

A. INTRODUCTION

This chapter assesses the transportation characteristics of and potential for the Proposed Project to result in significant adverse transportation impacts. Specifically, it compares conditions for the Proposed Project against the No-Action Alternative during an analysis year of 2041 in order to determine the potential for significant adverse effects to transportation systems. The analyses were conducted pursuant to the methodologies outlined in the 2021 *City Environmental Quality Review Technical Manual (CTM)*.

As discussed in **Chapter 02.0, “Project Alternatives,”** there are three feasible alternatives under consideration for implementation of the Proposed Project. These include: Alternative 2 – the Rezoning Alternative; Alternative 3 – the Non-Rezoning Alternative; and Alternative 4 – the Midblock Bulk Alternative. A discussion of Alternative 5 – the Rehabilitation and Infill Alternative, which has been determined to be infeasible, is presented in **Chapter 05.22, “Rehabilitation and Infill Alternative Analysis.”** Refer to **Chapter 04.0, “Analysis Framework,” Table 04.0-4,** for information on the analysis approach for the three feasible alternatives for each technical area.

As compared to the 2041 No-Action Alternative, the Rezoning and Midblock Bulk Alternatives would result in a net incremental increase of 3,454 dwelling units (DUs), 28,784 gross square feet (gsf) of local retail space, 17,580 gsf of supermarket space, and 108,693 gsf of total community facility space—including an increase of 87,223 gsf of neighborhood center space, 13,785 gsf of medical office space, and 9,770 gsf of daycare space, and a decrease of 2,085 gsf of Universal Pre-K (UPK) space^{1,2} (see **Table H.1-1 in Appendix H.1**).

As compared to the 2041 No-Action Alternative, the Non-Rezoning Alternative would result in a net incremental increase of 1,783 DUs, 21,675 gsf of local retail, 7,400 gsf of supermarket space, and 132,549 gsf of total community facility space—including an increase of 118,148 gsf of neighborhood center space, 12,046 gsf of medical office space, and 3,206 gsf of daycare space, and a decrease of 851 gsf of UPK space^{1,3} (see **Table H.1-2**).

The Proposed Project would also result in an increase of one parking space at the Fulton Houses Project Site from the Rezoning, Midblock Block, and Non-Rezoning Alternatives. Refer to **Chapters 01.0 to 04.0** for more details about the Proposed Project.

¹ For the purposes of this Transportation chapter, the existing UPK space is referred to and accounted for separately than the daycare space because UPK has travel demand factors that are distinct from the broader daycare category. It should be noted that in other EIS chapters, the existing UPK space is included as part of the broader category of daycare use.

² Under the Rezoning and Midblock Bulk Alternatives, as discussed in other chapters of the EIS, the net increment for daycare use (inclusive of UPK) would be an increase of 7,685 gsf.

³ Under the Non-Rezoning Alternative, as discussed in other chapters of the EIS, the net increment for daycare use (inclusive of UPK) would be an increase of 2,355 gsf.

B. PRINCIPAL CONCLUSIONS

A detailed transportation analysis was conducted to assess the potential for the Proposed Project to result in significant adverse effects to transportation systems during the 2041 analysis year. The Rezoning Alternative would result in significant adverse impacts to: a) vehicular traffic at 11 intersections and b) pedestrian conditions at six sidewalks and two crosswalks. The Non-Rezoning Alternative would result in significant adverse impacts to: a) vehicular traffic at eight intersections and b) pedestrian conditions at six sidewalks. As the Rezoning Alternative is similar to the Midblock Bulk Alternative in terms of the total development program, it is anticipated that the Midblock Bulk Alternative would result in significant traffic and pedestrian impacts similar to the Rezoning Alternative.

Potential measures to mitigate these impacts are described in **Section F, “Mitigation.”** Assuming that all the proposed mitigation measures are implemented, traffic impacts under the Rezoning Alternative would be fully mitigated at all intersections with the exception of two lane groups at one intersection during the weekday PM peak hour, and pedestrian impacts would be fully mitigated at all crosswalks with the exception of one crosswalk during the weekday PM peak hour; and partially mitigated at one sidewalk during the weekday midday and PM peak hours. The mitigation measures proposed for the Rezoning Alternative’s significant adverse traffic and pedestrian impacts would also improve the conditions of the impacted pedestrian and traffic locations under the Midblock Bulk Alternative.

Practicable mitigation measures have not yet been identified for significant adverse impacts under the Rezoning Alternative at five, two, four, and five sidewalks during the weekday AM, midday, and PM peak hours, and Saturday peak hour, respectively.

Assuming all the proposed mitigation measures are implemented, traffic impacts under the Non-Rezoning Alternative would be fully mitigated at all intersections with the exception of one lane group at one intersection during the weekday PM peak hour, and pedestrian impacts would be fully mitigated at one of the six sidewalks.

Additional practicable mitigation measures have not yet been identified for the remaining significant sidewalk impacts identified for the Rezoning Alternative (also applicable to the Midblock Bulk Alternative) and the Non-Rezoning Alternative; however, additional mitigation measures will be further explored in consultation with the Lead Agency and New York City Department of Transportation (NYCDOT) between the Draft EIS (DEIS) and Final EIS (FEIS). The significant adverse traffic and pedestrian impacts that cannot be fully mitigated under each of the three alternatives would constitute unavoidable significant adverse impacts and are described in **Chapter 07.0, “Unavoidable Adverse Impacts.”** While the Permanent Affordability Commitment Together (PACT) Partner and NYCHA would be required to coordinate with NYCDOT regarding implementation of recommended transportation-related engineering improvements, implementation itself will subject to final review and approval by NYCDOT. If the recommended mitigation measures are not found to be feasible, and no other alternative mitigation measures can be identified, the traffic and pedestrian impacts would remain unmitigated.

C. METHODOLOGY

The *CTM* describes a two-level screening procedure for the preparation of a “preliminary analysis” to determine if 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 numbers of person and vehicle trips attributable to the Proposed Project. According to the *CTM*, 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 (a Level 2 analysis) are to be performed to estimate the incremental trips that would be incurred 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, then further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, vehicular and pedestrian safety, and parking.

Transportation Planning Factors

The transportation planning factors used to forecast the travel demand that would be generated by the Proposed Project’s land uses are summarized in **Table 05.13-1**. The trip generation rates, temporal distributions, modal splits, vehicle occupancies, and truck trip factors for each of the land uses were primarily based on those cited in the 2021 *CTM*; 2015-2019 American Community Survey (ACS) journey-to-work data for Manhattan census tracts in proximity to the Project Sites (tracts 83, 89, 93, 97, 99); 2012-2016 American Association of State Highway Transportation Officials (AASHTO) Census Transportation Planning Products (CTPP) reverse journey-to-work data; data provided by NYCDOT; and factors developed for recent environmental reviews. Factors are shown for the weekday AM and PM peak hours (typical peak periods for commuter travel demand) and the weekday midday and Saturday peak hours (typical peak periods for retail demand). Additional details on the transportation planning factors used for the travel demand forecast are presented in the *Transportation Planning Factors and Travel Demand Forecast (TPF/TDF) Technical Memorandum* provided in **Appendix H.1**.

Table 05.13-1: Transportation Planning Factors

Land Use:	<u>Residential (Market-Rate and Affordable)</u>		<u>Residential (Project-Based Section 8)</u>		<u>Local Retail</u>		<u>Neighborhood Center</u>		<u>Supermarket</u>		<u>Medical Office</u>		<u>Universal Pre-K Students</u>		<u>Universal Pre- K Staff</u>		<u>Universal Pre- K Parents</u>		<u>Daycare Students</u>		<u>Daycare Staff</u>		<u>Daycare Parents</u>	
Trip Generation:	(1)		(1)		(1)		(1)		(1)		(1)		(1)		(1)		(1)		(1)		(1)		(1)	
Weekday	8.18		16.3		329.0		51.60		256.0		74.6		2.0		2.0		4.0		22.0		6.0		44.0	
Saturday	9.08		15.3		358.0		50.40		300.0		37.0		N/A		N/A		N/A		N/A		N/A		N/A	
	per DU		per DU		per 1,000 gsf		per 1,000 gsf		per 1,000 sf		per 1,000 sf		per student		per staff		per parent		per 1,000 sf		per 1,000 sf		per 1,000 sf	
Temporal Distribution:	(1)		(1)		(1)		(1)		(1)		(1)		(1)		(1)		(1)		(1)		(1)		(1)	
AM	9.3%		10.0%		4.8%		9.0%		4.0%		11.0%		49.5%		40.0%		49.5%		25.0%		25.0%		25.0%	
MD	5.6%		9.0%		8.0%		7.4%		7.0%		12.6%		N/A		N/A		N/A		0.0%		2.5%		0.0%	
PM	8.5%		7.0%		10.9%		9.0%		10.6%		8.5%		49.5%		40.0%		49.5%		25.0%		25.0%		25.0%	
Saturday	8.4%		10.4%		11.7%		12.6%		9.5%		16.6%		N/A		N/A		N/A		N/A		N/A		N/A	
	(2)		(2)		(5)		(3)		(7)		(7)		(7)		(9)		(7)(8)		(6)		(9)		(6)	
Modal Splits:	All Periods		All Periods		Weekday SAT		All Periods		Weekda y SAT		All Periods		All Periods		AM/PM		AM/PM		All Periods		AM/PM		AM/PM	
Auto	6.7%		6.7%		4.0% 4.0%		4.0%		4.0% 4.0%		1.0%		8.0%		13.4%		0.0%		15.0%		13.4%		0.0%	
Taxi	3.2%		3.2%		1.0% 1.0%		9.0%		1.0% 1.0%		5.0%		0.0%		1.9%		0.0%		0.0%		1.9%		0.0%	
Subway	52.2%		52.2%		1.0% 1.0%		12.0%		16.0% 16.0%		60.0%		38.6%		62.3%		42.0%		5.0%		62.3%		6.0%	
Bus	4.7%		4.7%		1.0% 1.0%		5.0%		6.0% 6.0%		5.0%		3.4%		8.2%		3.7%		5.0%		8.2%		6.0%	
Bike	3.4%		3.4%		1.0% 1.0%		7.2%		3.0% 3.0%		4.0%		5.2%		2.4%		5.7%		0.0%		2.4%		0.0%	
Walk/Other	29.8%		29.8%		92.0% 92.0%		62.8%		70.0% 70.0%		25.0%		44.8%		11.8%		48.7%		75.0%		11.8%		88.0%	
	100.0%		100.0%		100.0% 100.0%		100.0%		100.0% 100.0%		100.0%		100.0%		100.0%		100.0%		100.0%		100.0%		100.0%	
In/Out Splits:	(7)		(7)		(7)		(7)		(7)		(7)		(7)		(7)		(7)		(7)		(7)		(7)	
AM	In Out 22% 78%		In Out 23% 77%		In Out 52% 48%		In Out 57% 43%		In Out 51% 49%		In Out 62% 38%		In Out 100% 0%		In Out 100% 0%		In Out 50% 50%		In Out 100% 0%		In Out 100% 0%		In Out 50% 50%	
MD	50% 50%		43% 57%		50% 50%		48% 52%		51% 49%		53% 47%		N/A N/A		N/A N/A		N/A N/A		N/A N/A		50% 50%		N/A N/A	
PM	62% 38%		59% 41%		50% 50%		52% 48%		50% 50%		39% 61%		0% 100%		0% 100%		50% 50%		0% 100%		0% 100%		50% 50%	
Saturday	55% 45%		45% 55%		50% 50%		48% 52%		49% 51%		54% 46%		N/A N/A		N/A N/A		N/A N/A		N/A N/A		N/A N/A		N/A N/A	
Vehicle Occupancy:	(2)(3)		(2)(3)		(5)		(3)		(10)		(7)		(7)		(9)(3)		(3)		(6)		(9)(6)		(3)	
Auto	1.15		1.15		1.20		1.40		1.60		1.53		1.00		1.10		-		1.00		1.10		-	
Taxi	1.40		1.40		1.20		1.40		1.60		1.53		1.00		1.40		-		1.00		1.00		-	
Truck Trip Generation:	(1)		(1)		(1)		(3)		(10)		(10)		(3)						(6)					
Weekday Weekend	0.06 0.02		0.06 0.02		0.35 0.04		0.04 0.01		0.35 0.04		0.29 0.29		0.03 0.03						0.03 N/A					
	per DU		per DU		per 1,000 gsf		per 1,000 gsf		per 1,000 sf		per 1,000 sf		per student					per 1,000 sf						
	(1)		(1)		(1)		(3)		(1)		(10)		(3)						(6)					
AM	12.0%		12.0%		8.0%		7.7%		8.0%		3.0%		9.6%						9.6%					
MD	9.0%		9.0%		11.0%		11.0%		11.0%		11.0%		N/A						11.0%					
PM	2.0%		2.0%		2.0%		2.0%		2.0%		1.0%		1.0%						1.0%					
Saturday	9.0%		9.0%		11.0%		11.0%		11.0%		0.0%		N/A						N/A					
	In Out		In Out		In Out		In Out		In Out		In Out		In Out						In Out					
All Periods	50.0% 50.0%		50.0% 50.0%		50.0% 50.0%		50.0% 50.0%		50.0% 50.0%		50.0% 50.0%		50.0% 50.0%						50.0% 50.0%					

Table 05.13-1 (continued): Transportation Planning Factors

Notes :	
(1)	2021 City Environmental Quality Review (CEQR) Technical Manual.
(2)	Modal split and vehicle occupancy data based on 2015 -2019 ACS journey-to-work data for Manhattan census tracts 83, 89, 93, 97, and 99.
(3)	Source: Inwood Rezoning FEIS (2018).
(4)	Source: Cooper Park Commons EAS (2021).
(5)	Based on NYCDOT Local Retail Mode Choice Surveys.
(6)	Source: Innovation QNS FEIS (2022).
(7)	Based on data provided by NYCDOT.
(8)	Parent modal split adjusted for pedestrian related trips only.
(9)	Modal split and vehicle occupancy data based on 2012-2016 AASHTO CTPP Reverse journey-to-work data for Manhattan 83, 89, 93, 97, 99.
(10)	Source: Soho Noho Rezoning FEIS (2021).

Transportation Assessment

Screening Assessment

The *CTM* identifies procedures for evaluating the Proposed Project's potential effects on traffic transit, pedestrian, and parking conditions. This methodology begins with a Level 1 trip generation screening assessment to estimate the number of person and vehicle trips by mode expected to be generated by the Proposed Project during the peak hours for project-generated travel demand. These estimates are then compared to the *CTM* analysis thresholds to determine if a Level 2 screening and/or quantified operational analyses may be warranted. A Level 2 screening assessment involves the assignment of project-generated trips to the study area street network, pedestrian elements, and transit facilities, and the identification of specific locations where the incremental increase in demand may potentially exceed *CTM* analysis thresholds and therefore require a quantitative analysis. If the results of the Level 2 screening assessment 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, then further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, street user safety, and parking.

Traffic

Analysis Methodology

If a detailed analysis is warranted, the operation of intersections would be assessed using methodologies presented in the 2010 *Highway Capacity Manual (HCM)* and conducted using the Synchro 11 software application. Traffic data required for these analyses include the hourly volumes on each approach, turning movements, the percentage of 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.

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 level of service (LOS), which is based on the amount of delay that a driver typically experiences at an intersection. LOS ranges 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 05.13-2 shows the LOS/delay relationship for signalized and unsignalized intersections using the *HCM* methodology. LOS 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 reflects heavy 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 05.13-2: Intersection Level of Service Criteria

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

Source: 2000 Highway Capacity Manual

Significant Impact Criteria

The identification of significant adverse traffic impacts at analyzed intersections is based on criteria presented in the *CTM*. If a lane group in the Proposed Project would be LOS A, B, C, or D (i.e., delay less than or equal to 55.0 seconds/vehicle for signalized intersections and 35.0 seconds/vehicle for unsignalized intersections), the impact is not considered significant. If the lane-group LOS would deteriorate from LOS A, B, C, or D in the No-Action Alternative to LOS E or F with the Proposed Project, a significant traffic impact is identified. For a lane group that would operate at LOS E with the Proposed Project, an increase in delay of 5.0 or more seconds

compared to the No-Action Alternative is considered a significant impact. For a lane group that would operate at LOS F with the Proposed Project, a projected increase in delay of 4.0 or more seconds above the No-Action Alternative 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 with the Proposed Project in any peak hour.

Transit

Analysis Methodology

Subway Stations

If a detailed analysis is warranted, the operation of subway station elements would be assessed using methodologies presented in the *CTM*. The methodology for assessing subway station pedestrian circulation elements (stairs, escalators, and passageways) and fare control elements (low turnstiles, high entry/exit turnstiles [HEETs], and high exit turnstiles [HXTs]) compares existing and projected pedestrian volumes with the element's design capacity to yield a v/c ratio. All analyses reflect pedestrian flow volumes over a 15-minute interval during each peak hour.

Under *CTM* guidance, the capacity of a stairway or passageway is determined based on four factors: the New York City Transit (NYCT) guideline capacity, the effective width, and surging and counter-flow factors, if applicable. NYCT guideline capacity is 10 passengers per foot-width per minute (pfm) for stairs and 15 pfm 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 opposing pedestrian flows use the same stair or passageway (no friction factor is applied if the flow is all or predominantly in one direction).

In contrast with stairways and passageways, under *CTM* guidance, 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 05.13-3** shows the *CTM* LOS criteria for all subway station elements. As shown in **Table 05.13-3**, the six LOS 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 05.13-3: 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: 2021 *CTM*

Subway Line Haul

If detailed analysis is warranted, 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 v/c ratio is determined by dividing the number of peak-hour passengers traveling through the maximum load point by the line haul capacity. Maximum load point subway service and ridership data were provided by NYCT. The subway line haul analysis focuses 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.

Significant Impact Criteria

Subway Stations

The *CTM* 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 v/c ratio in the No-Action Alternative or to a v/c ratio of 1.00 (LOS C/D), whichever is greater. Stairways that are substantially degraded in LOS or that 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 05.13-4** are reached or exceeded.

Table 05.13-4: 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: 2021 *CTM*

For turnstiles, escalators, and high-wheel exit gates, the *CTM* defines a significant impact as an increase from the No-Action Alternative 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 also considered significant.

Subway Line Haul

For subway line haul conditions, *CTM* 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 incremental increase averaging five or more riders per subway car on lines projected to carry loads 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.

Pedestrians

Analysis Methodology

If a detailed analysis is warranted, peak 15-minute pedestrian flow conditions during the weekday AM, midday, and PM peak hours are analyzed using the *HCM* methodology and procedures outlined in the *CTM*. 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 lights. To effectively evaluate these facilities a “time-space” analysis methodology is employed, which takes into consideration the traffic light cycle 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 05.13-5** defines the LOS criteria for pedestrian crosswalk/corner area and sidewalk conditions, as based on the *HCM* methodology.

Table 05.13-5: Pedestrian Crosswalk/Corner Area and Sidewalk Levels of Service Descriptions

LOS	Crosswalk/Corner	Crosswalk/Corner Area Criteria (sf/ped)	Sidewalk/Walkway Criteria (sf/ped)
A	(Unrestricted)	≥ 60.1	≥ 530.1
B	(Slightly Restricted)	40.1 to 60.0	90.1 to 530.0
C	(Restricted but fluid)	24.1 to 40.0	40.1 to 90.0
D	(Restricted, necessary to continuously alter walking stride and direction)	15.1 to 24.0	23.1 to 40.0
E	(Severely restricted)	8.1 to 15.0	11.1 to 23.0
F	(Forward progress only by shuffling; no reverse movement possible)	≤ 8.0	≤ 11.0

Notes:

Based on average conditions for 15 minutes

sf/ped – square feet of area per pedestrian

Source: *CEQR Technical Manual*

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 an LOS one level poorer than that determined for average flow rates.

Significant Impact Criteria

Sidewalks

The *CTM* impact criteria for a Central Business District (CBD) location are used to identify significant adverse impacts due to the Proposed Project. These criteria define a significant adverse sidewalk impact to have occurred under platoon conditions if the average pedestrian space under the No-Action Alternative is greater than or equal to 34.7 square feet/pedestrian (sf/ped), and the average pedestrian space under the Proposed Project is 31.4 sf/ped or less (LOS D or worse). If the average pedestrian space under the Proposed Project is greater than 31.4 sf/ped (LOS C or better), the impact should not be considered significant. If the pedestrian space under the No-Action Alternative is between 6.4 and 34.7 sf/ped, a reduction in pedestrian space under the Proposed Project should be considered significant based on **Table 05.13-6**, which shows a sliding-scale that identifies what decrease in pedestrian space is considered a significant impact for a given pedestrian space value in the No-Action Alternative. If the reduction in pedestrian space is less than the value in **Table 05.13-6**, the impact is not considered significant. If the average pedestrian space under the No-Action Alternative is less than or equal to 6.3 sf/ped, then a reduction in pedestrian space greater than or equal to 0.3 sf/ped under the Proposed Project should be considered significant.

Table 05.13-6: Significant Impact Criteria for Sidewalks with Platooned Flow in a CBD Location

No-Action Alternative Pedestrian Flow (sf/ped)	With-Action Condition Pedestrian Flow Increment to be Considered a Significant Impact (sf/ped)
≥ 34.7	With Action Condition ≤ 31.4
34 to 34.6	Reduction ≥ 3.3
33 to 33.9	Reduction ≥ 3.2
32.1 to 32.9	Reduction ≥ 3.1
31.1 to 32	Reduction ≥ 3.0
30.2 to 31	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 to 15.8	Reduction ≥ 1.3
14 to 14.9	Reduction ≥ 1.2
13.1 to 13.9	Reduction ≥ 1.1
12.1 to 13	Reduction ≥ 1.0
11.2 to 12	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
≤ 6.3	Reduction ≥ 0.3

Source: 2021 CTM

Corner Areas and Crosswalks

For CBD areas, CTM criteria define a significant adverse corner area or crosswalk impact to have occurred if the average pedestrian space under the No-Action Alternative is greater than or equal to 21.5 sf/ped and, under the Proposed Project, the average pedestrian space decreases to 19.4 sf/ped or less (LOS D or worse). If the pedestrian space under the Proposed Project is greater than 19.4 sf/ped (LOS C or better), the impact should not be considered significant. If the average pedestrian space under the No-Action Alternative is between 5.1 and 21.4 sf/ped, a decrease in

pedestrian space under the Proposed Project should be considered significant based on **Table 05.13-7**, which shows a sliding-scale that identifies what decrease in pedestrian space is considered a significant impact for a given amount of pedestrian space in the No-Action Alternative. If the decrease in pedestrian space is less than the value in **Table 05.13-7**, the impact is not considered significant. If the average pedestrian space under the No-Action Alternative is less than or equal to 5.0 sf/ped, then a decrease in pedestrian space greater than or equal to 0.2 sf/ped should be considered significant.

Table 05.13-7: Significant Impact Criteria for Corners and Crosswalks in a CBD Location

No-Action Alternative Pedestrian Space (sf/ped)			With-Action Condition Pedestrian Space Reduction to be Considered a Significant Impact (sf/ped)
≥ 21.5			With Action Condition ≤ 19.4
21.3	to	21.4	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
< 5.0			Reduction ≥ 0.2

Source: 2021 CTM

Parking

Analysis Methodology

If detailed analysis is warranted, 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 conditions and in the future without and with the Proposed Project. 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 Project is also considered. Typically, the analysis encompasses the parking facilities—public parking lots and garages and on-street curbside spaces—that vehicular traffic destined to the project site or area would likely utilize. According to the CTM, a ¼-mile radius around a project site is generally assumed as the distance that someone driving to the site would be willing to walk.

Significant Impact Criteria

Should a proposed action generate the need for more parking than it provides, a shortfall of spaces may be considered significant. The availability of off-street and on-street parking spaces within a convenient walking distance (about a ¼-mile), as well as the availability of alternative modes of transportation, are considered in making this determination.

Under *CTM* guidance, different criteria for determining significance are applied based on whether or not a proposed project is located in residential or commercial areas designated as Parking Zones 1 and 2, as shown in Map 16-2, “CEQR Parking Zones, May 2010,” in the 2021 *CTM*. As the Project Sites are located within Zone 1, as shown in Map 16-2, the inability of the Proposed Project or the surrounding area to accommodate future parking demands would be considered a parking shortfall, but would generally not be considered significant due to the magnitude of available alternative modes of transportation.

Vehicular and Pedestrian Safety Evaluation

Under *CTM* guidance, an evaluation of vehicular and pedestrian safety is needed for locations within the traffic and pedestrian study areas that have been identified as high crash locations. These are defined as locations along a Vision Zero intersection or where five or more pedestrian/bicyclist injury crashes have occurred in any consecutive 12 months of the most recent three-year period for which data are available. In addition, any location along a Vision Zero priority corridor with three or more pedestrian/bicyclist injury crashes in any consecutive 12 months of the most recent three-year period for which data is available should be identified as a high crash location. For these locations, crash trends would be identified to determine whether projected vehicular and pedestrian traffic would further impact safety, or whether existing unsafe conditions could adversely impact the flow of the projected new trips. The determination of potential significant safety impacts depends on the type of area where the project site is located, traffic and pedestrian volumes, crash types and severity, and other contributing factors. Where appropriate, measures to improve traffic and pedestrian safety should be identified and coordinated with NYCDOT.

D. AFFECTED ENVIRONMENT

Transportation Elements

Traffic

Study Area Street Network

The key roadways in the traffic study area include 8th Avenue, 9th Avenue, 10th Avenue, W. 16th Street, W. 18th Street, W. 20th Street, W. 26th Street, Route 9 A, and the Lincoln Tunnel.

To the east of the Fulton Houses Project Site, 9th Avenue serves as a southbound principal arterial that typically operates with three moving lanes and a protected bike lane on the east curb. The M11 bus route operates southbound along 9th Avenue and the M12 and M14D+ bus routes operate

southbound along 9th Avenue, to the south of W. 18th Street. 10th Avenue, to the west of the Elliott-Chelsea Houses Project Site, serves as a northbound principal arterial that typically operates with four moving lanes. M11 buses operate northbound along 10th Avenue. 8th Avenue, to the east of the Project Sites, serves as a northbound principal arterial that typically operates with four moving lanes and a protected bike lane on the west curb. The M20 bus route operates northbound along 8th Avenue in the vicinity of the Project Sites. 8th, 9th, and 10th Avenues are all NYCDOT-designated Local Truck Routes.

W. 16th Street, W. 18th Street, W. 20th Street, and W. 26th Street are all one-way eastbound streets that typically operate with one moving lane and parking lanes along both curbs; with the exception of W. 18th Street, all have one bicycle lane. Eastbound NYCT M12 and M14D+ buses operate along W. 18th Street until 9th Avenue. W. 17th Street, W. 19th Street, and W. 25th Street operate as one-way westbound streets with parking lanes along both curbs.

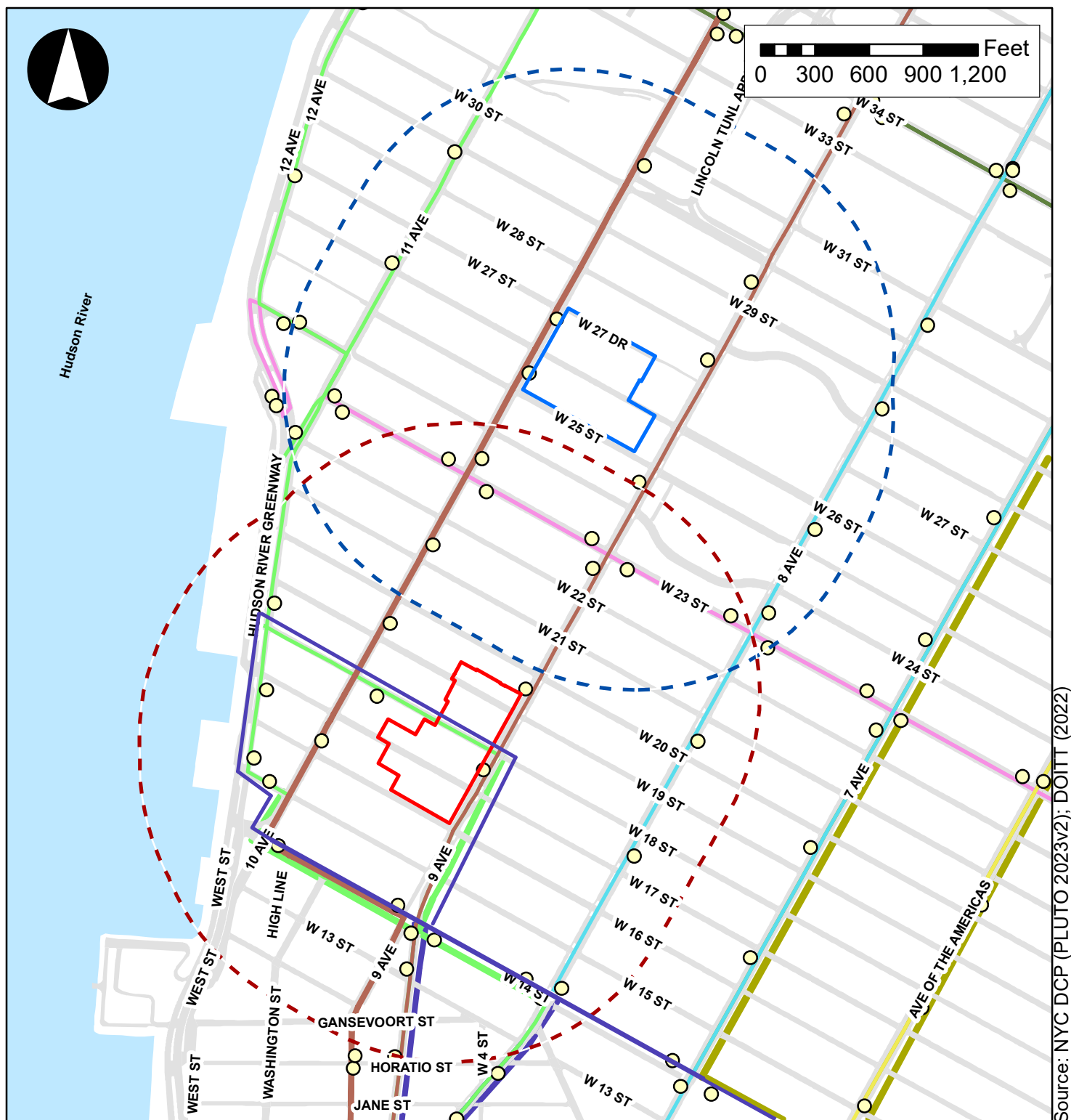
Two additional roadways of note located in the proximity of the Project Sites are Route 9A and the Lincoln Tunnel. Route 9A runs along Manhattan's Hudson River waterfront from The Battery to W. 57th Street, north of which it continues as the Henry Hudson Parkway. In the vicinity of the Project Sites, it operates with three to four moving lanes in each direction. Route 9A provides access to a number of river crossings, including (south to north) the Hugh L. Carey (Brooklyn-Battery) Tunnel to Brooklyn, the Holland and Lincoln tunnels and George Washington Bridge to New Jersey, and the Henry Hudson Bridge to The Bronx. Northbound NYCT M12 buses use Route 9A from W. 14th Street to W. 57th Street, and M50 buses traverse the corridor in both directions between W. 42nd Street and W. 50th Street. Route 9A is designated as a Through Truck Route from The Battery to W. 34th Street, and as a Local Truck route from W. 34th Street to W. 57th Street. Trucks are prohibited from using the Henry Hudson Parkway.

To the north of the Project Sites is the Lincoln Tunnel, a designed Through Truck Route that connects New Jersey to Midtown Manhattan. The Lincoln Tunnel consists of three vehicular tubes with two traffic lanes in each tube. It also has an Express Bus Lane (EBL) that primarily has buses heading to/from the Port Authority Bus Terminal.

The study area also includes W. 27th Drive, which, although open to vehicular and pedestrian traffic, is not a mapped street. Owned by NYCHA and located within the northern edge of the Elliott-Chelsea Houses Project Site, it extends north from W. 26th Street approximately 530 feet east of 10th Avenue for a distance of approximately 200 feet and then curves west and follows a course parallel to W. 26th Street until it meets the intersection of 10th Avenue and W. 27th Street. Traffic and pedestrian volumes are relatively low along this approximately 30-foot-wide corridor, which includes one vehicular travel lane operating one way northbound/westbound with no curbside parking, flanked by sidewalks. It is bounded by Chelsea Park on the north and Public School (PS) 33 on the east.

Bus Routes

Five NYCT local bus services operate within approximately a ¼-mile radius of the Project Sites: the M11, M12, M14D+, M20, and M23. These services and the principal corridors on which they operate in proximity to the Project Sites are shown in **Figure 05.13-1a** and listed in **Table 05.13-8**.



Source: NYC DCP (PLUTO 2023v2); DOITT (2022)

Legend

Fulton Houses 1/4-Mile Radius

Fulton Houses

Elliott-Chelsea Houses 1/4-Mile Radius

Elliott-Chelsea Houses

Local Bus Stops

Bus Routes

M11

M25

M12

M14D+

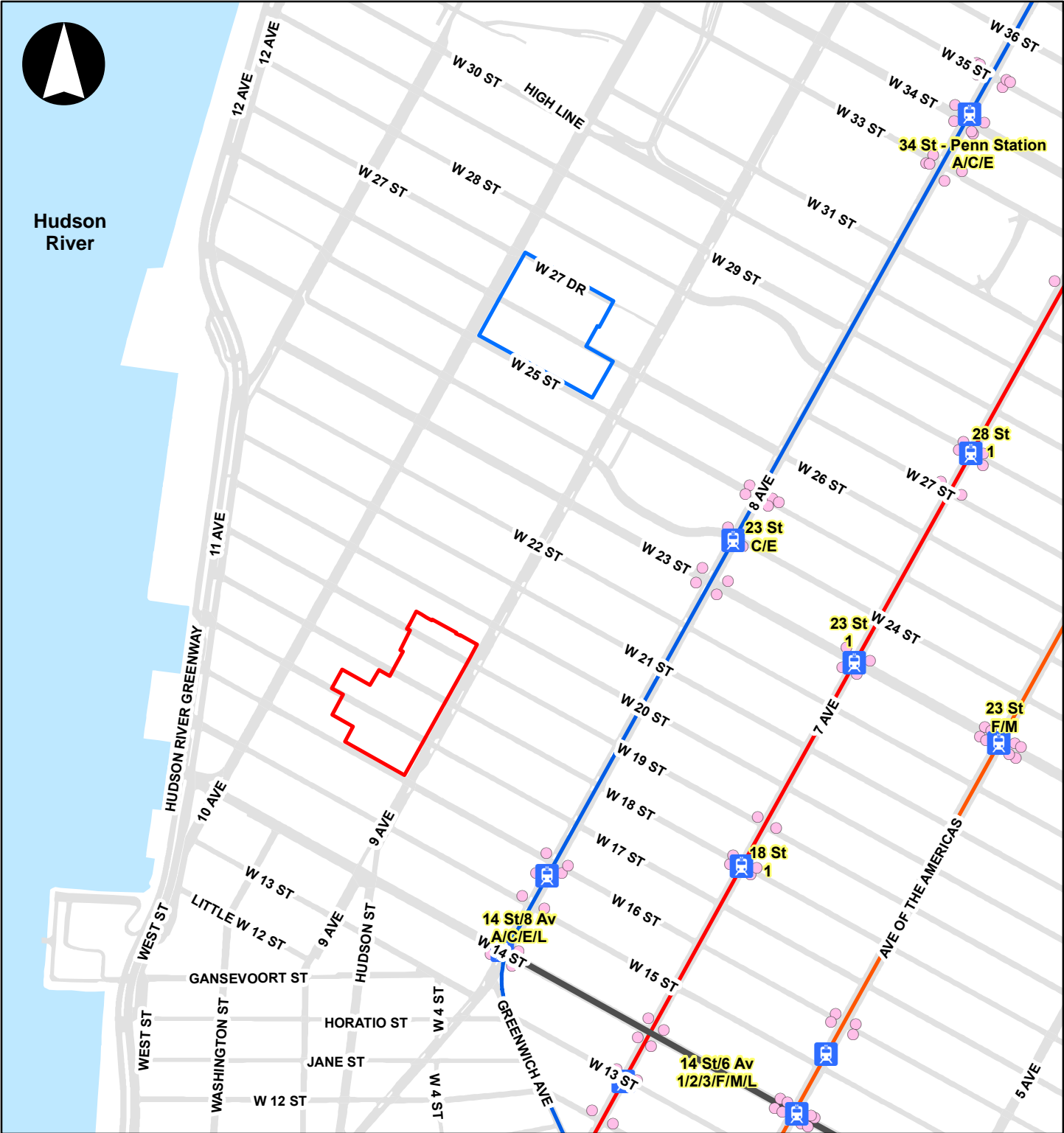
M20

M23+

M34+

M34A+

M7



Source: NYC DCP (PLUTO 2023v2); DOITT (2022)

Legend









- | | | | |
|--|--|---|---|
|  Fulton Houses |  Subway Stations | Subway Routes |  F/M |
|  Elliott-Chelsea Houses |  Subway Station Entrances |  1/2/3 |  L |
| | |  A/C/E | |

Table 05.13-8: Bus Routes Serving the Project Sites

Route	Operating Agency	Route Endpoints	Corridors Served in Proximity to the Project Site
M11	NYCT	Riverbank Park and Harlem – West Village	9 th Avenue/10 th Avenue
M12	NYCT	Midtown West – West Village	11 th Avenue/12 th Avenue
M14D+	NYCT	Lower East Side – Abingdon Square/Chelsea Piers	W. 14 th Street
M20	NYCT	Lincoln Center – South Ferry	7 th Avenue/8 th Avenue
M23 SBS	NYCT	Chelsea Piers – East Side	W. 23 rd Street

Truck Routes

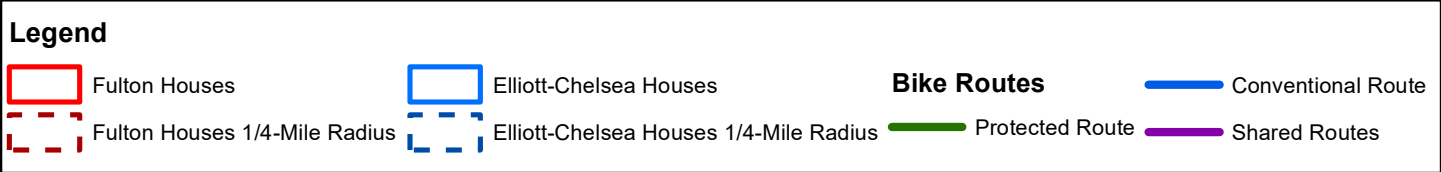
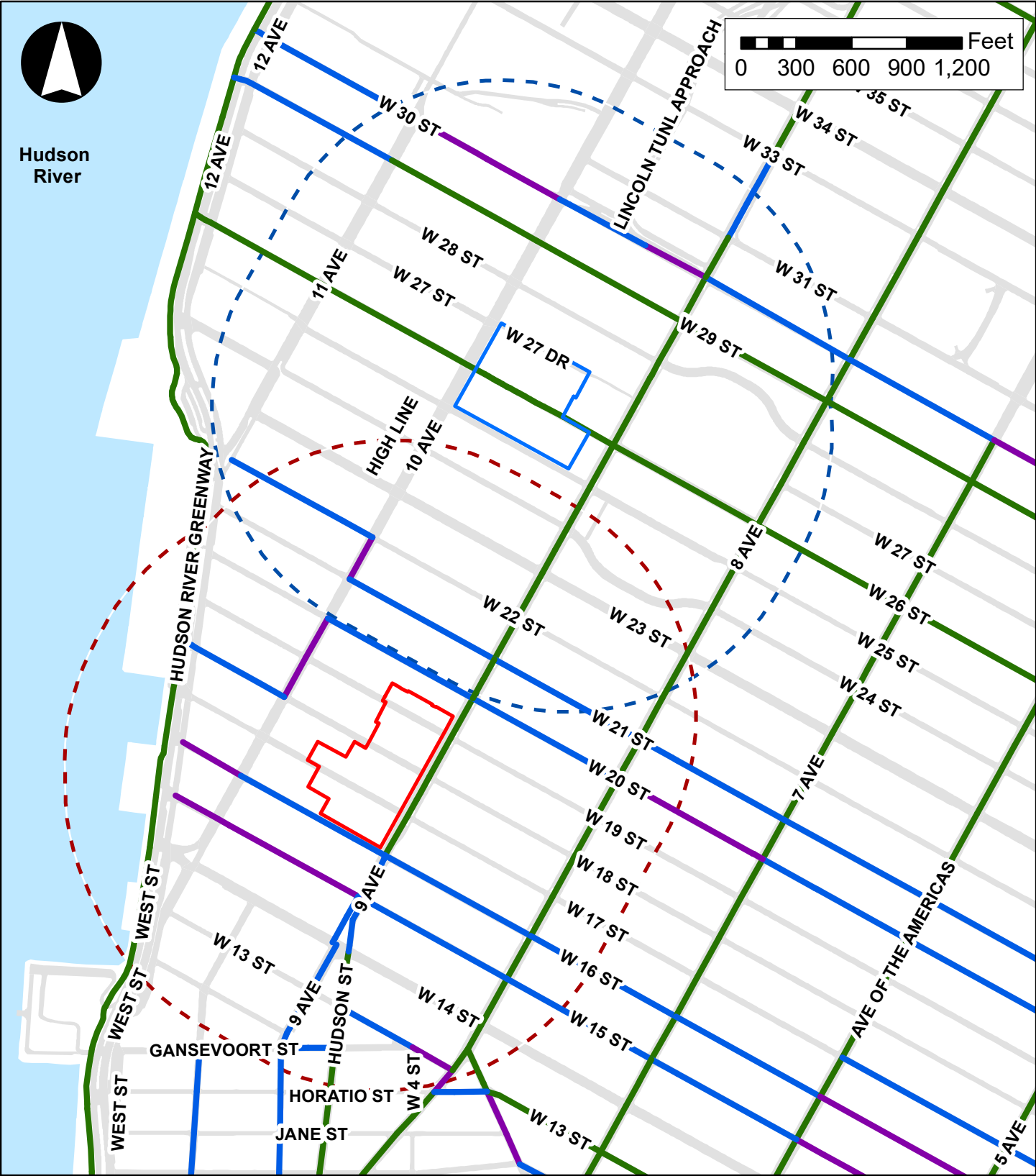
The City has established local and through truck routes to manage the flow of trucks and improve the quality of neighborhoods. The City defines a truck as “a vehicle which is designed for transportation of property, which has either of the following characteristics: two axles and six tires or three or more axles.” Trucks must generally travel on local truck routes to reach the intersection nearest their destinations. In the vicinity of the Project Sites, local truck routes have been designated along 8th, 9th, and 10th Avenues. Through trucks are defined as having neither an origin nor a destination within Manhattan. The nearest designated through truck routes in proximity to the Project Sites are Dyer Avenue and 11th and 12th Avenues.

