Chapter 23: Unavoidable Adverse Impacts

A. INTRODUCTION

This chapter summarizes unavoidable significant adverse impacts that may result from the Proposed Actions. According to the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, unavoidable significant adverse impacts are those that would occur if a proposed project or action is implemented regardless of the mitigation employed, or if mitigation is infeasible.

As described in Chapter 21, "Mitigation," the Proposed Actions would result in significant adverse impacts with respect to community facilities, open space, shadows, historic and cultural resources, transportation, and construction. To the extent practicable, mitigation has been proposed for these identified significant adverse impacts. However, in some instances no practicable mitigation has been identified to fully mitigate significant adverse impacts, and there are no reasonable alternatives to the Proposed Actions that would meet the Proposed Actions' purpose and need, eliminate potential impacts, and not cause other or similar significant adverse impacts. In other cases mitigation has been proposed, but absent a commitment to implement the mitigation, the impacts may not be eliminated.

B. COMMUNITY FACILITIES

As described in Chapter 4, "Community Facilities," the Proposed Actions would result in a significant adverse impact on publicly funded early childhood programs.

Publicly Funded early childhood programs Based on the *CEQR Technical Manual* early childhood program multipliers, the development would result in approximately 615 children under the age of six 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 169.1 percent utilization with a deficit of 1,700 slots. Total enrollment in the study area would increase to 4,159 children, compared with a capacity of 2,459 slots, which represents an increase in the utilization rate of approximately 25 percentage points over the No Action condition.

CEQR Technical Manual guidelines indicate that a demand for slots greater than the remaining capacity of early childhood programs and an increase in demand of five percentage points of the study area capacity could result in a significant adverse impact. In the With Action condition, early childhood programs in the study area would operate over capacity by approximately 1,700 slots and exhibit an increase in the utilization rate of approximately 25 percentage points as compared with the No Action condition. Therefore, the Proposed Actions would result in a significant adverse impact on early childhood programs.

Several factors may reduce the number of children in need of publicly funded early childhood programs in New York City Department of Education (DOE) contracted early childhood programs. Families in the study area could make use of alternatives to publicly funded early childhood programs. There are slots at homes licensed to provide family-based child care that families of eligible children could elect to use instead of publicly funded early childhood programs. As noted above, these facilities provide additional slots in the study area but are not

included in the quantitative analysis. Parents of eligible children are also not restricted to enrolling their children in early childhood programs facilities in a specific geographical area and could use publicly funded early childhood programs centers outside of the study area.

Possible mitigation measures for this significant adverse impact will be developed in consultation with DOE and may include provision of suitable space on-site for an early childhood program, 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, or providing a new early childhood program within or near the project sites. As a city agency, DOE does not directly provide new early childhood programs, 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 early childhood programs.

C. OPEN SPACE

The Proposed Actions would result in an (indirect) significant adverse impact related to the active open space ratio, and a (direct) significant adverse impact attributed to incremental shadows on the Douglass and Degraw Pool in Thomas Greene Playground. The direct impact related to shadows on the Douglass and Degraw Pool is discussed below under "Shadows."

The reduction in active open space in the With Action condition would most likely affect the study area's adult and teenager population, which is expected to make up approximately 70 percent of the total study area population. Both groups use court facilities (e.g., basketball courts) and sports fields, such as football or soccer fields. They may also use facilities that provide more individualized recreation, such as cycle paths and other grade-separated jogging paths. The quantitative assessment indicates that the residential study area population is currently underserved in active open space—a trend expected to continue in the future with or without the Proposed Actions.

Measures being considered to mitigate the significant adverse open space impact include improvements to existing parks to allow for expanded programming and enhanced usability, and making New York City public school playgrounds accessible to the community afterschool hours through the Schoolyards to Playgrounds program. These measures will be explored by DCP in consultation with NYC Parks between the DEIS and FEIS. As noted above, the study area exhibits a very low open space ratio under existing conditions. Creating less project-generated demand for active open space by reducing the amount of housing to eliminate the impact would not meet the goals and objectives of the Proposed Actions, which call for the provision of housing, including a substantial amount of needed affordable housing. Because the above measures would partially mitigate the significant adverse open space impact, the impact would be an unavoidable adverse impact of the Proposed Actions.

