

**NOTICE OF COMPLETION OF
THE FINAL ENVIRONMENTAL IMPACT STATEMENT**

ECF 80 Flatbush Avenue

SEQRA Classification: Type I

Date Issued: July 26, 2018

Lead Agency:

New York City Educational Construction Fund
30-30 Thomson Avenue, 1st Floor
Long Island City, NY 11101

Project Identification:

CEQR/SEQR No. 17ECF001K
ULURP Nos. I 180216 ZMK
N 180217 ZRK
I 180218 ZSK

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Pursuant to State Environmental Quality Review Act (SEQRA) (Section 8-0113, Article 8 of the Environmental Conservation Law) as set forth in 6 NYCRR Part 617, a Final Environmental Impact Statement (FEIS) has been prepared for the action described below. The proposal involves actions by ECF and the City Planning Commission of New York. Digital copies of the FEIS are available for public inspection online at: <http://schools.nyc.gov/community/facilities/ecf.htm> and <https://www1.nyc.gov/site/oec/index.page>. A public hearing on the Draft Environmental Impact Statement (DEIS) was held on June 13, 2018. Written comments on the DEIS were requested and were received and considered by the Lead Agency until June 25, 2018. The FEIS incorporates responses to the public comments received on the DEIS and additional analysis conducted subsequent to the completion of the DEIS.

A. INTRODUCTION

The co-applicants, the New York City Educational Construction Fund (ECF) and 80 Flatbush Avenue, LLC, are seeking a rezoning and other actions to allow the construction of a mixed-use development, which includes a larger replacement facility for an existing high school, a new lower school, and new residential, office, retail, and cultural community facility space (the “proposed project”). The proposed project would be located on Block 174, Lots 1, 9, 13, 18, 23, and 24 in Downtown Brooklyn (the “project site”). The project site is located on the full block

bounded by Schermerhorn Street to the north, Flatbush Avenue to the east, State Street to the south, and 3rd Avenue to the west. It is located in Brooklyn Community District (CD) 2.

The proposed project would result in the redevelopment of the site with a new 350-seat lower school, a 350-seat replacement facility for the Khalil Gibran International Academy, up to 922 dwelling units (DUs) (approximately 830,000 gross square feet [gsf]), including approximately 200 affordable DUs, approximately 245,000 gsf of office space, 50,000 gsf of retail space, and a 15,000-gsf cultural community facility. Based on the currently proposed design, two of the existing five Khalil Gibran International Academy school buildings currently on the project site would be retained and adaptively reused in the proposed development. The proposed project would be approximately 1,285,000 gsf.

The project site is currently under the control of the City of New York (Block 174, Lot 1) and 80 Flatbush Avenue, LLC, (Block 174, Lots 9, 13, 18, 23, and 24). The western portion of the project site (Lot 1) is currently occupied by the Khalil Gibran International Academy, which is operated by the New York City Department of Education (DOE). The remainder of the site is under private ownership and is currently a mix of residential and commercial property, as described further below.

The proposed project would require several City and state agency discretionary approvals (the “proposed actions”). The following discretionary zoning actions will be reviewed through the Uniform Land Use Review Procedure (ULURP): (i) zoning map changes to rezone the underlying C6-2 district to a C6-9 district with a floor area ratio (FAR) of 18 on the affected block within the Special Downtown Brooklyn District (SDBD); (ii) zoning text changes affecting the proposed C6-9 district in the SDBD; (iii) zoning text changes to designate the rezoned area as a Mandatory Inclusionary Housing Area (MIHA); (iv) zoning text changes to provide a special permit in C6-9 districts in the SDBD for a modification of tower lot coverage, height, setback, and ground-floor regulations, required parking and loading berths, and certain MIH requirements for projects on zoning lots with sites owned by ECF; and (v) a special permit relating to regulations in (iv) above. Other discretionary actions will be the transfer, reallocation and lease of property among the developer, ECF, and the City to allow for the City schools in the new location, the proposed development, and ECF financing. Additionally, ECF would issue tax exempt bonds to facilitate construction of the schools.

The proposed project requires review under City Environmental Quality Review (CEQR) and the State Environmental Quality Review Act (SEQRA). CEQR and SEQRA provide a means for decision makers and other government agencies to consider environmental effects systematically, along with other aspects of project planning and design, to evaluate reasonable alternatives, and to identify, and mitigate where practicable, any significant adverse environmental impacts. ECF is serving as lead agency for the environmental review. The New York City Department of City Planning (DCP) is an involved agency.

B. PROJECT DESCRIPTION AND PURPOSE AND NEED

PROJECT SITE

The project site is Block 174, Lots 1, 9, 13, 18, 23, and 24 in Downtown Brooklyn. The project site consists of the 61,399-sf block bounded by Schermerhorn Street to the north, Flatbush Avenue to the east, State Street to the south, and 3rd Avenue to the west. Approximately 29 percent (or 17,500 sf) of the project site is under the control of the City of New York. The remaining approximately 71 percent (or 43,899 sf) is controlled by 80 Flatbush Avenue, LLC.

The western, City-owned portion of the project site (Lot 1) is currently occupied by the Khalil Gibran International Academy. The Khalil Gibran International Academy is comprised of five connected buildings that were constructed at different times (School Buildings 1 through 5):

- School Building 1 is located at the northeast corner of 3rd Avenue and State Street;
- School Building 2 is located at 3rd Avenue and Schermerhorn Street (362 Schermerhorn Street);
- School Buildings 3 and 4 are located midblock on 3rd Avenue, between School Buildings 1 and 2; and
- School Building 5 is a townhouse located on State Street adjacent to School Building 2.

The remainder of the site currently contains approximately 83,000 gsf of commercial office space in two buildings, four non-rent-stabilized DUs, and a small amount of retail space in two buildings. All residential and commercial leases are set to expire on or before 2019.

PROJECT DESCRIPTION

The proposed actions sought by the co-applicants would facilitate the development of the project site with three new buildings, including two mixed-use towers and new public school facilities (Buildings A, B, and C), and as currently designed, the adaptive reuse of two of the existing school buildings (Buildings D and E). Buildings D and E correspond to School Buildings 2 and 1, respectively. As currently designed, the existing structures at the corner of Schermerhorn Street and 3rd Avenue (Building D) and State Street and 3rd Avenue (Building E) would be retained and adaptively reused for cultural community facility and retail space, respectively. Development of the proposed project, however, would be governed by the use and density regulations of the SDBD and the proposed C6-9 zoning district, and the maximum building envelopes permitted by the bulk modifications provided under the special permit. The maximum zoning envelope for the proposed project is larger than the space that would be occupied by the proposed buildings. Building C would not be constructed until the new school facilities are completed and the existing high school has been relocated. The larger envelope is to provide design flexibility in order to facilitate development of the complex and mixed-use nature of the program and to encourage/stimulate Class A commercial tenancy through the ability to create larger floor plates. Because the maximum zoning envelope would encompass School Building 2/Building D and allow for its demolition, and could partially extend into the footprint of School Building 1/Building E (or cantilever over it), the potential effects associated with the maximum zoning envelope are considered in the EIS.

In total, the proposed project would contain approximately 1,285,000 gsf. Building A would house the replacement high school and a new lower school in a building with anticipated heights ranging from 50 feet to 130 feet located in the center of the project site, with frontage along State and Schermerhorn Streets and Flatbush Avenue. The building would feature retail space along Schermerhorn Street and Flatbush Avenue. Building B would be a wedge-shaped mixed-use tower located at State Street and Flatbush Avenue on the easternmost portion of the project site. The building's residential entrance would be on State Street and the lobby entrance to the commercial office space would be on Flatbush Avenue. The building would rise to an anticipated height of approximately 560 feet. Building C would be a mixed-use tower located on the western portion of the project site with an anticipated height of 986 feet. Residential access would be from 3rd Avenue and the lobby entrance to the office space would be from Schermerhorn Street.

Under the maximum zoning envelope, the larger floorplates generally required for Class A office space could be accommodated within Building C and Building C could be built to the street walls of Schermerhorn Street and 3rd Avenue with an envelope prescribed by the underlying

zoning. Under the current design, Building D (School Building 2, the former school building located at the corner of Schermerhorn Street and 3rd Avenue), would be retained and adaptively reused as cultural community facility space. If Building D is not retained in the final design, cultural space would be included at this general location as part of the new Building C. The maximum zoning envelope would partially extend into the existing footprint of Building E, allowing for a partial demolition or cantilever of Building E. It would provide for the retention of most of Building E (School Building 1, the former original P.S. 15 building at 3rd Avenue and State Street), and its adaptive reuse with retail space.

The proposed project would be developed in stages, beginning with the construction of Building A at the center of the site, which would contain the replacement high school and new lower school, and Building B, a wedge-shaped mixed-use tower on the eastern portion of the project site. Construction of Buildings A and B on the central portion and eastern side of the site would take place while the existing Khalil Gibran International Academy school buildings remain operational on the western side of the project site. Immediately following the relocation of the high school, the second phase of construction would begin and include the development of Building C, as described above. The adaptive reuse of any retained portions of existing Buildings D and E (School Buildings 2 and 1, respectively) is proposed as part of the second phase of construction.

PROPOSED PROGRAM

The proposed project would include approximately 922 DUs, including approximately 200 affordable DUs, approximately 245,000 gsf of office space, approximately 145,000 gsf of public school use (350-seat high school and 350-seat lower school), approximately 50,000 gsf of retail space, and approximately 15,000 gsf for cultural community facility space. The proposed program is detailed in **Table 1** below.

**Table 1
 Proposed Program**

Use	Size
Public School	145,000 gsf
<i>High School</i>	350-seat
<i>Lower School</i>	350-seat
Use Group 2 (Residential)	830,000 gsf
Residential DUs	922 DUs ¹
<i>Affordable DU Count</i>	~200 DUs
Use Group 6 (Retail)	50,000 gsf
Office Space	245,000 gsf
Community Facility	15,000 gsf
Total	1,285,000 gsf
Note:	
¹ Assumes average DU size of 900 sf. 900 sf per DU was assumed as it is deemed a reasonable assumption based on real estate trends for this location and is comparable with other environmental studies in Downtown Brooklyn.	

With the proposed actions, the project site would be developed to a maximum FAR of 18. The development agreement between ECF and 80 Flatbush Avenue, LLC, would include a number of development restrictions and obligations, discussed below.

DESIGN OF SCHOOL FACILITIES

The designs of the replacement high school and new lower school may be integrated to share some common areas. Both schools would have outdoor areas on the rooftops of their respective buildings. In addition to classrooms, the school facilities would also contain administrative spaces, a gymnasium, a gymnasium, libraries, art and science rooms, a medical facility, cafeterias, and kitchen facilities. The proposed new schools together would employ approximately 70 teachers, administrators, and support staff. The replacement facility for Khalil Gibran International Academy would be entered off of Schermerhorn Street, and the lower school facility would be entered off of State Street. Both schools would be designed to New York City School Construction Authority's (SCA) building standards. The lower school classrooms would occupy the lower portion of the building with an outdoor play space on the southern portion of the building's roof. The high school classrooms would occupy the upper portion of the building with an outdoor terrace space fronting Flatbush Avenue adjacent to the high school cafeteria.

The design and construction of the school facilities would comply with or exceed the energy efficiency standards of SCA's green building standards. The school facilities would be designed to reduce the use of both energy and potable water beyond that required by the current New York City building code.

SOLID WASTE DISPOSAL

As part of project planning, building design and operation would incorporate on-site trash storage to minimize placement of trash on the sidewalks. The proposed project would generate a net increase of approximately 19.7 tons of solid waste per week, and approximately 67 percent (or 13.3 tons) of the incremental solid waste generated would be handled by the City of New York Department of Sanitation (DSNY). Solid waste handled by DSNY would be containerized and either picked up curbside or at specified locations within project buildings. Curbside pickup would entail the loading of trash into 2-cubic yard containers, which would be wheeled out onto the street for pickup by DSNY trucks. With sufficient on-site location and access, DSNY "roll-on, roll-off" service could also be provided. Under either option, trash would be placed within containers and kept off sidewalks thereby minimizing rodents, odors, and other related nuisances. Under the roll-on, roll-off option, refuse bags would be loaded into mechanized roll-on, roll-off containers located inside project buildings for pickup with further compaction. DSNY's roll-on, roll-off container-bearing trucks require special site considerations, such as minimum space requirements for container pads and height clearance. In addition, compactor containers are not allowed in designated loadings docks and must be located in supplemental loading areas.

As discussed above, loading areas would generally be located along State Street and 3rd Avenue. Project constraints associated with roll-on, roll-off service include the limited availability of space for compactor containers, the mix of land uses proposed within the same building(s), and the amount of required ground-floor lobby space, all of which may complicate the provision of roll-on, roll-off service. However, project designs are preliminary and refinements to the site plan, including details related to loading areas and truck access, are expected. The co-applicants have coordinated the location of solid waste staging areas (and the location of compactor containers and truck access, as necessary), with the DSNY and will continue to involve them during the design process. The estimated 6.4 tons of commercial solid waste would be hauled away by private carters and handled in a similar manner.

PURPOSE AND NEED

In order to increase school capacity and improve school facilities, and to further the goals of the comprehensive development plan for Downtown Brooklyn, the City's affordable housing plan, and the Brooklyn Cultural District, ECF has proposed the project site as the location for a new mixed-use development. ECF is a public benefit corporation established in 1967 by the New York State Legislature to provide funds for combined occupancy structures, including school facilities in New York City. ECF serves as a financing and development vehicle for DOE, encouraging the development of existing school sites in order to provide new public schools as part of mixed-use projects in which the public component is financed by tax-exempt bonds. ECF uses ground rents, lease payments, and/or tax equivalency payments from the non-school portions of the new development to pay the debt service on the bonds issued to finance the public facilities. Future revenues from the non-school portions of the development are used to pay the debt service of the new school facility. ECF enhances the ability of DOE to construct new school facilities, thereby upgrading existing facilities and increasing the number of seats for the entire school system. At the same time, ECF encourages comprehensive neighborhood development by facilitating new mixed-use developments that feature new school facilities.

The existing Khalil Gibran International Academy consists of five connected buildings that date from the late 1800s, and the facilities are outmoded and technologically obsolete. The configuration of the connected buildings results in narrow hallways and constrained conditions. The school lacks an appropriate cafeteria; the seating area serves less than one-third of the student population per period and the kitchen is only set up for heating food. The school also has no gym or auditorium, causing any student assembly to be held in the library, which has a capacity of approximately 65 students (the current enrollment is 270). Although students have access to some open space in the courtyard, the space is limited in size. The school lacks an adequate number of restrooms, including some floors with none. The electrical, ventilation, and acoustical systems are inadequate to serve the needs of the buildings. In addition, the facility is not Americans with Disabilities Act (ADA)-accessible. Overall, Khalil Gibran International Academy has a cramped learning environment and lacks the appropriate facilities for high school achievement as well as available space for growth. The proposed actions would result in the replacement of the existing Khalil Gibran International Academy with a new state-of-the-art facility. These improvements will help achieve a better learning environment by providing modern educational facilities.

Construction of the proposed project also would include a new 350-seat lower school, which would provide additional public school capacity at the lower school level in Community School District (CSD) 15. According to recent DOE data on school capacity, enrollment, and utilization for the 2016–2017 school years, elementary schools in Subdistrict 3 of CSD 15, which includes the project site, are operating at 106.7 percent utilization, with a deficit of 339 seats.

In response to the need for a replacement facility for Khalil Gibran International Academy and additional capacity in CSD 15 and given that the area is heavily supported by many transit options, ECF identified the project site as a location with the potential to attract a new mixed-use development, allowing new school facilities to be constructed without the use of DOE capital funding. In 2016, ECF released a Request for Expressions of Interest (RFEI) and selected Alloy Development to redevelop the site, after consideration of competitive bidders.

A comprehensive development plan to facilitate the continued growth of Downtown Brooklyn was adopted in 2004 to encourage commercial development through a series of zoning map and zoning text changes; however, the area was developed predominantly with residential development. In an effort to realize the goals set forth in the Downtown Brooklyn rezoning plan, the proposed

development would incorporate commercial space. Thus, the proposed project would strengthen New York City's economic base by providing new, modern office space in New York City's third-largest central business district. The development would attract new businesses and help retain existing businesses, as well as help achieve New York City's strategy of supporting office development in emerging commercial centers like Downtown Brooklyn, as outlined in *New York Works*, the City's jobs plan. In addition, the proposed project would provide new employment opportunities, and create new retail opportunities to meet the needs of local workers, residents, and visitors.

The project site is located adjacent to the Brooklyn Cultural District, and the proposed project would support and enhance the district's goals by encouraging both economic and cultural development. The proposed project would introduce a dynamic new mixed-use development, including cultural community space, which would enliven the block and bring amenities to local residents, artists, and visitors in the district. The proposed actions would also facilitate the productive use of the project site by creating a new residential development with up to 922 DUs, including approximately 200 affordable DUs. This affordable housing would advance a citywide initiative to build and preserve 300,000 affordable DUs by 2026 in order to support low- to middle-income New Yorkers.

C. DISCRETIONARY AND OTHER APPROVALS

The co-applicants, 80 Flatbush Avenue, LLC, and ECF, are seeking several City and state discretionary approvals.

The following discretionary zoning actions will be reviewed through ULURP: (i) zoning map changes to rezone the underlying C6-2 district to a C6-9 district with an FAR of 18 on the affected block within the Special Downtown Brooklyn District (SDBD); (ii) zoning text changes affecting the proposed C6-9 district in the SDBD; (iii) zoning text changes to designate the rezoned area as a MIHA; (iv) zoning text changes to provide a special permit in C6-9 districts in the SDBD for a modification of tower lot coverage, height, setback, and ground-floor regulations, required parking and loading berths, and certain MIH requirements for projects on zoning lots with sites owned by ECF (which is currently applicable only to the project site); and (v) a special permit relating to regulations in (iv) above. Other discretionary actions will be the transfer, reallocation, and lease of property among the developer, ECF, and the City to allow for the City schools in the new location, the proposed development, and ECF financing. Additionally, ECF would issue tax exempt bonds to facilitate construction of the schools.

D. ANALYSIS FRAMEWORK FOR ENVIRONMENTAL REVIEW

The EIS analyses will be undertaken pursuant to SEQRA, consistent with ECF practices. The 2014 CEQR Technical Manual will generally serve as a guide with respect to environmental analysis methodologies and impact criteria for evaluating the effects of the proposed project. The following technical areas of analyses would not be affected by the proposed actions and are not included for detailed assessment in the FEIS: natural resources and solid waste and sanitation services. In disclosing impacts, the EIS considers the proposed project's potential adverse impacts on the environmental setting. It is anticipated that the proposed project would be operational in 2025. Consequently, the environmental setting is not the current environment, but the future environment. Therefore, the technical analyses and consideration of alternatives first assess existing conditions and then forecast these conditions to 2025—the future without the proposed actions (the “No Action” condition)—for the purposes of determining potential impacts in the probable impacts of the proposed actions—the future with the proposed actions (the “With Action” condition).

FUTURE WITHOUT THE PROPOSED ACTIONS

For the purposes of the EIS, it is assumed that in the No Action condition, the non-City-owned portion of the project site would be developed with an as-of-right mixed-use building (400 feet in height, including bulkhead) that complies with the current zoning regulations, and the Khalil Gibran International Academy would remain in its existing facility. The development under the No Action condition would contain approximately 252,590 gsf of market-rate residential space (approximately 281 DUs), approximately 53,185 gsf of retail space, approximately 2,108 gsf of community facility space, and approximately 20,000 gsf of parking (approximately 130 accessory spaces), as well as the existing public school (approximately 43,750 gsf). The No Action condition would comprise a total of approximately 371,633 gsf with a maximum permitted FAR of 6.5. In addition, approximately 6,379 sf of passive open space would be provided at the easternmost portion of the project site at Flatbush Avenue and State Street. For each technical analysis in the EIS, the No Action condition also will incorporate approved or planned development projects within the appropriate study area that are likely to be completed by the analysis year.

