

## 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 four feasible alternatives under consideration for implementation of the Proposed Project. These include: Alternative 2 – the Rezoning Alternative, which has been identified as the Preferred Alternative and is referred to by the latter term for the remainder of this chapter; Alternative 3 – the Non-Rezoning Alternative; Alternative 4 – the Midblock Bulk Alternative; and Alternative 7 – City of Yes (COY) 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 four feasible alternatives for each technical area.

As compared to the 2041 No-Action Alternative, the Preferred and Midblock Bulk Alternatives would result in a net incremental increase of 3,454 dwelling units (DUs), 27,371 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<sup>1,2,3</sup> (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, 20,262 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<sup>1,3,4</sup> (see **Table H.1-2**).

As compared to the 2041 No-Action Alternative, the COY Alternative would result in a net incremental increase of 2,698 DUs, 16,317 gsf of local retail, 7,400 gsf of supermarket space, and 103,371 gsf of total community facility space—including an increase of 90,905 gsf of

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<sup>1</sup> 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.

<sup>2</sup> Under the Preferred 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.

<sup>3</sup> Between the DEIS and FEIS, approximately 1,413 gsf of local retail space was reallocated to residential gsf and an additional approximately 2,233 gsf of residential amenity space, including mechanical space, was added to the residential gsf of Fulton 1.

<sup>4</sup> 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.



neighborhood center space, 11,900 gsf of medical office space, and 3,600 gsf of daycare space, and a decrease of 3,034 gsf of UPK space<sup>1,5</sup> (see Table 02.0-10).

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

## **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 Preferred Alternative would result in significant adverse impacts to: a) vehicular traffic at 11 intersections and b) pedestrian conditions at five 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 five sidewalks. As the Preferred 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 Preferred Alternative. As the COY Alternative would generally result in fewer action generated trips compared to the Preferred Alternative, it is anticipated that the COY Alternative would result in similar or fewer significant traffic and pedestrian impacts in comparison to the Preferred 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 Preferred Alternative would be fully mitigated at all intersections with the exception of one lane group at one intersection during the weekday AM peak hour, one lane group at one intersection during the weekday midday peak hour and 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 Preferred Alternative’s significant adverse traffic and pedestrian impacts would also improve the conditions of the impacted pedestrian and traffic locations under the Midblock Bulk and COY Alternatives.

Practicable mitigation measures have not been identified for significant adverse impacts under the Preferred Alternative at four, one, three, and four 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 AM, midday and PM peak hours, and pedestrian impacts would be fully mitigated at one of the five sidewalks.

Additional practicable mitigation measures have not been identified for the remaining significant sidewalk impacts identified for the Preferred Alternative (also applicable to the Midblock Bulk

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<sup>5</sup> Under the COY Alternative, as discussed in other chapters of the EIS, the net increment for daycare use (inclusive of UPK) would be an increase of 566 gsf.



and COY Alternatives) and the Non-Rezoning Alternative. Additional mitigation measures were 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). No feasible mitigation measures were identified. The significant adverse traffic and pedestrian impacts that cannot be fully mitigated under each of the four 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 be subject to final review and approval by NYCDOT. If the recommended mitigation measures are not found to be feasible in an alternative, and no other alternative mitigation measures can be identified, the respective alternative’s traffic and/or 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>	
<b>Trip Generation:</b>	(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	
<b>Temporal Distribution:</b>	(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)	
<b>Modal Splits:</b>	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%	
<b>In/Out Splits:</b>	(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	
<b>Vehicle Occupancy:</b>	(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		-	
<b>Truck Trip Generation:</b>	(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**

<b>Notes :</b>	
(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)	$\geq 60.1$	$\geq 530.1$
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)	$\leq 8.0$	$\leq 11.0$

**Notes:**

Based on average conditions for 15 minutes

sf/ped – square feet of area per pedestrian

Source: CTM



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)
$\geq 34.7$	With Action Condition $\leq 31.4$
34 to 34.6	Reduction $\geq 3.3$
33 to 33.9	Reduction $\geq 3.2$
32.1 to 32.9	Reduction $\geq 3.1$
31.1 to 32	Reduction $\geq 3.0$
30.2 to 31	Reduction $\geq 2.9$
29.2 to 30.1	Reduction $\geq 2.8$
28.3 to 29.1	Reduction $\geq 2.7$
27.3 to 28.2	Reduction $\geq 2.6$
26.4 to 27.2	Reduction $\geq 2.5$
25.4 to 26.3	Reduction $\geq 2.4$
24.5 to 25.3	Reduction $\geq 2.3$
23.5 to 24.4	Reduction $\geq 2.2$
22.6 to 23.4	Reduction $\geq 2.1$
21.6 to 22.5	Reduction $\geq 2.0$
20.7 to 21.5	Reduction $\geq 1.9$
19.7 to 20.6	Reduction $\geq 1.8$
18.8 to 19.6	Reduction $\geq 1.7$
17.8 to 18.7	Reduction $\geq 1.6$
16.9 to 17.7	Reduction $\geq 1.5$
15.9 to 16.8	Reduction $\geq 1.4$
15 to 15.8	Reduction $\geq 1.3$
14 to 14.9	Reduction $\geq 1.2$
13.1 to 13.9	Reduction $\geq 1.1$
12.1 to 13	Reduction $\geq 1.0$
11.2 to 12	Reduction $\geq 0.9$
10.2 to 11.1	Reduction $\geq 0.8$
9.3 to 10.1	Reduction $\geq 0.7$
8.3 to 9.2	Reduction $\geq 0.6$
7.4 to 8.2	Reduction $\geq 0.5$
6.4 to 7.3	Reduction $\geq 0.4$
$\leq 6.3$	Reduction $\geq 0.3$

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)
$\geq 21.5$			With Action Condition $\leq 19.4$
21.3	to	21.4	Reduction $\geq 2.1$
20.4	to	21.2	Reduction $\geq 2.0$
19.5	to	20.3	Reduction $\geq 1.9$
18.6	to	19.4	Reduction $\geq 1.8$
17.7	to	18.5	Reduction $\geq 1.7$
16.8	to	17.6	Reduction $\geq 1.6$
15.9	to	16.7	Reduction $\geq 1.5$
15.0	to	15.8	Reduction $\geq 1.4$
14.1	to	14.9	Reduction $\geq 1.3$
13.2	to	14.0	Reduction $\geq 1.2$
12.3	to	13.1	Reduction $\geq 1.1$
11.4	to	12.2	Reduction $\geq 1.0$
10.5	to	11.3	Reduction $\geq 0.9$
9.6	to	10.4	Reduction $\geq 0.8$
8.7	to	9.5	Reduction $\geq 0.7$
7.8	to	8.6	Reduction $\geq 0.6$
6.9	to	7.7	Reduction $\geq 0.5$
6.0	to	6.8	Reduction $\geq 0.4$
5.1	to	5.9	Reduction $\geq 0.3$
$< 5.0$			Reduction $\geq 0.2$

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 8<sup>th</sup> Avenue, 9<sup>th</sup> Avenue, 10<sup>th</sup> Avenue, W. 16<sup>th</sup> Street, W. 18<sup>th</sup> Street, W. 20<sup>th</sup> Street, W. 26<sup>th</sup> Street, Route 9 A, and the Lincoln Tunnel.

To the east of the Fulton Houses Project Site, 9<sup>th</sup> 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 9<sup>th</sup> Avenue and the M12 and M14D+ bus routes operate



southbound along 9<sup>th</sup> Avenue, to the south of W. 18<sup>th</sup> Street. 10<sup>th</sup> 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 10<sup>th</sup> Avenue. 8<sup>th</sup> 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 8<sup>th</sup> Avenue in the vicinity of the Project Sites. 8<sup>th</sup>, 9<sup>th</sup>, and 10<sup>th</sup> Avenues are all NYCDOT-designated Local Truck Routes.

W. 16<sup>th</sup> Street, W. 18<sup>th</sup> Street, W. 20<sup>th</sup> Street, and W. 26<sup>th</sup> 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. 18<sup>th</sup> Street, all have one bicycle lane. Eastbound NYCT M12 and M14D+ buses operate along W. 18<sup>th</sup> Street until 9<sup>th</sup> Avenue. W. 17<sup>th</sup> Street, W. 19<sup>th</sup> Street, and W. 25<sup>th</sup> 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. 57<sup>th</sup> 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. 14<sup>th</sup> Street to W. 57<sup>th</sup> Street, and M50 buses traverse the corridor in both directions between W. 42<sup>nd</sup> Street and W. 50<sup>th</sup> Street. Route 9A is designated as a Through Truck Route from The Battery to W. 34<sup>th</sup> Street, and as a Local Truck route from W. 34<sup>th</sup> Street to W. 57<sup>th</sup> Street. Trucks are prohibited from using the Henry Hudson Parkway.

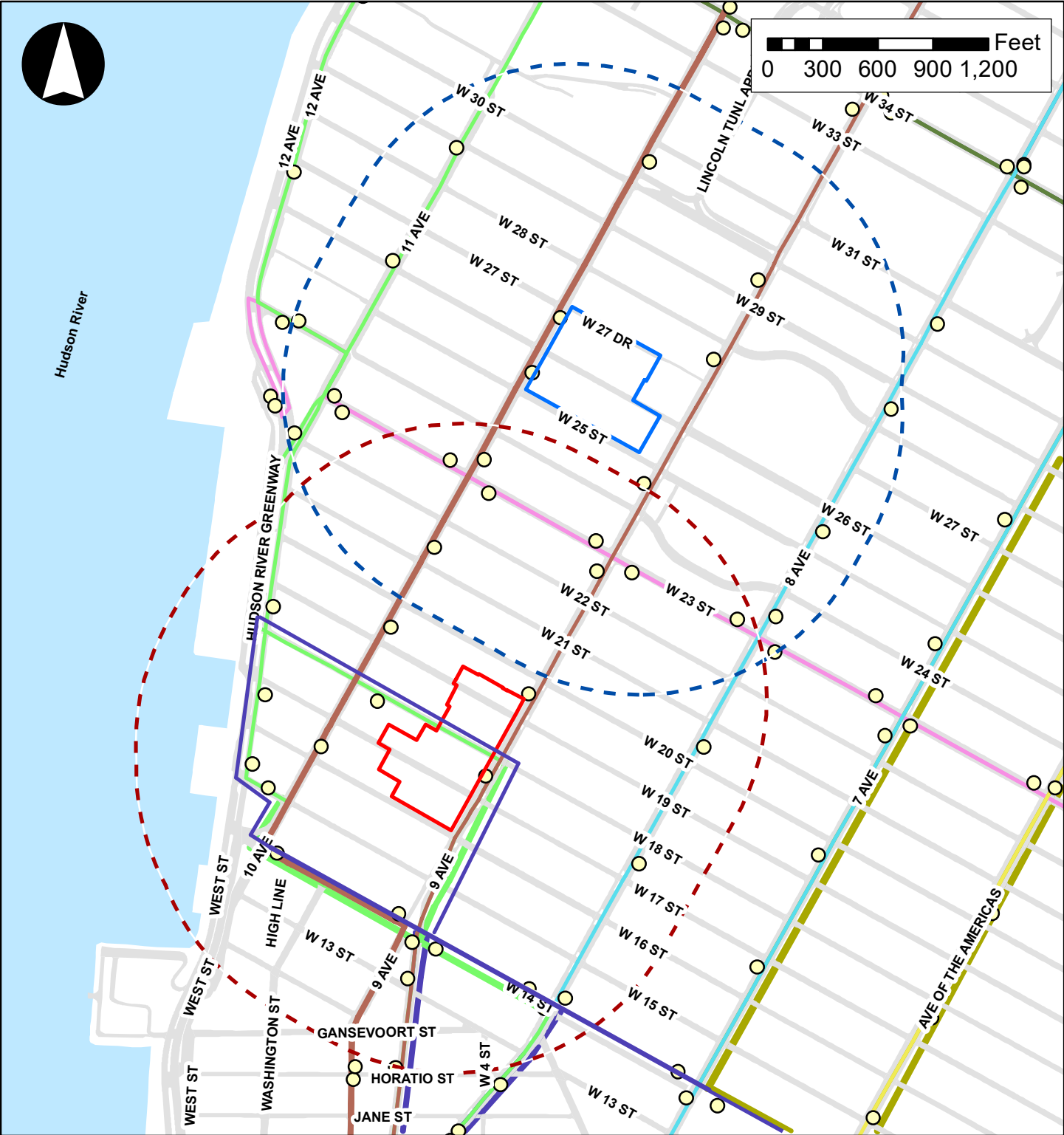
To the north of the Project Sites is the Lincoln Tunnel, a designed Through Truck Route that connects New Jersey to Midtown Manhattan. The Lincoln Tunnel consists of three vehicular tubes with two traffic lanes in each tube. It also has an Express Bus Lane (EBL) that primarily has buses heading to/from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

The study area also includes W. 27<sup>th</sup> 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. 26<sup>th</sup> Street approximately 530 feet east of 10<sup>th</sup> Avenue for a distance of approximately 200 feet and then curves west and follows a course parallel to W. 26<sup>th</sup> Street until it meets the intersection of 10<sup>th</sup> Avenue and W. 27<sup>th</sup> 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**

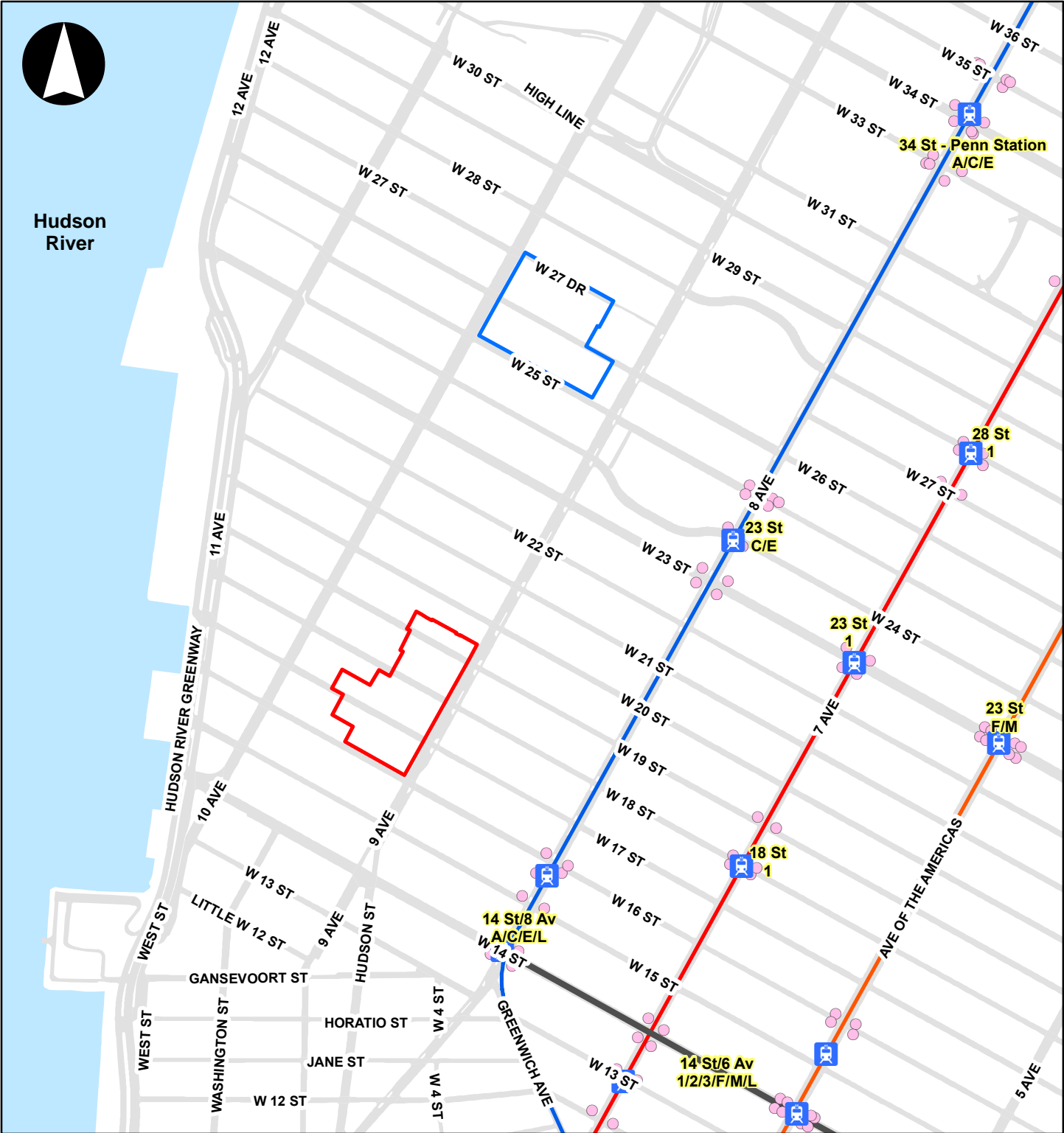
Fulton Houses 1/4-Mile Radius
 Fulton Houses
 Elliott-Chelsea Houses 1/4-Mile Radius
 Elliott-Chelsea Houses

Local Bus Stops
 M11
 M12
 M14D+
 M20
 M23+
 M25
 M34A+
 M34+
 M7

**Bus Routes**









 M11
 M12
 M14D+
 M20
 M23+
 M25
 M34A+
 M34+
 M7





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

Legend

- |  |  |   |   |
|--|--|---|---|
|  Fulton Houses          |  Subway Stations          | <b>Subway Routes</b>  |  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 <sup>th</sup> Avenue/10 <sup>th</sup> Avenue
M12	NYCT	Midtown West – West Village	11 <sup>th</sup> Avenue/12 <sup>th</sup> Avenue
M14D+	NYCT	Lower East Side – Abingdon Square/Chelsea Piers	W. 14 <sup>th</sup> Street
M20	NYCT	Lincoln Center – South Ferry	7 <sup>th</sup> Avenue/8 <sup>th</sup> Avenue
M23 SBS	NYCT	Chelsea Piers – East Side	W. 23 <sup>rd</sup> 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 8<sup>th</sup>, 9<sup>th</sup>, and 10<sup>th</sup> 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 11<sup>th</sup> and 12<sup>th</sup> Avenues.

