

A. INTRODUCTION

Unavoidable significant adverse impacts are defined as those that meet the following two criteria:

- There are no reasonably practicable mitigation measures to eliminate the impacts; and
- There are no reasonable alternatives to the proposed project that would meet the purpose and need of the action, eliminate the impact, and not cause other or similar significant adverse impacts.

As described in Chapter 19, “Mitigation,” a number of the potential impacts identified for the proposed project could be mitigated. However, in some cases project impacts would not be fully mitigated. As described below, unmitigated adverse impacts would remain in the areas of cultural resources, urban design and visual resources, shadows, traffic, noise, and construction. These significant adverse impacts cannot be mitigated while still allowing the project to meet its stated purpose and needs and the city’s long-term goals for the project area.

B. CULTURAL RESOURCES

Demolition of the former Long Island Rail Road (LIRR) LIRR Stables and the former Ward Bread Bakery complex would constitute a significant adverse impact on historic resources. Since the former (LIRR) Stables and former Ward Bread Bakery complex have been determined to be State/National Register-eligible, a feasibility study was undertaken to determine (1) if the buildings could be converted to residential use, (2) if alterations to convert the buildings would impact their historic character, and (3) whether retaining the buildings would meet or constrain the goals of the master plan.

As detailed in Chapter 7, “Cultural Resources,” the study explored several scenarios for converting the buildings to residential use. The study found that each of the conversion scenarios would require substantial modifications to the buildings, including insertion of new window openings in blank facades, substantial changes to floor alignment and circulation, extensive repair and replacement on the former Ward Bread Bakery, and substantial renovations to the buildings to meet the requirements of the current New York City Building Code. The study concluded that retaining the buildings by converting them to residential use would compromise the historic character of the buildings themselves and that retaining these structures as part of the master plan would also leave the structures in a dramatically altered context.

Furthermore, retaining these buildings would constrain the goals of the master plan. The footprints of the former LIRR Stables and former Ward Bread Bakery complex would infringe on the proposed north-south visual and pedestrian corridors, and retaining these buildings would require the elimination of a considerable amount of open space, a major project amenity. Retaining these two historic buildings would also affect the project’s constructability and

proposed program and would either result in a reduction of residential units that could be provided, or the proposed redesign of Buildings 6, 12 and possibly other buildings. This could require that some structures be made taller to make up for the loss in the proposed residential gross square footage at the sites of the historic structures.

Based on these constraints and on the study of the reuse scenarios, it has been determined that it would not be feasible to retain the former LIRR Stables or the former Ward Bread Bakery complex as part of the proposed project. In a letter dated October 30, 2006, the New York City Office of Recreation and Historic Preservation (OPRHP) concurred that there is no prudent or feasible reuse alternative. Demolition of the former LIRR Stables and former Ward Bread Bakery complex would constitute a significant adverse impact on historic resources. Measures to partially mitigate the demolition of these historic resources have been developed in consultation with OPRHP and are stipulated in the Letter of Resolution (LOR) among the New York State Empire State Development Corporation (ESDC), Metropolitan Transportation Authority (MTA), OPRHP, and the project sponsors (see Chapter 19, Mitigation.)”).

C. URBAN DESIGN AND VISUAL RESOURCES

As described in Chapter 8, “Urban Design and Visual Resources,” the proposed project would obstruct views of the Williamsburgh Savings Bank Building from several vantage points: along the Flatbush Avenue view corridor from south of the project site; from Pacific Street between 4th and Flatbush Avenues and points along 5th Avenue; and from Bergen Street between 6th and Carlton Avenues, the Dean Playground, and Vanderbilt Avenue east of the project site. The loss of these views to the Williamsburgh Savings Bank Building would constitute a significant adverse impact. The existing views of the Bank Building over the project site on the east-west neighborhood streets and from north-south Vanderbilt Avenue could be substantially obstructed even by low-density development on the project site. Thus, any development to address the blighted condition of the project site would likely partially obstruct some views of the Williamsburgh Bank Building from most of these locations south and southeast of the project site. For this reason, the loss of views to the Williamsburgh Savings Bank Building along the Flatbush Avenue view corridor is discussed below.

The components of the proposed project that would block views of the Williamsburgh Savings Bank Building along the Flatbush Avenue view corridor south of the project site are Buildings 1 and 2. In order to preserve these views, Buildings 1 and 2 would either have to be eliminated from the project or shifted to the east of their proposed location. In either case, the altered project would no longer meet the project goals or fulfill the city’s goals for the Atlantic Terminal area of Brooklyn.

