

Fulton and Elliott-Chelsea Houses Redevelopment Project
Chapter 05.21: Mitigation

A. INTRODUCTION

In accordance with the 2021 *City Environmental Quality Review Technical Manual (CTM)* and consistent with National Environmental Policy Act (NEPA) guidance, where significant adverse impacts are identified, mitigation measures to reduce or eliminate the impacts to the fullest extent practicable are developed and evaluated.

The potential for the Proposed Project to result in significant adverse impacts is evaluated in **Chapters 05.01 through 05.20** of this Environmental Impact Statement (EIS). Under 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), Non-Rezoning Alternative, Midblock Bulk Alternative, and City of Yes (COY) Alternative, the Proposed Project has the potential to result in significant adverse impacts to shadows, historic and cultural (architectural) resources, transportation (traffic and pedestrians), construction transportation (traffic and pedestrians), and construction noise. Table 05.21-1 summarizes impact information for the four feasible alternatives. Potential mitigation measures for these impacts were developed in consultation with the lead and expert agencies and are discussed below.

Table 05.21-1: Summary of Impacts¹

Technical Area	Alternative(s) ²	Summary of Impact(s)	Impact Mitigated?	Mitigation Measure(s) if Applicable
Shadows	2, 3, 4, 7	Impacts on Chelsea Park & PS 33 Playground	Partial; would remain an unavoidable adverse impact (UAI)	Lighting improvements for Chelsea Park
Historic and Cultural Resources	2, 3, 4, 7	Demolition of S/NR-eligible ³ Elliott-Chelsea Houses	Partial; would remain an UAI	Various measures identified pursuant to Section 106 process
Transportation: Traffic	2, 4, 7	Up to 11 intersections in 1 or more peak hours	Partial: all impacts mitigated except at one or more lane groups in one or more peak hours at 2 intersections, which would remain an UAI	Modifications to signal phasing and/or timing
	3	8 intersections in 1 or more peak hours		
Transportation: Pedestrians	2, 4, 7	Up to 5 sidewalks & up to 2 crosswalks	Partial: impact mitigated at 1 sidewalk in the MD and PM peak hours & 1 crosswalk in the PM peak hour; others would remain UAI	Relocation of impediments to sidewalk flow and widening of crosswalk
	3	5 sidewalks	Partial: impact mitigated at 1 sidewalk in all peak hours; others would remain UAI	Relocation of impediments to sidewalk flow
Construction: Traffic	2, 4, 7	Up to 7 intersections in 1 or more peak hours	Partial: All impacts mitigated except at one lane group at 1 intersection in PM construction peak hour, which would remain an UAI	Modifications to signal phasing and/or timing and curbside parking regulations
	3	8 intersections in 1 or more peak hours	All impacts would be mitigated	

Technical Area	Alternative(s) ²	Summary of Impact(s)	Impact Mitigated?	Mitigation Measure(s) if Applicable
Construction: Pedestrians	2, 4, 7	Up to 3 sidewalks & up to 1 crosswalk	Partial: impact mitigated at 1 sidewalk in AM construction peak hour; others would remain UAI	Relocation of impediments to sidewalk flow
	3	2 sidewalks	Partial: impact mitigated at 1 sidewalk in both construction peak hours; other would remain UAI	Relocation of impediments to sidewalk flow
Construction: Noise	2, 3, 4, 7	Noise-sensitive receptors adjacent to the construction work areas under each alternative (see FEIS Figures 05.19-6a through 05.19-7b, 05.19-8a through 05.19-9b, 05.19-10a through 05.19-11b, and 05.19-12a through 05.19-13b)	Partial: would remain an UAI	Source and path controls beyond requirements of New York City regulations

Notes:

This table is new for the FEIS.

¹ This table is only a summary. Please see specific chapter text for details.

² Alternative numbers, per Chapter 02.0, “Project Alternatives”: 2: Preferred Alternative; 3: Non-Rezoning Alternative; 4: Midblock Bulk Alternative; 7: City of Yes Alternative.

B. PRINCIPAL CONCLUSIONS

Shadows

As described in **Chapter 05.05, “Shadows,”** the Proposed Project, under the Preferred Alternative, Non-Rezoning Alternative, Midblock Bulk Alternative, and COY Alternative, would result in significant adverse shadows impacts on Chelsea Park and Public School (PS) 33 Playground. Lighting improvements have been identified as a practicable and feasible measure to partially mitigate shadows impacts to Chelsea Park resulting from the Proposed Project under the four alternatives. These measures will be obligations of the PACT Partner that will be memorialized in legally binding documents. This measure would only partially mitigate the shadows impact on Chelsea Park. Therefore, despite partial mitigation, shadows impacts to Chelsea Park would remain as unavoidable adverse impacts. As discussed in **Chapter 07.0, “Unavoidable Adverse Impacts,”** no additional measures were determined to be feasible, practicable, and effective to mitigate the predicted significant adverse shadows impacts to Chelsea Park and PS 33 Playground.

Historic and Cultural Resources

As described in **Chapter 05.06, “Historic and Cultural Resources,”** the Proposed Project, under the Preferred Alternative, Non-Rezoning Alternative, Midblock Bulk Alternative, and COY Alternative, would result in a significant adverse direct historic resources (architectural) impact on the State and National Register of Historic Places (S/NR)-eligible Elliott-Chelsea Houses. The New York City Housing Authority (NYCHA) and the PACT Partner have worked with the State Historic Preservation Office (SHPO) and Section 106 consulting parties to develop measures to

partially mitigate the adverse effect, as set forth in the Memorandum of Agreement (MOA) pursuant to Section 106 of the National Historic Preservation Act (NHPA) provided in **Appendix D.2**. As this would only represent partial mitigation, this would remain an unmitigated impact, as described in **Chapter 07.0**.

Transportation

As described in **Chapter 05.13, “Transportation,”** the potential for significant adverse impacts to transportation systems during the 2041 analysis year was assessed in detailed analyses of the Preferred Alternative and the Non-Rezoning Alternative. 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 similar to the Preferred Alternative. The analyses identified traffic and pedestrian impacts at some locations under all of the alternatives. Recommended measures have been identified to mitigate some of these impacts, but significant adverse traffic and pedestrian impacts that cannot be fully mitigated despite all recommended mitigation measures being implemented would constitute unavoidable significant adverse impacts and are described in **Chapter 07.0**. Implementation of the recommended mitigation measures is subject to final review and approval by the New York City Department of Transportation (NYCDOT). If the recommended mitigation measures are not found to be feasible, and no other alternative mitigation measures can be identified, the impacts would remain unmitigated.

Construction Transportation

Similar to operational transportation conditions, as described in **Chapter 05.19**, the potential for significant adverse effects to transportation systems during construction of the Proposed Project was assessed in detailed analyses of the Preferred Alternative and the Non-Rezoning Alternative. 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 construction traffic and pedestrian construction 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 similar to the Preferred Alternative. The analyses identified traffic and pedestrian impacts at some locations under all of the alternatives. Recommended measures have been identified to mitigate some of these impacts, but significant adverse traffic and pedestrian impacts that cannot be fully mitigated despite all recommended mitigation measures being implemented would constitute unavoidable significant adverse impacts and are described in **Chapter 07.0**. Implementation of the recommended mitigation measures is subject to final review and approval by NYCDOT. If the recommended mitigation measures are not found to be feasible, and no other alternative mitigation measures can be identified, the impacts would remain unmitigated.

