Chapter 20: Mitigation

A. INTRODUCTION

In accordance with the ~~2021~~2020 *City Environmental Quality Review (CEQR) Technical Manual*, where significant adverse impacts have been identified, mitigation measures must be examined that eliminate or reduce the impacts to the fullest extent practicable. Therefore, this chapter considers mitigation measures to address those significant adverse impacts resulting from the Proposed Actions that were identified in the preceding chapters.

PRINCIPAL CONCLUSIONS

Based on the analysis provided in the preceding chapters, the Proposed Actions are expected to result in significant adverse impacts related to community facilities and services (publicly financed early childhood programs; libraries), open space, shadows, transportation (traffic, transit, and pedestrian conditions), ~~air quality (mobile source analysis, related to annual average particulate matter [$PM_{2.5}$] incremental concentrations at two intersections)~~ and construction (traffic and noise). Mitigation measures to address those impacts, where feasible and~~/or~~ practicable~~l~~, are therefore proposed below. The New York City Department of City Planning (DCP), as the Lead Agency, ~~will continue to~~has coordinated with City agencies ~~and~~to ~~further~~ examine and refine these recommended measures between the Draft Environmental Impact Statement (DEIS) and Final Environmental Impact Statement (FEIS). ~~If~~Where no feasible and practicable mitigation ~~can be~~has been identified, the impacts would remain an unavoidable significant adverse impact of the Proposed Actions.

COMMUNITY FACILITIES

~~Publicly Financed~~ Early Childhood Programs

The Proposed Actions would result in a significant adverse impact on publicly funded early childhood programs. In both the No Action and With Action scenarios, publicly financed early childhood programs in the study area are predicted to operate over capacity. In the With Action scenario, the predicted increase of 80.5 percentage points in the utilization rate would exceed 5 percentage points. With the assumption of 914 affordable DUs at 80 percent AMI, the Proposed Actions would generate 128 eligible children, and the addition of 79 child care slots would be required to result in an increase in utilization in the study area of less than 5 percent.

The Restrictive Declaration for the Proposed Development will require the Applicant to work with DOE to consider the need for and the implementation of one or more measures to provide additional capacity, if required, to mitigate the significant adverse impact to publicly funded child care facilities within the 1.5-mile study area or within Queens Community District 1. Possible mitigation measures for this significant adverse impact may include provision of suitable space within the Proposed Development for early childhood programs, provision of a suitable location off-site within the study area and within a reasonable distance (at a rate affordable to New York City Department of Education [DOE] providers), or funding/making program or physical

improvements to support adding capacity to existing facilities if determined feasible through consultation with DOE's Division of Early Childhood Education. ~~These measures are to be further examined between the DEIS and the FEIS, in consultation with DOE.~~ The Applicant would coordinate with DOE to determine the required mitigation at the time that 53 affordable units are developed in the Project Area (which may include development in the Additional Affected Area on sites that are not controlled by the Applicant). As the Proposed Development may include senior housing units, the determination of mitigation will only consider the need generated by affordable units that would be expected to generate children eligible for publicly financed early childhood programs. Absent the implementation of such mitigation measures, if needed, the Proposed Actions would have an unmitigated significant adverse impact on publicly funded early childhood programs.

Libraries

The Proposed Actions would result in a significant adverse impact on library services in the study area. The With Action scenario population would represent an increase of 4.48 percent over the No Action scenario population at the Broadway Branch of the Queens Public Library (QPL) and an increase of 5.94 percent at the Long Island City Branch of the Queens Public Library. The increase at the Long Island City Branch is greater than the 5 percent increase that CEQR defines as the threshold for a potential significant adverse impact.

The Applicant ~~is in active conversations~~has coordinated with the Queens Public Library concerning a partnership with the Proposed Development and potential mitigation. Between DEIS and FEIS, the Applicant refined possible mitigation measures in coordination with QPL and DCP. The Restrictive Declaration for the Proposed Development will require the Applicant to coordinate with QPL and to commit to one of, or some combination of, the following mitigation measures, which will be implemented before the Temporary Certificate of Occupancy is issued for the final building in the Proposed Development. Potential mitigation measures include funding or provision of improvements and maintenance to the QPL Broadway branch facility that would support the branch's programming and services year-round, such as improvements to the branch's garden to provide space for public gatherings and community enjoyment; provision of space within the Proposed Development for the library, the size and location of which would be determined in coordination with QPL; and/or support for QPL for the continued operation of a space for the Library within the Proposed Development. ~~Potential mitigation measures by the Applicant include: (i) provision of space for the Library within the Proposed Development of a size and at a location to be determined through additional coordination with the Queens Public Library; (ii)improvements to the Broadway branch facility to support the branch's programming and services year-round; (iii) funding for improvements to the Long Island City branch facility to support the branch's programming and for expanded collections; and (iv) funding to support the start-up and continued operation of the space in the Proposed Development, as well as ongoing upkeep of facility improvements at the Broadway branch. These mitigation measures for the libraries impacts are being explored by the Applicant in consultation with DCP and the Queens Public Library and will be refined between the DEIS and FEIS.~~ If ~~the significant adverse impacts on libraries would not be fully mitigated~~measures to fully mitigate the significant adverse impact are not implemented, the Proposed Actions would result in unmitigated significant adverse impacts on libraries.

OPEN SPACE

The Proposed Actions would result in a significant adverse impact associated with the active open space ratio. As mitigation for the significant adverse impact, ~~Potential mitigation measures for the~~

~~open space impacts are being explored by the Applicant in consultation with DCP and NYC Parks and will be refined between the DEIS and FEIS. In particular,~~ the Proposed Development would include an approximately 10,000 sf area at the southern end of Block A (along 36th Avenue) that ~~may~~ would be additional publicly accessible open space. This ~~potential~~ publicly accessible open space ~~may~~ would include active uses to provide partial mitigation for the significant adverse impact to active open space by providing an additional resource for active recreation for residents of the study area, where there is limited active open space. The specific active amenities to be provided would be determined in consultation with NYC Parks~~ and with further community input and will be refined for the FEIS~~. In addition, the Applicant has developed a modified site plan and building massing for the Proposed Development that provides for additional space at the southern end of Block A to allow for a larger Public Access Area (PAA) with active uses. Under the alternative, the PAA would include approximately 22,000 sf (0.50 acres) of active uses as mitigation for the Proposed Actions' significant adverse active open space impact. This alternative (the Proposed Modified Application Alternative) is assessed in Chapter 21, "Alternatives."

~~Other measures being considered to mitigate the significant adverse open space impact include improvements to existing local parks to increase their utility or capacity to meet identified open space needs in the area. These measures will be explored in consultation with NYC Parks between the DEIS and FEIS.~~ In addition, the Proposed Actions would result in a direct significant adverse shadow impact to Playground Thirty Five XXXV. Mitigation measures for the significant adverse shadow impact are discussed below under "Shadows."

SHADOWS

The Proposed Actions would result in a significant adverse shadow impact to one sunlight-sensitive resource: Playground Thirty Five XXXV, which is adjacent to the Development Site. In particular, development resulting from the Proposed Actions would cast new shadows on Playground Thirty Five XXXV throughout the day in all seasons, covering large areas of the playground at times, eliminating much or all of the remaining sunlight in the park at times—particularly in the fall, winter, and early spring—and causing significant adverse impacts to the user experience in all seasons. Trees and plantings in the park would continue to receive adequate direct sunlight through the May to August heart of the growing seasons, but those in the southern part of the park would receive up to an hour less than generally required in the March and September "shoulders" of the growing season, potentially impacting the health of those trees or plantings.

Potential mitigation measures ~~are being~~were explored by the Applicant in consultation with DCP and NYC Parks~~, and will be~~ ~~refined~~ between the DEIS and FEIS. ~~In particular,~~ The ~~potential additional~~ active publicly accessible open space at the southern end of Block A ~~(discussed above)~~ would ~~also~~ provide partial mitigation for the significant adverse shadows impact to Playground Thirty Five XXXV by providing an additional active resource, which may include children's active play space, in an area that would receive less shadow. This additional publicly accessible resource would serve residents of the study area seeking sunny active space. The specific active amenities to be provided would be determined in consultation with NYC Parks~~ and with further community input and will be refined for the FEIS~~. ~~Other potential mitigation measures may include replacing vegetation and additional maintenance of the features at Playground Thirty Five XXXV, or dedicated funding for improvements or enhanced maintenance at another existing open space in the vicinity of the Project Area.~~

TRANSPORTATION

As described below, the Proposed Actions would result in significant adverse impacts to: a) vehicular traffic at 234 intersections, b) subway line haul conditions on southbound N/W trains in the AM peak hour, and d) pedestrians at three sidewalks and two crosswalks. Mitigation measures that could address the significant adverse transportation impacts are discussed below.

Traffic

As described in greater detail in Chapter 13, "Transportation," the Proposed Actions would result in significant adverse traffic impacts at 234 study area intersections (all signalized) during one or more analyzed peak hours; specifically 313 lane groups at 1920 intersections during the weekday AM peak hour, 214 lane groups at 136 intersections in the midday peak hour, 329 lane groups at 189 intersections in the PM peak hour, and 25 lane groups at 16 intersections during the Saturday peak hour. Implementation of traffic engineering improvements such as signal timing changes and modifications to lane striping and curbside parking regulations would mitigate a number of the projected traffic impacts. These proposed traffic engineering improvements are subject to review and approval by the New York City Department of Transportation (DOT). If, prior to implementation, DOT determines that an identified the recommended mitigation measures are not found to beis infeasible, an alternative mitigation measure will be identified, if possible. In the absence of the application of and no other alternative mitigation measures, can be identified, the impacts would remain unmitigated.

Assuming all the proposed mitigation measures are implemented, **Table 20-1** shows that significant adverse impacts would be fully mitigated at 113, 8 and 12 lane groups in each of the weekday AM, midday, and PM peak hours, respectively, and 711 lane groups in the Saturday peak hour. Intersections where all impacts would be fully mitigated would total 79, 611, 810, and 59 during these same periods, respectively. **Table 20-2** provides a more detailed summary of the intersections and lane groups that would remain unmitigated. In total, impacts to one or more lane groups would remain unmitigated in one or more peak hours at 152 intersections.

Table 20-1

Summary of Lane Groups/Intersections with Significant Adverse Traffic Impacts

Peak Hour	Lane Groups/ Intersections Analyzed	Lane Groups/ Intersections With No Significant Impacts	Lane Groups/ Intersections With Significant Impacts	Mitigated Lane Groups/ Intersections	Unmitigated Lane Groups/ Intersections
Weekday AM	182/42	15149/232	313/1920	113/79	20/121
Weekday Midday	182/42	16158/296	214/136	813/611	134/75
Weekday PM	182/42	1530/243	329/189	123/810	179/109
Saturday	182/42	157/26	25/16	711/59	184/117

Table 20-2
Lane Groups With Unmitigated Significant Adverse Traffic Impacts

	Peak Hour			
	Weekday AM	**Weekday Midday**	**Weekday PM**	**Saturday**
Signalized Intersections				
Broadway & 43rd Street	---	---	---	NB-LTR
35th Ave & Steinway Street	---	EB-LTR, WB-LTR	EB-LTR, WB-LTR	EB-LTR. WB-LTR
35th Ave & 41st Street			NB-LTR	NB-LTR
36th Ave & Steinway Street	EB-LTR	EB-LTR	EB-LTR	EB-LTR
Northern Blvd & 35th Street/38th Ave	EB-L	---	---	---
Northern Blvd & 37th Street/Standard Lane	EB-L	---	---	---
Northern Blvd & 39th Street/Steinway Street	EB-L, WB-L, NB-TR, SB-LTR	WB-L, NB-TR, SB-LTR	EB-TR, WB-L, NB-TR, SB-LTR	EB-L, WB-L, NB-TR, SB-LTR
Northern Blvd & 41st Street	EB-L~~, WB-TR~~	---	---	---
Northern Blvd & 42nd Street/Driveway	WB-T, SB-LTR	SB-LTR	SB-LTR	SB-LTR
Northern Blvd & 43rd Street/42nd Place	EB-LTR	---	EB-LTR~~, WB-TR~~	EB-LTR, WB-L
Northern Blvd & 44th Street/35th Ave	WB-TR, SB-LTR	~~—~~SB-LTR	SB-LTR	SB-LTR~~—~~
Northern Blvd & 48th Street/34th Ave	WB-TR, NB-L	EB-TR, WB-L, WB-TR, NB-L	EB-TR, WB-TR, NB-L	EB-TR, WB-TR, NB-L
Northern Blvd & 51st Street/Woodside Ave	WB-TR, SB-R	---	EB-L~~, EB-TR,~~ SB-R	SB-R
Greenpoint Ave & Hunters Point Ave	WB-TR, ~~SE-LTR,~~ NW-LTR	---	~~SE-LTR, NW-LTR.~~--	---
Greenpoint Ave & Borden Ave	SW-L	SW-L	SW-L	SW-L

Transit

Subway Line Haul

In the 2032 future with the Proposed Actions, southbound N/W trains are expected to be operating over capacity in the AM peak hour, and the Proposed Actions would increase this demand by an average of approximately 5.25~~56~~ passengers per car. Fully mitigating this significant adverse impact would require the addition of one~~two~~ southbound N/W train~~s~~ during the AM peak hour. As standard practice, NYCT routinely conducts periodic ridership counts and adjusts subway frequency to meet its service criteria, within fiscal and operating constraints. ~~However, NYCT has indicated that increasing N/W service in the AM period by more than one train per hour is not operationally feasible at present. (Implementation of communications-based train control (CBTC) on the Astoria Line would facilitate the addition of two southbound AM peak hour trains, but this improvement is not currently programmed or funded.)~~ Due to operating constraints where the N/W trains share tracks with the R train, adding one train to AM peak N/W southbound service would mean subtracting one train from AM peak R southbound service, which would result in longer wait times and higher average ridership loads on the remaining R trains. In the absence of this recommended mitigation~~Therefore~~, the significant adverse line haul impact to southbound N/W trains in the AM peak hour would remain unmitigated.

