbound	T	1.02	44.4	D	T	1.13	75.8	E
3rd Avenue & East 40th Street	Northbound	R	0.87	34.0	C	R	0.93	50.7	D
3rd Avenue & East 41st Street	Eastbound	L	0.93	87.3	F	L	1.05	125.8	F
3rd Avenue & East 41st Street	Westbound	R	1.03	99.5	F	R	1.09	123.3	F
3rd Avenue & East 41st Street	Northbound	T	0.85	26.6	C	T	0.93	63.2	E
3rd Avenue & East 42nd Street	Eastbound	L	0.83	65.7	E	L	0.98	75.8	E
3rd Avenue & East 42nd Street	Eastbound	T	0.95	62.1	E	T	1.15	111.8	F
3rd Avenue & East 42nd Street	Westbound	R	1.01	99.6	F	R	1.18	119.9	F
3rd Avenue & East 42nd Street	Northbound	LT	1.00	67.0	E	LT	1.10	79.8	E
3rd Avenue & East 43rd Street	Northbound	LT	0.95	22.4	C	LT	1.04	60.2	E
3rd Avenue & East 44th Street	Northbound	T	0.95	49.3	D	T	1.03	62.3	E
3rd Avenue & East 44th Street	Northbound	R	0.94	48.4	D	R	1.33	171.4	F
3rd Avenue & East 45th Street	Northbound	LT	1.05	73.8	E	LT	1.14	87.9	F
3rd Avenue & East 46th Street	Northbound	T	1.00	58.3	E	T	1.09	70.4	E
3rd Avenue & East 46th Street	Northbound	R	0.99	41.8	D	R	1.21	122.0	F
3rd Avenue & East 47th Street	Westbound	T	0.85	39.3	D	T	1.06	59.9	E
3rd Avenue & East 47th Street	Northbound	LT	1.03	67.8	E	LT	1.12	74.9	E
3rd Avenue & East 48th Street	Northbound	T	1.01	73.5	E	T	1.10	73.6	E
3rd Avenue & East 48th Street	Northbound	R	0.89	46.1	D	R	0.93	40.4	D
3rd Avenue & East 49th Street	Northbound	LT	1.04	74.6	E	LT	1.13	83.0	F
3rd Avenue & East 50th Street	Northbound	T	1.03	66.5	E	T	1.13	79.5	E
3rd Avenue & East 50th Street	Northbound	R	1.01	72.0	E	R	1.06	71.0	E
3rd Avenue & East 51st Street	Northbound	LT	0.98	46.5	D	LT	1.10	72.1	E
3rd Avenue & East 52nd Street	Northbound	T	0.97	37.2	D	T	1.06	65.4	E
3rd Avenue & East 52nd Street	Northbound	R	0.96	60.8	E	R	1.02	49.9	D
3rd Avenue & East 53rd Street	Northbound	LT	0.95	40.4	D	LT	1.04	73.4	E
3rd Avenue & East 54th Street	Eastbound	L	0.93	65.7	E	L	1.21	133.6	F
3rd Avenue & East 54th Street	Northbound	T	0.93	66.1	E	T	1.02	74.5	E
3rd Avenue & East 55th Street	Westbound	R	0.99	68.4	E	R	1.02	49.9	D
3rd Avenue & East 55th Street	Northbound	LT	1.03	52.7	D	LT	1.16	95.0	F
3rd Avenue & East 56th Street	Eastbound (West Side)	LT	0.92	95.9	F	LT	0.96	106.2	F
3rd Avenue & East 56th Street	Northbound (West Side)	T	0.92	28.7	C	T	1.07	67.8	E
3rd Avenue & East 56th Street	Eastbound (East Side)	LT	0.86	20.6	C	LT	0.90	23.2	C
3rd Avenue & East 56th Street	Northbound (East Side)	TR	1.02	78.9	E	TR	1.05	72.9	E
3rd Avenue & East 57th Street	Eastbound (West Side)	LT	0.92	115.9	F	LT	1.08	109.6	F
3rd Avenue & East 57th Street	Northbound (West Side)	LT	0.99	39.1	D	LT	1.14	87.1	F
3rd Avenue & East 57th Street	Eastbound (East Side)	T	1.04	54.2	D	T	1.24	129.9	F
3rd Avenue & East 57th Street	Northbound (East Side)	TR	1.05	68.1	E	TR	1.08	68.8	E
3rd Avenue & East 57th Street	Northbound (East Side)	R	1.04	81.8	F	R	1.08	79.1	E
3rd Avenue & East 59th Street	Eastbound	LT	1.02	71.1	E	LT	1.06	84.5	F
3rd Avenue & East 59th Street	Northbound	R	0.86	37.4	D	R	1.01	64.2	E
Lexington Avenue & East 36th Street	Southbound	LT	0.95	21.4	C	LT	1.05	46.3	D
Lexington Avenue & East 38th Street	Eastbound	R	0.84	86.8	F	R	1.12	147.9	F
Lexington Avenue & East 39th Street	Westbound	L	1.03	74.5	E	L	1.08	87.7	F

Table 12.21: Existing and No-Action Intersections with LOS E/F or V/C ≥ 0.90 in the Midday Peak Hour (Continued)

		Existing 2016				No-Action 2036			
Signalized Intersection	Approach	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Lexington Avenue & East 39th Street	Westbound	T	1.05	54.4	D	T	1.51	253.6	F
Lexington Avenue & East 39th Street	Southbound	T	0.99	28.3	C	T	1.05	55.3	E
Lexington Avenue & East 40th Street	Southbound	LT	1.03	65.3	E	LT	1.12	73.4	E
Lexington Avenue & East 42nd Street	Eastbound	T	0.90	42.5	D	T	1.06	65.0	E
Lexington Avenue & East 42nd Street	Eastbound	R	0.88	58.9	E	R	0.91	43.4	D
Lexington Avenue & East 42nd Street	Westbound	LT	0.82	45.3	D	LT	0.94	50.8	D
Lexington Avenue & East 42nd Street	Southbound	T	0.82	27.7	C	T	0.90	47.0	D
Lexington Avenue & East 44th Street	Southbound	LT	1.05	66.1	E	LT	1.13	77.6	E
Lexington Avenue & East 45th Street	Southbound	T	0.96	49.6	D	T	1.03	64.5	E
Lexington Avenue & East 46th Street	Eastbound	T	0.82	56.1	E	T	0.91	58.6	E
Lexington Avenue & East 46th Street	Southbound	LT	0.99	33.2	C	LT	1.05	57.7	E
Lexington Avenue & East 47th Street	Westbound	L	1.03	94.4	F	L	1.13	103.6	F
Lexington Avenue & East 47th Street	Westbound	T	0.98	51.7	D	T	1.20	116.8	F
Lexington Avenue & East 47th Street	Southbound	T	0.97	37.0	D	T	1.02	58.6	E
Lexington Avenue & East 47th Street	Southbound	R	0.74	33.3	C	R	1.27	162.9	F
Lexington Avenue & East 48th Street	Eastbound	T	1.03	84.1	F	T	1.07	94.1	F
Lexington Avenue & East 48th Street	Eastbound	R	1.05	112.7	F	R	1.11	127.0	F
Lexington Avenue & East 48th Street	Southbound	LT	0.89	24.4	C	LT	0.96	59.0	E
Lexington Avenue & East 49th Street	Southbound	T	0.97	29.9	C	T	1.06	60.8	E
Lexington Avenue & East 50th Street	Southbound	LT	0.94	26.0	C	LT	1.06	60.6	E
Lexington Avenue & East 51st Street	Westbound	L	0.93	76.7	E	L	1.05	95.6	F
Lexington Avenue & East 51st Street	Southbound	T	1.00	53.6	D	T	1.11	71.8	E
Lexington Avenue & East 51st Street	Southbound	R	1.04	98.0	F	R	1.11	113.8	F
Lexington Avenue & East 52nd Street	Eastbound	T	0.87	38.7	D	T	0.94	44.7	D
Lexington Avenue & East 52nd Street	Eastbound	R	0.91	65.6	E	R	0.96	71.6	E
Lexington Avenue & East 52nd Street	Southbound	LT	0.83	22.9	C	LT	0.91	63.5	E
Lexington Avenue & East 53rd Street	Southbound	T	0.93	19.4	B	T	1.03	42.0	D
Lexington Avenue & East 53rd Street	Southbound	R	0.62	26.1	C	R	0.78	66.4	E
Lexington Avenue & East 54th Street	Eastbound	TR	0.88	34.2	C	TR	1.02	58.4	E
Lexington Avenue & East 54th Street	Southbound	LT	0.94	22.6	C	LT	1.08	61.2	E
Lexington Avenue & East 55th Street	Westbound	L	0.97	75.2	E	L	0.99	73.0	E
Lexington Avenue & East 55th Street	Southbound	T	0.92	24.8	C	T	1.02	61.2	E
Lexington Avenue & East 56th Street	Eastbound	R	1.02	78.2	E	R	1.09	84.9	F
Lexington Avenue & East 56th Street	Southbound	LT	0.91	33.0	C	LT	1.00	78.8	E
Lexington Avenue & East 57th Street	Westbound	LT	0.84	46.1	D	LT	0.95	52.8	D
Lexington Avenue & East 57th Street	Southbound	LT	0.85	32.4	C	LT	0.95	68.2	E
Park Avenue & East 39th Street	Westbound (East Side)	TR	1.03	81.3	F	TR	1.34	180.1	F
Park Avenue & East 39th Street	Westbound (West Side)	LT	0.77	74.4	E	LT	1.06	73.0	E
Park Avenue & East 40th Street	Eastbound (West Side)	TR	1.00	116.2	F	TR	1.24	162.5	F
Park Avenue & East 40th Street	Southbound (West Side)	T	1.04	76.6	E	T	1.16	107.5	F
Park Avenue & East 40th Street	Eastbound (Tunnel Exit)	LT	1.02	46.7	D	LT	1.37	187.5	F
Park Avenue & East 40th Street	Eastbound (East Side)	LT	0.95	25.9	C	LT	1.29	153.7	F
Park Avenue & East 42nd Street	Eastbound (West Side)	T	0.76	30.9	C	T	0.90	60.5	E
Park Avenue & East 42nd Street	Westbound (West Side)	T	0.90	30.2	C	T	1.04	69.5	E
Park Avenue & East 42nd Street	Eastbound (East Side)	T	0.92	26.0	C	T	1.08	68.2	E
Park Avenue & East 42nd Street	Westbound (East Side)	T	0.76	34.3	C	T	0.87	65.4	E
Park Avenue & East 46th Street	Southbound (West Side)	T	1.03	43.6	D	T	1.10	69.1	E
Park Avenue & East 46th Street	Eastbound (East Side)	T	1.05	72.4	E	T	1.17	111.7	F
Park Avenue & East 47th Street	Westbound (East Side)	T	0.96	56.1	E	T	1.32	174.2	F
Park Avenue & East 47th Street	Northbound (East Side)	L	0.14	40.2	D	L	0.16	94.9	F
Park Avenue & East 47th Street	Northbound (East Side)	T	0.96	28.9	C	T	0.99	44.1	D
Park Avenue & East 47th Street	Westbound (West Side)	LT	1.04	66.7	E	LT	1.38	192.7	F
Park Avenue & East 47th Street	Southbound (West Side)	TR	0.88	19.6	B	TR	0.96	39.8	D
Park Avenue & East 48th Street	Southbound (West Side)	L	0.23	93.6	F	L	0.24	94.5	F
Park Avenue & East 48th Street	Southbound (West Side)	T	1.03	56.2	E	T	1.12	77.8	E

Table 12.21: Existing and No-Action Intersections with LOS E/F or V/C ≥ 0.90 in the Midday Peak Hour (Continued)

		Existing 2016				No-Action 2036			
Signalized Intersection	Approach	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Park Avenue & East 48th Street	Northbound (East Side)	TR	0.89	20.9	C	TR	0.92	28.9	C
Park Avenue & East 49th Street	Northbound (East Side)	T	0.97	30.1	C	T	1.01	42.4	D
Park Avenue & East 49th Street	Southbound (West Side)	TR	0.88	21.9	C	TR	0.96	44.2	D
Park Avenue & East 50th Street	Southbound (West Side)	T	0.97	32.1	C	T	1.06	60.5	E
Park Avenue & East 50th Street	Eastbound (East Side)	LT	0.97	47.3	D	LT	1.05	67.3	E
Park Avenue & East 51st Street	Westbound (East Side)	T	1.01	92.4	F	T	1.12	102.9	F
Park Avenue & East 51st Street	Northbound (East Side)	T	0.99	43.9	D	T	1.03	65.8	E
Park Avenue & East 51st Street	Westbound (West Side)	LT	0.99	53.1	D	LT	1.06	63.3	E
Park Avenue & East 51st Street	Southbound (West Side)	TR	0.95	25.8	C	TR	1.05	63.7	E
Park Avenue & East 52nd Street	Eastbound (West Side)	TR	0.90	38.6	D	TR	0.99	56.4	E
Park Avenue & East 52nd Street	Southbound (West Side)	L	0.19	31.3	C	L	0.21	164.4	F
Park Avenue & East 52nd Street	Southbound (West Side)	T	0.90	24.9	C	T	1.00	67.3	E
Park Avenue & East 52nd Street	Eastbound (East Side)	LT	0.87	24.6	C	LT	0.93	30.2	C
Park Avenue & East 52nd Street	Northbound (East Side)	TR	0.95	27.9	C	TR	0.99	40.3	D
Park Avenue & East 53rd Street	Northbound (East Side)	T	1.01	46.9	D	T	1.04	64.4	E
Park Avenue & East 53rd Street	Westbound (West Side)	LT	0.98	45.8	D	LT	1.08	74.3	E
Park Avenue & East 53rd Street	Southbound (West Side)	TR	0.86	18.9	B	TR	0.94	32.0	C
Park Avenue & East 54th Street	Southbound (West Side)	T	0.91	18.4	B	T	1.00	41.1	D
Park Avenue & East 54th Street	Northbound (East Side)	TR	0.92	30.2	C	TR	0.96	44.4	D
Park Avenue & East 55th Street	Westbound (East Side)	TR	1.02	105.6	F	TR	1.09	105.7	F
Park Avenue & East 55th Street	Northbound (East Side)	L	0.27	101.0	F	L	0.29	106.8	F
Park Avenue & East 55th Street	Northbound (East Side)	T	1.05	67.4	E	T	1.09	66.9	E
Park Avenue & East 55th Street	Westbound (West Side)	LT	0.92	42.2	D	LT	1.04	66.9	E
Park Avenue & East 55th Street	Southbound (West Side)	TR	0.97	26.7	C	TR	1.07	60.6	E
Park Avenue & East 56th Street	Eastbound (West Side)	TR	1.01	69.4	E	TR	1.35	188.3	F
Park Avenue & East 56th Street	Southbound (West Side)	L	0.17	36.7	D	L	0.18	143.3	F
Park Avenue & East 56th Street	Southbound (West Side)	T	0.92	27.6	C	T	1.00	65.3	E
Park Avenue & East 56th Street	Eastbound (East Side)	LT	1.03	54.8	D	LT	1.16	89.7	F
Park Avenue & East 56th Street	Northbound (East Side)	TR	0.89	34.4	C	TR	0.91	46.1	D
Park Avenue & East 57th Street	Eastbound (West Side)	T	1.00	92.5	F	T	1.19	124.2	F
Park Avenue & East 57th Street	Eastbound (West Side)	R	1.03	97.3	F	R	1.06	93.7	F
Park Avenue & East 57th Street	Westbound (West Side)	T	1.03	50.1	D	T	1.18	101.9	F
Park Avenue & East 57th Street	Southbound (West Side)	LTR	0.88	81.8	F	LTR	0.95	87.0	F
Park Avenue & East 57th Street	Eastbound (East Side)	LT	1.03	42.4	D	LT	1.21	112.6	F
Park Avenue & East 57th Street	Westbound (East Side)	T	1.02	84.5	F	T	1.17	126.7	F
Park Avenue & East 57th Street	Westbound (East Side)	R	0.99	93.7	F	R	1.03	97.9	F
Park Avenue & East 57th Street	Northbound (East Side)	L	0.26	685.7	F	L	0.29	686.2	F
Park Avenue & East 57th Street	Northbound (East Side)	T	0.95	25.5	C	T	1.01	35.8	D
Madison Avenue & East 39th Street	Westbound	T	1.00	66.5	E	T	1.35	187.4	F
Madison Avenue & East 39th Street	Westbound	R	1.04	114.3	F	R	1.29	179.6	F
Madison Avenue & East 39th Street	Northbound	LT	0.92	39.9	D	LT	0.98	85.8	F
Madison Avenue & East 40th Street	Northbound	TR	0.98	53.7	D	TR	1.07	60.0	E
Madison Avenue & East 41st Street	Northbound	TR	1.02	63.1	E	TR	1.15	87.5	F
Madison Avenue & East 42nd Street	Eastbound	LT	0.94	31.9	C	LT	1.16	100.5	F
Madison Avenue & East 42nd Street	Westbound	T	0.94	47.5	D	T	1.22	135.4	F
Madison Avenue & East 42nd Street	Northbound	LT	1.04	68.0	E	LT	1.17	96.7	F
Madison Avenue & East 42nd Street	Northbound	R	0.62	20.4	C	R	0.71	91.4	F
Madison Avenue & East 43rd Street	Westbound	T	0.95	70.3	E	T	1.22	154.6	F
Madison Avenue & East 43rd Street	Westbound	R	0.81	58.4	E	R	1.47	265.4	F
Madison Avenue & East 43rd Street	Northbound	T	0.98	32.1	C	T	1.10	66.2	E
Madison Avenue & East 46th Street	Eastbound	LT	0.83	101.8	F	LT	0.88	48.2	D
Madison Avenue & East 46th Street	Northbound	T	1.02	46.9	D	T	1.14	85.5	F
Madison Avenue & East 46th Street	Northbound	R	0.32	78.8	E	R	0.66	14.3	B
Madison Avenue & East 48th Street	Eastbound	L	0.84	60.5	E	L	0.94	76.7	E
Madison Avenue & East 48th Street	Northbound	T	0.87	21.1	C	T	0.98	62.8	E

Table 12.21: Existing and No-Action Intersections with LOS E/F or V/C ≥ 0.90 in the Midday Peak Hour (Continued)

		Existing 2016				No-Action 2036			
Signalized Intersection	Approach	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Madison Avenue & East 49th Street	Westbound	TR	0.99	48.0	D	TR	1.03	56.1	E
Madison Avenue & East 49th Street	Northbound	T	0.91	21.6	C	T	1.02	64.8	E
Madison Avenue & East 53rd Street	Northbound	T	0.86	23.8	C	T	0.96	62.7	E
Madison Avenue & East 54th Street	Eastbound	LT	1.05	79.1	E	LT	1.13	99.8	F
Madison Avenue & East 54th Street	Northbound	T	1.05	72.5	E	T	1.13	81.9	F
5th Avenue & 38th Street	Eastbound	R	1.02	110.5	F	R	1.06	120.1	F
5th Avenue & 38th Street	Southbound	LT	0.97	26.2	C	LT	1.35	172.0	F
5th Avenue & 39th Street	Westbound	L	0.82	64.6	E	L	0.85	54.6	D
5th Avenue & 39th Street	Westbound	T	0.98	56.9	E	T	1.33	182.1	F
5th Avenue & 39th Street	Southbound	T	0.81	23.7	C	T	1.13	88.4	F
5th Avenue & 39th Street	Southbound	R	0.86	42.2	D	R	1.06	63.2	E
5th Avenue & 40th Street	Eastbound	TR	1.05	85.6	F	TR	1.31	186.0	F
5th Avenue & 40th Street	Southbound	LT	0.76	20.2	C	LT	1.08	67.4	E
5th Avenue & 42nd Street	Westbound	LT	1.05	54.0	D	LT	1.35	179.2	F
5th Avenue & 42nd Street	Southbound	T	1.05	48.2	D	LT	1.49	243.8	F
5th Avenue & 43rd Street	Southbound	TR	0.84	20.6	C	T	1.18	105.8	F
5th Avenue & 43rd Street	Southbound	R	0.99	57.3	E	R	1.76	365.2	F
5th Avenue & 44th Street	Eastbound	R	0.92	68.5	E	R	1.12	122.4	F
5th Avenue & 44th Street	Southbound	LT	0.96	25.4	C	LT	1.41	203.5	F
5th Avenue & 47th Street	Westbound	L	0.87	70.6	E	L	0.95	64.9	E
5th Avenue & 47th Street	Southbound	T	1.01	47.7	D	T	1.46	229.7	F
5th Avenue & 47th Street	Southbound	R	0.91	59.5	E	R	1.00	51.0	D
5th Avenue & 48th Street	Eastbound	R	0.95	72.4	E	R	0.98	90.5	F
5th Avenue & 48th Street	Southbound	LT	0.91	41.9	D	LT	1.31	162.2	F
5th Avenue & 49th Street	Southbound	T	1.01	40.7	D	T	1.47	235.1	F
5th Avenue & 54th Street	Eastbound	TR	0.97	67.5	E	TR	1.05	88.7	F
5th Avenue & 54th Street	Southbound	LT	0.97	27.3	C	LT	1.39	197.6	F
6th Avenue & West 48th Street	Eastbound	T	0.92	55.6	E	T	1.00	72.9	E
6th Avenue & West 49th Street	Northbound	LT	0.97	25.6	C	LT	1.06	49.2	D

Table 12.22: Existing and No-Action Intersections with LOS E/F or V/C ≥ 0.90 in the PM Peak Hour

		Existing 2016				No-Action 2036			
Signalized Intersection	Approach	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
1st Avenue & East 40th Street	Eastbound	L	0.48	29.6	C	L	1.16	119.0	F
1st Avenue & East 40th Street	Northbound	T	1.05	60.4	E	T	1.37	193.5	F
1st Avenue & East 42nd Street	Westbound (East Side)	R	1.05	105.6	F	R	1.30	196.5	F
1st Avenue & East 42nd Street	Northbound (East Side)	LT	0.87	96.1	F	LT	1.15	117.7	F
1st Avenue & East 42nd Street	Northbound (East Side)	R	0.32	28.2	C	R	1.31	183.2	F
1st Avenue & East 42nd Street	Eastbound (West Side)	L	1.05	112.2	F	L	1.05	93.3	F
1st Avenue & East 42nd Street	Northbound (West Side)	L	0.38	27.7	C	L	1.02	52.3	D
1st Avenue & East 42nd Street	Northbound (West Side)	T	0.51	59.9	E	T	0.82	89.1	F
1st Avenue & East 46th Street	Eastbound	L	1.05	71.8	E	L	1.20	123.1	F
1st Avenue & East 46th Street	Northbound	T	0.71	5.0	A	T	0.89	56.4	E
1st Avenue & East 47th Street	Northbound (East Side)	T	0.82	20.2	C	T	1.06	67.4	E
1st Avenue & East 48th Street	Northbound (East Side)	R	0.78	6.7	A	R	1.14	74.4	E
1st Avenue & East 49th Street	Northbound (East Side)	T	1.00	81.4	F	T	1.23	133.5	F
1st Avenue & East 49th Street	Northbound (West Side)	LT	1.02	51.1	D	LT	1.07	65.9	E
1st Avenue & East 53rd Street	Northbound	LT	1.05	75.2	E	T	1.09	76.1	E
1st Avenue & East 54th Street	Eastbound	LT	1.05	82.2	F	LT	1.10	97.2	F
1st Avenue & East 54th Street	Northbound	T	0.92	27.5	C	T	1.06	52.6	D
1st Avenue & East 55th Street	Northbound	L	1.04	58.0	E	L	1.09	62.1	E
1st Avenue & East 55th Street	Northbound	T	0.84	6.8	A	T	0.97	33.5	C
1st Avenue & East 57th Street	Northbound	L	0.89	33.1	C	L	1.02	62.6	E
2nd Avenue & East 36th Street	Eastbound	TR	1.00	55.1	E	TR	1.56	281.2	F
2nd Avenue & East 36th Street	Southbound	T	1.03	37.3	D	T	1.11	66.5	E
2nd Avenue & East 37th Street	Southbound	T	1.05	50.7	D	T	1.22	111.7	F
2nd Avenue & East 38th Street	Eastbound	TR	0.91	50.7	D	TR	1.04	80.0	E
2nd Avenue & East 38th Street	Southbound	LT	1.05	54.3	D	LT	1.24	122.1	F
2nd Avenue & East 39th Street	Southbound	T	1.04	57.3	E	T	1.23	117.7	F
2nd Avenue & East 40th Street	Eastbound	T	0.68	27.4	C	T	0.93	28.6	C
2nd Avenue & East 40th Street	Eastbound	R	0.69	27.0	C	R	1.26	144.3	F
2nd Avenue & East 40th Street	Southbound	LT	0.96	44.2	D	LT	1.12	65.1	E
2nd Avenue & East 41st Street	Eastbound	TR	0.79	43.7	D	TR	0.88	55.6	E
2nd Avenue & East 41st Street	Southbound	LT	1.04	59.9	E	LT	1.20	107.8	F
2nd Avenue & East 42nd Street	Eastbound	TR	0.77	22.7	C	TR	1.16	95.8	F
2nd Avenue & East 42nd Street	Westbound	LT	0.90dl	22.9	C	LT	1.81dl	168.6	F
2nd Avenue & East 42nd Street	Southbound	LT	1.01	62.2	E	LT	1.13	77.6	E
2nd Avenue & East 43rd Street	Southbound	T	1.01	53.3	D	T	1.10	58.4	E
2nd Avenue & East 43rd Street	Southbound	R	0.85	15.6	B	R	1.06	53.4	D
2nd Avenue & East 44th Street	Eastbound	TR	0.74	27.4	C	TR	0.92	27.0	C
2nd Avenue & East 44th Street	Southbound	LT	1.03	49.9	D	LT	1.12	62.7	E
2nd Avenue & East 45th Street	Westbound	LT	1.00	62.4	E	LT	1.09	86.4	F
2nd Avenue & East 45th Street	Southbound	T	1.02	49.5	D	T	1.11	61.4	E
2nd Avenue & East 45th Street	Southbound	R	0.66	14.3	B	R	0.90	22.5	C
2nd Avenue & East 46th Street	Eastbound	TR	1.05dr	46.6	D	TR	1.22dr	63.7	E
2nd Avenue & East 46th Street	Southbound	LT	1.01	48.6	D	LT	1.09	53.6	D
2nd Avenue & East 47th Street	Southbound	T	1.03	36.9	D	T	1.12	63.2	E
2nd Avenue & East 47th Street	Southbound	R	0.97	34.9	C	R	1.17	94.2	F
2nd Avenue & East 48th Street	Eastbound	TR	1.05	83.4	F	TR	1.10	99.4	F
2nd Avenue & East 48th Street	Southbound	LT	0.98	56.0	E	LT	1.07	62.2	E
2nd Avenue & East 49th Street	Westbound	L	1.04	73.4	E	L	1.11	93.2	F
2nd Avenue & East 49th Street	Southbound	T	1.04	53.0	D	T	0.91	47.7	D
2nd Avenue & East 50th Street	Southbound	LT	1.01	42.6	D	LT	1.11	60.5	E
2nd Avenue & East 51st Street	Southbound	T	0.94	25.2	C	T	1.07	54.3	D
2nd Avenue & East 51st Street	Southbound	R	0.86	24.4	C	R	0.94	21.5	C
2nd Avenue & East 52nd Street	Southbound	LT	0.95	13.4	B	T	1.29	145.4	F
2nd Avenue & East 53rd Street	Westbound	LT	0.87	48.2	D	LT	0.96	62.3	E
2nd Avenue & East 53rd Street	Southbound	T	0.97	23.2	C	T	1.38	191.5	F
2nd Avenue & East 54th Street	Southbound	LT	1.03	47.5	D	T	1.46	221.2	F

Table 12.22: Existing and No-Action Intersections with LOS E/F or V/C ≥ 0.90 in the PM Peak Hour (Continued)

		Existing 2016				No-Action 2036			
Signalized Intersection	Approach	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
2nd Avenue & East 55th Street	Westbound	T	1.05	76.6	E	T	1.09	87.1	F
2nd Avenue & East 55th Street	Southbound	T	1.02	55.5	E	T	1.45	219.1	F
2nd Avenue & East 56th Street	Southbound	LT	0.94	52.6	D	T	1.32	158.8	F
2nd Avenue & East 57th Street	Eastbound	TR	1.04	66.5	E	T	1.22	127.7	F
2nd Avenue & East 57th Street	Westbound	LT	0.46	25.6	C	LT	0.88dl	23.6	C
2nd Avenue & East 57th Street	Southbound	T	0.90	21.5	C	T	1.07	71.1	E
2nd Avenue & East 59th Street	Eastbound	L	1.05	57.6	E	L	1.35	183.5	F
2nd Avenue & East 59th Street	Eastbound	TR	0.73	27.8	C	TR	0.76	85.2	F
2nd Avenue & East 59th Street	Southbound	L	1.00	52.6	D	L	1.08	62.0	E
2nd Avenue & East 59th Street	Southbound	LT	1.05	56.6	E	LT	1.15	83.1	F
2nd Avenue & East 60th Street	Southbound	T	1.05	79.1	E	T	1.09	77.5	E
2nd Avenue & East 60th Street	Westbound (Bridge Exit)	L	0.92	41.2	D	L	1.16	111.4	F
2nd Avenue & East 60th Street	Westbound (Bridge Exit)	T	0.98	59.5	E	T	1.02	69.4	E
Tunnel Exit Street & East 39th Street	Northbound	LT	1.02dl	14.0	B	LT	1.14dl	15.9	B
Tunnel Exit Street & East 40th Street	Eastbound	LT	0.77	28.7	C	LT	1.27	140.3	F
3rd Avenue & East 36th Street	Eastbound	LT	0.73	27.3	C	LT	1.50	252.7	F
3rd Avenue & East 36th Street	Northbound	R	1.04	113.8	F	R	1.13	141.2	F
3rd Avenue & East 37th Street	Westbound	R	0.90	83.2	F	R	1.03	113.9	F
3rd Avenue & East 39th Street	Westbound	T	0.79	48.9	D	T	1.15	117.8	F
3rd Avenue & East 39th Street	Northbound	LT	0.92	38.7	D	LT	1.03	70.7	E
3rd Avenue & East 40th Street	Eastbound	LT	1.00	114.1	F	LT	1.54	285.5	F
3rd Avenue & East 40th Street	Northbound	T	1.04	66.2	E	T	1.14	87.1	F
3rd Avenue & East 40th Street	Northbound	R	0.94	64.9	E	R	1.04	77.4	E
3rd Avenue & East 41st Street	Eastbound	LT	1.01	69.6	E	LT	1.10	96.5	F
3rd Avenue & East 41st Street	Northbound	T	0.96	51.1	D	T	1.09	65.7	E
3rd Avenue & East 42nd Street	Eastbound	L	0.99	85.6	F	L	1.12	101.9	F
3rd Avenue & East 42nd Street	Eastbound	T	0.81	43.5	D	T	1.05	66.5	E
3rd Avenue & East 42nd Street	Westbound	T	0.60	35.3	D	T	0.91	34.1	C
3rd Avenue & East 42nd Street	Westbound	R	0.96	90.3	F	R	1.21	133.2	F
3rd Avenue & East 42nd Street	Northbound	LT	0.91	47.8	D	LT	1.04	72.7	E
3rd Avenue & East 42nd Street	Northbound	R	0.75	38.1	D	R	0.91	40.9	D
3rd Avenue & East 43rd Street	Northbound	LT	0.93	42.2	D	LT	1.03	61.6	E
3rd Avenue & East 44th Street	Northbound	T	1.05	58.9	E	T	1.15	78.2	E
3rd Avenue & East 44th Street	Northbound	R	0.96	46.4	D	R	1.44	219.9	F
3rd Avenue & East 45th Street	Northbound	LT	1.02	59.9	E	LT	1.11	66.0	E
3rd Avenue & East 46th Street	Northbound	T	1.04	57.5	E	T	1.14	73.8	E
3rd Avenue & East 46th Street	Northbound	R	0.79	16.5	B	R	0.93	21.3	C
3rd Avenue & East 47th Street	Westbound	T	0.82	37.0	D	T	1.00	59.9	E
3rd Avenue & East 47th Street	Northbound	LT	1.04	67.0	E	LT	1.13	81.6	F
3rd Avenue & East 48th Street	Northbound	T	1.02	71.4	E	T	1.11	75.5	E
3rd Avenue & East 48th Street	Northbound	R	0.90	45.3	D	R	0.97	45.4	D
3rd Avenue & East 49th Street	Northbound	LT	1.04	73.9	E	LT	1.13	86.3	F
3rd Avenue & East 50th Street	Northbound	T	1.00	63.4	E	T	1.10	69.5	E
3rd Avenue & East 51st Street	Westbound	T	1.04	78.3	E	T	1.11	100.0	F
3rd Avenue & East 51st Street	Northbound	LT	1.00	74.9	E	LT	1.12	82.7	F
3rd Avenue & East 52nd Street	Eastbound	LT	0.84	40.0	D	LT	0.90	45.2	D
3rd Avenue & East 52nd Street	Northbound	T	1.02	70.0	E	T	1.12	76.3	E
3rd Avenue & East 52nd Street	Northbound	R	0.82	50.3	D	R	0.93	43.1	D
3rd Avenue & East 53rd Street	Westbound	T	0.95	38.4	D	T	1.04	60.1	E
3rd Avenue & East 53rd Street	Westbound	R	0.80	52.9	D	R	0.84	69.1	E
3rd Avenue & East 53rd Street	Northbound	LT	1.04	70.6	E	LT	1.15	92.6	F
3rd Avenue & East 54th Street	Eastbound	L	0.53	56.0	E	L	1.05	100.4	F
3rd Avenue & East 54th Street	Northbound	T	0.99	73.0	E	T	1.09	77.2	E
3rd Avenue & East 55th Street	Westbound	T	1.03	62.9	E	T	1.10	84.0	F
3rd Avenue & East 55th Street	Westbound	R	0.95	66.4	E	R	1.00	92.8	F
3rd Avenue & East 55th Street	Northbound	LT	1.04	61.9	E	LT	1.23	124.3	F

Table 12.22: Existing and No-Action Intersections with LOS E/F or V/C ≥ 0.90 in the PM Peak Hour (Continued)

Signalized Intersection	Approach	Existing 2016				No-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
3rd Avenue & East 56th Street	Eastbound (West Side)	LT	1.04	69.7	E	LT	1.09	84.5	F
3rd Avenue & East 56th Street	Northbound (West Side)	T	1.05	67.0	E	T	1.27	146.1	F
3rd Avenue & East 56th Street	Northbound (East Side)	TR	1.04	41.1	D	TR	1.13	78.9	E
3rd Avenue & East 57th Street	Eastbound (West Side)	LT	0.99	99.7	F	LT	1.36	204.0	F
3rd Avenue & East 57th Street	Northbound (West Side)	LT	0.99	35.2	D	LT	1.17	98.5	F
3rd Avenue & East 57th Street	Eastbound (East Side)	T	0.84	13.3	B	T	1.16	91.0	F
3rd Avenue & East 57th Street	Westbound (East Side)	T	0.75	48.1	D	T	0.86	55.8	E
3rd Avenue & East 57th Street	Northbound (East Side)	TR	1.04	62.3	E	TR	1.09	66.0	E
3rd Avenue & East 57th Street	Northbound (East Side)	R	1.05	67.5	E	R	1.11	75.5	E
3rd Avenue & East 59th Street	Eastbound	LT	1.00	64.4	E	LT	0.76	29.1	C
3rd Avenue & East 59th Street	Northbound	R	1.04	78.7	E	R	1.47	246.7	F
Lexington Avenue & East 36th Street	Eastbound	TR	0.77	57.4	E	TR	1.20	146.7	F
Lexington Avenue & East 36th Street	Southbound	LT	0.87	12.8	B	LT	1.10	64.9	E
Lexington Avenue & East 38th Street	Eastbound	R	0.77	68.4	E	R	1.57	310.0	F
Lexington Avenue & East 39th Street	Westbound	T	1.03	84.9	F	T	1.32	168.0	F
Lexington Avenue & East 39th Street	Southbound	TR	0.94	19.4	B	TR	1.02	60.1	E
Lexington Avenue & East 40th Street	Eastbound	R	1.05	98.3	F	R	1.21	140.4	F
Lexington Avenue & East 42nd Street	Eastbound	T	0.89	42.2	D	T	1.19	117.5	F
Lexington Avenue & East 42nd Street	Westbound	LT	1.02	78.0	E	LT	1.57	289.9	F
Lexington Avenue & East 42nd Street	Southbound	L	0.87	41.7	D	L	1.02	80.5	F
Lexington Avenue & East 42nd Street	Southbound	T	0.94	51.3	D	T	1.00	69.7	E
Lexington Avenue & East 42nd Street	Southbound	R	0.77	35.3	D	R	1.21	128.1	F
Lexington Avenue & East 44th Street	Southbound	LT	1.04	68.3	E	LT	1.17	96.7	F
Lexington Avenue & East 45th Street	Westbound	LT	0.99	62.3	E	LT	1.06	80.6	F
Lexington Avenue & East 45th Street	Southbound	T	0.92	37.8	D	T	1.04	60.5	E
Lexington Avenue & East 46th Street	Eastbound	T	1.00	43.2	D	T	1.18	111.7	F
Lexington Avenue & East 46th Street	Southbound	LT	1.00	28.5	C	LT	1.11	62.3	E
Lexington Avenue & East 47th Street	Westbound	L	0.97	85.4	F	L	1.12	103.5	F
Lexington Avenue & East 47th Street	Westbound	T	1.01	65.6	E	T	1.17	108.2	F
Lexington Avenue & East 47th Street	Southbound	T	1.02	46.0	D	T	1.12	73.8	E
Lexington Avenue & East 47th Street	Southbound	R	0.76	26.1	C	R	0.93	31.8	C
Lexington Avenue & East 48th Street	Eastbound	T	0.97	66.2	E	T	1.03	77.9	E
Lexington Avenue & East 48th Street	Eastbound	R	0.99	99.2	F	R	1.11	126.1	F
Lexington Avenue & East 48th Street	Southbound	LT	0.96	52.4	D	LT	1.06	67.2	E
Lexington Avenue & East 49th Street	Southbound	T	0.89	32.4	C	T	0.99	67.1	E
Lexington Avenue & East 50th Street	Southbound	LT	1.02	52.2	D	LT	1.15	87.9	F
Lexington Avenue & East 51st Street	Westbound	L	0.90	51.2	D	L	0.99	62.4	E
Lexington Avenue & East 51st Street	Westbound	T	0.91	37.2	D	T	0.99	44.5	D
Lexington Avenue & East 51st Street	Southbound	T	0.85	19.2	B	T	0.94	60.6	E
Lexington Avenue & East 52nd Street	Eastbound	R	0.87	57.1	E	R	0.92	51.7	D
Lexington Avenue & East 52nd Street	Southbound	LT	0.96	32.3	C	LT	1.05	73.4	E
Lexington Avenue & East 53rd Street	Westbound	T	0.85	31.0	C	T	0.93	37.7	D
Lexington Avenue & East 54th Street	Southbound	LT	0.91	19.3	B	LT	1.06	54.3	D
Lexington Avenue & East 55th Street	Southbound	T	0.80	14.6	B	T	0.91	39.9	D
Lexington Avenue & East 56th Street	Eastbound	R	0.83	45.8	D	R	0.93	44.4	D
Lexington Avenue & East 56th Street	Southbound	LT	0.93	38.6	D	LT	1.03	72.5	E
Lexington Avenue & East 57th Street	Eastbound	T	1.02	57.7	E	T	1.42	217.0	F
Lexington Avenue & East 57th Street	Westbound	LT	0.80	44.2	D	LT	1.56dl	98.1	F
Lexington Avenue & East 57th Street	Southbound	LT	0.91	39.5	D	LT	1.02	87.0	F
Park Avenue & East 36th Street	Eastbound (West Side)	TR	0.78	35.2	D	TR	1.01	66.8	E
Park Avenue & East 38th Street	Eastbound (West Side)	TR	0.74	33.9	C	TR	1.00	65.6	E
Park Avenue & East 38th Street	Northbound (East Side)	TR	0.86	18.7	B	TR	0.91	51.1	D
Park Avenue & East 39th Street	Westbound (East Side)	TR	1.03	74.1	E	TR	1.26	142.7	F
Park Avenue & East 39th Street	Northbound (East Side)	LT	0.86	33.9	C	LT	0.97	78.5	E
Park Avenue & East 39th Street	Westbound (West Side)	LT	0.91	60.7	E	LT	1.09	65.6	E
Park Avenue & East 39th Street	Southbound (West Side)	T	0.70	22.7	C	T	0.82	66.8	E

Table 12.22: Existing and No-Action Intersections with LOS E/F or V/C ≥ 0.90 in the PM Peak Hour (Continued)

Signalized Intersection	Approach	Existing 2016				No-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Park Avenue & East 39th Street	Southbound (West Side)	R	0.92	28.5	C	R	1.16	103.7	F
Park Avenue & East 40th Street	Eastbound (West Side)	TR	0.95	81.3	F	TR	1.43	238.6	F
Park Avenue & East 40th Street	Southbound (West Side)	T	1.04	76.7	E	T	1.18	118.7	F
Park Avenue & East 40th Street	Eastbound (Tunnel Exit)	LT	0.98	40.7	D	LT	1.66	318.6	F
Park Avenue & East 40th Street	Eastbound (East Side)	LT	0.87	16.2	B	LT	1.55	265.9	F
Park Avenue & East 40th Street	Northbound (East Side)	TR	1.01	48.0	D	TR	1.07	71.6	E
Park Avenue & East 46th Street	Eastbound (West Side)	T	0.96	70.9	E	T	1.16	109.3	F
Park Avenue & East 46th Street	Southbound (West Side)	L	0.60	39.1	D	L	0.66	75.9	E
Park Avenue & East 46th Street	Southbound (West Side)	T	1.03	43.2	D	T	1.12	72.6	E
Park Avenue & East 46th Street	Eastbound (East Side)	T	1.04	50.9	D	T	1.20	109.2	F
Park Avenue & East 46th Street	Northbound (East Side)	T	0.83	32.9	C	T	0.90	45.2	D
Park Avenue & East 47th Street	Westbound (East Side)	T	0.80	22.2	C	T	0.99	36.6	D
Park Avenue & East 47th Street	Northbound (East Side)	L	0.18	23.4	C	L	0.27	95.7	F
Park Avenue & East 47th Street	Northbound (East Side)	T	1.01	68.5	E	T	1.05	66.3	E
Park Avenue & East 47th Street	Westbound (West Side)	LT	0.79	20.6	C	LT	1.05	63.2	E
Park Avenue & East 47th Street	Southbound (West Side)	TR	0.96	43.2	D	TR	1.04	68.8	E
Park Avenue & East 48th Street	Southbound (West Side)	T	0.91	22.3	C	T	0.99	63.0	E
Park Avenue & East 48th Street	Eastbound (East Side)	LT	0.85	29.6	C	LT	0.91	35.9	D
Park Avenue & East 48th Street	Northbound (East Side)	TR	0.96	42.4	D	TR	1.02	61.6	E
Park Avenue & East 49th Street	Northbound (East Side)	T	1.00	38.0	D	T	1.07	58.8	E
Park Avenue & East 49th Street	Westbound (West Side)	LT	0.94	32.8	C	LT	0.96	36.8	D
Park Avenue & East 49th Street	Southbound (West Side)	TR	0.86	23.6	C	TR	0.94	52.5	D
Park Avenue & East 50th Street	Southbound (West Side)	T	0.97	34.0	C	T	1.06	67.5	E
Park Avenue & East 50th Street	Eastbound (East Side)	LT	1.04	70.9	E	LT	1.15	109.0	F
Park Avenue & East 50th Street	Northbound (East Side)	TR	0.85	26.5	C	TR	0.90	42.2	D
Park Avenue & East 51st Street	Northbound (East Side)	T	1.00	66.5	E	T	1.06	65.4	E
Park Avenue & East 52nd Street	Southbound (West Side)	T	0.93	20.8	C	T	1.02	50.0	D
Park Avenue & East 52nd Street	Eastbound (East Side)	LT	1.00	52.8	D	LT	1.06	67.8	E
Park Avenue & East 52nd Street	Northbound (East Side)	TR	0.99	49.2	D	TR	1.05	64.7	E
Park Avenue & East 53rd Street	Northbound (East Side)	T	1.04	62.2	E	T	1.11	64.3	E
Park Avenue & East 53rd Street	Westbound (West Side)	LT	0.94	32.1	C	LT	1.03	52.3	D
Park Avenue & East 54th Street	Southbound (West Side)	T	0.90	22.1	C	T	1.00	55.6	E
Park Avenue & East 54th Street	Northbound (East Side)	TR	0.89	47.4	D	TR	0.95	64.0	E
Park Avenue & East 55th Street	Westbound (East Side)	TR	1.00	104.6	F	TR	1.08	112.8	F
Park Avenue & East 55th Street	Northbound (East Side)	T	1.03	66.6	E	T	1.10	64.9	E
Park Avenue & East 55th Street	Westbound (West Side)	LT	0.98	50.4	D	LT	1.08	76.7	E
Park Avenue & East 55th Street	Southbound (West Side)	TR	1.04	48.6	D	TR	1.14	81.9	F
Park Avenue & East 56th Street	Eastbound (West Side)	TR	1.02	61.3	E	TR	1.33	172.0	F
Park Avenue & East 56th Street	Southbound (West Side)	T	0.94	48.1	D	T	1.04	71.4	E
Park Avenue & East 56th Street	Eastbound (East Side)	LT	1.03	57.7	E	LT	1.14	82.6	F
Park Avenue & East 56th Street	Northbound (East Side)	TR	0.95	45.5	D	TR	1.01	58.8	E
Park Avenue & East 57th Street	Eastbound (West Side)	T	0.97	65.8	E	T	1.37	199.2	F
Park Avenue & East 57th Street	Southbound (West Side)	LTR	0.69	46.3	D	LTR	0.76	72.2	E
Park Avenue & East 57th Street	Eastbound (East Side)	LT	0.74	11.6	B	LT	1.03	31.8	C
Park Avenue & East 57th Street	Northbound (East Side)	T	1.02	34.9	C	T	1.09	58.4	E
Madison Avenue & East 39th Street	Westbound	T	1.04	56.1	E	T	1.32	164.3	F
Madison Avenue & East 39th Street	Westbound	R	0.88	55.3	E	R	1.03	61.6	E
Madison Avenue & East 39th Street	Northbound	LT	0.89	34.1	C	LT	0.99	84.8	F
Madison Avenue & East 40th Street	Eastbound	L	0.67	47.4	D	L	1.16	110.1	F
Madison Avenue & East 40th Street	Northbound	TR	0.98	46.2	D	TR	1.09	63.7	E
Madison Avenue & East 41st Street	Northbound	TR	1.01	53.8	D	TR	1.16	90.8	F
Madison Avenue & East 42nd Street	Eastbound	LT	0.84	21.4	C	LT	1.17	103.8	F
Madison Avenue & East 42nd Street	Westbound	T	0.80	41.6	D	T	1.21	133.0	F
Madison Avenue & East 42nd Street	Northbound	LT	1.02	68.4	E	LT	1.19	105.4	F
Madison Avenue & East 43rd Street	Northbound	L	0.97	50.6	D	L	1.21	121.4	F
Madison Avenue & East 43rd Street	Northbound	T	1.04	52.8	D	T	1.18	99.6	F

Table 12.22: Existing and No-Action Intersections with LOS E/F or V/C ≥ 0.90 in the PM Peak Hour (Continued)

Signalized Intersection	Approach	Existing 2016				No-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Madison Avenue & East 46th Street	Eastbound	LT	0.88	44.2	D	LT	1.04	88.5	F
Madison Avenue & East 46th Street	Northbound	T	0.94	22.4	C	T	1.10	63.2	E
Madison Avenue & East 46th Street	Northbound	R	0.45	44.9	D	R	0.71	152.9	F
Madison Avenue & East 48th Street	Northbound	T	1.00	39.1	D	T	1.17	95.4	F
Madison Avenue & East 49th Street	Westbound	TR	0.96	36.2	D	TR	1.01	77.3	E
Madison Avenue & East 49th Street	Northbound	T	0.89	20.3	C	T	1.06	59.7	E
Madison Avenue & East 53rd Street	Westbound	TR	0.85	50.5	D	TR	0.93	47.9	D
Madison Avenue & East 53rd Street	Northbound	T	0.93	23.7	C	T	1.10	62.6	E
Madison Avenue & East 54th Street	Northbound	T	0.92	35.8	D	T	1.00	58.1	E
5th Avenue & 38th Street	Eastbound	R	0.98	105.4	F	R	1.04	120.8	F
5th Avenue & 38th Street	Southbound	LT	0.88	12.1	B	LT	1.24	119.5	F
5th Avenue & 39th Street	Westbound	L	0.80	64.1	E	L	0.84	58.0	E
5th Avenue & 39th Street	Southbound	T	0.89	20.9	C	T	1.26	137.1	F
5th Avenue & 39th Street	Southbound	R	0.99	33.1	C	R	1.15	92.2	F
5th Avenue & 40th Street	Eastbound	TR	0.73	34.5	C	TR	1.27	162.7	F
5th Avenue & 40th Street	Southbound	LT	1.05	55.5	E	LT	1.49	240.5	F
5th Avenue & 42nd Street	Westbound	LT	0.66	34.7	C	LT	0.99	45.1	D
5th Avenue & 42nd Street	Southbound	LT	1.04	36.3	D	LT	1.48	231.2	F
5th Avenue & 43rd Street	Southbound	T	0.94	39.3	D	T	1.35	173.5	F
5th Avenue & 43rd Street	Southbound	R	1.04	47.1	D	R	1.61	297.5	F
5th Avenue & 44th Street	Eastbound	R	0.97	83.6	F	R	1.23	164.6	F
5th Avenue & 44th Street	Southbound	LT	1.02	42.1	D	LT	1.52	252.1	F
5th Avenue & 47th Street	Westbound	L	1.02	89.1	F	L	1.12	101.4	F
5th Avenue & 47th Street	Westbound	T	0.81	31.3	C	T	1.03	50.4	D
5th Avenue & 47th Street	Southbound	T	0.96	48.8	D	T	1.37	185.1	F
5th Avenue & 47th Street	Southbound	R	0.81	28.5	C	R	0.95	30.4	C
5th Avenue & 48th Street	Eastbound	T	0.81	37.4	D	T	1.02	52.9	D
5th Avenue & 48th Street	Eastbound	R	1.05	91.7	F	R	1.14	107.8	F
5th Avenue & 48th Street	Southbound	LT	0.92	21.1	C	LT	1.31	159.0	F
5th Avenue & 49th Street	Westbound	LT	0.88	55.9	E	LT	0.94	59.8	E
5th Avenue & 49th Street	Southbound	T	0.98	24.3	C	T	1.40	193.3	F
5th Avenue & 54th Street	Eastbound	TR	0.82	38.9	D	TR	0.91	48.9	D
5th Avenue & 54th Street	Southbound	LT	1.01	32.9	C	LT	1.45	219.1	F
5th Avenue & 57th Street	Eastbound	T	1.00	65.0	E	T	1.41	217.8	F
5th Avenue & 57th Street	Westbound	LT	0.95	57.9	E	LT	1.66dl	153.0	F
5th Avenue & 57th Street	Southbound	LT	1.01	72.0	E	LT	1.49	251.4	F
6th Avenue & West 48th Street	Eastbound	T	0.91	50.0	D	T	1.02	74.4	E
6th Avenue & West 48th Street	Northbound	R	1.02	113.2	F	R	1.12	144.8	F

Future Traffic Conditions with the Proposed Action (With-Action Condition)

Future With-Action Traffic Growth

As shown in Table 12.5, based upon the projected development associated with the Proposed Action, there would be a total of 1,450, 863, and 1,480 additional vehicular trips during the AM, Midday, and PM peak hours, respectively. Project-generated auto trips were assigned to public off-street parking facilities with available capacity in the vicinity of the Projected Development Sites. The distribution of auto trips to off-street parking facilities is summarized in Appendix F.4. Taxi trips were assigned to approach, pass by, and depart Projected Development Sites, and truck trips were assigned to approach and depart Projected Development Sites based on DOT-designated local truck routes. Additional detail

on the process used to assign vehicle trips is presented in the Transportation Planning Factors technical memorandum provided in Appendix F.1.

Figure 12-13 through Figure 12-15 show the respective incremental traffic volumes during the weekday AM, Midday, and PM peak hours which account for projected-generated trips from Projected Development Sites. Figure 12-16 through Figure 12-18 show the expected With-Action weekday AM, Midday, and PM traffic volumes, respectively, and represent the vehicle trips projected to be generated by the Proposed Action, compared to No-Action Condition traffic volumes.

Above-Grade Public Realm Improvements

As noted in Chapter 1, "Project Description," the public realm improvement fund would provide the flexibility to finance above-grade improvements as identified by DOT, taking into account the public benefit of a project, location of new development, and the amount of funding available. The fund will be managed by a governing group consisting of elected officials, community members, and mayoral appointees. DOT has prepared a suite of conceptual options for above-grade public realm improvements that could be implemented within the Greater East Midtown area as part the Concept Plan. While the exact type and locations of above-grade improvements are not finalized, for purposes of analysis in this Draft EIS, a conceptual plan of these improvements is provided and qualitatively assessed. The Concept Plan's above-grade public realm improvements fall into four general categories, including:

Plazas: Streets would be closed to vehicular traffic to create pedestrian plazas in limited portions of the Subdistrict. Pedestrian Plazas are contemplated on the east and west sides of the Park Avenue viaduct between East 40th and 41st Streets and on East 43rd Street between Lexington and Third Avenues.

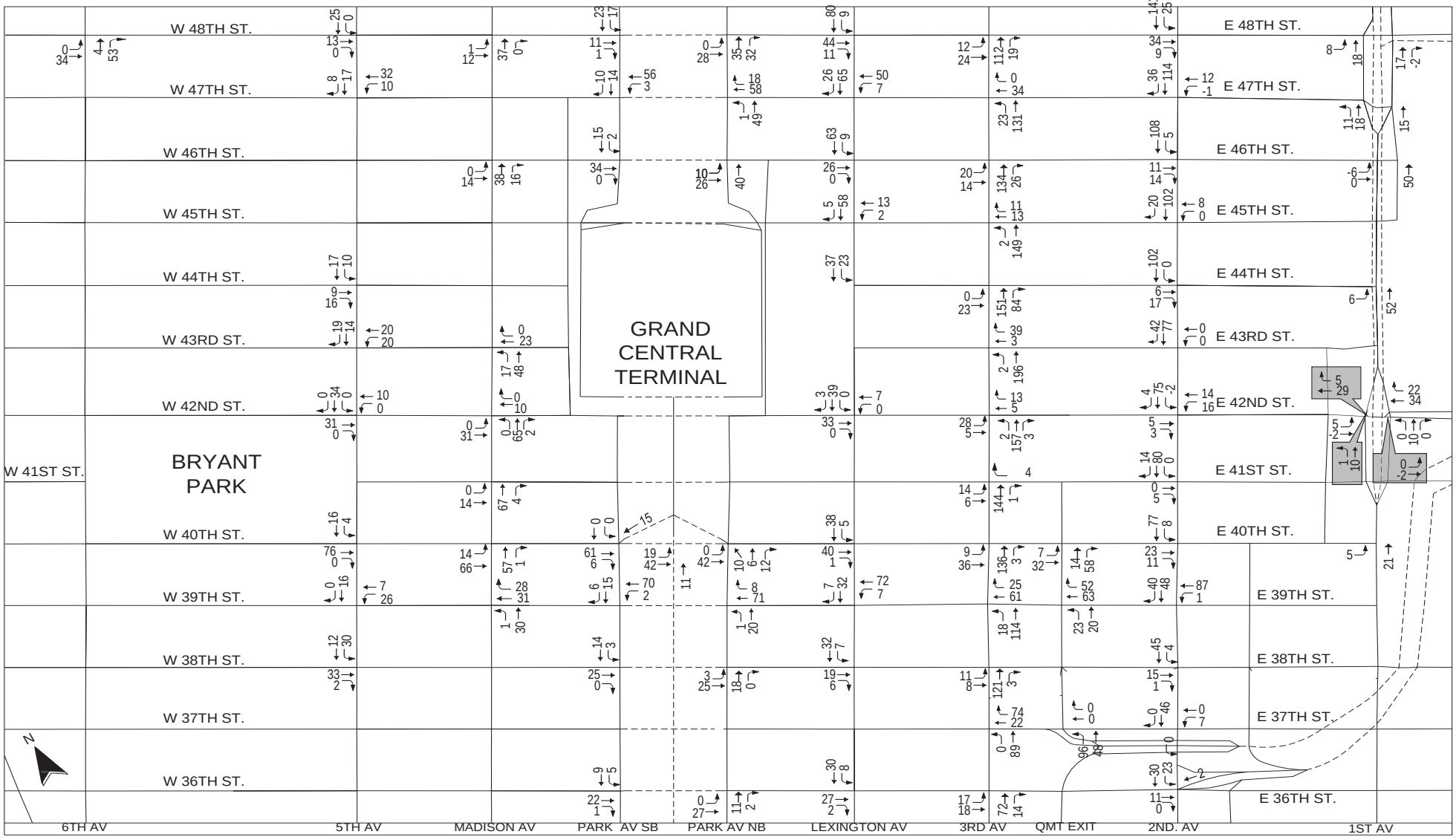
Shared Streets: Shared Streets are proposed to accommodate high pedestrian volumes and low traffic volumes and speeds and would include seating areas, distinctive paving materials, and traffic calming measures, with vehicle speeds reduced to 5 mph. Shared Street corridors are contemplated along East 41st Street between Fifth and Lexington Avenues, on Vanderbilt Avenue between East 43rd and 47th Streets, and on East 44th Street between Lexington and Third Avenues.

Median Widenings: In the Existing Condition, Park Avenue medians between East 46th and East 57th Streets include planting and decorative lighting. The Concept Plan for this portion of the study area contemplates the rededication of one moving lane of traffic on Park Avenue in the northbound and southbound directions to the purpose of widening the median to provide seating areas, expanded landscaping, opportunities for public art, and left-turn bays at intersections.

Thoroughfare Improvements: In addition to the primary concepts described above, DOT has also identified several different types of improvements that could be applied across the study area. These include bus bulbs, bus lanes, crosswalk widenings, curb extensions and sidewalk widenings, pedestrian refuge islands, and turn bays.

Intersection Capacity Analysis

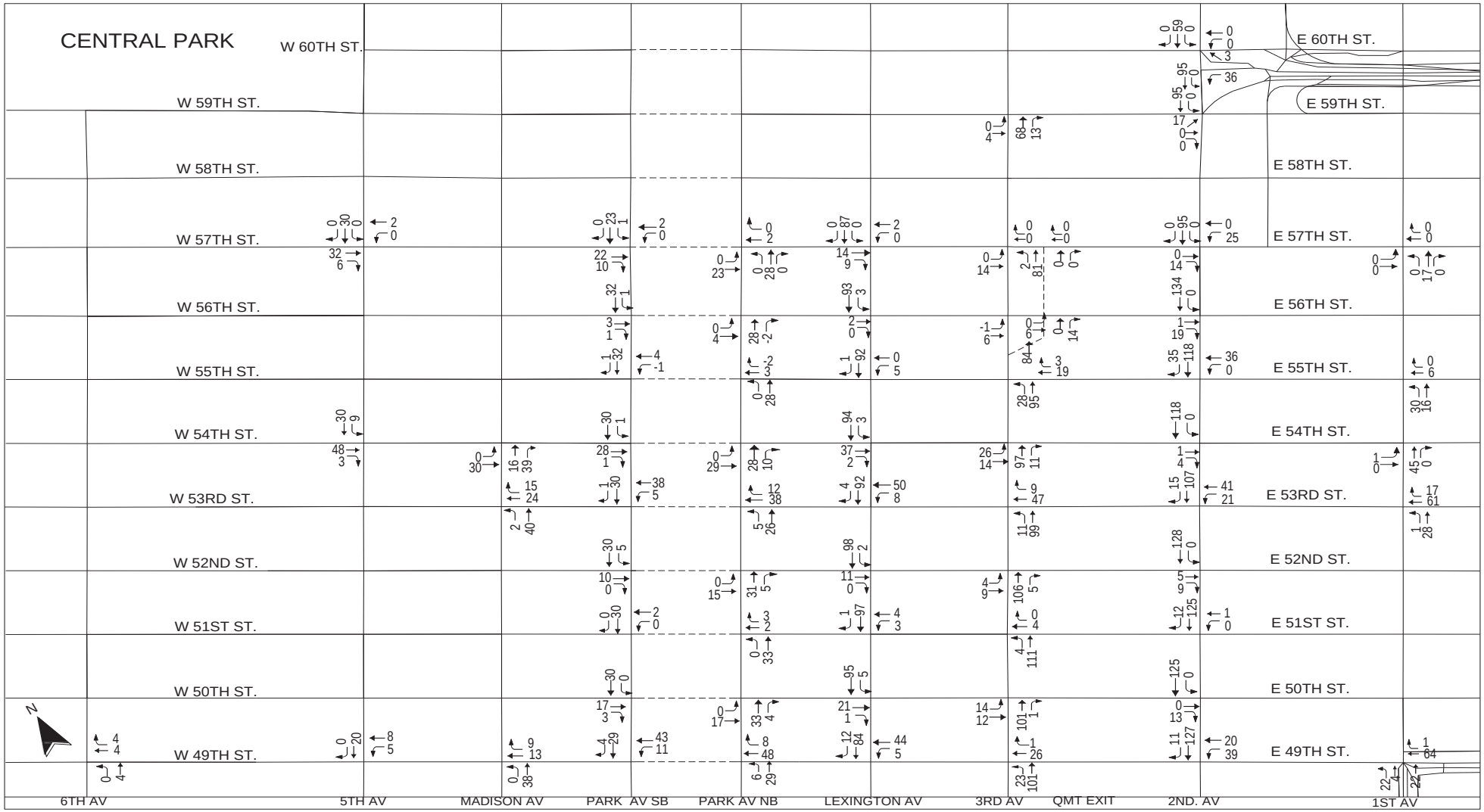
The intersection capacity analysis is presented first as the future with the Proposed Action without above-grade public realm improvements described in the Concept Plan (Action-Without-