FUTURE WITH THE PROPOSED ACTIONS

For each of the technical areas of analysis identified in the *CEQR Technical Manual*, the With Action condition will be compared to the No Action condition (see **Table 2**).

Table 2
Comparison of No Action and With Action Conditions

Use	No Action condition	With Action condition	Increment
Residential	252,590 gsf	830,000 gsf	+577,410 gsf
<i>DUs</i> ¹	281 DUs	922 DUs	+641 DUs
<i>Affordable DU count</i>	0 DUs	~200 DUs	~200 DUs
Office	0 gsf	245,000 gsf	245,000 gsf
Public school	43,750 gsf (1 public high school)	145,000 gsf (1 public lower school, 1 public high school)	+101,250 gsf (1 public lower school)
<i>Primary school students</i>	0	350	350
<i>High school students</i>	312	350	38
<i>Staff</i>	31	70	53
Retail	53,185 gsf	50,000 gsf	-3,185 gsf
Community facility	2,108 gsf	15,000 gsf	+12,892 gsf
Accessory parking	0 <i>surface</i> 130 <i>enclosed</i>	0 <i>surface</i> 0 <i>enclosed</i>	0 <i>surface</i> -130 <i>enclosed</i>

Notes:
¹ Assumes average unit size of 900 sf. 900 sf per unit was assumed as it is deemed a reasonable assumption based on real estate trends for this location and is comparable with other environmental studies in Downtown Brooklyn.
 Assumes 1 staff for every 10 students.

E. PROBABLE IMPACTS OF THE PROPOSED ACTIONS

LAND USE, ZONING, AND PUBLIC POLICY

The proposed actions would not have a significant adverse impact on land use, zoning, or public policy. The proposed project would not adversely affect surrounding land uses, nor would the proposed project generate land uses that would be incompatible with land uses, zoning, or public policy in the 400-foot study area.

The proposed actions would facilitate the development of new educational facilities, including a replacement high school and a new lower school on the project site to provide needed public school capacity. In addition, the proposed project would introduce a total of approximately 922 DUs, including approximately 200 affordable DUs, approximately 245,000 gsf of office space, approximately 50,000 gsf of retail space, and approximately 15,000 gsf for a cultural community facility. The proposed actions would result in the replacement of the existing Khalil Gibran International Academy with a new state-of-the-art facility. These improvements would help achieve a better learning environment by providing modern educational facilities. Construction of the proposed project also would include a new 350-seat lower school, which would provide additional public school capacity at the lower school level.

The improved school facilities and increase in public school capacity would support and strengthen the residential character of the surrounding neighborhoods. The proposed residential and commercial space would be consistent with existing and planned developments in Downtown Brooklyn, and would directly support several major City policies aimed at increasing the supply of affordable housing and the amount of new office space in New York City. The proposed actions focus development in an area well-served by mass transit and would facilitate mixed-use development that supports the growing cultural presence in Downtown Brooklyn and enhances the pedestrian realm with active ground-floor spaces that promote pedestrian safety.

The proposed zoning of the project site would be consistent with the high density C6 zoning districts found elsewhere within the SDBD, and would reflect the trend of higher density in the study area. The proposed actions would facilitate the proposed project's integrated design elements, and allow for the provision of public amenities and affordable housing to the area. In addition, as currently designed, the proposed project would support the preservation and adaptive reuse of historic structures on the project site. The proposed project would be consistent with the planning and urban design objectives of the SDBD and would not adversely affect zoning in the surrounding area.

SOCIOECONOMIC CONDITIONS

The proposed actions would not result in significant adverse impacts related to socioeconomic conditions. Screening-level assessments were conducted for direct residential and business displacement, and preliminary assessments were conducted for indirect residential and business displacement, as well as adverse effects on specific industries. As summarized below, no significant adverse impacts would result.

DIRECT RESIDENTIAL DISPLACEMENT

A screening-level assessment finds that the proposed project would not result in significant adverse socioeconomic impacts due to direct residential displacement. The four DUs on the project site would be directly displaced in the No Action condition. These four DUs are therefore not considered displaced in the With Action condition. The four DUs are not rent controlled or rent stabilized and have leases that expire in 2018. For the purposes of the CEQR analysis, displacement that could be expected to occur absent the proposed project is not attributed to the proposed project. Therefore, the proposed project would not directly displace any residents. No further assessment of direct residential displacement is warranted.

DIRECT BUSINESS DISPLACEMENT

A screening-level assessment finds that the proposed project would not result in significant adverse impacts due to direct business displacement. There are five businesses on the project site: CKO

Kickboxing of Park Slope; New York City (NYC) Human Resources Administration Office; Jalapa Jar; Recess Assembly; and Gem Pawnbrokers Corporation. In aggregate, the five businesses employ an estimated 369 workers, of which an estimated 326 workers (88.3 percent) are employed by the NYC Human Resources Administration. All tenants have leases (or license agreements) that expire on or before 2019. New York City Human Resources Administration has identified a new site in Bushwick, Brooklyn and intends to relocate in 2018. The existing five firms on the project site and associated employment would be displaced in the No Action condition, as a result of the as-of-right development projected to occur on the project site. The businesses and employment that would be displaced in the No Action condition are not considered displaced in the With Action condition. Therefore, the proposed project would not directly displace any businesses or employees. No further assessment of direct business displacement is warranted.

INDIRECT RESIDENTIAL DISPLACEMENT

A preliminary assessment finds that the proposed project would not result in significant adverse impacts due to indirect residential displacement. The concern under CEQR is whether a proposed project could lead to changes in local market conditions that could, in turn, lead to increases in residential property values and rents within the study area, making it difficult for some residents to remain in the area. While the proposed project would add new population which could have a higher average household income than the average household income in the study area, the proposed project would not introduce or accelerate the existing trend of changing socioeconomic conditions. There is already a readily observable trend toward higher incomes, new market-rate residential development, and increasing rents in the study area. The proposed project would include approximately 200 DUs that would be permanently affordable to low- and very low-income households in an area where otherwise they would not be able to afford current rents.

Based on *CEQR Technical Manual* guidelines, a vulnerable population is defined as renters living in privately held units unprotected by rent control, rent stabilization, or other government regulations restricting rents, and whose incomes or poverty status indicate that they may not support substantial rent increases. In the case of the proposed project, a vast majority of study area residents are not vulnerable to displacement as defined under CEQR because they live in housing not vulnerable to rent pressures, or their incomes can support substantial rent increases. Approximately 26 percent of study area residents live in owner-occupied housing, and would not be subject to rent pressures. Of the remaining 74 percent of study area residents, depending on the number of deregulated units in the study area, between 22 and 43 percent of renters are protected by rent control, rent stabilization, or other government regulations that protect rents from market influences generated by changes in market conditions.¹ Notable examples include 1,139 households living in the Gowanus Houses, part of New York City Housing Authority (NYCHA) public housing, as well as 218 households living in Brooklyn Academy of Music (BAM) North (590-600 Fulton Street) and 288 households living at 155 Dean Street. Of the 68 to 84 percent of households living in unprotected-market rate DUs, based upon the two decade trend of raising household incomes and market-rate rents in the study area, it is not expected that the market-rate

¹ In addition to permanently rent-regulated DUs, currently there are rent-stabilized DUs that could become de-regulated in accordance with the Emergency Tenant Protection Act (ETPA). Depending upon the level of deregulation within the study area, which is not available through publicly accessible data, there could be between zero (100 percent deregulation) and 3,836 (0 percent deregulation) rent-stabilized DUs, which accounts for the presented range of renters who protected rent control, rent stabilization, or other government regulations.

units resulting from the proposed project will be occupied by a population that is economically different than the population living in existing market-rate housing in the study area.

INDIRECT BUSINESS DISPLACEMENT

A preliminary assessment finds that the proposed project would not result in significant adverse impacts due to indirect business displacement. The concern under CEQR is whether a proposed project could lead to changes in local market conditions that could, in turn, lead to increases in commercial property values and rents within the study area, making it difficult for some categories of businesses to remain in the area. Another concern under CEQR is whether a proposed project could lead to displacement of a use type that directly supports businesses in the study area or brings people to the area that forms a customer base for local businesses.

The study area has well-established residential, retail, and office uses and markets such that the proposed project would not add a new economic activity or add to a concentration of a particular sector of the local economy enough to significantly alter or accelerate existing economic patterns. The proposed project would not directly displace uses that provide substantial direct support for businesses in the area (such as ambulance services for hospitals) or that bring people into the area that form a substantial portion of the customer base for local businesses. The proposed project would strengthen New York City's economic base by providing new, modern office space in the City's third-largest central business district. The development would attract new businesses and help retain existing businesses, as well as help achieve the City's strategy of supporting office development in emerging commercial centers like Downton Brooklyn, as outlined in New York Works, the City's jobs plan. In addition, the proposed project would generate new employment opportunities, and create new retail opportunities to meet the needs of local workers, residents, and visitors. The proposed project would not introduce enough of a new economic activity to adversely affect business conditions in the study area.

ADVERSE EFFECTS ON SPECIFIC INDUSTRIES

A preliminary assessment finds that the proposed project would not result in significant adverse impacts due to adverse effects on specific industries. An analysis is warranted under *CEQR Technical Manual* methodology if a substantial number of residents or workers depend on the goods or services provided by the affected businesses, or if a proposed project would result in the loss or substantial diminishment of a particularly important product or service within the industry. The proposed project would not significantly affect the business conditions in any industry or any category of business within or outside the study area. The proposed project would not result in significant indirect business displacement, and therefore would not indirectly substantially reduce employment or have an impact on the economic viability in any specific industry or category of business.

COMMUNITY FACILITIES AND SERVICES

The proposed actions would not result in significant adverse impacts related to community facilities. Based on a preliminary screening analysis, the proposed project would not exceed the thresholds for analysis of libraries, police and fire protection services, health care facilities, or public high schools. Therefore, no significant adverse impacts on these facilities would occur. The preliminary screening analysis identified the need to prepare a detailed analysis of public (elementary and intermediate) schools and child care facilities. As described below, the detailed analysis concluded that the proposed project would not result in significant adverse impacts on public schools or child care facilities.

POTENTIAL INDIRECT EFFECTS ON PUBLIC SCHOOLS

In the With Action condition, elementary school utilization in the study area would remain above 100 percent; however, the utilization rate of elementary schools would decline by approximately 8 percent as compared to the No Action condition. The utilization rate would be lower in the With Action condition as compared to the No Action condition due to the proposed project's creation of a new 350-seat primary school on-site. The primary school would not be developed in the No Action condition. Intermediate schools in subdistricts 2 and 3 would operate with a deficit of seats in the With Action condition (114.7 percent utilization); however, the utilization rate of intermediate schools would increase by approximately 1.4 percentage points.

POTENTIAL INDIRECT EFFECTS ON CHILD CARE FACILITIES

With the proposed project, utilization of child care facilities in the study area would increase to 110.3 percent, operating over capacity with a deficit of 112 slots. Although the overall utilization would increase to 110.3 percent, the increase in utilization rate attributable to the proposed project would be less than 5 percentage points (3.7 percentage points). Therefore, the proposed project would not meet the impact thresholds, and thus would not result in a significant adverse impact on child care facilities.

OPEN SPACE

The proposed actions would not result in significant adverse open space impacts. As described in the *CEQR Technical Manual*, open space can be indirectly affected by a proposed action if the project would add enough population, either residential or non-residential, to noticeably diminish the capacity of open space in the area to serve the future population. A detailed analysis was provided that considered the indirect effects of the population generated by the proposed action on open space resources. The analysis finds that the proposed actions would not result in significant adverse impacts on open space due to reduced total, active, and passive open space ratios.

An analysis of potential direct effects on open space was also prepared. Although incremental shadows from the proposed project could impact certain open spaces, potentially reducing their utility and potentially affecting the health of plantings and vegetation, the open spaces would continue to be available for use by residents and workers. Therefore, the shadow impacts would not constitute a direct significant adverse open space impact. No other direct open space effects would result from the proposed actions.

DIRECT EFFECTS

According to the *CEQR Technical Manual*, a proposed action may result in a significant adverse direct impact on open space resources if there would be direct displacement/alteration of existing open space within the study area that would have a significant adverse effect on existing users, or an imposition of noise, air pollutant emissions, odors, or shadows on public open space that may alter its usability. The proposed actions would not result in any direct air quality or noise effects to area open spaces.

As discussed in Chapter 6, "Shadows," the proposed actions would result in significant adverse impacts related to shadows on three open space resources: the Rockwell Place Bears Community Garden, the Brooklyn Academy of Music (BAM) South Plaza at 300 Ashland Place, and Temple Square. The analysis concludes that given the duration and extent of incremental shadow, the use and character of the Rockwell Place Bears Community Garden and the BAM South Plaza could be altered and the health of trees, flowers, and other plantings could be affected by new project-

generated shadows. Although incremental shadows could potentially reduce the utility of the open spaces and potentially affect the health of plantings and vegetation within the open spaces, other open spaces with similar uses would continue to be available to residents and workers; therefore, given the relative size of this open space resource, the shadow impact would not constitute a direct significant adverse open space impact.

Substantial portions of Temple Square, a small triangular plaza that sits north-adjacent to the project site, would be partially or completely in project-generated shadow for long durations. While the paved plaza contains trees, it is primarily used as pedestrian circulation space. Future improvements may include limited seating and plantings; however, the nature and location of any future plantings are unknown at this time. The project-generated shadow could potentially threaten the survival of existing vegetation in Temple Square and would potentially result in a significant adverse shadow impact. Because other nearby plazas and open space resources with plantings and trees would continue to be available to the public, and given the relative size of this open space resource, the shadow impact would not constitute a direct significant adverse open space impact.

Measures to minimize and/or mitigate the shadow impacts are discussed in Chapter 19, "Mitigation." The proposed project is expected to provide private open space and/or recreational amenity space for residents and users of the commercial space, and although not accounted for in the quantitative analysis, this could offset some project-generated demand for area open spaces. In addition, several other existing and planned plazas, gardens, and parks with passive open space features are located within the study area and would continue to provide passive open space amenities for residents and workers.

In the No Action condition, approximately 6,379 sf of privately owned open space would be provided at the southeast corner of the project site. The open space would be provided in connection with the as-of-right development expected in the No Action condition. Because the on-site open space is not an existing open space and would only be provided absent the proposed project, its elimination would not be considered a direct effect of the proposed project. However, the decrease in the capacity it provides to area open space users is considered in the quantitative assessment of open space adequacy below.

INDIRECT EFFECTS

According to the *CEQR Technical Manual*, a proposed action may result in a significant indirect impact on open space resources if it would reduce the open space ratio and consequently result in the overburdening of existing facilities or further exacerbating a deficiency in open space.

As the proposed actions would introduce a net increase of an estimated 1,288 new residents and 1,059 new workers over the No Action condition, an open space analysis was conducted for a non-residential (¼-mile) study area and residential (½-mile) study area. The quantitative assessment finds that the proposed actions would increase the residential and worker populations in their respective study areas and place additional demand on open space resources; however, the increased demand would not result in significant adverse impacts.

SHADOWS

The proposed actions would result in significant adverse impacts related to shadows.

On the March 21/September 21, May 6/August 6, and June 21 analysis days, substantial portions of the BAM South Plaza at 300 Ashland Place would receive less than 4 hours of direct sunlight. Given the long duration and at times large extent of incremental shadow, the use and character

of the open space could be altered and the health of trees and plants could be significantly affected by new project-generated shadows. On the March 21/September 21, May 6/August 6, and June 21 analysis days, portions of the Rockwell Place Bears Community Garden located at the intersection of Rockwell Place and Lafayette and Flatbush Avenues would receive less than 6 hours of direct sunlight. Given the variety of plants and flowers in the garden, it is possible that some species require full sunlight, i.e. 6 hours of direct sunlight or more, and a reduction to less than 6 hours could significantly impact the health of these species.

On the March 21/September 21 and May 6/August 6 analysis days, substantial portions of Temple Square, a small triangular plaza that sits north-adjacent to the project site, would be partially or completely in project-generated shadow for long durations, from 3 hours 10 minutes to 5 hours 40 minutes depending on the season. The paved plaza contains trees and is primarily used as pedestrian circulation space. Temple Square would receive less than 4 hours of direct sunlight on the March 21 and September 21 analysis day and a small portion of the plaza would receive less than 4 hours of direct sunlight on the May 6 and August 6 analysis day. The project-generated shadow would threaten the survival of the existing trees, which would result in significant adverse shadow impacts to the vegetation contained in Temple Square.

Other nearby sunlight-sensitive resources would receive new project-generated shadows but in no other case would they significantly alter the use or character of the resource or threaten the health of vegetation within the resource. No other sunlight-sensitive resources would experience significant adverse shadow impacts as a result of the proposed actions.

HISTORIC AND CULTURAL RESOURCES

The proposed actions would result in significant adverse impacts associated with the demolition of historic buildings on the project site. The current design for the proposed project assumes that the two primary buildings on Lot 1 (School Building 1/Building E and School Building 2/Building D) would be retained and adaptively reused. The adjacent new construction may allow for passage into Buildings D and E at the ground, second, or third floors. Any passage would be at interior, shared walls and through a fire-rated threshold, and would not be visible from street level. The proposed project would, however, entail the demolition of the townhouse that was subsequently added to the school (School Building 5), and the connecting school buildings along 3rd Avenue (School Buildings 3 and 4). The townhouse was added to the school ca. 1898, but was not created or designed specifically for school use, and the connecting structures along 3rd Avenue match the design of the original school, but lack its more prominent details. Nevertheless, the demolition of School Buildings 3-5 would result in a significant adverse impact to historic resources.

While the current proposed design preserves the two primary buildings of the current school, as discussed in Chapter 7, "Historic and Cultural Resources", to maintain flexibility, the maximum zoning envelope under the approvals would encompass the site of School Building 2/Building D, the ca. 1898 school building fronting on Schermerhorn Street, and the connecting building on 3rd Avenue, and allow for their demolition, and would also partially extend into the existing footprint of School Building 1/Building E (the original school structure at the southwest corner of the block), thus partially demolishing part of the building. Therefore, development allowed under the maximum zoning envelope could result in the demolition of School Building 2/Building D, and the connecting building on 3rd Avenue, as well as a portion of School Building 1/Building E. These buildings encompass the two largest and most visually distinctive school buildings on the project site. Therefore, the proposed actions, including development under the maximum zoning envelope and the currently proposed design, would have a significant adverse impact on the historic resources on the project site. A portion of School Building 1/Building E, the original school

structure at the southwestern corner of the project site, would be adaptively reused as retail space. Historic American Building Survey (HABS) Level II documentation would take place as partial mitigation for the demolition of Building D, the connecting school building on 3rd Avenue, and part of Building E. The scope of work for such documentation would be provided to LPC for review and comment prior to the start of demolition of these buildings.