Bicycle Lanes

As shown in **Figure 05.13-2**, streets within the Project Sites and their proximity host an extensive network of bicycle lanes, the majority of which are protected bicycle lanes or conventional bicycle lanes. Protected bicycle lanes have been installed along 8th Avenue, W. 26th Street, 9th Avenue between W. 16th Street and W. 31st Street, and W. 29th Street east of 11th Avenue. Conventional bicycle lanes have been installed along portions of W. 15th, W. 16th, W. 18th, W. 20th, W. 21st, W. 22nd, W. 29th, and W. 30th Streets, as well as 9th Avenue south of W. 16th Street and north of W. 31st Street. Portions of 10th Avenue are shared bicycle routes, including between W. 18th Street and W. 20th Street and between W. 21st Street and W. 22nd Street. Other shared bicycle routes include W. 15th Street west of 9th Avenue, W. 16th Street west of 10th Avenue, W. 20th Street between 7th and 8th Avenues, and W. 30th Street between 10th and 11th Avenues and a slight portion west of 9th Avenue.

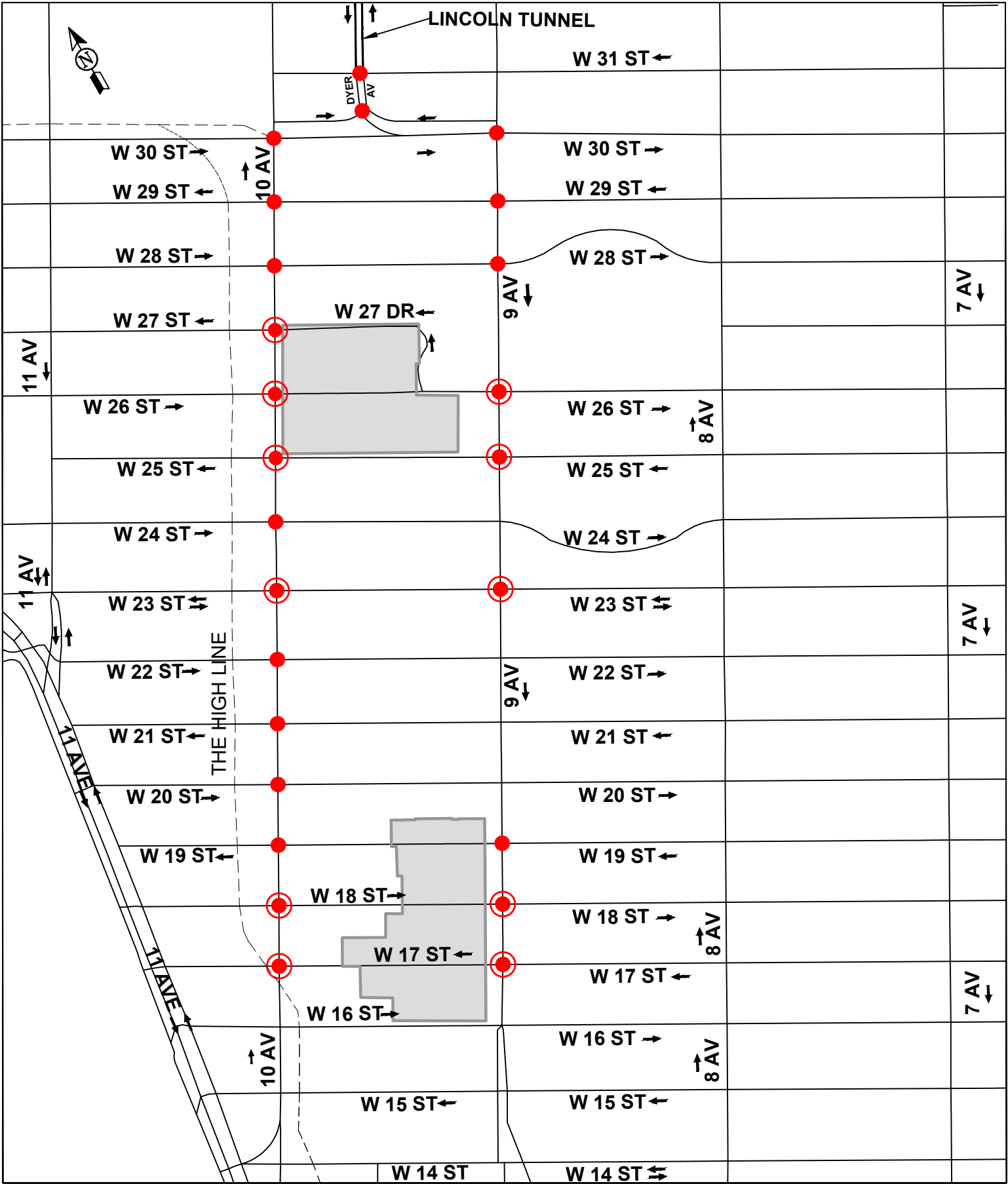
Traffic Conditions

To establish the existing conditions traffic network, an extensive traffic data collection program—including Automatic Traffic Recorder (ATR) counts, turning movement counts, and vehicle classification counts—was undertaken in May/June 2023. 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) were also collected during these periods. Signal timing plans for signalized intersections within the study area were obtained from NYCDOT. The traffic analysis examines conditions in the weekday AM, midday, and PM peak hours, and Saturday peak hour at 25 intersections (all signalized) (refer to **Figure 05.13-3**). Based on the *CTM*, the Manhattan peak hours are 8:00-9:00 AM, 12:00-1:00 PM, and 5:00-6:00 PM.



Source: NYCDP (PLUTO 2023v2); DOITT (2022)

Traffic Analysis Locations



LEGEND

Fulton Houses

Rezoning Alternative Analysis Location

Elliott-Chelsea Houses

Non-Rezoning Alternative Analysis Location

Figures H.2-1a through H.2-1d in Appendix H.2 show the existing traffic volumes during the weekday AM, midday, and PM peak hours, and the Saturday peak hour, respectively.

Intersection Capacity Analysis

The v/c ratios, delays, and LOS for individual lane groups at analyzed intersections under existing conditions are shown in **Table 05.13-9**. A lane group is considered congested in **Table 05.13-9** if it operates at LOS E or F and/or with a v/c ratio of 0.90 or above. A v/c ratio of 1.00 or above reflects capacity conditions. As shown in **Table 05.13-9**, of the 25 analyzed intersections, 14 signalized intersections currently have at least one congested lane group in one or more peak hours. Of the 14 analyzed congested intersections, four intersections are located along the 9th Avenue corridor and the remaining 10 intersections are located along the 10th Avenue corridor. Three intersections contain one or more lane groups operating at or over capacity (v/c ratio ≥ 1.0) in the weekday AM peak hour; one intersection contains one or more lane groups operating at or over capacity in the midday peak hour; three intersections contain one or more lane groups operating at or over capacity in the PM peak hour, and one intersection contains one or more lane groups operating at or over capacity in the Saturday peak hour.

Table 05.13-9: Existing Traffic Levels of Service

Intersection	Approach	Lane Group	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
			V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
W.30th St (EB) & 10th Ave (NB)	EB	L	0.46	53.0	D	0.47	52.7	D	0.49	53.4	D	0.45	52.2	D
	EB	T	0.82	74.5	E *	0.38	50.6	D	0.57	57.1	E *	0.60	58.0	E *
	NB	TR	0.59	14.6	B	0.79	15.4	B	0.57	8.2	A	0.55	12.3	B
W.29th St (WB) & 10th Ave (NB)	WB	T	0.49	35.5	D	0.38	66.6	E *	0.43	68.6	E *	0.45	24.5	C
	WB	R	0.83	56.9	E *	0.68	79.9	E *	0.44	69.4	E *	0.69	34.6	C
	NB	LT	0.52	4.8	A	0.66	2.9	A	0.59	5.9	A	0.52	5.1	A
W.28th St (EB) & 10th Ave (NB)	EB	LT	0.55	55.3	E *	0.39	50.0	D	0.38	49.8	D	0.46	52.3	D
	NB	TR	0.55	3.0	A	0.70	3.4	A	0.48	2.6	A	0.51	3.0	A
W.27th St (WB) & 10th Ave (NB)	WB	TR	0.03	42.5	D	0.05	42.8	D	0.04	42.8	D	0.05	43.0	D
	NB	LT	0.64	4.8	A	0.75	4.9	A	0.55	3.8	A	0.59	3.9	A
W.26th St (EB) & 10th Ave (NB)	EB	LT	1.02	113.0	F *	0.84	76.3	E *	0.65	60.6	E *	0.64	59.6	E *
	NB	TR	0.63	13.3	B	0.72	14.7	B	0.52	12.5	B	0.58	16.0	B
W.25th St (WB) & 10th Ave (NB)	WB	TR	0.89	93.0	F *	0.98	76.8	E *	1.05	103.3	F *	0.79	86.7	F *
	NB	LT	0.58	9.7	A	0.64	4.1	A	0.46	4.3	A	0.49	7.2	A
W.24th St (EB) & 10th Ave (NB)	EB	LT	0.85	72.4	E *	0.57	55.4	E *	0.47	52.3	D	0.73	64.3	E *
	NB	TR	0.53	15.2	B	0.66	15.1	B	0.45	12.3	B	0.45	12.3	B
W.23rd St (E-W) & 10th Ave (NB)	EB	LT	0.62	26.8	C	0.65	29.0	C	0.61	26.5	C	0.54	24.5	C
	WB	T	0.97	72.6	E *		-		1.05	113.3	F *		-	
	WB	R	0.72	31.7	C		-		0.71	56.8	E *		-	
	WB	TR	-	-	-	1.05	108.4	F *	-	-	-	1.05	82.1	F *
	NB	LTR	0.60	6.3	A	0.73	9.1	A	0.60	8.2	A	0.57	5.9	A
W.22nd St (EB) & 10th Ave (NB)	NB	LTR	0.57	5.0	A	0.65	6.3	A	0.54	8.6	A	0.54	8.1	A
W.21st St (E-W) & 10th Ave (NB)	EB	L	0.12	44.2	D	0.15	44.7	D	0.09	43.7	D	0.22	46.4	D
	WB	R	0.09	43.7	D	0.14	44.8	D	0.44	53.3	D	0.21	46.5	D
	NB	T	0.50	4.9	A	0.58	6.8	A	0.51	7.4	A	0.44	4.0	A
W.20th St (EB) & 10th Ave (NB)	NB	LTR	0.78	28.6	C	0.87	32.1	C	0.90	36.6	D	0.78	32.8	C
W.19th St (WB) & 10th Ave (NB)	EB	L	0.11	34.8	C	0.11	34.9	C	0.08	34.4	C	0.17	36.2	D
	WB	R	0.47	62.0	E *	0.82	38.2	D	0.88	45.6	D	0.81	90.6	F *
	NB	T	0.55	4.0	A	0.63	4.6	A	0.60	7.4	A	0.52	7.4	A
W.18th St (EB) & 10th Ave (NB)	EB	LT	0.58	58.2	E *	0.65	61.4	E *	0.77	70.4	E *	0.69	63.6	E *
	NB	TR	0.64	15.2	B	0.69	17.6	B	0.54	12.7	B	0.46	12.9	B
W.17th St (WB) & 10th Ave (NB)	WB	TR	0.61	45.0	D	0.74	74.1	E *	0.84	79.6	E *	0.73	49.6	D
	NB	LT	0.42	29.5	C	0.45	30.1	C	0.46	30.3	C	0.37	28.6	C
W.31st St (WB) & Dyer Ave (NB)/ Lincoln Exit (SB)	WB	LTR	0.30	26.0	C	0.42	27.7	C	0.67	33.0	C	0.99	34.5	C
	NB	LT	0.20	25.6	C	0.30	25.6	C	0.23	1.5	A	0.27	24.6	C
	SB	TR	0.20	8.4	A	0.15	8.1	A	0.10	7.8	A	0.23	8.7	A
W.30th St (E-W) & Dyer Ave (SB)	EB	T	0.21	5.1	A	0.29	4.2	A	0.35	19.8	B	0.23	5.5	A
	WB	T	0.01	0.0	A	0.02	0.0	A	0.04	0.1	A	0.06	0.1	A
	SB	T	0.32	15.8	B	0.25	15.2	B	0.20	29.7	C	0.37	15.2	B
W.30th St (EB) & 9th Ave (SB)	EB	T	0.49	23.7	C	0.27	51.0	D	0.29	27.9	C	0.36	12.7	B
	EB	R	0.70	31.3	C	0.50	55.8	E *	0.47	32.1	C	0.78	26.5	C
	SB	LT	0.57	15.2	B	0.50	15.4	B	0.48	14.0	B	0.57	16.4	B
W.29th St (WB) & 9th Ave (SB)	WB	L	0.23	20.8	C	0.23	21.5	C	0.32	22.2	C	0.09	19.6	B
	WB	T	0.71	32.7	C	0.73	34.8	C	1.05	98.9	F *	0.81	39.4	D
	SB	TR	0.79	21.2	C	0.63	18.2	B	0.60	15.0	B	0.76	22.3	C
W.28th St (EB) & 9th Ave (SB)	EB	TR	0.68	39.2	D	0.57	27.2	C	0.51	28.7	C	0.44	32.1	C
	SB	L	0.50	26.0	C	0.30	26.3	C	0.30	27.0	C	0.43	23.1	C
	SB	T	0.52	3.7	A	0.40	4.2	A	0.44	5.5	A	0.50	1.7	A
W.26th St (EB) & 9th Ave (SB)	EB	T	1.05	96.4	F *	0.79	41.3	D	0.45	20.2	C	0.50	33.0	C
	EB	R	0.59	39.1	D	0.45	26.1	C	0.32	19.0	B	0.31	31.3	C
	SB	L	0.49	23.4	C	0.39	23.7	C	0.32	21.6	C	0.59	25.2	C
	SB	T	0.59	4.6	A	0.45	3.7	A	0.48	3.4	A	0.51	2.4	A
W.25th St (WB) & 9th Ave (SB)	WB	LT	0.52	23.7	C	0.74	31.9	C	0.67	28.0	C	0.51	23.8	C
	SB	TR	0.89	15.2	B	0.71	8.7	A	0.74	9.6	A	0.75	6.1	A

Table 05.13-9 (continued): Existing Traffic Levels of Service

Intersection	Approach	Lane Group	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
			V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
W.23rd St (E-W) & 9th Ave (SB)	EB	T	0.60	32.5	C	0.56	30.4	C	0.62	27.4	C	0.72	39.6	D
	EB	R	0.35	27.3	C	0.41	30.3	C	0.29	24.2	C	0.21	26.0	C
	WB	T	0.47	29.3	C	0.51	30.8	C	0.49	29.5	C	0.40	28.7	C
	SB	L	1.01	105.2	F *	0.66	50.1	D	0.74	55.5	E *	0.88	72.2	E *
	SB	TR	0.64	17.3	B	0.47	15.5	B	0.52	15.1	B	0.46	15.5	B
W.19th St (WB) & 9th Ave (SB)	WB	LT	0.54	30.7	C	0.87	51.1	D	0.88	50.5	D	0.66	35.3	D
	SB	TR	0.56	16.9	B	0.48	16.9	B	0.50	15.9	B	0.48	16.8	B
W.18th St (EB) & 9th Ave (SB)	EB	TR	0.60	25.9	C	0.61	35.7	D	0.67	37.6	D	0.63	24.1	C
	SB	L	0.47	24.5	C	0.41	21.2	C	0.40	22.3	C	0.39	21.9	C
	SB	T	0.44	3.9	A	0.36	2.7	A	0.39	3.0	A	0.35	3.2	A
W.17th St (WB) & 9th Ave (SB)	WB	LT	0.52	30.3	C	0.76	41.4	D	0.85	47.5	D	0.65	34.9	C
	SB	TR	0.56	6.0	A	0.49	6.6	A	0.50	5.8	A	0.46	5.8	A
Notes: EB - eastbound, WB - westbound, NB - northbound, SB - southbound L - left, T - through, R - right, DefL - Analysis considers a defacto left-turn lane on this approach V/C ratio - volume-to-capacity ratio Sec/veh - seconds per vehicle LOS - level of service * - Denotes a congested movement (LOS E or F, or v/c ratio greater than or equal to 0.9) Analysis is based on the 2000 Highway Capacity Manual methodology (Synchro 11)														

Transit

Subway Stations

Seven NYCT subway stations located in proximity to the Project Sites are expected to experience project-generated demand (see **Figure 05.13-1b**). Three trains—A (express) and C and E (local)—operating along the 8th Avenue Line serve three stations east of the Project Sites, including the 14th Street (express), 23rd Street (local), and 34th Street/Penn Station (express) stations. The 14th Street (A/C/E) station is connected to the 8th Avenue (L) station, and together they comprise the 14th Street/8th Avenue complex (A/C/E/L). Three trains—Nos. 1 (local) and Nos. 2 and 3 (express) —operating along the 7th Avenue Line serve the Project Sites via four stations, including the 14th Street (express), 18th Street (local), 23rd Street (local), and 28th Street (local) stations. The 14th Street (1/2/3) station is connected to the 6th Avenue (L) station and the 14th Street (F/M) station, and together they comprise the 14th Street/6th Avenue station complex (F/L/M/1/2/3). F and M trains provide local service along the 6th Avenue Line, while L trains provide local service along the 14th Street/Canarsie Line.

To determine existing conditions at analyzed subway station elements, subway ridership data was collected at the 23rd Street (C/E) station in June 2023. The count data was supplemented by 2017 data for elements at the 14th Street/8th Avenue (A/C/E/L) subway station complex provided by NYCT and grown to 2023 using a background growth rate of 0.25 percent per year for the 2017 through 2022 period and 0.125 percent per year for the 2022 through 2023 period, consistent with the rates recommended in the *CTM* for projects in Manhattan.

Based on existing pedestrian volumes at study area subway stations, the peak hours selected for the analysis of subway station conditions are 8:00-9:00 AM and 5:00-6:00 PM. 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.

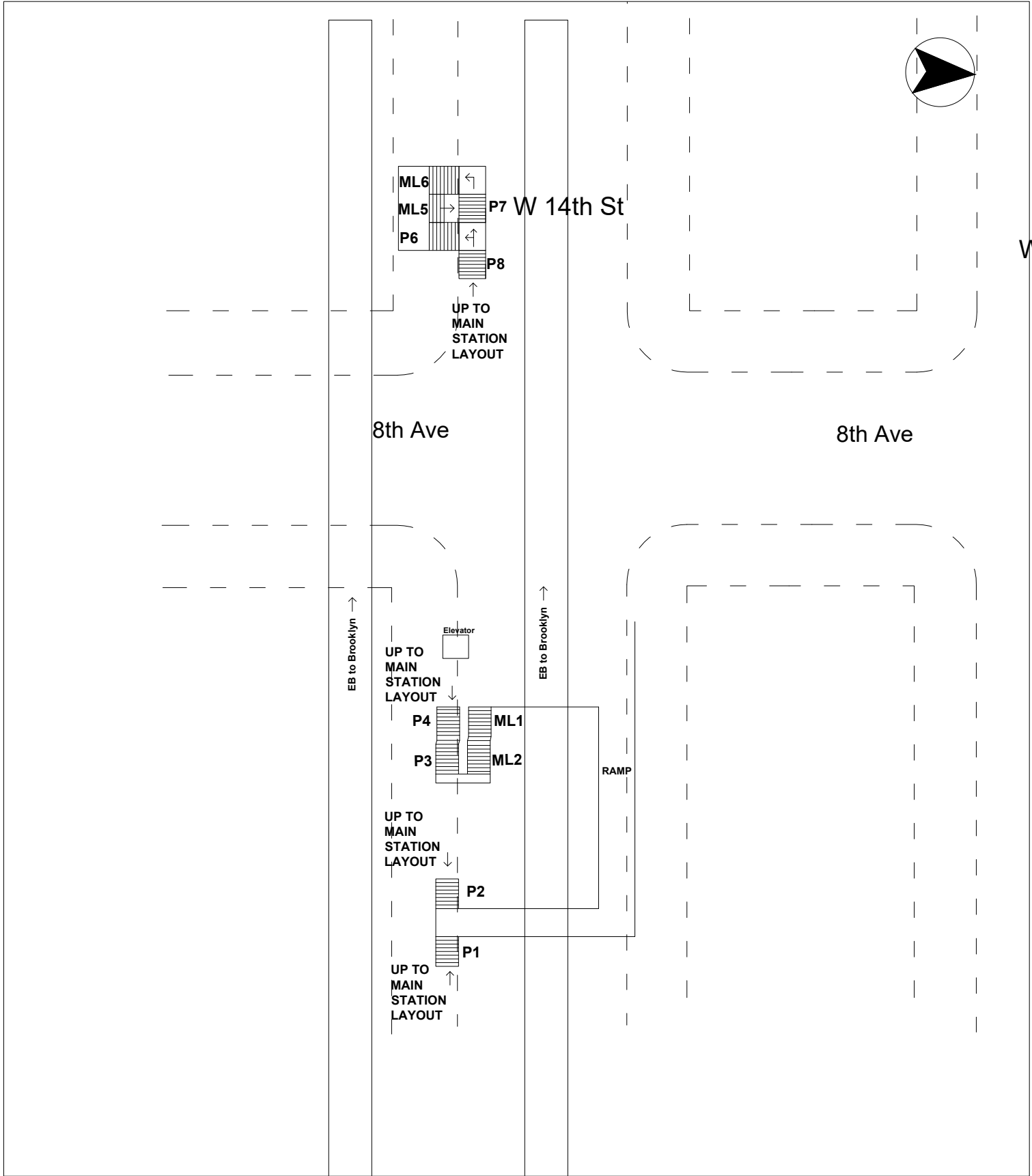
14th Street/8th Avenue Subway Station Complex (A/C/E/L)

The 14th Street/8th Avenue station complex consists of the A, C, and E trains operating on the 8th Avenue line and the L train operating on the Canarsie line. As shown in **Figure 05.13-4a**, access from the street to the mezzanine level is provided by a total of 11 stairs along 8th Avenue, four at W. 14th Street, two at W. 15th Street, and five at W. 16th Street (one of which is within an adjacent building lobby). Entry to the paid zone is controlled by six fare arrays—three at W. 14th Street, two at W. 15th Street, and one at W. 16th Street. At the mezzanine level, 10 stairs (P1 to P10 on the 8th Avenue line) provide access to the A, C, and E platform level, five each to the northbound and southbound platforms. Also at the mezzanine level, two stairs (ML4/ML5/ML6/P6/P7/P8 and ML1/ML2/P3/P4 on the Canarsie line) and a ramp leading to stairs P1 and P2 on the Canarsie line provide access to the L platform level at W. 14th Street. Connections from the L train to the A/C/E trains can be made at all platform stairs except for stairs ML4/ML5/ML6/P6/P7/P8.

Based on the locations of the Fulton Houses Project Site and anticipated travel patterns, incremental demand from the Rezoning Alternative is expected to be most concentrated at the station entrance at the northwest corner of 8th Avenue/W. 16th Street (street stairs S5 and S7, mezzanine stair M7, and fare array N078). Based on the location of the Elliott-Chelsea Houses Project Site, trips utilizing the L train would transfer from the L platform level to the A/C/E platform level via stairs P1 and P2 on the 8th Avenue line to arrive at the 23rd Street (C/E) subway station. These station elements, as shown in **Figure 05.13-4b**, have therefore been selected for analysis, along with the stairs P7 and P9 to access the southbound A/C/E platform, stairs P8 and P10 to access the northbound A/C/E platform, and stairs P1, P2, and P3/P4/ML1/ML2 on the Canarsie line to access the L platform.

As shown in **Table 05.13-10**, all stairs at the 14th Street/8th Avenue station complex operate at LOS C or better during the AM peak periods, with the exception of platform stair P2 on the 8th Avenue line, which operates at LOS E and stair ML1/ML2/P3/P4 on the Canarsie line, which operates at LOS F under existing conditions. During the PM peak hour under existing conditions, all stairs operate at LOS C or better, with the exception of platform stair P2 on the 8th Avenue line, which operates at LOS D, and stair ML1/ML2/P3/P4 on the Canarsie line, which operates at LOS F. As shown in **Table 05.13-11**, all analyzed fare arrays at this station complex currently operate at LOS A in both the AM and PM peak hours.

14th Street/8th Avenue Station L Platform



Legend

- Stairs
- Fare Array
- High Entrance/Exit Turnstile (HEET)
- High Exit Turnstile (HXT)
- Emergency Exit

Table 05.13-10: Existing Conditions Subway Station Stair Analysis

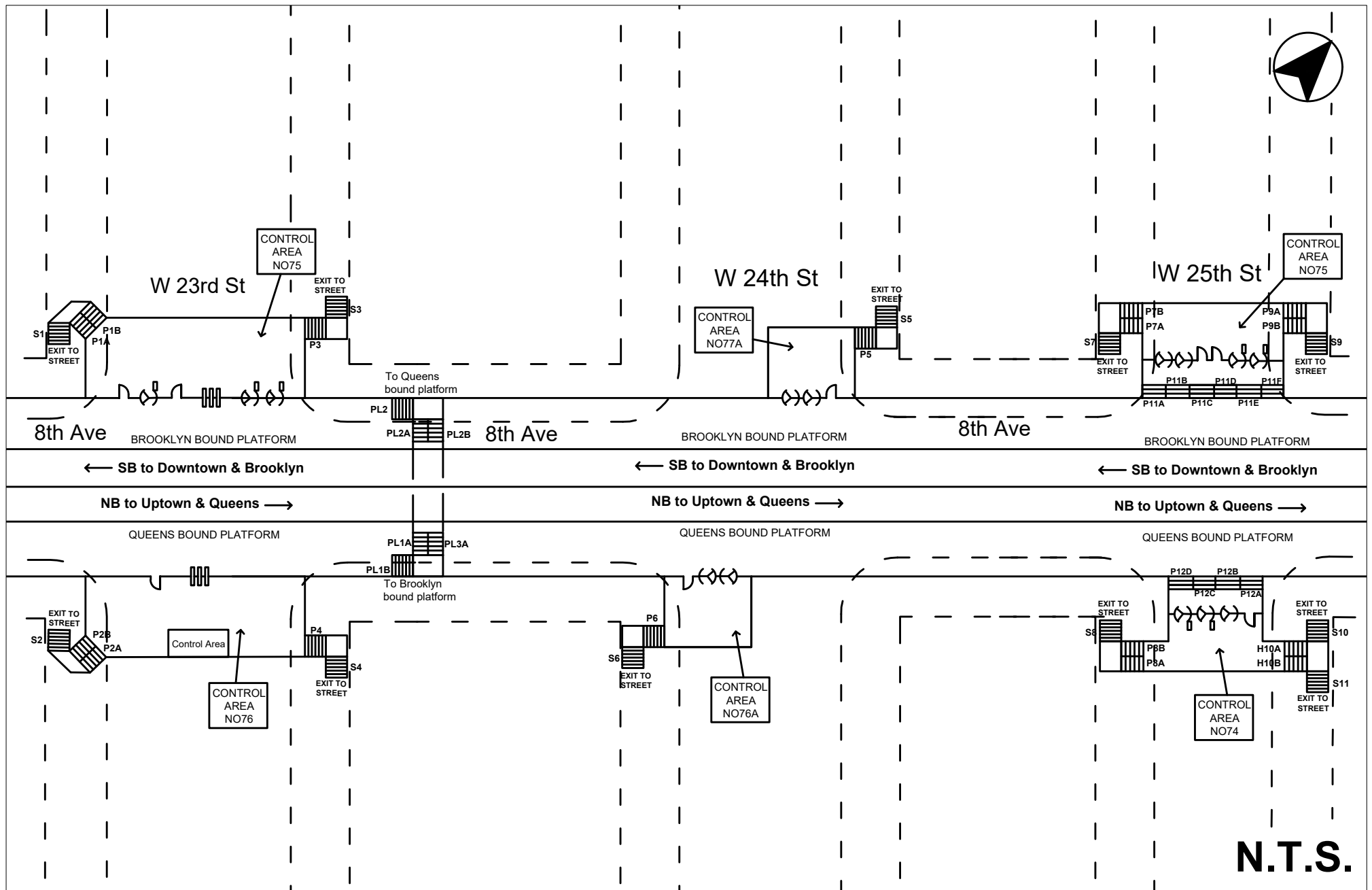
Peak Hour	Station	Stair	Total Width (ft.)	Effective Width (ft.)	Peak Hour Volumes		Surging Factor		Friction Factor	V/C Ratio	LOS
					Up	Down	Up	Down			
AM	23rd Street (C/E)	S9/P9	5.00	4.00	258	178	0.75	1.00	0.90	0.30	A
		S10	5.00	4.00	295	124	0.75	1.00	0.90	0.30	A
		P10	10.00	8.75	334	142	0.75	1.00	0.90	0.15	A
	14th Street - 8th Avenue (A/C/E/L)	S5	5.00	4.00	1,096	279	0.80	1.00	0.90	0.96	C
		S7	4.00	3.00	575	191	0.80	1.00	0.90	0.70	B
		M7	9.50	8.25	1,671	470	0.80	1.00	0.90	0.72	C
		P1 (8 Ave Line)	9.50	8.25	1,257	656	0.75	0.80	0.90	0.70	B
		P2 (8 Ave Line)	9.50	8.25	395	4,266	0.75	0.80	0.90	1.64	E
		P7	7.00	6.00	699	182	0.75	0.80	0.90	0.45	A
		P8	7.00	6.00	393	163	0.75	0.80	0.90	0.28	A
		P9	8.00	5.00	875	119	0.75	0.80	0.90	0.61	B
		P10	8.00	5.00	597	252	0.75	0.80	0.90	0.52	B
		P1 (Canarsie Line)	7.00	6.00	824	114	0.75	0.80	0.90	0.48	B
		P2 (Canarsie Line)	7.00	6.00	1,684	137	0.75	0.80	0.90	0.93	C
		ML1/ML2/P3/P4 (Canarsie Line)	6.50	5.50	1,852	1,515	0.75	0.80	0.90	1.84	F
PM	23rd Street (C/E)	S9/P9	5.00	4.00	157	219	0.75	1.00	0.90	0.25	A
		S10	5.00	4.00	87	89	0.75	1.00	0.90	0.12	A
		P10	10.00	8.75	100	116	0.75	1.00	0.90	0.07	A
	14th Street - 8th Avenue (A/C/E/L)	S5	5.00	4.00	347	577	0.80	1.00	0.90	0.58	B
		S7	4.00	3.00	460	453	0.80	1.00	0.90	0.80	C
		M7	9.50	8.25	807	1,030	0.80	1.00	0.90	0.57	B
		P1 (8 Ave Line)	9.50	8.25	1,809	782	0.75	0.80	0.90	0.95	C
		P2 (8 Ave Line)	9.50	8.25	432	2,621	0.75	0.80	0.90	1.08	D
		P7	7.00	6.00	381	434	0.75	0.80	0.90	0.41	A
		P8	7.00	6.00	220	698	0.75	0.80	0.90	0.45	A
		P9	8.00	5.00	853	344	0.75	0.80	0.90	0.73	C
		P10	8.00	5.00	470	638	0.75	0.80	0.90	0.66	B
		P1 (Canarsie Line)	7.00	6.00	162	880	0.75	0.80	0.90	0.51	B
		P2 (Canarsie Line)	7.00	6.00	694	1,065	0.75	0.80	0.90	0.87	C
		ML1/ML2/P3/P4 (Canarsie Line)	6.50	5.50	1,064	3,141	0.75	0.80	0.90	2.25	F

Table 05.13-11: Existing Conditions Subway Station Fare Array Analysis

Peak Hour	Station	Control Area	Control Elements			Peak Hour Volumes		Surging Factor		Friction Factor	V/C Ratio	LOS
			Turnstile	HEET	HXT	System Entries	System Exits	System Entries	System Exits			
AM	23rd Street (C/E)	N074	0	2	1	201	414	1.00	0.75	0.90	0.25	A
		N075	0	3	1	243	380	1.00	0.75	0.90	0.19	A
	14th Street-8th Avenue (A/C/E/L)	N078	6	2	0	764	2,806	1.00	0.75	0.90	0.35	A
PM	23rd Street (C/E)	N074	0	2	1	166	148	1.00	0.75	0.90	0.15	A
		N075	0	3	1	344	240	1.00	0.75	0.90	0.21	A
	14th Street-8th Avenue (A/C/E/L)	N078	6	2	0	2,138	1,388	1.00	0.75	0.90	0.37	A

23rd Street Station (C/E)

The 23rd Street station on the 8th Avenue Line is an underground station with two side platforms that extend from W. 23rd Street to W. 25th Street. As shown in **Figure 05.13-5**, stairs PL2 and PL3



Legend

- Stairs
- Fare Array
- High Entrance/Exit Turnstile (HEET)
- High Exit Turnstile (HXT)
- Emergency Exit

provide a connection to the side platforms. Also as shown in **Figure 05.13-5**, there are station entrances/exits and control areas located at the intersections of 8th Avenue at W. 23rd Street, W. 24th Street, and W. 25th Street. As the entrances adjacent to the 8th Avenue/W.25th Street intersection are closer to the Elliott-Chelsea Houses Project Site, all project generated subway trips at the 23rd Street station to/from the Elliott-Chelsea Houses Project Site were assigned to these entrances/control areas.

As shown in **Figure 05.13-5**, at the intersection of 8th Avenue/W. 25th Street, most if not all incremental demand generated by the Proposed Project would likely enter and exit at street stair S9/P9 and utilize the fare array N075 to access the southbound platform, and enter and exit at street stair S10/P10 and utilize the fare array N074 to access the northbound platform. These stairs and fare arrays have therefore been selected for analysis in the EIS.

As shown in **Tables 05.13-10 and 05.13-11**, all analyzed stairs and fare arrays at the 23rd Street subway station currently operate at LOS A in both the AM and PM peak hours.

Pedestrians

Data on peak period pedestrian flow volumes were collected along analyzed sidewalks, corner areas, and crosswalks in the vicinity of the Project Sites in May/June 2023. Peak hours were determined by comparing rolling hourly averages, and the highest 15-minute volumes within the selected peak hours were used for analysis. The pedestrian analysis examines pedestrian conditions in the weekday AM, midday, and PM peak hours, and the Saturday peak hour. Based on existing peak pedestrian volumes along major corridors in the study area, the peak hours selected for analysis are based on the *CTM*, which include the weekday 8:00-9:00 AM, 12:00-1:00 PM, and 5:00-6:00 PM periods.

During peak periods, the Project Sites experiences relatively high volumes of pedestrians, including residents, workers, and tourists, along major commercial and retail corridors such as 9th Avenue, as well as along corridors providing access to area subway stations and bus routes. Light to moderate pedestrian flows are more the norm along streets with less commercial activity. The analysis of pedestrian conditions focuses on a total of 57 pedestrian elements (22 sidewalks, 10 crosswalks, and 25 corner areas) that are located in the immediate proximity of the Project Sites and along the 9th Avenue, W. 16th Street, W.25th Street, and W. 26th Street corridors (refer to **Figure 05.13-6**). Study area sidewalks include the south and west sidewalks of W. 27th Drive, which, as noted above, is not a mapped street but is open to the public.

Sidewalks

Data from pedestrian counts conducted in May and June 2023 indicate that the highest pedestrian flows at analyzed sidewalks within the study area are generally found along commercial corridors and corridors providing access to subway station entrances, including 8th Avenue, 9th Avenue, W. 16th Street, and W. 25th Street. Analyzed sidewalks typically range from 10 to 17 feet in width. Features typically present along study area sidewalks that can reduce the effective width available for pedestrian flow include street furniture such as sign posts, traffic signal and lamp posts, fire hydrants, and tree pits, as well as larger installations such as subway stairs.