Pedestrians

Incremental demand from the Proposed Actions would significantly adversely impact three sidewalks and two crosswalks in one or more analyzed peak hours. There would be no significant impacts to any corner area in any period. Pedestrian flow along the three impacted sidewalks is constrained by the presence of outdoor dining areas. These sidewalks are outside the boundaries of the LSGD and are not under the control of the applicant. Therefore, the significant adverse sidewalk impacts would remain unmitigated. The applicant ~~is fully committed~~has expressed their

commitment to working with the affected restaurants on a cooperative basis to explore relocation or reconfiguration of these restaurants in the future. Recommended mitigation measures for the two crosswalk impacts would consist of ~~adjustments to traffic signal timings that are also proposed for traffic mitigation purposes~~the widening of crosswalks. Implementation of the ~~recommended signal timing adjustments~~widening of crosswalks, which would fully mitigate the impacts to both crosswalks, would be subject to review and approval by DOT. If, prior to implementation, DOT determines that an identified mitigation measure is ~~these measures are deemed~~ infeasible, an alternative mitigation measure will be identified, if possible. In the absence of the application of mitigation measures, ~~and no additional feasible mitigation measures can be identified, then~~ the significant adverse pedestrian crosswalk impacts would remain unmitigated.

AIR QUALITY

As described in Chapter 14, "Air Quality," compared with the No Action condition, $PM_{2.5}$ impacts with the Proposed Actions would exceed the *de minimis* criterion of 0.1 $\mu g/m^3$ for the annual averaging period for Analysis Site 2, at 35th Avenue and 41st Street, and Analysis Site 3, at Northern Boulevard and 43rdStreet/42nd Place. ~~Therefore, air quality mitigation was considered at these locations.~~

~~For Site 2, the results of this modeling analysis (performed in accordance with methodologies described in Chapter 14, "Air Quality") indicate that annual incremental concentration of $PM_{2.5}$ with the prescribed traffic mitigation measures would be lower than the With Action condition and would not exceed the *de minimis* criteria for $PM_{2.5}$. Therefore, the incorporation of the traffic mitigation measures would mitigate the significant adverse air quality impact at this location. Implementation of proposed traffic mitigation measures would be subject to approval by the DOT prior to installation. In the event the proposed mitigation measures to address the predicted $PM_{2.5}$ impacts at 35th Avenue and 41st Street are deemed infeasible by DOT, and no other alternative mitigation measures can be identified, the air quality impact would be considered unmitigated.~~

~~For Site 3, the prescribed measures would not fully mitigate the air quality impact. Therefore, for the Draft EIS, at this location, the significant adverse air quality impact is deemed as unavoidable and discussed in Chapter 22, "Unavoidable Adverse Impacts." Additional updates and refinement of the analysis to be provided in the Final EIS are discussed below under Section H, "Air Quality."~~

However, additional review and evaluation was performed which determined that the identified impacts related to the mobile source Annual $PM_{2.5}$ increments were avoided, without the need for mitigation measures. This analysis was performed using updated travel demand factors reflecting the 2021 *CEQR Technical Manual* guidance, the use of newer vehicle registration data provided by NYSDEC and based on additional modeling of $PM_{2.5}$ concentrations (Grid Analysis) performed using a more comprehensive analysis procedure to determine the magnitude and extent of annual neighborhood-scale $PM_{2.5}$ impacts from mobile sources, which confirmed that maximum incremental $PM_{2.5}$ concentrations on a neighborhood scale are below the Annual *de minimis* Criterion threshold.

CONSTRUCTION

Transportation (Traffic)

Construction traffic conditions during the Year 2 (fourth quarter) peak construction period were evaluated at 24 intersections (19 signalized and five unsignalized) in the traffic study area where combined construction and incremental operational vehicle trips would exceed the 50-trips/hour *CEQR Technical Manual* analysis threshold in the AM and/or PM construction peak hours. As

discussed in Chapter 19, "Construction," the construction traffic impact analysis identified the potential for significant adverse impacts to ~~11~~ 9 lane groups at ~~8~~ 7 intersections in the weekday AM construction peak hour, and ~~19~~ 16 lane groups at ~~11~~ 9 intersections in the weekday PM construction peak hour.

As shown in **Tables 20-3 and 20-4**, implementation of recommended traffic engineering improvements including modifications to signal timing and phasing, modifications to lane restriping and changes to curbside parking regulations, would fully mitigate the significant adverse impacts to ~~four~~ two lane groups in the construction AM peak hour and ~~nine~~ seven lane groups in the construction PM peak hour. Intersections where all impacts would be fully mitigated would total ~~three~~ two and ~~seven~~four, during these same periods, respectively. Impacts to seven lane groups in the construction AM peak hour and ~~ten~~ 12 lane groups in the construction PM peak hour would remain at a total of eight~~six~~ intersections.

Implementation of the recommended traffic engineering improvements is subject to final review and approval by DOT. If, prior to implementation, DOT determines that a ~~the~~ recommended mitigation measure~~s are not found to be~~ is infeasible, ~~and no other~~an alternative mitigation measure ~~can~~ will be identified, if possible. In the absence of the application of mitigation measures, the impacts would remain unmitigated.

Table 20-3
Summary of Lane Groups/Intersections with Significant Adverse Construction Traffic Impacts

Peak Hour	Lane Groups/ Intersections Analyzed	Lane Groups/ Intersections with No Significant Impacts	Lane Groups/ Intersections with Significant Impacts	Mitigated Lane Groups/ Intersections	Unmitigated Lane Groups/ Intersections
Construction AM	113/24	~~102~~104/~~16~~17	~~11~~9/~~8~~7	~~4~~2/~~3~~2	7/5
Construction PM	113/24	~~94~~97/~~13~~15	~~19~~16/~~11~~9	~~4~~9/~~7~~3	12~~10~~/~~4~~6

Table 20-4
Lane Groups With Unmitigated Significant Adverse Construction Traffic Impacts

Signalized Intersections	Construction AM Peak Hour	Construction PM Peak Hour
35th Avenue & Steinway Street	----	EB-LTR, WB-LTR
Northern Blvd & 39th Street/Steinway Street	EB-L, NB-TR, SB-LTR	~~EB-TR,~~ WB-L, NB-TR, SB-LTR
Northern Blvd & 41st Street	EB-L	----
Northern Blvd & 42nd St/Driveway	----	SB-LTR
Northern Blvd & 44th Street/35th Avenue	WB-TR	----
Northern Blvd & 48th Street/34th Avenue	WB-TR	EB-TR, WB-TR, NB-L
Northern Blvd & 51st Street/Woodside Avenue	SB-R	EB-L, EB-TR
Greenpoint Avenue & Borden Avenue	----	SW-L
Notes: NB – Northbound, SB – Southbound, EB – Eastbound, WB – Westbound, SW – Southwest-bound, L – Left-turn, T – Through, R – Right-turn		

Noise

The Proposed Actions would have the potential to result in temporary significant adverse construction noise impacts at various receptors within the Study Area. As discussed below in more

detail, partial mitigation is proposed for some of the significant adverse impacts of the Proposed Actions. Construction under the Proposed Actions would follow the requirements of the *New York City Noise Control Code* (also known as Chapter 24 of the *Administrative Code of the City of New York*, or Local Law 113) for construction noise control measures. Specific noise control measures (including measures beyond what are required by the New York City Noise Code) would be incorporated in noise mitigation plan(s) required under the *New York City Noise Control Code*.

Proposed mitigation could include a variety of source and path controls. Possible mitigation measures to address the identified construction noise impacts will be considered prior to construction under the Proposed Actions~~, and would be further explored between the DEIS and FEIS~~. In the event no practicable or feasible mitigation measures are determined, the significant adverse construction noise impacts would be unavoidable.

B. COMMUNITY FACILITIES—PUBLICLY FINANCED EARLY CHILDHOOD PROGRAMS

As detailed in Chapter 4, "Community Facilities," in both the No Action and With Action scenarios, publicly financed early childhood programs in the study area are predicted to operate over capacity. The With Action scenario would include approximately 914 DUs set aside for households earning 80 percent (or below) of the AMI; the predicted increase in the utilization rate would exceed 5 percentage points. Based on the *CEQR Technical Manual* early childhood multipliers, the development would result in approximately 128 children under the age of five who would be eligible for publicly funded early childhood programs. With the addition of these children, early childhood programs in the study area would operate at 229.6 percent utilization with a deficit of 206 slots. Total enrollment in the study area would increase to 365 children, compared with a capacity of 159 slots, which represents an increase in the utilization rate of approximately 80.5 percentage points over the No Action condition. Therefore, the Proposed Actions would result in a significant adverse impact on early childhood programs. <u>With the assumption of 914 affordable DUs at 80 percent AMI, the Proposed Actions would generate 128 eligible children, and the addition of 79 child care slots would be required to result in an increase in utilization in the study area of less than 5 percent.</u>

At this point, it is not possible to know exactly which type of mitigation would be most appropriate for this impact, or when its implementation would be necessary, because the demand for publicly funded child care depends not only on the amount of residential development in the area, but also on the proportion of new residents who are children of low-income families (not all children meet the social and income eligibility criteria). Also, the analysis is based on the existing inventory of public child care providers in the area and does not reflect likely shifts in demand or creation of new child care capacity. Furthermore, several factors may limit the number of children in need of publicly funded child care slots in DOE contracted day care facilities. Families in the study area could make use of alternatives to publicly funded day care facilities. There are slots at homes licensed to provide family child care that families of eligible children could elect to use instead of public center-based child care. Parents of eligible children may also use DOE vouchers to finance care at private child care centers in the study area. The voucher system could spur the development of new private child care facilities to meet the need of eligible children that would result from the increase in affordable housing units in the area in the future. Lastly, parents of eligible children are not restricted to enrolling their children in day care facilities in a specific geographical area. They could use the DOE voucher system to make use of public and private day care providers beyond the 1½-mile study area, such as facilities closer to their place of employment. 3K and PreK are free for all New York children, the City is mandated to provide both universally across the

city, and these are either already available or will soon be available everywhere. These programs have shorter hours and months of operation than the means-tested programs, and they can supplement but not replace the need for the means-tested programs being analyzed.

Possible mitigation measures for this significant adverse impact ~~will be developed~~ were explored in consultation with DOE. The Applicant will ~~consider providing~~coordinate with DOE to develop possible mitigation measures which may include providing suitable space on-site for a child care center within the Proposed Development as mitigation. Other potential mitigation measures include provision of a suitable location off-site and within a reasonable distance (at a rate affordable to DOE providers), or funding or making program or physical improvements to support adding capacity to existing facilities if determined feasible through consultation with DOE's Division of Early Childhood Education, or providing new early childhood programs within or near the Project Area. As a City agency, DOE does not directly provide new child care facilities, instead it contracts with providers in areas of need. DOE is also working to create public/private partnerships to facilitate the development of new early childhood programs where there is an area of need. As part of that initiative, DOE may be able to contribute capital funding, if it is available, towards such projects to facilitate the provision of new programs.

The Restrictive Declaration for the Proposed Development will require the Applicant to work with DOE to consider the need for and the implementation of one or more measures as listed above to provide additional capacity, if required, to mitigate the significant adverse impact to publicly funded child care facilities within the 1.5-mile study area or within Queens Community District 1. Based on the analysis presented in Chapter 4, "Community Facilities," which accounts for the current inventory of publicly funded child care facilities and future background projections, to avoid a significant adverse impact, the number of permanently affordable units introduced by the Proposed Actions would need to be reduced to 53, which would generate 7 children eligible for publicly financed early childhood programs. However, a reduction in the number of affordable units is not feasible, as it would not meet the requirements of MIH, and would be inconsistent with the Applicant's goals for the Proposed Development. With the assumption of 914 affordable DUs at 80 percent AMI, the Proposed Actions would generate 128 eligible children, and the addition of 79 child care slots would be required to reduce the increase in the utilization rate to less than 5 percent. The Applicant would coordinate with DOE to determine the required mitigation at the time that 53 affordable units are developed in the Project Area (which may include development in the Additional Affected Area on sites that are not controlled by the Applicant). As the Proposed Development may include senior housing units, the determination of mitigation will only consider the need generated by affordable units that would be expected to generate children eligible for publicly financed early childhood programs. Absent the implementation of such needed mitigation measures, ~~if needed,~~ the Proposed Actions could have an unmitigated significant adverse impact on publicly funded early childhood programs.