Measures to mitigate this impact consistent with the CEQR findings have been developed in consultation with LPC. Per the guidelines of the *CEQR Technical Manual*, possible mitigation measures for significant adverse effects on architectural resources can include redesign (i.e., relocating the action away from the resource, or redesign of the proposal to be more compatible with the resource), adaptive reuse, Construction Protection Plan (CPP), data recovery/recordation, or relocation of the architectural resource. Data recovery can include recordation of a structure to the standards of the HABS. As noted above, HABS Level II documentation of the school complex would take place as partial mitigation for the demolition of Building D, the connecting school building on 3rd Avenue, and part of Building E. While development allowed under the maximum zoning envelope could result in the demolition of School Building 2/Building D, and the connecting building on 3rd Avenue, as well as a portion of School Building 1/Building E, the current proposed design would preserve and adaptively reuse School Building 2/Building D and School Building 1/Building E. To avoid inadvertent demolition and/or construction-related damage from ground-borne construction period vibrations, falling debris, collapse, etc., any historic buildings to be retained on the project site would be included in a CPP for historic structures that would be prepared in coordination with LPC and implemented in consultation with a licensed professional engineer. The CPP would be prepared and implemented prior to demolition and construction activities on the project site, and project-related demolition and construction activities would be monitored as specified in the CPP.

URBAN DESIGN AND VISUAL RESOURCES

The proposed actions would not result in any significant adverse impacts to urban design or visual resources in the primary or secondary study areas.

The proposed actions would result in the development of the project site with three new buildings, including two mixed-use towers and new public school facilities (Buildings A, B, and C), and as currently designed, the adaptive reuse of two of the existing school buildings (School Building 2/Building D and School Building 1/Building E). The proposed project would generate new activity, redevelop an underutilized site, and support the development of Downtown Brooklyn as a commercial and cultural hub. The new educational facilities would support the residential growth that has occurred and is expected in Downtown Brooklyn and surrounding neighborhoods and the retail space would provide an amenity for residents.

The maximum zoning envelope would encompass the site of historic School Building 2/Building D and allow for its demolition, and could partially extend into the existing footprint of historic School Building 1/Building E (or cantilever over it); however, if a new building is constructed to the maximum zoning envelope, a portion of School Building 1/Building E could be retained and adaptively reused since development allowed under the maximum zoning envelope could cantilever above or extend into the existing volume of this historic structure. Although the proposed actions would allow for new mixed-use buildings constructed to greater heights and densities than currently permitted as-of-right, the proposed project's towers would be compatible with the heights of existing and planned buildings in the primary and secondary study areas, compared to the No Action condition. Building C would be taller than any other building in the primary and secondary study areas; however, there are other tower developments within these

areas, in close proximity to low-scale structures, and Building C would be shorter than the planned 1,071-foot-tall tower at 9 DeKalb Avenue, which similarly will be constructed immediately adjacent to a low-scale historic resource (the Dime Savings Bank). The bulk of the new buildings would be oriented along Flatbush and 3rd Avenues, in keeping with other large developments in the primary study area. With the bulk of the proposed project's massing fronting onto Flatbush and 3rd Avenues, the proposed project would not adversely affect the urban design characteristics of the lower-scale buildings along State Street. The proposed project would establish a pedestrian-friendly street wall along State Street, with entrances, recessed and projecting façade elements, and new landscaping breaking up the façade and adding visual interest.

The proposed project would not result in substantial changes to the built environment of a historic district, or eliminate any publicly accessible view corridors compared to the No Action condition. Under the current design of the proposed project, views of the Williamsburgh Savings Bank, a visual resource within the study area, would be retained along existing view corridors. Under the maximum zoning envelope, views of the former Williamsburgh Savings Bank along Schermerhorn Street would be obstructed by the buildings on the project site; however, views of the building along other view corridors, including along Atlantic, Flatbush, and 4th Avenues, would remain available.

The proposed buildings would be consistent with buildings in the primary and secondary study area in materials, design, and use, including older buildings like the 42-story (approximately 512-foot-tall) former Williamsburgh Savings Bank, and newer buildings, including the approximately 73-story (approximately 1,071-foot-tall) building at 9 DeKalb Avenue, the 56-story (approximately 610-foot-tall) glass- and masonry-clad mixed-use building at 333 Schermerhorn Street, the 51-story (approximately 568-foot-tall) glass- and masonry-clad mixed-use building at 250 Ashland Place, the 44-story (approximately 484-foot-tall) glass- and stone-clad building at 66 Rockwell Place, the 37-story (approximately 370-foot-tall) glass- and metal-clad mixed-use building at 80 DeKalb Avenue, the 32-story (approximately 364-foot-tall) mixed-use glass- and metal-clad building at 300 Ashland Place, and the 30-story (approximately 310-foot-tall) mixed-use glass- and concrete-clad building at 230 Ashland Place.

The proposed project's mix of educational, office, retail, residential, and cultural community facility uses would be in keeping with existing uses found throughout the primary study area. Compared with the No Action condition, the proposed project would include commercial office space, which would bring more people to the area and increase foot traffic. The proposed project would include active ground-floor design elements that would enliven the streetscape of the primary study area. These project components would enhance the pedestrian experience at the project site and in the surrounding neighborhood. Overall, the proposed project would not result in any significant adverse impacts on urban design and visual resources.

HAZARDOUS MATERIALS

The proposed actions would not result in significant adverse impacts associated with hazardous materials.

As currently designed, two existing buildings would be adaptively reused and three new buildings would be constructed on the project site. Given the age of the existing structures, it is possible that the existing buildings could contain (typical of older buildings) asbestos-containing materials (ACM), lead-based paint (LBP), and polychlorinated biphenyls (PCB). Construction activity, including demolition work, would be conducted in accordance with all federal, state, and local regulatory requirements addressing activities that would disturb or dispose of these materials.

Construction of new buildings would require extensive excavation for new foundations and more limited excavation elsewhere on the project site. The Phase I ESAs identified a variety of “Recognized Environmental Conditions” or RECs, which indicate “*the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property*”. These included historical project site uses: a marble works (shown on 1887 map); a coal yard, auto manufacturer and iron railing factory (1904); battery storage (1928); manufacturing (1928 to 1945), and a bowling alley (1950–bowling alleys historically used solvents for cleaning). Uses of adjacent properties (e.g., auto repair) also could have resulted in subsurface contamination of the project site, as could a former tank on Lot 24 (a concreted fill port was noted adjacent to the building). It should be noted that the potential contaminants associated with these historical uses are common in New York City, and are routinely remediated as a part of the construction process, with regulatory oversight, such as pursuant to the (E) Designation program.

Any potential significant adverse impacts associated with hazardous materials would be avoided by constructing the proposed buildings in accordance with the provisions of the existing (E) Designation on Lots 9, 13, 18, 23, and 24, which impose pre- and post-construction requirements overseen by the OER. Although there is no (E) Designation mapped on Lot 1, to ensure that there are no significant adverse impacts associated with hazardous materials on Lot 1, restrictions requiring compliance with testing and remedial measures would be included as part of the proposed project through the development agreement between ECF and 80 Flatbush Avenue, LLC, which would be comparable to the (E) Designation requirements.

WATER AND SEWER INFRASTRUCTURE

The proposed actions would not result in any significant adverse impacts on the City’s water supply or its wastewater and stormwater conveyance and treatment infrastructure.

The With Action condition would generate a water demand of 444,500 gallons per day (gpd). As compared to the No Action condition, this would represent an incremental 312,696 gpd of water demand. Based on the projected incremental demand, it is expected that there would be adequate water service to meet the proposed actions’ incremental water demand, and there would be no significant adverse impacts on the City’s water supply.

The With Action condition would generate 230,300 gpd of sanitary sewage from the project site. Over the No Action condition, this would represent an incremental 157,916 gpd of flow. This incremental volume in flow to the combined sewer system would represent approximately 0.58 percent of the average daily flow to the Red Hook Wastewater Treatment Plant (WWTP), which is located adjacent to the Brooklyn Navy Yard. This incremental increase in volume would not result in a significant adverse impact on the City’s sanitary sewage treatment system, and would not exceed the capacity of the Red Hook WWTP.

The overall volume of stormwater runoff and the peak stormwater runoff rate from the project site is anticipated to remain approximately the same because in the With Action condition the project site would have similar surface coverage as both the existing and No Action conditions. With the incorporation of selected best management practices (BMP) that would be required as part of the site connection approval process, and subject to the review and approval by the New York City Department of Environmental Protection (DEP), the peak stormwater runoff rates would be reduced from the existing condition and would not have a significant impact on the downstream City combined sewer system or the City sewage treatment system. All sewer connections from the project site to the City sewer system would be made to sewers located either in Flatbush Avenue or Schermerhorn Street. The sewers in these streets flow north to Red Hook WWTP.

TRANSPORTATION

There have been a number of refinements to the No-Action and With-Action transportation analyses in response to comments on the DEIS, to reflect the latest proposed developments for other projects in the transportation study area, and in response to concerns from community members that the New York City Department of Transportation (DOT) proposed closure of Schermerhorn Street between 3rd and Flatbush Avenues would cause additional traffic congestion. As a result of these refinements, the FEIS has quantitatively analyzed transportation conditions with and without the Schermerhorn Street closure. The analysis results show changes in the traffic and pedestrian levels of service, the number of locations that would have the potential for significant adverse impacts, and the number of unmitigatable traffic locations. However, there have been no changes in the estimated traffic, pedestrian or subway trips that would be generated by the proposed project when compared to the DEIS.

As previously stated, two scenarios were analyzed for transportation: one where DOT implements its neighborhood pedestrian safety project at intersections along Flatbush Avenue (including the closure of Schermerhorn Street between 3rd and Flatbush Avenues) and one where it does not. However, the project design is not finalized by DOT and they have stated that their project may be implemented in whole or in part during construction of the proposed project, before occupancy of the proposed project, or not at all. Therefore, With Flatbush Avenue Reconstruction and Without Flatbush Avenue Reconstruction scenario results are presented. The effects of the Flatbush Avenue Reconstruction Project are detailed within each technical area of this chapter, where applicable. In each technical area, the conditions With Flatbush Avenue Reconstruction are presented first, followed by a separate subsection where Without Flatbush Avenue Reconstruction results are presented.

TRAFFIC

Based on a detailed assignment of project-generated vehicle trips, 16 intersections were identified as warranting further analysis for the weekday AM, midday, and PM peak hours. Based on that analysis, under the With Flatbush Reconstruction Scenario, there would be the potential for significant adverse impacts at 9 intersections during the weekday AM peak hour, 9 intersections during the midday peak hour, and 12 intersections during the PM peak hour.

In the scenario where DOT does not implement its neighborhood pedestrian safety project in the study area (Without Flatbush Avenue Reconstruction Scenario), 17 intersections were identified as warranting further analysis in the weekday AM, midday, and PM peak hours, since the Flatbush Avenue and Schermerhorn Street intersection would continue to remain open. In this scenario, there would be the potential for significant adverse impacts at 11 intersections during the weekday AM peak hour, 8 intersections during the midday peak hour, and 11 intersections during the PM peak hour.

Table 3 provides a summary of the impacted locations by lane group and analysis time period. Potential measures to mitigate the projected traffic impacts are described in Chapter 19, "Mitigation." As detailed in that chapter, most of the locations where significant adverse traffic impacts are predicted to occur could be fully mitigated with the implementation of standard traffic mitigation measures (e.g., signal timing changes, lane restriping, parking regulation changes), as described below. However, the significant adverse impacts at the intersections of Flatbush Avenue and Fulton Street during the AM, midday, and PM peak hours; Flatbush Avenue and Lafayette Avenue during the AM, midday, and PM peak hours; Flatbush Avenue

and 4th Avenue during the AM and PM peak hours; Atlantic Avenue and 3rd Avenue during the AM peak hour; Schermerhorn Street and Nevins Street during the AM, midday, and PM peak hours; Lafayette Avenue and Ashland Place during the AM, midday, and PM peak hours, and Fulton Street and Ashland Place during the AM and PM peak hours that would potentially occur would be unmitigatable. In the Without Flatbush Avenue Reconstruction Scenario, the potential significant adverse impacts at Flatbush Avenue and Schermerhorn Street during the PM peak hour would be unmitigatable, in addition to the same unmitigatable significant adverse impacts described above.

**Table 3
 Summary of Significant Adverse Traffic Impacts**

Intersection		Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour
EB/WB Street	NB/SB Street			
With Flatbush Avenue Reconstruction				
DeKalb Avenue	Flatbush Avenue	WB-LTR		
Fulton Street	Flatbush Avenue	WB-LT SB-L	WB-LT SB-L	EB-LTR WB-LT SB-L
Schermerhorn Street	Nevins Street	EB-TR SB-LTR	EB-TR SB-LTR	EB-TR SB-LTR
State Street	Nevins Street			SB-LT
Lafayette Avenue	Flatbush Avenue	EB-L EB-LT NB-TR	EB-L	EB-L NB-TR
Schermerhorn Street	3rd Avenue	EB-L NB-LT	EB-L	EB-L NB-LT
State Street	3rd Avenue		EB-LT	EB-LT
Atlantic Avenue	3rd Avenue	WB-T WB-R		
4th Avenue	Flatbush Avenue	SB-R	SB-R	SB-R
Atlantic Avenue	4th Avenue	SB-LT SB-R		
Atlantic Avenue	Flatbush Avenue	WB-T		WB-T
Fulton Street	Ashland Place	EB-LT NB-TR SB-L	EB-LT	EB-LT NB-L SB-L
Lafayette Avenue	Ashland Place	EB-LTR SB-LT	SB-LT	NB-TR SB-LT
Hanson Place	Fort Greene Place		NB-LR	NB-LR
Total Impacted Intersections/Lane Groups		11/21	9/11	11/19
Without Flatbush Avenue Reconstruction				
DeKalb Avenue	Flatbush Avenue	WB-LTR		
Fulton Street	Flatbush Avenue	WB-LT SB-L	WB-LT SB-L	EB-LTR WB-LT SB-L
Schermerhorn Street	Nevins Street	EB-TR SB-LTR	EB-TR SB-LTR	EB-TR SB-LTR
Lafayette Avenue	Flatbush Avenue	EB-L EB-LT NB-TR	EB-L	EB-L EB-LT NB-TR
State Street	3rd Avenue			EB-LT
Atlantic Avenue	3rd Avenue	WB-T WB-R		
4th Avenue	Flatbush Avenue	SB-R	SB-R	SB-R
Atlantic Avenue	4th Avenue	SB-LT SB-R		
Atlantic Avenue	Flatbush Avenue	WB-T		WB-T
Fulton Street	Ashland Place	EB-LT NB-TR SB-L	EB-LT	EB-LT NB-L SB-L
Lafayette Avenue	Ashland Place	EB-LTR SB-LT	EB-LTR SB-LT	EB-LTR NB-TR SB-LT
Hanson Place	Fort Greene Place		NB-LR	NB-LR
Schermerhorn Street	Flatbush Avenue			EB-R
State Street	Flatbush Avenue	EB-R	EB-R	EB-R
Total Impacted Intersections/Lane Groups		11/20	8/11	11/20
Notes:				
This table has been revised for the FEIS.				
L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound.				

The co-applicants, in coordination with DOT, will implement a transportation monitoring plan (TMP) during construction and upon full occupancy of the completed proposed project. The TMP would include all locations where significant adverse transportation impacts have been identified during the construction and operational phases.

TRANSIT

As the projected peak-hour incremental subway trips would exceed 200 riders during the weekday AM and PM peak hours, the CEQR guidelines require a more detailed analysis. Based on subway pedestrian trip assignments described below, a detailed analysis of station circulation elements and control areas is warranted for the Atlantic Avenue–Barclays Center subway station (D, N, R, B, Q, and No. 2, 3, 4, 5 routes) for the weekday AM and PM peak hours. The subway station analysis concluded that the proposed project would not result in the potential for a significant adverse subway station impact under conditions With Flatbush Avenue Reconstruction or Without Flatbush Avenue Reconstruction.

PEDESTRIANS

Weekday peak hour pedestrian conditions were evaluated at key area sidewalk, corner reservoir, and crosswalk locations. Based on the assignment of pedestrian trips, 9 sidewalks, 9 corner reservoirs, and 10 crosswalks were selected for detailed analysis for the weekday peak hours in the With Flatbush Avenue Reconstruction scenario, and 9 sidewalks, 8 corner reservoirs, and 8 crosswalks were selected for detailed analysis for the weekday peak hours in the Without Flatbush Avenue Reconstruction scenario.

The pedestrian analysis concluded that the proposed project in the With Flatbush Avenue Reconstruction Scenario would result in the potential for significant adverse pedestrian impacts at two crosswalks during the weekday midday and PM peak hours.

The pedestrian analysis concluded that the proposed project in the Without Flatbush Avenue Reconstruction Scenario would result in the potential for significant adverse pedestrian impacts at two crosswalks during the weekday midday and PM peak hours.

Table 4 provides a summary of the impacted pedestrian elements and analysis time periods.

Table 4
Summary of Significant Adverse Pedestrian Impacts

Intersection	Pedestrian Element	2025 With Action Condition		
		Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour
With Flatbush Avenue Reconstruction and Without Flatbush Avenue Reconstruction				
3rd Avenue and State Street	North Crosswalk		X	X
Flatbush Avenue and Lafayette Avenue / Schermerhorn Street	South Crosswalk		X	X
Total Impacted Pedestrian Elements		0	2	2

Note: X = Impacted.

VEHICULAR AND PEDESTRIAN SAFETY

Crash data for the study area intersections were obtained from the New York State Department of Transportation (NYSDOT) for the time period between March 1, 2014, and February 28, 2017. During this period, a total of 416 reportable and non-reportable crashes, 1 fatality, 409 injuries, and 95 pedestrian/bicyclist-related accidents occurred at the study area intersections. A rolling total of accident data identifies three high-crash locations in the 2014 to 2017 period: Flatbush Avenue and Atlantic Avenue, Flatbush Avenue and Fulton Street, and Flatbush Avenue

and Lafayette Avenue. A summary of the identified high crash locations, prevailing trends, project-specific effects, and recommended safety measures is provided in **Table 5**.

Table 5
Summary of High Crash Locations

High Crash Intersections	Prevailing Trends	Peak Hour Project-Specific Effects	Recommended Safety Measures
Flatbush Avenue and Atlantic Avenue	None	Incremental trips: 50 vehicles and 45 peds	High visibility crosswalks
Flatbush Avenue and Fulton Street	None	Incremental trips: 92 vehicles and 161 peds	Countdown timer on west crosswalk
Flatbush Avenue and Lafayette Avenue	None	Incremental trips: 73 vehicles and 273 peds	Countdown timer on west crosswalk

Source: NYSDOT crash data; March 1, 2014 to February 28, 2017

At the high crash locations, the project-generated incremental traffic and pedestrian volumes would traverse existing traffic and pedestrian movements. Since there are no prevailing crash trends along those existing movements, the incremental change is not anticipated to constitute a significant adverse impact for vehicular and pedestrian safety.

Updated crash data were requested from NYSDOT, and were received for the period of January 1, 2015 to December 31, 2017. According to those records, there were no high crash locations for vehicles or pedestrians in the study area.

In addition to the recommended safety measures in **Table 5**, the safety benefits of a DOT-proposed pedestrian and vehicular safety improvements project are described in the Vehicular and Pedestrian Safety Evaluation section.

A school safety assessment was also conducted at the intersections included in the pedestrian and vehicular safety assessment. This assessment includes intersections with a high number of pedestrian crashes, uncontrolled pedestrian crossings, narrow sidewalks, and non-ADA-compliant pedestrian ramps. There were three intersections with a high number of pedestrian crashes in the study area: Flatbush Avenue and Fulton Street, Flatbush Avenue and Lafayette Avenue, and Flatbush Avenue and Atlantic Avenue. Safety improvements at these locations have been recommended in the pedestrian and vehicular safety assessment of the EIS. In addition to these recommendations, advanced school crosswalk warning signage should be placed on the blocks approaching the school on Flatbush Avenue, 3rd Avenue, Schermerhorn Street, and State Street, and either a reduced school speed zone or speed humps should be considered on State Street where the entrance to the proposed lower school would be located.