Greater East Midtown Rezoning
Manhattan, New York

Project Generated Traffic Volumes
Weekday AM Peak Hour

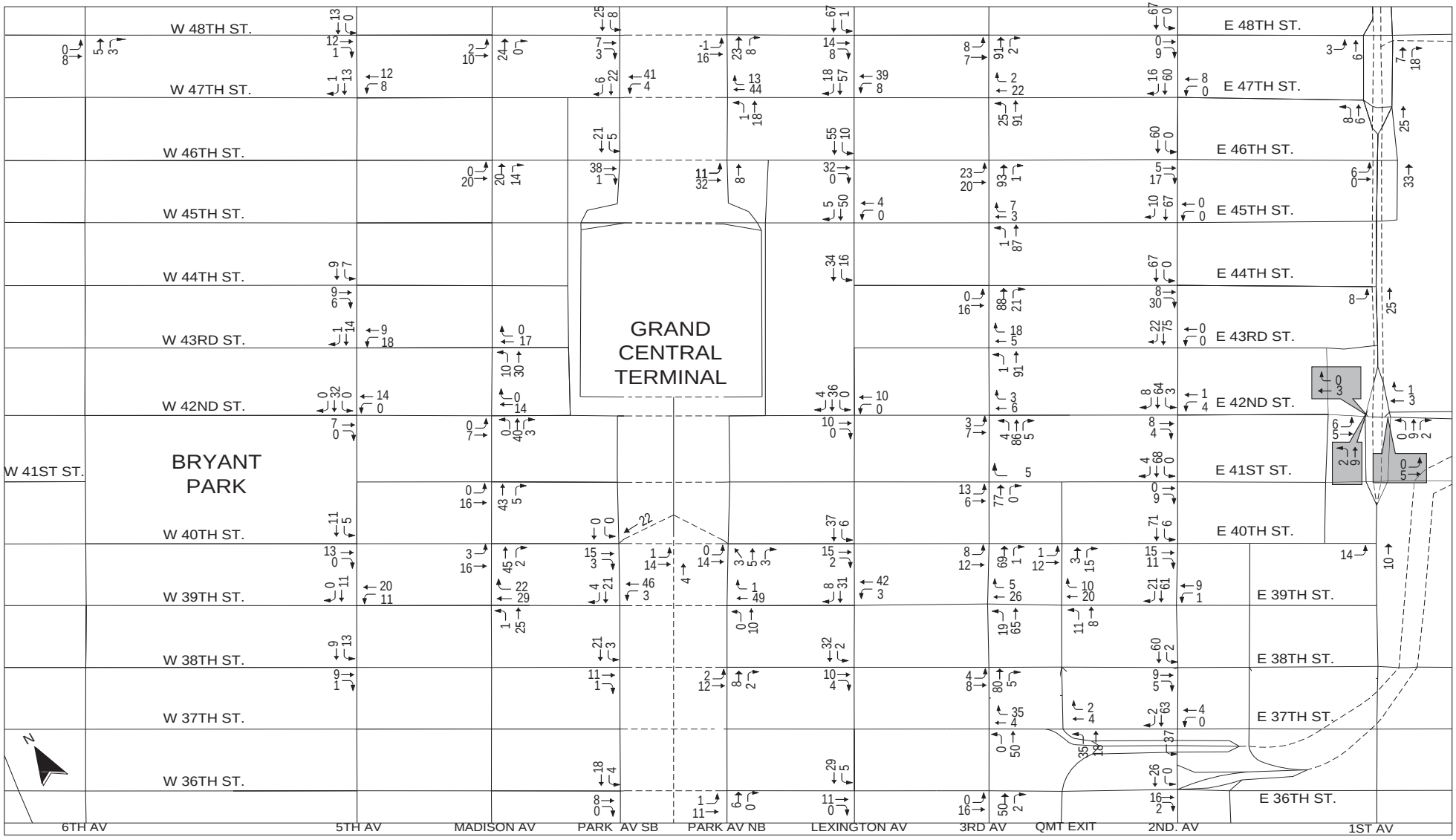
Figure 12-13a



Greater East Midtown Rezoning
Manhattan, New York

Project Generated Traffic Volumes
Weekday AM Peak Hour

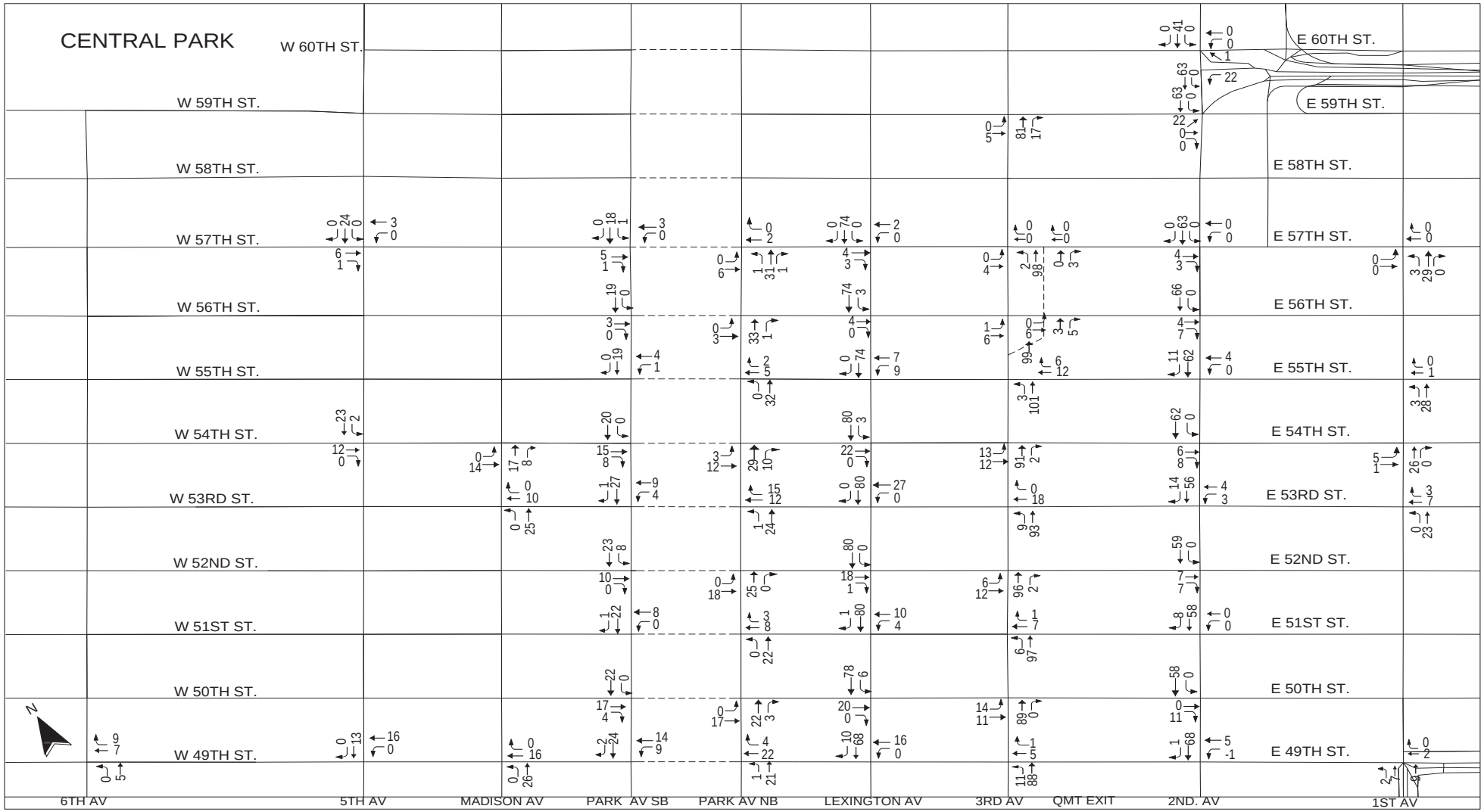
Figure 12-13b



Greater East Midtown Rezoning
Manhattan, New York

Project Generated Traffic Volumes
Weekday Midday Peak hour

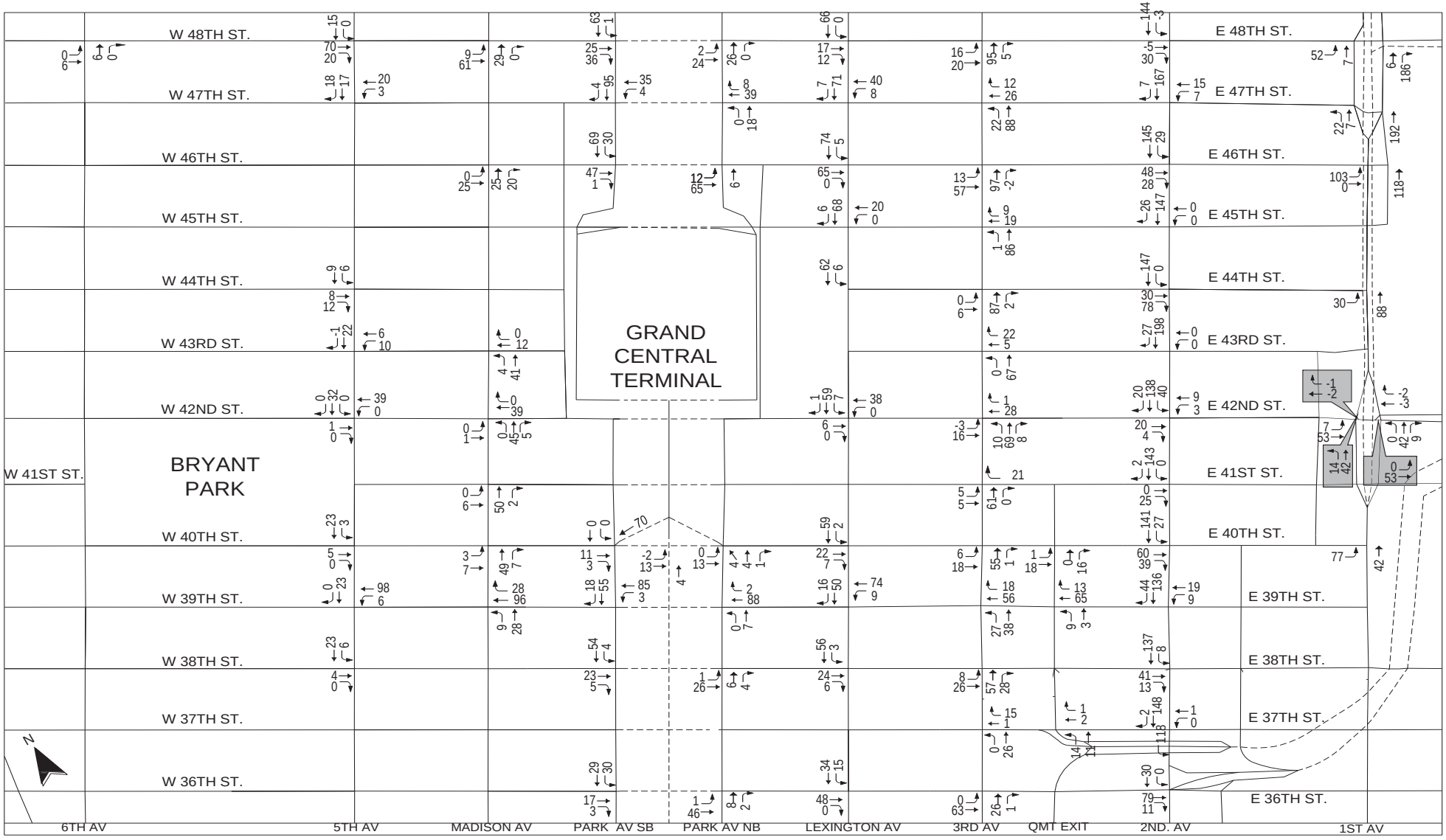
Figure 12-14a



Greater East Midtown Rezoning
Manhattan, New York

Project Generated Traffic Volumes
Weekday Midday Peak Hour

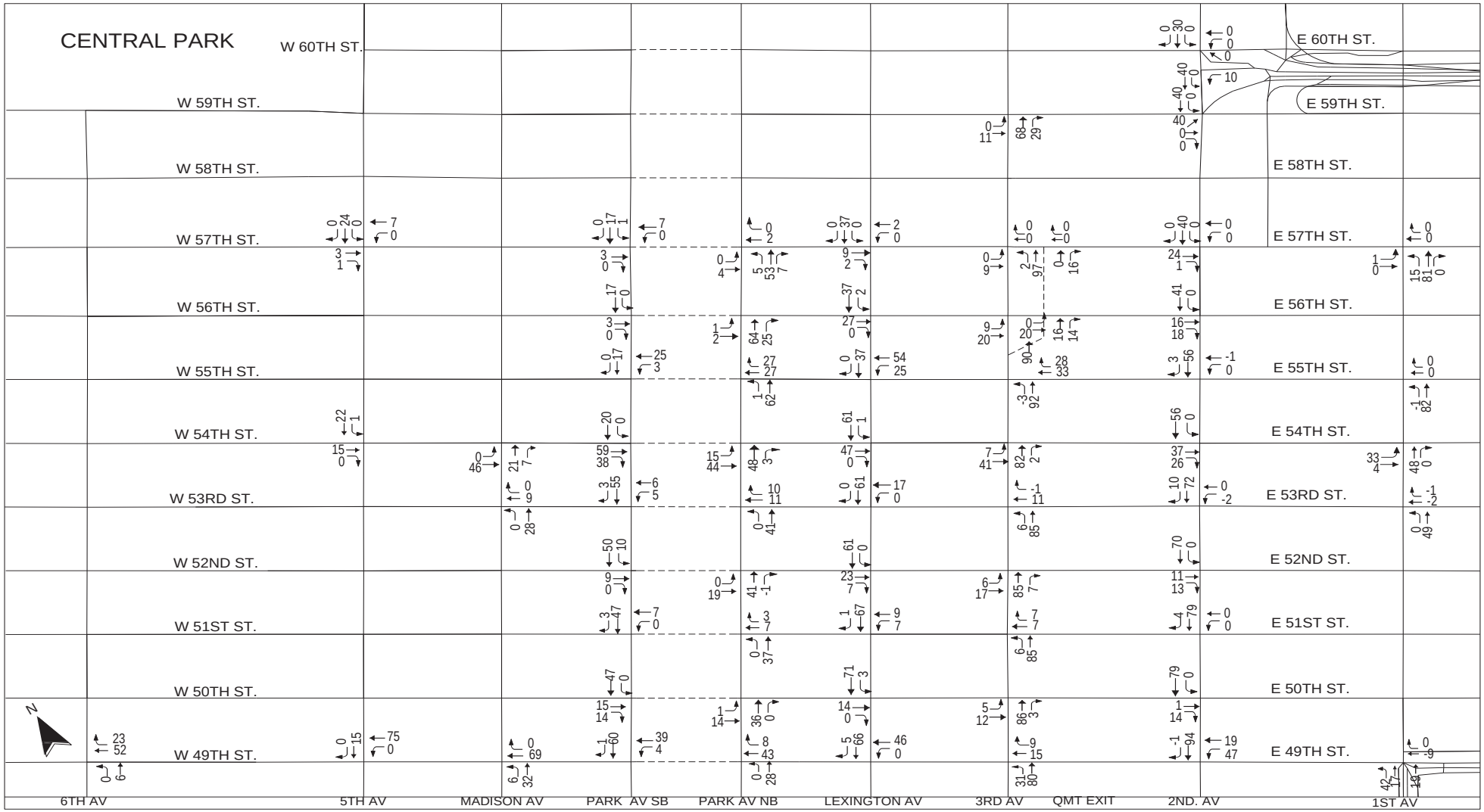
Figure 12-14b



Greater East Midtown Rezoning
Manhattan, New York

Project Generated Traffic Volumes
Weekday PM Peak Hour

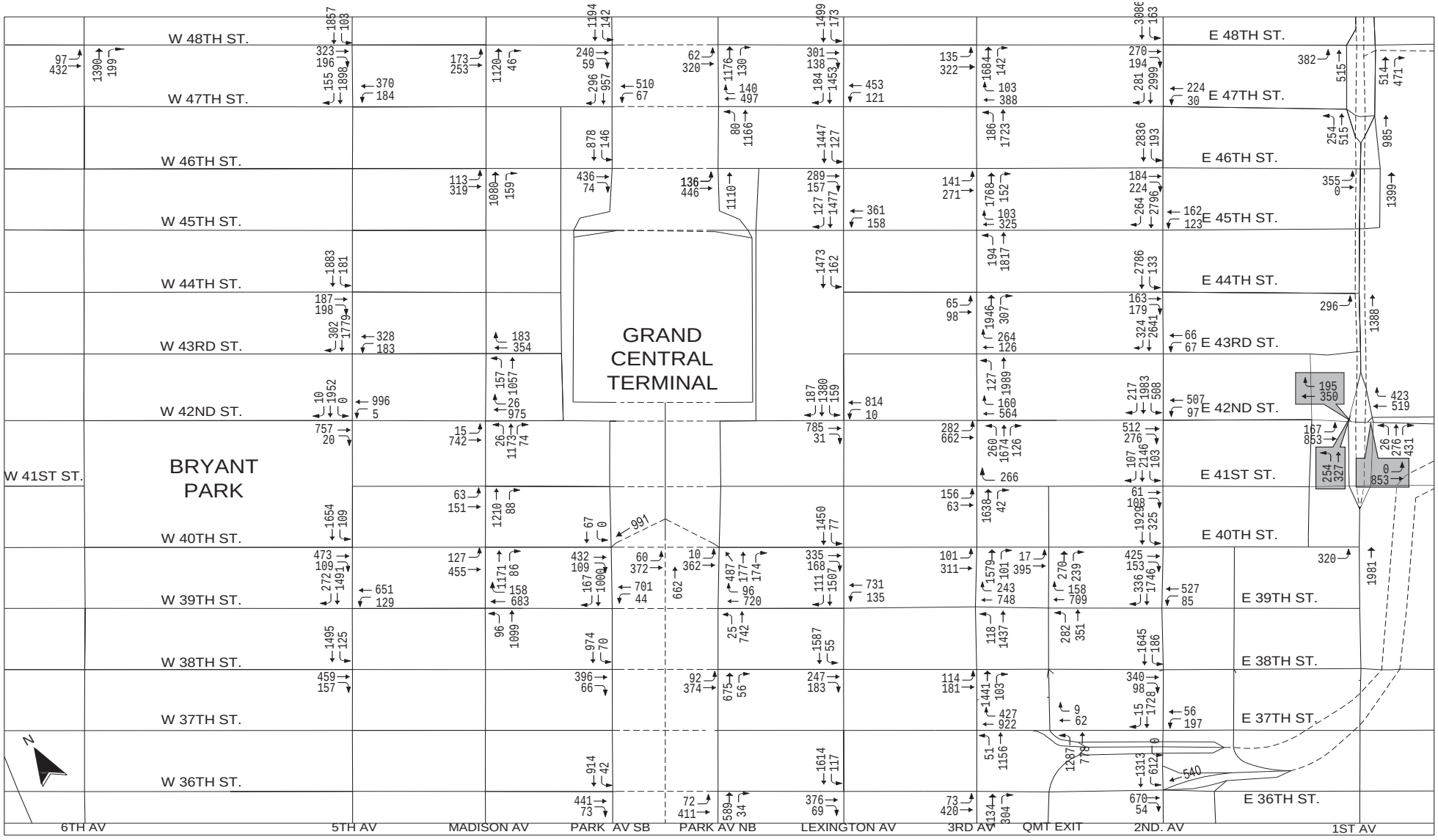
Figure 12-15a



Greater East Midtown Rezoning
Manhattan, New York

Project Generated Traffic Volumes
Weekday PM Peak Hour

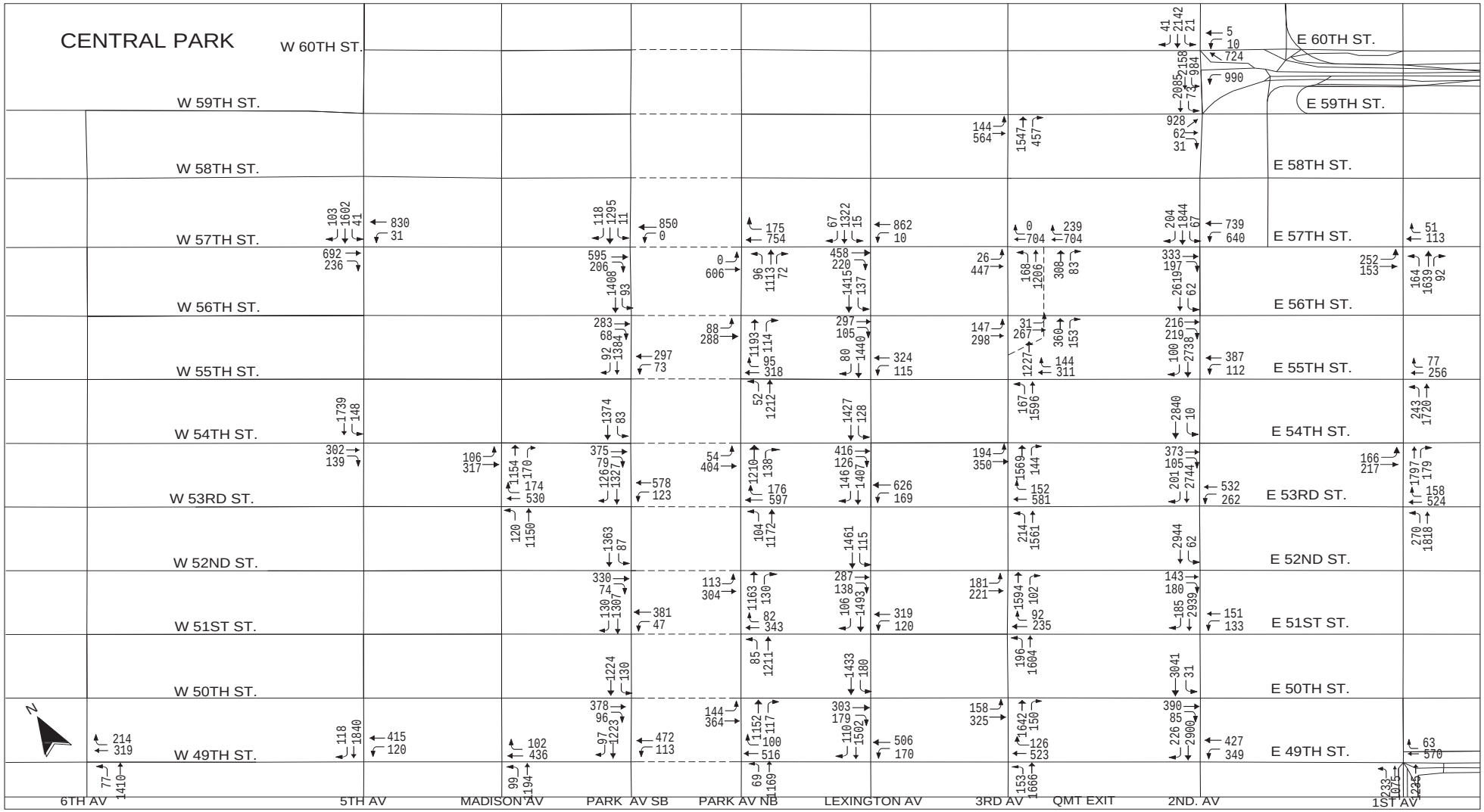
Figure 12-15b



Greater East Midtown Rezoning
Manhattan, New York

2036 With-Action Traffic Volumes
Weekday AM Peak Hour

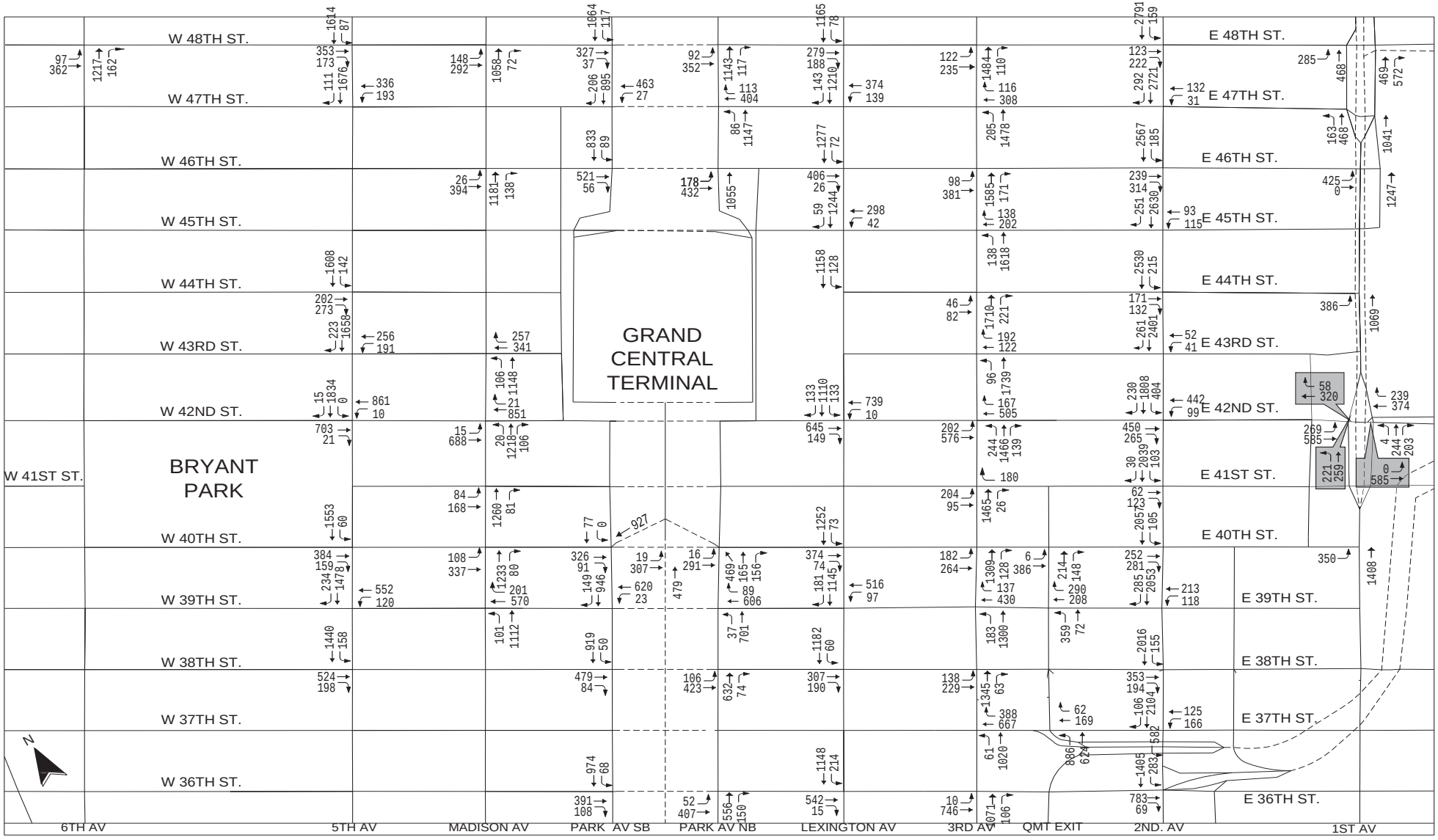
Figure 12-16a



Greater East Midtown Rezoning
Manhattan, New York

2036 With-Action Traffic Volumes
Weekday AM Peak Hour

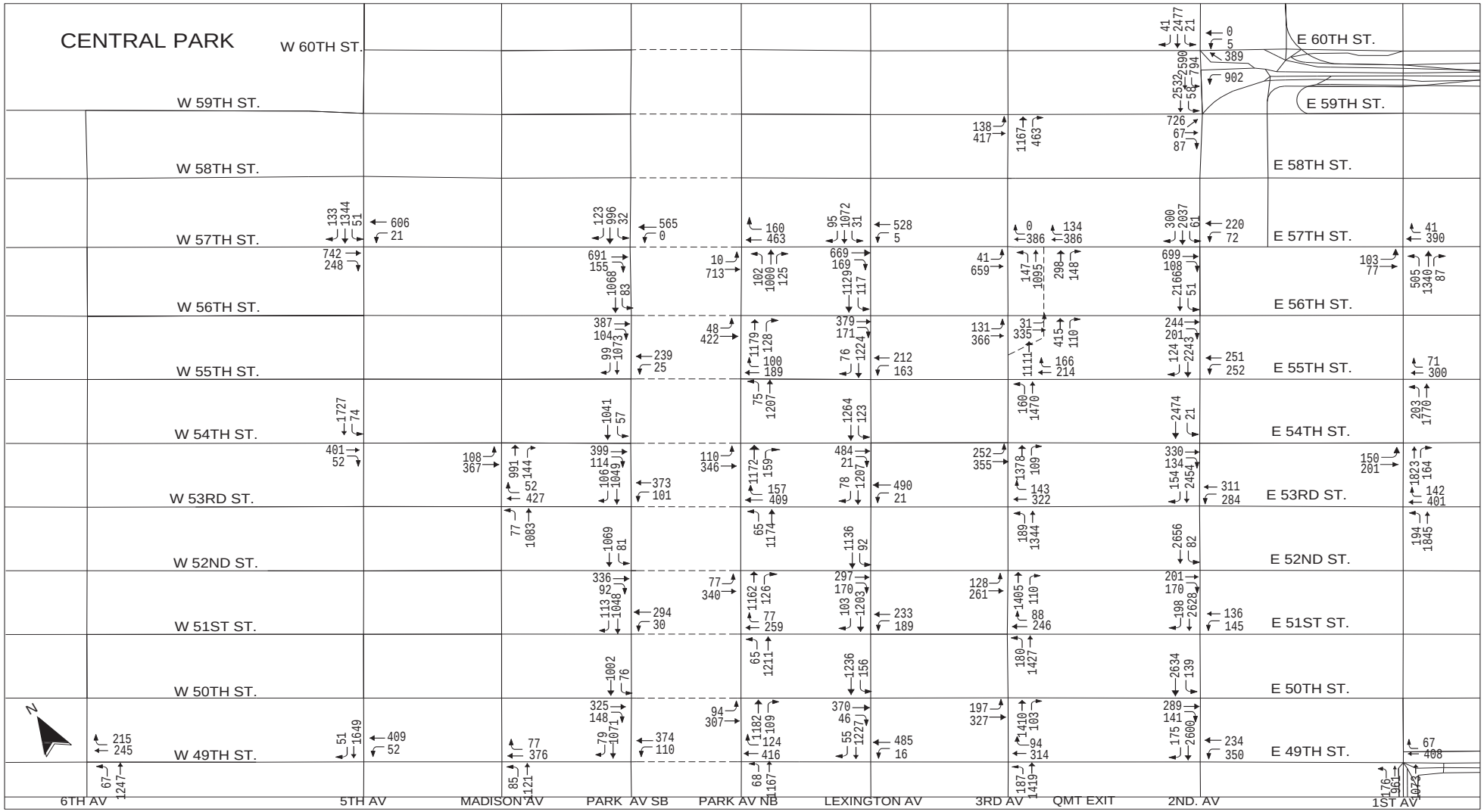
Figure 12-16b



Greater East Midtown Rezoning
Manhattan, New York

2036 With-Action Traffic Volumes
Weekday Midday Peak Hour

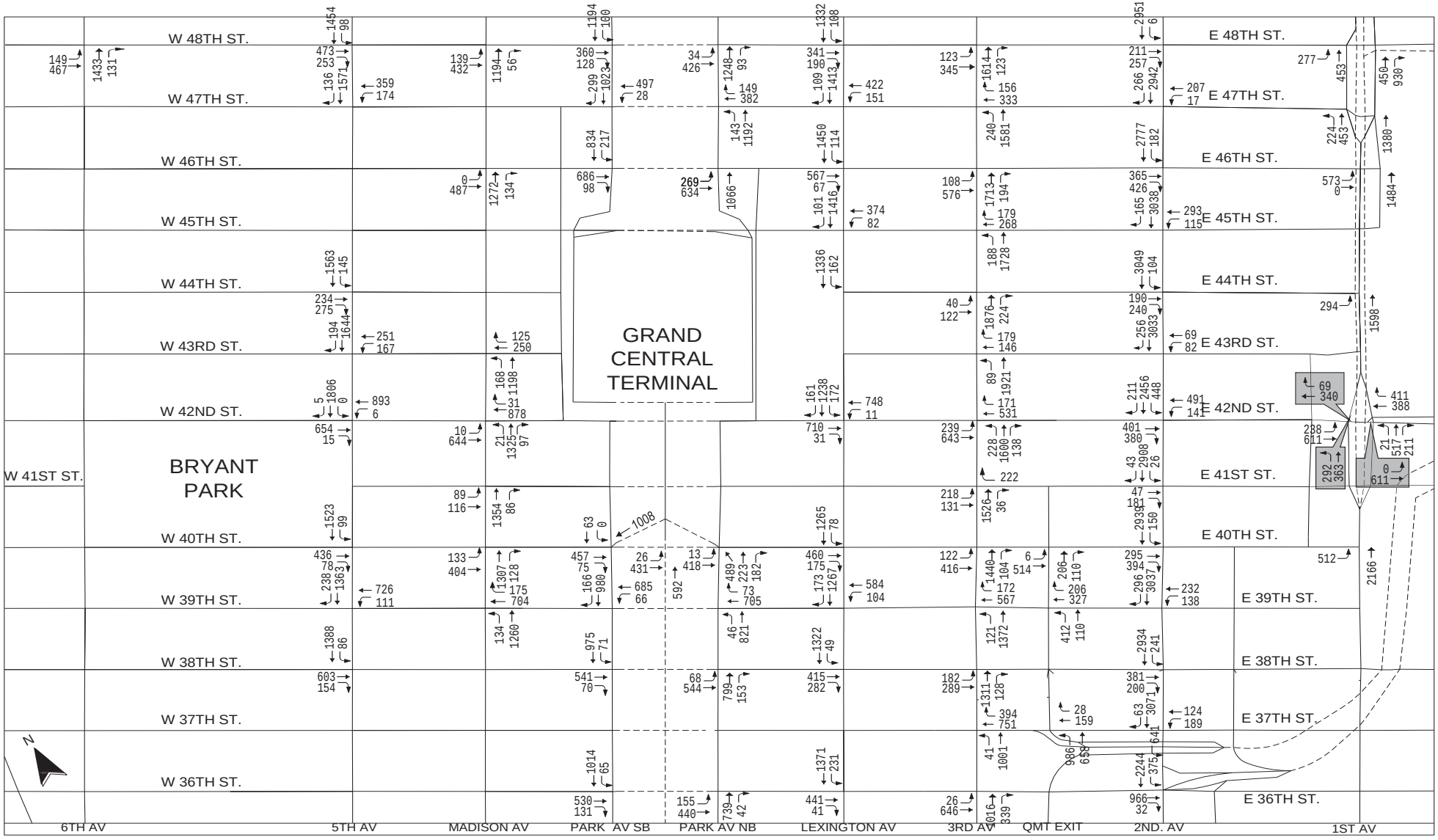
Figure 12-17a



Greater East Midtown Rezoning
Manhattan, New York

2036 With-Action Traffic Volumes
Weekday Midday Peak Hour

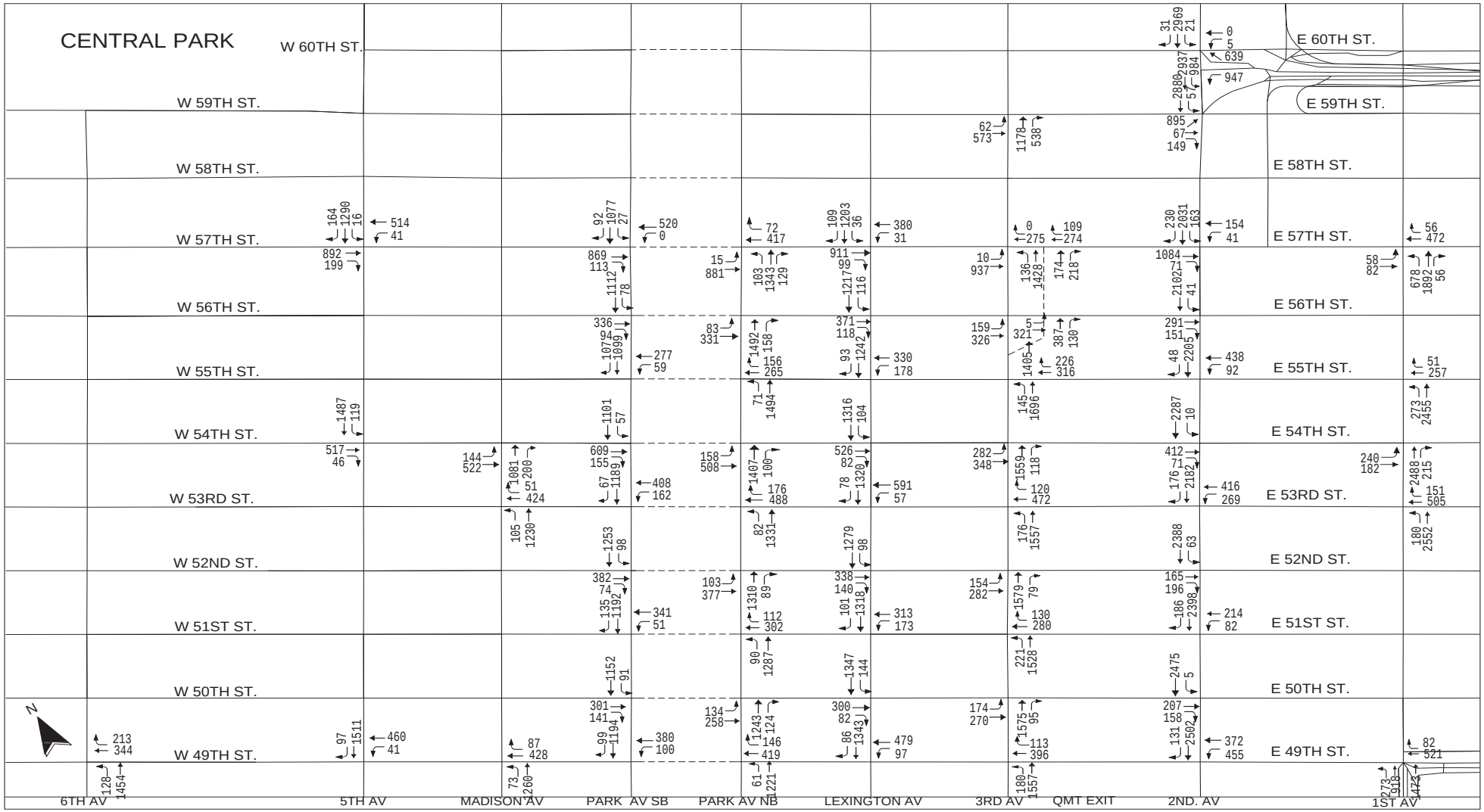
Figure 12-17b



Greater East Midtown Rezoning
Manhattan, New York

2036 With-Action Traffic Volumes
Weekday PM Peak Hour

Figure 12-18a



Greater East Midtown Rezoning
Manhattan, New York

2036 With-Action Traffic Volumes
Weekday PM Peak Hour

Figure 12-18b

Improvements) and then as the future with the Proposed Action with above-grade public realm improvements described in the Concept Plan (Action-With-Improvements).

Action-Without-Improvements

Table 12.23 summarizes LOS by approach movements at signalized and unsignalized intersections for future No-Action and With-Action Conditions. The 119 intersections analyzed have a total of 1,340 movements (1,334 at signalized intersections and 6 at unsignalized intersections). In the With-Action Condition, 722 approach movements at signalized intersections would operate at LOS E or worse, compared to 647 approach movements for the No-Action Condition, with 210 movements operating at LOS E and 512 movements operating at LOS F. There would also be 884 movements operating at a v/c ratio of 0.90 or above, compared to 832 for the No-Action Condition. At unsignalized intersections, one movement would operate at LOS E or worse, unchanged from the No-Action Condition.

Table 12.23: Summary of No-Action and With-Action Level of Service by Movement

	2016 No-Action				2036 With-Action			
	Peak Hour				Peak Hour			
Level of Service (LOS)	AM	Midday	PM	Total	AM	Midday	PM	Total
Signalized Intersections								
Movements at LOS A/B/C	182	166	161	509	162	158	149	469
Movements at LOS D	54	62	62	178	51	51	41	143
Movements at LOS E	79	89	94	262	64	72	74	210
Movements at LOS F	140	120	125	385	178	156	178	512
TOTAL	**455**	**437**	**442**	**1,334**	**455**	**437**	**442**	**1,334**
Movements at v/c ≥0.90	266	277	289	832	284	292	308	884
Unsignalized Intersections								
Movements at LOS A/B/C	1	2	2	5	1	2	2	5
Movements at LOS D	0	0	0	0	0	0	0	0
Movements at LOS E	1	0	0	1	1	0	0	1
Movements at LOS F	0	0	0	0	0	0	0	0
TOTAL	**2**	**2**	**2**	**6**	**2**	**2**	**2**	**6**
Movements at v/c ≥0.90	0	0	0	0	1	0	0	1

Tables 12.24 through 12.26 provide details of individual intersections and movements that would operate at LOS E or worse and those with a v/c ratio of 0.90 or more in the No-Action and With-Action Conditions; the tables present the v/c ratio, average delay, and LOS for each movement, as well as the movements that would be significantly impacted with the Proposed Action based on the criteria previously discussed in Section 12.2, "Transportation Analysis Methodologies."

Table 12.24: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the AM Peak Hour

Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
1st Avenue & East 40th Street	Eastbound	L	1.13	100.3	F	L	1.15	105.1	F
1st Avenue & East 40th Street	Northbound	T	1.23	134.5	F	T	1.25	140.3	F
1st Avenue & East 42nd Street	Eastbound (East Side)	T	1.32	174.0	F	T	1.32	172.3	F
1st Avenue & East 42nd Street	Westbound (East Side)	TR	1.15	116.7	F	TR	1.23	146.7	F
1st Avenue & East 42nd Street	Westbound (East Side)	R	1.12	134.7	F	R	1.19	157.3	F
1st Avenue & East 42nd Street	Northbound (East Side)	LT	0.67	92.7	F	LT	0.69	99.2	F
1st Avenue & East 42nd Street	Northbound (East Side)	R	1.66	327.1	F	R	1.66	326.8	F
1st Avenue & East 42nd Street	Eastbound (West Side)	L	0.95	113.1	F	L	0.98	113.6	F
1st Avenue & East 42nd Street	Eastbound (West Side)	T	0.80	74.6	E	T	0.80	74.6	E
1st Avenue & East 42nd Street	Westbound (West Side)	TR	0.99	21.2	C	TR	1.04	37.2	D
1st Avenue & East 42nd Street	Northbound (West Side)	T	0.73	81.9	F	T	0.76	82.0	F
1st Avenue & East 49th Street	Westbound (East Side)	T	0.94	50.0	D	T	1.06	81.3	F
1st Avenue & East 49th Street	Northbound (East Side)	T	1.00	80.4	F	T	1.02	80.4	F
1st Avenue & East 49th Street	Westbound (West Side)	T	0.94	16.5	B	T	1.06	37.9	D
1st Avenue & East 49th Street	Northbound (West Side)	LT	1.02	49.9	D	LT	1.05	58.5	E
1st Avenue & East 54th Street	Eastbound	LT	1.12	102.5	F	LT	1.12	103.3	F
1st Avenue & East 54th Street	Northbound	T	0.99	63.8	E	T	1.02	64.1	E
1st Avenue & East 55th Street	Northbound	L	1.06	69.8	E	L	1.21	123.6	F
1st Avenue & East 55th Street	Northbound	T	1.04	61.4	E	T	1.05	60.8	E
1st Avenue & East 57th Street	Eastbound	LT	1.20dl	57.9	E	LT	1.20dl	58.1	E
1st Avenue & East 57th Street	Northbound	T	1.37	190.7	F	T	1.38	197.3	F
2nd Avenue & East 36th Street	Eastbound	TR	1.31	168.3	F	TR	1.32	176.6	F
2nd Avenue & East 36th Street	Southbound	L	1.65	316.8	F	L	1.72	345.6	F
2nd Avenue & East 36th Street	Southbound	T	1.17	97.5	F	T	1.20	110.0	F
2nd Avenue & East 36th Street	Westbound (Tunnel Exit)	L	1.14	113.9	F	L	1.14	115.7	F
2nd Avenue & East 37th Street	Westbound	LT	0.97dl	44.1	D	LT	1.01dl	45.6	D
2nd Avenue & East 37th Street	Southbound	T	1.24	119.4	F	T	1.27	135.4	F
2nd Avenue & East 38th Street	Eastbound	TR	1.13	112.7	F	TR	1.18	127.4	F
2nd Avenue & East 38th Street	Southbound	LT	1.28	139.7	F	LT	1.31	156.0	F
2nd Avenue & East 39th Street	Westbound	T	0.84	42.8	D	T	1.01	94.0	F
2nd Avenue & East 39th Street	Southbound	T	1.23	122.3	F	T	1.26	138.5	F
2nd Avenue & East 39th Street	Southbound	R	1.01	37.5	D	R	1.16	94.6	F
2nd Avenue & East 40th Street	Southbound	LT	1.11	68.8	E	LT	1.15	88.8	F
2nd Avenue & East 41st Street	Southbound	LT	1.25	127.4	F	LT	1.29	148.4	F
2nd Avenue & East 42nd Street	Eastbound	TR	1.36	191.6	F	TR	1.38	199.1	F
2nd Avenue & East 42nd Street	Westbound	LT	1.63dl	112.1	F	LT	2.02dl	164.4	F
2nd Avenue & East 42nd Street	Southbound	LT	1.16	100.0	F	LT	1.20	116.5	F
2nd Avenue & East 43rd Street	Southbound	T	1.12	74.1	E	T	1.16	89.6	F
2nd Avenue & East 43rd Street	Southbound	R	1.01	39.1	D	R	1.18	104.7	F
2nd Avenue & East 44th Street	Eastbound	TR	0.95	58.1	E	TR	1.03	55.7	E
2nd Avenue & East 44th Street	Southbound	LT	1.17	93.0	F	LT	1.21	113.2	F

Table 12.24: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the AM Peak Hour (Continued)

		No-Action 2036				With-Action 2036			
Signalized Intersection	Approach	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
2nd Avenue & East 45th Street	Westbound	LT	0.98	87.5	F	LT	1.01	93.9	F
2nd Avenue & East 45th Street	Southbound	T	1.16	87.8	F	T	1.20	108.1	F
2nd Avenue & East 45th Street	Southbound	R	1.13	84.4	F	R	1.25	133.9	F
2nd Avenue & East 46th Street	Southbound	LT	1.16	86.0	F	LT	1.20	106.6	F
2nd Avenue & East 47th Street	Westbound	T	0.63	54.9	D	T	0.66	55.3	E
2nd Avenue & East 47th Street	Southbound	T	1.19	99.8	F	T	1.24	121.6	F
2nd Avenue & East 47th Street	Southbound	R	0.95	21.7	C	R	1.10	67.3	E
2nd Avenue & East 48th Street	Eastbound	TR	1.07	84.0	F	TR	1.18	121.5	F
2nd Avenue & East 48th Street	Southbound	T	1.48	234.8	F	T	1.55	266.7	F
2nd Avenue & East 49th Street	Westbound	L	0.79	48.6	D	L	0.90	92.0	F
2nd Avenue & East 49th Street	Southbound	T	1.28	145.5	F	T	1.34	172.4	F
2nd Avenue & East 49th Street	Southbound	R	0.97	31.5	C	R	1.02	44.3	D
2nd Avenue & East 50th Street	Southbound	T	1.55	269.1	F	T	1.62	299.1	F
2nd Avenue & East 51st Street	Westbound	L	0.79	60.3	E	L	0.79	61.1	E
2nd Avenue & East 51st Street	Southbound	T	1.55	266.7	F	T	1.62	297.9	F
2nd Avenue & East 51st Street	Southbound	R	0.90	22.8	C	R	0.97	32.3	C
2nd Avenue & East 52nd Street	Southbound	T	1.49	239.1	F	T	1.55	269.8	F
2nd Avenue & East 53rd Street	Westbound	LT	0.99	55.6	E	LT	1.08	80.0	F
2nd Avenue & East 53rd Street	Southbound	T	1.48	234.6	F	T	1.53	261.5	F
2nd Avenue & East 54th Street	Southbound	T	1.58	281.0	F	T	1.65	311.8	F
2nd Avenue & East 55th Street	Westbound	T	0.86	31.8	C	T	0.95	38.3	D
2nd Avenue & East 55th Street	Southbound	T	1.60	292.0	F	T	1.68	324.6	F
2nd Avenue & East 56th Street	Eastbound	R	0.82	38.0	D	R	0.90	47.3	D
2nd Avenue & East 56th Street	Southbound	T	1.49	239.1	F	T	1.57	275.8	F
2nd Avenue & East 57th Street	Eastbound	R	1.34	226.5	F	R	1.44	264.2	F
2nd Avenue & East 57th Street	Westbound	L	1.19	140.6	F	L	1.22	151.8	F
2nd Avenue & East 57th Street	Westbound	LT	1.13	103.6	F	LT	1.16	112.5	F
2nd Avenue & East 57th Street	Southbound	T	1.19	116.3	F	T	1.25	144.7	F
2nd Avenue & East 57th Street	Southbound	R	1.10	110.9	F	R	1.10	112.6	F
2nd Avenue & East 59th Street	Eastbound	L	1.12	80.4	F	L	1.14	89.6	F
2nd Avenue & East 59th Street	Southbound	L	1.08	66.3	E	L	1.08	66.4	E
2nd Avenue & East 59th Street	Southbound	LT	1.30	154.7	F	LT	1.35	179.1	F
2nd Avenue & East 60th Street	Southbound	T	1.04	83.1	F	T	1.07	81.8	F
2nd Avenue & East 60th Street	Westbound (Bridge Exit)	L	1.37	200.0	F	L	1.42	222.7	F
2nd Avenue & East 60th Street	Westbound (Bridge Exit)	T	1.26	156.7	F	T	1.27	159.1	F
Tunnel Exit Street & East 39th Street	Westbound	TR	0.78	69.6	E	TR	0.91	74.6	E
Tunnel Exit Street & East 40th Street	Eastbound	LT	0.97	100.7	F	LT	1.07	93.8	F
3rd Avenue & East 36th Street	Eastbound	LT	1.09	86.6	F	LT	1.19	124.0	F
3rd Avenue & East 36th Street	Northbound	TR	0.83	33.0	C	TR	0.88	51.8	D
3rd Avenue & East 36th Street	Northbound	R	1.06	117.6	F	R	1.12	136.7	F
3rd Avenue & East 37th Street	Westbound	R	0.90	85.6	F	R	1.10	133.1	F
3rd Avenue & East 37th Street	Northbound	LT	0.97	65.2	E	LT	1.05	65.8	E
3rd Avenue & East 38th Street	Northbound	T	0.98	65.8	E	T	1.07	64.9	E
3rd Avenue & East 39th Street	Westbound	T	1.62	306.1	F	T	1.76	368.4	F
3rd Avenue & East 39th Street	Westbound	R	1.17	132.1	F	R	1.31	182.1	F
3rd Avenue & East 39th Street	Northbound	LT	1.23	124.4	F	LT	1.35	178.7	F
3rd Avenue & East 40th Street	Eastbound	LT	0.92	89.1	F	LT	1.03	87.0	F
3rd Avenue & East 40th Street	Northbound	T	1.16	89.9	F	T	1.26	139.6	F

Table 12.24: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the AM Peak Hour (Continued)

Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
3rd Avenue & East 40th Street	Northbound	R	0.71	101.5	F	R	0.76	102.0	F
3rd Avenue & East 41st Street	Eastbound	LT	0.70	61.5	E	LT	0.77	68.8	E
3rd Avenue & East 41st Street	Westbound	R	1.05	108.7	F	R	1.07	116.7	F
3rd Avenue & East 41st Street	Northbound	T	1.10	64.6	E	T	1.20	111.9	F
3rd Avenue & East 42nd Street	Eastbound	L	1.04	76.2	E	L	1.15	112.7	F
3rd Avenue & East 42nd Street	Eastbound	T	1.11	76.5	E	T	1.12	78.6	E
3rd Avenue & East 42nd Street	Westbound	T	0.91	42.2	D	T	0.91	42.4	D
3rd Avenue & East 42nd Street	Westbound	R	1.19	131.0	F	R	1.30	174.9	F
3rd Avenue & East 42nd Street	Northbound	LT	1.18	107.0	F	LT	1.28	155.2	F
3rd Avenue & East 43rd Street	Northbound	LT	1.03	59.0	E	LT	1.14	79.0	E
3rd Avenue & East 44th Street	Northbound	T	0.99	65.3	E	T	1.07	64.5	E
3rd Avenue & East 44th Street	Northbound	R	1.04	65.5	E	R	2.88	865.5	F
3rd Avenue & East 45th Street	Westbound	T	1.09	85.7	F	T	1.13	98.3	F
3rd Avenue & East 45th Street	Westbound	R	0.76	58.6	E	R	0.85	61.4	E
3rd Avenue & East 45th Street	Northbound	LT	1.09	68.6	E	LT	1.17	97.9	F
3rd Avenue & East 46th Street	Northbound	T	1.01	65.0	E	T	1.09	68.6	E
3rd Avenue & East 47th Street	Westbound	T	1.22	137.1	F	T	1.34	183.1	F
3rd Avenue & East 47th Street	Northbound	LT	1.13	82.5	F	LT	1.24	131.8	F
3rd Avenue & East 48th Street	Northbound	T	0.99	63.7	E	T	1.06	66.7	E
3rd Avenue & East 49th Street	Westbound	T	1.03	69.4	E	T	1.08	86.1	F
3rd Avenue & East 49th Street	Northbound	LT	1.05	71.9	E	LT	1.13	83.4	F
3rd Avenue & East 50th Street	Northbound	T	1.11	73.9	E	T	1.18	106.9	F
3rd Avenue & East 50th Street	Northbound	R	1.07	70.6	E	R	1.10	81.9	F
3rd Avenue & East 51st Street	Northbound	LT	1.16	92.5	F	LT	1.23	128.1	F
3rd Avenue & East 52nd Street	Northbound	T	1.10	68.8	E	T	1.18	103.2	F
3rd Avenue & East 52nd Street	Northbound	R	1.05	61.4	E	R	1.17	105.4	F
3rd Avenue & East 53rd Street	Westbound	T	1.07	79.6	E	T	1.16	111.8	F
3rd Avenue & East 53rd Street	Westbound	R	0.97	100.2	F	R	1.03	119.6	F
3rd Avenue & East 53rd Street	Northbound	LT	1.07	68.9	E	LT	1.15	91.9	F
3rd Avenue & East 54th Street	Eastbound	L	0.87	55.8	E	L	1.00	71.2	E
3rd Avenue & East 54th Street	Northbound	T	1.04	76.9	E	T	1.11	82.8	F
3rd Avenue & East 55th Street	Westbound	T	1.03	70.2	E	T	1.10	87.2	F
3rd Avenue & East 55th Street	Westbound	R	0.95	68.1	E	R	1.01	79.3	E
3rd Avenue & East 55th Street	Northbound	LT	1.14	84.2	F	LT	1.26	141.5	F
3rd Avenue & East 56th Street	Northbound (West Side)	T	1.14	83.3	F	T	1.22	121.4	F
3rd Avenue & East 56th Street	Eastbound (East Side)	LT	0.96	39.7	D	LT	0.98	43.4	D
3rd Avenue & East 57th Street	Eastbound (West Side)	LT	1.08	111.7	F	LT	1.11	114.2	F
3rd Avenue & East 57th Street	Westbound (West Side)	TR	0.97	27.3	C	TR	0.97	27.4	C
3rd Avenue & East 57th Street	Northbound (West Side)	LT	1.01	38.5	D	LT	1.07	64.3	E
3rd Avenue & East 57th Street	Westbound (East Side)	T	0.93	64.4	E	T	0.93	64.2	E
3rd Avenue & East 59th Street	Eastbound	LT	0.97	52.2	D	LT	0.98	53.5	D
3rd Avenue & East 59th Street	Northbound	R	1.15	108.8	F	R	1.18	121.0	F
Lexington Avenue & East 36th Street	Eastbound	TR	0.64	54.8	D	TR	0.68	55.9	E
Lexington Avenue & East 36th Street	Southbound	LT	1.10	60.8	E	LT	1.12	72.7	E
Lexington Avenue & East 38th Street	Eastbound	R	0.97	111.5	F	R	1.01	120.0	F
Lexington Avenue & East 38th Street	Southbound	T	1.11	57.6	E	T	1.13	68.3	E
Lexington Avenue & East 39th Street	Westbound	L	1.14	107.1	F	L	1.20	130.8	F

Table 12.24: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the AM Peak Hour (Continued)

Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Lexington Avenue & East 39th Street	Westbound	T	1.78	372.5	F	T	1.98	458.6	F
Lexington Avenue & East 39th Street	Southbound	T	1.10	66.6	E	T	1.13	77.2	E
Lexington Avenue & East 39th Street	Southbound	R	0.88	29.7	C	R	0.97	40.9	D
Lexington Avenue & East 40th Street	Eastbound	T	0.96	32.7	C	T	1.09	72.4	E
Lexington Avenue & East 40th Street	Eastbound	R	1.09	87.2	F	R	1.10	89.5	F
Lexington Avenue & East 40th Street	Southbound	LT	1.20	109.0	F	LT	1.23	126.3	F
Lexington Avenue & East 42nd Street	Eastbound	T	0.86	16.6	B	T	0.90	20.5	C
Lexington Avenue & East 42nd Street	Westbound	LT	1.02	44.4	D	LT	1.03	42.5	D
Lexington Avenue & East 42nd Street	Southbound	T	1.17	104.1	F	T	1.21	119.1	F
Lexington Avenue & East 42nd Street	Southbound	R	1.26	147.6	F	R	1.37	193.7	F
Lexington Avenue & East 44th Street	Southbound	LT	1.16	90.4	F	LT	1.22	118.0	F
Lexington Avenue & East 45th Street	Southbound	T	1.04	61.6	E	T	1.08	63.7	E
Lexington Avenue & East 46th Street	Eastbound	T	0.67	57.5	E	T	0.73	58.7	E
Lexington Avenue & East 46th Street	Eastbound	R	0.68	61.6	E	R	0.69	60.5	E
Lexington Avenue & East 46th Street	Southbound	LT	1.09	60.0	E	LT	1.15	82.4	F
Lexington Avenue & East 47th Street	Southbound	T	1.04	64.0	E	T	1.08	66.4	E
Lexington Avenue & East 47th Street	Southbound	R	1.01	47.6	D	R	1.38	196.2	F
Lexington Avenue & East 48th Street	Eastbound	R	0.98	99.7	F	R	1.06	113.7	F
Lexington Avenue & East 48th Street	Southbound	LT	1.13	82.1	F	LT	1.21	112.3	F
Lexington Avenue & East 49th Street	Southbound	T	1.02	59.1	E	T	1.08	62.2	E
Lexington Avenue & East 50th Street	Eastbound	TR	1.01	56.8	E	TR	1.06	69.1	E
Lexington Avenue & East 50th Street	Southbound	LT	1.24	126.8	F	LT	1.33	169.6	F
Lexington Avenue & East 51st Street	Southbound	T	1.04	60.7	E	T	1.11	67.6	E
Lexington Avenue & East 52nd Street	Southbound	LT	1.17	97.7	F	LT	1.26	135.2	F
Lexington Avenue & East 53rd Street	Westbound	T	1.11	77.3	E	T	1.21	120.2	F
Lexington Avenue & East 53rd Street	Southbound	T	1.23	124.7	F	T	1.31	162.6	F
Lexington Avenue & East 53rd Street	Southbound	R	0.89	96.4	F	R	0.96	85.9	F
Lexington Avenue & East 54th Street	Eastbound	T	0.95	36.7	D	T	1.04	55.6	E
Lexington Avenue & East 54th Street	Southbound	LT	1.07	60.9	E	LT	1.13	78.0	E
Lexington Avenue & East 55th Street	Southbound	T	1.15	87.7	F	T	1.23	123.8	F
Lexington Avenue & East 56th Street	Eastbound	R	0.77	55.4	E	R	0.77	55.0	E
Lexington Avenue & East 56th Street	Southbound	LT	1.17	103.5	F	LT	1.24	137.2	F
Lexington Avenue & East 57th Street	Eastbound	T	0.90	26.9	C	T	0.93	28.7	C
Lexington Avenue & East 57th Street	Eastbound	R	0.79	81.4	F	R	0.84	90.5	F
Lexington Avenue & East 57th Street	Westbound	LT	0.96	53.7	D	LT	0.97	53.2	D
Lexington Avenue & East 57th Street	Southbound	LT	1.12	91.8	F	LT	1.20	123.8	F
Park Avenue & East 38th Street	Southbound (West Side)	LT	0.93	23.7	C	LT	0.94	26.7	C
Park Avenue & East 39th Street	Westbound (East Side)	TR	1.54	262.3	F	TR	1.70	337.7	F
Park Avenue & East 39th Street	Northbound (East Side)	LT	0.63	74.5	E	LT	0.65	74.2	E
Park Avenue & East 39th Street	Westbound (West Side)	LT	1.39	200.1	F	LT	1.53	265.5	F
Park Avenue & East 39th Street	Southbound (West Side)	T	0.70	68.9	E	T	0.71	68.9	E
Park Avenue & East 39th Street	Southbound (West Side)	R	1.12	90.9	F	R	1.17	109.2	F
Park Avenue & East 40th Street	Eastbound (West Side)	TR	1.12	115.8	F	TR	1.28	173.7	F
Park Avenue & East 40th Street	Southbound (West Side)	T	1.15	102.6	F	T	1.17	109.5	F
Park Avenue & East 40th Street	Eastbound (Tunnel Exit)	LT	1.15	100.6	F	LT	1.45	229.4	F
Park Avenue & East 40th Street	Eastbound (East Side)	LT	1.29	153.7	F	LT	1.45	226.9	F
Park Avenue & East 40th Street	Northbound (East Side)	TR	0.99	52.8	D	TR	1.08	77.0	E

Table 12.24: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the AM Peak Hour (Continued)

Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Park Avenue & East 46th Street	Southbound (West Side)	T	1.08	69.8	E	T	1.10	70.3	E
Park Avenue & East 47th Street	Westbound (East Side)	T	0.88	32.3	C	T	1.00	38.7	D
Park Avenue & East 47th Street	Northbound (East Side)	L	0.12	11.6	B	L	0.12	241.3	F
Park Avenue & East 47th Street	Northbound (East Side)	T	0.87	15.3	B	T	0.91	33.1	C
Park Avenue & East 47th Street	Westbound (West Side)	LT	0.97	36.4	D	LT	1.08	66.1	E
Park Avenue & East 47th Street	Southbound (West Side)	TR	0.99	60.0	E	TR	1.02	60.9	E
Park Avenue & East 48th Street	Southbound (West Side)	L	0.38	101.6	F	L	0.43	119.1	F
Park Avenue & East 48th Street	Southbound (West Side)	T	1.18	96.2	F	T	1.20	105.3	F
Park Avenue & East 48th Street	Northbound (East Side)	TR	0.95	31.9	C	TR	1.01	55.3	E
Park Avenue & East 49th Street	Westbound (East Side)	T	0.98	55.9	E	T	1.08	85.8	F
Park Avenue & East 49th Street	Northbound (East Side)	T	0.98	37.1	D	T	1.00	52.6	D
Park Avenue & East 49th Street	Westbound (West Side)	LT	1.07	58.4	E	LT	1.18	100.0	F
Park Avenue & East 49th Street	Southbound (West Side)	TR	0.98	56.9	E	TR	1.01	68.1	E
Park Avenue & East 50th Street	Southbound (West Side)	L	0.17	82.3	F	L	0.17	82.8	F
Park Avenue & East 50th Street	Southbound (West Side)	T	0.96	45.0	D	T	0.98	63.0	E
Park Avenue & East 50th Street	Eastbound (East Side)	LT	0.92	36.4	D	LT	0.96	41.4	D
Park Avenue & East 50th Street	Northbound (East Side)	TR	0.98	33.2	C	TR	1.01	47.9	D
Park Avenue & East 51st Street	Northbound (East Side)	T	0.92	31.1	C	T	0.95	37.1	D
Park Avenue & East 51st Street	Southbound (West Side)	R	1.10	78.6	E	R	1.32	169.3	F
Park Avenue & East 52nd Street	Southbound (West Side)	L	0.16	89.3	F	L	0.17	155.1	F
Park Avenue & East 52nd Street	Southbound (West Side)	T	1.15	86.2	F	T	1.18	98.0	F
Park Avenue & East 52nd Street	Northbound (East Side)	TR	0.95	24.9	C	TR	0.97	31.2	C
Park Avenue & East 53rd Street	Westbound (East Side)	T	1.13	87.7	F	T	1.21	120.9	F
Park Avenue & East 53rd Street	Westbound (East Side)	R	1.02	57.0	E	R	1.09	80.9	F
Park Avenue & East 53rd Street	Northbound (East Side)	T	0.92	25.8	C	T	0.94	31.6	C
Park Avenue & East 53rd Street	Westbound (West Side)	LT	1.07	52.5	D	LT	1.14	78.1	E
Park Avenue & East 53rd Street	Southbound (West Side)	TR	1.05	59.5	E	TR	1.08	60.5	E
Park Avenue & East 54th Street	Eastbound (West Side)	TR	0.88	29.5	C	TR	0.94	35.4	D
Park Avenue & East 54th Street	Southbound (West Side)	T	1.16	87.0	F	T	1.18	98.3	F
Park Avenue & East 54th Street	Eastbound (East Side)	T	0.94	35.1	D	T	1.02	50.0	D
Park Avenue & East 55th Street	Westbound (East Side)	TR	0.96	72.3	E	TR	0.97	73.5	E
Park Avenue & East 55th Street	Northbound (East Side)	L	0.21	550.1	F	L	0.21	685.0	F
Park Avenue & East 55th Street	Northbound (East Side)	T	1.05	69.3	E	T	1.07	68.4	E
Park Avenue & East 55th Street	Westbound (West Side)	LT	0.91	29.5	C	LT	0.92	29.9	C
Park Avenue & East 55th Street	Southbound (West Side)	T	0.98	52.6	D	T	1.00	59.0	E
Park Avenue & East 56th Street	Southbound (West Side)	L	0.14	93.3	F	L	0.14	155.4	F
Park Avenue & East 56th Street	Southbound (West Side)	T	1.03	65.6	E	T	1.06	65.5	E
Park Avenue & East 56th Street	Northbound (East Side)	TR	1.00	43.3	D	TR	1.02	51.9	D
Park Avenue & East 57th Street	Westbound (West Side)	T	1.07	60.8	E	T	1.07	61.7	E
Park Avenue & East 57th Street	Southbound (West Side)	LTR	0.89	77.7	E	LTR	0.91	78.7	E
Park Avenue & East 57th Street	Eastbound (East Side)	LT	1.13	92.7	F	LT	1.17	109.7	F
Park Avenue & East 57th Street	Northbound (East Side)	L	0.18	400.0	F	L	0.18	686.1	F
Park Avenue & East 57th Street	Northbound (East Side)	T	0.94	29.8	C	T	0.97	34.9	C
Madison Avenue & East 39th Street	Westbound	T	1.22	121.3	F	T	1.27	147.2	F
Madison Avenue & East 39th Street	Westbound	R	1.01	66.2	E	R	1.23	143.5	F
Madison Avenue & East 39th Street	Northbound	LT	1.08	85.5	F	LT	1.11	89.2	F
Madison Avenue & East 40th Street	Eastbound	L	0.86	46.5	D	L	0.97	58.0	E

Table 12.24: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the AM Peak Hour (Continued)

Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Madison Avenue & East 40th Street	Eastbound	T	0.80	25.0	C	T	0.94	30.1	C
Madison Avenue & East 40th Street	Northbound	TR	1.13	76.9	E	TR	1.18	102.1	F
Madison Avenue & East 41st Street	Northbound	TR	1.14	80.0	E	TR	1.21	111.4	F
Madison Avenue & East 42nd Street	Eastbound	LT	1.50	254.2	F	LT	1.58	288.4	F
Madison Avenue & East 42nd Street	Westbound	T	1.52	257.6	F	T	1.53	264.2	F
Madison Avenue & East 42nd Street	Northbound	LT	1.17	95.3	F	LT	1.24	125.5	F
Madison Avenue & East 43rd Street	Westbound	R	0.97	120.8	F	R	0.97	126.3	F
Madison Avenue & East 43rd Street	Northbound	L	1.05	60.4	E	L	1.46	235.6	F
Madison Avenue & East 43rd Street	Northbound	T	1.02	59.1	E	T	1.07	62.1	E
Madison Avenue & East 46th Street	Eastbound	LT	0.97	81.8	F	LT	1.00	81.9	F
Madison Avenue & East 46th Street	Northbound	T	0.97	64.5	E	T	1.01	63.4	E
Madison Avenue & East 46th Street	Northbound	R	0.90	127.1	F	R	1.07	125.9	F
Madison Avenue & East 48th Street	Eastbound	L	1.09	112.9	F	L	1.10	114.4	F
Madison Avenue & East 48th Street	Northbound	T	1.09	65.2	E	T	1.12	77.0	E
Madison Avenue & East 49th Street	Northbound	T	1.06	57.7	E	T	1.09	59.6	E
Madison Avenue & East 53rd Street	Westbound	TR	1.10	75.6	E	TR	1.17	106.3	F
Madison Avenue & East 53rd Street	Northbound	T	0.99	54.6	D	T	1.02	55.7	E
Madison Avenue & East 54th Street	Northbound	T	1.03	66.9	E	T	1.04	63.2	E
Madison Avenue & East 54th Street	Northbound	R	0.83	32.4	C	R	1.08	70.1	E
5th Avenue & 38th Street	Eastbound	R	1.04	121.4	F	R	1.05	124.7	F
5th Avenue & 38th Street	Southbound	LT	1.35	170.7	F	LT	1.40	192.8	F
5th Avenue & 39th Street	Westbound	L	0.92	59.0	E	L	1.15	118.9	F
5th Avenue & 39th Street	Southbound	T	1.30	163.7	F	T	1.31	170.3	F
5th Avenue & 39th Street	Southbound	R	1.33	175.3	F	R	1.34	182.3	F
5th Avenue & 40th Street	Eastbound	TR	1.41	226.1	F	TR	1.60	306.9	F
5th Avenue & 40th Street	Southbound	LT	1.50	250.5	F	LT	1.53	260.7	F
5th Avenue & 42nd Street	Eastbound	T	1.09	89.1	F	T	1.14	105.8	F
5th Avenue & 42nd Street	Westbound	LT	1.45	224.3	F	LT	1.47	232.0	F
5th Avenue & 42nd Street	Southbound	LT	1.47	233.7	F	LT	1.50	245.6	F
5th Avenue & 43rd Street	Southbound	T	1.25	137.7	F	T	1.26	142.3	F
5th Avenue & 43rd Street	Southbound	R	1.54	268.1	F	R	2.19	557.1	F
5th Avenue & 44th Street	Eastbound	R	0.77	61.1	E	R	0.87	99.7	F
5th Avenue & 44th Street	Southbound	LT	1.40	200.5	F	LT	1.43	213.5	F
5th Avenue & 47th Street	Westbound	L	0.97	106.0	F	L	1.02	105.1	F
5th Avenue & 47th Street	Southbound	T	1.43	213.3	F	T	1.44	219.1	F
5th Avenue & 48th Street	Eastbound	R	1.06	101.2	F	R	1.06	89.3	F
5th Avenue & 48th Street	Southbound	LT	1.42	211.3	F	LT	1.44	220.3	F
5th Avenue & 49th Street	Southbound	T	1.42	209.8	F	T	1.43	216.8	F
5th Avenue & 54th Street	Southbound	LT	1.40	202.5	F	LT	1.43	217.1	F
5th Avenue & 57th Street	Eastbound	T	1.09	92.4	F	T	1.14	111.0	F
5th Avenue & 57th Street	Eastbound	R	0.82	136.9	F	R	0.85	143.2	F
5th Avenue & 57th Street	Westbound	LT	1.14	112.8	F	LT	1.17	124.2	F
5th Avenue & 57th Street	Southbound	LT	1.48	247.6	F	LT	1.51	259.4	F
6th Avenue & West 48th Street	Eastbound	T	1.08	99.8	F	T	1.18	132.7	F
6th Avenue & West 48th Street	Northbound	TR	0.76	24.3	C	TR	0.89dr	32.0	C
6th Avenue & West 49th Street	Northbound	LT	1.05	48.8	D	LT	1.06	49.0	D

Note: Shading denotes a significant adverse impact. No shading denotes approach movement operating at LOS E or LOS F, and/or a v/c ratio of 0.90 or higher, but not a significant adverse impact.

Table 12.24: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the AM Peak Hour (Continued)

Unsignalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
1st Avenue & East 48th Street	Eastbound (West Side)	L	0.88	42.1	E	L	0.92	48.8	E

Note: Shading denotes a significant adverse impact. No shading denotes approach movement operating at LOS E or LOS F, and/or a v/c ratio of 0.90 or higher, but not a significant adverse impact.

Table 12.25: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the Midday Peak Hour

Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
1st Avenue & East 40th Street	Eastbound	L	0.99	71.4	E	L	1.03	80.3	F
1st Avenue & East 40th Street	Northbound	T	0.91	29.8	C	T	0.91	30.5	C
1st Avenue & East 42nd Street	Westbound (East Side)	R	1.50	286.8	F	R	1.50	289.7	F
1st Avenue & East 42nd Street	Eastbound (West Side)	L	1.06	94.5	F	L	1.09	95.5	F
1st Avenue & East 44th Street	Eastbound	L	1.03	72.8	E	L	1.05	78.4	E
1st Avenue & East 46th Street	Eastbound	L	1.09	94.0	F	L	1.11	99.3	F
1st Avenue & East 49th Street	Northbound (East Side)	T	0.92	65.0	E	T	0.93	67.6	E
1st Avenue & East 49th Street	Northbound (West Side)	LT	0.92	29.1	C	LT	0.93	30.1	C
1st Avenue & East 54th Street	Eastbound	LT	1.10	98.6	F	LT	1.12	105.0	F
1st Avenue & East 54th Street	Northbound	TR	0.94	11.9	B	TR	0.95	13.0	B
1st Avenue & East 55th Street	Westbound	TR	1.00	73.5	E	TR	1.01	74.1	E
1st Avenue & East 55th Street	Northbound	L	0.95	37.4	D	L	0.98	41.8	D
1st Avenue & East 57th Street	Eastbound	LT	1.06dl	39.2	D	LT	1.06dl	39.2	D
1st Avenue & East 57th Street	Northbound	L	1.03	65.0	E	L	1.03	66.4	E
2nd Avenue & East 36th Street	Eastbound	TR	0.95	37.1	D	TR	0.97	41.3	D
2nd Avenue & East 37th Street	Southbound	TR	1.08	56.1	E	TR	1.11	63.6	E
2nd Avenue & East 38th Street	Southbound	LT	1.09	55.5	E	LT	1.12	64.7	E
2nd Avenue & East 39th Street	Southbound	TR	1.18	100.6	F	TR	1.23	121.4	F
2nd Avenue & East 40th Street	Eastbound	R	1.01	73.5	E	R	1.06	85.5	F
2nd Avenue & East 40th Street	Southbound	LT	1.12	72.2	E	LT	1.16	91.6	F
2nd Avenue & East 41st Street	Southbound	LT	1.18	95.9	F	LT	1.22	113.8	F
2nd Avenue & East 42nd Street	Eastbound	TR	1.04	69.9	E	TR	1.06	73.4	E
2nd Avenue & East 42nd Street	Westbound	LT	1.09	99.3	F	LT	1.18dl	111.4	F
2nd Avenue & East 42nd Street	Southbound	L	1.23	133.2	F	L	1.34	178.7	F
2nd Avenue & East 42nd Street	Southbound	T	1.11	75.4	E	T	1.15	93.4	F
2nd Avenue & East 42nd Street	Southbound	R	0.94	35.4	D	R	1.05	59.7	E
2nd Avenue & East 43rd Street	Southbound	TR	1.44	216.7	F	TR	1.50	247.4	F
2nd Avenue & East 44th Street	Eastbound	TR	0.86	23.9	C	TR	1.01	48.7	D
2nd Avenue & East 44th Street	Southbound	T	1.16	90.4	F	T	1.20	105.0	F
2nd Avenue & East 45th Street	Southbound	TR	1.43	212.3	F	TR	1.47	230.8	F
2nd Avenue & East 46th Street	Eastbound	R	1.18	138.5	F	R	1.25	162.1	F
2nd Avenue & East 46th Street	Southbound	T	1.21	112.4	F	T	1.24	125.8	F
2nd Avenue & East 47th Street	Southbound	TR	1.49	238.1	F	TR	1.53	257.0	F
2nd Avenue & East 48th Street	Eastbound	TR	1.09	92.3	F	TR	1.13	104.1	F
2nd Avenue & East 48th Street	Southbound	L	1.28	149.2	F	L	1.28	149.2	F
2nd Avenue & East 48th Street	Southbound	T	1.34	173.2	F	T	1.37	188.2	F
2nd Avenue & East 49th Street	Westbound	L	0.99	101.3	F	L	0.99	101.4	F
2nd Avenue & East 49th Street	Southbound	TR	1.17	92.5	F	TR	1.20	105.6	F
2nd Avenue & East 50th Street	Southbound	T	1.33	171.0	F	T	1.37	184.8	F
2nd Avenue & East 51st Street	Southbound	TR	1.34	172.6	F	TR	1.38	187.5	F

Table 12.25: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the Midday Peak Hour (Continued)

Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
2nd Avenue & East 52nd Street	Eastbound	TR	0.89	45.5	D	TR	0.93	45.5	D
2nd Avenue & East 52nd Street	Southbound	T	1.33	167.8	F	T	1.36	181.6	F
2nd Avenue & East 53rd Street	Westbound	LT	1.10dl	80.6	F	LT	1.12dl	84.9	F
2nd Avenue & East 53rd Street	Southbound	TR	1.33	168.2	F	TR	1.37	186.7	F
2nd Avenue & East 54th Street	Southbound	T	1.42	208.7	F	T	1.45	225.3	F
2nd Avenue & East 55th Street	Westbound	T	1.06	73.3	E	T	1.08	77.2	E
2nd Avenue & East 55th Street	Southbound	TR	1.63	302.4	F	TR	1.68	328.5	F
2nd Avenue & East 56th Street	Southbound	T	1.42	210.4	F	T	1.46	230.5	F
2nd Avenue & East 57th Street	Eastbound	TR	1.18	130.0	F	TR	1.20	134.8	F
2nd Avenue & East 57th Street	Southbound	T	1.13	90.3	F	T	1.17	105.4	F
2nd Avenue & East 57th Street	Southbound	R	1.04	77.5	E	R	1.04	76.7	E
2nd Avenue & East 59th Street	Eastbound	L	1.12	84.7	F	L	1.15	98.5	F
2nd Avenue & East 59th Street	Eastbound	TR	0.51	22.1	C	TR	0.51	85.0	F
2nd Avenue & East 59th Street	Southbound	L	1.05	62.3	E	L	1.09	63.9	E
2nd Avenue & East 59th Street	Southbound	LT	1.17	94.9	F	LT	1.19	103.2	F
2nd Avenue & East 60th Street	Southbound	LTR	1.10	80.0	E	LTR	1.12	87.3	F
2nd Avenue & East 60th Street	Westbound (Bridge Exit)	L	1.26	151.7	F	L	1.29	165.2	F
Tunnel Exit Street & East 39th Street	Westbound	TR	0.90dr	33.2	C	TR	0.93dr	33.8	C
Tunnel Exit Street & East 39th Street	Northbound	L	1.09	113.2	F	L	1.12	120.3	F
Tunnel Exit Street & East 40th Street	Eastbound	LT	0.93	77.1	E	LT	0.96	82.1	F
3rd Avenue & East 36th Street	Northbound	TR	0.94	48.0	D	TR	0.99	74.6	E
3rd Avenue & East 37th Street	Westbound	R	0.82	68.7	E	R	0.90	82.8	F
3rd Avenue & East 37th Street	Northbound	LT	0.96	60.7	E	LT	1.01	60.8	E
3rd Avenue & East 38th Street	Northbound	T	1.00	72.4	E	T	1.06	71.5	E
3rd Avenue & East 39th Street	Westbound	T	1.45	232.5	F	T	1.54	273.0	F
3rd Avenue & East 39th Street	Northbound	LT	1.17	100.3	F	LT	1.25	133.7	F
3rd Avenue & East 40th Street	Eastbound	LT	0.97	105.7	F	LT	1.03	104.0	F
3rd Avenue & East 40th Street	Northbound	T	1.13	75.8	E	T	1.19	104.6	F
3rd Avenue & East 40th Street	Northbound	R	0.93	50.7	D	R	0.96	64.7	E
3rd Avenue & East 41st Street	Eastbound	L	1.05	125.8	F	L	1.12	137.6	F
3rd Avenue & East 41st Street	Westbound	R	1.09	123.3	F	R	1.12	130.8	F
3rd Avenue & East 41st Street	Northbound	T	0.93	63.2	E	T	0.98	62.1	E
3rd Avenue & East 42nd Street	Eastbound	L	0.98	75.8	E	L	0.99	77.2	E
3rd Avenue & East 42nd Street	Eastbound	T	1.15	111.8	F	T	1.16	116.5	F
3rd Avenue & East 42nd Street	Westbound	R	1.18	119.9	F	R	1.20	128.6	F
3rd Avenue & East 42nd Street	Northbound	LT	1.10	79.8	E	LT	1.17	105.4	F
3rd Avenue & East 43rd Street	Northbound	LT	1.04	60.2	E	LT	1.09	62.7	E
3rd Avenue & East 44th Street	Northbound	T	1.03	62.3	E	T	1.08	64.9	E
3rd Avenue & East 44th Street	Northbound	R	1.33	171.4	F	R	2.06	498.6	F
3rd Avenue & East 45th Street	Northbound	LT	1.14	87.9	F	LT	1.20	112.8	F
3rd Avenue & East 46th Street	Northbound	T	1.09	70.4	E	T	1.15	94.9	F
3rd Avenue & East 46th Street	Northbound	R	1.21	122.0	F	R	1.31	165.1	F
3rd Avenue & East 47th Street	Westbound	T	1.06	59.9	E	T	1.14	93.1	F
3rd Avenue & East 47th Street	Northbound	LT	1.12	74.9	E	LT	1.22	118.8	F
3rd Avenue & East 48th Street	Northbound	T	1.10	73.6	E	T	1.18	105.9	F
3rd Avenue & East 48th Street	Northbound	R	0.93	40.4	D	R	0.99	49.8	D
3rd Avenue & East 49th Street	Northbound	LT	1.13	83.0	F	LT	1.20	117.7	F

Table 12.25: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the Midday Peak Hour (Continued)

		No-Action 2036				With-Action 2036			
Signalized Intersection	Approach	Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
3rd Avenue & East 50th Street	Northbound	T	1.13	79.5	E	T	1.20	113.8	F
3rd Avenue & East 50th Street	Northbound	R	1.06	71.0	E	R	1.09	82.5	F
3rd Avenue & East 51st Street	Northbound	LT	1.10	72.1	E	LT	1.18	105.7	F
3rd Avenue & East 52nd Street	Northbound	T	1.06	65.4	E	T	1.14	83.4	F
3rd Avenue & East 52nd Street	Northbound	R	1.02	49.9	D	R	1.18	113.0	F
3rd Avenue & East 53rd Street	Northbound	LT	1.04	73.4	E	LT	1.12	84.7	F
3rd Avenue & East 54th Street	Eastbound	L	1.21	133.6	F	L	1.27	159.7	F
3rd Avenue & East 54th Street	Northbound	T	1.02	74.5	E	T	1.09	76.8	E
3rd Avenue & East 55th Street	Westbound	T	0.86	23.8	C	T	0.91	27.1	C
3rd Avenue & East 55th Street	Westbound	R	1.02	49.9	D	R	1.09	73.0	E
3rd Avenue & East 55th Street	Northbound	LT	1.16	95.0	F	LT	1.25	137.0	F
3rd Avenue & East 56th Street	Eastbound (West Side)	LT	0.96	106.2	F	LT	0.98	106.6	F
3rd Avenue & East 56th Street	Northbound (West Side)	T	1.07	67.8	E	T	1.18	103.6	F
3rd Avenue & East 56th Street	Eastbound (East Side)	LT	0.90	23.2	C	LT	0.91	23.7	C
3rd Avenue & East 56th Street	Northbound (East Side)	TR	1.05	72.9	E	TR	1.08	74.2	E
3rd Avenue & East 57th Street	Eastbound (West Side)	LT	1.08	109.6	F	LT	1.09	108.9	F
3rd Avenue & East 57th Street	Northbound (West Side)	LT	1.14	87.1	F	LT	1.24	128.2	F
3rd Avenue & East 57th Street	Eastbound (East Side)	T	1.24	129.9	F	T	1.25	133.1	F
3rd Avenue & East 57th Street	Northbound (East Side)	TR	1.08	68.8	E	TR	1.08	68.6	E
3rd Avenue & East 57th Street	Northbound (East Side)	R	1.08	79.1	E	R	1.12	90.6	F
3rd Avenue & East 59th Street	Eastbound	LT	1.06	84.5	F	LT	1.07	87.4	F
3rd Avenue & East 59th Street	Northbound	R	1.01	64.2	E	R	1.05	74.3	E
Lexington Avenue & East 36th Street	Southbound	LT	1.05	46.3	D	LT	1.08	57.3	E
Lexington Avenue & East 38th Street	Eastbound	R	1.12	147.9	F	R	1.14	154.0	F
Lexington Avenue & East 38th Street	Southbound	T	0.88	14.7	B	T	0.91	18.8	B
Lexington Avenue & East 39th Street	Westbound	L	1.08	87.7	F	L	1.11	99.1	F
Lexington Avenue & East 39th Street	Westbound	T	1.51	253.6	F	T	1.65	313.1	F
Lexington Avenue & East 39th Street	Southbound	T	1.05	55.3	E	T	1.08	63.8	E
Lexington Avenue & East 40th Street	Southbound	LT	1.12	73.4	E	LT	1.16	92.4	F
Lexington Avenue & East 42nd Street	Eastbound	T	1.06	65.0	E	T	1.08	71.3	E
Lexington Avenue & East 42nd Street	Eastbound	R	0.91	43.4	D	R	0.91	43.3	D
Lexington Avenue & East 42nd Street	Westbound	LT	0.94	50.8	D	LT	0.96	51.6	D
Lexington Avenue & East 42nd Street	Southbound	T	0.90	47.0	D	T	0.93	72.4	E
Lexington Avenue & East 44th Street	Southbound	LT	1.13	77.6	E	LT	1.19	103.3	F
Lexington Avenue & East 45th Street	Southbound	T	1.03	64.5	E	T	1.07	62.0	E
Lexington Avenue & East 46th Street	Eastbound	T	0.91	58.6	E	T	0.99	66.2	E
Lexington Avenue & East 46th Street	Southbound	LT	1.05	57.7	E	LT	1.11	62.6	E
Lexington Avenue & East 47th Street	Westbound	L	1.13	103.6	F	L	1.20	131.9	F
Lexington Avenue & East 47th Street	Westbound	T	1.20	116.8	F	T	1.34	178.5	F
Lexington Avenue & East 47th Street	Southbound	T	1.02	58.6	E	T	1.07	66.6	E
Lexington Avenue & East 47th Street	Southbound	R	1.27	162.9	F	R	1.72	347.3	F
Lexington Avenue & East 48th Street	Eastbound	T	1.07	94.1	F	T	1.13	110.6	F
Lexington Avenue & East 48th Street	Eastbound	R	1.11	127.0	F	R	1.16	141.9	F
Lexington Avenue & East 48th Street	Southbound	LT	0.96	59.0	E	LT	1.02	59.3	E
Lexington Avenue & East 49th Street	Southbound	T	1.06	60.8	E	T	1.12	72.1	E
Lexington Avenue & East 50th Street	Southbound	LT	1.06	60.6	E	LT	1.13	77.2	E
Lexington Avenue & East 51st Street	Westbound	L	1.05	95.6	F	L	1.07	99.3	F

Table 12.25: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the Midday Peak Hour (Continued)

Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Lexington Avenue & East 51st Street	Westbound	T	0.89	46.8	D	T	0.93	49.7	D
Lexington Avenue & East 51st Street	Southbound	T	1.11	71.8	E	T	1.18	104.9	F
Lexington Avenue & East 51st Street	Southbound	R	1.11	113.8	F	R	1.20	140.7	F
Lexington Avenue & East 52nd Street	Eastbound	T	0.94	44.7	D	T	0.99	54.5	D
Lexington Avenue & East 52nd Street	Eastbound	R	0.96	71.6	E	R	0.96	69.9	E
Lexington Avenue & East 52nd Street	Southbound	LT	0.91	63.5	E	LT	0.97	62.8	E
Lexington Avenue & East 53rd Street	Southbound	T	1.03	42.0	D	T	1.10	62.9	E
Lexington Avenue & East 53rd Street	Southbound	R	0.78	66.4	E	R	0.80	94.7	F
Lexington Avenue & East 54th Street	Eastbound	TR	1.02	58.4	E	TR	1.07	71.7	E
Lexington Avenue & East 54th Street	Southbound	LT	1.08	61.2	E	LT	1.15	83.4	F
Lexington Avenue & East 55th Street	Westbound	L	0.99	73.0	E	L	1.05	72.8	E
Lexington Avenue & East 55th Street	Southbound	T	1.02	61.2	E	T	1.09	64.1	E
Lexington Avenue & East 56th Street	Eastbound	R	1.09	84.9	F	R	1.09	84.8	F
Lexington Avenue & East 56th Street	Southbound	LT	1.00	78.8	E	LT	1.07	77.1	E
Lexington Avenue & East 57th Street	Westbound	LT	0.95	52.8	D	LT	0.96	51.2	D
Lexington Avenue & East 57th Street	Southbound	LT	0.95	68.2	E	LT	1.01	88.6	F
Park Avenue & East 39th Street	Westbound (East Side)	TR	1.34	180.1	F	TR	1.44	224.2	F
Park Avenue & East 39th Street	Westbound (West Side)	LT	1.06	73.0	E	LT	1.14	93.4	F
Park Avenue & East 39th Street	Southbound (West Side)	T	0.61	48.7	D	T	0.63	58.1	E
Park Avenue & East 40th Street	Eastbound (West Side)	TR	1.24	162.5	F	TR	1.30	183.3	F
Park Avenue & East 40th Street	Southbound (West Side)	T	1.16	107.5	F	T	1.18	117.8	F
Park Avenue & East 40th Street	Eastbound (Tunnel Exit)	LT	1.37	187.5	F	LT	1.43	215.8	F
Park Avenue & East 40th Street	Eastbound (East Side)	LT	1.29	153.7	F	LT	1.35	180.5	F
Park Avenue & East 46th Street	Eastbound (West Side)	T	0.86	44.5	D	T	0.92	58.5	E
Park Avenue & East 46th Street	Southbound (West Side)	T	1.10	69.1	E	T	1.13	80.4	F
Park Avenue & East 46th Street	Eastbound (East Side)	L	0.76	27.6	C	L	0.93	48.7	D
Park Avenue & East 46th Street	Eastbound (East Side)	T	1.17	111.7	F	T	1.26	147.7	F
Park Avenue & East 47th Street	Westbound (East Side)	T	1.32	174.2	F	T	1.49	245.4	F
Park Avenue & East 47th Street	Westbound (East Side)	R	0.81	33.1	C	R	0.92	40.4	D
Park Avenue & East 47th Street	Northbound (East Side)	L	0.16	94.9	F	L	0.16	95.3	F
Park Avenue & East 47th Street	Northbound (East Side)	T	0.99	44.1	D	T	1.01	62.4	E
Park Avenue & East 47th Street	Westbound (West Side)	LT	1.38	192.7	F	LT	1.53	257.6	F
Park Avenue & East 47th Street	Southbound (West Side)	TR	0.96	39.8	D	TR	1.00	57.4	E
Park Avenue & East 48th Street	Southbound (West Side)	L	0.24	94.5	F	L	0.26	143.9	F
Park Avenue & East 48th Street	Southbound (West Side)	T	1.12	77.8	E	T	1.15	88.8	F
Park Avenue & East 48th Street	Eastbound (East Side)	LT	0.88	30.5	C	LT	0.91	35.3	D
Park Avenue & East 48th Street	Northbound (East Side)	TR	0.92	28.9	C	TR	0.95	38.5	D
Park Avenue & East 49th Street	Northbound (East Side)	T	1.01	42.4	D	T	1.03	50.0	D
Park Avenue & East 49th Street	Westbound (West Side)	LT	0.87	20.7	C	LT	0.92	26.6	C
Park Avenue & East 49th Street	Southbound (West Side)	TR	0.96	44.2	D	TR	0.98	58.3	E
Park Avenue & East 50th Street	Southbound (West Side)	T	1.06	60.5	E	T	1.09	61.7	E
Park Avenue & East 50th Street	Eastbound (East Side)	LT	1.05	67.3	E	LT	1.09	81.2	F
Park Avenue & East 51st Street	Westbound (East Side)	T	1.12	102.9	F	T	1.16	113.9	F
Park Avenue & East 51st Street	Northbound (East Side)	T	1.03	65.8	E	T	1.05	66.6	E
Park Avenue & East 51st Street	Westbound (West Side)	LT	1.06	63.3	E	LT	1.09	69.3	E
Park Avenue & East 51st Street	Southbound (West Side)	TR	1.05	63.7	E	TR	1.07	61.3	E
Park Avenue & East 52nd Street	Eastbound (West Side)	TR	0.99	56.4	E	TR	1.01	61.5	E

Table 12.25: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the Midday Peak Hour (Continued)

Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Park Avenue & East 52nd Street	Southbound (West Side)	L	0.21	164.4	F	L	0.24	178.2	F
Park Avenue & East 52nd Street	Southbound (West Side)	T	1.00	67.3	E	T	1.02	66.5	E
Park Avenue & East 52nd Street	Eastbound (East Side)	LT	0.93	30.2	C	LT	0.96	36.6	D
Park Avenue & East 52nd Street	Northbound (East Side)	TR	0.99	40.3	D	TR	1.01	47.7	D
Park Avenue & East 53rd Street	Northbound (East Side)	T	1.04	64.4	E	T	1.06	61.4	E
Park Avenue & East 53rd Street	Westbound (West Side)	LT	1.08	74.3	E	LT	1.11	85.8	F
Park Avenue & East 53rd Street	Southbound (West Side)	TR	0.94	32.0	C	TR	0.96	39.7	D
Park Avenue & East 54th Street	Southbound (West Side)	T	1.00	41.1	D	T	1.02	58.1	E
Park Avenue & East 54th Street	Northbound (East Side)	TR	0.96	44.4	D	TR	0.99	53.3	D
Park Avenue & East 55th Street	Westbound (East Side)	TR	1.09	105.7	F	TR	1.12	110.4	F
Park Avenue & East 55th Street	Northbound (East Side)	L	0.29	106.8	F	L	0.29	115.0	F
Park Avenue & East 55th Street	Northbound (East Side)	T	1.09	66.9	E	T	1.12	74.1	E
Park Avenue & East 55th Street	Westbound (West Side)	LT	1.04	66.9	E	LT	1.06	71.5	E
Park Avenue & East 55th Street	Southbound (West Side)	TR	1.07	60.6	E	TR	1.08	61.4	E
Park Avenue & East 56th Street	Eastbound (West Side)	TR	1.35	188.3	F	TR	1.36	191.8	F
Park Avenue & East 56th Street	Southbound (West Side)	L	0.18	143.3	F	L	0.18	145.9	F
Park Avenue & East 56th Street	Southbound (West Side)	T	1.00	65.3	E	T	1.02	65.0	E
Park Avenue & East 56th Street	Eastbound (East Side)	LT	1.16	89.7	F	LT	1.16	92.8	F
Park Avenue & East 56th Street	Northbound (East Side)	TR	0.91	46.1	D	TR	0.94	57.0	E
Park Avenue & East 57th Street	Eastbound (West Side)	T	1.19	124.2	F	T	1.20	127.3	F
Park Avenue & East 57th Street	Eastbound (West Side)	R	1.06	93.7	F	R	1.08	96.4	F
Park Avenue & East 57th Street	Westbound (West Side)	T	1.18	101.9	F	T	1.19	104.3	F
Park Avenue & East 57th Street	Southbound (West Side)	LTR	0.95	87.0	F	LTR	0.97	88.1	F
Park Avenue & East 57th Street	Eastbound (East Side)	LT	1.21	112.6	F	LT	1.22	117.4	F
Park Avenue & East 57th Street	Westbound (East Side)	T	1.17	126.7	F	T	1.17	129.1	F
Park Avenue & East 57th Street	Westbound (East Side)	R	1.03	97.9	F	R	1.03	97.7	F
Park Avenue & East 57th Street	Northbound (East Side)	L	0.29	686.2	F	L	0.29	686.1	F
Park Avenue & East 57th Street	Northbound (East Side)	T	1.01	35.8	D	T	1.04	44.7	D
Madison Avenue & East 39th Street	Westbound	T	1.35	187.4	F	T	1.42	215.8	F
Madison Avenue & East 39th Street	Westbound	R	1.29	179.6	F	R	1.44	234.0	F
Madison Avenue & East 39th Street	Northbound	LT	0.98	85.8	F	LT	1.00	86.8	F
Madison Avenue & East 40th Street	Northbound	TR	1.07	60.0	E	TR	1.11	66.9	E
Madison Avenue & East 41st Street	Northbound	TR	1.15	87.5	F	TR	1.19	107.4	F
Madison Avenue & East 42nd Street	Eastbound	LT	1.16	100.5	F	LT	1.18	108.5	F
Madison Avenue & East 42nd Street	Westbound	T	1.22	135.4	F	T	1.24	143.6	F
Madison Avenue & East 42nd Street	Northbound	LT	1.17	96.7	F	LT	1.21	114.3	F
Madison Avenue & East 42nd Street	Northbound	R	0.71	91.4	F	R	0.74	94.6	F
Madison Avenue & East 43rd Street	Westbound	T	1.22	154.6	F	T	1.28	180.0	F
Madison Avenue & East 43rd Street	Westbound	R	1.47	265.4	F	R	1.54	296.9	F
Madison Avenue & East 43rd Street	Northbound	L	0.83	28.4	C	L	1.18	118.2	F
Madison Avenue & East 43rd Street	Northbound	T	1.10	66.2	E	T	1.13	78.8	E
Madison Avenue & East 46th Street	Eastbound	LT	0.88	48.2	D	LT	0.92	50.4	D
Madison Avenue & East 46th Street	Northbound	T	1.14	85.5	F	T	1.16	94.6	F
Madison Avenue & East 48th Street	Eastbound	L	0.94	76.7	E	L	0.96	80.1	F
Madison Avenue & East 48th Street	Northbound	T	0.98	62.8	E	T	1.00	68.1	E
Madison Avenue & East 49th Street	Westbound	TR	1.03	56.1	E	TR	1.07	64.8	E
Madison Avenue & East 49th Street	Northbound	T	1.02	64.8	E	T	1.04	64.3	E

Table 12.25: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the Midday Peak Hour (Continued)

Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Madison Avenue & East 53rd Street	Northbound	T	0.96	62.7	E	T	0.98	65.8	E
Madison Avenue & East 54th Street	Eastbound	LT	1.13	99.8	F	LT	1.16	113.3	F
Madison Avenue & East 54th Street	Northbound	T	1.13	81.9	F	T	1.15	89.6	F
Madison Avenue & East 54th Street	Northbound	R	0.87	36.9	D	R	0.93	42.6	D
5th Avenue & 38th Street	Eastbound	R	1.06	120.1	F	R	1.06	121.5	F
5th Avenue & 38th Street	Southbound	LT	1.35	172.0	F	LT	1.37	182.8	F
5th Avenue & 39th Street	Westbound	L	0.85	54.6	D	L	0.93	60.8	E
5th Avenue & 39th Street	Westbound	T	1.33	182.1	F	T	1.38	204.1	F
5th Avenue & 39th Street	Southbound	T	1.13	88.4	F	T	1.14	92.5	F
5th Avenue & 39th Street	Southbound	R	1.06	63.2	E	R	1.06	63.2	E
5th Avenue & 40th Street	Eastbound	TR	1.31	186.0	F	TR	1.34	199.5	F
5th Avenue & 40th Street	Southbound	LT	1.08	67.4	E	LT	1.10	67.8	E
5th Avenue & 42nd Street	Westbound	LT	1.35	179.2	F	LT	1.37	189.4	F
5th Avenue & 42nd Street	Southbound	LT	1.49	243.8	F	LT	1.52	255.6	F
5th Avenue & 43rd Street	Southbound	T	1.18	105.8	F	T	1.19	110.2	F
5th Avenue & 43rd Street	Southbound	R	1.76	365.2	F	R	1.88	418.8	F
5th Avenue & 44th Street	Eastbound	R	1.12	122.4	F	R	1.17	139.2	F
5th Avenue & 44th Street	Southbound	LT	1.41	203.5	F	LT	1.43	212.4	F
5th Avenue & 47th Street	Westbound	L	0.95	64.9	E	L	0.99	70.8	E
5th Avenue & 47th Street	Southbound	T	1.46	229.7	F	T	1.47	235.1	F
5th Avenue & 47th Street	Southbound	R	1.00	51.0	D	R	1.03	57.7	E
5th Avenue & 48th Street	Eastbound	R	0.98	90.5	F	R	0.99	92.5	F
5th Avenue & 48th Street	Southbound	LT	1.31	162.2	F	LT	1.32	166.9	F
5th Avenue & 49th Street	Southbound	T	1.47	235.1	F	T	1.49	240.5	F
5th Avenue & 54th Street	Eastbound	TR	1.05	88.7	F	TR	1.08	97.0	F
5th Avenue & 54th Street	Southbound	LT	1.39	197.6	F	LT	1.41	206.4	F
5th Avenue & 57th Street	Eastbound	T	1.18	124.7	F	T	1.19	128.8	F
5th Avenue & 57th Street	Eastbound	R	1.07	125.5	F	R	1.07	126.8	F
5th Avenue & 57th Street	Westbound	LT	0.78	77.8	E	LT	0.79	89.4	F
5th Avenue & 57th Street	Southbound	LT	1.04	84.9	F	LT	1.06	84.1	F
6th Avenue & West 48th Street	Eastbound	T	1.00	72.9	E	T	1.02	78.4	E
6th Avenue & West 49th Street	Northbound	LT	1.06	49.2	D	LT	1.06	50.7	D

Note: Shading denotes a significant adverse impact. No shading denotes approach movement operating at LOS E or LOS F, and/or a v/c ratio of 0.90 or higher, but not a significant adverse impact.