Construction Noise

Construction under the Preferred Alternative, Non-Rezoning Alternative, Midblock Bulk Alternative, and COY Alternative would result in significant adverse construction noise impacts at various receptors, which are enumerated below in **Section G, “Construction Noise,”** and in **Chapter 05.19**. Significant adverse impacts that cannot be fully mitigated through reasonably practicable measures are also identified and discussed in **Chapter 7.0**.

Noise Reduction Measures

Construction activities for the Preferred Alternative, the Non-Rezoning Alternative, the Midblock Bulk Alternative, or the COY Alternative would be required to follow the requirements of the NYC Noise Control Code for construction noise control measures. Specific noise control measures would be incorporated in noise mitigation plan(s) required under the NYC Noise Control Code. These measures could include a variety of source and path controls.

In addition, during construction of the Proposed Project source and path control measures above and beyond New York City regulations would be implemented as Project Components Related to the Environment (PCREs) to minimize noise emissions to the maximum extent practicable. These measures will be obligations of the PACT Partner that will be memorialized in legally binding documents.

In addition to these source and path-control measures, between the Draft EIS (DEIS) and Final EIS (FEIS) the feasibility and practicability of receptor control measures and/or other potential noise control measures and mitigation for construction noise impacts on nearby buildings were evaluated further. No additional measures were determined to be feasible, practicable, and effective to mitigate the predicted significant adverse construction noise impacts.

It should be noted that even with the noise reduction measures, interior noise levels during construction would still exceed the acceptable thresholds for residential or community facility uses under the Preferred Alternative, the Non-Rezoning Alternative, the Midblock Bulk Alternative, or the COY Alternative. Therefore, construction of the Proposed Project under any of these alternatives would result in an unavoidable significant adverse noise impact.

As enumerated below and in **Chapter 05.19**, new buildings constructed under the Proposed Project would provide partial mitigation of construction noise impacts through the provision of required window wall attenuation and alternate means of ventilation required to avoid significant adverse noise impacts under operational conditions.

C. SHADOWS

As described in **Chapter 05.05**, due to the close proximity of the Elliott-Chelsea Houses Project Site to Chelsea Park and PS 33 Playground, incremental shadows would result from the Preferred Alternative, Non-Rezoning Alternative, Midblock Bulk Alternative, and COY Alternative for all four analysis days.

As the extent, time of day, and duration of the incremental shadows would significantly reduce direct sunlight exposure on the sunlight-sensitive resources found within these open spaces; and would alter the public's use of the park and the playground, incremental shadows from the Preferred Alternative, Non-Rezoning Alternative, Midblock Bulk Alternative, and COY Alternative on Chelsea Park and PS 33 Playground would be considered a significant adverse impact, in accordance with *CTM* methodology.

Lighting improvements have been identified as a practicable and feasible measure to partially mitigate shadows impacts to Chelsea Park resulting from the Proposed Project under the Preferred Alternative. In particular, this would consist of updating approximately 14 existing incandescent light poles around the sports turf field in the western half of the park with LED bulbs or equivalent, as needed to improve illumination and efficiency, in consultation and agreement with NYC Parks. The measures described above will be obligations of the PACT Partner that will be memorialized in legally binding documents. Although upgraded lighting fixtures around the turf field would improve usability of this amenity, this measure would only partially mitigate the shadows impacts to Chelsea Park. Therefore, despite partial mitigation, shadows impacts to Chelsea Park would remain as unavoidable adverse impacts.

Several mitigation measures were explored in consultation with NYC Parks. One measure, the lighting improvements for the sports field in Chelsea Park described above, was determined to be feasible and practicable and is identified as partial mitigation. Apart from this, no other mitigation measures were considered to be feasible, practicable, and effective. First, building design changes to mitigate against shadows impacts to PS 33 Playground and Chelsea Park were explored in consultation with lead agencies. However, because both Chelsea Park and PS 33 Playground would be impacted by shadows at the Elliott-Chelsea Houses Project Site under all feasible alternatives, and given the close proximity of both open space resources to proposed buildings, it was determined that design changes to mitigate against shadows impacts were infeasible. To avoid these shadows impacts, substantial reductions to building height and bulk would be required. Such reductions would result in a failure to meet the Purpose and Need of the Proposed Project as defined in **Chapter 01.0, "Purpose and Need for the Proposed Project."** Since a meaningful reduction in building bulk to avoid shadows impacts would fail to meet the Purpose and Need of the Proposed Project, design changes were determined to be infeasible and impracticable as a shadows mitigation measure. Second, the relocation of recreational amenities within the resource to minimize shadow coverage at both Chelsea Park and PS 33 Playground was considered. In the case of PS 33 Playground, relocation of amenities within the resource was determined to be infeasible due to the playground's small size. In the case of Chelsea Park, it was determined that due to the coverage and nature of the incremental shadows cast by the four Alternatives, as well as the lack of currently unprogrammed space within the park, there is no way to feasibly relocate amenities to meaningfully reduce shadow coverage. Replacement and upgrade of existing equipment at both Chelsea Park and PS 33 Playground was also considered. However, both open space resources have undergone substantial renovation work in recent years and, apart from the aforementioned lighting improvements at Chelsea Park, there were no outstanding capital needs identified which would effectively mitigate against shadow impacts.

Therefore, although several shadows mitigation measures were explored in consultation with NYC Parks, only the lighting improvements at Chelsea Park were identified as feasible, practicable, and

effective, and the shadows impacts to Chelsea Park and PS 33 Playground would remain unmitigated.

D. HISTORIC AND CULTURAL RESOURCES

Direct (Physical) Impacts

As discussed in **Chapter 05.06**, under the Preferred Alternative, the Non-Rezoning Alternative, the Midblock Bulk Alternative, and the COY Alternative the Proposed Project would result in the demolition of the existing S/NR-eligible buildings on the Elliott-Chelsea Houses Project Site to facilitate the construction of new buildings on that Project Site. As such, the Proposed Project under all four alternatives would result in significant adverse direct impacts to the S/NR-eligible historic resource.

NYCHA and the PACT Partner have worked with SHPO and Section 106 consulting parties to develop measures to partially mitigate the adverse effect, as set forth in a MOA pursuant to Section 106 of the NHPA provided in **Appendix D.2**. The objective of these Section 106 measures is to address the adverse effect of demolishing the Elliott-Chelsea Houses as a result of the Proposed Project and are considered mitigation for the purposes of this environmental review. As detailed in the MOA proposed mitigation measures include:

1. The preparation of an Unanticipated Discoveries Protocol.
2. A Historic American Buildings Survey (HABS) Level 2 recordation of the Elliott-Chelsea Houses.
3. The design and installation in a publicly accessible location of an interpretive display that adequately presents the history and significance of the Elliott-Chelsea Houses.
4. The development and implementation of Construction Protection Plans for surrounding historic properties within 90 feet of the Project Site.
5. Review and approval of all plans, final reports, studies, and Construction Protection Plans detailed above by SHPO, LPC, and the Historic Districts Council (the Section 106 consulting parties).

These measures would not fully mitigate the significant adverse impact, given that in any event the S/NR-eligible resource would be demolished. As discussed in **Chapter 07.0**, this therefore would be considered an unavoidable adverse impact, notwithstanding the partial mitigation measures.

E. TRANSPORTATION

Chapter 05.13 provides a detailed description of the anticipated traffic and pedestrian impacts and the proposed mitigation measures for the full build out of the Proposed Project in 2041. A description of the proposed mitigation measures for some impacts is provided below. It should be noted, however, that in all such cases, implementation of the recommended traffic engineering improvements is 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 application of mitigation measures, the impacts would remain unmitigated.

Alternative 2 – Preferred Alternative

Traffic

As discussed in **Chapter 05.13**, 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 05.21-1** 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.