As outlined in Chapter 1, “Project Description,” one of the primary goals of the proposed project is to provide new residential, retail, office, and hotel space that will capitalize on the project’s proximity to one of the largest transportation hubs in the City and to recent commercial development in Downtown Brooklyn. As also described in Chapter 1, one of the key urban design goals outlined in the project’s Design Guidelines and informed by the City’s long-term goals and plans for the area (e.g., ATURA and Downtown Brooklyn Development Plan) is to concentrate density near the Atlantic/Flatbush subway hub. Buildings 1 and 2 would be located on the arena block, closest to the subway hub and the intersection of Atlantic and Flatbush Avenues. Without these buildings, the proposed project would not fully capitalize on the project site’s potential as a prime location for dense transit-oriented development.

Moreover, maintaining the views of the Williamsburgh Savings Bank Building from those public locations at which it is visible under existing conditions would require significant reductions of the heights of most of the project buildings. Even new, low-rise as-of-right buildings could partially obstruct views of the Williamsburgh Savings Bank Building from other existing vantage points south and southeast of the project site. As stated in the DEIS, a tall as-of-right building could be developed on Block 1118 that would substantially obstruct views of the Williamsburgh Savings Bank Building from the south along the Flatbush Avenue view corridor.

Relocating Building 1 east of 5th Avenue would require the realignment of the proposed arena which is not feasible. In order to accommodate LIRR's drill track, the bowl of the arena must be oriented east-west rather than north-south. Furthermore, if the arena were oriented north-south, the upper concourse of the project arena would extend beyond the property line. In addition, a north-south orientation would require arena back-of-house and support space to be located along the arena streetwalls, resulting in predominantly 100-foot-tall blank facades along 6th Avenue, Dean Street, and parts of Atlantic Avenue. The orientation of the proposed arena would allow the arena's support space to be located within portions of the surrounding arena block buildings and would result in highly transparent streetwalls along the arena's facades. In addition, because of support space requirements for a north-south oriented arena, street-level retail would be almost impossible without seriously impacting arena operations and vertical circulation.

Relocating Building 1 east of 5th Avenue would also require that a 620-foot-tall building rest upon a 500-foot-long span structure on the western end of the arena roof. The core of Building 1 would penetrate the seating inside the arena bowl and would obstruct the circulation on all concourses. The core of Building 1 would need to be sited above the loading dock area, requiring a significant portion of the gravity and lateral loads to transfer around this space. The net effect of these changes would make construction of the arena impracticable.

Shifting both Building 1 and the arena to the east would have a ripple effect, requiring numerous other significant changes to project buildings on the arena block. Furthermore, it is likely that portions of the truck loading area would need to be located beneath the bowl of the arena, which would be problematic due to security reasons and operational and constructability considerations.

D. SHADOWS

The proposed project would result in significant adverse impacts from new shadows cast on the southern portion of the open space of the Atlantic Terminal Houses and on the stained-glass windows of the eastern façade of the Church of the Redeemer. The project's impacts on the open space of the Atlantic Terminal Houses would be partially mitigated with measures that focus on improving the attractiveness and usability of the open space, while impacts on the church could be partially mitigated by replacing the semi-opaque screen currently protecting the existing stained-glass windows, improving lighting, or implementing some other mutually agreed measures. Since issuance of the DEIS, the project sponsors and NYCHA have developed measures to improve the Atlantic Terminal Houses open space, which would include a combination of some of the following: new landscaping and shade-tolerant plantings, upgrading of existing play areas and additional play equipment, and replacement of benches and other fixtures. The cost of these mitigation measures will be borne by the project sponsors. These commitments are outlined in a letter from the project sponsors to NYCHA, which accepted them. The letter is included in Appendix I of the FEIS.