Table 12.26: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the PM Peak Hour

Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
1st Avenue & East 40th Street	Eastbound	L	1.16	119.0	F	L	1.37	195.4	F
1st Avenue & East 40th Street	Northbound	T	1.37	193.5	F	T	1.40	205.4	F
1st Avenue & East 42nd Street	Westbound (East Side)	R	1.30	196.5	F	R	1.30	197.2	F
1st Avenue & East 42nd Street	Northbound (East Side)	LT	1.15	117.7	F	LT	1.25	154.5	F
1st Avenue & East 42nd Street	Northbound (East Side)	R	1.31	183.2	F	R	1.37	205.9	F
1st Avenue & East 42nd Street	Eastbound (West Side)	L	1.05	93.3	F	L	1.08	93.7	F
1st Avenue & East 42nd Street	Northbound (West Side)	L	1.02	52.3	D	L	1.07	68.8	E
1st Avenue & East 42nd Street	Northbound (West Side)	T	0.82	89.1	F	T	0.92	87.3	F
1st Avenue & East 46th Street	Eastbound	L	1.20	123.1	F	L	1.48	243.5	F
1st Avenue & East 46th Street	Northbound	T	0.89	56.4	E	T	0.96	60.9	E
1st Avenue & East 46th Street	Northbound (East Side)	T	1.06	67.4	E	T	1.23	124.1	F

Table 12.26: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the PM Peak Hour (Continued)

Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
1st Avenue & East 48th Street	Northbound (East Side)	R	1.14	74.4	E	R	1.43	206.1	F
1st Avenue & East 49th Street	Northbound (East Side)	T	1.23	133.5	F	T	1.25	140.6	F
1st Avenue & East 49th Street	Northbound (West Side)	LT	1.07	65.9	E	LT	1.14	96.1	F
1st Avenue & East 53rd Street	Northbound	T	1.09	76.1	E	T	1.11	78.8	E
1st Avenue & East 54th Street	Eastbound	LT	1.10	97.2	F	LT	1.22	140.0	F
1st Avenue & East 54th Street	Northbound	T	1.06	52.6	D	T	1.08	53.6	D
1st Avenue & East 55th Street	Northbound	L	1.09	62.1	E	L	1.09	60.9	E
1st Avenue & East 55th Street	Northbound	T	0.97	33.5	C	T	1.00	47.7	D
1st Avenue & East 57th Street	Northbound	L	1.02	62.6	E	L	1.04	69.9	E
1st Avenue & East 57th Street	Northbound	T	0.86	11.1	B	T	0.90	13.7	B
2nd Avenue & East 36th Street	Eastbound	TR	1.56	281.2	F	TR	1.73	355.1	F
2nd Avenue & East 36th Street	Southbound	T	1.11	66.5	E	T	1.12	73.1	E
2nd Avenue & East 37th Street	Southbound	T	1.22	111.7	F	T	1.28	140.5	F
2nd Avenue & East 38th Street	Eastbound	TR	1.04	80.0	E	TR	1.14	111.1	F
2nd Avenue & East 38th Street	Southbound	LT	1.24	122.1	F	LT	1.30	149.7	F
2nd Avenue & East 39th Street	Southbound	T	1.23	117.7	F	T	1.28	144.6	F
2nd Avenue & East 40th Street	Eastbound	T	0.93	28.6	C	T	1.17	104.7	F
2nd Avenue & East 40th Street	Eastbound	R	1.26	144.3	F	R	1.41	209.6	F
2nd Avenue & East 40th Street	Southbound	LT	1.12	65.1	E	LT	1.19	98.3	F
2nd Avenue & East 41st Street	Eastbound	TR	0.88	55.6	E	TR	1.01	84.3	F
2nd Avenue & East 41st Street	Southbound	LT	1.20	107.8	F	LT	1.26	136.2	F
2nd Avenue & East 42nd Street	Eastbound	TR	1.16	95.8	F	TR	1.18	107.5	F
2nd Avenue & East 42nd Street	Westbound	LT	1.81dl	168.6	F	LT	1.98dl	186.3	F
2nd Avenue & East 42nd Street	Southbound	LT	1.13	77.6	E	LT	1.21	112.9	F
2nd Avenue & East 43rd Street	Southbound	T	1.10	58.4	E	T	1.17	93.7	F
2nd Avenue & East 43rd Street	Southbound	R	1.06	53.4	D	R	1.24	129.2	F
2nd Avenue & East 44th Street	Eastbound	TR	0.92	27.0	C	TR	1.27	147.8	F
2nd Avenue & East 44th Street	Southbound	LT	1.12	62.7	E	LT	1.17	88.2	F
2nd Avenue & East 45th Street	Westbound	LT	1.09	86.4	F	LT	1.09	86.0	F
2nd Avenue & East 45th Street	Southbound	T	1.11	61.4	E	T	1.16	87.8	F
2nd Avenue & East 45th Street	Southbound	R	0.90	22.5	C	R	1.10	72.5	E
2nd Avenue & East 46th Street	Eastbound	TR	1.22dr	63.7	E	TR	1.29dr	90.3	F
2nd Avenue & East 46th Street	Southbound	LT	1.09	53.6	D	LT	1.16	84.2	F
2nd Avenue & East 47th Street	Southbound	T	1.12	63.2	E	T	1.19	95.3	F
2nd Avenue & East 47th Street	Southbound	R	1.17	94.2	F	R	1.24	123.2	F
2nd Avenue & East 48th Street	Eastbound	TR	1.10	99.4	F	TR	1.19	132.8	F
2nd Avenue & East 48th Street	Southbound	LT	1.07	62.2	E	LT	1.12	71.0	E
2nd Avenue & East 49th Street	Westbound	L	1.11	93.2	F	L	1.28	162.1	F
2nd Avenue & East 49th Street	Southbound	T	0.91	47.7	D	T	0.95	48.6	D
2nd Avenue & East 50th Street	Southbound	LT	1.11	60.5	E	LT	1.15	76.5	E
2nd Avenue & East 51st Street	Southbound	T	1.07	54.3	D	T	1.10	57.1	E
2nd Avenue & East 51st Street	Southbound	R	0.94	21.5	C	R	0.99	30.3	C
2nd Avenue & East 52nd Street	Eastbound	TR	0.85	51.2	D	TR	0.92	51.8	D
2nd Avenue & East 52nd Street	Southbound	T	1.29	145.4	F	T	1.33	163.6	F
2nd Avenue & East 53rd Street	Westbound	LT	0.96	62.3	E	LT	0.96	63.3	E
2nd Avenue & East 53rd Street	Southbound	T	1.38	191.5	F	T	1.43	213.3	F
2nd Avenue & East 54th Street	Southbound	T	1.46	221.2	F	T	1.49	237.9	F
2nd Avenue & East 55th Street	Westbound	T	1.09	87.1	F	T	1.08	86.4	F
2nd Avenue & East 55th Street	Southbound	T	1.45	219.1	F	T	1.49	236.4	F

Table 12.26: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the PM Peak Hour (Continued)

Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
2nd Avenue & East 56th Street	Southbound	T	1.32	158.8	F	T	1.34	171.2	F
2nd Avenue & East 57th Street	Eastbound	T	1.22	127.7	F	T	1.24	139.7	F
2nd Avenue & East 57th Street	Westbound	LT	0.88dl	23.6	C	LT	0.88dl	23.4	C
2nd Avenue & East 57th Street	Southbound	T	1.07	71.1	E	T	1.09	70.6	E
2nd Avenue & East 59th Street	Eastbound	L	1.35	183.5	F	L	1.42	211.6	F
2nd Avenue & East 59th Street	Eastbound	TR	0.76	85.2	F	TR	0.76	88.0	F
2nd Avenue & East 59th Street	Southbound	L	1.08	62.0	E	L	1.10	62.6	E
2nd Avenue & East 59th Street	Southbound	LT	1.15	83.1	F	LT	1.16	87.7	F
2nd Avenue & East 60th Street	Southbound	T	1.09	77.5	E	T	1.11	79.7	E
2nd Avenue & East 60th Street	Westbound (Bridge Exit)	L	1.16	111.4	F	L	1.17	116.1	F
2nd Avenue & East 60th Street	Westbound (Bridge Exit)	T	1.02	69.4	E	T	1.02	69.4	E
Tunnel Exit Street & East 39th Street	Northbound	LT	1.14dl	15.9	B	LT	1.16dl	16.1	B
Tunnel Exit Street & East 40th Street	Eastbound	LT	1.27	140.3	F	LT	1.31	162.2	F
3rd Avenue & East 36th Street	Eastbound	LT	1.50	252.7	F	LT	1.66	321.8	F
3rd Avenue & East 36th Street	Northbound	R	1.13	141.2	F	R	1.16	149.7	F
3rd Avenue & East 37th Street	Westbound	R	1.03	113.9	F	R	1.07	125.4	F
3rd Avenue & East 39th Street	Westbound	T	1.15	117.8	F	T	1.27	167.5	F
3rd Avenue & East 39th Street	Northbound	LT	1.03	70.7	E	LT	1.09	69.5	E
3rd Avenue & East 40th Street	Eastbound	LT	1.54	285.5	F	LT	1.61	318.3	F
3rd Avenue & East 40th Street	Northbound	T	1.14	87.1	F	T	1.19	106.2	F
3rd Avenue & East 40th Street	Northbound	R	1.04	77.4	E	R	1.09	78.6	E
3rd Avenue & East 41st Street	Eastbound	LT	1.10	96.5	F	LT	1.14	107.7	F
3rd Avenue & East 41st Street	Westbound	R	0.80	53.6	D	R	0.88	67.8	E
3rd Avenue & East 41st Street	Northbound	T	1.09	65.7	E	T	1.13	81.2	F
3rd Avenue & East 42nd Street	Eastbound	L	1.12	101.9	F	L	1.10	96.9	F
3rd Avenue & East 42nd Street	Eastbound	T	1.05	66.5	E	T	1.07	76.6	E
3rd Avenue & East 42nd Street	Westbound	T	0.91	34.1	C	T	0.96	38.2	D
3rd Avenue & East 42nd Street	Westbound	R	1.21	133.2	F	R	1.22	136.3	F
3rd Avenue & East 42nd Street	Northbound	LT	1.04	72.7	E	LT	1.10	74.3	E
3rd Avenue & East 42nd Street	Northbound	R	0.91	40.9	D	R	1.12	97.2	F
3rd Avenue & East 43rd Street	Northbound	LT	1.03	61.6	E	LT	1.06	63.9	E
3rd Avenue & East 44th Street	Northbound	T	1.15	78.2	E	T	1.20	104.6	F
3rd Avenue & East 44th Street	Northbound	R	1.44	219.9	F	R	5.24	1923.9	F
3rd Avenue & East 45th Street	Northbound	LT	1.11	66.0	E	LT	1.17	92.1	F
3rd Avenue & East 46th Street	Northbound	T	1.14	73.8	E	T	1.20	105.6	F
3rd Avenue & East 46th Street	Northbound	R	0.93	21.3	C	R	0.96	25.4	C
3rd Avenue & East 47th Street	Westbound	T	1.00	59.9	E	T	1.09	84.2	F
3rd Avenue & East 47th Street	Northbound	LT	1.13	81.6	F	LT	1.21	120.7	F
3rd Avenue & East 48th Street	Northbound	T	1.11	75.5	E	T	1.18	106.7	F
3rd Avenue & East 48th Street	Northbound	R	0.97	45.4	D	R	1.13	95.2	F
3rd Avenue & East 49th Street	Northbound	LT	1.13	86.3	F	LT	1.23	128.5	F
3rd Avenue & East 50th Street	Northbound	T	1.10	69.5	E	T	1.17	98.5	F
3rd Avenue & East 51st Street	Westbound	T	1.11	100.0	F	T	1.14	110.5	F
3rd Avenue & East 51st Street	Northbound	LT	1.12	82.7	F	LT	1.18	108.6	F
3rd Avenue & East 52nd Street	Eastbound	LT	0.90	45.2	D	LT	0.96	52.9	D
3rd Avenue & East 52nd Street	Northbound	T	1.12	76.3	E	T	1.19	105.0	F
3rd Avenue & East 52nd Street	Northbound	R	0.93	43.1	D	R	1.17	116.0	F

Table 12.26: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the PM Peak Hour (Continued)

Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
3rd Avenue & East 53rd Street	Westbound	T	1.04	60.1	E	T	1.07	70.4	E
3rd Avenue & East 53rd Street	Westbound	R	0.84	69.1	E	R	0.83	107.9	F
3rd Avenue & East 53rd Street	Northbound	LT	1.15	92.6	F	LT	1.21	123.4	F
3rd Avenue & East 54th Street	Eastbound	L	1.05	100.4	F	L	1.07	102.6	F
3rd Avenue & East 54th Street	Northbound	T	1.09	77.2	E	T	1.15	98.0	F
3rd Avenue & East 55th Street	Westbound	T	1.10	84.0	F	T	1.23	141.8	F
3rd Avenue & East 55th Street	Westbound	R	1.00	92.8	F	R	1.15	126.4	F
3rd Avenue & East 55th Street	Northbound	LT	1.23	124.3	F	LT	1.30	154.8	F
3rd Avenue & East 56th Street	Eastbound (West Side)	LT	1.09	84.5	F	LT	1.16	111.0	F
3rd Avenue & East 56th Street	Northbound (West Side)	T	1.27	146.1	F	T	1.36	185.4	F
3rd Avenue & East 56th Street	Northbound (East Side)	TR	1.13	78.9	E	TR	1.21	116.0	F
3rd Avenue & East 57th Street	Eastbound (West Side)	LT	1.36	204.0	F	LT	1.37	208.7	F
3rd Avenue & East 57th Street	Northbound (West Side)	LT	1.17	98.5	F	LT	1.25	133.5	F
3rd Avenue & East 57th Street	Eastbound (East Side)	T	1.16	91.0	F	T	1.17	95.7	F
3rd Avenue & East 57th Street	Westbound (East Side)	T	0.86	55.8	E	T	0.86	55.6	E
3rd Avenue & East 57th Street	Northbound (East Side)	TR	1.09	66.0	E	TR	1.17	98.4	F
3rd Avenue & East 57th Street	Northbound (East Side)	R	1.11	75.5	E	R	1.16	97.1	F
3rd Avenue & East 59th Street	Northbound	R	1.47	246.7	F	R	1.56	282.3	F
Lexington Avenue & East 36th Street	Eastbound	TR	1.20	146.7	F	TR	1.32	193.1	F
Lexington Avenue & East 36th Street	Southbound	LT	1.10	64.9	E	LT	1.14	83.3	F
Lexington Avenue & East 38th Street	Eastbound	R	1.57	310.0	F	R	1.60	322.8	F
Lexington Avenue & East 39th Street	Westbound	T	1.32	168.0	F	T	1.51	255.0	F
Lexington Avenue & East 39th Street	Southbound	TR	1.02	60.1	E	TR	1.07	59.4	E
Lexington Avenue & East 40th Street	Eastbound	R	1.21	140.4	F	R	1.26	160.5	F
Lexington Avenue & East 40th Street	Southbound	LT	0.87	17.7	B	LT	0.91	55.0	E
Lexington Avenue & East 42nd Street	Eastbound	T	1.19	117.5	F	T	1.20	121.5	F
Lexington Avenue & East 42nd Street	Westbound	LT	1.57	289.9	F	LT	1.66	327.2	F
Lexington Avenue & East 42nd Street	Southbound	L	1.02	80.5	F	L	1.12	91.1	F
Lexington Avenue & East 42nd Street	Southbound	T	1.00	69.7	E	T	1.05	71.4	E
Lexington Avenue & East 42nd Street	Southbound	R	1.21	128.1	F	R	1.33	181.1	F
Lexington Avenue & East 44th Street	Southbound	LT	1.17	96.7	F	LT	1.23	124.6	F
Lexington Avenue & East 45th Street	Westbound	LT	1.06	80.6	F	LT	1.11	93.7	F
Lexington Avenue & East 45th Street	Southbound	T	1.04	60.5	E	T	1.09	62.9	E
Lexington Avenue & East 46th Street	Eastbound	T	1.18	111.7	F	T	1.33	178.5	F
Lexington Avenue & East 46th Street	Southbound	LT	1.11	62.3	E	LT	1.17	90.9	F
Lexington Avenue & East 47th Street	Westbound	L	1.12	103.5	F	L	1.18	127.7	F
Lexington Avenue & East 47th Street	Westbound	T	1.17	108.2	F	T	1.29	160.4	F
Lexington Avenue & East 47th Street	Southbound	T	1.12	73.8	E	T	1.18	101.0	F
Lexington Avenue & East 47th Street	Southbound	R	0.93	31.8	C	R	1.24	135.8	F
Lexington Avenue & East 48th Street	Eastbound	T	1.03	77.9	E	T	1.09	92.7	F
Lexington Avenue & East 48th Street	Eastbound	R	1.11	126.1	F	R	1.18	147.7	F
Lexington Avenue & East 48th Street	Southbound	LT	1.06	67.2	E	LT	1.11	70.1	E
Lexington Avenue & East 49th Street	Southbound	T	0.99	67.1	E	T	1.04	65.7	E
Lexington Avenue & East 50th Street	Southbound	LT	1.15	87.9	F	LT	1.22	117.9	F
Lexington Avenue & East 51st Street	Westbound	L	0.99	62.4	E	L	1.04	73.3	E
Lexington Avenue & East 51st Street	Westbound	T	0.99	44.5	D	T	1.01	51.4	D
Lexington Avenue & East 51st Street	Southbound	T	0.94	60.6	E	T	0.99	59.8	E

Table 12.26: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the PM Peak Hour (Continued)

Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Lexington Avenue & East 52nd Street	Eastbound	R	0.92	51.7	D	R	0.97	58.2	E
Lexington Avenue & East 52nd Street	Southbound	LT	1.05	73.4	E	LT	1.11	74.4	E
Lexington Avenue & East 53rd Street	Westbound	T	0.93	37.7	D	T	0.96	45.2	D
Lexington Avenue & East 54th Street	Eastbound	TR	0.86	30.2	C	TR	0.93	32.9	C
Lexington Avenue & East 54th Street	Southbound	LT	1.06	54.3	D	LT	1.11	69.1	E
Lexington Avenue & East 55th Street	Westbound	L	0.83	38.6	D	L	0.97	48.3	D
Lexington Avenue & East 55th Street	Westbound	T	0.77	21.1	C	T	0.91	26.2	C
Lexington Avenue & East 55th Street	Southbound	T	0.91	39.9	D	T	0.93	59.9	E
Lexington Avenue & East 56th Street	Eastbound	R	0.93	44.4	D	R	0.93	45.5	D
Lexington Avenue & East 56th Street	Southbound	LT	1.03	72.5	E	LT	1.06	74.4	E
Lexington Avenue & East 57th Street	Eastbound	T	1.42	217.0	F	T	1.43	223.1	F
Lexington Avenue & East 57th Street	Westbound	LT	1.56dl	98.1	F	LT	1.56dl	96.0	F
Lexington Avenue & East 57th Street	Southbound	LT	1.02	87.0	F	LT	1.05	85.9	F
Park Avenue & East 36th Street	Eastbound (West Side)	TR	1.01	66.8	E	TR	1.03	83.9	F
Park Avenue & East 38th Street	Eastbound (West Side)	TR	1.00	65.6	E	TR	1.05	78.8	E
Park Avenue & East 38th Street	Northbound (East Side)	TR	0.91	51.1	D	TR	0.93	59.2	E
Park Avenue & East 39th Street	Westbound (East Side)	TR	1.26	142.7	F	TR	1.41	212.3	F
Park Avenue & East 39th Street	Northbound (East Side)	LT	0.97	78.5	E	LT	0.97	79.2	E
Park Avenue & East 39th Street	Westbound (West Side)	LT	1.09	65.6	E	LT	1.23	126.3	F
Park Avenue & East 39th Street	Southbound (West Side)	T	0.82	66.8	E	T	0.87	67.4	E
Park Avenue & East 39th Street	Southbound (West Side)	R	1.16	103.7	F	R	1.30	162.4	F
Park Avenue & East 40th Street	Eastbound (West Side)	TR	1.43	238.6	F	TR	1.47	255.4	F
Park Avenue & East 40th Street	Southbound (West Side)	T	1.18	118.7	F	T	1.27	153.4	F
Park Avenue & East 40th Street	Eastbound (Tunnel Exit)	LT	1.66	318.6	F	LT	1.70	337.4	F
Park Avenue & East 40th Street	Eastbound (East Side)	LT	1.55	265.9	F	LT	1.60	287.5	F
Park Avenue & East 40th Street	Northbound (East Side)	TR	1.07	71.6	E	TR	1.09	71.1	E
Park Avenue & East 46th Street	Eastbound (West Side)	T	1.16	109.3	F	T	1.25	143.4	F
Park Avenue & East 46th Street	Southbound (West Side)	L	0.66	75.9	E	L	0.77	76.8	E
Park Avenue & East 46th Street	Southbound (West Side)	T	1.12	72.6	E	T	1.22	118.0	F
Park Avenue & East 46th Street	Eastbound (East Side)	L	0.82	14.8	B	L	0.95	23.1	C
Park Avenue & East 46th Street	Eastbound (East Side)	T	1.20	109.2	F	T	1.34	172.3	F
Park Avenue & East 46th Street	Northbound (East Side)	T	0.90	45.2	D	T	0.90	48.5	D
Park Avenue & East 47th Street	Westbound (East Side)	T	0.99	36.6	D	T	1.10	68.8	E
Park Avenue & East 47th Street	Northbound (East Side)	L	0.27	95.7	F	L	0.27	98.8	F
Park Avenue & East 47th Street	Northbound (East Side)	T	1.05	66.3	E	T	1.07	65.8	E
Park Avenue & East 47th Street	Westbound (West Side)	LT	1.05	63.2	E	LT	1.14	91.1	F
Park Avenue & East 47th Street	Southbound (West Side)	TR	1.04	68.8	E	TR	1.12	78.6	E
Park Avenue & East 48th Street	Southbound (West Side)	L	0.22	50.4	D	L	0.22	65.2	E
Park Avenue & East 48th Street	Southbound (West Side)	T	0.99	63.0	E	T	1.05	62.2	E
Park Avenue & East 48th Street	Eastbound (East Side)	LT	0.91	35.9	D	LT	0.96	44.3	D
Park Avenue & East 48th Street	Northbound (East Side)	TR	1.02	61.6	E	TR	1.04	62.8	E
Park Avenue & East 49th Street	Westbound (East Side)	T	0.89	34.2	C	T	0.99	70.9	E
Park Avenue & East 49th Street	Northbound (East Side)	L	0.19	26.3	C	L	0.19	109.9	F
Park Avenue & East 49th Street	Northbound (East Side)	T	1.07	58.8	E	T	1.10	60.1	E
Park Avenue & East 49th Street	Westbound (West Side)	LT	0.96	36.8	D	LT	1.06	59.9	E
Park Avenue & East 49th Street	Southbound (West Side)	TR	0.94	52.5	D	TR	0.98	65.0	E
Park Avenue & East 50th Street	Eastbound (West Side)	T	0.87	37.3	D	T	0.91	42.6	D

Table 12.26: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the PM Peak Hour (Continued)

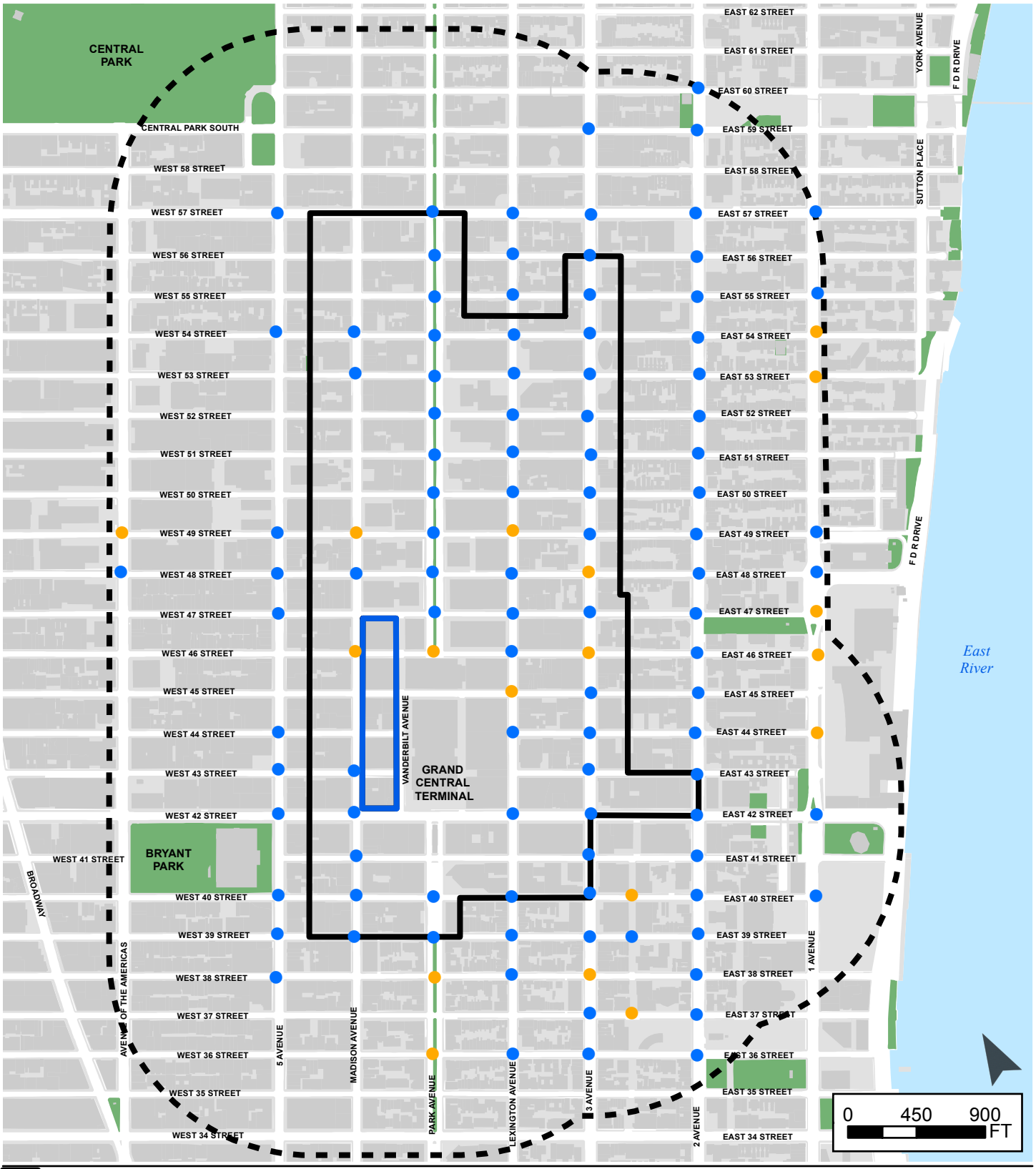
Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Park Avenue & East 50th Street	Southbound (West Side)	T	1.06	67.5	E	T	1.10	67.6	E
Park Avenue & East 50th Street	Eastbound (East Side)	LT	1.15	109.0	F	LT	1.20	127.1	F
Park Avenue & East 50th Street	Northbound (East Side)	TR	0.90	42.2	D	TR	0.93	52.9	D
Park Avenue & East 51st Street	Northbound (East Side)	T	1.06	65.4	E	T	1.10	65.0	E
Park Avenue & East 51st Street	Southbound (West Side)	TR	0.87	28.4	C	TR	0.91	42.1	D
Park Avenue & East 52nd Street	Southbound (West Side)	L	0.16	54.7	D	L	0.18	86.3	F
Park Avenue & East 52nd Street	Southbound (West Side)	T	1.02	50.0	D	T	1.06	65.2	E
Park Avenue & East 52nd Street	Eastbound (East Side)	LT	1.06	67.8	E	LT	1.10	82.3	F
Park Avenue & East 52nd Street	Northbound (East Side)	TR	1.05	64.7	E	TR	1.08	62.9	E
Park Avenue & East 53rd Street	Northbound (East Side)	T	1.11	64.3	E	T	1.14	80.4	F
Park Avenue & East 53rd Street	Westbound (West Side)	LT	1.03	52.3	D	LT	1.05	59.5	E
Park Avenue & East 53rd Street	Southbound (West Side)	TR	0.86	22.0	C	TR	0.91	34.9	C
Park Avenue & East 54th Street	Southbound (West Side)	T	1.00	55.6	E	T	1.02	58.5	E
Park Avenue & East 54th Street	Eastbound (East Side)	LT	0.83	15.2	B	LT	0.92	21.0	C
Park Avenue & East 54th Street	Northbound (East Side)	TR	0.95	64.0	E	TR	0.98	60.5	E
Park Avenue & East 55th Street	Westbound (East Side)	TR	1.08	112.8	F	TR	1.26	165.9	F
Park Avenue & East 55th Street	Northbound (East Side)	L	0.15	37.0	D	L	0.15	157.9	F
Park Avenue & East 55th Street	Northbound (East Side)	T	1.10	64.9	E	T	1.14	83.1	F
Park Avenue & East 55th Street	Westbound (West Side)	LT	1.08	76.7	E	LT	1.18	102.2	F
Park Avenue & East 55th Street	Southbound (West Side)	TR	1.14	81.9	F	TR	1.16	89.2	F
Park Avenue & East 56th Street	Eastbound (West Side)	TR	1.33	172.0	F	TR	1.34	175.9	F
Park Avenue & East 56th Street	Southbound (West Side)	T	1.04	71.4	E	T	1.05	71.0	E
Park Avenue & East 56th Street	Eastbound (East Side)	LT	1.14	82.6	F	LT	1.15	87.3	F
Park Avenue & East 56th Street	Northbound (East Side)	TR	1.01	58.8	E	TR	1.08	62.4	E
Park Avenue & East 57th Street	Eastbound (West Side)	T	1.37	199.2	F	T	1.38	201.0	F
Park Avenue & East 57th Street	Southbound (West Side)	LTR	0.76	72.2	E	LTR	0.77	72.5	E
Park Avenue & East 57th Street	Eastbound (East Side)	LT	1.03	31.8	C	LT	1.04	33.3	C
Park Avenue & East 57th Street	Northbound (East Side)	T	1.09	58.4	E	T	1.13	75.3	E
Madison Avenue & East 39th Street	Westbound	T	1.32	164.3	F	T	1.53	257.9	F
Madison Avenue & East 39th Street	Westbound	R	1.03	61.6	E	R	1.23	135.7	F
Madison Avenue & East 39th Street	Northbound	LT	0.99	84.8	F	LT	1.02	85.3	F
Madison Avenue & East 40th Street	Eastbound	L	1.16	110.1	F	L	1.19	120.5	F
Madison Avenue & East 40th Street	Northbound	TR	1.09	63.7	E	TR	1.14	79.9	E
Madison Avenue & East 41st Street	Northbound	TR	1.16	90.8	F	TR	1.20	111.4	F
Madison Avenue & East 42nd Street	Eastbound	LT	1.17	103.8	F	LT	1.21	119.4	F
Madison Avenue & East 42nd Street	Westbound	T	1.21	133.0	F	T	1.27	157.3	F
Madison Avenue & East 42nd Street	Northbound	LT	1.19	105.4	F	LT	1.23	123.7	F
Madison Avenue & East 43rd Street	Northbound	L	1.21	121.4	F	L	1.74	354.3	F
Madison Avenue & East 43rd Street	Northbound	T	1.18	99.6	F	T	1.22	118.8	F
Madison Avenue & East 46th Street	Eastbound	LT	1.04	88.5	F	LT	1.10	86.1	F
Madison Avenue & East 46th Street	Northbound	T	1.10	63.2	E	T	1.12	73.6	E
Madison Avenue & East 46th Street	Northbound	R	0.71	152.9	F	R	0.88	173.9	F
Madison Avenue & East 48th Street	Northbound	T	1.17	95.4	F	T	1.20	108.7	F
Madison Avenue & East 49th Street	Westbound	TR	1.01	77.3	E	TR	1.14	93.4	F
Madison Avenue & East 49th Street	Northbound	T	1.06	59.7	E	T	1.09	61.1	E
Madison Avenue & East 53rd Street	Westbound	TR	0.93	47.9	D	TR	0.95	48.9	D
Madison Avenue & East 53rd Street	Northbound	T	1.10	62.6	E	T	1.12	73.3	E

Table 12.26: No-Action and With-Action Intersections with LOS E/F or V/C ≥ 0.90 in the PM Peak Hour (Continued)

Signalized Intersection	Approach	No-Action 2036				With-Action 2036			
		Movt.	V/C Ratio	Delay Sec/Veh	LOS	Movt.	V/C Ratio	Delay Sec/Veh	LOS
Madison Avenue & East 54th Street	Northbound	T	1.00	58.1	E	T	1.02	58.8	E
5th Avenue & 38th Street	Eastbound	R	1.04	120.8	F	R	1.04	120.8	F
5th Avenue & 38th Street	Southbound	LT	1.24	119.5	F	LT	1.26	132.0	F
5th Avenue & 39th Street	Westbound	L	0.84	58.0	E	L	0.89	60.5	E
5th Avenue & 39th Street	Westbound	T	0.77	38.0	D	T	0.90	40.9	D
5th Avenue & 39th Street	Southbound	T	1.26	137.1	F	T	1.28	146.9	F
5th Avenue & 39th Street	Southbound	R	1.15	92.2	F	R	1.15	92.2	F
5th Avenue & 40th Street	Eastbound	TR	1.27	162.7	F	TR	1.28	170.0	F
5th Avenue & 40th Street	Southbound	LT	1.49	240.5	F	LT	1.52	253.8	F
5th Avenue & 42nd Street	Westbound	LT	0.99	45.1	D	LT	1.04	57.8	E
5th Avenue & 42nd Street	Southbound	LT	1.48	231.2	F	LT	1.50	243.4	F
5th Avenue & 43rd Street	Southbound	T	1.35	173.5	F	T	1.37	182.3	F
5th Avenue & 43rd Street	Southbound	R	1.61	297.5	F	R	2.12	526.1	F
5th Avenue & 44th Street	Eastbound	R	1.23	164.6	F	R	1.36	217.7	F
5th Avenue & 44th Street	Southbound	LT	1.52	252.1	F	LT	1.54	263.1	F
5th Avenue & 47th Street	Westbound	L	1.12	101.4	F	L	1.14	108.9	F
5th Avenue & 47th Street	Westbound	T	1.03	50.4	D	T	1.09	73.3	E
5th Avenue & 47th Street	Southbound	T	1.37	185.1	F	T	1.39	192.3	F
5th Avenue & 47th Street	Southbound	R	0.95	30.4	C	R	1.16	97.0	F
5th Avenue & 48th Street	Eastbound	T	1.02	52.9	D	T	1.20	128.1	F
5th Avenue & 48th Street	Eastbound	R	1.14	107.8	F	R	1.24	156.7	F
5th Avenue & 48th Street	Southbound	LT	1.31	159.0	F	LT	1.33	164.6	F
5th Avenue & 49th Street	Westbound	LT	0.94	59.8	E	LT	1.10	91.4	F
5th Avenue & 49th Street	Southbound	T	1.40	193.3	F	T	1.41	199.8	F
5th Avenue & 54th Street	Eastbound	TR	0.91	48.9	D	TR	0.94	52.6	D
5th Avenue & 54th Street	Southbound	LT	1.45	219.1	F	LT	1.47	228.7	F
5th Avenue & 57th Street	Eastbound	T	1.41	217.8	F	T	1.41	219.6	F
5th Avenue & 57th Street	Westbound	LT	1.66dl	153.0	F	LT	1.66dl	159.1	F
5th Avenue & 57th Street	Southbound	LT	1.49	251.4	F	LT	1.52	263.7	F
6th Avenue & West 48th Street	Eastbound	T	1.02	74.4	E	T	1.04	78.0	E
6th Avenue & West 48th Street	Northbound	R	1.12	144.8	F	R	1.12	144.9	F
6th Avenue & West 49th Street	Westbound	T	0.87	51.2	D	T	1.03	74.2	E
6th Avenue & West 49th Street	Westbound	R	0.82	48.7	D	R	0.92	55.6	E

Note: Shading denotes a significant adverse impact. No shading denotes approach movement operating at LOS E or LOS F, and/or a v/c ratio of 0.90 or higher, but not an adverse impact.

Table 12.27 summarizes the number of approach movements and intersections at which the Proposed Action would result in significant traffic impacts. In the With-Action Condition, significant adverse impacts were identified at 189 approach movements at 101 intersections during the AM peak hour, 179 approach movements at 101 intersections in the Midday peak hour, and 200 approach movements at 106 intersections in the PM peak hour. Figure 12-19 through Figure 12-21 show the location of intersections where significant adverse impacts would occur during the weekday AM, Midday, and PM peak hours, respectively. Chapter 19, "Mitigation," discusses standard traffic engineering measures that could mitigate many of these significant adverse impacts.



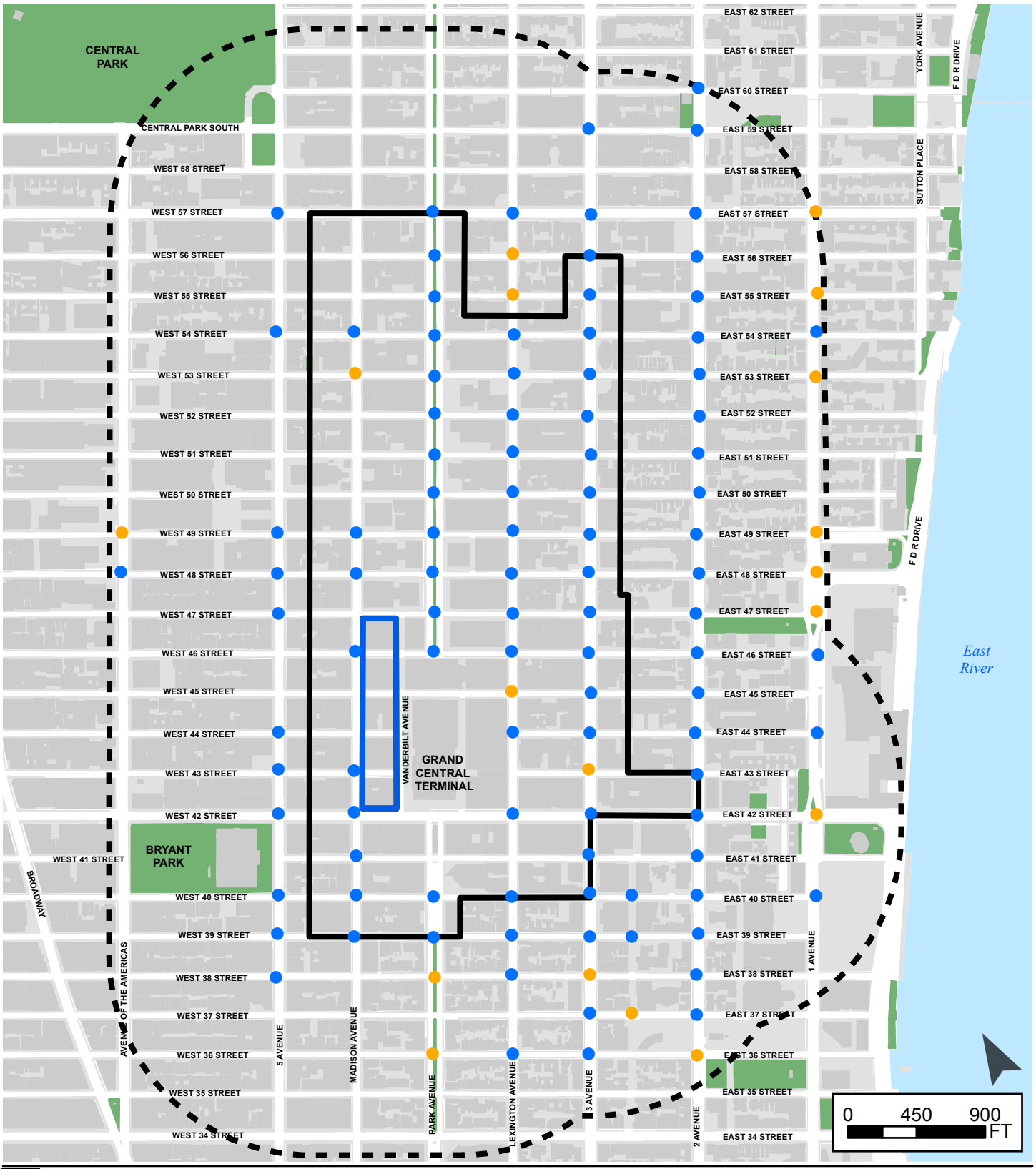
Proposed Greater East Midtown Rezoning Boundary
Vanderbilt Corridor (Existing Regulations Apply)
Quarter-Mile Study Area
No Significant Impact
Significant Impact

Greater East Midtown Rezoning
Manhattan, New York

Impacted Intersections
Weekday AM Peak Hour

Figure
12-19

vhb



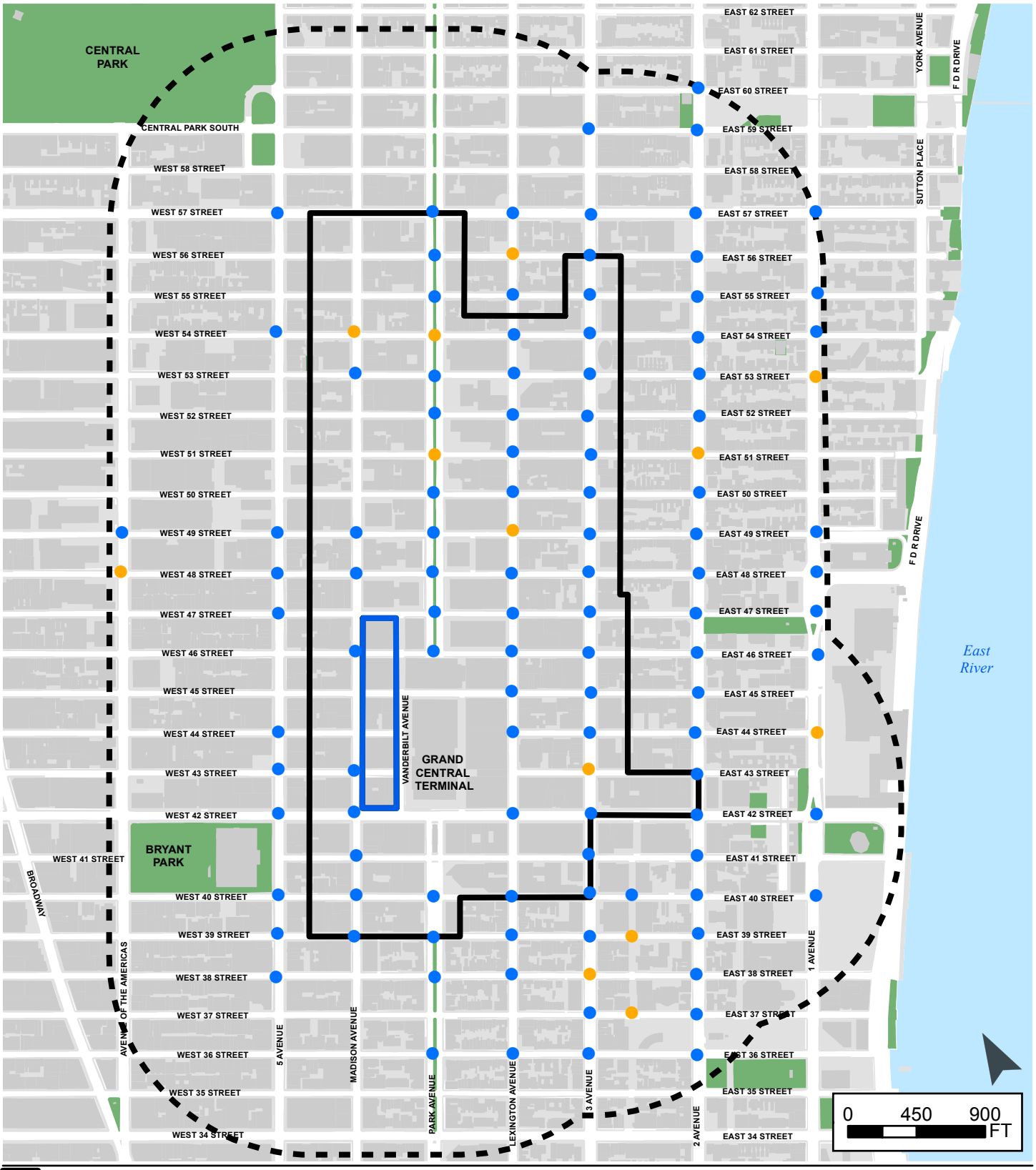
Proposed Greater East Midtown Rezoning Boundary
Vanderbilt Corridor (Existing Regulations Apply)
Quarter-Mile Study Area
No Significant Impact
Significant Impact

Greater East Midtown Rezoning
Manhattan, New York

Impacted Intersections
Weekday Midday Peak Hour

Figure
12-20

vhb



Proposed Greater East Midtown Rezoning Boundary
Vanderbilt Corridor (Existing Regulations Apply)
Quarter-Mile Study Area
No Significant Impact
Significant Impact

Greater East Midtown Rezoning
Manhattan, New York

Impacted Intersections
Weekday PM Peak Hour

Figure 12-21

vhb

Table 12.27: Summary of Approach Movements and Intersections with Significant Impacts with the Proposed Action

Locations with Significant Impacts	Peak Hour		
	AM	Midday	PM
Approach Movements	189	179	200
Intersections	101	101	106

Action-With-Improvements

As discussed previously, DOT has prepared a suite of conceptual options for above-grade public realm improvements that could be implemented within the Greater East Midtown area, which would be financed through the public realm improvement fund. While the exact type and locations of above-grade improvements are not finalized, for purposes of analysis in this Draft EIS, the Concent Plan provides a means to qualitatively assess and identify the potential effects of the above-grade public realm improvements on traffic conditions.

As part of the above-grade public realm improvements, pedestrian plazas are contemplated on the east and west sides of the Park Avenue viaduct between East 40th and 41st Streets and on East 43rd Street between Lexington and Third Avenues. The permanent closure of these street segments to vehicular traffic would result in the diversion of traffic to other streets, and could result in new, different, or worsened traffic impacts at certain locations, including the intersections of: Third Avenue with East 43rd, 44th, and 45th Streets; Lexington Avenue with East 40th, 44th, and 45th Streets; and Madison Avenue with East 41st Street.

The design of shared streets would allow for roadways to remain open to vehicular traffic, but with traffic calming measures and reduced vehicle speeds. Access to all buildings and businesses would be maintained, allowing for servicing and deliveries. It is anticipated that the creation of pedestrian-priority streets would not result in new or worsened traffic impacts as shared streets are currently contemplated on roadways having lower volumes of traffic.

The widening of the Park Avenue medians between East 46th and 57th Streets would result in the loss of one moving lane of traffic in the northbound and southbound directions and could result in new, different, or worsened traffic impacts at intersections along this corridor. The dedication of one or more traffic lanes on a roadway for the exclusive use of buses within the study area would result in an increase in surface transit capacity, but would result in reduced capacity for other vehicles using the street and could result in adverse impacts on vehicular traffic operations. Meanwhile, the provision of an exclusive turning lane at intersections could provide left- or right-turning vehicles with additional capacity and result in improved traffic conditions.

Many of the thoroughfare improvements identified in the Concept Plan—including bus bulbs, crosswalk widenings, and curb extensions or sidewalk widenings—could be applied across the study area and specific locations have not been identified. These improvements would provide benefits to pedestrian conditions and may or may not affect traffic conditions, depending whether they are located alongside a moving lane used by traffic or along a curbside parking lane. If traffic moving lanes are affected, this could result in new or worsened traffic impacts.

Assuming that the above-grade public realm improvements are finalized by DOT, a detailed traffic analysis of the Proposed Action with above-grade public realm improvements (Action-With-Improvements) will be performed between the DEIS and FEIS. This analysis will provide a quantitative

assessment of the traffic impacts resulting from the development with the above-grade public realm improvements in comparison to the No-Action condition. If significant adverse traffic impacts are identified but no practicable and feasible mitigation measures are available, then these impacts would be considered unavoidable adverse impacts.

12.4 Transit

Existing Conditions

Subway Stations

As discussed in Section 12.2, "Level 2 Screening Assessment," project-generated trips at five subway stations/station complexes are expected to exceed the 200-trip *CEQR Technical Manual* analysis threshold in the weekday AM and/or PM peak hours. As shown in Table 12.7, these stations include:

- Grand Central 42nd Street;
- 42nd Street Bryant Park-Fifth Avenue;
- 47th-50th Streets-Rockefeller Center;
- Lexington Avenue-51st/53rd Streets; and
- Lexington Avenue-59th Street (PM peak hour only)

The Fifth Avenue-53rd Street station has also been analyzed to provide an assessment of the changes resulting from the pre-identified transit improvements.

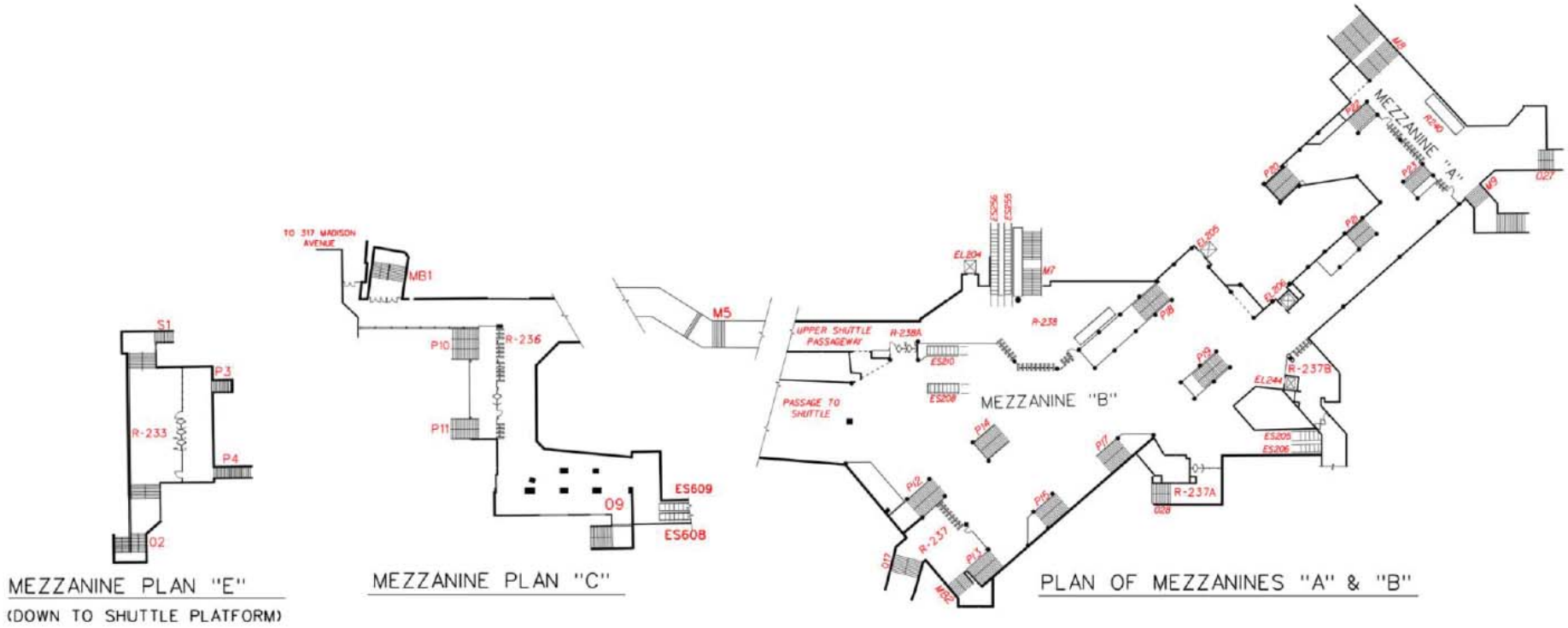
Grand Central 42nd Street Subway Station

The Grand Central 42nd Street subway station complex is served by No. 4 and No. 5 express trains and No. 6 local trains operating along the Lexington Avenue Line. In addition, it is served by No. 7 express and local trains operating on the Flushing Line and S trains on the Grand Central Shuttle Line.

Lexington Line (4, 5, 6)

As shown on Figure 12-22, the Lexington Line platform is accessed primarily via Mezzanine A/B with several fare control areas (R238, R238A, R237, R237A, R237B, R240, and R240A). Fare control areas have associated stairs to the street level and are configured as follows:

- Fare Control Area (FCA) R238 has 11 turnstiles and connects via the M7 stair, escalators ES255 and ES256, and ADA elevator EL 204 to Grand Central Terminal on the north side of East 42nd Street between Park and Lexington Avenues. To the west of FCA R238 is FCA R238A, which has four turnstiles, and serves the unpaid shuttle passageway and M5 stair.
- At the south end of Mezzanine A/B is FCA R237, which has seven turnstiles, and is served by stair O17 that leads to a street exit on the east side of Park Avenue south of East 42nd Street.



Source: New York City Transit, 2013

FCA R237 is also served by stair MB2 that leads to the south side of East 42nd Street between Park and Lexington Avenues through the Bowery Savings Bank.

- FCA R237A is northeast of FCA R237 and has one high exit turnstile that leads to the Bowery Savings Bank on the south side of East 42nd Street. East of FCA R237A is FCA R237B, which consists of four turnstiles, and leads to the street through the Chanin Building which is on the south side of East 42nd Street.
- At the north end of Mezzanine A/B is FCA R240 and FCA R241A, which provide a respective eleven turnstiles and five turnstiles. These two fare controls connect to Grand Central Terminal via stair M8, to the Chrysler Building via stair O27, and to Lexington Avenue north of East 42nd Street via stair M9.

Two island platforms serve the uptown and downtown express and local tracks and are located on a level below Mezzanine A/B. Five stairways (P12, P14, P18, P20 and P22) connect the mezzanine to the southbound platform, and six stairways (P13, P15, P17, P19, P21 and P23) connect the mezzanine to the northbound platform.

Flushing Line (7)

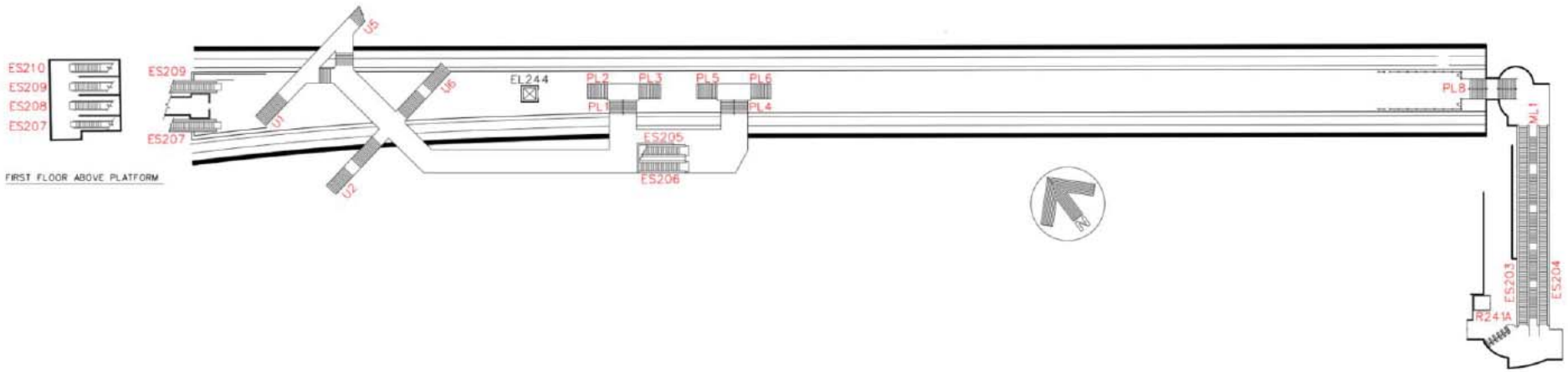
The Flushing Line platform is located below East 42nd Street, centered beneath Lexington Avenue and under the diagonal Lexington Line island platforms. As shown on Figure 12-23, the platform is served by three main vertical circulation cores: one at the western end, one in the center and one at the eastern end of the platform.

The western and center vertical circulation cores connect to Lexington Line Mezzanine A/B, and the third core, at the east end of the platform which connects to the street level. These circulation cores are configured as follows:

- At the western end of the platform are two switchback escalators (E207-8 and E209-10) that connect to the platform and Lexington Line Mezzanine A/B.
- At the east end of the platform, Stair PL8-9 leads to two escalators (ES203 and ES204) and then to a five-flight stair (ML1-5) up to Fare Control Area (FCA) R241A (Third Avenue core). FCA R241A, which has five turnstiles, is located at street level on the south side of East 42nd Street between Lexington and Third Avenues.
- At the center of the platform, there are two sets of splayed stairs (PL2 and PL3 feed PL1, and PL5 and PL6 feed PL 4) that lead to a lower mezzanine that has two escalators (ES205 and ES206) extending to Lexington Line Mezzanine A/B. The lower mezzanine also connects to the Flushing passageway that extends west below the Lexington Line island platforms. Stairs U1 and U5 connect from the Flushing passageway up to the southbound Lexington Line platform, and Stairs U2 and U6 connect up to the northbound Lexington Line platform.

Shuttle Line (S)

The Shuttle Line platform area is underneath East 42nd Street primarily between Vanderbilt and Madison Avenues. It is comprised of two island platforms that join at its eastern end. This wide platform area connects to a paid zone passageway leading to Lexington Line Mezzanine A/B. There are also connections to the street as follows.



Source: New York City Transit, 2013

Greater East Midtown Rezoning
Manhattan, New York

Grand Central 42nd Street Subway Station Complex-Flushing Line

Figure
12-23

- The eastern end of the platform area also connects to Stairs P10 and P11 that lead up to FCA R236, which has twelve turnstiles and one high exit turnstile. The north end of R236 connects to Grand Central Terminal and the shuttle unpaid passageway (leading to R238A and the Lexington Line Mezzanine A/B). See Figure 12-22, Mezzanine Plan "C."
- At the west end of the two Shuttle platforms, the northern platform is connected to FCA R233 by Stair P3 and the southern platform is connected to R233 by Stair P4. FCA R233 has two high entry/exit turnstiles and one high exit turnstile. There are two street stairs, S1 and O3 that connect fare control area R233 to East 42nd Street, west of Madison Avenue. Stair S1 is a sidewalk stair on the north side of East 42nd Street, and Stair O3 is an easement stair in the Carbide Building and is located on the south side of East 42nd Street. See Figure 12-22, Mezzanine Plan "E.

All of the elements discussed above and shown on Figures 12-22 and 12-23 were selected for analysis by NYCT. Tables 12.28 through 12.31 show the existing weekday AM and PM peak hour conditions at all analyzed stairs, escalators, passageways, and fare control areas at the Grand Central 42nd Street subway station complex.

As shown in Tables 12.28 through 12.31, the following analyzed elements at the Grand Central 42nd Street subway station operate at LOS D or worse in at least one peak hour in the existing condition.

In the AM peak period these include:

- Lexington Line southbound platform stairs P12, P14, P18, and P20 operate at LOS D, with v/c ratios of 1.30, 1.30, 1.01, and 1.05, respectively. Additionally, southbound platform stair P22 operates at LOS E, with a v/c ratio 1.39.
- Lexington Line northbound platform stair P23 operates at LOS E, with a v/c ratio of 1.33.
- Flushing Line platform stair PL2 operates at LOS D, with a v/c ratio of 1.24. In addition, Flushing Line platform stairs PL6 and PL9A operate at LOS E, with v/c ratios of 1.62 and 1.65, respectively.
- Free zone stair M9, located near Lexington Avenue north of East 42nd Street and connecting Grand Central Terminal to the R240 fare control area, operates at LOS E, with a v/c ratio of 1.46.
- Free zone stair M7, located near the north side of East 42nd Street and connecting Grand Central Terminal to the R238 fare control area, operates at LOS F, with a v/c ratio of 1.71.
- Free zone escalators ES255 and ES256, also located near the north side of East 42nd Street and connecting Grand Central Terminal to the R238 fare control area, both operate at LOS D, with v/c ratios of 1.23.

In the PM peak period these include:

- Northbound Lexington platform stairs P17 and P23 that operate at LOS D (v/c ratio 1.04) and LOS E (v/c ration 1.35), respectively.
- One of the Flushing underpass stairs that connects to the northbound Lexington platform (Stair U6) operates at LOS D with a v/c of 1.18.
- Flushing Line platform Stairs (that connect through the center core) PL2, PL3, and PL9A operate at LOS D with v/c ratios of 1.09, 1.03 and 1.21, respectively.

- Street Stair M7 will operate at LOS E during the PM peak hour with a v/c ratio of 1.58.
- Street Stair M9 will operate at LOS D during the PM peak hour with a v/c ratio of 1.15.
- Third Avenue core Escalator ES 204, which operates down in the PM, will operate at LOS D with a v/c ratio of 1.06.
- Escalators ES255 and ES256 will operate down at LOS D with v/c ratios of 1.17 and 1.14, respectively.

Table 12.28: Existing Conditions Stair Analysis at the Grand Central 42nd Street (4, 5, 6, 7, S) Subway Station Complex

Peak Period	Stairway	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor Up	Surging Factor Down	Friction Factor	V/C Ratio	LOS
			Down	Up					
AM	P12	8.75	686	622	0.75	1.00	0.9	1.30	D
	P14	8.75	429	966	0.75	1.00	0.9	1.30	D
	P16	5.75	193	361	0.75	1.00	0.9	0.80	C
	P18	8.75	510	509	0.75	1.00	0.9	1.01	D
	P20	8.75	535	526	0.75	1.00	0.9	1.05	D
	P22	5.17	575	206	0.75	1.00	0.9	1.39	E
	P13	8.75	497	122	0.75	1.00	0.9	0.66	B
	P15	8.75	313	175	0.75	1.00	0.9	0.50	B
	P17	8.75	430	297	0.75	1.00	0.9	0.74	C
	P19	8.75	495	170	0.75	1.00	0.9	0.70	C
	P21	8.75	685	110	0.75	1.00	0.9	0.87	C
	P23	5.17	590	144	0.75	1.00	0.9	1.33	E
	U1	5.00	190	207	0.90	0.8	0.9	0.72	C
	U5	5.00	353	179	0.90	0.75	0.9	0.93	C
	U6	5.00	163	184	0.90	0.8	0.9	0.63	B
	U2	5.00	88	185	0.90	0.75	0.9	0.51	B
	PL2	6.50	552	333	0.75	0.95	0.9	1.24	D
	PL3	6.50	278	391	0.75	0.95	0.9	0.89	C
	PL5	6.00	535	0	0.75	0.95	0.9	0.88	C
	PL6	6.00	957	31	0.75	0.95	0.9	1.62	E
	PL9A	8.75	1350	145	0.75	0.95	0.9	1.65	E
	ML1	5.00	0	145	0.75	1.00	0.9	0.21	A
	P10S	14.00	641	625	0.75	1.00	0.9	0.78	C
	P11	8.00	316	243	0.75	1.00	0.9	0.62	B
	P3	4.00	101	10	0.75	1.00	0.9	0.27	A
	P4	4.00	204	15	0.75	1.00	0.9	0.53	B
	M8	17.70	1241	770	0.90	1.00	0.9	0.90	C
	M9	6.83	1062	162	0.90	1.00	0.9	1.46	E
	O27	10.75	134	587	1.00	0.90	0.9	0.54	B
	M7	8.75	385	1620	0.95	1.00	0.9	1.71	F
	KC	10.25	0	0	0.95	1.00	0.9	0.00	A
	S1	3.75	76	6	0.80	1.00	0.9	0.20	A
	O3	7.75	229	19	0.80	1.00	0.9	0.29	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.28: Existing Conditions Stair Analysis at the Grand Central 42nd Street (4, 5, 6, 7, S) Subway Station Complex (Continued)

Peak Period	Stairway	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor Up	Surging Factor Down	Friction Factor	V/C Ratio	LOS
			Down	Up					
PM	P12	8.75	210	534	0.75	1.0	0.9	0.69	B
	P14	8.75	119	424	0.75	1.0	0.9	0.49	B
	P16	5.75	109	507	0.75	1.0	0.9	0.84	C
	P18	8.75	151	413	0.75	1.0	0.9	0.52	B
	P20	8.75	113	508	0.75	1.0	0.9	0.56	B
	P22	5.17	144	479	0.75	1.0	0.9	0.96	C
	P13	8.75	525	401	0.75	1.0	0.9	0.93	C
	P15	8.75	329	433	0.75	1.0	0.9	0.74	C
	P17	8.75	399	698	0.75	1.0	0.9	1.04	D
	P19	8.75	476	329	0.75	1.0	0.9	0.82	C
	P21	8.75	380	367	0.75	1.0	0.9	0.74	C
	P23	5.17	381	431	0.75	1.0	0.9	1.35	E
	U1	6.00	27	316	0.90	0.75	0.9	0.67	B
	U5	5.00	50	259	0.90	0.75	0.9	0.59	B
	U6	6.00	61	548	0.90	0.75	0.9	1.18	D
	U2	5.00	33	449	0.90	0.75	0.9	0.94	C
	PL2	6.50	117	764	0.75	0.95	0.9	1.09	D
	PL3	6.50	60	786	0.75	0.95	0.9	1.03	D
	PL5	6.00	106	228	0.75	0.95	0.9	0.47	B
	PL6	6.00	189	364	0.75	0.95	0.9	0.78	C
	PL9A	8.75	280	1002	0.75	0.95	0.9	1.21	D
	ML1	5.00	0	0	0.75	1.0	0.9	0.00	A
	P10S	14.00	675	737	0.75	1.0	0.9	0.87	C
	P11	8.00	94	187	0.75	1.0	0.9	0.29	A
	P3	4.00	14	114	0.75	1.0	0.9	0.25	A
	P4	4.00	28	171	0.75	1.0	0.9	0.39	A
	M8	17.70	600	913	0.90	1.0	0.9	0.66	B
	M9	6.83	326	696	0.90	1.0	0.9	1.15	D
	O27	10.75	385	270	1.00	0.9	0.9	0.47	B
	M7	8.75	463	1352	0.90	1.0	0.9	1.58	E
	KC	10.25	0	0	0.90	1.0	0.9	0.00	A
	S1	3.75	11	73	0.80	1.0	0.9	0.17	A
	O3	7.75	32	212	0.80	1.0	0.9	0.24	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.29: Existing Conditions Escalator Analysis at the Grand Central 42nd Street (4, 5, 6, 7, S) Subway Station Complex

Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
AM	E203	32	90	750	544	0.80	0.91	C
	E204	32	90	750	544	0.80	0.91	C
	E205	40	90	945	700	0.80	0.93	C
	E206	40	90	945	700	0.80	0.93	C
	E208	40	90	945	618	0.75	0.87	C
	E210	40	90	945	618	0.75	0.87	C
	E255	40	90	945	1106	0.95	1.23	D
	E256	40	90	945	1106	0.95	1.23	D
PM	E203	32	90	750	333	0.80	0.56	B
	E204	32	90	750	793	1.00	1.06	D
	E205	40	90	945	380	0.80	0.50	B
	E206	40	90	945	488	1.00	0.52	B
	E208	40	90	945	421	0.75	0.59	B
	E210	40	90	945	943	1.00	1.00	C
	E255	40	90	945	1050	0.95	1.17	D
	E256	40	90	945	1080	1.00	1.14	D

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.30: Existing Conditions Passageway Analysis at the Grand Central 42nd Street (4, 5, 6, 7, S) Subway Station Complex

Passageway	Peak Period	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor West	Surging Factor East	Friction Factor	V/C Ratio	LOS
			West	East					
Passageway between Mezzanine A and Shuttle	AM	15.0	756	511	95%	95%	0.9	0.44	A
	PM	15.0	561	827	95%	95%	0.9	0.48	B

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.31: Existing Conditions Fare Control Area Analysis at the Grand Central 42nd Street (4, 5, 6, 7, S) Subway Station Complex

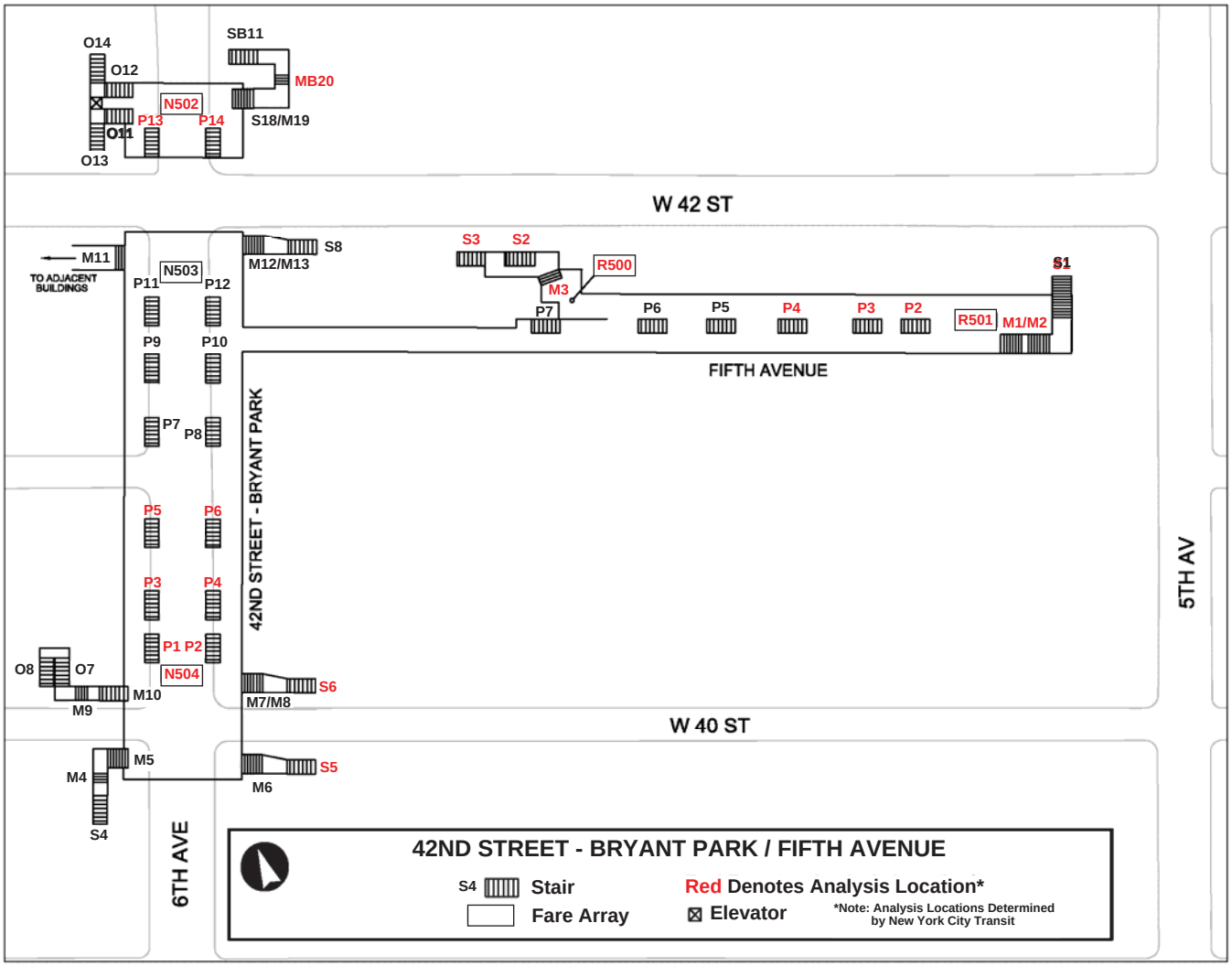
Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				In	Out				
AM	R241A	Two-way Turnstile	5	145	1350	0.95	0.9	0.57	B
	R240	Two-way Turnstile	11	1067	2890	0.9	0.9	0.76	C
	R238	Two-way Turnstile	11	1620	2507	0.9	0.9	0.83	C
	R238A	Two-way Turnstile	4	180	301	0.9	0.9	0.26	A
	R237	Two-way Turnstile	7	81	816	0.9	0.9	0.25	A
	R237A	High Exit Turnstile	1	0	148	0.9	1.0	0.30	A
	R237B	Two-way Turnstile	4	44	668	0.9	0.9	0.35	A
	R236	Two-way Turnstile	12	868	1022	0.8	0.9	0.37	A
	R233	High Entry/Exit Turnstile	2	25	305	0.8	0.9	0.31	A
		High Exit Turnstile	1						
PM	R241A	Two-way Turnstile	5	1002	280	0.9	0.9	0.64	B
	R240	Two-way Turnstile	11	2121	1115	0.9	0.9	0.70	C
	R238	Two-way Turnstile	11	2428	1547	0.9	0.9	0.85	C
	R238A	Two-way Turnstile	4	197	198	0.9	0.9	0.22	A
	R237	Two-way Turnstile	7	642	128	0.9	0.9	0.28	A
	R237A	High Exit Turnstile	1	0	33	0.9	1.0	0.07	A
	R237B	Two-way Turnstile	4	628	96	0.9	0.9	0.46	B
	R236	Two-way Turnstile	12	986	769	0.8	0.9	0.36	A
	R233	High Entry/Exit Turnstile	2	285	42	0.8	0.9	0.66	B
		High Exit Turnstile	1						

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

42nd St-Bryant Park Subway Station

The 42nd Street-Bryant Park subway station is served by B and D express trains and F and M local trains operating along the Sixth Avenue Line. As shown on Figure 12-24, the 42nd Street-Bryant Park subway station includes two mezzanines, one on the north side of West 42nd Street and a second, larger mezzanine extending from the south side of West 42nd Street to West 40th Street. Two island platforms serving the uptown and downtown express and local tracks are located on a level below these mezzanines. Stairs providing access to the north mezzanine from street level include Stair SB11 and intermediate Stairs MB20 and M18/19 at the northeast corner of the intersection of West 42nd Street and Sixth Avenue, and Stairs O11/O13 and O12/O14 at the northwest corner of the intersection. An elevator located at the northwest corner of the intersection provides ADA-compliant access to this mezzanine. Access to the platform level from the north mezzanine is controlled by FCA N502 consisting of five turnstiles, one HEET, and two high revolving exit gates. Stairs P13 and P14 provide access from the mezzanine to the downtown and uptown platforms, respectively.

Access to the mezzanine located south of West 42nd Street is controlled by two fare control areas, N503 located at West 42nd Street and N504 located at West 40th Street. As shown on Figure 12-24, street-



Source: 2013 East Midtown Proposal

level access at West 42nd Street is provided by Stair S8 and intermediate Stair M12/13 located at the southeast corner of the intersection, and Stairs O10 and M11 located within the adjacent building at the southwest corner of the intersection. Access into the paid zone at West 42nd Street is controlled by FCA N503 consisting of six turnstiles. Street-level access at the Sixth Avenue/West 40th Street intersection is provided at four entrances, one each at the northeast corner (Stairs S6 and M7/M8), northwest corner (Stairs O7/O8 and M9/M10), southeast corner (Stairs S5 and M6), and southwest corner (Stairs S4 and M4/M5). FCA N504 consists of six turnstiles and three HEETs. Six stairs arrayed along the length of the mezzanine provide access to each of the two island platforms (Stairs P1 though P12 on Figure 12-24). A passageway located just south of West 42nd Street within the paid zone of the mezzanine connects the 42nd Street-Bryant Park subway station to the Fifth Avenue subway station.

As shown on Figure 12-24, based on anticipated demand from Projected Development Sites, a total of three entrances, two fare control areas, and eight platform stairs at the 42nd Street-Bryant Park subway station were selected for analysis by NYCT. These include Stair MB20 (the most constrained of the series of four stairs at this entrance), FCA N502, and platform Stairs P13 and P14 at the mezzanine on the north side of West 42nd Street; and Stairs S5/M6 and S6/M7/M8, FCA N504, downtown platform Stairs P1, P3, and P5, and uptown platform Stairs P2, P4, and P6 at West 40th Street.

Tables 12.32 and 12.33 show the existing weekday AM and PM peak hour conditions at all analyzed stairs and fare control areas at the 42nd Street-Bryant Park subway station, respectively. As shown in Table 12.32, stair P4 on the northbound platform currently operates at LOS D in the weekday AM peak hour, with a v/c ratio of 1.02. All other analyzed stairs at this station currently operate at acceptable levels of service (LOS C or better) during both the weekday AM and PM peak hours. Table 12.33 shows that analyzed FCA N502 and N504 operate at a LOS B or better in both the AM and PM peak hours.

Table 12.32: Existing Conditions Stair Analysis at the 42nd Street-Bryant Park (B, D, F, M) Subway Station

Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up				
AM	N502	MB20	10.00	8.75	35	588	0.9	0.9	0.58	B
		P13	10.00	8.75	39	268	0.75	0.9	0.34	A
		P14	10.00	8.75	34	658	0.75	1.0	0.69	B
	N504	S5	4.92	3.92	26	407	0.9	0.9	0.90	C
		S6	5.00	4.00	20	343	0.9	0.9	0.74	C
		P1	6.75	5.75	15	278	0.75	0.9	0.50	B
		P2	6.75	5.75	16	366	0.75	1.0	0.58	B
		P3	6.67	5.67	28	343	0.75	0.9	0.63	B
		P4	6.67	5.67	36	557	0.75	0.9	1.02	D
		P5	6.67	5.67	2	179	0.75	1.0	0.28	A
		P6	6.50	5.50	5	217	0.75	1.0	0.36	A
PM	N502	MB20	10.00	8.75	993	98	0.9	0.9	0.93	C
		P13	10.00	8.75	746	69	0.75	0.9	0.71	C
		P14	10.00	8.75	415	97	0.75	0.9	0.46	B
	N504	S5	4.92	3.92	362	91	0.9	0.9	0.88	C
		S6	5.00	4.00	298	69	0.9	0.9	0.69	B
		P1	6.75	5.75	394	147	0.75	0.9	0.76	C
		P2	6.75	5.75	157	94	0.75	0.9	0.36	A
		P3	6.67	5.67	428	91	0.75	0.9	0.72	C
		P4	6.67	5.67	388	108	0.75	0.9	0.69	B
		P5	6.67	5.67	23	60	0.75	0.9	0.13	A
		P6	6.50	5.50	19	83	0.75	0.9	0.17	A

Notes:
Methodology based on CEQR *Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.
Stairs M7/M8 and S6 process the same pedestrian volumes; however, Stair S6 is narrower and governs for analysis purposes.
Stairs M6 and S5 process the same pedestrian volumes; however, Stair S5 is narrower and governs for analysis purposes.