The resulting traffic conditions are presented in **Tables 05.13-51 and 05.13-52** in **Chapter 05.13**. As indicated therein, 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**). This is also applicable to the “Construction Transportation” impact mitigation discussed in the following section.

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.

Effect of Traffic Mitigation on Parking Conditions

Proposed traffic mitigation measures 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 05.21-2** 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 05.21-2: 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.

Pedestrians

As discussed in **Chapter 05.13**, 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 05.21-3** 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. 17th Street between 9th and 10th 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.

Table 05.21-3: 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 ² /ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Mitigation Measures
Weekday AM Peak Hour										
South sidewalk along W 27 Dr btw 10 Ave & 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.
Weekday MD Peak Hour										
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.
Weekday PM Peak Hour										
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.
Saturday Peak Hour										
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 05.21-4** 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 05.21-4 and a 2.5-foot widening on the north crosswalk at 9th Avenue and W. 25th Street (to a total of 14.5 feet in width), the 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 8th Avenue and W. 25th Street is not feasible as there is only approximately eight feet of space on the pedestrian island between the travel lanes and bike lanes. Therefore, significant adverse impacts at one crosswalk would remain unmitigated in the weekday PM peak hour. If, prior to implementation, NYCDOT determines that an identified mitigation measure is infeasible, an alternative mitigation measure will be identified, if possible. In the absence of the implementation of mitigation measures, the impact would remain unmitigated.

Table 05.21-4: 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 has been 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. 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. See **Tables 05.13-55** and **05.13-56** in **Chapter 05.13** for details.

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.

Alternative 3 – Non-Rezoning Alternative

Traffic

As discussed in **Chapter 05.13**, 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 05.21-5** 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.

The resulting traffic conditions are presented in **Tables 05.13-58 and 05.13-59 in Chapter 05.13**. As indicated therein, 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 05.21-5: 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.

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.

Effect of Traffic Mitigation on Parking Conditions

Proposed traffic mitigation measures 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 05.21-4** 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 in **Chapter 05.13**, 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 05.21-6** shows the recommended mitigation measures to address these impacts and their effectiveness. With implementation of the proposed mitigation measures, the Non-Rezoning Alternative's significant adverse impacts to one sidewalk would be mitigated during all analyzed peak hours. This would be achieved by relocating a traffic sign located on the western half of the north sidewalk along W. 17th Street between 9th and 10th Avenues. The Non-Rezoning Alternative would result in an unmitigated significant adverse impact at this sidewalk if the proposed mitigation measures are deemed infeasible and no alternate mitigation measure is identified.

Additional practicable mitigation measures have not yet been identified for significant adverse impacts at 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.

Table 05.21-6: Non-Rezoning Alternative Action-With-Mitigation Sidewalk Conditions

Sidewalk	No-Action Alternative			Non-Rezoning Alternative			Non-Rezoning Alternative Action-with-Mitigation			
	Effective Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Mitigation Measures
Weekday AM Peak Hour										
South sidewalk along W 27 Dr btw 10 Ave & 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.
Weekday MD Peak Hour										
South sidewalk along W 17 St btw 9 Ave & 10 Ave	1.0	38.3	D	1.0	20.1	E *	2.5	20.1	E *	- Unmitigatable.
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.5	52.6	C	1.5	20.0	E *	3.0	42.2	D	- Relocation of one traffic sign.
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	30.3	D	1.0	20.9	E *	1.0	20.9	E *	- Unmitigatable.
Weekday PM Peak Hour										
South sidewalk along W 27 Dr btw 10 Ave & 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.
Saturday Peak Hour										
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. 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. See **Tables 05.13-61** and **05.13-62** in **Chapter 05.13** for details.

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 sidewalk 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 **Chapter 05.13**, 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. The measures proposed for the Preferred Alternative's significant adverse traffic impacts may also be proposed for the Midblock Bulk Alternative 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. The measures proposed for the Preferred Alternative's significant adverse pedestrian impacts may also be proposed for the Midblock Bulk Alternative and would improve the sidewalk and crosswalk conditions of the impacted pedestrian locations under the Midblock Bulk Alternative.

Alternative 7 – COY Alternative

Traffic

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 the COY Alternative would result in similar or fewer significant adverse traffic impacts than the Preferred Alternative. The measures proposed for the Preferred Alternative’s significant adverse traffic impacts may similarly be proposed for the COY Alternative and would likewise improve the traffic conditions of the impacted locations under this 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 the COY Alternative would result in similar or fewer significant adverse pedestrian impacts than the Preferred Alternative. The measures proposed for the Preferred Alternative’s significant adverse pedestrian impacts may similarly be proposed for the COY Alternative and would likewise improve the sidewalk and crosswalk conditions of the impacted pedestrian locations under this alternative.

F. CONSTRUCTION TRANSPORTATION

Chapter 05.19 provides a detailed description of the anticipated traffic and pedestrian impacts and the proposed mitigation measures for the Proposed Project during construction. A description of the proposed mitigation measures to mitigate some of the impacts is provided below. It should be noted, however, that in all such cases, implementation of the recommended traffic engineering improvements is 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 application of mitigation measures, the impacts would remain unmitigated.

Alternative 2 – Preferred Alternative

Traffic

As discussed in **Chapter 05.19**, in the first quarter of the 2034 peak construction period, construction traffic in combination with operational traffic from completed development on projected development sites under the Preferred Alternative would result in significant adverse traffic impacts at seven study area intersections during one or both analyzed construction peak hours; specifically, one lane group at one intersection in the AM construction peak hour, and six lane groups at six intersections in the PM construction peak hour.

As demonstrated below, many of these impacts could be mitigated through the implementation of traffic engineering improvements, including modification of existing traffic signal phasing and/or timing and curbside parking regulations. The types of mitigation measures proposed herein are standard measures that are routinely identified by the City and considered feasible for implementation. **Table 05.21-7** summarizes the recommended mitigation measures for each of the intersections with significant adverse traffic impacts during the AM and PM construction peak hours. Implementation of the recommended traffic engineering improvements is 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 application of mitigation measures, the impacts would remain unmitigated.

The resulting traffic conditions are presented in **Table 05.19-67** in **Chapter 05.19**. As indicated therein, significant adverse impacts would be fully mitigated during all analyzed peak hours with the exception of one lane group at one intersection in the PM construction peak hour. Consequently, this impact would constitute unavoidable significant adverse traffic impacts as a result of the Preferred Alternative (see also **Chapter 07.0**).

Table 05.21-7: 2034 (Q1) Preferred Alternative Proposed Construction Traffic Mitigation Measures

Intersection	Signal Phase	No-Action Alternative Signal Timing (Seconds) (1)		Proposed Signal Timing (Seconds) (1)		Recommended Mitigation
		AM	PM	AM	PM	
W.29th St (WB) & 10th Ave (NB)	WB	36	36	36	39	- Transfer 3s of green time from NB to WB in PM.
	PED	7	7	7	7	
	NB	30	30	30	27	
	NB/NBL	17	17	17	17	
W.25th St (WB) & 10th Ave (NB)	WB	36	36	36	38	- Transfer 2s of green time from NB to WB in PM.
	PED	10	10	10	10	
	NB	44	44	44	42	
W.23th St (E-W) & 10th Ave (NB)	EB/WB	30	30	30	30	- Eliminate parking on the west curb of the NB approach in the PM construction peak hour.
	EB/EB-L	11	11	11	11	
	PED	7	7	7	7	
	NB	42	42	42	42	
W.17th St (WB) & 10th Ave (NB)	WB	36	36	36	40	- Transfer 4s of green time from NB to WB in PM.
	PED	10	10	10	10	
	NB	44	44	44	40	
W.29th St (WB) & 9th Ave (SB)	WB	38	38	38	38	- Unmitigated.
	PED	7	7	7	7	
	SB	45	45	45	45	
W.23rd St (EB-WB) & 9th Ave (SB)	EB/WB	31	31	30	31	- Transfer 1s of green time from EB/WB to SB/SBL in AM.
	PED	7	7	7	7	
	SB	32	32	32	32	
	SB/SBL	20	20	21	20	
W.17th St (WB) & 9th Ave (SB)	WB	33	33	33	36	- Transfer 3s of green time from SB to WB in PM.
	PED	7	7	7	7	
	SB	50	50	50	47	

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.