Analyzed Pedestrian Elements

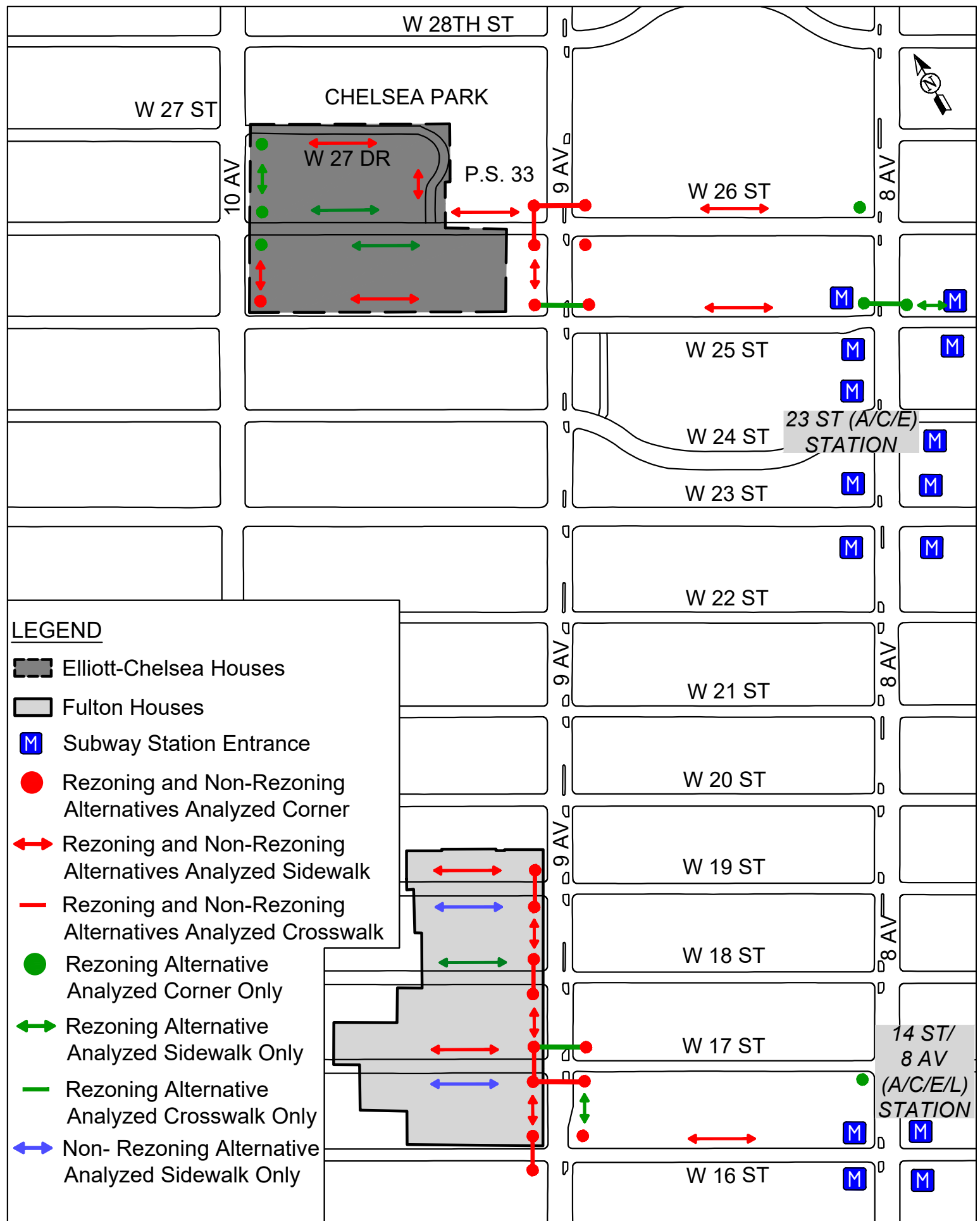


Table 05.13-10 shows the existing peak hour pedestrian volumes, average pedestrian space (in sf/ped), and platoon-adjusted LOS at the analyzed sidewalks. As shown in **Table 05.13-12**, the analyzed sidewalks currently operate at an acceptable LOS C or better in all peak hours, except for two sidewalks. These sidewalks include the south sidewalk along W. 17th Street between 9th and 10th Avenues, which operates at LOS D in the weekday PM and Saturday peak hours, and the north sidewalk along W. 16th Street between 8th and 9th Avenues, which operates at LOS D in the weekday AM and midday peak hours and LOS E in the weekday PM and Saturday peak hours.

Table 05.13-12: Existing Sidewalk Conditions

Location	Effective Width (ft)	Peak Hour Volumes				Average Pedestrian Space (ft ² /ped)				Platoon-Adjusted Level of Service			
		AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
East sidewalk along 10 Ave btw W 26 St & W 27 St	8.5	193	196	341	295	460.4	412.1	254.6	297.7	B	B	B	B
South sidewalk along W 27 Dr btw 10 Ave & W 27 Dr	2.0	31	38	46	52	498.1	393.8	268.5	310.6	B	B	B	B
North sidewalk along W 26 St btw 10 Ave & W 27 Dr	7.0	137	125	286	170	546.3	432.4	247.0	391.3	A	B	B	B
East sidewalk along 10 Ave btw W 25 St & W 26 St	4.0	233	278	348	289	171.1	146.8	114.4	144.5	B	B	B	B
South sidewalk along W 26 St btw 9 Ave & 10 Ave	4.0	239	133	215	123	144.9	246.4	207.6	289.7	B	B	B	B
West sidewalk along W 27 Dr btw W 26 St & W 27 Dr	2.0	70	28	24	16	179.7	746.7	663.3	846.4	B	A	A	A
North sidewalk along W 26 St btw 8 Ave & 9 Ave	4.5	251	127	289	164	144.6	311.4	157.0	224.8	B	B	B	B
West sidewalk along 9 Ave btw W 25 St & W 26 St	4.0	268	125	235	232	129.2	288.8	173.7	173.9	B	B	B	B
North sidewalk along W 26 St btw W 27 Dr & 9 Ave	6.5	416	152	295	216	113.0	340.3	243.3	296.6	B	B	B	B
North sidewalk along W 25 St btw 8 Ave & 9 Ave	5.0	464	211	425	246	104.7	264.5	128.3	222.0	B	B	B	B
North sidewalk along W 25 St btw 9 Ave & 10 Ave	2.5	457	149	274	162	52.7	149.3	105.9	135.4	C	B	B	B
North sidewalk along W 25 St btw 7 Ave & 8 Ave	5.0	631	363	728	310	84.4	137.2	72.2	174.2	C	B	C	B
West sidewalk along 9 Ave btw W 18 St & W 19 St	7.0	307	299	512	453	203.0	253.0	149.2	177.9	B	B	B	B
South sidewalk along W 19 St btw 9 Ave & 10 Ave	3.0	219	199	332	321	121.8	155.6	94.1	104.1	B	B	B	B
North sidewalk along W 19 St btw 9 Ave & 10 Ave	2.0	92	110	153	166	203.9	192.1	110.0	98.5	B	B	B	B
West sidewalk along 9 Ave btw W 16 St & W 17 St	4.0	249	340	431	497	144.8	115.7	98.9	84.7	B	B	B	C
South sidewalk along W 17 St btw 9 Ave & 10 Ave	1.0	252	183	319	322	42.2	50.7	30.7	31.5	C	C	D	D
West sidewalk along 9 Ave btw W 17 St & W 18 St	4.0	314	340	503	540	107.2	133.9	88.5	80.6	B	B	C	C
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.0	124	119	199	147	82.0	79.5	52.6	72.3	C	C	C	C
North sidewalk along W 18 St btw 9 Ave & 10 Ave	2.5	135	125	196	206	184.6	194.7	127.0	118.0	B	B	B	B
East sidewalk along 9 Ave btw W 16 St & W 17 St	7.5	275	403	713	407	262.3	196.6	112.2	183.7	B	B	B	B
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	387	305	642	408	25.9	33.0	15.2	21.1	D	D	E	E

Crosswalks

Study area intersections are all signalized and generally include pedestrian signals. High visibility crosswalk striping is present at several intersections. **Table 05.13-13** shows the peak hour volumes, average pedestrian space (in sf/ped), and LOS at the analyzed crosswalk during the

weekday AM, midday, and PM peak hour. As shown in **Table 05.13-13**, all analyzed crosswalks currently operate at an uncongested LOS C or better in all analyzed peak hours.

Table 05.13-13: Existing Crosswalk Conditions

Intersection	Crosswalk	Peak Hour Volumes				Average Pedestrian Space (ft ² /ped)				Level of Service			
		AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
9 Ave & W 26 St	North	256	107	225	167	66.4	194.0	107.3	146.8	A	A	A	A
9 Ave & W 26 St	West	323	233	494	377	97.7	151.6	74.8	90.1	A	A	A	A
9 Ave & W 25 St	North	410	182	381	226	71.1	155.5	74.4	140.6	A	A	A	A
8 Ave & W 25 St	North	469	309	552	271	42.0	75.3	32.7	80.0	B	A	C	A
9 Ave & W 19 St	West	323	326	476	495	126.5	142.8	107.7	95.3	A	A	A	A
9 Ave & W 18 St	West	308	304	453	516	140.7	135.8	103.8	81.5	A	A	A	A
9 Ave & W 17 St	North	156	178	218	179	141.9	128.6	92.0	138.3	A	A	A	A
9 Ave & W 17 St	South	146	163	235	228	132.8	137.1	91.1	91.2	A	A	A	A
9 Ave & W 17 St	West	282	392	530	606	134.6	96.8	76.2	63.9	A	A	A	A
9 Ave & W 16 St	West	290	483	592	822	208.7	119.7	108.4	74.3	A	A	A	A

Corner Areas

Table 05.13-14 shows the peak hour volumes, average pedestrian space (in sf/ped), and LOS at analyzed corner areas. As shown in **Table 05.13-14**, all analyzed corner areas currently operate at an uncongested LOS A in all analyzed peak hours, with the exception of the southwest corner of 8th Avenue and W. 17th Street, which operates at LOS C in the weekday AM peak hour.

Table 05.13-14: Existing Corner Conditions

Intersection	Corner	Average Pedestrian Space (ft ² /ped)				Level of Service			
		AM	MD	PM	SAT	AM	MD	PM	SAT
10th Ave & W 27th St	SE	702.0	453.2	380.3	438.6	A	A	A	A
10th Ave & W 26th St	NE	291.5	174.2	163.1	215.2	A	A	A	A
10th Ave & W 26th St	SE	176.4	151.3	164.5	226.6	A	A	A	A
10th Ave & W 25th St	NE	100.1	122.1	129.4	241.9	A	A	A	A
9th Ave & W 26th St	NE	100.8	133.6	83.1	148.8	A	A	A	A
9th Ave & W 26th St	SE	120.4	143.4	89.5	154.1	A	A	A	A
9th Ave & W 26th St	SW	149.6	248.0	116.3	178.8	A	A	A	A
9th Ave & W 26th St	NW	107.0	224.5	124.1	162.0	A	A	A	A
9th Ave & W 25th St	NE	174.4	235.1	160.2	248.6	A	A	A	A
9th Ave & W 25th St	NW	106.5	170.5	117.7	145.3	A	A	A	A
8th Ave & W 26th St	NW	280.8	279.6	189.8	274.1	A	A	A	A
8th Ave & W 25th St	NE	104.6	140.8	77.5	137.5	A	A	A	A
8th Ave & W 25th St	NW	133.6	143.8	92.1	189.9	A	A	A	A
9th Ave & W 19th St	SW	198.7	217.1	167.7	156.8	A	A	A	A
9th Ave & W 19th St	NW	198.2	213.9	152.8	153.8	A	A	A	A
9th Ave & W 18th St	SW	224.8	194.9	153.9	146.1	A	A	A	A
9th Ave & W 18th St	NW	211.8	219.4	151.6	144.8	A	A	A	A
9th Ave & W 17th St	NE	181.7	125.3	128.8	160.5	A	A	A	A
9th Ave & W 17th St	SE	266.0	214.3	162.4	176.6	A	A	A	A
9th Ave & W 17th St	SW	195.1	167.1	125.0	111.5	A	A	A	A
9th Ave & W 17th St	NW	218.7	171.6	131.6	131.5	A	A	A	A
9th Ave & W 16th St	NE	316.1	306.2	166.6	231.3	A	A	A	A
9th Ave & W 16th St	SW	306.6	149.3	158.2	121.1	A	A	A	A
9th Ave & W 16th St	NW	284.3	220.3	158.0	143.1	A	A	A	A
8th Ave & W 17th St	SW	39.8	77.7	73.8	114.3	C	A	A	A

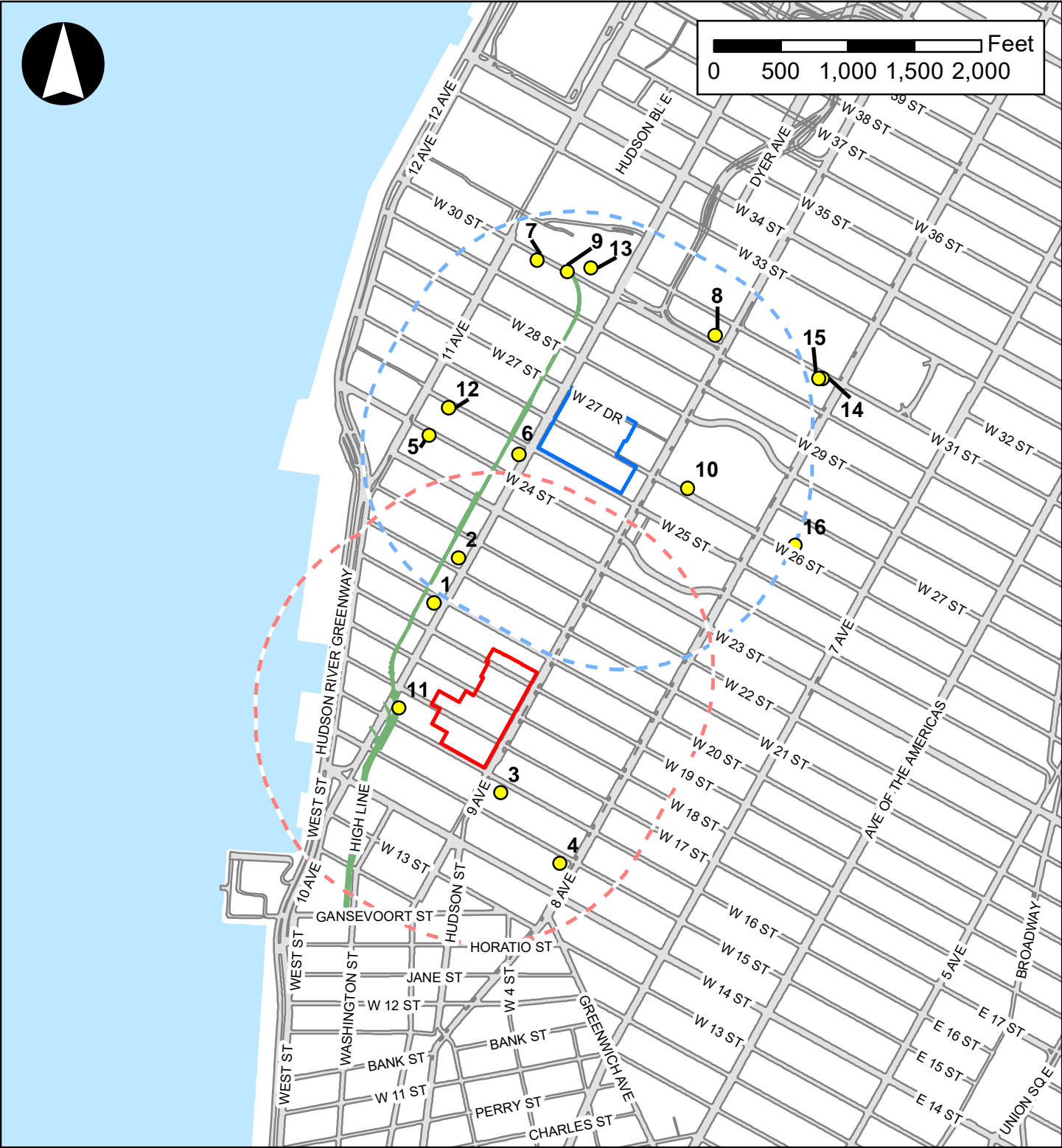
Parking

Parking demand from office, retail, and community facility uses typically peaks in the midday period and declines during the late afternoon and evening. By contrast, parking demand from residential uses peaks overnight. As the Proposed Project will facilitate the development of mainly residential uses, the detailed parking analysis presented in this section was conducted for the weekday and Saturday overnight peak periods.

Off-Street Parking

Off-street public parking facilities were inventoried during March to May 2023, and a total of 16 operational public parking facilities that operate 24 hours a day, 7 days a week were identified within a ¼-mile radius of the Project Sites. **Figure 05.13-7** shows the locations of these off-street public parking facilities. **Table 05.13-13** provides a summary of their names, addresses, license numbers, capacities, and estimated utilization during the weekday and Saturday overnight periods.

Field observations and interviews with parking attendants were used to determine the utilization levels of each parking facility during the overnight periods on a typical weekday and Saturday. As shown in **Table 05.13-15**, the 16 parking facilities have a combined licensed capacity of 3,209 spaces. During the weekday overnight period, approximately 35 percent of spaces are utilized, leaving a residual supply of approximately 2,087 available parking spaces. During the Saturday



Source: NYC DCP (PLUTO 2022v3); US Census (2020)

Legend

- Public Parking Facilities
- Fulton Houses
- Fulton Houses 1/4-Mile Radius
- Elliott-Chelsea Houses
- Elliott-Chelsea Houses 1/4-Mile Radius
- The High Line

overnight period, approximately 34 percent of spaces within the overall parking study area are utilized, leaving a residual supply of approximately 2,113 available parking spaces.

Table 05.13-15: Existing Off-Street Public Parking Facilities

Map ID	Name	Address	License No.	Licensed Capacity	Weekday Overnight		Saturday Overnight	
					Estimated Utilization (%)	Available Capacity	Estimated Utilization (%)	Available Capacity
1	EDISON NY PARKING, LLC	161 10TH AVE	1006124	80	43%	46	45%	44
2	EDISON NY PARKING LLC	507 W 21ST ST	1040211	49	39%	30	41%	29
3	111 EIGHTH AVENUE PARKING LLC	111 8TH AVE	1002786	625	36%	400	39%	381
4	14TH AND 8TH AVE. LLC	85 8TH AVE	953178	47	29%	33	30%	33
5	555 WEST GARAGE CORP.	549 W 23RD ST	1214704	70	30%	49	30%	49
6	249 PARKING CORP.	249 10TH AVE	427868	120	36%	77	38%	74
7	ELEVENTH AVENUE GARAGE CORP.	314 11TH AVE	1345891	181	46%	98	30%	127
8	VANCITY PARKING INC	359 9TH AVE	2078894	40	30%	28	31%	28
9	MEYERS PARKING - POST OFFICE GARAGE, LLC	340 W 31ST ST	1181008	261	22%	204	26%	193
10	IMPACT CAR PARK, LLC	333 W 26TH ST	1079092	839	35%	545	31%	579
11	MP17 LIC	450 W 17TH ST	1310036	206	31%	142	31%	142
12	550 W 25TH ST GARAGE	550 W 25TH ST	2106841	163	37%	103	40%	98
13	MP Hudson LLC	501 W. 30th St	2107418	240	45%	132	40%	144
14	300-36 W. 31st	300-36 W. 31st	2043047	36	37%	23	41%	21
15	308-310 W.31 St	308-310 W.31 St	2043047	27	37%	17	41%	16
16	241 W 26TH ST GARAGE	241 W 26TH ST	1168355	225	29%	160	31%	155
Total				3,209	35%	2,087	34%	2,113

On-Street Parking

An inventory of existing parking regulations within a ¼-mile radius of the Project Sites was compiled from field surveys. On-street public parking is generally governed by alternate-side-of-the-street regulations to facilitate street cleaning, as well as more restrictive no standing regulations at locations where additional traffic flow capacity is needed. Based on existing curbside parking regulations, and taking into account curb space obstructed by curb cuts, fire hydrants, and other impediments, there are a total of approximately 2,650 legal curbside parking spaces in the weekday overnight period and 2,528 spaces during the Saturday overnight period within a ¼-mile radius of the Project Sites.

As shown in **Table 05.13-16**, based on data collected during field surveys conducted in May 2023, on-street parking within the parking study area is approximately 90 percent utilized during the weekday overnight period and approximately 88 percent utilized during the Saturday overnight period. Approximately 274 and 303 on-street parking spaces are currently available within the study area during each of these periods, respectively.

Table 05.13-16: Existing Parking Utilization in the Study Area Summary

Existing Study Area Public Parking	Supply	Demand/ Utilized Spaces	Available Spaces	Utilization Rate
Weekday Overnight				
Off-Street Parking	3,209	1,122	2,087	35%
On-Street Parking	2,650	2,376	274	90%
Overall Public Parking	5,859	3,498	2,361	60%
Saturday Overnight				
Off-Street Parking	3,209	1,096	2,113	34%
On-Street Parking	2,528	2,225	303	88%
Overall Public Parking	5,737	3,321	2,416	58%

Overall Public Parking

Together with the on-street and off-street parking supply and utilization discussed above, the overall weekday overnight utilization is approximately 60 percent, with 2,361 parking spaces available, and the overall Saturday overnight utilization is approximately 58 percent, with 2,416 parking spaces available.

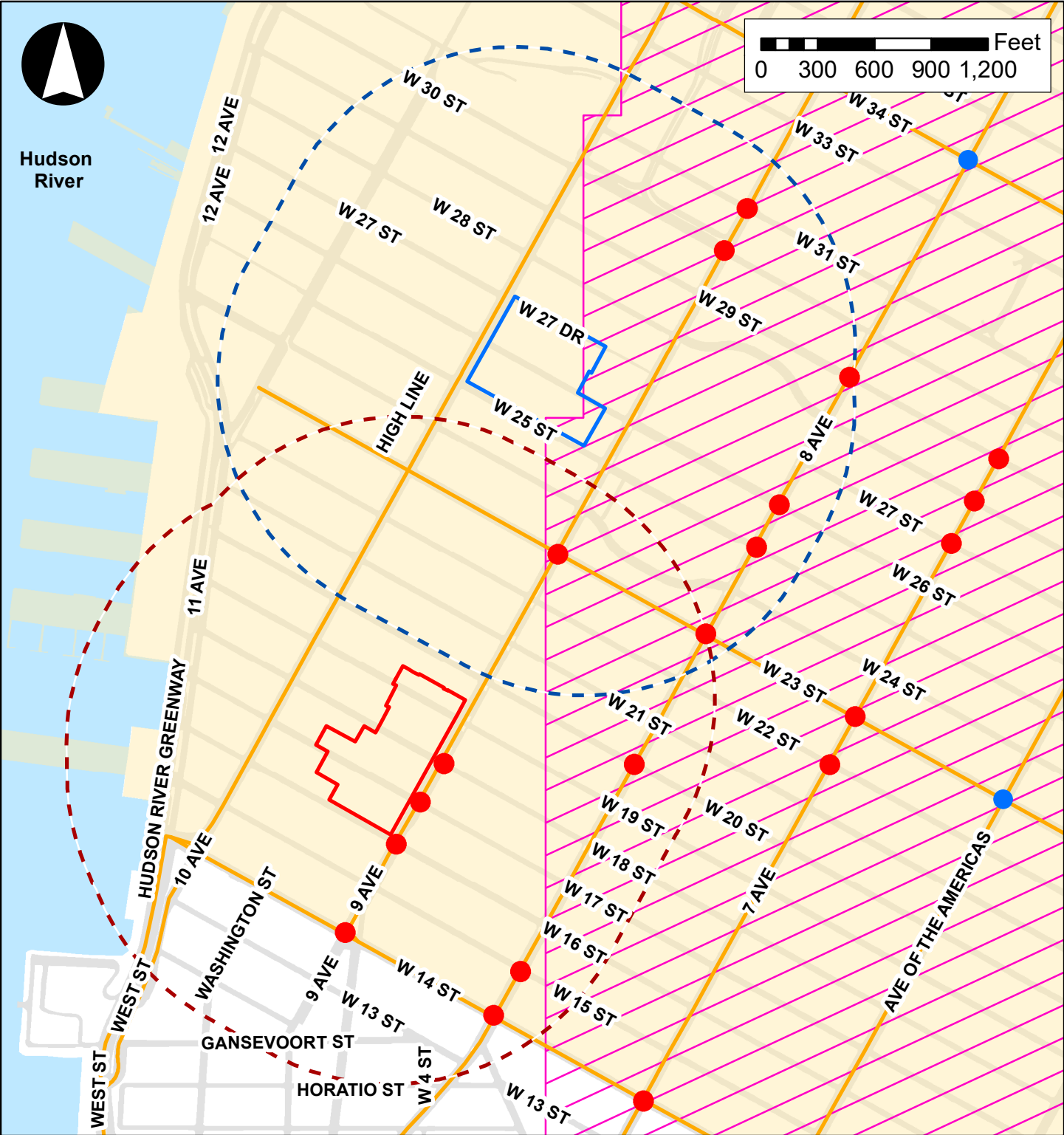
Vehicular and Pedestrian Safety Evaluation

The *Vision Zero Manhattan Pedestrian Safety Action Plan* was released on February 19, 2015. The *Vision Zero Manhattan Pedestrian Safety Action Plan Update*, released in 2019 and updated in 2023, identifies 8th Avenue, 9th Avenue, and W. 23rd Streets as “Priority Corridors”; the Project Sites as being located within a Senior Pedestrian Focus Area; and a portion of the Elliott-Chelsea Houses Project Site as being located within a “Priority Area” (refer to **Figure 05.13-8**). No Priority Intersections are located in the vicinity of the Project Sites. Engineering and planning, enforcement, and education and awareness campaign actions to enhance pedestrian safety in Manhattan are recommended in the *Vision Zero Manhattan Pedestrian Safety Action Plan*.

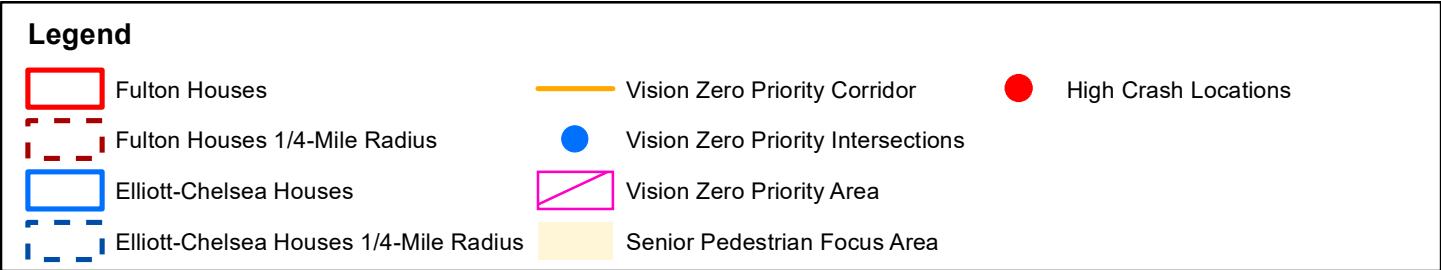
Study Area High Crash Locations

Crash data for intersections in the traffic and pedestrian study areas were obtained from NYCDOT for the three-year period between January 1, 2017 and December 31, 2019 (the most recent three-year period for which data are available). The data quantify the total number of crashes, as well as the total number of crashes involving injuries to pedestrians or bicyclists. During the three-year reporting period, a total of 1,499 reportable and non-reportable crashes, 7 fatalities, 659 total injuries, and 302 pedestrian/bicyclist-related crashes occurred at intersections within the ¼-mile study area.

Table 05.13-17 provides a summary of crashes by intersection during the 2017 to 2019 period, as well as a breakdown of pedestrian and bicycle crashes by year and location (slightly greater than



Source: NYCDCP (PLUTO 2023v2); DOITT (2022)



a ¼-mile radius from the Project Sites). According to the *CTM*, a high crash location is along a Vision Zero intersection or where five or more pedestrian/bicyclist injury crashes have occurred in any consecutive 12 months of the most recent three-year period for which data are available. In addition, any location along a Vision Zero priority corridor with three or more pedestrian/bicyclist injury crashes in any consecutive 12 months of the most recent three-year period for which data is available should be identified as a high crash location. As shown in **Table 05.13-17** and **Figure 05.13-8**, 20 intersections are classified as high crash locations based on the criteria outlined above. Given the Project Site's location in a heavily pedestrianized and active area for commercial and tourism activities (Chelsea), all high-crash locations are within an area of continued safety concern where elaborate safety management plans under the New York City Police Department (NYPD) and NYCDOT are in effect. Those strategies include having Leading Pedestrian Intervals (LPIs), ongoing major safety projects throughout the ¼-mile radius, and 25 miles per hour (MPH) signal retiming along 8th Avenue, 9th Avenue, and W. 23rd Street. As such, four intersections that are analyzed traffic intersections and pedestrian locations as well as high-crash locations have been identified as critical locations, denoted with "*" in the list below. These four critical intersections and the aforementioned Priority Corridors are discussed below.

High Crash Locations:

1. 7th Avenue and W. 14th Street
2. 7th Avenue and W. 22nd Street
3. 7th Avenue and W. 23rd Street
4. 7th Avenue and W. 27th Street
5. 7th Avenue and W. 28th Street
6. 7th Avenue and W. 29th Street
7. 8th Avenue and W. 14th Street
8. 8th Avenue and W. 15th Street
9. 8th Avenue and W. 20th Street
10. 8th Avenue and W. 23rd Street
11. 8th Avenue and W. 25th Street
12. 8th Avenue and W. 26th Street
13. 8th Avenue and W. 29th Street
14. 9th Avenue and W. 14th Street
15. 9th Avenue and W. 16th Street
16. 9th Avenue and W. 17th Street*
17. 9th Avenue and W. 18th Street*
18. 9th Avenue and W. 23rd Street*
19. 9th Avenue and W. 30th Street*
20. 9th Avenue and W. 31st Street

Table 05.13-17: Detailed Summary of Motor Vehicle Crash Data (2017-2019)

Intersection		Pedestrian Injury Crashes			Bicycle Injury Crashes			Total Pedestrian/Bicyclist Injury Crashes			Total Crashes (Reportable + Non-Reportable)		
		2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019
7 Ave	W 29 St	0	2	2	2	0	1	2	2	3	3	5	8
	W 28 St	3	3	2	1	0	0	4	3	2	5	8	10
	W 27 St	3	2	1	0	0	1	3	2	2	6	9	6
	W 23 St	2	4	1	1	1	2	3	5	3	5	8	7
	W 22 St	2	2	2	1	0	0	3	2	2	3	5	3
	W 14 St	1	2	6	0	0	0	1	2	6	2	14	15
8 Ave	W 29 St	1	2	1	1	4	0	2	6	1	5	10	4
	W 26 St	2	1	1	1	0	0	3	1	1	7	3	6
	W 25 St	2	0	2	2	0	0	4	0	2	11	2	3
	W 23 St	2	0	2	1	1	0	3	1	2	6	8	6
	W 20 St	3	0	1	1	0	0	4	0	1	8	5	3
	W 15 St	2	1	0	1	0	0	3	1	0	8	2	1
	W 14 St	1	0	1	1	1	2	2	1	3	5	16	13
9 Ave	W 31 St	0	1	4	0	0	1	0	1	5	2	8	11
	W 30 St	1	2	0	0	1	0	1	3	0	6	8	7
	W 23 St	1	2	1	2	0	0	3	2	1	6	6	7
	W 18 St	2	0	0	1	0	0	3	0	0	3	1	3
	W 17 St	2	1	2	0	1	1	2	2	3	2	7	6
	W 16 St	1	2	0	0	1	0	1	3	0	6	10	8
	W 14 St	2	6	4	0	0	0	2	6	4	10	22	14

Source: NYSDMV/NYCDOT

9th Avenue and W. 17th Street

A total of two pedestrian injury crashes occurred at this intersection in 2017, one pedestrian injury crash and one bicycle injury crash occurred in 2018, and two pedestrian injury crashes and one bicycle injury crash occurred in 2019. This intersection is signalized and includes pedestrian signals with countdown clocks and crosswalks striped at each approach. In addition, there are pedestrian islands on the east crosswalks. Along 9th Avenue, adjacent to this intersection, there is a protected bicycle lane on the eastern curb adjacent to the pedestrian islands. The protected bicycle lane was closed due to construction in 2019, which may have contributed to the bicycle injury crash the same year. Three out of the five pedestrian injury crashes occurred during daylight. All five pedestrian injury crashes occurred when the pedestrian was crossing with the signal during the three-year period, with the exception of one crash in 2017, where the pedestrian was playing on the roadway in the dark with the road lighted. As part of the Vision Zero initiatives along 9th Avenue, the signal timing at this intersection was adjusted to match the 25 MPH speed limit. In addition, an LPI has already been implemented at this intersection. The recently implemented safety measures would likely improve pedestrian safety at this intersection.

9th Avenue and W. 18th Street

A total of two pedestrian injury crashes and one bicycle injury crash occurred at this intersection in 2017. Zero pedestrian and bicycle injury crashes occurred at this intersection in 2018 and 2019. This intersection is signalized and includes pedestrian signals and crosswalks striped at each

approach. Along 9th Avenue, there is a protected bicycle lane located on the eastern curb adjacent to the pedestrian islands, which are also located along the east crosswalk. The one bicycle injury crash at this intersection occurred in rainy conditions in the dark with the road lighted. The two pedestrian injury crashes at this intersection occurred during daylight on either a clear or cloudy day. One of the pedestrian crashes occurred when the pedestrian was crossing at a location with no signal or crosswalk. Pedestrian safety is expected to improve at this intersection with the 25 MPH signal retiming and the installation of the LPI in 2021.

9th Avenue and W. 23rd Street

A total of one pedestrian injury crash and two bicycle injury crashes occurred at this intersection in 2017, two pedestrian injury crashes and zero bicycle injury crashes occurred in 2018, and one pedestrian injury crashes and zero bicycle injury crashes occurred in 2019. This intersection is signalized and includes pedestrian signals and crosswalks striped at each approach. As mentioned earlier, there is a protected bicycle lane and pedestrian islands located along 9th Avenue by the eastern curb. In addition, there is a bus lane located along the southern curb of W. 23rd Street. Both bicycle injury crashes in 2017 were most likely due to the wet road surface, of which one occurred during the dark with the road lighted. Three of the four pedestrian injury crashes at this intersection occurred during the dark with the road lighted. In addition, two crashes occurred during the three-year period in rainy conditions with the pedestrian either crossing in a location with no signal or crosswalk or working on the roadway. As part of the Vision Zero initiatives along 9th Avenue, the signal timing at this intersection was adjusted to match the 25 MPH speed limit. This intersection also implemented an LPI and turn traffic calming measures in 2021. Pedestrian safety at this intersection is likely to improve with the recently implemented safety measures.

9th Avenue and W. 30th Street

A total of one pedestrian injury crash and zero bicycle injury crashes occurred at this intersection in 2017, two pedestrian injury crashes and one bicycle injury crash occurred in 2018, and zero pedestrian and bicycle injury crashes occurred in 2019. This intersection is signalized and includes pedestrian signals and crosswalks striped at each approach. Two of the three pedestrian injury crashes and one bicycle injury crash occurred in the dark with the road lighted. Based on historical imagery of this intersection, most of the crashes occurred as a result of faded crosswalk markings and construction for the installation of the W. 30th Street trunk water main during the three-year period. It is expected that pedestrian safety would improve at this intersection as the crosswalks have been restriped at each approach and the signal timing was adjusted to match the 25 MPH speed limit.

Priority Corridors

As mentioned above, based on the *Vision Zero Manhattan Pedestrian Safety Action Plan Update*, 7th Avenue to 10th Avenue and W. 23rd Street were identified as Priority Corridors. In addition, 7th Avenue to 10th Avenue and W. 23rd Street are designated NYCDOT local truck routes.

As part of the Vision Zero initiatives within the study area, the signal timings along each of the Priority Corridors were adjusted to match the 25 MPH speed limit. Additionally, LPIs have been

implemented at the majority of intersections along the Priority Corridors within the ¼-mile study area. Within the study area, LPIs were not implemented at two intersections along 8th Avenue, five intersections along 9th Avenue, two intersections along 10th Avenue, and two intersections along 11th Avenue. In addition, a protected bicycle lane was added in 2019 as part of NYCDOT's efforts to create a continuous crosstown protected bike lane along 26th Street between 1st Avenue to 12th Avenue.

E. ENVIRONMENTAL EFFECTS

Alternative 1 – No-Action Alternative

As shown in **Tables H.1-1 and H.1-2**, it is assumed that under the No-Action Alternative, the Project Sites would remain as existing with 2,056 DUs, 56,859 gsf of neighborhood center space, 10,300 gsf of UPK space, and 95 accessory parking spaces. Between 2023 and 2041, it is expected that transportation demands in the vicinity of the Project Sites will increase due to long-term background growth and other planned developments unrelated to the Proposed Project.

In order to forecast future conditions under the No-Action Alternative, the developments within a ½-mile radius of the Project Sites, including the 48 No-Action developments that are anticipated to be completed by the 2041 analysis year, were considered (see **Table 05.13-18** and **Figure 05.13-9**). The future traffic volumes under the No-Action Alternative also reflect annual background growth rates of 0.25 percent per year for the 2023 through 2028 period, and 0.125 percent per year for the 2028 through 2041 period. These background growth rates, recommended in the *CTM* for projects in Manhattan, are applied to account for smaller projects and as-of-right developments not reflected in **Table 05.13-18**, and general increases in travel demand not attributable to specific development projects. Where new developments were found to generate relatively little new vehicular and pedestrian traffic through analyzed locations, demand from these sites was also assumed to be reflected as part of general background growth.



Table 05.13-18: Known Planned Developments within the ½-Mile Radius under the No-Action Alternative

Map No. ¹	Address	Residential (DUs)	Retail (gsf)	Office (gsf)	Hotel (Rooms)	Community Facility (gsf)	Industrial (gsf)	Parking Spaces	Build Year
1	401 W. 31 st St	-	-	1,824,452	-	-	-	-	2024
2	407 W. 30 th St	-	-	13,600	-	-	-	-	2023
3	606 W. 30 th St	277	-	14,240	-	-	-	61	2024
4	534 W. 29 th St	6	-	-	-	-	-	-	2023
5	335 8 th Ave ²	188	20,121	-	-	1,197	-	-	2025
6	199 11 th Ave	-	-	-	-	1,381	-	-	2023
7	278 8 th Ave	190	33,000	-	-	-	-	-	2024
8	428 W. 19 th St	32	-	-	-	-	-	-	2024
9	76 11 th Ave	236	81,008	-	120	-	-	58	2024
10	251 W. 14 th St	25	-	-	-	576	-	-	2024
11	256 W. 14 th St	-	-	29,671	-	-	-	-	2024
12	Starrett-Lehigh and Terminal Warehouse ³ (601 W. 26 th St)	-	489,331	2,045,166	-	296,955	143,485	-	2024
13	432 W. 31 st St	-	-	-	220	-	-	-	2041
14	280 8 th Ave	104	12,801	-	-	1,104	-	-	2025
15	Penn Station Site 1A ⁶	542	6,000	-	-	18,398	-	-	2033
16	Penn Station Site 1B ⁶	-	8,500	584,348	-	-	-	-	2033
17	Midtown South Mixed-Use Plan ⁷	9,731	893,752	66,704	-	95,739	-	-	2034
18	155 W. 29 th St	-	-	-	-	-	133,703	5	2023
19	241 W. 28 th St	480	9,841	-	-	-	-	-	2023
20	441 W. 37 th St	9	-	-	-	-	-	-	2023
21	450 11 th Ave	-	-	-	379	-	-	-	2025
22	509 W. 34 th St	-	-	2,216,392	-	-	-	-	TBD
23	3 Hudson Blvd	-	-	1,860,000	-	-	-	-	TBD
24	319 W. 35 th St	-	3,399	-	140	-	-	-	2024
25	400 11 th Ave	-	-	601,408	-	-	-	-	TBD
26	439 W. 36 th St	52	3,798	-	-	315	-	-	2025
27	489 9 th Ave	59	6,915	-	-	-	-	-	2025
28	501 9 th Ave	63	3,910	-	-	958	-	-	2025
29	170 W. 22 nd St	26	2,163	-	-	-	-	-	2025
30	134 Jane St	15	652	-	-	-	-	20	2026
31	335 W. 35 th St	66	-	-	-	-	-	-	2025
32	224 W. 20 th St	6	-	-	-	-	-	-	TBD
33	142 W. 21 st St	22	774	-	-	-	-	16	2026
34	430 W. 37 th St	128	11,108	-	-	440	-	-	TBD
35	371 7 th Ave	615	-	-	-	-	-	94	2025

Table 05.13-18 (continued): Known Planned Developments within the ½-Mile Radius under the No-Action Alternative

Map No. ¹	Address	Residential (DUs)	Retail (gsf)	Office (gsf)	Hotel (Rooms)	Community Facility (gsf)	Industrial (gsf)	Parking Spaces	Build Year
36	141 W. 14 th St	61	-	-	-	12,272	-	-	TBD
37	545 W. 37 th St	131	-	-	-	-	-	82	TBD
38	Western Rail Yard Modifications ⁴ (601 W. 30th St)	1,507	1,092,272	2,179,899	1,750	146,000	-	725	2030
39	Penn Station Site 2B ⁶	-	19,248	2,303,213	-	-	-	-	TBD
40	Penn Station Site 4 ⁶	630	100,000	-	472	-	-	100	2033
41	Penn Station Site 5 ⁶	-	120,000	1,289,003	-	-	-	-	2034
42	Penn Station Site 6 ⁶	-	120,334	1,539,344	-	-	-	100	2038
43	Penn Station Site 7 ⁶	-	202,000	1,879,000	-	-	-	100	2033
44	Penn Station Site 8 ⁶	626	218,000	667,004	-	-	-	100	2040
45	Port Authority Bus Terminal (PABT) ⁵	-	100,729	5,000,000	-	-	-	-	2040
46	132 W. 28 th St	-	-	-	203	-	-	-	2023
47	128 W. 26 th St	13	2,047	-	-	-	-	-	2024
48	142 W. 19 th St	7	-	-	-	-	-	-	2024

Notes:

Shaded denotes developments included in the analysis.