To fully mitigate the proposed project's significant adverse impacts on the open space of the Atlantic Terminal Houses, new structures on the eastern portion of Block 1120 and on the western portion of Block 1121 would be reduced to a maximum height of 110 feet. To fully mitigate the impact on the Church of the Redeemer, the building on Site 5 would be reduced to a maximum height of 200 feet. Reducing the height of these structures would be inconsistent with the goal to establish a high-density, mixed-use project in an area that is well served by necessary infrastructure, particularly transportation. Since issuance of the DEIS, the project sponsors and the church have developed measures to offset the potential effect of the project's shadows on the stained glass windows. These measures, which would be implemented by the project sponsors prior to the time when the proposed project would cast shadows on the stained glass windows of the church, would include: removing the existing protective coverings from all of the stained glass windows, including any patching and repair associated with the removal; cleaning the interior and exterior of the windows; and installation of new transparent protective coverings of similar or greater durability as the existing coverings. These commitments are detailed in a letter from the project sponsors to Bishop Orris Walker, Jr., and accepted by him on behalf of the Church of the Redeemer on October 31, 2006; this letter has been included in Appendix I of the FEIS.

E. TRAFFIC

The proposed project's potential impacts on traffic conditions in 2010 and 2016 were examined at 93 study area intersections (87 signalized and six unsignalized) during five weekday peak hours (8-9 AM, noon-1 PM, 5-6 PM, 7-8 PM pre-game, and 10-11 PM post-game) and two Saturday peak hours (1-2 PM pre-game and 4-5 PM post-game).

Vehicular traffic generated by the proposed project would cause significant adverse impacts at 58 intersections (all signalized) in one or more peak hours in 2010 and at 68 intersections in 2016. The highest number of impacts would occur in the Saturday 4-5 PM post-game peak hour, with 46 intersections adversely affected in 2010 and 49 in 2016. With implementation of the proposed project's traffic mitigation plan, which includes physical improvements, demand management strategies, recommendations for improved transit service, and traffic operational improvements, unmitigated impacts would remain in one or more peak hours at a total of 24 intersections in 2010 and 35 intersections in 2016.

The highest numbers of unmitigated impacts would occur during the Saturday 4-5 PM post-game peak hour, with a total of 13 intersections with unmitigated impacts in 2010 and 28 intersections in 2016. Although the Saturday post-game peak hour would have the highest number of intersections with unmitigated impacts, this condition would occur fewer than four times per year when a Saturday afternoon Nets basketball game would be scheduled. (Other arena events that would occur on a Saturday afternoon would typically attract substantially fewer spectators than a Nets game.) The numbers of unmitigated impacts would be lower in all other periods in 2010 and 2016.

F. NOISE

As described in Chapter 15, "Noise," the proposed project would result in significant adverse noise impacts at a number of locations along roadways near the project site, including residential locations adjacent to the project site. In both 2010 and 2016, noise levels due to project-generated traffic would result in significant adverse noise impacts during one or more time periods on Flatbush Avenue in the area near Dean Street, on Dean Street from approximately

Flatbush to Vanderbilt Avenues (including the Dean Playground and the Temple of Restoration), 6th and Carlton Avenues from approximately Dean Street to Atlantic Avenue.

The Dean Street Playground would experience a noise impact from increased traffic on Dean Street in 2016. The project sponsors have committed to working with DPR to supplement DPR's planned improvements to the Dean Playground with a comfort station for the general public. This commitment would partially mitigate the noise impact that would result from increased traffic on Dean Street in 2016.

Construction activities, as well as project-generated traffic, would significantly increase noise levels at locations adjacent to the Temple of Restoration. Many of the windows of the building housing the Temple of Restoration are double-glazed windows. The large center stained glass window has a protective glass in front of the window that functions acoustically as a storm window. In addition, the building contains a number of window air conditioning units. As mitigation, the project sponsors would make available to the Temple of Restoration storm windows for windows on the second level of the building (above the Temple of Restoration sign), which face Dean Street, which do not currently have either double-glazed windows or storm windows. With this measure, maximum interior noise level within the building would be in the range of 40–50 dBA L_{10} , which would satisfy CEQR interior noise level requirements for this use. However, should the Temple of Restoration elect not to take advantage of this mitigation measure, the proposed project would have an unmitigated significant adverse impact on this facility.

At most locations where project impacts would be predicted to occur, most residences already have either double-glazed windows or storm windows, and many have some form of alternative ventilation (air conditioning). At locations where significant adverse noise impacts are predicted to occur, and where the residences do not contain both double-glazed or storm-windows and alternative ventilation (i.e., air conditioning), the project sponsor would make these mitigation measures available, at no cost for purchase and installation to owners of residences. These measures would mitigate project impacts for residential uses. However, at locations where owners elect not to take advantage of these mitigation measures, the proposed project would have unmitigated significant adverse impacts.