This table has been revised for the FEIS.**Effect of Pedestrian Mitigation on Traffic Conditions**

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

Effect of Traffic Mitigation on Parking Conditions

The proposed traffic mitigation measures would incorporate modifications to curbside parking regulations. As shown in Table 05.21-7, new restrictions would be implemented along the west curb of 10th Avenue near the cross streets of W. 22nd and W. 23rd Streets. New “no parking anytime” restrictions in these areas would displace a total of approximately six on-street parking spaces.

The Preferred Alternative would generate a total of up to 338 spaces of parking demand at off-street public parking facilities or on-street during the peak construction period. With the proposed traffic mitigation, the displacement would increase the demand by up to approximately six spaces during this period. As discussed in Chapter 05.13, under CTM guidance, as the Project Sites are located in Parking Zone 1, the inability of the Preferred Alternative 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. Therefore, should any parking shortfall occur due to incremental demand from construction workers during the first quarter of 2034 peak construction period, it would be short-term and not be considered a significant parking shortfall pursuant to CTM guidance.

Proposed Schedule on Traffic Mitigation Measures

Subject to the approval of NYCDOT, the mitigation measures summarized in **Table 05.21-6** would be implemented to mitigate the significant adverse traffic impacts resulting from the peak construction period of the Preferred Alternative in the first quarter of 2034. As discussed in **Chapter 05.19**, construction of the Preferred Alternative would occur in five stages over 16 years, with an anticipated start date in the third quarter of 2025. As the peak construction period of the Preferred Alternative would be expected to occur within the 16-year period, it is possible that some of the significant adverse traffic impacts could occur between 2025 and the peak construction period in 2034. 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 in **Chapter 05.19**, in the first quarter of the 2034 peak construction period, the Preferred Alternative would result in significant adverse pedestrian impacts at three sidewalks and one crosswalk in one or both of the construction peak hours.

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 under the peak construction period.

Sidewalks

Of the five sidewalks analyzed, three are expected to be significantly adversely impacted by incremental demand from the Preferred Alternative during the peak construction period. **Table 05.21-8** shows the recommended mitigation measures to address these impacts and their effectiveness. As shown in **Table 05.21-8** and discussed below, with implementation of the proposed mitigation measures, in the peak construction period, the Preferred Alternative's significant adverse impacts to one sidewalk would be mitigated during the AM construction peak

hour. Practicable mitigation measures could not be identified for significant adverse impacts at one and three sidewalks during the AM and PM construction peak hours, respectively, and these impacts would therefore remain unmitigated.

With the relocation of a traffic sign located on the western half of the north sidewalk along W. 17th Street between 9th and 10th Avenues, the significant adverse impact would be fully mitigated during the analyzed construction AM peak hour. The Preferred Alternative would result in an unmitigated significant adverse impact at this sidewalk during the construction AM peak hour if the proposed mitigation measure is deemed infeasible and no alternate mitigation measure is identified.

Table 05.21-8: 2034 (Q1) 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 ² /ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Mitigation Measures
Construction AM Peak Hour										
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.5	81.9	C	1.5	15.3	E *	3.0	33.2	D	- Relocation of one traffic sign.
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	42.6	C	1.0	17.3	E *	1.0	17.3	E *	- Unmitigatable.
Construction PM Peak Hour										
North sidewalk along W 25 St btw 8 Ave & 9 Ave	5.0	46.5	C	5.0	31.4	D *	5.0	31.4	D *	- Unmitigatable.
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.5	22.9	E	1.5	7.7	F *	3.0	19.7	E *	- Relocation of one traffic sign.
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	13.1	E	1.0	6.7	F *	1.0	6.7	F *	- Unmitigatable.

Notes:

This table has been revised for the FEIS.

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

Crosswalks

Out of the two crosswalks analyzed, one is expected to be significantly adversely impacted by incremental demand from the Preferred Alternative in the PM construction peak hour during the peak construction period. Based on NYCDOT's guidance, widening the north crosswalk at 8th Avenue and W. 25th Street is not feasible as there is only approximately eight feet of space on the pedestrian island between the travel lanes and bike lanes. Therefore, significant adverse impacts at one crosswalk would remain unmitigated in the PM construction peak hour as shown in **Table 05.21-9**.

Table 05.21-9: 2034 (Q1) Preferred Alternative Action-With-Mitigation Crosswalk Conditions

Intersection	Crosswalk	Alternative Action With Mitigation Crosswalk Conditions									
		No-Action Alternative			Preferred Alternative			Preferred Alternative Action-with-Mitigation			
		Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Mitigation Measures
Construction PM Peak Hour											
8 Ave & W 25 St	North	12.0	24.9	C	12.0	18.6	D *	12.0	18.6	D *	- Unmitigated.

Notes:

This table has been revised for the FEIS.

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

Effect of Traffic Mitigation on Pedestrian Conditions

Proposed traffic mitigation measures would not affect pedestrian conditions at any analyzed pedestrian elements during the construction peak period in the AM and PM construction peak hours.

Proposed Schedule on Pedestrian Mitigation Measures

Subject to the approval of NYCDOT, the pedestrian mitigation measures described above would be implemented to mitigate the significant adverse sidewalk impacts resulting from the peak construction period of the Preferred Alternative in the first quarter of 2034. As discussed in **Chapter 05.19**, construction of the Preferred Alternative would occur in five stages over 16 years, with an anticipated start date in the third quarter of 2025. As the peak construction period of the Preferred Alternative would be expected to occur within the 16-year period, it is possible that some of the significant adverse traffic impacts could occur between 2025 and the peak construction period in 2034. The actual implementation of the proposed mitigation measures will be determined in consultation with NYCDOT upon field survey of the build conditions.

Alternative 3 – Non-Rezoning Alternative

Traffic

As discussed in **Chapter 05.19**, in the second quarter of the 2037 peak construction period, construction traffic in combination with operational traffic from completed development on projected development sites under the Non-Rezoning Alternative would result in significant adverse traffic impacts at eight study area intersections during one or both analyzed construction peak hours; specifically, one lane group at one intersection in the AM construction peak hour, and nine lane groups at seven intersections in the PM construction peak hour.

As demonstrated below, all of these impacts could be mitigated through the implementation of traffic engineering improvements, including modification of existing traffic signal phasing and/or timing and curbside parking regulations. The types of mitigation measures proposed herein are standard measures that are routinely identified by the City and considered feasible for implementation. **Table 05.21-10** summarizes the recommended mitigation measures for each of the intersections with significant adverse traffic impacts during the AM and PM construction peak hours. Implementation of the recommended traffic engineering improvements is 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 application of mitigation measures, the impacts would remain unmitigated.

The resulting traffic conditions are presented in **Table 05.19-71** in **Chapter 05.19**. As indicated therein, significant adverse impacts would be fully mitigated during all analyzed peak hours.