### ***Bicycle Lanes***

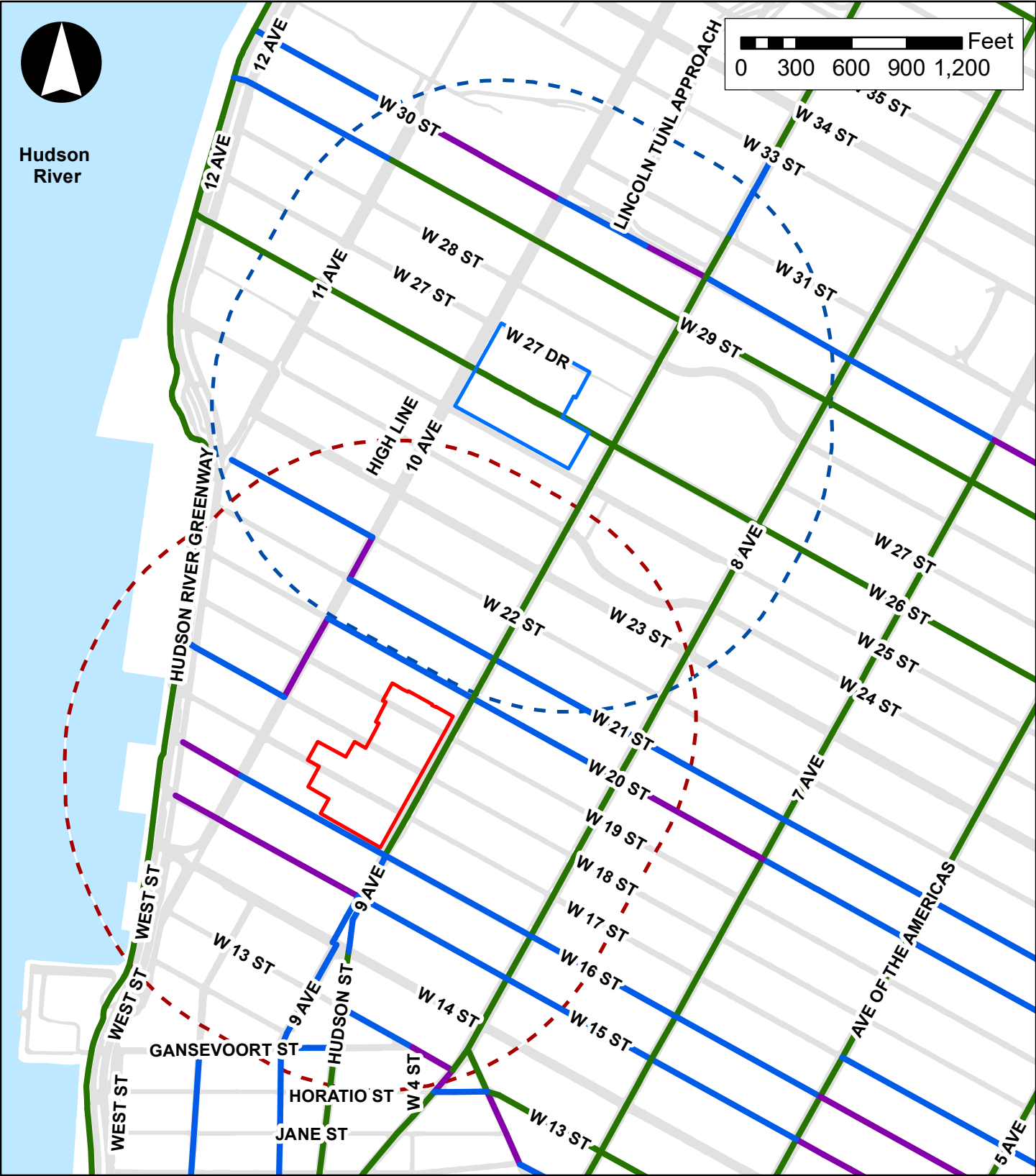
As shown in **Figure 05.13-2**, streets within the Project Sites and their proximity host an extensive network of bicycle lanes, the majority of which are protected bicycle lanes or conventional bicycle lanes. Protected bicycle lanes have been installed along 8<sup>th</sup> Avenue, W. 26<sup>th</sup> Street, 9<sup>th</sup> Avenue between W. 16<sup>th</sup> Street and W. 31<sup>st</sup> Street, and W. 29<sup>th</sup> Street east of 11<sup>th</sup> Avenue. Conventional bicycle lanes have been installed along portions of W. 15<sup>th</sup>, W. 16<sup>th</sup>, W. 18<sup>th</sup>, W. 20<sup>th</sup>, W. 21<sup>st</sup>, W. 22<sup>nd</sup>, W. 29<sup>th</sup>, and W. 30<sup>th</sup> Streets, as well as 9<sup>th</sup> Avenue south of W. 16<sup>th</sup> Street and north of W. 31<sup>st</sup> Street. Portions of 10<sup>th</sup> Avenue are shared bicycle routes, including between W. 18<sup>th</sup> Street and W. 20<sup>th</sup> Street and between W. 21<sup>st</sup> Street and W. 22<sup>nd</sup> Street. Other shared bicycle routes include W. 15<sup>th</sup> Street west of 9<sup>th</sup> Avenue, W. 16<sup>th</sup> Street west of 10<sup>th</sup> Avenue, W. 20<sup>th</sup> Street between 7<sup>th</sup> and 8<sup>th</sup> Avenues, and W. 30<sup>th</sup> Street between 10<sup>th</sup> and 11<sup>th</sup> Avenues and a slight portion west of 9<sup>th</sup> 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<sup>6</sup>. 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


<sup>6</sup> Subsequent to the data collection conducted to identify existing transportation conditions, Congestion Pricing in Manhattan went into effect on January 5, 2025. As such, although Congestion Pricing was in place at the time of DEIS and FEIS publication, any potential effects on transportation conditions are not reflected in existing conditions. See the discussion of Congestion Pricing below under Section E, “Environmental Effects” for more information.








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

**Legend**


 Fulton Houses


 Fulton Houses 1/4-Mile Radius


 Elliott-Chelsea Houses

 Elliott-Chelsea Houses 1/4-Mile Radius

**Bike Routes**

 Conventional Route

 Protected Route

 Shared Routes



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. **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 9<sup>th</sup> Avenue corridor and the remaining 10 intersections are located along the 10<sup>th</sup> Avenue corridor. Three intersections contain one or more lane groups operating at or over capacity (v/c ratio  $\geq 1.0$ ) 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
<b>Notes:</b> 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

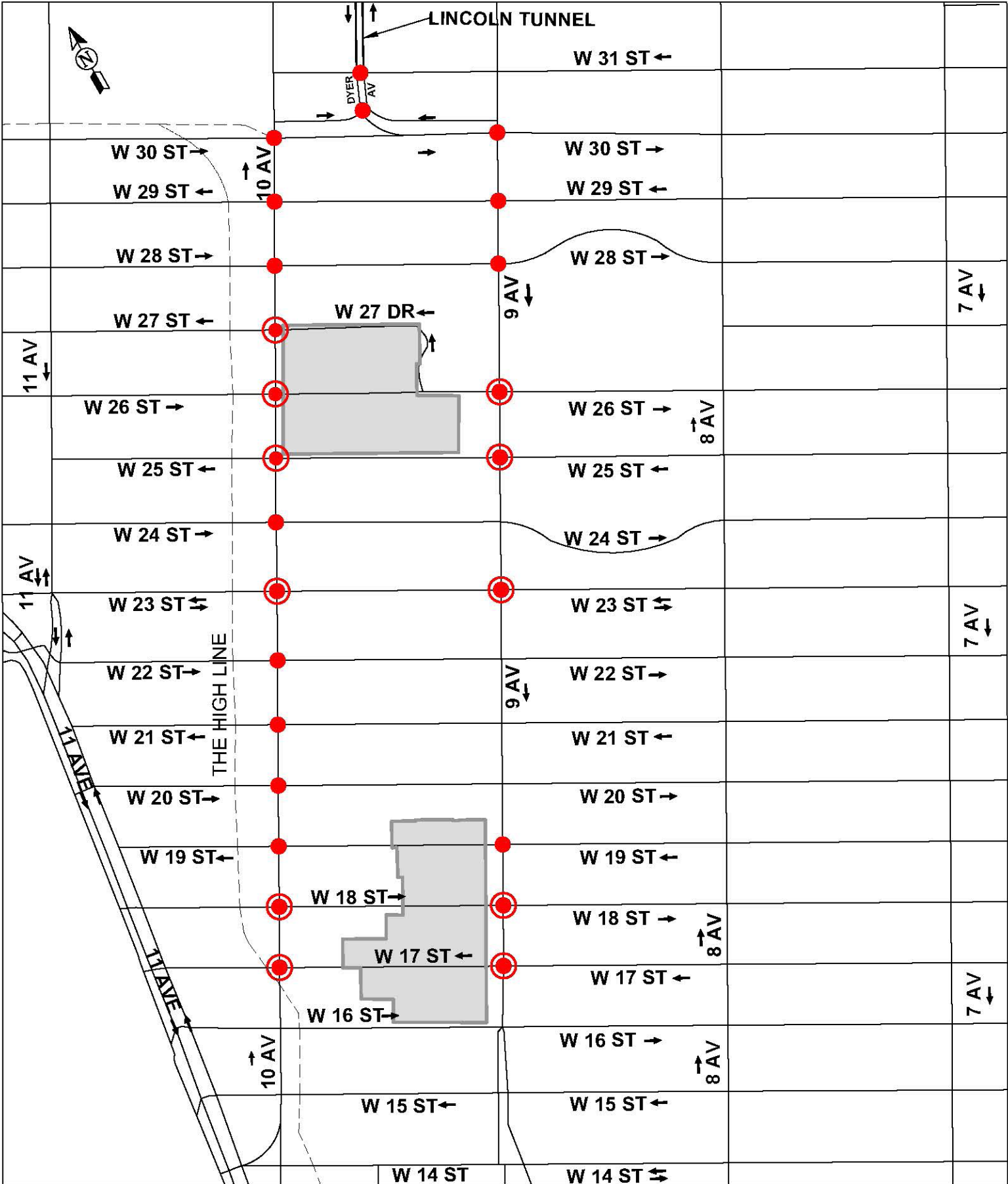
Seven NYCT subway stations located in proximity to the Project Sites are expected to experience project-generated demand (see **Figure 05.13-1b**). Three trains—A (express) and C and E (local)—operating along the 8<sup>th</sup> Avenue Line serve three stations east of the Project Sites, including the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

To determine existing conditions at analyzed subway station elements, subway ridership data was collected at the 23<sup>rd</sup> Street (C/E) station in June 2023. The count data was supplemented by 2017 data for elements at the 14<sup>th</sup> Street/8<sup>th</sup> 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



Traffic Analysis Locations



**LEGEND**

- Fulton Houses
- Elliott-Chelsea Houses

- Preferred Alternative Analysis Location
- Non-Rezoning Alternative Analysis Location

Note: This figure has been revised for the FEIS.



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.

### ***14<sup>th</sup> Street/8<sup>th</sup> Avenue Subway Station Complex (A/C/E/L)***

The 14<sup>th</sup> Street/8<sup>th</sup> Avenue station complex consists of the A, C, and E trains operating on the 8<sup>th</sup> 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 8<sup>th</sup> Avenue, four at W. 14<sup>th</sup> Street, two at W. 15<sup>th</sup> Street, and five at W. 16<sup>th</sup> Street (one of which is within an adjacent building lobby). Entry to the paid zone is controlled by six fare arrays—three at W. 14<sup>th</sup> Street, two at W. 15<sup>th</sup> Street, and one at W. 16<sup>th</sup> Street. At the mezzanine level, 10 stairs (P1 to P10 on the 8<sup>th</sup> 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. 14<sup>th</sup> 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 Preferred Alternative is expected to be most concentrated at the station entrance at the northwest corner of 8<sup>th</sup> Avenue/W. 16<sup>th</sup> 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 8<sup>th</sup> Avenue line to arrive at the 23<sup>rd</sup> 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 14<sup>th</sup> Street/8<sup>th</sup> Avenue station complex operate at LOS C or better during the AM peak periods, with the exception of platform stair P2 on the 8<sup>th</sup> 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 8<sup>th</sup> 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.



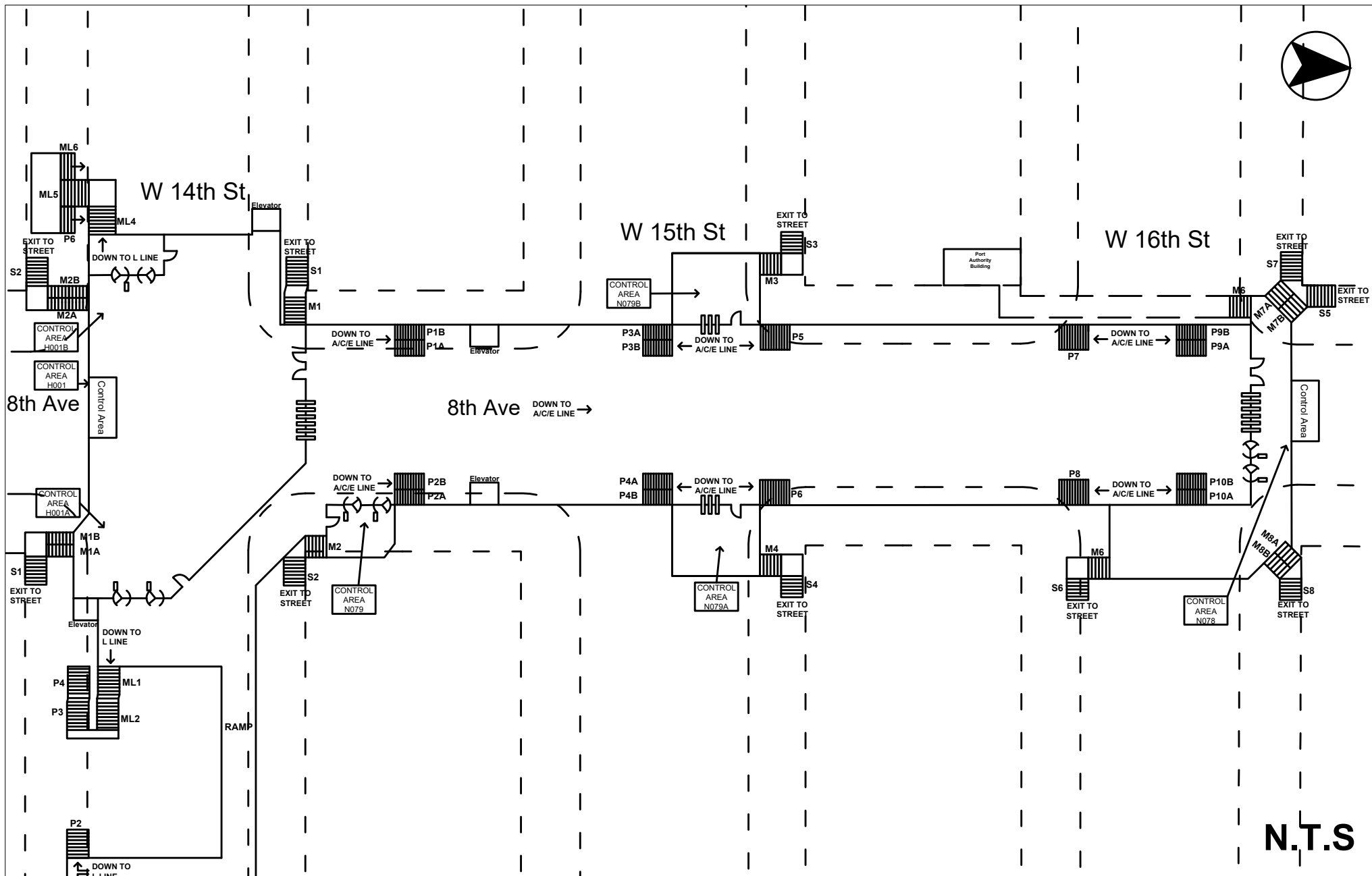
**Table 05.13-10: Existing Conditions Subway Station Stair Analysis**

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

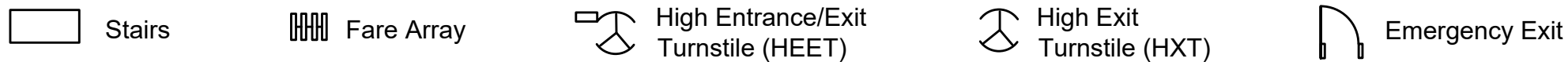
**Table 05.13-11: Existing Conditions Subway Station Fare Array Analysis**

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



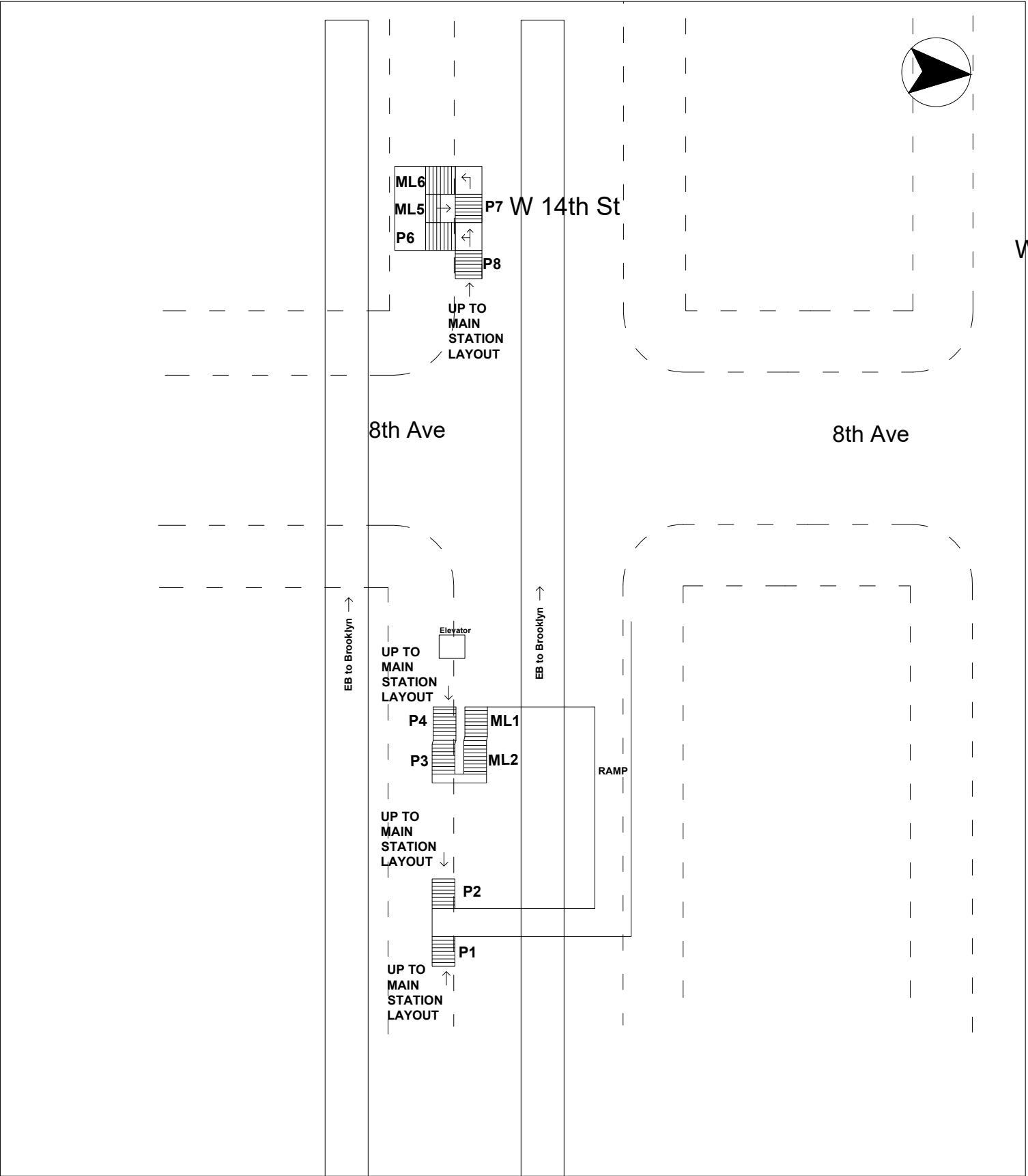


### Legend





14th Street/8th Avenue Station L Platform



Legend

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



### **23<sup>rd</sup> Street Station (C/E)**

The 23<sup>rd</sup> Street station on the 8<sup>th</sup> Avenue Line is an underground station with two side platforms that extend from W. 23<sup>rd</sup> Street to W. 25<sup>th</sup> Street. As shown in **Figure 05.13-5**, stairs PL2 and PL3 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 8<sup>th</sup> Avenue at W. 23<sup>rd</sup> Street, W. 24<sup>th</sup> Street, and W. 25<sup>th</sup> Street. As the entrances adjacent to the 8<sup>th</sup> Avenue/W.25<sup>th</sup> Street intersection are closer to the Elliott-Chelsea Houses Project Site, all project generated subway trips at the 23<sup>rd</sup> 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 8<sup>th</sup> Avenue/W. 25<sup>th</sup> 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 23<sup>rd</sup> Street subway station currently operate at LOS A in both the AM and PM peak hours.