Table 12.33: Existing Conditions Fare Control Area Analysis at the 42nd Street-Bryant Park (B, D, F, M) Subway Station

Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				In	Out				
AM	N504	Two-way Turnstile	6	88	1593	0.9	0.9	0.39	A
		High Entry/Exit Turnstile	3						
	N502	Two-way Turnstile	5	74	926	0.9	0.9	0.27	A
		High Entry/Exit Turnstile	1						
		High Exit Turnstile	2						
PM	N504	Two-way Turnstile	6	1185	250	0.9	0.9	0.46	B
		High Entry/Exit Turnstile	3						
	N502	Two-way Turnstile	5	1161	165	0.9	0.9	0.59	A
		High Entry/Exit Turnstile	1						
		High Exit Turnstile	2						

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

Fifth Avenue Subway Station

The Fifth Avenue subway station is served by the No. 7 train providing express and local service on the Flushing Line (running along 42nd Street in Manhattan). As shown on Figure 12-24, the station consists of a mezzanine level that extends west from Fifth Avenue and is located above a single island platform. A passageway at the western end of the mezzanine provides access between the paid zones of this station and the 42nd Street-Bryant Park subway station. Access to the station is via two FCAs, R501 with eight turnstiles, and FCA R500 at the western end of the mezzanine consisting of two HEETs and one high revolving exit gate. As shown on Figure 12-24, street level access to Fare Control Area R501 is provided by Stairs S1/M1/M2 near the southwest corner of the intersection of Fifth Avenue and West 42nd Street adjacent to the New York Public Library. Street level access to the western end of the mezzanine is provided by Stairs S2 and S3 located mid-block on the south side of West 42nd Street adjacent to Bryant Park. Six stairs (P2 and P3 though P7) provide access to the platform level.

As shown on Figure 12-24, Stairs M1/M2 (the most constrained point at the S1 entrance), S2, and S3, platform Stairs P2, P3, and P4 and FCA R500 and R501 at the Fifth Avenue subway station were selected for analysis by NYCT based on anticipated demand from Projected Development Sites or the location of potential future transit improvements. As shown in Tables 12.34 and 12.35, all of these analyzed station elements currently operate at acceptable levels of service (LOS C or better) during both the weekday AM and PM peak hours under existing conditions.

Table 12.34: Existing Conditions Stair Analysis at the Fifth Avenue (7) Subway Station

Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up				
AM	R501	M1/M2	11.33	10.08	44	865	0.8	1.0	0.74	C
		P2	8.25	7.00	10	387	0.75	1.0	0.50	B
		P3	8.00	6.75	20	178	0.75	0.9	0.28	A
		P4	8.00	6.75	3	113	0.75	1.0	0.15	A
	R500	S2	5.67	4.67	10	120	0.9	0.9	0.23	A
		S3	5.67	4.67	6	170	0.75	1.0	0.33	A
		M3	13.33	12.08	16	290	0.75	0.9	0.25	A
PM	R501	M1/M2	11.33	10.08	602	154	0.8	0.9	0.58	B
		P2	8.25	7.00	228	96	0.75	0.9	0.38	A
		P3	8.00	6.75	228	43	0.75	0.9	0.31	A
		P4	8.00	6.75	33	10	0.75	0.9	0.05	A
	R500	S2	5.67	4.67	99	53	0.9	0.9	0.25	A
		S3	5.67	4.67	70	33	0.75	0.9	0.18	A
		M3	13.33	12.08	170	86	0.75	0.9	0.17	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

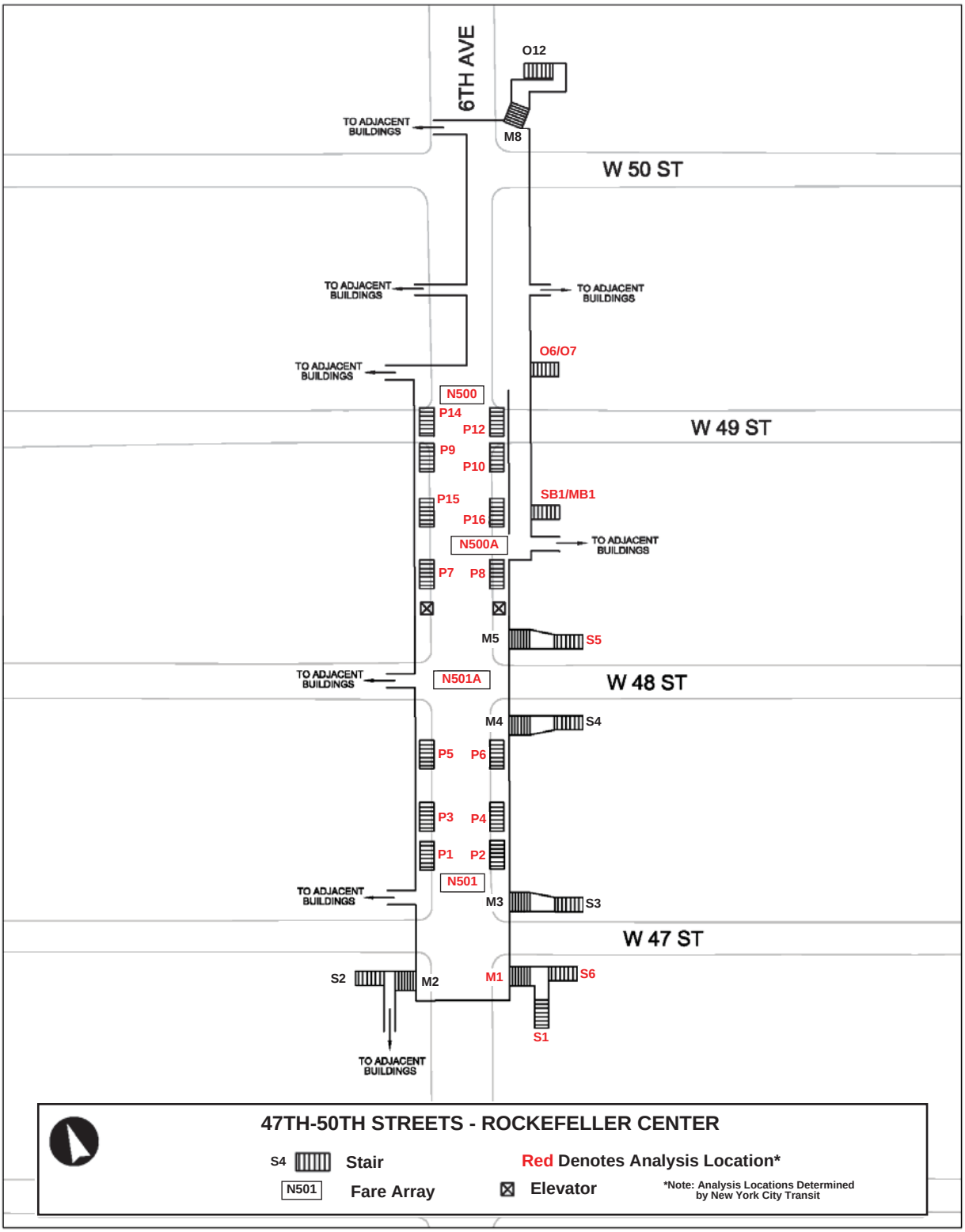
Table 12.35: Existing Conditions Fare Control Area Analysis at the Fifth Avenue (7) Subway Station

Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				In	Out				
AM	R501	Two-way Turnstile	8	44	865	0.8	1.0	0.22	A
	R500	High Entry/Exit Turnstile	2	16	290	0.9	0.9	0.25	A
		High Exit Turnstile	1						
PM	R501	Two-way Turnstile	8	602	154	0.8	0.9	0.24	A
	R500	High Entry/Exit Turnstile	2	170	86	0.9	0.9	0.43	A
		High Exit Turnstile	1						

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

47th- 50th Streets-Rockefeller Center Subway Station

The 47th-50th Streets-Rockefeller Center subway station is served by B and D express trains, and F and M local trains operating along the Sixth Avenue Line. As shown on Figure 12-25, the 47th-50th Streets-Rockefeller Center subway station includes an extensive mezzanine level beneath Sixth Avenue extending from West 47th Street to West 50th Street, and there are numerous street-level entrances along its length. There are also numerous passageways connecting this mezzanine to adjacent buildings and below-grade retail concourses. Two island platforms serving the uptown and downtown express and local tracks are located below the mezzanine level with access provided by a total of 14 platform stairs and two elevators. A total of four fare control areas control access to the paid zone



Source: 2013 East Midtown Proposal

within this station, one at West 47th Street (N501), a second at West 48th Street (N501A), a third midblock between West 48th and West 49th Streets (N500A), and a fourth at West 49th Street (N500).

As shown on Figure 12-25, a total of five street stairs, two intermediate stairs, all four fare control areas and all 14 platform stairs at the 47th-50th Streets-Rockefeller Center subway station were selected for analysis by NYCT based on anticipated demand from Projected Development Sites or locations of potential future transit improvements. These include street Stairs S1 and S6, and intermediate Stair M1 at the southeast corner of Sixth Avenue and West 47th Street, FCA N501, street Stair S5 at the northeast corner of Sixth Avenue and West 48th Street, FCA N501A, street Stair SB1/MB1, FCA 500A, street Stair O6/O7, and FCA N500. All downtown platform Stairs P1, P3, P5, P7, P9, P14, and P15 and uptown platform Stairs P2, P4, P6, P8, P10, P12, and P16 were selected for analysis.

As listed in Table 12.36, street Stair S1 currently operates over its practical capacity during both the weekday AM and PM peak hours with v/c ratios of 1.09 (LOS D) and 1.12 (LOS D), respectively. This is a relatively narrow stair, with an effective width of approximately four feet. In the AM peak hour the uptown platform Stair P6 operates with a v/c ratio of 1.29 (LOS D), P8 operates with a v/c ratio of 1.39 (LOS E), and P10 operates with a v/c ratio of 1.09 (LOS D). During the PM peak hour downtown platform Stair P1 operates with a v/c ratio of 1.78 (LOS F) and P9 operates with a v/c ratio of 1.38 (LOS E). Field observations indicate that some of the heavy demand at the platform stairs is from riders using these stairs to transfer between the downtown platform and uptown platforms. All other analyzed stairs currently operate at LOS C or better during both the weekday AM and PM peak hours.

Table 12.36: Existing Conditions Stair Analysis at the 47th-50th Streets-Rockefeller Center (B, D, F, M) Subway Station

Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up				
AM	N501	S1	5.00	4.00	28	503	0.9	0.9	1.09	D
		S6	5.00	4.00	9	250	0.9	1.0	0.48	B
		M1	12.00	10.75	37	753	0.9	1.0	0.54	B
		P1	6.08	5.08	19	460	0.75	1.0	0.83	C
		P2	6.17	5.17	70	414	0.75	0.9	0.89	C
		P3	8.58	7.33	18	503	0.75	1.0	0.63	B
		P4	8.50	7.25	92	470	0.75	0.9	0.73	C
	N501A	P5	6.33	5.33	17	406	0.75	1.0	0.70	B
		P6	5.75	4.75	128	524	0.75	0.9	1.29	D
		S5	4.25	3.25	17	214	0.9	0.9	0.58	B
	N500A	SB1/MB1	7.25	6.00	22	97	0.9	0.9	0.16	A
		P7	6.25	5.25	29	315	0.75	0.9	0.63	B
		P8	6.25	5.25	85	673	0.75	0.9	1.39	E
		P15	7.50	6.50	27	262	0.75	0.9	0.43	A
		P16	5.67	4.67	67	325	0.75	0.9	0.79	C
	N500	06/07	7.75	6.50	33	246	0.9	0.9	0.35	A
		P9	6.33	5.33	45	401	0.75	0.9	0.81	C
		P10	6.67	5.67	48	590	0.75	0.9	1.09	D
		P12	6.50	5.50	24	346	0.75	0.9	0.65	B
		P14	6.25	5.25	18	178	0.75	0.9	0.36	A
PM	N501	S1	5.00	4.00	552	47	0.9	0.9	1.12	D
		S6	5.00	4.00	221	25	0.9	0.9	0.46	B
		M1	12.00	10.75	773	72	0.9	0.9	0.59	B
		P1	6.08	5.08	869	264	0.75	0.9	1.78	F
		P2	6.17	5.17	311	53	0.75	0.9	0.55	B
		P3	8.58	7.33	453	123	0.75	0.9	0.62	B
		P4	8.50	7.25	592	56	0.75	0.9	0.68	B
	N501A	P5	6.33	5.33	360	148	0.75	0.9	0.77	C
		P6	5.75	4.75	375	80	0.75	0.9	0.75	C
		S5	4.25	3.25	217	42	0.9	0.9	0.60	B
	N500A	SB1/MB1	7.25	6.00	86	19	0.9	0.9	0.13	A
		P7	6.25	5.25	227	67	0.75	0.9	0.45	A
		P8	6.25	5.25	157	79	0.75	0.9	0.37	A
		P15	7.50	6.50	123	40	0.75	0.9	0.20	A
		P16	5.67	4.67	87	23	0.75	0.9	0.19	A
	N500	06/07	7.75	6.50	208	65	0.9	0.9	0.32	A
		P9	6.33	5.33	907	66	0.75	0.9	1.38	E
		P10	6.67	5.67	338	89	0.75	0.9	0.60	B
		P12	6.50	5.50	201	41	0.75	0.9	0.34	A
		P14	6.25	5.25	396	26	0.75	0.9	0.61	B

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

Analyzed FCA N501 consists of a total of eight two-way turnstiles, two HEETs, and two high exit turnstiles. FCA N501A consists of a total of eight two-way turnstiles, four HEETs, and two high exit turnstiles. FCA N500A consists of two HEETs and fare control area N500 consists of ten two-way turnstiles. As shown in Table 12.37, all fare control areas operate at LOS A or B during both the weekday AM and PM peak hours under existing conditions.

Table 12.37: Existing Conditions Fare Control Area Analysis at the 47th-50th Streets-Rockefeller Center (B, D, F, M) Subway Station

Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				In	Out				
AM	N501	Two-wayTurnstile	8	79	1622	0.9	1.0	0.27	A
		High Entry/Exit Turnstile	2						
		High ExitTurnstile	2						
	N501A	Two-wayTurnstile	8	38	909	0.9	1.0	0.13	A
		High Entry/Exit Turnstile	4						
		High ExitTurnstile	2						
	N500A	High Entry/Exit Turnstile	2	25	100	0.9	0.9	0.17	A
	N500	Two-wayTurnstile	10	64	2321	0.9	1.0	0.42	A
PM	N501	Two-wayTurnstile	8	1395	163	0.9	0.9	0.43	A
		High Entry/Exit Turnstile	2						
		High ExitTurnstile	2						
	N501A	Two-wayTurnstile	8	635	150	0.9	0.9	0.18	A
		High Entry/Exit Turnstile	4						
		High ExitTurnstile	2						
	N500A	High Entry/Exit Turnstile	2	97	29	0.9	0.9	0.24	A
	N500	Two-wayTurnstile	10	1893	232	0.9	0.9	0.55	B

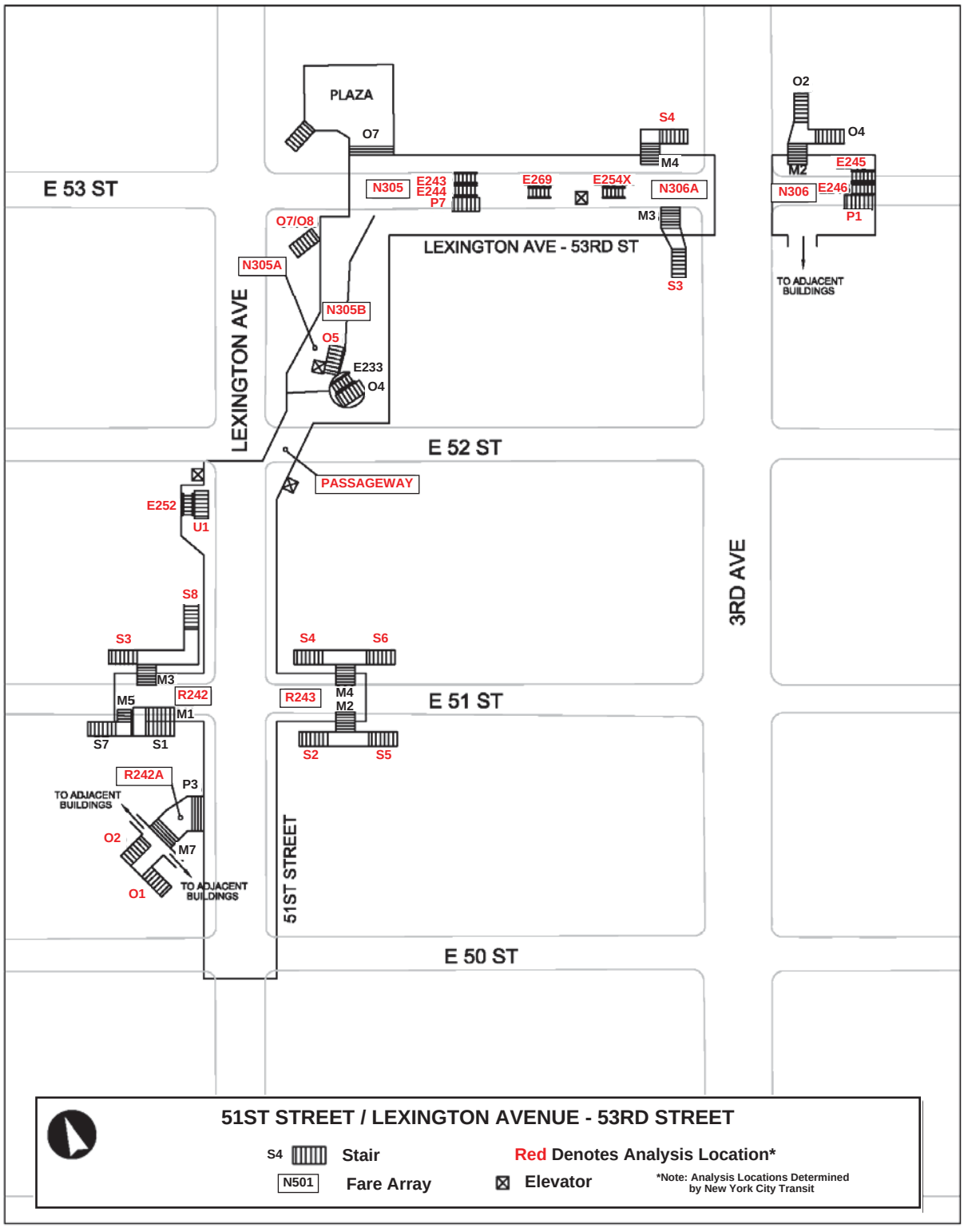
Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

51st Street Subway Station

The 51st Street subway station is a local stop served by the No. 6 train on the Lexington Avenue Line. The station consists of two side platforms, one for uptown trains and one for downtown trains, extending from East 50th Street to East 52nd Street. Three FCAs are located at East 51st Street: R243 adjacent to the uptown platform with nine turnstiles, R242 adjacent to the downtown platform with nine turnstiles, and R242A, which also provides access to the downtown platform near East 50th Street and has five turnstiles. A passageway at the north end of the uptown platform provides access to a concourse connecting the 51st Street subway station to the paid zone at the Lexington Avenue-53rd Street subway station on the Queens Boulevard Line (see below). The north end of the downtown platform is also connected to this concourse via an underpass, with vertical circulation provided by an escalator and stair combination at each end along with two elevators for ADA access.

As shown on Figure 12-26, the pedestrian circulation elements at the 51st Street subway station selected for analysis by NYCT based on anticipated demand from Projected Development Sites and proposed future transit improvements include: street Stairs S2, S4, S5, and S6 and FCA R243 at the uptown platform; street Stairs O1/O2, FCA R242A, and platform Stair P3 at the downtown platform near East 50th Street; street Stairs S3 and S8 and FCA R242 at the downtown platform at the northwest corner of Lexington Avenue and East 51st Street; the passageway from the uptown platform to the concourse connecting to the Lexington Avenue-53rd Street subway station; and Escalator E252 and adjoining Stair U1 connecting the downtown platform to the underpass.

As listed in Table 12.38, platform Stair U1 currently operates over its practical capacity during both the weekday AM and PM peak hours with v/c ratios of 1.32 (LOS D) and 1.61 (LOS E), respectively. This is a relatively narrow stair, with an effective width of less than four feet. As listed in Table 12.39, in the AM peak hour Escalator E252, which is adjacent to stair U1, operates at a LOS D with a v/c ratio of 1.13. As listed in Table 12.40, the passageway, which connects the uptown platform to the Lexington Avenue-53rd Street subway station, also operates at a LOS D with a v/c ratio of 1.13 in the AM peak hour. All other analyzed elements including the fare control areas listed in Table 12.41 currently operate at LOS C or better during both the weekday AM and PM peak hours.



Source: 2013 East Midtown Proposal

Greater East Midtown Rezoning
Manhattan, New York

51st Street/Lexington Avenue-53rd Street Subway Station Complex

Figure 12-26

Table 12.38: Existing Conditions Stair Analysis at the 51st Street (6) Subway Station

Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up				
AM	R243	S2	5.17	4.17	34	258	0.75	0.9	0.67	B
		S5	4.08	3.08	10	18	0.75	0.9	0.08	A
		S4	4.50	3.50	9	279	0.75	1.0	0.73	C
		S6	4.50	3.50	6	147	0.75	1.0	0.38	A
	R242	S3	4.50	3.50	16	182	0.75	0.9	0.55	B
		S8	4.50	3.50	63	209	0.75	0.9	0.72	C
	R242A	O1/O2	10.00	8.75	54	434	0.75	0.9	0.54	B
	N305A	U1	4.17	3.17	463	9	0.75	1.0	1.32	D
PM	R243	S2	5.17	4.17	263	89	0.75	0.9	0.68	B
		S5	4.08	3.08	23	25	0.75	0.9	0.13	A
		S4	4.50	3.50	236	60	0.75	0.9	0.67	B
		S6	4.50	3.50	46	43	0.75	0.9	0.22	A
	R242	S3	4.50	3.50	284	44	0.75	0.9	0.73	C
		S8	4.50	3.50	113	43	0.75	0.9	0.36	A
	R242A	O1/O2	10.00	8.75	147	56	0.75	0.9	0.19	A
	N305A	U1	4.17	3.17	568	8	0.75	1.0	1.61	E

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

Table 12.39: Existing Conditions Escalator Analysis at the 51st Street (6) Subway Station

Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
AM	E252 (UP)	40	90	945	799	0.75	1.13	D
PM	E252 (UP)	40	90	945	437	0.75	0.62	B

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.40: Existing Conditions Passageway Analysis at the 51st Street (6) Subway Station

Passageway	Peak Period	Width(ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				NB	SB				
To/From LexAve-53rd St	AM	15.25	13.3	1177	1472	0.75	0.9	1.13	D
	PM	15.25	13.3	1037	868	0.75	0.9	0.84	C

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.41: Existing Conditions Fare Control Area Analysis at the 51st Street (6) Subway Station

Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				In	Out				
AM	R242A	Two-way Turnstile	5	50	443	0.75	0.9	0.23	A
	R242	Two-way Turnstile	9	86	392	0.75	0.9	0.13	A
	R243	Two-way Turnstile	9	59	703	0.75	0.9	0.20	A
	N305A	Two-way Turnstile	3	40	187	0.8	0.9	0.17	A
PM	R242A	Two-way Turnstile	5	145	49	0.75	0.9	0.10	A
	R242	Two-way Turnstile	9	394	92	0.75	0.9	0.14	A
	R243	Two-way Turnstile	9	568	218	0.75	0.9	0.22	A
	N305A	Two-way Turnstile	3	389	33	0.8	0.9	0.37	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

Lexington Avenue-53rd Street Subway Station

The Lexington Avenue-53rd Street subway station is served by E and M trains on the Queens Boulevard Line. As shown on Figure 12-26, the station includes a mezzanine level beneath East 53rd Street extending from Lexington Avenue to Third Avenue, below which lies a single island platform. The platform level is relatively deep as it is located immediately to the west of the 53rd Street Tunnel under the East River. Three FCAs provide access to the mezzanine from street level. FCA N305 at the east end of the station consists of eleven turnstiles. A large Stair (O7) provides access to and from Citicorp Plaza at the northeast corner and street Stair O7/O8 provides access to the southeast corner of Lexington Avenue and East 53rd Street. Access is also available from both the paid and unpaid zones of this fare control area to the concourse connecting this station to the 51st Street subway station.

FCA N306A, consisting of two HEETs, is located on the west side of Third Avenue with access via street stairs at the northwest (S4) and southwest (S3) corners of the intersection with East 53rd Street. A passageway connects FCA N306A with FCA N305. As shown on Figure 12-26, two escalators (E243 and E244) and a single stair (P7) provide access from the west end of this passageway to the platform level. Two additional escalators (E269 and E254X) are located at the middle and the western end of this passageway, respectively. Typically, escalator E243 operates in the up direction and escalator E269 operates in the down direction during both the weekday AM and PM peak periods. The direction of escalators E244 and E254X varies based on peak period, with both operating in the upward direction in the AM and in the downward direction in the PM. It should be noted that escalators E244 and E254X were out of service due to on-going long-term construction during the count program at this station in October 2016, resulting in higher volumes at other station stairs and escalators.

Lastly, FCA N306, consisting of eight turnstiles is located on the east side of Third Avenue. Two stairs at the northeast corner of Third Avenue and East 53rd Street provide access from street level, and two escalators (E245 and E246) and Stair P1 provide access from the mezzanine level to the platform.

As shown on Figure 12-26, the pedestrian circulation elements at the Lexington Avenue-53rd Street subway station selected for analysis by NYCT based on anticipated demand from projected development sites and proposed transit improvements to the station include: street Stairs O7/O8, S4, and S3, FCA N305 and N306A, along with platform Stairs P1 and P7 and escalators E243, E244, E269, E254X, E245, and E246.

As listed in Table 12.42, platform Stair P1 currently operates over its practical capacity during the weekday AM peak hour with a v/c ratio of 1.17 (LOS D). This is a narrow stair, with an effective width of three feet. As listed in Table 12.43, three of the six analyzed escalators operates over their practical capacity in at least one peak hour. Escalators E244, E245, and E246, which all operate in the up direction in the AM peak hour, operate at LOS D, with v/c ratios of 1.04, 1.14, and 1.11, respectively. Escalator E244 and E245 also operate over capacity in the PM peak hour at LOS D (v/c ratio of 1.04) and LOS E (v/c ratio of 1.65), respectively. All other analyzed elements including the fare control areas as listed in Table 12.44, currently operate at LOS C or better during both the weekday AM and PM peak hours.

Table 12.42: Existing Conditions Stair Analysis at the Lexington Avenue/53rd Street Subway Station

Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up				
AM	N305B	O5	10.00	8.75	42	479	0.75	0.9	0.45	B
	N305	O7/O8	12.00	10.75	40	374	0.8	0.9	0.35	A
		P7	3.70	2.70	23	133	0.75	0.9	0.55	B
	N306A	S4	5.00	4.00	20	88	0.8	0.9	0.24	A
		S3	5.00	4.00	28	109	0.8	0.9	0.30	A
	N306	P1	4.00	3.00	63	309	0.75	0.9	1.17	D
PM	N305B	O5	10.00	8.75	555	72	0.75	0.9	0.69	B
	N305	O7/O8	12.00	10.75	297	41	0.8	0.9	0.24	A
		P7	3.70	2.70	162	11	0.75	0.9	0.48	B
	N306A	S4	5.00	4.00	104	14	0.8	0.9	0.22	A
		S3	5.00	4.00	170	9	0.8	0.9	0.34	A
	N306	P1	4.00	3.00	124	29	0.75	0.9	0.40	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

Table 12.43: Existing Conditions Escalator Analysis at the Lexington Avenue/53rd Street Subway Station

Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
AM	E243 (UP)	40	90	945	678	0.75	0.96	C
	E244 (UP)	40	90	945	738	0.75	1.04	D
	E269 (DOWN)	40	90	945	500	1.00	0.53	B
	E254X (UP)	24	90	480	0	0.75	0.00	A
	E245 (UP)	40	90	945	809	0.75	1.14	D
	E246 (UP)	40	90	945	787	0.75	1.11	D
PM	E243 (UP)	40	90	945	468	0.75	0.66	B
	E244 (DOWN)	40	90	945	984	1.00	1.04	D
	E269 (DOWN)	40	90	945	887	1.00	0.94	C
	E254X (UP)	24	90	480	0	0.75	0.00	A
	E245 (UP)	40	90	945	1170	0.75	1.65	E
	E246 (DOWN)	40	90	945	830	1.00	0.88	C

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Escalator E254X was out of service for the month of October.

Table 12.44: Existing Conditions Fare Control Area Analysis at the Lexington Avenue/53rd Street Subway Station

Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				In	Out				
AM	N305B	Two-way Turnstile	5	25	1490	0.8	1.0	0.59	B
	N305	Two-way Turnstile	11	74	1054	0.8	0.9	0.22	A
	N306A	High Entry/Exit Turnstile	2	119	169	0.8	0.9	0.48	B
	N306	Two-way Turnstile	8	78	636	0.8	0.9	0.20	A
PM	N305B	Two-way Turnstile	5	201	67	0.8	0.9	0.14	A
	N305	Two-way Turnstile	11	791	129	0.8	0.9	0.22	A
	N306A	High Entry/Exit Turnstile	2	258	39	0.8	0.9	0.61	B
	N306	Two-way Turnstile	8	761	223	0.8	0.9	0.31	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

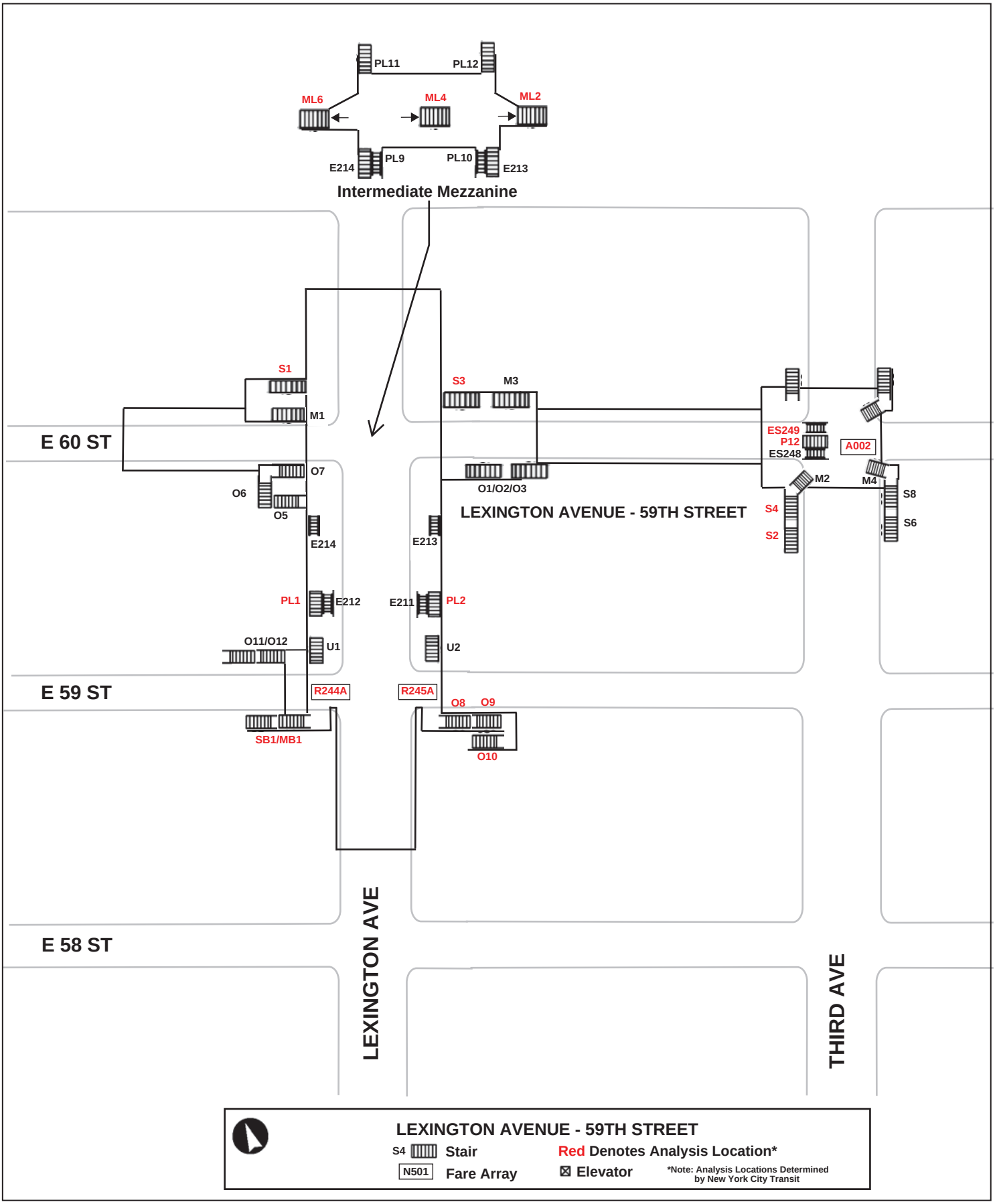
Lexington Avenue-59th Street Subway Station

The Lexington Avenue-59th Street subway station is a local and express stop served by No. 4, 5, and 6 trains on the Lexington Avenue Line and the N, R, and W trains on the Broadway Line. The station has three levels and provides transfers between the Lexington Avenue and Broadway lines. The Lexington Avenue station extends from south of East 59th Street to north of East 60th Street and has two levels, with the upper level serving the local 6 line and the lower level serving the express 4 and 5 lines. The side platforms provide stairs and escalators between the local and express levels, as well as a stair connecting to a lower passageway for transfers between uptown and downtown local tracks. FCA R244A is located at the downtown local platform, with street Stair SB1 located on the southwest corner and O11/O12 on the northwest corner of the intersection of Lexington Avenue and East 59th Street. Street Stair O9/O10 is located on the southeast corner of the intersection to provide access to FCA R245A on the uptown local platform level.

Street stairs are located on all four corners of the intersection of Lexington Avenue and East 60th Street, providing access to FCAs R244 and A004 on the west side and FCA R245 on the east side of Lexington Avenue (see Figure 12-27). These four station entrances provide access to the Lexington Avenue line and the perpendicular Broadway line platforms. The north end of the Lexington Avenue line platforms also provides access to an intermediate mezzanine connecting to the Broadway line.

The N, R, and W express and local service is served via a center platform extending along East 60th Street from Lexington Avenue to Third Avenue. The east end of the platform is served by two escalators and a stair connecting to FCA A002 which has street stairs at all four corners of the intersection of Third Avenue and East 60th Street.

As shown on Figure 12-27, the pedestrian circulation elements at the Lexington Avenue-59th Street subway station selected for analysis by NYCT as a result of proposed transit improvements to the station include intermediate mezzanine level Stairs ML2, ML4, and ML6. Street Stairs SB1/MB1 and O8/O9/O10, FCAs R244A and R245A, and platform level Stairs PL1 and PL2 on Lexington Avenue and street Stair S2, FCA A002, escalator ES249, and Stair P12 were selected for analysis by NYCT based on anticipated demand from Projected Development Sites for the weekday PM peak hour only (as discussed in Section 12.2, "Level 2 Screening Assessment," project-generated trips at this station are not expected to exceed the 200-trip *CEQR Technical Manual* threshold in the weekday AM peak hour).



Source: STV, Incorporated

Greater East Midtown Rezoning
Manhattan, New York

Lexington Avenue-59th Street Subway Station

Figure 12-27

As listed in Table 12.45, the majority of the stairs at the Lexington Avenue-59th Street subway station operate over their practical capacity during both the weekday AM and PM peak periods. Field observations confirmed that queues occur at stair elements during both peaks.

Table 12.45: Existing Conditions Stair Analysis at the Lexington Avenue-59th Street (4, 5, 6, N, R, W) Subway Station

Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up				
AM	INTERMEDIATE MEZZANINE	ML2	6.00	5.00	739	158	0.8	0.9	1.66	E
		ML4	4.75	3.75	359	313	0.8	0.9	1.66	E
		ML6	6.00	5.00	381	218	0.8	0.9	1.11	D
PM	R244A	SB1/MB1	8.00	6.75	531	405	0.75	0.9	1.18	D
		PL1	4.00	3.00	530	0	0.75	1.0	1.18	D
	R245A	O10/O9/O8	10.00	8.75	575	267	0.75	0.9	0.79	C
		PL2	4.00	3.00	515	0	0.75	1.0	1.14	D
	INTERMEDIATE MEZZANINE	ML2	6.00	5.00	493	331	0.8	0.9	1.53	E
		ML4	4.75	3.75	288	335	0.8	0.9	1.54	E
		ML6	6.00	5.00	246	178	0.8	0.9	0.79	C
	A002	P12	2.83	1.83	73	4	0.75	0.9	0.32	A
		S2/S4/M2	4.25	3.25	200	19	0.8	0.9	0.51	B

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0, except for intermediate mezzanine stairs ML2, ML4, and ML6.

Analyzed FCA R244A consists of a total of five two-way turnstiles and two HEETs. FCA R245A consists of a total of four two-way turnstiles and two HEETs. FCA A002 consists of ten two-way turnstiles and two high exit turnstiles. As listed in Table 12.46, all three analyzed fare control areas operate at LOS A during the weekday PM peak hours under existing conditions.

As listed in the Table 12.47, analyzed Escalator ES249 operates at an acceptable LOS C during the PM peak period.

Table 12.46: Existing Conditions Fare Control Area Analysis at the Lexington Avenue-59th Street (4, 5, 6, N, R, W) Subway Station

Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				In	Out				
PM	R244A	Two-wayTurnstile	5	730	219	0.9	0.9	0.37	A
		High Entry/Exit Turnstile	2						
	R245A	Two-wayTurnstile	4	1012	390	0.9	0.9	0.64	B
		High Entry/Exit Turnstile	2						
	A002	Two-wayTurnstile	10	528	208	0.9	0.9	0.17	A
		High ExitTurnstile	4						

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

Table 12.47: Existing Conditions Escalator Analysis at the Lexington Avenue-59th Street (4, 5, 6, N, R, W) Subway Station

Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
PM	ES249 (DOWN)	40	90	945	803	1.00	0.85	C

Notes:
Methodology based on CEQR Technical Manual guidelines.

Fifth Avenue-53rd Street Subway Station

The Fifth Avenue-53rd Street subway station is served by E and M trains on the Queens Boulevard Line. The station includes a mezzanine at Madison Avenue and a mezzanine at Fifth Avenue, with an upper and lower platform level beneath East 53rd Street extending from Fifth Avenue to Madison Avenue. The upper and lower platforms are single side platforms serving southbound and northbound E and M trains, respectively. Stairs connect the west and east end of the lower and upper platforms, with an escalator pair and stair continuing the connection from the upper platform to the mezzanines. FCA N303, consisting of twelve turnstiles, is located on the west side of the intersection of Fifth Avenue and East 53rd Street, with street Stair O1/O2/O3 exiting to the southwest corner and a passageway connecting the fare control area to street Stairs S2 and S3 on the east side of Fifth Avenue. Street Stairs S1 and O2/O3 are located on the east side of Madison Avenue providing access to FCA N304 with six turnstiles and N304A with three turnstiles.

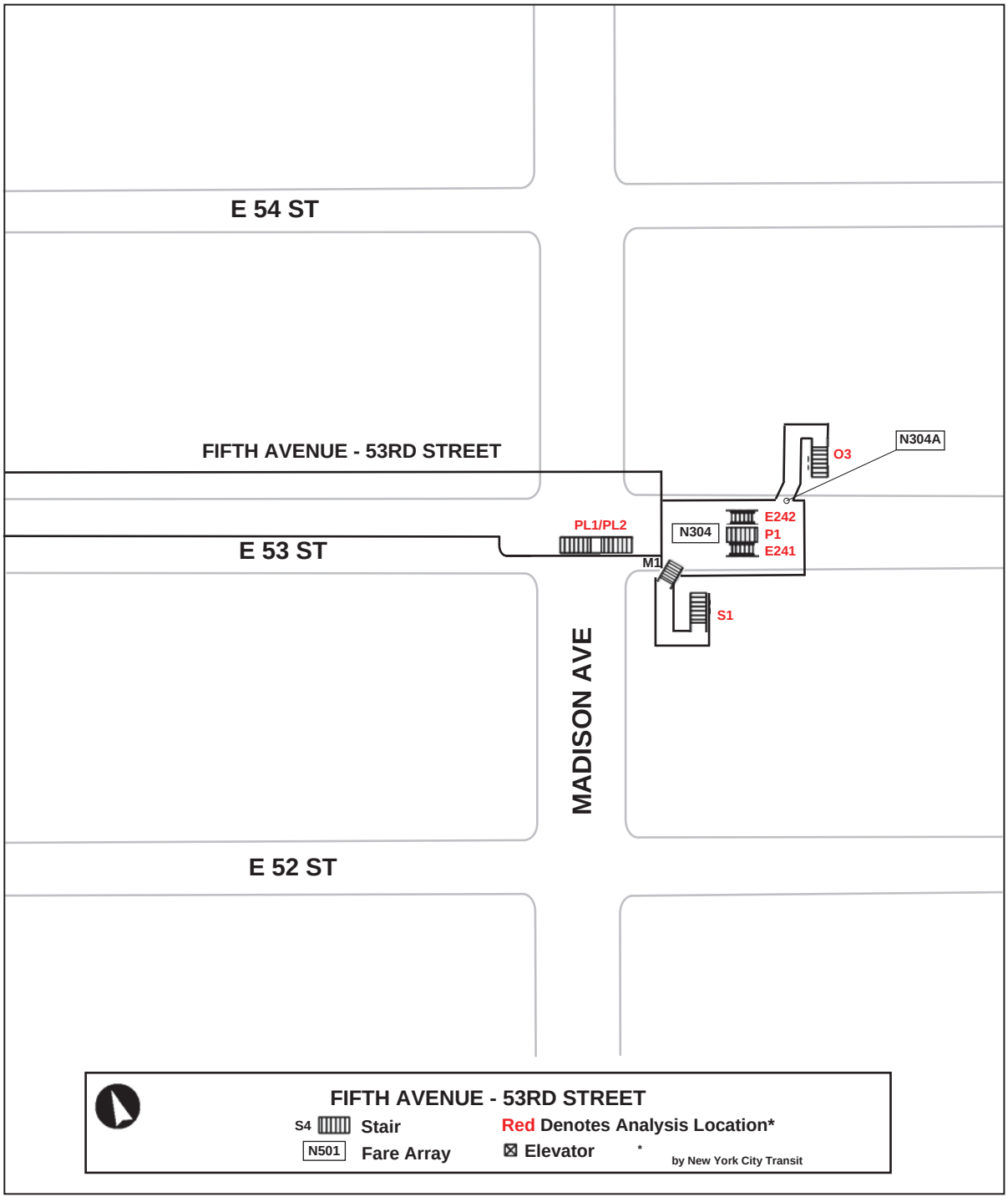
As shown on Figure 12-28, the pedestrian circulation elements at the Fifth Avenue-53rd Street subway station selected for analysis by NYCT as a result of proposed transit improvements to the station include street Stairs S1 and O3 on the east corners of Madison Avenue and East 53rd Street, escalators E241 and E242, and Stairs P1 and PL1/PL2.

As listed in Table 12.48, platform Stair PL1/PL2 currently operates over its practical capacity during the weekday AM peak hour with a v/c ratio of 1.26 (LOS D). All other analyzed stairs currently operate at LOS C or better during both the weekday AM and PM peak hours.

Table 12.48: Existing Conditions Stair Analysis at the Fifth Avenue-53rd Street Subway (E, M) Station

Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up				
AM	N304A	O3	9.50	8.25	14	943	0.8	1.0	0.96	C
	N304	S1	8.00	7.00	15	580	0.8	1.0	0.70	C
		P1	4.00	3.00	21	31	0.75	0.9	0.15	A
		PL1/PL2	10.00	8.75	5	1234	0.75	1.0	1.26	D
PM	N304A	O3	9.50	8.25	685	53	0.8	0.9	0.68	B
	N304	S1	8.00	7.00	569	38	0.8	0.9	0.65	B
		P1	4.00	3.00	165	1	0.75	1.0	0.37	A
		PL1/PL2	10.00	8.75	288	79	0.75	0.9	0.33	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.



Source: STV, Incorporated

Greater East Midtown Rezoning
Manhattan, New York

Fifth Avenue-53rd Street Subway Station

Figure 12-28

As listed in Table 12.49, Escalator E242 operates at LOS C in the upward direction during the AM peak hour, but operates at a v/c ratio of 1.01 (LOS D) in the downward direction during the PM peak hour. Up escalator E241 operates at an acceptable level of C and A, during the AM and PM peak hours, respectively.

Table 12.49: Existing Conditions Escalator Analysis at the Fifth Avenue-53rd Street Subway (E, M) Station

Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
AM	E241 (UP)	40	90	945	734	0.8	0.97	C
	E242 (UP)	40	90	945	738	0.8	0.98	C
PM	E241 (UP)	40	90	945	92	0.8	0.12	A
	E242 (DOWN)	40	90	945	951	1.0	1.01	D

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Subway Line Haul

Existing line-haul conditions are shown in Table 12-50. Several subway routes are currently operating above guideline capacity (a v/c ratio greater than 1.00) in the AM peak hour based on NYCT ridership data and include:

- No. 4 Northbound at 14th Street-Union Square (v/c ratio of 1.04)
- No. 5 Northbound at 14th Street-Union Square (v/c ratio of 1.02)
- No. 4 Southbound at 86th Street (v/c ratio of 1.12)
- No. 4 Southbound at Grand Central – 42nd Street (v/c ratio of 1.07)
- No. 5 Southbound at 86th Street (v/c ratio of 1.10)
- No. 5 Southbound at Grand Central – 42nd Street (v/c ratio of 1.05)
- No. 7 Express at Woodside-61st Street (v/c ratio of 1.00)

Only the No. 4 Northbound at 59th Street had a v/c ratio greater than 1.00 (1.09) during the PM peak hour. These ratios are higher in the AM peak hour than in the PM as peak demand is typically more concentrated in the AM.

Table 12.50: Existing Conditions Subway Line Haul Analysis

Peak Hour	Route	Direction	Maximum Load Point (Leaving Station)	Average Trains Per Hour[1]	Average Cars Per Hour[1]	Average Passengers Per Hour[1]	Average Passengers Per Car[1]	Guideline Passengers Per Car[2]	V/C Ratio[3]
AM	4	NB	14 St-Union Sq	11.4	114	13,075	115	110	1.04
	5	NB	14 St-Union Sq	10.9	109	12,211	112	110	1.02
	7	NB	5 Av	26.0	286	7,006	24	110	0.22
	B	NB	7 Av	10.2	82	10,611	130	175	0.74
	D	NB	36 St	10.5	84	10,357	123	175	0.70
	F	NB	2 Av	13.9	139	16,244	117	145	0.81
	M	NB	Marcy Av	8.0	64	7,977	125	145	0.86
	S	NB	Grand Central-42 St	29.5	98	6,890	70	110	0.64
	4	SB	86 St	13.7	137	16,902	123	110	1.12
	4	SB	Grand Central-42 St	13.4	134	15,752	118	110	1.07
	5	SB	86 St	12.5	125	15,095	121	110	1.10
	5	SB	Grand Central-42 St	11.8	118	13,613	115	110	1.05
	6	SB	68 St-Hunter College	21.8	218	22,648	104	110	0.94
	7 Loc	SB	40 St	14.5	160	14,939	94	110	0.85
	7 Exp	SB	Woodside-61 St	12.8	141	15,510	110	110	1.00
	B	SB	59 St-Columbus Circle	9.4	75	10,854	144	175	0.82
	D	SB	145 St	9.5	76	10,672	140	175	0.80
	F	SB	Roosevelt Island	14.9	149	19,191	129	145	0.89
	M	SB	Elmhurst Av	9.9	79	8,084	102	145	0.70
	S	SB	Times Square-42 St	28.8	96	6,952	72	110	0.66
PM	4	NB	59 St	11.7	117	14,014	120	110	1.09
	5	NB	59 St	12.6	126	12,929	103	110	0.93
	6	NB	59 St	20.4	204	19,947	98	110	0.89
	7 Exp	NB	Queensboro Plaza	12.4	136	14,519	106	110	0.97
	7 Loc	NB	Queensboro Plaza	12.4	136	9,909	73	110	0.66
	7	SB	Grand Central-42 St	24.4	268	7,817	29	110	0.26
	B	NB	59 St	7.0	56	5,305	95	175	0.54
	D	NB	59 St	8.6	69	7,150	104	175	0.59
	F	NB	Lexington Av/63 St	15.9	159	14,533	91	145	0.63
	M	NB	Lexington Av/53 St	7.7	62	4,256	69	145	0.48
	S	NB	Times Sq-42 St	22.6	75	3,778	50	110	0.46
	4	SB	Grand Central-42 St	13.7	137	13,848	101	110	0.92
	5	SB	Grand Central-42 St	9.7	97	9,563	99	110	0.90
	B	SB	Grand St	9.0	72	8,282	115	175	0.66
	D	SB	Grand St	10.0	80	9,527	119	175	0.68
	F	SB	Jay St-MetroTech	14.1	141	12,830	91	145	0.63
	M	SB	Essex St	7.3	58	5,239	90	145	0.62
	S	SB	Grand Central-42 St	24.5	82	7,045	86	110	0.79

Source: New York City Transit, 2016

Notes:

(1) Based on 2014-2015 ridership and train throughput data from NYCT.

(2) Guideline capacities are based on NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service.

(3) Volume to guideline capacity ratio.

Commuter Railroad

Grand Central Terminal is served by Metro-North commuter rail trains and has numerous street-level entrances and direct connections to the Grand Central 42nd Street subway station complex. Based on anticipated demand from Projected Development Sites, an analysis of pedestrian circulation elements at the 47th Street crosspassage has been provided for informational purposes.

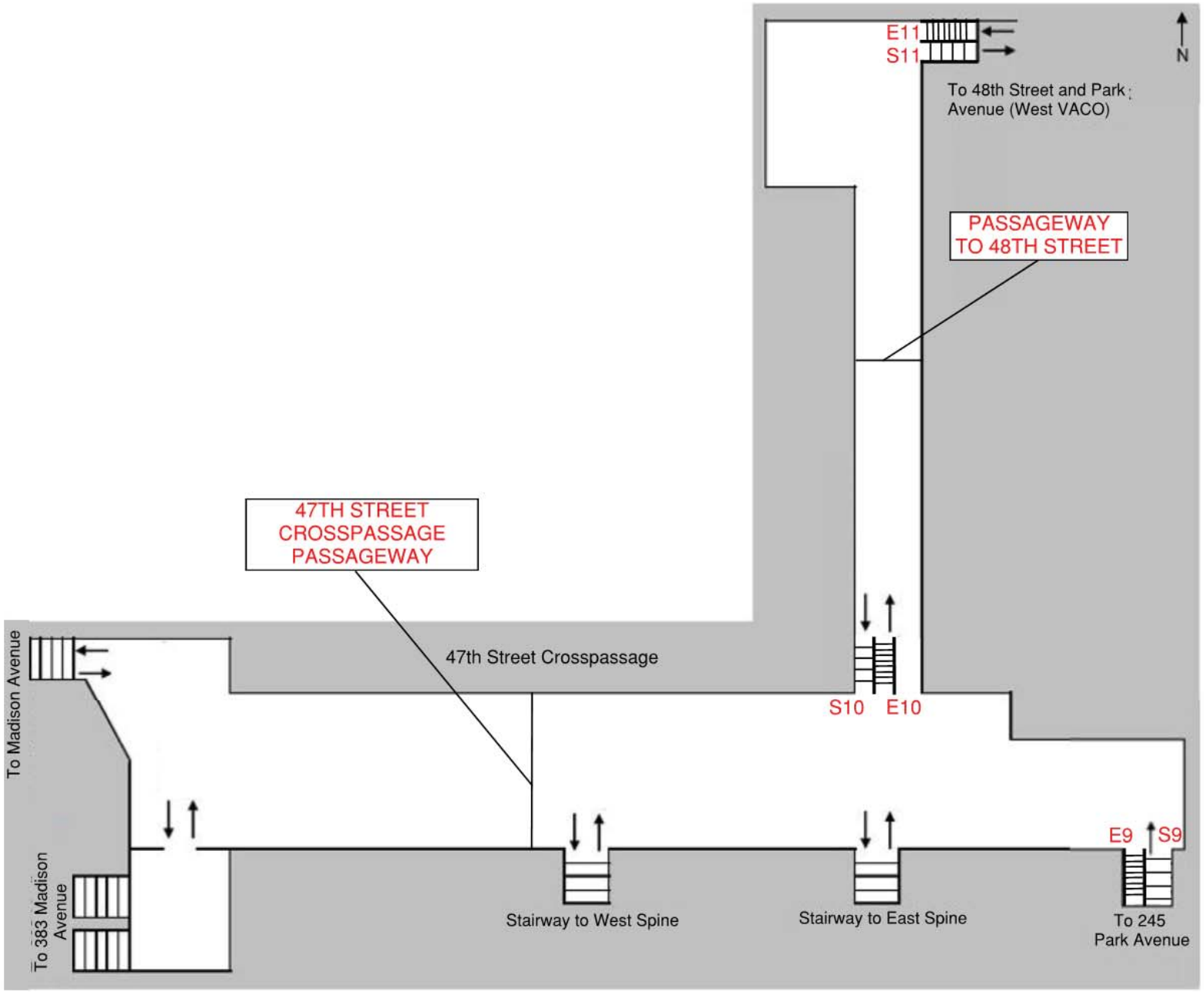
The 47th Street crosspassage (see Figure 12-29) travels beneath 47th Street from Lexington Avenue to Madison Avenue with staircases leading to each train platform on the upper level of the Grand Central Terminal. Two north-south walkways connect the 47th Street crosspassage with the 45th Street crosspassage which connects all of the lower level Grand Central Terminal platforms. As discussed later in this chapter, connections to the LIRR mezzanine will also be provided to the 47th Street crosspassage in the No-Action Condition with completion of the East Side Access project. Entrances to the 47th Street crosspassage are located on the northeast corner of East 47th Street and Madison Avenue, within 383 Madison Avenue, and on the northeast corner of East 48th Street and Park Avenue (one escalator and one stair). An additional street entrance is located inside the lobby of 245 Park Avenue on the south side of East 47th Street midway between Park Avenue and Lexington Avenue, connecting to the 47th Street crosspassage with one escalator and one stair.

As shown on Figure 12-29, the pedestrian circulation elements at the 47th Street crosspassage selected for analysis by MTA based on anticipated demand from Projected Development Sites include the 48th Street and Park Avenue entrance, 245 Park Avenue entrance, 47th Street crosspassage, east spine, and the stair and escalator connecting the crosspassage to the east spine. Each of these elements operates at an acceptable LOS B condition or better during the AM and PM peak periods (see Table 12.51 through Table 12.53).

Table 12.51: Existing Conditions Stair Analysis at the Grand Central Terminal - 47th Street Crosspassage

Peak Period	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				Down	Up				
AM	9	4.33	3.33	4	10	0.9	0.9	0.03	A
	10	3.83	2.83	8	146	0.9	0.9	0.45	A
	11	4.75	3.75	12	330	0.95	1.0	0.64	B
PM	9	4.33	3.33	1	9	0.9	0.9	0.02	A
	10	3.83	2.83	78	13	0.9	0.9	0.24	A
	11	4.75	3.75	270	24	0.95	0.9	0.58	B

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.



Greater East Midtown Rezoning
Manhattan, New York

Grand Central Terminal
47th Street Crosspassage

Figure
12-29

Table 12.52: Existing Conditions Escalator Analysis at the Grand Central Terminal - 47th Street Crosspassage

Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
AM	9 (UP)	40	90	945	181	0.9	0.21	A
	10 (UP)	40	90	945	510	0.9	0.60	B
	11 (UP)	40	90	945	503	0.95	0.56	B
PM	9 (DOWN)	40	90	945	140	1.0	0.15	A
	10 (DOWN)	40	90	945	447	1.0	0.47	B
	11 (DOWN)	40	90	945	364	1.0	0.39	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.53: Existing Conditions Passageway Analysis at the Grand Central Terminal - 47th Street Crosspassage

Peak Period	Passageway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				EB/SB	WB/NB				
AM	47th Street Crosspassage	22.00	15.50	185	1227	0.9	0.9	0.46	B
	To 48th Street	18.33	15.00	12	833	0.9	1.0	0.25	A
PM	47th Street Crosspassage	22.00	15.50	1299	70	0.9	0.9	0.48	B
	To 48th Street	18.33	15.00	635	24	0.9	1.0	0.22	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Bus

As shown on Figure 12-4, the proposed rezoning area is served by a total of approximately 15 NYCT local bus routes that operate exclusively within Manhattan, and one local route (Q32) that connects midtown Manhattan to Jackson Heights, Queens via the Ed Koch Queensboro Bridge. Five of these routes—the M1, M2, M4, M5 and M101—feature limited-stop service in which buses stop only at major cross streets and transfer points. Three additional routes—the M15 operating along First and Second Avenues and the M34 and M34A operating along 34th Street—feature Select Bus Service, which typically incorporates several elements designed to reduce travel time and increase the level of comfort for customers, including dedicated bus lanes, off-board fare collection, and high capacity vehicles.

In addition to the Select Bus Service routes, many of the north-south avenues in the vicinity of the rezoning area (with the exception of Park Avenue) have dedicated bus lanes during the weekday peak periods. These include single dedicated bus lanes along Third, Lexington and Fifth Avenues, and two dedicated bus lanes along Madison Avenue. All of these bus lanes are in effect from 7:00 a.m. to 7:00 p.m. The curb lanes along both eastbound and westbound 42nd Street west of Third Avenue are also designated as bus lanes during the 7:00 a.m. to 10:00 a.m. and 4:00 p.m. to 7:00 p.m. weekday peak periods.

A brief overview of the local bus services operating in proximity to the rezoning area is provided below.

M1

The M1 provides daily service between a southern terminus at East 9th Street/Fourth Avenue in the East Village, and a northern terminus at West 147th Street/Adam Clayton Powell Boulevard in Harlem, generally from 5:00 a.m. to 1:00 a.m. Limited-stop service is provided south of 132nd Street and north of 14th Street in the peak direction during weekday commuting hours (southbound in the AM and northbound in the PM). M1 buses operate primarily along Lenox Avenue, Fifth Avenue, and Madison Avenue.

M2

The M2 provides daily service between a southern terminus at East 9th Street/Fourth Avenue in the East Village, and a northern terminus at West 168th Street/Audubon Avenue in Washington Heights, operating at all times. Limited-stop service is provided south of 110th Street during the daytime, generally 6:30 a.m. to 6:30 p.m. on weekdays and 9:30 a.m. to 6:30 p.m. on weekends. Local service south of 110th Street is provided from 6:00 p.m. to 6:30 a.m. on weekdays and 5:30 p.m. to 10:30 a.m. on weekends. M2 buses operate primarily along Adam Clayton Powell Jr. Boulevard, Fifth Avenue, and Madison Avenue.

M3

The M3 provides daily service between a southern terminus at East 9th Street/Fourth Avenue in the East Village, and a northern terminus at West 193rd Street/St. Nicholas Avenue in Washington Heights, generally from 6:00 a.m. to midnight. This bus route operates primarily along St. Nicholas Avenue, Fifth Avenue, and Madison Avenue.

M4

The M4 provides daily service between a southern terminus at West 32nd Street/Seventh Avenue (Penn Station) in midtown, and a northern terminus at Fort Tryon Park in Washington Heights generally from 5:30 a.m. to 11:30 p.m. (M4 buses continue into Fort Tyron Park to the Cloisters Museum when the museum is open.) Limited stop service is provided in the peak direction during the weekday rush hours (southbound in the AM and northbound in the PM). M4 buses operate primarily along Fort Washington Avenue, Broadway, Central Park North, Fifth Avenue and Madison Avenue.

M5

The M5 provides daily service between a southern terminus at Whitehall Street/South Street (South Ferry), and a northern terminus at West 178th Street/Broadway (George Washington Bridge Bus Station) in Washington Heights generally from 6:00 a.m. to midnight. Limited-stop service is provided in the peak direction during the weekday commuter hours (southbound in the AM and northbound in the PM) although buses make local stops in select areas along the route. M5 buses operate primarily along Broadway, Riverside Drive, Fifth Avenue, Sixth Avenue, and Church Street.

M7

The M7 provides daily service between a southern terminus at West 14th Street/Sixth Avenue in Chelsea, and a northern terminus at West 146th Street/Malcolm X Boulevard in Harlem operating at all times. M7 buses operate primarily along Malcolm X Boulevard, Amsterdam Avenue, Columbus Avenue, Broadway, Sixth Avenue, and Seventh Avenue.

M15 / M15 SBS

The M15 provides daily service between a southern terminus at Whitehall Street/South Street (South Ferry), and a northern terminus at Second Avenue/East 126th Street in East Harlem operating at all times. Select Bus Service is also provided, generally from 5:00 a.m. to 11:00 p.m. M15 buses operate primarily along First Avenue, Second Avenue, Allen Street, and Water Street.

M31

The M31 provides daily service between a western terminus at West 54th Street/Eleventh Avenue in Midtown, and an eastern terminus at East 92nd Street/York Avenue in Yorkville generally from 5:30 a.m. to 1:00 a.m. M31 buses primarily operate along York Avenue and 57th Street.

M42

The M42 provides daily service between a western terminus at West 42nd Street/Twelfth Avenue (42nd Street Pier) in midtown, and an eastern terminus at East 41st Street/First Avenue in Murray Hill (United Nations) operating at all times. M42 buses primarily operate along 42nd Street.

M50

The M50 provides daily service between a western terminus at West 42nd Street/Twelfth Avenue (42nd Street Pier) in midtown, and an eastern terminus at East 49th Street/First Avenue in East Midtown, generally from 5:00 a.m. to 1:00 a.m. M50 buses operate primarily along 49th Street, 50th Street, and Twelfth Avenue.

M57

The M57 provides daily service between a western terminus at West 72nd Street/Broadway on the Upper West Side, and an eastern terminus at East 60th Street/York Avenue on the Upper East Side generally from 6:00 a.m. to 1:00 a.m. M57 buses operate primarily along 57th Street and West End Avenue.

M101

The M101 provides local service at all times between a southern terminus at Astor Place/Third Avenue in the East Village, and a northern terminus at West 193rd Street/Amsterdam Avenue in Inwood operating at all times. Limited-stop service is provided between East 14th Street and East 122nd Street generally from 6:00 a.m. to 9:00 p.m. on weekdays and 10:00 a.m. to 7:00 p.m. on weekends. This bus

route operates primarily along Amsterdam Avenue, 125th Street, Lexington Avenue, and Third Avenue.

M102

The M102 provides daily service at all times between a southern terminus at East 6th Street/Third Avenue in the East Village, and a northern terminus at West 146th Street/Malcolm X Boulevard in Harlem. This bus route operates primarily along Lenox Avenue, 125th Street, Lexington Avenue, and Third Avenue.

M103

The M103 provides daily service at all times between a southern terminus at Park Row/City Hall in lower Manhattan, and a northern terminus at East 125th Street/Lexington Avenue in Harlem. The M103 operates primarily along Lexington Avenue, Third Avenue, the Bowery, and Park Row.

Q32

The Q32 provides daily service between a western terminus at West 32nd Street/Seventh Avenue (Penn Station) in Manhattan, and an eastern terminus at 81st Street/Northern Boulevard in Jackson Heights, Queens, generally from 5:00 a.m. to 1:00 a.m. The Q32 operates primarily along Madison Avenue, Fifth Avenue, East 59th Street, and East 60th Streets in Manhattan, and Queens Boulevard and Roosevelt Avenue in Queens via the Ed Koch Queensboro Bridge.

As shown in Table 12.8 and discussed previously, no local bus route is expected to experience 50 or more new trips in one direction through its maximum load points in one or both peak hours and therefore no detailed bus analysis is required.

As shown in Table 12.9 and discussed previously, in addition to the local bus routes serving the study area, a total of approximately 65 MTA-NYCT, MTA Bus, North Fork Express, Bee-Line Bus, and Monsey Trails express routes connecting Manhattan to New York City's outer boroughs, Long Island, Westchester and Rockland Counties also operate in proximity to the rezoning area, many along Madison Avenue and Fifth Avenue, which are major north-south bus corridors. However, as it is unlikely that any one express bus route would experience 50 or more new trips in one direction in any one peak hour as a result of the Proposed Action, significant adverse impacts to express bus services are not anticipated based on *CEQR Technical Manual* criteria, and a detailed analysis of express bus conditions is not deemed necessary.

Future Transit Conditions without the Proposed Action (No-Action Condition)

Subway Stations

To establish future No-Action conditions at analyzed subway stations, it was determined that use of simple growth rates would effectively predict future No-Action conditions, due to the substantial effects of very large-scale transit projects expected to directly affect passenger demand in the study area. Instead, estimates of peak-hour trips were developed using outputs from MTA's Regional Transit

Forecasting Model (RTFM). The RTFM is a model of regional travel in the New York metropolitan area that includes NYCT subway and bus riders, MTA Bus Company riders, commuters using MNR, LIRR, and transit travel to/from New Jersey, automobile travelers to Manhattan or regional transit stops, and people using other travel modes, including taxi, bicycle, and walk. The model uses TransCAD, a transportation planning software package that combines a geographic information system (GIS) with travel demand models and analysis tools. The model is based on socioeconomic forecasts developed by the New York Metropolitan Transportation Council (NYMTC); DCP participated in the development of these forecasts by allocating borough-level growth to specific model analysis zones. Forecasts were made to represent 2036 No-Action conditions.

Planned improvements reflected in the RTFM data include the following two MTA capital projects, all of which are currently under construction:

- LIRR East Side Access – The LIRR East Side Access project will include new tunnels connecting the LIRR Mainline tracks in Queens to Grand Central Terminal via the existing 63rd Street Tunnel under the East River; and a new passenger concourse with eight tracks and four wide platforms, along with mezzanines and concourses, beneath Park Avenue at an elevation below Grand Central Terminal's existing lower level. New street-level entrances would be provided on the south side of East 47th Street east of Madison Avenue, on the north side of East 48th Street midblock between Park and Madison Avenues, and on the south side of East 47th Street midblock between Park and Lexington Avenues. LIRR trains are expected to begin serving Grand Central Terminal in 2022. In addition, connections to Grand Central Terminal will include escalators to the Biltmore Room and the Dining Concourse.

- Second Avenue Subway (Phase 1) – The Second Avenue Subway project will include a two-track line along Second Avenue from East 125th Street to the Financial District in Lower Manhattan. It will also include a connection from Second Avenue through the 63rd Street Tunnel to existing tracks for service to West Midtown and Brooklyn. Sixteen new ADA accessible stations will be constructed. The Second Avenue subway line is being built in phases; the first phase will provide service from East 96th Street to East 63rd Street as an extension of the Q train, and is expected to be in operation by the end of 2016. Operation of Phase 1 of the Second Avenue Line is expected to ease crowding on the Lexington Avenue Line.

For this EIS, the RTFM was used to estimate the percentage increase in peak hour entering and exiting demand at each analyzed subway station during the 2016 through 2036 period as a result of regional growth and planned improvements to the transit system. RTFM data were also used to estimate the percentage increase in transfer activity at the Lexington Avenue-51st/53rd Streets subway station.

Because of its unique complexity, a more elaborate procedure was used to analyze the Grand Central 42nd Street subway station. Volumes on each subway station element were sub-divided into different categories of subway demand, in order to distinguish between growth rates in moves between platforms and the street, transfers between subway platforms, and transfers to and from the commuter railroads. In most cases the RTFM was used to determine this growth. For certain transfer moves estimated growth was taken directly from either the No. 7 Subway Extension—Hudson Yards Rezoning and Development Program EIS or the East Side Access EIS. The growth in each market was then allocated back to individual station elements.

In addition to the changes in subway demand due to regional growth and MTA capital improvements, projected future development independent of the Proposed Action that would have a potential effect on baseline 2036 subway demand at analyzed stations was included in the No-Action subway analysis.

Development on projected development sites pursuant to existing zoning was considered, as were the other No-Action development projects in East Midtown summarized in Table 12-18.

The results of the analysis of subway station elements for the No-Action condition during the weekday AM and PM peak periods are discussed below.

Grand Central 42nd Street Subway Station

In the No-Action condition, the Grand Central 42nd Street subway station analysis includes the following station changes:

- Two new Lexington Line southbound platform stairs (P10 and P20A) and one new Lexington Avenue Line northbound platform will have been added. Stairs P10, P19A and P20A will have an effective width of 6.5 feet. Stair P10 was identified as an improvement in the *Vanderbilt Corridor and One Vanderbilt FEIS.*
- A new Lexington Line southbound platform stair P24 (6-foot effective width) and a northbound platform stair P25 (5-foot effective width) will have been added. These stairs were identified as required mitigation in the *No. 7 Extension-Hudson Yards Rezoning & Development Program Final GEIS*. In addition, the north end of existing Lexington Line mezzanine A/B will have to be extended further north to service these two stairs and a new fare control area (R240A) with four turnstiles that will have to be created.
- Fare control area (R238A), located west of the existing R238 fare control area and just in front of new stair M30, will have been expanded to include eight new turnstiles. This was identified as required mitigation in the *East Side Access Final EIS*. In addition, there will be a new fare control area (R238B) placed adjacent to stair P18. FCA R238B will include four new turnstiles.
- Stair (PL9A) at the far eastern end of the Flushing platform will have been widened by two feet. This was identified as mitigation in the *First Avenue Properties Rezoning Final SEIS*.
- Existing stair M9 in fare control area R240 will have be widened to a total effective width of 12 feet 6 inches (from 6 feet 10 inches) as noted in the *Vanderbilt Corridor and One Vanderbilt FEIS*.
- On both Lexington Line platforms, several modifications would be made to the staircases and the nearby columns. Selected ten-foot-wide stairs would be reduced to an eight-foot effective width. These stairs, while narrower, would still be of sufficient width to accommodate four lanes of pedestrian traffic. Modification of the tread height at each stair would allow the space behind each staircase to be opened for pedestrian circulation, and columns adjacent to the stair cases would be made narrower to accommodate pedestrian circulation along the express side of the southbound platform and the local side of the northbound platform. A total of nine stairs (four southbound, five northbound) would be altered in this fashion.
- On the Lexington Line platforms, one northbound (P22) and one southbound (P23) platform stair will have widened to an effective width of 6 feet 6 inches. An additional northbound platform stair (P16) will have been widened to an eight-foot effective width.

As shown in Tables 12.54 through 12.57, the following analyzed elements at the Grand Central 42nd Street subway station will operate at LOS D or worse during at least one peak hour in the No-Action condition.

In the AM peak period these include:

- Lexington Line southbound platform stairs P10, P12, P14, P18, and P20, which are expected to operate at LOS D, with v/c ratios of 1.26, 1.03, 1.17, 1.28, and 1.02, respectively. Additionally, southbound platform stair P16 will operate at LOS E, with a v/c ratio 1.36.
- Lexington Line northbound platform stair P13, which is expected to operate at LOS D, with a v/c ratio of 1.05.
- Stairs U2, U5, and U6, that connect the Lexington Line southbound platform to the Flushing passageway underneath the Lexington Line tracks, which are expected to operate with v/c ratios of 1.27 (LOS D), 1.28 (LOS D), and 1.36 (LOS E), respectively.
- Flushing Line platform Stair PL2, which is expected to operate at LOS F, with a v/c ratio of 1.71. In addition, Flushing Line platform Stairs PL3, PL6, and PL9A are expected to operate at LOS E, with v/c ratios of 1.53, 1.39, and 1.44, respectively, and platform Stair PL5 is expected to operate at LOS D with a v/c ratio of 1.16.
- Free zone stair M7, located near the north side of East 42nd Street and connecting Grand Central Terminal to the R238 fare control area, which is expected to operate at LOS D, with a v/c ratio of 1.12. Free zone stair KC is expected to operate at LOS E with a v/c ratio of 1.54.
- All six escalators in the Flushing Core, E203, E204, E205, E206, E208, and E210, and the two free zone escalators E255 and E256, which are expected to operate at LOS D.

In the PM peak period these include:

- Northbound Lexington platform stairs P13 and P19A, which is expected to operate at LOS D, with v/c ratios of 1.15 and 1.06, respectively.
- Two of the Flushing underpass stairs, Stair U6 and U2, that connect to the northbound Lexington platform, which are expected to operate over practical capacity with v/c ratios of 1.40 (LOS E) and 1.15 (LOS D), respectively.
- Flushing Line platform Stairs (that connect through the center core) PL2 and PL6, which are expected to operate at LOS E with v/c ratios of 1.42 and 1.57, respectively. Platform Stairs PL3 and PL5 are expected to operate at LOS D with v/c ratios of 1.02 and 1.16, respectively.
- Free zone stair M7, which is expected to operate at LOS E, with a v/c ratio of 1.61. Free zone stair KC is expected to operate at LOS D with a v/c ratio of 1.23.
- The Flushing Core Escalators E 206 and E208, which are expected to operate at LOS D with v/c ratio of 1.11 and 1.03, respectively. Escalator E210 is expected to operate with a v/c ratio of 1.41 (LOS E).
- Free zone Escalators E255 and E256, which are expected to operate at LOS D with v/c ratios of 1.19 and 1.12, respectively.

Table 12.54: No-Action Stair Analysis at the Grand Central 42nd Street (4, 5, 6, 7, S) Subway Station Complex

Peak Period	Stairway	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor Up	Surging Factor Down	Friction Factor	V/C Ratio	LOS
			Down	Up					
AM	P10	6.50	503	451	0.75	1.0	0.9	1.26	D
	P12	8.00	799	236	0.75	1.0	0.9	1.03	D
	P14	8.00	784	363	0.75	1.0	0.9	1.17	D
	P16	8.00	1036	321	0.75	1.0	0.9	1.36	E
	P18	6.50	663	345	0.75	1.0	0.9	1.28	D
	P20A	6.50	227	327	0.75	1.0	0.9	0.76	C
	P20	6.50	460	327	0.75	1.0	0.9	1.02	D
	P22	6.50	368	369	0.75	1.0	0.9	0.98	C
	P24	6.00	0	288	0.75	1.0	0.9	0.47	B
	P13	8.00	260	658	0.75	1.0	0.9	1.05	D
	P15	8.00	375	381	0.75	1.0	0.9	0.82	C
	P17	8.00	418	332	0.75	1.0	0.9	0.80	C
	P19	8.00	211	372	0.75	1.0	0.9	0.65	B
	P19A	6.50	271	418	0.75	1.0	0.9	0.94	C
	P21	6.50	256	375	0.75	1.0	0.9	0.86	C
	P23	6.50	277	329	0.75	1.0	0.9	0.82	C
	P25	5.00	64	424	0.75	1.0	0.9	0.93	C
	U1	5.00	318	206	0.90	0.8	0.9	0.97	C
	U5	5.00	332	382	0.90	0.8	0.9	1.28	D
	U6	5.00	535	186	0.90	0.8	0.9	1.36	E
	U2	5.00	557	101	0.90	0.8	0.9	1.27	D
	PL2	6.50	700	574	0.75	1.0	0.9	1.71	F
	PL3	6.50	944	263	0.75	1.0	0.9	1.53	E
	PL5	6.00	47	670	0.75	1.0	0.9	1.16	D
	PL6	6.00	52	803	0.75	1.0	0.9	1.39	E
	PL9A	10.75	244	1374	0.75	1.0	0.9	1.44	E
	ML1	5.00	244	0	0.75	1.0	0.9	0.36	A
	P10S	14.00	817	456	0.75	1.0	0.9	0.75	C
	P11	8.00	318	225	0.75	1.0	0.9	0.57	B
	P3	13.50	26	232	0.75	1.0	0.9	0.18	A
	M8	17.70	949	848	0.90	1.0	0.9	0.79	C
	M9	12.50	74	1298	0.90	1.0	0.9	0.90	C
	O27	10.75	65	483	1.00	0.9	0.9	0.38	A
	M7	8.75	1033	261	0.90	1.0	0.9	1.12	D
	KC	10.25	2216	139	0.95	1.0	1.0	1.54	E
	S1	3.75	6	58	0.80	1.0	0.9	0.16	A
	O3	7.75	19	174	0.80	1.0	0.9	0.23	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.54: No-Action Stair Analysis at the Grand Central 42nd Street (4, 5, 6, 7, S) Subway Station Complex (Continued)

Peak Period	Stairway	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor Up	Surging Factor Down	Friction Factor	V/C Ratio	LOS
			Down	Up					
PM	P10	6.50	353	158	0.75	1.0	0.9	0.64	B
	P12	8.00	560	83	0.75	1.0	0.9	0.62	B
	P14	8.00	549	128	0.75	1.0	0.9	0.67	B
	P16	8.00	726	113	0.75	1.0	0.9	0.81	C
	P18	6.50	465	121	0.75	1.0	0.9	0.71	C
	P20A	6.50	159	115	0.75	1.0	0.9	0.36	A
	P20	6.50	322	115	0.75	1.0	0.9	0.54	B
	P22	6.50	258	130	0.75	1.0	0.9	0.49	B
	P24	6.00	0	101	0.75	1.0	0.9	0.17	A
	P13	8.00	359	662	0.75	1.0	0.9	1.15	D
	P15	8.00	518	384	0.75	1.0	0.9	0.95	C
	P17	8.00	577	334	0.75	1.0	0.9	0.95	C
	P19	8.00	291	374	0.75	1.0	0.9	0.73	C
	P19A	6.50	374	420	0.75	1.0	0.9	1.06	D
	P21	6.50	353	377	0.75	1.0	0.9	0.98	C
	P23	6.50	382	331	0.75	1.0	0.9	0.94	C
	P25	5.00	88	427	0.75	1.0	0.9	0.97	C
	U1	5.00	365	73	0.90	0.8	0.9	0.84	C
	U5	5.00	299	89	0.90	0.8	0.9	0.74	C
	U6	5.00	609	119	0.90	0.8	0.9	1.40	E
	U2	5.00	498	98	0.90	0.8	0.9	1.15	D
	PL2	6.50	886	234	0.75	1.0	0.9	1.42	E
	PL3	6.50	708	114	0.75	1.0	0.9	1.02	D
	PL5	6.00	546	271	0.75	1.0	0.9	1.16	D
	PL6	6.00	679	416	0.75	1.0	0.9	1.57	E
	PL9A	10.75	724	394	0.75	1.0	0.9	0.89	C
	ML1	5.00	0	0	0.75	1.0	0.9	0.00	A
	P10S	14.00	496	520	0.75	1.0	0.9	0.63	B
	P11	8.00	170	256	0.75	1.0	0.9	0.47	B
	P3	13.50	169	174	0.75	1.0	0.9	0.22	A
	M8	17.70	655	865	0.90	1.0	0.9	0.68	B
	M9	12.50	989	367	0.90	1.0	0.9	0.83	C
	O27	10.75	383	183	1.00	0.9	0.9	0.42	A
	M7	8.75	490	1276	0.90	1.0	0.9	1.61	E
	KC	10.25	1694	185	0.95	1.0	1.0	1.23	D
	S1	3.75	38	5	0.80	1.0	0.9	0.09	A
	O3	7.75	114	14	0.80	1.0	0.9	0.13	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.55: No-Action Escalator Analysis at the Grand Central 42nd Street (4, 5, 6, 7, S) Subway Station Complex

Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
AM	E203	32	90	750	687	0.80	1.15	D
	E204	32	90	750	687	0.80	1.15	D
	E205	40	90	945	782	0.80	1.03	D
	E206	40	90	945	782	0.80	1.03	D
	E208	40	90	945	853	0.75	1.20	D
	E210	40	90	945	853	0.75	1.20	D
	E255	40	90	945	913	0.95	1.02	D
	E256	40	90	945	912	0.95	1.02	D
PM	E203	32	90	750	394	0.80	0.66	B
	E204	32	90	750	724	1.00	0.97	C
	E205	40	90	945	656	0.80	0.87	C
	E206	40	90	945	1047	1.00	1.11	D
	E208	40	90	945	731	0.75	1.03	D
	E210	40	90	945	1337	1.00	1.41	E
	E255	40	90	945	1071	0.95	1.19	D
	E256	40	90	945	1063	1.00	1.12	D

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.56: No-Action Passageway Analysis at the Grand Central 42nd Street (4, 5, 6, 7, S) Subway Station Complex

Passageway	Peak Period	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor West	Surging Factor East	Friction Factor	V/C Ratio	LOS
			West	East					
Passageway between Mezzanine A and Shuttle	AM	15.0	1371	1165	95%	95%	0.9	0.88	C
	PM	15.0	521	1450	95%	95%	0.9	0.68	B

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.57: No-Action Fare Control Area Analysis at the Grand Central 42nd Street (4, 5, 6, 7, S) Subway Station Complex

Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				In	Out				
AM	R241A	Two-way Turnstile	5	244	1374	0.9	0.9	0.66	B
	R240	Two-way Turnstile	11	1024	1917	0.9	0.9	0.58	B
	R240A	Two-way Turnstile	4	64	712	0.9	0.9	0.38	A
	R238	Two-way Turnstile	16	886	1825	0.9	0.9	0.36	A
	R238A	Two-way Turnstile	8	2386	223	0.9	0.9	0.84	C
	R238B	Two-way Turnstile	4	146	261	0.9	0.9	0.22	A
	R237	Two-way Turnstile	7	102	803	0.9	0.9	0.26	A
	R237A	High Exit Turnstile	1	0	146	0.9	0.9	0.32	A
	R237B	Two-way Turnstile	4	272	1311	0.9	0.9	0.81	C
	R236	Two-way Turnstile	12	1096	540	0.8	0.9	0.34	A
	R235	Two-way Turnstile	9	758	1049	0.9	0.9	0.45	A
	R233	High Entry/Exit Turnstile	2	25	232	0.8	0.9	0.25	A
		High Exit Turnstile	1						
PM	R241A	Two-way Turnstile	5	724	394	0.9	0.9	0.53	B
	R240	Two-way Turnstile	11	1938	887	0.9	0.9	0.62	B
	R240A	Two-way Turnstile	4	88	528	0.9	0.9	0.31	A
	R238	Two-way Turnstile	16	1812	2525	0.9	0.9	0.60	B
	R238A	Two-way Turnstile	8	1615	213	0.9	0.9	0.59	B
	R238B	Two-way Turnstile	4	75	18	0.9	0.9	0.06	A
	R237	Two-way Turnstile	7	712	227	0.9	0.9	0.33	A
	R237A	High Exit Turnstile	0	0	31	0.9	0.9	0.07	A
	R237B	Two-way Turnstile	4	464	381	0.9	0.9	0.49	B
	R236	Two-way Turnstile	12	759	776	0.8	0.9	0.31	A
	R235	Two-way Turnstile	9	1221	883	0.9	0.9	0.55	B
	R233	High Entry/Exit Turnstile	2	154	19	0.8	0.9	0.35	A
		High Exit Turnstile	1						

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

42nd St-Bryant Park Subway Station

As listed in Table 12-58, three of the eleven analyzed stairs at the 42nd Street-Bryant Park subway station are expected to operate at LOS D or worse in at least one peak hour in the No-Action condition. These include:

- Street Stair S5 at the southeast corner of Sixth Avenue and West 40th Street, which will operate at LOS D conditions in both peak hours and v/c ratios of 1.02 in the AM and 1.04 in the PM.