D. SHADOWS

As described in Chapter 6, "Shadows," the Proposed Actions would result in significant adverse impacts to the Our Lady of Peace Roman Catholic Church, located on Carroll Street between Whitwell and Denton Places. Project-generated incremental shadows would fall on some of the stained-glass windows for a portion of the day, the extent and/or duration of which would be

substantial enough to significantly affect the potential enjoyment or appreciation by the public of the churches' interior spaces.

Our Lady of Peace Church (listed on the State and National registers of historic places [S/NR]) is located on the south side of Carroll Street, between Whitwell and Denton Places. On the morning of the winter analysis day, Projected Development Site 38, located a block southeast of the church, would cast new shadows resulting in the complete elimination of direct sunlight on the stained-glass windows for approximately 55 minutes. The total duration of incremental shadow would be approximately 2 hours and 19 minutes (from 8:51 AM to 11:10 AM), including the 55-minute period when all remaining direct sunlight would be eliminated. The long duration and at times complete elimination of direct sun would significantly affect the public's enjoyment or appreciation of the church interior during this time, especially given that winter mornings are typically when the church holds holiday services.

The *CEQR Technical Manual* identifies potential mitigation strategies to reduce or eliminate, to the greatest extent practicable, adverse shadow impacts to sunlight-sensitive architectural features, including changes to the bulk or configuration of projected or potential development sites that cause or contribute to the adverse impact. For adverse impacts to stained-glass windows, potential mitigations measures could also include the provision of artificial lighting to simulate the effect of direct sunlight. These mitigation measure will be explored in consultation with the New York City Landmarks Preservation Commission (LPC) between the DEIS and FEIS. If feasible mitigation is found, the impacts will be considered partially or fully mitigated. In the absence of feasible mitigation, the significant adverse shadow impact to the church would be unavoidable.

Thomas Greene Playground occupies the entire block bounded by Douglass Street, Degraw Street, 3rd Avenue, and Nevins Street. Thomas Greene Playground is anticipated to be substantially renovated, as discussed in Chapter 5, "Open Space," with or without the Proposed Actions. Currently, the programming and layout of the reconstructed park is not confirmed. The analysis in Chapter 6, "Shadows," therefore focused on identifying the extent and duration of incremental shadows on various areas of the park, and how potential features and vegetation might fare in the resulting shade conditions. However, given the heavy use of the Douglass and Degraw Pool in the summer months, the analysis included a consideration of incremental shadow effects on the pool at its current location in the western part of the park, on the May 6/August 6 and June 21 analysis days. The pool is open in the summer months from 11:00 AM to 7:00 PM Eastern Daylight Time (EDT). On the May 6/August 6 analysis day the pool would be entirely in sun from the time it opens until 3:15 PM, when incremental shadow would enter from the west. From 4:00 PM to closing time at 6:00 PM (7:00 PM EDT), both the main pool and the kiddie pool would be mostly covered by incremental shadow. This substantial extent and duration of new shadow would significantly impact the user experience of the pools on this analysis day. In order to eliminate this significant adverse impact, Potential Development Site W would have to be reduced in height from 20 stories to approximately 8 stories and Projected Development Site 18 would have to be reduced from 18 to approximately 12 stories. These height reductions would reduce incremental shadow duration in the late afternoon on the pool from 2 and three-quarter hours to one hour, and much of the pool would remain in sun during the one hour duration of incremental shadow. The reduction in building height and corresponding floor area would result in the loss of needed housing, including affordable housing, and would not meet the goals and objectives of the Proposed Actions.

Potential measures that could mitigate the significant adverse shadow impact to Douglass and Degraw Pool may include modifications to the height, shape, size, or orientation of proposed

developments that cause or contribute to the significant adverse shadow impact. Thomas Greene Playground is anticipated to be reconstructed, as discussed in Chapter 5, "Open Space." Currently, the programming and layout of the reconstructed park is not confirmed. Locating the pool in the northern half of the park, which would receive much less shadow than the southern half throughout the summer months, could potentially mitigate this significant adverse impact. DCP will coordinate with NYC Parks to explore all possible mitigation measures between DEIS and FEIS. In the absence of this mitigation measure, the impact to Thomas Greene Playground would be an unavoidable impact of the Proposed Actions.