Effect of Pedestrian Mitigation on Traffic Conditions

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

Effect of Traffic Mitigation on Parking Conditions

The proposed traffic mitigation measures would incorporate modifications to curbside parking regulations. As shown in Table 05.21-10, new restrictions would be implemented along the west curb of 10th Avenue near the cross streets of W. 22nd and W. 23rd Streets. New “no parking anytime” restrictions in these areas would displace a total of approximately six on-street parking spaces.

The Non-Rezoning Alternative would generate a total of up to 314 spaces of parking demand at off-street public parking facilities or on-street during the peak construction period. With the proposed traffic mitigation, the displacement would increase the demand by up to approximately six spaces during this period. As discussed in Chapter 05.13, under CTM guidance, as the Project Sites are located in Parking Zone 1, the inability of the Non-Rezoning Alternative 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. Therefore, should any parking shortfall occur due to incremental demand from construction workers during the first quarter of 2037 peak construction period, it would be short-term and not be considered a significant parking shortfall pursuant to CTM guidance.

Proposed Schedule on Traffic Mitigation Measures

Subject to the approval of NYCDOT, the mitigation measures summarized in Table 05.21-9 would be implemented to mitigate the significant adverse traffic impacts resulting from the peak construction period of the Non-Rezoning Alternative in the second quarter of 2037. As discussed in Chapter 05.19, construction of the Non-Rezoning Alternative would occur in five stages over 16 years, with an anticipated start date in the third quarter of 2025. As the peak construction period of the Non-Rezoning Alternative would be expected to occur within the 16-year period, it is possible that some of the significant adverse traffic impacts could occur between 2025 and the peak construction period in 2037. The actual implementation of the proposed mitigation measures will be determined in consultation with NYCDOT upon field survey of the build conditions.

Table 05.21-10: 2037 (Q2) Non-Rezoning Alternative Proposed Construction Traffic Mitigation Measures

Intersection	Signal Phase	No-Action Alternative Signal Timing (Seconds) (1)		Proposed Signal Timing (Seconds) (1)		Recommended Mitigation
		AM	PM	AM	PM	
W.29th St (WB) & 10th Ave (NB)	WB	36	36	36	37	- Transfer 1s of green time from NB to WB in PM.
	PED	7	7	7	7	
	NB	30	30	30	29	
	NB/NBL	17	17	17	17	
W.25th St (WB) & 10th Ave (NB)	WB	36	36	36	37	- Transfer 1s of green time from NB to WB in PM.
	PED	10	10	10	10	
	NB	44	44	44	43	
W.23th St (E-W) & 10th Ave (NB)	EB/WB	30	30	30	31	- Transfer 1s of green time from NB to EB/WB in PM. - Eliminate parking on the west curb of the NB approach in the PM construction peak hour.
	EB/EB-L	11	11	11	11	
	PED	7	7	7	7	
	NB	42	42	42	41	
W.19th St (WB) & 10th Ave (NB) See note (2)	EB	21	21	21	21	- Transfer 1s of green time from NB to WB in PM.
	WB	23	23	23	24	
	NB	39	39	39	38	
	Ped	7	7	7	7	
W.17th St (WB) & 10th Ave (NB)	WB	36	36	36	38	- Transfer 2s of green time from NB to WB in PM.
	PED	10	10	10	10	
	NB	44	44	44	42	
W.29th St (WB) & 9th Ave (SB)	WB	38	38	38	40	- Transfer 2s of green time from NB to WB in PM.
	PED	7	7	7	7	
	SB	45	45	45	43	
W.23rd St (EB-WB) & 9th Ave (SB)	EB/WB	31	31	30	31	- Transfer 1s of green time from EB/WB to SB/SBL in AM.
	PED	7	7	7	7	
	SB	32	32	32	32	
	SB/SBL	20	20	21	20	
W.19th St (WB) & 9th Ave (SB)	WB	33	33	33	36	- Transfer 3s of green time from SB to WB in PM.
	PED	7	7	7	7	
	NB	50	50	50	47	
W.17th St (WB) & 9th Ave (SB)	WB	33	33	33	34	- Transfer 1s of green time from SB to WB in PM.
	PED	7	7	7	7	
	SB	50	50	50	49	

Notes :

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

(2) An impact at W. 19th St/10th Ave was created by the mitigation measures for W. 19th St/9th Ave. Therefore, mitigation measures are proposed for W. 19th St/10th Ave.

All proposed signal timing mitigations reflect adjustments to the walk timings.

This table has been revised for the FEIS.

Pedestrians

As discussed above, in the second quarter of the 2037 peak construction period, the Non-Rezoning Alternative would result in significant adverse pedestrian impacts at two sidewalks in both of the construction peak hours.

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 under the peak construction period.

Sidewalks

Of the four sidewalks analyzed, two are expected to be significantly adversely impacted by incremental demand from the Non-Rezoning Alternative during the peak construction period. **Table 05.21-11** shows the recommended mitigation measures to address these impacts and their effectiveness. As shown in **Table 05.21-11** and discussed below, with implementation of the proposed mitigation measures, in the peak construction period, the Non-Rezoning Alternative's significant adverse impacts to one sidewalk would be mitigated during both the AM and PM construction peak hours. Practicable mitigation measures could not be identified for significant adverse impacts at one sidewalk during the same peak hours, and these impacts would therefore remain unmitigated.

With the relocation of a trash bin and traffic sign located on the western half of the north sidewalk along W. 17th Street between 9th and 10th Avenues, the significant adverse impact would be fully mitigated during all analyzed peak hours. The Non-Rezoning Alternative would result in an unmitigated significant adverse impact at this sidewalk if the proposed mitigation measure is deemed infeasible and no alternate mitigation measure is identified.

Effect of Traffic Mitigation on Pedestrian Conditions

Proposed traffic mitigation measures would not affect pedestrian conditions at any analyzed pedestrian elements during the construction peak period in the AM and PM construction peak hours.

Proposed Schedule on Pedestrian Mitigation Measures

Subject to the approval of NYCDOT, the pedestrian mitigation measures described above would be implemented to mitigate the significant adverse sidewalk impacts resulting from the peak construction period of the Non-Rezoning Alternative in the second quarter of 2037. As discussed in **Chapter 05.19**, construction of the Non-Rezoning Alternative would occur in five stages over 16 years, with an anticipated start date in the third quarter of 2025. As the peak construction period of the Non-Rezoning Alternative would be expected to occur within the 16-year period, it is possible that some of the significant adverse traffic impacts could occur between 2025 and the peak construction period in 2037. The actual implementation of the proposed mitigation measures will be determined in consultation with NYCDOT upon field survey of the build conditions.

Table 05.21-11: 2037 (Q2) Non-Rezoning Alternative Action-With-Mitigation Sidewalk Conditions

Sidewalk	No-Action Alternative			Non-Rezoning Alternative			Non-Rezoning Alternative Action-with-Mitigation			
	Effective Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft ² /ped)	LOS	Mitigation Measures
Construction AM Peak Hour										
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.5	81.9	C	1.5	18.1	E *	3.0	38.5	D	- Relocation of one traffic sign.
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	42.6	C	1.0	20.2	E *	1.0	20.2	E *	- Unmitigatable.
Construction PM Peak Hour										
North sidewalk along W 17 St btw 9 Ave & 10 Ave	1.5	22.9	E	1.5	10.9	F *	3.0	25.3	D	- Relocation of one traffic sign.
North sidewalk along W 16 St btw 8 Ave & 9 Ave	1.0	13.0	E	1.0	7.9	F *	1.0	7.9	F *	- Unmitigatable.