- Uptown platform Stair P4, which will operate at LOS D with a v/c ratio of 1.20 in the AM peak hour.
- Street Stair MB20 at the northeast corner of Sixth Avenue and West 42nd Street, which will operate at LOS D with a v/c ratio of 1.12 in the PM peak hour.

Table 12.58: No-Action Stair Analysis at the 42nd Street-Bryant Park (B, D, F, M) Subway Station

Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up				
AM	N502	MB20	10.00	8.75	58	633	0.9	0.9	0.64	B
		P13	10.00	8.75	60	288	0.75	0.9	0.38	A
		P14	10.00	8.75	51	709	0.75	0.9	0.84	C
	N504	S5	4.92	3.92	45	444	0.9	0.9	1.02	D
		S6	5.00	4.00	27	371	0.9	0.9	0.81	C
		P1	6.75	5.75	26	322	0.75	0.9	0.59	B
		P2	6.75	5.75	25	444	0.75	0.9	0.80	C
		P3	6.67	5.67	45	404	0.75	0.9	0.76	C
		P4	6.67	5.67	52	652	0.75	0.9	1.20	D
		P5	6.67	5.67	3	194	0.75	1.0	0.31	A
		P6	6.50	5.50	7	234	0.75	1.0	0.39	A
PM	N502	MB20	10.00	8.75	1161	146	0.9	0.9	1.12	D
		P13	10.00	8.75	864	98	0.75	0.9	0.84	C
		P14	10.00	8.75	481	139	0.75	0.9	0.56	B
	N504	S5	4.92	3.92	398	137	0.9	0.9	1.04	D
		S6	5.00	4.00	322	93	0.9	0.9	0.79	C
		P1	6.75	5.75	468	202	0.75	0.9	0.95	C
		P2	6.75	5.75	188	132	0.75	0.9	0.47	B
		P3	6.67	5.67	535	130	0.75	0.9	0.93	C
		P4	6.67	5.67	466	160	0.75	0.9	0.89	C
		P5	6.67	5.67	25	81	0.75	0.9	0.17	A
		P6	6.50	5.50	20	112	0.75	0.9	0.23	A

Notes:
Methodology based on CEQR *Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.
Stairs M7/M8 and S6 process the same pedestrian volumes; however, Stair S6 is narrower and governs for analysis purposes.
Stairs M6 and S5 process the same pedestrian volumes; however, Stair S5 is narrower and governs for analysis purposes.

As listed in Table 12.59, all analyzed fare control areas at the 42nd Street-Bryant Park subway station are expected to operate at an acceptable LOS B or better during both the AM and PM peak hours in the No-Action condition.

Table 12.59: No-Action Fare Control Area Analysis at the 42nd Street-Bryant Park (B, D, F, M) Subway Station

Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				In	Out				
AM	N504	Two-way Turnstile	6	139	1875	0.9	0.9	0.47	B
		High Entry/Exit Turnstile	3						
	N502	Two-way Turnstile	5	111	997	0.9	0.9	0.30	A
		High Entry/Exit Turnstile	1						
		High Exit Turnstile	2						
PM	N504	Two-way Turnstile	6	1461	369	0.9	0.9	0.58	B
		High Entry/Exit Turnstile	3						
	N502	Two-way Turnstile	5	1342	237	0.9	0.9	0.69	B
		High Entry/Exit Turnstile	1						
		High Exit Turnstile	2						

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

Fifth Avenue Subway Station

As listed in Table 12.60, street Stair M1/M2 will operate at LOS D with a v/c ratio of 1.01 in the AM peak hour. All other analyzed stairs and fare control areas at the Fifth Avenue subway station are expected to operate at an acceptable LOS C or better during both the AM and PM peak hours in the No-Action condition, as listed in Table 12.60 and Table 12.61.

Table 12.60: No-Action Stair Analysis at the Fifth Avenue (7) Subway Station

Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up				
AM	R501	M1/M2	11.33	10.08	85	1058	0.8	0.9	1.03	D
		P2	8.25	7.00	27	481	0.75	0.9	0.71	C
		P3	8.00	6.75	40	254	0.75	0.9	0.42	A
		P4	8.00	6.75	3	122	0.75	1.0	0.16	A
	R500	S2	5.67	4.67	14	130	0.9	0.9	0.25	A
		S3	5.67	4.67	8	184	0.75	1.0	0.36	A
		M3	13.33	12.08	22	314	0.75	0.9	0.27	A
PM	R501	M1/M2	11.33	10.08	799	243	0.8	0.9	0.81	C
		P2	8.25	7.00	321	147	0.75	0.9	0.55	B
		P3	8.00	6.75	322	75	0.75	0.9	0.46	B
		P4	8.00	6.75	36	14	0.75	0.9	0.06	A
	R500	S2	5.67	4.67	107	72	0.9	0.9	0.30	A
		S3	5.67	4.67	76	44	0.75	0.9	0.21	A
		M3	13.33	12.08	183	116	0.75	0.9	0.21	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

Table 12.61: No-Action Fare Control Area Analysis at the Fifth Avenue (7) Subway Station

Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				In	Out				
AM	R501	Two-way Turnstile	8	85	1058	0.8	0.9	0.31	A
	R500	High Entry/Exit Turnstile	2	22	314	0.9	0.9	0.28	A
		High Exit Turnstile	1						
PM	R501	Two-way Turnstile	8	799	243	0.8	0.9	0.33	A
	R500	High Entry/Exit Turnstile	2	183	116	0.9	0.9	0.49	B
		High Exit Turnstile	1						

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

47th- 50th Streets-Rockefeller Center Subway Station

As listed in Table 12.62, seven of the 20 analyzed stairs at the 47th-50th Streets-Rockefeller Center subway station are expected to operate at LOS D or worse in at least one peak hour in the No-Action condition. These include:

- Street Stair S1 at the southeast corner of Sixth Avenue and West 47th Street, which is expected to operate with LOS D conditions in both peak hours and v/c ratios of 1.27 in the AM and 1.31 in the PM.
- Uptown platform Stair P2, which is expected to operate at a v/c ratio of 1.04 (LOS D) in the AM peak hour.
- Uptown platform Stairs P6 and P8, which are expected to operate over practical capacity at LOS E in the AM peak hour with v/c ratios of 1.51 and 1.62, respectively.
- Uptown platform Stair P10, which is expected to operate over practical capacity at LOS D in the AM peak hour with v/c ratio of 1.28.
- Downtown platform Stair P1, which is expected to deteriorate from a LOS E to LOS F in the PM peak hour with a v/c ratio of 2.08.
- Downtown platform Stair P9, which is expected to operate at a v/c ratio of 1.62 (LOS E) in the PM peak hour.

Table 12.62: No-Action Stair Analysis at the 47th-50th Streets-Rockefeller Center (B, D, F, M) Subway Station

Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up				
AM	N501	S1	5.00	4.00	32	588	0.9	0.9	1.27	D
		S6	5.00	4.00	11	293	0.9	1.0	0.56	B
		M1	12.00	10.75	42	881	0.9	1.0	0.63	B
		P1	6.08	5.08	22	538	0.75	1.0	0.97	C
		P2	6.17	5.17	81	484	0.75	0.9	1.04	D
		P3	8.58	7.33	21	588	0.75	1.0	0.73	C
		P4	8.50	7.25	107	550	0.75	0.9	0.86	C
	N501A	P5	6.33	5.33	20	475	0.75	1.0	0.82	C
		P6	5.75	4.75	148	614	0.75	0.9	1.51	E
		S5	4.25	3.25	20	250	0.9	0.9	0.68	B
	N500A	SB1/MB1	7.25	6.00	25	114	0.9	0.9	0.19	A
		P7	6.25	5.25	34	369	0.75	0.9	0.74	C
		P8	6.25	5.25	98	788	0.75	0.9	1.62	E
		P15	7.50	6.50	32	307	0.75	0.9	0.50	B
		P16	5.67	4.67	77	380	0.75	0.9	0.93	C
	N500	06/07	7.75	6.50	46	290	0.9	0.9	0.42	A
		P9	6.33	5.33	54	470	0.75	0.9	0.94	C
		P10	6.67	5.67	56	691	0.75	0.9	1.28	D
		P12	6.50	5.50	29	406	0.75	0.9	0.77	C
		P14	6.25	5.25	24	208	0.75	0.9	0.43	A
PM	N501	S1	5.00	4.00	646	55	0.9	0.9	1.31	D
		S6	5.00	4.00	259	29	0.9	0.9	0.54	B
		M1	12.00	10.75	905	83	0.9	0.9	0.69	B
		P1	6.08	5.08	1016	306	0.75	0.9	2.08	F
		P2	6.17	5.17	364	62	0.75	0.9	0.64	B
		P3	8.58	7.33	531	142	0.75	0.9	0.73	C
		P4	8.50	7.25	692	65	0.75	0.9	0.80	C
	N501A	P5	6.33	5.33	422	172	0.75	0.9	0.90	C
		P6	5.75	4.75	438	93	0.75	0.9	0.88	C
		S5	4.25	3.25	254	49	0.9	0.9	0.70	C
	N500A	SB1/MB1	7.25	6.00	101	22	0.9	0.9	0.16	A
		P7	6.25	5.25	266	78	0.75	0.9	0.52	B
		P8	6.25	5.25	184	92	0.75	0.9	0.43	A
		P15	7.50	6.50	144	47	0.75	0.9	0.24	A
		P16	5.67	4.67	102	26	0.75	0.9	0.22	A
	N500	06/07	7.75	6.50	247	83	0.9	0.9	0.39	A
		P9	6.33	5.33	1063	78	0.75	0.9	1.62	E
		P10	6.67	5.67	397	106	0.75	0.9	0.70	C
		P12	6.50	5.50	236	50	0.75	0.9	0.41	A
		P14	6.25	5.25	465	32	0.75	0.9	0.72	C

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

As shown in Table 12.63, all analyzed fare control areas at the 47th-50th Streets-Rockefeller Center subway station are expected to operate at an acceptable LOS B or better during both the AM and PM peak hours in the No-Action condition.

Table 12.63: No-Action Fare Control Area Analysis at the 47th-50th Streets-Rockefeller Center (B, D, F, M) Subway Station

Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian		Surging Factor	Friction Factor	V/C Ratio	LOS
				In	Out				
AM	N501	Two-wayTurnstile	8	92	1897	0.9	1.0	0.31	A
		High Entry/Exit	2						
		High ExitTurnstile	2						
	N501A	Two-wayTurnstile	8	44	1064	0.9	1.0	0.15	A
		High Entry/Exit	4						
		High ExitTurnstile	2						
	N500A	High Entry/Exit	2	29	117	0.9	0.9	0.20	A
	N500	Two-wayTurnstile	10	82	2717	0.9	1.0	0.49	B
PM	N501	Two-wayTurnstile	8	1633	190	0.9	0.9	0.50	B
		High Entry/Exit	2						
		High ExitTurnstile	2						
	N501A	Two-wayTurnstile	8	743	174	0.9	0.9	0.21	A
		High Entry/Exit	4						
		High ExitTurnstile	2						
	N500A	High Entry/Exit	2	113	33	0.9	0.9	0.28	A
	N500	Two-wayTurnstile	10	2219	277	0.9	0.9	0.64	B

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

51st Street Subway Station

In the No-Action condition, two analyzed stairs and one escalator at the 51st Street subway station are expected to operate at LOS D or worse in at least one peak hour. As listed in Table 12.64, underpass Stair U1 is expected to operate with a v/c ratio of 1.28 (LOS D) in the AM peak hour and at LOS E (v/c ratio of 1.56) in the PM peak hour. All other analyzed stairs are expected to operate at LOS C or better in the No-Action condition.

Underpass Escalator E252 (adjoining stair U1) and the analyzed passageway are expected to operate at LOS D with v/c ratios of 1.09 and 1.10, respectively, in the AM peak hour as listed in Tables 12.65 and 12.66. These elements connect the station to the Lexington Avenue-53rd Street subway station. As listed in Table 12.67, all fare control areas are expected to operate at LOS A in both peak hours.

Table 12.64: No-Action Stair Analysis at the 51st Street (6) Subway Station

Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up				
AM	R243	S2	5.17	4.17	57	272	0.75	0.9	0.74	C
		S5	4.08	3.08	11	19	0.75	0.9	0.09	A
		S4	4.50	3.50	14	292	0.75	1.0	0.77	C
		S6	4.50	3.50	7	153	0.75	1.0	0.40	A
	R242	S3	4.50	3.50	21	189	0.75	0.9	0.58	B
		S8	4.50	3.50	73	221	0.75	0.9	0.78	C
	R242A	O1/O2	10.00	8.75	84	454	0.75	0.9	0.58	B
	N305A	U1	4.17	3.17	449	9	0.75	1.0	1.28	D
PM	R243	S2	5.17	4.17	280	119	0.75	0.9	0.78	C
		S5	4.08	3.08	24	28	0.75	0.9	0.15	A
		S4	4.50	3.50	247	74	0.75	0.9	0.73	C
		S6	4.50	3.50	48	48	0.75	0.9	0.24	A
	R242	S3	4.50	3.50	300	49	0.75	0.9	0.77	C
		S8	4.50	3.50	122	55	0.75	0.9	0.41	A
	R242A	O1/O2	10.00	8.75	160	77	0.75	0.9	0.22	A
	N305A	U1	4.17	3.17	550	8	0.75	1.0	1.56	E

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

Table 12.65: No-Action Escalator Analysis at the 51st Street (6) Subway Station

Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
AM	E252 (UP)	40	90	945	775	0.75	1.09	D
PM	E252 (UP)	40	90	945	424	0.75	0.60	B

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.66: No-Action Passageway Analysis at the 51st Street (6) Subway Station

Passageway	Peak Period	Width(ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				NB	SB				
To/From Lex Ave-53rd St	AM	15.25	13.3	1141	1427	0.75	0.9	1.10	D
	PM	15.25	13.3	1006	841	0.75	0.9	0.81	C

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.67: No-Action Fare Control Area Analysis at the 51st Street (6) Subway Station

Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				In	Out				
AM	R242A	Two-way Turnstile	5	79	463	0.75	0.9	0.25	A
	R242	Two-way Turnstile	9	99	410	0.75	0.9	0.13	A
	R243	Two-way Turnstile	9	89	736	0.75	0.9	0.21	A
	N305A	Two-way Turnstile	3	44	195	0.8	0.9	0.18	A
PM	R242A	Two-way Turnstile	5	159	70	0.75	0.9	0.12	A
	R242	Two-way Turnstile	9	414	110	0.75	0.9	0.15	A
	R243	Two-way Turnstile	9	599	269	0.75	0.9	0.24	A
	N305A	Two-way Turnstile	3	404	36	0.8	0.9	0.38	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

Lexington Avenue-53rd Street Subway Station

As listed in Table 12.68, platform Stair P1 is expected to operate at a LOS D in the AM peak hour with a v/c ratio of 1.28. All other analyzed stair elements are expected to operate at an acceptable LOS C or better in the No-Action condition at the Lexington Avenue-53rd Street subway station.

Table 12.68: No-Action Stair Analysis at the Lexington Avenue/53rd Street (E, M) Subway Station

Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up				
AM	N305B	O5	10.00	8.75	46	498	0.75	0.9	0.47	B
	N305	O7/O8	12.00	10.75	77	396	0.8	0.9	0.39	A
		P7	3.70	2.70	37	138	0.75	0.9	0.61	B
	N306A	S4	5.00	4.00	23	91	0.8	0.9	0.25	A
		S3	5.00	4.00	32	113	0.8	0.9	0.32	A
	N306	P1	4.00	3.00	89	322	0.75	0.9	1.28	D
PM	N305B	O5	10.00	8.75	577	79	0.75	0.9	0.72	C
	N305	O7/O8	12.00	10.75	323	78	0.8	0.9	0.29	A
		P7	3.70	2.70	169	12	0.75	0.9	0.51	B
	N306A	S4	5.00	4.00	107	16	0.8	0.9	0.24	A
		S3	5.00	4.00	177	10	0.8	0.9	0.35	A
	N306	P1	4.00	3.00	129	32	0.75	0.9	0.42	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

As listed in Table 12.69, four of the six escalators at the Lexington Avenue-53rd Street subway station are expected to operate at LOS D during at least one peak hour. Escalator E244 is expected to operate at LOS D during both the AM and PM peak hours, with v/c ratios of 1.09 and 1.10, respectively. Escalator E246 is expected to operate at LOS D in the AM peak hour with a v/c ratio of 1.16. Escalators E254X and E244 are expected to operate at LOS D during the PM peak hour, with v/c ratios of 1.22 and 1.24, respectively.

Table 12.69: No-Action Escalator Analysis at the Lexington Avenue/53rd Street (E, M) Subway Station

Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
AM	E243 (UP)	40	90	945	709	0.75	1.00	C
	E244 (UP)	40	90	945	771	0.75	1.09	D
	E269 (DOWN)	40	90	945	579	1.00	0.61	B
	E254X (UP)*	24	90	480	281	0.75	0.78	C
	E245 (UP)	40	90	945	562	0.75	0.79	C
	E246 (UP)	40	90	945	820	0.75	1.16	D
PM	E243 (UP)	40	90	945	553	0.75	0.78	C
	E244 (DOWN)	40	90	945	1036	1.00	1.10	D
	E269 (DOWN)	40	90	945	925	1.00	0.98	C
	E254X (UP)*	24	90	480	439	0.75	1.22	D
	E245 (UP)	40	90	945	879	0.75	1.24	D
	E246 (DOWN)	40	90	945	870	1.00	0.92	C

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Escalator E254X was out of service for the month of October.
*Escalator E254X was out of service in the Existing condition and one-third of E245 passengers were assumed to use E254X in the No-Action condition.

As listed in Table 12.70, all analyzed fare control area elements are expected to operate at an acceptable LOS B or better in the No-Action condition at the Lexington Avenue-53rd Street subway station.

Table 12.70: No-Action Fare Control Area Analysis at the Lexington Avenue/53rd Street (E, M) Subway Station

Peak Period	Fare Control Area	Control Element	Quantity	15-Minute PedestrianVolumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				In	Out				
AM	N305B	Two-way Turnstile	5	27	1550	0.8	1.0	0.61	B
	N305	Two-way Turnstile	11	117	1103	0.8	0.9	0.24	A
	N306A	High Entry/Exit Turnstile	2	133	174	0.8	0.9	0.51	B
	N306	Two-way Turnstile	8	107	664	0.8	0.9	0.21	A
PM	N305B	Two-way Turnstile	5	209	75	0.8	0.9	0.14	A
	N305	Two-way Turnstile	11	839	177	0.8	0.9	0.24	A
	N306A	High Entry/Exit Turnstile	2	268	43	0.8	0.9	0.64	B
	N306	Two-way Turnstile	8	799	266	0.8	0.9	0.34	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

Lexington Avenue-59th Street Subway Station

As listed in Table 12.71, intermediate mezzanine Stairs ML2, ML4, and ML6 are expected to operate over capacity in the AM peak hour, worsening from the existing condition. During the PM peak hour, intermediate mezzanine Stairs ML2 and ML4, street Stair SB1/MB1, and platform Stairs PL1 and PL2 are all expected to operate over their practical capacity. As listed in Table 12.71 through 12.73, all other analyzed stairs, fare control areas and escalators are expected to operate at an acceptable LOS C or better in the No-Action condition at the Lexington Avenue-59th Street subway station.

Table 12.71: No-Action Stair Analysis at the Lexington Avenue-59th Street (4, 5, 6, N, R, W) Subway Station

Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up				
AM	INTERMEDIATE MEZZANINE	ML2	6.00	5.00	783	178	0.8	0.9	1.78	F
		ML4	4.75	3.75	381	354	0.8	0.9	1.82	F
		ML6	6.00	5.00	403	247	0.8	0.9	1.20	D
PM	R244A	SB1/MB1	8.00	6.75	599	430	0.75	0.9	1.29	D
		PL1	4.00	3.00	598	0	0.75	1.0	1.33	D
	R245A	O10/O9/O8	10.00	8.75	649	284	0.75	0.9	0.87	C
		PL2	4.00	3.00	582	0	0.75	1.0	1.29	D
	INTERMEDIATE MEZZANINE	ML2	6.00	5.00	557	351	0.8	0.9	1.68	F
		ML4	4.75	3.75	326	355	0.8	0.9	1.68	F
		ML6	6.00	5.00	278	188	0.8	0.9	0.86	C
	A002	P12	2.83	1.83	82	4	0.75	1.0	0.32	A
		S2/S4/M2	4.25	3.25	225	21	0.8	0.9	0.57	B

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0, except for intermediate mezzanine stairs ML2, ML4, and ML6.

Table 12.72: No-Action Fare Control Area Analysis at the Lexington Avenue-59th Street (4, 5, 6, N, R, W) Subway Station

Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				In	Out				
PM	R244A	Two-wayTurnstile	5	824	232	0.9	0.9	0.42	A
		High Entry/Exit Turnstile	2						
	R245A	Two-wayTurnstile	4	1143	414	0.9	0.9	0.72	C
		High Entry/Exit Turnstile	2						
	A002	Two-wayTurnstile	10	597	221	0.9	0.9	0.19	A
		High ExitTurnstile	4						

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

Table 12.73: No-Action Escalator Analysis at the Lexington Avenue-59th Street (4, 5, 6, N, R, W) Subway Station

Peak Period	Escalator	Width(in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
PM	ES249 (DOWN)	40	90	945	907	1.00	0.96	C

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Fifth Avenue-53rd Street Subway Station

As listed in Table 12.74, platform Stair PL1/PL2 is expected to deteriorate from LOS D to LOS E in the AM peak hour with a v/c ratio of 1.39. Also, Stair O3 would operate at LOS D (v/c ratio 1.07) during the AM peak hour. All other analyzed stair elements are expected to operate at an acceptable LOS C or better in the in the No-Action condition.

Table 12.74: No-Action Stair Analysis at the Fifth Avenue-53rd Street Subway (E, M) Station

Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up				
AM	N304A	O3	9.50	8.25	28	1041	0.8	1.0	1.07	D
	N304	S1	8.00	7.00	21	638	0.8	1.0	0.78	C
		P1	4.00	3.00	38	34	0.75	0.9	0.21	A
		PL1/PL2	10.00	8.75	12	1359	0.75	1.0	1.39	E
PM	N304A	O3	9.50	8.25	765	86	0.8	0.9	0.78	C
	N304	S1	8.00	7.00	627	52	0.8	0.9	0.73	C
		P1	4.00	3.00	185	3	0.75	1.0	0.42	A
		PL1/PL2	10.00	8.75	322	113	0.75	0.9	0.40	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

As listed in Table 12.75, in the No-Action condition, both escalators E241 and E242 at the Madison Avenue exit of Fifth Avenue-53rd Street subway station are expected to worsen to LOS D in the AM peak hour with v/c ratios of 1.07 and 1.08, respectively. Escalator E242, which travels downward in the PM peak hour, is expected to operate with a v/c ratio of 1.12 (LOS D) during the PM peak hour.

Table 12.75: No-Action Escalator Analysis at the Fifth Avenue-53rd Street Subway (E, M) Station

Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
AM	E241 (UP)	40	90	945	809	0.8	1.07	D
	E242 (UP)	40	90	945	813	0.8	1.08	D
PM	E241 (UP)	40	90	945	137	0.8	0.18	A
	E242 (DOWN)	40	90	945	1055	1.0	1.12	D

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Subway Line Haul

As shown in Table 12.76, several subway routes will operate above guideline capacity (a v/c ratio greater than 1.00) in the No-Action condition. In the AM peak hour these include:

- No. 4 Northbound at 14th Street-Union Square (v/c ratio of 1.05)
- No. 5 Northbound at 14th Street-Union Square (v/c ratio of 1.02)

- No. 4 Southbound at 86th Street (v/c ratio of 1.03)
- No. 4 Southbound at Grand Central – 42nd Street (v/c ratio of 1.10)
- No. 5 Southbound at 86th Street (v/c ratio of 1.01)
- No. 5 Southbound at Grand Central – 42nd Street (v/c ratio of 1.08)
- No. 7 Express at Woodside-61st Street (v/c ratio of 1.09)
- Southbound E at Jackson Heights-Roosevelt Avenue (v/c ratio of 1.04)
- Southbound N at Queensboro Plaza (v/c ratio of 1.07)
- Southbound W at Queensboro Plaza (v/c ratio of 1.09)

In the PM peak hour these include:

- No. 4 Northbound at 59th Street (v/c ratio of 1.16)
- Southbound M at Essex Street (v/c ratio of 1.00)

These results reflect growth in demand from 2016 to 2036 based on population and employment projections, as well as additional subway capacity on the Lexington Avenue line anticipated from the opening of the first phase of the Second Avenue subway.

Table 12.76: No-Action Subway Line Haul Analysis

Peak Hour	Route	Direction	Maximum Load Point (Leaving Station)	Average Trains Per Hour[1]	Average Cars Per Hour[1]	Average Passengers Per Hour[2]	Average Passengers Per Car[2]	Guideline Passengers Per Car[3]	V/C Ratio[4]
AM	4	NB	14 St-Union Sq	11	110	14,775	134	110	1.05
	5	NB	14 St-Union Sq	11	110	13,310	121	110	1.02
	6	NB	14 St-Union Sq	20	200	15,079	75	110	0.69
	7	NB	Times Square-42 St	29	319	11,981	38	110	0.36
	B	NB	7 Av	10	100	10,757	108	145	0.78
	D	NB	36 St	11	110	10,600	96	145	0.73
	E	NB	7 Av	16	160	17,338	108	145	0.75
	F	NB	2 Av	15	150	15,240	102	145	0.86
	M	NB	Marcy Av	10	80	10,641	133	145	0.92
	S	NB	Grand Central-42 St	20	120	8,132	68	110	0.59
	4	SB	86 St	15	150	16,070	107	110	1.03
	4	SB	Grand Central-42 St	15	150	18,339	122	110	1.10
	5	SB	86 St	14	140	14,249	102	110	1.01
	5	SB	Grand Central-42 St	13	130	15,671	121	110	1.08
	6	SB	59 St	24	240	21,969	92	110	0.83
	7 Loc	SB	40 St	14	154	16,193	105	110	0.87
	7 Exp	SB	Woodside-61 St	15	165	18,291	111	110	1.09
	B	SB	72 St	7	70	6,639	95	145	0.75
	D	SB	125 St	9	90	11,153	124	145	0.83
	E	SB	Jackson Hts-Roosevelt Av	17	170	25,454	150	145	1.04
	F	SB	Roosevelt Island	16	160	20,394	127	145	0.93
	M	SB	Elmhurst Av	10	80	8,583	107	145	0.73
	N	SB	Queensboro Plaza	7	70	11,747	168	145	1.07
	R	SB	Queens Plaza	10	100	8,355	84	145	0.64
	W	SB	Queensboro Plaza	8	80	12,635	158	145	1.09
	S	SB	Times Square-42 St	20	120	4,686	39	110	0.35

Source: New York City Transit, 2016

Notes:

(1) Based on existing average throughput and future anticipated capacity increases.

(2) Based on Regional Transit Forecasting Model (RTFM) outputs.

(3) Guideline capacities are based on NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service.

(4) Volume to guideline capacity ratio.

Table 12.76: No-Action Subway Line Haul Analysis (Continued)

Peak Hour	Route	Direction	Maximum Load Point (Leaving Station)	Average Trains Per Hour[1]	Average Cars Per Hour[1]	Average Passengers Per Hour[2]	Average Passengers Per Car[2]	Guideline Passengers Per Car[3]	V/C Ratio[4]
PM	4	NB	59 St	12	122	15,629	128	110	1.16
	5	NB	59 St	13	128	12,593	98	110	0.89
	6	NB	59 St	20	203	18,954	93	110	0.85
	7	NB	Queensboro Plaza	22	244	26,358	108	110	0.98
	B	NB	59 St-Columbus Circle	7	70	6,263	89	145	0.62
	D	NB	59 St-Columbus Circle	9	85	8,063	95	145	0.65
	E	NB	Lexington Av/53 St	17	170	19,821	117	145	0.80
	F	NB	Lexington Av/63 St	15	153	16,979	111	145	0.77
	M	NB	Lexington Av/53 St	8	62	6,097	98	145	0.67
	N	NB	Lexington Av-59 St	8	75	7,207	96	145	0.66
	R	NB	Lexington Av-59 St	9	88	4,694	53	145	0.37
	W	NB	Lexington Av-59 St	8	75	7,636	102	145	0.70
	S	NB	Grand Central-42 St	20	120	8,314	69	110	0.63
	4	SB	Grand Central-42 St	14	140	13,831	99	110	0.90
	5	SB	Grand Central-42 St	10	101	8,582	85	110	0.77
	6	SB	Grand Central-42 St	20	200	9,959	50	110	0.45
	7	SB	Grand Central-42 St	26	286	12,362	43	110	0.39
	B	SB	Atlantic Av-Barclays Ctr	9	89	9,270	104	145	0.72
	D	SB	Atlantic Av-Barclays Ctr	10	100	10,329	103	145	0.71
	E	SB	5 Av/53 St	15	150	9,959	66	145	0.46
	F	SB	Broadway-Lafayette St	14	141	18,034	128	145	0.88
	M	SB	Essex St	7	54	7,900	145	145	1.00
	S	SB	Times Sq-42 St	20	120	4,599	38	110	0.35

Source: New York City Transit, 2016

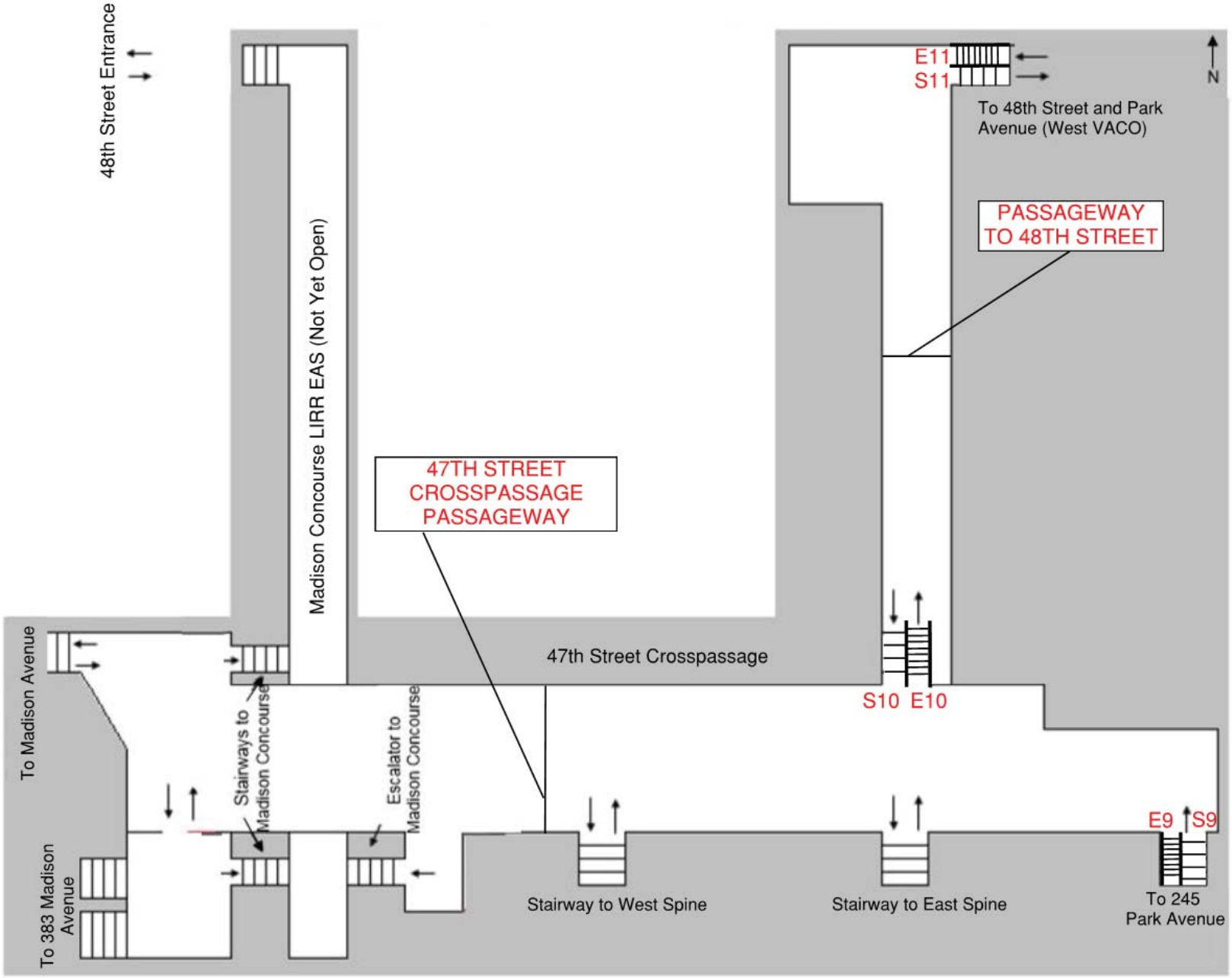
Notes:
(1) Based on existing average throughput and future anticipated capacity increases.
(2) Based on Regional Transit Forecasting Model (RTFM) outputs.
(3) Guideline capacities are based on NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service.
(4) Volume to guideline capacity ratio.

Commuter Railroad

In the No-Action condition, additional connections will be provided to the 47th Street crosspassage at Grand Central Terminal to the Madison Concourse of the East Side Access project, as shown in Figure 12-30. Volumes through the crosspassage elements are expected to increase as a result of additional East Side Access passengers, in addition to background growth.

As listed in Table 12.77 through 12.79, six of the eight analyzed elements are expected to operate at LOS D or worse in at least one peak hour in the No-Action condition. These include:

- Stair 10, which is expected to operate with a v/c ratio of 1.06 (LOS D) in the AM peak hour and a v/c ratio of 1.36 (LOS E) in the PM peak hour.
- Stair 11, which is expected to operate at LOS D in the AM and PM peak hour with v/c ratios of 1.06 and 1.33, respectively.



Greater East Midtown Rezoning
Manhattan, New York

Grand Central Terminal 47th Street Crosspassage in No-Action Condition

Figure
12-30

- Escalators 9, 10, and 11, which will travel upward in the AM peak hour, are expected to operate at LOS D, with v/c ratios of 1.18, 1.31, and 1.15, respectively.
- Escalators 10 and 11, which are expected to operate at LOS D in the PM peak hour with v/c ratios of 1.27 and 1.24, respectively.
- The 47th Street crosspassage Passageway, which is expected to operate at LOS D in the AM and PM peak hours, with v/c ratios of 1.20 and 1.19, respectively.

Table 12.77: No-Action Stair Analysis at the Grand Central Terminal - 47th Street Crosspassage

Peak Period	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				Down	Up				
AM	9	4.33	3.33	4	442	0.9	1.0	0.99	C
	10	3.83	2.83	9	397	0.9	1.0	1.06	D
	11	4.75	3.75	13	677	0.95	1.0	1.29	D
PM	9	4.33	3.33	145	10	0.9	0.9	0.35	A
	10	3.83	2.83	561	15	0.9	1.0	1.36	E
	11	4.75	3.75	716	28	0.95	1.0	1.33	D

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

Table 12.78: No-Action Escalator Analysis at the Grand Central Terminal - 47th Street Crosspassage

Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
AM	9 (UP)	40	90	945	1001	0.9	1.18	D
	10 (UP)	40	90	945	1115	0.9	1.31	D
	11 (UP)	40	90	945	1033	0.95	1.15	D
PM	9 (DOWN)	40	90	945	739	1.0	0.78	C
	10 (DOWN)	40	90	945	1197	1.0	1.27	D
	11 (DOWN)	40	90	945	1171	1.0	1.24	D

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.79: No-Action Passageway Analysis at the Grand Central Terminal - 47th Street Crosspassage

Peak Period	Passageway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				EB/SB	WB/NB				
AM	47th Street Crosspassage	22.00	15.50	2147	1369	0.9	0.9	1.20	D
	To 48th Street	18.33	15.00	13	1710	0.9	1.0	0.51	B
PM	47th Street Crosspassage	22.00	15.50	1508	2061	0.9	0.9	1.19	D
	To 48th Street	18.33	15.00	1887	28	0.9	1.0	0.63	B

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Bus

Based on detailed distribution of the projected local and express bus trips, it was determined that none of the bus routes serving the study area would incur 50 or more peak hour riders in a single direction. Therefore, a quantified bus line-haul analysis is not warranted and the proposed Greater East Midtown Rezoning is not expected to result in any significant adverse bus line-haul impacts in the study area.

Future Transit Conditions with the Proposed Action (With-Action Condition)

Subway Stations

As shown in Table 12.7, the Proposed Action is expected to generate a net total of 7,970 and 9,351 new subway trips in the AM and PM peak hours, respectively, after accounting for transfer trips to subways from other modes. Based on trip assignment data provided by NYCT, the highest numbers of new peak hour subway trips are expected to occur at the Grand Central 42nd Street station complex, which would experience approximately 3,578 new trips in the AM peak hour and 4,247 in the PM. The Lexington Avenue-51st/53rd Streets subway station complex would experience the second highest number of new peak-hour subway trips with 3,087 and 3,579 in the AM and PM peak hours, respectively. New trips at 42nd Street Bryant Park-Fifth Avenue subway station complex would total 596 and 693 in the AM and PM peak hours, respectively, while new trips at the 47th-50th Streets-Rockefeller Center Street subway station would total 426 and 487 during these periods, respectively. The Lexington Avenue-59th Street station complex would exceed the 200-trip *CEQR Technical Manual* analysis threshold during the PM peak hour only, with an increase of 238 trips. New subway demand from Projected Development Sites at the Fifth Avenue-53rd Street station would not exceed the analysis threshold; however this subway station is analyzed to provide an assessment of the changes resulting from the With-Action public realm transit improvements.

Conditions at analyzed stairs, escalators, passageways and fare control areas at these subway stations in the future with the Proposed Action are discussed below. Significant adverse impacts are identified based on the criteria previously discussed in Section 12.2, "Transportation Analysis Methodologies."

As noted in Chapter 1, "Project Description," the proposed zoning text amendment will include a prioritized list of transit improvements that have been identified by MTA to address current issues that impact the area's transit network and anticipate potential needs of the area based on future development. These improvements would be funded by the public realm improvement fund or requirements for sites in close proximity to the area's transit nodes to construct pre-identified improvements. The Proposed Action with Station Improvements (With-Action) analysis is provided in the following sections, as well as a summary of the proposed improvements. The results of the Proposed Action without Station Improvements (With-Action Without-Improvement) are provided in Appendix F-8.

As new developments are realized over the coming decades, it is feasible that these projects may want to expand upon the transit infrastructure projects listed within the proposed zoning text, or construct improvements that are not identified in the text. To allow for this, the Proposed Action includes a new special permit to be created within the proposed Subdistrict to allow for improvements to subway infrastructure in exchange for up to 3.0 FAR of additional floor area. The Transit Improvement Special Permit is further analyzed in Chapter 21, "Conceptual Analysis."

Grand Central 42nd Street Subway Station

Improvements have been developed to enhance the passenger circulation conditions at Grand Central 42nd Street subway station it the With-Action condition. These changes include:

- Stairs U2 and U6, which descend below the northbound Lexington platform to the Flushing passageway, would be widened by a foot to an effective width of 6 feet.
- On the Flushing platform, stair PL8 would be added with an effective width of 6 feet.
- Stair (PL9A) at the far eastern end of the Flushing platform would be widened an additional three feet to a total effective width of 13.5 feet.

The Grand Central 42nd Street subway station elements were analyzed with these station improvements and the results are presented in Table 12.80 through Table 12.83. As shown in Table 12.80, 14 of the 38 analyzed stairs are expected to operate over practical capacity (LOS D or worse) and experience an increase in v/c ratio in the AM peak hour in the With-Action condition compared to the No-Action condition. The width increment threshold required to return these stairs to the No-Action v/c ratio would remain below the *CEQR Technical Manual* impact threshold and these stairs would not be significantly adversely impacted as a result of new demand from the Proposed Action. In the PM peak hour, nine of the 38 analyzed stairs are expected to operate over practical capacity (LOS D or worse) and experience an increase in v/c ratio in the With-Action condition compared to the No-Action condition. The width increment threshold required to return five of these six stairs to the No-Action v/c ratio would remain below *CEQR Technical Manual* impact thresholds and these stairs would not be considered to experience a significant adverse impact as a result of new demand from the Proposed Action. A significant stairway impact would occur at the free zone stair KC, which is expected to deteriorate to LOS E with a v/c ratio of 1.33 as a result of the Proposed Action, compared to a No-Action LOS D and v/c ratio of 1.23.

A significant impact would also occur at all eight analyzed escalators in the AM peak hour. Escalators E203 and E204 would worsen within LOS D conditions to a v/c ratio of 1.25 in the With-Action condition compared to 1.15 in the No-Action condition. E205 and E206 would worsen within LOS D conditions to a v/c ratio of 1.12 in the With-Action condition compared to 1.03 in the No-Action condition. E208 and E210 would worsen to LOS E conditions with a v/c ratio of 1.35 in the With-Action condition compared to LOS D with a v/c ratio of 1.20 in the No-Action condition. Escalators E255 and E256 would worsen within LOS D conditions to a v/c ratio of 1.20 in the With-Action condition compared to 1.02 in the No-Action. In the PM peak hour, a significant impact would occur at escalator E204 and E206, both operating down. Escalator E204 would worsen from a LOS C (v/c ratio of 0.97) to a LOS D (v/c ratio of 1.22), while escalator E206 would worsen within LOS D from a v/c ratio of 1.11 in the No-Action to a v/c ratio of 1.26 in the With-Action. A significant impact would occur at escalator E208, which operates up in the PM peak hour. E208 would worsen within LOS D from a v/c ratio of 1.03 in the No-Action to a v/c ratio of 1.04 in the With-Action condition.

As shown in Tables 12.82 and 12.83, the passageway between Mezzanine A and the Shuttle and all analyzed fare control areas at Grand Central 42nd Street would continue to operate at an acceptable LOS C or better in both peak hours in the With-Action condition.

Table 12.80: With-Action Stair Analysis at the Grand Central 42nd Street (4, 5, 6, 7, S) Subway Station

		No-Action									With-Action										
Peak Period	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes Down	15-Minute Pedestrian Volumes Up	Surging Factor Up	Surging Factor Down	Friction Factor	V/C Ratio	LOS	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes Down	15-Minute Pedestrian Volumes Up	Surging Factor Up	Surging Factor Down	Friction Factor	V/C Ratio	LOS	WIT (in.)	WIT for Significant Impact (in.)
AM	P10	7.50	6.50	503	451	0.75	1.00	0.90	1.26	D	7.50	6.50	504	485	0.75	1.00	0.90	1.31	D	2.86	5
	P12	9.25	8.00	799	236	0.75	1.00	0.90	1.03	D	9.25	8.00	799	254	0.75	1.00	0.90	1.05	D	1.67	8
	P14	9.25	8.00	784	363	0.75	1.00	0.90	1.17	D	9.25	8.00	784	390	0.75	1.00	0.90	1.21	D	2.26	6
	P16	9.25	8.00	1036	321	0.75	1.00	0.90	1.36	E	9.25	8.00	1036	345	0.75	1.00	0.90	1.39	E	1.70	5
	P18	7.50	6.50	663	345	0.75	1.00	0.90	1.28	D	7.50	6.50	663	358	0.75	1.00	0.90	1.30	D	1.01	5
	P20A	7.50	6.50	227	327	0.75	1.00	0.90	0.76	C	7.50	6.50	228	364	0.75	1.00	0.90	0.81	C		
	P20	7.50	6.50	460	327	0.75	1.00	0.90	1.02	D	7.50	6.50	460	351	0.75	1.00	0.90	1.06	D	2.38	8
	P22	7.50	6.50	368	369	0.75	1.00	0.90	0.98	C	7.50	6.50	368	397	0.75	1.00	0.90	1.02	D	1.76	8
	P24	7.00	6.00	0	288	0.75	1.00	0.90	0.47	B	7.00	6.00	0	309	0.75	1.00	0.90	0.51	B		
	P13	9.25	8.00	260	658	0.75	1.00	0.90	1.05	D	9.25	8.00	262	722	0.75	1.00	0.90	1.13	D	6.90	7
	P15	9.25	8.00	375	381	0.75	1.00	0.90	0.82	C	9.25	8.00	377	419	0.75	1.00	0.90	0.87	C		
	P17	9.25	8.00	418	332	0.75	1.00	0.90	0.80	C	9.25	8.00	420	365	0.75	1.00	0.90	0.84	C		
	P19	9.25	8.00	211	372	0.75	1.00	0.90	0.65	B	9.25	8.00	212	408	0.75	1.00	0.90	0.70	B		
	P19A	7.50	6.50	271	418	0.75	1.00	0.90	0.94	C	7.50	6.50	272	459	0.75	1.00	0.90	1.01	D	0.58	8
	P21	7.50	6.50	256	375	0.75	1.00	0.90	0.86	C	7.50	6.50	257	412	0.75	1.00	0.90	0.92	C		
	P23	7.50	6.50	277	329	0.75	1.00	0.90	0.82	C	7.50	6.50	279	361	0.75	1.00	0.90	0.87	C		
	P25	6.00	5.00	64	424	0.75	1.00	0.90	0.93	C	6.00	5.00	64	466	0.75	1.00	0.90	1.02	D	0.92	8
	U1	6.00	5.00	318	206	0.90	0.75	0.90	0.97	C	6.00	5.00	319	206	0.90	0.75	0.90	0.97	C		
	U5	6.00	5.00	332	382	0.90	0.75	0.90	1.28	D	6.00	5.00	332	382	0.90	0.75	0.90	1.28	D		
	U6	6.00	5.00	535	186	0.90	0.75	0.90	1.36	E	7.00	6.00	533	186	0.90	0.75	0.90	1.13	D		
	U2	6.00	5.00	557	101	0.90	0.75	0.90	1.27	D	7.00	6.00	559	101	0.90	0.75	0.90	1.06	D		
	PL2	7.50	6.50	700	574	0.75	0.95	0.90	1.71	F	7.50	6.50	659	481	0.75	0.95	0.90	1.52	E		
	PL3	7.50	6.50	944	263	0.75	0.95	0.90	1.53	E	7.50	6.50	956	263	0.75	0.95	0.90	1.55	E	0.78	3
	PL5	7.00	6.00	47	670	0.75	0.95	0.90	1.16	D	7.00	6.00	47	578	0.75	0.95	0.90	1.01	D		
	PL6	7.00	6.00	52	803	0.75	0.95	0.90	1.39	E	7.00	6.00	82	425	0.75	0.95	0.90	0.81	C		
	PL8	-	-	-	-	-	-	-	-	-	7.00	6.00	0	676	0.75	0.95	0.90	1.11	D		
	PL9A	12.00	10.75	244	1374	0.75	1.00	0.90	1.44	E	15.00	13.50	256	1499	0.75	1.00	0.90	1.24	D		
	ML1	6.00	5.00	244	0	0.75	1.00	0.90	0.36	A	6.00	5.00	256	0	0.75	1.00	0.90	0.38	A		
	P10S	15.25	14.00	817	456	0.75	1.00	0.90	0.75	C	15.25	14.00	817	505	0.75	1.00	0.90	0.79	C		
	P11	9.25	8.00	318	225	0.75	1.00	0.90	0.57	B	9.25	8.00	318	249	0.75	1.00	0.90	0.60	B		
	P3	14.75	13.50	26	232	0.75	1.00	0.90	0.18	A	14.75	13.50	26	237	0.75	1.00	0.90	0.19	A		
	M8	19.20	17.70	949	848	0.90	1.00	0.90	0.79	C	19.20	17.70	936	956	0.90	1.00	0.90	0.84	C		
	M9	13.75	12.50	74	1298	0.90	1.00	0.90	0.90	C	13.75	12.50	76	1525	0.90	1.00	0.90	1.05	D	7.37	8
	O27	12.00	10.75	65	483	1.00	0.90	0.90	0.38	A	12.00	10.75	67	549	0.90	1.00	0.90	0.47	B		
	M7	10.00	8.75	1033	261	0.90	1.00	0.90	1.12	D	10.00	8.75	1033	338	0.90	1.00	0.90	1.19	D	6.25	7
	KC	11.50	10.25	2216	139	0.95	1.00	1.00	1.54	E	11.50	10.25	2216	182	0.95	1.00	1.00	1.57	E	2.26	3
	S1	4.75	3.75	6	58	0.80	1.00	0.90	0.16	A	4.75	3.75	6	62	0.80	1.00	0.90	0.16	A		
	O3	9.00	7.75	19	174	0.80	1.00	0.90	0.23	A	9.00	7.75	19	185	0.80	1.00	0.90	0.24	A		

Notes: Methodology based on *CEQR Technical Manual* guidelines.

Table 12.80: With-Action Stair Analysis at the Grand Central 42nd Street (4, 5, 6, 7, S) Subway Station (Continued)

		No-Action									With-Action									
Peak Period	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor Up	Surging Factor Down	Friction Factor	V/C Ratio	LOS	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor Up	Surging Factor Down	Friction Factor	V/C Ratio	LOS	WIT (in.)	WIT for Significant Impact (in.)
				Down	Up								Down	Up							
PM	P10	7.50	6.50	353	158	0.75	1.00	0.90	0.64	B	7.50	6.50	399	161	0.75	1.00	0.90	0.70	B		
	P12	9.25	8.00	560	83	0.75	1.00	0.90	0.62	B	9.25	8.00	634	84	0.75	1.00	0.90	0.69	B		
	P14	9.25	8.00	549	128	0.75	1.00	0.90	0.67	B	9.25	8.00	622	129	0.75	1.00	0.90	0.74	C		
	P16	9.25	8.00	726	113	0.75	1.00	0.90	0.81	C	9.25	8.00	822	114	0.75	1.00	0.90	0.90	C		
	P18	7.50	6.50	465	121	0.75	1.00	0.90	0.71	C	7.50	6.50	526	123	0.75	1.00	0.90	0.79	C		
	P20A	7.50	6.50	159	115	0.75	1.00	0.90	0.36	A	7.50	6.50	181	117	0.75	1.00	0.90	0.38	A		
	P20	7.50	6.50	322	115	0.75	1.00	0.90	0.54	B	7.50	6.50	365	117	0.75	1.00	0.90	0.59	B		
	P22	7.50	6.50	258	130	0.75	1.00	0.90	0.49	B	7.50	6.50	292	132	0.75	1.00	0.90	0.53	B		
	P24	7.00	6.00	0	101	0.75	1.00	0.90	0.17	A	7.00	6.00	0	103	0.75	1.00	0.90	0.17	A		
	P13	9.25	8.00	359	662	0.75	1.00	0.90	1.15	D	9.25	8.00	396	666	0.75	1.00	0.90	1.19	D	3.9	7
	P15	9.25	8.00	518	384	0.75	1.00	0.90	0.95	C	9.25	8.00	571	386	0.75	1.00	0.90	1.01	D	0.5	8
	P17	9.25	8.00	577	334	0.75	1.00	0.90	0.95	C	9.25	8.00	636	336	0.75	1.00	0.90	1.00	D	0.4	8
	P19	9.25	8.00	291	374	0.75	1.00	0.90	0.73	C	9.25	8.00	321	376	0.75	1.00	0.90	0.76	C		
	P19A	7.50	6.50	374	420	0.75	1.00	0.90	1.06	D	7.50	6.50	412	423	0.75	1.00	0.90	1.11	D	4.0	7
	P21	7.50	6.50	353	377	0.75	1.00	0.90	0.98	C	7.50	6.50	389	380	0.75	1.00	0.90	1.02	D	1.6	8
	P23	7.50	6.50	382	331	0.75	1.00	0.90	0.94	C	7.50	6.50	422	333	0.75	1.00	0.90	0.99	C		
	P25	6.00	5.00	88	427	0.75	1.00	0.90	0.97	C	6.00	5.00	97	430	0.75	1.00	0.90	0.99	C		
	U1	6.00	5.00	365	73	0.90	0.75	0.90	0.84	C	6.00	5.00	410	73	0.90	0.75	0.90	0.93	C		
	U5	6.00	5.00	299	89	0.90	0.75	0.90	0.74	C	6.00	5.00	344	89	0.90	0.75	0.90	0.83	C		
	U6	6.00	5.00	609	119	0.90	0.75	0.90	1.40	E	7.00	6.00	653	119	0.90	0.75	0.90	1.24	D		
	U2	6.00	5.00	498	98	0.90	0.75	0.90	1.15	D	7.00	6.00	498	98	0.90	0.75	0.90	0.95	C		
	PL2	7.50	6.50	886	234	0.75	0.95	0.90	1.42	E	7.50	6.50	886	225	0.75	0.95	0.90	1.40	E		
	PL3	7.50	6.50	708	114	0.75	0.95	0.90	1.02	D	7.50	6.50	708	133	0.75	0.95	0.90	1.05	D	1.8	8
	PL5	7.00	6.00	546	271	0.75	0.95	0.90	1.16	D	7.00	6.00	641	242	0.75	0.95	0.90	1.23	D	5.8	6
	PL6	7.00	6.00	679	416	0.75	0.95	0.90	1.57	E	7.00	6.00	698	170	0.75	0.95	0.90	1.19	D		
	PL8	-	-	-	-	-	-	-	-	-	7.00	6.00	132	298	0.75	0.95	-	0.66	B		
	PL9A	12.00	10.75	724	394	0.75	0.95	0.90	0.89	C	15.00	13.50	915	414	0.75	0.95	0.90	0.83	C		
	ML1	6.00	5.00	0	0	0.75	1.00	0.90	0.00	A	6.00	5.00	0	0	0.75	0.95	0.90	0.00	A		
	P10S	15.25	14.00	496	520	0.75	1.00	0.90	0.63	B	15.25	14.00	531	522	0.75	1.00	0.90	0.65	B		
	P11	9.25	8.00	170	256	0.75	1.00	0.90	0.47	B	9.25	8.00	184	257	0.75	1.00	0.90	0.49	B		
	P3	14.75	13.50	169	174	0.75	1.00	0.90	0.22	A	14.75	13.50	189	175	0.75	1.00	0.90	0.23	A		
	M8	19.20	17.70	655	865	0.90	1.00	0.90	0.68	B	19.20	17.70	767	870	0.90	1.00	0.90	0.73	C		
	M9	13.75	12.50	989	367	0.90	1.00	0.90	0.83	C	13.75	12.50	1173	377	0.90	1.00	0.90	0.94	C		
	O27	12.00	10.75	383	183	1.00	0.90	0.90	0.42	A	12.00	10.75	452	188	1.00	0.90	0.90	0.48	B		
	M7	10.00	8.75	490	1276	0.90	1.00	0.90	1.61	E	10.00	8.75	510	1280	0.90	1.00	0.90	1.64	E	1.4	2
	KC	11.50	10.25	1694	185	0.95	1.00	1.00	1.23	D	11.50	10.25	1850	190	0.95	1.00	1.00	1.33	E	10.5	5
	S1	4.75	3.75	38	5	0.80	1.00	0.90	0.09	A	4.75	3.75	44	5	0.80	1.00	0.90	0.10	A		
	O3	9.00	7.75	114	14	0.80	1.00	0.90	0.13	A	9.00	7.75	130	14	0.80	1.00	0.90	0.14	A		

Notes: Methodology based on *CEQR Technical Manual* guidelines.

Table 12.81: With-Action Escalator Analysis at the Grand Central 42nd Street (4, 5, 6, 7, S) Subway Station

		No-Action							With-Action						
Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
AM	E203 (UP)	32	90	750	687	0.80	1.15	D	32	90	750	750	0.80	1.25	D
	E204 (UP)	32	90	750	687	0.80	1.15	D	32	90	750	750	0.80	1.25	D
	E205 (UP)	40	90	945	782	0.80	1.03	D	40	90	945	845	0.80	1.12	D
	E206 (UP)	40	90	945	782	0.80	1.03	D	40	90	945	845	0.80	1.12	D
	E208 (UP)	40	90	945	853	0.75	1.20	D	40	90	945	954	0.75	1.35	E
	E210 (UP)	40	90	945	853	0.75	1.20	D	40	90	945	954	0.75	1.35	E
	E255 (UP)	40	90	945	913	0.95	1.02	D	40	90	945	1079	0.95	1.20	D
	E256 (UP)	40	90	945	912	0.95	1.02	D	40	90	945	1080	0.95	1.20	D
PM	E203 (UP)	32	90	750	394	0.80	0.66	B	32	90	750	414	0.80	0.69	B
	E204 (DOWN)	32	90	750	724	1.00	0.97	C	32	90	750	915	1.00	1.22	D
	E205 (UP)	40	90	945	656	0.80	0.87	C	40	90	945	661	0.80	0.87	C
	E206 (DOWN)	40	90	945	1047	1.00	1.11	D	40	90	945	1188	1.00	1.26	D
	E208 (UP)	40	90	945	731	0.75	1.03	D	40	90	945	737	0.75	1.04	D
	E210 (DOWN)	40	90	945	1337	1.00	1.41	E	40	90	945	1335	1.00	1.41	E
	E255 (UP)	40	90	945	1071	0.95	1.19	D	40	90	945	1071	0.95	1.19	D
	E256 (DOWN)	40	90	945	1063	1.00	1.12	D	40	90	945	1104	1.00	1.17	D

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.82: With-Action Passageway Analysis at the Grand Central 42nd Street (4, 5, 6, 7, S) Subway Station

		No-Action								With-Action							
Passageway	Peak Period	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor West	Surging Factor East	Friction Factor	V/C Ratio	LOS	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor West	Surging Factor East	Friction Factor	V/C Ratio	LOS
			West	East							West	East					
Passageway between Mezzanine A and Shuttle	AM	15.0	1371	1165	0.95	0.95	0.90	0.88	C	15.0	1467	1171	0.95	0.95	0.90	0.91	C
	PM	15.0	521	1450	0.95	0.95	0.90	0.68	B	15.0	539	1545	0.95	0.95	0.90	0.72	C

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.83: With-Action Fare Control Area Analysis at the Grand Central 42nd Street (4, 5, 6, 7, S) Subway Station

			No-Action							With-Action						
Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes In	15-Minute Pedestrian Volumes Out	Surging Factor	Friction Factor	V/C Ratio	LOS	Quantity	15-Minute Pedestrian Volumes In	15-Minute Pedestrian Volumes Out	Surging Factor	Friction Factor	V/C Ratio	LOS
AM	R241A	Two-way Turnstile	5	244	1374	0.90	0.90	0.66	B	5	256	1499	0.90	0.90	0.71	C
	R240	Two-way Turnstile	11	1024	1917	0.90	0.90	0.58	B	11	1015	2255	0.90	0.90	0.64	B
	R240A	Two-way Turnstile	4	64	712	0.90	0.90	0.38	A	4	64	775	0.90	0.90	0.41	A
	R238	Two-way Turnstile	16	886	1825	0.90	0.90	0.36	A	16	889	2181	0.90	0.90	0.41	A
	R238A	Two-way Turnstile	8	2386	223	0.90	0.90	0.84	C	8	2392	289	0.90	0.90	0.86	C
	R238B	Two-way Turnstile	4	146	261	0.90	0.90	0.22	A	4	146	285	0.90	0.90	0.23	A
	R237	Two-way Turnstile	7	102	803	0.90	0.90	0.26	A	7	105	857	0.90	0.90	0.27	A
	R237A	High Exit Turnstile	1	0	146	0.90	0.90	0.32	A	1	0	175	0.90	0.90	0.39	A
	R237B	Two-way Turnstile	4	272	1311	0.90	0.90	0.81	C	4	280	1177	0.90	0.90	0.75	C
	R236	Two-way Turnstile	12	1096	540	0.80	0.90	0.34	A	12	1096	637	0.80	0.90	0.35	A
	R235	Two-way Turnstile	9	758	1049	0.90	0.90	0.45	A	9	874	1150	0.90	0.90	0.50	B
	R233	High Entry/Exit Turnstile	2	25	232	0.80	0.90	0.25	A	2	26	246	0.80	0.90	0.27	A
		High Exit Turnstile	1							1						
PM	R241A	Two-way Turnstile	5	724	394	0.90	0.90	0.53	B	5	915	414	0.90	0.90	0.64	B
	R240	Two-way Turnstile	11	1938	887	0.90	0.90	0.62	B	11	2295	903	0.90	0.90	0.71	C
	R240A	Two-way Turnstile	4	88	528	0.90	0.90	0.31	A	4	97	532	0.90	0.90	0.32	A
	R238	Two-way Turnstile	16	1812	2525	0.90	0.90	0.60	B	16	1911	2524	0.90	0.90	0.62	B
	R238A	Two-way Turnstile	8	1615	213	0.90	0.90	0.59	B	8	1753	213	0.90	0.90	0.63	B
	R238B	Two-way Turnstile	4	75	18	0.90	0.90	0.06	A	4	82	30	0.90	0.90	0.07	A
	R237	Two-way Turnstile	7	712	227	0.90	0.90	0.33	A	7	819	233	0.90	0.90	0.37	A
	R237A	High Exit Turnstile	1	0	31	0.90	0.90	0.07	A	1	0	32	0.90	0.90	0.07	A
	R237B	Two-way Turnstile	4	464	381	0.90	0.90	0.49	B	4	560	391	0.90	0.90	0.56	B
	R236	Two-way Turnstile	12	759	776	0.80	0.90	0.31	A	12	820	779	0.80	0.90	0.32	A
	R235	Two-way Turnstile	9	1221	883	0.90	0.90	0.55	B	9	1340	886	0.90	0.90	0.58	B
	R233	High Entry/Exit Turnstile	2	154	19	0.80	0.90	0.35	A	2	174	19	0.80	0.90	0.40	A
		High Exit Turnstile	1							1						

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

42nd St-Bryant Park Subway Station

The proposed improvements to the 42nd St-Bryant Park Subway Station would include the installation of two new elevators to provide ADA access between the mezzanine level and the uptown and downtown Sixth Avenue Line platforms.[3] Most passengers would be expected to use the stairs for subway access and, therefore, the new elevators would not be expected to substantially affect the volume of pedestrians utilizing the analyzed elements at this station.

As shown in Table 12.84, three of the 11 analyzed stairs at the 42nd Street-Bryant Park subway station are expected to operate over practical capacity (LOS D or worse) in at least one peak hour in the With-Action condition. These include: street stair S5 during both the AM and PM peak hours; uptown platform Stair P4 during the AM peak hour; and street Stair MB20 in the PM peak hour. The width increment threshold required to return Stairs S5 and P4 to the No-Action v/c ratio would remain below *CEQR Technical Manual* impact thresholds and these stairs would not be expected to be significantly impacted as a result of new demand from the Proposed Action. A significant stairway impact would occur at the street Stair MB20 (located at the northeast corner of Sixth Avenue and West 42nd Street), which is expected to operate at LOS D with a v/c ratio of 1.20 in the PM peak hour as a result of the Proposed Action.

In addition, as shown in Table 12.85, both analyzed fare control areas would continue to operate at an acceptable LOS B or better in both the AM and PM peak hours in the With-Action condition.

[3] An existing elevator is located on the south side of West 42nd Street between Sixth Avenue and Broadway, which provides access between the street level and the mezzanine level.

Table 12.84: With-Action Stair Analysis at the 42nd Street-Bryant Park (B, D, F, M) Subway Station

			No-Action								With-Action									
Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes Down	15-Minute Pedestrian Volumes Up	Surging Factor	Friction Factor	V/C Ratio	LOS	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes Down	15-Minute Pedestrian Volumes Up	Surging Factor	Friction Factor	V/C Ratio	LOS	WIT (in.)	WIT for Significant Impact (in.)
AM	N502	MB20	10.00	8.75	58	633	0.9	0.9	0.64	B	10.00	8.75	59	711	0.90	0.90	0.72	C	-	-
		P13	10.00	8.75	60	288	0.75	0.9	0.38	A	10.00	8.75	60	346	0.75	0.9	0.44	A	-	-
		P14	10.00	8.75	51	709	0.75	0.9	0.84	C	10.00	8.75	51	730	0.75	0.9	0.87	C	-	-
	N504	S5	4.92	3.92	45	444	0.9	0.9	1.02	D	4.92	3.92	46	470	0.9	0.9	1.07	D	2.65	8
		S6	5.00	4.00	27	371	0.9	0.9	0.81	C	5.00	4.00	30	393	0.9	0.9	0.86	C	-	-
		P1	6.75	5.75	26	322	0.75	0.9	0.59	B	6.75	5.75	26	337	0.75	0.9	0.61	B	-	-
		P2	6.75	5.75	25	444	0.75	0.9	0.80	C	6.75	5.75	27	451	0.75	0.9	0.81	C	-	-
		P3	6.67	5.67	45	404	0.75	0.9	0.76	C	6.67	5.67	45	418	0.75	0.9	0.79	C		
		P4	6.67	5.67	52	652	0.75	0.9	1.20	D	6.67	5.67	53	657	0.75	0.9	1.21	D	0.63	6
		P5	6.67	5.67	3	194	0.75	1.0	0.31	A	6.67	5.67	3	194	0.75	1.0	0.31	A	-	-
		P6	6.50	5.50	7	234	0.75	1.0	0.39	A	6.50	5.50	7	234	0.75	1.0	0.39	A	-	-
PM	N502	MB20	10.00	8.75	1161	146	0.9	0.9	1.12	D	10.00	8.75	1252	148	0.9	0.9	1.20	D	7.39	6
		P13	10.00	8.75	864	98	0.75	0.9	0.84	C	10.00	8.75	887	99	0.75	0.9	0.86	C	-	-
		P14	10.00	8.75	481	139	0.75	0.9	0.56	B	10.00	8.75	545	140	0.75	0.9	0.62	B	-	-
	N504	S5	4.92	3.92	398	137	0.9	0.9	1.04	D	4.92	3.92	429	139	0.9	0.9	1.10	D	2.83	7
		S6	5.00	4.00	322	93	0.9	0.9	0.79	C	5.00	4.00	347	96	0.9	0.9	0.84	C	-	-
		P1	6.75	5.75	468	202	0.75	0.9	0.95	C	6.75	5.75	476	204	0.75	0.9	0.96	C	-	-
		P2	6.75	5.75	188	132	0.75	0.9	0.47	B	6.75	5.75	206	133	0.75	0.9	0.49	B	-	-
		P3	6.67	5.67	535	130	0.75	0.9	0.93	C	6.67	5.67	543	131	0.75	0.9	0.94	C	-	-
		P4	6.67	5.67	466	160	0.75	0.9	0.89	C	6.67	5.67	481	160	0.75	0.9	0.91	C	-	-
		P5	6.67	5.67	25	81	0.75	0.9	0.17	A	6.67	5.67	25	81	0.75	0.9	0.17	A	-	-
		P6	6.50	5.50	20	112	0.75	0.9	0.23	A	6.50	5.50	20	112	0.75	0.9	0.23	A	-	-

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

Table 12.85: With-Action Fare Control Area Analysis at the 42nd Street-Bryant Park (B, D, F, M) Subway Station

			No-Action							With-Action						
Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes In	15-Minute Pedestrian Volumes Out	Surging Factor	Friction Factor	V/C Ratio	LOS	Quantity	15-Minute Pedestrian Volumes In	15-Minute Pedestrian Volumes Out	Surging Factor	Friction Factor	V/C Ratio	LOS
AM	N504	Two-way Turnstile	6	139	1875	0.9	1.0	0.47	B	6	143	1923	0.9	0.9	0.48	B
		High Entry/Exit Turnstile	3							3						
	N502	Two-way Turnstile	5	111	997	0.9	0.9	0.30	A	5	111	1076	0.9	0.9	0.32	A
		High Entry/Exit Turnstile	1							1						
		High Exit Turnstile	2							2						
PM	N504	Two-way Turnstile	6	1461	369	0.9	0.9	0.58	B	6	1517	373	0.9	0.9	0.60	B
		High Entry/Exit Turnstile	3							**3**						
	N502	Two-way Turnstile	5	1342	237	0.9	0.9	0.69	B	5	1433	238	0.9	0.9	0.74	C
		High Entry/Exit Turnstile	1							1						
		High Exit Turnstile	2							2						

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

Fifth Avenue Subway Station

The proposed improvements to the Fifth Avenue Subway Station would include a new street entrance to the Flushing Line mezzanine. The new entrance would be located on the north side of West 42nd Street, midblock between Fifth and Sixth Avenues. It is expected that these stairs would be used by pedestrians currently utilizing the street Stairs S2 and S3, located midblock on the south side of West 42nd Street, as well as pedestrians currently using street Stair S8 on the southeast corner of West 42nd Street and Sixth Avenue. ADA access would also be provided between the mezzanine level and the Flushing Line platform.

As shown in Table 12.86, one of the seven analyzed stairs at the Fifth Avenue subway station is expected to operate over practical capacity during at least one peak hour in the With-Action condition. Street stair M1/M2 operates with a v/c ratio of 1.09 (LOS D) in the AM peak hour. The width increment threshold required to return the stair to the No-Action v/c ratio of 1.03 would remain below the *CEQR Technical Manual* impact threshold and this stair would not be expected to be significantly impacted as a result of new demand from the Proposed Action. In addition, as shown in Table 12.87, analyzed fare control areas R501 and R500 would continue to operate at an acceptable LOS A in both the AM and PM peak hours. Therefore, the Proposed Action would not result in any significant adverse transit impacts at the Fifth Avenue subway station.

Table 12.86: With-Action Stair Analysis at the Fifth Avenue (7) Subway Station

			No-Action								With-Action									
Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS	WIT (in.)	WIT for Significant Impact (in.)
					Down	Up							Down	Up						
AM	R501	M1/M2	11.33	10.08	85	1058	0.8	0.9	1.03	D	11.33	10.08	87	1114	0.8	0.9	1.09	D	6.12	8
		P2	8.25	7.00	27	481	0.75	0.9	0.71	C	8.25	7.00	27	509	0.75	0.9	0.75	C	-	-
		P3	8.00	6.75	40	254	0.75	0.9	0.42	A	8.00	6.75	40	282	0.75	0.9	0.46	B	-	-
		P4	8.00	6.75	3	122	0.75	1.0	0.16	A	8.00	6.75	3	122	0.75	1.0	0.16	A		
	R500	S2	5.67	4.67	14	130	0.9	0.9	0.25	A	5.67	4.67	14	36	0.9	0.9	0.08	A	-	-
		S3	5.67	4.67	8	184	0.75	1.0	0.36	A	5.67	4.67	2	121	0.75	1.0	0.23	A	-	-
		M3	13.33	12.08	22	314	0.75	0.9	0.27	A	13.33	12.08	16	157	0.75	0.9	0.14	A	-	-
PM	R501	M1/M2	11.33	10.08	799	243	0.8	0.9	0.81	C	11.33	10.08	863	245	0.8	0.9	0.86	C	-	-
		P2	8.25	7.00	321	147	0.75	0.9	0.55	B	8.25	7.00	353	148	0.75	0.9	0.58	B	-	-
		P3	8.00	6.75	322	75	0.75	0.9	0.46	B	8.00	6.75	354	77	0.75	0.9	0.50	B	-	-
		P4	8.00	6.75	36	14	0.75	0.9	0.06	A	8.00	6.75	36	14	0.75	0.9	0.06	A	-	-
	R500	S2	5.67	4.67	107	72	0.9	0.9	0.30	A	5.67	4.67	14	72	0.9	0.9	0.15	A	-	-
		S3	5.67	4.67	76	44	0.75	0.9	0.21	A	5.67	4.67	13	38	0.75	0.9	0.10	A	-	-
		M3	13.33	12.08	183	116	0.75	0.9	0.21	A	13.33	12.08	27	110	0.75	0.9	0.11	A	-	-

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

Table 12.87: With-Action Fare Control Area Analysis at the Fifth Avenue (7) Subway Station

			No-Action							With-Action						
Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS	Quantity	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				In	Out						In	Out				
AM	R501	Two-way Turnstile	8	85	1058	0.8	0.9	0.31	A	8	87	1114	0.8	0.9	0.33	A
	R500	High Entry/Exit Turnstile	2	22	314	0.9	0.9	0.28	A	2	22	314	0.9	0.9	0.28	A
		High Exit Turnstile	1							1						
PM	R501	Two-way Turnstile	8	799	243	0.8	0.9	0.33	A	8	863	245	0.8	0.9	0.35	A
	R500	High Entry/Exit Turnstile	2	183	116	0.9	0.9	0.49	B	2	183	116	0.9	0.9	0.49	B
		High Exit Turnstile	1							1						

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

47th-50th Streets-Rockefeller Center Subway Station

The 47th-50th Streets-Rockefeller Center subway station would experience an increase in platform stair capacity as a result of the proposed transit improvements. A new stair would be added between the mezzanine level and the platform for both the downtown and uptown platforms. Additionally, four existing stairs on the downtown platform and three existing stairs on the uptown platform would be widened.

As shown in Table 12.88, five of the 20 analyzed stairs are expected to continue to operate at LOS D or worse during at least one peak hour in the With-Action condition. However, the v/c ratios of these elements would be improved over the No-Action condition as a result of the increased platform stair capacity. Three of the analyzed platform stairs are expected to operate over practical capacity (LOS D or worse) during the AM peak hour in the No-Action condition: platform Stair P2 is expected to operate at a v/c ratio of 1.04 (LOS D); platform Stair P6 is expected to operate at a v/c ratio of 1.51 (LOS E); and platform Stair P8 is expected to operate at a v/c ratio of 1.62 (LOS E). During the PM peak hour in the No-Action condition, platform Stair P1 is expected to operate over practical capacity at a v/c ratio of 2.08 (LOS F) and platform Stair P9 is expected to operate at a v/c ratio of 1.62 (LOS E). By contrast, these five analyzed stairs would experience an improvement in LOS in the With-Action condition as a result of the proposed stair widenings. In the AM peak hour, platform Stair P2 is expected to improve to a v/c ratio of 0.70 (LOS C), platform Stair P6 is expected to improve to a v/c ratio of 0.71 (LOS C) and platform Stair P8 is expected to improve to a v/c ratio of 1.42 (LOS E). Platform Stair P1 and P9 would both operate at LOS E during the PM peak hour in the With-Action condition with improved v/c ratios of 1.38 and 1.35, respectively. Therefore, none of the analyzed stairs would experience a significant adverse impact based on *CEQR Technical Manual* criteria as a result of new demand from the Proposed Action.

Table 12.88: With-Action Stair Analysis at the 47th-50th Streets-Rockefeller Center (B, D, F, M) Subway Station

			No-Action								With-Action							
Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up							Down	Up				
AM	N501	S1	5.00	4.00	32	588	0.9	0.9	1.27	D	5.00	4.00	32	620	0.9	1.0	1.20	D
		S6	5.00	4.00	11	293	0.9	1.0	0.56	B	5.00	4.00	11	350	0.9	1.0	0.67	B
		M1	12.00	10.75	42	881	0.9	1.0	0.63	B	12.00	10.75	42	970	0.9	1.0	0.70	B
		P1	6.08	5.08	22	538	0.75	1.0	0.97	C	9.00	7.75	22	562	0.75	1.0	0.66	B
		P2	6.17	5.17	81	484	0.75	0.9	1.04	D	9.00	7.75	83	490	0.75	0.9	0.70	C
		P3	8.58	7.33	21	588	0.75	1.0	0.73	C	8.58	7.33	21	612	0.75	1.0	0.76	C
		P4	8.50	7.25	107	550	0.75	0.9	0.86	C	8.50	7.25	107	392	0.75	0.9	0.64	B
	N501A	P5	6.33	5.33	20	475	0.75	1.0	0.82	C	7.50	6.50	20	290	0.75	0.9	0.46	B
		P6	5.75	4.75	148	614	0.75	0.9	1.51	E	7.50	6.50	99	392	0.75	0.9	0.71	C
		S5	4.25	3.25	20	250	0.9	0.9	0.68	B	4.25	3.25	20	263	0.9	0.9	0.71	C
	N500A	SB1/MB1	7.25	6.00	25	114	0.9	0.9	0.19	A	7.25	6.00	26	124	0.9	0.9	0.20	A
		P7	6.25	5.25	34	369	0.75	0.9	0.74	C	7.50	6.50	22	290	0.75	0.9	0.47	B
		P8	6.25	5.25	98	788	0.75	0.9	1.62	E	7.00	6.00	98	788	0.75	0.9	1.42	E
		P15	7.50	6.50	32	307	0.75	0.9	0.50	B	7.50	6.50	32	322	0.75	0.9	0.53	B
		P16	5.67	4.67	77	380	0.75	0.9	0.93	C	5.67	4.67	77	380	0.75	0.9	0.93	C
	N500	06/07	7.75	6.50	46	290	0.9	0.9	0.42	A	7.75	6.50	46	306	0.9	0.9	0.44	A
		P9	6.33	5.33	54	470	0.75	0.9	0.94	C	7.50	6.50	54	485	0.75	0.9	0.80	C
		P10	6.67	5.67	56	691	0.75	0.9	1.28	D	6.67	5.67	56	692	0.75	0.9	1.28	D
		P12	6.50	5.50	29	406	0.75	0.9	0.77	C	6.50	5.50	30	407	0.75	0.9	0.77	C
		P14	6.25	5.25	24	208	0.75	0.9	0.43	A	6.25	5.25	24	210	0.75	0.9	0.43	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

Table 12.88: With-Action Stair Analysis at the 47th-50th Streets-Rockefeller Center (B, D, F, M) Subway Station (Continued)

			No-Action								With-Action							
Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up							Down	Up				
PM	N501	S1	5.00	4.00	646	55	0.9	0.9	1.31	D	5.00	4.00	646	55	0.9	0.9	1.31	D
		S6	5.00	4.00	259	29	0.9	0.9	0.54	B	5.00	4.00	259	31	0.9	0.9	0.54	B
		M1	12.00	10.75	905	83	0.9	0.9	0.69	B	12.00	10.75	905	86	0.9	0.9	0.69	B
		P1	6.08	5.08	1016	306	0.75	0.9	2.08	F	9.00	7.75	1038	307	0.75	0.9	1.38	E
		P2	6.17	5.17	364	62	0.75	0.9	0.64	B	9.00	7.75	444	62	0.75	0.9	0.50	B
		P3	8.58	7.33	531	142	0.75	0.9	0.73	C	8.58	7.33	531	143	0.75	0.9	0.73	C
		P4	8.50	7.25	692	65	0.75	0.9	0.80	C	8.50	7.25	692	53	0.75	0.9	0.78	C
	N501A	P5	6.33	5.33	422	172	0.75	0.9	0.90	C	7.50	6.50	422	83	0.75	0.9	0.61	B
		P6	5.75	4.75	438	93	0.75	0.9	0.88	C	7.50	6.50	292	53	0.75	0.9	0.41	A
		S5	4.25	3.25	254	49	0.9	0.9	0.70	C	4.25	3.25	269	50	0.9	0.9	0.74	C
	N500A	SB1/MB1	7.25	6.00	101	22	0.9	0.9	0.16	A	7.25	6.00	113	23	0.9	0.9	0.17	A
		P7	6.25	5.25	266	78	0.75	0.9	0.52	B	7.50	6.50	177	83	0.75	0.9	0.33	A
		P8	6.25	5.25	184	92	0.75	0.9	0.43	A	7.00	6.00	184	92	0.75	0.9	0.38	A
		P15	7.50	6.50	144	47	0.75	0.9	0.24	A	7.50	6.50	158	48	0.75	0.9	0.25	A
		P16	5.67	4.67	102	26	0.75	0.9	0.22	A	5.67	4.67	102	26	0.75	0.9	0.22	A
	N500	06/07	7.75	6.50	247	83	0.9	0.9	0.39	A	7.75	6.50	265	84	0.9	0.9	0.41	A
		P9	6.33	5.33	1063	78	0.75	0.9	1.62	E	7.50	6.50	1075	79	0.75	0.9	1.35	E
		P10	6.67	5.67	397	106	0.75	0.9	0.70	C	6.67	5.67	397	106	0.75	0.9	0.70	C
		P12	6.50	5.50	236	50	0.75	0.9	0.41	A	6.50	5.50	249	50	0.75	0.9	0.43	A
		P14	6.25	5.25	465	32	0.75	0.9	0.72	C	6.25	5.25	465	32	0.75	0.9	0.72	C

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

Table 12.89: With-Action Fare Control Area Analysis at the 47th-50th Streets-Rockefeller Center (B, D, F, M) Subway Station

			No-Action							With-Action						
Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes In	15-Minute Pedestrian Volumes Out	Surging Factor	Friction Factor	V/C Ratio	LOS	Quantity	15-Minute Pedestrian Volumes In	15-Minute Pedestrian Volumes Out	Surging Factor	Friction Factor	V/C Ratio	LOS
AM	N501	Two-wayTurnstile	8	92	1897	0.9	1.0	0.31	A	8	95	1987	0.9	1.0	0.32	A
		High Entry/Exit Turnstile	2							2						
		High Exit Turnstile	2							2						
	N501A	Two-wayTurnstile	8	44	1064	0.9	1.0	0.15	A	8	44	1076	0.9	1.0	0.15	A
		High Entry/Exit Turnstile	4							4						
		High Exit Turnstile	2							2						
	N500A	High Entry/Exit Turnstile	2	29	117	0.9	0.9	0.20	A	2	29	127	0.9	0.9	0.21	A
	N500	Two-wayTurnstile	10	82	2717	0.9	1.0	0.49	B	10	82	2733	0.9	1.0	0.49	B
PM	N501	Two-wayTurnstile	8	1633	190	0.9	0.9	0.50	B	8	1734	192	0.9	0.9	0.53	B
		High Entry/Exit Turnstile	2							2						
		High Exit Turnstile	2							2						
	N501A	Two-wayTurnstile	8	743	174	0.9	0.9	0.21	A	8	758	175	0.9	0.9	0.22	A
		High Entry/Exit Turnstile	4							4						
		High Exit Turnstile	2							2						
	N500A	High Entry/Exit Turnstile	2	113	33	0.9	0.9	0.28	A	2	125	34	0.9	0.9	0.31	A
	N500	Two-wayTurnstile	10	2219	277	0.9	0.9	0.64	B	10	2237	278	0.9	0.9	0.65	B

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

51st Street Subway Station

The potential transit improvement at the 51st Street subway station would include the replacement of the existing four-foot-wide Stair U1 and Escalator E252 at the north end of the downtown platform with a new 14.5-foot-wide stair. As listed in Table 12.90, Stair U1 is expected to operate at a congested LOS D and LOS E in the AM and PM peak hours, respectively, in the No-Action condition. As listed in Table 12.91, Escalator E252 is expected to operate at a v/c ratio of 1.09 (LOS D) in the AM peak hour in the No-Action condition. By contrast, replacement of this stair and adjoining escalator E252 with a wider stair would improve the operations of Stair U1 to an acceptable LOS C or better in the both the AM and PM peak hours in the future with the Proposed Action.