C. COMMUNITY FACILITIES—LIBRARIES

As detailed in Chapter 4, "Community Facilities," the With Action scenario population would represent an increase of 4.48 percent over the No Action scenario population at the Broadway Branch of the Queens Library and an increase of 5.94 percent at the Long Island City Branch of the Queens Public Library (QPL). The increase at the Long Island City Branch is greater than the 5 percent increase that CEQR defines as the threshold for a potential significant adverse impact. Therefore, the Proposed Actions would result in a significant adverse impact on library services in the study area.

According to the *CEQR Technical Manual*, if a proposed project is expected to have a significant impact on libraries within the study area, mitigation should be targeted to alleviate the impact created (e.g., by adding volumes if adequate space within the library branch exists, adding building space to accommodate more users, or creating programs to accommodate new users). Appropriate mitigation should be developed in consultation with the relevant library agency.

The Applicant ~~is in active conversations~~has coordinated with the Queens Public Library concerning a partnership with the Proposed Development and potential mitigation. Between DEIS and FEIS, the Applicant refined possible mitigation measures in coordination with QPL and DCP. The Restrictive Declaration for the Proposed Development will require the Applicant to coordinate with QPL and to commit to one of, or some combination of, the following mitigation measures, which will be implemented before the Temporary Certificate of Occupancy is issued for the final building in the Proposed Development. Potential mitigation measures include funding or provision of improvements and maintenance to the QPL Broadway branch facility that would support the branch's programming and services year-round, such as improvements to the branch's garden to provide space for public gatherings and community enjoyment; provision of space within the Proposed Development for the library, the size and location of which would be determined in coordination with QPL; and/or support for QPL for the continued operation of a space for the Library within the Proposed Development.

To avoid the identified significant adverse impact to libraries (i.e., to reduce the population increase to a level below the 5 percent impact threshold at the Long Island City branch), the number of DUs that could be introduced by the Proposed Actions would have to be reduced from 3,652 DUs to 3,070 DUs, a reduction of 582 units. ~~:~~

- ~~The Applicant may provide space within the Proposed Development for the Library. The size and location of the library space would be determined through additional coordination with the Queens Public Library, however it is expected to be in one of the Proposed Development's community facility spaces, such as the Community Hub space on Projected Development Site C. This space would allow for the Queens Public Library to expand its delivery of non-holdings services (such as educational, cultural, and job training programs) in Astoria, supporting both existing residents of the neighborhood as well as the new population that would be introduced by the Proposed Actions.~~
- ~~The Applicant may provide for improvements to the QPL Broadway branch facility that would support the branch's programming and services year-round, such as improvements to the branch's garden to provide space for public gatherings and community enjoyment.~~
- ~~The Applicant may provide for improvements to the Long Island City branch facility to support the branch's programming and for expanded collections.~~
- ~~The Applicant may provide programmatic funding to QPL to support the start-up and continued operation of the space in the Proposed Development and the sustainability of future programming, as well as ongoing upkeep of facility improvements at the Broadway branch.~~

~~These mitigation measures for the libraries impact are being explored by the Applicant in consultation with DCP and the Queens Public Library and will be refined between the DEIS and FEIS.~~ If ~~the significant adverse impacts on libraries would not be fully mitigated~~measures to fully mitigate the significant adverse impact are not implemented, the Proposed Actions would result in unmitigated significant adverse impacts on libraries.

D. OPEN SPACE

As detailed in Chapter 5, "Open Space," the Proposed Actions would introduce a substantial new residential population, plus 1.94 acres of publicly accessible open space, which would be primarily passive space. In the future with and without the proposed projects, the total, active, and passive open space ratios in the residential study area would remain below the City's planning goals. While the approximately 1.94 acres of dedicated publicly accessible open space that would be developed with the Proposed Actions would reduce the significant adverse open space impacts, it is not sufficient to fully avoid significant adverse open space impacts as determined by *CEQR Technical Manual* guidelines.

With the Proposed Actions, including the new publicly accessible open space to be constructed in the Project Area, the study area's total open space ratio would increase by approximately 30 percent; the active open space ratio would decrease by approximately 15 percent; and the passive open space ratio would increase by approximately 221 percent. The total and passive open space ratios in the study area are currently low and would remain low in the future with the Proposed Actions; however, there is an increase in the open space ratios for total and passive open space. Therefore, the Proposed Actions would not result in an adverse indirect impact to total and passive open space. There is, however, a decrease in the active open space ratio, which is above the *CEQR Technical Manual* threshold of 1 percent in an area ~~lacking in open space.~~ where the active open space ratio is between 0.010 and 0.400 acres per 1,000 residents. Therefore, the reductions in the active, open space ratio with the Proposed Actions would result in a significant adverse open space impact based on quantitative analysis of indirect effects, as set forth in the *CEQR Technical Manual*. The amount of new active open space that would be required to reduce the active open space ratio decrease to 1 percent and fully mitigate the impact would be over 0.50 acres.

The *CEQR Technical Manual* lists potential mitigation measures for open space impacts. These measures include, but are not limited to, creating new open space within the study area; funding for improvements, renovation, or maintenance at existing local parks; or improving existing open spaces to increase their utility or capacity to meet identified open space needs in the area, such as through the provision of additional active open space facilities.

Potential mitigation measures for the open space impacts ~~are being~~were explored by the Applicant in consultation with DCP and NYC Parks and ~~will be~~have been refined between the DEIS and FEIS. In particular, the Proposed Development would include an approximately 10,000 sf area at the southern end of Block A (along 36th Avenue) that ~~may be~~would be additional publicly accessible open space. This ~~potential~~ publicly accessible open space ~~may~~ would include active uses to provide partial mitigation for the significant adverse impact to active open space by providing an additional resource for active recreation for residents of the study area, where there is limited active open space. The specific active amenities to be provided would be determined in consultation with NYC Parks ~~and with further community input and will be refined for the FEIS~~. If ~~the significant adverse impacts on open space would not be fully mitigated~~measures to fully mitigate the significant adverse impact are not implemented, the Proposed Actions would result in unmitigated significant adverse impacts on open space.

In response to issues raised during the public review process by Community Board 1 (CB1), the Queens Borough President, and the CPC Commissioners, the Applicant has developed a modified site plan and building massing for the Proposed Development. In particular, under the alternative under consideration, the modified site plan provides for additional space at the southern end of Block A to allow for a larger Public Access Area (PAA) with active uses. Under the alternative, the PAA would include approximately 22,000 sf (0.50 acres) of active uses as mitigation for the

Proposed Actions' significant adverse active open space impact. This alternative (the Proposed Modified Application Alternative) is assessed in Chapter 21, "Alternatives."

E. SHADOWS

As detailed in Chapter 6, "Shadows," development resulting from the Proposed Actions would cast new shadows that would have a significant adverse impact on Playground Thirty Five XXXV. In particular, development resulting from the Proposed Actions would cast new shadows on Playground Thirty Five XXXV throughout the day in all seasons, covering large areas of the playground at times, eliminating much or all of the remaining sunlight in the park at times—particularly in the fall, winter, and early spring—and causing significant adverse impacts to the user experience in all seasons. Trees and plantings in the park would continue to receive adequate direct sunlight through the May to August heart of the growing seasons, but those in the southern part of the park would receive up to an hour less than generally required in the March and September "shoulders" of the growing season, potentially impacting the health of those trees or plantings.

While the Applicant has stated that, at this time, there is no massing alternative to remove the impact and be financially feasible, potential mitigation measures ~~are being~~were explored by the Applicant in consultation with DCP and NYC Parks~~, and will be refined~~ between the DEIS and FEIS. In particular, the ~~potential~~ additional active publicly accessible open space at the southern end of Block A (discussed above) would also provide partial mitigation for the significant adverse shadows impact to Playground Thirty Five XXXV by providing an additional active resource, which may include children's active play space, in an area that would receive less shadow. This additional publicly accessible resource would serve residents of the study area seeking sunny active space. The specific active amenities to be provided would be determined in consultation with NYC Parks~~ and with further community input and will be refined for the FEIS~~. ~~Other potential mitigation measures may include replacing vegetation and additional maintenance of the features at Playground Thirty Five XXXV, or dedicated funding for improvements or enhanced maintenance at another existing open space in the vicinity of the Project Area.~~ In addition, the Proposed Development would include the provision of a large publicly accessible open space adjacent to, and complementing, Playground Thirty Five XXXV; this open space is intended to set back the buildings on Projected Development Site C and create a more open area surrounding the playground. While the specific programming and site plan for the new open space have not been finalized, it is anticipated that the new open space would complement the current playground by surrounding it with additional open space. In the absence of feasible mitigation, the significant adverse shadow impact at Playground Thirty Five XXXV would remain unavoidable.

F. TRANSPORTATION

The Proposed Actions would result in significant adverse impacts to: a) vehicular traffic at 23~~4~~ intersections, b) subway line haul conditions on southbound N/W trains in the AM peak hour, and c) pedestrian conditions at three sidewalks and two crosswalks. Mitigation measures that could address the significant adverse impacts are discussed below.

TRAFFIC

As described in Chapter 13, "Transportation," the Proposed Actions would result in significant adverse traffic impacts at 23~~4~~ study area intersections (all signalized) during one or more analyzed peak hours; specifically 31~~3~~ lane groups at 19~~20~~ intersections during the weekday AM peak hour,

2̲1̲4 lane groups at 1̲3̲~~6~~ intersections in the midday peak hour, ~~3~~2̲9̲ lane groups at 1̲8̲~~9~~ intersections in the PM peak hour, and 25 lane groups at 16 intersections during the Saturday 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,
- Elimination of on-street parking to add a travel lane, and
- Modifications to lane striping.

The types of mitigation measures proposed herein are standard measures that are routinely identified by the City and considered feasible for implementation. **Table 20-5** 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. Implementation of the recommended traffic engineering improvements is subject to final review and approval by DOT. If, prior to implementation, DOT determines that an identified mitigation measure is ~~the recommended mitigation measures are not found to be~~ infeasible, an alternative mitigation measure will be identified, if possible. In the absence of the application of mitigation measures, ~~and no other alternative mitigation measures can be identified~~ the impacts would remain unmitigated.

Tables 20-6 through 20-9 show the v/c ratios, delays, and levels of service (LOS) for impacted lane groups at each intersection with implementation of the recommended mitigation measures and compares them to No Action and With Action conditions for the weekday AM, midday, PM, and Saturday peak hours, respectively. (The Action-with-Mitigation level of service analyses for all lane groups at each impacted intersection are shown in Tables G-1 through G-4 in Appendix G.) According to *CEQR Technical Manual* criteria, an impact is considered fully mitigated when the resulting LOS degradation under the Action-with-Mitigation Condition compared with the No Action Condition is no longer deemed significant following the impact criteria described in Chapter 13, "Transportation." **Tables 20-6 through 20-9** show that significant adverse impacts would be fully mitigated at 1̲1̲~~3~~ lane groups in the weekday AM peak hour, 8̲~~13~~ lane groups in the midday, 1̲2̲~~3~~ lane groups in the PM, and 7̲~~11~~ lane groups in the Saturday peak hour. Intersections where all impacts would be fully mitigated would total 7̲~~9~~, 6̲~~11~~, 8̲~~10~~, and 5̲~~9~~ during these same periods, respectively. In total, impacts to one or more lane group(s) would remain unmitigated in one or more peak hours at 1̲5̲~~2~~ intersections. Consequently, these impacts would constitute unavoidable significant adverse traffic impacts as a result of the Proposed Actions (see also Chapter 22, "Unavoidable Adverse Impacts"). As shown in Tables 13-21 through 13-24 in Chapter 13, "Transportation," all 1̲5̲~~2~~ intersections with unavoidable significant adverse impacts are expected to experience congestion in one or more peak hours even in the No Action condition.

EFFECTS OF PEDESTRIAN MITIGATION ON TRAFFIC CONDITIONS

Proposed pedestrian 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 DOT, the mitigation measures summarized in **Table 20-5** would be implemented to mitigate the significant adverse traffic impacts resulting from full build-out of the Proposed Actions in 2032. As the development under the Proposed Actions would be expected to occur over an approximately 10-year period, it is possible that some of the significant adverse traffic impacts could occur prior to full build-out in 2032.

In order to determine whether implementation of some or all of the traffic mitigation measures (or potential alternative mitigation measures) may be warranted earlier than 2032, the Applicant would, in consultation with DOT and DCP, undertake ~~develop a scope of work for~~ a transportation monitoring program (TMP) ~~between the DEIS and FEIS~~. It is anticipated that this~~e~~ TMP would focus on assessing traffic conditions at impacted intersections in the first quarter of 2026 when, based on the conceptual construction schedule, it is anticipated that Proposed Development on Blocks C and D would be completed and occupied. This would include the cinema and approximately 1,091 dwelling units, 48,450 gsf of local retail space, 55,100 gsf of community center uses, and 21,900 of arts and cultural center uses. Under the Proposed Actions' RWCDS, an additional 316 dwelling units and 24,750 gsf of local retail space would also be completed on non-applicant-controlled Sites I and J. In total, this would represent approximately 37 percent of the residential development, 27 percent of the commercial development and 71 percent of the community facility development included in the Proposed Actions' RWCDS. The TMP would include trip generation, modal split and origin/destination surveys of residents and other uses in the Proposed Development, traffic data collection and LOS analyses. ~~An updated travel demand forecast for full build-out of the Proposed Development would also be prepared based on the new survey data to help validate the forecast in the EIS.~~ A report summarizing the findings of the 2026 TMP would be submitted to DOT and DCP along with relevant backup data.