### **Pedestrians**

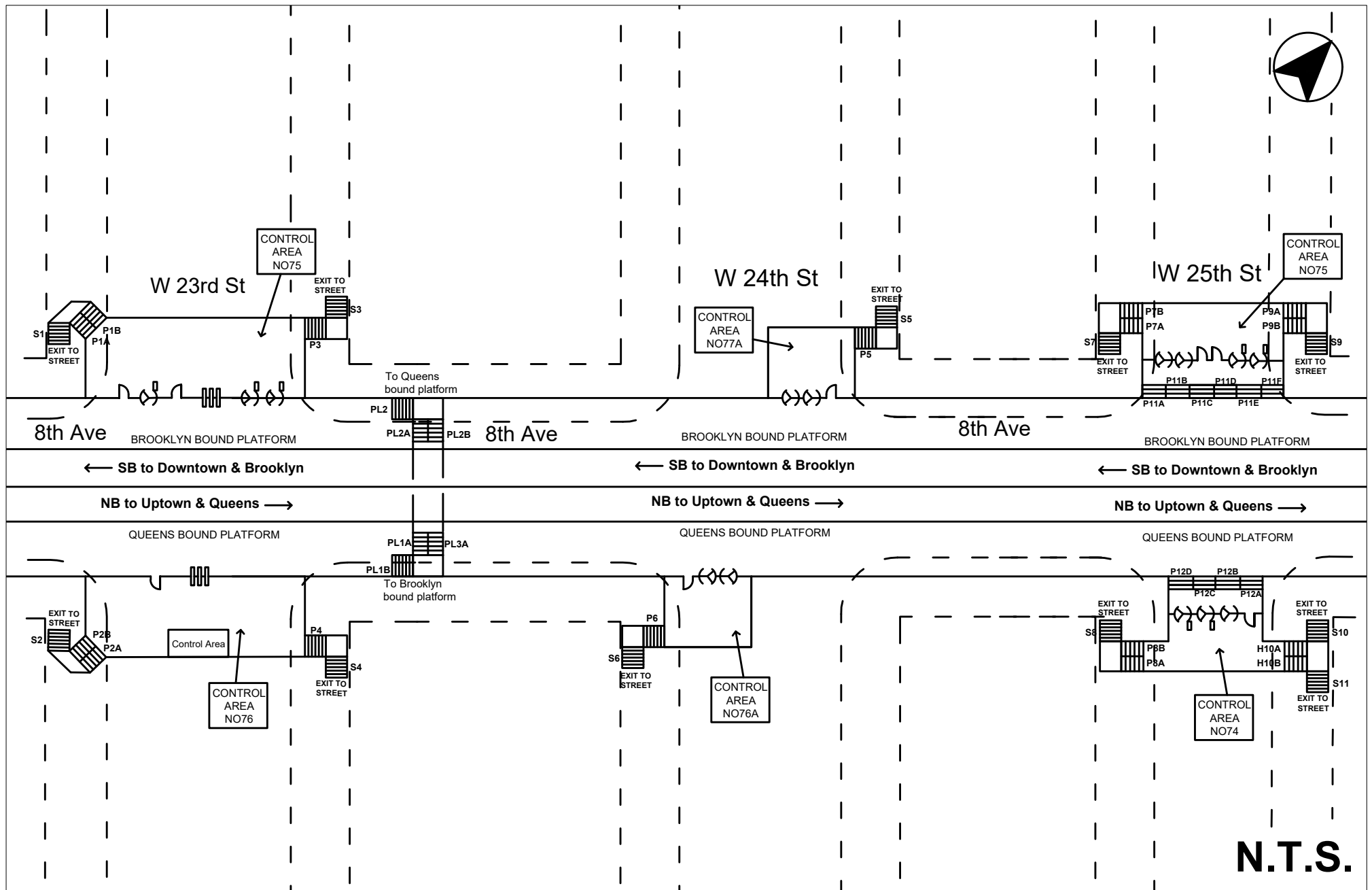
Data on peak period pedestrian flow volumes were collected along analyzed sidewalks, corner areas, and crosswalks in the vicinity of the Project Sites in May/June 2023. Peak hours were determined by comparing rolling hourly averages, and the highest 15-minute volumes within the selected peak hours were 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 9<sup>th</sup> 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 9<sup>th</sup> Avenue, W. 16<sup>th</sup> Street, W.25<sup>th</sup> Street, and W. 26<sup>th</sup> Street corridors (refer to **Figure 05.13-6**). Study area sidewalks include the south and west sidewalks of W. 27<sup>th</sup> Drive, which, as noted above, is not a mapped street but is open to the public.

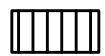




### **Sidewalks**

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 8<sup>th</sup> Avenue, 9<sup>th</sup> Avenue, W. 16<sup>th</sup> Street, and W. 25<sup>th</sup> Street. Analyzed sidewalks typically range from 10 to 17 feet in width.



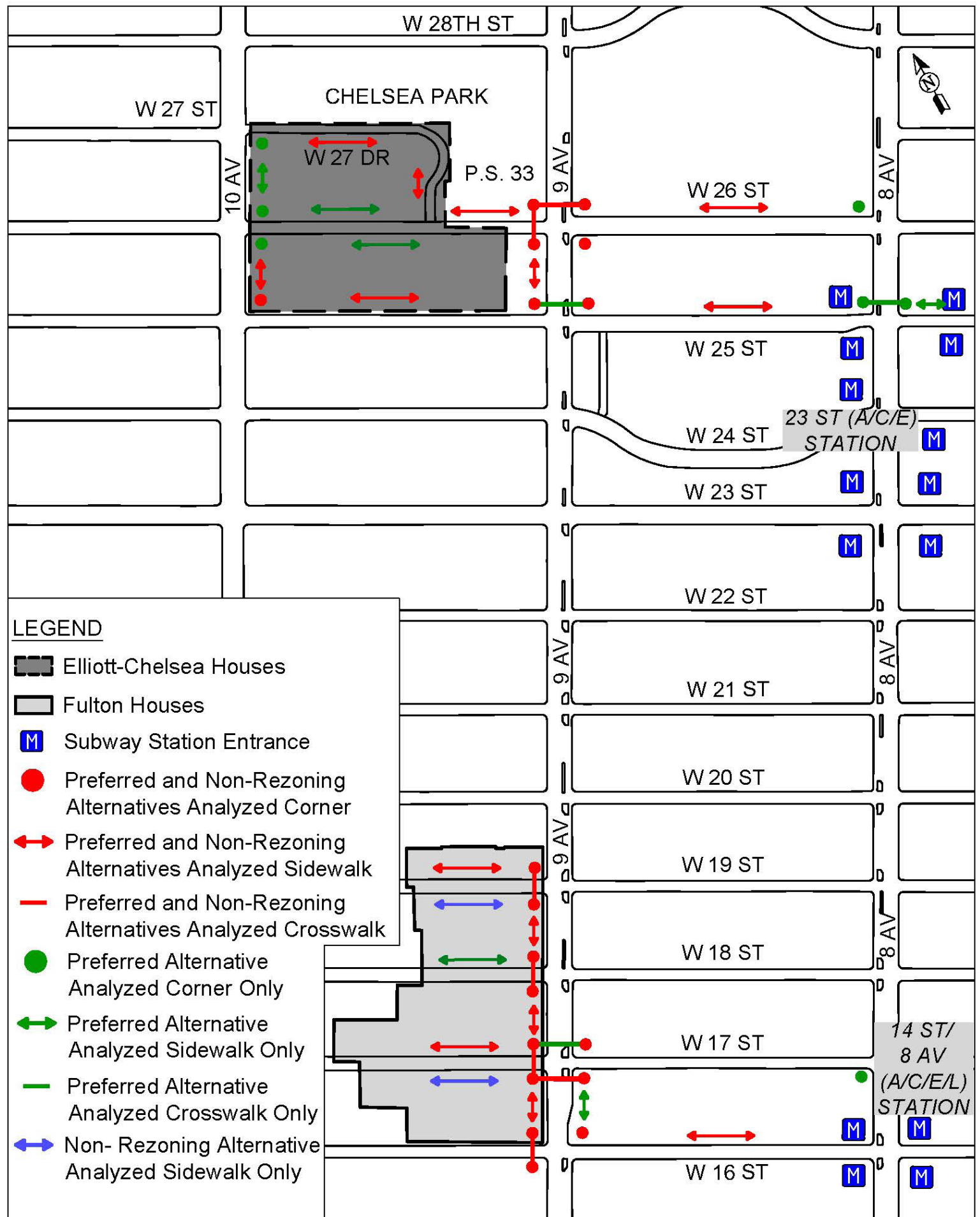


**Legend**

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



## Analyzed Pedestrian Elements



Note: This figure has been revised for the FEIS.



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.

**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. 17<sup>th</sup> Street between 9<sup>th</sup> and 10<sup>th</sup> Avenues, which operates at LOS D in the weekday PM and Saturday peak hours, and the north sidewalk along W. 16<sup>th</sup> Street between 8<sup>th</sup> and 9<sup>th</sup> 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 <sup>2</sup> /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 & proposed EC Building 7 entrance (east of entrance)	2.0	31	38	46	52	498.1	393.8	268.5	310.6	B	B	B	B
South sidewalk along W 27 Dr btw proposed EC Building 7 entrance & W 27 Dr (west of entrance)	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

**Note:**

This table has been revised for the FEIS.



## 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 <sup>2</sup> /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 8<sup>th</sup> Avenue and W. 17<sup>th</sup> 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 <sup>2</sup> /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**

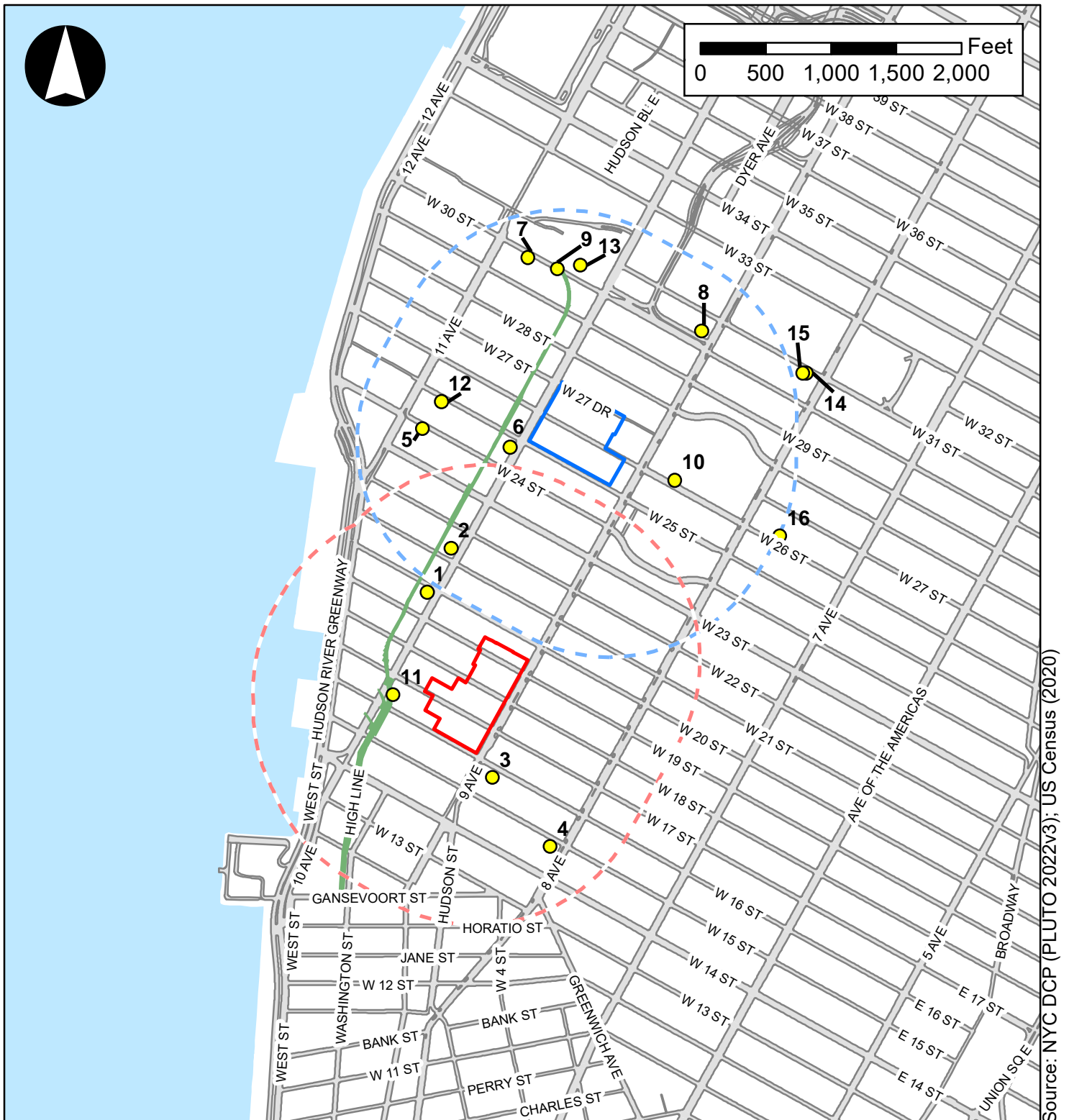
Parking demand from office, retail, and community facility uses typically peaks in the midday period and declines during the late afternoon and evening. By contrast, parking demand from residential uses peaks overnight. As the Proposed Project will facilitate the development of mainly residential uses, 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





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



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 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
<b>Total</b>				<b>3,209</b>	<b>35%</b>	<b>2,087</b>	<b>34%</b>	<b>2,113</b>

## 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
<b>Weekday Overnight</b>				
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%
<b>Saturday Overnight</b>				
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.

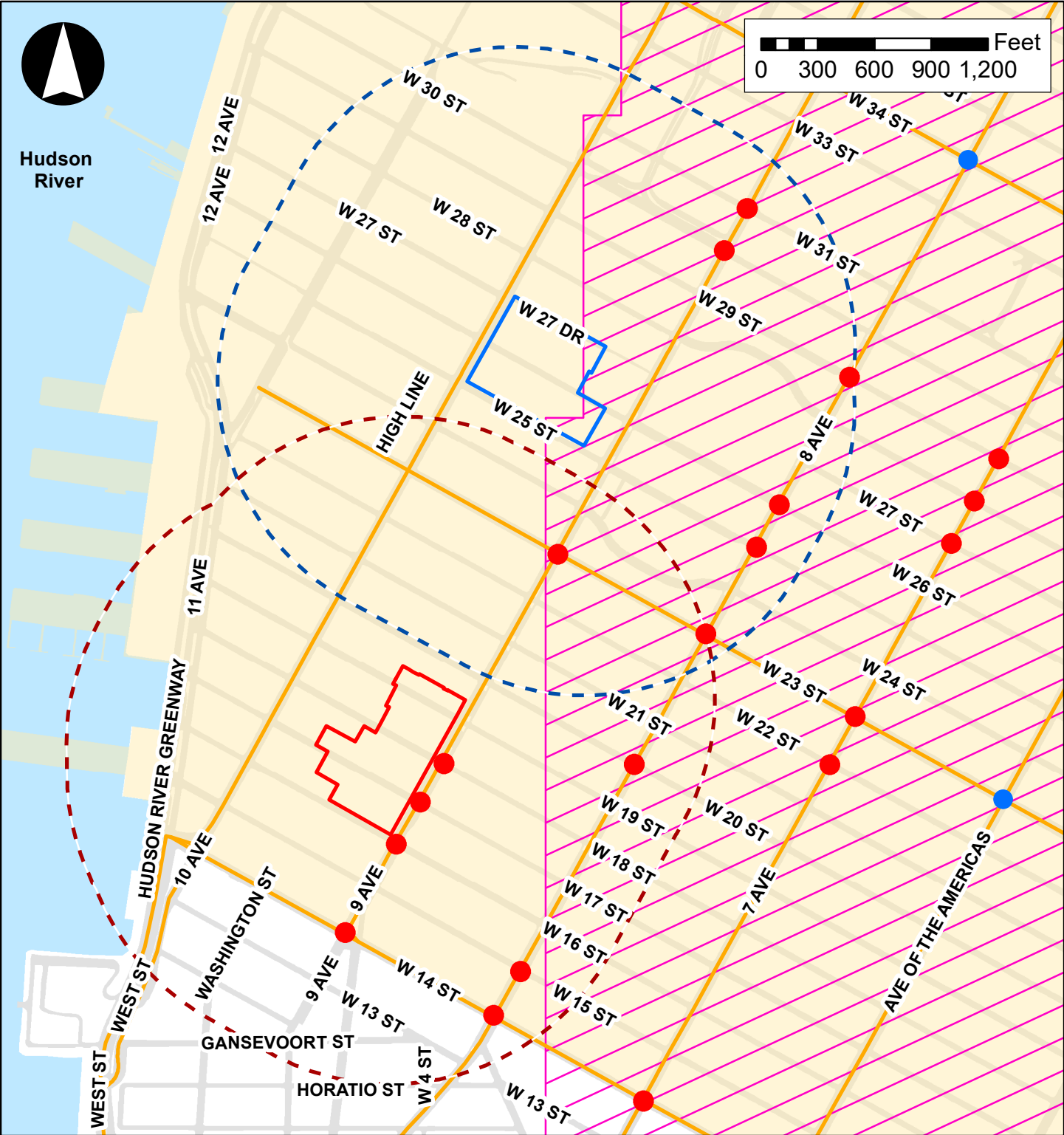
### **Vehicular and Pedestrian Safety Evaluation**

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 8<sup>th</sup> Avenue, 9<sup>th</sup> Avenue, and W. 23<sup>rd</sup> 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*.