Additionally, a new street stair entrance to the uptown No. 6 platform would be built on the southeast corner of Lexington Avenue and East 50th Street. It is expected that this entrance would be used by pedestrians currently utilizing the entrance to the uptown No. 6 platform at Lexington Avenue and East 51st Street (street Stairs S2, S4, S5, and S6). As listed in Tables 12.90, 12.92, and 12.93, all other analyzed stairs, passageways, and fare control areas would not experience a significant adverse impact as a result of the Proposed Action.

Table 12.90: With-Action Stair Analysis at the 51st Street (6) Subway Station

			No-Action								With-Action							
Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up							Down	Up				
AM	R243	S2	5.17	4.17	57	272	0.75	0.9	0.74	C	5.17	4.17	27	197	0.75	0.9	0.52	B
		S5	4.08	3.08	11	19	0.75	0.9	0.09	A	4.08	3.08	6	10	0.75	0.9	0.04	A
		S4	4.50	3.50	14	292	0.75	1.0	0.77	C	4.50	3.50	7	154	0.75	1.0	0.40	A
		S6	4.50	3.50	7	153	0.75	1.0	0.40	A	4.50	3.50	3	84	0.75	1.0	0.22	A
	R242	S3	4.50	3.50	21	189	0.75	0.9	0.58	B	4.50	3.50	23	219	0.75	0.9	0.67	B
		S8	4.50	3.50	73	221	0.75	0.9	0.78	C	4.50	3.50	75	250	0.75	0.9	0.87	C
	R242A	01/02	10.00	8.75	84	454	0.75	0.9	0.58	B	10.00	8.75	81	595	0.75	0.9	0.74	C
	N305A	U1	4.17	3.17	449	9	0.75	1.0	1.28	D	14.50	13.00	449	784	0.75	0.9	0.79	C
PM	R243	S2	5.17	4.17	280	119	0.75	0.9	0.78	C	5.17	4.17	222	56	0.75	0.9	0.53	B
		S5	4.08	3.08	24	28	0.75	0.9	0.15	A	4.08	3.08	12	14	0.75	0.9	0.07	A
		S4	4.50	3.50	247	74	0.75	0.9	0.73	C	4.50	3.50	128	38	0.75	0.9	0.38	A
		S6	4.50	3.50	48	48	0.75	0.9	0.24	A	4.50	3.50	28	25	0.75	0.9	0.13	A
	R242	S3	4.50	3.50	300	49	0.75	0.9	0.77	C	4.50	3.50	359	50	0.75	0.9	0.90	C
		S8	4.50	3.50	122	55	0.75	0.9	0.41	A	4.50	3.50	181	57	0.75	0.9	0.54	B
	R242A	01/02	10.00	8.75	160	77	0.75	0.9	0.22	A	10.00	8.75	366	72	0.75	0.9	0.39	A
	N305A	U1	4.17	3.17	550	8	0.75	1.0	1.56	E	14.50	13.00	550	432	0.75	0.9	0.66	B

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

Table 12.91: With-Action Escalator Analysis at the 51st Street (6) Subway Station

		No-Action							With-Action						
Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
AM	E252 (UP)	40	90	945	775	0.75	1.09	D	N/A*	N/A	N/A	N/A	N/A	N/A	N/A
PM	E252 (UP)	40	90	945	424	0.75	0.60	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
*Escalator E252 is removed in With-Action condition.

Table 12.92: With-Action Passageway Analysis at the 51st Street (6) Subway Station

		No-Action								With-Action							
Passageway	Peak Period	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes NB	15-Minute Pedestrian Volumes SB	Surging Factor	Friction Factor	V/C Ratio	LOS	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes NB	15-Minute Pedestrian Volumes SB	Surging Factor	Friction Factor	V/C Ratio	LOS
To/From Lex Ave- 53rd St	AM	15.25	13.3	1141	1427	0.75	0.9	1.10	D	15.25	13.3	1141	1427	0.75	0.9	1.10	D
	PM	15.25	13.3	1006	841	0.75	0.9	0.81	C	15.25	13.3	1006	841	0.75	0.9	0.81	C

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.93: With-Action Fare Control Area Analysis at the 51st Street (6) Subway Station

			No-Action							With-Action						
Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes In	15-Minute Pedestrian Volumes Out	Surging Factor	Friction Factor	V/C Ratio	LOS	Quantity	15-Minute Pedestrian Volumes In	15-Minute Pedestrian Volumes Out	Surging Factor	Friction Factor	V/C Ratio	LOS
AM	R242A	Two-way Turnstile	5	79	463	0.75	0.9	0.25	A	5	75	605	0.75	0.9	0.32	A
	R242	Two-way Turnstile	9	99	410	0.75	0.9	0.13	A	9	104	469	0.75	0.9	0.15	A
	R243	Two-way Turnstile	9	89	736	0.75	0.9	0.21	A	9	44	472	0.75	0.9	0.13	A
	N305A	Two-way Turnstile	3	44	195	0.8	0.9	0.18	A	3	46	282	0.8	0.9	0.24	A
PM	R242A	Two-way Turnstile	5	159	70	0.75	0.9	0.12	A	5	364	65	0.75	0.9	0.22	A
	R242	Two-way Turnstile	9	414	110	0.75	0.9	0.15	A	9	533	114	0.75	0.9	0.19	A
	R243	Two-way Turnstile	9	599	269	0.75	0.9	0.24	A	9	390	132	0.75	0.9	0.15	A
	N305A	Two-way Turnstile	3	404	36	0.8	0.9	0.38	A	3	455	42	0.8	0.9	0.43	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

Lexington Avenue-53rd Street Subway Station

The Lexington Avenue-53rd Street subway station would experience an increase in escalator capacity as a result of the proposed transit improvements. The improvement would be the replacement of the existing 24-inch-wide escalator E254X with a new 40-inch-wide escalator that would operate in the up direction in both the AM and PM peak hours. The passenger utilization of the escalators would shift as a result of the increased capacity of escalator E254X. It is expected that five percent of the up escalator demand of E243 and E244 and 15 percent of the combined up demand for platform Stair P1 and escalators E245 and E246 would transfer to the widened escalator E254X in the AM peak hour. Ten percent of the escalator E245 up demand would shift to escalator E254X in the PM peak hour.

In conjunction with the widening of escalator E254X, fare control area N306A would also be modified. The existing two high entry/exit turnstiles at N306A would be replaced with three two-way turnstiles.

The proposed escalator widening would improve the LOS of escalator E254X in the PM peak hour. As listed in Table 12.95, escalator E254X is expected to operate over practical capacity (LOS D) during the PM peak hour in the No-Action condition with a v/c ratio of 1.22. By contrast, escalator E254X would operate at an acceptable LOS C in the With-Action condition.

As shown in Table 12.94, one of the six analyzed stairs at the Lexington Avenue-53rd Street subway station is expected to operate over practical capacity during at least one peak hour in the With-Action condition. Street stair O5 would operate with a v/c ratio of 1.01 (LOS D) in the PM peak hour. The width increment threshold required to return the stair to a v/c ratio of 1.00 would remain below the *CEQR Technical Manual* impact threshold and this stair would not be significantly adversely impacted as a result of new demand from the Proposed Action. In addition, as shown in Table 12.96, all analyzed fare control areas would continue to operate at an acceptable LOS B or better in both the AM and PM peak hours. Therefore, the Proposed Action would not result in any significant adverse transit impacts at the stairs and fare control areas at the Lexington Avenue-53rd Street subway station.

However, as shown in Table 12.95 and discussed below, five of the six analyzed escalators at the Lexington Avenue-53rd Street subway station are expected to operate over practical capacity in one or both periods in the With-Action condition. These elements are expected to have a significant adverse impact as a result of the Proposed Action.

- In the AM peak hour, the Proposed Action would add approximately 104 additional trips in the peak 15 minutes to up escalator E243. Consequently, this escalator is expected to operate at a v/c ratio of 1.15 (LOS D) in the AM in the With-Action condition, compared to a v/c ratio of 1.00 (LOS C) in the No-Action condition.
- The Proposed Action would add approximately 42 additional trips in the up direction in the peak 15 minutes to escalator E244 in the AM peak hour, and 201 trips in the down direction in the PM. Consequently, this escalator is expected to operate at LOS D with v/c ratios of 1.15 and 1.31 in the AM and PM, respectively, compared to v/c ratios of 1.09 (LOS D) and 1.10 (LOS D) in the No-Action.
- The Proposed Action would add approximately 489 additional trips in the up direction in the peak 15 minutes to widened escalator E254X in the AM peak hour. This escalator is expected to operate at LOS D with a v/c ratio of 1.09 (LOS D) in the With-Action condition, compared to a v/c ratio of 0.78 (LOS C) in the No-Action.

- The Proposed Action would add approximately 100 additional trips in the down direction in the peak 15 minutes to escalator E246 in the PM peak hour. Consequently, this escalator is expected to operate at a v/c ratio of 1.03 (LOS D) in the PM, compared to a v/c ratio of 0.92 (LOS C) in the No-Action condition.
- In the PM peak hour, the Proposed Action would add approximately 234 additional trips in the peak 15 minutes to down escalator E269. Consequently, this escalator is expected to operate at a v/c ratio of 1.23 (LOS D) during the PM peak hour in the With-Action condition, compared to a v/c ratio of 0.98 (LOS C) in the No-Action condition.

Table 12.94: With-Action Stair Analysis at the Lexington Avenue/53rd Street (E, M) Subway Station

			No-Action								With-Action									
Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS	WIT (in.)	WIT for Significant Impact (in.)
					Down	Up							Down	Up						
AM	N305B	05	10.00	8.75	46	498	0.75	0.9	0.47	B	10.00	8.75	48	757	0.75	0.9	0.70	B	-	-
	N305	07/08	12.00	10.75	77	396	0.8	0.9	0.39	A	12.00	10.75	77	511	0.8	0.9	0.49	B	-	-
		P7	3.70	2.70	37	138	0.75	0.9	0.61	B	3.70	2.70	37	138	0.75	0.9	0.61	B	-	-
	N306A	S4	5.00	4.00	23	91	0.8	0.9	0.25	A	5.00	4.00	22	153	0.8	0.9	0.39	A	-	-
		S3	5.00	4.00	32	113	0.8	0.9	0.32	A	5.00	4.00	36	228	0.8	0.9	0.60	B	-	-
	N306	P1	4.00	3.00	89	322	0.75	0.9	1.28	D	4.00	3.00	91	152	0.75	0.9	0.72	C	-	-
PM	N305B	05	10.00	8.75	577	79	0.75	0.9	0.72	C	10.00	8.75	828	84	0.75	0.9	1.01	D	0.01	8
	N305	07/08	12.00	10.75	323	78	0.8	0.9	0.29	A	12.00	10.75	456	77	0.8	0.9	0.38	A	-	-
		P7	3.70	2.70	169	12	0.75	0.9	0.51	B	3.70	2.70	169	12	0.75	0.9	0.51	B	-	-
	N306A	S4	5.00	4.00	107	16	0.8	0.9	0.24	A	5.00	4.00	174	17	0.8	0.9	0.36	A	-	-
		S3	5.00	4.00	177	10	0.8	0.9	0.35	A	5.00	4.00	310	17	0.8	0.9	0.61	B	-	-
	N306	P1	4.00	3.00	129	32	0.75	0.9	0.42	A	4.00	3.00	129	32	0.75	0.9	0.42	A	-	-

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

Table 12.95: With-Action Escalator Analysis at the Lexington Avenue/53rd Street (E, M) Subway Station

		No-Action							With-Action						
Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
AM	E243 (UP)	40	90	945	709	0.75	1.00	C	40	90	945	813	0.75	1.15	D
	E244 (UP)	40	90	945	771	0.75	1.09	D	40	90	945	813	0.75	1.15	D
	E269 (DOWN)	40	90	945	579	1.00	0.61	B	40	90	945	581	1.00	0.61	B
	E254X (UP)	24	90	480	281	0.75	0.78	C	40	90	945	770	0.75	1.09	D
	E245 (UP)	40	90	945	562	0.75	0.79	C	40	90	945	690	0.75	0.97	C
	E246 (UP)	40	90	945	820	0.75	1.16	D	40	90	945	690	0.75	0.97	C
PM	E243 (UP)	40	90	945	553	0.75	0.78	C	40	90	945	552	0.75	0.78	C
	E244 (DOWN)	40	90	945	1036	1.00	1.10	D	40	90	945	1237	1.00	1.31	D
	E269 (DOWN)	40	90	945	925	1.00	0.98	C	40	90	945	1159	1.00	1.23	D
	E254X (UP)	24	90	480	439	0.75	1.22	D	40	90	945	531	0.75	0.75	C
	E245 (UP)	40	90	945	879	0.75	1.24	D	40	90	945	793	0.75	1.12	D
	E246 (DOWN)	40	90	945	870	1.00	0.92	C	40	90	945	970	1.00	1.03	D

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.96: With-Action Fare Control Area Analysis at the Lexington Avenue/53rd Street (E, M) Subway Station

			No-Action							With-Action						
Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS	Quantity	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
				In	Out						In	Out				
AM	N305B	Two-way Turnstile	5	27	1550	0.8	1.0	0.61	B	5	27	1707	0.8	1.0	0.67	B
	N305	Two-way Turnstile	11	117	1103	0.8	0.9	0.24	A	11	117	1232	0.8	0.9	0.27	A
	N306A	High Entry/Exit Turnstile	2	133	174	0.8	0.9	0.51	B	0	135	504	0.8	0.9	0.48	B
		Two-way Turnstile	0							3						
	N306	Two-way Turnstile	8	107	664	0.8	0.9	0.21	A	8	108	512	0.8	0.9	0.17	A
PM	N305B	Two-way Turnstile	5	209	75	0.8	0.9	0.14	A	5	392	74	0.8	0.9	0.24	A
	N305	Two-way Turnstile	11	839	177	0.8	0.9	0.24	A	11	989	176	0.8	0.9	0.27	A
	N306A	High Entry/Exit Turnstile	2	268	43	0.8	0.9	0.64	B	0	456	46	0.8	0.9	0.44	A
		Two-way Turnstile	0							3						
	N306	Two-way Turnstile	8	799	266	0.8	0.9	0.34	A	8	811	270	0.8	0.9	0.34	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

Lexington Avenue-59th Street Subway Station

The proposed transit improvements at the Lexington Avenue-59th Street subway station would provide additional stair capacity at the intermediate mezzanine. A new stair would be added connecting the intermediate mezzanine to the N, R, and W platform, and the existing three mezzanine stairs (ML2, ML4, and ML6) would be widened to seven-foot stairs. In addition, elevators would be installed to provide ADA access between the street level, uptown No. 6 platform, downtown No. 6 platform, N/R/W platform, intermediate mezzanine, uptown Nos. 4/5 platform, and downtown Nos. 4/5 platform. Most passengers would be expected to use the stairs and escalators for subway access and, therefore, the new elevators would not be expected to substantially affect the volume of pedestrians utilizing the analyzed elements at this station.

The proposed improvements at the intermediate mezzanine would reduce the volume of station passengers utilizing the existing three mezzanine stairs and increase the capacity of each stair. As listed in Table 12.97, all three analyzed mezzanine stairs are expected to operate over practical capacity (LOS D or worse) during the AM peak hour in the No-Action condition: Stair ML2 is expected to operate at a v/c ratio of 1.71 (LOS F); Stair ML4 is expected to operate at a v/c ratio of 1.64 (LOS E); and Stair ML6 is expected to operate at a v/c ratio of 1.11 (LOS D). Stairs ML2 and ML4 would also operate at a LOS E (v/c ratio of 1.55 and 1.51, respectively) during the PM peak hour in the No-Action condition. By contrast, all analyzed intermediate mezzanine stairs would operate at an acceptable LOS C or better in the With-Action condition.

As listed in Table 12.97, three of the nine analyzed stairs at the Lexington Avenue-59th Street subway station are expected to operate over practical capacity (LOS D or worse) in at least one peak hour in the With-Action condition. These include street Stair SB1/MB1 and platform Stairs PL1 and PL2 in the PM peak hour. However, as the width increment threshold required to return Stair SB1/MB1, PL1, and PL2 to the No-Action v/c ratio would remain below *CEQR Technical Manual* impact thresholds, these stairs would not experience a significant adverse impact as a result of new demand from the Proposed Action.

As listed in Tables 12.98 and 12.99, the Proposed Action would not result in any significant adverse transit impacts at the escalator and fare control areas at the Lexington Avenue-59th Street subway station.

Table 12.97: With-Action Stair Analysis at the Lexington Avenue-59th Street (4, 5, 6, N, R, W) Subway Station

			No-Action								With-Action								
Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes Down	15-Minute Pedestrian Volumes Up	Surging Factor	Friction Factor	V/C Ratio	LOS	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes Down	15-Minute Pedestrian Volumes Up	Surging Factor	Friction Factor	V/C Ratio	LOS	WIT (in.)	WIT for Significant Impact (in.)
AM	INTERMEDIATE MEZZANINE	ML2	6.00	5.00	783	178	0.8	0.9	1.78	F	7.00	6.00	313	142	0.8	0.9	0.70	C	-	-
		ML4	4.75	3.75	381	354	0.8	0.9	1.82	F	7.00	6.00	286	354	0.8	0.9	0.99	C	-	-
		ML6	6.00	5.00	403	247	0.8	0.9	1.20	D	7.00	6.00	363	247	0.8	0.9	0.94	C	-	-
PM	R244A	SB1/MB1	8.00	6.75	599	430	0.75	0.9	1.29	D	8.00	6.75	648	430	0.75	0.9	1.34	E	3.78	5
		PL1	4.00	3.00	598	0	0.75	1.0	1.33	D	4.00	3.00	622	0	0.75	1.0	1.38	E	1.46	5
	R245A	010/09/08	10.00	8.75	649	284	0.75	0.9	0.87	C	10.00	8.75	667	284	0.75	0.9	0.88	C	-	-
		PL2	4.00	3.00	582	0	0.75	1.0	1.29	D	4.00	3.00	591	0	0.75	1.0	1.31	D	0.56	5
	INTERMEDIATE MEZZANINE	ML2	6.00	5.00	557	351	0.8	0.9	1.68	F	7.00	6.00	223	281	0.8	0.9	0.78	C	-	-
		ML4	4.75	3.75	326	355	0.8	0.9	1.68	F	7.00	6.00	244	355	0.8	0.9	0.93	C	-	-
		ML6	6.00	5.00	278	188	0.8	0.9	0.86	C	7.00	6.00	250	188	0.8	0.9	0.68	B	-	-
	A002	P12	2.83	1.83	82	4	0.75	1.0	0.32	A	2.83	1.83	82	4	0.75	1.0	0.32	A	-	-
		S2/S4/M2	4.25	3.25	225	21	0.8	0.9	0.57	B	4.25	3.25	234	21	0.8	0.9	0.59	B	-	-

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0, except for intermediate mezzanine stairs ML2, ML4, and ML6.

Table 12.98: With-Action Fare Control Area Analysis at the Lexington Avenue-59th Street (4, 5, 6, N, R, W) Subway Station

			No-Action							With-Action						
Peak Period	Fare Control Area	Control Element	Quantity	15-Minute Pedestrian Volumes In	15-Minute Pedestrian Volumes Out	Surging Factor	Friction Factor	V/C Ratio	LOS	Quantity	15-Minute Pedestrian Volumes In	15-Minute Pedestrian Volumes Out	Surging Factor	Friction Factor	V/C Ratio	LOS
PM	R244A	Two-way Turnstile	5	824	232	0.9	0.9	0.42	A	5	872	232	0.9	0.9	0.44	A
		High Entry/Exit Turnstile	2							2						
	R245A	Two-way Turnstile	4	1143	414	0.9	0.9	0.72	C	4	1161	414	0.9	0.9	0.73	C
		High Entry/Exit Turnstile	2							2						
	A002	Two-way Turnstile	10	597	221	0.9	0.9	0.19	A	10	606	221	0.9	0.9	0.19	A
		High Exit Turnstile	4							4						

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

Table 12.99: With-Action Escalator Analysis at the Lexington Avenue-59th Street (4, 5, 6, N, R, W) Subway Station

		No-Action							With-Action						
Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
PM	ES249 (DOWN)	40	90	945	907	1.00	0.96	C	40	90	945	916	1.00	0.97	C

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Fifth Avenue-53rd Street Subway Station

The transit improvements at the Fifth Avenue-53rd Street subway station would include a new street entrance on the west side of Madison Avenue at East 53rd Street. The new entrance would consist of a new mezzanine and fare control area, as well as new vertical circulation elements to the upper and lower platform levels. In addition, a new elevator would make the station fully accessible.

The proposed improvements would reduce the volume of station passengers utilizing the existing entrance on the east side of Madison Avenue. As listed in Table 12.100, two of the analyzed stairs are expected to operate over practical capacity (LOS D or worse) during the AM peak hour in the No-Action condition: Stair O3 is expected to operate at a v/c ratio of 1.07 (LOS D) and platform Stair PL1/PL2 is expected to operate at a v/c ratio of 1.39 (LOS E). As listed in Table 12.101, both the analyzed escalators are expected to operate over practical capacity (LOS D or worse) during one or more peak hours in the No-Action condition: Escalator E241 is expected operate at a v/c ratio of 1.07 (LOS D) during the AM peak hour, and Escalator E242 is expected to operate at a v/c ratio of 1.08 (LOS D) and 1.12 (LOS D) during the AM and PM peak hours, respectively. By contrast, all analyzed stairs and escalators would operate at an acceptable LOS C or better in the With-Action condition. The Proposed Action would not result in any significant adverse transit impacts at the Fifth Avenue-53rd Street subway station.

Table 12.100: With-Action Stair Analysis at the Fifth Avenue-53rd Street Subway (E, M) Station

			No-Action								With-Action							
Peak Period	Fare Control Area	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up							Down	Up				
AM	N304	03	9.50	8.25	28	1041	0.8	1.0	1.07	D	9.50	8.25	17	625	0.8	1.0	0.64	B
		S1	8.00	7.00	21	638	0.8	1.0	0.78	C	8.00	7.00	13	399	0.8	1.0	0.49	B
		P1	4.00	3.00	38	34	0.75	0.9	0.21	A	4.00	3.00	24	20	0.75	0.9	0.12	A
		PL1/PL2	10.00	8.75	12	1359	0.75	1.0	1.39	E	10.00	8.75	7	816	0.75	1.0	0.83	C
PM	N304	03	9.50	8.25	765	86	0.8	0.9	0.78	C	9.50	8.25	459	52	0.8	0.9	0.47	B
		S1	8.00	7.00	627	52	0.8	0.9	0.73	C	8.00	7.00	506	39	0.8	0.9	0.59	B
		P1	4.00	3.00	185	3	0.75	1.0	0.42	A	4.00	3.00	144	2	0.75	1.0	0.32	A
		PL1/PL2	10.00	8.75	322	113	0.75	0.9	0.40	A	10.00	8.75	193	68	0.75	0.9	0.24	A

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

Table 12.101: With-Action Escalator Analysis at the Fifth Avenue-53rd Street Subway (E, M) Station

		No-Action							With-Action						
Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
AM	E241 (UP)	40	90	945	809	0.8	1.07	D	40	90	945	495	0.8	0.66	B
	E242 (UP)	40	90	945	813	0.8	1.08	D	40	90	945	494	0.8	0.65	B
PM	E241 (UP)	40	90	945	137	0.8	0.18	A	40	90	945	90	0.8	0.12	A
	E242 (DOWN)	40	90	945	1055	1.0	1.12	D	40	90	945	731	1.0	0.77	C

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Subway Line Haul

Project-generated trip assignment volumes and the number of trains by route that would be operating through the rezoning area by 2036 were used to determine the average incremental increase in peak hour trips per subway car attributable to the Proposed Action. As shown in Table 12.102, several subway routes would continue to operate above guideline capacity in the future with the Proposed Action.

In the AM peak hour:

- The No. 4 and No. 5 northbound would operate with v/c ratios of 1.08 and 1.06, respectively, compared to No-Action v/c ratios of 1.05 and 1.02, respectively.
- The No. 4 and No. 5 southbound at 86th Street would operate with v/c ratios of 1.04 and 1.02, respectively, compared to No-Action v/c ratios of 1.03 and 1.01, respectively.
- The No. 4 and No. 5 southbound at Grand Central-42nd Street would continue to operate with v/c ratios of 1.10 and 1.08, respectively, the same as the No-Action condition.
- The No. 7 Express southbound at Woodside-61st Street would operate with a v/c ratio of 1.10 compared to a No-Action v/c ratio of 1.09.
- The southbound E at Jackson Heights-Roosevelt Avenue would operate with a v/c ratio of 1.06 compared to a No-Action v/c ratio of 1.04.
- The southbound N and W at Queensboro Plaza would continue to operate with v/c ratios of 1.07 and 1.09, respectively, the same as the No-Action condition.

In the PM peak hour:

- The No. 4 northbound at 59th Street would operate with a v/c ratio of 1.19, compared to a No-Action v/c ratio of 1.16.
- The No. 7 northbound at Queensboro Plaza would operate with a v/c ratio of 1.00, compared to a No-Action v/c ratio of 0.98 (LOS C).
- The southbound M at Essex Street would operate with a v/c ratio of 1.02, compared to a No-Action v/c ratio of 1.00.

All other routes analyzed would continue to operate below capacity in the peak direction in the AM and PM at their maximum load points in 2036.

The greatest increase in incremental trips per subway car would total six trips per car on the northbound No. 6 line leaving 14th Street-Union Square in the AM peak hour and six trips per car on the southbound No. 6 line leaving Grand Central-42nd Street in the PM peak hour. Since these routes are not projected to exceed guideline capacity in the future with the Proposed Action, this increase is not significant. All other routes are expected to experience fewer than five incremental trips per car in each direction in each peak hour as a result of the Proposed Action, therefore significant adverse impacts to subway line haul conditions are not anticipated based on *CEQR Technical Manual* criteria.

Table 12.102: With-Action Subway Line Haul Analysis

Peak Hour	Route	Direction	Maximum Load Point (Leaving Station)	Average Trains Per Hour[1]	Average Cars Per Hour[1]	Average Passengers Per Hour[2]	Average Passengers Per Car[2]	Guideline Passengers Per Car[3]	V/C Ratio[4]
AM	4	NB	14 St-Union Sq	11	110	15,189	138	110	1.08
	5	NB	14 St-Union Sq	11	110	13,756	125	110	1.06
	6	NB	14 St-Union Sq	20	200	16,238	81	110	0.74
	7	NB	Times Square-42 St	29	319	12,596	39	110	0.37
	B	NB	7 Av	10	100	10,809	108	145	0.78
	D	NB	36 St	11	110	10,647	97	145	0.74
	E	NB	7 Av	16	160	17,636	110	145	0.76
	F	NB	2 Av	15	150	15,348	102	145	0.87
	M	NB	Marcy Av	10	80	10,724	134	145	0.92
	S	NB	Grand Central-42 St	20	120	8,132	68	110	0.59
	4	SB	86 St	15	150	16,162	108	110	1.04
	4	SB	Grand Central-42 St	15	150	18,360	122	110	1.10
	5	SB	86 St	14	140	14,387	103	110	1.02
	5	SB	Grand Central-42 St	13	130	15,695	121	110	1.08
	6	SB	59 St	24	240	23,187	97	110	0.88
	7 Loc	SB	40 St	14	154	16,467	107	110	0.89
	7 Exp	SB	Woodside-61 St	15	165	18,498	112	110	1.10
	B	SB	72 St	7	70	6,718	96	145	0.76
	D	SB	125 St	9	90	11,276	125	145	0.84
	E	SB	Jackson Hts-Roosevelt Av	17	170	25,955	153	145	1.06
	F	SB	Roosevelt Island	16	160	20,570	129	145	0.94
	M	SB	Elmhurst Av	10	80	8,772	110	145	0.74
	N	SB	Queensboro Plaza	7	70	11,759	168	145	1.07
	R	SB	Queens Plaza	10	100	8,370	84	145	0.64
	W	SB	Queensboro Plaza	8	80	12,648	158	145	1.09
	S	SB	Times Square-42 St	20	120	4,837	40	110	0.37

Source: New York City Transit, 2016

Notes:
(1) Based on existing average throughput and future anticipated capacity increases.
(2) Based on Regional Transit Forecasting Model (RTFM) outputs.
(3) Guideline capacities are based on NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service.
(4) Volume to guideline capacity ratio.

Table 12.102: With-Action Subway Line Haul Analysis (Continued)

Peak Hour	Route	Direction	Maximum Load Point (Leaving Station)	Average Trains Per Hour[1]	Average Cars Per Hour[1]	Average Passengers Per Hour[2]	Average Passengers Per Car[2]	Guideline Passengers Per Car[3]	V/C Ratio[4]
PM	4	NB	59 St	12	122	16,015	131	110	1.19
	5	NB	59 St	13	128	12,979	101	110	0.92
	6	NB	59 St	20	203	19,880	98	110	0.89
	7	NB	Queensboro Plaza	22	244	26,932	110	110	1.00
	B	NB	59 St-Columbus Circle	7	70	6,359	91	145	0.63
	D	NB	59 St-Columbus Circle	9	85	8,207	97	145	0.67
	E	NB	Lexington Av/53 St	17	170	20,473	120	145	0.83
	F	NB	Lexington Av/63 St	15	153	17,204	112	145	0.78
	M	NB	Lexington Av/53 St	8	62	6,216	100	145	0.69
	N	NB	Lexington Av-59 St	8	75	7,218	96	145	0.66
	R	NB	Lexington Av-59 St	9	88	4,702	53	145	0.37
	W	NB	Lexington Av-59 St	8	75	7,645	102	145	0.70
	S	NB	Grand Central-42 St	20	120	8,491	71	110	0.64
	4	SB	Grand Central-42 St	14	140	14,430	103	110	0.94
	5	SB	Grand Central-42 St	10	101	9,051	90	110	0.81
	6	SB	Grand Central-42 St	20	200	11,255	56	110	0.51
	7	SB	Grand Central-42 St	26	286	13,089	46	110	0.42
	B	SB	Atlantic Av-Barclays Ctr	9	89	9,342	105	145	0.72
	D	SB	Atlantic Av-Barclays Ctr	10	100	10,407	104	145	0.72
	E	SB	5 Av/53 St	15	150	10,308	69	145	0.47
	F	SB	Broadway-Lafayette St	14	141	18,108	128	145	0.89
	M	SB	Essex St	7	54	8,006	147	145	1.02
	S	SB	Times Sq-42 St	20	120	4,608	38	110	0.35

Source: New York City Transit, 2016

Notes:
(1) Based on existing average throughput and future anticipated capacity increases.
(2) Based on Regional Transit Forecasting Model (RTFM) outputs.
(3) Guideline capacities are based on NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service.
(4) Volume to guideline capacity ratio.

Commuter Railroad

As shown in Table 12.103 and Table 12.104, the three analyzed stairs and three analyzed escalators at the 47th Street crosspassage at Grand Central Terminal are expected to operate over practical capacity (LOS D or worse) during at least one peak hour in the With-Action condition. These include:

- Stair 9, which would operate with a v/c ratio of 1.02 (LOS D) in the AM peak hour.
- Stair 10, which would operate with a v/c ratio of 1.22 (LOS D) in the AM peak hour and a v/c ratio of 1.57 (LOS E) in the PM peak hour.
- Stair 11, which would operate at LOS E in the AM and PM peak hours with v/c ratios of 1.45 and 1.51 respectively.
- Escalators 9 and 11, which operates upward in the AM peak hour, would operate at LOS D, with v/c ratios of 1.21 and 1.29, respectively.

- Escalator 10, which also operates upward, would operate at LOS E in the AM peak hour with a v/c ratio 1.49.
- Escalators 10 and 11, which would operate at LOS E in the PM peak hour with v/c ratios of 1.43 and 1.39, respectively.
- The 47th Street crosspassage Passageway, which would operate with a v/c ratio of 1.28 (LOS D) in the AM and PM peak hours.

The width increment required to return Stair 9 to the No-Action v/c ratio would remain below the *CEQR Technical Manual* impact threshold and this stair would not be considered significantly adversely impacted as a result of new demand from the Proposed Action. Stairs 10 and 11, Escalators 9, 10, and 11, and the 47th Street crosspassage Passageway would be expected to deteriorate in exceedance of the CEQR impact thresholds as a result of the Proposed Action; however, these are not considered to be significant adverse transit impacts in the context of CEQR as the analyses of these elements has been provided for informational purposes only.

Table 12.103: With-Action Stair Analysis at the Grand Central Terminal - 47th Street Crosspassage

		No-Action								With-Action								
Peak Period	Stairway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes		Surging Factor	Friction Factor	V/C Ratio	LOS	WIT (in.)	WIT for Significant Impact (in.)
				Down	Up							Down	Up						
AM	9	4.33	3.33	4	442	0.9	1.0	0.99	C	4.33	3.33	6	453	0.9	1.0	1.02	D	1.14	8
	10	3.83	2.83	9	397	0.9	1.0	1.06	D	3.83	2.83	17	450	0.9	1.0	1.22	D	5.14	6
	11	4.75	3.75	13	677	0.95	1.0	1.29	D	4.75	3.75	22	757	0.95	1.0	1.45	E	5.75	4
PM	9	4.33	3.33	145	10	0.9	0.9	0.35	A	4.33	3.33	152	13	0.9	0.9	0.37	A	2.50	8
	10	3.83	2.83	561	15	0.9	1.0	1.36	E	3.83	2.83	636	28	0.9	1.0	1.57	E	5.17	3
	11	4.75	3.75	716	28	0.95	1.0	1.33	D	4.75	3.75	805	41	0.95	1.0	1.51	E	6.15	3

Notes:
Methodology based on *CEQR Technical Manual* guidelines.
Surging factors only apply to pedestrian volumes in the up direction. The surge factor for pedestrians moving downward is 1.0.

Table 12.104: With-Action Escalator Analysis at the Grand Central Terminal - 47th Street Crosspassage

		No-Action							With-Action						
Peak Period	Escalator	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS	Width (in.)	Treads Per Minute	Guideline Capacity	15-Minute Pedestrian Volumes	Surging Factor	V/C Ratio	LOS
AM	9 (UP)	40	90	945	1001	0.9	1.18	D	40	90	945	1027	0.9	1.21	D
	10 (UP)	40	90	945	1115	0.9	1.31	D	40	90	945	1264	0.9	1.49	E
	11 (UP)	40	90	945	1033	0.95	1.15	D	40	90	945	1155	0.95	1.29	D
PM	9 (DOWN)	40	90	945	739	1.0	0.78	C	40	90	945	774	1.0	0.82	C
	10 (DOWN)	40	90	945	1197	1.0	1.27	D	40	90	945	1356	1.0	1.43	E
	11 (DOWN)	40	90	945	1171	1.0	1.24	D	40	90	945	1315	1.0	1.39	E

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Table 12.105: With-Action Passageway Analysis at the Grand Central Terminal - 47th Street Crosspassage

		No-Action								With-Action								
Peak Period	Passageway	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes EB/SB	15-Minute Pedestrian Volumes WB/NB	Surging Factor	Friction Factor	V/C Ratio	LOS	Width (ft.)	Effective Width (ft.)	15-Minute Pedestrian Volumes EB/SB	15-Minute Pedestrian Volumes WB/NB	Surging Factor	Friction Factor	V/C Ratio	LOS	WIT (in.)	WIT for Significant Impact (in.)
AM	47th Street Crosspassage	22.00	15.50	2147	1369	0.9	0.9	1.20	D	22.00	15.50	2385	1379	0.9	0.9	1.28	D	13.1	10
	To 48th Street	18.33	15.00	13	1710	0.9	1.0	0.51	B	18.33	15.00	22	1912	0.9	1.0	0.57	B	--	--
PM	47th Street Crosspassage	22.00	15.50	1508	2061	0.9	0.9	1.19	D	22.00	15.50	1524	2336	0.9	0.9	1.28	D	15.2	10
	To 48th Street	18.33	15.00	1887	28	0.9	1.0	0.63	B	18.33	15.00	2120	41	0.9	1.0	0.71	C	--	--

Notes:
Methodology based on *CEQR Technical Manual* guidelines.

Bus

The Proposed Action would result in fewer than 50 peak hour trips being assigned to a single local or express bus route, as detailed in Section 12.2, "Level 2 Screening Assessment." Therefore, a detailed analysis is not warranted and the Proposed Action is not expected to result in any significant bus impacts.

12.5 Pedestrians

Existing Conditions

East Midtown is characterized by heavy peak period pedestrian flows, especially along corridors providing access to area subway stations and Grand Central Terminal. As shown on Figure 12-6 and discussed previously, a total of 67 sidewalks, 48 crosswalks, and 121 corner reservoir areas located in proximity to Projected Development Sites, and along corridors connecting these sites to area transit services, were selected for analysis. These pedestrian elements are generally concentrated along the Lexington Avenue, Madison Avenue, and Third Avenue corridors in proximity to Projected Development Sites and subway/commuter rail station entrances. Selected locations along Second Avenue, Fifth Avenue, Park Avenue and nearby cross-streets in the vicinity of Projected Development Sites were also analyzed.

Sidewalks

Pedestrian flows within the study area tend to be highest along the East 42nd Street and Lexington Avenue corridors, especially in the vicinity of Grand Central Terminal and major subway station entrances. As shown in Table 12.106 through Table 12.108, sidewalks within East Midtown vary in effective width from approximately 3 feet to 16.5 feet. Narrower sidewalks are generally found along Lexington and Madison Avenues and the cross streets, and wider sidewalks are generally found along Fifth Avenue and East 42nd Street. Typical sidewalk obstructions can reduce the effective width available for pedestrian flow; in East Midtown, these include street furniture such as sign posts, traffic signal and lamp posts, fire hydrants, newspaper dispensers and waste receptacles, larger features such as newsstands and subway stairs, as well as street vendors.

Table 12.106 through Table 12.108 shows the existing peak hour pedestrian volumes, average pedestrian space (in square feet per pedestrian or SFP) and platoon-adjusted levels of service at analyzed sidewalks. As shown in Table 12.106 through Table 12.108, of the 67 analyzed sidewalks congested LOS D, E or F conditions are found at 15 sidewalks during the weekday AM peak hour, 19 sidewalks during the Midday, and 18 sidewalks during the PM peak hour.

Table 12.106: Existing Sidewalk Conditions in the AM Peak Hour

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
E 39th Street between 5th Avenue and Madison Avenue	North	5	982	0.85	67.7	C
E 40th Street between 5th Avenue and Madison Avenue	South	5.5	1,285	0.77	51.1	C
	North	9	1,715	0.82	67.6	C
Madison Avenue between E 40th Street and E 41st Street	West	9	2,572	0.90	48.8	C
E 41st Street between 5th Avenue and Madison Avenue	South	6	942	0.92	92.2	B
E 43rd Street between 5th Avenue and Madison Avenue	North	4	1,834	0.94	30.6	D
E 44th Street between 5th Avenue and Madison Avenue	South	5.5	1,214	0.84	59.3	C
	North	4.5	1,038	0.90	61.2	C
Madison Avenue between E 44th Street and E 45th Street	West	4	1,325	0.96	44.6	C
E 45th Street between 5th Avenue and Madison Avenue	South	5.5	1,347	0.93	59.4	C
	North	4.5	1,109	0.89	56.2	C
E 46th Street between 5th Avenue and Madison Avenue	South	4	1,730	0.88	31.1	D
E 53rd Street between 5th Avenue and Madison Avenue	South	9.5	904	0.89	147.7	B
	North	13	613	0.81	272.2	B
Vanderbilt Avenue between E 43rd Street and E 44th Street	East	4	1,096	0.80	45.3	C
E 43rd Street between Madison Avenue and Vanderbilt Avenue	North	3.5	1,062	0.79	40.1	C
Vanderbilt Avenue between E 44th Street and E 45th Street	East	9.5	1,667	0.89	79.7	C
Park Avenue between E 40th Street and E 41st Street	East	12	1,856	0.86	87.1	C
	West	9	3,250	0.93	39.5	D
Park Avenue between E 46th Street and E 47th Street	West	7	1,646	0.79	52.2	C
Park Avenue between E 49th Street and E 50th Street	West	7	1,976	0.83	45.6	C
E 40th Street between Lexington Avenue and 3rd Avenue	North	8	876	0.88	126.3	B
E 41st Street between Lexington Avenue and 3rd Avenue	South	7.5	1,713	0.92	63.2	C
E 42nd Street between Lexington Avenue and 3rd Avenue	North	9	2,296	0.84	50.9	C
Lexington Avenue between E 42nd Street and E 43rd Street	West	6.5	2,694	0.92	33.5	D
Lexington Avenue between E 43rd Street and E 44th Street	East	10	3,612	0.96	40.8	C
	West	7	4,634	0.91	19.3	E
E 43rd Street between Lexington Avenue and 3rd Avenue	North	7.5	1,354	0.84	73.0	C
	South	7.5	1,991	0.93	54.6	C

Note: SFP = square feet per pedestrian

Table 12.106: Existing Sidewalk Conditions in the AM Peak Hour (Continued)

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
Lexington Avenue between E 44th Street and E 45th Street	East	4.5	2,227	0.84	25.0	D
	West	5	2,402	0.86	26.6	D
E 44th Street between Lexington Avenue and 3rd Avenue	North	5.5	1,260	0.82	55.6	C
	South	12	1,769	0.87	92.8	B
Lexington Avenue between E 45th Street and E 46th Street	East	6	2,390	0.98	37.6	D
	West	9	1,686	0.91	75.9	C
Lexington Avenue between E 46th Street and E 47th Street	East	4.5	1,646	0.85	35.5	D
	West	5.5	1,344	0.91	58.3	C
E 46th Street between Lexington Avenue and 3rd Avenue	North	5	802	0.85	83.3	C
Lexington Avenue between E 47th Street and E 48th Street	East	4.5	1,419	0.88	42.9	C
E 47th Street between Lexington Avenue and 3rd Avenue	South	4	593	0.88	93.1	B
Lexington Avenue between E 48th Street and E 49th Street	East	3	1,393	0.90	28.8	D
	West	5	306	0.64	164.7	B
E 48th Street between Park Avenue and Lexington Avenue	North	6.5	746	0.83	113.4	B
Lexington Avenue between E 49th Street and E 50th Street	East	3	1,662	0.90	23.7	D
	West	5	316	0.93	232.7	B
E 49th Street between Lexington Avenue and 3rd Avenue	North	6	491	0.89	171.9	B
E 49th Street between Park Avenue and Lexington Avenue	South	6	420	0.90	202.8	B
Lexington Avenue between E 50th Street and E 51st Street	East	6	1,997	0.87	40.1	C
	West	5	2,847	0.89	22.4	E
E 50th Street between Lexington Avenue and 3rd Avenue	North	5	333	0.82	195.8	B
	South	5.5	351	0.76	189.1	B
Lexington Avenue between E 51st Street and E 52nd Street	East	5	2,541	0.74	22.0	E
	West	10.5	1,581	0.91	95.7	B
E 51st Street between Lexington Avenue and 3rd Avenue	North	3.5	975	0.85	47.3	C
3rd Avenue between E 42nd Street and E 43rd Street	East	7.5	1,963	0.88	52.0	C
3rd Avenue between E 43rd Street and E 44th Street	East	8.5	2,466	0.89	47.5	C
3rd Avenue between E 44th Street and E 45th Street	East	4.5	2,478	0.87	22.8	E
3rd Avenue between E 51st Street and E 52nd Street	West	8.5	1,974	0.87	58.7	C
E 52nd Street between Lexington Avenue and 3rd Avenue	South	7.5	732	0.79	127.6	B
	North	7.5	679	0.57	99.8	B
3rd Avenue between E 52nd Street and E 53rd Street	East	6	3,112	0.89	25.1	D
	West	9	1,522	0.87	80.9	C
3rd Avenue between E 53rd Street and E 54th Street	West	7.5	1,574	0.85	63.4	C
3rd Avenue between E 55th Street and 56th Street	West	9	1,282	0.77	85.5	C
E 42nd Street between 3rd Avenue and 2nd Avenue	North	10.5	1,580	0.86	89.6	C
2nd Avenue between E 42nd Street and E 43rd Street	West	7	1,175	0.95	88.8	C
E 43rd Street between 3rd Avenue and 2nd Avenue	South	16.5	688	0.69	263.3	B

Note: SFP = square feet per pedestrian

Table 12.107: Existing Sidewalk Conditions in the Midday Peak Hour

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
E 39th Street between 5th Avenue and Madison Avenue	North	5	1,032	0.96	72.6	C
E 40th Street between 5th Avenue and Madison Avenue	South	5.5	2,437	0.91	30.9	D
	North	9	1,834	0.94	72.0	C
Madison Avenue between E 40th Street and E 41st Street	West	9	3,791	0.91	32.4	D
E 41st Street between 5th Avenue and Madison Avenue	South	6	1,504	0.95	59.2	C
E 43rd Street between 5th Avenue and Madison Avenue	North	4	1,209	0.89	45.4	C
E 44th Street between 5th Avenue and Madison Avenue	South	5.5	1,502	0.98	55.6	C
	North	4.5	994	0.94	67.0	C
Madison Avenue between E 44th Street and E 45th Street	West	4	2,199	0.81	20.9	E
E 45th Street between 5th Avenue and Madison Avenue	South	5.5	2,090	0.91	36.4	D
	North	4.5	1,330	0.94	49.3	C
E 46th Street between 5th Avenue and Madison Avenue	South	4	1,946	0.93	29.0	D
E 53rd Street between 5th Avenue and Madison Avenue	South	9.5	1,076	0.91	126.2	B
	North	13	1,030	0.81	162.1	B
Vanderbilt Avenue between E 43rd Street and E 44th Street	East	4	1,037	0.94	56.2	C
E 43rd Street between Madison Avenue and Vanderbilt Avenue	North	3.5	1,091	0.96	47.5	C
Vanderbilt Avenue between E 44th Street and E 45th Street	East	9.5	1,550	0.95	91.8	B
Park Avenue between E 40th Street and E 41st Street	East	12	1,171	0.91	147.7	B
	West	9	2,450	0.99	56.5	C
Park Avenue between E 46th Street and E 47th Street	West	7	1,660	0.57	36.5	D
Park Avenue between E 49th Street and E 50th Street	West	7	1,910	0.87	49.5	C
E 40th Street between Lexington Avenue and 3rd Avenue	North	8	969	0.95	123.3	B
E 41st Street between Lexington Avenue and 3rd Avenue	South	7.5	1,504	0.93	72.4	C
E 42nd Street between Lexington Avenue and 3rd Avenue	North	9	2,095	0.95	64.0	C
Lexington Avenue between E 42nd Street and E 43rd Street	West	6.5	2,878	0.96	32.6	D
Lexington Avenue between E 43rd Street and E 44th Street	East	10	3,237	0.94	44.9	C
	West	7	3,032	0.97	34.0	D
E 43rd Street between Lexington Avenue and 3rd Avenue	North	7.5	1,314	0.93	83.0	C
	South	7.5	1,420	0.85	70.6	C

Note: SFP = square feet per pedestrian

Table 12.107: Existing Sidewalk Conditions in the Midday Peak Hour (Continued)

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
Lexington Avenue between E 44th Street and E 45th Street	East	4.5	2,766	0.93	21.8	E
	West	5	2,592	0.94	26.8	D
E 44th Street between Lexington Avenue and 3rd Avenue	North	5.5	1,015	0.87	73.9	C
	South	12	1,631	0.88	102.4	B
Lexington Avenue between E 45th Street and E 46th Street	East	6	2,791	0.96	31.0	D
	West	9	2,197	0.91	13.1	E
Lexington Avenue between E 46th Street and E 47th Street	East	4.5	2,219	0.94	28.4	D
	West	5.5	2,037	0.89	36.8	D
E 46th Street between Lexington Avenue and 3rd Avenue	North	5	752	0.92	96.0	B
Lexington Avenue between E 47th Street and E 48th Street	East	4.5	1,419	0.88	42.9	C
E 47th Street between Lexington Avenue and 3rd Avenue	South	4	646	0.93	91.0	B
Lexington Avenue between E 48th Street and E 49th Street	East	3	1,398	0.98	31.6	D
	West	5	262	0.74	224.8	B
E 48th Street between Park Avenue and Lexington Avenue	North	6.5	674	0.94	142.6	B
Lexington Avenue between E 49th Street and E 50th Street	East	3	1,493	0.90	26.7	D
	West	5	715	0.61	66.8	C
E 49th Street between Lexington Avenue and 3rd Avenue	North	6	579	0.81	133.1	B
E 49th Street between Park Avenue and Lexington Avenue	South	6	590	0.87	140.2	B
Lexington Avenue between E 50th Street and E 51st Street	East	6	1,703	0.91	49.6	C
	West	5	2,224	0.83	27.6	D
E 50th Street between Lexington Avenue and 3rd Avenue	North	5	867	0.92	83.3	C
	South	5.5	255	0.81	275.5	B
Lexington Avenue between E 51st Street and E 52nd Street	East	5	2,639	0.92	26.5	D
	West	10.5	1,825	0.89	80.7	C
E 51st Street between Lexington Avenue and 3rd Avenue	North	3.5	933	0.89	51.9	C
3rd Avenue between E 42nd Street and E 43rd Street	East	7.5	2,404	0.90	43.4	C
3rd Avenue between E 43rd Street and E 44th Street	East	8.5	2,384	0.93	51.6	C
3rd Avenue between E 44th Street and E 45th Street	East	4.5	2,380	0.84	23.1	D
3rd Avenue between E 51st Street and E 52nd Street	West	8.5	2,391	0.90	49.5	C
E 52nd Street between Lexington Avenue and 3rd Avenue	South	7.5	1,826	0.89	56.7	C
	North	7.5	1,176	0.88	88.0	C
3rd Avenue between E 52nd Street and E 53rd Street	East	6	1,732	0.92	49.6	C
	West	9	2,157	0.88	57.3	C
3rd Avenue between E 53rd Street and E 54th Street	West	7.5	2,147	0.93	50.2	C
3rd Avenue between E 55th Street and 56th Street	West	9	1,282	0.77	85.5	C
E 42nd Street between 3rd Avenue and 2nd Avenue	North	10.5	1,450	0.88	100.4	B
2nd Avenue between E 42nd Street and E 43rd Street	West	7	1,175	0.95	88.8	C
E 43rd Street between 3rd Avenue and 2nd Avenue	South	16.5	557	0.80	377.5	B

Note: SFP = square feet per pedestrian

Table 12.108: Existing Sidewalk Conditions in the PM Peak Hour

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
E 39th Street between 5th Avenue and Madison Avenue	North	5	1,067	0.88	64.3	C
E 40th Street between 5th Avenue and Madison Avenue	South	5.5	1,656	0.93	47.6	C
	North	9	1,731	0.95	77.5	C
Madison Avenue between E 40th Street and E 41st Street	West	9	2,454	0.97	55.2	C
E 41st Street between 5th Avenue and Madison Avenue	South	6	1,240	0.96	72.8	C
E 43rd Street between 5th Avenue and Madison Avenue	North	4	2,070	0.87	24.7	D
E 44th Street between 5th Avenue and Madison Avenue	South	5.5	1,271	0.89	59.9	C
	North	4.5	1,351	0.94	48.5	C
Madison Avenue between E 44th Street and E 45th Street	West	4	2,081	0.96	15.4	E
E 45th Street between 5th Avenue and Madison Avenue	South	5.5	1,623	0.90	47.3	C
	North	4.5	1,706	0.94	37.8	D
E 46th Street between 5th Avenue and Madison Avenue	South	4	1,331	0.95	14.0	E
E 53rd Street between 5th Avenue and Madison Avenue	South	9.5	1,120	0.92	123.3	B
	North	13	785	0.86	225.5	B
Vanderbilt Avenue between E 43rd Street and E 44th Street	East	4	1,150	0.90	48.4	C
E 43rd Street between Madison Avenue and Vanderbilt Avenue	North	3.5	1,538	0.86	29.1	D
Vanderbilt Avenue between E 44th Street and E 45th Street	East	9.5	2,429	0.93	56.4	C
Park Avenue between E 40th Street and E 41st Street	East	12	2,068	0.84	76.9	C
	West	9	2,900	0.91	43.4	C
Park Avenue between E 46th Street and E 47th Street	West	7	1,493	0.92	67.7	C
Park Avenue between E 49th Street and E 50th Street	West	7	1,811	0.91	54.7	C
E 40th Street between Lexington Avenue and 3rd Avenue	North	8	81 1	0.90	139.8	B
E 41st Street between Lexington Avenue and 3rd Avenue	South	7.5	801	0.87	128.7	B
E 42nd Street between Lexington Avenue and 3rd Avenue	North	9	2,481	0.95	53.5	C
Lexington Avenue between E 42nd Street and E 43rd Street	West	6.5	3,468	0.91	25.0	D
Lexington Avenue between E 43rd Street and E 44th Street	East	10	2,842	0.95	51.8	C
	West	7	5,840	1.00	16.1	E
E 43rd Street between Lexington Avenue and 3rd Avenue	North	7.5	1,071	0.94	103.3	B
	South	7.5	1,309	0.89	80.0	C

Note: SFP = square feet per pedestrian

Table 12.108: Existing Sidewalk Conditions in the PM Peak Hour (Continued)

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
Lexington Avenue between E 44th Street and E 45th Street	East	4.5	2,164	0.91	28.1	D
	West	5	3,079	0.93	21.8	E
E 44th Street between Lexington Avenue and 3rd Avenue	North	5.5	920	0.91	85.5	C
	South	12	2,125	0.92	81.3	C
Lexington Avenue between E 45th Street and E 46th Street	East	6	2,192	0.98	41.0	C
	West	9	2,188	0.95	14.1	E
Lexington Avenue between E 46th Street and E 47th Street	East	4.5	1,967	0.84	28.8	D
	West	5.5	898	0.71	68.1	C
E 46th Street between Lexington Avenue and 3rd Avenue	North	5	799	0.89	87.4	C
Lexington Avenue between E 47th Street and E 48th Street	East	4.5	1,419	0.88	42.9	C
E 47th Street between Lexington Avenue and 3rd Avenue	South	4	606	0.96	99.7	B
Lexington Avenue between E 48th Street and E 49th Street	East	3	1,845	0.82	18.4	E
	West	5	323	0.89	217.3	B
E 48th Street between Park Avenue and Lexington Avenue	North	6.5	797	0.95	122.7	B
Lexington Avenue between E 49th Street and E 50th Street	East	3	2,092	0.91	18.0	E
	West	5	573	0.76	104.2	B
E 49th Street between Lexington Avenue and 3rd Avenue	North	6	584	0.86	139.4	B
E 49th Street between Park Avenue and Lexington Avenue	South	6	533	0.92	163.5	B
Lexington Avenue between E 50th Street and E 51st Street	East	6	2,342	0.89	34.5	D
	West	5	2,061	0.92	34.0	D
E 50th Street between Lexington Avenue and 3rd Avenue	North	5	916	0.90	77.3	C
	South	5.5	449	0.89	172.5	B
Lexington Avenue between E 51st Street and E 52nd Street	East	5	2,517	0.96	25.3	D
	West	10.5	1,709	0.95	92.2	B
E 51st Street between Lexington Avenue and 3rd Avenue	North	3.5	943	0.93	53.6	C
3rd Avenue between E 42nd Street and E 43rd Street	East	7.5	1,848	0.95	60.5	C
3rd Avenue between E 43rd Street and E 44th Street	East	8.5	2,080	0.92	58.4	C
3rd Avenue between E 44th Street and E 45th Street	East	4.5	2,136	0.94	29.5	D
3rd Avenue between E 51st Street and E 52nd Street	West	8.5	2,103	0.89	56.2	C
E 52nd Street between Lexington Avenue and 3rd Avenue	South	7.5	682	0.80	139.0	B
	North	7.5	718	0.92	152.0	B
3rd Avenue between E 52nd Street and E 53rd Street	East	6	2,858	0.97	30.5	D
	West	9	2,002	0.93	65.1	C
3rd Avenue between E 53rd Street and E 54th Street	West	7.5	1,722	0.91	62.1	C
3rd Avenue between E 55th Street and 56th Street	West	9	1,282	0.77	85.5	C
E 42nd Street between 3rd Avenue and 2nd Avenue	North	10.5	1,474	0.85	95.9	B
2nd Avenue between E 42nd Street and E 43rd Street	West	7	1,175	0.95	88.8	C
E 43rd Street between 3rd Avenue and 2nd Avenue	South	16.5	849	0.94	288.9	B

Note: SFP = square feet per pedestrian

Crosswalks

With the exception of some stop-controlled locations along Vanderbilt Avenue, intersections within the study area are generally signalized and include pedestrian signals. Analyzed crosswalks generally range from 10 to 21 feet in width, with wider crosswalks typically found at intersections along Fifth and Third Avenues. With the exception of some intersections along Third Avenue, most analyzed crosswalks feature high visibility striping. Table 12.109 through Table 12.111 show the peak hour volumes, average pedestrian space (in square feet per pedestrian or SFP) and levels of service at analyzed crosswalks. As shown in Table 12.109 through Table 12.111, of the 48 crosswalks analyzed, LOS D, E or F operations are found at 15 crosswalks during the weekday AM peak hour, 14 crosswalks during the Midday and 13 crosswalks during the PM peak hour.

Table 12.109: Existing Crosswalk Conditions in the AM Peak Hour

Intersection	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	Two-way Peak Hour Volume	SFP	LOS
5th Avenue and 42nd Street	North	55	21	1,365	27.5	C
5th Avenue and 43rd Street	East	34	20	2,071	30.8	C
Madison Avenue and E 41st Street	West	34	16	2,139	24.5	C
Madison Avenue and E 43rd Street	North	54	13	1,529	16.1	D
	West	33.5	12	1,367	21.9	D
Madison Avenue and E 45th Street	South	54	13	1,160	22.1	D
Madison Avenue and E 53rd Street	North	55	15	1,289	21.3	D
	South	54	14.5	727	38.6	C
	West	35	14.5	984	36.9	C
Vanderbilt Avenue and E 43rd Street	North	33.5	13.5	1,088	Unsignalized	
Park Avenue Southbound and E 46th Street	West	30.5	14	1,836	18.5	D
Park Avenue Southbound and E 50th Street	West	30	14	2,181	14.4	E
Lexington Avenue and E 42nd Street	North	51	20	1,703	25.2	C
	East	60	13	1,684	24.9	C
	West	60	15	1,582	26.4	C
Lexington Avenue and E 43rd Street	East	34	14	1,394	40.5	B
	South	40	13.5	736	26.1	C
Lexington Avenue and E 44th Street	East	37	14	2,185	50.3	B
Lexington Avenue and E 45th Street	East	36	15.5	1,373	31.7	C
	West	41	10.5	1,609	19.5	D
Lexington Avenue and E 46th Street	East	32	14	1,607	27.1	C
	West	32	14	1,508	28.8	C
Lexington Avenue and E 47th Street	East	28	10	999	27.5	C
	South	52.5	14.5	489	26.6	C
Lexington Avenue and E 48th Street	North	50.5	13.5	419	75.3	A
	East	34	12	1,036	33.4	C
	West	30	12	1,141	21.3	D
Lexington Avenue and E 49th Street	East	30	12	941	39.3	C
	South	51	14	298	89.3	A
	West	30	10.5	713	37.1	C
Lexington Avenue and E 50th Street	North	51.5	12	1,218	20.7	D
	East	34	12	1,618	19.6	D
	West	34	16	1,728	26.7	C
Lexington Avenue and E 51st Street	North	51	14	1,692	14.9	E
Lexington Avenue and E 52nd Street	East	35.5	15	1,455	26.3	C
	West	34	18	1,333	36.8	C
3rd Avenue and E 42nd Street	North	69.5	20	422	36.5	C
	East	59	18	660	44.5	B
	South	70	20	871	60.6	A
	West	59	15	693	37.0	C
3rd Avenue and E 43rd Street	East	34	15	2,139	18.2	D
	South	70.5	15.5	1,620	21.7	D
3rd Avenue and E 44th Street	East	35	15.5	2,097	16.6	D
3rd Avenue and E 52nd Street	West	41	12.5	701	42.7	B
3rd Avenue and E 53rd Street	West	35.5	13.5	1,087	23.8	D
3rd Avenue and E 54th Street	West	33	16	428	86.2	A
3rd Avenue and E 55th Street	West	34	11.5	175	135.7	A
2nd Avenue and E 42nd Street	West	60	20	947	66.3	A

Note: SFP = square feet per pedestrian

Table 12.110: Existing Crosswalk Conditions in the Midday Peak Hour

Intersection	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	Two-way Peak Hour Volume	SFP	LOS
5th Avenue and 42nd Street	North	55	21	1,037	46.4	B
5th Avenue and 43rd Street	East	34	20	2,829	23.6	D
Madison Avenue and E 41st Street	West	34	16	2,433	16.6	D
Madison Avenue and E 43rd Street	North	54	13	980	26.7	C
	West	33.5	12	1,737	21.0	D
Madison Avenue and E 45th Street	South	54	13	1,613	15.4	D
Madison Avenue and E 53rd Street	North	55	15	1,210	25.9	C
	South	54	14.5	1,013	30.9	C
	West	35	14.5	1,375	32.4	C
Vanderbilt Avenue and E 43rd Street	North	33.5	13.5	334	Unsignalized	
Park Avenue Southbound and E 46th Street	West	30.5	14	1,370	28.8	C
Park Avenue Southbound and E 50th Street	West	30	14	1,849	20.7	D
Lexington Avenue and E 42nd Street	North	51	20	1,674	30.4	C
	East	60	13	1,812	24.8	C
	West	60	15	1,227	43.2	B
Lexington Avenue and E 43rd Street	East	34	14	1,715	34.3	C
	South	40	13.5	1,052	21.4	D
Lexington Avenue and E 44th Street	East	37	14	2,145	59.9	B
Lexington Avenue and E 45th Street	East	36	15.5	1,832	30.6	C
	West	41	10.5	1,308	22.2	D
Lexington Avenue and E 46th Street	East	32	14	2,061	19.3	D
	West	32	14	1,909	26.0	C
Lexington Avenue and E 47th Street	East	28	10	1,570	17.9	D
	South	52.5	14.5	748	14.8	E
Lexington Avenue and E 48th Street	North	50.5	13.5	480	66.1	A
	East	34	12	1,117	34.3	C
	West	30	12	1,017	35.9	C
Lexington Avenue and E 49th Street	East	30	12	964	44.6	B
	South	51	14	410	75.0	A
	West	30	10.5	767	43.5	B
Lexington Avenue and E 50th Street	North	51.5	12	1,013	26.8	C
	East	34	12	1,608	22.3	D
	West	34	16	1,299	42.2	B
Lexington Avenue and E 51st Street	North	51	14	1,198	32.5	C
Lexington Avenue and E 52nd Street	East	35.5	15	1,279	36.0	C
	West	34	18	1,694	30.9	C
3rd Avenue and E 42nd Street	North	69.5	20	742	22.8	D
	East	59	18	751	52.6	B
	South	70	20	1,293	47.8	B
	West	59	15	931	32.5	C
3rd Avenue and E 43rd Street	East	34	15	1,857	22.2	D
	South	70.5	15.5	1,177	33.1	C
3rd Avenue and E 44th Street	East	35	15.5	1,378	27.6	C
3rd Avenue and E 52nd Street	West	41	12.5	967	34.7	C
3rd Avenue and E 53rd Street	West	35.5	13.5	1,714	17.2	D
3rd Avenue and E 54th Street	West	33	16	747	61.0	A
3rd Avenue and E 55th Street	West	34	11.5	422	75.2	A
2nd Avenue and E 42nd Street	West	60	20	864	69.8	A

Note: SFP = square feet per pedestrian

Table 12.111: Existing Crosswalk Conditions in the PM Peak Hour

Intersection	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	Two-way Peak Hour Volume	SFP	LOS
5th Avenue and 42nd Street	North	55	21	1,454	33.4	C
5th Avenue and 43rd Street	East	34	20	3,204	17.6	D
Madison Avenue and E 41st Street	West	34	16	2,197	23.6	D
Madison Avenue and E 43rd Street	North	54	13	1,755	14.1	E
	West	33.5	12	2,081	14.6	E
Madison Avenue and E 45th Street	South	54	13	1,894	13.8	E
Madison Avenue and E 53rd Street	North	55	15	1,084	31.1	C
	South	54	14.5	1,058	31.0	C
	West	35	14.5	1,380	32.4	C
Vanderbilt Avenue and E 43rd Street	North	33.5	13.5	203	Unsignalized	
Park Avenue Southbound and E 46th Street	West	30.5	14	1,944	17.5	D
Park Avenue Southbound and E 50th Street	West	30	14	1,885	20.1	D
Lexington Avenue and E 42nd Street	North	51	20	2,078	22.3	D
	East	60	13	1,598	24.0	D
	West	60	15	1,280	34.0	C
Lexington Avenue and E 43rd Street	East	34	14	1,616	31.4	C
	South	40	13.5	1,270	15.1	D
Lexington Avenue and E 44th Street	East	37	14	1,668	71.4	A
Lexington Avenue and E 45th Street	East	36	15.5	1,154	48.1	B
	West	41	10.5	1,560	20.5	D
Lexington Avenue and E 46th Street	East	32	14	1,566	26.6	C
	West	32	14	1,448	32.4	C
Lexington Avenue and E 47th Street	East	28	10	1,013	28.2	C
	South	52.5	14.5	476	19.9	D
Lexington Avenue and E 48th Street	North	50.5	13.5	550	62.2	A
	East	34	12	1,134	29.3	C
	West	30	12	1,013	35.5	C
Lexington Avenue and E 49th Street	East	30	12	1,038	34.8	C
	South	51	14	351	77.1	A
	West	30	10.5	968	31.0	C
Lexington Avenue and E 50th Street	North	51.5	12	977	31.7	C
	East	34	12	1,645	20.1	D
	West	34	16	1,520	31.5	C
Lexington Avenue and E 51st Street	North	51	14	1,366	24.8	C
Lexington Avenue and E 52nd Street	East	35.5	15	1,349	31.4	C
	West	34	18	1,321	43.3	B
3rd Avenue and E 42nd Street	North	69.5	20	470	39.2	C
	East	59	18	556	65.2	A
	South	70	20	803	66.8	A
	West	59	15	551	57.9	B
3rd Avenue and E 43rd Street	East	34	15	1,781	24.2	C
	South	70.5	15.5	1,127	31.4	C
3rd Avenue and E 44th Street	East	35	15.5	1,511	27.8	C
3rd Avenue and E 52nd Street	West	41	12.5	738	48.1	B
3rd Avenue and E 53rd Street	West	35.5	13.5	1,242	25.3	C
3rd Avenue and E 54th Street	West	33	16	466	81.0	A
3rd Avenue and E 55th Street	West	34	11.5	153	160.3	A
2nd Avenue and E 42nd Street	West	60	20	708	69.7	A

Note: SFP = square feet per pedestrian

Corner Areas

Table 12.112 shows the peak hour volumes, average pedestrian space (in SFP) and levels of service at analyzed corner areas. As shown in Table 12.112, of the 121 analyzed corner areas, LOS D, E, or F operations are found at 17 locations during the weekday AM peak hour, 18 locations during the Midday, and 14 locations during the PM peak hour.

Table 12.112: Existing Corner Conditions

Intersection	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
5th Avenue and 42nd Street	Northeast	127.7	A	142.0	A	123.6	A
	Southeast	81.3	A	106.8	A	63.7	A
	Southwest	79.2	A	110.0	A	63.1	A
	Northwest	113.6	A	155.5	A	99.7	A
5th Avenue and 43rd Street	Northeast	46.6	B	45.3	B	29.1	C
	Southeast	40.8	B	41.4	B	30.2	C
	Southwest	50.0	B	43.6	B	31.7	C
	Northwest	46.9	B	42.9	B	22.6	D
5th Avenue and 44th Street	Northwest	60.0	A	41.5	B	31.6	C
	Southeast	46.2	B	40.4	B	33.7	C
	Southwest	64.8	A	46.1	B	39.8	C
5th Avenue and 45th Street	Southeast	50.3	B	36.7	C	38.2	C
Madison Avenue and E 40th Street	Southwest	30.1	C	25.9	C	39.3	C
	Northwest	27.4	C	27.5	C	37.3	C
Madison Avenue and E 41th Street	Southwest	32.4	C	16.4	D	28.0	C
	Northwest	73.1	A	58.3	B	71.2	A
Madison Avenue and E 42nd Street	Northeast	25.1	C	42.9	B	30.3	C
	Southwest	145.9	A	184.0	A	130.6	A
	Northwest	23.4	D	29.3	C	16.7	D
Madison Avenue and E 43rd Street	Northeast	14.4	E	22.5	D	16.9	D
	Southwest	25.9	C	29.7	C	20.4	D
	Northwest	28.3	C	28.2	C	11.4	E
Madison Avenue and E 44th Street	Southwest	25.1	C	20.5	D	16.5	D
	Northwest	43.4	B	43.4	B	30.4	C
Madison Avenue and E 45th Street	Northeast	13.7	E	14.2	E	8.5	E
	Southeast	37.5	C	27.3	C	20.7	D
	Southwest	27.0	C	17.0	D	15.9	D
	Northwest	34.4	C	30.6	C	25.9	C
Madison Avenue and E 46th Street	Southwest	30.9	C	22.5	D	31.3	C
Madison Avenue and E 53rd Street	Southwest	64.5	A	52.9	B	54.3	B
	Northwest	126.0	A	118.5	A	128.7	A
Vanderbilt Avenue and E 43rd Street	Northwest	102.9	A	144.9	A	114.7	A
Park Avenue Northbound and E 41st Street	Northeast	42.0	B	48.1	B	32.1	C
	Southeast	91.3	A	114.5	A	72.2	A
Park Avenue Southbound and E 46th Street	Southwest	48.4	B	61.4	A	58.0	B
	Northwest	39.1	C	39.4	C	31.6	C

Note: SFP = square feet per pedestrian

Table 12.112: Existing Corner Conditions (Continued)

Intersection	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
Park Avenue Southbound and E 47th Street	Southwest	25.8	C	30.3	C	34.5	C
Park Avenue Southbound and E 48th Street	Northwest	35.6	C	32.7	C	34.7	C
Park Avenue Northbound and E 48th Street	Northeast	23.9	D	35.7	C	29.7	C
Park Avenue Southbound and E 49th Street	Southwest	30.5	C	44.4	B	30.8	C
	Northwest	17.9	D	40.1	B	35.3	C
Park Avenue Northbound and E 49th Street	Northeast	29.6	C	36.7	C	32.6	C
	Southeast	46.7	B	47.4	B	34.8	C
Park Avenue Southbound and E 50th Street	Southwest	30.1	C	37.3	C	34.1	C
	Northwest	34.4	C	42.2	B	37.4	C
Lexington Avenue and E 41st Street	Southeast	28.0	C	19.7	D	32.5	C
	Southwest	8.8	E	13.7	E	18.5	D
Lexington Avenue and E 42nd Street	Northeast	39.3	C	39.9	C	30.5	C
	Southeast	20.5	D	38.5	C	29.5	C
	Southwest	25.1	C	38.8	C	24.5	C
	Northwest	23.9	D	36.8	C	30.0	C
Lexington Avenue and E 43rd Street	Northeast	62.5	A	51.0	B	54.7	B
	Southeast	37.6	C	30.2	C	22.4	D
Lexington Avenue and E 44th Street	Northeast	28.1	C	30.4	C	34.9	C
	Southeast	66.0	A	76.9	A	77.7	A
Lexington Avenue and E 45th Street	Northeast	27.6	C	12.2	E	28.1	C
	Southeast	20.3	D	11.8	E	26.0	C
	Southwest	15.1	D	12.0	E	22.4	D
	Northwest	41.8	B	24.4	C	37.1	C
Lexington Avenue and E 46th Street	Northeast	31.5	C	18.5	D	24.2	C
	Southeast	24.4	C	15.4	D	25.8	C
	Southwest	34.4	C	28.8	C	41.7	B
	Northwest	38.6	C	29.5	C	36.1	C
Lexington Avenue and E 47th Street	Northeast	51.2	B	29.5	C	57.0	B
	Southeast	55.3	B	32.6	C	49.1	B
	Southwest	48.8	B	29.2	C	54.4	B
	Northwest	40.2	B	22.9	D	50.1	B
Lexington Avenue and E 48th Street	Northeast	54.2	B	50.0	B	46.0	B
	Southeast	40.4	B	36.9	C	34.3	C
	Southwest	41.0	B	50.9	B	59.3	B
	Northwest	29.2	C	43.1	B	42.4	B
Lexington Avenue and E 49th Street	Northeast	54.5	B	67.4	A	59.8	B
	Southeast	60.2	A	57.5	B	48.3	B
	Southwest	72.0	A	68.5	A	58.1	B
	Northwest	52.3	B	74.3	A	53.2	B
Lexington Avenue and E 50th Street	Northeast	17.9	D	23.7	D	25.8	C
	Southeast	30.7	C	34.3	C	30.6	C
	Southwest	25.1	C	39.9	C	30.4	C
	Northwest	22.9	D	35.1	C	30.7	C

Note: SFP = square feet per pedestrian

Table 12.112: Existing Corner Conditions (Continued)

Intersection	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
Lexington Avenue and E 51st Street	Northeast	14.1	E	29.8	C	24.1	C
	Southeast	20.1	D	28.0	C	26.2	C
	Southwest	28.2	C	20.3	D	39.3	C
	Northwest	48.9	B	55.2	B	69.1	A
Lexington Avenue and E 52nd Street	Northeast	133.9	A	147.7	A	178.6	A
	Southeast	36.0	C	30.7	C	49.1	B
	Southwest	74.5	A	51.0	B	87.1	A
	Northwest	432.8	A	397.3	A	567.4	A
Lexington Avenue and E 53rd Street	Southeast	219.8	A	140.2	A	189.0	A
3rd Avenue and E 42nd Street	Northeast	163.4	A	124.6	A	203.1	A
	Southeast	103.4	A	87.8	A	114.8	A
	Southwest	95.6	A	80.4	A	129.4	A
	Northwest	138.5	A	103.2	A	193.5	A
3rd Avenue and E 43rd Street	Northeast	29.3	C	26.1	C	26.6	C
	Southeast	21.3	D	31.1	C	28.3	C
	Southwest	13.3	E	16.2	D	22.2	D
	Northwest	14.0	E	10.6	E	10.0	E
3rd Avenue and E 44th Street	Northeast	48.8	B	57.4	B	52.3	B
	Southeast	42.9	B	61.2	A	61.4	A
3rd Avenue and E 45th Street	Northeast	48.9	B	32.8	C	46.7	B
	Southeast	44.2	B	42.9	B	55.4	B
3rd Avenue and E 48th Street	Northwest	154.9	A	157.8	A	157.4	A
3rd Avenue and E 49th Street	Southwest	447.5	A	359.6	A	354.9	A
	Northwest	422.3	A	360.2	A	331.9	A
3rd Avenue and E 51st Street	Northwest	27.0	C	33.0	C	35.7	C
3rd Avenue and E 52nd Street	Northeast	88.9	A	119.7	A	103.5	A
	Southwest	73.5	A	41.4	B	68.6	A
	Northwest	72.0	A	54.9	B	85.1	A
3rd Avenue and E 53rd Street	Southeast	28.4	C	25.5	C	29.8	C
	Southwest	43.3	B	29.2	C	37.3	C
	Northwest	36.8	C	29.3	C	38.1	C
3rd Avenue and E 54th Street	Southwest	97.3	A	70.6	A	89.8	A
	Northwest	407.1	A	248.1	A	354.1	A
3rd Avenue and E 55th Street	Southwest	126.6	A	75.1	A	143.5	A
	Northwest	142.7	A	82.1	A	159.3	A
3rd Avenue and E 56th Street	Southwest	50.8	B	32.5	C	57.3	B
2nd Avenue and E 42nd Street	Northeast	150.1	A	164.3	A	120.7	A
	Southwest	43.2	B	49.1	B	47.8	B
	Northwest	195.2	A	193.0	A	182.1	A
2nd Avenue and E 43rd Street	Southeast	56.7	B	59.4	B	72.5	A
	Southwest	54.8	B	52.6	B	66.6	A
	Northwest	64.1	A	48.4	B	54.8	B

Note: SFP = square feet per pedestrian

Future Pedestrian Conditions without the Proposed Action (No-Action Condition)

Pedestrian volumes along analyzed sidewalks, crosswalks, and corner areas are expected to increase during the 2016 through 2036 period as a result of background growth, as well pedestrian trip generation from new development. In determining future No-Action pedestrian volumes, development on Projected Development Sites pursuant to existing zoning was considered, as were the 22 other No-Action development projects in the Project Area, summarized in Table 12.18. Traffic and pedestrian mitigation measures associated with these development projects were also considered for the analysis of No-Action pedestrian conditions. In addition, the No-Action pedestrian analysis incorporates new demand on the pedestrian network from the East Side Access (ESA) project which will bring LIRR riders into Grand Central Terminal. The ESA will bring new street-level entrances to the south side of East 47th Street east of Madison Avenue, the south side of East 47th Street midblock between Park and Lexington Avenues, and the north side of East 48th Street midblock between Park and Madison Avenues. As part of the transit improvements associated with the 343 Madison redevelopment in conformance with the Vanderbilt Corridor text amendment, a new entrance on the east side of Madison Avenue is proposed.

In addition to changes in pedestrian demand, it is also anticipated that substantial new pedestrian spaces will be created by DOT in East Midtown. These include:

- Pershing Square East, which is the at-grade portion of Park Avenue between East 41st and East 42nd Streets will be converted from an interim pedestrian plaza to a permanent pedestrian plaza. This street segment is already closed to traffic under existing conditions.
- Pershing Square West, which is the at-grade portion of Park Avenue between East 41st and East 42nd Streets will be converted into a pedestrian plaza. It will complement the existing Pershing Square East pedestrian plaza. This street segment is already closed to traffic under existing conditions.
- Vanderbilt Avenue between East 42nd and 43rd Streets will be closed to vehicular traffic and a pedestrian plaza will be created.

Anticipated conditions at analyzed pedestrian facilities in the No-Action condition are shown in Table 12.113 through Table 12.119 and described below.

Sidewalks

Table 12.113 through Table 12.115 show the No-Action peak hour pedestrian volumes, flow rates, and platoon-adjusted levels of service at analyzed sidewalks. As shown in Table 12.113 through Table 12.115, of the 67 analyzed sidewalks, congested LOS D, E or F conditions are expected at 19 sidewalks during the weekday AM peak hour, 22 sidewalks during the Midday, and 20 sidewalks during the PM peak hour. This compares to 15, 19, and 18 congested locations during these same periods, respectively, under the Existing Condition.