A similar TMP would also be conducted at full build-out and occupancy of the Proposed Development. The scope of work for both of the TMPs would be submitted for DOT and DCP review and approval prior to implementation. The applicant would be responsible for all costs associated with the TMPs and any proposed traffic improvement/mitigation measures, and would submit all required drawings for such measures to DOT for review and approval.

Table 20-5
Proposed Traffic Mitigation Measures

Intersection	Signal Phase	No Action Signal Timing (Seconds) (1) AM	MD	PM	SAT	Proposed Signal Timing (Seconds) (1) AM	MD	PM	SAT	Recommended Mitigation
Broadway &	EB/WB	37	34	33	34	34	32	31	34	- Transfer 3s of green time from EB/WB to NB in AM.
43rd Street	PED	7	7	7	7	7	7	7	7	- Transfer 2s of green time from EB/WB to NB in midday and PM.
	NB	16	19	20	19	19	21	22	19	
34th Avenue &	EB/WB	36	36	36	36	36	36	34	34	- Transfer 2s of green time from EB/WB to NB in PM and Saturday.
43rd Street	NB	24	24	24	24	24	24	26	26	
35th Avenue &	EB/WB	33	33	33	33	33	33	32	33	- Transfer 1s of green time from EB/WB to SB in PM.
38th Street	SB	27	27	27	27	27	27	28	27	
35th Avenue &	NB/SB	55	56	56	56	55	56	56	56	- Implement "No Standing Anytime" regulation for 150' along west curb of the
Steinway Street	EB/WB	65	34	34	34	65	34	34	34	SB approach.
										- Restripe SB approach to one 11' left-thru turn and one 10' right turn lane.
35th Avenue &	EB/WB	36	36	36	36	36	36	36	36	Unmitigatable
41st Street	NB	24	24	24	24	24	24	24	24	
36th Avenue &	EB/WB	36	36	36	36	35	36	36	36	- Transfer 1s of green time from EB/WB to SB in AM.
38th Street	SB	24	24	24	24	25	24	24	24	
36th Avenue &	NB/SB	80	80	80	80	77	80	80	80	- Transfer 3s of green time from NB/SB to EB/WB in AM.
Steinway Street	EB/WB	40	40	40	40	43	40	40	40	
Northern Boulevard &	EB/WB-T	55	55	55	55	54	54	54	54	- Transfer 1s of green time from EB/WB-T to SB/WB-R in AM, midday, PM
Queensboro Bridge	SB/WB-R	50	50	50	50	51	51	51	51	and Saturday.
	EB/EB-L	15	15	15	15	15	15	15	15	
Northern Boulevard &	EB/WB	75	77	75	77	75	77	75	77	Unmitigatable
35th Street &	PED	10	10	10	10	10	10	10	10	
38th Avenue	SB	35	33	35	33	35	33	35	33	
Northern Boulevard &	EB/WB	75	72	75	72	75	72	74	72	- Transfer 1s of green time from EB/WB to NB/SB in PM.
37th Street &	PED	10	10	10	10	10	10	10	10	
Standard Lane	NB/SB	35	38	35	38	35	38	36	38	
Northern Boulevard &	EB/WB	75	77	75	77	75	77	75	77	- Implement "No Standing Anytime" regulation for 150' along west curb of the
38th Street	PED	10	10	10	10	10	10	10	10	SB approach.
	SB	35	33	35	33	35	33	35	33	- Restripe SB approach to one 11' left turn and one 11' right turn lane.
Northern Boulevard &	EB/WB	73	64	73	64	73	64	73	64	Unmitigatable
39th Street &	NB/NB-L	25	34	25	34	25	34	25	34	
Steinway Street	SB/SB-L	22	22	22	22	22	22	22	22	
Northern Boulevard &	EB/WB	76	77	76	77	77	77	76	77	- Transfer 1s of green time from SB to EB/WB in AM.
41st Street	PED	10	10	10	10	10	10	10	10	
	SB	34	33	34	33	33	33	34	33	
Northern Boulevard &	EB/WB	75	82	75	82	75	82	75	82	Unmitigatable
42nd Street &	PED	10	10	10	10	10	10	10	10	
Driveway	NB/SB	35	28	35	28	35	28	35	28	
Northern Boulevard &	EB/WB	75	77	75	77	79	80	79	77	- Implement "No Standing Anytime" regulation for 150' along east curb of the
43rd Street &	PED	10	10	10	10	10	10	10	10	NB approach.
42nd Place	NB	35	33	35	33	31	30	31	33	- Restripe NB approach to one 12' left turn and one 13' thru-right lane.
										- Transfer 4s of green time from NB to EB/WB in AM and PM; 3s in MD.
Northern Boulevard &	EB/WB	77	77	77	77	77	77	77	77	Unmitigatable
44th Street &	PED	10	10	10	10	10	10	10	10	
35th Avenue	SB	33	33	33	33	33	33	33	33	
Northern Boulevard &	EB/WB	77	77	74	77	79	77	74	77	- Implement "No Standing Anytime" regulation along west curb of the SB
46th Street	PED	10	10	10	10	10	10	10	10	approach from Northern Boulevard to 34th Avenue.
	SB	33	33	36	33	31	33	36	33	- Restripe SB approach to one 11' left turn and one 11' right turn lane.
										- Transfer 2s of green time from SB to EB/WB in AM.
Northern Boulevard &	EB/WB	63	63	65	63	63	63	65	63	Unmitigatable
48th Street &	PED	10	10	10	10	10	10	10	10	
34th Avenue	NB	34	34	34	34	34	34	34	34	
	WB/WB-L	13	13	11	13	13	13	11	13	
Northern Boulevard &	EB/WB	67	67	60	67	67	66	60	67	- Transfer 1s of green time from EB/WB to NB/SB in midday.
51st Street &	NB/SB	39	39	46	39	39	40	46	39	
Woodside Avenue	EB-L/WB-L	14	14	14	14	14	14	14	14	
Skillman Avenue &	NB/SB	30	30	30	30	30	31	33	30	- Transfer 1s and 3s of green time from WB to NB/SB in 3 midday and PM.
39th Street	WB	30	30	30	30	30	29	27	30	
43rd Avenue &	NB/SB	30	30	30	30	33	33	33	33	- Transfer 3s of green time from EB to NB/SB in AM, midday, PM, and
39th Street	EB	30	30	30	30	27	27	27	27	Saturday.
Greenpoint Avenue &	EB/WB	60	67	67	67	60	65	64	65	- Transfer 2s of green time from EB/WB to NE/SW in midday and Saturday;
Hunters Point Avenue	NE/SW	60	53	53	53	60	55	56	55	3s in PM.
Greenpoint Avenue &	EB	50	35	55	35	50	35	55	35	Unmitigatable
Borden Avenue	SB/SB-L	30	28	35	28	30	28	35	28	
	NB/SB	40	27	30	27	40	27	30	27	

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

Note: this table has been updated for the FEIS; changes from the DEIS are not shown in strikethrough/underline.

Table 20-6
Action-With-Mitigation Conditions at Impacts Lane Groups
Weekday AM Peak Hour

			No Action AM			With Action AM			Mitigation AM			
Intersection	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Broadway (E-W) & 43rd St (N)	NB	LTR	1.20	139.1	F	1.52	264.5	F	LTR	1.16	110.3	F
35th Ave (E-W) & Steinway St (N-S)	SB	LTR	0.94	60.6	E	1.06	93.5	F	LT	0.76	41.2	D
									R	0.47	32.2	C
									LTR	-	39.1	D
36th Ave (E-W) & 38th St (S)	SB	LTR	0.68	27.4	C	1.04	70.0	E	LTR	0.99	54.8	D
36th Ave (E-W) & Steinway St (N-S)	EB	LTR	0.56	37.9	D	1.02	96.4	F	LTR	0.91	66.4	E
	WB	LTR	0.69	47.9	D	0.85	63.3	E	LTR	0.78	52.4	D
Northern Blvd (E-W) & Queensboro Bridge (S)	WB	R	1.11	70.9	E	1.13	82.6	F	R	1.11	72.2	E
Northern Blvd (E-W) & 35th St / 38th Ave (S)	EB	L	1.41	263.8	F	1.67	377.8	F	L	1.67	377.8	F
Northern Blvd (E-W) & 37th St (S)/Standard Ln (N)	EB	L	1.18	186.4	F	1.62	366.8	F	L	1.62	366.8	F
Northern Blvd (E-W) & 38th St (S)	SB	LR	0.84	62.7	E	1.03	89.3	F	L	0.58	46.0	D
									R	0.60	48.0	D
									LR	-	46.9	D
Northern Blvd (E-W) & 39th St / Steinway St (N-S)	EB	L	0.95	116.7	F	0.98	124.4	F	L	0.98	129.3	F
	WB	L	1.13	69.8	E	1.17	87.0	E	L	1.17	87.9	F
	NB	TR	1.07	115.4	F	1.32	212.0	F	TR	1.32	212.0	F
	SB	LTR	1.27	197.0	F	1.83	434.3	F	LTR	1.83	436.8	F
Northern Blvd (E-W) & 41st St (S)	EB	L	0.55	27.7	C	1.04	99.1	F	L	1.06	105.5	F
	WB	TR	1.12	57.8	E	1.13	62.9	E	TR	1.11	56.2	E
Northern Blvd (E-W) & 42nd St (S) / Driveway (N)	WB	T	1.13	64.5	E	1.15	73.0	E	T	1.15	76.0	E
	SB	LTR	0.81	57.7	E	1.07	108.7	F	LTR	1.07	108.7	F
Northern Blvd (E-W) & 43rd St (N) / 42nd Pl (N-S)	EB	LTR	0.85	22.8	C	1.61	141.1	F	LTR	1.61	93.9	F
	WB	TR	1.09	52.0	D	1.14	72.4	E	TR	1.08	41.0	D
	NB	LTR	0.88	68.0	E	0.93	76.5	E	L	0.39	43.8	D
									TR	0.76	60.9	E
									TR	-	54.8	D
Northern Blvd (E-W) & 44th St (S) / 35th Ave (N)	WB	TR	1.13	65.1	E	1.17	80.8	F	TR	1.17	82.2	F
	SB	LTR	0.82	71.2	E	0.93	89.6	F	LTR	0.93	89.6	F
Northern Blvd (E-W) & 46th St (S)	WB	T	1.13	62.8	E	1.16	76.7	E	T	1.13	60.7	E
Northern Blvd (E-W) & 48th St (N-S) / 34th Ave (N)	WB	TR	1.10	51.8	D	1.13	65.4	E	TR	1.13	65.4	E
	NB	L	1.32	217.4	F	1.35	229.8	F	L	1.35	229.8	F
Northern Blvd (E-W) & 51st St / Woodside Ave (N-S)	WB	TR	1.13	96.9	F	1.14	101.8	F	TR	1.14	101.8	F
	SB	R	1.18	147.3	F	1.26	179.6	F	R	1.26	179.6	F
43rd Ave (W) & 39th St (N-S)	SB	LT	1.38	202.4	F	1.65	315.6	F	LT	1.39	198.8	F
Greenpoint Ave (E-W) & Hunters Point Ave (NW-SE)	WB	TR	0.95	49.5	D	1.10	90.3	F	TR	1.10	90.3	F
	NW	LTR	0.97	49.3	D	1.01	58.4	E	LTR	1.01	58.4	E
Greenpoint Ave (NE-SW) & Borden Ave (E)	SW	L	1.12	107.2	F	1.23	150.9	F	L	1.23	150.9	F

Shading denotes unmitigted significant adverse impact.

Note: this table has been updated for the FEIS; changes from the DEIS are not shown in strikethrough/underline.