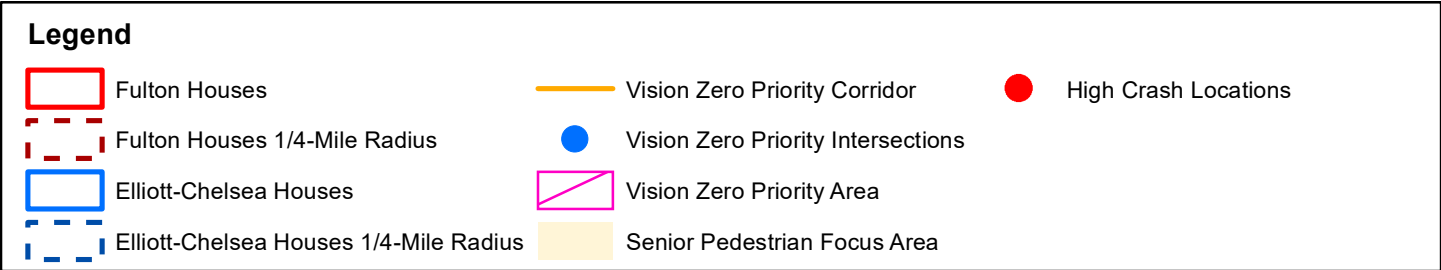
### **Study Area High Crash Locations**

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.





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





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

**9<sup>th</sup> Avenue and W. 17<sup>th</sup> 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 9<sup>th</sup> 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 9<sup>th</sup> 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.

**9<sup>th</sup> Avenue and W. 18<sup>th</sup> 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 9<sup>th</sup> 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.

### **9<sup>th</sup> Avenue and W. 23<sup>rd</sup> 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 9<sup>th</sup> Avenue by the eastern curb. In addition, there is a bus lane located along the southern curb of W. 23<sup>rd</sup> 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 9<sup>th</sup> 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.

### **9<sup>th</sup> Avenue and W. 30<sup>th</sup> 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. 30<sup>th</sup> 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*, 7<sup>th</sup> Avenue to 10<sup>th</sup> Avenue and W. 23<sup>rd</sup> Street were identified as Priority Corridors. In addition, 7<sup>th</sup> Avenue to 10<sup>th</sup> Avenue and W. 23<sup>rd</sup> 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 8<sup>th</sup> Avenue, five intersections along 9<sup>th</sup> Avenue, two intersections along 10<sup>th</sup> Avenue, and two intersections along 11<sup>th</sup> 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 26<sup>th</sup> Street between 1<sup>st</sup> Avenue to 12<sup>th</sup> 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.

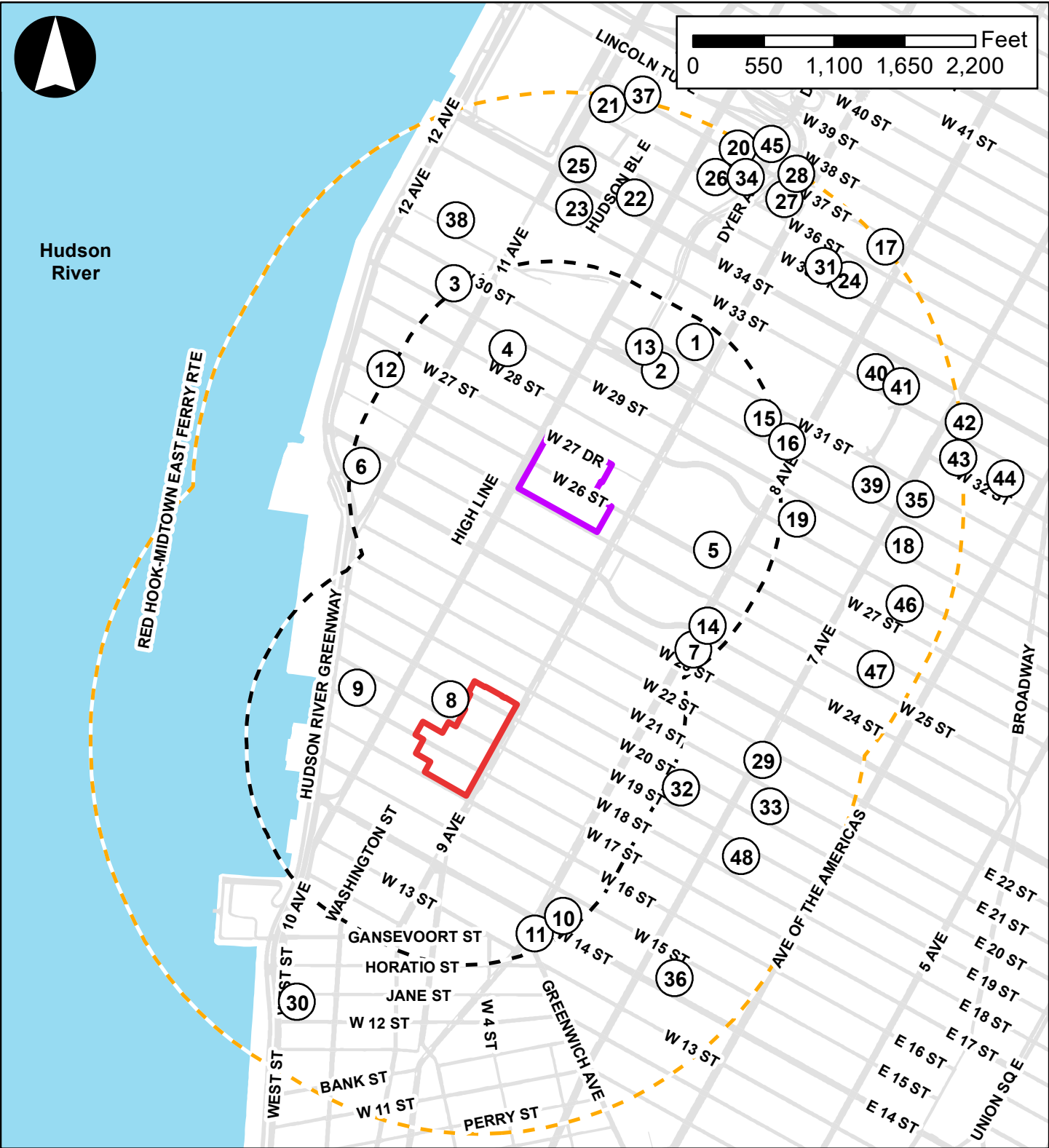
### **Congestion Pricing**

New York City's Central Business District (CBD) Tolling Program, also known as "Congestion Pricing," is an electronic toll system that charges drivers to enter Manhattan's CBD, defined by the program as the area south of 60th Street, which includes the entire Affected Area. The program aims to reduce traffic and air pollution, enhance street safety, raise revenues to improve the transit system, and encourage the use of public transportation. The program went into effect on January 5, 2025.

Initial data collected by MTA/NYCT and NYCDOT since the program went into effect indicate a decrease in the number of vehicles entering the CBD, suggesting that the program is already reducing citywide traffic volumes. Early signs also show that some drivers are shifting their travel times to off-peak hours to avoid the toll, which could lead to a reduction in peak-hour traffic as commuters either switch to transit or adjust their schedules.






While some bus and subway lines indicate an increase in ridership in response to the implementation of Congestion Pricing, the program's early effects on the pedestrian and transit





Source: NYC DCP (PLUTO 2024v1); DOITT (2022)

Legend

-  Fulton Houses
-  Elliott-Chelsea Houses
-  1/4-Mile Radius
-  1/2-Mile Radius
-  No-Build Development Sites



networks are less clear. Other factors, such as shifts to in-office work and lingering pandemic-related trends, may also be influencing these patterns.

The transportation data presented in this document was collected prior to implementation of the Congestion Pricing program. This data was not adjusted to account for the implementation of the program, nor have any improvements to the transit system been considered, because the long-term effects of the program are unknown at this time.

Over time, as commuters adapt and public transportation options improve, transportation patterns are expected to evolve and eventually settle into a new equilibrium. However, the timeline for this transition remains uncertain.

Adding to this uncertainty is the position of the current federal administration which has recently expressed a desire to halt Congestion Pricing. This introduces an additional layer of unpredictability regarding the program's long-term impact on New York City's transportation landscape.

In light of these uncertainties, the possible effects to Congestion Pricing are not accounted for in the analyses presented herein.



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

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



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

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

<sup>1</sup> Refer to **Figure 05.13-9**

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

<sup>3</sup> The Starrett-Lehigh and Terminal Warehouse located at 601 W. 26<sup>th</sup> 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*)

<sup>4</sup> The Western Rail Yards Modifications located at 601 W. 30<sup>th</sup> 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*)

<sup>5</sup> 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*)

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

<sup>7</sup> Source: Data provided by NYCDOP.



## **Traffic**

### **Future No-Action Alternative Street Network Changes**

NYCDOT is redesigning 9<sup>th</sup> and 10<sup>th</sup> 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 10<sup>th</sup> Avenue will eliminate the rush hour lane and stripe parking protected bicycle lanes. For roads along 10<sup>th</sup> 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 10<sup>th</sup> Avenue at W. 17<sup>th</sup> Street, W. 21<sup>st</sup> to W. 23<sup>rd</sup> Streets, and W. 27<sup>th</sup> to W. 29<sup>th</sup> Streets<sup>7</sup>. Roads along 10<sup>th</sup> 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 10<sup>th</sup> Avenue and W. 27<sup>th</sup> 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 10<sup>th</sup> 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 9<sup>th</sup> 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 21 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 21 analyzed congested intersections, 7 intersections are located along the 9<sup>th</sup> Avenue corridor, one intersection is located along Dyer Avenue, and the remaining 13 intersections are located along the 10<sup>th</sup> 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), eight 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).

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<sup>7</sup> The traffic analysis under the build year conditions was updated to incorporate the latest geometric configurations from the 10<sup>th</sup> Avenue Street Improvement Project (SIP) that was provided by NYCDOT between the certification of the DEIS and FEIS.



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	12.5	B	0.79	15.4	B	1.04	34.2	C *	0.57	8.2	A	0.85	12.6	B	0.55	12.3	B	0.78	12.5	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	0.81	8.6	-	0.66	2.9	A	1.02	19.3	-	0.59	5.9	A	0.96	16.1	B	0.52	5.1	A	0.85	8.9	-
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	0.81	3.1	A	0.70	3.4	A	1.06	30.2	C *	0.48	2.6	A	0.90	4.1	A *	0.51	3.0	A	0.81	2.8	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	-	-	-	0.41	14.4	B	-	-	-	0.30	14.9	B	-	-	-	0.44	15.6	B	-	-	-	0.38	13.4	B
	NB	T	-	-	-	0.78	5.0	A	-	-	-	1.04	31.0	C *	-	-	-	0.90	8.5	A *	-	-	-	0.81	5.3	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	8.0	A	0.72	14.7	B	0.96	11.4	B *	0.52	12.5	B	0.88	9.1	A	0.58	16.0	B	0.80	9.9	A
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	4.4	A	0.64	4.1	A	0.88	3.8	A	0.46	4.3	A	0.78	3.4	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	0.84	14.3	B	0.66	15.1	B	0.95	11.2	B *	0.45	12.3	B	0.82	9.1	A	0.45	12.3	B	0.68	8.5	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 *	-	-	-	-	-	-
	WB	R	0.72	31.7	C	0.87	43.8	D	-	-	-	-	-	-	0.71	56.8	E *	1.07	116.0	F *	-	-	-	-	-	-
	WB	TR	-	-	-	-	-	-	1.05	108.4	F *	1.30	196.7	F *	-	-	-	-	-	-	1.05	82.1	F *	1.45	235.3	F *
	NB	LTR	0.60	6.3	A	0.85	6.8	A	0.73	9.1	A	1.06	39.3	D *	0.60	8.2	A	1.04	31.8	C *	0.57	5.9	A	0.82	5.7	A
W.22nd St (EB) & 10th Ave (NB)	NB	LTR	0.57	5.0	A	0.80	5.5	A	0.65	6.3	A	0.95	11.0	B *	0.54	8.6	A	0.94	14.7	B *	0.54	8.1	A	0.80	8.2	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	0.80	4.8	A	0.58	6.8	A	0.95	11.1	B *	0.51	7.4	A	0.85	6.7	A	0.44	4.0	A	0.73	4.0	A
W.20th St (EB) & 10th Ave (NB)	NB	LTR	0.78	28.6	C	0.82	8.5	A	0.87	32.1	C	0.95	11.9	B *	0.90	36.6	D *	0.98	16.8	B *	0.78	32.8	C	0.86	10.7	B
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	0.81	9.0	A	0.63	4.6	A	0.95	17.0	B *	0.60	7.4	A	0.93	14.9	B *	0.52	7.4	A	0.81	10.4	B
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 *	-	-	-	0.65	61.4	E *	-	-	-	0.77	70.4	E *	-	-	-	0.69	63.6	E *	-	-	-
	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	0.71	8.7	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

**Note:** This table has been revised for the FEIS.



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	25.1	C	0.30	25.6	C	0.35	26.6	C	0.23	1.5	A	0.29	9.5	A	0.27	24.6	C	0.34	22.7	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	17.9	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	65.6	E *	0.27	51.0	D	0.77	58.3	E *	0.29	27.9	C	0.86	38.3	D	0.36	12.7	B	0.94	24.2	C *
	EB	R	0.70	31.3	C	0.82	27.0	C	0.50	55.8	E *	0.87	71.1	E *	0.47	32.1	C	0.76	37.3	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	42.3	D	0.57	27.2	C	0.69	26.4	C	0.51	28.7	C	0.67	27.7	C	0.44	32.1	C	0.63	37.0	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	119.8	F *	0.79	41.3	D	0.87	46.7	D	0.45	20.2	C	0.52	24.5	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)	SB	T	0.59	4.6	A	0.80	6.6	A	0.45	3.7	A	0.65	4.0	A	0.48	3.4	A	0.73	4.1	A	0.51	2.4	A	0.68	2.6	A
	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	23.9	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	27.5	C
	EB	R	0.35	27.3	C	0.38	21.2	C	0.41	30.3	C	0.44	35.2	D	0.29	24.2	C	0.32	31.3	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
	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
W.19th St (WB) & 9th Ave (SB)	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
	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
W.18th St (EB) & 9th Ave (SB)	EB	TR	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	29.3	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
	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
W.17th St (WB) & 9th Ave (SB)	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)

**Note:** This table has been revised for the FEIS.



## **Transit**

### **Subway Stations**

#### ***14<sup>th</sup> Street/8<sup>th</sup> Avenue Station (A/C/E/L)***

Under the No-Action Alternative, demand at the 14<sup>th</sup> Street/8<sup>th</sup> Avenue (A/C/E/L) subway station is expected to increase as a result of new development<sup>8</sup> 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 8<sup>th</sup> 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 8<sup>th</sup> 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.

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<sup>8</sup> 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



### ***23<sup>rd</sup> Street Station (C/E)***

Under the No-Action Alternative, demand at the 23<sup>rd</sup> Street (C/E) subway station is expected to increase as a result of new development<sup>9</sup> 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. 17<sup>th</sup> Street between 9<sup>th</sup> and 10<sup>th</sup> Avenues, which would operate at LOS D in all analyzed peak hours; and
- The north sidewalk along W. 16<sup>th</sup> Street between 8<sup>th</sup> and 9<sup>th</sup> 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 8<sup>th</sup> Avenue and W. 25<sup>th</sup> Street, which is expected to operate at LOS D in the weekday PM peak hour.

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<sup>9</sup> 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 <sup>2</sup> /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 & proposed EC Building 7 entrance (east of entrance)	2.0	39	39	50	60	395.9	383.7	247.0	269.2	B	B	B	B
South sidewalk along W 27 Dr btw proposed EC Building 7 entrance & W 27 Dr (west of entrance)	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	418	299	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	402	257	498	478	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

**Note:** This table has been revised for the FEIS.



**Table 05.13-23: No-Action Alternative Crosswalk Conditions**

Intersection	Crosswalk	Peak Hour Volumes				Average Pedestrian Space (ft <sup>2</sup> /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	421	361	684	557	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	27.2	39.1	16.2	29.7	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	119.4	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

**Note:** This table has been revised for the FEIS.

## 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 <sup>2</sup> /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 10<sup>th</sup> Avenue SIP, a northbound left turn lane at 10<sup>th</sup> Avenue and W. 27<sup>th</sup> 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**

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

**Notes:**

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

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

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

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

## **Alternative 2 – Preferred Alternative**

As shown in **Table H.1-1**, compared to the No-Action Alternative, the Preferred Alternative would result in a net incremental increase of 3,454 DUs, 27,371 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<sup>10</sup>. The Preferred 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 Preferred 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 10<sup>th</sup> Avenue and W. 27<sup>th</sup> Street.

<sup>10</sup> The travel demand forecast and transportation analyses have been revised due to minor revisions to the development program (detailed in **Chapter 02.0**) between the certification of the DEIS and FEIS.



### **Travel Demand Forecast**

The net incremental change of in person and vehicle trips expected to result from the Preferred 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 Preferred Alternative. As shown in **Table 05.13-26**, the Preferred Alternative would generate a net increase of approximately 3,723 person trips in the weekday AM, 2,725 in the weekday midday, 4,042 in the weekday PM, and 4,349 in the Saturday peak hour.

**Table 05.13-27** summarizes the number of additional trips that would be generated by the Preferred 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, 332, and 374 (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 3,459, 2,531, 3,779, and 4,046 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 – Preferred Alternative Persons Trips**

Land Use:	<u>Residential</u> <u>(Market-Rate</u> <u>and Affordable)</u>		<u>Residential</u> <u>(Section 8</u> <u>PBV)</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	27,371	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		220		405		180		114		0		0		0		54		15		106		3,723	
MD	1,582		0		364		333		315		129		N/A		N/A		N/A		0		2		0		2,725	
PM	2,401		0		496		405		477		88		0		0		0		54		15		106		4,042	
Saturday	2,633		0		576		554		502		84		N/A		N/A		N/A		0		0		0		4,349	
Person 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	In	Out
Auto	37	138	0	0	5	5	9	6	3	3	1	0	0	0	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	0	0	0	43	84
Subway	303	1,070	0	0	0	0	28	21	14	14	43	26	0	0	0	0	0	0	3	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	0	3	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	0	0	0	43	86
Walk/Other	175	611	0	0	107	103	143	111	65	63	17	11	0	0	0	0	0	0	40	0	2	0	47	47	596	946
Total	579	2,050	0	0	112	108	230	175	91	89	72	42	0	0	0	0	0	0	54	0	15	0	53	53	1,206	2,517
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	In	Out
Auto	53	53	0	0	7	7	6	6	6	6	1	0	N/A	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	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	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	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	N/A	N/A	N/A	0	0	N/A	N/A	48	49
Walk/Other	236	235	0	0	167	167	101	108	112	108	18	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A	634	633
Total	791	791	0	0	182	182	161	172	161	154	70	59	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	N/A	N/A	1,366	1,359
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	In	Out
Auto	100	61	0	0	10	10	8	8	10	10	0	0	0	0	0	0	0	0	0	8	0	2	0	0	128	99
Taxi	47	29	0	0	2	2	19	17	2	2	1	2	0	0	0	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	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	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	0	0	0	76	56
Walk/Other	443	274	0	0	230	230	133	125	167	168	11	15	0	0	0	0	0	0	0	40	0	2	47	47	1,031	901
Total	1488	913	0	0	248	248	209	196	238	239	35	53	0	0	0	0	0	0	0	54	0	15	53	53	2,271	1,771
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	In	Out
Auto	97	80	0	0	11	11	10	12	10	10	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	128	113
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	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	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	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	N/A	N/A	N/A	81	73
Walk/Other	432	355	0	0	265	265	170	178	170	178	13	11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,050	987
Total	1449	1184	0	0	288	288	267	287	246	256	45	39	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,295	2,054

**Notes:**

This table has been revised for the FEIS.