E. HISTORIC AND CULTURAL RESOURCES

As discussed in Chapter 7, "Historic and Cultural Resources," the Proposed Actions would result in direct and indirect significant adverse impacts to both archaeological and architectural resources, as described in greater detail below. This includes direct and indirect impacts on the S/NR-Eligible Gowanus Canal Historic District, construction-related impacts to contributing properties located within the boundaries of the district from adjacent projected construction, and construction-related impacts on properties that were determined to be archaeologically sensitive.

ARCHITECTURAL RESOURCES

The Proposed Actions would result in significant direct adverse impacts to the S/NR-Eligible Gowanus Canal Historic District as a result of the demolition of contributing resources to the historic district. These significant adverse impacts would be unavoidable, as the contributing buildings are privately owned and would be demolished to allow for developments constructed as-of-right under the proposed zoning.

Potential significant adverse impacts associated with inadvertent construction damage would occur to contributing resources in the S/NR-Eligible Gowanus Canal Historic District as a result of adjacent construction located within 90 feet of projected or potential development sites. Furthermore, such impacts would result to three other S/NR-Eligible resources as a result of adjacent construction: Our Lady of Peace Church Complex, the Gowanus Canal Flushing Tunnel, and the IND Subway Viaduct.

Buildings or structures that are S/NR-Listed or New York City Landmarks (NYCLs) would be afforded standard protection under the New York City Department of Building (DOB) *Technical Policy and Procedure Notice* (TPPN) #10/88, regulations applicable to all buildings located adjacent (within 90 feet) to construction sites; however, since the resources identified above are not S/NR-Listed or NYCLs, they are not afforded the added special protections under DOB TPPN #10/88. Additional protective measures afforded under DOB TPPN #10/88, which include a monitoring program to reduce the likelihood of construction damage to adjacent S/NR-Listed resources or NYCLs, would only become applicable if the S/NR-Eligible resources are listed or designated in the future prior to the initiation of construction. Otherwise, there is the potential for inadvertent construction damage and impacts to occur as a result of adjacent development resulting from the Proposed Actions.

ARCHAEOLOGICAL RESOURCES

The Proposed Actions would result in construction activity on 54 projected or potential development sites that were identified as potentially archaeologically significant by LPC. A Phase 1A Archaeological Documentary Study of those sites identified all or portions of 46 potential and projected development sites as archaeologically sensitive for resources associated with the Gowanus Canal bulkhead and associated landfill; 19th century shaft features; and/or evidence

associated with milling or agricultural activities dating between the 17th and 19th centuries, including evidence of the role of forced labor and enslavement as they related to those efforts. The Project Area was determined to have low sensitivity for precontact archaeological resources, some of which may be deeply buried; evidence of industrial uses in the 19th and 20th centuries; and for human remains associated with the Revolutionary War or with homestead burial grounds.

As discussed in Chapter 7, "Historic and Cultural Resources," the Phase 1A Study recommended additional archaeological analysis for certain development sites, including archaeological monitoring; Phase 1B Archaeological Testing; a geomorphological assessment of deeply buried landscapes; and the preparation of an Unanticipated Human Remains Discoveries Plan in addition to continued consultation with LPC and submission and concurrence of all required work plans.

The Proposed Actions have the potential to result in an unmitigated significant adverse archaeology impact associated with all or portions of 46 potential and projected development sites. All but one of the affected development sites are under private ownership. With respect to sites under private ownership, there is no mechanism in place to require a developer to conduct archaeological testing or require the preservation or documentation of archaeological resources, should they exist. Because there is no mechanism to avoid or mitigate potential impacts at these sites, the significant adverse impact would be unmitigated.

F. TRANSPORTATION

The Proposed Actions would result in significant adverse traffic impacts at 43 study area intersections during one or more analyzed peak hours; specifically, 37 intersections during the weekday AM peak hour, 23 intersections during the weekday midday peak hour, 36 intersections during the weekday PM peak hour, and 33 intersections during the Saturday peak hour. Implementation of traffic engineering improvements, such as signal timing changes or modifications to curbside parking regulations would provide mitigation for many of the anticipated traffic impacts. Specifically, the significant adverse impacts would be fully mitigated at 10 lane groups in the weekday AM peak hour, 13 lane groups in the midday, 13 lane groups in the PM, and 12 lane groups in the Saturday peak hour. Intersections where all impacts would be fully mitigated would total 7, 12, 10, and 11 during these same periods, respectively. In total, impacts to one or more lane group would remain unmitigated in one or more peak hours at 34 intersections.