Table 20-7
Action-With-Mitigation Conditions at Impacted Lane Groups
Weekday Midday Peak Hour

			No Action Midday			With Action Midday			Mitigation Midday			
Intersection	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Broadway (E-W) & 43rd St (N)	NB	LTR	1.27	173.4	F	1.36	211.2	F	LTR	1.18	132.4	F
35th Ave (E-W) & Steinway St (N-S)	EB	LTR	1.30	190.9	F	1.38	226.5	F	LTR	1.38	226.5	F
	WB	LTR	0.69	37.6	D	1.14	126.3	F	LTR	1.14	126.3	F
36th Ave (E-W) & Steinway St (N-S)	EB	LTR	0.94	70.2	E	1.27	180.3	F	LTR	1.27	180.4	F
Northern Blvd (E-W) & Queensboro Bridge (S)	WB	R	1.05	82.9	F	1.08	91.1	F	R	1.05	82.5	F
Northern Blvd (E-W) & 39th St / Steinway St (N-S)	WB	L	1.60	321.4	F	1.82	415.2	F	L	1.82	413.7	F
	NB	TR	1.14	127.1	F	1.34	209.6	F	TR	1.34	210.5	F
	SB	LTR	1.26	191.0	F	1.55	313.3	F	LTR	1.55	313.3	F
Northern Blvd (E-W) & 42nd St (S) / Driveway (N)	SB	LTR	1.09	128.6	F	1.35	225.0	F	LTR	1.35	222.6	F
Northern Blvd (E-W) & 43rd St (N) / 42nd Pl (N-S)	WB	L	1.03	86.3	F	1.10	108.1	F	L	1.01	76.1	E
	NB	LTR	0.99	92.4	F	1.01	98.6	F	L	0.35	43.8	D
									TR	0.87	76.2	E
									LTR	-	65.8	E
Northern Blvd (E-W) & 44th St (S)/35th Ave (N)	SB	LTR	0.94	92.7	F	1.04	121.4	F	LTR	1.04	121.4	F
Northern Blvd (E-W) & 48th St (N-S) / 34th Ave (N)	EB	TR	1.06	56.2	E	1.09	68.3	E	TR	1.09	67.9	E
	WB	L	1.18	162.2	F	1.20	171.5	F	L	1.20	171.6	F
	WB	TR	1.16	83.4	F	1.20	104.0	F	TR	1.20	104.1	F
	NB	L	1.60	343.6	F	1.65	365.3	F	L	1.65	365.3	F
Northern Blvd (E-W) & 51st St / Woodside Ave (N-S)	SB	R	0.86	66.8	E	0.92	76.4	E	R	0.90	70.6	E
43rd Ave (W) & 39th St (N-S)	SB	LT	1.48	241.2	F	1.71	339.4	F	LT	1.43	215.5	F
Greenpoint Ave (E-W) & Hunters Point Ave (NW-SE)	SE	LTR	1.18	137.3	F	1.23	161.5	F	LTR	1.12	115.4	F
	NW	LTR	1.12	104.5	F	1.17	122.2	F	LTR	1.11	98.5	F
Greenpoint Ave (NE-SW) & Borden Ave (E)	SW	L	1.11	89.6	F	1.16	107.4	F	L	1.16	107.4	F

Shading denotes unmitigated significant adverse impact.

Note: this table has been updated for the FEIS; changes from the DEIS are not shown in strikethrough/underline.

Table 20-8
Action-With-Mitigation Conditions at Impacted Lane Groups
Weekday PM Peak Hour

			No Action PM			With Action PM			Mitigation PM			
Intersection	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Broadway (E-W) & 43rd St (N)	NB	LTR	0.96	56.1	E	1.10	89.7	F	LTR	0.97	49.7	D
34th Ave (E-W) & 43rd St (N)	NB	LTR	0.89	47.9	D	1.03	71.8	E	LTR	0.92	45.8	D
35th Ave (E-W) & 38th St (S)	SB	LTR	0.79	27.6	C	1.00	57.3	E	LTR	0.96	44.9	D
35th Ave (E-W) & Steinway St (N-S)	EB	LTR	1.46	255.8	F	1.60	318.6	F	LTR	1.60	318.6	F
	WB	LTR	0.82	46.3	D	1.71	364.8	F	LTR	1.71	364.8	F
35th Ave (E-W) & 41st St (N)	NB	LTR	0.45	20.1	C	1.21	141.2	F	TR	1.21	141.2	F
36th Ave (E-W) & Steinway St (N-S)	EB	LTR	1.28	189.3	F	1.83	427.7	F	LTR	1.83	427.9	F
Northern Blvd (E-W) & Queensboro Bridge (S)	WB	R	1.07	61.4	E	1.09	69.5	E	R	1.07	59.9	E
	SB	L	1.02	69.7	E	1.04	75.1	E	L	1.02	67.6	E
Northern Blvd (E-W) & 37th St (S) / Standard Ln (N)	SB	LTR	1.02	103.2	F	1.05	113.4	F	LTR	1.01	101.5	F
Northern Blvd (E-W) & 39th St / Steinway St (N-S)	EB	TR	1.16	83.8	F	1.20	100.2	F	TR	1.20	101.4	F
	WB	L	1.38	259.5	F	1.43	280.5	F	L	1.43	280.3	F
	NB	TR	1.34	214.2	F	1.72	377.6	F	TR	1.72	383.4	F
	SB	LTR	1.29	204.7	F	1.63	338.5	F	LTR	1.63	338.5	F
Northern Blvd (E-W) & 42nd St (S) / Driveway (N)	SB	LTR	0.87	68.8	E	1.21	159.2	F	LTR	1.21	161.1	F
Northern Blvd (E-W) & 43rd St (N) / 42nd Pl (N-S)	EB	LTR	1.16	84.0	F	1.39	187.8	F	LTR	1.29	144.4	F
	WB	TR	1.10	76.1	E	1.17	104.7	F	TR	1.11	73.8	E
	NB	LTR	1.04	103.0	F	1.10	121.2	F	L	0.38	43.5	D
									TR	1.00	98.9	F
									TR	-	82.7	F
Northern Blvd (E-W) & 44th St (S) / 35th Ave (N)	SB	LTR	1.25	193.1	F	1.44	271.0	F	LTR	1.44	271.0	F
Northern Blvd (E-W) & 48th St (N-S) / 34th Ave (N)	EB	TR	1.22	107.2	F	1.25	122.3	F	TR	1.25	122.3	F
	WB	TR	1.18	97.1	F	1.25	126.2	F	TR	1.25	126.2	F
	NB	L	1.50	299.7	F	1.56	325.5	F	L	1.56	325.5	F
Northern Blvd (E-W) & 51st St /	EB	L	1.12	103.9	F	1.14	115.0	F	L	1.14	115.0	F
	SB	R	0.70	44.6	D	0.83	55.3	E	R	0.83	55.3	E
Skillman Ave (W) & 39th St (N-S)	NB	LT	1.03	62.2	E	1.29	159.8	F	LT	0.97	43.5	D
43rd Ave (W) & 39th St (N-S)	SB	LT	1.57	289.6	F	1.82	397.7	F	LT	1.51	259.2	F
Greenpoint Ave (E-W) & Hunters Point Ave (NW-SE)	SE	LTR	0.87	54.4	D	0.96	72.2	E	LTR	0.82	46.0	D
	NW	LTR	0.98	58.4	E	1.05	77.9	E	LTR	0.99	57.8	E
Greenpoint Ave (NE-SW) & Borden Ave (E)	SW	L	1.04	82.3	F	1.10	100.9	F	L	1.10	100.9	F

Shading denotes unmitigated significant adverse impact.

Note: this table has been updated for the FEIS; changes from the DEIS are not shown in strikethrough/underline.

Table 20-9
Action-With-Mitigation Conditions at Impacted Lane Groups
Saturday Peak Hour

			No Action Saturday			With Action Saturday			Mitigation Saturday			
Intersection	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Broadway (E-W) & 43rd St (N)	NB	LTR	1.32	191.1	F	1.58	301.7	F	LTR	1.58	300.0	F
34th Ave (E-W) & 43rd St (N)	NB	LTR	0.85	44.7	D	1.03	71.4	E	LTR	0.93	44.0	D
35th Ave (E-W) & Steinway St (N-S)	EB	LTR	1.42	239.6	F	1.54	291.1	F	LTR	1.54	291.1	F
	WB	LTR	0.86	52.1	D	1.88	439.7	F	LTR	1.88	439.7	F
35th Ave (E-W) & 41st St (N)	NB	LTR	0.39	19.0	B	1.27	166.2	F	TR	1.27	166.2	F
36th Ave (E-W) & Steinway St (N-S)	EB	LTR	1.23	167.4	F	1.67	357.3	F	LTR	1.67	357.4	F
Northern Blvd (E-W) & Queensboro Bridge (S)	WB	R	1.12	104.3	F	1.15	114.7	F	R	1.12	103.8	F
Northern Blvd (E-W) & 39th St / Steinway St (N-S)	EB	L	1.05	105.0	F	1.12	127.2	F	L	1.12	129.5	F
	WB	L	1.43	241.5	F	1.78	390.7	F	L	1.78	389.5	F
	NB	TR	1.17	136.1	F	1.40	229.8	F	TR	1.40	229.9	F
	SB	LTR	1.33	214.3	F	1.69	362.3	F	LTR	1.69	362.3	F
Northern Blvd (E-W) & 42nd St (S) / Driveway (N)	SB	LTR	1.16	147.1	F	1.70	369.8	F	LTR	1.70	369.8	F
Northern Blvd (E-W) & 43rd St (N) / 42nd Pl (N-S)	EB	LTR	0.88	31.3	C	1.28	158.7	F	LTR	1.28	158.7	F
	WB	L	1.27	162.7	F	1.50	253.4	F	L	1.50	253.4	F
	NB	LTR	1.15	139.5	F	1.19	154.7	F	LTR	0.35	41.1	D
									0.0	0.92	78.5	E
									L	-	67.5	E
Northern Blvd (E-W) & 44th St (S)/35th Ave (N)	SB	LTR	1.44	271.1	F	1.67	372.7	F	LTR	1.67	372.7	F
Northern Blvd (E-W) & 46th St (S)	SB	LR	0.63	50.1	D	0.72	55.8	E	L	0.32	40.8	D
									R	0.51	47.3	D
									LR	-	44.4	D
Northern Blvd (E-W) & 48th St (N-S) / 34th Ave (N)	EB	TR	1.20	112.8	F	1.23	127.9	F	TR	1.23	127.9	F
	WB	TR	1.19	91.4	F	1.24	111.3	F	TR	1.24	111.3	F
	NB	L	1.63	355.8	F	1.68	376.8	F	L	1.68	376.8	F
Northern Blvd (E-W) & 51st St / Woodside Ave (N-S)	SB	R	1.22	167.4	F	1.37	229.3	F	R	1.37	229.3	F
43rd Ave (W) & 39th St (N-S)	SB	LT	1.72	350.2	F	2.03	483.1	F	LT	1.60	291.7	F
Greenpoint Ave (E-W) & Hunters Point Ave (NW-SE)	SE	LTR	0.91	57.9	E	0.97	70.9	E	LTR	0.88	51.7	D
	NW	LTR	1.13	109.0	F	1.19	133.4	F	LTR	1.13	106.7	F
Greenpoint Ave (NE-SW) & Borden Ave (E)	SW	L	1.09	83.8	F	1.17	111.3	F	L	1.17	111.3	F

Shading denotes unmitigated significant adverse impact.

Note: this table has been updated for the FEIS; changes from the DEIS are not shown in strikethrough/underline.

EFFECTS OF TRAFFIC MITIGATION ON PARKING CONDITIONS

As discussed above, the proposed traffic mitigation plan would incorporate a number of modifications to curbside parking regulations. As shown in **Table 20-3**, new restrictions would be implemented along the following:

- The west curb of Steinway Street approaching 35th Avenue;
- ~~The north curb of 35th Avenue approaching Steinway Street;~~
- The west curb of 38th Street approaching Northern Boulevard;
- ~~The east curb of 42nd Street approaching Northern Boulevard;~~
- The east curb of 42nd Place approaching Northern Boulevard; and
- The west curb of 46th Street approaching Northern Boulevard.

New "no standing anytime" restrictions on these blocks would displace a total of ~~36~~ 24 on-street parking spaces during the analyzed weekday AM, midday and PM and Saturday periods.

As discussed in Chapter 13, "Transportation," the Proposed Actions' RWCDS includes a total of approximately 1,633 on-site accessory parking spaces. These would include 1,390 accessory parking spaces provided on the Development Site and approximately 243 parking spaces in the Additional Affected Area. However, in the future with the Proposed Actions there would be shortfalls of approximately 116~~43~~ on-street parking spaces in proximity to the Project Area during the 8:00 p.m. to 9:00 p.m. period on weekdays, and approximately 505~~486~~ spaces during the same period on Saturdays. With the proposed traffic mitigation, these shortfalls would increase by ~~36~~ 24 spaces during each of these periods, to a total of 140~~79~~ spaces and 529~~2~~ spaces respectively. (It should be noted that much of the excess parking demand from the Proposed Actions is associated with peak activity at the cinema, and that the parking forecast conservatively assumes 100 percent cinema occupancy.)

As a shortfall in on-street parking in this area of Queens is not considered a significant adverse impact based on *CEQR Technical Manual* criteria (see Section F, "Transportation Analysis Methodologies," in Chapter 13, "Transportation"), the proposed traffic mitigation measures would not result in new significant adverse impacts to on-street parking conditions.

TRANSIT

SUBWAY LINE HAUL

As shown in Table 13-39 in Chapter 13, "Transportation," development associated with the Proposed Actions would add approximately 787~~83~~ new subway trips, or an average of approximately 5.25~~56~~ passengers per car, to southbound N/W trains in the AM peak hour, increasing the volume-to-capacity ratio from 1.05 in the No Action condition to 1.09 in the future with the Proposed Actions. As AM peak hour demand on southbound N/W trains would exceed practical capacity in the 2032 With Action condition, and as the Proposed Actions would increase this demand by more than the five passengers per car *CEQR Technical Manual* impact threshold, southbound N/W trains would be considered significantly adversely impacted by the Proposed Actions based on *CEQR Technical Manual* criteria.