Under the With Action condition, it is not anticipated that there would be any uncontrolled crossings at the study area intersections. Narrow sidewalks were observed at six locations in the study area. Because the narrow sidewalk conditions are primarily on residential streets with low observed pedestrian foot traffic and are not narrow for prolonged lengths, the narrow sidewalks do not represent a significant safety issue to the school-related pedestrian trips, and it is not recommended that they be mitigated. Non-ADA-compliant ramps were found at eight study area locations: it is recommended that DOT consider upgrading these pedestrian ramps to be ADA compliant to accommodate the school-related pedestrian trips and improve safety for users of all abilities.

Because of the safety benefits to vehicles and pedestrians anticipated under the With Flatbush Avenue Reconstruction scenario, it is anticipated that the With Flatbush Avenue Reconstruction scenario would have additional safety benefits compared to the Without Flatbush Avenue Reconstruction scenario.

PARKING

Accounting for the parking supply and demand generated by the proposed project, the With Action public parking utilization is expected to result in a parking shortfall in the ¼-mile study area during the weekday AM, midday, PM, and overnight time periods. In consideration of this potential parking shortfall, an additional inventory of off-street parking resources was conducted to determine if the overflow demand could be accommodated at a slightly longer walking distance from the project site. The assessment concluded that the additional parking resources available between ¼-mile and ½-mile of the project site would yield 939, 714, 681, 1,348 additional available parking spaces during the weekday AM, midday, PM, and overnight time periods respectively. While a ¼-mile parking shortfall would be expected with the proposed project, it would not result in a significant adverse parking impact since most of the excess parking demand can be adequately accommodated by a slightly longer walk beyond the ¼-mile radius and since there are adequate public transit options nearby.

AIR QUALITY

The analyses conclude that the proposed project would not result in any significant adverse air quality impacts on sensitive uses in the surrounding community, and the proposed actions would not be adversely affected by existing sources of air emissions.

The mobile source analysis results show that the annual and daily (24-hour) PM_{2.5} increments are predicted to be below the *de minimis* criteria. Therefore, there would be no potential for significant adverse impacts on air quality from vehicle trips generated by the proposed project. An analysis of the laboratory exhaust system for the proposed public high school determined there would be no significant impacts in the proposed buildings or on the surrounding community in the event of a chemical spill in a laboratory.

Analysis of the emissions and dispersion of nitrogen dioxide (NO₂) and PM less than 10 microns in diameter (PM₁₀) from the proposed project's heating and hot water systems indicate that these emissions would not result in a violation of National Ambient Air Quality Standards (NAAQS). In addition, the maximum predicted PM_{2.5} incremental concentrations from the proposed project would be less than the applicable 24-hour and annual average criteria. To ensure that there are no significant adverse impacts resulting from the proposed project due to heating and hot water system emissions, fuel and vent stack location restrictions associated with Buildings B and C would be required as part of the proposed project through the development agreement between ECF and 80 Flatbush Avenue, LLC.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

An assessment that evaluates the greenhouse gas (GHG) emissions that would be generated as a result of the proposed actions and their consistency with the citywide GHG reduction goals has been included in this FEIS. The building energy use and vehicle use associated with the proposed project would result in up to approximately 13 thousand metric tons of carbon dioxide equivalent (CO_{2e}) emissions per year. As summarized below, the proposed project would support the goal identified in the *CEQR Technical Manual* of building efficient buildings.

The *CEQR Technical Manual* defines five goals by which a project's consistency with the City's emission reduction goal is evaluated: (1) efficient buildings; (2) clean power; (3) sustainable transportation; (4) construction operation emissions; and (5) building materials carbon intensity.

The schools would be designed to SCA's building standards. The design and construction of the school facilities would comply with or exceed the energy efficiency standards of SCA's green building standards, including following the *New York City Green School Guide 2016* or later version applicable at the time of design. The current version of the *New York City Green School Guide 2016*, issued in April 2016, was designed to reduce school energy costs by at least 20 percent compared to the baseline referenced in Leadership in Energy and Environmental Design (LEED) for Schools 2009/EA Credit 1 or the New York State Energy Conservation and Construction Code (NYSECCC) which was in effect at that time, whichever is more stringent. An additional 5 or 10 percent energy cost savings beyond the 20 percent mandate must be implemented, unless the payback on the investment exceeds 7 years. Effective October 2016, New York City and New York State have updated their energy codes (NYSECCC, which is also adopted by New York City) to incorporate a much stricter energy efficiency requirement. Therefore, it is unclear at this time how design compliant with the current (April 2016) SCA guidance would compare with the current building code. Should SCA update its guidance prior to the design of the schools, the energy use and the ensuing GHG emissions associated with the schools would be substantially lower than that of buildings built to meet but not exceed the current New York City Building Energy Code.

Regarding the proposed uses other than the schools, the co-applicants are currently evaluating the specific energy efficiency measures and design elements that may be implemented. The proposed project is required at a minimum to achieve the energy efficiency requirements of the New York City Building Code. As described above, in 2016, as part of the City's implementation of strategies aimed at achieving the OneNYC GHG reduction goals, the City adopted a more stringent building energy code which substantially increased the energy efficiency required. In 2016, the City also published a pathway to achieving the GHG reduction goals in the building sector. Should the measures identified as part of that pathway or other measures not yet implemented be adopted by the City in the future, they may apply to the proposed project similar to any new building (if prior to building approval) or existing building (after construction) and the proposed project would implement any measures required under such programs. Therefore, the proposed project would support the goal identified in the *CEQR Technical Manual* of building efficient buildings.

The proposed project would also support the other GHG goals by virtue of its proximity to public transportation, reliance on natural gas, commitment to construction air quality controls, and the fact that as a matter of course, construction in New York City uses recycled steel and includes cement replacements. All of these factors demonstrate that the proposed development supports the GHG reduction goal.

Therefore, based on the commitment to energy efficiency and by virtue of location and nature, the proposed project would be consistent with the City's emissions reduction goals, as defined in the *CEQR Technical Manual*.

NOISE

The analysis finds that the proposed actions would not result in any significant adverse noise impacts at nearby noise receptors.

The building attenuation analysis determined that the proposed actions would require between 28 and 37 dBA window/wall attenuation to meet *CEQR Technical Manual* interior noise level requirements. These attenuation requirements account for measured existing noise levels, future changes in mobile sources of noise (e.g., traffic on adjacent roadways), and stationary sources of

noise (e.g., noise from playground spaces included in the proposed schools, noise from mechanical equipment) and consequently supersede the attenuation levels established for this location in the Downtown Brooklyn Development FEIS. Given the levels of attenuation to be provided and because the (E) Designation would require proposed buildings to satisfy its specifications prior to obtaining building permits, there would be no significant adverse noise impact with respect to the proposed buildings.

The school playground analysis concludes that noise associated with the proposed high and lower school playgrounds would not meaningfully contribute to noise level increases at any nearby existing noise receptors. Therefore, there would be no significant adverse noise impact to noise receptors in the surrounding area due to the high and lower school playgrounds.

PUBLIC HEALTH

The proposed actions would not result in significant adverse public health impacts. As described in the relevant analyses of this FEIS, the proposed actions would not result in unmitigated significant adverse impacts in the areas of air quality, operational noise, water quality, or hazardous materials. However, as discussed in Chapter 16, "Construction," the proposed actions could result in temporary unmitigated construction noise impacts as defined by *CEQR Technical Manual* thresholds. As such, it was determined that a public health assessment of construction noise was appropriate. The assessment was conducted, and for the reasons discussed in Chapter 15, "Public Health," it was determined that the construction noise impact would not generate a significant adverse public health impact.

CONSTRUCTION

Construction of the proposed project—as is the case with most large construction projects—would result in temporary disruptions in the surrounding area. Construction activities associated with the proposed actions would potentially result in temporary significant adverse transportation and noise impacts. As discussed in Chapter 16, "Construction," measures to avoid and/or minimize construction related effects would be required through the development agreement between ECF and 80 Flatbush Avenue, LLC.

For analysis purposes, a reasonable worst-case conceptual construction phasing and schedule was developed to illustrate how construction of the proposed project would occur over an approximately 6-year period. The reasonable worst-case schedule conservatively accounts for overlapping construction activities and simultaneously operating construction equipment, thus capturing the cumulative nature of construction impacts that would result in the greatest impacts at nearby receptors.

For each of the various technical areas presented below, appropriate construction analysis periods were selected to represent reasonable worst-case conditions relevant to that technical area, which can occur at different times for different analyses. For example, the noisiest part of the construction may not be at the same time as the heaviest construction traffic. Therefore, the analysis periods may differ for different analysis areas. Where appropriate, the analysis accounted for the effects of elements of the proposed project that would be completed and operational during the selected construction analysis periods.

The conceptual construction schedule and plans on which the construction analysis was based assumed that School Buildings 1 and 2 on the project block would remain in place and be adaptively re-used. However, the maximum zoning envelope would allow for partial demolition of School Building 1 on 3rd Avenue at State Street and complete demolition of School Building 2 on 3rd Avenue at Schermerhorn Street along with a slightly larger footprint for the proposed buildings on the western portion of the project block. If such demolition were to occur, it would

result in minor changes to the placement/location of construction equipment and the duration of individual construction activities on the western portion of the project block. Given the amount of construction equipment projected to be operating on the project site and the duration over which it would be operating, the logistics and schedule changes would not change in the conclusions of the construction analysis with respect to the maximum zoning envelope.

Construction of the proposed project would result in temporary disruptions in the surrounding area. However, co-applicants have committed to implementing a variety of measures during construction to minimize the effects of the proposed project on the nearby community, including:

COMMUNITY SAFETY

- Maintenance and Protection of Traffic (MPT) plans would be developed for any temporary sidewalk, lane, and/or street closures. Approval of these plans and implementation of the closures would be coordinated with DOT's Office of Construction Mitigation and Coordination (OCMC);
- A number of measures would be employed to ensure public safety during the construction of the proposed project, including many that exceed the code requirements; the measures include the erection of sidewalk bridges and roof protection, the employment of flag persons, the erection of a construction fence, the installation of a vertical enclosure system, horizontal nets, and full height vertical netting;
- All New York City Department of Building (DOB) safety requirements and protocols would be followed and construction of the proposed project would be undertaken so as to ensure the safety of the community and the construction workers themselves; and
- Notifications would be made to the public/community when special construction activities would occur.

ENVIRONMENTAL PERFORMANCE

- An emissions reduction program would be implemented during construction to minimize the effects on air quality and would include to the extent practicable measures such as the use of dust control, Ultra-Low-sulfur diesel (ULSD) fuel, diesel particulate filters on all diesel engines, best available technologies, and newer and cleaner equipment;
- Construction of the proposed project would not only include noise control measures as required by the New York City Noise Control Code but would include additional measures such as the use of an 8-foot high with an additional 4-foot cantilever plywood fence on State Street with insulation blankets, a noise curtain, or other suitable noise control mounted on the inside of the fence during excavation and foundation stages of construction;
- Regulatory requirements relating to the existing buildings to be adaptively reused and the remedial measures required by the (E) Designation and other applicable regulatory requirements would be implemented; and
- A Construction Protection Plan (CPP) would be developed in coordination with the LPC to protect the historic buildings to be retained on the project site (the P.S. 15 structure and the ca. 1898 addition fronting on Schermerhorn Street), the Baptist Temple on the west side of 3rd Avenue and the buildings on the south side of State Street (522-550 State Street).

With the implementation of the measures described above, the construction effects of the proposed project on the surrounding area would be substantially reduced. However, as described in detail below, even with these measures in place, construction activities associated with the

proposed project would potentially result in temporary significant adverse transportation and noise impacts. Additional information for key technical areas is summarized below.

TRANSPORTATION

Traffic

Peak construction conditions were considered for the analysis. As summarized in Chapter 19, “Mitigation,” most of the locations where significant adverse construction traffic impacts are predicted to occur could be fully mitigated with the implementation of standard traffic mitigation measures (e.g., signal timing changes, lane restriping, parking regulation changes) except for the intersections of Flatbush Avenue and Fulton Street, Flatbush Avenue and Lafayette Avenue, Flatbush Avenue and 4th Avenue, and Fulton Street and Ashland Place ; Atlantic Avenue and 3rd Avenue; Atlantic Avenue and Nevins Street; South Portland Avenue and Fulton Street; Atlantic Avenue and Bond Street; Atlantic Avenue and Fort Greene Place; and Fulton Street and Hanson Place/Greene Avenue, where the potential significant adverse traffic impacts would be unmitigatable. The significant adverse construction pedestrian impacts could be fully mitigated with standard pedestrian mitigation measures, except for the north crosswalk of 3rd Avenue and State Street and the west sidewalk of 3rd Avenue between Schermerhorn Street and State Street, where potential significant adverse impacts could not be fully mitigated with standard pedestrian mitigation measures.

Pedestrians

As discussed in Chapter 16, “Construction,” and Chapter 19, “Mitigation,” the significant adverse pedestrian impacts at the north crosswalk of 3rd Avenue and State Street and the west sidewalk along 3rd Avenue between Schermerhorn Street and State Street that would potentially occur could not be fully mitigated with standard pedestrian mitigation measures. Because these impacts cannot be fully mitigated, construction under the proposed project would result in unavoidable significant adverse pedestrian impacts.

AIR QUALITY

The air pollutant emission levels associated with construction of the proposed project would not be considered out of ordinary in terms of intensity and are typical of ground-up building construction in New York City. Measures would be taken to minimize pollutant emissions during construction in accordance with all applicable laws, regulations, and building codes. These measures would include dust suppression measures, idling restrictions, and the use of ULSD fuel. In addition, to minimize air pollutant emissions during construction, emissions reduction measures such as the use of best available technologies and the use of newer and cleaner equipment during construction of the proposed project would be implemented to the extent practicable. With these measures in place and based on the duration and intensity of construction activities, the location of nearby sensitive receptors, and an examination of construction on-road sources, the proposed project would not result in any significant adverse construction air quality impacts.

NOISE

The detailed modeling analysis concluded that construction of the proposed project has the potential to result in construction noise levels that exceed *CEQR Technical Manual* construction screening threshold for an extended period of time at residences immediately across State Street south of the project site, the Khalil Gibran International Academy, and residences along 3rd Avenue between

Schermerhorn Street and Atlantic Avenue. The conceptual construction schedule on which the noise analysis was based represented a conservative potential timeline for construction that tended to show the most construction activity and the most construction equipment operating simultaneously, the conditions of which would result in the largest increase in noise levels at the nearby receptors.

The affected residences on State Street would experience exterior noise levels in the mid-70s dBA, which represent increases in noise level up to approximately 13 dBA compared with existing levels, for intermittent periods during approximately 18 non-consecutive months during construction at the middle and eastern portions of the site. During the remainder of the construction period, the affected residences on State Street would at times experience exterior noise levels in the mid-70s dBA, which represent increases in noise level up to approximately 10 dBA. The affected residences on the west side of 3rd Avenue would experience exterior noise levels in the mid-70s dBA, which represent increases in noise level up to approximately 11 dBA compared with existing levels, for portions of up to approximately 12 months during construction at the middle and eastern portions of the site. During the remainder of the construction period, the affected residences on the west side of 3rd Avenue would at times experience exterior noise levels in the mid-70s dBA, which represent increases in noise level up to approximately 8 dBA. The affected residences on the east side of 3rd Avenue would experience exterior noise levels in the mid-70s dBA, which represent increases in noise level up to approximately 6 dBA compared with existing levels, for up to approximately 10 months during construction at the middle and eastern portion of the site. The existing Khalil Gibran International Academy would at times experience exterior noise levels in the mid-70s dBA, resulting increases in noise level up to approximately 12 dBA compared to existing levels for portions of up to approximately 25 months during construction at the middle and eastern portions of the site.

Potential construction noise levels of this magnitude over the course of such an extended duration would constitute a temporary significant adverse impact. Field observations determined that many of these buildings have insulated glass windows and alternate means of ventilation (i.e., air conditioning). Even with these measures, buildings with these constructions would be expected to experience episodic interior $L_{10(1)}$ values greater than the 45 dBA guideline recommended for residential, community, and house of worship spaces according to CEQR noise exposure guidelines. Older buildings that do not include insulated windows and alternate means of ventilation would be expected to experience higher interior noise levels.

At other receptors near the project site, including open space, residential, and community facility receptors, noise resulting from construction of the proposed project may at times be noticeable, but would be temporary and would generally not exceed typical noise levels in the general area and therefore would not rise to the level of a significant adverse noise impact.

NEIGHBORHOOD CHARACTER

Construction activities would adhere to the provisions of the New York City Building Code and other applicable regulations. In addition, throughout the construction period, measures would be implemented to control noise, vibration, and air emissions including dust. Fencing would be erected to reduce potentially undesirable views of construction areas, to buffer noise emitted from construction activities, and to protect the safety of pedestrians during construction. Access to surrounding residences and businesses would be maintained throughout the duration of the construction period. Overall, construction of the proposed project is not expected to result in significant adverse neighborhood character impacts in neighborhoods surrounding the project site.

However, temporary adverse effects relating to increased traffic, noise, and views of construction activity would occur in the immediate vicinity of the project site. During construction, the project

site and the immediately surrounding area would be subject to added traffic from construction trucks and worker vehicles and partial sidewalk and lane closures. In particular, construction traffic and noise would temporarily change the character of State Street to the south of the project site. In addition, staging activities, temporary sidewalks, construction fencing, and construction equipment and building superstructure would be visible to pedestrians in the immediate vicinity of the project site. The effects would be localized, confined largely to streets surrounding the project site, but no immediate area would experience the effects of the proposed project's construction activities for the full project construction duration. MPT plans would be developed for any temporary sidewalk, lane, and/or street closures and early implementation of traffic mitigation measures as described above under "Transportation" would ameliorate traffic issues.

Measures to control noise, vibration, and dust on construction sites, including the erection of construction fencing, which would reduce views of construction sites and buffer noise emitted from construction activities. As described in detail above under "Noise," the detailed modeling analysis concluded that construction of the proposed project has the potential to result in construction noise levels that exceed the *CEQR Technical Manual* noise impact criteria for an extended period of time at residences immediately across State Street south of the project site, the existing Khalil Gibran International Academy, and residences across 3rd Avenue from the project site. However, these impacts are temporary and limited to a few areas within the community, and the construction noise levels would vary depending on the portion of the site being developed and the intensity of construction.

Furthermore, to minimize the effects of noise during construction, construction of the proposed project would not only include noise control measures as required by the New York City Noise Control Code but would include additional measures such as the use of a 8-foot high with an additional 4-foot cantilever plywood fence on State Street with insulation blankets, a noise curtain, or other suitable noise control mounted on the inside of the fence during excavation and foundation stages of construction. Therefore, although there is the potential for adverse effects during construction, these effects would be temporary and localized and would not result in significant impacts to the neighborhood character.

NEIGHBORHOOD CHARACTER

The proposed actions would not result in significant adverse impacts associated with neighborhood character. The project site is located in a prominent location on Flatbush Avenue at the entrance to Downtown Brooklyn. As described elsewhere in this EIS, the proposed actions would not result in significant adverse impacts in the areas of land use, zoning, and public policy; socioeconomic conditions; open space; urban design and visual resources; and noise. Although significant adverse impacts would occur with respect to shadows, historic resources, and transportation, these impacts would not result in a significant change to one of the determining elements of neighborhood character.