Note:

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

Alternative 4 – Midblock Bulk Alternative

Traffic

The Preferred Alternative would result in significant adverse impacts to seven intersections in one or both of the analyzed peak hours during the peak construction period. As the Midblock Bulk Alternative would generate fewer vehicle trips in each of the construction peak hours than the Preferred Alternative, it is anticipated that it would not result in any new significant adverse traffic impacts compared to the Preferred Alternative. As discussed in **Chapter 05.19**, the rearrangement of bulk between the Midblock Bulk Alternative and Preferred Alternative may result in small change in the directional distribution of action-generated trips at some intersections. The measures proposed for the Preferred Alternative's significant adverse traffic impacts may also be proposed for the Midblock Bulk Alternative and would improve the traffic conditions of the impacted locations under the Midblock Bulk Alternative. Similar to the Preferred Alternative, as the peak construction period of the Midblock Bulk Alternative would be expected to occur within the 16-year period, it is possible that some of the significant adverse traffic impacts could occur between 2025 and the peak construction period in 2034. As such, implementation of some or all of the mitigation measures developed for peak construction period for the Preferred Alternative would be considered at impacted intersections in proximity to the Project Site at an earlier point in time.

Pedestrians

The Preferred Alternative would result in significant adverse impacts to three sidewalks and one crosswalk in one or both of the analyzed construction peak hours during the peak construction period. As the Midblock Bulk Alternative would generate fewer pedestrian trips in each of the construction peak hour peak hour than the Preferred Alternative, it is expected that it would not result in any new significant adverse pedestrian impacts compared to the Preferred Alternative. The measures proposed for the Preferred Alternative's significant adverse pedestrian impacts may also be proposed for the Midblock Bulk Alternative and would improve the sidewalk conditions of the impacted pedestrian locations under the Midblock Bulk Alternative.

Alternative 7 – COY Alternative

Traffic

The Preferred Alternative would result in significant adverse impacts to seven intersections in one or both of the analyzed peak hours during the peak construction period. As the COY Alternative would generate fewer vehicle trips in each of the construction peak hours than the Preferred Alternative, it is anticipated that the COY Alternative would result in similar or fewer significant adverse traffic impacts than the Preferred Alternative. The measures proposed for the Preferred Alternative's significant adverse traffic impacts may similarly be proposed for the COY Alternative and would likewise improve the traffic conditions of the impacted locations under this alternative. Similar to the Preferred Alternative, as the peak construction period of the COY Alternative would be expected to occur within the 16-year period, it is possible that some of the significant adverse traffic impacts could occur between 2025 and the peak construction period in 2034. As such, implementation of some or all of the mitigation measures developed for peak construction period for the Preferred Alternative would be considered at impacted intersections in proximity to the Project Sites at an earlier point in time.

Pedestrians

The Preferred Alternative would result in significant adverse impacts to three sidewalks and one crosswalk in one or both of the analyzed construction peak hours during the peak construction period. As the COY Alternative would generate fewer pedestrian trips in each of the construction peak hour than the Preferred Alternative, it is anticipated that the COY Alternative would result in similar or fewer significant adverse pedestrian impacts than the Preferred Alternative. The measures proposed for the Preferred Alternative's significant adverse pedestrian impacts may similarly be proposed for the COY Alternative and would likewise improve the sidewalk and crosswalk conditions of the impacted pedestrian locations under this alternative.

G. CONSTRUCTION NOISE

Alternative 2 – Preferred Alternative; Alternative 3 – Non-Rezoning Alternative; Alternative 4 – Midblock Bulk Alternative; and Alternative 7 – COY Alternative

As discussed in **Chapter 05.19**, construction under the Preferred Alternative, the Non-Rezoning Alternative, the Midblock Bulk Alternative, and the COY Alternative would result in significant adverse construction noise impacts at various receptors within the Project Sites. Significant adverse impacts that cannot be fully mitigated through reasonably practicable measures are also identified and discussed in **Chapter 7.0**. At several receptors for the Preferred Alternative, the Non-Rezoning Alternative, and the Midblock Bulk Alternative, and the COY Alternative, construction would result in noise level increments that would exceed the *CTM* construction noise screening thresholds. The potential for significant adverse impacts at these receptors was determined by evaluating the magnitude and duration of these increments. Significant adverse impacts related to construction noise for the Preferred Alternative would occur at sensitive locations as indicated in **Figures 05.19-6a** through **05.19-7b** and **Table 05.21-12**. Significant

adverse impacts related to construction noise under the Non-Rezoning Alternative would occur at sensitive locations as indicated in **Figures 05.19-8a** through **05.19-9b** and **Table 05.21-13**. Significant adverse impacts related to construction noise under the Midblock Bulk Alternative would occur at sensitive locations as indicated in **Figures 05.19-10a** through **05.19-11b** and **Table 05.21-14**. Significant adverse impacts related to construction noise under the COY Alternative would occur at sensitive locations as indicated in **Figures 05.19-12a** through **05.19-13b** and **Table 05.21-15**. The cited figures are all provided in **Chapter 05.19** and are incorporated herein by reference.

This analysis was based on a conceptual site plan and construction schedule. The conceptual construction schedule conservatively accounts for overlapping construction activities at multiple building sites in proximity to one another to capture the cumulative nature of construction impacts with respect to number of worker vehicles, trucks, and construction equipment at any given time, within reasonable construction scheduling constraints for each of the building sites. Because the analysis is based on construction stages, it does not capture the natural daily and hourly variability of construction noise at each receptor. The level of noise produced by construction fluctuates throughout the days and months of the construction stages, while the construction noise analysis is based on the worst-case time periods only, which is conservative.

Table 05.21-12: Adverse Significant Construction Noise Impact Locations – Preferred Alternative

Receptors	Address	Land Use	Façade(s)
17, 18	Avenues the World School – 259 Tenth Avenue	School	E
54	London Terrace Gardens Apartments – 460 W. 24th Street	Residential	N
85	246 through 258 Tenth Avenue	Residential	N
78	229 through 241 Ninth Avenue	Residential with Commercial Below	N
80, 81, 83, 88-90	406 to 420 and 446 to 462 W. 25th Street	Residential	N, E, W
92, 95, 96	263 Ninth Avenue and 401 W. 25th Street	Residential	W
100-103, 107, 108	PS 33 Chelsea Prep – 281 Ninth Avenue	School	N, W
111, 112	303 Ninth Avenue	Medical Clinic	W, S
429, 431-433	75 Ninth Avenue and 437 W. 16th Street	Commercial and Office Buildings	75 Ninth Avenue: N 437 W. 16th Street: N, E, S
437, 440-442	450 W. 17th Street	Residential with Commercial Below	N, E, Courtyard N, Courtyard S
449-451, 454, 457, 463-467	428 to 444 W. 19th Street and 447 W. 18th Street	Residential	N, E, S
469, 470	435 W. 19th Street	Residential	S, E
473-475	159 Ninth Avenue	Residential	W, S
479, 485-487	412 to 420 W. 20th Street	Residential	S, E (construction-facing)
522, 523, 529, 530	363 and 355 W. 16th Street	Hotel	N (construction-facing), W
534, 543, 544, 548, 559	108 through 112 and 128-144 Ninth Avenue	Residential with Commercial Below	W
550, 552	James Baldwin School – 335 W. 18th Street	School	Courtyard W, Western Window Column on S
148, 149, 151, 152	Elliott Building 2	Residential	E