Developments with TBD Build Years were included in the No-Action list as they are assumed to be completed before 2041.

Source includes New York City Department of Buildings (NYCDOB) unless otherwise noted.

¹ Refer to **Figure 05.13-9**

² For 335 8th Avenue, the approximately 20,121 gsf of retail space will be supermarket.

³ The Starrett-Lehigh and Terminal Warehouse located at 601 W. 26th Street is comprised of approximately 489,331 gsf of retail space (approximately 43,000 gsf of local retail space and approximately 446,331 gsf of destination retail space), approximately 2,045,166 gsf of commercial office space, approximately 296,955 gsf of community facility space (approximately 29,756 gsf of community facility space and 267,199 gsf of academic space), and approximately 143,485 gsf industrial space. (Source: 2021 *Starrett-Lehigh and Terminal Warehouse Rezoning FEIS*)

⁴ The Western Rail Yards Modifications located at 601 W. 30th Street is comprised of approximately 1,507 DUs, approximately 1,092,272 gsf of retail space (consisting of approximately 24,638 gsf of local retail space, approximately 251,055 gsf of gaming space, and approximately 816,579 gsf of resort space separate from the hotel rooms), approximately 2,179,899 gsf of commercial office space, and approximately 146,000 gsf of community facility space (consisting of approximately 10,000 gsf of community facility space, approximately 16,000 gsf of cultural space, approximately 420 elementary school seats, and approximately 330 intermediate school seats). There would also be 725 accessory parking spaces. (Source: 2024 *Western Rail Yard Modifications Draft Scope of Work*)

⁵ In addition to the approximately 100,729 gsf of retail space and approximately 5 million gsf of commercial office space, the PABT will also include approximately 3,351,699 gsf of terminal space that is not included in the table. (Source: 2024 *Port Authority Bus Terminal Replacement Project*)

⁶ Source: 2022 *Pennsylvania Station Area Civic and Land Use Improvement Project FEIS*.

⁷ Source: Data provided by NYCDOP.

Traffic

Future No-Action Alternative Street Network Changes

NYCDOT is redesigning 9th and 10th Avenues to bring new protected bicycle lanes, to better accommodate micromobility, and to improve safety as part of the Street Improvement Projects (SIPs). As a result, the lane configurations along 10th Avenue will eliminate the rush hour lane and stripe parking protected bicycle lanes. For roads along 10th Avenue that are 60 feet wide, the number of travel lanes would reduce from four in the existing condition to three in the No-Action Alternative. This would include the analyzed traffic intersections along 10th Avenue at W. 17th Street and W. 21st to W. 23rd Streets. Roads along 10th Avenue that are 70 feet wide would continue to have four travel lanes in the No-Action Alternative and under each of the development alternatives. A northbound left turn lane at 10th Avenue and W. 27th Street is also being proposed, which would remove approximately 4 to 5 parking spaces. The No-Action Alternative traffic analysis also reflects changes to signal timings that will be implemented by NYCDOT in the No-Action Alternative, some of which are signal timings at intersections along 10th Avenue that will be implemented as part of the SIP. It should be noted that most, if not all, of the intersection improvements along the 9th Avenue SIP have already been implemented. It should also be noted that the No-Action Alternative traffic analysis assumes that all off-site construction currently underway in the existing condition would be completed by 2041.

Intersection Capacity Analysis

Figures H.2-2a through H.2-2d show total traffic volumes under the No-Action Alternative during the weekday AM, midday, PM, and Saturday peak hours, respectively. The peak hour v/c ratios, delays, and LOS for lane groups at analyzed intersections under the No-Action Alternative are shown in **Table 05.13-19**. As shown in **Table 05.13-19**, a total of 19 analyzed signalized intersections would have at least one congested lane group in one or more peak hours in the No-Action Alternative, compared to 14 signalized intersections under existing conditions. Of the 19 analyzed congested intersections, 7 intersections are located along the 9th Avenue corridor, one intersection is located along Dyer Avenue, and the remaining 11 intersections are located along the 10th Avenue corridor. Nine intersections would have one or more lane groups operating at or over capacity ($v/c > 1.0$) in the weekday AM peak hour (versus three under existing conditions), five in the midday (versus one under existing conditions), seven in the PM (versus three under existing conditions), and six in the Saturday peak hour (versus one under existing conditions).

Table 05.13-19: No-Action Alternative Traffic Levels of Service

Intersection	Approach	Lane Group	Existing AM			No-Action Alternative AM			Existing Midday			No-Action Alternative Midday			Existing PM			No-Action Alternative PM			Existing SAT			No-Action Alternative SAT		
			V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
			Ratio (sec/veh)			Ratio (sec/veh)			Ratio (sec/veh)			Ratio (sec/veh)			Ratio (sec/veh)			Ratio (sec/veh)			Ratio (sec/veh)			Ratio (sec/veh)		
W.30th St (EB) & 10th Ave (NB)	EB	L	0.46	53.0	D	1.60	312.8	F *	0.47	52.7	D	1.62	321.4	F *	0.49	53.4	D	1.74	374.6	F *	0.45	52.2	D	1.16	120.0	F *
	EB	T	0.82	74.5	E *	1.25	159.3	F *	0.38	50.6	D	1.09	99.0	F *	0.57	57.1	E *	1.36	205.2	F *	0.60	58.0	E *	1.49	262.5	F *
	NB	TR	0.59	14.6	B	0.77	12.1	B	0.79	15.4	B	1.04	38.7	D *	0.57	8.2	A	0.85	11.9	B	0.55	12.3	B	0.78	11.6	B
W.29th St (WB) & 10th Ave (NB)	WB	T	0.49	35.5	D	1.01	33.4	C *	0.38	66.6	E *	0.80	36.1	D	0.43	68.6	E *	1.18	122.8	F *	0.45	24.5	C	0.89	13.3	B
	WB	R	0.83	56.9	E *	0.89	20.4	C	0.68	79.9	E *	0.85	38.1	D	0.44	69.4	E *	0.82	37.1	D	0.69	34.6	C	0.98	21.7	C *
	NB	LT	0.52	4.8	A	-	-	-	0.66	2.9	A	-	-	-	0.59	5.9	A	-	-	-	0.52	5.1	A	-	-	-
	NB	L	-	-	-	0.72	34.8	C	-	-	-	0.46	18.7	B	-	-	-	0.78	39.3	D	-	-	-	0.77	36.6	D
	NB	T	-	-	-	0.54	2.5	A	-	-	-	0.74	2.1	A	-	-	-	0.65	3.3	A	-	-	-	0.55	2.4	A
W.28th St (EB) & 10th Ave (NB)	EB	LT	0.55	55.3	E *	0.66	34.5	C	0.39	50.0	D	0.51	29.6	C	0.38	49.8	D	0.53	29.9	C	0.46	52.3	D	0.63	33.7	C
	NB	TR	0.55	3.0	A	0.63	1.4	A	0.70	3.4	A	0.83	2.5	A	0.48	2.6	A	0.71	1.5	A	0.51	3.0	A	0.64	1.2	A
W.27th St (WB) & 10th Ave (NB)	WB	TR	0.03	42.5	D	0.02	19.6	B	0.05	42.8	D	0.04	19.8	B	0.04	42.8	D	0.04	19.7	B	0.05	43.0	D	0.05	19.9	B
	NB	LT	0.64	4.8	A	-	-	-	0.75	4.9	A	-	-	-	0.55	3.8	A	-	-	-	0.59	3.9	A	-	-	-
	NB	L	-	-	-	0.79	27.7	C	-	-	-	0.58	19.4	B	-	-	-	0.86	33.5	C	-	-	-	0.74	24.3	C
	NB	T	-	-	-	0.61	3.8	A	-	-	-	0.82	5.8	A	-	-	-	0.68	4.7	A	-	-	-	0.64	3.5	A
W.26th St (EB) & 10th Ave (NB)	EB	LT	1.02	113.0	F *	0.97	65.7	E *	0.84	76.3	E *	0.83	43.1	D	0.65	60.6	E *	0.80	41.7	D	0.64	59.6	E *	0.74	36.7	D
	NB	TR	0.63	13.3	B	0.81	8.1	A	0.72	14.7	B	0.96	12.0	B *	0.52	12.5	B	0.88	9.3	A	0.58	16.0	B	0.80	10.0	B
W.25th St (WB) & 10th Ave (NB)	WB	TR	0.89	93.0	F *	1.04	62.9	E *	0.98	76.8	E *	1.14	101.7	F *	1.05	103.3	F *	1.36	198.2	F *	0.79	86.7	F *	0.97	60.0	E *
	NB	LT	0.58	9.7	A	0.74	4.5	A	0.64	4.1	A	0.85	3.2	A	0.46	4.3	A	0.78	3.6	A	0.49	7.2	A	0.69	4.5	A
W.24th St (EB) & 10th Ave (NB)	EB	LT	0.85	72.4	E *	0.82	38.9	D	0.57	55.4	E *	0.58	28.3	C	0.47	52.3	D	0.50	26.2	C	0.73	64.3	E *	0.77	36.1	D
	NB	TR	0.53	15.2	B	0.83	14.6	B	0.66	15.1	B	0.95	11.2	B *	0.45	12.3	B	0.79	8.7	A	0.45	12.3	B	0.68	8.6	A
W.23rd St (E-W) & 10th Ave (NB)	EB	LT	0.62	26.8	C	1.44	239.4	F *	0.65	29.0	C	1.47	256.2	F *	0.61	26.5	C	1.14	116.1	F *	0.54	24.5	C	1.24	159.4	F *
	WB	T	0.97	72.6	E *	1.04	87.1	F *	-	-	-	-	-	-	1.05	113.3	F *	1.17	148.6	F *	0.00	0.0	-	-	-	-
	WB	R	0.72	31.7	C	0.87	43.8	D	-	-	-	-	-	-	0.71	56.8	E *	1.07	116.0	F *	0.00	0.0	-	-	-	-
	WB	TR	-	-	-	-	-	-	1.05	108.4	F *	1.30	196.7	F *	-	-	-	-	-	-	1.05	82.1	F *	1.45	235.3	F *
W.22nd St (EB) & 10th Ave (NB)	NB	LTR	0.60	6.3	A	0.81	5.1	A	0.73	9.1	A	1.01	23.4	C *	0.60	8.2	A	0.99	18.8	B *	0.57	5.9	A	0.82	5.5	A
	NB	LTR	0.57	5.0	A	0.77	5.2	A	0.65	6.3	A	0.92	9.1	A *	0.54	8.6	A	0.91	12.2	B *	0.54	8.1	A	0.77	7.4	A
W.21st St (E-W) & 10th Ave (NB)	EB	L	0.12	44.2	D	0.12	20.7	C	0.15	44.7	D	0.15	20.9	C	0.09	43.7	D	0.10	20.4	C	0.22	46.4	D	0.20	21.7	C
	WB	R	0.09	43.7	D	0.08	20.3	C	0.14	44.8	D	0.13	20.9	C	0.44	53.3	D	0.39	25.2	C	0.21	46.5	D	0.17	21.5	C
	NB	T	0.50	4.9	A	0.76	3.7	A	0.58	6.8	A	0.91	8.2	A *	0.51	7.4	A	0.81	5.8	A	0.44	4.0	A	0.73	3.6	A
W.20th St (EB) & 10th Ave (NB)	NB	LTR	0.78	28.6	C	0.78	7.6	A	0.87	32.1	C	0.91	9.8	A *	0.90	36.6	D *	0.94	12.5	B *	0.78	32.8	C	0.83	9.7	A
W.19th St (WB) & 10th Ave (NB)	EB	L	0.11	34.8	C	0.24	33.8	C	0.11	34.9	C	0.23	34.0	C	0.08	34.4	C	0.18	32.9	C	0.17	36.2	D	0.27	34.3	C
	WB	R	0.47	62.0	E *	0.58	47.2	D	0.82	38.2	D	0.86	35.1	D	0.88	45.6	D	0.91	40.0	D *	0.81	90.6	F *	0.74	56.2	E *
	NB	T	0.55	4.0	A	0.77	7.9	A	0.63	4.6	A	0.91	12.8	B *	0.60	7.4	A	0.89	12.0	B	0.52	7.4	A	0.78	8.9	A
W.18th St (EB) & 10th Ave (NB)	EB	L	-	-	-	0.17	21.5	C	-	-	-	0.22	22.2	C	-	-	-	0.24	22.5	C	-	-	-	0.20	21.9	C
	EB	T	-	-	-	0.42	25.8	C	-	-	-	0.47	26.5	C	-	-	-	0.51	27.5	C	-	-	-	0.55	28.5	C
	EB	LT	0.58	58.2	E *	-	24.7	C	0.65	61.4	E *	-	25.3	C	0.77	70.4	E *	-	26.0	C	0.69	63.6	E *	-	26.9	C
	NB	TR	0.64	15.2	B	0.76	8.8	A	0.69	17.6	B	0.86	11.6	B	0.54	12.7	B	0.85	10.8	B	0.46	12.9	B	0.74	9.6	A
W.17th St (WB) & 10th Ave (NB)	WB	TR	0.61	45.0	D	0.70	27.1	C	0.74	74.1	E *	0.88	47.0	D	0.84	79.6	E *	0.96	56.2	E *	0.73	49.6	D	0.88	35.2	D
	NB	LT	0.42	29.5	C	0.64	21.8	C	0.45	30.1	C	0.71	23.4	C	0.46	30.3	C	0.74	24.2	C	0.37	28.6	C	0.61	21.3	C

Table 05.13-19 (continued): No-Action Alternative Traffic Levels of Service

Intersection	Approach	Lane Group	Existing AM			No-Action Alternative AM			Existing Midday			No-Action Alternative Midday			Existing PM			No-Action Alternative PM			Existing SAT			No-Action Alternative SAT		
			V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
			Ratio (sec/veh)			Ratio (sec/veh)			Ratio (sec/veh)			Ratio (sec/veh)			Ratio (sec/veh)			Ratio (sec/veh)			Ratio (sec/veh)			Ratio (sec/veh)		
W.31st St (WB) & Dyer Ave (NB)/ Lincoln Exit (SB)	WB	LTR	0.30	26.0	C	0.65	32.6	C	0.42	27.7	C	0.82	42.1	D	0.67	33.0	C	1.72	303.2	F *	0.99	34.5	C *	1.21	49.5	D *
	NB	LT	0.20	25.6	C	0.24	26.5	C	0.30	25.6	C	0.35	26.7	C	0.23	1.5	A	0.29	9.5	A	0.27	24.6	C	0.34	23.6	C
	SB	TR	0.20	8.4	A	0.35	10.2	B	0.15	8.1	A	0.25	9.3	A	0.10	7.8	A	0.21	8.8	A	0.23	8.7	A	0.34	9.5	A
W.30th St (E-W) & Dyer Ave (SB)	EB	T	0.21	5.1	A	0.25	7.0	A	0.29	4.2	A	0.35	5.7	A	0.35	19.8	B	0.42	19.1	B	0.23	5.5	A	0.29	7.4	A
	WB	T	0.01	0.0	A	0.03	17.1	B	0.02	0.0	A	0.05	17.3	B	0.04	0.1	A	0.13	20.7	C	0.06	0.1	A	0.15	18.3	B
	SB	T	0.32	15.8	B	0.55	15.4	B	0.25	15.2	B	0.37	13.3	B	0.20	29.7	C	0.40	23.5	C	0.37	15.2	B	0.49	14.3	B
W.30th St (EB) & 9th Ave (SB)	EB	T	0.49	23.7	C	1.07	65.7	E *	0.27	51.0	D	0.77	58.3	E *	0.29	27.9	C	0.86	38.4	D	0.36	12.7	B	0.94	24.3	C *
	EB	R	0.70	31.3	C	0.82	27.1	C	0.50	55.8	E *	0.87	71.1	E *	0.47	32.1	C	0.76	37.4	D	0.78	26.5	C	1.07	60.9	E *
	SB	LT	0.57	15.2	B	0.82	26.6	C	0.50	15.4	B	0.80	28.6	C	0.48	14.0	B	0.76	24.3	C	0.57	16.4	B	0.86	31.0	C
W.29th St (WB) & 9th Ave (SB)	WB	L	0.23	20.8	C	0.78	37.6	D	0.23	21.5	C	0.89	48.9	D	0.32	22.2	C	1.18	131.7	F *	0.09	19.6	B	0.48	25.9	C
	WB	T	0.71	32.7	C	1.17	125.0	F *	0.73	34.8	C	1.32	188.8	F *	1.05	98.9	F *	2.64	777.3	F *	0.81	39.4	D	1.55	287.4	F *
	SB	TR	0.79	21.2	C	0.94	22.2	C *	0.63	18.2	B	0.80	14.8	B	0.60	15.0	B	0.84	15.5	B	0.76	22.3	C	0.91	20.4	C *
W.28th St (EB) & 9th Ave (SB)	EB	TR	0.68	39.2	D	0.79	43.2	D	0.57	27.2	C	0.69	27.0	C	0.51	28.7	C	0.67	28.0	C	0.44	32.1	C	0.63	37.4	D
	SB	L	0.50	26.0	C	0.60	29.7	C	0.30	26.3	C	0.36	29.6	C	0.30	27.0	C	0.40	29.6	C	0.43	23.1	C	0.54	27.2	C
	SB	T	0.52	3.7	A	0.69	9.2	A	0.40	4.2	A	0.58	10.1	B	0.44	5.5	A	0.66	11.9	B	0.50	1.7	A	0.66	6.4	A
W.26th St (EB) & 9th Ave (SB)	EB	T	1.05	96.4	F *	1.14	119.7	F *	0.79	41.3	D	0.87	46.7	D	0.45	20.2	C	0.52	24.4	C	0.50	33.0	C	0.58	33.1	C
	EB	R	0.59	39.1	D	0.64	37.4	D	0.45	26.1	C	0.48	27.7	C	0.32	19.0	B	0.38	23.7	C	0.31	31.3	C	0.37	31.3	C
	SB	L	0.49	23.4	C	0.55	21.8	C	0.39	23.7	C	0.44	21.0	C	0.32	21.6	C	0.36	17.4	B	0.59	25.2	C	0.67	24.8	C
W.25th St (WB) & 9th Ave (SB)	WB	LT	0.52	23.7	C	0.55	24.6	C	0.74	31.9	C	0.77	33.4	C	0.67	28.0	C	0.72	30.1	C	0.51	23.8	C	0.56	25.1	C
	SB	TR	0.89	15.2	B	1.21	107.7	F *	0.71	8.7	A	1.01	30.7	C *	0.74	9.6	A	1.14	76.8	E *	0.75	6.1	A	1.00	26.6	C *
W.23rd St (E-W) & 9th Ave (SB)	EB	T	0.60	32.5	C	0.64	23.8	C	0.56	30.4	C	0.65	37.1	D	0.62	27.4	C	0.73	34.4	C	0.72	39.6	D	0.86	27.4	C
	EB	R	0.35	27.3	C	0.38	21.1	C	0.41	30.3	C	0.44	35.2	D	0.29	24.2	C	0.32	31.4	C	0.21	26.0	C	0.23	19.2	B
	WB	T	0.47	29.3	C	0.54	30.6	C	0.51	30.8	C	0.60	32.7	C	0.49	29.5	C	0.61	32.0	C	0.40	28.7	C	0.53	30.9	C
W.19th St (WB) & 9th Ave (SB)	SB	L	1.01	105.2	F *	1.04	112.2	F *	0.66	50.1	D	0.68	50.9	D	0.74	55.5	E *	0.75	56.5	E *	0.88	72.2	E *	0.91	78.7	E *
	SB	TR	0.64	17.3	B	0.78	20.9	C	0.47	15.5	B	0.63	17.9	B	0.52	15.1	B	0.70	18.4	B	0.46	15.5	B	0.61	17.8	B
	WB	LT	0.54	30.7	C	0.57	31.8	C	0.87	51.1	D	0.92	59.6	E *	0.88	50.5	D	0.93	59.5	E *	0.66	35.3	D	0.72	38.6	D
W.18th St (EB) & 9th Ave (SB)	SB	TR	0.56	16.9	B	0.67	19.5	B	0.48	16.9	B	0.60	18.7	B	0.50	15.9	B	0.64	18.7	B	0.48	16.8	B	0.60	19.2	B
	EB	T	0.60	25.9	C	0.72	30.4	C	0.61	35.7	D	0.75	45.4	D	0.67	37.6	D	0.81	48.5	D	0.63	24.1	C	0.79	29.0	C
	SB	L	0.47	24.5	C	0.49	23.2	C	0.41	21.2	C	0.42	19.3	B	0.40	22.3	C	0.41	19.8	B	0.39	21.9	C	0.41	20.5	C
W.17th St (WB) & 9th Ave (SB)	SB	T	0.44	3.9	A	0.57	4.2	A	0.36	2.7	A	0.51	2.8	A	0.39	3.0	A	0.54	2.8	A	0.35	3.2	A	0.49	3.4	A
	WB	LT	0.52	30.3	C	0.57	32.0	C	0.76	41.4	D	0.83	47.1	D	0.85	47.5	D	0.93	58.8	E *	0.65	34.9	C	0.72	38.9	D
	SB	TR	0.56	6.0	A	0.72	8.3	A	0.49	6.6	A	0.69	8.8	A	0.50	5.8	A	0.69	7.6	A	0.46	5.8	A	0.65	7.8	A
Notes: EB - eastbound, WB - westbound, NB - northbound, SB - southbound L - left, T - through, R - right, DefL - Analysis considers a defacto left-turn lane on this approach V/C ratio - volume-to-capacity ratio Sec/veh - seconds per vehicle LOS - level of service * - Denotes a congested movement (LOS E or F, or v/c ratio greater than or equal to 0.9) Analysis is based on the 2000 Highway Capacity Manual methodology (Synchro 11)																										

Transit

Subway Stations

14th Street/8th Avenue Station (A/C/E/L)

Under the No-Action Alternative, demand at the 14th Street/8th Avenue (A/C/E/L) subway station is expected to increase as a result of new development⁴ and background growth. As shown in **Table 05.13-20**, during the AM peak hour under the No-Action Alternative, street stair S5 would operate at LOS D, and stairs P2 on the 8th Avenue line and ML1/ML2/P3/P4 on the Canarsie line would operate at LOS F. During the PM peak hour under the No-Action Alternative, platform stairs P1 and P2 on the 8th Avenue line would operate at LOS D and stair ML1/ML2/P3/P4 on the Canarsie line would operate at LOS F. The remaining analyzed stairs would operate at LOS C or better in both the AM and PM peak hours in the future without the Proposed Project.

As shown in **Table 05.13-21**, it is expected that in the future No-Action Alternative, all analyzed fare arrays will continue to operate at LOS A or better in both the AM and PM peak hours.

⁴ In order to forecast future conditions under the No-Action Alternative, the developments within a ½-mile radius of the Project Sites, including the 48 developments that are anticipated to be completed by the 2041 analysis were considered and can be found in **Table 05.13-18**.

Table 05.13-20: No-Action Alternative Subway Stair Analysis

Peak Hour	Station	Stair	Total Width (ft.)	Effective Width (ft.)	Peak Hour Volumes		Surging Factor		Friction Factor	V/C Ratio	LOS
					Up	Down	Up	Down			
AM	23rd Street (C/E)	S9/P9	5.00	4.00	374	291	0.75	1.00	0.90	0.46	B
		S10	5.00	4.00	393	291	0.75	1.00	0.90	0.47	B
		P10	10.00	8.75	433	309	0.75	1.00	0.90	0.23	A
	14th Street - 8th Avenue (A/C/E/L)	S5	5.00	4.00	1,150	342	0.80	1.00	0.90	1.03	D
		S7	4.00	3.00	592	197	0.80	1.00	0.90	0.72	C
		M7	9.50	8.25	1,742	539	0.80	1.00	0.90	0.76	C
		P1 (8 Ave Line)	9.50	8.25	1,342	675	0.75	0.80	0.90	0.74	C
		P2 (8 Ave Line)	9.50	8.25	407	4,572	0.75	0.80	0.90	1.76	F
		P7	7.00	6.00	726	194	0.75	0.80	0.90	0.47	B
		P8	7.00	6.00	406	184	0.75	0.80	0.90	0.30	A
		P9	8.00	5.00	909	126	0.75	0.80	0.90	0.63	B
		P10	8.00	5.00	617	283	0.75	0.80	0.90	0.54	B
		P1 (Canarsie Line)	7.00	6.00	885	119	0.75	0.80	0.90	0.51	B
		P2 (Canarsie Line)	7.00	6.00	1,788	144	0.75	0.80	0.90	0.99	C
		ML1/ML2/P3/P4 (Canarsie Line)	6.50	5.50	1,997	1,606	0.75	0.80	0.90	1.97	F
PM	23rd Street (C/E)	S9/P9	5.00	4.00	395	486	0.75	1.00	0.90	0.59	B
		S10	5.00	4.00	272	388	0.75	1.00	0.90	0.43	A
		P10	10.00	8.75	285	415	0.75	1.00	0.90	0.21	A
	14th Street - 8th Avenue (A/C/E/L)	S5	5.00	4.00	410	634	0.80	1.00	0.90	0.66	B
		S7	4.00	3.00	473	466	0.80	1.00	0.90	0.82	C
		M7	9.50	8.25	884	1,100	0.80	1.00	0.90	0.62	B
		P1 (8 Ave Line)	9.50	8.25	2,017	805	0.75	0.80	0.90	1.04	D
		P2 (8 Ave Line)	9.50	8.25	445	2,739	0.75	0.80	0.90	1.13	D
		P7	7.00	6.00	404	451	0.75	0.80	0.90	0.43	A
		P8	7.00	6.00	230	734	0.75	0.80	0.90	0.47	B
		P9	8.00	5.00	904	357	0.75	0.80	0.90	0.77	C
		P10	8.00	5.00	491	671	0.75	0.80	0.90	0.69	B
		P1 (Canarsie Line)	7.00	6.00	169	934	0.75	0.80	0.90	0.54	B
		P2 (Canarsie Line)	7.00	6.00	729	1,129	0.75	0.80	0.90	0.92	C
		ML1/ML2/P3/P4 (Canarsie Line)	6.50	5.50	1,124	3,330	0.75	0.80	0.90	2.38	F

Table 05.13-21: No-Action Alternative Subway Station Fare Array Analysis

Peak Hour	Station	Fare Array	Control Elements			Peak Hour Volumes		Surging Factor		Friction Factor	V/C Ratio	LOS
			Turnstile	HEET	HXT	System Entries	System Exits	System Entries	System Exits			
AM	23rd Street (C/E)	N074	0	2	1	384	516	1.00	0.75	0.90	0.41	A
		N075	0	3	1	363	507	1.00	0.75	0.90	0.27	A
	14th Street-8th Avenue (A/C/E/L)	N078	6	2	0	841	2,910	1.00	0.75	0.90	0.37	A
PM	23rd Street (C/E)	N074	0	2	1	476	338	1.00	0.75	0.90	0.42	A
		N075	0	3	1	619	491	1.00	0.75	0.90	0.38	A
	14th Street-8th Avenue (A/C/E/L)	N078	6	2	0	2,240	1,481	1.00	0.75	0.90	0.40	A

23rd Street Station (C/E)

Under the No-Action Alternative, demand at the 23rd Street (C/E) subway station is expected to increase as a result of new development⁵ and background growth. As shown in **Tables 05.13-20 and 05.13-21**, all analyzed stairs and fare arrays, respectively, are expected to operate at LOS B or better in the No-Action Alternative AM and PM peak hours.

Pedestrians

Sidewalks

Table 05.13-22 shows the No-Action Alternative peak hour pedestrian volumes, average pedestrian space, and platoon-adjusted LOS at the analyzed sidewalks. As shown in **Table 05.13-22**, under the No-Action Alternative, the analyzed sidewalks are expected to operate at an uncongested LOS C or better in all analyzed peak hours with the exception of two sidewalks. These two sidewalks include the following:

- The south sidewalk along W. 17th Street between 9th and 10th Avenues, which would operate at LOS D in all analyzed peak hours; and
- The north sidewalk along W. 16th Street between 8th and 9th Avenues, which would operate at LOS D in the weekday AM and midday peak hours and LOS E in the weekday PM and Saturday peak hours.

Crosswalks

Table 05.13-23 shows the peak hour volumes, average pedestrian space, and LOS at the analyzed crosswalk under the No-Action Alternative. As shown in **Table 05.13-23**, the analyzed crosswalks are expected to operate at an acceptable LOS C or better in all analyzed peak hours under the No-Action Alternative with the exception of the north crosswalk at 8th Avenue and W. 25th Street, which is expected to operate at LOS D in the weekday PM peak hour.

⁵ In order to forecast future conditions under the No-Action Alternative, the developments within a ½-mile radius of the Project Sites, including the 48 developments that are anticipated to be completed by the 2041 analysis were considered and can be found in **Table 05.13-18**.

Table 05.13-22: No-Action Alternative Sidewalk Conditions

Location	Effective Width (ft)	Peak Hour Volumes				Average Pedestrian Space (ft ² /ped)				Platoon-Adjusted Level of Service			
		AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
East sidewalk along 10 Ave btw W 26 St & W 27 St	8.5	288	502	608	454	308.5	160.7	142.6	193.3	B	B	B	B
South sidewalk along W 27 Dr btw 10 Ave & W 27 Dr	2.0	39	39	50	60	395.9	383.7	247.0	269.2	B	B	B	B
North sidewalk along W 26 St btw 10 Ave & W 27 Dr	7.0	223	61	499	391	335.5	886.1	141.4	170.0	B	A	B	B
East sidewalk along 10 Ave btw W 25 St & W 26 St	4.0	346	440	567	460	115.1	92.6	70.0	90.6	B	B	C	B
South sidewalk along W 26 St btw 9 Ave & 10 Ave	4.5	260	157	250	159	149.9	234.8	200.9	252.0	B	B	B	B
West sidewalk along W 27 Dr btw W 26 St & W 27 Dr	2.0	72	28	24	16	174.7	746.7	663.3	846.4	B	A	A	A
North sidewalk along W 26 St btw 8 Ave & 9 Ave	5.0	330	205	417	298	122.2	214.3	120.8	137.3	B	B	B	B
West sidewalk along 9 Ave btw W 25 St & W 26 St	4.5	400	257	496	475	97.3	157.9	92.4	95.3	B	B	B	B
North sidewalk along W 26 St btw W 27 Dr & 9 Ave	6.5	510	89	332	439	92.0	581.3	216.2	145.8	B	A	B	B
North sidewalk along W 25 St btw 8 Ave & 9 Ave	5.0	804	757	1,248	947	60.1	73.3	43.1	57.2	C	C	C	C
North sidewalk along W 25 St btw 9 Ave & 10 Ave	6.0	641	399	717	526	90.8	133.8	97.1	100.0	B	B	B	B
North sidewalk along W 25 St btw 7 Ave & 8 Ave	5.0	924	673	1,254	787	57.3	73.7	41.4	68.2	C	C	C	C
West sidewalk along 9 Ave btw W 18 St & W 19 St	7.0	352	373	600	573	177.0	202.7	127.3	140.6	B	B	B	B
South sidewalk along W 19 St btw 9 Ave & 10 Ave	3.0	248	249	388	403	107.5	124.3	80.5	82.8	B	B	C	C
North sidewalk along W 19 St btw 9 Ave & 10 Ave	2.0	104	130	174	199	180.3	162.5	96.6	82.0	B	B	B	C
West sidewalk along 9 Ave btw W 16 St & W 17 St	4.0	275	378	475	557	131.1	104.0	89.7	75.5	B	B	C	C
South sidewalk along W 17 St btw 9 Ave & 10 Ave	1.0	309	240	394	415	34.1	38.3	24.4	24.0	D	D	D	D
West sidewalk along 9 Ave btw W 17 St & W 18 St	4.0	339	390	556	596	99.2	116.7	80.0	72.9	B	B	C	C
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.5	228	268	368	361	66.8	52.6	42.4	43.7	C	C	C	C
North sidewalk along W 18 St btw 9 Ave & 10 Ave	2.5	152	155	230	255	163.9	156.9	108.2	95.2	B	B	B	B
East sidewalk along 9 Ave btw W 16 St & W 17 St	7.5	296	436	758	454	243.7	181.7	105.5	164.7	B	B	B	B
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	409	330	679	447	24.4	30.3	14.2	19.0	D	D	E	E

Table 05.13-23: No-Action Alternative Crosswalk Conditions

Intersection	Crosswalk	Peak Hour Volumes				Average Pedestrian Space (ft ² /ped)				Level of Service			
		AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
9 Ave & W 26 St	North	315	37	354	327	53.8	508.3	67.4	74.0	B	A	A	A
9 Ave & W 26 St	West	419	361	682	554	74.4	96.2	53.0	60.0	A	A	B	A
9 Ave & W 25 St	North	662	571	1,006	738	42.8	47.7	26.2	41.3	B	B	C	B
8 Ave & W 25 St	North	701	580	1,041	695	27.0	38.9	16.1	29.5	C	C	D	C
9 Ave & W 19 St	West	369	400	563	617	101.4	105.7	83.0	69.0	A	A	A	A
9 Ave & W 18 St	West	330	339	494	574	131.1	121.3	94.8	72.8	A	A	A	A
9 Ave & W 17 St	North	226	260	317	305	97.3	87.4	62.7	80.8	A	A	A	A
9 Ave & W 17 St	South	200	219	307	318	95.5	101.6	69.4	65.4	A	A	A	A
9 Ave & W 17 St	West	309	431	577	670	119.3	84.7	67.5	55.3	A	A	A	B
9 Ave & W 16 St	West	314	522	637	887	192.4	110.3	100.4	68.5	A	A	A	A

Corner Areas

Table 05.13-24 shows the peak hour volumes, average pedestrian space, and LOS at analyzed corner areas under the No-Action Alternative. As shown in **Table 05.13-24**, all analyzed corner areas are expected to operate at an uncongested LOS C or better in all analyzed peak hours under the No-Action Alternative.

Table 05.13-24: No-Action Alternative Corner Conditions

Intersection	Corner	Average Pedestrian Space (ft ² /ped)				Level of Service			
		AM	MD	PM	SAT	AM	MD	PM	SAT
10th Ave & W 27th St	SE	478.5	253.6	233.6	315.7	A	A	A	A
10th Ave & W 26th St	NE	196.2	155.1	100.4	126.4	A	A	A	A
10th Ave & W 26th St	SE	132.5	127.3	98.5	126.8	A	A	A	A
10th Ave & W 25th St	NE	86.2	97.0	77.4	114.7	A	A	A	A
9th Ave & W 26th St	NE	74.1	123.5	51.9	75.6	A	A	B	A
9th Ave & W 26th St	SE	90.2	117.7	61.3	88.0	A	A	A	A
9th Ave & W 26th St	SW	115.3	194.9	75.6	102.6	A	A	A	A
9th Ave & W 26th St	NW	85.5	201.8	83.8	97.9	A	A	A	A
9th Ave & W 25th St	NE	113.3	123.1	75.9	99.0	A	A	A	A
9th Ave & W 25th St	NW	87.3	112.1	61.1	80.3	A	A	A	A
8th Ave & W 26th St	NW	195.6	146.4	127.2	158.1	A	A	A	A
8th Ave & W 25th St	NE	69.5	89.9	46.9	67.4	A	A	B	A
8th Ave & W 25th St	NW	92.6	94.8	53.9	90.3	A	A	B	A
9th Ave & W 19th St	SW	169.5	172.1	135.8	119.0	A	A	A	A
9th Ave & W 19th St	NW	173.9	175.2	130.1	122.4	A	A	A	A
9th Ave & W 18th St	SW	196.0	167.9	133.3	122.7	A	A	A	A
9th Ave & W 18th St	NW	193.8	187.6	133.8	123.7	A	A	A	A
9th Ave & W 17th St	NE	148.2	105.2	104.1	121.0	A	A	A	A
9th Ave & W 17th St	SE	215.0	179.7	137.0	140.6	A	A	A	A
9th Ave & W 17th St	SW	162.3	141.1	106.8	91.7	A	A	A	A
9th Ave & W 17th St	NW	173.3	132.4	103.6	98.2	A	A	A	A
9th Ave & W 16th St	NE	290.8	275.1	153.3	202.1	A	A	A	A
9th Ave & W 16th St	SW	283.0	138.9	146.1	111.2	A	A	A	A
9th Ave & W 16th St	NW	263.4	201.9	146.0	130.4	A	A	A	A
8th Ave & W 17th St	SW	36.4	70.9	65.5	96.0	C	A	A	A

Parking

As part of the 10th Avenue SIP, a northbound left turn lane at 10th Avenue and W. 27th Street is being proposed under the No-Action Alternative, which would remove approximately four to five parking spaces from the existing on-street parking supply.

As shown in **Table 05.13-25**, based on the increased demand under the No-Action Alternative, weekday overnight parking demand within the overall parking study area is expected to total 65 percent of capacity with a surplus of 2,046 parking spaces. Saturday overnight utilization is expected to increase to 63 percent of capacity with a surplus of 2,098 parking spaces.

Table 05.13-25: No-Action Alternative Parking Utilization in the Study Area Summary

No-Action Alternative Study Area Public Parking	Weekday Overnight	Saturday Overnight
Existing Demand:	3,498	3,321
Background Growth: ¹	102	97
Soft Site Demand: ²	144	152
No-Action Alternative Demand Total	3,744	3,570
Existing Capacity: ³	5,795	5,673
Net Change in Capacity: ⁴	-5	-5
No-Action Alternative Capacity Total	5,790	5,668
No-Action Alternative Surplus/(Deficit)	2,046	2,098
No-Action Alternative Utilization %	65%	63%

Notes:

¹ Assumes an annual background growth rate of 0.25%/year for the 2023-2028 period and 0.125%/year for 2028-2041 period.

² Demand from developments found in **Table 05.13-18** in proximity to the Project Sites not accommodated by accessory parking.

³ Analysis conservatively assumes that facilities are fully utilized at 98 percent of licensed capacity.

⁴ Parking spaces would be removed as a result of a proposed northbound left turn lane at W 27th Street along 10th Avenue as part of the 10th Avenue Street Improvement Plan.