Table 12.113: No-Action Sidewalk Conditions in the AM Peak Hour

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
E 39th Street between 5th Avenue and Madison Avenue	North	5	1,019	0.85	65.2	C
E 40th Street between 5th Avenue and Madison Avenue	South	5.5	1,347	0.77	48.6	C
	North	9	1,778	0.82	65.2	C
Madison Avenue between E 40th Street and E 41st Street	West	9	2,701	0.90	46.3	C
E 41st Street between 5th Avenue and Madison Avenue	South	6	973	0.92	89.3	C
E 43rd Street between 5th Avenue and Madison Avenue	North	4	2,053	0.94	27.0	D
E 44th Street between 5th Avenue and Madison Avenue	South	5.5	1,277	0.84	56.2	C
	North	4.5	1,413	0.90	44.4	C
Madison Avenue between E 44th Street and E 45th Street	West	4	1,417	0.96	41.5	C
E 45th Street between 5th Avenue and Madison Avenue	South	5.5	1,549	0.93	51.4	C
	North	4.5	1,223	0.89	50.7	C
E 46th Street between 5th Avenue and Madison Avenue	South	4	1,871	0.88	28.4	D
E 53rd Street between 5th Avenue and Madison Avenue	South	9.5	927	0.89	144.1	B
	North	13	630	0.81	264.8	B
Vanderbilt Avenue between E 43rd Street and E 44th Street	East	4	1,167	0.80	42.4	C
E 43rd Street between Madison Avenue and Vanderbilt Avenue	North	3.5	1,247	0.79	33.7	D
Vanderbilt Avenue between E 44th Street and E 45th Street	East	9.5	1,737	0.89	76.4	C
Park Avenue between E 40th Street and E 41st Street	East	12	1,998	0.86	80.8	C
	West	9	3,421	0.93	37.4	D
Park Avenue between E 46th Street and E 47th Street	West	7	1,695	0.79	50.6	C
Park Avenue between E 49th Street and E 50th Street	West	7	2,037	0.83	44.1	C
E 40th Street between Lexington Avenue and 3rd Avenue	North	8	908	0.88	121.8	B
E 41st Street between Lexington Avenue and 3rd Avenue	South	7.5	1,893	0.92	57.0	C
E 42nd Street between Lexington Avenue and 3rd Avenue	North	9	2,792	0.84	41.5	C
Lexington Avenue between E 42nd Street and E 43rd Street	West	6.5	2,935	0.92	30.5	D
Lexington Avenue between E 43rd Street and E 44th Street	East	10	3,770	0.96	39.0	D
	West	7	4,852	0.91	18.2	E
E 43rd Street between Lexington Avenue and 3rd Avenue	North	7.5	1,450	0.84	68.0	C
	South	7.5	2,146	0.93	50.5	C

Note: SFP = square feet per pedestrian

Table 12.113: No-Action Sidewalk Conditions in the AM Peak Hour (Continued)

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
Lexington Avenue between E 44th Street and E 45th Street	East	4.5	2,349	0.84	23.5	D
	West	5	2,546	0.86	24.9	D
E 44th Street between Lexington Avenue and 3rd Avenue	North	5.5	1,306	0.82	53.6	C
	South	12	1,837	0.87	89.3	C
Lexington Avenue between E 45th Street and E 46th Street	East	6	2,513	0.98	35.6	D
	West	9	1,819	0.91	70.3	C
Lexington Avenue between E 46th Street and E 47th Street	East	4.5	1,753	0.85	33.1	D
	West	5.5	1,466	0.91	53.3	C
E 46th Street between Lexington Avenue and 3rd Avenue	North	5	823	0.85	81.1	C
Lexington Avenue between E 47th Street and E 48th Street	East	4.5	1,523	0.88	39.8	D
E 47th Street between Lexington Avenue and 3rd Avenue	South	4	609	0.88	90.7	B
Lexington Avenue between E 48th Street and E 49th Street	East	3	1,499	0.90	26.5	D
	West	5	404	0.64	124.5	B
E 48th Street between Park Avenue and Lexington Avenue	North	6.5	770	0.83	109.9	B
Lexington Avenue between E 49th Street and E 50th Street	East	3	1,767	0.90	22.0	E
	West	5	362	0.93	203.1	B
E 49th Street between Lexington Avenue and 3rd Avenue	North	6	516	0.89	163.5	B
E 49th Street between Park Avenue and Lexington Avenue	South	6	443	0.90	192.3	B
Lexington Avenue between E 50th Street and E 51st Street	East	6	2,290	0.87	34.6	D
	West	5	3,046	0.89	20.7	E
E 50th Street between Lexington Avenue and 3rd Avenue	North	5	344	0.82	189.5	B
	South	5.5	491	0.76	135.0	B
Lexington Avenue between E 51st Street and E 52nd Street	East	5	2,691	0.74	20.5	E
	West	10.5	1,736	0.91	87.0	C
E 51st Street between Lexington Avenue and 3rd Avenue	North	3.5	1,001	0.85	46.1	C
3rd Avenue between E 42nd Street and E 43rd Street	East	7.5	2,112	0.88	48.2	C
3rd Avenue between E 43rd Street and E 44th Street	East	8.5	2,676	0.89	43.5	C
3rd Avenue between E 44th Street and E 45th Street	East	4.5	2,636	0.87	21.1	E
3rd Avenue between E 51st Street and E 52nd Street	West	8.5	2,078	0.87	55.6	C
E 52nd Street between Lexington Avenue and 3rd Avenue	South	7.5	760	0.79	122.9	B
	North	7.5	709	0.57	95.5	B
3rd Avenue between E 52nd Street and E 53rd Street	East	6	3,241	0.89	23.9	D
	West	9	1,611	0.87	76.3	C
3rd Avenue between E 53rd Street and E 54th Street	West	7.5	1,670	0.85	59.7	C
3rd Avenue between E 55th Street and 56th Street	West	9	1,354	0.77	80.8	C
E 42nd Street between 3rd Avenue and 2nd Avenue	North	10.5	2,023	0.86	69.7	C
2nd Avenue between E 42nd Street and E 43rd Street	West	7	1,254	0.95	83.1	C
E 43rd Street between 3rd Avenue and 2nd Avenue	South	16.5	723	0.69	250.5	B

Note: SFP = square feet per pedestrian

Table 12.114: No-Action Sidewalk Conditions in the Midday Peak Hour

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
E 39th Street between 5th Avenue and Madison Avenue	North	5	1,066	0.96	70.2	C
E 40th Street between 5th Avenue and Madison Avenue	South	5.5	2,506	0.91	29.9	D
	North	9	1,902	0.94	69.4	C
Madison Avenue between E 40th Street and E 41st Street	West	9	3,972	0.91	30.8	D
E 41st Street between 5th Avenue and Madison Avenue	South	6	1,543	0.95	57.7	C
E 43rd Street between 5th Avenue and Madison Avenue	North	4	1,415	0.89	38.4	D
E 44th Street between 5th Avenue and Madison Avenue	South	5.5	1,663	0.98	50.0	C
	North	4.5	1,235	0.94	53.5	C
Madison Avenue between E 44th Street and E 45th Street	West	4	2,593	0.81	17.0	E
E 45th Street between 5th Avenue and Madison Avenue	South	5.5	2,300	0.91	32.8	D
	North	4.5	1,499	0.94	43.4	C
E 46th Street between 5th Avenue and Madison Avenue	South	4	2,031	0.93	27.6	D
E 53rd Street between 5th Avenue and Madison Avenue	South	9.5	1,103	0.91	123.1	B
	North	13	1,056	0.81	158.1	B
Vanderbilt Avenue between E 43rd Street and E 44th Street	East	4	1,204	0.94	48.1	C
E 43rd Street between Madison Avenue and Vanderbilt Avenue	North	3.5	1,326	0.96	38.7	D
Vanderbilt Avenue between E 44th Street and E 45th Street	East	9.5	1,619	0.95	87.9	C
Park Avenue between E 40th Street and E 41st Street	East	12	1,268	0.91	136.3	B
	West	9	2,576	0.99	53.7	C
Park Avenue between E 46th Street and E 47th Street	West	7	1,706	0.57	35.4	D
Park Avenue between E 49th Street and E 50th Street	West	7	1,929	0.87	49.0	C
E 40th Street between Lexington Avenue and 3rd Avenue	North	8	99	0.95	119.6	B
E 41st Street between Lexington Avenue and 3rd Avenue	South	7.5	1,676	0.93	64.8	C
E 42nd Street between Lexington Avenue and 3rd Avenue	North	9	2,503	0.95	53.2	C
Lexington Avenue between E 42nd Street and E 43rd Street	West	6.5	3,095	0.96	30.1	D
Lexington Avenue between E 43rd Street and E 44th Street	East	10	3,427	0.94	42.3	C
	West	7	3,269	0.97	31.3	D
E 43rd Street between Lexington Avenue and 3rd Avenue	North	7.5	1,545	0.93	70.4	C
	South	7.5	1,758	0.85	56.7	C

Note: SFP = square feet per pedestrian

Table 12.114: No-Action Sidewalk Conditions in the Midday Peak Hour (Continued)

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
Lexington Avenue between E 44th Street and E 45th Street	East	4.5	2,902	0.93	20.5	E
	West	5	2,669	0.94	25.9	D
E 44th Street between Lexington Avenue and 3rd Avenue	North	5.5	1,094	0.87	68.4	C
	South	12	1,829	0.88	91.2	B
Lexington Avenue between E 45th Street and E 46th Street	East	6	2,874	0.96	30.0	D
	West	9	2,267	0.91	12.5	E
Lexington Avenue between E 46th Street and E 47th Street	East	4.5	2,288	0.94	27.4	D
	West	5.5	2,099	0.89	35.6	D
E 46th Street between Lexington Avenue and 3rd Avenue	North	5	771	0.92	93.6	B
Lexington Avenue between E 47th Street and E 48th Street	East	4.5	1,455	0.88	41.8	C
E 47th Street between Lexington Avenue and 3rd Avenue	South	4	662	0.93	88.7	C
Lexington Avenue between E 48th Street and E 49th Street	East	3	1,437	0.98	30.7	D
	West	5	236	0.74	249.6	B
E 48th Street between Park Avenue and Lexington Avenue	North	6.5	678	0.94	141.8	B
Lexington Avenue between E 49th Street and E 50th Street	East	3	1,575	0.90	25.1	D
	West	5	478	0.61	100.5	B
E 49th Street between Lexington Avenue and 3rd Avenue	North	6	599	0.81	128.6	B
E 49th Street between Park Avenue and Lexington Avenue	South	6	617	0.87	134.0	B
Lexington Avenue between E 50th Street and E 51st Street	East	6	1,907	0.91	44.0	C
	West	5	2,238	0.83	27.4	D
E 50th Street between Lexington Avenue and 3rd Avenue	North	5	931	0.92	77.4	C
	South	5.5	505	0.81	138.8	B
Lexington Avenue between E 51st Street and E 52nd Street	East	5	2,716	0.92	25.6	D
	West	10.5	1,856	0.89	79.3	C
E 51st Street between Lexington Avenue and 3rd Avenue	North	3.5	945	0.89	51.2	C
3rd Avenue between E 42nd Street and E 43rd Street	East	7.5	2,734	0.90	37.8	D
3rd Avenue between E 43rd Street and E 44th Street	East	8.5	2,790	0.93	43.7	C
3rd Avenue between E 44th Street and E 45th Street	East	4.5	2,494	0.84	21.8	E
3rd Avenue between E 51st Street and E 52nd Street	West	8.5	2,459	0.90	48.1	C
E 52nd Street between Lexington Avenue and 3rd Avenue	South	7.5	1,875	0.89	55.2	C
	North	7.5	1,213	0.88	85.3	C
3rd Avenue between E 52nd Street and E 53rd Street	East	6	1,786	0.92	48.0	C
	West	9	2,219	0.88	55.6	C
3rd Avenue between E 53rd Street and E 54th Street	West	7.5	2,209	0.93	48.8	C
3rd Avenue between E 55th Street and 56th Street	West	9	1,323	0.77	82.8	C
E 42nd Street between 3rd Avenue and 2nd Avenue	North	10.5	2,160	0.88	66.9	C
2nd Avenue between E 42nd Street and E 43rd Street	West	7	1,619	0.95	64.1	C
E 43rd Street between 3rd Avenue and 2nd Avenue	South	16.5	802	0.80	262.1	B

Note: SFP = square feet per pedestrian

Table 12.115: No-Action Sidewalk Conditions in the PM Peak Hour

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
E 39th Street between 5th Avenue and Madison Avenue	North	5	1,114	0.88	61.5	C
E 40th Street between 5th Avenue and Madison Avenue	South	5.5	1,744	0.93	45.1	C
	North	9	1,802	0.95	74.4	C
Madison Avenue between E 40th Street and E 41st Street	West	9	2,581	0.97	52.3	C
E 41st Street between 5th Avenue and Madison Avenue	South	6	1,285	0.96	70.2	C
E 43rd Street between 5th Avenue and Madison Avenue	North	4	2,478	0.87	19.9	E
E 44th Street between 5th Avenue and Madison Avenue	South	5.5	1,426	0.89	53.2	C
	North	4.5	1,897	0.94	33.8	D
Madison Avenue between E 44th Street and E 45th Street	West	4	2,184	0.96	14.4	E
E 45th Street between 5th Avenue and Madison Avenue	South	5.5	1,905	0.90	39.9	D
	North	4.5	1,839	0.94	34.8	D
E 46th Street between 5th Avenue and Madison Avenue	South	4	1,386	0.95	13.2	E
E 53rd Street between 5th Avenue and Madison Avenue	South	9.5	1,147	0.92	120.4	B
	North	13	804	0.86	220.2	B
Vanderbilt Avenue between E 43rd Street and E 44th Street	East	4	1,217	0.90	45.6	C
E 43rd Street between Madison Avenue and Vanderbilt Avenue	North	3.5	1,795	0.86	24.4	D
Vanderbilt Avenue between E 44th Street and E 45th Street	East	9.5	2,501	0.93	54.7	C
Park Avenue between E 40th Street and E 41st Street	East	12	2,236	0.84	71.1	C
	West	9	3,113	0.91	40.2	C
Park Avenue between E 46th Street and E 47th Street	West	7	1,543	0.92	65.4	C
Park Avenue between E 49th Street and E 50th Street	West	7	1,868	0.91	53.0	C
E 40th Street between Lexington Avenue and 3rd Avenue	North	8	843	0.90	134.5	B
E 41st Street between Lexington Avenue and 3rd Avenue	South	7.5	824	0.87	125.1	B
E 42nd Street between Lexington Avenue and 3rd Avenue	North	9	3,232	0.95	40.5	C
Lexington Avenue between E 42nd Street and E 43rd Street	West	6.5	3,730	0.91	23.0	E
Lexington Avenue between E 43rd Street and E 44th Street	East	10	2,969	0.95	49.5	C
	West	7	6,052	1.00	15.4	E
E 43rd Street between Lexington Avenue and 3rd Avenue	North	7.5	1,219	0.94	90.6	B
	South	7.5	1,485	0.89	70.4	C

Note: SFP = square feet per pedestrian

Table 12.115: No-Action Sidewalk Conditions in the PM Peak Hour (Continued)

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
Lexington Avenue between E 44th Street and E 45th Street	East	4.5	2,282	0.91	26.4	D
	West	5	3,212	0.93	20.7	E
E 44th Street between Lexington Avenue and 3rd Avenue	North	5.5	969	0.91	81.1	C
	South	12	2,210	0.92	78.2	C
Lexington Avenue between E 45th Street and E 46th Street	East	6	2,301	0.98	38.9	D
	West	9	2,313	0.95	57.9	C
Lexington Avenue between E 46th Street and E 47th Street	East	4.5	2,070	0.84	27.2	D
	West	5.5	982	0.71	62.2	C
E 46th Street between Lexington Avenue and 3rd Avenue	North	5	819	0.89	85.2	C
Lexington Avenue between E 47th Street and E 48th Street	East	4.5	1,513	0.88	40.1	C
E 47th Street between Lexington Avenue and 3rd Avenue	South	4	622	0.96	97.1	B
Lexington Avenue between E 48th Street and E 49th Street	East	3	1,961	0.82	17.0	E
	West	5	416	0.89	168.6	B
E 48th Street between Park Avenue and Lexington Avenue	North	6.5	872	0.95	112.1	B
Lexington Avenue between E 49th Street and E 50th Street	East	3	2,236	0.91	16.5	E
	West	5	654	0.76	91.2	B
E 49th Street between Lexington Avenue and 3rd Avenue	North	6	599	0.86	135.9	B
E 49th Street between Park Avenue and Lexington Avenue	South	6	562	0.92	155.1	B
Lexington Avenue between E 50th Street and E 51st Street	East	6	2,654	0.89	30.1	D
	West	5	2,211	0.92	31.4	D
E 50th Street between Lexington Avenue and 3rd Avenue	North	5	939	0.90	75.3	C
	South	5.5	625	0.89	123.7	B
Lexington Avenue between E 51st Street and E 52nd Street	East	5	2,693	0.96	23.3	D
	West	10.5	1,866	0.95	84.4	C
E 51st Street between Lexington Avenue and 3rd Avenue	North	3.5	966	0.93	52.2	C
3rd Avenue between E 42nd Street and E 43rd Street	East	7.5	2,066	0.95	53.9	C
3rd Avenue between E 43rd Street and E 44th Street	East	8.5	2,362	0.92	51.2	C
3rd Avenue between E 44th Street and E 45th Street	East	4.5	2,319	0.94	26.9	D
3rd Avenue between E 51st Street and E 52nd Street	West	8.5	2,252	0.89	52.3	C
E 52nd Street between Lexington Avenue and 3rd Avenue	South	7.5	712	0.80	133.2	B
	North	7.5	753	0.92	144.9	B
3rd Avenue between E 52nd Street and E 53rd Street	East	6	2,998	0.97	28.9	D
	West	9	2,148	0.93	60.5	C
3rd Avenue between E 53rd Street and E 54th Street	West	7.5	1,836	0.91	58.1	C
3rd Avenue between E 55th Street and 56th Street	West	9	1,365	0.77	80.2	C
E 42nd Street between 3rd Avenue and 2nd Avenue	North	10.5	2,037	0.85	69.0	C
2nd Avenue between E 42nd Street and E 43rd Street	West	7	1,274	0.95	81.8	C
E 43rd Street between 3rd Avenue and 2nd Avenue	South	16.5	900	0.94	272.5	B

Note: SFP = square feet per pedestrian

Crosswalks

Table 12.116 through Table 12.118 show the peak hour volumes, average pedestrian space, and levels of service at analyzed crosswalks in the No-Action condition. As shown in Table 12.116 through Table 12.118, of the 48 analyzed crosswalks congested LOS D, E, or F locations are projected at 23 locations during the weekday AM peak hour, 17 crosswalks during the Midday, and 20 crosswalks during the PM peak hour. This compares to 15, 14, and 13 congested locations during these same periods, respectively, under Existing conditions.

Table 12.116: No-Action Crosswalk Conditions in the AM Peak Hour

Intersection	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	Two-way Peak Hour Volume	SFP	LOS
5th Avenue and 42nd Street	North	55	25	2,268	19.2	D
5th Avenue and 43rd Street	East	34	20	2,326	27.0	C
Madison Avenue and E 41st Street	West	34	16	2,253	24.3	C
Madison Avenue and E 43rd Street	North	54	13	1,832	11.1	E
	West	33.5	12	1,499	20.6	D
Madison Avenue and E 45th Street	South	54	13	1,429	17.7	D
Madison Avenue and E 53rd Street	North	55	15	1,322	20.6	D
	South	54	14.5	751	37.3	C
	West	35	14.5	1,013	35.4	C
Vanderbilt Avenue and E 43rd Street	North	33.5	13.5	1,106	UNSIGNALIZED	
Park Avenue Southbound and E 46th Street	West	30.5	14	1,889	17.9	D
Park Avenue Southbound and E 50th Street	West	30	14	2,253	13.9	E
Lexington Avenue and E 42nd Street	North	51	20	2,148	18.4	D
	East	60	13	1,816	23.4	D
	West	60	15	1,945	21.1	D
Lexington Avenue and E 43rd Street	East	34	14	1,538	36.2	C
	South	40	13.5	790	22.9	D
Lexington Avenue and E 44th Street	East	37	14	2,311	47.4	B
Lexington Avenue and E 45th Street	East	36	15.5	1,468	29.6	C
	West	41	10.5	1,737	18.0	D
Lexington Avenue and E 46th Street	East	32	14	1,712	25.3	C
	West	32	14	1,632	26.5	C
Lexington Avenue and E 47th Street	East	28	10	1,092	24.7	C
	South	52.5	14.5	504	25.0	C
Lexington Avenue and E 48th Street	North	50.5	13.5	429	73.5	A
	East	34	12	1,132	30.1	C
	West	30	12	1,293	18.3	D
Lexington Avenue and E 49th Street	East	30	12	1,052	34.4	C
	South	51	14	332	79.6	A
	West	30	10.5	827	31.6	C
Lexington Avenue and E 50th Street	North	51.5	12	1,357	18.3	D
	East	34	12	1,944	15.4	D
	West	34	16	2,033	22.2	D
Lexington Avenue and E 51st Street	North	51	14	1,744	14.4	E
Lexington Avenue and E 52nd Street	East	35.5	15	1,565	24.1	C
	West	34	18	1,503	32.2	C
3rd Avenue and E 42nd Street	North	69.5	20	784	17.3	D
	East	59	18	751	39.0	C
	South	70	20	2,279	19.9	D
	West	59	15	804	28.7	C
3rd Avenue and E 43rd Street	East	34	15	2,326	16.6	D
	South	70.5	15.5	1,713	20.3	D
3rd Avenue and E 44th Street	East	35	15.5	2,271	14.7	E
3rd Avenue and E 52nd Street	West	41	12.5	769	38.6	C
3rd Avenue and E 53rd Street	West	35.5	13.5	1,166	21.7	D
3rd Avenue and E 54th Street	West	33	16	497	73.0	A
3rd Avenue and E 55th Street	West	34	11.5	233	98.3	A
2nd Avenue and E 42nd Street	West	60	20	1,006	61.7	A

Note: SFP = square feet per pedestrian

Table 12.117: No-Action Crosswalk Conditions in the Midday Peak Hour

Intersection	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	Two-way Peak Hour Volume	SFP	LOS
5th Avenue and 42nd Street	North	55	25	1,455	38.9	C
5th Avenue and 43rd Street	East	34	20	3,084	21.4	D
Madison Avenue and E 41st Street	West	34	16	2,561	15.6	D
Madison Avenue and E 43rd Street	North	54	13	1,194	19.5	D
	West	33.5	12	1,836	19.5	D
Madison Avenue and E 45th Street	South	54	13	2,045	11.6	E
Madison Avenue and E 53rd Street	North	55	15	1,240	25.1	C
	South	54	14.5	1,038	30.0	C
	West	35	14.5	1,409	31.4	C
Vanderbilt Avenue and E 43rd Street	North	33.5	13.5	340	UNSIGNALIZED	
Park Avenue Southbound and E 46th Street	West	30.5	14	1,408	27.9	C
Park Avenue Southbound and E 50th Street	West	30	14	1,864	20.5	D
Lexington Avenue and E 42nd Street	North	51	20	1,998	25.9	C
	East	60	13	1,914	22.5	D
	West	60	15	1,371	37.4	C
Lexington Avenue and E 43rd Street	East	34	14	1,872	31.0	C
	South	40	13.5	1,261	16.9	D
Lexington Avenue and E 44th Street	East	37	14	2,317	55.3	B
Lexington Avenue and E 45th Street	East	36	15.5	1,891	29.5	C
	West	41	10.5	1,355	21.3	D
Lexington Avenue and E 46th Street	East	32	14	2,126	18.6	D
	West	32	14	1,968	25.1	C
Lexington Avenue and E 47th Street	East	28	10	1,622	17.2	D
	South	52.5	14.5	766	14.1	E
Lexington Avenue and E 48th Street	North	50.5	13.5	465	68.8	A
	East	34	12	1,146	33.3	C
	West	30	12	1,027	35.6	C
Lexington Avenue and E 49th Street	East	30	12	988	43.4	B
	South	51	14	426	72.0	A
	West	30	10.5	738	46.0	B
Lexington Avenue and E 50th Street	North	51.5	12	1,102	24.4	C
	East	34	12	1,891	17.9	D
	West	34	16	1,272	43.4	B
Lexington Avenue and E 51st Street	North	51	14	1,220	31.8	C
Lexington Avenue and E 52nd Street	East	35.5	15	1,322	34.7	C
	West	34	18	1,754	29.7	C
3rd Avenue and E 42nd Street	North	69.5	20	1,160	13.0	E
	East	59	18	795	49.4	B
	South	70	20	1,761	34.3	C
	West	59	15	987	29.5	C
3rd Avenue and E 43rd Street	East	34	15	2,191	18.2	D
	South	70.5	15.5	1,460	26.2	C
3rd Avenue and E 44th Street	East	35	15.5	1,534	23.6	D
3rd Avenue and E 52nd Street	West	41	12.5	1,000	33.4	C
3rd Avenue and E 53rd Street	West	35.5	13.5	1,765	16.4	D
3rd Avenue and E 54th Street	West	33	16	774	58.7	B
3rd Avenue and E 55th Street	West	34	11.5	443	70.9	A
2nd Avenue and E 42nd Street	West	60	20	888	67.4	A

Note: SFP = square feet per pedestrian

Table 12.118: No-Action Crosswalk Conditions in the PM Peak Hour

Intersection	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	Two-way Peak Hour Volume	SFP	LOS
5th Avenue and 42nd Street	North	55	25	2,374	23.3	D
5th Avenue and 43rd Street	East	34	20	3,444	16.1	D
Madison Avenue and E 41st Street	West	34	16	2,421	22.4	D
Madison Avenue and E 43rd Street	North	54	13	2,054	10.8	E
	West	33.5	12	2,240	13.6	E
Madison Avenue and E 45th Street	South	54	13	2,264	11.1	E
Madison Avenue and E 53rd Street	North	55	15	1,110	30.2	C
	South	54	14.5	1,089	30.0	C
	West	35	14.5	1,415	31.3	C
Vanderbilt Avenue and E 43rd Street	North	33.5	13.5	195	UNSIGNALIZED	
Park Avenue Southbound and E 46th Street	West	30.5	14	2,004	16.9	D
Park Avenue Southbound and E 50th Street	West	30	14	1,939	19.4	D
Lexington Avenue and E 42nd Street	North	51	20	2,601	17.0	D
	East	60	13	1,748	21.5	D
	West	60	15	1,635	25.3	C
Lexington Avenue and E 43rd Street	East	34	14	1,765	28.4	C
	South	40	13.5	1,336	13.8	E
Lexington Avenue and E 44th Street	East	37	14	1,780	66.8	A
Lexington Avenue and E 45th Street	East	36	15.5	1,233	44.9	B
	West	41	10.5	1,661	19.0	D
Lexington Avenue and E 46th Street	East	32	14	1,660	24.9	C
	West	32	14	1,544	30.2	C
Lexington Avenue and E 47th Street	East	28	10	1,095	25.7	C
	South	52.5	14.5	490	18.6	D
Lexington Avenue and E 48th Street	North	50.5	13.5	599	56.7	B
	East	34	12	1,220	26.8	C
	West	30	12	1,120	31.6	C
Lexington Avenue and E 49th Street	East	30	12	1,159	30.6	C
	South	51	14	384	70.0	A
	West	30	10.5	1,070	27.8	C
Lexington Avenue and E 50th Street	North	51.5	12	1,097	27.9	C
	East	34	12	2,007	15.4	D
	West	34	16	1,696	27.7	C
Lexington Avenue and E 51st Street	North	51	14	1,405	24.0	D
Lexington Avenue and E 52nd Street	East	35.5	15	1,479	28.2	C
	West	34	18	1,500	37.5	C
3rd Avenue and E 42nd Street	North	69.5	20	936	16.5	D
	East	59	18	696	49.9	B
	South	70	20	2,661	17.2	D
	West	59	15	693	43.7	B
3rd Avenue and E 43rd Street	East	34	15	2,039	20.6	D
	South	70.5	15.5	1,231	28.6	C
3rd Avenue and E 44th Street	East	35	15.5	1,764	22.2	D
3rd Avenue and E 52nd Street	West	41	12.5	852	41.3	B
3rd Avenue and E 53rd Street	West	35.5	13.5	1,371	22.2	D
3rd Avenue and E 54th Street	West	33	16	573	65.2	A
3rd Avenue and E 55th Street	West	34	11.5	260	90.3	A
2nd Avenue and E 42nd Street	West	60	20	792	62.2	A

Note: SFP = square feet per pedestrian

Corner Areas

Table 12.119 shows the average pedestrian space and levels of service at analyzed corner areas in the No-Action condition. As shown in Table 12.119, of the 121 analyzed corner areas, congested LOS D, E or F operations are projected at 28 locations during the weekday AM peak hour, 25 corner areas during the Midday, and 30 corner areas during the PM peak hour. This compares to 17, 18, and 14 congested locations during these same periods, respectively, under Existing Conditions.

The creation of the permanent pedestrian plaza at Pershing Square East plaza (Park Avenue Northbound between East 41st and East 42nd Streets) is projected to improve pedestrian conditions at the northeast corner of East 41st Street and Park Avenue Northbound. This corner currently operates at LOS B during the AM and Midday peak hours and at LOS C during the PM peak hour. The de-facto widening of the sidewalk on the east side of Park Avenue Northbound (as roadway space is made available for pedestrians) is projected to improve pedestrian conditions at this location.

Table 12.119: No-Action Corner Conditions

Intersection	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
5th Avenue and 42nd Street	Northeast	82.2	A	107.2	A	79.2	A
	Southeast	63.7	A	90.8	A	47.7	B
	Southwest	60.6	A	95.2	A	52.1	B
	Northwest	71.5	A	119.1	A	69.8	A
5th Avenue and 43rd Street	Northeast	39.4	C	38.2	C	24.2	C
	Southeast	35.0	C	36.3	C	26.6	C
	Southwest	42.7	B	37.3	C	27.5	C
	Northwest	39.7	C	34.1	C	18.4	D
5th Avenue and 44th Street	Northwest	51.5	B	38.0	C	25.2	C
	Southeast	42.2	B	37.1	C	29.7	C
	Southwest	57.4	B	39.1	C	34.2	C
5th Avenue and 45th Street	Southeast	46.4	B	34.8	C	34.3	C
Madison Avenue and E 40th Street	Southwest	28.1	C	24.0	D	36.8	C
	Northwest	25.5	C	25.4	C	34.9	C
Madison Avenue and E 41th Street	Southwest	30.5	C	15.3	D	25.3	C
	Northwest	69.7	A	55.3	B	65.9	A
Madison Avenue and E 42nd Street	Northeast	13.4	E	26.2	C	15.7	D
	Southwest	125.3	A	168.9	A	110.1	A
	Northwest	15.0	E	24.7	C	13.0	E
Madison Avenue and E 43rd Street	Northeast	7.4	F	14.6	E	10.7	E
	Southwest	22.0	D	27.3	C	18.0	D
	Northwest	23.1	D	24.2	C	8.9	E
Madison Avenue and E 44th Street	Southwest	23.1	D	17.5	D	14.7	E
	Northwest	31.4	C	30.8	C	22.3	D
Madison Avenue and E 45th Street	Northeast	9.0	E	9.1	E	5.3	F
	Southeast	20.8	D	16.9	D	12.2	E
	Southwest	21.0	D	12.7	E	12.7	E
	Northwest	31.1	C	26.0	C	22.8	D
Madison Avenue and E 46th Street	Southwest	28.2	C	21.2	D	27.8	C
Madison Avenue and E 53rd Street	Southwest	62.3	A	51.3	B	52.7	B
	Northwest	122.5	A	115.4	A	125.3	A
Vanderbilt Avenue and E 43rd Street	Northwest	98.6	A	141.0	A	110.0	A
Park Avenue Northbound and E 41st Street	Northeast	Plaza		Plaza		Plaza	
	Southeast	80.3	A	100.5	A	66.6	A
Park Avenue Southbound and E 46th Street	Southwest	46.6	B	59.4	B	55.9	B
	Northwest	37.7	C	37.9	C	29.9	C

Note: SFP = square feet per pedestrian

Table 12.119: No-Action Corner Conditions (Continued)

Intersection	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
Park Avenue Southbound and E 47th Street	Southwest	24.9	C	29.1	C	33.0	C
Park Avenue Southbound and E 48th Street	Northwest	34.3	C	32.3	C	33.2	C
Park Avenue Northbound and E 48th Street	Northeast	21.6	D	34.7	C	27.8	C
Park Avenue Southbound and E 49th Street	Southwest	29.1	C	43.6	B	29.3	C
	Northwest	16.6	D	41.3	B	33.2	C
Park Avenue Northbound and E 49th Street	Northeast	27.0	C	37.3	C	30.8	C
	Southeast	43.8	B	47.8	B	33.1	C
Park Avenue Southbound and E 50th Street	Southwest	28.5	C	38.7	C	32.2	C
	Northwest	31.6	C	40.6	B	34.6	C
Lexington Avenue and E 41st Street	Southeast	24.6	C	17.5	D	30.8	C
	Southwest	7.4	F	11.9	E	17.2	D
Lexington Avenue and E 42nd Street	Northeast	32.1	C	34.1	C	22.6	D
	Southeast	16.6	D	34.3	C	22.1	D
	Southwest	19.3	D	33.5	C	17.9	D
	Northwest	16.6	D	30.6	C	23.6	D
Lexington Avenue and E 43rd Street	Northeast	57.4	B	14.2	E	13.1	E
	Southeast	34.1	C	25.5	C	20.1	D
Lexington Avenue and E 44th Street	Northeast	26.6	C	27.8	C	32.6	C
	Southeast	62.6	A	69.5	A	73.0	A
Lexington Avenue and E 45th Street	Northeast	25.5	C	11.6	E	25.9	C
	Southeast	18.8	D	10.9	E	23.7	D
	Southwest	13.9	E	11.0	E	19.1	D
	Northwest	38.5	C	23.0	D	34.4	C
Lexington Avenue and E 46th Street	Northeast	29.6	C	17.7	D	22.8	D
	Southeast	22.9	D	14.7	E	24.3	C
	Southwest	32.3	C	27.8	C	39.2	C
	Northwest	35.8	C	28.4	C	34.1	C
Lexington Avenue and E 47th Street	Northeast	47.2	B	28.4	C	53.5	B
	Southeast	51.3	B	31.3	C	45.6	B
	Southwest	45.3	B	28.1	C	50.8	B
	Northwest	37.1	C	22.0	D	46.9	B
Lexington Avenue and E 48th Street	Northeast	50.0	B	49.9	B	42.0	B
	Southeast	37.0	C	35.7	C	31.1	C
	Southwest	36.1	C	49.8	B	53.5	B
	Northwest	25.5	C	43.2	B	38.2	C
Lexington Avenue and E 49th Street	Northeast	48.5	B	68.7	A	54.5	B
	Southeast	53.4	B	55.7	B	42.8	B
	Southwest	62.5	A	69.7	A	51.7	B
	Northwest	44.8	B	78.4	A	49.1	B
Lexington Avenue and E 50th Street	Northeast	14.3	E	19.7	D	19.9	D
	Southeast	22.9	D	26.8	C	22.6	D
	Southwest	17.9	D	37.2	C	24.9	C
	Northwest	18.6	D	33.4	C	25.3	C

Note: SFP = square feet per pedestrian

Table 12.119: No-Action Corner Conditions (Continued)

Intersection	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
Lexington Avenue and E 51st Street	Northeast	13.0	E	29.0	C	22.0	D
	Southeast	18.0	D	26.8	C	23.5	D
	Southwest	25.1	C	19.9	D	36.1	C
	Northwest	46.2	B	54.6	B	65.0	A
Lexington Avenue and E 52nd Street	Northeast	125.9	A	142.6	A	165.6	A
	Southeast	33.2	C	29.3	C	44.4	B
	Southwest	66.6	A	48.7	B	77.1	A
	Northwest	399.8	A	383.0	A	517.7	A
Lexington Avenue and E 53rd Street	Southeast	199.8	A	132.6	A	168.4	A
3rd Avenue and E 42nd Street	Northeast	113.7	A	84.8	A	112.3	A
	Southeast	51.7	B	64.3	A	37.4	C
	Southwest	36.8	C	61.5	A	48.4	B
	Northwest	88.2	A	75.4	A	116.6	A
3rd Avenue and E 43rd Street	Northeast	26.1	C	17.8	D	21.9	D
	Southeast	19.2	D	24.0	D	24.2	C
	Southwest	11.6	E	12.5	E	19.0	D
	Northwest	11.7	E	7.7	F	8.1	E
3rd Avenue and E 44th Street	Northeast	44.2	B	51.1	B	44.5	B
	Southeast	38.3	C	53.7	B	51.9	B
3rd Avenue and E 45th Street	Northeast	43.9	B	31.3	C	41.0	B
	Southeast	40.7	B	41.2	B	49.4	B
3rd Avenue and E 48th Street	Northwest	145.1	A	129.3	A	127.7	A
3rd Avenue and E 49th Street	Southwest	412.8	A	343.8	A	325.5	A
	Northwest	393.3	A	337.7	A	307.3	A
3rd Avenue and E 51st Street	Northwest	25.2	C	31.7	C	32.7	C
3rd Avenue and E 52nd Street	Northeast	83.7	A	115.8	A	97.0	A
	Southwest	68.0	A	40.0	B	61.8	A
	Northwest	66.3	A	53.0	B	76.1	A
3rd Avenue and E 53rd Street	Southeast	26.4	C	24.4	C	27.4	C
	Southwest	40.3	B	28.1	C	34.0	C
	Northwest	34.1	C	28.1	C	34.8	C
3rd Avenue and E 54th Street	Southwest	88.3	A	68.3	A	79.8	A
	Northwest	359.5	A	243.3	A	308.1	A
3rd Avenue and E 55th Street	Southwest	111.9	A	72.5	A	116.2	A
	Northwest	122.8	A	79.7	A	128.0	A
3rd Avenue and E 56th Street	Southwest	48.2	B	31.2	C	54.8	B
2nd Avenue and E 42nd Street	Northeast	89.3	A	43.6	B	59.7	B
	Southwest	7.9	F	21.4	D	16.4	D
	Northwest	135.5	A	90.9	A	121.8	A
2nd Avenue and E 43rd Street	Southeast	53.5	B	47.4	B	66.5	A
	Southwest	51.0	B	38.0	C	60.6	A
	Northwest	60.1	A	37.0	C	50.6	B

Note: SFP = square feet per pedestrian

Future Pedestrian Conditions with the Proposed Action (With-Action Condition)

In the future 2036 With-Action Condition, the Proposed Action would generate new pedestrian trips on sidewalks, crosswalks, and corner areas. This new demand would include trips made solely by walking, as well as pedestrian trips en route to and from subway and commuter rail station entrances, bus stops, and off-street public parking facilities. Pedestrian trips generated by the Proposed Action are expected to be most concentrated in proximity to Projected Development Sites and along corridors connecting these sites to area transit services.

As shown in Table 12.5, the Proposed Action is expected to generate approximately 983 walk-only trips during the weekday AM peak hour, 15,477 walk-only trips during the Midday, and 1,610 walk-only trips during the PM peak hour. Persons en route to and from subway and commuter rail station entrances, bus stops, and parking facilities are projected to add an additional 12,546 pedestrian trips to rezoning area sidewalks and crosswalks during the AM peak hour, 2,539 during the Midday, and 14,716 during the PM. These pedestrian volumes were added to the projected No-Action volumes to generate the With-Action pedestrian volumes for analysis. In addition to generating new pedestrian demand, the Proposed Action would also result in the creation of a substantial amount of new pedestrian space along select sidewalks adjacent to Projected Development Sites. Under the Proposed Action, the zoning regulations for the proposed East Midtown Subdistrict would mandate that new buildings with full-block frontages along Madison and Lexington Avenues be set back to provide 20-foot-wide sidewalks. The following sidewalks adjacent to Projected Development Sites would be widened under the RWCDS:

- Projected Development Site 1: Madison Avenue west sidewalk from East 39th to East 40th Streets (widened from approximately 15 feet to 20 feet)
- Projected Development Site 2: Madison Avenue west sidewalk from East 40th to East 41st Streets (widened from approximately 16 feet to 20 feet)
- Projected Development Site 3: Madison Avenue west sidewalk from East 43rd to East 44th Streets (widened from approximately 13 feet to 20 feet)
- Projected Development Site 4: Madison Avenue west sidewalk from East 44th to East 45th Streets (widened from approximately 13 feet to 20 feet)
- Projected Development Site 5: Madison Avenue west sidewalk from East 44th to East 45th Streets (widened from approximately 13 feet to 20 feet)
- Projected Development Site 8: Lexington Avenue east sidewalk from East 40th to East 41st Streets (widened from approximately 12 feet to 20 feet)
- Projected Development Site 9: Lexington Avenue east sidewalk from East 46th to East 47th Streets (widened from approximately 11.5 feet to 20 feet)
- Projected Development Site 10: Lexington Avenue west sidewalk from East 48th to East 49th Streets (widened from approximately 12 feet to 20 feet)
- Projected Development Site 11: Lexington Avenue east sidewalk from East 49th to East 50th Streets (widened from approximately 12 feet to 20 feet)

As previously discussed and described in Chapter 1, "Project Description," along with the required sidewalk widenings, the Proposed Action would include pre-identified transit improvements at

subway stations serving the Greater East Midtown area, and some of these improvements would affect pedestrian conditions. These include:

- **Lexington Avenue-51st/53rd Streets (E-M-6**): Proposed improvements at this station include the addition of a new street entrance to the uptown Lexington Avenue Line platform at East 50th Street. A splayed pair of street stairs would be added to the south sidewalk of East 50th Street east of Lexington Avenue. The additional subway access at East 50th Street would divert some passengers from the existing street stairs at East 51st Street.
- **Lexington Avenue-59th Street (N-R-W-4-5-6**): At this station, proposed improvements include the provision of elevators to make the station fully accessible. Through its ongoing preliminary engineering efforts, MTA-NYCT has identified two potential options for locating an ADA-compliant street elevator. The first option would be to locate the street elevator on the west sidewalk of Lexington Avenue south of East 60th Street. The second option would be to locate the street elevator adjacent to the south sidewalk of East 60th Street east of Lexington Avenue (at the site of the existing street stairs within the footprint of the Bloomingdale's building). The second option would also require street stairs to be added to the south sidewalk of East 60th Street east of Lexington Avenue to replace the street stairs within the footprint of Bloomingdale's. Most passengers would be expected to use the stairs for subway access and, therefore, the new street elevator would not be expected to substantially affect passenger circulation.
- **Fifth Avenue-53rd Street (E-M)**: Proposed improvements at this station include the addition of new street entrances and a new mezzanine on the west side of Madison Avenue. Street stairs would be added to the north and south sidewalks of East 53rd Street west of Madison Avenue. In addition, a new elevator on the north sidewalk of East 53rd Street west of Madison Avenue would make the station fully accessible. The additional subway access on the west side of Madison Avenue would divert some passengers from the existing street stairs on the east side of Madison Avenue and from the existing street stairs on the east side of Fifth Avenue.
- **42nd Street Bryant Park-Fifth Avenue (B-D-F-M-7):** Proposed improvements at this station include a new street entrance to the Flushing Line mezzanine from the north side of West 42nd Street, midblock between Fifth and Sixth Avenues. Through its ongoing preliminary engineering efforts, MTA-NYCT has identified that a splayed pair of street stairs could be added to the north sidewalk on West 42nd Street in front of the Grace Building. The additional subway access on the north side of West 42nd Street would divert some passengers from the existing street stairs on the south side of West 42nd Street and the midblock crosswalk on West 42nd Street between Fifth and Sixth Avenues.

The effects of these improvement measures on pedestrian conditions have been incorporated into the analysis of the future 2036 With-Action condition.

Above-Grade Public Realm Improvements

As described above and noted in Chapter 1, "Project Description," DOT has prepared a suite of conceptual options for above-grade public realm improvements that could be implemented within the Greater East Midtown area, which would be financed through the public realm improvement fund. While the exact type and locations of above-grade improvements are not finalized, for purposes of analysis in this Draft EIS, a conceptual plan of these improvements is provided and qualitatively

assessed to identify the potential effects of the above-grade public realm improvements on pedestrian conditions.

Street-Level Pedestrian Operations Analysis

The street-level pedestrian operations analysis is presented first as the future with the Proposed Action without Above-Grade Public Realm Improvements (Action-Without-Improvements) and then as the future with the Proposed Action with Above-Grade Public Realm Improvements (Action-With-Improvements).

Action-Without-Improvements

Anticipated conditions and significant adverse impacts at study area sidewalks, crosswalks, and corner areas in the future with the Proposed Action are shown in Table 12.120 through Table 12.126 and summarized below. Chapter 19, "Mitigation" addresses practicable measures to address these impacts.

Sidewalks

Table 12.120 through Table 12.122 show the incremental change in peak hour pedestrian volumes attributable to the Proposed Action and the total With-Action pedestrian volumes, average pedestrian space, and platoon-adjusted levels of service at study area sidewalks (sidewalk widenings required under the Proposed Action are reflected in the analysis where applicable). Also identified in Table 12.120 through Table 12.112 are sidewalks expected to experience a significant adverse impact in one or more peak hours based on the *CEQR Technical Manual* criteria (refer to Table 12.14 in Section 12.2). As shown in Table 12.120 through Table 12.122, nine of the 67 sidewalks are projected to experience significant adverse impacts during one or more peak hours. It is projected that there would be seven sidewalks with significant adverse impacts during the AM peak hour, three during the Midday, and nine during the PM peak hour. Five of these sidewalks are located along Lexington Avenue, with the remaining sidewalks located on East 43rd Street, East 45th Street and East 46th Street.

As previously discussed, as part of the pre-identified transit improvements, a street elevator would be added to the Lexington Avenue-59th Street subway station in order to make it fully accessible. Through its ongoing preliminary engineering efforts, MTA-NYCT has identified two potential options for locating an ADA-compliant street elevator. The first option is on the west sidewalk of Lexington Avenue south of 60th Street. Although this portion of Lexington Avenue has a widened sidewalk, the elevator could reduce the effective width of this sidewalk and potentially result in significant adverse pedestrian impacts during one or more peak hours. Between the DEIS and FEIS, a quantitative analysis of this sidewalk will be performed to determine if a street elevator at this location would result in significant adverse pedestrian impacts. If significant adverse pedestrian impacts are identified but no practicable and feasible mitigation measures are available, then these impacts would be considered unavoidable adverse impacts. The second option for locating an elevator is off the south sidewalk of East 60th Street east of Lexington Avenue. While this location within the footprint of the Bloomingdale's building would not affect pedestrian conditions on the sidewalk, it would displace the existing stair inside the building footprint and require a new staircase on the sidewalk. This new street stair would not result in impacts to pedestrian conditions because it would be located in an area that is currently occupied by food carts and therefore would not reduce the effective width of the sidewalk.

Additionally, through its ongoing preliminary engineering efforts, MTA-NYCT has identified that a new street entrance to the 42nd Street Bryant Park-Fifth Avenue subway station could be added on the

north sidewalk of West 42nd Street, midblock between Fifth and Sixth Avenues. The new splayed pair of street stairs could reduce the effective width of this sidewalk and potentially result in significant adverse pedestrian impacts during one or more peak hours. Between the DEIS and FEIS, a quantitative analysis of this sidewalk will be performed to determine if the subway street entrance at this location would result in significant adverse pedestrian impacts. If significant adverse pedestrian impacts are identified but no practicable and feasible mitigation measures are available, then these impacts would be considered unavoidable adverse impacts.

Table 12.120: With-Action Sidewalk Conditions in the AM Peak Hour

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
E 39th Street between 5th Avenue and Madison Avenue	North	5	1,121	0.85	59.1	C
E 40th Street between 5th Avenue and Madison Avenue	South	5.5	1,477	0.77	44.1	C
	North	9	1,886	0.82	61.3	C
Madison Avenue between E 40th Street and E 41st Street	West	13	2,862	0.90	63.9	C
E 41st Street between 5th Avenue and Madison Avenue	South	6	1,055	0.92	82.2	C
E 43rd Street between 5th Avenue and Madison Avenue	North	4	2,337	0.94	23.2	D
E 44th Street between 5th Avenue and Madison Avenue	South	5.5	1,451	0.84	49.3	C
	North	4.5	1,622	0.90	38.4	D
Madison Avenue between E 44th Street and E 45th Street	West	11	1,635	0.96	87.5	C
E 45th Street between 5th Avenue and Madison Avenue	South	5.5	1,760	0.93	45.0	C
	North	4.5	1,360	0.89	45.4	C
E 46th Street between 5th Avenue and Madison Avenue	South	4	2,013	0.88	26.2	D
E 53rd Street between 5th Avenue and Madison Avenue	South	5.5	1,194	0.89	64.1	C
	North	10.5	1,058	0.81	127.0	B
Vanderbilt Avenue between E 43rd Street and E 44th Street	East	4	1,461	0.80	33.3	D
E 43rd Street between Madison Avenue and Vanderbilt Avenue	North	3.5	1,612	0.79	25.3	D
Vanderbilt Avenue between E 44th Street and E 45th Street	East	9.5	1,944	0.89	68.1	C
Park Avenue between E 40th Street and E 41st Street	East	12	2,139	0.86	75.4	C
	West	9	3,534	0.93	36.1	D
Park Avenue between E 46th Street and E 47th Street	West	7	1,716	0.79	50.0	C
Park Avenue between E 49th Street and E 50th Street	West	7	2,092	0.83	42.9	C
E 40th Street between Lexington Avenue and 3rd Avenue	North	8	972	0.88	113.7	B
E 41st Street between Lexington Avenue and 3rd Avenue	South	7.5	1,913	0.92	56.4	C
E 42nd Street between Lexington Avenue and 3rd Avenue	North	9	3,248	0.84	50.9	C
Lexington Avenue between E 42nd Street and E 43rd Street	West	6.5	3,856	0.92	33.5	D
Lexington Avenue between E 43rd Street and E 44th Street	East	10	3,925	0.96	37.3	D
	West	7	5,118	0.91	16.9	E
E 43rd Street between Lexington Avenue and 3rd Avenue	North	7.5	1,664	0.84	59.1	C
	South	7.5	2,460	0.93	43.8	C

Notes: SFP = square feet per pedestrian; Shading denotes a significant adverse impact

Table 12.120: With-Action Sidewalk Conditions in the AM Peak Hour (Continued)

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
Lexington Avenue between E 44th Street and E 45th Street	East	4.5	2,620	0.84	20.6	E
	West	5	2,916	0.86	21.2	E
E 44th Street between Lexington Avenue and 3rd Avenue	North	5.5	1,360	0.82	51.4	C
	South	12	1,888	0.87	86.8	C
Lexington Avenue between E 45th Street and E 46th Street	East	6	2,784	0.98	31.8	D
	West	9	2,185	0.91	58.2	C
Lexington Avenue between E 46th Street and E 47th Street	East	13	2,000	0.85	87.3	C
	West	5.5	1,745	0.91	44.4	C
E 46th Street between Lexington Avenue and 3rd Avenue	North	5	926	0.85	71.9	C
Lexington Avenue between E 47th Street and E 48th Street	East	4.5	1,776	0.88	33.7	D
E 47th Street between Lexington Avenue and 3rd Avenue	South	4	675	0.88	81.7	C
Lexington Avenue between E 48th Street and E 49th Street	East	3	1,998	0.90	18.8	E
	West	13	1,007	0.64	129.9	B
E 48th Street between Park Avenue and Lexington Avenue	North	6.5	1,546	0.83	54.0	C
Lexington Avenue between E 49th Street and E 50th Street	East	11	2,506	0.90	61.8	C
	West	5	1,160	0.93	62.6	C
E 49th Street between Lexington Avenue and 3rd Avenue	North	6	548	0.89	153.9	B
E 49th Street between Park Avenue and Lexington Avenue	South	6	496	0.90	171.6	B
Lexington Avenue between E 50th Street and E 51st Street	East	6	2,030	0.87	39.4	D
	West	5	2,967	0.89	21.3	E
E 50th Street between Lexington Avenue and 3rd Avenue	North	5	348	0.82	187.3	B
	South	5.5	849	0.76	77.6	C
Lexington Avenue between E 51st Street and E 52nd Street	East	5	3,109	0.74	17.1	E
	West	10.5	1,929	0.91	78.2	C
E 51st Street between Lexington Avenue and 3rd Avenue	North	3.5	1,359	0.85	33.2	D
3rd Avenue between E 42nd Street and E 43rd Street	East	7.5	2,555	0.88	39.4	D
3rd Avenue between E 43rd Street and E 44th Street	East	8.5	3,472	0.89	32.9	D
3rd Avenue between E 44th Street and E 45th Street	East	4.5	2,750	0.87	20.1	E
3rd Avenue between E 51st Street and E 52nd Street	West	8.5	2,551	0.87	44.9	C
E 52nd Street between Lexington Avenue and 3rd Avenue	South	7.5	824	0.79	113.2	B
	North	7.5	983	0.57	68.5	C
3rd Avenue between E 52nd Street and E 53rd Street	East	6	3,289	0.89	23.5	D
	West	9	1,780	0.87	69.0	C
3rd Avenue between E 53rd Street and E 54th Street	West	7.5	1,919	0.85	51.7	C
3rd Avenue between E 55th Street and 56th Street	West	9	1,409	0.77	77.6	C
E 42nd Street between 3rd Avenue and 2nd Avenue	North	10.5	2,861	0.86	48.7	C
2nd Avenue between E 42nd Street and E 43rd Street	West	7	1,267	0.95	82.3	C
E 43rd Street between 3rd Avenue and 2nd Avenue	South	16.5	915	0.69	197.8	B

Notes: SFP = square feet per pedestrian; Shading denotes a significant adverse impact

Table 12.121: With-Action Sidewalk Conditions in the Midday Peak Hour

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
E 39th Street between 5th Avenue and Madison Avenue	North	5	1,229	0.96	60.7	C
E 40th Street between 5th Avenue and Madison Avenue	South	5.5	2,702	0.91	27.5	D
	North	9	2,074	0.94	63.5	C
Madison Avenue between E 40th Street and E 41st Street	West	13	4,078	0.91	44.5	C
E 41st Street between 5th Avenue and Madison Avenue	South	6	1,686	0.95	52.6	C
E 43rd Street between 5th Avenue and Madison Avenue	North	4	1,684	0.89	31.8	D
E 44th Street between 5th Avenue and Madison Avenue	South	5.5	1,942	0.98	42.5	C
	North	4.5	1,347	0.94	48.9	C
Madison Avenue between E 44th Street and E 45th Street	West	11	2,753	0.81	50.0	C
E 45th Street between 5th Avenue and Madison Avenue	South	5.5	2,391	0.91	31.5	D
	North	4.5	1,720	0.94	37.5	D
E 46th Street between 5th Avenue and Madison Avenue	South	4	2,261	0.93	24.4	D
E 53rd Street between 5th Avenue and Madison Avenue	South	5.5	1,169	0.91	66.7	C
	North	10.5	1,108	0.81	121.5	B
Vanderbilt Avenue between E 43rd Street and E 44th Street	East	4	1,261	0.94	45.9	C
E 43rd Street between Madison Avenue and Vanderbilt Avenue	North	3.5	1,411	0.96	36.2	D
Vanderbilt Avenue between E 44th Street and E 45th Street	East	9.5	1,662	0.95	85.6	C
Park Avenue between E 40th Street and E 41st Street	East	12	1,310	0.91	131.9	B
	West	9	2,596	0.99	53.2	C
Park Avenue between E 46th Street and E 47th Street	West	7	1,708	0.57	35.4	D
Park Avenue between E 49th Street and E 50th Street	West	7	2,060	0.87	45.7	C
E 40th Street between Lexington Avenue and 3rd Avenue	North	8	1,110	0.95	107.5	B
E 41st Street between Lexington Avenue and 3rd Avenue	South	7.5	1,774	0.93	61.1	C
E 42nd Street between Lexington Avenue and 3rd Avenue	North	9	2,655	0.95	58.2	C
Lexington Avenue between E 42nd Street and E 43rd Street	West	6.5	3,276	0.96	35.1	D
Lexington Avenue between E 43rd Street and E 44th Street	East	10	3,482	0.94	41.6	C
	West	7	3,337	0.97	30.6	D
E 43rd Street between Lexington Avenue and 3rd Avenue	North	7.5	1,650	0.93	65.8	C
	South	7.5	1,908	0.85	52.1	C

Notes: SFP = square feet per pedestrian; Shading denotes a significant adverse impact

Table 12.121: With-Action Sidewalk Conditions in the Midday Peak Hour (Continued)

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
Lexington Avenue between E 44th Street and E 45th Street	East	4.5	2,972	0.93	20.0	E
	West	5	2,752	0.94	25.0	D
E 44th Street between Lexington Avenue and 3rd Avenue	North	5.5	1,159	0.87	64.5	C
	South	12	1,880	0.88	88.7	C
Lexington Avenue between E 45th Street and E 46th Street	East	6	2,986	0.96	28.8	D
	West	9	2,390	0.91	53.3	C
Lexington Avenue between E 46th Street and E 47th Street	East	13	2,399	0.94	80.0	C
	West	5.5	2,209	0.89	33.7	D
E 46th Street between Lexington Avenue and 3rd Avenue	North	5	989	0.92	72.7	C
Lexington Avenue between E 47th Street and E 48th Street	East	4.5	1,669	0.88	36.1	D
E 47th Street between Lexington Avenue and 3rd Avenue	South	4	860	0.93	68.0	C
Lexington Avenue between E 48th Street and E 49th Street	East	3	1,673	0.98	25.9	D
	West	13	479	0.74	319.8	B
E 48th Street between Park Avenue and Lexington Avenue	North	6.5	1,092	0.94	87.6	C
Lexington Avenue between E 49th Street and E 50th Street	East	11	1,837	0.90	84.7	C
	West	5	750	0.61	63.6	C
E 49th Street between Lexington Avenue and 3rd Avenue	North	6	1,000	0.81	76.6	C
E 49th Street between Park Avenue and Lexington Avenue	South	6	831	0.87	99.3	B
Lexington Avenue between E 50th Street and E 51st Street	East	6	1,920	0.91	43.7	C
	West	5	2,323	0.83	26.3	D
E 50th Street between Lexington Avenue and 3rd Avenue	North	5	999	0.92	72.1	C
	South	5.5	979	0.81	71.1	C
Lexington Avenue between E 51st Street and E 52nd Street	East	5	2,847	0.92	24.2	D
	West	10.5	1,968	0.89	74.7	C
E 51st Street between Lexington Avenue and 3rd Avenue	North	3.5	1,142	0.89	42.0	C
3rd Avenue between E 42nd Street and E 43rd Street	East	7.5	2,945	0.90	34.9	D
3rd Avenue between E 43rd Street and E 44th Street	East	8.5	3,107	0.93	39.0	D
3rd Avenue between E 44th Street and E 45th Street	East	4.5	2,584	0.84	20.9	E
3rd Avenue between E 51st Street and E 52nd Street	West	8.5	2,665	0.90	44.2	C
E 52nd Street between Lexington Avenue and 3rd Avenue	South	7.5	2,102	0.89	49.0	C
	North	7.5	1,427	0.88	72.3	C
3rd Avenue between E 52nd Street and E 53rd Street	East	6	1,991	0.92	42.8	C
	West	9	2,300	0.88	53.6	C
3rd Avenue between E 53rd Street and E 54th Street	West	7.5	2,382	0.93	45.1	C
3rd Avenue between E 55th Street and 56th Street	West	9	1,364	0.77	80.2	C
E 42nd Street between 3rd Avenue and 2nd Avenue	North	10.5	2,637	0.88	54.5	C
2nd Avenue between E 42nd Street and E 43rd Street	West	7	1,620	0.95	64.0	C
E 43rd Street between 3rd Avenue and 2nd Avenue	South	16.5	1,159	0.80	181.2	B

Notes: SFP = square feet per pedestrian; Shading denotes a significant adverse impact

Table 12.122: With-Action Sidewalk Conditions in the PM Peak Hour

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
E 39th Street between 5th Avenue and Madison Avenue	North	5	1,238	0.88	55.2	C
E 40th Street between 5th Avenue and Madison Avenue	South	5.5	1,904	0.93	41.1	C
	North	9	1,950	0.95	68.6	C
Madison Avenue between E 40th Street and E 41st Street	West	13	2,793	0.97	70.5	C
E 41st Street between 5th Avenue and Madison Avenue	South	6	1,402	0.96	64.2	C
E 43rd Street between 5th Avenue and Madison Avenue	North	4	2,828	0.87	16.8	E
E 44th Street between 5th Avenue and Madison Avenue	South	5.5	1,640	0.89	46.0	C
	North	4.5	2,066	0.94	30.8	D
Madison Avenue between E 44th Street and E 45th Street	West	11	2,460	0.96	67.4	C
E 45th Street between 5th Avenue and Madison Avenue	South	5.5	2,035	0.90	37.2	D
	North	4.5	2,020	0.94	31.4	D
E 46th Street between 5th Avenue and Madison Avenue	South	4	1,590	0.95	10.6	F
E 53rd Street between 5th Avenue and Madison Avenue	South	5.5	1,420	0.92	55.5	C
	North	10.5	1,124	0.86	126.9	B
Vanderbilt Avenue between E 43rd Street and E 44th Street	East	4	1,576	0.90	34.6	D
E 43rd Street between Madison Avenue and Vanderbilt Avenue	North	3.5	2,233	0.86	18.7	E
Vanderbilt Avenue between E 44th Street and E 45th Street	East	9.5	2,758	0.93	49.4	C
Park Avenue between E 40th Street and E 41st Street	East	12	2,321	0.84	68.4	C
	West	9	3,159	0.91	39.6	D
Park Avenue between E 46th Street and E 47th Street	West	7	1,555	0.92	64.9	C
Park Avenue between E 49th Street and E 50th Street	West	7	1,974	0.91	50.0	C
E 40th Street between Lexington Avenue and 3rd Avenue	North	8	910	0.90	124.5	B
E 41st Street between Lexington Avenue and 3rd Avenue	South	7.5	847	0.87	121.7	B
E 42nd Street between Lexington Avenue and 3rd Avenue	North	9	3,791	0.95	58.0	C
Lexington Avenue between E 42nd Street and E 43rd Street	West	6.5	4,873	0.91	33.2	D
Lexington Avenue between E 43rd Street and E 44th Street	East	10	3,192	0.95	45.9	C
	West	7	6,412	1.00	14.1	E
E 43rd Street between Lexington Avenue and 3rd Avenue	North	7.5	1,479	0.94	74.5	C
	South	7.5	1,873	0.89	55.4	C

Notes: SFP = square feet per pedestrian; Shading denotes a significant adverse impact

Table 12.122: With-Action Sidewalk Conditions in the PM Peak Hour (Continued)

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	LOS
Lexington Avenue between E 44th Street and E 45th Street	East	4.5	2,641	0.91	22.3	E
	West	5	3,685	0.93	17.4	E
E 44th Street between Lexington Avenue and 3rd Avenue	North	5.5	1,037	0.91	75.7	C
	South	12	2,273	0.92	75.9	C
Lexington Avenue between E 45th Street and E 46th Street	East	6	2,666	0.98	33.2	D
	West	9	2,789	0.95	47.7	C
Lexington Avenue between E 46th Street and E 47th Street	East	13	2,409	0.84	71.5	C
	West	5.5	1,342	0.71	44.9	C
E 46th Street between Lexington Avenue and 3rd Avenue	North	5	965	0.89	72.1	C
Lexington Avenue between E 47th Street and E 48th Street	East	4.5	1,873	0.88	31.8	D
E 47th Street between Lexington Avenue and 3rd Avenue	South	4	847	0.96	71.0	C
Lexington Avenue between E 48th Street and E 49th Street	East	3	2,557	0.82	11.6	E
	West	13	1,160	0.89	157.2	B
E 48th Street between Park Avenue and Lexington Avenue	North	6.5	1,801	0.95	53.5	C
Lexington Avenue between E 49th Street and E 50th Street	East	11	3,035	0.91	51.2	C
	West	5	1,695	0.76	33.9	D
E 49th Street between Lexington Avenue and 3rd Avenue	North	6	740	0.86	109.8	B
E 49th Street between Park Avenue and Lexington Avenue	South	6	636	0.92	136.9	B
Lexington Avenue between E 50th Street and E 51st Street	East	6	2,365	0.89	34.2	D
	West	5	2,251	0.92	30.8	D
E 50th Street between Lexington Avenue and 3rd Avenue	North	5	948	0.90	74.6	C
	South	5.5	984	0.89	78.2	C
Lexington Avenue between E 51st Street and E 52nd Street	East	5	3,045	0.96	20.1	E
	West	10.5	2,261	0.95	69.4	C
E 51st Street between Lexington Avenue and 3rd Avenue	North	3.5	1,410	0.93	35.0	D
3rd Avenue between E 42nd Street and E 43rd Street	East	7.5	2,660	0.95	41.4	C
3rd Avenue between E 43rd Street and E 44th Street	East	8.5	3,391	0.92	34.9	D
3rd Avenue between E 44th Street and E 45th Street	East	4.5	2,498	0.94	24.7	D
3rd Avenue between E 51st Street and E 52nd Street	West	8.5	2,840	0.89	41.0	C
E 52nd Street between Lexington Avenue and 3rd Avenue	South	7.5	820	0.80	115.5	B
	North	7.5	1,097	0.92	99.1	B
3rd Avenue between E 52nd Street and E 53rd Street	East	6	3,088	0.97	28.0	D
	West	9	2,375	0.93	54.6	C
3rd Avenue between E 53rd Street and E 54th Street	West	7.5	2,167	0.91	48.9	C
3rd Avenue between E 55th Street and 56th Street	West	9	1,464	0.77	74.7	C
E 42nd Street between 3rd Avenue and 2nd Avenue	North	10.5	3,148	0.85	44.0	C
2nd Avenue between E 42nd Street and E 43rd Street	West	7	1,292	0.95	80.7	C
E 43rd Street between 3rd Avenue and 2nd Avenue	South	16.5	1,145	0.94	214.1	B

Notes: SFP = square feet per pedestrian; Shading denotes a significant adverse impact

Crosswalks

Table 12.123 through Table 12.125 show the incremental change in peak hour pedestrian volumes attributable to the Proposed Action and the total With-Action pedestrian volumes, average pedestrian space, and levels of service at analyzed crosswalks. Also identified in Table 12.123 through Table 12.125 are crosswalks expected to be significantly adversely impacted during one or more peak hours based on the *CEQR Technical Manual* criteria shown in Table 12.15 in Section 12.2. As shown in Table 12.123 through Table 12.125, 26 of the 48 crosswalks analyzed are projected to be significantly adversely impacted during one or more peak hours. There would be 23 crosswalks with significant adverse impacts during the AM peak hour, 10 during the Midday, and 22 during the PM peak hour. Ten of these crosswalks would be located at intersections on Lexington Avenue, seven on Third Avenue, five on Madison Avenue, two on Fifth Avenue, and two on Park Avenue.

Table 12.123: With-Action Crosswalk Conditions in the AM Peak Hour

Location	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	Two-way Peak Hour Volume	SFP	LOS
5th Avenue and 42nd Street	North	55	25	2,479	17.3	D
5th Avenue and 43rd Street	East	34	20	2,606	23.5	D
Madison Avenue and E 41st Street	West	34	16	2,495	21.6	D
Madison Avenue and E 43rd Street	North	54	13	2,222	8.6	E
	West	33.5	12	1,794	16.1	D
Madison Avenue and E 45th Street	South	54	13	2,005	11.5	E
Madison Avenue and E 53rd Street	North	55	15	1,802	13.6	E
	South	54	14.5	1,125	21.8	D
	West	35	14.5	1,046	34.3	C
Vanderbilt Avenue and E 43rd Street	North	33.5	13.5	915	UNSIGNALIZED	
Park Avenue Southbound and E 46th Street	West	30.5	14	2,193	14.6	E
Park Avenue Southbound and E 50th Street	West	30	14	2,526	11.9	E
Lexington Avenue and E 42nd Street	North	51	20	2,786	24.2	C
	East	60	13	1,969	25.5	C
	West	60	15	2,228	26.6	C
Lexington Avenue and E 43rd Street	East	34	14	1,815	29.9	C
	South	40	13.5	1,183	14.0	E
Lexington Avenue and E 44th Street	East	37	14	2,575	42.4	B
Lexington Avenue and E 45th Street	East	36	15.5	1,739	23.7	D
	West	41	10.5	2,107	13.8	E
Lexington Avenue and E 46th Street	East	32	14	1,996	20.6	D
	West	32	14	1,996	20.2	D
Lexington Avenue and E 47th Street	East	28	10	1,347	19.2	D
	South	52.5	14.5	780	15.4	D
Lexington Avenue and E 48th Street	North	50.5	13.5	853	35.4	C
	East	34	12	1,390	23.6	D
	West	30	12	1,542	15.5	D
Lexington Avenue and E 49th Street	East	30	12	1,725	19.1	D
	South	51	14	545	46.2	B
	West	30	10.5	1,649	13.6	E
Lexington Avenue and E 50th Street	North	51.5	12	1,447	17.1	D
	East	34	12	1,799	16.8	D
	West	34	16	2,566	16.5	D
Lexington Avenue and E 51st Street	North	51	14	1,954	12.7	E
Lexington Avenue and E 52nd Street	East	35.5	15	1,862	20.0	D
	West	34	18	1,677	28.5	C
3rd Avenue and E 42nd Street	North	69.5	20	1,581	7.2	F
	East	59	18	1,197	22.1	D
	South	70	20	2,724	16.0	D
	West	59	15	1,187	18.7	D
3rd Avenue and E 43rd Street	East	34	15	2,910	12.2	E
	South	70.5	15.5	2,031	16.7	D
3rd Avenue and E 44th Street	East	35	15.	3,187	8.6	E
3rd Avenue and E 52nd Street	West	41	12.	1,295	20.6	D
3rd Avenue and E 53rd Street	West	35.5	13.	1,457	16.5	D
3rd Avenue and E 54th Street	West	33	1	717	48.7	B
3rd Avenue and E 55th Street	West	34	11.	454	48.8	B
2nd Avenue and E 42nd Street	West	60	2	1,227	49.9	B

Notes: SFP = square feet per pedestrian; Shading denotes a significant adverse impact

Table 12.124: With-Action Crosswalk Conditions in the Midday Peak Hour

Location	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	Two-way Peak Hour Volume	SFP	LOS
5th Avenue and 42nd Street	North	55	25	1,459	38.8	C
5th Avenue and 43rd Street	East	34	20	3,183	20.6	D
Madison Avenue and E 41st Street	West	34	16	2,700	14.6	E
Madison Avenue and E 43rd Street	North	54	13	1,375	16.6	D
	West	33.5	12	2,105	16.4	D
Madison Avenue and E 45th Street	South	54	13	2,132	11.1	E
Madison Avenue and E 53rd Street	North	55	15	1,282	24.2	C
	South	54	14.5	1,117	27.7	C
	West	35	14.5	1,429	30.9	C
Vanderbilt Avenue and E 43rd Street	North	33.5	13.5	443	UNSIGNALIZED	
Park Avenue Southbound and E 46th Street	West	30.5	14	1,586	24.2	C
Park Avenue Southbound and E 50th Street	West	30	14	2,049	18.3	D
Lexington Avenue and E 42nd Street	North	51	20	2,107	29.7	C
	East	60	13	1,955	26.0	C
	West	60	15	1,444	31.4	C
Lexington Avenue and E 43rd Street	East	34	14	1,958	29.4	C
	South	40	13.5	1,341	15.6	D
Lexington Avenue and E 44th Street	East	37	14	2,388	53.3	B
Lexington Avenue and E 45th Street	East	36	15.5	1,959	28.3	C
	West	41	10.5	1,437	19.8	D
Lexington Avenue and E 46th Street	East	32	14	2,331	16.5	D
	West	32	14	2,176	22.3	D
Lexington Avenue and E 47th Street	East	28	10	1,826	14.9	E
	South	52.5	14.5	919	11.3	E
Lexington Avenue and E 48th Street	North	50.5	13.5	737	42.1	B
	East	34	12	1,316	28.4	C
	West	30	12	1,394	25.1	C
Lexington Avenue and E 49th Street	East	30	12	1,381	29.6	C
	South	51	14	781	37.7	C
	West	30	10.5	1,220	25.7	C
Lexington Avenue and E 50th Street	North	51.5	12	1,123	23.9	D
	East	34	12	2,025	16.4	D
	West	34	16	1,413	38.6	C
Lexington Avenue and E 51st Street	North	51	14	1,348	28.5	C
Lexington Avenue and E 52nd Street	East	35.5	15	1,533	29.3	C
	West	34	18	1,856	27.8	C
3rd Avenue and E 42nd Street	North	69.5	20	1,494	9.8	E
	East	59	18	1,011	38.2	C
	South	70	20	1,922	31.2	C
	West	59	15	1,162	24.6	C
3rd Avenue and E 43rd Street	East	34	15	2,433	16.1	D
	South	70.5	15.5	1,735	21.6	D
3rd Avenue and E 44th Street	East	35	15.5	1,906	17.9	D
3rd Avenue and E 52nd Street	West	41	12.5	1,367	23.3	D
3rd Avenue and E 53rd Street	West	35.5	13.5	2,079	13.3	E
3rd Avenue and E 54th Street	West	33	16	869	52.1	B
3rd Avenue and E 55th Street	West	34	11.5	618	49.4	B
2nd Avenue and E 42nd Street	West	60	20	1,226	47.7	B

Notes: SFP = square feet per pedestrian; Shading denotes a significant adverse impact

Table 12.125: With-Action Crosswalk Conditions in the PM Peak Hour

Location	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	Two-way Peak Hour Volume	SFP	LOS
5th Avenue and 42nd Street	North	55	25	2,911	18.2	D
5th Avenue and 43rd Street	East	34	20	3,762	14.4	E
Madison Avenue and E 41st Street	West	34	16	2,750	19.4	D
Madison Avenue and E 43rd Street	North	54	13	2,515	8.3	E
	West	33.5	12	2,566	11.4	E
Madison Avenue and E 45th Street	South	54	13	2,833	8.5	E
Madison Avenue and E 53rd Street	North	55	15	1,469	21.3	D
	South	54	14.5	1,430	20.9	D
	West	35	14.5	1,444	30.6	C
Vanderbilt Avenue and E 43rd Street	North	33.5	13.5	936	UNSIGNALIZED	
Park Avenue Southbound and E 46th Street	West	30.5	14	2,374	13.5	E
Park Avenue Southbound and E 50th Street	West	30	14	2,311	15.5	D
Lexington Avenue and E 42nd Street	North	51	20	3,375	27.6	C
	East	60	13	1,956	22.7	D
	West	60	15	2,002	25.7	C
Lexington Avenue and E 43rd Street	East	34	14	2,122	22.9	D
	South	40	13.5	1,814	9.2	E
Lexington Avenue and E 44th Street	East	37	14	2,125	55.9	B
Lexington Avenue and E 45th Street	East	36	15.5	1,595	33.0	C
	West	41	10.5	2,149	13.8	E
Lexington Avenue and E 46th Street	East	32	14	2,043	18.9	D
	West	32	14	2,018	21.7	D
Lexington Avenue and E 47th Street	East	28	10	1,458	18.1	D
	South	52.5	14.5	834	10.4	E
Lexington Avenue and E 48th Street	North	50.5	13.5	1,086	29.8	C
	East	34	12	1,581	19.8	D
	West	30	12	1,447	23.5	D
Lexington Avenue and E 49th Street	East	30	12	1,939	16.5	D
	South	51	14	629	40.7	B
	West	30	10.5	2,121	11.8	E
Lexington Avenue and E 50th Street	North	51.5	12	1,275	23.5	D
	East	34	12	1,895	16.5	D
	West	34	16	2,669	16.7	D
Lexington Avenue and E 51st Street	North	51	14	1,872	17.0	D
Lexington Avenue and E 52nd Street	East	35.5	15	1,735	23.5	D
	West	34	18	1,848	29.6	C
3rd Avenue and E 42nd Street	North	69.5	20	1,949	7.1	F
	East	59	18	1,305	25.3	C
	South	70	20	3,211	13.7	E
	West	59	15	1,190	24.1	C
3rd Avenue and E 43rd Street	East	34	15	2,808	13.9	E
	South	70.5	15.5	1,627	20.7	D
3rd Avenue and E 44th Street	East	35	15.5	2,943	11.7	E
3rd Avenue and E 52nd Street	West	41	12.5	1,500	22.3	D
3rd Avenue and E 53rd Street	West	35.5	13.5	1,748	16.6	D
3rd Avenue and E 54th Street	West	33	16	872	41.4	B
3rd Avenue and E 55th Street	West	34	11.5	554	39.1	C
2nd Avenue and E 42nd Street	West	60	20	1,079	43.4	B

Notes: SFP = square feet per pedestrian; Shading denotes a significant adverse impact

Corner Areas

Table 12.126 shows the incremental change in peak-hour pedestrian volumes attributable to the Proposed Action and the With-Action average pedestrian space and levels of service at analyzed corner areas (sidewalk widenings required under the Proposed Action have been included in the analysis where applicable). Also identified in Table 12.126 are corner areas expected to experience a significant adverse impact during one or more peak hours based on the *CEQR Technical Manual* criteria shown in Table 12.15 in Section 12.2. As shown in Table 12.126, 22 of the 121 corner areas in the study area are projected to experience a significant adverse impact during one or more peak hours. There are projected to be 19 locations that would experience a significant adverse impact affecting a total of 12 intersections during the AM peak hour; eight impacted corner areas at five intersections during the Midday, and 18 impacted corner areas at 10 intersections during the PM peak hour. Of the corner areas with significant adverse impacts, ten would be located along Lexington Avenue, six along Madison Avenue, four along Third Avenue, and one each on Park and Second Avenues.