The proposed actions would bring new activity to an underutilized site and support the development of Downtown Brooklyn as a commercial and cultural hub. The new educational facilities would support the residential growth that has occurred in Downtown Brooklyn and surrounding neighborhoods and the retail space would provide an amenity for residents. As discussed below, the proposed actions would result in potential neighborhood character benefits associated with improvements in urban design and pedestrian conditions.

ENERGY

The proposed project would not result in any significant adverse energy impacts. The proposed project would generate an incremental demand for approximately 1,498 billion British thermal units (BTUs) of energy per year, less than 1 percent increase in overall electricity demand per year. This energy demand represents the total incremental increase in energy consumption between the No Action condition and the With Action condition. As explained in the CEQR Technical Manual, the incremental energy demand resulting from most projects would not create a significant impact on energy capacity, and detailed assessments are only recommended for projects that may significantly affect the transmission or generation of energy. The proposed project would generate an incremental increase in energy demand that would be negligible when compared to the overall demand within Consolidated Edison's (Con Edison) New York City and Westchester County service area. Therefore, the proposed project would not result in any significant adverse energy impacts.

MITIGATION

The proposed actions would result in significant adverse impacts related to shadows, historic and cultural resources, transportation (traffic and pedestrians), and construction (noise). Mitigation measures have been identified to address those impacts where feasible and/or practical. As discussed below in more detail, partial mitigation is proposed for some of the significant adverse impacts of the proposed project. If no mitigation or partial mitigation has been identified, an unavoidable significant adverse impact may result.

SHADOWS

As described in Chapter 6, "Shadows," the proposed actions would result in significant adverse shadow impacts to three open spaces. The detailed analysis found that the Rockwell Place Bears Community Garden, the BAM South Plaza at 300 Ashland Place, and Temple Square could be significantly impacted by new shadow originating from the proposed project. The duration or extent of incremental shadow cast on these open spaces would be great enough to potentially impact the utility of the open space or the viability of vegetation contained within them.

Measures to partially offset significant adverse shadow impacts at the Rockwell Place Bears Community Garden include payments for the following purposes: (1) hiring a landscape or horticultural consultant; (2) replacing potentially affected vegetation with more shade-tolerant species; (3) enriching the soil to help plants adjust to the increased shade; and (4) providing electricity to allow for lighting in the garden.

Mitigation to partially offset the significant adverse impact to the BAM South Plaza users and the plaza's vegetation was developed. The co-applicants will monitor the plaza's vegetation and replace the vegetation with more shade-tolerant species, as necessary.

Mitigation to partially offset the significant adverse impact at Temple Square includes the monitoring of the vegetation and replacement with more shade-tolerant species, as necessary. To the extent that the co-applicants funds the design and construction of the potential future improvements to Temple Square (following NYC Plaza Program application, review, and approval by the New York City DOT), the replacement of vegetation with shade tolerant plantings will be undertaken in connection with such improvements.

HISTORIC AND CULTURAL RESOURCES

As discussed in Chapter 7, “Historic and Cultural Resources,” the western portion of the project site (Lot 1, School Buildings 1–5) is currently occupied by the Khalil Gibran International Academy, a complex of five connected buildings constructed at different times. In a comment letter dated May 15, 2017, the New York City Landmarks Preservation Commission (LPC) stated that the building complex on Block 174, Lot 1 appears to be eligible for NYCL designation and for listing on the S/NR.

The current design for the proposed project assumes that the two primary buildings on Lot 1 (School Building 1/Building E and School Building 2/Building D) would be retained and adaptively reused. The adjacent new construction may allow for passage into Buildings D and E at the ground, second, or third floors. Any passage would be at interior, shared walls and through a fire-rated threshold, and would not be visible from street level. The proposed project would, however, entail the demolition of the townhouse that was subsequently added to the school (School Building 5), and the connecting school buildings along 3rd Avenue (School Buildings 3 and 4). The townhouse was added to the school ca. 1898, but was not created or designed specifically for school use, and the connecting structures along 3rd Avenue match the design of the original school, but lack its more prominent details. Nevertheless, the demolition of School Buildings 3–5 adversely affect the historic resource.

While the current proposed design preserves the two primary buildings of the current school, as discussed in Chapter 7, “Historic and Cultural Resources,” to maintain flexibility, the maximum zoning envelope under the approvals would encompass the site of School Building 2/Building D, the ca. 1898 school building fronting on Schermerhorn Street, and the connecting building on 3rd Avenue, and allow for their demolition, and would also partially extend into the existing footprint of School Building 1/Building E (the original school structure at the southwest corner of the block), thus partially demolishing part of the building. Therefore, development allowed under the maximum zoning envelope could result in the demolition of School Building 2/Building D and the connecting building on 3rd Avenue, as well as a portion of School Building 1/Building E. These buildings encompass the two largest and most visually distinctive school buildings on the project site. Therefore, the proposed actions, including development under the maximum zoning envelope and the currently proposed design, would have a significant adverse impact on the historic resources on the project site. A portion of School Building 1/Building E, the original school structure at the southwestern corner of the project site, would be adaptively reused as retail space. Historic American Building Survey (HABS) Level II documentation would take place as partial mitigation for the demolition of Building D and part of Building E. The scope of work for such documentation would be provided to LPC for review and comment prior to the start of demolition of these buildings.

Measures to mitigate this impact consistent with the CEQR findings have been developed in consultation with LPC. Per the guidelines of the *CEQR Technical Manual*, possible mitigation measures for significant adverse effects on architectural resources can include redesign (i.e., relocating the action away from the resource, or redesign of the proposal to be more compatible with the resource), adaptive reuse, Construction Protection Plan (CPP), data recovery/recording, or relocation of the architectural resource. Data recovery can include recordation of a structure to the standards of the HABS. If such recordation is identified as a mitigation measure, the scope of work for any HABS-level documentation would be provided to LPC for review and approval prior to the start of demolition of these buildings. As noted above, HABS Level II documentation of the school complex would take place as partial mitigation for the demolition of Building D, the connecting school building on 3rd Avenue, and part of Building E. While development allowed under the maximum zoning envelope could result in the demolition of School Building 2/Building

D, and the connecting building on 3rd Avenue, as well as a portion of School Building 1/Building E, the current proposed design would preserve and adaptively reuse School Building 2/Building D and School Building 1/Building E. To avoid inadvertent demolition and/or construction-related damage from ground-borne construction period vibrations, falling debris, collapse, etc., any historic buildings to be retained on the project site would be included in a CPP for historic structures that would be prepared in coordination with LPC and implemented in consultation with a licensed professional engineer. The CPP would be prepared and implemented prior to demolition and construction activities on the project site, and project-related demolition and construction activities would be monitored as specified in the CPP.

TRANSPORTATION

The proposed project would result in potential significant adverse traffic and pedestrian impacts, as detailed below. No significant adverse impacts were identified for transit, parking, and vehicular and pedestrian safety.

Traffic

As stated in Chapter 11, "Transportation," there have been a number of refinements to the No-Action and With-Action transportation analyses in response to comments on the DEIS, to reflect the latest proposed developments for other projects in the transportation study area, and in response to concerns from community members that the DOT proposed closure of Schermerhorn Street between 3rd and Flatbush Avenues would cause additional traffic congestion. As a result of these refinements, the FEIS has quantitatively analyzed transportation conditions with and without the Schermerhorn Street closure. The analysis results show changes in the traffic and pedestrian levels of service, the number of locations that would have the potential for significant adverse impacts, and the number of unmitigatable traffic locations. However, there have been no changes in the estimated traffic, pedestrian or subway trips that would be generated by the proposed project when compared to the DEIS.

As discussed in Chapter 11, "Transportation," traffic conditions were evaluated at 16 intersections for the weekday AM, midday, and PM peak hours. The 2025 With Action condition analysis in the With Flatbush Avenue Reconstruction Scenario identified the potential for significant adverse traffic impacts at 11 intersections during the weekday AM peak hour, 9 intersections during the weekday midday peak hour, 11 intersections during the weekday PM peak hour. The 2025 With Action condition analysis in the Without Flatbush Avenue Reconstruction Scenario identified the potential for significant adverse traffic impacts at 11 intersections during the weekday AM peak hour, 8 intersections during the weekday midday peak hour, and 11 intersections during the weekday PM peak hour. Many of the significant adverse traffic impacts that were identified were at least partly attributed to deteriorated traffic conditions in the No Action condition, which was an extremely conservative analysis of future conditions. Those conditions included the incremental traffic generated by 74 development projects within ½-mile of the project site, and assumed no traffic mitigation measures associated with any of these development projects would be implemented in the 2025 No Action condition analyses. The potential significant adverse traffic impacts and their recommended mitigation measures are discussed below.

As described in Chapter 11, "Transportation," traffic level of service (LOS) at signalized intersections are evaluated using average stop control delay, in seconds per vehicle, for individual lane groups (grouping of movements in one or more travel lanes), the approaches, and the overall intersection. According to the criteria presented in the *CEQR Technical Manual*, impacts are considered significant and require examination of mitigation if they result in an increase in the

With Action condition of 5 or more seconds of delay in a lane group over No Action condition levels beyond mid-LOS D. For No Action LOS E, a 4-second increase in delay is considered significant. For No Action LOS F, a 3-second increase in delay is considered significant. In addition, impacts are considered significant if LOS deteriorates from acceptable A, B, or C in the No Action condition to marginally unacceptable LOS D (a delay in excess of 45 seconds, the midpoint of LOS D), or unacceptable LOS E or F in the With Action condition. A traffic impact is considered fully mitigated when the resulting degradation in the average control delay per vehicle under the Action-with-Mitigation condition compared to the No Action condition is no longer deemed significant following the impact criteria described above. **Tables 6 to 8** itemize the recommended mitigation measures that address the identified impacts under the With Flatbush Avenue Reconstruction Scenario. With the implementation of these standard traffic mitigation measures (including primarily signal timing changes), which are subject to review and approval by DOT, the significant adverse traffic impacts identified above could be fully mitigated except for the intersections of Flatbush Avenue and Fulton Street during the AM, midday, and PM peak hours; Flatbush Avenue and Lafayette Avenue during the AM, midday, and PM peak hours; Flatbush Avenue and 4th Avenue during the AM and PM peak hours; Atlantic Avenue and 3rd Avenue during the AM peak hour; Lafayette Avenue and Ashland Place during the AM, midday, and PM peak hours; Schermerhorn Street and Nevins Street during the AM, midday, and PM peak hours; and Fulton Street and Ashland Place during the AM and PM peak hours. Should DOT not implement the proposed traffic signal at State Street and Flatbush Avenue as part of its Flatbush Avenue Reconstruction Project, the eastbound approach would be significantly impacted in the PM peak hour, and could be mitigated by installing a new traffic signal.

As stated in Chapter 11, "Transportation," based on extensive field surveys conducted at congested study locations, there are often traffic enforcement agents present to direct traffic flow at the study area intersections along Flatbush Avenue and Atlantic Avenue. Hence, although unmitigatable impacts were identified for seven of these intersections in the With Flatbush Avenue Reconstruction Scenario and eight of these intersections in the Without Flatbush Avenue Reconstruction Scenario, the actual traffic conditions are likely more favorable than shown by the analysis results. A discussion of the recommended mitigation measures is provided below. **Tables 9 to 11** compare the LOS and lane group delays for the impacted intersections under the 2025 No Action, With Action, and Mitigation conditions for the three analysis peak hours.

**Table 6
 Recommended Mitigation Measures: Weekday AM Peak Hour
 With Flatbush Avenue Reconstruction Scenario**

Intersection	No Action Signal Timing	Recommended Mitigation Measures	Recommended Signal Timing
Flatbush Avenue and Dekalb Avenue	NB/SB: Green = 60 s EB/WB LPI: Green = 10 s WB-T: Green = 40 s	Shift 1 second from all-ped phase to WB phase	NB/SB: Green = 60 s EB/WB LPI: Green = 9 s WB-T: Green = 41
Flatbush Avenue and Fulton Street	SB-T/SB-L/WB-R: Green = 18 s NB/SB-T: Green = 47 s EB/WB LPI: Green = 7 s EB/WB: Green = 33 s	Unmitigated	No change from No Action
Schermerhorn Street and 3rd Avenue	All-ped phase: Green = 37 s EB: Green = 35 s NB: Green = 38 s	Shift 3 seconds from all-ped phase, 1 second to EB phase and 2 seconds to NB phase	All-ped phase: Green = 34 s EB: Green = 36 s NB: Green = 40 s
Schermerhorn Street and Nevins Street	EB/WB: Green = 49 s SB: Green = 31 s	Unmitigated	No change from No Action
Atlantic Avenue and 3rd Avenue	EB/WB LPI: Green = 7 s EB/WB: Green = 56 s NB LPI: Green = 7 s NB: Green = 40 s	Unmitigated	No change from No Action
Flatbush Avenue and Lafayette Avenue	NB/SB: Green = 57 s SB only: Green = 14 s EB: Green = 34 s	Unmitigated	No change from No Action
Flatbush Avenue and 4th Avenue	All-ped phase: Green = 60 s NB/SB: Green = 55 s	Unmitigated	No change from No Action
Flatbush Avenue and Atlantic Avenue	NB/SB: Green = 56 s EB-T: Green = 15 s EB/WB: Green = 39 s	Shift 1 second of green time from EB-T phase to EB/WB phase	NB/SB: Green = 56 s EB-T: Green = 14 s EB/WB: Green = 40 s
Atlantic Avenue and 4th Avenue	EB/WB LPI: Green = 7 s EB/WB: Green = 45 s SB: Green = 28 s NB: Green = 25 s	Shift 6 seconds of green time from EB/WB phase to SB phase	EB/WB LPI: Green = 7 s EB/WB: Green = 39 s SB: Green = 34 s NB: Green = 25 s
Fulton Street and Ashland Place	EB/WB: Green = 47 s NB/SB: Green = 33 s	Unmitigated	EB/WB: Green = 47 s NB/SB: Green = 33 s
Lafayette Avenue and Ashland Place	EB: Green = 65 s NB/SB: Green = 45 s	Unmitigated	No Change from No Action

Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left; T = Through; R = Right; LPI = Lead Pedestrian Interval.

**Table 7
 Recommended Mitigation Measures: Weekday Midday Peak Hour
 With Flatbush Avenue Reconstruction Scenario**

Intersection	No Action Signal Timing	Recommended Mitigation Measures	Recommended Signal Timing
Flatbush Avenue and Fulton Street	SB-T/SB-L/WB-R: Green = 23 s NB/SB-T: Green = 47 s EB/WB LPI: Green = 7 s EB/WB: Green = 33 s	Unmitigated	No change from No Action
Schermerhorn Street and 3rd Avenue	All-ped phase: Green = 37 s EB: Green = 35 s NB: Green = 38 s	Shift 1 second from all-ped phase to EB phase	All-ped phase: Green = 36 s EB: Green = 36 s NB: Green = 38 s
Schermerhorn Street and Nevins Street	EB/WB: Green = 49 s SB: Green = 31 s	Unmitigated	No change from No Action
State Street and 3rd Avenue	EB: Green = 23 s NB: Green = 87 s	Shift 1 seconds from NB phase to EB phase	EB: Green = 24 s NB: Green = 86 s
Flatbush Avenue and Lafayette Avenue	NB/SB: Green = 56 s SB only: Green = 14 s EB: Green = 35 s	Unmitigated	No change from No Action
Flatbush Avenue and 4th Avenue	All-ped phase: Green = 60 s NB/SB: Green = 55 s	Shift 1 second from all-ped phase to NB/SB phase	All-ped phase: Green = 59 s NB/SB: Green = 56 s
Fulton Street and Ashland Place	EB/WB: Green = 47 s NB/SB: Green = 33 s	Shift 1 second from NB/SB phase to EB/WB phase	EB/WB: Green = 48 s NB/SB: Green = 32 s
Lafayette Avenue and Ashland Place	EB: Green = 31 s NB/SB: Green = 19 s	Unmitigated	No change from No Action
Hanson Place and Fort Greene Place	EB/WB: Green = 25 s NB/SB: Green = 25 s	Shift 1 second from EB/WB phase to NB/SB phase	EB/WB: Green = 24 s NB/SB: Green = 26 s

Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left; T = Through; R = Right; LPI = Lead Pedestrian Interval.

Table 8
Recommended Mitigation Measures: Weekday PM Peak Hour
With Flatbush Avenue Reconstruction Scenario

Intersection	No Action Signal Timing	Recommended Mitigation Measures	Recommended Signal Timing
Flatbush Avenue and Fulton Street	SB-T/SB-L/WB-R: Green = 23 s NB/SB-T: Green = 47 s EB/WB LPI: Green = 7 s EB/WB: Green = 33 s	Unmitigated	No change from No Action
Schermerhorn Street and 3rd Avenue	All-ped phase: Green = 37 s EB: Green = 35 s NB: Green = 38 s	Shift 2 seconds from all-ped phase, 1 seconds to NB phase and 1 second to EB phase	All-ped phase: Green = 35 s EB: Green = 36 s NB: Green = 39 s
Schermerhorn Street and Nevins Street	EB/WB: Green = 49 s SB: Green = 31 s	Unmitigated	No change from No Action
State Street and Nevins Street	EB/WB: Green = 49 s SB: Green = 31 s	Shift 2 seconds from EB phase to SB phase	EB/WB: Green = 47 s SB: Green = 33 s
State Street and 3rd Avenue	EB: Green = 23 s NB: Green = 87 s	Shift 3 seconds of green time from NB phase to EB phase	EB: Green = 26 s NB: Green = 84 s
Flatbush Avenue and Lafayette Avenue	NB/SB: Green = 53 s SB only: Green = 20 s EB: Green = 32 s	Unmitigated	No change from No Action
Flatbush Avenue and 4th Avenue	All-ped phase: Green = 60 s NB/SB: Green = 55 s	Unmitigated	No change from No Action
Flatbush Avenue and Atlantic Avenue	NB/SB: Green = 56 s EB-T: Green = 15 s EB/WB: Green = 39 s	Shift 1 second of green time from EB-T phase to EB/WB phase	NB/SB: Green = 56 s EB-T: Green = 14 s EB/WB: Green = 40 s
Fulton Street and Ashland Place	EB/WB: Green = 47 s NB/SB: Green = 33 s	Unmitigated	No change from No Action
Lafayette Avenue and Ashland Place	EB: Green = 69 s NB/SB: Green = 41 s	Unmitigated	No change from No Action
Hanson Place and Fort Greene Place	EB/WB: Green = 25 s NB/SB: Green = 25 s	Shift 3 seconds from EB/WB phase to NB/SB phase	EB/WB: Green = 22 s NB/SB: Green = 28 s

Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left; T = Through; R = Right; LPI = Lead Pedestrian Interval.