Receptors	Address	Land Use	Façade(s)
156-162, 164, 166	Elliott Building 3	Residential	All
167-172	Chelsea Building 1	Residential	All
178-182	Elliott Building 1	Residential	E, S
185-189, 191-194	Elliott Building 4	Residential	N, W, S
301, 302, 303, 306, 307, 309	Future Elliott Chelsea Building 1	Residential	E, W, S
311, 313	Future Elliott Chelsea Building 2	Residential	Courtyard S, E
316, 317, 320-322	Future Elliott Chelsea Building 3	Residential	Courtyard N, W, S
330	Future Elliott Chelsea Building 5	Residential	E
334	Future Elliott Chelsea Building 6	Residential	W
605-607	Fulton Building 2	Residential	N, E
611, 612	Fulton Building 3	Residential	N
615-619	Fulton Building 4	Residential	All
623	Fulton Building 5	Residential	E
626-630	Fulton Building 6	Residential	N, E, S
640-645	Fulton Building 9	Residential	All
646-648	Fulton Building 10	Residential	N, W
802-804	Future Fulton Building 1	Residential	S
806	Future Fulton Building 2	Residential	W
810, 813, 814	Future Fulton Building 3	Residential	W, S
815, 816, 819, 822	Future Fulton Building 4	Residential	E, S
823, 824, 827-829	Future Fulton Building 5	Residential	N, Courtyard N, Courtyard W
835, 836	Future Fulton Building 6	Residential	N (construction-facing), E

Table 05.21-13: Adverse Significant Construction Noise Impact Locations – Non-Rezoning Alternative

Receptors	Address	Land Use	Façade(s)
78	229 through 241 Ninth Avenue	Residential with Commercial Below	N
85	246 through 258 Tenth Avenue	Residential	N
80, 81, 83, 88-90	406 to 420 and 446 to 462 W. 25th Street	Residential	N, E, W
92, 95, 96	263 Ninth Avenue and 401 W. 25th Street	Residential	W
100-103, 107, 108	PS 33 Chelsea Prep – 281 Ninth Avenue	School	N, W
111, 112	303 Ninth Avenue	Medical Clinic	W, S
429, 431-433	75 Ninth Avenue and 437 W. 16th Street	Commercial and Office Buildings	75 Ninth Avenue: N 437 W. 16th Street: N, E, S
437, 440-442	450 W. 17th Street	Residential with Commercial Below	N, E, Courtyard N, Courtyard S
449-451, 454, 457, 463-467	428 to 444 W. 19th Street and 447 W. 18th Street	Residential	N, E, S
469, 470	435 W. 19th Street	Residential	S, E
473-475	159 Ninth Avenue	Residential	N, W, S
479, 485-487	412 to 420 W. 20th Street	Residential	S, E (construction-facing)
522, 523, 529, 530	363 and 355 W. 16th Street	Hotel	N (construction-facing), W
543, 544	112 Ninth Avenue	Residential with Commercial Below	W
552	James Baldwin School – 335 W. 18th Street	School	Courtyard W
148, 149	Elliott Building 2	Residential	E
156-166	Elliott Building 3	Residential	All
167-171	Chelsea Building 1	Residential	All
178-182	Elliott Building 1	Residential	E, S
185-189, 191-194	Elliott Building 4	Residential	N, W, S
201-204, 207, 208, 210	Future Elliott Chelsea Building 1	Residential	E, W, S
212, 214	Future Elliott Chelsea Building 2	Residential	Courtyard S, E
217-219, 221-223	Future Elliott Chelsea Building 3	Residential	N, W, S
225, 226	Future Elliott Chelsea Building 4	Residential	N, W
228, 232	Future Elliott Chelsea Building 5	Residential	N, Courtyard E
605-607	Fulton Building 2	Residential	N, E
610-612	Fulton Building 3	Residential	N
615-620	Fulton Building 4	Residential	All
621-623	Fulton Building 5	Residential	E
626-630	Fulton Building 6	Residential	N, E, S
641-645	Fulton Building 9	Residential	All
646-648	Fulton Building 10	Residential	N, W
702-706	Future Fulton Building 1	Residential	N, S
707, 708	Future Fulton Building 2	Residential	N, W
713, 714	Future Fulton Building 3	Residential	W, S
720, 721	Future Fulton Building 5	Residential	W, S
724	Future Fulton Building 6	Residential	S (construction-facing)
727, 728	Future Fulton Building 7	Residential	W, S
734	Future Fulton Building 8	Residential	S

Table 05.21-14: Adverse Significant Construction Noise Impact Locations – Midblock Bulk Alternative

Receptors	Address	Land Use	Façade(s)
17, 18	Avenues the World School – 259 Tenth Avenue	School	E
54	London Terrace Gardens Apartments – 460 W. 24th Street	Residential	N
85	246 through 258 Tenth Avenue	Residential	N
78	229 through 241 Ninth Avenue	Residential with Commercial Below	N
80, 81, 83, 88-90	406 to 420 and 446 to 462 W. 25th Street	Residential	N, E, W
92, 95, 96	263 Ninth Avenue and 401 W. 25th Street	Residential	W
100-103, 107, 108	P.S. 33 Chelsea Prep – 281 Ninth Avenue	School	N, W
111, 112	303 Ninth Avenue	Medical Clinic	W, S
429, 432, 433	75 Ninth Avenue and 437 W. 16th Street	Commercial and Office Buildings	75 Ninth Avenue: N 437 W. 16th Street: N, E, S
437, 441, 442	450 W. 17th Street	Residential with Commercial Below	N, E, Courtyard N
449-451, 454, 456, 457, 463-467	428 to 444 W. 19th Street and 447 W. 18th Street	Residential	N, E, S
469, 470	435 W. 19th Street	Residential	S, E
473-475	159 Ninth Avenue	Residential	W, S
479, 485-487	412 to 420 W. 20th Street	Residential	S, E (construction-facing)
522, 523, 529, 530	363 and 355 W. 16th Street	Hotel	N (construction-facing), W
534, 559	108 and 136 Ninth Avenue	Residential with Commercial Below	W
552	James Baldwin School – 335 W. 18th Street	School	Courtyard W
148, 149, 151, 152	Elliott Building 2	Residential	E
156-162, 164, 166	Elliott Building 3	Residential	All
167-172	Chelsea Building 1	Residential	All
178-182	Elliott Building 1	Residential	E, S
185-189, 191-194	Elliott Building 4	Residential	N, W, S

Table 05.21-14 (continued): Adverse Significant Construction Noise Impact Locations – Midblock Bulk Alternative

Receptors	Address	Land Use	Façade(s)
301, 302, 303, 306, 307, 309	Future Elliott Chelsea Building 1	Residential	E, W, S
311, 313	Future Elliott Chelsea Building 2	Residential	Courtyard S, E
316, 317, 320-322	Future Elliott Chelsea Building 3	Residential	Courtyard N, W, S
330	Future Elliott Chelsea Building 5	Residential	E
334	Future Elliott Chelsea Building 6	Residential	W
604-606	Fulton Building 2	Residential	N, E, W
610, 611	Fulton Building 3	Residential	N, W
615-619	Fulton Building 4	Residential	All
625-630	Fulton Building 6	Residential	All
631, 632, 635	Fulton Building 7	Residential	N, W
641-645	Fulton Building 9	Residential	All
646-648	Fulton Building 10	Residential	N, W
802-804	Future Fulton Building 1	Residential	S
806, 809	Future Fulton Building 2	Residential	W, S
815, 816, 818	Future Fulton Building 3	Residential	N, E, S
810, 814	Future Fulton Building 4	Residential	W
823, 827-830	Future Fulton Building 5	Residential	Righthand N, Courtyard N, W, Courtyard W
833, 835, 836	Future Fulton Building 6	Residential	N, E