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



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

Land Use:	<u>Residential</u> (Market-Rate and Affordable)		<u>Residential</u> (Section 8 PBV)		<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	27,371	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		220		405		180		114		0		0		0		54		15		106		3,723	
MD	1,582		0		364		333		315		129		N/A		N/A		N/A		0		2		0		2,725	
PM	2,401		0		496		405		477		88		0		0		0		54		15		106		4,042	
Saturday	2,633		0		576		554		502		84		N/A		N/A		N/A		0		0		0		4,349	
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	In	Out
Auto (Total)	32	121	0	0	5	5	6	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	15	10	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	19	19	2	2	3	3	0	0	0	0	0	0	0	0	0	0	0	0	78	78
Truck	<u>13</u>	<u>13</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>13</u>	<u>13</u>	
Total	99	188	0	0	5	5	25	24	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	In	Out
Auto (Total)	46	46	0	0	7	7	5	5	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	10	10	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	16	16	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	<u>2</u>	<u>2</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>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>0</u>	<u>0</u>	<u>N/A</u>	<u>N/A</u>	<u>2</u>	<u>2</u>
Total	81	81	0	0	11	11	21	21	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	In	Out
Auto (Total)	86	52	0	0	9	9	6	6	7	7	0	0	0	0	0	0	0	0	8	8	0	2	0	0	116	84
Taxi	33	20	0	0	2	2	13	11	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	18	18	4	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	65	65
Truck	<u>1</u>	<u>1</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>1</u>	<u>1</u>	
Total	124	90	0	0	13	13	24	24	11	11	2	2	0	0	0	0	0	0	8	8	0	2	0	0	182	150
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	In	Out
Auto (Total)	84	70	0	0	10	10	7	7	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	108	94
Taxi	32	26	0	0	3	3	17	19	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	28	28	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	<u>3</u>	<u>3</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>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>0</u>	<u>0</u>	<u>N/A</u>	<u>N/A</u>	<u>3</u>	<u>3</u>
Total	130	116	0	0	16	16	35	35	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	194	180

**Notes:**

This table has been revised for the FEIS.

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 – Preferred Alternative**

Table 6-10-1-1: Travel Demand Forecast Summary, <u>2010</u> <u>Travel</u>																		
Peak Hour	Vehicle Trips			Person Trips														
				Auto			Subway			Bus Only			Walk/Other			Total Pedestrian Trips <sup>1</sup>		
	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	596	946	1,542	1,112	2,347	3,459
MD	126	125	251	73	72	145	501	497	998	61	60	121	634	633	1,267	1,269	1,262	2,531
PM	182	150	332	128	91	219	866	586	1,452	99	77	176	1,031	901	1,932	2,124	1,655	3,779
Saturday	194	180	374	128	113	241	858	719	1,577	101	90	191	1,050	987	2,037	2,137	1,909	4,046
Notes:																		
<sup>1</sup> Includes walk-only trips and pedestrians en route to/from nearby subway stations, bus stops, and parking facilities.																		

**Note:**

This table has been revised for the FEIS.

**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 (14<sup>th</sup> Street/8<sup>th</sup> Avenue [A/C/E/L] and 23<sup>rd</sup> 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 Preferred Alternative are presented in the *TPF/TDF Technical Memorandum* provided in **Appendix H.1**.

**Detailed Traffic Analysis****Future Preferred Alternative Traffic Growth**

As shown in **Table 05.13-27**, based on the Preferred Alternative, there would be a net total of approximately 379, 251, 332, and 374 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 Preferred 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 Preferred Alternative are shown in **Table 05.13-28**. A total of 23 analyzed signalized intersections would have at least one congested lane group in one or more peak hours in the Preferred Alternative, as compared to 21 intersections under the No-Action Alternative. Significant adverse impacts were identified in five lane groups at five intersections in the weekday AM peak hour, nine lane groups at eight 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 Preferred Alternatives Traffic Levels of Service**

Intersection	Approach	Lane Group	No-Action Alternative AM			Preferred Alternative AM			No-Action Alternative Midday			Preferred Alternative Midday			No-Action Alternative PM			Preferred Alternative PM			No-Action Alternative SAT			Preferred 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	12.5	B	0.81	13.0	B	1.04	34.2	C	1.06	41.3	D	0.85	12.6	B	0.87	13.0	B	0.78	12.5	B	0.80	12.7	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	T	0.81	8.6	A	0.85	8.9	A	1.02	19.3	B	1.04	26.6	C	0.96	16.1	B	0.99	19.5	B	0.85	8.9	A	0.87	9.0	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	0.81	3.1	A	0.85	3.8	A	1.06	30.2	C	1.08	39.0	D	0.90	4.1	A	0.93	4.8	A	0.81	2.8	A	0.86	3.4	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	0.41	14.4	B	0.44	15.1	B	0.30	14.9	B	0.31	15.4	B	0.44	15.6	B	0.45	16.2	B	0.38	13.4	B	0.39	14.1	B
	NB	T	0.78	5.0	A	0.82	5.8	A	1.04	31.0	C	1.06	37.1	D	0.90	8.5	A	0.93	9.3	A	0.81	5.3	A	0.84	5.8	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	8.0	A	0.89	10.2	B	0.96	11.4	B	1.00	17.9	B	0.88	9.1	A	0.93	11.0	B	0.80	9.9	A	0.87	11.9	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	4.4	A	0.78	4.8	A	0.88	3.8	A	0.92	4.5	A	0.78	3.4	A	0.81	3.5	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	0.84	14.3	B	0.88	14.6	B	0.95	11.2	B	0.98	12.6	B	0.82	9.1	A	0.85	9.3	A	0.68	8.5	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	0.85	6.8	A	0.89	8.3	A	1.06	39.3	D	1.08	48.2	D	1.04	31.8	C	1.08	45.2	D	0.82	5.7	A	0.86	7.0	A
W.22nd St (EB) & 10th Ave (NB)	NB	LTR	0.80	5.5	A	0.83	6.2	A	0.95	11.0	B	0.97	12.9	B	0.94	14.7	B	0.97	18.1	B	0.80	8.2	A	0.84	9.1	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	0.80	4.8	A	0.84	6.0	A	0.95	11.1	B	0.98	13.2	B	0.85	6.7	A	0.88	6.6	A	0.73	4.0	A	0.77	5.0	A
W.20th St (EB) & 10th Ave (NB)	NB	LTR	0.82	8.5	A	0.87	9.8	A	0.95	11.9	B	0.98	14.8	B	0.98	16.8	B	1.02	25.4	C	0.86	10.7	B	0.91	12.7	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	35.8	D	0.91	40.0	D	0.94	42.2	D	0.74	56.2	E	0.77	57.0	E
	NB	T	0.81	9.0	A	0.84	10.0	B	0.95	17.0	B	0.98	20.1	C	0.93	14.9	B	0.96	18.0	B	0.81	10.4	B	0.86	11.6	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	0.83	12.4	B	0.86	11.6	B	0.90	14.3	B	0.85	10.8	B	0.91	13.8	B	0.71	8.7	A	0.77	10.8	B
W.17th St (WB) & 10th Ave (NB)	WB	TR	0.70	27.1	C	0.96	51.6	D	0.88	47.0	D	1.02	70.8	E *	0.96	56.2	E	1.13	104.3	F *	0.88	35.2	D	1.08	79.6	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

**Note:**

This table has been updated for the FEIS.



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

Intersection	Approach	Lane Group	No-Action Alternative AM			Preferred Alternative AM			No-Action Alternative Midday			Preferred Alternative Midday			No-Action Alternative PM			Preferred Alternative PM			No-Action Alternative SAT			Preferred 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	25.1	C	0.28	26.0	C	0.35	26.6	C	0.36	26.9	C	0.29	9.5	A	0.30	9.6	A	0.34	22.7	C	0.36	23.3	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	17.9	B	0.45	18.5	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	65.6	E	1.08	67.5	E	0.77	58.3	E	0.77	58.6	E	0.86	38.3	D	0.86	37.2	D	0.94	24.2	C	0.95	24.4	C
	EB	R	0.82	27.0	C	0.89	32.0	C	0.87	71.1	E	0.95	83.3	F *	0.76	37.3	D	0.86	40.9	D	1.07	60.9	E	1.16	97.5	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	42.3	D	0.80	42.3	D	0.69	26.4	C	0.70	26.8	C	0.67	27.7	C	0.69	28.6	C	0.63	37.0	D	0.66	37.0	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	119.8	F	1.25	160.4	F *	0.87	46.7	D	0.96	61.2	E *	0.52	24.5	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	44.6	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	136.6	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	23.9	C	0.65	24.3	C	0.65	37.1	D	0.65	37.5	D	0.73	34.4	C	0.75	34.7	C	0.86	27.5	C	0.88	28.2	C
	EB	R	0.38	21.2	C	0.42	21.9	C	0.44	35.2	D	0.48	36.0	D	0.32	31.3	C	0.33	31.4	C	0.23	19.2	B	0.25	19.4	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
	SB	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
W.19th St (WB) & 9th Ave (SB)	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	0.98	70.7	E *	0.72	38.6	D	0.80	44.2	D
	SB	TR	0.67	19.5	B	0.70	20.2	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	52.1	D	0.75	45.4	D	0.88	55.1	E *	0.81	48.5	D	0.94	61.5	E *	0.79	29.3	C	0.93	45.3	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	0.42	20.6	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	11.3	B	0.69	7.6	A	0.76	9.6	A	0.65	7.8	A	0.74	10.5	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)

**Note:**This table has been revised for the FEIS.



## **Transit**

### **Subway Stations**

As shown in **Table 05.13-27**, the Preferred 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 14<sup>th</sup> Street/8<sup>th</sup> 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 23<sup>rd</sup> Street (A/C/E) subway station on the 8<sup>th</sup> 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 14<sup>th</sup> Street/8<sup>th</sup> Avenue (A/C/E/L) station complex and the 23<sup>rd</sup> Street (C/E) station under the Preferred Alternative are shown in **Table 05.13-29** and **Table 05.13-30** and discussed below.

#### ***14<sup>th</sup> Street/8<sup>th</sup> Avenue Station (A/C/E/L)***

Under the Preferred Alternative, all analyzed stairs and fare arrays at the 14<sup>th</sup> Street/8<sup>th</sup> 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 8<sup>th</sup> 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 8<sup>th</sup> 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 Preferred Alternative.

#### ***23<sup>rd</sup> Street Station (C/E)***

Under the Preferred Alternative, all analyzed stairs and fare arrays at the 23<sup>rd</sup> 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 Preferred Alternative.



**Table 05.13-29: Preferred 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: Preferred 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 Preferred 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 Preferred Alternative are expected to be most



concentrated in proximity to the Project Sites and along corridors connecting these sites to area transit services. To better accommodate increased pedestrian demand, portions of the W. 27<sup>th</sup> Drive sidewalk adjacent to the Elliott-Chelsea Project Sites would be widened by 2 to 2.5 feet.

As shown in **Table 05.13-27**, the Preferred Alternative is expected to generate a net incremental total of approximately 1,542 walk-only trips in the weekday AM peak hour, 1,267 in the midday peak hour, 1,932 in the PM peak hour, and 2,037 in the Saturday peak hour. Persons en route to and from off-site parking spaces, subway station entrances, and bus stops would add approximately 1,917, 1,264, 1,847, and 2,009 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 Preferred Alternative pedestrian volumes for analysis.

Anticipated conditions at analyzed sidewalks, crosswalks, and corner areas in the future with the Preferred Alternative are shown in **Tables 05.13-31 through 05.13-33**. As discussed below, in the future with the Preferred Alternative, five 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 Preferred 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 Preferred Alternative and the total With-Action Preferred 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 five of the 20 analyzed sidewalks in one or more peak hours. These would include:

- The south sidewalk along W. 27<sup>th</sup> Drive between 10<sup>th</sup> Avenue and proposed Elliott-Chelsea Building 7 entrance (east of entrance) in the weekday AM, weekday PM, and Saturday peak hours;
- The north sidewalk along W. 25<sup>th</sup> Street between 8<sup>th</sup> Avenue and 9<sup>th</sup> Avenue in the weekday PM peak hour;
- The west sidewalk along 9<sup>th</sup> Avenue between W. 17<sup>th</sup> Street and W. 18<sup>th</sup> Street in the weekday AM and Saturday peak hours;
- The north sidewalk along W. 17<sup>th</sup> Street between 9<sup>th</sup> Avenue and 10<sup>th</sup> Avenue in all analyzed peak hours; and
- The north sidewalk along W. 16<sup>th</sup> Street between 8<sup>th</sup> Avenue and 9<sup>th</sup> Avenue in all analyzed peak hours.



**Table 05.13-31: Preferred Alternative Sidewalk Conditions**

Location	Effective Width (ft)	Project Increment				Peak Hour Volumes				Average Pedestrian Space (ft <sup>2</sup> /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	8.0	134	186	283	303	422	688	891	757	198.0	110.2	91.4	108.9	B	B	B	B
South sidewalk along W 27 Dr btw 10 Ave & proposed EC Building 7 entrance (east of entrance)	1.5	355	303	261	352	394	342	311	412	28.4	31.9	28.8	28.4	D *	D	D *	D *
South sidewalk along W 27 Dr btw proposed EC Building 7 entrance & W 27 Dr (west of entrance)	3.5	620	467	505	627	659	506	555	687	40.3	51.2	38.2	40.4	C	C	D	C
North sidewalk along W 26 St btw 10 Ave & W 27 Dr	6.5	312	313	296	380	535	374	795	771	129.7	134.0	82.2	79.7	B	B	C	C
East sidewalk along 10 Ave btw W 25 St & W 26 St	3.5	412	394	388	491	758	834	955	951	45.4	42.2	35.7	37.7	C	C	D	D
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	4.0	620	467	505	627	692	495	529	643	35.6	84.1	59.7	41.4	D	C	C	C
North sidewalk along W 26 St btw 8 Ave & 9 Ave	5.0	205	172	250	280	535	377	668	579	75.1	116.3	75.2	70.4	C	B	C	C
West sidewalk along 9 Ave btw W 25 St & W 26 St	4.5	570	473	468	588	972	730	966	1,066	39.4	55.1	47.0	41.9	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	704	571	698	769	1,056	944	1,298	1,342	58.5	79.8	58.4	59.6	C	C	C	C
North sidewalk along W 19 St btw 9 Ave & 10 Ave	2.0	234	212	168	232	338	342	342	431	55.0	61.3	48.7	37.2	C	C	C	D
West sidewalk along 9 Ave btw W 16 St & W 17 St	3.5	407	302	490	502	682	680	965	1,059	45.5	50.1	38.0	34.1	C	C	D	D
West sidewalk along 9 Ave btw W 17 St & W 18 St	4.0	702	562	710	780	1,041	952	1,266	1,376	31.3	47.3	34.4	30.8	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	291	199	266	296	587	635	1,024	750	122.7	124.6	77.9	99.5	B	B	C	B
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	409	242	412	425	818	572	1,091	872	10.4	16.4	7.0	7.6	F *	E *	F *	F *

**Notes:**

This table has been revised for the FEIS.

\* 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 Preferred Alternative and the total Preferred 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 Preferred Alternative. These would include:



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

**Table 05.13-32: Preferred Alternative Crosswalk Conditions**

Intersection	Crosswalk	Project Increment				Peak Hour Volumes				Average Pedestrian Space (ft <sup>2</sup> /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	888	724	1,107	1,068	31.6	46.1	31.2	29.3	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	19.6	30.1	13.4	22.0	D	C	E *	D
9 Ave & W 19 St	West	342	281	344	388	711	681	907	1,005	51.4	60.5	50.0	40.8	B	A	B	B
9 Ave & W 18 St	West	545	432	576	611	875	771	1,070	1,185	46.9	51.1	41.6	33.3	B	B	B	C
9 Ave & W 17 St	North	220	157	206	233	446	417	523	538	48.2	53.8	37.3	45.1	B	B	C	B
9 Ave & W 17 St	South	275	171	275	292	475	390	582	610	38.0	56.4	36.0	33.7	C	B	C	C
9 Ave & W 17 St	West	549	407	604	635	858	838	1,181	1,305	38.1	40.6	30.2	25.7	C	B	C	C
9 Ave & W 16 St	West	190	133	244	236	504	655	881	1,123	118.0	86.9	71.4	53.3	A	A	A	B

**Notes:**

This table has been revised for the FEIS.

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

**Corner Areas**

**Table 05.13-33** shows the total Preferred 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 Preferred Alternative.



**Table 05.13-33: Preferred Alternative Corner Conditions**

Intersection	Corner	Average Pedestrian Space (ft <sup>2</sup> /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	29.4	36.7	C	B	C	C
9th Ave & W 26th St	SE	64.9	88.4	44.9	57.6	A	A	B	B
9th Ave & W 26th St	SW	58.8	96.7	46.1	51.2	B	A	B	B
9th Ave & W 26th St	NW	29.3	69.1	41.8	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	168.1	130.8	110.5	130.9	A	A	A	A
8th Ave & W 25th St	NE	53.5	72.5	39.5	52.6	B	A	C	B
8th Ave & W 25th St	NW	73.0	81.4	46.5	73.1	A	A	B	A
9th Ave & W 19th St	SW	75.1	98.4	71.2	68.6	A	A	A	A
9th Ave & W 19th St	NW	88.2	100.6	80.5	71.7	A	A	A	A
9th Ave & W 18th St	SW	79.6	84.7	66.7	60.6	A	A	A	A
9th Ave & W 18th St	NW	68.1	74.7	59.6	53.9	A	A	B	B
9th Ave & W 17th St	NE	94.0	79.6	73.4	81.0	A	A	A	A
9th Ave & W 17th St	SE	120.6	127.0	93.4	90.8	A	A	A	A
9th Ave & W 17th St	SW	56.7	70.1	48.3	41.9	B	A	B	B
9th Ave & W 17th St	NW	53.1	59.8	45.9	39.9	B	B	B	C
9th Ave & W 16th St	NE	167.0	194.6	106.8	131.2	A	A	A	A
9th Ave & W 16th St	SW	197.9	119.8	113.6	91.6	A	A	A	A
9th Ave & W 16th St	NW	159.7	161.7	99.4	94.9	A	A	A	A
8th Ave & W 17th St	SW	31.2	63.0	56.2	77.9	C	A	B	A

**Notes:**

This table has been revised for the FEIS.

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

**Parking**

The 2041 Preferred 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 Preferred 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 Preferred



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

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

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

**Notes:**

This table has been revised for the FEIS.

<sup>1</sup> Demand from new Preferred Alternative development on the Project Sites not accommodated by accessory parking.