Table 9
2025 No Action, With Action, and Mitigation Conditions
LOS Analysis Weekday AM Peak Hour
With Flatbush Avenue Reconstruction Scenario

Intersection	Weekday AM											
	2025 No Action				2025 With Action				2025 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Flatbush Avenue and DeKalb Avenue												
WB	LTR	1.12	108.8	F	LTR	1.13	112.7	F+	LTR	1.09	100.0	F
NB	T	0.92	36.5	D	T	0.93	38.1	D	T	0.93	38.1	D
SB	TR	0.96	42.3	D	TR	0.98	45.6	D	TR	0.98	45.6	D
	Int.		53.6	D	Int.		56.3	E	Int.		53.7	E
Flatbush Avenue and Fulton Street												
EB	LTR	0.59	48.5	D	LTR	0.59	48.9	D	Unmitigated			
WB	LT	1.31	209.1	F	LT	1.42	257.3	F+				
	R	0.53	26.7	C	R	0.53	27.0	C				
NB	T	0.90	43.0	D	T	0.92	44.4	D				
SB	L	2.20	605.1	F	L	2.25	628.7	F+				
	T	0.59	17.1	B	T	0.60	17.2	B				
	Int.		110.4	F	Int.		118.5	F				
Nevins Street and Schermerhorn Street												
EB	TR	0.82	29.8	C	TR	0.94	57.9	E+	Unmitigated			
WB	LT	0.26	12.0	B	LT	0.27	12.2	B				
SB	LTR	1.20	142.4	F	LTR	1.29	179.3	F+				
	Int.		74.8	E	Int.		98.4	F				

Table 9 (cont'd)
2025 No Action, With Action, and Mitigation Conditions
LOS Analysis Weekday AM Peak Hour
With Flatbush Avenue Reconstruction Scenario

Intersection	2025 No Action				Weekday AM 2025 With Action				2025 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
3rd Avenue and Schermerhorn Street												
EB	L	1.05	103.4	F	L	1.08	114.1	F+	L	1.05	103.5	F
NB	LT	1.05	88.5	F	LT	1.10	105.8	F+	LT	1.04	85.0	F
	Int.		93.4	F	Int.		108.5	F	Int.		91.1	F
3rd Avenue and Atlantic Avenue												
EB	TR	0.73	29.7	C	TR	0.73	29.8	C	Unmitigated			
WB	T	1.12	96.8	F	T	1.14	105.7	F+				
	R	0.81	42.2	D	R	0.90	53.1	D+				
NB	LTR	0.82	46.8	D	LTR	0.84	46.8	D				
	Int.		64.0	E	Int.		69.1	E				
Flatbush Avenue and Lafayette Avenue*												
EB	L	1.35	225.1	F	L	1.43	259.8	F+	Unmitigated			
	LT	0.88	55.7	E	LT	0.92	60.8	E				
NB	TR	1.08	79.4	E	TR	1.11	90.0	E+				
SB	DefL	0.56	49.4	D	DefL	0.57	49.7	D				
	T	0.78	19.9	B	T	0.79	20.1	C				
	Int.		68.5	E	Int.		77.4	E				
Flatbush Avenue and 4th Avenue												
NB	T	0.77	29.9	C	T	0.79	30.3	C	Unmitigated			
SB	T	0.59	26.2	C	T	0.59	26.2	C				
	R	1.42	234.0	F	R	1.54	284.3	F+				
	Int.		53.6	D	Int.		89.3	F				
Flatbush Avenue and Atlantic Avenue												
EB	T	0.76	32.1	C	T	0.76	32.1	C	T	0.76	32.1	C
	R	0.81	53.8	D	R	0.81	53.8	D	R	0.79	50.9	D
WB	T	1.52	278.6	F	T	1.54	290.2	F+	T	1.50	272.2	F
	R	0.90	66.6	D	R	0.90	66.6	E	R	0.87	61.7	E
NB	T	0.86	33.9	C	T	0.87	34.9	C	T	0.87	34.9	C
SB	T	0.44	22.3	C	T	0.44	22.3	C	T	0.44	22.3	C
	Int.		100.8	F	Int.		104.7	F	Int.		99.3	F
4th Avenue and Atlantic Avenue												
EB	T	0.67	30.2	C	T	0.67	30.2	C	T	0.76	37.3	D
	R	0.27	28.0	C	R	0.27	28.0	C	R	0.32	33.4	C
WB	T	0.78	32.5	C	T	0.79	33.1	C	T	0.90	43.1	D
NB	L	0.90	78.7	E	L	0.90	78.7	E	L	0.90	78.7	E
	LR	0.88	74.9	E	LR	0.88	74.9	E	LR	0.88	74.9	E
	R	0.85	72.9	E	R	0.85	72.9	E	R	0.85	72.9	E
SB	LT	1.11	117.7	F	LT	1.13	124.1	F+	LT	0.92	61.6	E
	R	0.68	61.4	E	R	0.99	113.4	F+	R	0.79	64.2	E
	Int.		55.3	E	Int.		58.9	E	Int.		51.8	D
Ashland Place and Lafayette Avenue												
EB	LTR	0.92	38.5	D	LTR	0.98	49.7	D+	Unmitigated			
NB	TR	0.72	42.0	D	TR	0.77	45.5	D				
SB	LT	0.83	65.2	E	LT	0.90	78.5	E+				
	Int.		42.0	D	Int.		51.9	E				
Ashland Place and Fulton Street												
EB	LT	1.95	458.5	F	LT	1.96	464.2	F+	Unmitigated			
	R	0.22	12.7	B	R	0.25	13.1	B				
WB	LT	0.78	25.5	C	LT	0.78	25.7	C				
	R	0.75	28.8	C	R	0.75	28.8	C				
NB	L	0.37	24.0	C	L	0.45	26.0	C				
	TR	0.85	41.5	D	TR	0.90	46.5	D+				
SB	L	0.63	44.5	D	L	0.68	51.3	D+				
	TR	0.09	19.0	B	TR	0.09	19.0	B				
	Int.		144.0	F	Int.		143.8	F				

Notes:
 L = Left-turn; T = Through; R = Right-turn; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection, v/c Ratio = volume to capacity Ratio
 + Denotes significant adverse impact
 * Traffic LOS results are shown to reflect the effects of the proposed pedestrian mitigation

Table 10
2025 No Action, With Action, and Mitigation Conditions LOS Analysis
Weekday Midday Peak Hour
With Flatbush Avenue Reconstruction Scenario

Intersection	Weekday Midday											
	2025 No Action				2025 With Action				2025 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Flatbush Avenue and Fulton Street												
EB	LTR	0.83	78.1	E	LTR	0.84	80.2	F	Unmitigated			
WB	LT	1.48	281.0	F	LT	1.51	291.5	F+				
	R	0.18	16.8	B	R	0.19	16.9	B				
NB	T	1.11	100.7	F	T	1.12	101.5	F				
SB	L	2.38	680.5	F	L	2.39	687.3	F+				
	T	0.64	17.9	B	T	0.64	17.9	B				
	Int.		169.9	F	Int.		172.5	F				
Nevins Street and Schermerhorn Street												
EB	TR	1.19	121.8	F	TR	1.21	129.9	F+	Unmitigated			
WB	LT	0.36	14.1	B	LT	0.37	14.2	B				
SB	LTR	1.35	205.7	F	LTR	1.37	212.8	F+				
	Int.		139.5	F	Int.		146.4	F				
3rd Avenue and Schermerhorn Street												
EB	L	1.13	129.1	F	L	1.14	132.9	F+	L	1.11	120.4	F
NB	LT	0.92	58.6	E	LT	0.93	60.4	E	LT	0.93	60.4	E
	Int.		87.0	F	Int.		89.6	F	Int.		84.5	F
3rd Avenue and State Street												
EB	LT	1.18	161.1	F	LT	1.21	173.1	F+	LT	1.16	151.5	E
NB	TR	0.43	7.4	A	TR	0.44	7.5	A	TR	0.44	7.9	A
	Int.		53.2	D	Int.		57.3	E	Int.		51.1	D
Flatbush Avenue and Lafayette Avenue*												
EB	L	1.66	357.4	F	L	1.67	361.3	F+	Unmitigated			
	LT	0.81	49.0	D	LT	0.82	49.6	D				
NB	TR	1.08	78.1	E	TR	1.08	78.9	E				
SB	DefL	0.68	55.4	E	DefL	0.68	55.7	E				
	T	0.87	25.3	C	T	0.87	25.4	C				
	Int.		79.8	E	Int.		80.6	F				
Flatbush Avenue and 4th Avenue												
NB	T	0.70	27.7	C	T	0.70	27.8	C	T	0.69	26.8	C
SB	T	0.83	35.0	D	T	0.83	35.1	D	T	0.82	33.5	D
	R	1.46	249.0	F	R	1.47	255.7	F+	R	1.45	244.1	F
	Int.		79.7	F	Int.		81.6	F	Int.		78.1	F
Ashland Place and Fulton Street												
EB	LT	1.59	295.7	F	LT	1.60	302.4	F+	LT	1.55	280.3	F
	R	0.27	13.4	B	R	0.28	13.5	B	R	0.28	12.9	B
WB	LT	0.72	25.6	C	LT	0.73	26.1	C	LT	0.70	23.2	C
	R	0.53	18.5	C	R	0.53	18.5	B	R	0.51	17.4	B
NB	L	0.72	38.0	D	L	0.75	40.2	D	L	0.78	43.6	D
	TR	0.52	25.8	C	TR	0.53	26.0	C	TR	0.55	27.2	C
SB	L	0.55	31.1	C	L	0.55	31.5	C	L	0.58	33.8	C
	TR	0.19	20.1	C	TR	0.19	20.1	C	TR	0.19	20.8	C
	Int.		113.5	F	Int.		115.5	F	Int.		108.4	F
Ashland Place and Lafayette Avenue												
EB	LTR	0.97	35.4	D	LTR	0.98	38.3	D	Unmitigated			
NB	TR	0.73	29.2	C	TR	0.75	30.6	C				
SB	LT	1.57	303.1	F	LT	1.63	329.8	F+				
	Int.		79.5	E	Int.		86.1	F				
Fort Greene Place and Hanson Place												
EB	TR	0.57	18.4	B	TR	0.59	19.1	B	TR	0.62	21.0	C
WB	LT	0.42	15.4	B	LT	0.42	15.5	B	LT	0.45	16.9	B
NB	LR	0.96	55.0	E	LR	1.00	63.3	E+	LR	0.95	50.0	D
SB	LTR	0.30	12.9	B	LTR	0.30	13.0	B	LTR	0.29	12.2	B
	Int.		30.4	C	Int.		33.8	C	Int.		29.5	C

Notes:
 L = Left-turn; T = Through; R = Right-turn; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection
 + Denotes significant adverse impact
 * Traffic LOS results are shown to reflect the effects of the proposed pedestrian mitigation

Table 11
2025 No Action, With Action, and Mitigation Conditions LOS Analysis
Weekday PM Peak Hour
With Flatbush Avenue Reconstruction Scenario

Intersection	Weekday PM												
	2025 No Action				2025 With Action				2025 Mitigation				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	
Flatbush Avenue and Fulton Street													
EB	LTR	0.82	72.0	E	LTR	0.89	84.9	F+	Unmitigated				
WB	LT	1.47	277.2	F	LT	1.67	362.4	F+					
	R	0.37	19.9	B	R	0.40	20.5	C					
NB	T	0.92	47.6	D	T	0.93	49.3	D					
SB	L	2.04	530.2	F	L	2.08	544.5	F+					
	T	0.64	17.8	B	T	0.65	17.9	B					
	Int.		114.9	F	Int.		126.0	F					
Nevins Street and Schermerhorn Street													
EB	TR	1.10	88.1	F	TR	1.16	112.3	F+	Unmitigated				
WB	LT	0.22	11.6	B	LT	0.23	11.8	B					
SB	LTR	1.37	212.7	F	LTR	1.45	244.2	F+					
	Int.		133.4	F	Int.		159.6	F					
Nevins Street and State Street													
EB	TR	0.72	34.5	C	TR	0.73	35.3	D	Unmitigated	TR	0.79	40.5	D
SB	LT	0.89	35.5	D	LT	0.99	54.1	D+		LT	0.95	43.1	D
	Int.		35.1	D	Int.		47.1	D		Int.		42.1	D
3rd Avenue and Schermerhorn Street													
EB	L	1.07	107.0	F	L	1.08	110.1	F+	Unmitigated	L	1.05	99.3	F
NB	LT	0.87	51.2	D	LT	0.92	56.4	E+		LT	0.89	52.6	D
	Int.		72.6	E	Int.		76.5	E		Int.		70.1	E
3rd Avenue and State Street													
EB	LT	1.55	314.9	F	LT	1.74	395.8	F+	Unmitigated	LT	1.54	305.6	F
NB	TR	0.37	6.7	A	TR	0.38	6.9	A		TR	0.40	8.1	A
	Int.		121.9	F	Int.		159.1	F		Int.		124.5	F
Flatbush Avenue and Lafayette Avenue													
EB	L	1.46	271.9	F	L	1.54	308.7	F+	Unmitigated				
	LT	0.88	57.1	E	LT	0.92	60.9	E					
NB	TR	1.03	63.4	E	TR	1.04	68.9	E+					
SB	DefL	0.55	43.5	D	DefL	0.56	44.1	D					
	T	0.91	26.6	C	T	0.92	27.8	C					
	Int.		64.0	E	Int.		70.5	E					
Flatbush Avenue and 4th Avenue													
NB	T	0.66	26.6	C	T	0.66	26.8	C	Unmitigated				
SB	T	0.80	33.2	C	T	0.82	33.8	C					
	R	1.52	277.3	F	R	1.62	319.8	F+					
	Int.		89.2	F	Int.		102.4	F					
Flatbush Avenue and Atlantic Avenue													
EB	T	1.04	67.8	E	T	1.04	69.0	E	Unmitigated	T	1.04	69.0	E
	R	1.55	308.0	F	R	1.55	308.0	F		R	1.50	283.5	F
WB	T	1.27	169.3	F	T	1.28	176.2	F+		T	1.25	161.7	F
	R	1.16	146.0	F	R	1.16	146.0	F		R	1.13	132.7	F
NB	T	0.75	29.0	C	T	0.76	29.3	C		T	0.76	29.3	C
SB	T	0.60	25.3	C	T	0.61	25.4	C		T	0.61	25.4	C
	Int.		92.0	F	Int.		93.7	F		Int.		88.3	F
Ashland Place and Fulton Street													
EB	LT	1.77	377.5	F	LT	1.79	384.4	F+	Unmitigated				
	R	0.18	12.3	B	R	0.21	12.6	B					
WB	LT	0.80	30.5	C	LT	0.81	31.4	F					
	R	0.45	17.9	B	R	0.45	17.9	C					
NB	L	0.84	51.1	D	L	1.05	94.0	F+					
	TR	0.58	27.2	C	TR	0.64	29.2	C					
SB	L	0.88	63.0	E	L	0.96	80.4	F+					
	TR	0.34	22.5	C	TR	0.34	22.5	C					
	Int.		155.1	F	Int.		160.0	F					
Ashland Place and Lafayette Avenue													
EB	LTR	0.74	22.0	C	LTR	0.77	23.1	C	Unmitigated				
NB	TR	0.79	49.2	D	TR	0.93	67.0	E+					
SB	LT	1.50	291.3	F	LT	1.81	426.7	F+					
	Int.		70.5	E	Int.		95.5	E					
Fort Greene Place and Hanson Place													
EB	TR	0.75	25.7	C	TR	0.78	28.0	C	Unmitigated	TR	0.90	44.2	D
WB	LT	0.57	20.0	B	LT	0.59	20.6	C		LT	0.76	34.8	C
NB	LR	1.04	78.2	E	LR	1.21	134.7	F+		LR	1.05	75.7	E
SB	LTR	0.37	14.0	B	LTR	0.40	14.4	B		LTR	0.35	11.8	B
	Int.		39.7	D	Int.		61.1	E		Int.		47.5	D

Notes:
 L = Left-turn; T = Through; R = Right-turn; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection
 + Denotes significant adverse impact

Nevins Street and Schermerhorn Street

The significant adverse impacts at the southbound and eastbound approaches of this intersection during the weekday AM, midday, and PM peak hours could not be mitigated.

Nevins Street and State Street

The significant adverse impact at the southbound approach of this intersection during the weekday PM peak hour could be fully mitigated by a shift of 2 seconds of green time from the eastbound phase to the southbound phase.

3rd Avenue and Schermerhorn Street

The significant adverse impacts at the eastbound and northbound approaches at this intersection during the weekday AM peak hour could be fully mitigated by shifting 3 seconds of green time from the all-pedestrian phase, with 1 second to the eastbound phase and 2 seconds to northbound phase. The significant adverse impact at the eastbound approach during the weekday midday peak hour could be fully mitigated by shifting 1 second of green time from the all-pedestrian phase to the eastbound phase. The significant adverse impacts at the eastbound and northbound approaches at this intersection during the weekday PM peak hours could be fully mitigated by shifting 2 seconds of green time from the all-pedestrian phase, with 1 second to the eastbound phase and 1 second to northbound phase.

3rd Avenue and State Street

The significant adverse impacts at the eastbound approach at this intersection during the midday, and PM peak hours could be fully mitigated by shifting 1 and 3 seconds of green time from the northbound phase to the eastbound phase, respectively.

3rd Avenue and Atlantic Avenue

The significant adverse impact at the westbound through and westbound right at this intersection during the weekday AM peak hour could not be mitigated.

Flatbush Avenue and DeKalb Avenue

The significant adverse impacts at the westbound approach at this intersection during the weekday AM peak hour could be fully mitigated by shifting 1 second of green time from the eastbound/westbound leading pedestrian interval phase to the eastbound/westbound phase.

Flatbush Avenue and Fulton Street

The significant adverse impacts at the westbound left-through and southbound left-turn during the weekday AM, midday, and PM peak hours, and at the eastbound approach during the weekday PM peak hour, could not be mitigated.

Flatbush Avenue and Lafayette Avenue

The significant adverse impacts at the eastbound left-turn during the weekday AM, midday, and PM peak hours, at the eastbound left-through during the weekday AM peak hour, and northbound approach during the weekday AM and PM peak hours could not be mitigated.

Flatbush Avenue and State Street

The eastbound approach at the Flatbush Avenue and State Street intersection would operate at a LOS better than mid-LOS D in the weekday AM, midday, and PM peak hours in the 2025 With Action condition. The eastbound approach would be a location with a potential for additional significant traffic impacts that would be fully mitigated by installing a traffic signal, should the DOT project not signalize the intersection as proposed in their 2016 plans.

Flatbush Avenue and 4th Avenue

The significant adverse impact at the southbound right-turn during the weekday midday peak hour could be fully mitigated by shifting 1 second of green time from the all-pedestrian phase to the northbound/southbound phase. The significant adverse impact at the southbound right-turn during the weekday AM and PM peak hours could not be fully mitigated.

Flatbush Avenue and Atlantic Avenue

The significant adverse impact at the westbound through during the weekday AM and PM peak hour could be fully mitigated by shifting 1 second of green time from the eastbound-through only phase to the eastbound/westbound phase.

4th Avenue and Atlantic Avenue

The significant adverse impacts at the southbound left-through and right-turn during the weekday AM peak hour could be fully mitigated by shifting 6 seconds of green time from the eastbound/westbound phase to the southbound phase.

Ashland Place and Fulton Street

The significant adverse impact at the eastbound left-through during the weekday midday peak hour could be fully mitigated by shifting 1 second of green time from the northbound/southbound phase to the eastbound/westbound phase. The significant adverse impacts at the eastbound left-through, northbound through-right, and southbound left during the weekday AM peak hour, and at the eastbound left-through, northbound left, and southbound left during the weekday PM peak hour could not be mitigated.

Ashland Place and Lafayette Avenue

The significant adverse impacts at the eastbound approach during the weekday AM peak hour, at the northbound approach during the weekday PM peak hour, and at the southbound approach during the weekday AM, midday, and PM peak hours could not be mitigated.

Fort Greene Place and Hanson Place

The significant adverse impacts at the northbound approach during the weekday midday and PM peak hours could be fully mitigated by shifting 1 and 3 seconds of green time from the eastbound/westbound phase to the northbound/southbound phase, respectively.