Because of existing congestion at a number of these intersections, even a minimal increase in traffic would result in unmitigated impacts. Specifically, in the No Action Condition, a total of 39 intersections would have at least one congested lane group in one or more peak hours, and a total of 24, 9, 18 and 19 intersections would have one or more lane groups operating at or over capacity in the weekday AM, midday and PM, and Saturday peak hours, respectively. According to the *CEQR Technical Manual*, for a lane group that would operate at LOS F in the No Action Condition, a projected delay of three or more seconds is considered a significant impact. As such, small increases in incremental With Action traffic volumes at some of the congested intersection approach movements would result in significant adverse impacts that could not be fully mitigated during one or more analysis peak hours, and almost any new development in the rezoning area could result in unmitigated traffic impacts. Therefore, no reasonable alternative could be developed to completely avoid such impacts without substantially compromising the Proposed Actions' stated goals.

G. CONSTRUCTION

HISTORIC AND CULTURAL RESOURCES

ARCHITECTURAL RESOURCES

Potential significant adverse impacts associated with inadvertent construction damage would occur to contributing resources in the S/NR-Eligible Gowanus Canal Historic District as a result of adjacent construction located within 90 feet of projected or potential development sites. Furthermore, such impacts would result to three other S/NR-Eligible resources as a result of adjacent construction: Our Lady of Peace Church Complex, the Gowanus Canal Flushing Tunnel, and the IND Subway Viaduct.

Buildings or structures that are S/NR-Listed or NYCLs would be afforded standard protection under DOB's TPPN #10/88, regulations applicable to all buildings located adjacent (within 90 feet) to construction sites; however, since the resources identified above are not S/NR-Listed or NYCLs, they are not afforded the added special protections under DOB's TPPN #10/88. Additional protective measures afforded under DOB TPPN #10/88, which include a monitoring program to reduce the likelihood of construction damage to adjacent S/NR-Listed resources or NYCLs, would only become applicable if the S/NR-Eligible resources are listed or designated in the future prior to the initiation of construction. Otherwise, there is the potential for inadvertent construction damage and impacts to occur as a result of adjacent development resulting from the Proposed Actions.

NOISE

As presented in Chapter 20, "Construction," noise level increases exceeding *CEQR Technical Manual* impact criteria would occur at several locations throughout the rezoning area.

Construction activities would follow the requirements of the *NYC 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 would be incorporated in noise mitigation plan(s) required under the *NYC Noise Control Code*. These measures could include a variety of source and path controls. In terms of source controls (i.e., reducing noise levels at the source or during the most sensitive time periods), the following measures would be implemented in accordance with the *NYC Noise Control Code*:

- Equipment that meets the sound level standards specified in Subchapter 5 of the *NYC Noise Control Code* would be utilized from the start of construction.
- 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 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 three minutes at the construction site based upon Title 24, Chapter 1, Subchapter 7, Section 24-163 of the *NYC 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 to the extent feasible and practicable:

- 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 erected to provide shielding; and
- Path noise control measures (i.e., portable noise barriers, panels, enclosures, and acoustical tents, where feasible) for certain dominant noise equipment would be employed to the extent feasible and practical based on the results of the construction noise calculations.

Construction activity is expected to follow the requirements of the *NYC Noise Control Code*. However, the implementation of these measures would not eliminate the identified significant adverse construction noise impacts predicted to occur during hours when the loudest pieces of construction equipment are in use. In order to completely avoid significant adverse construction noise impacts, project-generated construction would have to be restricted in such a manner so as to not occur on the same block as, or within one to two blocks from, existing sensitive receptors, which would require elimination of the proposed rezoning area in the vicinity of these sensitive receptors. This would severely limit achievable development density and the Proposed Actions' goals and objectives. Because there is no mechanism to fully avoid or mitigate potential impacts while still accomplishing the Proposed Actions' goals, the significant adverse impact would be unmitigated.

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