<sup>2</sup> No parking spaces will be removed due to the Preferred 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, 20,262 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<sup>11</sup>. Similar to the Preferred 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. 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 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 Preferred 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 10<sup>th</sup> Avenue and W. 27<sup>th</sup> 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

<sup>11</sup> The travel demand forecast and transportation analyses have been revised due to minor revisions to the development program (detailed in Chapter 02.0) between the certification of the DEIS and FEIS.



increase of approximately 2,300 person trips in the weekday AM, 1,782 in the weekday midday, 2,490 in the weekday PM, and 2,823 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, 225, and 264 (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 2,110, 1,632, 2,295, and 2,590 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:	<u>Residential</u> (Market-Rate and Affordable)		<u>Residential</u> (Section 8 PBV)		<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:	1,783	DU	0	DU	20,262	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		162		548		76		99		0		0		0		18		5		36		2,300	
MD	816		0		268		452		133		113		N/A		N/A		N/A		0		0		0		1,782	
PM	1,241		0		364		548		201		77		0		0		0		18		5		36		2,490	
Saturday	1,360		0		426		752		211		74		N/A		N/A		N/A		0		0		0		2,823	
<b>Person Trips:</b>																										
<b>AM</b>	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
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	81	75	198	151	28	27	16	9	0	0	0	0	0	0	13	0	1	0	16	16	442	594
Total	299	1,057	0	0	84	78	311	237	39	37	63	36	0	0	0	0	0	0	18	0	5	0	18	18	837	1,463
<b>MD</b>	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
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	121	121	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	441	452
Total	407	409	0	0	134	134	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	885	897
<b>PM</b>	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
Auto	52	32	0	0	7	7	12	10	4	4	0	0	0	0	0	0	0	0	0	3	0	1	0	0	75	57
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	167	167	180	166	70	71	10	13	0	0	0	0	0	0	0	13	0	1	16	16	673	588
Total	770	471	0	0	182	182	286	262	100	101	31	46	0	0	0	0	0	0	0	18	0	5	18	18	1,387	1,103
<b>Saturday</b>	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
Auto	50	41	0	0	9	9	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	76	69
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	196	196	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	731	714
Total	747	613	0	0	213	213	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	1,464	1,359

**Notes:**

This table has been revised for the FEIS.

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:	<u>Residential</u> <u>(Market-Rate</u> <u>and Affordable)</u>		<u>Residential</u> <u>(Section 8</u> <u>PBV)</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:	1,783	DU	0	DU	20,262	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		162		548		76		99		0		0		0		18		5		36		2,300	
MD	816		0		268		452		133		113		N/A		N/A		N/A		0		0		0		1,782	
PM	1,241		0		364		548		201		77		0		0		0		18		5		36		2,490	
Saturday	1,360		0		426		752		211		74		N/A		N/A		N/A		0		0		0		2,823	
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	In	Out
Auto (Total)	17	62	0	0	3	3	9	7	1	1	0	0	0	0	0	0	0	0	3	3	1	0	0	0	34	76
Taxi	6	25	0	0	0	0	19	14	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	27	40
Taxi Balanced	29	29	0	0	0	0	25	25	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	57	57
Truck	<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>6</u>	<u>6</u>
Total	52	97	0	0	3	3	34	32	1	1	3	3	0	0	0	0	0	0	3	3	1	0	0	0	97	139
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	In	Out
Auto (Total)	24	24	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	0	0	N/A	N/A	38	38
Taxi	9	9	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	0	0	N/A	N/A	27	28
Taxi Balanced	15	15	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	0	0	N/A	N/A	47	47
Truck	<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>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>0</u>	<u>0</u>	<u>N/A</u>	<u>N/A</u>	<u>6</u>	<u>6</u>
Total	45	45	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	0	0	N/A	N/A	91	91
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	In	Out
Auto (Total)	46	28	0	0	6	6	9	7	3	3	0	0	0	0	0	0	0	0	3	3	0	1	0	0	67	48
Taxi	19	11	0	0	2	2	18	16	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	41	31
Taxi Balanced	21	21	0	0	4	4	26	26	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	55	55
Truck	<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>
Total	67	49	0	0	10	10	35	33	5	5	2	2	0	0	0	0	0	0	3	3	0	1	0	0	122	103
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	In	Out
Auto (Total)	44	35	0	0	7	7	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	63	55
Taxi	18	14	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	45	44
Taxi Balanced	24	24	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	71	71
Truck	<u>2</u>	<u>2</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>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>2</u>	<u>2</u>
Total	70	61	0	0	11	11	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	136	128

**Notes:**

This table has been revised for the FEIS.

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 <sup>1</sup>		
	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	442	594	1,036	758	1,352	2,110
MD	91	91	182	45	45	90	287	282	569	39	41	80	441	452	893	812	820	1,632
PM	122	103	225	75	54	129	472	328	800	59	46	105	673	588	1,261	1,279	1,016	2,295
Saturday	136	128	264	76	69	145	476	406	882	62	56	118	731	714	1,445	1,345	1,245	2,590
<b>Notes:</b>																		
<sup>1</sup> Includes walk-only trips and pedestrians en route to/from nearby subway stations, bus stops, and parking facilities.																		

**Note:**

This table has been revised for the FEIS.

**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 (14<sup>th</sup> Street/8<sup>th</sup> Avenue [A/C/E/L] and 23<sup>rd</sup> 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, 225, and 264 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, all 11 signalized intersections would have at least one congested lane group in one or more peak hour in the Non-Rezoning Alternative, as compared to nine 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	0.41	14.4	B	0.43	14.8	B	0.30	14.9	B	0.31	15.3	B	0.44	15.6	B	0.45	16.0	B	0.38	13.4	B	0.39	13.8	B
	NB	T	0.78	5.0	A	0.80	5.4	A	1.04	31.0	C	1.06	35.8	D	0.90	8.5	A	0.92	8.9	A	0.81	5.3	A	0.83	5.5	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	8.0	A	0.86	9.3	A	0.96	11.4	B	0.98	14.7	B	0.88	9.1	A	0.91	10.3	B	0.80	9.9	A	0.85	11.3	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	4.4	A	0.77	4.6	A	0.88	3.8	A	0.90	4.0	A	0.78	3.4	A	0.80	3.5	A	0.69	4.5	A	0.71	4.6	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	148.2	F	-	-	-	-	-	-
	WB	R	0.87	43.8	D	0.90	47.1	D	-	-	-	-	-	-	1.07	116.0	F	1.11	130.3	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	0.85	6.8	A	0.88	7.8	A	1.06	39.3	D	1.08	45.5	D	1.04	31.8	C	1.06	39.4	D	0.82	5.7	A	0.85	6.6	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	0.42	25.8	C	0.44	26.1	C	0.47	26.5	C	0.47	26.5	C	0.51	27.5	C	0.52	27.7	C	0.55	28.5	A	0.56	29.0	C
	NB	TR	0.76	8.8	A	0.82	12.1	B	0.86	11.6	B	0.90	14.0	B	0.85	10.8	B	0.89	13.1	B	0.71	8.7	A	0.76	10.5	B
W.17th St (WB) & 10th Ave (NB)	WB	TR	0.70	27.1	C	0.88	40.5	D	0.88	47.0	D	0.98	60.9	E *	0.96	56.2	E	1.07	83.9	F *	0.88	35.2	D	1.03	62.6	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	119.8	F	1.21	144.8	F *	0.87	46.7	D	0.91	53.1	D	0.52	24.5	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	43.9	D	0.48	27.7	C	0.57	30.7	C	0.38	23.7	C	0.45	25.0	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	21.2	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	23.9	C	0.64	24.1	C	0.65	37.1	D	0.65	37.3	D	0.73	34.4	C	0.73	34.4	C	0.86	27.5	C	0.86	27.4	C
	EB	R	0.38	21.2	C	0.41	21.6	C	0.44	35.2	D	0.46	35.6	D	0.32	31.3	C	0.33	31.5	C	0.23	19.2	B	0.25	19.4	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	29.3	C	0.88	39.4	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	19.5	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	0.75	10.5	B	0.69	7.6	A	0.75	9.2	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)

**Note:**

This table has been revised for the FEIS.



## **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 14<sup>th</sup> Street/8<sup>th</sup> 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 23<sup>rd</sup> Street (A/C/E) subway station on the 8<sup>th</sup> 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 14<sup>th</sup> Street/8<sup>th</sup> Avenue (A/C/E/L) station complex and the 23<sup>rd</sup> Street (C/E) station under the Non-Rezoning Alternative are shown in **Table 05.13-38** and **Table 05.13-39** and discussed below.

#### ***14<sup>th</sup> Street/8<sup>th</sup> Avenue Station (A/C/E/L)***

Under the Non-Rezoning Alternative, all analyzed stairs and fare arrays at the 14<sup>th</sup> Street/8<sup>th</sup> 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 8<sup>th</sup> 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 8<sup>th</sup> 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.

#### ***23<sup>rd</sup> Street Station (C/E)***

Under the Non-Rezoning Alternative, all analyzed stairs and fare arrays at the 23<sup>rd</sup> 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. To better accommodate increased pedestrian demand, portions of the W. 27<sup>th</sup> Drive sidewalk adjacent to the Elliott-Chelsea Project Sites would be widened by up to 2 feet.

As shown in **Table 05.13-36**, the Non-Rezoning Alternative is expected to generate a net incremental total of approximately 1,036 walk-only trips in the weekday AM peak hour, 893 in the midday peak hour, 1,261 in the PM peak hour and 1,445 in the Saturday peak hour. Persons en route to and from off-site parking spaces, subway station entrances, and bus stops would add approximately 1,074, 739, 1,034, and 1,145 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, five 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 five of the 16 analyzed sidewalks in one or more peak hours. These would include:

- The south sidewalk along W. 27<sup>th</sup> Drive between 10<sup>th</sup> Avenue and proposed Elliott-Chelsea Building 7 entrance (east of entrance) in the weekday AM, weekday PM, and Saturday peak hours;
- The south sidewalk along W. 17<sup>th</sup> Street between 9<sup>th</sup> Avenue and 10<sup>th</sup> Avenue in all analyzed peak hours;
- The west sidewalk along 9<sup>th</sup> Avenue between W. 17<sup>th</sup> Street and W. 18<sup>th</sup> Street in the Saturday peak hour;
- The north sidewalk along W. 17<sup>th</sup> Street between 9<sup>th</sup> Avenue and 10<sup>th</sup> Avenue in all analyzed peak hours; and
- The north sidewalk along W. 16<sup>th</sup> Street between 8<sup>th</sup> Avenue and 9<sup>th</sup> 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 <sup>2</sup> /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 & proposed EC Building 7 entrance (east of entrance)	1.5	342	297	264	360	381	336	314	420	29.4	32.5	28.5	27.8	D *	D	D *	D *
South sidewalk along W 27 Dr btw proposed EC Building 7 entrance & W 27 Dr (west of entrance)	3.5	491	390	399	511	530	429	449	571	50.4	60.6	47.5	48.9	C	C	C	C
East sidewalk along 10 Ave btw W 25 St & W 26 St	3.5	333	291	252	342	679	731	819	802	50.8	48.3	41.9	45.0	C	C	C	C
West sidewalk along W 27 Dr btw W 26 St & W 27 Dr	3.5	491	390	399	511	563	418	423	527	38.4	87.2	65.4	44.3	D	C	C	C
North sidewalk along W 26 St btw 8 Ave & 9 Ave	5.0	178	145	167	203	508	350	585	502	79.1	125.3	86.0	81.3	C	B	C	C
West sidewalk along 9 Ave btw W 25 St & W 26 St	4.5	550	459	433	557	952	716	931	1,035	40.2	56.2	48.8	43.2	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	598	569	608	734	950	942	1,208	1,307	65.2	80.0	62.9	61.2	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	216	200	156	217	320	330	330	416	58.1	63.6	50.5	38.6	C	C	C	D
West sidewalk along 9 Ave btw W 16 St & W 17 St	3.5	377	324	473	519	652	702	948	1,076	47.8	48.5	38.7	33.5	C	C	D	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	654	617	678	776	993	1,007	1,234	1,372	33.1	44.6	35.4	30.9	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	134	237	249	623	464	916	696	15.0	20.9	9.4	10.8	E *	E *	F *	F *

**Notes:**

This table has been revised for the FEIS.

\* 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 <sup>2</sup> /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	776	645	976	927	37.3	52.1	35.9	34.3	C	B	C	C
9 Ave & W 19 St	West	273	257	294	353	642	657	857	970	57.7	62.9	53.3	42.5	B	A	B	B
9 Ave & W 18 St	West	399	385	461	535	729	724	955	1,109	56.9	54.7	47.1	35.8	B	B	B	C
9 Ave & W 17 St	South	141	88	162	171	341	307	469	489	54.5	72.2	45.0	42.3	B	A	B	B
9 Ave & W 17 St	West	406	368	480	546	715	799	1,057	1,216	47.8	43.2	34.4	28.2	B	B	C	C
9 Ave & W 16 St	West	142	130	214	225	456	652	851	1,112	130.9	87.3	74.1	53.9	A	A	A	B

**Notes:**

This table has been revised for the FEIS.

\* 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 <sup>2</sup> /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	34.8	43.6	C	A	C	B
9th Ave & W 26th St	SE	67.5	93.0	49.7	63.7	A	A	B	A
9th Ave & W 26th St	SW	64.5	102.7	53.0	59.3	A	A	B	B
9th Ave & W 26th St	NW	34.8	79.1	49.9	47.8	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	53.9	72.7	44.7	47.7	B	A	B	B
9th Ave & W 19th St	SW	72.7	80.6	71.3	63.2	A	A	A	A
9th Ave & W 19th St	NW	95.9	102.4	83.8	73.2	A	A	A	A
9th Ave & W 18th St	SW	98.2	91.5	74.1	65.3	A	A	A	A
9th Ave & W 18th St	NW	98.1	98.1	76.1	66.3	A	A	A	A
9th Ave & W 17th St	NE	111.6	87.4	83.3	92.8	A	A	A	A
9th Ave & W 17th St	SE	151.8	145.5	107.7	106.3	A	A	A	A
9th Ave & W 17th St	SW	68.9	72.7	53.1	44.7	A	A	B	B
9th Ave & W 17th St	NW	66.6	64.9	53.2	44.8	A	A	B	B
9th Ave & W 16th St	NE	214.0	226.1	124.0	154.2	A	A	A	A
9th Ave & W 16th St	SW	214.6	120.5	116.9	92.7	A	A	A	A
9th Ave & W 16th St	NW	214.7	180.2	115.6	105.6	A	A	A	A

**Notes:**

This table has been revised for the FEIS.

\* 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**

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

**Notes:**

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

<sup>2</sup> 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 Preferred Alternative and maintain the Preferred 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 Preferred Alternative, the tallest buildings would be located along 9<sup>th</sup> 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 Preferred 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 Preferred Alternative.



### **Traffic**

As discussed above, the Preferred Alternative would result in significant adverse impacts to 11 intersections in one or more analyzed peak hours. As the Midblock Bulk Alternative and the Preferred 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 Preferred Alternative. However, it should be noted that due to the rearrangement of bulk between the Midblock Bulk Alternative and the Preferred 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 Preferred Alternative. Therefore, as with the Preferred 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 Preferred Alternative would result in significant adverse impacts to five 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 Preferred 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 Preferred 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 Preferred Alternative. Therefore, as with the Preferred Alternative, the Midblock Bulk Alternative is not expected to result in significant adverse parking shortfalls during the weekday and Saturday overnight periods.

### **Alternative 7 – COY Alternative**

With the COY Alternative, the number of action-generated vehicle, transit, and pedestrian trips and the demand for on-street and off-street parking would be generally less than, the numbers of trips and the parking demand that would be generated by the Preferred Alternative. Based on the trip generation assumptions detailed in Table 05.13-1 and the program outlined in Table 02.0-10, the COY Alternative would generate approximately 879, 678, 1,107, and 1,086 fewer incremental person trips in the weekday AM, midday and PM peak hours, and Saturday peak hour, respectively (see Table 05.13-44). This represents an approximately 24, 25, 27, and 25 percent decrease in project-generated person trips in the weekday AM, midday, and PM peak hours, and Saturday peak hour, respectively compared with the Preferred Alternative. This decrease in trips is not expected



to result in conditions appreciably different from those disclosed above for the Preferred Alternative. Overall, it is anticipated that the COY Alternative would result in similar or fewer significant adverse traffic and pedestrian impacts compared to the Preferred Alternative. Neither the Preferred Alternative nor the COY Alternative would result in significant adverse impacts to subway, transit bus conditions or parking.

**Table 05.13-44: Comparison of Incremental Peak Hour Person Trips by Mode – Preferred Alternative vs. COY Alternative**

Alternative	Auto	Taxi	Subway	Bus	Bike	Walk/ Other	Total
<b>Weekday AM</b>							
Preferred Alternative	217	127	1,538	170	129	1,542	3,723
COY Alternative	165	107	1,203	126	106	1,137	2,844
<b>Net Difference</b>	<b>-52</b>	<b>-20</b>	<b>-335</b>	<b>-44</b>	<b>-23</b>	<b>-405</b>	<b>-879</b>
<b>Weekday Midday</b>							
Preferred Alternative	145	97	998	121	97	1,267	2,725
COY Alternative	113	79	781	90	75	909	2,047
<b>Net Difference</b>	<b>-32</b>	<b>-18</b>	<b>-217</b>	<b>-31</b>	<b>-22</b>	<b>-358</b>	<b>-678</b>
<b>Weekday PM</b>							
Preferred Alternative	227	123	1,452	176	132	1,932	4,042
COY Alternative	166	105	1,120	130	103	1,311	2,935
<b>Net Difference</b>	<b>-61</b>	<b>-18</b>	<b>-332</b>	<b>-46</b>	<b>-29</b>	<b>-621</b>	<b>-1,107</b>
<b>Saturday</b>							
Preferred Alternative	241	149	1,577	191	154	2,037	4,349
COY Alternative	182	125	1,229	143	122	1,462	3,263
<b>Net Difference</b>	<b>-59</b>	<b>-24</b>	<b>-348</b>	<b>-48</b>	<b>-32</b>	<b>-575</b>	<b>-1,086</b>

**Note:**

This table is new for the FEIS.

### **Traffic**

As shown in **Table 05.13-45**, the Preferred Alternative would generate an estimated 379, 251, 332, and 374 incremental vehicle (auto, taxi, and truck) trips in the weekday AM, midday and PM peak hours, and Saturday peak hour, respectively. As discussed above, these trips would result in significant adverse traffic impacts at a total of 11 study area intersections during one or more analyzed peak hours. A total of five lane groups at five intersections would be impacted in the weekday AM peak hour, nine lane groups at eight intersections in the weekday midday, 10 lane groups at eight intersections in the weekday PM, and five lane groups at four intersections in the Saturday peak hour.

Compared with the Preferred Alternative, the COY Alternative would generate approximately 85, 53, 70, and 74 fewer incremental vehicle trips during the weekday AM, midday, and PM peak hours, and Saturday peak hour respectively. This represents reductions of 22, 21, 21, and 20 percent as compared with the incremental vehicle trips that would be generated under the Preferred Alternative in the weekday AM, midday, and PM peak hours, and Saturday peak hour,



respectively. It is therefore anticipated that the number of lane groups and intersections with significant adverse traffic impacts under the COY Alternative would likely be comparable to or less than the number under the Preferred Alternative.

**Table 05.13-45: Comparison of Incremental Peak Hour Vehicle Trips by Mode – Preferred Alternative vs. COY Alternative**

Alternative	Auto	Taxi	Truck	Total
<b>Weekday AM</b>				
Preferred Alternative	197	156	26	379
COY Alternative	144	132	18	294
<i>Net Difference</i>	<i>-53</i>	<i>-24</i>	<i>-8</i>	<i>-85</i>
<b>Weekday Midday</b>				
Preferred Alternative	125	108	18	251
COY Alternative	92	90	16	198
<i>Net Difference</i>	<i>-33</i>	<i>-18</i>	<i>-2</i>	<i>-53</i>
<b>Weekday PM</b>				
Preferred Alternative	200	130	2	332
COY Alternative	142	118	2	262
<i>Net Difference</i>	<i>-58</i>	<i>-12</i>	<i>0</i>	<i>-70</i>
<b>Saturday</b>				
Preferred Alternative	202	166	6	374
COY Alternative	154	142	4	300
<i>Net Difference</i>	<i>-48</i>	<i>-24</i>	<i>-2</i>	<i>-74</i>

**Note:**

This table is new for the FEIS.