Effects of Traffic Mitigation on Pedestrian Operations

As described above, intersection operations would improve overall with the implementation of the recommended traffic mitigation measures, which include changes to existing signal timings, parking regulations, and lane geometries. A review of the effects of these changes on pedestrian circulation and service levels at intersection corners and crosswalks showed that they would not alter the conclusions made for the pedestrian impact analyses, nor would they result in the potential for any additional significant adverse pedestrian impacts.

TRAFFIC MITIGATION –WITHOUT FLATBUSH AVENUE RECONSTRUCTION SCENARIO

Tables 12 to 14 itemize the recommended mitigation measures that address the identified impacts in the Without Flatbush Avenue Reconstruction Scenario. With the implementation of these standard traffic mitigation measures (including primarily signal timing changes), which are subject to review and approval by DOT, the significant adverse traffic impacts identified above could be fully mitigated except for the same intersections with unmitigatable impacts identified in the With Flatbush Avenue Reconstruction Scenario, and for the Flatbush Avenue and Schermerhorn Street intersection.

Table 12
Recommended Mitigation Measures: Weekday AM Peak Hour
Without Flatbush Avenue Reconstruction Scenario

Intersection	No Action Signal Timing	Recommended Mitigation Measures	Recommended Signal Timing
Flatbush Avenue and DeKalb Avenue	Same mitigation measures recommended for With Flatbush Avenue Reconstruction Scenario – See Table 19-3		
Flatbush Avenue and Fulton Street	SB-T/SB-L/WB-R: Green = 18 s NB/SB-T: Green = 47 s EB/WB LPI: Green = 7 s EB/WB: Green = 33 s	Unmitigated	No change from No Action
Schermerhorn Street and Nevins Street	EB/WB: Green = 49 s SB: Green = 31 s	Unmitigated	No change from No Action
Atlantic Avenue and 3rd Avenue	EB/WB LPI: Green = 7 s EB/WB: Green = 56 s NB LPI: Green = 7 s NB: Green = 40 s	Unmitigated	No change from No Action
Flatbush Avenue and Lafayette Avenue	NB/SB: Green = 57 s SB only: Green = 14 s EB: Green = 34 s	Unmitigated	No change from No Action
Flatbush Avenue and 4th Avenue	All-ped phase: Green = 60 s NB/SB: Green = 55 s	Unmitigated	No change from No Action
Flatbush Avenue and Atlantic Avenue	Same mitigation measures recommended for With Flatbush Avenue Reconstruction Scenario – See Table 9		
Atlantic Avenue and 4th Avenue	Same mitigation measures recommended for With Flatbush Avenue Reconstruction Scenario – See Table 9		
Fulton Street and Ashland Place	EB/WB: Green = 47 s NB/SB: Green = 33 s	Unmitigated	EB/WB: Green = 47 s NB/SB: Green = 33 s
Lafayette Avenue and Ashland Place	EB: Green = 65 s NB/SB: Green = 45 s	Unmitigated	No Change from No Action
Flatbush Avenue and State Street	Unsignalized Intersection	Install a traffic signal	EB: Green = 50 s NB/SB: Green = 60 s

Note: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left; T = Through; R = Right; LPI = Lead Pedestrian Interval.

Table 13
Recommended Mitigation Measures: Weekday Midday Peak Hour
Without Flatbush Avenue Reconstruction Scenario

Intersection	No Action Signal Timing	Recommended Mitigation Measures	Recommended Signal Timing
Flatbush Avenue and Fulton Street	SB-T/SB-L/WB-R: Green = 23 s NB/SB-T: Green = 47 s EB/WB LPI: Green = 7 s EB/WB: Green = 33 s	Unmitigated	No change from No Action
Schermerhorn Street and Nevins Street	EB/WB: Green = 49 s SB: Green = 31 s	Unmitigated	No change from No Action
Flatbush Avenue and Lafayette Avenue	NB/SB: Green = 56 s SB only: Green = 14 s EB: Green = 35 s	Unmitigated	No change from No Action
Flatbush Avenue and 4th Avenue	Same mitigation measures recommended for With Flatbush Avenue Reconstruction Scenario – See Table 10		
Fulton Street and Ashland Place	Same mitigation measures recommended for With Flatbush Avenue Reconstruction Scenario – See Table 10		
Lafayette Avenue and Ashland Place	EB: Green = 31 s NB/SB: Green = 19 s	Unmitigated	No change from No Action
Hanson Place and Fort Greene Place	Same mitigation measures recommended for With Flatbush Avenue Reconstruction Scenario – See Table 10		
Flatbush Avenue and State Street	Unsignalized Intersection	Install a traffic signal	EB: Green = 50 s NB/SB: Green = 60 s

Note: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left; T = Through; R = Right; LPI = Lead Pedestrian Interval.

Table 14
Recommended Mitigation Measures: Weekday PM Peak Hour
Without Flatbush Avenue Reconstruction Scenario

Intersection	No Action Signal Timing	Recommended Mitigation Measures	Recommended Signal Timing
Flatbush Avenue and Fulton Street	SB-T/SB-L/WB-R: Green = 23 s NB/SB-T: Green = 47 s EB/WB LPI: Green = 7 s EB/WB: Green = 33 s	Unmitigated	No change from No Action
Schermerhorn Street and Nevins Street	EB/WB: Green = 49 s SB: Green = 31 s	Unmitigated	No change from No Action
State Street and 3rd Avenue	EB: Green = 23 s NB: Green = 87 s	Shift 4 seconds of green time from NB phase to EB phase	EB: Green = 27 s NB: Green = 83 s
Flatbush Avenue and Lafayette Avenue	NB/SB: Green = 53 s SB only: Green = 20 s EB: Green = 32 s	Unmitigated	No change from No Action
Flatbush Avenue and 4th Avenue	All-ped phase: Green = 60 s NB/SB: Green = 55 s	Unmitigated	No change from No Action
Flatbush Avenue and Atlantic Avenue	Same mitigation measures recommended for With Flatbush Avenue Reconstruction Scenario – See Table 11		
Fulton Street and Ashland Place	EB/WB: Green = 47 s NB/SB: Green = 33 s	Unmitigated	No change from No Action
Lafayette Avenue and Ashland Place	EB: Green = 69 s NB/SB: Green = 41 s	Unmitigated	No change from No Action
Hanson Place and Fort Greene Place	Same mitigation measures recommended for With Flatbush Avenue Reconstruction Scenario – See Table 11		
Flatbush Avenue and Schermerhorn Street	Unsignalized Intersection	Unmitigated	Unsignalized Intersection
Flatbush Avenue and State Street	Unsignalized Intersection	Install a traffic signal	EB: Green = 50 s NB/SB: Green = 60 s

Note: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; L = Left; T = Through; R = Right; LPI = Lead Pedestrian Interval.

A discussion of the recommended mitigation measures for the Without Flatbush Avenue Reconstruction Scenario is provided below. **Tables 15 to 17** compare the LOS and lane group delays for the impacted intersections under the 2025 No Action, With Action, and Mitigation conditions for the three analysis peak hours.

Table 15
2025 No Action, With Action, and Mitigation Conditions LOS Analysis
Weekday AM Peak Hour – Without Flatbush Avenue Reconstruction Scenario

Intersection	Weekday AM											
	2025 No Action				2025 With Action				2025 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Signalized Intersections												
Flatbush Avenue and DeKalb Avenue												
WB	LTR	1.12	108.8	F	LTR	1.13	112.7	F+	LTR	1.09	100.0	F
NB	T	0.92	36.5	D	T	0.93	38.1	D	T	0.93	38.1	D
SB	TR	0.96	42.3	D	TR	0.98	45.6	D	TR	0.98	45.6	D
	Int.		53.6	D	Int.		56.3	E	Int.		53.7	E
Flatbush Avenue and Fulton Street												
EB	LTR	0.59	48.5	D	LTR	0.59	48.9	D	Unmitigated			
WB	LT	1.31	209.1	F	LT	1.42	257.3	F+				
	R	0.53	26.7	C	R	0.53	27.0	C				
NB	T	0.90	43.0	D	T	0.92	44.4	D				
SB	L	2.20	605.1	F	L	2.25	628.7	F+				
	T	0.59	17.1	B	T	0.60	17.2	B				
	Int.		110.4	F	Int.		118.5	F				
Nevins Street and Schermerhorn Street												
EB	TR	0.89	36.9	D	TR	1.00	57.9	D+	Unmitigated			
WB	LT	0.26	12.0	B	LT	0.27	12.2	B				
SB	LTR	1.20	142.4	F	LTR	1.29	179.3	F+				
	Int.		74.8	E	Int.		100.2	F				
3rd Avenue and Atlantic Avenue												
EB	TR	0.69	28.5	C	TR	0.69	28.5	C	Unmitigated			
WB	T	1.12	96.8	F	T	1.14	105.7	F+				
	R	0.81	42.2	D	R	0.90	53.1	D+				
NB	LTR	0.82	45.4	D	LTR	0.82	45.4	D				
	Int.		63.9	E	Int.		69.0	E				
Flatbush Avenue and Lafayette Avenue												
EB	L	1.76	406.5	F	L	1.89	464.8	F+	Unmitigated			
	LT	0.92	62.5	E	LT	0.97	70.6	E+				
NB	TR	1.31	177.9	F	TR	1.35	192.2	F+				
SB	DefL	0.58	53.7	D	DefL	0.58	53.9	D				
	T	0.67	15.8	B	T	0.67	15.9	B				
	Int.		125.5	F	Int.		138.7	F				

Table 15 (cont'd)
2025 No Action, With Action, and Mitigation Conditions LOS Analysis
Weekday AM Peak Hour – Without Flatbush Avenue Reconstruction Scenario

Intersection	2025 No Action				Weekday AM 2025 With Action				2025 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
	Flatbush Avenue and 4th Avenue											
NB	T	0.77	29.9	C	T	0.79	30.3	C	Unmitigated			
SB	T	0.66	28.0	C	T	0.66	28.1	C				
	R	1.42	234.0	F	R	1.54	283.4	F+				
		Int.	53.6	D	Int.	87.9	F					
Flatbush Avenue and Atlantic Avenue												
EB	T	0.76	32.1	C	T	0.76	32.1	C	T	0.76	32.1	C
WB	R	0.56	39.3	D	R	0.56	39.3	D	R	0.54	38.0	D
	T	1.52	278.6	F	T	1.54	290.2	F+	T	1.50	272.2	F
NB	R	0.90	66.6	D	R	0.90	66.6	E	R	0.87	61.7	E
	T	0.86	33.9	C	T	0.87	34.9	C	T	0.87	34.9	C
SB	T	0.49	23.2	C	T	0.49	23.2	C	T	0.49	23.2	C
		Int.	99.9	F	Int.	103.7	F	Int.	98.5	F		
4th Avenue and Atlantic Avenue												
EB	T	0.61	28.4	C	T	0.61	28.4	C	T	0.69	34.5	C
WB	R	0.27	28.0	C	R	0.27	28.0	C	R	0.32	33.4	C
	T	0.78	32.5	C	T	0.79	33.1	C	T	0.90	43.1	D
NB	L	0.90	78.7	E	L	0.90	78.7	E	L	0.90	78.7	E
	LR	0.88	74.9	E	LR	0.88	74.9	E	LR	0.88	74.9	E
SB	R	0.85	72.9	E	R	0.85	72.9	E	R	0.85	72.9	E
	LT	1.11	117.7	F	LT	1.13	124.1	F+	LT	0.92	61.6	E
		Int.	61.4	E	Int.	0.98	110.3	F+	Int.	0.78	63.1	E
		Int.	55.5	E	Int.	59.0	E	Int.	51.6	D		
Ashland Place and Lafayette Avenue												
EB	LTR	1.49	256.1	F	LTR	1.59	301.4	F+	Unmitigated			
NB	TR	0.72	41.9	D	TR	0.77	45.5	D				
SB	LT	0.82	64.5	E	LT	0.90	78.5	E+				
		Int.	192.4	F	Int.	223.9	F					
Ashland Place and Fulton Street												
EB	LT	1.95	458.5	F	LT	1.96	464.2	F+	Unmitigated			
WB	R	0.22	12.7	B	R	0.25	13.1	B				
	LT	0.78	25.5	C	LT	0.78	25.7	C				
NB	R	0.75	28.8	C	R	0.75	28.8	C				
	L	0.37	24.0	C	L	0.45	26.0	C				
SB	TR	0.85	41.5	D	TR	0.90	46.5	D+				
	L	0.63	44.5	D	L	0.68	51.3	D+				
		TR	0.09	19.0	B	TR	0.09	19.0	B			
		Int.	144.0	F	Int.	143.8	F					
Flatbush Avenue and State Street												
EB	Unsignalized Intersection								R	0.41	27.0	C
WB									T	0.94	39.5	D
SB									LT	0.75	26.8	C
		Int.	33.6	C								

Notes: L = Left-turn; T = Through; R = Right-turn; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection, v/c Ratio = volume to capacity Ratio
 + Denotes significant adverse impact

Table 16
2025 No Action, With Action, and Mitigation Conditions LOS Analysis
Weekday Midday Peak Hour – Without Flatbush Avenue Reconstruction Scenario

Intersection	Weekday Midday											
	2025 No Action				2025 With Action				2025 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Signalized Intersections												
Flatbush Avenue and Fulton Street												
EB	LTR	0.83	78.1	E	LTR	0.84	80.2	F	Unmitigated			
WB	LT	1.48	281.0	F	LT	1.51	291.5	F+				
	R	0.18	16.8	B	R	0.19	16.9	B				
NB	T	1.11	100.7	F	T	1.12	101.5	F				
SB	L	2.38	680.5	F	L	2.39	687.3	F+				
	T	0.64	17.9	B	T	0.64	17.9	B				
	Int.		169.9	F	Int.		172.5	F				
Nevins Street and Schermerhorn Street												
EB	TR	1.30	166.7	F	TR	1.32	174.2	F+	Unmitigated			
WB	LT	0.41	15.4	B	LT	0.41	15.5	B				
SB	LTR	1.35	204.5	F	LTR	1.37	213.3	F+				
	Int.		162.7	F	Int.		170.0	F				
Flatbush Avenue and Lafayette Avenue												
EB	L	3.13	1025.0	F	L	3.15	1032.0	F+	Unmitigated			
	LT	0.88	55.7	E	LT	0.89	56.8	E				
NB	TR	1.31	175.5	F	TR	1.31	176.3	F				
SB	DefL	0.70	59.9	E	DefL	0.70	60.2	E				
	T	0.74	18.3	B	T	0.74	18.3	B				
	Int.		175.5	F	Int.		176.8	F				
Flatbush Avenue and 4th Avenue												
NB	T	0.70	27.7	C	T	0.70	27.8	C	T	0.69	26.8	C
SB	T	0.93	44.3	D	T	0.93	44.5	D	T	0.92	41.6	D
	R	1.46	249.0	F	R	1.47	254.8	F+	R	1.45	243.3	F
	Int.		81.2	F	Int.		82.8	F	Int.		78.9	E
Ashland Place and Fulton Street												
EB	LT	1.59	295.7	F	LT	1.60	302.4	F+	LT	1.55	280.3	F
	R	0.27	13.4	B	R	0.28	13.5	B	R	0.28	12.9	B
WB	LT	0.72	25.6	C	LT	0.73	26.1	C	LT	0.70	23.2	C
	R	0.53	18.5	C	R	0.53	18.5	B	R	0.51	17.4	B
NB	L	0.72	38.0	D	L	0.75	40.2	D	L	0.78	43.6	D
	TR	0.52	25.8	C	TR	0.53	26.0	C	TR	0.55	27.2	C
SB	L	0.55	31.1	C	L	0.55	31.5	C	L	0.58	33.8	C
	TR	0.19	20.1	C	TR	0.19	20.1	C	TR	0.19	20.8	C
	Int.		113.5	F	Int.		115.5	F	Int.		108.4	F
Ashland Place and Lafayette Avenue												
EB	LTR	1.57	279.1	F	LTR	1.60	289.5	F+	Unmitigated			
NB	TR	0.73	29.2	C	TR	0.75	30.6	C				
SB	LT	1.57	303.1	F	LT	1.63	329.8	F+				
	Int.		237.8	F	Int.		248.3	F				
Fort Greene Place and Hanson Place												
EB	TR	0.57	18.4	B	TR	0.59	19.1	B	TR	0.62	21.0	C
WB	LT	0.42	15.4	B	LT	0.42	15.5	B	LT	0.45	16.9	B
NB	LR	0.96	55.0	E	LR	1.00	63.3	E+	LR	0.95	50.0	D
SB	LTR	0.30	12.9	B	LTR	0.30	13.0	B	LTR	0.29	12.2	B
	Int.		30.4	C	Int.		33.8	C	Int.		29.5	C
Flatbush Avenue and State Street												
EB	Unsignalized Intersection								R	0.37	26.0	C
NB									T	0.89	34.1	C
SB									T	0.88	33.1	C
	Int.		33.2	E								

Notes: L = Left-turn; T = Through; R = Right-turn; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection
 + Denotes significant adverse impact

Table 17
2025 No Action, With Action, and Mitigation Conditions LOS Analysis
Weekday Midday Peak Hour – Without Flatbush Avenue Reconstruction Scenario

Intersection	Weekday Midday											
	2025 No Action				2025 With Action				2025 Mitigation			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Signalized Intersections												
Flatbush Avenue and Fulton Street												
EB	LTR	0.83	78.1	E	LTR	0.84	80.2	F	Unmitigated			
WB	LT	1.48	281.0	F	LT	1.51	291.5	F+				
	R	0.18	16.8	B	R	0.19	16.9	B				
NB	T	1.11	100.7	F	T	1.12	101.5	F				
SB	L	2.38	680.5	F	L	2.39	687.3	F+				
	T	0.64	17.9	B	T	0.64	17.9	B				
	Int.		169.9	F	Int.		172.5	F				
Nevins Street and Schermerhorn Street												
EB	TR	1.30	166.7	F	TR	1.32	174.2	F+	Unmitigated			
WB	LT	0.41	15.4	B	LT	0.41	15.5	B				
SB	LTR	1.35	204.5	F	LTR	1.37	213.3	F+				
	Int.		162.7	F	Int.		170.0	F				
Flatbush Avenue and Lafayette Avenue												
EB	L	3.13	1025.0	F	L	3.15	1032.0	F+	Unmitigated			
	LT	0.88	55.7	E	LT	0.89	56.8	E				
NB	TR	1.31	175.5	F	TR	1.31	176.3	F				
SB	Defl	0.70	59.9	E	Defl	0.70	60.2	E				
	T	0.74	18.3	B	T	0.74	18.3	B				
	Int.		175.5	F	Int.		176.8	F				
Flatbush Avenue and 4th Avenue												
NB	T	0.70	27.7	C	T	0.70	27.8	C	T	0.69	26.8	C
SB	T	0.93	44.3	D	T	0.93	44.5	D	T	0.92	41.6	D
	R	1.46	249.0	F	R	1.47	254.8	F+	R	1.45	243.3	F
	Int.		81.2	F	Int.		82.8	F	Int.		78.9	E
Ashland Place and Fulton Street												
EB	LT	1.59	295.7	F	LT	1.60	302.4	F+	LT	1.55	280.3	F
	R	0.27	13.4	B	R	0.28	13.5	B	R	0.28	12.9	B
WB	LT	0.72	25.6	C	LT	0.73	26.1	C	LT	0.70	23.2	C
	R	0.53	18.5	C	R	0.53	18.5	B	R	0.51	17.4	B
NB	L	0.72	38.0	D	L	0.75	40.2	D	L	0.78	43.6	D
	TR	0.52	25.8	C	TR	0.53	26.0	C	TR	0.55	27.2	C
SB	L	0.55	31.1	C	L	0.55	31.5	C	L	0.58	33.8	C
	TR	0.19	20.1	C	TR	0.19	20.1	C	TR	0.19	20.8	C
	Int.		113.5	F	Int.		115.5	F	Int.		108.4	F
Ashland Place and Lafayette Avenue												
EB	LTR	1.57	279.1	F	LTR	1.60	289.5	F+	Unmitigated			
NB	TR	0.73	29.2	C	TR	0.75	30.6	C				
SB	LT	1.57	303.1	F	LT	1.63	329.8	F+				
	Int.		237.8	F	Int.		248.3	F				
Fort Greene Place and Hanson Place												
EB	TR	0.57	18.4	B	TR	0.59	19.1	B	TR	0.62	21.0	C
WB	LT	0.42	15.4	B	LT	0.42	15.5	B	LT	0.45	16.9	B
NB	LR	0.96	55.0	E	LR	1.00	63.3	E+	LR	0.95	50.0	D
SB	LTR	0.30	12.9	B	LTR	0.30	13.0	B	LTR	0.29	12.2	B
	Int.		30.4	C	Int.		33.8	C	Int.		29.5	C
Flatbush Avenue and State Street												
EB	Unsignalized Intersection								R	0.37	26.0	C
NB									T	0.89	34.1	C
SB									T	0.88	33.1	C
	Int.		33.2	E								

Notes: L = Left-turn; T = Through; R = Right-turn; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection
 + Denotes significant adverse impact

Nevins Street and Schermerhorn Street

The significant adverse impacts at the southbound and eastbound approaches of this intersection during the weekday AM and midday peak hours and at the southbound approach in the PM peak hour could not be mitigated.