Table 05.21-15: Adverse Significant Construction Noise Impact Locations – COY Alternative

Receptors	Address	Land Use	Façade(s)
17, 18	Avenues the World School – 259 Tenth Avenue	School	E
54	London Terrace Gardens Apartments – 460 W. 24th Street	Residential	N
85	246 through 258 Tenth Avenue	Residential	N
78	229 through 241 Ninth Avenue	Residential with Commercial Below	N
80, 81, 83, 88-90	406 to 420 and 446 to 462 W. 25th Street	Residential	N, E, W
92, 95, 96	263 Ninth Avenue and 401 W. 25th Street	Residential	W
100-103, 107, 108	PS 33 Chelsea Prep – 281 Ninth Avenue	School	N, W
111, 112	303 Ninth Avenue	Medical Clinic	W, S
429, 431-433	75 Ninth Avenue and 437 W. 16th Street	Commercial and Office Buildings	75 Ninth Avenue: N 437 W. 16th Street: N, E, S
437, 440-442	450 W. 17th Street	Residential with Commercial Below	N, E, Courtyard N, Courtyard S
449-451, 454, 456, 457, 463-467	428 to 444 W. 19th Street and 447 W. 18th Street	Residential	N, E, S
469, 470	435 W. 19th Street	Residential	S, E
473-475	159 Ninth Avenue	Residential	N, W, S
479, 485-487	412 to 420 W. 20th Street	Residential	S, E (construction-facing)
522, 523, 529, 530	363 and 355 W. 16th Street	Hotel	N (construction-facing), W

Receptors	Address	Land Use	Façade(s)
534, 543, 544, 548, 559	108 through 112 and 128-144 Ninth Avenue	Residential with Commercial Below	W
550, 552	James Baldwin School – 335 W. 18th Street	School	Courtyard W, Western Window Column on S
148, 149, 151, 152	Elliott Building 2	Residential	E
156-166	Elliott Building 3	Residential	All
167-172	Chelsea Building 1	Residential	All
178-182	Elliott Building 1	Residential	E, S
185-189, 191-194	Elliott Building 4	Residential	N, W, S
201-204, 207, 208, 210, 301, 302, 303, 306, 307, 309	Future Elliott Chelsea Building 1	Residential	E, W, S
212, 214, 311, 313	Future Elliott Chelsea Building 2	Residential	Courtyard S, E
217-219, 221-223, 316, 317, 320-322	Future Elliott Chelsea Building 3	Residential	Courtyard N, W, S
225, 226	Future Elliott Chelsea Building 4	Residential	N, W
228, 232, 330	Future Elliott Chelsea Building 5	Residential	N, E, Courtyard E
334	Future Elliott Chelsea Building 6	Residential	W
605-607	Fulton Building 2	Residential	N, E
611, 612	Fulton Building 3	Residential	N
615-619	Fulton Building 4	Residential	All
623	Fulton Building 5	Residential	E
626-630	Fulton Building 6	Residential	N, E, S
640-645	Fulton Building 9	Residential	All
646-648	Fulton Building 10	Residential	N, W
702-706, 802-804	Future Fulton Building 1	Residential	N, S
707, 708, 806	Future Fulton Building 2	Residential	N, W
713, 714, 810, 813, 814	Future Fulton Building 3	Residential	W, S
815, 816, 819, 822	Future Fulton Building 4	Residential	E, S
720, 721, 823, 824, 827-829	Future Fulton Building 5	Residential	N, Courtyard N, Courtyard W, S
724, 835, 836	Future Fulton Building 6	Residential	N (construction-facing), E, S (construction-facing)
727, 728	Future Fulton Building 7	Residential	W, S
734	Future Fulton Building 8	Residential	S

Note:

This table is new for the FEIS.

For the Preferred Alternative, Non-Rezoning Alternative, Midblock Bulk Alternative, and the COY Alternative, of the residential buildings to be constructed at the Project Sites, Elliott Buildings 1 through 4, Chelsea Building 1, and Fulton Buildings 2 through 6, 9, and 10 are predicted to experience significant adverse construction noise impacts. As described in **Chapter 05.16**, these residential buildings would provide 28 to 33 dBA window/wall attenuation and would feature modern façade construction, including insulated glass windows and an alternative means of ventilation that would allow for the maintenance of a closed-window condition. These measures would ensure that the Proposed Project would provide acceptable interior noise levels under operational conditions and therefore there would be no significant adverse noise impacts under operational conditions. Under construction, with these measures, interior noise levels at these

buildings would be substantially reduced during the times that they would experience noise from construction of other elements of the Proposed Project. However, even with a minimum of 28 dBA window/wall attenuation and alternative means of ventilation, interior noise levels resulting from construction of the Proposed Project would still exceed the 45 dBA threshold considered acceptable for residential use according to *CTM* noise exposure guidelines by up to approximately 14 dBA. Consequently, the predicted construction noise impacts at these buildings would be only partially mitigated.

Many of the existing buildings at which construction noise impacts were predicted to occur, including Avenues the World School at 259 10th Avenue and PS 33 Chelsea Prep at 281 9th Avenue, include insulated glass windows and alternate means of ventilation, which would provide at least 25 dBA window/wall attenuation. With these measures, interior noise levels at these buildings would be substantially reduced during the times that they would experience noise from construction activities. However, even with a minimum of 25 dBA window/wall attenuation, interior noise levels resulting from construction of the Proposed Project would still exceed the 45 dBA threshold considered acceptable for residential or community facility use according to *CTM* noise exposure guidelines by up to approximately 18 dBA. Consequently, the predicted construction noise impacts at these buildings would be only partially mitigated.

Noise Reduction Measures

Construction activities for the Preferred Alternative, the Non-Rezoning Alternative, the Midblock Bulk Alternative, or the COY Alternative would be required to follow the requirements of the NYC Noise Control Code for construction noise control measures. Specific noise control measures would be incorporated in noise mitigation plan(s) required under the NYC Noise Control Code. These measures could include a variety of source and path controls.

In addition, during construction of the Proposed Project, the following source and path control measures above and beyond New York City regulations would be implemented as PCREs to minimize noise emissions to the maximum extent practicable. These measures will be obligations of the PACT Partner that will be memorialized in legally binding:

- Certain equipment such as compressors, generators, and cranes, would be required to meet the mandated noise levels to be used for construction of the Proposed Project (lower levels than those specified in the NYC Construction Noise Code)
- In lieu of a generator, power would be drawn from the existing Con Edison grid, subject to Con Edison approval and power availability
- Noise barriers would be 12 feet tall and cantilevered towards the work area instead of the 8 feet tall required by code
- Throughout the construction period, concrete operations would be located within the construction barrier (i.e., A structure enclosed on three sides and with a roof constructed) while pouring or being washed out
- The construction barrier would be attenuated using sound blankets
- Where logistics allow, noisy equipment, such as cranes, concrete pumps, concrete trucks, and delivery trucks, would be located away from and shielded from sensitive receptor locations

In addition to these source and path-control measures, between the DEIS and FEIS, the feasibility and practicability of receptor control measures and/or other potential noise control measures and mitigation for construction noise impacts on nearby buildings were evaluated further. No additional measures were determined to be feasible, practicable, and effective to mitigate the predicted significant adverse construction noise impacts.

It should be noted that even with the above-described noise reduction measures, interior noise levels during construction would still exceed the acceptable thresholds for residential or community facility uses under the Preferred Alternative, the Non-Rezoning Alternative, the Midblock Bulk Alternative, or the COY Alternative. Therefore, construction of the Proposed Project under any of these alternatives would result in an unavoidable significant adverse noise impact.