Table 12.126: With-Action Corner Conditions

Location	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
5th Avenue and 42nd Street	Northeast	75.7	A	106.8	A	63.7	A
	Southeast	59.8	B	90.3	A	43.8	B
	Southwest	53.7	B	94.1	A	48.0	B
	Northwest	62.7	A	117.5	A	58.2	B
5th Avenue and 43rd Street	Northeast	35.5	C	36.0	C	20.6	D
	Southeast	31.3	C	34.9	C	24.5	C
	Southwest	38.7	C	36.5	C	26.1	C
	Northwest	35.4	C	32.8	C	16.8	D
5th Avenue and 44th Street	Northwest	46.8	B	36.0	C	22.4	D
	Southeast	38.2	C	34.7	C	26.8	C
	Southwest	50.7	B	37.5	C	31.8	C
5th Avenue and 45th Street	Southeast	42.2	B	33.5	C	31.1	C
Madison Avenue and E 40th Street	Southwest	37.7	C	32.0	C	46.8	B
	Northwest	35.2	C	33.9	C	42.7	B
Madison Avenue and E 41th Street	Southwest	41.3	B	23.8	D	33.5	C
	Northwest	64.7	A	52.6	B	59.9	B
Madison Avenue and E 42nd Street	Northeast	12.4	E	25.8	C	14.3	E
	Southwest	116.6	A	165.6	A	102.1	A
	Northwest	13.3	E	24.2	C	11.0	E
Madison Avenue and E 43rd Street	Northeast	4.4	F	13.2	E	9.8	E
	Southwest	18.6	D	23.5	D	16.3	D
	Northwest	36.2	C	40.0	B	18.0	D
Madison Avenue and E 44th Street	Southwest	40.3	B	31.5	C	28.4	C
	Northwest	50.9	B	50.0	B	40.0	B
Madison Avenue and E 45th Street	Northeast	6.9	F	7.6	F	4.3	F
	Southeast	12.8	E	15.7	D	10.8	E
	Southwest	33.8	C	26.5	C	21.6	D
	Northwest	50.5	B	43.6	B	40.6	B
Madison Avenue and E 46th Street	Southwest	47.1	B	36.3	C	44.5	B
Madison Avenue and E 53rd Street	Southwest	40.0	C	47.6	B	43.8	B
	Northwest	82.1	A	110.9	A	100.1	A
Vanderbilt Avenue and E 43rd Street	Northwest	UNSIGNALIZED		UNSIGNALIZED		UNSIGNALIZED	
Park Avenue Northbound and E 41st Street	Northeast	Plaza		Plaza		Plaza	
	Southeast	71.1	A	96.5	A	62.4	A
Park Avenue Southbound and E 46th Street	Southwest	40.1	B	54.6	B	48.5	B
	Northwest	32.0	C	30.1	C	22.6	D

Note: SFP = square feet per pedestrian; Shading denotes a significant adverse impact

Table 12.126: With-Action Corner Conditions (Continued)

Location	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
Park Avenue Southbound and E 47th Street	Southwest	22.7	D	23.7	D	28.0	C
Park Avenue Southbound and E 48th Street	Northwest	28.6	C	29.1	C	28.9	C
Park Avenue Northbound and E 48th Street	Northeast	20.1	D	29.6	C	24.3	C
Park Avenue Southbound and E 49th Street	Southwest	25.5	C	35.7	C	25.3	C
	Northwest	14.4	E	33.4	C	28.5	C
Park Avenue Northbound and E 49th Street	Northeast	25.5	C	31.6	C	28.2	C
	Southeast	41.1	B	39.7	C	28.9	C
Park Avenue Southbound and E 50th Street	Southwest	24.4	C	32.1	C	23.2	D
	Northwest	27.1	C	36.9	C	28.6	C
Lexington Avenue and E 41st Street	Southeast	49.8	B	40.9	B	58.3	B
	Southwest	5.9	F	11.0	E	14.3	E
Lexington Avenue and E 42nd Street	Northeast	39.4	C	43.7	B	39.6	C
	Southeast	20.2	D	29.6	C	25.3	C
	Southwest	25.1	C	32.7	C	29.1	C
	Northwest	23.8	D	28.2	C	24.6	C
Lexington Avenue and E 43rd Street	Northeast	50.1	B	48.9	B	36.7	C
	Southeast	25.9	C	23.0	D	12.4	E
Lexington Avenue and E 44th Street	Northeast	24.1	C	27.0	C	27.7	C
	Southeast	57.3	B	68.0	A	64.1	A
Lexington Avenue and E 45th Street	Northeast	22.4	D	11.2	E	20.2	D
	Southeast	15.0	D	10.4	E	20.2	D
	Southwest	10.4	E	10.3	E	16.2	D
	Northwest	33.1	C	22.0	D	26.8	C
Lexington Avenue and E 46th Street	Northeast	44.8	B	31.5	C	33.4	C
	Southeast	18.8	D	13.2	E	20.3	D
	Southwest	26.1	C	25.2	C	31.9	C
	Northwest	27.8	C	24.3	C	24.4	C
Lexington Avenue and E 47th Street	Northeast	39.3	C	25.5	C	42.2	B
	Southeast	74.6	A	55.8	B	58.1	B
	Southwest	32.8	C	24.6	C	36.9	C
	Northwest	33.8	C	20.7	D	38.3	C
Lexington Avenue and E 48th Street	Northeast	31.2	C	36.6	C	25.7	C
	Southeast	30.4	C	29.8	C	24.6	C
	Southwest	30.7	C	37.2	C	42.7	B
	Northwest	39.6	C	64.1	A	46.6	B
Lexington Avenue and E 49th Street	Northeast	62.5	A	85.2	A	55.6	B
	Southeast	29.1	C	32.9	C	23.0	D
	Southwest	66.5	A	77.1	A	49.7	B
	Northwest	21.5	D	44.6	B	26.0	C
Lexington Avenue and E 50th Street	Northeast	15.1	D	18.4	D	18.5	D
	Southeast	47.7	B	58.7	B	44.7	B
	Southwest	10.4	E	25.4	C	8.4	E
	Northwest	12.7	E	30.9	C	18.1	D

Notes: SFP = square feet per pedestrian; Shading denotes a significant adverse impact

Table 12.126: With-Action Corner Conditions (Continued)

Location	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
Lexington Avenue and E 51st Street	Northeast	10.8	E	25.4	C	14.4	E
	Southeast	25.7	C	27.3	C	26.2	C
	Southwest	27.8	C	20.5	D	39.0	C
	Northwest	41.2	B	51.6	B	53.6	B
Lexington Avenue and E 52nd Street	Northeast	110.4	A	130.3	A	138.0	A
	Southeast	26.9	C	25.1	C	34.2	C
	Southwest	58.7	B	44.0	B	62.7	A
	Northwest	361.1	A	367.7	A	423.5	A
Lexington Avenue and E 53rd Street	Southeast	184.3	A	125.6	A	156.0	A
3rd Avenue and E 42nd Street	Northeast	62.7	A	64.4	A	43.4	B
	Southeast	35.5	C	54.5	B	25.5	C
	Southwest	24.5	C	53.7	B	37.4	C
	Northwest	41.4	B	57.2	B	54.8	B
3rd Avenue and E 43rd Street	Northeast	20.9	D	15.1	D	11.7	E
	Southeast	13.7	E	19.7	D	15.6	D
	Southwest	8.2	E	10.5	E	16.3	D
	Northwest	9.2	E	6.8	F	6.7	F
3rd Avenue and E 44th Street	Northeast	34.4	C	39.5	C	27.2	C
	Southeast	28.0	C	46.3	B	37.6	C
3rd Avenue and E 45th Street	Northeast	38.0	C	25.9	C	34.1	C
	Southeast	36.5	C	33.0	C	42.2	B
3rd Avenue and E 48th Street	Northwest	124.3	A	123.9	A	104.5	A
3rd Avenue and E 49th Street	Southwest	365.5	A	311.8	A	280.8	A
	Northwest	348.7	A	292.8	A	258.1	A
3rd Avenue and E 51st Street	Northwest	21.2	D	29.1	C	25.4	C
3rd Avenue and E 52nd Street	Northeast	80.1	A	94.8	A	90.6	A
	Southwest	43.0	B	31.9	C	43.0	B
	Northwest	40.2	B	33.3	C	38.8	C
3rd Avenue and E 53rd Street	Southeast	23.9	D	20.3	D	24.1	C
	Southwest	32.7	C	21.0	D	26.1	C
	Northwest	28.7	C	23.3	D	28.5	C
3rd Avenue and E 54th Street	Southwest	70.5	A	64.1	A	61.6	A
	Northwest	281.6	A	229.0	A	233.7	A
3rd Avenue and E 55th Street	Southwest	82.8	A	62.6	A	77.7	A
	Northwest	79.1	A	58.0	B	65.7	A
3rd Avenue and E 56th Street	Southwest	40.9	B	25.8	C	42.3	B
2nd Avenue and E 42nd Street	Northeast	85.4	A	35.9	C	56.0	B
	Southwest	6.0	F	16.0	D	14.3	E
	Northwest	114.0	A	70.8	A	93.8	A
2nd Avenue and E 43rd Street	Southeast	51.9	B	38.9	C	62.5	A
	Southwest	44.7	B	26.8	C	48.7	B
	Northwest	57.8	B	31.4	C	46.6	B

Notes: SFP = square feet per pedestrian; Shading denotes a significant adverse impact

Action-With-Improvements

As discussed previously, DOT has prepared a suite of conceptual options for above-grade public realm improvements that could be implemented within the Greater East Midtown area, which would be

financed through the public realm improvement fund. While the exact type and locations of above-grade improvements are not finalized, for purposes of analysis in this Draft EIS, a Concept Plan is provided and qualitatively assessed to identify the potential effects of the above-grade public realm improvements on pedestrian conditions.

Sidewalks

The creation of pedestrian plazas is anticipated to improve pedestrian conditions at four analysis locations:

- East and west sidewalks along Park Avenue between East 40th and East 41st Streets
- North and south sidewalks along East 43rd Street between Lexington and Third Avenues.

The conversion of parts of Vanderbilt Avenue, East 41st Street and East 44th Street to shared streets is anticipated to improve pedestrian conditions at five analysis locations:

- South sidewalk along East 41st Street between Fifth and Madison Avenues
- East sidewalks along Vanderbilt Avenue between East 43rd and East 45th Streets
- North and south sidewalks along East 44th Street between Lexington and Third Avenues.

As pedestrians would not be confined to the sidewalk on these shared streets and pedestrian plazas, it is anticipated that there would be an improvement in the pedestrian experience at these locations when compared to the No-Action condition.

In regards to the thoroughfare improvements, the addition of sidewalk widenings at midblock locations is anticipated to improve pedestrian conditions as these would relieve sidewalk crowding.

Crosswalks

The creation of pedestrian plazas is anticipated to improve pedestrian conditions at one analysis location:

- East crosswalk at the Lexington Avenue and East 43rd Street intersection

The conversion of sections of Vanderbilt Avenue, East 41st Street, and East 44th Street to shared streets is anticipated to improve pedestrian conditions at two analysis locations:

- West crosswalk at the intersection of Madison Avenue and East 41st Street
- East crosswalk at the intersection of Lexington Avenue and East 44th Street

The creation of pedestrian plazas and shared streets would result in pedestrians no longer queuing to cross the street at these locations. As such, it is anticipated that pedestrian conditions would improve at these locations when compared to the No-Action condition.

In regards to the thoroughfare improvements, the widening of crosswalks is anticipated to improve pedestrian conditions as this would provide additional capacity for pedestrians crossing streets at intersections. However, the addition of curb extensions at intersection corners is anticipated to worsen pedestrian conditions at crosswalks as this would reduce the crosswalk length and the corresponding amount of crosswalk area.

Corner Areas

The creation of pedestrian plazas is anticipated to improve pedestrian conditions at four corner analysis locations:

- Southeast corner at the intersection of Park Avenue Northbound and East 41st Street
- Northeast and southeast corners at the intersection of Lexington Avenue and East 43rd Street
- Southwest corner at the intersection of Third Avenue and East 43rd Street

The conversion of sections of Vanderbilt Avenue, East 41st Street, and East 44th Street to shared streets is anticipated to improve pedestrian conditions at six analysis locations:

- Southwest and northwest corners at the intersection of Madison Avenue and East 41st Street
- Northwest corner at the intersection of Vanderbilt Avenue and East 43rd Street
- Southwest corner at the intersection of Lexington Avenue and East 41st Street
- Northeast and southeast corners at the intersection of Lexington Avenue and East 44th Street

Pedestrians currently queue within the corner reservoir area during the red phase of the signal. The creation of pedestrian plazas and shared streets would no longer confine the pedestrians to the corner reservoir areas by creating additional queueing area. In addition, the elimination of conflicting vehicles as a result of the plazas creates, in effect, unsignalized crosswalks. Therefore, it is anticipated that a qualitative improvement would be realized in the pedestrian experience at these locations when compared to the No-Action condition.

In regards to the thoroughfare improvements, the addition of curb extensions at intersection corners is anticipated to improve pedestrian conditions as these would relieve sidewalk crowding.

Assuming that the above-grade public realm improvements are finalized by DOT, a detailed pedestrian analysis of the Proposed Action with above-grade public realm improvements (Action-With-Improvements) will be performed between the DEIS and FEIS. This analysis will provide a quantitative assessment of the pedestrian impacts resulting from the development with the above-grade public realm improvements in comparison to the No-Action condition. If significant adverse pedestrian impacts are identified but no practicable and feasible mitigation measures are available, then these impacts would be considered unavoidable adverse impacts.

12.6 Vehicular and Pedestrian Safety Evaluation

Crash data for intersections in the traffic and pedestrian study areas were obtained from DOT for the three-year period between January 1, 2012 and December 31, 2014, the most recent period available. These data are developed based on information provided by the New York State Department of Transportation (NYSDOT), New York State Department of Motor Vehicles (NYSDMV), and New York City Police Department (NYPD). The data quantify the total number of reportable (involving a fatality, injury, or more than $1,000 in property damage) and non-reportable crashes as well as the total number of crashes involving injuries to pedestrians or bicyclists. During the three-year reporting period, a total of 2,107 reportable and non-reportable crashes, two fatalities, and 766 pedestrian/bicyclist-related injury crashes occurred at study area intersections. Table 12.127 provides details of crash characteristics

by intersection during the 2012 to 2014 period, as well as a breakdown of pedestrian and bicycle crashes by year and location.

According to the *CEQR Technical Manual*, a high-crash location is one where there were 48 or more reportable and non-reportable crashes or five or more pedestrian/bicyclist-related crashes in any consecutive 12 months within the most recent three-year period for which data are available. Within the study area, no intersections had 48 or more crashes in any consecutive 12 months during the most recent three-year period. However, 32 intersections had five or more pedestrian/bicyclist-related crashes within a consecutive 12-month period. These intersections, identified as high-crash locations in Table 12.127, are the following:

Table 12.127: Summary of Motor Vehicle Crash Data, 2012-2014

Intersection		Pedestrian Injury Crashes			Bicycle Injury Crashes			Total Pedestrian/Bicycle Injury Crashes			Total Crashes			Total Fatalities	Total Injuries
		2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014		
First Avenue	E 40th Street	1	3	2	0	0	0	1	3	2	3	6	2	0	9
	E 42nd Street	5	0	0	0	0	2	5	0	2	12	11	7	0	44
	E 44th Street	0	2	0	0	0	0	0	2	0	2	2	0	0	2
	E 46th Street	1	1	1	0	0	1	1	1	2	1	2	2	0	5
	E 47th Street	1	0	0	0	1	1	1	1	1	2	2	3	0	6
	E 48th Street	1	1	0	1	0	0	2	1	0	4	1	1	0	5
	E 49th Street	2	4	4	1	0	0	3	4	4	10	10	12	0	31
	E 53rd Street	1	1	1	0	0	1	1	1	2	10	2	3	0	7
	E 54th Street	1	1	2	0	0	1	1	1	3	3	9	5	1	15
	E 55th Street	3	2	0	0	0	0	3	2	0	6	5	5	0	16
	E 57th Street	3	3	1	2	2	1	5	5	2	7	8	7	0	18
Second Avenue	**E 36th Street**	0	1	3	0	2	4	0	3	7	7	13	16	0	21
	E 37th Street*	1	2	3	0	1	1	1	3	4	4	7	8	0	16
	E 38th Street*	1	2	0	0	2	1	1	4	1	6	7	6	0	17
	E 39th Street	2	0	5	0	0	0	2	0	5	3	4	7	0	10
	E 40th Street	1	1	2	2	1	0	3	2	2	4	9	5	0	16
	E 41st Street	2	1	0	0	0	0	2	1	0	6	2	5	0	9
	E 42nd Street	6	7	5	1	3	1	7	10	6	25	16	13	0	64
	E 43rd Street	1	2	0	1	0	0	2	2	0	4	4	2	0	10
	E 44th Street	2	1	1	0	0	3	2	1	4	3	4	8	0	13
	E 45th Street	1	1	0	1	0	0	2	1	0	7	5	7	0	14
	E 46th Street*	0	1	2	0	0	2	0	1	4	8	6	9	0	21
	E 47th Street	1	3	2	2	1	0	3	4	2	9	9	8	0	15
	E 48th Street	0	1	1	1	2	0	1	3	1	5	4	5	0	11
	E 49th Street	0	4	2	1	0	0	1	4	2	8	6	8	0	13
	E 50th Street	0	4	0	1	1	0	1	5	0	4	5	2	0	6
	E 51st Street	0	0	1	0	1	2	0	1	3	7	5	7	0	10
	E 52nd Street	1	2	1	0	1	0	1	3	1	4	10	3	0	15
	E 53rd Street	7	1	1	3	2	1	10	3	2	15	11	5	0	34
	E 54th Street	2	0	1	1	0	3	3	0	4	4	2	5	0	8
	E 55th Street	2	5	1	0	0	1	2	5	2	4	7	6	0	13
	E 56th Street	3	2	0	0	1	1	3	3	1	4	8	3	0	13
	E 57th Street	5	2	2	5	2	0	10	4	2	19	20	11	0	34
	E 59th Street	4	2	2	3	3	1	7	5	3	26	25	26	0	45
	E 60th Street	2	1	1	0	0	1	2	1	2	9	12	25	0	31
Queens Midtown Tunnel Exit Street	E 37th Street	0	0	0	0	0	0	0	0	0	0	0	1	0	1
	E 39th Street	1	0	1	0	1	0	1	1	1	4	1	2	0	8
	E 40th Street	0	0	1	0	0	0	0	0	1	0	0	2	0	6

Table 12.127: Summary of Motor Vehicle Crash Data, 2012-2014 (continued)

Intersection		Pedestrian Injury Crashes			Bicycle Injury Crashes			Total Pedestrian/Bicycle Injury Crashes			Total Crashes			Total Fatalities	Total Injuries
		2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014		
Third Avenue	**E 36th Street**	2	2	9	0	0	0	2	2	9	11	3	7	0	20
	E 37th Street*	2	3	2	1	0	0	3	3	2	12	11	8	0	28
	E 38th Street	2	0	2	0	1	0	2	1	2	10	2	6	0	12
	E 39th Street	0	0	0	0	1	0	0	1	0	7	8	3	0	10
	E 40th Street	1	1	3	0	0	0	1	1	3	2	5	8	0	20
	E 41st Street	0	2	2	2	1	1	2	3	3	4	8	5	0	11
	E 42nd Street	5	5	2	0	0	1	5	5	3	12	13	10	0	35
	E 43rd Street	1	0	1	1	0	1	2	0	2	8	3	4	0	13
	E 44th Street	1	1	1	2	1	2	3	2	3	5	6	7	0	18
	E 45th Street	1	0	2	0	1	1	1	1	3	4	3	5	0	7
	E 46th Street	0	0	0	0	0	0	0	0	0	6	2	5	0	13
	E 47th Street*	1	1	3	0	3	0	1	4	3	2	7	8	0	18
	E 48th Street	3	1	1	0	0	1	3	1	2	4	5	5	0	12
	E 49th Street*	0	2	3	0	2	0	0	4	3	7	10	5	0	19
	E 50th Street	3	2	1	0	1	0	3	3	1	9	4	6	0	14
	E 51st Street	2	2	1	0	1	0	2	3	1	3	4	5	0	11
	E 52nd Street	2	2	1	0	0	1	2	2	2	7	4	4	0	12
	E 53rd Street	1	5	3	1	0	3	2	5	6	10	10	10	0	28
	E 54th Street	4	1	1	2	1	1	6	2	2	10	4	6	0	25
	E 55th Street	3	0	0	1	0	0	4	0	0	9	5	3	0	10
	E 56th Street	1	0	0	0	1	1	1	1	1	5	4	4	0	12
	E 57th Street	5	4	5	0	0	0	5	4	5	18	21	15	0	31
	E 59th Street	1	3	4	1	0	0	2	3	4	10	14	15	0	22
Lexington Avenue	E 36th Street	0	2	1	0	0	1	0	2	2	3	4	4	0	10
	E 38th Street	1	0	0	0	0	0	1	0	0	3	2	0	0	4
	E 39th Street	2	1	0	0	0	0	2	1	0	4	9	0	0	9
	E 40th Street	0	1	0	0	0	0	0	1	0	1	3	2	0	4
	E 41st Street	1	0	0	0	0	0	1	0	0	2	3	6	0	5
	E 42nd Street	2	6	4	0	0	0	2	6	4	9	11	10	0	24
	E 43rd Street	1	2	0	0	0	0	1	2	0	1	3	1	0	5
	E 44th Street	1	0	0	1	0	0	2	0	0	2	1	0	0	2
	E 45th Street	3	1	1	0	0	0	3	1	1	6	1	4	0	9
	E 46th Street	1	2	0	1	1	0	2	3	0	3	3	1	0	8
	E 47th Street	1	1	3	1	1	0	2	2	3	2	6	4	0	8
	E 48th Street	2	0	2	0	0	1	2	0	3	6	1	5	0	13
	E 49th Street	0	2	1	1	1	0	1	3	1	2	6	2	0	10
	E 50th Street	4	0	0	2	0	0	6	0	0	7	0	3	0	9
	E 51st Street	0	2	1	1	0	0	1	2	1	2	4	2	0	8
	E 52nd Street	0	1	0	0	0	0	0	1	0	1	3	1	0	2
	E 53rd Street	0	0	1	0	1	0	0	1	1	0	2	4	0	4
	E 54th Street	1	2	1	0	1	0	1	3	1	2	5	1	0	6
	E 55th Street	2	0	0	0	0	0	2	0	0	3	1	3	0	9
	E 56th Street	0	1	0	1	0	0	1	1	0	3	2	2	0	5
	E 57th Street	3	3	1	2	0	3	5	3	4	11	10	7	0	25

Table 12.127: Summary of Motor Vehicle Crash Data, 2012-2014 (continued)

Intersection		Pedestrian Injury Crashes			Bicycle Injury Crashes			Total Pedestrian/Bicycle Injury Crashes			Total Crashes			Total Fatalities	Total Injuries
		2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014		
Park Avenue	E 36th Street	2	1	0	0	0	0	2	1	0	5	5	4	0	13
	E 38th Street	1	2	0	1	0	0	2	2	0	2	3	4	0	9
	E 39th Street	0	0	1	1	0	0	1	0	1	8	11	8	0	19
	E 40th Street	1	1	1	1	0	0	2	1	1	4	3	2	0	12
	E 41st Street	0	0	0	0	1	1	0	1	1	0	1	2	0	2
	E 46th Street	1	0	0	1	0	0	2	0	0	5	1	2	0	6
	E 47th Street	0	0	1	0	0	1	0	0	2	8	4	6	0	14
	E 48th Street	1	1	0	0	0	1	1	1	1	3	1	3	0	4
	E 49th Street	0	3	2	0	0	0	0	3	2	2	8	4	0	9
	E 50th Street	0	1	0	0	0	0	0	1	0	2	3	1	0	3
	E 51st Street	1	1	1	1	1	0	2	2	1	4	4	2	0	9
	E 52nd Street*	3	2	0	1	2	1	4	4	1	9	7	2	0	15
	E 53rd Street	2	0	0	0	3	0	2	3	0	4	10	2	0	10
	E 54th Street	0	0	0	1	1	0	1	1	0	3	2	0	0	6
	E 55th Street*	2	4	0	0	0	0	2	4	0	4	7	2	0	8
	E 56th Street	3	0	3	1	1	0	4	1	3	6	2	3	0	10
	E 57th Street	3	3	3	2	0	4	5	3	7	10	13	12	0	34
Vanderbilt Ave	E 43rd Street	1	1	1	0	0	0	1	1	1	1	1	2	0	5
Madison Avenue	E 39th Street	0	2	2	0	0	0	0	2	2	6	4	7	0	11
	E 40th Street	3	2	1	0	0	0	3	2	1	4	2	2	0	7
	E 41st Street	1	2	1	0	1	0	1	3	1	3	3	3	0	5
	E 42nd Street*	2	1	1	1	2	0	3	3	1	7	6	7	0	14
	E 43rd Street	0	0	0	0	0	0	0	0	0	1	3	2	0	4
	E 44th Street	1	2	2	0	0	0	1	2	2	3	4	5	0	12
	E 45th Street	1	0	0	0	1	2	1	1	2	2	1	6	0	5
	E 46th Street	0	0	1	0	1	0	0	1	1	0	3	1	0	5
	E 48th Street	0	0	2	0	1	1	0	1	3	2	6	5	0	13
	E 49th Street	0	1	0	2	1	0	2	2	0	4	6	4	1	12
	E 53rd Street	0	1	1	0	1	1	0	2	2	2	5	4	0	6
	E 54th Street	4	0	3	0	0	1	4	0	4	7	3	5	0	16
Fifth Avenue	38th Street	1	0	1	0	2	1	1	2	2	6	8	5	0	13
	39th Street	11	1	4	0	0	1	11	1	5	9	6	10	0	26
	40th Street	1	0	1	1	1	2	2	1	3	4	4	4	0	13
	42nd Street	3	5	3	3	3	2	6	8	5	10	12	12	0	29
	43rd Street	2	0	0	0	1	0	2	1	0	3	2	4	0	4
	44th Street	3	1	3	0	2	1	3	3	4	4	11	10	0	19
	45th Street	1	1	3	0	2	0	1	3	3	4	6	8	0	14
	47th Street	3	1	0	0	2	1	3	3	1	5	3	3	0	7
	48th Street	2	0	1	1	0	0	3	0	1	5	5	5	0	11
	49th Street	1	1	1	2	0	0	3	1	1	7	6	2	0	9
	54th Street	1	0	1	3	0	1	4	0	2	6	2	3	0	8
	57th Street	3	1	3	3	3	3	6	4	6	16	12	15	0	26
Sixth Avenue	W 48th Street	1	0	1	1	1	1	2	1	2	6	4	6	0	7
	W 49th Street	3	0	2	1	3	3	4	3	5	6	5	7	0	19

Source:
NYSDOT crash data from January 1, 2012 through December 31, 2014.
Notes:
Shading denotes high-crash locations.
*Intersection has five or more pedestrian-/bicyclist-related crashes in a consecutive 12-month period.

- First Avenue – intersections of First Avenue with East 42nd and East 57th Streets;
- Second Avenue – intersections of Second Avenue with East 36th, East 37th, East 38th, East 39th, East 42nd, East 46th, East 50th, East 53rd, East 55th, East 57th, and East 59th Streets;
- Third Avenue – intersections of Third Avenue with East 36th, East 37th, East 42nd, East 47th, East 49th, East 53rd, East 54th, and East 57th Streets;
- Lexington Avenue – intersections of Lexington Avenue with East 42nd, East 50th, and East 57th Streets;
- Park Avenue – intersections of Park Avenue with East 52nd, East 55th, and East 57th Streets;
- Madison Avenue – intersection of Madison Avenue with East 42nd Street;
- Fifth Avenue – intersections of Fifth Avenue with 39th, 42nd, and 57th Streets; and
- Sixth Avenue – intersection of Sixth Avenue with West 49th Street.

Of the 32 high-crash locations, the following 16 intersections are anticipated to see significant increases in pedestrian traffic and/or turning vehicles conflicting with pedestrians as a result of the Proposed Action.

Second Avenue and East 39th Street

With the Proposed Action, this signalized intersection would experience increases in hourly pedestrian volumes of about 30 pedestrians on each of the four crosswalks as the worst-case condition. The southbound right-turn volume which conflicts with the west crosswalk would experience an increase of about 45 vehicles per hour (vph). Based on a review of the crash data, of the seven pedestrian-related crashes between 2012 and 2014, three occurred due to wet road conditions; no prevailing trends were identified as the primary causes for other crashes at this intersection. This intersection is signalized and has pedestrian countdown signals on all crosswalks, stop bars on the southbound and westbound approaches, high visibility crosswalks across Second Avenue, a westbound bicycle lane, and a southbound shared bicycle lane. Measures to improve pedestrian safety at this intersection could include the installation of "LOOK!" pavement markings on all crosswalks, "Turning Vehicles Yield to Pedestrians" signage, and high visibility crosswalks across East 39th Street.

Second Avenue and East 42nd Street

With the Proposed Action, this signalized intersection would experience increases in hourly pedestrian volumes of about 250 pedestrians on the north crosswalk, about 340 pedestrians on the west crosswalk, and less than 100 pedestrians on the east and west crosswalks as the worst-case condition. The southbound left turn volume which conflicts with the east crosswalk would experience an increase of about 40 vph. Based on a review of the crash data, of the six pedestrian-related crashes in 2012, three involved pedestrians crossing against the signal; no prevailing trends were identified as the primary causes for other crashes at this intersection. This signalized intersection has a leading pedestrian interval, pedestrian countdown signals on all crosswalks, stop bars on the southbound, eastbound and westbound approaches, four high visibility crosswalks, an exclusive southbound left-turn lane, and a southbound shared bicycle lane. Measures to improve pedestrian safety at this intersection could include the installation of "LOOK!" pavement markings on crosswalks and "Turning Vehicles Yield to

Pedestrians" signage. This intersection is categorized as a high priority intersection as part of the NYC Vision Zero Program.

Second Avenue and East 53rd Street

With the Proposed Action, this signalized intersection would experience relatively modest increases in pedestrian volumes (about 60 pedestrians per hour or fewer) on all four crosswalks. Conflicting turning volumes would also be modest (about 20 vph or less). Based on a review of the crash data, of the five bicycle-related crashes between 2012 and 2013, three occurred outside of daylight hours; no prevailing trends were identified as the primary causes for other crashes at this intersection. This signalized intersection has a leading pedestrian interval, pedestrian countdown signals on all crosswalks, stop bars on the southbound and westbound approaches, and high visibility crosswalks across Second Avenue, and a southbound shared bicycle lane. Measures to improve pedestrian safety at this intersection could include the installation of "LOOK!" pavement markings on crosswalks, "Turning Vehicles Yield to Pedestrians" signage, implementing high visibility crosswalks across East 53rd Street, and potentially improving the lighting at this intersection for better visibility outside of daylight hours. This intersection is categorized as a high priority intersection as part of the NYC Vision Zero Program.

Second Avenue and East 57th Street

With the Proposed Action, this signalized intersection would experience relatively modest increases in pedestrian volumes (fewer than 10 pedestrians per hour) on all four crosswalks. Conflicting turning volumes would also be modest (about 25 vph or fewer). Based on a review of the crash data, of the five pedestrian-related crashes in 2012, four occurred outside of daylight hours, and of the four pedestrian-related crashes in 2013 and 2014, three involved construction or other actions in the roadway. No prevailing trends were identified as the primary causes for other crashes at this intersection. This signalized intersection has a leading pedestrian interval, pedestrian countdown signals on all crosswalks, stop bars on the southbound, eastbound and westbound approaches, four high visibility crosswalks, an exclusive westbound left turn lane, and a southbound shared bicycle lane. Measures to improve pedestrian safety at this intersection could include the installation of "LOOK!" pavement markings on crosswalks, "Turning Vehicles Yield to Pedestrians" signage. Additionally, restriping faded crosswalks could improve visibility for both pedestrians and motorists. This intersection is also categorized as a high priority intersection as part of the NYC Vision Zero Program.

Third Avenue and East 42nd Street

With the Proposed Action, this intersection would experience substantial increases in maximum hourly pedestrian volumes: about 1,000 pedestrians on the north crosswalk, about 550 pedestrians on the south crosswalk, about 600 pedestrians on the east crosswalk, and about 500 pedestrians on the west crosswalk. Conflicting turning volume increases would be modest (about 30 vph or less). Based on a review of the crash data, no prevailing trends were identified as the primary causes for crashes at this intersection. This intersection is currently signalized and has a leading pedestrian interval, pedestrian countdown signals on all crosswalks, an eastbound left-turn lane and protected signal phase, stop bars on the northbound, eastbound and westbound approaches, and four high visibility crosswalks.

Measures to improve pedestrian safety at this intersection could include the installation of "LOOK!" pavement markings on crosswalks, and "Turning Vehicles Yield to Pedestrians" signage.

Third Avenue and East 47th Street

With the Proposed Action, this intersection would experience increases in hourly pedestrian volumes of about 165 pedestrians on the east crosswalk, about 200 pedestrians on the west crosswalk, and fewer than 60 pedestrians on the north and south crosswalks as the worst case condition. Conflicting turning volumes would be modest (about 25 vph or less). Based on a review of the crash data, of the five pedestrian-related crashes between 2012 and 2014, three occurred outside of daylight hours. No prevailing trends were identified as the primary causes for other crashes at this intersection. This intersection is currently signalized with pedestrian countdown signals on all crosswalks, and stop bars on the northbound and westbound approaches. Measures to improve pedestrian safety at this intersection could include the installation of "LOOK!" pavement markings on crosswalks, "Turning Vehicles Yield to Pedestrians" signage, implementing high visibility crosswalks, and potentially improving the lighting at this intersection for better visibility outside of daylight hours.

Third Avenue and East 49th Street

With the Proposed Action, this intersection would experience increases in hourly pedestrian volumes of about 250 pedestrians on the west crosswalk and about 150 pedestrians on each of the other crosswalks as the worst case condition. Conflicting turning volumes would be modest (about 30 vph). Based on a review of the crash data, of the seven bicycle-related crashes between 2013 and 2014, five occurred outside of daylight hours. No prevailing trends were identified as the primary causes for other crashes at this intersection. This intersection is currently signalized with split phasing, pedestrian countdown signals on all crosswalks, stop bars on the northbound and westbound approaches, and high visibility crosswalks. Measures to improve pedestrian safety at this intersection could include the installation of "LOOK!" pavement markings on crosswalks, "Turning Vehicles Yield to Pedestrians" signage, and potentially improving the lighting at this intersection for better visibility outside of daylight hours.

Third Avenue and East 53rd Street

With the Proposed Action, this intersection would experience increases in hourly pedestrian volumes of about 380 pedestrians on the west crosswalk, about 250 pedestrians on the south crosswalk, and about 150 pedestrians on each of the other crosswalks as the worst case condition. Conflicting turning volumes would be modest (about 10 vph). Based on a review of the crash data, of the nine pedestrian-related crashes between 2012 and 2014, five involved pedestrians crossing against the signal, getting into or out of a vehicle, and other actions in the roadway. Three of the five pedestrian-related crashes in 2013 occurred outside of daylight hours. No prevailing trends were identified as the primary causes for other crashes at this intersection. This intersection is currently signalized with split phasing, pedestrian countdown signals on all crosswalks, stop bars on the northbound and westbound approaches, and high visibility crosswalks. Measures to improve pedestrian safety at this intersection could include the installation of "LOOK!" pavement markings on crosswalks, "Turning Vehicles Yield to Pedestrians" signage, and potentially improving the lighting at this intersection for better visibility

outside of daylight hours. Additionally, restriping faded crosswalks could improve visibility for both pedestrians and motorists.

Third Avenue and East 54th Street

With the Proposed Action, this intersection would experience increases in hourly pedestrian volumes of about 310 pedestrians on the west crosswalk, about 120 pedestrians on the east crosswalk, and about 20 pedestrians on each of the other crosswalks as the worst case condition. Conflicting turning volumes would be modest (about 25 vph). Based on a review of the crash data, of the 10 pedestrian and bicycle-related crashes between 2012 and 2014, five involved pedestrians or bicycles crossing against the signal, emerging from behind a parked vehicle, and other actions in the roadway. Seven of the 10 crashes occurred outside of daylight hours. This intersection is currently signalized with split phasing, pedestrian countdown signals on all crosswalks, stop bars on the northbound and eastbound approaches, high visibility crosswalks, and an eastbound bike lane. Measures to improve pedestrian safety at this intersection could include the installation of "LOOK!" pavement markings on crosswalks, "Turning Vehicles Yield to Pedestrians" signage, and potentially improving the lighting at this intersection for better visibility outside of daylight hours.

Third Avenue and East 57th Street

With the Proposed Action, this intersection would experience increases in hourly pedestrian volumes of about 160 pedestrians on the west crosswalk, and about 20 pedestrians on each of the other crosswalks as the worst case condition. Conflicting turning volumes would be negligible. Based on a review of the crash data, of the nine pedestrian-related crashes between 2012 and 2013, three occurred due to wet road conditions, and of the nine pedestrian-related crashes between 2013 and 2014, five involved pedestrians crossing against the signal, on-going work in the roadway, and did not occur at the crosswalks. Seven of the 14 pedestrian-related crashes between 2012 and 2014 occurred outside of daylight hours. This intersection is currently signalized with a leading pedestrian interval, pedestrian countdown signals on all crosswalks, stop bars on the northbound, eastbound and westbound approaches, and high visibility crosswalks. Measures to improve pedestrian safety at this intersection could include the installation of "LOOK!" pavement markings on crosswalks, "Turning Vehicles Yield to Pedestrians" signage, and potentially improving the lighting at this intersection for better visibility outside of daylight hours. Additionally, restriping faded crosswalks could improve visibility for both pedestrians and motorists. This intersection is categorized as a high priority intersection as part of the NYC Vision Zero Program.

Lexington Avenue and East 42nd Street

With the Proposed Action, this intersection would experience increases in hourly pedestrian volumes of about 770 pedestrians on the north crosswalk, about 150 pedestrians on the south crosswalk, about 210 pedestrians on the east crosswalk, and about 365 pedestrians on the west crosswalk as the worst case condition. Conflicting turning volumes would be 10 vph or less. Based on a review of the crash data, of the 10 pedestrian-related crashes between 2013 and 2014, eight occurred outside of daylight hours. No other crashes were reported between 2012 and 2014 at this intersection. This intersection is currently signalized and has a leading pedestrian interval, pedestrian countdown signals on all

crosswalks, stop bars on the southbound, eastbound and westbound approaches, four high visibility crosswalks, and an exclusive southbound left-turn lane. All eastbound vehicles (except buses) are restricted from making any turns during the AM and PM peak hours and all westbound vehicles (except buses) are restricted from making any turns during the AM, Midday, and PM peak hours. Measures to improve pedestrian safety at this intersection could include the installation of "LOOK!" pavement markings on crosswalks, "Turning Vehicles Yield to Pedestrians" signage, and potentially improving the lighting at this intersection for better visibility outside of daylight hours. Additionally, restriping faded crosswalks could improve visibility for both pedestrians and motorists.

Lexington Avenue and East 50th Street

With the Proposed Action, this intersection would experience increases in hourly pedestrian volumes of about 155 pedestrians on the north crosswalk, about 250 pedestrians on the south crosswalk, about 1,000 pedestrians on the east crosswalk, and about 1,240 pedestrians on the west crosswalk as the worst case condition. Conflicting turning volumes would be 10 vph or less. Based on a review of the crash data, of the six pedestrian-related crashes that occurred in 2012, four occurred outside of daylight hours. Two of these crashes occurred during wet roadway conditions. This intersection is signalized and has pedestrian countdown signals on all crosswalks, stop bars on the southbound and eastbound approaches, and four high visibility crosswalks. Measures to improve pedestrian safety at this intersection could include the installation of "LOOK!" pavement markings on crosswalks, "Turning Vehicles Yield to Pedestrians" signage, and potentially improving the lighting at this intersection for better visibility outside of daylight hours.

Park Avenue and East 52nd Street

With the Proposed Action, this intersection would experience increases in hourly pedestrian volumes of about 230 pedestrians on the west crosswalk, and about 50 pedestrians or fewer on each of the three other crosswalks as the worst case condition. Conflicting turning volumes would be 10 vph or less. Based on a review of the crash data, of the eight pedestrian and bicycle-related crashes that occurred between 2012 and 2013, five involved pedestrians or bicyclists crossing against the signal, riding along with traffic, or getting on or off a vehicle. This intersection is currently signalized and has pedestrian countdown signals on all crosswalks. Measures to improve pedestrian safety at this intersection could include the installation of "LOOK!" pavement markings on crosswalks, "Turning Vehicles Yield to Pedestrians" signage, implementing STOP bars on the northbound, southbound and eastbound approaches, and high visibility crosswalks on all four approaches.

Park Avenue and East 57th Street

With the Proposed Action, this intersection would experience increases in hourly pedestrian volumes of about 35 pedestrians or fewer on each of the four crosswalks as the worst case condition. Conflicting turning volumes would be 10 vph or less. Based on a review of the crash data, of the eight pedestrian and bicycle-related crashes that occurred between 2012 and 2013, six occurred outside of daylight hours. This intersection is currently signalized, has pedestrian countdown signals on all crosswalks, stop bars on all four approaches, and four high visibility crosswalks. All eastbound and westbound vehicles are restricted from making left turns during the weekday AM, Midday, and PM peak hours.

Measures to improve pedestrian safety at this intersection could include the installation of "LOOK!" pavement markings on crosswalks, "Turning Vehicles Yield to Pedestrians" signage. Additionally, restriping faded crosswalks could improve visibility for both pedestrians and motorists.

Madison Avenue and East 42nd Street

With the Proposed Action, this intersection would experience increases in hourly pedestrian volumes of about 230 pedestrians on the north and west crosswalk, and about 160 pedestrians or less on each of the two other crosswalks as the worst case condition. Conflicting turning volumes would be 5 vph or less. Based on a review of the crash data, no prevailing trends were identified as the primary causes for crashes at this location. This intersection is signalized, has pedestrian countdown signals on all crosswalks, stop bars on the northbound, eastbound and westbound approaches, and four high visibility crosswalks. All eastbound vehicles (except buses) are restricted from making turns, all westbound vehicles (except buses) are restricted from making turns in the AM, Midday, and PM peak hours and all northbound vehicles (except taxis with passengers) are restricted from making left turns during the AM, Midday, and PM peak hours. Measures to improve pedestrian safety at this intersection could include the installation of "LOOK!" pavement markings on crosswalks, and "Turning Vehicles Yield to Pedestrians" signage.

Fifth Avenue and 42nd Street

With the Proposed Action, this intersection would experience increases in hourly pedestrian volumes of about 530 pedestrians on the north crosswalk, about 180 pedestrians on the south crosswalk, about 130 pedestrians on the east crosswalk, and about 220 pedestrians on the west crosswalk as the worst case condition. No conflicting turning volumes are expected. Based on a review of the crash data, of the eight bicycle-related crashes between 2012 and 2014, four occurred outside of daylight hours. This intersection is currently signalized, has pedestrian countdown signals on all crosswalks, stop bars on the southbound, eastbound and westbound approaches, and four high visibility crosswalks. All vehicles (except buses) are restricted from making any turns during the weekday AM, Midday, and PM peak hours. Measures to improve pedestrian safety at this intersection could include the installation of "LOOK!" pavement markings on crosswalks, and "Turning Vehicles Yield to Pedestrians" signage, and potentially improving the lighting at this intersection for better visibility outside of daylight hours.

As described above, four of these intersections are also categorized as high priority intersections as part of the NYC Vision Zero Program. Many of these intersections are located along the 42nd Street and 57th Street corridors and all have significant existing volumes of pedestrians. While the addition of pedestrian trips and vehicle trips at high-crash locations could result in increasingly unsafe conditions, pedestrian and bicycle safety improvements have been made by DOT at these intersections over the course of the 2012-2014 period in which crash data were reviewed and additional improvements could be further employed to increase pedestrian safety.[4] Furthermore, as part of its Vision Zero initiatives which are separate from the Proposed Action, the City will explore additional measures for potential

[4] Examples of safety improvements implemented in the study area since January 2012 include pedestrian countdown signals and crosstown bicycle lanes.

implementation at these high-crash locations and others in the study area to enhance traffic and pedestrian safety.

12.7 Parking

Existing Conditions

Off-Street Parking

Off-street parking facilities within a quarter-mile radius of the rezoning area were inventoried by DOT during the period of March 2016. Interviews were conducted with parking attendants to determine the utilization levels of each facility during the Midday peak period on a typical weekday. Figure 12-31 shows the locations of existing off-street public parking facilities and Table 12.128 a summary of the name, address, license number, capacity, and estimated utilization of each parking lot or garage. Within a quarter-mile radius of the rezoning area, 130 off-street parking facilities were inventoried; the facilities have a combined capacity of 16,011 spaces. Approximately 76 percent of these spaces are utilized during the weekday Midday peak period, leaving a residual supply of 3,881 available parking spaces.

Table 12.128: Existing Off-Street Parking Facilities in Study Area

Map #[1]	Name	Address(es)	License Number	Licensed Capacity	Estimated Utilization	Available Capacity
1	9-11 LLC	9-11 Park Ave.	0999137	150	90%	15
2	Zephyr Parking LLC	132 E. 35th St.	0369933	85	90%	9
3	9 West 35th Street LLC (DBA Meyers Parking)	9-19 W. 35th St., 12-14 W. 36th St.	1180979	225	100%	0
4	Champion Parking 36 LLC	30 Park Ave.	1209498	142	90%	14
5	Quik Park Real LLC	35 Park Ave.	1192939	47	100%	0
6	Pace Parking LLC	990-996 Sixth Ave.	1179983	120	100%	0
7	220 Madison Garage Corp.	220 Madison Ave.	1376369	42	90%	4
8	QP East 36th Street LLC	221-237 E. 36th St.	1278457	64	100%	0
9	245 E 36th St. Garage Corp.	245 E. 36th St.	800698	35	100%	0
10	1010 6th Ave. Garage Corp.	1010 Sixth Ave.	1180712	86	100%	0
11	310 Lex Parking Mgmt. LLC	310 Lexington Ave.	1246823	26	90%	3
12	M H M Parking LLC	560 Third Ave.	0731394	300	75%	75
13	Corinthian Garage LLC	330 E. 38th St.	2020549*	186	50%	93
14	Regal Parking LLC (Icon)	250-264 Madison Ave.	0429658	155	50%	78
15	Affiliated Parking LLC	23 E. 38th St.	0469319	25	100%	0
16	Affiliated Parking LLC	247-261 Madison Ave.	0429844	80	100%	0
17	Imperial Parking (U.S.), LLC	35 E. 38th St.	1461267	21	100%	0
18	Imperial Parking US LLC	80 Park Ave.	2020709	91	50%	46
19	Murray 38 Parking LLC	155 E. 38th St.	1232880	67	75%	17
20	Champion Parking Midtown LLC	224 E. 39th St.	2001457	86	70%	26
21	East 39th Realty, LLC	221 E. 38th St.	1190557	95	80%	19

Table 12.128: Existing Off-Street Parking Facilities in Study Area (Continued)

Map #[1]	Name	Address(es)	License Number	Licensed Capacity	Estimated Utilization	Available Capacity
22	Proto Garage LTD.	250 E. 39th St.	1375436	35	80%	7
23	Realpro Parking LLC	330 E. 39th St.	1135063	208	80%	42
24	NYULMC E Garage Corp.	333 E. 38th St.	1340052	146	50%	73
25	Park Avenue 39 Parking LLC	90 Park Ave.	1298776	150	100%	0
26	99 Park Avenue Corp.	99 Park Ave.	1181507	75	80%	15
27	Noble Parking LLC	310 E. 40th St.	0369346	235	80%	47
28	Quik Park Standard LLC	101 Park Ave.	1293753	124	50%	62
29	Dynamic Parking LLC	222 E. 41st St.	1117862	76	30%	53
30	Quik Park Eagle LLC	240 E. 41st St.	1192937	74	80%	15
31	245 East 40th St. Parking LLC	245 E. 40th St.	1001573	130	60%	52
32	Innovative Parking LLC	301-311 E. 40th St.	0888338	108	80%	22
33	Enterprise 40th Parking Corp.	315 E. 40th St.	1312149	334	60%	134
34	Alexa QP LLC	110 E. 42nd St.	2012919	77	25%	58
35	SP Plus Corporation	214 E. 42nd St.	2011029*	115	50%	58
36	1114 Sixth Parking LLC	1114 Sixth Ave.	1020999	188	50%	94
37	Edison NY Parking, LLC	1120 Sixth Ave.	1250358	648	100%	0
38	Central Parking System	335 Madison Ave.	0368723	90	80%	18
39	Park on 44th Corp.	230 E. 44th St.	916799	103	40%	62
40	One Parking Corp.	200 Park Ave.	1379494	350	75%	88
41	Seven Eleven Car Park, LLC	711 Third Ave.	0992903	165	50%	83
42	Sharp Parking LLC	825-835 Second Ave., 247-279 E. 44th St.	0916698	126	90%	13
43	SP Plus Corporation	38 W. 46th St.	2019802	225	90%	23
44	Valor Parking LLC	235 E. 45th St.	0369201	90	80%	18
45	Quik Park East 46th Street LLC	300-302 E. 46th St.	1415772	36	50%	18
46	310 East 46th Street Parking Corp.	310 E. 46th St.	2026063	67	100%	0
47	East 46th Realty LLC	320 E. 46th St.	1070435	49	85%	7
48	Ever-Ready Parking Inc.	330 E. 46th St.	976183	155	75%	39
49	Enterprise 45th Ownership Corp.	333 E. 45th St.	1460533	35	80%	7
50	Quik Park Gem Garage LLC	44 W. 47th St.	2021796	64	100%	0
51	Quik Park 485 Garage LLC	485 Lexington Ave.	1451289	100	75%	25
52	East 47th Garage Corp.	212-214 E. 47th St., 207-217 E. 46th St.	1319230	105	90%	11
53	Basic Parking Corp.	225 E. 46th St.	920557	26	50%	13
54	Central Parking System of New York, Inc.	240 E. 47th St.	2029591	37	90%	4
55	333 East 46th St. Parking Corp.	333 E. 46th St.	0915987	34	75%	9
56	Central Parking System of New York, Inc.	10-14 W. 48th St.	1232553	200	75%	50
57	Manhattan Parking System-Park Ave. Corp.	277 Park Ave.	0368594	40	50%	20
58	Nations 47 Parking LLC	885 Second Ave.	1291835	227	90%	23
59	Quik Park Libby 2 LLC	300-04 E. 48th St.	2003468	51	90%	5

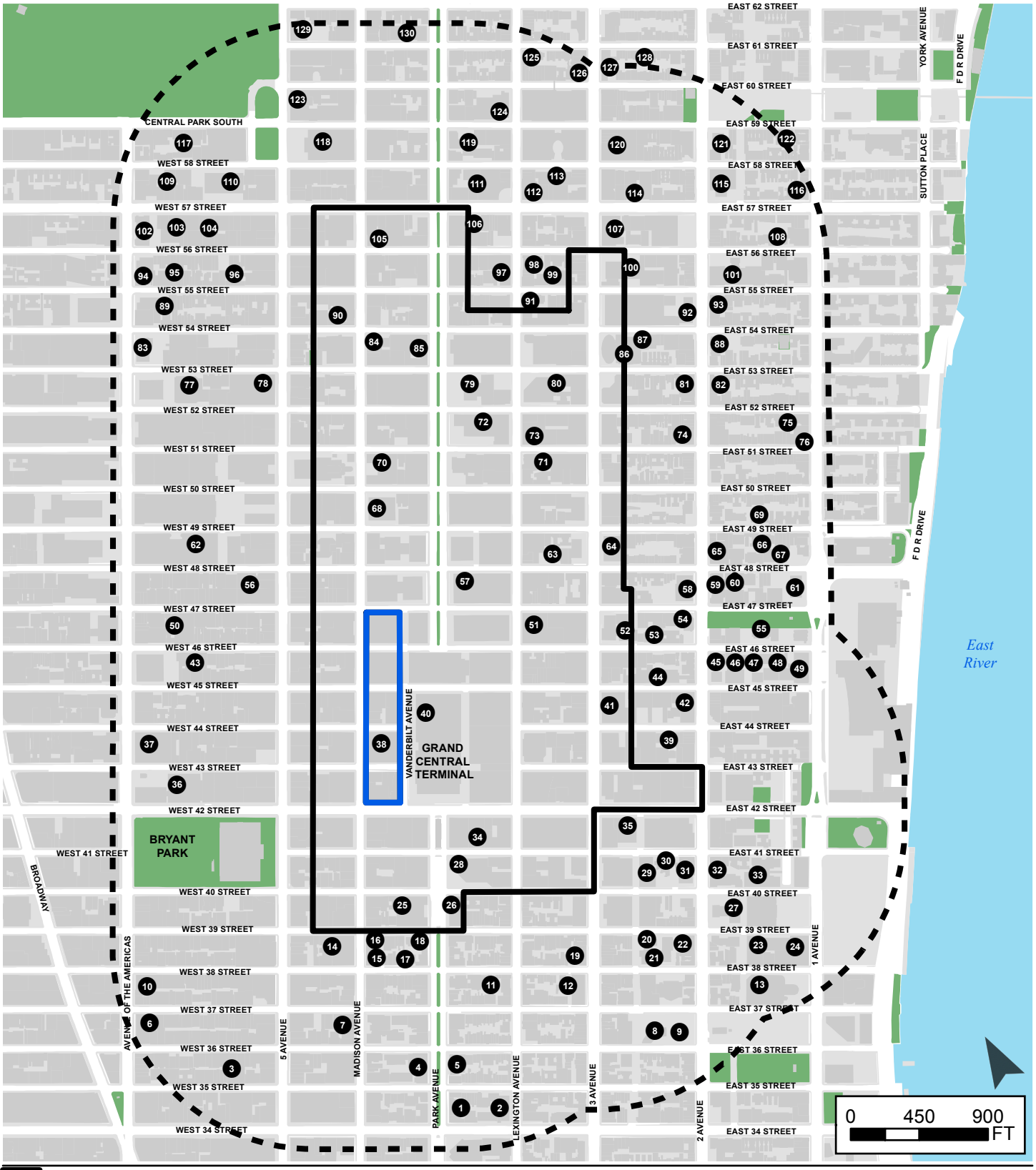
Table 12.128: Existing Off-Street Parking Facilities in Study Area (Continued)

Map #[1]	Name	Address(es)	License Number	Licensed Capacity	Estimated Utilization	Available Capacity
60	310 East 48th Street Garage LLC (GMC)	310 E. 48th St.	1155370	300	100%	0
61	Imperial Palace Garage Corp.	845 First Ave.	1133585	76	50%	38
62	SP Plus Corporation	10 Rockefeller Plaza	2018257	652	75%	163
63	Manhattan Parking East 48th Street Corp. (MPG)	141-145 E. 48th St.	1182190	68	60%	27
64	Carole Storage Corporation	777 Third Ave.	0368322	92	90%	9
65	Martin Garage LLC	301 E. 48th St.	2015306	42	70%	13
66	Plaza 48 Parking LLC	326 E. 49th St.	1246951	29	100%	0
67	Plaza 48 Parking LLC	329-341 E. 48th St.	1246949	121	80%	24
68	Sweets Parking I, Inc.	67 E. 49th St.	1221665	116	50%	58
69	Oxford Parking Corp.	333 E. 49th St.	906120	51	25%	38
70	SP Plus Corporation	455 Madison Ave.	2017912	157	100%	0
71	Metropolitan 51 Parking LLC	569-573 Lexington Ave	1234298	200	80%	40
72	ParkLex Garage Inc.	345 Park Ave.	369823	150	90%	15
73	575 Lex Garage LLC	575 Lexington Ave.	1332946	150	50%	75
74	New York Parking 51st Street Corp.	251 E. 51st St.	367195	54	70%	16
75	Support Parking LLC (Icon)	350 E. 52nd St.	0367606	80	90%	8
76	Rox Parking LLC	351 E. 51st St.	1406932	26	10%	23
77	SP Plus Corporation	31 W. 52nd St.	2017914	120	80%	24
78	Modern Parking LLC	666 Fifth Ave.	1166505	90	30%	63
79	SP Plus Corporation	375 Park Ave.	2017911	150	80%	30
80	SP Plus Corporation	154 E. 53rd St.	2017908	149	63%	55
81	MP 53 LLC (MPG)	250 E. 53rd St.	1280323	28	82%	5
82	53rd Sterling Parking LLC	304 E. 53rd St.	1256221	18	40%	11
83	1330 Sixth Parking LLC	57-59 W. 53rd St.	1127867	225	75%	56
84	New York Parking 54th St. Corp.	527 Madison Ave.	835271	26	50%	13
85	Quik Park 390 Garage LLC	390 Park Ave.	1446479	149	50%	75
86	Scarlet 53 Parking LLC	211 E. 53rd St.	1458721	59	80%	12
87	Manhattan Parking Gold Corp. (MPG)	220 E. 54th St.	1338875	30	95%	2
88	Connaught Tower Car Park, LLC	300 E. 54th St.	1400292	73	70%	22
89	1350 Sixth Parking LLC	1350-58 6th Ave.	1127872	99	80%	20
90	ABM Parking Services	13-17 E. 54th St.	1288781	225	70%	68
91	136 East 55th Street Garage LLC	136 E. 55th St.	1460741	93	50%	47
92	East 54th Operating LLC	245 E. 54th St.	1418775	178	50%	89
93	54th & 2nd Parking LLC	300 E. 55th St.	1196302	25	90%	3
94	Quik Park West 55th St. LLC	73-77 W. 55th St.	1271791	61	82%	11
95	Bricin Parking Corp.	65 W. 55th St.	368410	24	70%	7
96	SP Plus Corporation	23-25 W. 55th St.	2019796	150	70%	45
97	Champion 55, LLC	131 E. 55th St., 662 Lexington Ave.	1063776	67	50%	34

Table 12.128: Existing Off-Street Parking Facilities in Study Area (Continued)

Map #[1]	Name	Address(es)	License Number	Licensed Capacity	Estimated Utilization	Available Capacity
98	Quik Park Swift LLC	140 E. 56th St.	1192930	50	50%	25
99	Bricin Parking Corp.	155 E. 55th St.	368185	42	70%	13
100	919 Third Avenue Garage Company, LLC (Red Ball Parking)	919 Third Ave.	959289	316	75%	79
101	56th Realty LLC	300 E. 56th St.	1081571	300	80%	60
102	New York Parking 56th St. Corp.	65 W. 56th St.	368238	80	50%	40
103	Central Parking System of New York, Inc.	45 W. 56th St.	1323991	140	75%	35
104	Imperial Parking U.S., LLC	33 W. 56th St.	20311033	76	40%	46
105	Manhattan Enterprises Inc. (MPG)	575 Madison Ave.	1342885	99	100%	0
106	New York Parking 57th St. Corp.	110 E. 57th St.	897530	65	50%	33
107	MP 56 LLC (MPG)	201 E. 56th St.	1407898	150	75%	38
108	Bamford Realty LLC	333 E. 56th St.	1070778	150	60%	60
109	Kinney Parking System, LLC	58 W. 58th St.	1463594	160	80%	32
110	LAZ Parking NY/NJ LLC (LAZ)	9 W. 57th St.	2028694	200	80%	40
111	SP Plus Corporation	115 E. 57th St.	2022436	94	100%	0
112	153 E 57th St. Inc.	153 E. 57th St.	2004864	38	80%	8
113	Lexington 58 Parking LLC (Icon)	150 E. 58th St.	1298768	260	95%	13
114	Kinney Parking Systems	222 E. 58th St.	1458951	52	75%	13
115	Select Parking LLC	301-11 E. 57th St.	0914923	328	100%	0
116	Impark 57 LLC	1055 First Ave.	N/A	75	80%	15
117	Champion 58 LLC	33 W. 58th St.	1059262	108	60%	43
118	59 and 5th Parking LLC	767 Fifth Ave.	1187112	136	50%	68
119	SP Plus Corporation	110 E. 59th St.	2019799	150	90%	15
120	206 E. 59th St. Garage Corp.	206 E. 59th St.	1473105	225	50%	113
121	MPC Parking LLC	1104-1116 Second Ave.	1153766	227	70%	68
122	Quik Park Rockefeller Parking LLC	338 E. 59th St.	1383664	288	90%	29
123	785 Garage Corp.	785 Fifth Ave.	1191060	17	100%	0
124	ABM Parking Services	750 Lexington Ave.	1306361	72	75%	18
125	East 61st Street Parking Garage Corp.	150 E. 61st St.	1361354	69	100%	0
126	Quik Park Bloom LLC	169 E. 60th St.	1262707	34	75%	9
127	DL Garage Holdings LLC (MPG)	200 E. 61st St.	1222741	70	50%	35
128	60th Storage Corp.	220 E. 60th St.	0941633	32	70%	10
129	615 Garage Corporation	800 Fifth Ave.	900020	150	80%	30
130	Distinctive Parking LLC	35-39 E. 61st St.	0367984	129	100%	0
			TOTAL:	**16,011**	**76%**	**3,881**

Source: DOT
Notes:
[1] Refer to Figure 12-31 for locations.



Proposed Greater East Midtown Rezoning Boundary

Vanderbilt Corridor (Existing Regulations Apply)

Quarter-Mile Study Area

1 Off-Street Parking Facility (w/ I.D. No.)

Greater East Midtown Rezoning
Manhattan, New York

Off-Street Parking Facilities

Figure 12-31

On-Street Parking

An inventory of existing parking regulations within a quarter-mile radius of the rezoning area was compiled in the summer of 2016. Curbside parking regulations for all block faces are shown on Figure 12-32 and listed in Table 12.129.

In much of the study area west of Third Avenue, on-street parking spaces are generally used by commercial vehicles for loading and unloading; commercial vehicles in this area of Manhattan are generally required to pay for on-street parking at muni-meters on weekdays between 7:00 a.m. and 6:00 p.m.. East of Park Avenue, many blockfaces in the vicinity of the United Nations campus have areas where on-street parking spaces are restricted to diplomat vehicles. Limited amounts of 1-hour metered parking are available to the public along some parts of First and Second Avenues, and 2-hour metered parking is available to the public along some parts of Third Avenue. Based on field observations, the limited amount of on-street public parking within a quarter-mile radius of the rezoning area is generally nearly fully utilized during the weekday daytime hours.



Proposed Greater East Midtown Rezoning Boundary

Quarter-Mile Study Area

Vanderbilt Corridor (Existing Regulations Apply)

7e Parking Regulation

Greater East Midtown Rezoning
Manhattan, New York

On-Street Parking Regulations

Figure 12-32a



Proposed Greater East Midtown Rezoning Boundary

Quarter-Mile Study Area

Vanderbilt Corridor (Existing Regulations Apply)

7e Parking Regulation

Greater East Midtown Rezoning
Manhattan, New York

On-Street Parking Regulations

Figure 12-32b

Table 12.129: Parking Regulation Code Definitions

Code*	Parking Regulation
1a	Buses Only, 4pm-7pm, Mon-Fri
1b	Buses Only, 7am-1pm, Mon-Fri
1c	Buses Only, 7am-7pm, Mon-Fri
1d	Buses and Right Turns Only, 7am-10am, Mon-Fri
1e	Buses and Right Turns Only, 7am-7pm, Mon-Fri
1f	No Bus Layover
1g	Private Bus Line
2a	No Parking Anytime
2b	No Parking Anytime, Temporary Construction Regulation
3a	No Parking, 3am-6am, Mon & Thu
3b	No Parking, 3am-6am, Tue & Fri
3c	No Parking, 7am-7pm, Except Sun
3d	No Parking, 7am-7pm, Mon-Fri
3e	No Parking, 7am-Midnight, Including Sunday
3f	No Parking, 8am-6pm, Mon-Fri
3g	No Parking, 8am-7pm, Except Sunday
3h	No Parking, 8:30-9am, Except Sunday
3i	No Parking, 10am-11:30am, Tue & Fri
3j	No Parking, 10am-4pm, Mon-Fri
3k	No Parking, 11am-12:30pm, Tue & Fri
3l	No Parking, 1am-7am, Mon-Fri
3m	No Parking, 2am-6am, Mon, Wed, Fri
3n	No Parking, 2am-6am, Tue, Thu, Sat
3o	No Parking, 2am-6am, Tue, Thu, Sun
3p	No Parking, Midnight-6am, Including Sunday
3q	No Parking, 7pm-Midnight, Including Sunday
3r	No Parking, Passenger Loading Zone
3s	No Parking Anytime, Except Authorized Vehicles Only
3t	No Parking, 9:30am-11am, Tue & Fri
3u	No Parking, Tow Away Zone, Except License Plates w/ DPL or FC
4a	No Standing
4b	No Standing, Bus Stop
5a	No Standing Anytime
5b	No Standing Anytime, Bus Layover Area, MTA Buses
5c	No Standing Anytime, Except Authorized Vehicles
5d	No Standing Anytime, Except Authorized Vehicles, Fire Department
5e	No Standing Anytime, Except Authorized Vehicles, NYS Police
5f	No Standing Anytime, Except Authorized Vehicles, Post Office Vehicles
5g	No Standing Anytime, Except Authorized Vehicles, US Govt Vehicles Only
5h	No Standing Anytime, Except Sun, Except Trucks Loading & Unloading
5i	No Standing Anytime, Taxi Stand

Table 12.129: Parking Regulation Code Definitions (Continued)

Code*	Parking Regulation
5j	Taxi Pick Ups & Drop Offs Across Ave, 7am-1pm, Mon-Fri
5k	No Standing Anytime, Temporary Construction Regulation
5l	No Standing Anytime, Except Trucks Loading & Unloading
5m	No Standing Anytime, Except Vehicles with NYP License Plates
5n	No Standing Anytime, Except Authorized Vehicles Only, MTA Police
5o	No Standing Anytime, 5pm-Midnight, Mon-Fri Except Vehicles with NYP License Plates
6a	No Standing, Consul-C Diplomat A & D License Plate
6b	No Standing, Except Authorized Vehicles, U.S. Mail
6c	No Standing, Except Commercial Vehicles, Metered Parking, 3 Hour Limit, Except Sun
6d	No Standing, Except Horse Drawn Cabs
6e	No Standing, Except Taxis
6f	No Standing, Except Trucks Loading & Unloading
6g	No Standing, Except Vehicles with NYP License Plates, 3 Hr Limit
6h	No Standing, Fire Zone
6i	No Standing, Hotel Loading Zone
6j	1 Hour Limit Relief Stand, Taxi/FHV
6k	FHV For-Hire Vehicles Only, Mon-Fri 6pm-Midnight
6l	FHV For-Hire Vehicles Only, Mon-Fri 8pm-Midnight
6m	D/S Decals Only
6n	Except Vehicles with Consul-C Diplomat A & D License Plates, Delivery Decal Required, 30 min Limit
6o	No Standing Except Authorized Vehicles, 10am-4pm Mon-Friday, 9am-5pm Saturday
6p	No Standing Anytime FHV Pick-Up & Discharge Only
6q	Authorized Vehicles Only Consul & Diplomat License Plates, 7am-4pm All Days, Delivery Decal Required
6r	Authorized Vehicles Only Consul & Diplomat License Plates, 7am-7pm Except Sunday, Delivery Decal Required
6s	Authorized Vehicles Only Consul & Diplomat License Plates, 10am-2pm Mon-Fri, Delivery Decal Required
6t	No Standing Anytime FHV only, Mon-Fri, 7pm-Midnight
6u	No Standing Anytime, Except Authorized Vehicles, ESD2
6v	No Standing, 7am-2pm, Mon-Fri, Authorized Vehicles Only- US Mail
6w	FHV For-Hire Vehicles Only, 4pm-Midnight, Mon-Fri
6x	No Standing, Consul-C Diplomat A & D License Plate, D/S Decals Only
7a	No Standing, 3am-5am, Except Sun
7b	No Standing, 6am-10am, Except Sun, Except Commercial Vehicles, Metered Parking, 3 Hr Limit
7c	No Standing, 6am-3pm, 8pm-Midnight, Except Sun, Except Commercial Vehicles, Metered Parking, 3 Hr Limit
7d	No Standing, 6am-6pm, Wed, Except Farmers Market, Other Times No Standing
7e	No Standing, 6am-7pm, Mon-Fri, Except Commercial Vehicles, Metered Parking, 3 Hour Limit
7f	No Standing, 1am-3am, Except Sun
7g	No Standing, 6pm-1am, Mon-Fri, Except TLC License Vehicles, Pre-arranged Service Only
7h	No Standing, 5pm-Midnight, Mon-Fri, Except TLC Licensed Vehicles, Pre-arranged Service Only
8a	No Standing, 7am-10am, 2pm-7pm, Mon-Fri
8b	No Standing, 7am-10am, 2pm-7pm Mon-Fri Except Trucks Loading & Unloading 10am-2pm Mon-Fri

Table 12.129: Parking Regulation Code Definitions (Continued)

Code*	Parking Regulation
8c	No Standing, 7am-10am, 3pm-8pm, Except Sun
8d	No Standing, 7am-10am, 4pm-7pm, Except Sun
8e	No Standing, 7am-10am, 4pm-7pm, Mon-Fri
8f	No Standing, 7am-1pm, Except Sun, Except Commercial Vehicle, Metered Parking, 3 Hour Limit
8g	No Standing, 7am-1pm, Mon-Fri
8h	No Standing, 7am-3pm, Except Sun, Except Commercial Vehicle, Metered Parking, 3 Hour Limit
8i	No Standing, 7am-3pm, Except Sun, Except Trucks Loading & Unloading, Other Times No Standing
8j	No Standing, 7am-4pm, Mon-Fri, Except Commercial Vehicles, Metered Parking, 3 Hour Limit
8k	No Standing, 7am-6pm, Mon-Fri
8l	No Standing, 7am-6pm, Mon-Fri, Except Commercial Vehicles, Metered Parking, 3 Hour Limit
8m	No Standing, 7am-6pm, Mon-Fri, Except Trucks Loading & Unloading
8n	No Standing, 7am-10am, Mon-Fri
8o	No Standing, 7am-10pm, Including Sun
8p	No Standing, 7am-4pm, Mon-Fri, Except Commercial Vehicles, Metered Parking, 3 Hour Limit Mon-Fri
8q	No Standing, 7am-10am, 3pm-8pm, Including Sunday
8r	No Standing, 7am-4pm, Mon-Fri, Except Trucks Loading & Unloading
8s	No Standing, 7am-10pm, All Days
8t	No Standing, 7am-11am, Except Sunday
8u	No Standing, 7am-4pm, School Days
8v	No Standing, 7am-6pm, Except Sunday Except Commercial Vehicles, Metered Parking, 3 Hour Limit
8w	No Standing, 7am-3pm, Mon-Fri Except Trucks Loading & Unloading
9a	No Standing, 7am-7pm, Except Sun
9aa	No Standing, 7am-7pm, Except Sunday, Authorized Vehicles Only, Board of Higher Education
9ab	No Standing, 7am-2pm, Mon-Fri, Except Trucks Loading and Unloading
9ac	Ambulette Only, 10am-2pm, Mon-Fri
9ad	No Standing, 7am-5pm, Except Sunday, 3 HMP Commercial Vehicles Only
9b	No Standing, 7am-7pm, Including Sun
9c	No Standing, 7am-7pm, Mon-Fri
9d	No Standing, 7am-7pm, Mon-Fri, Except Authorized Vehicles, NYSJ
9e	No Standing, 7am-7pm, Mon-Fri, Except Authorized Vehicles, NYS Police
9f	No Standing, 7am-7pm, Mon-Fri, Except Commercial Vehicles, Metered Parking, 3 Hour Limit
9g	No Standing, 7am-7pm, Except Sun, Except Commercial Vehicles, 3 Hour Limit
9h	No Standing, 7am-7pm, Except Sun, Except Commercial Vehicles, Metered Parking, 3 Hour Limit
9i	No Standing, 7am-7pm, Except Trucks Loading & Unloading
9j	No Standing, 7am-7pm, Including Sun, Except Trucks Loading & Unloading
9k	No Standing, 7am-7pm, Except Sun, Except Trucks Loading & Unloading
9l	No Standing, 7am-Midnight, Except Sun, Except Commercial Vehicles, Metered Parking, 3 Hour Limit
9m	No Standing, 7am-Midnight, Including Sun
9n	No Standing, 7am-4pm, Except Trucks Loading & Unloading, Except Sun
9o	No Standing, 7am-4pm, 7pm-10pm, Except Sun, Except Commercial Vehicles, Metered Parking, 3 Hour Limit
9p	No Standing, 7am-7pm, Mon-Sat, Except Commercial Vehicles, Metered Parking 3 Hour Limit

Table 12.129: Parking Regulation Code Definitions (Continued)

Code	Parking Regulation
9q	No Standing, 7am-4pm, Except Sun, Except Commercial Vehicles, Metered Parking, 3 Hour Limit
9r	No Standing, 7am-7pm, Mon-Fri; 1pm-7pm, Sat & Sun
9s	No Standing, 7am-7pm, Mon-Fri, Except Trucks Loading & Unloading, Other Times No Standing
9t	No Standing, 7am-4pm, Except Authorized Vehicles, Except Sun, Except School Buses
9u	No Standing, 7am-7pm, Mon-Fri, Except Authorized Vehicles, NYP License Plates Only
9v	No Standing, 7am-8pm, Mon-Fri Except Commercial Vehicles, Metered Parking, 3 Hour Limit
9w	No Standing, 7am-7pm, Except Sun, Except Authorized Vehicles, US Mail
9x	Ambulette Only, 7am-7pm, Except Sunday
9y	Ambulette Only, 9am-9pm
9z	No Standing, 7am-7pm, Mon-Fri, Except Authorized Vehicles Only
10a	No Standing, 8am-3pm, Except Sun, Except Commercial Vehicles, Metered Parking, 3 Hr Limit
10b	No Standing, 8am-4pm, Except Sun, Except Trucks Loading & Unloading
10c	No Standing, 8am-4pm, Mon-Fri, Except Commercial Vehicles, Metered Parking, 3 Hour Limit
10d	No Standing, 8am-4pm, School Days, Except School Busses
10e	No Standing, 8am-6pm, Mon-Fri, Except Trucks Loading or Unloading
10f	No Standing, 8am-7pm, Except Sun
10g	No Standing, 8am-7pm, Except Sun, Except Commercial Vehicles Metered Parking 3 Hour Limit
10h	No Standing, 8am-7pm, Except Sun, Except Trucks Loading & Unloading
10i	No Standing, 8am-7pm, Mon-Fri, Except Trucks Loading or Unloading
10j	No Standing, 8am-Midnight, Except Sunday Except Trucks Loading & Unloading
10k	No Standing, 8am-Midnight, Mon-Sat Except Commercial Vehicles Metered Parking 3 Hour Limit
10l	No Standing, 8am-6pm, Mon-Fri Except Commercial Vehicles Metered Parking 3 Hour Limit
10m	No Standing, 8am-6pm, Mon-Fri
10n	No Standing, 8am-6pm, Except Sun
10o	No Standing, 8am-7pm, Mon-Fri, Except Commercial Vehicle, Metered Parking, 3 Hour Limit
10p	No Standing, 8am-7pm, Mon-Fri
10q	No Standing, 8am-10am, 4pm-6pm, Mon-Fri
10r	No Standing, 8am-6pm, Except Sunday, Authorized Vehicles Only, Ambulette
11a	No Standing, 9am-9pm, Mon-Fri, Ambulette Drop Off & Pick Up Only
11aa	No Standing, 10am-3pm Mon-Fri, 7am-7pm Saturday
11ab	No Standing, 11am-2pm, Mon-Fri, Other times Taxi Stand
11ac	No Standing, 10am-6pm, Mon-Fri
11ad	No Standing, Midnight-7am, All Days
11ae	No Standing, 10am-3pm Except Sun, Except Commercial Vehicles, Metered Parking, 3 Hour Limit
11b	No Standing, 10am-4pm, Except Sun, Except Commercial Vehicles, Metered Parking, 3 Hour Limit
11c	No Standing, 10am-4pm, Mon-Fri, Except Commercial Vehicles, Metered Parking, 3 Hour Limit
11d	No Standing, 10am-4pm, Mon-Fri, Except Trucks Loading & Unloading
11e	No Standing, 10am-7pm, Except Sun, Except Commercial Vehicles, Metered Parking 3hr Limit
11f	No Standing, 1pm-7pm, Except Sunday
11g	No Standing, 1pm-7pm, Mon-Fri, Except Commercial Vehicles, Metered Parking, 3 Hour Limit
11h	No Standing, 3pm-7pm, Except Sun
11i	No Standing, 3pm-8pm, Except Sun

Table 12.129: Parking Regulation Code Definitions (Continued)

Code*	Parking Regulation
11j	No Standing, 3pm-8pm, Mon-Fri
11k	No Standing, 4pm-7pm, Except Sun
11l	No Standing, 4pm-7pm, Mon-Fri
11m	No Standing, 10pm-2am, Including Sunday, Except Trucks Loading & Unloading
11n	No Standing, 11pm-6am, Thu-Fri-Sat
11o	No Standing, 10am-7pm, Except Sun, Except Trucks Loading & Unloading
11p	No Standing, 7am-10am, Except Sun
11q	No Standing, 3pm-Midnight, Including Sun
11r	No Standing, 3pm-8pm, Mon-Fri, Bus Layover Zone
11s	No Standing, 7am-3pm Mon-Fri, 7am-7pm Sat, Except Commercial Vehicles, Metered Parking, 3 Hour Limit
11t	No Standing, 10am-3pm, 8pm-Midnight, Including Sunday, Except Trucks Loading and Unloading
11u	No Standing, 10am-2pm, Mon-Fri, Except Commercial Vehicles, Metered Parking, 3 Hour Limit
11v	No Standing, 9am-7pm, Except Sun Except Trucks Loading and Unloading
11w	No Standing, 9am-7pm, Except Sunday
11x	No Standing, 11am-7pm, Except Sun Except Trucks Loading & Unloading
11y	No Standing, 7am-3pm Mon-Fri, 7am-7pm Sat
11z	No Standing, 7am-10am, 3pm-8pm, Mon-Fri Bus Layover Area
12a	No Stopping Anytime
12b	No Stopping, 7am-1pm, Mon-Fri
12c	Taxis No Stopping in Bus Lanes
12d	Taxis No Stopping in Bus Lanes 2pm-7pm Mon- Fri
13a	1 Hour Parking, 9am-4pm, Mon-Fri, 9am-7pm Sat
13b	1 Hour Parking, 9am-7pm, Except Sunday
13c	1 Hour Parking, 9am-7pm, Sat
13d	1 Hour Meter Parking, 8am-10pm, Except Sun
13e	1 Hour Meter Parking, 9am-10pm, Sat
13f	1 Hour Meter Parking, 6pm-10pm, Mon-Fri
13g	2 Hour Meter Parking, 9am-7pm, Sat
13h	5 Hour Meter Parking, 7pm-Midnight, Except Sun
13i	6 Hour Meter Parking, 6pm-Midnight, Except Sunday
13j	6 Hour Meter Parking, 6pm-Midnight, Saturday
13k	2 Hour Meter Parking, 7pm-11pm, Except Sunday
14a	Meter Parking, 8am-Midnight, Sat, 6pm-Midnight, Mon-Fri
14b	Pay Muni Meter, Pay & Display
15a	Ambulance Only
15b	Pick Up & Drop Off Only

Note:
* Codes on Figure 12-32

Future Parking Conditions without the Proposed Action (No-Action Condition)

Off-Street Parking

Between 2016 and 2036, demand for off-street parking is expected to increase due to background growth, development that could occur pursuant to existing zoning, and the No-Action Condition development projects listed in Table 12.16. Similar to the traffic analysis, a total background growth rate of 2.5 percent from 2016 to 2036 was applied to existing parking utilization levels to account for smaller projects and general increases in parking demand. It is anticipated that No-Action Condition projects will provide 1,095 new public parking spaces and displace 35 spaces at one public parking facility (for a net increase of 1,060 spaces). As summarized in Table 12.130, off-street parking utilization is expected to increase to 85 percent in the 2036 No-Action Condition, leaving a total of 2,583 parking spaces available during the weekday Midday peak period.

On-Street Parking

It is anticipated that the installation of curbside bike lanes along Second Avenue from East 43rd to East 59th Streets would result in a loss of approximately 20 parking spaces along the corridor, and that commercial parking along this section of Second Avenue would be limited to off-peak hours to allow the parking lane to function as a travel lane during rush hours. The availability of on-street public parking available to the public is not expected to change significantly in the No-Action Condition and on-street parking utilization is expected to continue to be very high. Any increase in on-street parking demand is expected to be handled by off-street parking facilities.

Table 12.130: No-Action Condition Off-Street Parking Capacity, Demand, and Utilization

Parking Capacity	
Existing Capacity	16,011
Capacity Added by No-Action Developments	1,095
Capacity Displaced by No-Action Developments	(35)
TOTAL NO-ACTION CAPACITY	**17,071**
Parking Demand	
Existing Demand	12,130
Demand from Background Growth	304
Projected Demand from No-Action Developments	2,054
TOTAL NO-ACTION DEMAND	**14,488**
Parking Utilization	
No-Action Utilization	85%
No-Action Available Capacity	2,583

Notes:
1. Excludes parking capacity and demand associated with the First Avenue Properties No-Action Condition project at the 616 First Avenue site, which is located outside of the parking study area.
2. Excludes accessory parking capacity and demand associated with No-Action Condition projects.

Future Parking Conditions with the Proposed Action (With-Action Condition)

Off-Street Parking

Table 12.131 shows the net incremental hourly parking demand for each land use under the Proposed Action compared to the No-Action Condition. As shown in the table, parking demand generated by the office and retail uses that would be developed by the Proposed Action would typically peak during the Midday hours, whereas the parking demand generated by hotel and residential uses would typically peak during the overnight hours (the net decreases in hotel and residential parking demand reflect net reductions in these land uses in the rezoning area under the RWCDS). Overall, under the Proposed Action, parking demand would increase by 1,432 spaces in the weekday Midday period (12:00-1:00 p.m.) as a result of development on Projected Development Sites.

No new off-street parking spaces would be provided under the Proposed Action, and development on Projected Sites 9, 12, 13, and 16 would displace 564 spaces at four public parking facilities. A comparison of projected No-Action and With-Action Condition parking capacity and demand is provided in Table 12.132. Off-street parking utilization would increase to 96 percent, leaving a total of 587 spaces available during the weekday Midday peak period, with no parking shortfall.

On-Street Parking

As all of the additional public parking demand generated by Projected Development Sites would be accommodated in new or existing off-street parking facilities, the Proposed Action would not effect on-street public parking utilization.

Table 12.131: With-Action Condition Net Incremental Weekday Hourly Parking Accumulation by Land Use

Time Period	Office	Local Retail	Destination Retail	Hotel	Residential	Total
12 AM – 1 AM	0	0	0	-80	-9	-89
1 AM – 2 AM	0	0	0	-83	-9	-92
2 AM – 3 AM	0	0	0	-83	-9	-92
3 AM – 4 AM	0	0	0	-83	-9	-92
4 AM – 5 AM	0	0	0	-83	-9	-92
5 AM – 6 AM	0	0	0	-83	-9	-92
6 AM – 7 AM	0	0	0	-83	-9	-92
7 AM – 8 AM	69	1	0	-82	-8	-20
8 AM – 9 AM	933	1	1	-69	-6	860
9 AM – 10 AM	1,578	2	2	-59	-5	1,518
10 AM – 11 AM	1,518	3	5	-53	-5	1,467
11 AM – 12 PM	1,492	3	8	-47	-5	1,450
12 PM – 1 PM	1,479	3	10	-55	-5	1,432
1 PM – 2 PM	1,488	3	11	-48	-5	1,449
2 PM – 3 PM	1,523	3	10	-39	-5	1,492
3 PM – 4 PM	1,587	3	10	-29	-5	1,565
4 PM – 5 PM	1,132	3	9	-22	-6	1,116
5 PM – 6 PM	146	3	8	-51	-7	98
6 PM – 7 PM	24	3	7	-39	-8	-14
7 PM – 8 PM	7	1	8	-56	-9	-49
8 PM – 9 PM	0	0	6	-66	-9	-69
9 PM – 10 PM	0	0	0	-71	-9	-80
10 PM – 11 PM	0	0	0	-75	-9	-84
11 PM – 12 AM	0	0	0	-80	-9	-89

Notes:
1. Parking demand for residential land use based on 2010-2014 5-year American Community Survey data on average vehicles per household for Census tracts in the rezoning area and forecasts of daily auto trips for this land use.
2. Parking demand for all other land uses derived from forecasts of daily auto trips from these land uses.

Table 12.132: With-Action Condition Off-Street Parking Capacity, Demand, and Utilization

Parking Capacity	
No-Action Capacity	17,071
Capacity Added by Proposed Action	0
Capacity Displaced by Proposed Action	564
TOTAL WITH-ACTION CAPACITY	**16,507**
Parking Demand	
No-Action Demand	14,488
Projected Demand from Proposed Action	1,432
TOTAL WITH-ACTION DEMAND	**15,920**
Parking Utilization	
With-Action Utilization	96%
With-Action Available Capacity	587