Alternative 2 – Rezoning Alternative

As shown in **Table H.1-1**, compared to the No-Action Alternative, the Rezoning Alternative would result in a net incremental increase of 3,474 DUs, 28,784 gsf of local retail space, 87,223 gsf of neighborhood center space, 17,580 gsf of supermarket space, 13,785 gsf of medical office space, and 9,770 gsf of daycare space. The Rezoning Alternative would also result in an increase of one parking space at the Fulton Houses Project Site. In addition, it is estimated that there would be a net decrease of 2,085 gsf of UPK space. It should be noted that the existing children's center located on Block 724 currently operates as a UPK. As such, despite the incremental decrease in children's center space on Block 724, it is assumed that the UPK under the Rezoning Alternative would serve the same population of students as the existing children's center, and thus no incremental change in students, parents, and staff was conservatively assumed. It should also be noted that NYCHA would continue to coordinate Builders Pavement Plan (BPP) design with NYCDOT and will submit drawings for NYCDOT review and approval as they are available, including the reconstruction of curb returns at the intersection of 10th Avenue and W. 27th Street.

Travel Demand Forecast

The net incremental change of in person and vehicle trips expected to result from the Rezoning Alternative by the 2041 analysis year was derived based on the net change in land uses shown in

Table H.1-1 and the transportation planning factors shown in **Table 05.13-1**. **Table 05.13-26** shows estimates of the net incremental change in peak hour person and vehicle trips (versus the No-Action Alternative) that would occur in 2041 with implementation of the Rezoning Alternative. As shown in **Table 05.13-26**, the Rezoning Alternative would generate a net increase of approximately 3,735 person trips in the weekday AM, 2,745 in the weekday midday, 4,068 in the weekday PM, and 4,379 in the Saturday peak hour.

Table 05.13-27 summarizes the number of additional trips that would be generated by the Rezoning Alternative during the weekday AM, midday, PM, and Saturday peak hours by various modes of travel. As shown in **Table 05.13-27**, peak hour vehicle trips (including auto, truck, and taxi trips balanced to reflect that 50 percent of the inbound taxis would not depart empty) would increase by a net total of approximately 379, 251, 334, and 376 (in and out combined) in the weekday AM, midday, and PM peak hours, and the Saturday peak hour, respectively. Peak hour subway trips would increase by a net total of approximately 1,538, 998, 1,452, and 1,577 during these periods, respectively, while transit bus trips would increase by approximately 170, 121, 176, and 191, respectively. Lastly, pedestrian trips would increase by 3,471, 2,551, 3,805, and 4,076 trips during the weekday AM, midday, and PM peak hours, and Saturday peak hour, respectively. These totals include walk-only trips and pedestrians en route to and from nearby off-street parking spaces, subway stations, and bus stops.

Since these peak hour trips would exceed the *CTM* analysis thresholds for vehicular traffic, transit and pedestrians, a Level 2 screening assessment was undertaken to identify specific locations where additional detailed analyses would be warranted.

Table 05.13-26: Travel Demand Forecast – Rezoning Alternative Persons Trips

Land Use:	<u>Residential</u> <u>(Market-Rate</u> <u>and Affordable)</u>		<u>Residential</u> <u>(Project-Based</u> <u>Section 8)</u>		<u>Local Retail</u>	<u>Neighborhood</u> <u>Center</u>		<u>Supermarket</u>	<u>Medical</u> <u>Office</u>		<u>Universal Pre-K</u> <u>Students</u>		<u>Universal Pre-K</u> <u>Staff</u>		<u>Universal Pre-K</u> <u>Parents</u>		<u>Daycare</u> <u>Students</u>		<u>Daycare</u> <u>Staff</u>		<u>Daycare</u> <u>Staff</u>		<u>TOTAL</u>		
Size/Units:	3,454	DU	0	DU	28,784 gsf	87,223 gsf	17,580 gsf	13,785 gsf	0 students	0 staff	0 parents	9,770 gsf	9,770 gsf	9,770 gsf											
Peak Hour Person Trips:																									
AM	2,629		0		232	405	180	114	0	0	0	54	15	106		3,735									
MD	1,582		0		384	333	315	129	N/A	N/A	N/A	0	2	0		2,745									
PM	2,401		0		522	405	477	88	0	0	0	54	15	106		4,068									
Saturday	2,633		0		606	554	502	84	N/A	N/A	N/A	0	0	0		4,379									
Person Trips:																									
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out			
AM	Auto	37	138	0	0	5	5	9	6	3	3	1	0	0	0	0	8	0	2	0	0	0	65	152	
	Taxi	17	66	0	0	0	0	21	15	1	1	4	2	0	0	0	0	0	0	0	0	0	43	84	
	Subway	303	1,070	0	0	0	0	28	21	14	14	43	26	0	0	0	0	0	10	0	3	3	404	1,134	
	Bus	27	96	0	0	0	0	12	9	5	5	4	2	0	0	0	0	0	1	0	3	3	55	115	
	Bike	20	69	0	0	0	0	17	13	3	3	3	1	0	0	0	0	0	0	0	0	0	43	86	
	Walk/Other	175	611	0	0	113	109	143	111	65	63	17	11	0	0	0	0	0	2	0	47	47	602	952	
	Total	579	2,050	0	0	118	114	230	175	91	89	72	42	0	0	0	0	54	0	15	0	53	53	1,212	2,523
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out			
MD	Auto	53	53	0	0	7	7	6	6	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	73	72	
	Taxi	26	26	0	0	2	2	15	15	2	2	4	3	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	49	48	
	Subway	412	413	0	0	2	2	19	21	26	24	41	36	N/A	N/A	N/A	N/A	N/A	1	1	N/A	N/A	501	497	
	Bus	37	37	0	0	2	2	8	9	10	9	4	3	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	61	60	
	Bike	27	27	0	0	2	2	12	13	5	5	2	2	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	48	49	
	Walk/Other	236	235	0	0	177	177	101	108	112	108	18	15	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	644	643	
	Total	791	791	0	0	192	192	161	172	161	154	70	59	N/A	N/A	N/A	N/A	N/A	1	1	N/A	N/A	1,376	1,369	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out			
PM	Auto	100	61	0	0	11	11	8	8	10	10	0	0	0	0	0	0	8	0	2	0	0	129	100	
	Taxi	47	29	0	0	2	2	19	17	2	2	1	2	0	0	0	0	0	0	0	0	0	71	52	
	Subway	778	475	0	0	2	2	24	23	38	38	21	32	0	0	0	0	0	3	0	10	3	3	866	586
	Bus	69	43	0	0	2	2	10	9	14	14	1	2	0	0	0	0	0	3	0	1	3	3	99	77
	Bike	51	31	0	0	2	2	15	14	7	7	1	2	0	0	0	0	0	0	0	0	0	76	56	
	Walk/Other	443	274	0	0	242	242	133	125	167	168	11	15	0	0	0	0	0	40	0	2	47	47	1,043	913
	Total	1488	913	0	0	261	261	209	196	238	239	35	53	0	0	0	0	0	54	0	15	53	53	2,284	1,784
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out			
Saturday	Auto	97	80	0	0	12	12	10	12	10	10	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	129	114	
	Taxi	46	37	0	0	3	3	23	27	3	3	2	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	77	72	
	Subway	756	617	0	0	3	3	32	35	40	41	27	23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	858	719	
	Bus	68	55	0	0	3	3	13	14	15	16	2	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	101	90	
	Bike	50	40	0	0	3	3	19	21	8	8	1	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	81	73	
	Walk/Other	432	355	0	0	279	279	170	178	170	178	13	11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,064	1,001	
	Total	1449	1184	0	0	303	303	267	287	246	256	45	39	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,310	2,069	

Note:

A 50% trip credit applied to local retail trips to account for pass-by trips.

Table 05.13-26 (continued): Travel Demand Forecast – Rezoning Alternative Vehicle Trips

Land Use:	<u>Residential (Market-Rate and Affordable)</u>		<u>Residential (Project-Based Section 8)</u>		<u>Local Retail</u>	<u>Neighborhood Center</u>		<u>Supermarket</u>	<u>Medical Office</u>		<u>Universal Pre-K Students</u>		<u>Universal Pre-K Staff</u>		<u>Universal Pre-K Parents</u>		<u>Daycare Students</u>		<u>Daycare Staff</u>		<u>Daycare Staff</u>		<u>TOTAL</u>	
Size/Units:	3,454	DU	0	DU	28,784 gsf	87,223 gsf	17,580 gsf	13,785 gsf	0	students	0	staff	0	parents	9,770 gsf	9,770 gsf	9,770 gsf							
Peak Hour Person Trips:																								
AM	2,629		0		232	405	180	114	0		0		0		54	15	106						3,735	
MD	1,582		0		384	333	315	129	N/A		N/A		N/A		0	2	0						2,745	
PM	2,401		0		522	405	477	88	0		0		0		54	15	106						4,068	
Saturday	2,633		0		606	554	502	84	N/A		N/A		N/A		0	0	0						4,379	
Vehicle Trips :																								
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto (Total)	32	121	0	0	5	5	2	2	1	0	0	0	0	0	0	0	8	8	2	0	0	0	56	141
Taxi	12	46	0	0	0	0	1	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	31	58
Taxi Balanced	54	54	0	0	0	0	2	2	3	3	0	0	0	0	0	0	0	0	0	0	0	0	78	78
Truck	13	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13
Total	99	188	0	0	5	5	4	4	4	3	0	0	0	0	0	0	8	8	2	0	0	0	147	232
MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto (Total)	46	46	0	0	7	7	4	4	1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	63	62
Taxi	17	17	0	0	2	2	2	2	3	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	34	33
Taxi Balanced	26	26	0	0	4	4	4	4	4	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	54	54
Truck	2	2	0	0	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	2	2
Total	81	81	0	0	11	11	8	8	5	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	126	125
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto (Total)	86	52	0	0	10	10	7	7	0	0	0	0	0	0	0	0	8	8	0	2	0	0	117	85
Taxi	33	20	0	0	2	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	51	36
Taxi Balanced	37	37	0	0	4	4	4	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	65	65
Truck	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	124	90	0	0	14	14	11	11	2	2	0	0	0	0	0	0	8	8	0	2	0	0	183	151
Saturday	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto (Total)	84	70	0	0	11	11	7	7	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	109	95
Taxi	32	26	0	0	3	3	2	2	1	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	55	51
Taxi Balanced	43	43	0	0	6	6	4	4	2	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	83	83
Truck	3	3	0	0	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	3	3
Total	130	116	0	0	17	17	11	11	2	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	195	181

Notes:

A 50% trip credit applied to local retail trips to account for pass-by trips.

50% of taxis inbound with passengers are assumed to depart with outbound passengers.

Table 05.13-27: Travel Demand Forecast Summary – Rezoning Alternative

Table 6-10-1: Travel Demand Forecast Summary, Morning Peak, Alternative																		
Peak Hour	Vehicle Trips In Out Total			Person Trips														
				Auto			Subway			Bus Only			Walk/Other			Total Pedestrian Trips ¹		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
AM	147	232	379	57	152	209	404	1,134	1,538	55	115	170	602	952	1,554	1,118	2,353	3,471
MD	126	125	251	73	72	145	501	497	998	61	60	121	644	643	1,287	1,279	1,272	2,551
PM	183	151	334	129	92	221	866	586	1,452	99	77	176	1,043	913	1,956	2,137	1,668	3,805
Saturday	195	181	376	129	114	243	858	719	1,577	101	90	191	1,064	1,001	2,065	2,152	1,924	4,076
Notes:																		
¹ Includes walk-only trips and pedestrians en route to/from nearby subway stations, bus stops, and parking facilities.																		

Level 2 Screening Assessment

A Level 2 screening assessment involves the assignment of project-generated trips to the study area street network, pedestrian elements, and transit facilities, and the identification of specific locations where the incremental increase in demand may potentially exceed *CTM* analysis thresholds and therefore require a quantitative analysis.

Detailed analyses were warranted for 25 intersections (all signalized), two subway stations (14th Street/8th Avenue [A/C/E/L] and 23rd Street [A/C/E] stations), 55 pedestrian elements (20 sidewalks, 10 crosswalks, and 25 corner areas), and parking conditions. Additional details on the Level 2 screening assessment for the Rezoning Alternative are presented in the *TPF/TDF Technical Memorandum* provided in **Appendix H.1**.

Detailed Traffic Analysis

Future Rezoning Alternative Traffic Growth

As shown in **Table 05.13-27**, based on the Rezoning Alternative, there would be a net total of approximately 379, 251, 334, and 376 additional vehicle (auto, taxi, and truck) trips in the weekday AM, midday, and PM peak hours, and Saturday peak hour, respectively. **Figures H.2-3a through H.2-3d** show the total traffic volumes at the 25 analyzed intersections for the 2041 future build year with the Rezoning Alternative. The volumes shown are the combination of the net incremental traffic generated by the Proposed Project (**Figures H.2-4a to H.2-4d**) and the No-Action Alternative (**Figures H.2-2a to H.2-2d**).

Intersection Capacity Analysis

The peak hour v/c ratios, delays, and LOS for lane groups at analyzed intersections under the Rezoning Alternative are shown in **Table 05.13-28**. A total of 21 analyzed signalized intersections would have at least one congested lane group in one or more peak hours in the Rezoning Alternative, as compared to 19 intersections under the No-Action Alternative. Significant adverse impacts were identified in five lane groups at five intersections in the weekday AM peak hour, eight lane groups at seven intersections in the weekday midday peak hour, 10 lane groups at eight intersections in the weekday PM peak hour, and five lane groups at four intersections in the Saturday peak hour. Potential measures to mitigate the significant adverse traffic impacts identified in **Table 05.13-28** are discussed in **Section F**.

Table 05.13-28: No-Action and Rezoning Alternatives Traffic Levels of Service

Intersection	Approach	Lane Group	No-Action Alternative AM			Rezoning Alternative AM			No-Action Alternative Midday			Rezoning Alternative Midday			No-Action Alternative PM			Rezoning Alternative PM			No-Action Alternative SAT			Rezoning Alternative SAT		
			V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
W.30th St (EB) & 10th Ave (NB)	EB	L	1.60	312.8	F	1.60	312.8	F	1.62	321.4	F	1.62	323.6	F	1.74	374.6	F	1.74	374.6	F	1.16	120.0	F	1.16	120.0	F
	EB	T	1.25	159.3	F	1.25	159.3	F	1.09	99.0	F	1.09	99.0	F	1.36	205.2	F	1.36	205.2	F	1.49	262.5	F	1.49	262.5	F
	NB	TR	0.77	12.1	B	0.81	13.0	B	1.04	38.7	D	1.06	44.9	D	0.85	11.9	B	0.87	12.8	B	0.78	11.6	B	0.80	12.2	B
W.29th St (WB) & 10th Ave (NB)	WB	T	1.01	33.4	C	1.01	34.5	C	0.80	36.1	D	0.80	36.1	D	1.18	122.8	F	1.19	126.4	F	0.89	13.3	B	0.89	13.4	B
	WB	R	0.89	20.4	C	0.89	20.3	C	0.85	38.1	D	0.85	38.0	D	0.82	37.1	D	0.82	37.2	D	0.98	21.7	C	0.98	21.7	C
	NB	L	0.72	34.8	C	0.72	33.5	C	0.46	18.7	B	0.46	18.7	B	0.78	39.3	D	0.78	38.7	D	0.77	36.6	D	0.77	35.3	D
	NB	T	0.54	2.5	A	0.58	2.5	A	0.74	2.1	A	0.75	2.3	A	0.65	3.3	A	0.67	3.3	A	0.55	2.4	A	0.57	2.3	A
W.28th St (EB) & 10th Ave (NB)	EB	LT	0.66	34.5	C	0.66	34.5	C	0.51	29.6	C	0.51	29.6	C	0.53	29.9	C	0.53	30.0	C	0.63	33.7	C	0.63	33.8	C
	NB	TR	0.63	1.4	A	0.67	1.6	A	0.83	2.5	A	0.85	2.7	A	0.71	1.5	A	0.73	1.6	A	0.64	1.2	A	0.67	1.3	A
W.27th St (WB) & 10th Ave (NB)	WB	TR	0.02	19.6	B	0.02	19.6	B	0.04	19.8	B	0.04	19.8	B	0.04	19.7	B	0.04	19.7	B	0.05	19.9	B	0.05	19.9	B
	NB	L	0.79	27.7	C	0.85	29.6	C	0.58	19.4	B	0.60	19.6	B	0.86	33.5	C	0.88	33.2	C	0.74	24.3	C	0.77	24.5	C
	NB	T	0.61	3.8	A	0.64	4.4	A	0.82	5.8	A	0.83	6.1	A	0.68	4.7	A	0.70	5.1	A	0.64	3.5	A	0.66	4.1	A
W.26th St (EB) & 10th Ave (NB)	EB	LT	0.97	65.7	E	1.01	74.7	E *	0.83	43.1	D	0.85	45.4	D	0.80	41.7	D	0.84	44.8	D	0.74	36.7	D	0.79	39.7	D
	NB	TR	0.81	8.1	A	0.90	10.4	B	0.96	12.0	B	1.00	18.8	B	0.88	9.3	A	0.93	11.2	B	0.80	10.0	B	0.87	12.0	B
W.25th St (WB) & 10th Ave (NB)	WB	TR	1.04	62.9	E	1.17	107.2	F *	1.14	101.7	F	1.23	135.9	F *	1.36	198.2	F	1.44	232.6	F *	0.97	60.0	E	1.08	89.7	F *
	NB	LT	0.74	4.5	A	0.79	5.0	A	0.85	3.2	A	0.89	3.7	A	0.78	3.6	A	0.81	3.8	A	0.69	4.5	A	0.72	4.6	A
W.24th St (EB) & 10th Ave (NB)	EB	LT	0.82	38.9	D	0.83	39.7	D	0.58	28.3	C	0.59	28.5	C	0.50	26.2	C	0.51	26.3	C	0.77	36.1	D	0.77	36.7	D
	NB	TR	0.83	14.6	B	0.88	15.0	B	0.95	11.2	B	0.97	12.5	B	0.79	8.7	A	0.82	8.9	A	0.68	8.6	A	0.71	8.3	A
W.23rd St (E-W) & 10th Ave (NB)	EB	LT	1.44	239.4	F	1.48	257.3	F *	1.47	256.2	F	1.55	293.7	F *	1.14	116.1	F	1.16	124.7	F *	1.24	159.4	F	1.31	186.9	F *
	WB	T	1.04	87.1	F	1.04	86.3	F	-	-	-	-	-	-	1.17	148.6	F	1.17	149.7	F	-	-	-	-	-	-
	WB	R	0.87	43.8	D	0.91	48.6	D	-	-	-	-	-	-	1.07	116.0	F	1.10	126.1	F *	-	-	-	-	-	-
	WB	TR	-	-	-	-	-	-	1.30	196.7	F	1.34	213.6	F *	-	-	-	-	-	-	1.45	235.3	F	1.47	246.3	F *
	NB	LTR	0.81	5.1	A	0.85	6.7	A	1.01	23.4	C	1.04	30.0	C	0.99	18.8	B	1.03	28.2	C	0.82	5.5	A	0.86	7.0	A
W.22nd St (EB) & 10th Ave (NB)	NB	LTR	0.77	5.2	A	0.81	5.6	A	0.92	9.1	A	0.94	10.2	B	0.91	12.2	B	0.94	14.1	B	0.77	7.4	A	0.81	8.0	A
W.21st St (E-W) & 10th Ave (NB)	EB	L	0.12	20.7	C	0.13	20.7	C	0.15	20.9	C	0.15	20.9	C	0.10	20.4	C	0.10	20.4	C	0.20	21.7	C	0.20	21.8	C
	WB	R	0.08	20.3	C	0.08	20.3	C	0.13	20.9	C	0.13	20.9	C	0.39	25.2	C	0.39	25.5	C	0.17	21.5	C	0.18	21.6	C
	NB	T	0.76	3.7	A	0.80	5.0	A	0.91	8.2	A	0.93	9.4	A	0.81	5.8	A	0.85	6.6	A	0.73	3.6	A	0.77	4.5	A
W.20th St (EB) & 10th Ave (NB)	NB	LTR	0.78	7.6	A	0.83	8.6	A	0.91	9.8	A	0.94	11.2	B	0.94	12.5	B	0.98	16.4	B	0.83	9.7	A	0.88	10.9	B
W.19th St (WB) & 10th Ave (NB)	EB	L	0.24	33.8	C	0.25	34.1	C	0.23	34.0	C	0.24	34.3	C	0.18	32.9	C	0.19	33.2	C	0.27	34.3	C	0.27	34.3	C
	WB	R	0.58	47.2	D	0.61	47.8	D	0.86	35.1	D	0.88	36.0	D	0.91	40.0	D	0.95	43.1	D	0.74	56.2	E	0.78	57.2	E
	NB	T	0.77	7.9	A	0.80	8.9	A	0.91	12.8	B	0.93	14.0	B	0.89	12.0	B	0.92	13.6	B	0.78	8.9	A	0.82	10.2	B
W.18th St (EB) & 10th Ave (NB)	EB	L	0.17	21.5	C	0.17	21.5	C	0.22	22.2	C	0.22	22.2	C	0.24	22.5	C	0.24	22.5	C	0.20	21.9	C	0.21	22.0	C
	EB	T	0.42	25.8	C	0.47	26.8	C	0.47	26.5	C	0.49	27.2	C	0.51	27.5	C	0.55	28.5	C	0.55	28.5	C	0.58	29.6	C
	NB	TR	0.76	8.8	A	0.82	12.3	B	0.86	11.6	B	0.90	14.1	B	0.85	10.8	B	0.91	13.7	B	0.74	9.6	A	0.80	11.9	B
W.17th St (WB) & 10th Ave (NB)	WB	TR	0.70	27.1	C	0.95	50.2	D	0.88	47.0	D	1.02	69.1	E *	0.96	56.2	E	1.12	101.6	F *	0.88	35.2	D	1.08	76.4	E *
	NB	LT	0.64	21.8	C	0.64	21.8	C	0.71	23.4	C	0.72	23.6	C	0.74	24.2	C	0.76	24.6	C	0.61	21.3	C	0.63	21.6	C

Table 05.13-28 (continued): No-Action and Rezoning Alternatives Traffic Levels of Service

Intersection	Approach	Lane Group	No-Action Alternative AM			Rezoning Alternative AM			No-Action Alternative Midday			Rezoning Alternative Midday			No-Action Alternative PM			Rezoning Alternative PM			No-Action Alternative SAT			Rezoning Alternative SAT		
			V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
W.31st St (WB) & Dyer Ave (NB)/ Lincoln Exit (SB)	WB	LTR	0.65	32.6	C	0.74	36.3	D	0.82	42.1	D	0.83	42.5	D	1.72	303.2	F	1.73	306.1	F	1.21	49.5	D	1.22	50.8	D
	NB	LT	0.24	26.5	C	0.28	27.1	C	0.35	26.8	C	0.36	27.1	C	0.29	9.5	A	0.30	9.6	A	0.34	23.9	C	0.36	24.4	C
	SB	TR	0.35	10.2	B	0.37	10.4	B	0.25	9.3	A	0.27	9.4	A	0.21	8.8	A	0.23	9.0	A	0.34	9.5	A	0.36	9.8	A
W.30th St (E-W) & Dyer Ave (SB)	EB	T	0.25	7.0	A	0.29	7.0	A	0.35	5.7	A	0.37	5.7	A	0.42	19.1	B	0.45	19.5	B	0.29	7.4	A	0.31	7.4	A
	WB	T	0.03	17.1	B	0.03	17.1	B	0.05	17.3	B	0.05	17.3	B	0.13	20.7	C	0.13	20.7	C	0.15	18.3	B	0.15	18.3	B
	SB	T	0.55	15.4	B	0.58	15.7	B	0.37	13.3	B	0.40	13.5	B	0.40	23.5	C	0.44	24.1	C	0.49	14.3	B	0.52	14.7	B
W.30th St (EB) & 9th Ave (SB)	EB	T	1.07	65.7	E	1.08	67.6	E	0.77	58.3	E	0.77	58.6	E	0.86	38.4	D	0.86	37.3	D	0.94	24.3	C	0.95	24.5	C
	EB	R	0.82	27.1	C	0.89	32.1	C	0.87	71.1	E	0.95	83.3	F *	0.76	37.4	D	0.86	41.0	D	1.07	61.0	E	1.16	97.6	F *
	SB	LT	0.82	26.6	C	0.83	27.1	C	0.80	28.6	C	0.81	28.9	C	0.76	24.3	C	0.78	24.8	C	0.86	31.0	C	0.87	31.8	C
W.29th St (WB) & 9th Ave (SB)	WB	L	0.78	37.6	D	0.80	39.1	D	0.89	48.9	D	0.91	52.5	D	1.18	131.7	F	1.22	146.7	F *	0.48	25.9	C	0.50	26.4	C
	WB	T	1.17	125.0	F	1.18	127.3	F	1.32	188.8	F	1.33	190.6	F	2.64	777.3	F	2.66	786.1	F *	1.55	287.4	F	1.56	289.2	F
	SB	TR	0.94	22.2	C	0.97	25.6	C	0.80	14.8	B	0.82	15.8	B	0.84	15.5	B	0.87	17.2	B	0.91	20.4	C	0.95	22.7	C
W.28th St (EB) & 9th Ave (SB)	EB	TR	0.79	43.2	D	0.80	43.5	D	0.69	27.0	C	0.70	27.3	C	0.67	28.0	C	0.69	28.9	C	0.63	37.4	D	0.66	37.5	D
	SB	L	0.60	29.7	C	0.60	29.0	C	0.36	29.6	C	0.36	28.9	C	0.40	29.6	C	0.40	28.9	C	0.54	27.2	C	0.54	26.3	C
	SB	T	0.69	9.2	A	0.71	9.1	A	0.58	10.1	B	0.60	10.0	B	0.66	11.9	B	0.68	11.8	B	0.66	6.4	A	0.69	6.5	A
W.26th St (EB) & 9th Ave (SB)	EB	T	1.14	119.7	F	1.25	160.2	F *	0.87	46.7	D	0.96	61.2	E *	0.52	24.4	C	0.60	25.8	C	0.58	33.1	C	0.67	35.5	D
	EB	R	0.64	37.4	D	0.80	44.9	D	0.48	27.7	C	0.56	30.1	C	0.38	23.7	C	0.44	24.7	C	0.37	31.3	C	0.47	33.5	C
	SB	L	0.55	21.8	C	0.57	21.8	C	0.44	21.0	C	0.47	21.5	C	0.36	17.4	B	0.41	17.8	B	0.67	24.8	C	0.73	26.9	C
	SB	T	0.80	6.6	A	0.82	6.8	A	0.65	4.0	A	0.67	4.0	A	0.73	4.1	A	0.75	4.2	A	0.68	2.6	A	0.70	2.8	A
W.25th St (WB) & 9th Ave (SB)	WB	LT	0.55	24.6	C	0.58	25.3	C	0.77	33.4	C	0.79	35.0	D	0.72	30.1	C	0.75	31.7	C	0.56	25.1	C	0.60	26.1	C
	SB	TR	1.21	107.7	F	1.28	137.2	F *	1.01	30.7	C	1.08	53.7	D	1.14	76.8	E	1.19	99.4	F *	1.00	26.6	C	1.06	46.3	D
W.23rd St (E-W) & 9th Ave (SB)	EB	T	0.64	23.8	C	0.65	24.2	C	0.65	37.1	D	0.65	37.6	D	0.73	34.4	C	0.75	34.7	C	0.86	27.4	C	0.88	28.1	C
	EB	R	0.38	21.1	C	0.42	21.8	C	0.44	35.2	D	0.48	36.0	D	0.32	31.4	C	0.33	31.4	C	0.23	19.2	B	0.25	19.3	B
	WB	T	0.54	30.6	C	0.56	31.0	C	0.60	32.7	C	0.61	33.2	C	0.61	32.0	C	0.62	32.2	C	0.53	30.9	C	0.53	31.0	C
	SB	L	1.04	112.2	F	1.04	112.2	F	0.68	50.9	D	0.68	50.9	D	0.75	56.5	E	0.75	56.5	E	0.91	78.7	E	0.91	78.7	E
W.19th St (WB) & 9th Ave (SB)	WB	TR	0.78	20.9	C	0.80	21.8	C	0.63	17.9	B	0.64	18.3	B	0.70	18.4	B	0.72	18.9	B	0.61	17.8	B	0.64	18.3	B
	WB	LT	0.57	31.8	C	0.63	34.0	C	0.92	59.6	E	0.96	66.4	E *	0.93	59.5	E	0.99	71.3	E *	0.72	38.6	D	0.80	44.4	D
	SB	TR	0.67	19.5	B	0.70	20.3	C	0.60	18.7	B	0.63	19.2	B	0.64	18.7	B	0.66	19.2	B	0.60	19.2	B	0.62	19.7	B
W.18th St (EB) & 9th Ave (SB)	EB	TR	0.72	30.4	C	0.93	51.6	D	0.75	45.4	D	0.87	54.4	D	0.81	48.5	D	0.93	61.2	E *	0.79	29.0	C	0.93	44.0	D
	SB	L	0.49	23.2	C	0.51	22.8	C	0.42	19.3	B	0.44	19.1	B	0.41	19.8	B	0.43	19.6	B	0.41	20.5	C	0.43	20.7	C
	SB	T	0.57	4.2	A	0.59	4.1	A	0.51	2.8	A	0.53	2.8	A	0.54	2.8	A	0.56	2.8	A	0.49	3.4	A	0.51	3.5	A
W.17th St (WB) & 9th Ave (SB)	WB	LT	0.57	32.0	C	0.67	36.3	D	0.83	47.1	D	0.91	58.2	E *	0.93	58.8	E	1.03	83.6	F *	0.72	38.9	D	0.81	45.7	D
	SB	TR	0.72	8.3	A	0.82	12.2	B	0.69	8.8	A	0.77	11.2	B	0.69	7.6	A	0.76	9.4	A	0.65	7.8	A	0.74	10.4	B
Notes: EB - eastbound, WB - westbound, NB - northbound, SB - southbound L - left, T - through, R - right, DefL - Analysis considers a defacto left-turn lane on this approach V/C ratio - volume-to-capacity ratio Sec/veh - seconds per vehicle LOS - level of service * - Denotes a impacted movement Analysis is based on the 2000 Highway Capacity Manual methodology (Synchro 11)																										

Transit

Subway Stations

As shown in **Table 05.13-27**, the Rezoning Alternative is expected to generate a net total of approximately 1,538 and 1,452 new subway trips in the weekday AM and PM peak hours, respectively. Based on proximity to the Project Sites, the highest number of incremental subway trips is expected to occur at the 14th Street/8th Avenue (A/C/E/L) station complex, which would experience approximately 466 incremental trips in the AM peak hour and 433 in the PM peak hour (refer to **Table H.1-9**). The next highest number would occur at the 23rd Street (A/C/E) subway station on the 8th Avenue Line, which would experience approximately 431 incremental trips in the AM peak hour and 405 in the PM peak hour. All other subway stations serving the Project Sites are expected to experience fewer than 200 incremental trips in both the AM and PM peak hours.

AM and PM peak hour conditions at the 14th Street/8th Avenue (A/C/E/L) station complex and the 23rd Street (C/E) station under the Rezoning Alternative are shown in **Table 05.13-29** and **Table 05.13-30** and discussed below.

14th Street/8th Avenue Station (A/C/E/L)

Under the Rezoning Alternative, all analyzed stairs and fare arrays at the 14th Street/8th Avenue station complex are projected to operate at an acceptable LOS C or better in both the AM and PM peak hours, with the exception of three stairs during the AM peak hour and four stairs during the PM peak hour. During the AM peak hour, street stairs S5 would operate at LOS D and stairs P2 on the 8th Avenue line and ML1/ML2/P3/P4 on the Canarsie line would operate at LOS F (the same as under the No-Action Alternative). During the PM peak hour, street stair S7 and stairs P1 and P2 on the 8th Avenue line would operate at LOS D, and stair ML1/ML2/P3/P4 on the Canarsie line would operate at LOS F (same as under the No-Action Alternative, with the exception of street stair S7, which would operate at LOS C under the No-Action Alternative). As the WIT for these stairs would not exceed the impact threshold, these stairs would not be considered significantly adversely impacted based on the impact thresholds shown in **Table 05.13-4**. Therefore, no significant adverse impacts are anticipated to occur at this station as a result of the Rezoning Alternative.

23rd Street Station (C/E)

Under the Rezoning Alternative, all analyzed stairs and fare arrays at the 23rd Street station are expected to operate at an acceptable LOS C or better in both the AM and PM peak hours. Therefore, no significant adverse impacts are anticipated to occur at this station as a result of the Rezoning Alternative.

Table 05.13-29: Rezoning Alternative Subway Station Stair Analysis

Peak Hour	Station	Stair	Total Width (ft.)	Effective Width (ft.)	Project Increment		Peak Hour Volumes		Surging Factor		Friction Factor	V/C Ratio	LOS	WIT	Impact Threshold
					Up	Down	Up	Down	Up	Down					
AM	23rd Street (C/E)	S9/P9	5.00	4.00	83	94	457	385	0.75	1.00	0.90	0.58	B	---	---
		S10	5.00	4.00	34	220	427	511	0.75	1.00	0.90	0.62	B	---	---
		P10	10.00	8.75	34	220	467	529	0.75	1.00	0.90	0.30	A	---	---
	14th Street - 8th Avenue (A/C/E/L)	S5	5.00	4.00	38	107	1,188	449	0.80	1.00	0.90	1.12	D	4.64	7.00
		S7	4.00	3.00	82	239	674	436	0.80	1.00	0.90	0.99	C	---	---
		M7	9.50	8.25	120	346	1,862	885	0.80	1.00	0.90	0.90	C	---	---
		P1 (8 Ave Line)	9.50	8.25	26	0	1,368	675	0.75	0.80	0.90	0.75	C	---	---
		P2 (8 Ave Line)	9.50	8.25	0	10	407	4,582	0.75	0.80	0.90	1.76	F	0.19	2.00
		P7	7.00	6.00	37	40	763	234	0.75	0.80	0.90	0.50	B	---	---
		P8	7.00	6.00	10	100	416	284	0.75	0.80	0.90	0.35	A	---	---
		P9	8.00	5.00	48	26	957	152	0.75	0.80	0.90	0.68	B	---	---
		P10	8.00	5.00	15	154	632	437	0.75	0.80	0.90	0.64	B	---	---
		P1 (Canarsie Line)	7.00	6.00	4	2	889	121	0.75	0.80	0.90	0.52	B	---	---
		P2 (Canarsie Line)	7.00	6.00	7	3	1,795	147	0.75	0.80	0.90	0.99	C	---	---
		ML1/ML2/P3/P4 (Canarsie Line)	6.50	5.50	9	47	2,006	1,653	0.75	0.80	0.90	2.00	F	1.06	2.00
PM	23rd Street (C/E)	S9/P9	5.00	4.00	172	47	567	533	0.75	1.00	0.90	0.75	C	---	---
		S10	5.00	4.00	71	115	343	503	0.75	1.00	0.90	0.55	B	---	---
		P10	10.00	8.75	71	115	356	530	0.75	1.00	0.90	0.27	A	---	---
	14th Street - 8th Avenue (A/C/E/L)	S5	5.00	4.00	72	50	482	684	0.80	1.00	0.90	0.75	C	---	---
		S7	4.00	3.00	188	123	661	589	0.80	1.00	0.90	1.09	D	3.36	8.00
		M7	9.50	8.25	260	173	1,144	1,273	0.80	1.00	0.90	0.76	C	---	---
		P1 (8 Ave Line)	9.50	8.25	11	0	2,028	805	0.75	0.80	0.90	1.04	D	0.45	8.00
		P2 (8 Ave Line)	9.50	8.25	0	19	445	2,758	0.75	0.80	0.90	1.13	D	0.60	7.00
		P7	7.00	6.00	59	19	463	470	0.75	0.80	0.90	0.47	B	---	---
		P8	7.00	6.00	16	65	246	799	0.75	0.80	0.90	0.51	B	---	---
		P9	8.00	5.00	132	16	1,036	373	0.75	0.80	0.90	0.86	C	---	---
		P10	8.00	5.00	33	59	524	730	0.75	0.80	0.90	0.75	C	---	---
		P1 (Canarsie Line)	7.00	6.00	3	4	172	938	0.75	0.80	0.90	0.54	B	---	---
		P2 (Canarsie Line)	7.00	6.00	14	5	743	1,134	0.75	0.80	0.90	0.93	C	---	---
		ML1/ML2/P3/P4 (Canarsie Line)	6.50	5.50	22	16	1,146	3,346	0.75	0.80	0.90	2.40	F	0.57	2.00

Note:* denotes a significant adverse impact based on *CTM* criteria.**Table 05.13-30: Rezoning Alternative Subway Station Fare Array Analysis**

Peak Hour	Station	Fare Array	Control Elements			Project Increment		Peak Hour Volumes		Surging Factor		Friction Factor	V/C Ratio	LOS
			Turnstile	HEET	HXT	System Entries	System Exits	System Entries	System Exits	System Entries	System Exits			
AM	23rd Street (C/E)	N074	0	2	1	220	34	604	550	1.00	0.75	0.90	0.57	B
		N075	0	3	1	94	83	457	590	1.00	0.75	0.90	0.33	A
	14th Street-8th Avenue (A/C/E/L)	N078	6	2	0	346	120	1,187	3,030	1.00	0.75	0.90	0.42	A
PM	23rd Street (C/E)	N074	0	2	1	115	71	591	409	1.00	0.75	0.90	0.52	B
		N075	0	3	1	47	172	666	663	1.00	0.75	0.90	0.44	A
	14th Street-8th Avenue (A/C/E/L)	N078	6	2	0	173	260	2,413	1,741	1.00	0.75	0.90	0.44	A

Note:* denotes a significant adverse impact based on *CTM* criteria.**Pedestrians**

Incremental pedestrian demand generated by the Rezoning Alternative by 2041 would include trips made solely by walking, as well as pedestrian trips en route to and from subway station entrances and bus stops. Pedestrian trips generated by the Rezoning Alternative are expected to be most

concentrated in proximity to the Project Sites and along corridors connecting these sites to area transit services.

As shown in **Table 05.13-27**, the Rezoning Alternative is expected to generate a net incremental total of approximately 1,554 walk-only trips in the weekday AM peak hour, 1,287 in the midday peak hour, 1,956 in the PM peak hour, and 2,065 in the Saturday peak hour. Persons en route to and from subway station entrances and bus stops would add approximately 1,917, 1,264, 1,849, and 2,011 additional pedestrian trips to the Project Sites' sidewalks and crosswalks during these same periods, respectively. These pedestrian volumes were added to the projected No-Action Alternative volumes to generate the Rezoning Alternative pedestrian volumes for analysis.

Anticipated conditions at analyzed sidewalks, crosswalks, and corner areas in the future with the Rezoning Alternative are shown in **Tables 05.13-31 through 05.13-33**. As discussed below, in the future with the Rezoning Alternative, six sidewalks out of the 20 analyzed and two crosswalks out of the 10 analyzed would be considered significantly adversely impacted in one or more peak hours as a result of the Rezoning Alternative. Potential measures to mitigate these impacts are discussed in **Section F**.

Sidewalks

Table 05.13-31 shows the incremental change in peak hour pedestrian volumes attributable to the Rezoning Alternative and the total With-Action Rezoning Alternative pedestrian volumes, average pedestrian space, and platoon-adjusted LOS at the analyzed sidewalks. In addition, **Table 05.13-31** identifies the sidewalks that are expected to be significantly adversely impacted in one or more peak hours based on the *CTM* criteria shown in **Table 05.13-6**. As shown in **Table 05.13-31**, there would be significant adverse impacts at 6 of the 20 analyzed sidewalks in one or more peak hours. These would include:

- The south sidewalk along W. 27th Drive between 10th Avenue and W. 27th Drive in all analyzed peak hours;
- The west sidewalk along W. 27th Drive between W. 26th Street and W. 27th Drive in the weekday AM, weekday PM, and Saturday peak hours;
- The north sidewalk along W. 25th Street between 8th Avenue and 9th Avenue in the weekday PM peak hour;
- The west sidewalk along 9th Avenue between W. 17th Street and W. 18th Street in the weekday AM and Saturday peak hours;
- The north sidewalk along W. 17th Street between 9th Avenue and 10th Avenue in all analyzed peak hours; and
- The north sidewalk along W. 16th Street between 8th Avenue and 9th Avenue in all analyzed peak hours.