## **Transit**

### **Subway**

As presented in **Table 05.13-44**, compared with the Preferred Alternative, the COY Alternative would generate approximately 335 fewer incremental subway trips during the analyzed weekday AM peak hour (a 22 percent reduction) and 332 fewer in the weekday PM peak hour (a 23 percent reduction). As discussed above, the Preferred Alternative is not anticipated to result in adverse significant impacts to subway conditions.

### **Subway Stations**

**Table 05.13-46** presents a comparison of the number of subway trips (inbound and outbound combined) that would be generated by the Preferred Alternative and by the COY Alternative at analyzed subway stations—the 14th Street (A/C/E/L) and 23rd Street (C/E) stations. As shown in **Table 05.13-46**, in both the AM and PM peak hour, the COY Alternative would generate fewer trips at all analyzed subway stations compared to the Preferred Alternative. As the COY Alternative would generate 14 to 30 percent fewer incremental subway trips than the Preferred



Alternative, it is anticipated that the COY Alternative would not result in any new significant adverse subway station impacts.

**Table 05.13-46: Comparison of Incremental Peak Hour Subway Trips at Analyzed Subway Stations – Preferred Alternative vs. COY Alternative**

<b>Alternative</b>	<b>14 St (A/C/E/L)</b>	<b>23 St (C/E)</b>
<b>Weekday AM</b>		
Preferred Alternative	466	431
COY Alternative	393	309
<b><i>Net Difference</i></b>	<b><i>-73</i></b>	<b><i>-122</i></b>
<b>Weekday PM</b>		
Preferred Alternative	433	405
COY Alternative	373	283
<b><i>Net Difference</i></b>	<b><i>-60</i></b>	<b><i>-122</i></b>

**Note:**

This table is new for the FEIS.

### **Subway Line Haul**

As presented in Table 05.13-44, compared with the Preferred Alternative, the COY Alternative would generate approximately 335 and 332 fewer incremental subway trips during the analyzed weekday AM and PM peak hours, respectively. Therefore, as with the Preferred Alternative, incremental subway trips under the COY Alternative are not expected to result in significant adverse subway line haul impacts in the analyzed weekday AM and peak hours.

### **Bus**

As presented in Table 05.13-44, compared with the Preferred Alternative, the COY Alternative would generate approximately 44 and 46 fewer incremental bus trips during the analyzed weekday AM and PM peak hours, respectively. Therefore, as with the Preferred Alternative, incremental subway trips under the COY Alternative are not expected to result in significant adverse bus impacts in the analyzed weekday AM and peak hours.

### **Pedestrians**

As presented in Table 05.13-47, it is estimated that the Preferred Alternative would generate approximately 3,459, 2,531, 3,779, and 4,046 incremental pedestrian trips (walk-only plus pedestrians en route to/from subway stations, bus stops, and off-site parking facilities) in the weekday AM, midday and PM peak hours and the Saturday peak hour, respectively. Compared with the Preferred Alternative, the COY Alternative is expected to generate 831, 638, 1,055, and 1,030 fewer incremental pedestrian trips in each of these peak hours, respectively, a decrease of up to approximately 28 percent in each period. As discussed above, the Preferred Alternative



would result in significant adverse impacts to five 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 COY Alternative would generate fewer pedestrian trips in each peak hour than would the Preferred Alternative, it is anticipated that pedestrian conditions under the COY Alternative would be generally comparable to, or better than those under the Preferred Alternative in all periods, and that there would be no new significant adverse pedestrian impacts under this alternative. In addition, the impacts to the five sidewalks and two crosswalks under the Preferred Alternative would potentially be reduced in magnitude with the COY Alternative.

**Table 05.13-47: Comparison of Incremental Peak Hour Pedestrian Trips – Preferred Alternative vs. COY Alternative**

Alternative	Total
<b>Weekday AM</b>	
Preferred Alternative	3,459
COY Alternative	2,628
<b>Net Difference</b>	<b>-831</b>
<b>Weekday Midday</b>	
Preferred Alternative	2,531
COY Alternative	1,893
<b>Net Difference</b>	<b>-638</b>
<b>Weekday PM</b>	
Preferred Alternative	3,779
COY Alternative	2,724
<b>Net Difference</b>	<b>-1,055</b>
<b>Saturday</b>	
Preferred Alternative	4,046
COY Alternative	3,016
<b>Net Difference</b>	<b>-1,030</b>
<b>Note:</b> Includes walk-only trips and pedestrians en route to/from nearby subway stations, bus stops, and parking facilities.	

**Note:**

This table is new for the FEIS.

### **Parking**

As shown in **Tables 05.13-48 and 05.13-49**, development associated with the COY Alternative would generate a peak parking demand of approximately 741 and 787 spaces in the weekday and Saturday overnight periods, respectively. This compares with 858 spaces and 909 spaces under the Preferred Alternative in the weekday and Saturday overnight periods, respectively.

Compared with the Preferred Alternative, the COY Alternative would generate demand of approximately 117 and 122 fewer incremental spaces during the peak parking demand in the weekday and Saturday overnight periods, respectively. Therefore, as with the Preferred Alternative, the COY Alternative is not expected to result in significant adverse parking shortfalls during the weekday and Saturday overnight periods.



**Table 05.13-48: With-Action Weekday Parking Accumulation Forecast – COY Alternative**

	Residential (Market-Rate and Affordable)			Residential (Section 8 PBV)			Local Retail			Neighborhood Center			Supermarket			Medical Office			Universal Pre-K Staff			Daycare Staff			Total Accumulation		
	2,698 DUs			2,056 DUs			16,317 gsf			147,764 gsf			7,400 gsf			11,900 gsf			24 Staff			3,600 Staff					
	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.
12-1 AM	11	3	413	14	5	318	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	8	731	
1-2	5	2	416	8	1	325	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	3	741		
2-3	2	0	418	3	6	322	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	740		
3-4	2	2	418	0	1	321	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	739		
4-5	2	2	418	3	1	323	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3	741		
5-6	2	9	411	2	29	296	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	5	38	708		
6-7	7	23	395	23	61	258	0	0	0	3	1	3	0	0	0	0	0	0	0	0	0	0	33	85	656		
7-8	16	53	358	44	151	151	0	0	0	3	2	4	0	0	0	0	0	0	0	0	0	0	63	206	513		
8-9	27	97	288	48	62	137	1	1	0	8	3	9	1	1	0	0	0	0	3	0	3	2	0	2	90	164	439
9-10	21	50	259	25	33	129	3	3	0	10	9	10	1	1	0	2	1	1	0	0	3	0	0	2	62	97	404
10-11	19	29	249	35	24	140	3	3	0	10	10	10	1	1	0	1	0	2	0	0	3	0	0	2	69	67	406
11-12	23	27	245	58	55	143	3	3	0	8	7	11	1	1	0	1	0	3	0	0	3	0	0	2	94	93	407
12-1 PM	35	36	244	78	100	121	3	3	0	5	7	9	2	2	0	0	0	3	0	0	3	0	0	2	123	148	382
1-2	31	29	246	49	69	101	4	4	0	5	5	9	2	2	0	0	0	3	0	0	3	0	0	2	91	109	364
2-3	32	31	247	60	57	104	3	3	0	6	6	9	2	1	1	0	1	2	0	0	3	0	0	2	103	99	368
3-4	39	33	253	90	50	144	4	3	1	9	7	11	2	2	1	0	1	1	0	0	3	0	0	2	144	96	416
4-5	41	34	260	70	31	183	3	4	0	9	8	12	2	2	1	0	1	0	0	0	3	0	0	2	125	80	461
5-6	52	32	280	78	36	225	5	5	0	11	9	14	2	2	1	0	0	0	0	3	0	2	0	148	89	520	
6-7	69	43	306	82	57	250	6	6	0	9	9	14	3	3	1	0	0	0	0	0	0	0	0	169	118	571	
7-8	55	35	326	70	61	259	4	3	1	7	9	12	2	2	1	0	0	0	0	0	0	0	0	138	110	599	
8-9	52	29	349	46	45	260	3	3	1	4	8	8	2	2	1	0	0	0	0	0	0	0	0	107	87	619	
9-10	43	22	370	52	22	290	1	2	0	2	6	4	1	1	1	0	0	0	0	0	0	0	0	99	53	665	
10-11	33	15	388	23	12	301	0	0	0	0	4	0	0	1	0	0	0	0	0	0	0	0	0	56	32	689	
11-12	26	9	405	17	9	309	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	18	714	

**Notes:**

50% pass-by trip applied to the local retail use.

Assumes 0.15 autos/DU for residential NYCHA DUs based on 2015-2019 ACS auto ownership data for rental households in Manhattan census tracts 83, 89, 93, 97, and 99.

Assumes 0.15 autos/DU for residential market-rate and affordable DUs based on 2015-2019 ACS auto ownership data for rental households in Manhattan census tracts 83, 89, 93, 97, and 99.

**741** denotes the total peak parking accumulation.This table is new for the FEIS.



**Table 05.13-49: With-Action Saturday Parking Accumulation Forecast – COY Alternative**

	Residential (Market-Rate and Affordable)			Residential (Section 8 PBV)			Local Retail			Neighborhood Center			Supermarket			Medical Office			Universal Pre-K Staff			Daycare Staff			Total Accumulation		
	2,698 DUs			2,056 DUs			16,317 gsf			147,764 gsf			7,400 gsf			11,900 gsf			24 Staff			3,600 Staff					
	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.
12-1 AM	23	14	414	32	12	329	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	26	743
1-2	15	8	421	19	8	340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	16	761
2-3	12	3	430	3	3	340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	6	770
3-4	9	4	435	3	0	343	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	4	778
4-5	7	2	440	9	5	347	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	7	787
5-6	2	3	439	1	1	347	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	786
6-7	3	7	435	8	24	331	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	31	766
7-8	9	20	424	8	36	303	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	19	56	729
8-9	15	34	405	23	52	274	1	1	0	8	2	7	1	1	1	0	0	0	0	0	0	0	0	0	48	90	687
9-10	23	45	383	19	29	264	3	2	1	10	7	10	1	1	1	0	0	0	0	0	0	0	0	0	56	84	659
10-11	29	48	364	36	33	267	3	3	1	14	9	15	2	2	1	2	1	1	0	0	0	0	0	0	86	96	649
11-12	37	50	351	48	60	255	3	3	1	10	13	12	2	2	1	0	0	1	0	0	0	0	0	0	100	128	621
12-1 PM	43	55	339	55	51	259	3	3	1	15	15	12	2	2	1	0	0	1	0	0	0	0	0	0	118	126	613
1-2	44	47	336	63	49	273	4	4	1	13	12	13	2	2	1	0	1	0	0	0	0	0	0	0	126	115	624
2-3	48	44	340	80	59	294	5	5	1	11	13	11	2	2	1	0	0	0	0	0	0	0	0	0	146	123	647
3-4	46	45	341	88	104	278	5	5	1	9	9	11	2	2	1	0	0	0	0	0	0	0	0	0	150	165	632
4-5	52	43	350	32	60	250	6	6	1	9	8	12	4	4	1	0	0	0	0	0	0	0	0	0	103	121	614
5-6	67	58	359	53	67	236	5	6	0	5	9	8	2	2	1	0	0	0	0	0	0	0	0	0	132	142	604
6-7	50	40	369	78	74	240	3	3	0	3	6	5	2	2	1	0	0	0	0	0	0	0	0	0	136	125	615
7-8	43	38	374	63	65	238	3	3	0	1	5	1	2	2	1	0	0	0	0	0	0	0	0	0	112	113	614
8-9	43	34	383	56	43	251	2	2	0	0	1	0	2	2	1	0	0	0	0	0	0	0	0	0	103	82	635
9-10	36	27	392	52	47	256	2	2	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	91	77	649
10-11	33	26	399	59	21	294	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	93	49	693
11-12	27	21	405	31	16	309	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	37	714

**Notes:**

50% pass-by trip applied to the local retail use.

Assumes 0.15 autos/DU for residential NYCHA DUs based on 2015-2019 ACS auto ownership data for rental households in Manhattan census tracts 83, 89, 93, 97, and 99.

Assumes 0.15 autos/DU for residential market-rate and affordable DUs based on 2015-2019 ACS auto ownership data for rental households in Manhattan census tracts 83, 89, 93, 97, and 99.

**787** denotes the total peak parking accumulation.This table is new for the FEIS.



## F. MITIGATION

### **Alternative 2 – Preferred Alternative**

#### **Traffic**

As discussed above, the Preferred 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, nine lane groups at eight 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 05.13-50** 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 05.13-51** and **05.13-52** 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 Preferred 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 05.13-51** and **05.13-52** 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 AM period, one lane group at one intersection in the weekday midday period and 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 Preferred 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 05.13-50** would be implemented to mitigate the significant adverse traffic impacts resulting from full build-out of the Preferred Alternative in 2041. As the development under the Preferred 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 in consultation with NYCDOT upon field survey of the build conditions.



**Table 05.13-50: Preferred 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	33	32	33	31	- Unmitigatable 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	26	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.

This table has been revised for the FEIS.



**Table 05.13-51: Preferred Alternative Action-With-Mitigation Conditions at Impacted Lane Groups (Weekday AM and Midday)**

Intersection	Approach	Lane Group	No-Action Alternative AM			Preferred Alternative AM			Preferred Alternative Mitigation AM			No-Action Alternative Midday			Preferred Alternative Midday			Preferred 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	8.0	A	0.89	10.2	B	0.92	11.3	B	0.96	11.4	B	1.00	17.9	B	1.00	17.3	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	4.4	A	0.78	4.8	A	0.85	7.8	A	0.88	3.8	A	0.92	4.5	A	0.97	9.6	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
			0.85	6.8	A	0.89	8.3	A	0.92	11.1	B	1.06	39.3	D	1.08	48.2	D	1.11	62.3	E *
W.17th St (WB) & 10th Ave (NB)	WB NB	TR LT	0.70	27.1	C	0.96	51.6	D	0.96	51.6	D	0.88	47.0	D	1.02	70.8	E *	0.96	52.2	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 EB SB	T R LT	1.07	65.6	E	1.08	67.5	E	1.08	67.5	E	0.77	58.3	E	0.77	58.6	E	0.74	56.7	E
			0.82	27.0	C	0.89	32.0	C	0.89	32.0	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 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 EB SB SB	T R L T	1.14	119.8	F	1.25	160.4	F *	1.25	159.7	F *	0.87	46.7	D	0.96	61.2	E *	0.92	53.5	D
			0.64	37.4	D	0.80	44.6	D	0.80	44.1	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	21.8	C	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	0.82	6.8	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	136.6	F *	1.21	105.6	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	20.2	C	0.70	20.2	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	TR L	0.72	30.4	C	0.93	52.1	D	0.93	52.1	D	0.75	45.4	D	0.88	55.1	E *	0.85	50.3	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	18.3	B
W.17th St (WB) & 9th Ave (SB)	WB SB	LT TR	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	0.54	2.9	A
			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	11.3	B	0.79	11.9	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)

**Note:** This table has been revised for the FEIS.



**Table 05.13-52: Preferred Alternative Action-With-Mitigation Conditions at Impacted Lane Groups (Weekday PM and Saturday)**

Intersection	Approach	Lane Group	No-Action Alternative PM			Preferred Alternative PM			Preferred Alternative Mitigation PM			No-Action Alternative SAT			Preferred Alternative SAT			Preferred 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	9.1	A	0.93	11.0	B	0.93	11.3	B	0.80	9.9	A	0.87	11.9	B	0.87	12.1	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	3.4	A	0.81	3.5	A	0.86	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	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
	WB	T	1.17	148.6	F	1.17	149.7	F	1.17	116.7	F	-	-	-	-	-	-	-	-	-
	WB	R	1.07	116.0	F	1.10	126.1	F *	1.10	93.0	F	-	-	-	-	-	-	-	-	-
	WB	TR	-	-	-	-	-	-	-	-	-	1.45	235.3	F	1.47	246.3	F *	1.41	220.0	F
	NB	LTR	1.04	31.8	C	1.08	45.2	D	1.08	79.6	E *	0.82	5.7	A	0.86	7.0	A	0.89	9.1	A
W.17th St (WB) & 10th Ave (NB)	WB NB	TR	0.96	56.2	E	1.13	104.3	F *	1.01	61.0	E	0.88	35.2	D	1.08	79.6	E *	1.01	54.3	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	T	0.86	38.3	D	0.86	37.2	D	0.86	37.2	D	0.94	24.2	C	0.95	24.4	C	0.87	18.6	B
	EB	R	0.76	37.3	D	0.86	40.9	D	0.86	40.9	D	1.07	60.9	E	1.16	97.5	F *	1.05	50.9	D
	SB	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	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
	WB	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
	SB	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	T	0.52	24.5	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
	EB	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
	SB	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
	SB	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	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
	SB	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	LT	0.93	59.5	E	0.98	70.7	E *	0.95	61.5	E	0.72	38.6	D	0.80	44.2	D	0.80	44.2	D
	SB	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	TR	0.81	48.5	D	0.94	61.5	E *	0.90	54.8	D	0.79	29.3	C	0.93	45.3	D	0.93	45.3	D
	SB	L	0.41	19.8	B	0.43	19.6	B	0.43	18.8	B	0.41	20.5	C	0.42	20.6	C	0.42	20.6	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	3.5	A	0.51	3.5	A
W.17th St (WB) & 9th Ave (SB)	WB	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
	SB	TR	0.69	7.6	A	0.76	9.6	A	0.80	10.7	B	0.65	7.8	A	0.74	10.5	B	0.74	10.5	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)

**Note:** This table has been revised for the FEIS.



## **Pedestrians**

As discussed above, the Preferred Alternative would result in significant adverse pedestrian impacts at five 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 Preferred 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 Preferred Alternative's significant adverse pedestrian impacts.

### **Sidewalks**

Of the 20 sidewalks analyzed, five are expected to be significantly adversely impacted by incremental demand from the Preferred Alternative. **Table 05.13-53** shows the recommended mitigation measures to address these impacts and their effectiveness. With implementation of the proposed mitigation measures, the Preferred 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. 17<sup>th</sup> Street between 9<sup>th</sup> and 10<sup>th</sup> Avenues. The Preferred 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 four, one, three, and four sidewalks during the weekday AM, midday, and PM peak hours, and Saturday peak hour, respectively. Additional mitigation measures were further explored in consultation with the Lead Agency and NYCDOT between the DEIS and FEIS. As no feasible and practicable measures were identified for these locations, these impacts would remain unmitigated.

In terms of the sidewalk impacts that would potentially occur along W. 27<sup>th</sup> 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. 27<sup>th</sup> 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. 27<sup>th</sup> 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. 27<sup>th</sup> Drive, which provides more ample pedestrian space (up to approximately 15 feet wide, not including obstructions). In addition, the impact would only occur along approximately 58 feet of the W. 27<sup>th</sup> Drive frontage as the rest of the W. 27<sup>th</sup> Drive frontage (approximately 386 feet) would provide adequate pedestrian space.