There are no practical and feasible mitigation measures that could be implemented to reduce noise levels to below the 55 dBA $L_{10(1)}$ guideline within the open space areas. Due to safety and aesthetic concerns, there are no feasible measures to mitigate these impacts to open space. Although noise levels in these new areas would be above the 55 dBA $L_{10(1)}$ guideline noise level, they would be comparable to noise levels in a number of open space areas that are also located adjacent to heavily trafficked roadways, including Hudson River Park, Riverside Park, Bryant Park, Fort Greene Park, and other urban open space areas. Noise levels at open space areas located on the rooftop of the proposed arena, adjacent to Atlantic and Flatbush Avenues, would be in the high 50 dBA to low-60 dBA range. These predicted noise levels would result principally from the noise generated by traffic on Atlantic and Flatbush Avenues. The open space, except for the portion immediately adjacent to Atlantic Avenue, would be in the "marginally acceptable" range for residential areas and would experience noise levels similar to those experienced throughout the surrounding residential neighborhoods under Existing, No Build, and Build conditions.

G. CONSTRUCTION

As described in Chapter 17, “Construction Impacts,” the project sponsors have committed to utilizing a variety of construction equipment and procedures that would reduce or avoid impacts due to project construction activities. However, even with the incorporation of these impact minimization measures, there would be localized significant adverse impacts from the project’s construction activities on traffic and noise. As described in Chapter 19, “Mitigation,” mitigation measures would further reduce, but not eliminate, the significant adverse noise and traffic impacts.

As described in Chapter 17, significant adverse traffic impacts would occur at 12 intersections in proximity to the project site and at seven outlying intersections. Mitigation measures proposed to mitigate project operational impacts were evaluated to determine the appropriate strategies for addressing traffic impacts during construction. The analysis found that while all significant adverse traffic impacts identified at the outlying intersections would be mitigated by the early implementation of proposed mitigation measures, certain significant adverse traffic impacts identified at 10 intersections adjacent to the project site would remain unmitigated.

Three open space resources would experience significant adverse noise impacts during some portion of the construction period: Brooklyn Bear’s Community Garden, the Dean Playground, and South Oxford Park. Because of safety and aesthetic concerns, there is no feasible and practicable mitigation. However, the project sponsors have committed to working with DPR to supplement DPR’s planned improvements to the Dean Playground with a comfort station for the general public. This commitment would partially mitigate the noise impact from construction activities.

There is also the potential for significant adverse noise impacts at the Pacific Branch of the Brooklyn Public Library. Measurements show that the library’s window/walls provide approximate 20 dBA attenuation. In addition, the library is air conditioned. During the first three years of construction—2007, 2008, and 2009—interior L_{10} noise levels within the library during periods of peak construction would be in the range of approximately 50 to mid-50 dBA. This would be above the 45-50 dBA L_{10} noise level range that would be desirable for this type of land use. To address this impact, the project sponsors would make available to the library, and install, interior-fitted storm windows on the facades facing Pacific Street. In the event the library elects to not accept the offer, there would be an unmitigated significant noise impact for this three year period.

At the Temple of Restoration, as described above, the project sponsors will make available storm windows for windows on the second level of the building (above the Temple of Restoration sign), which face Dean Street, and do not currently either have double-glazed windows or storm windows. With this measure, maximum interior noise levels within the Temple of Restoration building would be in the range of 40-50 dBA L_{10} , which would satisfy *CEQR Technical Manual* recommended interior noise level requirements for this church use. However, should the Temple of Restoration elect not to take advantage of this mitigation measure, the proposed project would have an unmitigated significant adverse impact on this facility.

Significant noise impacts were also predicted to occur at a number of residential locations during some portion of the construction periods. At locations where significant adverse noise impacts are predicted to occur, and where the residences do not contain both double-glazed or storm-windows and alternative ventilation (i.e., air conditioning), the project sponsor would make these mitigation measures available, at no cost for purchase and installation to owners of residences.

However, residents within the identified zone who do not have double-glazed or storm-windows and alternative ventilation and choose not to accept the mitigation measures made available, would be predicted to experience significant adverse impacts from construction noise.

Because of the size of the project site, its location at a major transportation crossroad, and the complexities of building over the rail yard, it is not possible to develop the site without some temporary significant adverse noise and traffic impacts. *