Table 05.13-31: Rezoning Alternative Sidewalk Conditions

Location	Effective Width (ft)	Project Increment				Peak Hour Volumes				Average Pedestrian Space (ft ² /ped)				Platoon-Adjusted Level of Service			
		AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
East sidewalk along 10 Ave btw W 26 St & W 27 St	8.5	134	186	283	303	422	688	891	757	210.4	117.2	97.2	115.8	B	B	B	B
South sidewalk along W 27 Dr btw 10 Ave & W 27 Dr	2.0	620	467	505	627	659	506	555	687	22.1	28.5	20.9	22.2	E *	D *	E *	E *
North sidewalk along W 26 St btw 10 Ave & W 27 Dr	7.0	312	313	296	380	535	374	795	771	139.7	144.3	88.6	85.9	B	B	C	C
East sidewalk along 10 Ave btw W 25 St & W 26 St	4.0	412	394	388	491	758	834	955	951	52.1	48.4	41.1	43.3	C	C	C	C
South sidewalk along W 26 St btw 9 Ave & 10 Ave	4.5	460	377	436	530	720	534	686	689	53.6	68.6	72.8	57.7	C	C	C	C
West sidewalk along W 27 Dr btw W 26 St & W 27 Dr	2.0	620	467	505	627	692	495	529	643	16.5	41.5	29.1	19.6	E *	C	D *	E *
North sidewalk along W 26 St btw 8 Ave & 9 Ave	5.0	205	172	250	280	535	377	667	578	75.1	116.3	75.3	70.5	C	B	C	C
West sidewalk along 9 Ave btw W 25 St & W 26 St	4.5	570	473	468	588	970	730	964	1,063	39.5	55.1	47.1	42.0	D	C	C	C
North sidewalk along W 26 St btw W 27 Dr & 9 Ave	6.5	933	780	801	1,006	1,443	869	1,133	1,445	31.7	59.0	62.9	43.7	D	C	C	C
North sidewalk along W 25 St btw 8 Ave & 9 Ave	5.0	457	328	445	491	1,261	1,085	1,693	1,438	37.8	50.9	31.3	37.2	D	C	D *	D
North sidewalk along W 25 St btw 9 Ave & 10 Ave	6.0	334	176	378	356	975	575	1,095	882	59.4	92.6	63.3	59.3	C	B	C	C
North sidewalk along W 25 St btw 7 Ave & 8 Ave	5.0	269	157	205	235	1,193	830	1,459	1,022	44.1	59.6	35.4	52.3	C	C	D	C
West sidewalk along 9 Ave btw W 18 St & W 19 St	7.0	709	579	707	780	1,061	952	1,307	1,353	58.3	79.1	58.0	59.1	C	C	C	C
North sidewalk along W 19 St btw 9 Ave & 10 Ave	2.0	266	239	202	278	370	369	376	477	50.1	56.8	44.2	33.5	C	C	C	D
West sidewalk along 9 Ave btw W 16 St & W 17 St	4.0	410	306	496	509	685	684	971	1,066	52.1	57.1	43.4	38.9	C	C	C	D
West sidewalk along 9 Ave btw W 17 St & W 18 St	4.0	706	568	717	789	1,045	958	1,273	1,385	31.3	47.0	34.2	30.6	D *	C	D	D *
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.5	729	523	611	732	957	791	979	1,093	14.1	16.3	14.3	12.6	E *	E *	E *	E *
North sidewalk along W 18 St btw 9 Ave & 10 Ave	2.5	322	291	227	315	474	446	457	570	52.1	54.0	54.0	42.0	C	C	C	C
East sidewalk along 9 Ave btw W 16 St & W 17 St	7.5	292	200	268	298	588	636	1,026	752	122.5	124.4	77.8	99.2	B	B	C	B
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	410	244	413	428	819	574	1,092	875	10.4	16.3	7.0	7.5	F *	E *	F *	F *

Note:* denotes a significant adverse impact based on *CTM* criteria.

Crosswalks

Table 05.13-32 shows the incremental change in peak hour pedestrian volumes attributable to the Rezoning Alternative and the total Rezoning Alternative pedestrian volumes, average pedestrian space, and LOS at the analyzed crosswalk. Based on the *CTM* criteria shown in **Table 05.13-7**, there would be significant adverse impacts at two of the 10 analyzed crosswalks in one or more peak hours as result of the Rezoning Alternative. These would include:

- The north crosswalk at 9th Avenue and W. 25th Street in the weekday PM peak hour; and
- The north crosswalk at 8th Avenue and W. 25th Street in the weekday PM peak hour.

Table 05.13-32: Rezoning Alternative Crosswalk Conditions

Intersection	Crosswalk	Project Increment				Peak Hour Volumes				Average Pedestrian Space (ft ² /ped)				Level of Service			
		AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
9 Ave & W 26 St	North	339	285	355	418	654	322	709	745	23.0	61.5	32.5	31.3	D	A	C	C
9 Ave & W 26 St	West	467	363	423	511	886	724	1,105	1,065	31.7	46.1	31.3	29.4	C	B	C	C
9 Ave & W 25 St	North	541	399	501	567	1,203	970	1,507	1,305	22.9	27.2	17.1	22.4	D	C	D *	D
8 Ave & W 25 St	North	252	159	194	225	953	739	1,235	920	19.5	30.0	13.3	21.8	D	C	E *	D
9 Ave & W 19 St	West	348	288	353	398	717	688	916	1,015	50.9	59.8	49.5	40.3	B	B	B	B
9 Ave & W 18 St	West	549	440	584	623	879	779	1,078	1,197	46.7	50.5	41.2	32.9	B	B	B	C
9 Ave & W 17 St	North	221	158	206	234	447	418	523	539	48.1	53.6	37.3	45.1	B	B	C	B
9 Ave & W 17 St	South	276	172	275	294	476	391	582	612	37.9	56.2	36.0	33.6	C	B	C	C
9 Ave & W 17 St	West	552	413	611	643	861	844	1,188	1,313	38.0	40.3	30.1	25.6	C	B	C	C
9 Ave & W 16 St	West	193	139	248	241	507	661	885	1,128	117.3	86.1	71.1	53.1	A	A	A	B

Note:* denotes a significant adverse impact based on *CTM* criteria.**Corner Areas**

Table 05.13-33 shows the total Rezoning Alternative average pedestrian space and LOS at analyzed corner areas. Based on the *CTM* criteria shown in **Table 05.13-7**, all analyzed corner areas are expected to continue to operate at an acceptable LOS C or better in all peak hours. Therefore, there would be no significant adverse impacts to any analyzed corner area in any peak hour as a result of the Rezoning Alternative.

Table 05.13-33: Rezoning Alternative Corner Conditions

Intersection	Corner	Average Pedestrian Space (ft ² /ped)				Level of Service			
		AM	MD	PM	SAT	AM	MD	PM	SAT
10th Ave & W 27th St	SE	300.7	179.0	164.4	194.1	A	A	A	A
10th Ave & W 26th St	NE	149.3	113.9	75.0	87.6	A	A	A	A
10th Ave & W 26th St	SE	75.2	76.2	66.3	61.1	A	A	A	A
10th Ave & W 25th St	NE	68.1	75.8	62.1	81.8	A	A	A	A
9th Ave & W 26th St	NE	36.8	58.7	29.5	36.9	C	B	C	C
9th Ave & W 26th St	SE	65.0	88.4	45.0	57.9	A	A	B	B
9th Ave & W 26th St	SW	58.9	96.7	46.1	51.4	B	A	B	B
9th Ave & W 26th St	NW	29.3	69.1	41.9	39.6	C	A	B	C
9th Ave & W 25th St	NE	71.0	79.2	51.6	59.8	A	A	B	B
9th Ave & W 25th St	NW	43.4	61.7	37.2	41.4	B	A	C	B
8th Ave & W 26th St	NW	168.4	131.2	111.1	131.5	A	A	A	A
8th Ave & W 25th St	NE	53.5	72.7	39.6	52.6	B	A	C	B
8th Ave & W 25th St	NW	73.0	81.6	46.6	73.1	A	A	B	A
9th Ave & W 19th St	SW	74.7	97.7	70.7	68.2	A	A	A	A
9th Ave & W 19th St	NW	87.0	99.0	79.2	70.6	A	A	A	A
9th Ave & W 18th St	SW	79.3	84.0	66.2	60.0	A	A	A	A
9th Ave & W 18th St	NW	67.9	74.2	59.2	53.4	A	A	B	B
9th Ave & W 17th St	NE	93.9	79.4	73.3	81.0	A	A	A	A
9th Ave & W 17th St	SE	120.5	126.8	93.3	90.6	A	A	A	A
9th Ave & W 17th St	SW	56.5	69.7	48.1	41.7	B	A	B	B
9th Ave & W 17th St	NW	53.0	59.5	45.7	39.7	B	B	B	C
9th Ave & W 16th St	NE	166.7	194.0	106.6	130.8	A	A	A	A
9th Ave & W 16th St	SW	196.9	119.2	113.1	91.3	A	A	A	A
9th Ave & W 16th St	NW	159.2	160.4	99.1	94.5	A	A	A	A
8th Ave & W 17th St	SW	31.2	63.0	56.2	77.9	C	A	B	A

Note:* denotes a significant adverse impact based on *CTM* criteria.**Parking**

The 2041 Rezoning Alternative parking condition during the weekday and Saturday overnight periods are summarized in **Table 05.13-34**. Based on **Tables H.1-17 and H.1-18**, the Project Sites would have a peak weekday overnight parking demand of approximately 858 vehicles and a peak Saturday overnight parking demand of approximately 909 vehicles, respectively. The Project Sites are proposed to provide 96 spaces of on-site accessory parking. It is assumed that the existing NYCHA residents, which will become residents of the Section 8 Project-Based Vouchers (PBV) DUs in the future with the Proposed Project, would continue to be the only users allowed to use the on-site accessory parking spaces. Therefore, the parking demand generated by all other uses would have to be accommodated in the surrounding study area during the overnight periods.

As shown in **Table 05.13-34**, under the Rezoning Alternative, the parking demand would total approximately 4,279 spaces (74 percent of capacity) in the weekday overnight period, with a surplus of 1,511 available spaces, and approximately 4,130 spaces (73 percent of capacity) in the Saturday overnight period, with a surplus of 1,538 available spaces. Therefore, the Rezoning Alternative is not expected to result in significant parking shortfalls during the weekday and Saturday overnight periods.

Table 05.13-34: Rezoning Alternative Parking Utilization in the Study Area Summary

Rezoning Alternative Study Area Public Parking	Weekday Overnight	Saturday Overnight
Excess Demand to Public Parking ¹	535	560
No-Action Alternative Demand Total	3,744	3,570
Rezoning Alternative Demand Total	4,279	4,130
No-Action Alternative Capacity Total	5,790	5,668
Net Change in Capacity: ²	0	0
Rezoning Alternative Capacity Total	5,790	5,668
Rezoning Alternative Surplus/(Deficit)	1,511	1,538
Rezoning Alternative Utilization %	74%	73%

Notes:

¹ Demand from new Rezoning Alternative development on the Project Sites not accommodated by accessory parking.

² No parking spaces will be removed due to the Rezoning Alternative.

Alternative 3 – Non-Rezoning Alternative

As shown in **Table H.1-2**, compared to the No-Action Alternative, the Non-Rezoning Alternative would result in a net incremental increase of 1,783 DUs, 21,675 gsf of local retail space, 118,148 gsf of neighborhood center space, 7,400 gsf of supermarket space, 12,046 gsf of medical office space, and 3,206 gsf of daycare space. Similar to the Rezoning Alternative, the Non-Rezoning Alternative would also result in an increase of one parking space. In addition, it is estimated that there would be a net decrease of 851 gsf of UPK space. As such, despite the incremental decrease in children's center space on Block 724, it is assumed that the UPK under the Non-Rezoning Alternative would serve the same population of students as the existing children's center located on Block 724, and thus no incremental change in students, parents, and staff was conservatively assumed (similar to the Rezoning Alternative). It should also be noted that NYCHA would continue to coordinate BPP design with NYCDOT and will submit drawings for NYCDOT review and approval as they are available, including the reconstruction of curb returns at the intersection of 10th Avenue and W. 27th Street.

Travel Demand Forecast

The net incremental change in person and vehicle trips expected to result from the Non-Rezoning Alternative by the 2041 analysis year was derived based on the net change in land uses shown in **Table H.1-2** and the transportation planning factors shown in **Table 05.13-1**. **Table 05.13-35** shows estimates of the net incremental change in peak hour person trips and vehicle trips (versus the No-Action Alternative) that would occur in 2041 with implementation of the Non-Rezoning Alternative. As shown in **Table 05.13-35**, the Non-Rezoning Alternative would generate a net increase of approximately 2,312 person trips in the weekday AM, 1,802 in the weekday midday, 2,516 in the weekday PM, and 2,853 in the Saturday peak hour.

Table 05.13-36 summarizes the number of additional trips that would be generated by the Non-Rezoning Alternative during the weekday AM, midday, PM, and Saturday peak hours by various modes of travel. As shown in **Table 05.13-36**, peak hour vehicle trips (including auto, truck, and taxi trips balanced to reflect that 50 percent of the inbound taxis would not depart empty) would increase by a net total of approximately 236, 182, 227, and 266 (in and out combined) in the weekday AM, midday and PM peak hours, and the Saturday peak hour, respectively. Peak hour subway trips would increase by a net total of approximately 851, 569, 800, and 882 during these

periods, respectively, while transit bus trips would increase by approximately 101, 80, 105, and 118, respectively. Lastly, pedestrian trips would increase by 2,122, 1,652, 2,321, and 2,620 trips during the weekday AM, midday and PM peak hours, and Saturday peak hour, respectively. These totals include walk-only trips and pedestrians en route to and from nearby off-street parking spaces, subway stations, and bus stops.

Since these numbers of peak hour trips would exceed the *CTM* analysis thresholds for vehicular traffic, transit and pedestrians, a Level 2 screening assessment was undertaken to identify specific locations where additional detailed analyses would be warranted.

Table 05.13-35: Travel Demand Forecast – Non-Rezoning Alternative Persons Trips

Land Use:	Residential (Market-Rate and Affordable)		Residential (Project-Based Section 8)		Local Retail		Neighborhood Center		Supermarket		Medical Office		Universal Pre-K Students		Universal Pre-K Staff		Universal Pre-K Parents		Daycare Students		Daycare Staff		Daycare Staff		TOTAL	
Size/Units:	1,783	DU	0	DU	21,675	gsf	118,148	gsf	7,400	gsf	12,046	gsf	0	students	0	staff	0	parents	3,206	gsf	3,206	gsf	3,206	gsf		
Peak Hour Person Trips:																										
AM																										
AM	1,356		0		174		548		76		99		0		0		0		18		5		36		2,312	
MD	816		0		288		452		133		113		N/A		N/A		N/A		0		0		0		1,802	
PM	1,241		0		390		548		201		77		0		0		0		18		5		36		2,516	
Saturday	1,360		0		456		752		211		74		N/A		N/A		N/A		0		0		0		2,853	
Person Trips:																										
AM																										
AM	Auto	20 71	0 0		3 3		12 9		2 1		0 0		0 0		0 0		0 0		3 0		1 0		0 0		41 84	
	Taxi	9 34	0 0		0 0		27 21		0 0		3 1		0 0		0 0		0 0		0 0		0 0		0 0		39 56	
	Subway	156 551	0 0		0 0		37 27		6 6		38 24		0 0		0 0		0 0		1 0		3 0		1 1		242 609	
	Bus	14 49	0 0		0 0		15 12		2 2		3 1		0 0		0 0		0 0		1 0		0 0		1 1		36 65	
	Bike	11 36	0 0		0 0		22 17		1 1		3 1		0 0		0 0		0 0		0 0		0 0		0 0		37 55	
	Walk/Other	89 316	0 0		87 81		198 151		28 27		16 9		0 0		0 0		0 0		13 0		1 0		16 16		448 600	
	Total	299 1,057	0 0		90 84		311 237		39 37		63 36		0 0		0 0		0 0		18 0		5 0		18 18		843 1,469	
MD																										
MD	Auto	28 28	0 0		5 5		9 9		3 3		0 0		N/A N/A		N/A N/A		N/A N/A		N/A N/A		0 0		N/A N/A		45 45	
	Taxi	13 13	0 0		2 2		19 21		1 1		3 3		N/A N/A		N/A N/A		N/A N/A		N/A N/A		0 0		N/A N/A		38 40	
	Subway	212 212	0 0		2 2		26 27		11 10		36 31		N/A N/A		N/A N/A		N/A N/A		N/A N/A		0 0		N/A N/A		287 282	
	Bus	20 20	0 0		2 2		10 12		4 4		3 3		N/A N/A		N/A N/A		N/A N/A		N/A N/A		0 0		N/A N/A		39 41	
	Bike	14 14	0 0		2 2		15 17		2 2		2 2		N/A N/A		N/A N/A		N/A N/A		N/A N/A		0 0		N/A N/A		35 37	
	Walk/Other	120 122	0 0		131 131		138 149		46 46		16 14		N/A N/A		N/A N/A		N/A N/A		N/A N/A		0 0		N/A N/A		451 462	
	Total	407 409	0 0		144 144		217 235		67 66		60 53		N/A N/A		N/A N/A		N/A N/A		N/A N/A		0 0		N/A N/A		895 907	
PM																										
PM	Auto	52 32	0 0		8 8		12 10		4 4		0 0		0 0		0 0		0 0		0 3		0 1		0 0		76 58	
	Taxi	26 15	0 0		2 2		26 23		1 1		1 2		0 0		0 0		0 0		0 0		0 0		0 0		56 43	
	Subway	400 245	0 0		2 2		35 32		16 16		18 28		0 0		0 0		0 0		0 1		0 3		1 1		472 328	
	Bus	36 22	0 0		2 2		13 12		6 6		1 2		0 0		0 0		0 0		0 1		0 0		1 1		59 46	
	Bike	26 16	0 0		2 2		20 19		3 3		1 1		0 0		0 0		0 0		0 0		0 0		0 0		52 41	
	Walk/Other	230 141	0 0		179 179		180 166		70 71		10 13		0 0		0 0		0 0		0 13		0 1		16 16		685 600	
	Total	770 471	0 0		195 195		286 262		100 101		31 46		0 0		0 0		0 0		0 18		0 5		18 18		1,400 1,116	
Saturday																										
Saturday	Auto	50 41	0 0		10 10		13 15		4 4		0 0		N/A N/A		N/A N/A		N/A N/A		N/A N/A		N/A N/A		N/A N/A		77 70	
	Taxi	24 20	0 0		2 2		32 36		1 1		2 1		N/A N/A		N/A N/A		N/A N/A		N/A N/A		N/A N/A		N/A N/A		61 60	
	Subway	389 319	0 0		2 2		44 47		17 17		24 21		N/A N/A		N/A N/A		N/A N/A		N/A N/A		N/A N/A		N/A N/A		476 406	
	Bus	35 28	0 0		2 2		17 19		6 6		2 1		N/A N/A		N/A N/A		N/A N/A		N/A N/A		N/A N/A		N/A N/A		62 56	
	Bike	26 21	0 0		2 2		26 27		3 3		1 1		N/A N/A		N/A N/A		N/A N/A		N/A N/A		N/A N/A		N/A N/A		58 54	
	Walk/Other	223 184	0 0		210 210		228 248		73 76		11 10		N/A N/A		N/A N/A		N/A N/A		N/A N/A		N/A N/A		N/A N/A		745 728	
	Total	747 613	0 0		228 228		360 392		104 107		40 34		N/A N/A		N/A N/A		N/A N/A		N/A N/A		N/A N/A		N/A N/A		1,479 1,374	

Note:

A 50% trip credit applied to local retail trips to account for pass-by trips.

Table 05.13-35 (continued): Travel Demand Forecast – Non-Rezoning Alternative Vehicle Trips

Land Use:	Residential (Market-Rate and Affordable)		Residential (Project-Based Section 8)		Local Retail		Neighborhood Center		Supermarket		Medical Office		Universal Pre-K Students		Universal Pre-K Staff		Universal Pre-K Parents		Daycare Students		Daycare Staff		Daycare Staff		TOTAL	
Size/Units:	1,783 DU		0 DU		21,675 gsf		118,148 gsf		7,400 gsf		12,046 gsf		0 students		0 staff		0 parents		3,206 gsf		3,206 gsf		3,206 gsf			
Peak Hour Person Trips:																										
AM	1,356		0		174		548		76		99		0		0		0		18		5		36		2,312	
MD	816		0		288		452		133		113		N/A		N/A		N/A		0		0		0		1,802	
PM	1,241		0		390		548		201		77		0		0		0		18		5		36		2,516	
Saturday	1,360		0		456		752		211		74		N/A		N/A		N/A		0		0		0		2,853	
Vehicle Trips :																										
AM	Auto (Total)	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
	Taxi	17 62	0 0	0 0	3 3	9 7	1 1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	34 76	
	Taxi Balanced	6 25	0 0	0 0	0 0	19 14	0 0	2 1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	27 40	
	Truck	29 29	0 0	0 0	0 0	25 25	0 0	3 3	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	57 57	
	Total	<u>6</u> <u>6</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>6</u> <u>6</u>	
MD	Auto (Total)	52 97	0 0	0 0	3 3	34 32	1 1	3 3	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	3 3	1 0	0 0	0 0	0 0	0 0	97 139	
	Taxi	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	
	Taxi	24 24	0 0	0 0	5 5	7 7	2 2	0 0	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	0 0	N/A N/A	N/A N/A	N/A N/A	N/A N/A	38 38	
	Taxi Balanced	9 9	0 0	0 0	2 2	13 14	1 1	2 2	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	0 0	N/A N/A	N/A N/A	N/A N/A	N/A N/A	27 28	
	Truck	15 15	0 0	0 0	4 4	22 22	2 2	4 4	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	0 0	N/A N/A	N/A N/A	N/A N/A	N/A N/A	47 47	
PM	Auto (Total)	<u>6</u> <u>6</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>6</u> <u>6</u>		
	Taxi	45 45	0 0	0 0	9 9	29 29	4 4	4 4	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	0 0	N/A N/A	N/A N/A	N/A N/A	N/A N/A	91 91	
	Taxi	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	
	Taxi	46 28	0 0	0 0	7 7	9 7	3 3	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	3 3	0 1	0 0	0 0	0 0	68 49	
	Taxi Balanced	19 11	0 0	0 0	2 2	18 16	1 1	1 1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	41 31	
Saturday	Auto (Total)	21 21	0 0	0 0	4 4	26 26	2 2	2 2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	55 55	
	Taxi	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>		
	Taxi Balanced	67 49	0 0	0 0	11 11	35 33	5 5	2 2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	3 3	0 1	0 0	0 0	0 0	0 0	123 104	
	Auto (Total)	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	
	Taxi	44 35	0 0	0 0	8 8	9 10	3 3	0 0	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	64 56	
Saturday	Taxi	18 14	0 0	0 0	2 2	23 26	1 1	1 1	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	45 44	
	Taxi Balanced	24 24	0 0	0 0	4 4	39 39	2 2	2 2	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	71 71	
	Truck	2 2	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>	2 2		
	Total	70 61	0 0	0 0	12 12	48 49	5 5	2 2	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	137 129	

Notes:

A 50% trip credit applied to local retail trips to account for pass-by trips.

50% of taxis inbound with passengers are assumed to depart with outbound passengers.

Table 05.13-36: Travel Demand Forecast Summary – Non-Rezoning Alternative

Peak Hour	Vehicle Trips			Person Trips														
				Auto			Subway			Bus Only			Walk/Other			Total Pedestrian Trips ¹		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
AM	97	139	236	38	84	122	242	609	851	36	65	101	448	600	1,048	764	1,358	2,122
MD	91	91	182	45	45	90	287	282	569	39	41	80	451	462	913	822	830	1,652
PM	123	104	227	76	55	131	472	328	800	59	46	105	685	600	1,285	1,292	1,029	2,321
Saturday	137	129	266	77	70	147	476	406	882	62	56	118	745	728	1,473	1,360	1,260	2,620
Notes:																		
¹ Includes walk-only trips and pedestrians en route to/from nearby subway stations, bus stops, and parking facilities.																		

Level 2 Screening Assessment

A Level 2 screening assessment involves the assignment of project-generated trips to the study area street network, pedestrian elements, and transit facilities, and the identification of specific locations where the incremental increase in demand may potentially exceed *CTM* analysis thresholds and therefore require a quantitative analysis.

Detailed analyses were warranted for 11 intersections (all signalized), two subway stations (14th Street/8th Avenue [A/C/E/L] and 23rd Street [A/C/E] stations), 41 pedestrian elements (16 sidewalks, 7 crosswalks, and 18 corner areas), and parking conditions. Additional details on the Level 2 screening assessment for the Non-Rezoning Alternative are presented in the *TPF/TDF Technical Memorandum* provided in **Appendix H.1**.

Detailed Traffic Analysis

Non-Rezoning Alternative Traffic Growth

As shown in **Table 05.13-36**, based on the Non-Rezoning Alternative, there would be a net incremental total of approximately 236, 182, 227, and 266 vehicle (auto, taxi, and truck) trips in the weekday AM, midday, and PM peak hours, and Saturday peak hour, respectively. **Figures H.2-5a through H.2-5d** show the total traffic volumes at the 11 analyzed intersections for the weekday AM, midday, and PM peak hours, and Saturday peak hour, respectively, in the 2041 build year. The volumes shown are the combination of the net incremental traffic generated by the Non-Rezoning Alternative (**Figures H.2-6a to H.2-6d**) and the No-Action Alternative (**Figures H.2-2a to H.2-2d**).

Intersection Capacity Analysis

The peak hour v/c ratios, delays, and LOS for lane groups at analyzed intersections under the Non-Rezoning Alternative are shown in **Table 05.13-37**. Of the 11 analyzed intersections, a total of 10 signalized intersections would have at least one congested lane group in one or more peak hour in the Non-Rezoning Alternative, as compared to eight intersections under the No-Action Alternative. Significant adverse impacts were identified in five lane groups at five intersections in the weekday AM peak hour, four lane groups at three intersections in the weekday midday peak hour, six lane groups at six intersections in the weekday PM peak hour, and four lane groups at three intersections in the Saturday peak hour. Potential measures to mitigate the significant adverse traffic impacts identified in **Table 05.13-37** are discussed in **Section F**.

Table 05.13-37: No-Action and Non-Rezoning Alternatives Traffic Levels of Service

Intersection	Approach	Lane Group	No-Action Alternative AM			Non-Rezoning Alternative AM			No-Action Alternative Midday			Non-Rezoning Alternative Midday			No-Action Alternative PM			Non-Rezoning Alternative PM			No-Action Alternative SAT			Non-Rezoning Alternative SAT		
			V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
W.27th St (WB) & 10th Ave (NB)	WB	TR	0.02	19.6	B	0.02	19.6	B	0.04	19.8	B	0.04	19.8	B	0.04	19.7	B	0.04	19.7	B	0.05	19.9	B	0.05	19.9	B
	NB	L	0.79	27.7	C	0.83	28.9	C	0.58	19.4	B	0.60	19.6	B	0.86	33.5	C	0.88	33.2	C	0.74	24.3	C	0.75	24.2	C
	NB	T	0.61	3.8	A	0.63	4.1	A	0.82	5.8	A	0.83	5.9	A	0.68	4.7	A	0.70	4.6	A	0.64	3.5	A	0.65	3.9	A
W.26th St (EB) & 10th Ave (NB)	EB	LT	0.97	65.7	E	1.00	73.0	E *	0.83	43.1	D	0.85	45.1	D	0.80	41.7	D	0.82	43.4	D	0.74	36.7	D	0.77	38.4	D
	NB	TR	0.81	8.1	A	0.86	9.4	A	0.96	12.0	B	0.98	15.5	B	0.88	9.3	A	0.91	11.0	B	0.80	10.0	B	0.85	11.4	B
W.25th St (WB) & 10th Ave (NB)	WB	TR	1.04	62.9	E	1.12	88.7	F *	1.14	101.7	F	1.19	118.7	F *	1.36	198.2	F	1.41	220.0	F *	0.97	60.0	E	1.02	71.8	E *
	NB	LT	0.74	4.5	A	0.77	4.7	A	0.85	3.2	A	0.87	3.3	A	0.78	3.6	A	0.80	3.7	A	0.69	4.5	A	0.71	4.5	A
W.23rd St (E-W) & 10th Ave (NB)	EB	LT	1.44	239.4	F	1.46	246.7	F *	1.47	256.2	F	1.51	275.9	F *	1.14	116.1	F	1.15	118.9	F	1.24	159.4	F	1.31	185.8	F *
	WB	T	1.04	87.1	F	1.04	86.6	F	-	-	-	-	-	-	1.17	148.6	F	1.17	115.1	F	-	-	-	-	-	-
	WB	R	0.87	43.8	D	0.90	47.1	D	-	-	-	-	-	-	1.07	116.0	F	1.11	97.0	F	-	-	-	-	-	-
	WB	TR	-	-	-	-	-	-	1.30	196.7	F	1.33	208.5	F *	-	-	-	-	-	-	1.45	235.3	F	1.50	258.2	F *
	NB	LTR	0.81	5.1	A	0.84	6.2	A	1.01	23.4	C	1.03	27.9	C	0.99	18.8	B	1.01	59.3	E *	0.82	5.5	A	0.85	6.2	A
W.18th St (EB) & 10th Ave (NB)	EB	L	0.17	21.5	C	0.17	21.5	C	0.22	22.2	C	0.22	22.2	C	0.24	22.5	C	0.24	22.5	C	0.20	21.9	C	0.20	22.0	C
	EB	T	0.00	24.7	C	0.44	26.1	C	0.00	25.3	C	0.47	26.5	C	0.00	26.0	C	0.52	27.7	C	0.00	26.9	C	0.56	29.0	C
	NB	TR	0.76	8.8	A	0.82	12.0	B	0.86	11.6	B	0.90	13.9	B	0.85	10.8	B	0.89	13.0	B	0.74	9.6	A	0.79	11.6	B
W.17th St (WB) & 10th Ave (NB)	WB	TR	0.70	27.1	C	0.88	40.2	D	0.88	47.0	D	0.98	60.5	E *	0.96	56.2	E	1.07	83.2	F *	0.88	35.2	D	1.02	61.3	E *
	NB	LT	0.64	21.8	C	0.64	21.9	C	0.71	23.4	C	0.72	23.6	C	0.74	24.2	C	0.75	24.4	C	0.61	21.3	C	0.63	21.5	C
W.26th St (EB) & 9th Ave (SB)	EB	T	1.14	119.7	F	1.21	144.7	F *	0.87	46.7	D	0.91	53.1	D	0.52	24.4	C	0.56	25.1	C	0.58	33.1	C	0.63	34.2	C
	EB	R	0.64	37.4	D	0.77	43.8	D	0.48	27.7	C	0.57	30.6	C	0.38	23.7	C	0.45	24.9	C	0.37	31.3	C	0.49	34.0	C
	SB	L	0.55	21.8	C	0.55	21.6	C	0.44	21.0	C	0.46	21.1	C	0.36	17.4	B	0.39	17.6	B	0.67	24.8	C	0.70	25.7	C
	SB	T	0.80	6.6	A	0.81	6.7	A	0.65	4.0	A	0.66	4.0	A	0.73	4.1	A	0.74	4.2	A	0.68	2.6	A	0.70	2.6	A
W.25th St (WB) & 9th Ave (SB)	WB	LT	0.55	24.6	C	0.58	25.2	C	0.77	33.4	C	0.79	34.7	C	0.72	30.1	C	0.74	31.3	C	0.56	25.1	C	0.58	25.7	C
	SB	TR	1.21	107.7	F	1.25	127.2	F *	1.01	30.7	C	1.06	46.0	D	1.14	76.8	E	1.18	91.5	F *	1.00	26.6	C	1.05	40.8	D
W.23rd St (E-W) & 9th Ave (SB)	EB	T	0.64	23.8	C	0.64	23.9	C	0.65	37.1	D	0.65	37.4	D	0.73	34.4	C	0.73	29.3	C	0.86	27.4	C	0.86	27.1	C
	EB	R	0.38	21.1	C	0.41	21.5	C	0.44	35.2	D	0.46	35.6	D	0.32	31.4	C	0.33	24.5	C	0.23	19.2	B	0.25	19.1	B
	WB	T	0.54	30.6	C	0.55	30.8	C	0.60	32.7	C	0.61	33.1	C	0.61	32.0	C	0.63	32.3	C	0.53	30.9	C	0.55	31.2	C
	SB	L	1.04	112.2	F	1.04	112.2	F	0.68	50.9	D	0.68	50.9	D	0.75	56.5	E	0.75	56.5	E	0.91	78.7	E	0.91	78.7	E
	SB	TR	0.78	20.9	C	0.79	21.6	C	0.63	17.9	B	0.64	18.2	B	0.70	18.4	B	0.71	18.8	B	0.61	17.8	B	0.64	18.3	B
W.18th St (EB) & 9th Ave (SB)	EB	TR	0.72	30.4	C	0.78	35.3	D	0.75	45.4	D	0.81	47.9	D	0.81	48.5	D	0.91	57.2	E *	0.79	29.0	C	0.88	39.0	D
	SB	L	0.49	23.2	C	0.49	22.8	C	0.42	19.3	B	0.42	19.0	B	0.41	19.8	B	0.42	19.6	B	0.41	20.5	C	0.42	20.3	C
	SB	T	0.57	4.2	A	0.59	4.2	A	0.51	2.8	A	0.53	2.8	A	0.54	2.8	A	0.56	2.8	A	0.49	3.4	A	0.51	3.4	A
W.17th St (WB) & 9th Ave (SB)	WB	LT	0.57	32.0	C	0.63	34.6	C	0.83	47.1	D	0.88	54.2	D	0.93	58.8	E	1.00	75.9	E *	0.72	38.9	D	0.80	44.8	D
	SB	TR	0.72	8.3	A	0.78	10.0	B	0.69	8.8	A	0.74	10.4	B	0.69	7.6	A	0.75	9.1	A	0.65	7.8	A	0.72	9.6	A

Notes:

EB - eastbound, WB - westbound, NB - northbound, SB - southbound
 L - left, T - through, R - right, DefL - Analysis considers a defacto left-turn lane on this approach
 V/C ratio - volume-to-capacity ratio
 Sec/veh - seconds per vehicle
 LOS - level of service
 * - Denotes a impacted movement
 Analysis is based on the 2000 Highway Capacity Manual methodology (Synchro 11)

Transit

Subway Stations

As shown in **Table 05.13-36**, the Non-Rezoning Alternative is expected to generate a net total of approximately 851 and 800 new subway trips in the weekday AM and PM peak hours, respectively. Based on proximity to the Project Sites, the highest number of incremental subway trips is expected to occur at the 14th Street/8th Avenue (A/C/E/L) station complex, which would experience approximately 262 incremental trips in the AM peak hour and 251 in the PM peak hour (refer to **Table H.1-10**). The next highest number would occur at the 23rd Street (A/C/E) subway station on the 8th Avenue Line, which would experience approximately 237 incremental trips in the AM peak hour and 210 in the PM peak hour. All other subway stations serving the Project Sites are expected to experience fewer than 200 incremental trips in both the AM and PM peak hours.

AM and PM peak hour conditions at the 14th Street/8th Avenue (A/C/E/L) station complex and the 23rd Street (C/E) station under the Non-Rezoning Alternative are shown in **Table 05.13-38** and **Table 05.13-39** and discussed below.

14th Street/8th Avenue Station (A/C/E/L)

Under the Non-Rezoning Alternative, all analyzed stairs and fare arrays at the 14th Street/8th Avenue station complex are projected to operate at an acceptable LOS C or better in both the AM and PM peak hours, with the exception of three stairs. During the AM peak hour, street stair S5 would operate at LOS D and stairs P2 on the 8th Avenue line and ML1/ML2/P3/P4 on the Canarsie line would operate at LOS F (same as under the No-Action Alternative). During the PM peak hour, stairs P1 and P2 on the 8th Avenue line would operate at LOS D, and stairs ML1/ML2/P3/P4 on the Canarsie line would operate at LOS F (same as under the No-Action Alternative). As the WIT for these stairs would not exceed the impact threshold, these stairs would not be considered significantly adversely impacted based on the impact thresholds shown in **Table 05.13-4**. Therefore, no significant adverse impacts are anticipated to occur at this station as a result of the Non-Rezoning Alternative.

23rd Street Station (C/E)

Under the Non-Rezoning Alternative, all analyzed stairs and fare arrays at the 23rd Street station are expected to operate at an acceptable LOS B or better in both the AM and PM peak hours. Therefore, no significant adverse impacts are anticipated to occur at this station as a result of the Non-Rezoning Alternative.

Table 05.13-38: Non-Rezoning Alternative Subway Station Stair Analysis

Peak Hour	Station	Stair	Total Width (ft.)	Effective Width (ft.)	Project Increment		Peak Hour Volumes		Surging Factor		Friction Factor	V/C Ratio	LOS	WIT	Impact Threshold
					Up	Down	Up	Down	Up	Down					
AM	23rd Street (C/E)	S9/P9	5.00	4.00	51	50	425	341	0.75	1.00	0.90	0.53	B	---	---
		S10	5.00	4.00	20	116	413	407	0.75	1.00	0.90	0.55	B	---	---
		P10	10.00	8.75	20	116	453	425	0.75	1.00	0.90	0.27	A	---	---
	14th Street - 8th Avenue (A/C/E/L)	S5	5.00	4.00	25	69	1,175	411	0.80	1.00	0.90	1.09	D	2.99	8.00
		S7	4.00	3.00	46	122	638	319	0.80	1.00	0.90	0.86	C	---	---
		M7	9.50	8.25	71	191	1,813	730	0.80	1.00	0.90	0.84	C	---	---
		P1 (8 Ave Line)	9.50	8.25	13	0	1,355	675	0.75	0.80	0.90	0.74	C	---	---
		P2 (8 Ave Line)	9.50	8.25	0	5	407	4,577	0.75	0.80	0.90	1.76	F	0.06	2.00
		P7	7.00	6.00	23	22	749	216	0.75	0.80	0.90	0.49	B	---	---
		P8	7.00	6.00	7	55	413	239	0.75	0.80	0.90	0.33	A	---	---
		P9	8.00	5.00	28	14	937	140	0.75	0.80	0.90	0.66	B	---	---
		P10	8.00	5.00	8	85	625	368	0.75	0.80	0.90	0.60	B	---	---
		P1 (Canarsie Line)	7.00	6.00	1	1	886	120	0.75	0.80	0.90	0.51	B	---	---
		P2 (Canarsie Line)	7.00	6.00	4	2	1,792	146	0.75	0.80	0.90	0.99	C	---	---
		ML1/ML2/P3/P4 (Canarsie Line)	6.50	5.50	5	25	2,002	1,631	0.75	0.80	0.90	1.98	F	0.59	2.00
PM	23rd Street (C/E)	S9/P9	5.00	4.00	89	26	484	512	0.75	1.00	0.90	0.67	B	---	---
		S10	5.00	4.00	34	61	306	449	0.75	1.00	0.90	0.50	B	---	---
		P10	10.00	8.75	34	61	319	476	0.75	1.00	0.90	0.24	A	---	---
	14th Street - 8th Avenue (A/C/E/L)	S5	5.00	4.00	44	32	454	666	0.80	1.00	0.90	0.71	C	---	---
		S7	4.00	3.00	105	70	578	536	0.80	1.00	0.90	0.97	C	---	---
		M7	9.50	8.25	149	102	1,033	1,202	0.80	1.00	0.90	0.70	B	---	---
		P1 (8 Ave Line)	9.50	8.25	7	0	2,024	805	0.75	0.80	0.90	1.04	D	0.34	8.00
		P2 (8 Ave Line)	9.50	8.25	0	9	445	2,748	0.75	0.80	0.90	1.13	D	0.30	7.00
		P7	7.00	6.00	33	9	437	460	0.75	0.80	0.90	0.45	A	---	---
		P8	7.00	6.00	9	40	239	774	0.75	0.80	0.90	0.50	B	---	---
		P9	8.00	5.00	76	9	980	366	0.75	0.80	0.90	0.82	C	---	---
		P10	8.00	5.00	19	36	510	707	0.75	0.80	0.90	0.72	C	---	---
		P1 (Canarsie Line)	7.00	6.00	1	2	170	936	0.75	0.80	0.90	0.54	B	---	---
		P2 (Canarsie Line)	7.00	6.00	7	2	736	1,131	0.75	0.80	0.90	0.92	C	---	---
		ML1/ML2/P3/P4 (Canarsie Line)	6.50	5.50	13	11	1,137	3,341	0.75	0.80	0.90	2.40	F	0.33	2.00

Note:* denotes a significant adverse impact based on *CTM* criteria.**Table 05.13-39: Non-Rezoning Alternative Subway Station Fare Array Analysis**

Peak Hour	Station	Fare Array	Control Elements			Project Increment		Peak Hour Volumes		Surging Factor		Friction Factor	V/C Ratio	LOS
			Turnstile	HEET	HXT	System Entries	System Exits	System Entries	System Exits	System Entries	System Exits			
AM	23rd Street (C/E)	N074	0	2	1	116	20	500	536	1.00	0.75	0.90	0.49	B
		N075	0	3	1	50	51	413	558	1.00	0.75	0.90	0.31	A
	14th Street-8th Avenue (A/C/E/L)	N078	6	2	0	191	71	1,032	2,981	1.00	0.75	0.90	0.40	A
PM	23rd Street (C/E)	N074	0	2	1	61	34	537	372	1.00	0.75	0.90	0.47	B
		N075	0	3	1	26	89	645	580	1.00	0.75	0.90	0.42	A
	14th Street-8th Avenue (A/C/E/L)	N078	6	2	0	102	149	2,342	1,630	1.00	0.75	0.90	0.42	A

Note:* denotes a significant adverse impact based on *CTM* criteria.**Pedestrians**

Incremental pedestrian demand generated by the Non-Rezoning Alternative by 2041 would include trips made solely by walking, as well as pedestrian trips en route to and from subway station entrances and bus stops. Pedestrian trips generated by the Non-Rezoning Alternative are

expected to be most concentrated in proximity to the Project Sites and along corridors connecting these sites to area transit services.