**Table 05.13-53: Preferred Alternative Action-With-Mitigation Sidewalk Conditions**

Sidewalk	No-Action Alternative			Preferred Alternative			Preferred Alternative Action-with-Mitigation			
	Effective Width (ft)	Average Pedestrian Space (ft <sup>2</sup> /ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft <sup>2</sup> /ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft <sup>2</sup> /ped)	LOS	Mitigation Measures
<b>Weekday AM Peak Hour</b>										
South sidewalk along W 27 Dr btw 10 Ave & proposed EC Building 7 entrance (east of entrance)	2.0	395.9	B	1.5	28.4	D *	1.5	28.4	D *	- 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.
<b>Weekday MD Peak Hour</b>										
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	16.4	E *	1.0	16.4	E *	- Unmitigatable.
<b>Weekday PM Peak Hour</b>										
South sidewalk along W 27 Dr btw 10 Ave & proposed EC Building 7 entrance (east of entrance)	2.0	247.0	B	1.5	28.8	D *	1.5	28.8	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.
<b>Saturday Peak Hour</b>										
South sidewalk along W 27 Dr btw 10 Ave & proposed EC Building 7 entrance (east of entrance)	2.0	269.2	B	1.5	28.4	D *	1.5	28.4	D *	- Unmitigatable.
West sidewalk along 9 Ave btw W 17 St & W 18 St	4.0	72.9	C	4.0	30.8	D *	4.0	30.8	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	7.6	F *	1.0	7.6	F *	- Unmitigatable.

**Notes:**

This table has been revised for the FEIS.

\* 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 Preferred Alternative in the weekday PM peak hour. **Table 05.13-54** 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 05.13-54** and a 2.5-foot widening on the north crosswalk at 9<sup>th</sup> Avenue and W. 25<sup>th</sup> Street (to a total of 14.5 feet in width), the Preferred 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 8<sup>th</sup> Avenue and W. 25<sup>th</sup> 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 05.13-54: Preferred Alternative Action-With-Mitigation Crosswalk Conditions**

Intersection	Crosswalk	No-Action Alternative			Preferred Alternative			Preferred 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	16.2	D	12.0	13.4	E *	12.0	13.4	E *	- Unmitigated.

**Notes:**

This table was revised for the FEIS.

\* 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 05.13-55 and 05.13-56**, 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 Preferred Alternative in 2041. As the development under the Preferred 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. The actual implementation of the proposed mitigation measures will be determined in consultation with NYCDOT upon field survey of the build conditions.



**Table 05.13-55: Preferred Alternative Action-With-Traffic Mitigation Crosswalk Conditions**

Intersection	Crosswalk	Preferred Alternative								Preferred Alternative Action-with-Mitigation								Proposed Traffic Mitigation
		Average Pedestrian Space (ft²/ped)				Level of Service				Average Pedestrian Space (ft²/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	23.0	64.5	32.5	31.3	D	A	C	C	- Transfer 1s of green time from SB-T/SB-L to EB in midday.
	West	31.6	46.1	31.2	29.3	C	B	C	C	31.6	44.6	31.2	29.3	C	B	C	C	
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	51.4	60.5	50.0	40.8	B	A	B	B	51.4	58.6	48.6	40.8	B	B	B	B	- Transfer 1s of green time from SB to WB in midday and PM.
9th Ave & W 18th St	West	46.9	51.1	41.6	33.3	B	B	B	C	46.9	51.1	40.5	33.3	B	B	B	C	- Transfer 1s of green time from SB to EB in PM.
9th Ave & W 17th St	North	48.2	53.8	37.3	45.1	B	B	C	B	48.2	56.2	41.1	45.1	B	B	B	B	- Transfer 1s of green time from SB to WB in midday. - Transfer 2s of green time from SB to WB in PM.
	South	38.0	56.4	36.0	33.7	C	B	C	C	38.0	59.1	39.9	33.7	C	B	C	C	
	West	38.1	40.6	30.2	25.7	C	B	C	C	38.1	39.3	28.5	25.7	C	C	C	C	

**Notes:**

This table has been revised for the FEIS.

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



**Table 05.13-56: Preferred Alternative Action-With-Traffic Mitigation Corner Conditions**

Intersection	Corner	Preferred Alternative								Preferred Alternative Action-with-Mitigation								Proposed Traffic Mitigation
		Average Pedestrian Space (ft <sup>2</sup> /ped)				Level of Service				Average Pedestrian Space (ft <sup>2</sup> /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	29.4	36.7	C	B	C	C	36.8	58.9	29.4	36.7	C	B	C	C	- Transfer 1s of green time from SB-T/SB-L to EB in midday.
	SE	64.9	88.4	44.9	57.6	A	A	B	B	64.9	88.5	44.9	57.6	A	A	B	B	
	SW	58.8	96.7	46.1	51.2	B	A	B	B	58.8	96.6	46.1	51.2	B	A	B	B	
	NW	29.3	69.1	41.8	39.6	C	A	B	C	29.3	69.0	41.8	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	43.2	61.4	36.7	41.2	B	A	C	B	
9th Ave & W 19th St	SW	75.1	98.4	71.2	68.6	A	A	A	A	75.1	98.3	71.1	68.6	A	A	A	A	- Transfer 1s of green time from SB to WB in midday and PM.
	NW	88.2	100.6	80.5	71.7	A	A	A	A	88.2	100.5	80.3	71.7	A	A	A	A	
9th Ave & W 18th St	SW	79.6	84.7	66.7	60.6	A	A	A	A	79.6	84.7	66.5	60.6	A	A	A	A	- Transfer 1s of green time from SB to EB in PM.
	NW	68.1	74.7	59.6	53.9	A	A	B	B	68.1	74.7	59.4	53.9	A	A	B	B	
9th Ave & W 17th St	NE	94.0	79.6	73.4	81.0	A	A	A	A	94.0	79.6	73.4	81.0	A	A	A	A	- Transfer 1s of green time from SB to WB in midday.
	SE	120.6	127.0	93.4	90.8	A	A	A	A	120.6	127.0	93.3	90.8	A	A	A	A	
	SW	56.7	70.1	48.3	41.9	B	A	B	B	56.7	70.1	48.2	41.9	B	A	B	B	- Transfer 2s of green time from SB to WB in PM.
	NW	53.1	59.8	45.9	39.9	B	B	B	C	53.1	59.4	45.8	39.9	B	B	B	C	

**Notes:**

This table has been revised for the FEIS.

\* 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 05.13-57** 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 **05.13-58** and **05.13-59** 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 **05.13-58** and **05.13-59** 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 AM, midday and PM periods. Consequently, these impacts would constitute unavoidable significant adverse traffic impacts as a result of the Non-Rezoning Alternative (see also **Chapter 07.0**).

**Table 05.13-57: 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	33	31	33	31	-Unmitigable.
	PED	7	10	7	10	7	10	7	10	
	SB-T	26	25	26	25	26	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	33	34	32	- Transfer 1s of green time from SB to EB in midday and PM.
	PED	7	10	7	10	7	10	7	10	
	SBT	26	24	26	24	26	23	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.

This table has been revised for the FEIS.



**Table 05.13-58: 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 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	V/C	Delay	LOS
			Ratio	(sec/veh)		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	0.04	19.8	B
	NB	L	0.41	14.4	B	0.43	14.8	B	0.43	14.2	B	0.30	14.9	B	0.31	15.3	B	0.31	15.1	B
	NB	T	0.78	5.0	A	0.80	5.4	A	0.80	4.9	A	1.04	31.0	C	1.06	35.8	D	1.06	35.8	D
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	0.85	45.1	D
	NB	TR	0.81	8.0	A	0.86	9.3	A	0.88	10.0	B	0.96	11.4	B	0.98	14.7	B	0.98	14.5	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 *	1.14	100.4	F
	NB	LT	0.74	4.4	A	0.77	4.6	A	0.81	6.0	A	0.88	3.8	A	0.90	4.0	A	0.92	5.7	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 *	1.41	232.8	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 *	1.27	182.9	F
	NB	LTR	0.85	6.8	A	0.88	7.8	A	0.90	10.0	B	1.06	39.3	D	1.08	45.5	D	1.11	59.5	E *
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	0.22	22.2	C
	EB	T	0.42	25.8	C	0.44	26.1	C	0.44	26.1	C	0.00	0.0	A	0.47	26.5	C	0.47	26.5	C
	NB	TR	0.76	8.8	A	0.82	12.1	B	0.82	12.1	B	0.86	11.6	B	0.90	14.0	B	0.90	14.0	B
W.17th St (WB) & 10th Ave (NB)	WB	TR	0.70	27.1	C	0.88	40.5	D	0.88	40.5	D	0.88	47.0	D	0.98	60.9	E *	0.95	53.5	D
	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	0.74	24.7	C
W.26th St (EB) & 9th Ave (SB)	EB	T	1.14	119.8	F	1.21	144.8	F *	1.21	144.1	F *	0.87	46.7	D	0.91	53.1	D	0.91	53.1	D
	EB	R	0.64	37.4	D	0.77	43.9	D	0.77	43.3	D	0.48	27.7	C	0.57	30.7	C	0.57	30.7	C
	SB	L	0.55	21.8	C	0.55	21.6	C	0.55	21.6	C	0.44	21.0	C	0.46	21.2	C	0.46	21.1	C
	SB	T	0.80	6.6	A	0.81	6.7	A	0.81	6.7	A	0.65	4.0	A	0.66	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	0.84	40.4	D
	SB	TR	1.21	107.7	F	1.25	127.2	F *	1.22	111.2	F	1.01	30.7	C	1.06	46.0	D	1.00	26.7	C
23-W.23rd St (E-W) & 9th Ave (SB)	EB	T	0.64	23.9	C	0.64	24.1	C	0.64	24.5	C	0.65	37.1	D	0.65	37.3	D	0.65	36.4	D
	EB	R	0.38	21.2	C	0.41	21.6	C	0.41	22.0	C	0.44	35.2	D	0.46	35.6	D	0.46	34.7	C
	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	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	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	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	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	0.42	18.6	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	0.53	2.5	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	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	0.75	10.5	B	0.75	10.4	B
<b>Notes:</b> 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)																				

**Note:**

This table has been revised for the FEIS.



**Table 05.13-59: 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	0.44	15.6	B	0.45	16.0	B	0.45	16.3	B	0.38	13.4	B	0.39	13.8	B	0.39	13.7	B
	NB	T	0.90	8.5	A	0.92	8.9	A	0.92	9.2	A	0.81	5.3	A	0.83	5.5	A	0.83	5.4	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	9.1	A	0.91	10.3	B	0.91	31.4	C	0.80	9.9	A	0.85	11.3	B	0.85	11.4	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	3.4	A	0.80	3.5	A	0.83	27.8	C	0.69	4.5	A	0.71	4.6	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	148.2	F	1.17	115.1	F	-	-	-	0.00	0.0	-			
	WB	R	1.07	116.0	F	1.11	130.3	F *	1.11	97.0	F	-	-	-	0.00	0.0	-			
	WB	TR	-	-	-	-	-	-	-	-	-	1.45	235.3	F	1.50	258.2	F *	1.44	231.2	F
	NB	LTR	1.04	31.8	C	1.06	39.4	D	1.06	74.1	E *	0.82	5.7	A	0.85	6.6	A	0.87	8.5	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	0.0	0.00	0.52	27.7	C	0.52	27.7	C	0.00	0.0	A	0.56	29.0	C	0.56	29.0	C
	NB	TR	0.85	10.8	B	0.89	13.1	B	0.89	13.1	B	0.71	8.7	A	0.76	10.5	B	0.76	10.6	B
W.17th St (WB) & 10th Ave (NB)	WB	TR	0.96	56.2	E	1.07	83.9	F *	1.00	58.9	E	0.88	35.2	D	1.03	62.6	E *	0.99	51.8	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	24.5	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	25.0	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	34.4	C	0.73	29.4	C	0.86	27.5	C	0.86	27.4	C	0.86	27.9	C
	EB	R	0.32	31.3	C	0.33	31.5	C	0.33	24.6	C	0.23	19.2	B	0.25	19.4	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	29.3	C	0.88	39.4	D	0.88	39.4	D
	SB	L	0.41	19.8	B	0.42	19.5	B	0.42	18.7	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	9.2	A	0.78	10.2	B	0.65	7.8	A	0.72	9.6	A	0.72	9.7	A
<b>Notes:</b> 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)																				

**Note:** This table has been revised for the FEIS.



## 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 05.13-57** 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 in consultation with NYCDOT upon field survey of the build conditions.

### Pedestrians

As discussed above, the Non-Rezoning Alternative would result in significant adverse pedestrian impacts at five 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, five are expected to be significantly adversely impacted by incremental demand from the Non-Rezoning Alternative. **Table 05.13-60** 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. 17<sup>th</sup> Street between 9<sup>th</sup> and 10<sup>th</sup> 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 three, two, three and four sidewalks during the weekday AM, midday and PM, and Saturday peak hours, respectively. Additional mitigation measures were further explored in consultation with the Lead Agency and NYCDOT between the DEIS and FEIS. As no feasible and practicable measures are identified for these locations, these impacts would remain unmitigated.



In terms of the sidewalk impacts that would occur along W. 27<sup>th</sup> 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. 27<sup>th</sup> 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. 27<sup>th</sup> 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. 27<sup>th</sup> Drive, which provides more ample pedestrian space (up to approximately 15 feet wide, not including obstructions). In addition, the impact would only occur along approximately 58 feet of the W. 27<sup>th</sup> Drive frontage as the rest of the W. 27<sup>th</sup> Drive frontage (approximately 386 feet) would provide adequate pedestrian space.



**Table 05.13-60: 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 <sup>2</sup> /ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft <sup>2</sup> /ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft <sup>2</sup> /ped)	LOS	Mitigation Measures
<b>Weekday AM Peak Hour</b>										
South sidewalk along W 27 Dr btw 10 Ave & proposed EC Building 7 entrance (east of entrance)	2.0	395.9	B	1.5	29.4	D *	1.5	29.4	D *	- 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.
<b>Weekday MD Peak Hour</b>										
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.
<b>Weekday PM Peak Hour</b>										
South sidewalk along W 27 Dr btw 10 Ave & proposed EC Building 7 entrance (east of entrance)	2.0	247.0	B	1.5	28.5	D *	1.5	28.5	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.
<b>Saturday Peak Hour</b>										
South sidewalk along W 27 Dr btw 10 Ave & proposed EC Building 7 entrance (east of entrance)	2.0	269.2	B	1.5	27.8	D *	1.5	27.8	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	30.9	D *	4.0	30.9	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.

**Notes:**

This table has been revised for the FEIS.

\* 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 three analyzed crosswalks and nine analyzed corner areas at four



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 05.13-61 and 05.13-62**, with implementation of the proposed signal timing adjustments, none of the analyzed crosswalks or corner areas at these four 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 05.13-61: 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 (ft²/ped)				Level of Service				Average Pedestrian Space (ft²/ped)				Level of Service				
		AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	AM	MD	PM	SAT	
9th Ave & W 18th St	West	56.9	54.7	47.1	35.8	B	B	B	C	56.9	53.2	45.8	35.8	B	B	B	C	- Transfer 1s of green time from SB to EB in midday and PM.
9th Ave & W 17th St	South	54.5	72.2	45.0	42.3	B	A	B	B	54.5	72.2	49.8	42.3	B	A	B	B	- Transfer 2s of green time from SB to WB in PM.
	West	47.8	43.2	34.4	28.2	B	B	C	C	47.8	43.2	32.4	28.2	B	B	C	C	

**Notes:**

This table has been revised for the FEIS.

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

**Table 05.13-62: 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 <sup>2</sup> /ped)				Level of Service				Average Pedestrian Space (ft <sup>2</sup> /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 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.
	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	- Transfer 2s of green time from WB to SB in midday and Saturday.
9th Ave & W 18th St	SW	98.2	91.5	74.1	65.3	A	A	A	A	98.2	91.4	74.0	65.3	A	A	A	A	- Transfer 1s of green time from SB to EB in midday and PM.
	NW	98.1	98.1	76.1	66.3	A	A	A	A	98.1	97.9	75.9	66.3	A	A	A	A	
9th Ave & W 17th St	NE	111.6	87.4	83.3	92.8	A	A	A	A	111.6	87.4	83.3	92.8	A	A	A	A	- Transfer 2s of green time from SB to WB in PM.
	SE	151.8	145.5	107.7	106.3	A	A	A	A	151.8	145.5	107.6	106.3	A	A	A	A	
	SW	68.9	72.7	53.1	44.7	A	A	B	B	68.9	72.7	52.9	44.7	A	A	B	B	
	NW	66.6	64.9	53.2	44.8	A	A	B	B	66.6	64.9	53.1	44.8	A	A	B	B	

**Notes:**

This table has been revised for the FEIS.

\* 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. The actual implementation of the proposed



mitigation measures will be determined in consultation with NYCDOT upon field survey of the build conditions.

#### **Alternative 4 – Midblock Bulk Alternative**

##### **Traffic**

The Preferred Alternative would result in significant adverse impacts to 11 intersections in one or more analyzed peak hours. As the Midblock Bulk Alternative and the Preferred 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 Preferred Alternative; however, as discussed above in **Section E, “Environmental Effects,”** the rearrangement of bulk between the Midblock Bulk Alternative and Preferred Alternative may result in small changes in the directional distribution of action-generated trips at some intersections. Subject to the approval of NYCDOT, the measures proposed for the Preferred Alternative’s significant adverse traffic impacts may be proposed for the Midblock Bulk Alternative within a similar schedule and would improve the traffic conditions of the impacted locations under the Midblock Bulk Alternative.

##### **Pedestrians**

The Preferred Alternative would result in significant adverse impacts to five 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 Preferred 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 Preferred Alternative. Subject to the approval of NYCDOT, the measures proposed for the Preferred Alternative’s significant adverse pedestrian impacts may be proposed for the Midblock Bulk Alternative within a similar schedule and would improve the sidewalk and crosswalk conditions of the impacted pedestrian locations under the Midblock Bulk Alternative.

#### **Alternative 7 – COY Alternative**

##### **Traffic**

As discussed above, the Preferred Alternative would result in significant adverse impacts to 11 intersections in one or more analyzed peak hours. As the COY Alternative would generate fewer vehicle trips in each peak hour than would the Preferred Alternative, it is anticipated that these impacts would potentially be reduced in magnitude with the COY Alternative. Subject to the approval of NYCDOT, the mitigation measures proposed for the Preferred Alternative’s significant adverse traffic impacts may be proposed for the COY Alternative within a similar schedule and would improve the traffic conditions of the impacted locations under the COY Alternative.



**Pedestrians**

The Preferred Alternative would result in significant adverse impacts to five sidewalks and two crosswalks in one or more analyzed peak hours. As the COY Alternative would generate fewer pedestrian trips in each peak hour than would the Preferred Alternative, it is anticipated that these impacts would potentially be reduced in magnitude with the COY Alternative. Subject to the approval of NYCDOT, the mitigation measures proposed for the Preferred Alternative's significant adverse pedestrian impacts may be proposed for the COY Alternative within a similar schedule and would improve the sidewalk and crosswalk conditions of the impacted pedestrian locations under the COY Alternative.