As standard practice, NYCT routinely conducts periodic ridership counts and adjusts subway frequency to meet its service criteria within fiscal and operating constraints. ~~However, NYCT has indicated that increasing N/W service in the AM period by more than one southbound train per hour is not operationally feasible at present. (Implementation of communications-based train control (CBTC) on the Astoria Line would facilitate the addition of two southbound AM peak hour trains, but this improvement is not currently programmed or funded.)~~ As shown in **Table 20-10**, with the addition of one southbound N/W train during the AM peak hour (increasing average frequency from 15.1 to 16.1 trains per hour), there would be an average of 4.92~~5.21~~ additional passengers per car with the Proposed Actions~~, and~~. As this would be less than the five passengers per car *CEQR Technical Manual* impact threshold, the significant adverse impact to southbound trains in the AM peak hour would be fully mitigated.~~continue to operate above capacity with a v/c ratio of 1.02. Therefore, the significant adverse line haul impact to southbound N/W trains in the AM peak hour would remain unmitigated~~ Due to operating constraints where the N/W trains share tracks with the R train, adding one train to the AM peak N/W southbound service would mean subtracting one train from AM peak R southbound service, which would result in longer wait times and higher average ridership loads on the remaining R trains. In the

absence of this recommended mitigation measure, the significant adverse line haul impact to southbound N/W trains in the AM peak hour would remain unmitigated.

Table 20-10
Summary of Significant Subway Line Haul Impacts

Peak Hour	Route	Direction	Maximum Load Point (leaving station)	Average Trains per Hour	Average Cars per Hour	Guideline Passengers per Car[1]	Average Passengers per Hour	Average Passengers per Car	V/C Ratio[2]	Average Additional Passengers per Car
2032 With Action Condition										
AM	N/W	SB	Queensboro Plaza	15.1	150	145	23,612~~66~~	157~~8~~	1.09	5.25~~56~~*
2032 Action With Mitigation Condition										
AM	N/W	SB	Queensboro Plaza	16.1	160	145	23,667~~6~~	148	1.02	~~4.92~~5.~~21*~~

Notes:
[1] Guideline capacities are based on NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service.
[2] Volume to guideline capacity ratio.
* denotes a significant adverse impact based on *CEQR Technical Manual* criteria.

It should be noted that one effect of the ongoing Covid-19 pandemic has been a marked shift from daily commuting to work-from-home or a hybrid schedule by a relatively large segment of the workforce, a condition that is not reflected in the transportation planning factors presented in Table 13-7 in Chapter 13, "Transportation." While the magnitude of the change once the pandemic has subsided is still unclear, it is expected that commuting habits have been permanently altered. It is therefore highly likely that the factors used for the residential travel demand forecast (which are based on pre-pandemic data from the Census and other sources) overestimate the levels of peak hour commuter travel demand that will generated in the future by the Proposed Development's residential component. Consequently, the analysis of subway line haul conditions should be considered conservative with respect to the potential for a~~n unmitigated~~ significant adverse impact, as future peak hour, peak direction demand on N/W trains in the No Action condition, and the incremental increase in demand due to the Proposed Actions, are both likely to be less than what is reflected in Table 13-39 and **Table 20-10**.

PEDESTRIANS

As discussed in Chapter 13, "Transportation," the results of the analyses of pedestrian conditions show that demand from the Proposed Actions would significantly adversely impact three sidewalks and two crosswalks in one or more peak hours under the With Action Condition (see **Table 20-11**). There would be no significant impacts to any corner area in any period.

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 Proposed Actions' significant adverse pedestrian impacts.

Table 20-11
Summary of Significant Pedestrian Impacts

Corridor/Intersection	Impacted Element	Peak Hour			
		AM	Midday	PM	Saturday
36th Avenue Between 38th and Steinway Streets	North Sidewalk	X	~~X~~	X	X
36th Avenue Between 32nd and 33rd Streets	North Sidewalk	X			X
36th Avenue Between 32nd and 33rd Streets	South Sidewalk	X			
35th Avenue and 41st Street	East Crosswalk		~~X~~		X
35th Avenue and Steinway Street	South Crosswalk				X

SIDEWALKS

Of the 40 sidewalks analyzed, only three are expected to be significantly adversely impacted by incremental demand from the Proposed Actions. As shown in **Table 20-11**, these would include the north sidewalk on 36th Avenue between 38th and Steinway Streets in the weekday AM, weekday PM and Saturday ~~all four~~ peak hours, the north sidewalk on 36th Avenue between 32nd and 33rd Streets in the AM and Saturday peak hours, and the south sidewalk on 36th Avenue between 32nd and 33rd Streets in the AM peak hour. These impacts are located at a point where pedestrian flow is constrained by the presence of outdoor dining areas.

Under *CEQR Technical Manual* guidance, 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 sidewalk impacts typically includes relocating or removing street furniture or other impediments to pedestrian flow and sidewalk widening. The three impacted sidewalks are outside the boundaries of the LSGD and are not under the control of the applicant. Therefore, these significant adverse pedestrian impacts would remain unmitigated. The applicant ~~is fully committed to~~ has expressed their commitment to working with the affected restaurants on a cooperative basis to explore relocation or reconfiguration of these restaurants in the future.

CROSSWALKS

Of the 33 crosswalks analyzed, only two are expected to be significantly adversely impacted by incremental demand from the Proposed Actions in the ~~weekday midday or~~ Saturday peak hour~~s~~. **Table 20-12** shows the recommended mitigation measures to address these impacts and their effectiveness. As shown in **Table 20-12** and discussed below, with implementation of the proposed mitigation measures, both impacts would be fully mitigated.

East Crosswalk on 35th Avenue at 41st Street

As shown in **Table 20-12**, under the Proposed Actions the east crosswalk on 35th Avenue at 41st Street would operate at LOS D in the ~~weekday midday~~Saturday peak hour, and would be considered significantly adversely impacted in this period based on *CEQR Technical Manual* criteria. With a 1.5-foot widening (to a total of 12.2 feet in width) on the east crosswalk~~the signal timing changes proposed at this intersection for traffic mitigation purposes~~ (see **Table 20-5**), the average pedestrian space would increase to ~~22.1~~19.9 ft^2/pedestrian (LOS D) in the ~~weekday midday~~Saturday peak hour, and the Proposed Actions' significant adverse impact to this crosswalk would be fully mitigated. If, prior to implementation, DOT determines that an identified mitigation measure is ~~the recommended mitigation measure is not found to be~~ infeasible, an alternative

mitigation measure will be identified, if possible. In the absence of the application of mitigation measures, ~~and no other alternative mitigation measures can be identified,~~ the impact would remain unmitigated.

South Crosswalk on Steinway Street at 35th Avenue

As shown in **Table 20-12**, under the Proposed Actions the south crosswalk on Steinway Street at 35th Avenue would operate with an average pedestrian space of ~~19.1~~15.4 ft^2 /pedestrian (LOS D) in the Saturday peak hour, and would be considered significantly adversely impacted in this period based on *CEQR Technical Manual* criteria. With a 3.5-foot widening (to a total of 18.3 feet in width) on the south crosswalk~~the signal timing changes proposed at this intersection for traffic mitigation purposes~~ (see **Table 20-5**), the average pedestrian space would increase to ~~23.4~~19.5 ft^2/pedestrian (LOS D) in the Saturday peak hour, and the Proposed Actions' significant adverse impact to this crosswalk would be fully mitigated. If, prior to implementation, DOT determines than an identified ~~the recommended~~ mitigation measure is ~~found not to be~~ infeasible, an alternative mitigation measure will be identified, if possible. In the absence of the application of mitigation measures,~~and no other alternative mitigation measure can be identified,~~ the impact would remain unmitigated.

Table 20-12
Action-With-Mitigation Crosswalk Conditions

Location	Crosswalk	No Action			With Action			Action-With-Mitigation			
		Width (ft)	Average Space (ft^2/ped)	LOS	Width (ft)	Average Space (ft^2/ped)	LOS	Width (ft)	Average Space (ft^2/ped)	LOS	Mitigation Measures
Weekday Midday Peak Hour											
35th Ave & 41st St	East	10.7	~~68.3~~38.8	~~A~~C	10.7	~~19.0~~17.3	D*	~~12.2~~10.7	~~22.1~~19.9	D	~~Transfer 2 seconds of signal green time from the EB/WB phase to the NB phase in the midday as proposed for traffic mitigation.~~Widen crosswalk by 1.5 ft.
Saturday Peak Hour											
35th Ave & Steinway St	South	14.8	~~56.7~~43.3	B	14.8	~~19.1~~15.4	D*	1~~8.3~~4.~~8~~	~~23.4~~19.5	D	~~Transfer 4 seconds of signal green time from the NB/SB phase to the EB/WB phase in the Saturday peak hour as proposed for traffic mitigation.~~ Widen crosswalk by 3.5 ft.
Note: * denotes a significant adverse impact based on *CEQR Technical Manual* criteria.											

EFFECTS OF TRAFFIC MITIGATION ON PEDESTRIAN CONDITIONS

Proposed traffic mitigation measures (discussed previously) would potentially affect pedestrian conditions at a total of ~~14~~ six analyzed crosswalks and ~~2~~14 analyzed corner areas at ~~eight~~ five intersections in one or more peak hours. The recommended traffic mitigation measures at each of these locations would consist of signal timing adjustments of one to ~~four~~ three seconds ~~along with changes to lane striping and curbside parking regulations~~. As shown in **Tables 20-13 and 20-14**, with implementation of the proposed signal timing adjustments, none of the analyzed crosswalks or corner areas at these eight intersections would be considered newly impacted in any analyzed peak hour based on *CEQR Technical Manual* criteria. Sufficient pedestrian crossing time would also continue to be provided at all crosswalks.

Table 20-13
Action-With-Traffic Mitigation Crosswalk Conditions

Intersection	Crosswalk	With-Action Condition: Average Pedestrian Space (ft²/ped) AM	MD	PM	SAT	With-Action Condition: Level of Service AM	MD	PM	SAT	Action-with-Mitigation: Average Pedestrian Space (ft²/ped) AM	MD	PM	SAT	Action-with-Mitigation: Level of Service AM	MD	PM	SAT	Proposed Traffic Mitigation
35th Ave & 38th St	North	37.4	49.0	37.9	41.1	C	B	C	B	37.4	49.0	36.0	41.1	C	B	C	B	- Transfer 1s of green time from EB/WB to NB in PM.
	East	127.7	87.4	68.0	64.5	A	A	A	A	127.7	87.4	72.7	64.5	A	A	A	A	
	South	102.5	73.6	77.0	80.2	A	A	A	A	102.5	73.6	72.5	80.2	A	A	A	A	
36th Ave & 38th St	North	26.0	42.2	25.5	27.0	C	B	C	C	25.0	42.2	25.5	27.0	C	B	C	C	- Transfer 1s of green time from EB/WB to SB in AM.
36th Ave & Steinway St	North	23.7	37.1	28.4	21.1	D	C	C	D	26.4	37.1	28.4	21.1	C	C	C	D	- Transfer 3s of green time from NB/SB to EB/WB in AM.
37th St & Northern Blvd	South	154.4	150.5	110.9	109.8	A	A	A	A	154.4	150.5	109.1	109.8	A	A	A	A	- Transfer 1s of green time from EB/WB to NB/SB in PM.

Note: this table has been updated for the FEIS; changes from the DEIS are not shown in strikethrough/underline.

Table 20-14
Action-With-Traffic Mitigation Corner Conditions

Intersection	Corner	With-Action Condition: Average Pedestrian Space (ft²/ped) AM	MD	PM	SAT	With-Action Condition: Level of Service AM	MD	PM	SAT	Action-with-Mitigation: Average Pedestrian Space (ft²/ped) AM	MD	PM	SAT	Action-with-Mitigation: Level of Service AM	MD	PM	SAT	Proposed Traffic Mitigation
34th Ave & 43rd St	SE	480.3	296.5	312.2	210.4	A	A	A	A	480.3	296.5	312.8	211.1	A	A	A	A	- Transfer 2s of green time from EB/WB to NB in PM and Saturday.
	SW	377.6	242.4	230.4	171.4	A	A	A	A	377.6	242.4	230.9	171.8	A	A	A	A	
	NW	420.3	214.2	223.4	179.3	A	A	A	A	420.3	214.2	223.9	179.7	A	A	A	A	
35th Ave & 38th St	NE	180.7	193.7	150.1	156.1	A	A	A	A	180.7	193.7	150.0	156.1	A	A	A	A	- Transfer 1s of green time from EB/WB to NB in PM.
	SE	310.8	227.7	208.2	206.5	A	A	A	A	310.8	227.7	208.2	206.5	A	A	A	A	
	SW	471.0	335.1	361.0	347.4	A	A	A	A	471.0	335.1	360.9	347.4	A	A	A	A	
	NW	202.8	189.0	184.9	177.4	A	A	A	A	202.8	189.0	184.7	177.4	A	A	A	A	
36th Ave & 38th St	NE	143.9	205.9	128.7	128.7	A	A	A	A	143.5	205.9	128.7	128.7	A	A	A	A	- Transfer 1s of green time from EB/WB to SB in AM.
	NW	121.8	174.8	112.3	116.5	A	A	A	A	121.6	174.8	112.3	116.5	A	A	A	A	
36th Ave & Steinway St	NE	166.1	244.9	193.7	147.5	A	A	A	A	167.8	244.9	193.7	147.5	A	A	A	A	- Transfer 3s of green time from NB/SB to EB/WB in AM.
	SE	715.7	576.7	465.4	462.8	A	A	A	A	715.9	576.7	465.4	462.8	A	A	A	A	
	NW	207.1	263.7	217.0	173.5	A	A	A	A	207.7	263.7	217.0	173.5	A	A	A	A	
37th St & Northern Blvd	SE	603.6	649.7	428.4	487.5	A	A	A	A	603.6	649.7	428.4	487.5	A	A	A	A	- Transfer 1s of green time from EB/WB to NB/SB in PM.
	SW	616.9	602.0	400.3	493.2	A	A	A	A	616.9	602.0	400.2	493.2	A	A	A	A	

Note: this table has been updated for the FEIS; changes from the DEIS are not shown in strikethrough/underline.