As shown in **Table 05.13-36**, the Non-Rezoning Alternative is expected to generate a net incremental total of approximately 1,048 walk-only trips in the weekday AM peak hour, 913 in the midday peak hour, 1,285 in the PM peak hour and 1,473 in the Saturday peak hour. Persons en route to and from subway station entrances and bus stops would add approximately 1,074, 739, 1,036, and 1,147 additional pedestrian trips to Project Sites sidewalks and crosswalks during these same periods, respectively. These pedestrian volumes were added to the projected No-Action Alternative volumes to generate the Non-Rezoning Alternative pedestrian volumes for analysis.

Anticipated conditions at analyzed sidewalks, crosswalks, and corner areas in the future with the Non-Rezoning Alternative are shown in **Tables 05.13-40** through **05.13-42**. As discussed below, in the future with the Non-Rezoning Alternative, six sidewalks out of the 16 analyzed sidewalks would be considered significantly adversely impacted in one or more peak hours as a result of the Non-Rezoning Alternative. Potential measures to mitigate these impacts are discussed in **Section F**.

Sidewalks

Table 05.13-40 shows the incremental change in peak hour pedestrian volumes attributable to the Non-Rezoning Alternative and the total Non-Rezoning Alternative pedestrian volumes, average pedestrian space, and platoon-adjusted LOS at the analyzed sidewalks. In addition, **Table 05.13-40** identifies the sidewalks that are expected to be significantly adversely impacted in one or more peak hours based on the *CTM* criteria shown in **Table 05.13-6**. As shown in **Table 05.13-40**, there would be significant adverse impacts at six of the 16 analyzed sidewalks in one or more peak hours. These would include:

- The south sidewalk along W. 27th Drive between 10th Avenue and W. 27th Drive in the weekday AM, weekday PM, and Saturday peak hours;
- The west sidewalk along W. 27th Drive between W. 26th Street and W. 27th Drive in the weekday AM and Saturday peak hours;
- The south sidewalk along W. 17th Street between 9th Avenue and 10th Avenue in all analyzed peak hours;
- The west sidewalk along 9th Avenue between W. 17th Street and W. 18th Street in the Saturday peak hour;
- The north sidewalk along W. 17th Street between 9th Avenue and 10th Avenue in all analyzed peak hours; and
- The north sidewalk along W. 16th Street between 8th Avenue and 9th Avenue in all analyzed peak hours.

Crosswalks

Table 05.13-41 shows the incremental change in peak hour pedestrian volumes attributable to the Non-Rezoning Alternative and the total Non-Rezoning Alternative pedestrian volumes, average pedestrian space, and LOS at the analyzed crosswalks. Based on the *CTM* criteria shown in **Table**

05.13-7, all analyzed crosswalks are expected to continue to operate at an acceptable LOS C or better in all peak hours. Therefore, there would be no significant adverse impacts to any analyzed crosswalks in any peak hour as a result of the Non-Rezoning Alternative.

Table 05.13-40: Non-Rezoning Sidewalk Conditions

Location	Effective Width (ft)	Project Increment				Peak Hour Volumes				Average Pedestrian Space (ft ² /ped)				Platoon-Adjusted Level of Service			
		AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
South sidewalk along W 27 Dr btw 10 Ave & W 27 Dr	2.0	491	390	399	511	530	429	449	571	28.1	34.0	26.4	27.2	D *	D	D *	D *
East sidewalk along 10 Ave btw W 25 St & W 26 St	4.0	333	291	252	342	679	731	819	802	58.3	55.4	48.1	51.6	C	C	C	C
West sidewalk along W 27 Dr btw W 26 St & W 27 Dr	2.0	491	390	399	511	563	418	423	527	21.0	49.4	36.8	24.5	E *	C	D	D *
North sidewalk along W 26 St btw 8 Ave & 9 Ave	5.0	178	145	167	203	508	350	584	501	79.1	125.3	86.1	81.4	C	B	C	C
West sidewalk along 9 Ave btw W 25 St & W 26 St	4.5	550	459	433	557	950	716	929	1,032	40.3	56.2	48.9	43.3	C	C	C	C
North sidewalk along W 26 St btw W 27 Dr & 9 Ave	6.5	649	532	511	666	1,159	621	843	1,105	39.9	82.9	84.8	57.5	D	C	C	C
North sidewalk along W 25 St btw 8 Ave & 9 Ave	5.0	255	177	239	266	1,059	934	1,487	1,213	45.3	59.3	35.9	44.4	C	C	D	C
North sidewalk along W 25 St btw 9 Ave & 10 Ave	6.0	546	397	454	545	1,187	796	1,171	1,071	48.6	66.7	59.1	48.6	C	C	C	C
West sidewalk along 9 Ave btw W 18 St & W 19 St	7.0	603	577	618	746	955	950	1,218	1,319	64.8	79.3	62.3	60.7	C	C	C	C
South sidewalk along W 19 St btw 9 Ave & 10 Ave	3.0	364	303	288	338	612	552	676	741	43.0	55.6	45.7	44.5	C	C	C	C
North sidewalk along W 19 St btw 9 Ave & 10 Ave	2.0	231	208	171	235	335	338	345	434	55.5	62.1	48.3	37.0	C	C	C	D
West sidewalk along 9 Ave btw W 16 St & W 17 St	4.0	380	330	479	527	655	708	954	1,084	54.6	55.2	44.1	38.2	C	C	C	D
South sidewalk along W 17 St btw 9 Ave & 10 Ave	1.0	327	197	350	378	636	437	744	793	15.2	20.1	11.3	10.9	E *	E *	E *	F *
West sidewalk along 9 Ave btw W 17 St & W 18 St	4.0	658	625	686	786	997	1,015	1,242	1,382	32.9	44.3	35.1	30.7	D	C	D	D *
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.5	504	396	402	505	732	664	770	866	19.5	20.0	19.1	16.9	E *	E *	E *	E *
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	214	135	238	250	623	465	917	697	15.0	20.9	9.4	10.8	E *	E *	F *	F *

Note:

* denotes a significant adverse impact based on *CTM* criteria.

Table 05.13-41: Non-Rezoning Alternative Crosswalk Conditions

Intersection	Crosswalk	Project Increment				Peak Hour Volumes				Average Pedestrian Space (ft ² /ped)				Level of Service			
		AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT
9 Ave & W 26 St	North	303	247	252	320	618	284	606	647	24.6	70.0	38.3	36.4	C	A	C	C
9 Ave & W 26 St	West	355	284	292	370	774	645	974	924	37.4	52.1	36.0	34.5	C	B	C	C
9 Ave & W 19 St	West	279	265	304	365	648	665	867	982	57.0	62.1	52.6	41.9	B	A	B	B
9 Ave & W 18 St	West	403	393	470	545	733	732	964	1,119	56.6	54.0	46.6	35.5	B	B	B	C
9 Ave & W 17 St	South	141	90	162	173	341	309	469	491	54.5	71.7	45.0	42.1	B	A	B	B
9 Ave & W 17 St	West	410	374	487	555	719	805	1,064	1,225	47.5	42.9	34.2	27.9	B	B	C	C
9 Ave & W 16 St	West	144	134	219	231	458	656	856	1,118	130.3	86.8	73.6	53.6	A	A	A	B

Note:

* denotes a significant adverse impact based on *CTM* criteria.

Corner Areas

Table 05.13-42 shows the total Non-Rezoning Alternative average pedestrian space and LOS at analyzed corner areas. Based on the *CTM* criteria shown in **Table 05.13-7**, all analyzed corner areas are expected to continue to operate at an acceptable LOS C or better in all peak hours. Therefore, there would be no significant adverse impacts to any analyzed corner area in any peak hour as a result of the Non-Rezoning Alternative.

Table 05.13-42: Non-Rezoning Alternative Corner Conditions

Intersection	Corner	Average Pedestrian Space (ft ² /ped)				Level of Service			
		AM	MD	PM	SAT	AM	MD	PM	SAT
10th Ave & W 25th St	NE	63.1	67.4	64.1	79.8	A	A	A	A
9th Ave & W 26th St	NE	39.9	65.3	34.9	43.8	C	A	C	B
9th Ave & W 26th St	SE	67.7	93.0	49.7	64.0	A	A	B	A
9th Ave & W 26th St	SW	64.6	102.7	53.1	59.5	A	A	B	B
9th Ave & W 26th St	NW	34.8	79.1	49.9	47.9	C	A	B	B
9th Ave & W 25th St	NE	87.6	103.7	63.9	76.4	A	A	A	A
9th Ave & W 25th St	NW	47.1	63.8	38.3	41.5	B	A	C	B
9th Ave & W 19th St	SW	72.3	80.1	70.7	62.7	A	A	A	A
9th Ave & W 19th St	NW	95.2	101.0	82.7	72.2	A	A	A	A
9th Ave & W 18th St	SW	97.8	90.7	73.5	64.8	A	A	A	A
9th Ave & W 18th St	NW	97.6	97.0	75.5	65.7	A	A	A	A
9th Ave & W 17th St	NE	111.5	87.4	83.2	92.6	A	A	A	A
9th Ave & W 17th St	SE	151.8	145.1	107.6	106.0	A	A	A	A
9th Ave & W 17th St	SW	68.6	72.2	52.8	44.4	A	A	B	B
9th Ave & W 17th St	NW	66.3	64.6	52.9	44.6	A	A	B	B
9th Ave & W 16th St	NE	213.5	225.8	123.7	153.5	A	A	A	A
9th Ave & W 16th St	SW	213.7	120.1	116.2	92.2	A	A	A	A
9th Ave & W 16th St	NW	213.8	179.1	115.0	105.1	A	A	A	A

Note:

* denotes a significant adverse impact based on *CTM* criteria.

Parking

The 2041 Non-Rezoning Alternative parking conditions during the weekday and Saturday overnight periods are summarized in **Table 05.13-43**. Based on **Tables H.1-19 and H.1-20**, the Project Sites would have a peak weekday overnight parking demand of approximately 598 vehicles and a peak Saturday overnight parking demand of approximately 640 vehicles, respectively. The Project Sites are proposed to provide 96 spaces of on-site accessory parking. It is assumed that the existing NYCHA residents, which will become residents of the Section 8 PBV DUs in the future with the Proposed Project, would continue to be the only users allowed to use the on-site accessory parking spaces. Therefore, the parking demand generated by all other uses would have to be accommodated in the surrounding study area during the overnight periods.

As shown in **Table 05.13-43**, under the Non-Rezoning Alternative, the parking demand would total approximately 4,021 spaces (69 percent of capacity) in the weekday overnight period with a surplus of 1,769 available spaces and approximately 3,859 spaces (68 percent of capacity) in the Saturday overnight period with a surplus of 1,809 available spaces. Therefore, the Non-Rezoning

Alternative is not expected to result in significant parking shortfalls during the weekday and Saturday overnight periods.

Table 05.13-43: Non-Rezoning Alternative Parking Utilization in the Study Area Summary

Non-Rezoning Alternative Study Area Public Parking	Weekday Overnight	Saturday Overnight
Excess Demand to Public Parking ¹	277	289
No-Action Alternative Demand Total	3,744	3,570
Non-Rezoning Alternative Demand Total	4,021	3,859
No-Action Alternative Capacity Total	5,790	5,668
Net Change in Capacity: ²	0	0
Non-Rezoning Alternative Capacity Total	5,790	5,668
Non-Rezoning Alternative Surplus/(Deficit)	1,769	1,809
Non-Rezoning Alternative Utilization %	69%	68%

Notes:

¹ Demand from new Non-Rezoning Alternative development on the Project Sites not accommodated by accessory parking.

² No parking spaces will be removed due to the Non-Rezoning Alternative.

Alternative 4 – Midblock Bulk Alternative

As discussed above, the Midblock Bulk Alternative would have the same overall total development program as the Rezoning Alternative and maintain the Rezoning Alternative's proposed pedestrian and parking entrances, but the arrangement of bulk (i.e., the geographic distribution of buildings, building heights and setbacks, and open areas) on the Fulton Houses Project Site would differ between the two alternatives. While both alternatives would result in new high-rise buildings, under the Rezoning Alternative, the tallest buildings would be located along 9th Avenue, while the tallest buildings would be located in midblock areas under the Midblock Bulk Alternative. These two alternatives would have identical arrangement of bulk on the Elliott-Chelsea Houses Project Site. As the Midblock Bulk Alternative would have the same total development program as the Rezoning Alternative, the number of action-generated vehicle, transit, and pedestrian trips and the demand for on-street and off-street parking would be substantially similar to the numbers of trips and the parking demand that would be generated by the Rezoning Alternative.

Traffic

As discussed above, the Rezoning Alternative would result in significant adverse impacts to 11 intersections in one or more analyzed peak hours. As the Midblock Bulk Alternative and the Rezoning Alternative would generate substantially similar amounts of vehicle trips in each peak hour, it is anticipated that the Midblock Bulk Alternative would not result in any new significant adverse traffic impacts compared to the Rezoning Alternative. However, it should be noted that due to the rearrangement of bulk between the Midblock Bulk Alternative and the Rezoning Alternative, and thus the slightly different land use distribution on the five blocks at the Fulton Houses Project Site, there may be a relatively small change in the directional distribution of action-generated trips at some intersections between the two alternatives.

Transit

The Midblock Bulk Alternative is anticipated to generate generally similar amounts of subway and bus trips as the Rezoning Alternative. Therefore, as with the Rezoning Alternative, incremental subway and bus trips under the Midblock Bulk Alternative are not expected to result in significant transit impacts in the analyzed AM and PM peak hours.

Pedestrians

As discussed above, the Rezoning Alternative would result in significant adverse impacts to six sidewalks and two crosswalks in one or more analyzed peak hours. There would be no significant impacts to any corner areas in any peak hour. As the Midblock Bulk Alternative and the Rezoning Alternative would generate substantially similar amounts of pedestrian trips in each peak hour, it is anticipated that the Midblock Bulk Alternative would not result in any new significant adverse pedestrian impacts compared to the Rezoning Alternative.

Parking

The weekday and Saturday parking demand under the Midblock Bulk Alternative is anticipated to generate generally similar amounts of parking demand as the Rezoning Alternative. Therefore, as with the Rezoning Alternative, the Midblock Bulk Alternative is not expected to result in significant adverse parking shortfalls during the weekday and Saturday overnight periods.

F. MITIGATION

Alternative 2 – Rezoning Alternative

Traffic

As discussed above, the Rezoning Alternative would result in significant adverse traffic impacts at 11 study area intersections (all signalized) during one or more analyzed peak hours; specifically, five lane groups at five intersections during the weekday AM peak hour, eight lane groups at seven intersections in the midday peak hour, 10 lane groups at eight intersections in the PM peak hour, and five lane groups at four intersections during the Saturday peak hour.

As demonstrated below, most of these impacts could be mitigated through the implementation of traffic engineering improvements, including modification of existing traffic signal phasing and/or timing. The types of mitigation measures proposed herein are standard measures that are routinely identified by the City and considered feasible for implementation. **Table 05.13-44** summarizes the recommended mitigation measures for each of the intersections with significant adverse traffic impacts during the weekday AM, midday, PM, and Saturday peak hours. While the PACT Partner and NYCHA would be required to coordinate with NYCDOT regarding implementation of the recommended traffic engineering improvements, implementation itself will be subject to final review and approval by NYCDOT. If, prior to implementation, NYCDOT determines that an identified mitigation measure is infeasible, an alternative mitigation measure will be identified, if

possible. In the absence of the implementation of mitigation measures, the impacts would remain unmitigated.

Tables H.2-45 and H.2-46 show the v/c ratios, delays, and LOS for impacted lane groups at each intersection with implementation of the recommended mitigation measures and compares them to No-Action Alternative and Rezoning Alternative for the weekday AM, midday, PM, and Saturday peak hours. According to *CTM* criteria, an impact is considered fully mitigated when the resulting LOS degradation under the Action-with-Mitigation Condition compared with the No-Action Alternative is no longer deemed significant following the impact criteria described above. **Tables H.2-45 and H.2-46** show that significant adverse impacts would be fully mitigated during all analyzed peak hours with the exception of two lane groups at one intersection in the weekday PM period. Consequently, these impacts would constitute unavoidable significant adverse traffic impacts as a result of the Rezoning Alternative (see also **Chapter 07.0**).

Effect of Pedestrian Mitigation on Traffic Conditions

Proposed pedestrian mitigation measures, discussed below, would not affect traffic conditions at any analyzed intersection in any peak hour.

Proposed Schedule for Traffic Mitigation Measures

Subject to the approval of NYCDOT, the mitigation measures summarized in **Table 05.13-44** would be implemented to mitigate the significant adverse traffic impacts resulting from full build-out of the Rezoning Alternative in 2041. As the development under the Rezoning Alternative would be expected to occur over an approximately 16-year period, it is possible that some of the significant adverse traffic impacts could occur prior to full build-out in 2041. The actual implementation of the proposed mitigation measures will be determined by NYCDOT upon field survey of the build conditions.

Table 05.13-44: Rezoning Alternative Proposed Traffic Mitigation Measures

Intersection	Signal Phase	No-Action Alternative Signal Timing (Seconds) (1)				Proposed Signal Timing (Seconds) (1)				Recommended Mitigation
		AM	MD	PM	SAT	AM	MD	PM	SAT	
W.29th St (WB) & 10th Ave (NB)	WB	36	36	36	36	36	36	37	36	- Transfer 1s of green time from NB to WB in PM.
	PED	7	7	7	7	7	7	7	7	
	NBT	30	30	30	30	30	30	30	30	
	NB	17	17	17	17	17	17	16	17	
W.26th St (EB) & 10th Ave (NB)	EB	36	36	36	36	37	36	36	36	- Transfer 1s of green time from NB to EB in AM.
	PED	10	10	10	10	10	10	10	10	
	NB	44	44	44	44	43	44	44	44	
W.25th St (WB) & 10th Ave (NB)	WB	36	36	36	36	39	38	38	39	- Transfer 3s of green time from NB to WB in AM and Saturday. - Transfer 2s of green time from NB to WB in midday and PM.
	PED	10	10	10	10	10	10	10	10	
	NB	44	44	44	44	41	42	42	41	
W.23th St (E-W) & 10th Ave (NB)	EB/WB	30	30	30	30	30	31	30	31	- Transfer 1s of green time from NB to EB/EB-L in AM. - Transfer 1s of green time from NB to EB/WB in midday and Saturday.
	EB/EB-L	11	11	11	11	12	11	11	11	
	PED	7	7	7	7	7	7	7	7	
	NB	42	42	42	42	41	41	42	41	
W.17th St (WB) & 10th Ave (NB)	WB	36	36	36	36	36	38	39	38	- Transfer 2s of green time from NB to WB in midday and Saturday. - Transfer 3s of green time from NB to WB in PM.
	PED	10	10	10	10	10	10	10	10	
	NB	44	44	44	44	44	42	41	42	
W.30th St (EB) & 9th Ave (SB)	EB	30	29	30	29	30	30	30	31	-Transfer 1s of green time from SB to EB in midday. -Transfer 2s of green time from SB to EB in Saturday.
	PED/Bike	8	10	8	10	8	10	8	10	
	SB	45	41	45	41	45	40	45	39	
	Ped	7	10	7	10	7	10	7	10	
W.29th St (WB) & 9th Ave (SB)	WB	38	37	38	37	38	38	39	37	- Transfer 1s of green time from SB to WB in midday and PM.
	PED	7	10	7	10	7	10	7	10	
	SB	45	43	45	43	45	42	44	43	
W.26th St (EB) & 9th Ave (SB)	EB	33	31	33	31	36	32	33	31	- Transfer 3s of green time from SB-T to EB in AM. - Transfer 1s of green time from SB-T/SB-L to EB in midday.
	PED	7	10	7	10	7	10	7	10	
	SB-T	26	25	26	25	23	25	26	25	
	SB-T/SB-L	24	24	24	24	24	23	24	24	
W.25th St (WB) & 9th Ave (SB)	WB	41	40	41	40	39	38	39	38	- Transfer 2s of green time from WB to SB in AM, midday, PM, and Saturday.
	PED	7	10	7	10	7	10	7	10	
	SB-TR	42	40	42	40	44	42	44	42	
W.19th St (WB) & 9th Ave (SB)	WB	33	32	33	32	33	33	34	32	- Transfer 1s of green time from SB to WB in midday and PM.
	PED	7	10	7	10	7	10	7	10	
	SB	50	48	50	48	50	47	49	48	
W.18th St (EB) & 9th Ave (SB)	EB	33	32	33	32	33	32	34	32	- Transfer 1s of green time from SB to EB in PM.
	PED	7	10	7	10	7	10	7	10	
	SBT	26	24	26	24	26	24	25	24	
	SBL/SBT	24	24	24	24	24	24	24	24	
W.17th St (WB) & 9th Ave (SB)	WB	33	32	33	32	33	33	35	32	- Transfer 1s of green time from SB to WB in midday. - Transfer 2s of green time from SB to WB in PM.
	PED	7	10	7	10	7	10	7	10	
	SB	50	48	50	48	50	47	48	48	

Notes :

(1) Signal timings shown indicate green plus yellow (including all red) for each phase.

All proposed signal timing mitigations reflect adjustments to the walk timings except during the AM peak hour for 10th Avenue at W. 23rd Street, which reflect adjustments to the FLDW timings for the EB movement and walk timings for the NB movement.

Table 05.13-45: Rezoning Alternative Action-With-Mitigation Conditions at Impacted Lane Groups (Weekday AM and Midday)

Intersection	Approach	Lane Group	No-Action Alternative AM			Rezoning Alternative AM			Rezoning Alternative Mitigation AM			No-Action Alternative Midday			Rezoning Alternative Midday			Rezoning Alternative Mitigation Midday		
			V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
W.26th St (EB) & 10th Ave (NB)	EB NB	LT TR	0.97	65.7	E	1.01	74.7	E *	0.97	64.7	E	0.83	43.1	D	0.85	45.4	D	0.85	45.4	D
			0.81	8.1	A	0.90	10.4	B	0.92	11.6	B	0.96	12.0	B	1.00	18.8	B	1.00	18.4	B
W.25th St (WB) & 10th Ave (NB)	WB NB	TR LT	1.04	62.9	E	1.17	107.2	F *	1.05	59.8	E	1.14	101.7	F	1.23	135.9	F *	1.14	98.1	F
			0.74	4.5	A	0.79	5.0	A	0.86	7.9	A	0.85	3.2	A	0.89	3.7	A	0.93	7.2	A
W.23rd St (E-W) & 10th Ave (NB)	EB WB WB WB NB	LT T R TR LTR	1.44	239.4	F	1.48	257.3	F *	1.43	232.5	F	1.47	256.2	F	1.55	293.7	F *	1.46	251.0	F
			1.04	87.1	F	1.04	86.3	F	1.04	85.7	F	-	-	-	-	-	-	-	-	-
			0.87	43.8	D	0.91	48.6	D	0.91	48.0	D	-	-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-	-	1.30	196.7	F	1.34	213.6	F *	1.28	189.3	F
			0.81	5.1	A	0.85	6.7	A	0.88	8.6	A	1.01	23.4	C	1.04	30.0	C	1.07	42.3	D
W.17th St (WB) & 10th Ave (NB)	WB NB	TR LT	0.70	27.1	C	0.95	50.2	D	0.95	50.2	D	0.88	47.0	D	1.02	69.1	E *	0.95	51.3	D
			0.64	21.8	C	0.64	21.8	C	0.64	21.8	C	0.71	23.4	C	0.72	23.6	C	0.76	26.1	C
W.30th St (EB) & 9th Ave (SB)	EB SB	T R LT	1.07	65.7	E	1.08	67.6	E	1.08	67.6	E	0.77	58.3	E	0.77	58.6	E	0.74	56.7	E
			0.82	27.1	C	0.89	32.1	C	0.89	32.1	C	0.87	71.1	E	0.95	83.3	F *	0.91	74.6	E
			0.82	26.6	C	0.83	27.1	C	0.83	27.1	C	0.80	28.6	C	0.81	28.9	C	0.83	30.7	C
W.29th St (WB) & 9th Ave (SB)	WB SB	L T TR	0.78	37.6	D	0.80	39.1	D	0.80	39.1	D	0.89	48.9	D	0.91	52.5	D	0.88	46.9	D
			1.17	125.0	F	1.18	127.3	F	1.18	127.3	F	1.32	188.8	F	1.33	190.6	F	1.29	173.5	F
			0.94	22.2	C	0.97	25.6	C	0.97	25.6	C	0.80	14.8	B	0.82	15.8	B	0.84	16.5	B
W.26th St (EB) & 9th Ave (SB)	EB SB SB	T R L T	1.14	119.7	F	1.25	160.2	F *	1.13	109.9	F	0.87	46.7	D	0.96	61.2	E *	0.92	53.5	D
			0.64	37.4	D	0.80	44.9	D	0.70	35.6	D	0.48	27.7	C	0.56	30.1	C	0.54	28.5	C
			0.55	21.8	C	0.57	21.8	C	0.57	19.3	B	0.44	21.0	C	0.47	21.5	C	0.50	22.3	C
			0.80	6.6	A	0.82	6.8	A	0.87	8.6	A	0.65	4.0	A	0.67	4.0	A	0.68	4.1	A
W.25th St (WB) & 9th Ave (SB)	WB SB	LT TR	0.55	24.6	C	0.58	25.3	C	0.62	27.8	C	0.77	33.4	C	0.79	35.0	D	0.84	40.7	D
			1.21	107.7	F	1.28	137.2	F *	1.21	105.4	F	1.01	30.7	C	1.08	53.7	D	1.02	31.3	C
W.19th St (WB) & 9th Ave (SB)	WB SB	LT TR	0.57	31.8	C	0.63	34.0	C	0.63	34.0	C	0.92	59.6	E	0.96	66.4	E *	0.92	58.4	E
			0.67	19.5	B	0.70	20.3	C	0.70	20.3	C	0.60	18.7	B	0.63	19.2	B	0.64	20.1	C
W.18th St (EB) & 9th Ave (SB)	EB SB SB	TR L T	0.72	30.4	C	0.93	51.6	D	0.93	51.6	D	0.75	45.4	D	0.87	54.4	D	0.87	54.3	D
			0.49	23.2	C	0.51	22.8	C	0.51	22.8	C	0.42	19.3	B	0.44	19.1	B	0.44	18.7	B
			0.57	4.2	A	0.59	4.1	A	0.59	4.1	A	0.51	2.8	A	0.53	2.8	A	0.53	2.5	A
W.17th St (WB) & 9th Ave (SB)	WB SB	LT TR	0.57	32.0	C	0.67	36.3	D	0.67	36.3	D	0.83	47.1	D	0.91	58.2	E *	0.87	51.9	D
			0.72	8.3	A	0.82	12.2	B	0.82	12.2	B	0.69	8.8	A	0.77	11.2	B	0.79	11.8	B

Notes:

EB - eastbound, WB - westbound, NB - northbound, SB - southbound

L - left, T - through, R - right, DefL - Analysis considers a defacto left-turn lane on this approach

V/C ratio - volume-to-capacity ratio

Sec/veh - seconds per vehicle

LOS - level of service

* - Denotes a impacted movement

Analysis is based on the 2000 Highway Capacity Manual methodology (Synchro 11)

Table 05.13-46: Rezoning Alternative Action-With-Mitigation Conditions at Impacted Lane Groups (Weekday PM and Saturday)

Intersection	Approach	Lane Group	No-Action Alternative PM			Rezoning Alternative PM			Rezoning Alternative Mitigation PM			No-Action Alternative SAT			Rezoning Alternative SAT			Rezoning Alternative Mitigation SAT		
			V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
W.26th St (EB) & 10th Ave (NB)	EB NB	LT	0.80	41.7	D	0.84	44.8	D	0.84	44.8	D	0.74	36.7	D	0.79	39.7	D	0.79	39.7	D
		TR	0.88	9.3	A	0.93	11.2	B	0.93	11.5	B	0.80	10.0	B	0.87	12.0	B	0.87	12.2	B
W.25th St (WB) & 10th Ave (NB)	WB NB	TR	1.36	198.2	F	1.44	232.6	F *	1.35	189.8	F	0.97	60.0	E	1.08	89.7	F *	0.97	55.0	E
		LT	0.78	3.6	A	0.81	3.8	A	0.85	5.3	A	0.69	4.5	A	0.72	4.6	A	0.78	6.0	A
W.23rd St (E-W) & 10th Ave (NB)	EB WB WB WB NB	LT	1.14	116.1	F	1.16	124.7	F *	1.16	124.7	F *	1.24	159.4	F	1.31	186.9	F *	1.23	151.1	F
		T	1.17	148.6	F	1.17	149.7	F	1.17	116.7	F	-	-	-	-	-	-	-	-	-
		R	1.07	116.0	F	1.10	126.1	F *	1.10	93.0	F	-	-	-	-	-	-	-	-	-
		TR	-	-	-	-	-	-	-	-	-	1.45	235.3	F	1.47	246.3	F *	1.41	220.0	F
		LTR	0.99	18.8	B	1.03	28.2	C	1.03	63.4	E *	0.82	5.5	A	0.86	7.0	A	0.89	9.2	A
W.17th St (WB) & 10th Ave (NB)	WB NB	TR	0.96	56.2	E	1.12	101.6	F *	1.01	60.1	E	0.88	35.2	D	1.08	76.4	E *	1.00	52.1	D
		LT	0.74	24.2	C	0.76	24.6	C	0.82	28.9	C	0.61	21.3	C	0.63	21.6	C	0.67	23.6	C
W.30th St (EB) & 9th Ave (SB)	EB EB SB	T	0.86	38.4	D	0.86	37.3	D	0.86	37.3	D	0.94	24.3	C	0.95	24.5	C	0.87	18.6	B
		R	0.76	37.4	D	0.86	41.0	D	0.86	41.0	D	1.07	61.0	E	1.16	97.6	F *	1.05	50.9	D
		LT	0.76	24.3	C	0.78	24.8	C	0.78	24.8	C	0.86	31.0	C	0.87	31.8	C	0.92	37.9	D
W.29th St (WB) & 9th Ave (SB)	WB WB SB	L	1.18	131.7	F	1.22	146.7	F *	1.18	127.7	F	0.48	25.9	C	0.50	26.4	C	0.50	26.4	C
		T	2.64	777.3	F	2.66	786.1	F *	2.58	749.1	F	1.55	287.4	F	1.56	289.2	F	1.56	289.2	F
		TR	0.84	15.5	B	0.87	17.2	B	0.90	18.8	B	0.91	20.4	C	0.95	22.7	C	0.95	23.4	C
W.26th St (EB) & 9th Ave (SB)	EB EB SB SB	T	0.52	24.4	C	0.60	25.8	C	0.60	25.8	C	0.58	33.1	C	0.67	35.5	D	0.67	35.5	D
		R	0.38	23.7	C	0.44	24.7	C	0.44	24.7	C	0.37	31.3	C	0.47	33.5	C	0.47	33.5	C
		L	0.36	17.4	B	0.41	17.8	B	0.41	17.8	B	0.67	24.8	C	0.73	26.9	C	0.73	27.0	C
		T	0.73	4.1	A	0.75	4.2	A	0.75	4.2	A	0.68	2.6	A	0.70	2.8	A	0.70	2.8	A
W.25th St (WB) & 9th Ave (SB)	WB SB	LT	0.72	30.1	C	0.75	31.7	C	0.80	36.5	D	0.56	25.1	C	0.60	26.1	C	0.64	28.8	C
		TR	1.14	76.8	E	1.19	99.4	F *	1.13	71.1	E	1.00	26.6	C	1.06	46.3	D	1.00	25.9	C
W.19th St (WB) & 9th Ave (SB)	WB SB	LT	0.93	59.5	E	0.99	71.3	E *	0.95	61.9	E	0.72	38.6	D	0.80	44.4	D	0.80	44.4	D
		TR	0.64	18.7	B	0.66	19.2	B	0.68	20.2	C	0.60	19.2	B	0.62	19.7	B	0.62	19.7	B
W.18th St (EB) & 9th Ave (SB)	EB SB SB	TR	0.81	48.5	D	0.93	61.2	E *	0.90	54.6	D	0.79	29.0	C	0.93	44.0	D	0.93	44.0	D
		L	0.41	19.8	B	0.43	19.6	B	0.43	18.8	B	0.41	20.5	C	0.43	20.7	C	0.43	20.7	C
		T	0.54	2.8	A	0.56	2.8	A	0.57	2.9	A	0.49	3.4	A	0.51	3.5	A	0.51	3.5	A
W.17th St (WB) & 9th Ave (SB)	WB SB	LT	0.93	58.8	E	1.03	83.6	F *	0.96	63.6	E	0.72	38.9	D	0.81	45.7	D	0.81	45.7	D
		TR	0.69	7.6	A	0.76	9.4	A	0.79	10.5	B	0.65	7.8	A	0.74	10.4	B	0.74	10.4	B

Notes:
 EB - eastbound, WB - westbound, NB - northbound, SB - southbound
 L - left, T - through, R - right, DefL - Analysis considers a defacto left-turn lane on this approach
 V/C ratio - volume-to-capacity ratio
 Sec/veh - seconds per vehicle
 LOS - level of service
 * - Denotes a impacted movement
 Analysis is based on the 2000 Highway Capacity Manual methodology (Synchro 11)

Pedestrians

As discussed above, the Rezoning Alternative would result in significant adverse pedestrian impacts at six sidewalks and two crosswalks in one or more peak hours. There would be no significant impacts to any corner area in any period under the Rezoning Alternative.

A significant adverse pedestrian impact is considered mitigated if measures implemented return the anticipated conditions to an acceptable level, following the same criteria used in determining impacts. Standard mitigation for projected significant adverse pedestrian impacts can include providing additional signal green time or new signal phases; widening crosswalks; relocating or removing street furniture or other impediments to pedestrian flow; providing curb extensions, neck-downs, or lane reductions to reduce pedestrian crossing distance; and sidewalk widening. Discussed below are potential mitigation measures to address the Rezoning Alternative's significant adverse pedestrian impacts.

Sidewalks

Of the 20 sidewalks analyzed, six are expected to be significantly adversely impacted by incremental demand from the Rezoning Alternative. **Table 05.13-47** shows the recommended mitigation measures to address these impacts and their effectiveness. With implementation of the proposed mitigation measures, the Rezoning Alternative's significant adverse impacts to one sidewalk would be mitigated during the weekday midday and PM peak hours. This would be achieved by relocating a traffic sign located on the western half of the north sidewalk along W. 17th Street between 9th and 10th Avenues. The Rezoning Alternative would result in an unmitigated significant adverse impact at this sidewalk if the proposed mitigation measure is deemed infeasible and no alternate mitigation measure is identified.

Additional practicable mitigation measures have not yet been identified for significant adverse impacts at five, two, four and five sidewalks during the weekday AM, midday, and PM peak hours, and Saturday peak hour, respectively; however, additional mitigation measures will be further explored in consultation with the Lead Agency and NYCDOT between the DEIS and FEIS. If no feasible and practicable measures are identified for these locations, the impacts would remain unmitigated.

In terms of the sidewalk impacts that would potentially occur along W. 27th Drive, it should be noted that this street, as described above, is a private driveway lying partly within NYCHA property and partly within the property of neighboring PS 33. While W. 27th Drive is open to the public, it is not a mapped street. As entrances to the Elliott-Chelsea Houses Project Site are located along the south/west sidewalks of W. 27th Drive, most, if not all, of the incremental project pedestrian trips are conservatively assumed to use these sidewalks, which are approximately five feet wide, not including obstructions. However, these pedestrian trips could alternatively utilize the opposite north/east sidewalks along W. 27th Drive, which provides more ample pedestrian space (up to approximately 15 feet wide, not including obstructions).

Table 05.13-47: Rezoning Alternative Action-With-Mitigation Sidewalk Conditions

Sidewalk	No-Action Alternative			Rezoning Alternative			Rezoning Alternative Action-with-Mitigation			
	Effective Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Mitigation Measures
Weekday AM Peak Hour										
South sidewalk along W 27 Dr btw 10 Ave & W 27 Dr	2.0	395.9	B	2.0	22.1	E *	2.0	22.1	E *	- Unmitigatable.
West sidewalk along W 27 Dr btw W 26 St & W 27 Dr	2.0	174.7	B	2.0	16.5	E *	2.0	16.5	E *	- Unmitigatable.
West sidewalk along 9 Ave btw W 17 St & W 18 St	4.0	99.2	B	4.0	31.3	D *	4.0	31.3	D *	- Unmitigatable.
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.5	66.8	C	1.5	14.1	E *	3.0	31.1	D *	- Relocation of one traffic sign.
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	24.4	D	1.0	10.4	F *	1.0	10.4	F *	- Unmitigatable.
Weekday MD Peak Hour										
South sidewalk along W 27 Dr btw 10 Ave & W 27 Dr	2.0	383.7	B	2.0	28.5	D *	2.0	28.5	D *	- Unmitigatable.
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.5	52.6	C	1.5	16.3	E *	3.0	35.2	D	- Relocation of one traffic sign.
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	30.3	D	1.0	16.3	E *	1.0	16.3	E *	- Unmitigatable.
Weekday PM Peak Hour										
South sidewalk along W 27 Dr btw 10 Ave & W 27 Dr	2.0	247.0	B	2.0	20.9	E *	2.0	20.9	E *	- Unmitigatable.
West sidewalk along W 27 Dr btw W 26 St & W 27 Dr	2.0	663.3	A	2.0	29.1	D *	2.0	29.1	D *	- Unmitigatable.
North sidewalk along W 25 St btw 8 Ave & 9 Ave	5.0	43.1	C	5.0	31.3	D *	5.0	31.3	D *	- Unmitigatable.
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.5	42.4	C	1.5	14.3	E *	3.0	31.5	D	- Relocation of one traffic sign.
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	14.2	E	1.0	7.0	F *	1.0	7.0	F *	- Unmitigatable.
Saturday Peak Hour										
South sidewalk along W 27 Dr btw 10 Ave & W 27 Dr	2.0	269.2	B	2.0	22.2	E *	2.0	22.2	E *	- Unmitigatable.
West sidewalk along W 27 Dr btw W 26 St & W 27 Dr	2.0	846.4	A	2.0	19.6	E *	2.0	19.6	E *	- Unmitigatable.
West sidewalk along 9 Ave btw W 17 St & W 18 St	4.0	72.9	C	4.0	30.6	D *	4.0	30.6	D *	- Unmitigatable.
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.5	43.7	C	1.5	12.6	E *	3.0	28.3	D *	- Relocation of one traffic sign.
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	19.0	E	1.0	7.5	F *	1.0	7.5	F *	- Unmitigatable.

Note:* Denotes a significant adverse impact based on *CTM* criteria.**Crosswalks**

Out of the 10 crosswalks analyzed, two are expected to be significantly adversely impacted by incremental demand from the Rezoning Alternative in the weekday PM peak hour. **Table 05.13-48** shows the recommended mitigation measures to address these impacts and their effectiveness. With implementation of the proposed mitigation measures, the impact would be fully mitigated at one crosswalk. With the implementation of the proposed traffic mitigation measure shown in

Table 05.13-48 and a 2.5-foot widening on the north crosswalk at 9th Avenue and W. 25th Street (to a total of 14.5 feet in width), the Rezoning Alternative's significant adverse impact to this crosswalk would be fully mitigated (at LOS D) based on the *CTM*. Based on NYCDOT's guidance, widening the north crosswalk at 8th Avenue and W. 25th Street is not feasible as there is only approximately eight feet of space on the pedestrian island between the travel lanes and bike lanes. Therefore, significant adverse impacts at one crosswalk would remain unmitigated in the weekday PM peak hour. If, prior to implementation, NYCDOT determines that an identified mitigation measure is infeasible, an alternative mitigation measure will be identified, if possible. In the absence of the implementation of mitigation measures, the impact would remain unmitigated.

Table 05.13-48: Rezoning Alternative Action-With-Mitigation Crosswalk Conditions

Intersection	Crosswalk	No-Action Alternative			Rezoning Alternative			Rezoning Alternative Action-with-Mitigation			
		Width (ft)	Average Pedestrian Space (ft²/ped)	LOS	Width (ft)	Average Pedestrian Space (ft²/ped)	LOS	Width (ft)	Average Pedestrian Space (ft²/ped)	LOS	Mitigation Measures
Weekday PM Peak Hour											
9 Ave & W 25 St	North	12.0	26.2	C	12.0	17.1	D *	14.5	19.5	D	- Widen crosswalk by 2.5 ft.
8 Ave & W 25 St	North	12.0	16.1	D	12.0	13.3	E *	12.0	13.3	E *	- Unmitigated.

Notes:

* Denotes a significant adverse impact based on *CTM* criteria.

Takes into account traffic mitigation measures

Effects of Traffic Mitigation on Pedestrian Conditions

Proposed traffic mitigation measures (discussed previously) would potentially affect pedestrian conditions at a total of eight analyzed crosswalks and 17 analyzed corner areas at seven intersections in one or more peak hours. The recommended traffic mitigation measures at each of these locations would consist of signal timing adjustments of one to three seconds. As shown in **Tables 05.13-49 and 05.13-50**, with implementation of the proposed signal timing adjustments, none of the analyzed crosswalks or corner areas at these seven intersections would be considered newly impacted in any analyzed peak hour based on *CTM* criteria. Sufficient pedestrian crossing time would also continue to be provided at all crosswalks.

Proposed Schedule for Pedestrian Mitigation Measures

Subject to NYCDOT approval, the pedestrian mitigation measures described above would be implemented to mitigate the significant adverse sidewalk and crosswalks impacts resulting from full build-out of the Rezoning Alternative in 2041. As the development under the Rezoning Alternative would be expected to occur over an approximately 16-year period, it is possible that the sidewalk and crosswalk impacts could occur prior to full build-out in 2041.

Table 05.13-49: Rezoning Alternative Action-With-Traffic Mitigation Crosswalk Conditions

Intersection	Crosswalk	Rezoning Alternative								Rezoning Alternative Action-with-Mitigation								Proposed Traffic Mitigation
		Average Pedestrian Space (ft ² /ped)				Level of Service				Average Pedestrian Space (ft ² /ped)				Level of Service				
		AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	
9th Ave & W 26th St	North	23.0	61.5	32.5	31.3	D	A	C	C	26.5	64.5	32.5	31.3	C	A	C	C	- Transfer 3s of green time from SB-T to EB in AM.
	West	31.7	46.1	31.3	29.4	C	B	C	C	28.7	44.6	31.3	29.4	C	B	C	C	- Transfer 1s of green time from SB-T/SB-L to EB in midday.
9th Ave & W 25th St	North	22.9	27.2	17.1	22.4	D	C	D *	D	26.1	31.0	19.5	25.6	C	C	D	C	- Transfer 2s of green time from SB to WB in AM, midday, PM, and Saturday.
9th Ave & W 19th St	West	50.9	59.8	49.5	40.3	B	B	B	B	50.9	57.9	48.0	40.3	B	B	B	B	- Transfer 1s of green time from SB to WB in midday and PM.
9th Ave & W 18th St	West	46.7	50.5	41.2	32.9	B	B	B	C	46.7	50.5	40.1	32.9	B	B	B	C	- Transfer 1s of green time from SB to EB in PM.
9th Ave & W 17th St	North	48.1	53.6	37.3	45.1	B	B	C	B	48.1	56.1	41.1	45.1	B	B	B	B	- Transfer 1s of green time from SB to WB in midday.
	South	37.9	56.2	36.0	33.6	C	B	C	C	37.9	58.9	39.9	33.6	C	B	C	C	- Transfer 2s of green time from SB to WB in PM.
	West	38.0	40.3	30.1	25.6	C	B	C	C	38.0	39.1	28.3	25.6	C	C	C	C	

Note:* Denotes a significant adverse impact based on *CTM* criteria.

Table 05.13-50: Rezoning Alternative Action-With-Traffic Mitigation Corner Conditions

Intersection	Corner	Rezoning Alternative								Rezoning Alternative Action-with-Mitigation								Proposed Traffic Mitigation
		Average Pedestrian Space (ft ² /ped)				Level of Service				Average Pedestrian Space (ft ² /ped)				Level of Service				
		AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	
10th Ave & W 26th St	NE	149.3	113.9	75.0	87.6	A	A	A	A	149.4	113.9	75.0	87.6	A	A	A	A	- Transfer 1s of green time from NB to EB in AM.
	SE	75.2	76.2	66.3	61.1	A	A	A	A	75.2	76.2	66.3	61.1	A	A	A	A	
10th Ave & W 25th St	NE	68.1	75.8	62.1	81.8	A	A	A	A	68.5	75.7	62.0	81.8	A	A	A	A	- Transfer 3s of green time from NB to WB in AM and Saturday. - Transfer 2s of green time from NB to WB in midday and PM.
9th Ave & W 26th St	NE	36.8	58.7	29.5	36.9	C	B	C	C	37.1	58.9	29.5	36.9	C	B	C	C	- Transfer 3s of green time from SB-T to EB in AM. - Transfer 1s of green time from SB-T/SB-L to EB in midday.
	SE	65.0	88.4	45.0	57.9	A	A	B	B	65.2	88.5	45.0	57.9	A	A	B	B	
	SW	58.9	96.7	46.1	51.4	B	A	B	B	58.9	96.6	46.1	51.4	B	A	B	B	
	NW	29.3	69.1	41.9	39.6	C	A	B	C	29.4	69.0	41.9	39.6	C	A	B	C	
9th Ave & W 25th St	NE	71.0	79.2	51.6	59.8	A	A	B	B	70.6	78.7	51.4	59.5	A	A	B	B	- Transfer 2s of green time from SB to WB in AM, midday, PM, and Saturday.
	NW	43.4	61.7	37.2	41.4	B	A	C	B	42.6	61.4	36.7	41.2	B	A	C	B	
9th Ave & W 19th St	SW	74.7	97.7	70.7	68.2	A	A	A	A	74.7	97.6	70.6	68.2	A	A	A	A	- Transfer 1s of green time from SB to WB in midday and PM.
	NW	87.0	99.0	79.2	70.6	A	A	A	A	87.0	98.8	79.0	70.6	A	A	A	A	
9th Ave & W 18th St	SW	79.3	84.0	66.2	60.0	A	A	A	A	79.3	84.0	66.1	60.0	A	A	A	A	- Transfer 1s of green time from SB to EB in PM.
	NW	67.9	74.2	59.2	53.4	A	A	B	B	67.9	74.2	59.0	53.4	A	A	B	B	
9th Ave & W 17th St	NE	93.9	79.4	73.3	81.0	A	A	A	A	93.9	79.4	73.4	81.0	A	A	A	A	- Transfer 1s of green time from SB to WB in midday. - Transfer 2s of green time from SB to WB in PM.
	SE	120.5	126.8	93.3	90.6	A	A	A	A	120.5	126.7	93.3	90.6	A	A	A	A	
	SW	56.5	69.7	48.1	41.7	B	A	B	B	56.5	69.7	48.0	41.7	B	A	B	B	
	NW	53.0	59.5	45.7	39.7	B	B	B	C	53.0	59.4	45.6	39.7	B	B	B	C	

Note:* Denotes a significant adverse impact based on *CTM* criteria.**Alternative 3 – Non-Rezoning Alternative****Traffic**

As discussed above, the Non-Rezoning Alternative would result in significant adverse traffic impacts at eight study area intersections (all signalized) during one or more analyzed peak hours; specifically five lane groups at five intersections during the weekday AM peak hour, four lane groups at three intersections in the midday peak hour, six lane groups at six intersections in the PM peak hour, and four lane groups at three intersections during the Saturday peak hour.

As demonstrated below, most of these impacts could be mitigated through the implementation of traffic engineering improvements, including modification of existing traffic signal phasing and/or timing. The types of mitigation measures proposed herein are standard measures that are routinely identified by the City and considered feasible for implementation. **Table 05.13-51** summarizes the recommended mitigation measures for each of the intersections with significant adverse traffic impacts during the weekday AM, midday, PM, and Saturday peak hours. While the PACT Partner would be required to coordinate with NYCDOT regarding implementation of the recommended traffic engineering improvements, implementation itself will be subject to final review and approval by NYCDOT. If, prior to implementation, NYCDOT determines that an identified mitigation measure is infeasible, an alternative mitigation measure will be identified, if possible.

In the absence of the implementation of mitigation measures, the impacts would remain unmitigated.

Tables H.2-52 and H.2-53 show the v/c ratios, delays, and LOS for impacted lane groups at each intersection with implementation of the recommended mitigation measures and compares them to No-Action Alternative and Non-Rezoning Alternative for the weekday AM, midday, PM, and Saturday peak hours, respectively. According to *CTM* criteria, an impact is considered fully mitigated when the resulting LOS degradation under the Action-with-Mitigation Condition compared with the No-Action Alternative is no longer deemed significant following the impact criteria described above. **Tables 05.13-52 and 05.13-53** show that significant adverse impacts would be fully mitigated during all analyzed peak hours with the exception of one lane group at one intersection in the weekday PM period. Consequently, these impacts would constitute unavoidable significant adverse traffic impacts as a result of the Non-Rezoning Alternative (see also **Chapter 07.0**).

Table 05.13-51: Non-Rezoning Alternative Proposed Traffic Mitigation Measures

Intersection	Signal Phase	No-Action Alternative Signal Timing (Seconds) (1)				Proposed Signal Timing (Seconds) (1)				Recommended Mitigation
		AM	MD	PM	SAT	AM	MD	PM	SAT	
W.26th St (EB) & 10th Ave (NB)	EB	36	36	36	36	37	36	36	36	- Transfer 1s of green time from NB to EB in AM.
	PED	10	10	10	10	10	10	10	10	
	NB	44	44	44	44	43	44	44	44	
W.25th St (WB) & 10th Ave (NB)	WB	36	36	36	36	38	37	37	37	- Transfer 2s of green time from NB to WB in AM. - Transfer 1s of green time from NB to WB in midday, PM and Saturday.
	PED	10	10	10	10	10	10	10	10	
	NB	44	44	44	44	42	43	43	43	
W.23th St (E-W) & 10th Ave (NB)	EB/WB	30	30	30	30	31	31	30	31	- Transfer 1s of green time from NB to EB/WB in AM, midday and Saturday.
	EB/EB-L	11	11	11	11	11	11	11	11	
	PED	7	7	7	7	7	7	7	7	
	NB	42	42	42	42	41	41	42	41	
W.17th St (WB) & 10th Ave (NB)	WB	36	36	36	36	36	37	38	37	- Transfer 1s of green time from NB to WB in midday and Saturday. - Transfer 2s of green time from NB to WB in PM.
	NB	44	44	44	44	44	43	42	43	
W.26th St (EB) & 9th Ave (SB)	EB	33	31	33	31	35	31	33	31	- Transfer 2s of green time from SB-T to EB in AM.
	PED	7	10	7	10	7	10	7	10	
	SB-T	26	25	26	25	24	25	26	25	
	SB-T/SB-L	24	24	24	24	24	24	24	24	
W.25th St (WB) & 9th Ave (SB)	WB	41	40	41	40	40	38	40	38	- Transfer 1s of green time from WB to SB in AM and PM. - Transfer 2s of green time from WB to SB in midday and Saturday.
	PED	7	10	7	10	7	10	7	10	
	SB-TR	42	40	42	40	43	42	43	42	
W.18th St (EB) & 9th Ave (SB)	EB	33	32	33	32	33	32	34	32	- Transfer 1s of green time from SB to EB in PM.
	PED	7	10	7	10	7	10	7	10	
	SBT	26	24	26	24	26	24	25	24	
	SBL/SBT	24	24	24	24	24	24	24	24	
W.17th St (WB) & 9th Ave (SB)	WB	33	32	33	32	33	32	35	32	- Transfer 2s of green time from SB to WB in PM.
	PED	7	10	7	10	7	10	7	10	
	SB	50	48	50	48	50	48	48	48	

Notes :

(1) Signal timings shown indicate green plus yellow (including all red) for each phase.

All proposed signal timing mitigations reflect adjustments to the walk timings except during the AM peak hour for 10th Avenue at W. 23rd Street, which reflect adjustments to the FLDW timings for the EB movement and walk timings for the NB movement.

Table 05.13-52: Non-Rezoning Alternative Action-With-Mitigation Conditions at Impacted Lane Groups (Weekday AM and Midday)

Intersection	Approach	Lane Group	No-Action Alternative AM			Non-Rezoning Alternative AM			Non-Rezoning Alternative Mitigation AM			No-Action Alternative Midday			Non-Rezoning Alternative Mitigation Midday		
			V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
			Ratio	(sec/veh)		Ratio	(sec/veh)		Ratio	(sec/veh)		Ratio	(sec/veh)		Ratio	(sec/veh)	
W.27th St (WB) & 10th Ave (NB)	WB	TR	0.02	19.6	B	0.02	19.6	B	0.02	19.6	B	0.04	19.8	B	0.04	19.8	B
	NB	L	0.79	27.7	C	0.83	28.9	C	0.83	27.6	C	0.58	19.4	B	0.60	19.6	B
	NB	T	0.61	3.8	A	0.63	4.1	A	0.63	3.7	A	0.82	5.8	A	0.83	5.9	A
W.26th St (EB) & 10th Ave (NB)	EB	LT	0.97	65.7	E	1.00	73.0	E *	0.97	63.7	E	0.83	43.1	D	0.85	45.1	D
	NB	TR	0.81	8.1	A	0.86	9.4	A	0.89	10.1	B	0.96	12.0	B	0.98	15.5	B
W.25th St (WB) & 10th Ave (NB)	WB	TR	1.04	62.9	E	1.12	88.7	F *	1.04	58.7	E	1.14	101.7	F	1.19	118.7	F *
	NB	LT	0.74	4.5	A	0.77	4.7	A	0.81	6.1	A	0.85	3.2	A	0.87	3.3	A
W.23rd St (E-W) & 10th Ave (NB)	EB	LT	1.44	239.4	F	1.46	246.7	F *	1.41	225.4	F	1.47	256.2	F	1.51	275.9	F *
	WB	T	1.04	87.1	F	1.04	86.6	F	1.00	74.3	E	-	-	-	-	-	-
	WB	R	0.87	43.8	D	0.90	47.1	D	0.86	39.9	D	-	-	-	-	-	-
	WB	TR	-	-	-	-	-	-	-	-	-	1.30	196.7	F	1.33	208.5	F *
	NB	LTR	0.81	5.1	A	0.84	6.2	A	0.86	8.1	A	1.01	23.4	C	1.03	27.9	C
W.18th St (EB) & 10th Ave (NB)	EB	L	0.17	21.5	C	0.17	21.5	C	0.17	21.5	C	0.22	22.2	C	0.22	22.2	C
	EB	T	0.00	24.7	C	0.44	26.1	C	0.44	26.1	C	0.00	25.3	C	0.47	26.5	C
	NB	TR	0.76	8.8	A	0.82	12.0	B	0.82	12.0	B	0.86	11.6	B	0.90	13.9	B
W.17th St (WB) & 10th Ave (NB)	WB	TR	0.70	27.1	C	0.88	40.2	D	0.88	40.2	D	0.88	47.0	D	0.98	60.5	E *
	NB	LT	0.64	21.8	C	0.64	21.9	C	0.64	21.9	C	0.71	23.4	C	0.72	23.6	C
W.26th St (EB) & 9th Ave (SB)	EB	T	1.14	119.7	F	1.21	144.7	F *	1.13	112.2	F	0.87	46.7	D	0.91	53.1	D
	EB	R	0.64	37.4	D	0.77	43.8	D	0.72	38.1	D	0.48	27.7	C	0.57	30.6	C
	SB	L	0.55	21.8	C	0.55	21.6	C	0.55	19.9	B	0.44	21.0	C	0.46	21.1	C
	SB	T	0.80	6.6	A	0.81	6.7	A	0.85	7.7	A	0.65	4.0	A	0.66	4.0	A
W.25th St (WB) & 9th Ave (SB)	WB	LT	0.55	24.6	C	0.58	25.2	C	0.59	26.5	C	0.77	33.4	C	0.79	34.7	C
	SB	TR	1.21	107.7	F	1.25	127.2	F *	1.22	110.9	F	1.01	30.7	C	1.06	46.0	D
W.23rd St (E-W) & 9th Ave (SB)	EB	T	0.64	23.8	C	0.64	23.9	C	0.64	24.3	C	0.65	37.1	D	0.65	37.4	D
	EB	R	0.38	21.1	C	0.41	21.5	C	0.41	21.8	C	0.44	35.2	D	0.46	35.6	D
	WB	T	0.54	30.6	C	0.55	30.8	C	0.55	30.8	C	0.60	32.7	C	0.61	33.1	C
	SB	L	1.04	112.2	F	1.04	112.2	F	1.04	112.2	F	0.68	50.9	D	0.68	50.9	D
	SB	TR	0.78	20.9	C	0.79	21.6	C	0.79	21.6	C	0.63	17.9	B	0.64	18.2	B
W.18th St (EB) & 9th Ave (SB)	EB	TR	0.72	30.4	C	0.78	35.3	D	0.78	35.3	D	0.75	45.4	D	0.81	47.9	D
	SB	L	0.49	23.2	C	0.49	22.8	C	0.49	22.8	C	0.42	19.3	B	0.42	19.0	B
	SB	T	0.57	4.2	A	0.59	4.2	A	0.59	4.2	A	0.51	2.8	A	0.53	2.8	A
W.17th St (WB) & 9th Ave (SB)	WB	LT	0.57	32.0	C	0.63	34.6	C	0.63	34.6	C	0.83	47.1	D	0.88	54.2	D
	SB	TR	0.72	8.3	A	0.78	10.0	B	0.78	10.0	B	0.69	8.8	A	0.74	10.4	B

Notes:

EB - eastbound, WB - westbound, NB - northbound, SB - southbound

L - left, T - through, R - right, DefL - Analysis considers a defacto left-turn lane on this approach

V/C ratio - volume-to-capacity ratio

Sec/veh - seconds per vehicle

LOS - level of service

* - Denotes a impacted movement

Analysis is based on the 2000 Highway Capacity Manual methodology (Synchro 11)

Table 05.13-53: Non-Rezoning Alternative Action-With-Mitigation Conditions at Impacted Lane Groups (Weekday PM and Saturday)

Intersection	Approach	Lane Group	No-Action Alternative PM			Non-Rezoning Alternative PM			Non-Rezoning Alternative Mitigation PM			No-Action Alternative SAT			Non-Rezoning Alternative SAT			Non-Rezoning Alternative Mitigation SAT		
			V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
W.27th St (WB) & 10th Ave (NB)	WB	TR	0.04	19.7	B	0.04	19.7	B	0.04	19.7	B	0.05	19.9	B	0.05	19.9	B	0.05	19.9	B
	NB	L	0.86	33.5	C	0.88	33.2	C	0.88	34.5	C	0.74	24.3	C	0.75	24.2	C	0.75	24.1	C
	NB	T	0.68	4.7	A	0.70	4.6	A	0.70	5.4	A	0.64	3.5	A	0.65	3.9	A	0.65	3.8	A
W.26th St (EB) & 10th Ave (NB)	EB	LT	0.80	41.7	D	0.82	43.4	D	0.82	43.4	D	0.74	36.7	D	0.77	38.4	D	0.77	38.4	D
	NB	TR	0.88	9.3	A	0.91	11.0	B	0.91	31.4	C	0.80	10.0	B	0.85	11.4	B	0.85	11.5	B
W.25th St (WB) & 10th Ave (NB)	WB	TR	1.36	198.2	F	1.41	220.0	F *	1.34	194.8	F	0.97	60.0	E	1.02	71.8	E *	0.99	60.4	E
	NB	LT	0.78	3.6	A	0.80	3.7	A	0.83	27.7	C	0.69	4.5	A	0.71	4.5	A	0.73	4.8	A
W.23rd St (E-W) & 10th Ave (NB)	EB	LT	1.14	116.1	F	1.15	118.9	F	1.15	118.9	F	1.24	159.4	F	1.31	185.8	F *	1.22	151.0	F
	WB	T	1.17	148.6	F	1.17	115.1	F	1.17	115.1	F	-	-	-	-	-	-	-	-	-
	WB	R	1.07	116.0	F	1.11	97.0	F	1.11	97.0	F	-	-	-	-	-	-	-	-	-
	WB	TR	-	-	-	-	-	-	-	-	-	1.45	235.3	F	1.50	258.2	F *	1.44	231.2	F
	NB	LTR	0.99	18.8	B	1.01	59.3	E *	1.01	59.3	E *	0.82	5.5	A	0.85	6.2	A	0.87	8.3	A
W.18th St (EB) & 10th Ave (NB)	EB	L	0.24	22.5	C	0.24	22.5	C	0.24	22.5	C	0.20	21.9	C	0.20	22.0	C	0.20	22.0	C
	EB	T	0.00	26.0	C	0.52	27.7	C	0.52	27.7	C	0.00	26.9	C	0.56	29.0	C	0.56	29.0	C
	NB	TR	0.85	10.8	B	0.89	13.0	B	0.89	13.1	B	0.74	9.6	A	0.79	11.6	B	0.79	11.7	B
W.17th St (WB) & 10th Ave (NB)	WB	TR	0.96	56.2	E	1.07	83.2	F *	1.00	58.4	E	0.88	35.2	D	1.02	61.3	E *	0.99	50.2	D
	NB	LT	0.74	24.2	C	0.75	24.4	C	0.79	27.1	C	0.61	21.3	C	0.63	21.5	C	0.64	22.5	C
W.26th St (EB) & 9th Ave (SB)	EB	T	0.52	24.4	C	0.56	25.1	C	0.56	25.1	C	0.58	33.1	C	0.63	34.2	C	0.63	34.2	C
	EB	R	0.38	23.7	C	0.45	24.9	C	0.45	25.0	C	0.37	31.3	C	0.49	34.0	C	0.49	34.0	C
	SB	L	0.36	17.4	B	0.39	17.6	B	0.39	17.6	B	0.67	24.8	C	0.70	25.7	C	0.70	25.7	C
	SB	T	0.73	4.1	A	0.74	4.2	A	0.74	4.2	A	0.68	2.6	A	0.70	2.6	A	0.70	2.6	A
W.25th St (WB) & 9th Ave (SB)	WB	LT	0.72	30.1	C	0.74	31.3	C	0.77	33.4	C	0.56	25.1	C	0.58	25.7	C	0.62	28.3	C
	SB	TR	1.14	76.8	E	1.18	91.5	F *	1.14	77.4	E	1.00	26.6	C	1.05	40.8	D	0.99	22.7	C
W.23rd St (E-W) & 9th Ave (SB)	EB	T	0.73	34.4	C	0.73	29.3	C	0.73	29.3	C	0.86	27.4	C	0.86	27.1	C	0.86	27.8	C
	EB	R	0.32	31.4	C	0.33	24.5	C	0.33	24.5	C	0.23	19.2	B	0.25	19.1	B	0.25	19.8	B
	WB	T	0.61	32.0	C	0.63	32.3	C	0.63	32.3	C	0.53	30.9	C	0.55	31.2	C	0.55	31.2	C
	SB	L	0.75	56.5	E	0.75	56.5	E	0.75	56.5	E	0.91	78.7	E	0.91	78.7	E	0.91	78.7	E
	SB	TR	0.70	18.4	B	0.71	18.8	B	0.71	18.8	B	0.61	17.8	B	0.64	18.3	B	0.64	18.3	B
W.18th St (EB) & 9th Ave (SB)	EB	TR	0.81	48.5	D	0.91	57.2	E *	0.87	51.6	D	0.79	29.0	C	0.88	39.0	D	0.88	39.0	D
	SB	L	0.41	19.8	B	0.42	19.6	B	0.42	18.8	B	0.41	20.5	C	0.42	20.3	C	0.42	20.3	C
	SB	T	0.54	2.8	A	0.56	2.8	A	0.57	2.9	A	0.49	3.4	A	0.51	3.4	A	0.51	3.4	A
W.17th St (WB) & 9th Ave (SB)	WB	LT	0.93	58.8	E	1.00	75.9	E *	0.93	58.2	E	0.72	38.9	D	0.80	44.8	D	0.80	44.8	D
	SB	TR	0.69	7.6	A	0.75	9.1	A	0.78	10.2	B	0.65	7.8	A	0.72	9.6	A	0.72	9.6	A
Notes: EB - eastbound, WB - westbound, NB - northbound, SB - southbound L - left, T - through, R - right, DefL - Analysis considers a defacto left-turn lane on this approach V/C ratio - volume-to-capacity ratio Sec/veh - seconds per vehicle LOS - level of service * - Denotes a impacted movement Analysis is based on the 2000 Highway Capacity Manual methodology (Synchro 11)																				

Effect of Pedestrian Mitigation on Traffic Conditions

Proposed pedestrian mitigation measures, discussed below, would not affect traffic conditions at any analyzed intersection in any peak hour.

Proposed Schedule for Traffic Mitigation Measures

Subject to the approval of NYCDOT, the mitigation measures summarized in **Table 05.13-8** would be implemented to mitigate the significant adverse traffic impacts resulting from full build-out of the Non-Rezoning Alternative in 2041. As the development under the Non-Rezoning Alternative would be expected to occur over an approximately 16-year period, it is possible that some of the significant adverse traffic impacts could occur prior to full build-out in 2041. The actual implementation of the proposed mitigation measures will be determined by NYCDOT upon field survey of the build conditions.

Pedestrians

As discussed above, the Non-Rezoning Alternative would result in significant adverse pedestrian impacts at six sidewalks in one or more peak hours. There would be no significant impacts to any corner area or crosswalk in any period under the Non-Rezoning Alternative.

A significant adverse pedestrian impact is considered mitigated if measures implemented return the anticipated conditions to an acceptable level, following the same criteria used in determining impacts. Standard mitigation for projected significant adverse pedestrian impacts can include relocating or removing street furniture or other impediments to pedestrian flow and sidewalk widening. Discussed below are potential mitigation measures to address the Non-Rezoning Alternative's significant adverse pedestrian impacts.

Sidewalks

Of the 16 sidewalks analyzed, six are expected to be significantly adversely impacted by incremental demand from the Non-Rezoning Alternative. **Table 05.13-54** shows the recommended mitigation measures to address these impacts and their effectiveness. With implementation of the proposed mitigation measures, the Non-Rezoning Alternative's significant adverse impacts to one sidewalk would be mitigated during all analyzed peak hours. This would be achieved by relocating a traffic sign located on the western half of the north sidewalk along W. 17th Street between 9th and 10th Avenues. The Non-Rezoning Alternative would result in an unmitigated significant adverse impact at this sidewalk if the proposed mitigation measures are deemed infeasible and no alternate mitigation measure is identified.

Additional practicable mitigation measures have not yet been identified for significant adverse impacts at four, two, three and five sidewalks during the weekday AM, midday and PM, and Saturday peak hours, respectively; however, additional mitigation measures will be further explored in consultation with the Lead Agency and NYCDOT between the DEIS and FEIS. If no feasible and practicable measures are identified for these locations, the impacts would remain unmitigated.

In terms of the sidewalk impacts that would occur along W. 27th Drive, it should be noted that this street, as described above, is a private driveway lying partly within NYCHA property and partly within the property of neighboring PS 33. While W. 27th Drive is open to the public, it is not a mapped street, but a private driveway owned by NYCHA. As entrances to the Elliott-Chelsea Houses Project Site are located along the south/west sidewalks of W. 27th Drive, most, if not all, of the incremental project pedestrian trips are conservatively assumed to use these sidewalks, which are approximately five feet wide, not including obstructions. However, these pedestrian trips could alternatively utilize the opposite north/east sidewalks along W. 27th Drive, which provides more ample pedestrian space (up to approximately 15 feet wide, not including obstructions).

Table 05.13-54: Non-Rezoning Alternative Action-With-Mitigation Sidewalk Conditions

Sidewalk	No-Action Alternative			Non-Rezoning Alternative			Non-Rezoning Alternative Action-with-Mitigation			
	Effective Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Mitigation Measures
Weekday AM Peak Hour										
South sidewalk along W 27 Dr btw 10 Ave & W 27 Dr	2.0	395.9	B	2.0	28.1	D *	2.0	28.1	D *	- Unmitigatable.
West sidewalk along W 27 Dr btw W 26 St & W 27 Dr	2.0	174.7	B	2.0	21.0	E *	2.0	21.0	E *	- Unmitigatable.
South sidewalk along W 17 St btw 9 Ave & 10 Ave	1.0	34.1	D	1.0	15.2	E *	2.5	15.2	E *	- Unmitigatable.
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.5	66.8	C	1.5	19.5	E *	3.0	41.1	C	- Relocation of one traffic sign.
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	24.4	D	1.0	15.0	E *	1.0	15.0	E *	- Unmitigatable.
Weekday MD Peak Hour										
South sidewalk along W 17 St btw 9 Ave & 10 Ave	1.0	38.3	D	1.0	20.1	E *	2.5	20.1	E *	- Unmitigatable.
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.5	52.6	C	1.5	20.0	E *	3.0	42.2	D	- Relocation of one traffic sign.
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	30.3	D	1.0	20.9	E *	1.0	20.9	E *	- Unmitigatable.
Weekday PM Peak Hour										
South sidewalk along W 27 Dr btw 10 Ave & W 27 Dr	2.0	247.0	B	2.0	26.4	D *	2.0	26.4	D *	- Unmitigatable.
South sidewalk along W 17 St btw 9 Ave & 10 Ave	1.0	24.4	D	1.0	11.3	E *	2.5	11.3	E *	- Unmitigatable.
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.5	42.4	C	1.5	19.1	E *	3.0	40.5	C	- Relocation of one traffic sign.
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	14.2	E	1.0	9.4	F *	1.0	9.4	F *	- Unmitigatable.
Saturday Peak Hour										
South sidewalk along W 27 Dr btw 10 Ave & W 27 Dr	2.0	269.2	B	2.0	27.2	D *	2.0	27.2	D *	- Unmitigatable.
West sidewalk along W 27 Dr btw W 26 St & W 27 Dr	2.0	846.4	A	2.0	24.5	D *	2.0	24.5	D *	- Unmitigatable.
South sidewalk along W 17 St btw 9 Ave & 10 Ave	1.0	24.0	D	1.0	10.9	F *	2.5	10.9	F *	- Unmitigatable.
West sidewalk along 9 Ave btw W 17 St & W 18 St	4.0	72.9	C	4.0	30.7	D *	4.0	30.7	D *	- Unmitigatable.
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.5	43.7	C	1.5	16.9	E *	3.0	36.2	D	- Relocation of one traffic sign.
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	19.0	E	1.0	10.8	F *	1.0	10.8	F *	- Unmitigatable.

Note:* denotes a significant adverse impact based on *CTM* criteria.**Effects of Traffic Mitigation on Pedestrian Conditions**

Proposed traffic mitigation measures (discussed previously) would potentially affect pedestrian conditions at a total of six analyzed crosswalks and 13 analyzed corner areas at five intersections in one or more peak hours. The recommended traffic mitigation measures at each of these locations would consist of signal timing adjustments of one to two seconds. As shown in **Tables 05.13-55 and 05.13-56**, with implementation of the proposed signal timing adjustments, none of the

analyzed crosswalks or corner areas at these five intersections would be considered newly impacted in any analyzed peak hour based on *CTM* criteria. Sufficient pedestrian crossing time would also continue to be provided at all crosswalks.

Table 05.13-55: Non-Rezoning Alternative Action-With-Traffic Mitigation Crosswalk Conditions

Intersection	Crosswalk	Non-Rezoning Alternative								Non-Rezoning Alternative Action-with-Mitigation								Proposed Traffic Mitigation
		Average Pedestrian Space (ft ² /ped)				Level of Service				Average Pedestrian Space (ft ² /ped)				Level of Service				
		AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	
9th Ave & W 26th St	North	24.6	70.0	38.3	36.4	C	A	C	C	27.1	70.0	38.3	36.4	C	A	C	C	- Transfer 2s of green time from SB-T to EB in AM.
	West	37.4	52.1	36.0	34.5	C	B	C	C	35.1	52.1	36.0	34.5	C	B	C	C	
9th Ave & W 19th St	West	57.0	62.1	52.6	41.9	B	A	B	B	57.0	60.2	51.1	41.9	B	A	B	B	- Transfer 1s of green time from SB to WB in midday and PM.
9th Ave & W 18th St	West	56.6	54.0	46.6	35.5	B	B	B	C	56.6	54.0	45.4	35.5	B	B	B	C	- Transfer 1s of green time from SB to EB in PM.
9th Ave & W 17th St	South	54.5	71.7	45.0	42.1	B	A	B	B	54.5	71.7	49.8	42.1	B	A	B	B	- Transfer 2s of green time from SB to WB in PM.
	West	47.5	42.9	34.2	27.9	B	B	C	C	47.5	42.9	32.2	27.9	B	B	C	C	

Note:

* denotes a significant adverse impact based on *CTM* criteria.

Table 05.13-56: Non-Rezoning Alternative Action-With-Traffic Mitigation Corner Conditions

Intersection	Corner	Non-Rezoning Alternative								Non-Rezoning Alternative Action-with-Mitigation								Proposed Traffic Mitigation
		Average Pedestrian Space (ft ² /ped)				Level of Service				Average Pedestrian Space (ft ² /ped)				Level of Service				
		AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	
10th Ave & W 25th St	NE	63.1	67.4	64.1	79.8	A	A	A	A	63.4	67.4	64.1	79.8	A	A	A	A	- Transfer 2s of green time from NB to WB in AM. - Transfer 1s of green time from NB to WB in midday, PM and Saturday.
9th Ave & W 26th St	NE	39.9	65.3	34.9	43.8	C	A	C	B	39.9	65.3	34.9	43.8	C	A	C	B	- Transfer 2s of green time from SB-T to EB in AM.
	SE	67.7	93.0	49.7	64.0	A	A	B	A	67.7	93.0	49.7	64.0	A	A	B	A	
	SW	64.6	102.7	53.1	59.5	A	A	B	B	64.6	102.7	53.1	59.5	A	A	B	B	
	NW	34.8	79.1	49.9	47.9	C	A	B	B	34.9	79.1	49.9	47.9	C	A	B	B	
9th Ave & W 25th St	NE	87.6	103.7	63.9	76.4	A	A	A	A	87.4	103.3	63.8	76.1	A	A	A	A	- Transfer 1s of green time from WB to SB in AM and PM. - Transfer 2s of green time from WB to SB in midday and Saturday.
	NW	53.9	72.7	44.7	47.7	B	A	B	B	53.9	72.5	44.4	47.6	B	A	B	B	
9th Ave & W 18th St	SW	97.8	90.7	73.5	64.8	A	A	A	A	97.8	90.7	73.3	64.8	A	A	A	A	- Transfer 1s of green time from SB to EB in PM.
	NW	97.6	97.0	75.5	65.7	A	A	A	A	97.6	97.0	75.3	65.7	A	A	A	A	
9th Ave & W 17th St	NE	111.5	87.4	83.2	92.6	A	A	A	A	111.5	87.4	83.2	92.6	A	A	A	A	- Transfer 2s of green time from SB to WB in PM.
	SE	151.8	145.1	107.6	106.0	A	A	A	A	151.8	145.1	107.5	106.0	A	A	A	A	
	SW	68.6	72.2	52.8	44.4	A	A	B	B	68.6	72.2	52.7	44.4	A	A	B	B	
	NW	66.3	64.6	52.9	44.6	A	A	B	B	66.3	64.6	52.8	44.6	A	A	B	B	

Note:

* denotes a significant adverse impact based on *CTM* criteria.

Proposed Schedule for Pedestrian Mitigation Measures

Subject to NYCDOT approval, the pedestrian mitigation measures described above would be implemented to mitigate the significant adverse sidewalk impacts resulting from full build-out of the Non-Rezoning Alternative in 2041. As the development under the Non-Rezoning Alternative

would be expected to occur over an approximately 16-year period, it is possible that the sidewalks impacts could occur prior to full build-out in 2041.

Alternative 4 – Midblock Bulk Alternative

Traffic

The Rezoning Alternative would result in significant adverse impacts to 11 intersections in one or more analyzed peak hours. As the Midblock Bulk Alternative and the Rezoning Alternative would generate substantially similar amounts of vehicle trips in each peak hour, it is anticipated that the Midblock Bulk Alternative would not result in any new significant adverse traffic impacts compared to the Rezoning Alternative; however, as discussed above in **Section E, “Environmental Effects,”** the rearrangement of bulk between the Midblock Bulk Alternative and Rezoning Alternative may result in small changes in the directional distribution of action-generated trips at some intersections. The measures proposed for the Rezoning Alternative’s significant adverse traffic impacts would improve the traffic conditions of the impacted locations under the Midblock Bulk Alternative.

Pedestrians

The Rezoning Alternative would result in significant adverse impacts to six sidewalks and two crosswalks in one or more analyzed peak hours. There would be no significant impacts to any corner areas in any peak hour. As the Midblock Bulk Alternative and the Rezoning Alternative would generate substantially similar amounts of pedestrian trips in each peak hour, it is expected that the Midblock Bulk Alternative would not result in any new significant adverse pedestrian impacts compared to the Rezoning Alternative. The measures proposed for the Rezoning Alternative’s significant adverse pedestrian impacts would improve the sidewalk and crosswalk conditions of the impacted pedestrian locations under the Midblock Bulk Alternative.