PROPOSED SCHEDULE FOR PEDESTRIAN MITIGATION MEASURES

Subject to DOT approval, the pedestrian mitigation measures described above would be implemented to mitigate the significant adverse ~~sidewalk and~~ crosswalk impacts resulting from full build-out of the Proposed Actions in 2032. As the development under Proposed Actions would be expected to occur over an approximately 10-year period, it is possible that the ~~sidewalk and~~ crosswalk impacts could occur prior to full build-out in 2032.

Based on the anticipated construction schedule shown in Chapter 19, "Construction," 200 or more incremental pedestrian trips generated by the Proposed Actions could potentially occur on the impacted sidewalks and crosswalks beginning in the second quarter of 2024 when completed incremental development on Projected Development Sites I and J in the Additional Affected Area would result in a net increase of 256 dwelling units and 25,685 gsf of local retail space, along with the net reduction of 19,667 gsf of light industrial/warehouse uses. At this earlier point in time, implementation of the mitigation measures developed for full build-out of the Proposed Actions in 2032 could be considered to address the potential significant adverse pedestrian impacts.

G. AIR QUALITY

As described in Chapter 14, "Air Quality," compared with the No Action condition, $PM_{2.5}$ impacts with the Proposed Actions would exceed the *de minimis* criterion of 0.1 µg/m^3 for the annual averaging period for Analysis Site 2, at 35th Avenue and 41st Street, and Analysis Site 3, at Northern Boulevard and 43rdStreet/42nd Place.

~~Therefore, air quality mitigation was considered at these locations.~~

~~For each of the affected intersections, traffic mitigation measures were developed to reduce congestion and increase speeds along corridors in the affected area. The proposed mitigation measure for the intersection of 35th Avenue and 41st Street is the transfer of green time from the eastbound and westbound directions to the northbound corridors in the midday, PM and Saturday periods. Additional mitigation would be provided by adding a turning lane to the westbound approach of 35th Avenue to Steinway Street by installing "No Stopping Anytime" regulations along north curbs of 35th Avenue to the east of Steinway Street, and to transfer four seconds of green time from the northbound and southbound corridors to the eastbound and westbound corridor in the midday, PM and Saturday periods. The proposed mitigation measures for the intersection of Northern Boulevard and 43rdStreet/42nd Place are to restripe the northbound approach to one left turn and one thru right lane, to install "No Stopping Anytime" regulations along east curb of 42nd Place to the south of Northern Boulevard, and to transfer four seconds of green time from the northbound corridor from to the eastbound and westbound corridors in the AM period and 3 seconds in the midday period. **Table 20-15** presents the results of the mobile source analysis with the proposed traffic mitigation measures for these locations.~~

~~Table 20-15~~
~~Maximum Predicted Annual Average $PM_{2.5}$ With Action and Incremental Concentrations with Traffic Mitigation (µg/m^3)~~

~~Analysis Site~~	~~Location~~	~~With Action (Without Mitigation)~~	~~With Action (With Mitigation)~~	~~Increment (Without Mitigation)~~	~~Increment (With Mitigation)~~	~~*De Minimis* Criterion~~
~~2~~	~~35th Avenue and 41st Street~~	~~7.75~~	~~7.67~~	~~0.15~~	~~0.07~~	~~0.1~~
~~3~~	~~Northern Boulevard and 43rd Street/42nd Place~~	~~8.35~~	~~8.32~~	~~0.33~~	~~0.29~~	~~0.1~~

~~**Notes**:~~
~~NAAQS – annual average 12 µg/m^3.~~
~~With Action concentrations include a background concentration of 7.5 µg/m^3.~~
~~$PM_{2.5}$ *de minimis* criteria – annual (neighborhood scale), 0.1 µg/m^3.~~

~~As shown in the table, for Site 2, the results of this modeling analysis (performed in accordance with methodologies described in Chapter 14, "Air Quality") indicate that the annual incremental concentration of $PM_{2.5}$ with the prescribed traffic mitigation measures would be lower than the incremental concentration for the With Action condition, and would not exceed the *de minimis* criteria for $PM_{2.5}$. Therefore, the incorporation of the traffic mitigation measures would mitigate the significant adverse air quality impact at this location. Implementation of proposed traffic mitigation measures would be subject to approval by the DOT prior to installation. In the event the proposed mitigation measures to address the predicted $PM_{2.5}$ impacts at 35th Avenue and 41st Street are deemed infeasible by DOT, and no other alternative mitigation measures can be identified, the air quality impact would be considered unmitigated.~~

~~For Site 3, the prescribed measures would not fully mitigate the air quality impact. Therefore, for the Draft EIS, at this location, the significant adverse air quality impact is deemed as unavoidable, as discussed in Chapter 22, "Unavoidable Adverse Impacts."~~

~~Between the Draft and Final EIS~~However, additional review and evaluation ~~will be~~was performed which ~~is expected to~~ determined that the identified impacts related to the mobile source Annual $PM_{2.5}$ increments ~~will be~~were avoided, without the need for mitigation measures. This ~~may include use of~~ analysis was performed using updated travel demand factors reflecting the 2021 *CEQR Technical Manual* guidance, the use of newer vehicle registration data provided by NYSDEC ~~or other updated information or guidance, as applicable. If warranted by the guidance in the *CEQR Technical Manual* following these revisions,~~and based on additional modeling of $PM_{2.5}$ concentrations (Grid Analysis) ~~will be~~ performed using a more ~~refined or~~ comprehensive analysis procedure~~s~~ to determine the magnitude and extent of annual neighborhood-scale $PM_{2.5}$ impacts from mobile sources, which confirmed that maximum incremental~~. It is anticipated that these additional measures will reduce~~ $PM_{2.5}$ concentrations on a neighborhood scale are below the Annual *de minimis* Criterion threshold.

H. CONSTRUCTION

TRAFFIC

As discussed in Chapter 19, "Construction," in the Year 2 (fourth quarter) peak construction period, construction traffic in combination with operational traffic from completed development on projected development sites would result in significant adverse traffic impacts at ~~14~~ 12 study area intersections during one or both analyzed construction peak hours; specifically, ~~11~~ 9 lane groups at ~~8~~ 7 intersections in the AM construction peak hour, and ~~19~~ 16 lane groups at ~~11~~ 9 intersections in the PM construction peak hour. The impacted intersections groups are summarized in **Table 20-16**.

Table 20-16
Summary of Significantly Impacted Intersections in the Year 2 (Fourth Quarter) Peak Construction Period

	Construction Peak Hour	
Signalized Intersections	**Weekday AM**	**Weekday PM**
35th Ave & Steinway Street		X
36th Ave & Steinway Street		X
Northern Blvd & 39th St / Steinway St	X	X
Northern Blvd & 41st St	X	
Northern Blvd & 42nd St / Driveway		X
Northern Blvd & 42nd Pl / 43rd Street		X
Northern Blvd & 44th St / 35th Ave	X	
Northern Blvd & 48th St / 34th Ave	X	X
Northern Blvd & 51st St / Woodside Ave	X	X
43rd Ave & 39th Street		X
Greenpoint Ave & Hunters Point Ave	X	
Greenpoint Ave & Borden Ave	X	X
Total Impacted Intersections	**7**	**9**

X - denotes intersection significantly impacted in peak hour.

Note: This table has been updated for the FEIS; changes from the DEIS are not shown in strikethrough/underline.

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,
- Elimination of on-street parking to add a travel lane, and
- Modifications to lane striping.

The types of mitigation measures proposed herein are standard measures that are routinely identified by the City and considered feasible for implementation. **Table 20-17** summarizes the recommended mitigation measures for each of the intersections with significant adverse traffic impacts during both analyzed construction peak hours. Implementation of the recommended traffic engineering improvements is subject to final review and approval by DOT. If, prior to implementation, DOT determines that an identified ~~the recommended~~ mitigation measure~~s are not found to be~~is infeasible, an alternative mitigation measure will ~~and no other alternative measures can~~ be identified, if possible. In the absence of the application of mitigation measures, the impacts would remain unmitigated.

Tables 20-18 and 20-19 show the v/c ratios, delays, and levels of service (LOS) for impacted lane groups at each intersection with implementation of the recommended mitigation measures and compares them to No Action and With Action conditions for the AM and PM construction peak hours, respectively. (The Action-with-Mitigation level of service analyses for all lane groups at each impacted intersection are shown in Tables G-5 and G-6 in Appendix G.) According to *CEQR Technical Manual* criteria, an impact is considered fully mitigated when the resulting LOS degradation under the Action-with-Mitigation Condition compared with the No Action Condition is no longer deemed significant following the impact criteria described in Chapter 13, "Transportation." **Tables 20-18 and 20-19** show that significant adverse impacts would be fully mitigated at ~~four~~ two lane groups in the AM construction peak hour and ~~nine~~ four lane groups in the PM construction peak hour. Intersections where all impacts would be fully mitigated would total ~~three~~ two and ~~seven~~three, during these same periods, respectively. In total, impacts to one or more lane group(s) would remain unmitigated in one or more peak hours at eight~~six~~ intersections. Consequently, these impacts would constitute unavoidable significant adverse construction traffic impacts as a result of the Proposed Actions (see also Chapter 22, "Unavoidable Adverse Impacts"). As shown in Tables 13-20 through 13-23 in Chapter 13, "Transportation," all eight~~six~~ intersections with unavoidable significant adverse impacts are expected to experience congestion in one or more peak hours even in the No Action condition.

Table 20-17
Proposed Construction Traffic Mitigation Measures

Intersection	Signal Phase	No Action Signal Timing (Seconds) (1) AM	No Action Signal Timing (Seconds) (1) PM	Proposed Signal Timing (Seconds) (1) AM	Proposed Signal Timing (Seconds) (1) PM	Recommended Mitigation
35th Avenue &	NB/SB	55	56	55	56	Unmitigatable
Steinway Street	EB/WB	65	34	65	34	
36th Avenue &	NB/SB	80	80	80	77	- Transfer 3s of green time from NB/SB to EB/WB in PM.
Steinway Street	EB/WB	40	40	40	43	
Northern Boulevard &	EB/WB	73	73	73	73	Unmitigatable
39th Street /	NB/NB-L	25	25	25	25	
Steinway Street	SB/SB-L	22	22	22	22	
Northern Boulevard &	EB/WB	76	76	76	76	Unmitigatable
41st Street	PED	10	10	10	10	
	SB	34	34	34	34	
Northern Boulevard &	EB/WB	75	75	75	75	Unmitigatable
42nd Street / Driveway	PED	10	10	10	10	
	NB/SB	35	35	35	35	
Northern Boulevard &	EB/WB	75	75	75	79	- Implement "No Standing Anytime" regulation for 150' along east curb of the
43rd Street / 42nd Place	PED	10	10	10	10	NB approach.
	NB	35	35	35	31	- Restripe NB approach to one 12' left turn and one 13' thru-right lane.
						- Transfer 4s of green time from NB to EB/WB in PM.
Northern Boulevard &	EB/WB	77	77	77	77	Unmitigatable
44th Street /	PED	10	10	10	10	
35th Avenue	SB	33	33	33	33	
Northern Boulevard &	EB/WB	63	65	63	65	Unmitigatable
48th Street /	PED	10	10	10	10	
34th Avenue	NB	34	34	34	34	
	WB/WB-L	13	11	13	11	
Northern Boulevard &	EB/WB	67	60	67	60	Unmitigatable
51st Street /	NB/SB	39	46	39	46	
Woodside Avenue	EB-L/WB-L	14	14	14	14	
43rd Avenue &	NB/SB	30	30	30	32	- Transfer 2s of green time from EB to NB/SB in PM.
39th Street	EB	30	30	30	28	
Greenpoint Avenue &	EB/WB	60	67	58	67	- Transfer 2s of green time from EB/WB to NE/SW in AM.
Hunters Point Avenue	NE/SW	60	53	62	53	
Greenpoint Avenue &	EB	50	55	49	55	- Transfer 1s of green time from EB to SB/SB-L in AM.
Borden Avenue	SB/SB-L	30	35	31	35	
	NB/SB	40	30	40	30	

Notes :

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

Note: This table has been updated for the FEIS; changes from the DEIS are not shown in strikethrough/underline.

Table 20-18
Action-With-Mitigation Conditions at Impacted Lane Groups in the AM Construction Peak Hour

Intersection	Approach	Lane Group	No Action AM V/C Ratio	No Action AM Delay (sec/veh)	No Action AM LOS	With Action AM V/C Ratio	With Action AM Delay (sec/veh)	With Action AM LOS	Mitigation AM Lane Group	Mitigation AM V/C Ratio	Mitigation AM Delay (sec/veh)	Mitigation AM LOS
Northern Blvd (E-W) & 39th St / Steinway St (N-S)	EB	L	0.98	154.0	F	1.13	202.9	F	L	1.13	202.9	F
	NB	TR	0.66	52.1	D	1.19	158.9	F	TR	1.19	158.9	F
	SB	LTR	1.08	132.4	F	1.21	179.4	F	LTR	1.21	179.3	F
Northern Blvd (E-W) & 41st St (S)	EB	L	0.17	13.8	B	2.46	722.9	F	L	2.46	722.9	F
Northern Blvd (E-W) & 44th St (S) / 35th Ave (N)	WB	TR	1.05	29.7	C	1.17	83.0	F	TR	1.17	83.0	F
Northern Blvd (E-W) & 48th St (N-S) / 34th Ave (N)	WB	TR	1.08	51.5	D	1.18	93.1	F	TR	1.18	93.1	F
Northern Blvd (E-W) & 51st St / Woodside Ave (N-S)	SB	R	1.17	144.3	F	1.48	271.9	F	R	1.48	271.9	F
Greenpoint Ave (E-W) & Hunters Point Ave (NW-SE)	NW	LTR	0.95	46.9	D	1.03	66.0	E	LTR	1.00	54.9	D
Greenpoint Ave (NE-SW) & Borden Ave (E)	SW	L	1.08	90.5	C	1.09	96.3	F	L	1.05	80.8	F

Shading denotes unmitigted significant adverse impact.

Note: This table has been updated for the FEIS; changes from the DEIS are not shown in strikethrough/underline.

Table 20-19
Action-With-Mitigation Conditions at Impacted Lane Groups in the PM Construction Peak Hour

Intersection	Approach	Lane Group	No Action PM V/C Ratio	No Action PM Delay (sec/veh)	No Action PM LOS	With Action PM V/C Ratio	With Action PM Delay (sec/veh)	With Action PM LOS	Mitigation PM Lane Group	Mitigation PM V/C Ratio	Mitigation PM Delay (sec/veh)	Mitigation PM LOS
35th Ave (E-W) & Steinway St (N-S)	EB	LTR	1.19	144.6	F	1.34	208.8	F	LTR	1.34	208.8	F
	WB	LTR	0.66	35.1	D	1.03	88.1	F	LTR	1.03	88.1	F
36th Ave (E-W) & Steinway St (N-S)	EB	LTR	1.23	172.8	F	1.36	227.0	F	LTR	1.20	160.5	F
Northern Blvd (E-W) & 39th St / Steinway St (N-S)	WB	L	1.31	229.9	F	2.00	513.2	F	L	2.00	513.2	F
	NB	TR	1.14	133.5	F	1.21	156.7	F	TR	1.21	156.7	F
	SB	LTR	1.15	159.8	F	1.38	252.4	F	LTR	1.38	254.1	F
Northern Blvd (E-W) & 42nd St (S) / Driveway (N)	SB	LTR	0.91	82.7	F	1.42	257.7	F	LTR	1.42	257.9	F
Northern Blvd (E-W) & 43rd St (N) / 42nd Pl (N-S)	EB	LTR	1.12	63.4	E	1.18	93.0	F	LTR	1.11	67.0	E
	WB	TR	1.14	90.8	F	1.16	96.8	F	TR	1.09	66.9	E
Northern Blvd (E-W) & 48th St (N-S) / 34th Ave (N)	EB	TR	1.16	82.6	F	1.21	103.1	F	TR	1.21	103.0	F
	WB	TR	1.10	359.0	E	1.12	71.5	E	TR	1.12	71.5	E
	NB	L	1.64	150.9	F	1.66	369.1	F	L	1.66	369.1	F
Northern Blvd (E-W) & 51st St / Woodside Ave (N-S)	EB	L	1.16	82.6	F	1.04	82.7	F	L	1.06	88.4	F
	EB	TR	1.14	152.9	F	1.18	86.3	F	TR	1.18	86.3	F
43rd Ave (W) & 39th St (N-S)	SB	LT	1.33	184.9	F	1.44	233.5	F	LT	1.26	153.3	F
Greenpoint Ave (NE-SW) & Borden Ave (E)	SW	L	0.97	65.2	E	1.08	96.1	F	L	1.08	102.6	F

Shading denotes unmitigated significant adverse impact.

Note: This table has been updated for the FEIS; changes from the DEIS are not shown in strikethrough/underline.

NOISE

As described in Chapter 19, "Construction," the Proposed Actions would result in temporary significant adverse impacts related to construction noise at various receptors within the Study Area. As discussed below in more detail, partial mitigation is proposed for some of the significant adverse impacts of the Proposed Actions. Significant adverse impacts that cannot be fully mitigated through reasonably practicable measures are also identified and discussed in Chapter 22, "Unavoidable Adverse Impacts."

As discussed in Chapter 19, "Construction," the Proposed Action construction activities would result in significant adverse impacts related to noise. At some receptors, construction under the Proposed Actions would result in increments that would exceed the CEQR construction noise screening thresholds and/or that would be considered objectionable (i.e., 15 dBA or greater) or very objectionable (i.e., 20 dBA or greater). The potential for significant adverse impacts at these receptors was determined by evaluating the duration of these increments and consideration of interior noise levels where applicable. Significant adverse impacts related to construction noise would occur at sensitive locations as indicated in Figure 19-10 and Figure 19-11 (see Chapter 19, "Construction") and **Table 20-20** (below).

Table 20-20
Locations with Significant Adverse Impacts Related to Construction Noise

Receptors	Building/Location	Affected Land Use	Façades
83, 84, 395, 396	35-37 36th Street	Commercial Office	North and East Construction-Facing
88, 8990	35-27 36th Street	Educational Institution	South and East Construction-Facing
94-97	36-12 35th Avenue	School and Play Yard	South and East Construction-Facing
119	36-01 35th Avenue, 34-37 36th Street	Museum, TV Production	East, Eastern half of South Façade
124	37-11 35th Avenue	Commercial Office Building	South
224	Buildings along 42nd Street between 34-50 and 34-58 42nd Street	Residential	West
160, 161, 164, 165, 168-171169, 170	36-07 and 36-11 07 Steinway Street and 40-04 36th Avenue	Residential	North, East, and Lightwell-facingNorth and East
178-185179, 180, 181, 183, 184	Buildings along Steinway Street between 35-44 and 35-52 Steinway Street	Residential	AllWest, North, and Lightwell facing
190, 377, 378	Buildings along 38th Street between 35-49 and 35-55 38th Street	Residential	East, WestWest, East
41	Buildings along 37th Street between 36-11 and 36-15 37th Street	Residential	East
49	36-12 and 36-16 38th Street	Residential	North, West, South
102	37-09 and 37-11 36th Avenue	Residential	East, North
224	Buildings along 42nd Street between 34-16 through 34-58 42nd Street	Residential	West
345-367354	Projected Development Site A.1	Residential, Community Facility, Commercial Office, Open Space	AllA.1 South
324-344, 331, 333	Projected Development Site B.1	Residential, Community Facility, Open Space	AllB.1 South, Southern half of West
312-315	Projected Development Site C.1	Residential, Community Facility, Open Space	AllC.1 West
303-311, 371, 372310, 311, 372	Projected Development Site D, E	Residential, Community Facility, Open Space, Open Space	AllNorth, East
375	Projected Development Site E.1	Residential, Commercial Office	E.1 South
320-323, 321	Projected Development Site F	Residential	AllWest, North
297, 298	Projected Development Site I	Residential	AllEast
299-302	Projected Development Site J	Residential	AllWest

Construction under the Proposed Actions would follow the requirements of the *New York City Noise Control Code* (also known as Chapter 24 of the *Administrative Code of the City of New York*, or Local Law 113) for construction noise control measures. Specific noise control measures (including measures beyond what are required by the New York City Noise Code) would be

incorporated in noise mitigation plan(s) required under the *New York City Noise Control Code*. These measures could include a variety of source and path controls.

In terms of source controls (i.e., reducing noise levels at the source or during the most sensitive time periods), the following measures would be mandated in accordance with the *New York City Noise Code* and include additional measures beyond the *New York City Noise Code*:

- Equipment that meets the sound level standards specified in Subchapter 5 of the *New York City Noise Control Code* would be utilized from the start of construction. Table 19-~~20~~ 21 (see Chapter 19, "Construction") shows the noise levels for typical construction equipment and the mandated noise levels for the equipment that would be used for construction under the Proposed Actions.
- As early in the construction period as logistics would allow, diesel- or gas-powered equipment would be replaced with electrical-powered equipment such as welders, water pumps, bench saws, and table saws (i.e., early electrification) to the extent feasible and practicable. Where electrical equipment cannot be used, diesel or gas-powered generators and pumps would be located within buildings to the extent feasible and practicable.
- Where feasible and practicable, construction sites would be configured to minimize back-up alarm noise. In addition, all trucks would not be allowed to idle more than 3 minutes at the construction site based upon Title 24, Chapter 1, Subchapter 7, Section 24-163 of the New York City Administrative Code.
- Contractors and subcontractors would be required to properly maintain their equipment and mufflers.

In terms of path controls (e.g., placement of equipment, implementation of barriers or enclosures between equipment and sensitive receptors), the following measures for construction would be implemented:

- 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;
- Noise barriers constructed from plywood or other materials would be utilized to provide shielding (e.g., the construction sites would have a minimum 8-foot-tall barrier around the perimeter);
- Concrete trucks would be required to be located inside site-perimeter noise barriers while pouring or being washed out; and
- Path noise control measures (i.e., portable noise barriers, panels, enclosures, and acoustical tents) for certain dominant noise equipment to the extent feasible and practical based on the results of the construction noise calculations. The details to construct portable noise barriers, enclosures, tents, etc. are shown in DEP's *Rules for Citywide Construction Noise Mitigation*.[1]

Mitigation measures to control noise at the receptors predicted to experience impacts would be ~~considered~~ implemented prior to construction under the Proposed Actions~~, and would be further explored between the DEIS and FEIS~~.

While some of the existing buildings where impacts have been identified 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, it is not possible to definitively determine the presence of these features at all receptors that would have the potential to experience

[1] As found at http://www.nyc.gov/html/dep/pdf/noise_constr_rule.pdf

significant adverse construction noise impacts. At existing building façades that are predicted to experience significant adverse impacts (i.e., façades at receptors in **Table 20-20** other than Projected Development Sites A, B, C, D, E, ~~E,~~ F, I, and J), the Applicant would offer to make available at no cost the installation of storm windows for façades that do not already have insulated glass windows and/or one window air conditioner per living room, bedroom, classroom, office space, or other noise-sensitive space on impacted façades that do not already have alternative means of ventilation. Any mitigation measures identified would be implemented prior to the start of construction.

As described in Chapter 16, "Noise," residential dwelling units to be constructed at Projected Development Sites A, B, C, D, E, ~~E,~~ F, I, and J would be required to provide at least 35 dBA window/wall attenuation, whereas community facility and office development would be expected to provide at least ~~25~~ 30 dBA attenuation assumed for newly constructed modern buildings.

Building façades with insulated glass windows or storm windows and alternative ventilation would provide sound attenuation such that even during warm weather conditions, interior noise levels would be approximately 25 dBA less than exterior noise levels. However, the most noise-intensive construction activity nearest the receptors experiencing significant adverse impacts would result in interior noise levels up to ~~66~~ 64 dBA L_{10}, which is ~~21~~ 19 dBA greater than the level considered acceptable according to *CEQR Technical Manual* noise exposure guidelines. Consequently, significant adverse noise impacts predicted to occur at the above-mentioned receptors would be only partially mitigated and thus unavoidable as discussed in Chapter 22, "Unavoidable Adverse Impacts."

For outdoor residential balconies and newly introduced publicly accessible open space areas that would be completed and occupied while construction under the Proposed Actions is ongoing, noise levels from construction activities at adjacent Projected Development Sites would increase above the construction noise impact criteria and would result in significant adverse noise impacts. No practical and feasible mitigation measures have been identified that could be implemented to reduce noise levels below the construction noise impact criteria at these outdoor locations. Consequently, construction activities would result in noise levels at outdoor residential balconies that would constitute a significant adverse noise impact. Therefore, at these outdoor locations, the significant adverse construction noise would be unavoidable as discussed in Chapter 22, "Unavoidable Adverse Impacts." However, as construction would not regularly occur during evening or weekend hours, the balconies and open spaces would be free of construction noise during these times. ✷