3rd Avenue and State Street

The significant adverse impacts at the eastbound approach at this intersection during the weekday PM peak hour could be fully mitigated by shifting 4 seconds of green time from the northbound phase to the eastbound phase.

3rd Avenue and Atlantic Avenue

The significant adverse impact at the westbound through and westbound right at this intersection during the weekday AM peak hour could not be mitigated.

Flatbush Avenue and DeKalb Avenue

The significant adverse impacts at the westbound approach at this intersection during the weekday AM peak hour could be fully mitigated by implementing the measures recommended for the With Flatbush Avenue Reconstruction Scenario: a shift of 1 second of green time from the eastbound/westbound leading pedestrian interval phase to the eastbound/westbound phase.

Flatbush Avenue and Fulton Street

The significant adverse impacts at the westbound left-through and southbound left-turn during the weekday AM, midday, and PM peak hours, and at the eastbound approach during the weekday PM peak hour, could not be mitigated.

Flatbush Avenue and Lafayette Avenue

The significant adverse impacts at the eastbound left-turn during the weekday AM, midday, and PM peak hours, at the eastbound left-through during the weekday AM peak hour, and northbound approach during the weekday AM and PM peak hours could not be mitigated.

Flatbush Avenue and Schermerhorn Street

The significant adverse impact at the eastbound approach during the weekday PM peak hour could not be mitigated.

Flatbush Avenue and State Street

The significant adverse impacts at the eastbound approach at the Flatbush Avenue and State Street intersection during the weekday AM, midday, and PM peak hours would be fully mitigated by installing a traffic signal.

Flatbush Avenue and 4th Avenue

The significant adverse impact at the southbound right-turn during the weekday midday peak hour could be fully mitigated by implementing the measures recommended for the With Flatbush Avenue Reconstruction Scenario: a shift of 1 second of green time from the all-pedestrian phase to the northbound/southbound phase. The significant adverse impact at the southbound right-turn during the weekday AM and PM peak hours could not be fully mitigated.

Flatbush Avenue and Atlantic Avenue

The significant adverse impact at the westbound through during the weekday AM and PM peak hour could be fully mitigated by implementing the measures recommended for the With Flatbush Avenue Reconstruction Scenario: a shift of 1 second of green time from the eastbound-through only phase to the eastbound/westbound phase.

4th Avenue and Atlantic Avenue

The significant adverse impacts at the southbound left-through and right-turn during the weekday AM peak hour could be fully mitigated by implementing the measures recommended for the With Flatbush Avenue Reconstruction Scenario: a shift of 6 seconds of green time from the eastbound/westbound phase to the southbound phase.

Ashland Place and Fulton Street

The significant adverse impact at the eastbound left-through during the weekday midday peak hour could be fully mitigated by implementing the measures recommended for the With Flatbush Avenue Reconstruction Scenario: a shift of 1 second of green time from the northbound/southbound phase to the eastbound/westbound phase. The significant adverse impacts at the eastbound left-through, northbound through-right, and southbound left during the weekday AM peak hour, and at the eastbound left-through, northbound left, and southbound left during the weekday PM peak hour could not be mitigated.

Ashland Place and Lafayette Avenue

The significant adverse impacts at the eastbound approach during the weekday AM peak hour, at the northbound approach during the weekday PM peak hour, and at the southbound approach during the weekday AM, midday, and PM peak hours could not be mitigated.

Fort Greene Place and Hanson Place

The significant adverse impacts at the northbound approach during the weekday midday and PM peak hours could be fully mitigated by implementing the measures recommended for the With Flatbush Avenue Reconstruction Scenario: a shift of 1 and 3 seconds of green time from the eastbound/westbound phase to the northbound/southbound phase, respectively.

PEDESTRIANS

As discussed in Chapter 11, "Transportation," pedestrian conditions were evaluated at 8 sidewalks, 9 corner reservoirs, and 10 crosswalks in the weekday peak hours in the With Flatbush Avenue Reconstruction Scenario, and 9 sidewalks, 8 corner reservoirs, and 8 crosswalks in the weekday peak hours in the Without Flatbush Avenue Reconstruction Scenario.. In the 2025 With Action condition, pedestrian analysis concluded that the the proposed project would result in the potential for significant adverse pedestrian impacts at two crosswalks during the weekday midday and PM peak hoursi the With Flatbush Avenue Reconstruction Scenario and the Without Flatbush Avenue Reconstruction Scenario.

WITH FLATBUSH AVENUE RECONSTRUCTION

The pedestrian mitigation measures and mitigated conditions in the With Flatbush Avenue Reconstruction Scenario are summarized in **Table 18**. Implementation of these measures would be subject to approval by DOT prior to implementation. Measures that consist of crosswalk restriping within certain guidelines are generally considered feasible.

Table 18
2025 No Action, With Action, and Mitigation Conditions
(With Flatbush Avenue Reconstruction)
Pedestrian LOS Analysis

Location	Mitigation Measures	2025 No Action		2025 With Action		2025 Mitigation	
		SFP	LOS	SFP	LOS	SFP	LOS
Weekday Midday Peak Hour							
North Crosswalk of 3rd Avenue and State Street	Widen the north crosswalk by 3 feet, from 11.5 feet to 14.5 feet	8.65	E	6.94	F	9.15	E
South Crosswalk of Flatbush Avenue and Lafayette Avenue / Schermerhorn Street	Widen the south crosswalk by 2.5 feet, from 18 feet to 20.5 feet	20.57	D	18.45	D	21.25	D
Weekday PM Peak Hour							
North Crosswalk of 3rd Avenue and State Street	Widen the north crosswalk by 3 feet, from 11.5 feet to 14.5 feet	8.14	E	5.85	F	7.77	F
South Crosswalk of Flatbush Avenue and Lafayette Avenue / Schermerhorn Street	Widen the south crosswalk by 2.5 feet from 18.0 feet to 20.5 feet	18.70	D	15.07	D	17.37	D

WITHOUT FLATBUSH AVENUE RECONSTRUCTION

The pedestrian mitigation measures and mitigated conditions in the With Flatbush Avenue Reconstruction Scenario are summarized in **Table 19**. Implementation of these measures would be subject to approval by DOT prior to implementation. Measures that consist of crosswalk restriping within certain guidelines are generally considered feasible.

Table 19
2025 No Action, With Action, and Mitigation Conditions
(Without Flatbush Avenue Reconstruction)
Pedestrian Level of Service Analysis

Location	Mitigation Measures	2025 No Action		2025 With Action		2025 Mitigation	
		SFP	LOS	SFP	LOS	SFP	LOS
Weekday Midday Peak Hour							
North Crosswalk of 3rd Avenue and State Street	Widen the north crosswalk by 3 feet, from 11.5 feet to 14.5 feet	8.65	E	6.94	F	9.15	E
South Crosswalk of Flatbush Avenue and Lafayette Avenue / Schermerhorn Street	Widen the south crosswalk by 2.0 feet, from 15.0 feet to 17.0 feet	16.86	D	15.10	D	17.33	D
Weekday PM Peak Hour							
North Crosswalk of 3rd Avenue and State Street	Widen the north crosswalk by 3 feet, from 11.5 feet to 14.5 feet	8.14	E	5.85	F	7.77	F
South Crosswalk of Flatbush Avenue and Lafayette Avenue / Schermerhorn Street	Widen the south crosswalk by 2.0 feet, from 15.0 feet to 17.0 feet	15.33	D	12.32	E	14.15	E

Note: This table has been added to the FEIS.

Mitigation Implementation

Subject to the approvals of DOT, the above recommended mitigation measures would be implemented to mitigate the projected significant adverse traffic impacts at the completion of the proposed project in 2025.

CONSTRUCTION

Noise

Chapter 16, "Construction," concludes that the proposed project would have the potential to result in significant adverse construction noise impacts throughout the project site and at sensitive receptors in the vicinity of the project site. The detailed modeling analysis concluded that construction of the proposed project has the potential to result in construction significant adverse impacts at residences immediately across State Street south of the project site, the existing Khalil Gibran International Academy, residences along 3rd Avenue between Schermerhorn Street and State Street, and the YWCA on 3rd Avenue between State Street and Atlantic Avenue.

Between the DEIS and FEIS, additional control measures beyond those already identified in Chapter 16, "Construction," were explored to determine if there are feasible and practicable measures that could mitigate the potential construction noise impacts listed above. Such measures included source controls (e.g., changes to construction equipment or logistics) and/or path controls (e.g., noise barriers or enclosures) and were focused on the dominant sources of construction noise identified in the construction noise analysis, i.e., demolition, excavation, and foundation construction. Considering the site constraints (i.e. availability of construction area and truck traffic routes), additional source and path controls were determined not to be feasible and practicable to mitigate, partially or fully, the predicted significant adverse construction noise impacts. In addition to the source and path noise control measures identified in the "Noise Reduction Measures" section of Chapter 16, "Construction," receptor control measures were also considered. Field observations determined that many of the sensitive receptor buildings have insulated glass windows and alternate means of ventilation (i.e., air conditioning).

For the residences along State Street across from the project site, the co-applicants will offer to provide storm windows for dwelling units (DUs) that have monolithic (i.e., non-insulated) glass windows, and will offer to provide well-sealed window air-conditioning units for DUs that do not already have them.

The existing Khalil Gibran International Academy already has insulated glass windows and window air/conditioning units. However, the co-applicants will offer to provide well-sealed window air-conditioning units at any classrooms that do not already have air conditioning.

For the residences along 3rd Avenue across from the project site up to 465 State Street, and south of State Street up to 29 3rd Avenue, the co-applicants will offer to provide storm windows for DUs that have monolithic (i.e., non-insulated) glass windows, and will offer to provide well-sealed window air-conditioning units for DUs that do not already have them.

The YWCA on 3rd Avenue between State Street and Atlantic Avenue already has insulated glass windows and window air/conditioning units. However, the co-applicants will offer to provide well-sealed window air-conditioning units at any DUs or community facility spaces that do not already have air conditioning.

These buildings, with insulated glass windows or monolithic glass windows plus a secondary storm window, as well as an alternate means of ventilation, would be expected to provide approximately 25 dBA window/wall attenuation. Even with these measures, buildings with this construction would be expected to experience interior $L_{10(1)}$ values greater than the 45 dBA guideline recommended for residential and community spaces according to CEQR noise exposure guidelines. Therefore, the significant adverse construction noise impacts identified in Chapter 16, "Construction," would be only partially mitigated.

TRAFFIC

As discussed in Chapter 16, “Construction,” an analysis of the 27 study area intersections showed that 17 of the 27 intersections would be significantly impacted during the 6:00 AM to 7:00 AM construction peak hour, and 19 of the 27 intersections would be significantly impacted during the 3:00 PM to 4:00 PM construction peak hour. The significant adverse impacts could be fully mitigated by applying temporary shifts in signal timing and other standard traffic mitigation measures, except at the Flatbush Avenue and Fulton Street intersection in the AM and PM peak hours, the Atlantic Avenue and 3rd Avenue intersection in the AM and PM peak hours, the Flatbush Avenue and Lafayette Avenue intersection in the AM and PM peak hours, the Flatbush Avenue and 4th Avenue intersection in the AM and PM peak hours, the Fulton Street and Ashland Place intersection in the AM and PM peak hours, the Atlantic Avenue and Nevins Street intersection in the PM peak hour, the South Portland Avenue and Fulton Street intersection in the AM peak hour, the Atlantic Avenue and Bond Street intersection in the PM peak hour, the Atlantic Avenue and Fort Greene Place intersection in the PM peak hour, and the Fulton Street and Hanson Place/Greene Avenue intersection in the AM peak hour, where the potential significant adverse traffic impacts would be unmitigatable.

In consultation with DOT, only the With Flatbush Avenue Reconstruction scenario was analyzed for the construction conditions. This would include the DOT-proposed closure of Schermerhorn Street between 3rd Avenue and Flatbush Avenue, obviating the need to analyze the Flatbush Avenue and Schermerhorn Street intersection for construction conditions. Should DOT not implement the Flatbush Avenue Reconstruction project, the construction traffic conditions would be more favorable or the same at the study locations as compared to the scenario Without Flatbush Avenue Reconstruction, with the exception of State Street and Flatbush Avenue. That intersection would be significantly impacted and be mitigatable by installing traffic signal, as described previously for operational conditions Without Flatbush Avenue Reconstruction.

Table 20 summarizes the capacity analysis results and mitigation recommendations for the 6:00 AM to 7:00 AM construction peak hour, and **Table 21** summarizes the capacity analysis results and mitigation recommendations for the 3:00 PM to 4:00 PM construction peak hour. A discussion of the results for the impacted intersections is provided below.

Flatbush Avenue and DeKalb Avenue

- Westbound approach at the Flatbush Avenue and DeKalb Avenue intersection would deteriorate within LOS F (from a v/c ratio of 1.43 and 241.0 spv of delay to a v/c ratio of 1.46 and 253.7 spv of delay) in the weekday PM construction peak hour, an increase in delay of more than 3 seconds. This increase in delay constitutes a significant adverse impact.
- Southbound through-right turn at the Flatbush Avenue and DeKalb Avenue intersection would deteriorate within LOS D (from a v/c ratio of 0.96 and 42.3 spv of delay to a v/c ratio of 0.98 and 47.5 spv of delay) in the weekday AM construction peak hour, an increase in delay of more than 5 seconds. This increase in delay constitutes a significant adverse impact.
- The significant adverse impacts at the southbound approach at this intersection during the weekday AM construction peak hour could be fully mitigated by shifting 1 second of green time from the eastbound/westbound leading pedestrian interval phase to the southbound phase. The significant adverse impacts at the westbound approach at this intersection during the weekday PM construction peak hour could be fully mitigated by shifting 1 second of green time from the eastbound/westbound leading pedestrian interval phase to the eastbound/westbound phase.

Flatbush Avenue and Fulton Street

- Eastbound approach at the Flatbush Avenue and Fulton Street intersection would deteriorate within LOS E (from a v/c ratio of 0.81 and 69.9 spv of delay to a v/c ratio of 0.85 and 76.9 spv of delay) in the weekday PM construction peak hour, an increase in delay of more than 4 seconds. This increase in delay constitutes a significant adverse impact.
- Westbound left-turn/through at the Flatbush Avenue and Fulton Street intersection would deteriorate within LOS F (from a v/c ratio of 1.31 and 209.1 spv of delay to a v/c ratio of 1.39 and 243.4 spv of delay) in the weekday AM construction peak hour and within LOS F (from a v/c ratio of 1.47 and 277.2 spv of delay to a v/c ratio of 1.59 and 329.6 spv of delay) in the weekday PM construction peak hour, increases in delay of more than 3 seconds. These increases in delay constitute significant adverse impacts.
- Southbound left-turn at the Flatbush Avenue and Fulton Street intersection would deteriorate within LOS F (from a v/c ratio of 2.20 and 605.1 spv of delay to a v/c ratio of 2.34 and 667.2 spv of delay) in the weekday AM construction peak hour and within LOS F (from a v/c ratio of 2.04 and 530.2 spv of delay to a v/c ratio of 2.13 and 570.0 spv of delay) in the weekday PM construction peak hour, increases in delay of more than 3 seconds. These increases in delay constitute significant adverse impacts.
- Similar to the operational conditions, the significant adverse impacts at the westbound left-through and southbound left-turn during the weekday AM and PM construction peak hours and at the eastbound approach during the weekday PM construction peak hour, could not be mitigated.

Nevins Street and Schermerhorn Street

- Eastbound through-right turn at the Nevins Street and Schermerhorn Street intersection would deteriorate from LOS C (from a v/c ratio of 0.79 and 27.7 spv of delay) to LOS D (to a v/c ratio of 0.95 and 47.4 spv of delay) in the weekday AM construction peak hour and within LOS F (from a v/c ratio of 1.10 and 88.1 spv of delay to a v/c ratio of 1.15 and 107.4 spv of delay) in the weekday PM construction peak hour, increases in delay of more than 5 seconds and 3 seconds, respectively. These increases in delay constitute significant adverse impacts.
- Southbound approach at the Nevins Street and Schermerhorn Street intersection would deteriorate within LOS F (from a v/c ratio of 1.16 and 129.4 spv of delay to a v/c ratio of 1.25 and 161.9 spv of delay) in the weekday AM construction peak hour and within LOS F (from a v/c ratio of 1.37 and 212.7 spv of delay to a v/c ratio of 1.43 and 236.2 spv of delay) in the weekday PM construction peak hour, increases in delay of more than 3 seconds. These increases in delay constitute significant adverse impacts.
- The significant adverse impacts at the eastbound and southbound approaches of this intersection during the weekday AM and PM construction peak hours could not be mitigated.

Flatbush Avenue and Lafayette Avenue

- Eastbound left-turn at the Flatbush Avenue and Lafayette Avenue intersection would deteriorate within LOS F (from a v/c ratio of 1.35 and 225.1 spv of delay to a v/c ratio of 1.43 and 256.4 spv of delay) in the weekday AM construction peak hour and within LOS F (from a v/c ratio of 1.46 and 271.9 spv of delay to a v/c ratio of 1.52 and 299.5 spv of delay) in the weekday PM construction peak hour, increases in delay of more than 3 seconds. These increases in delay constitute significant adverse impacts.

- Eastbound left-turn/through at the Flatbush Avenue and Lafayette Avenue intersection would deteriorate within LOS E (from a v/c ratio of 0.88 and 55.7 spv of delay to a v/c ratio of 0.93 and 63.0 spv of delay) in the weekday AM construction peak hour, an increase in delay of more than 4 seconds. This increase in delay constitutes a significant adverse impact.
- Northbound through-right turn at the Flatbush Avenue and Lafayette Avenue intersection would deteriorate from LOS E (from a v/c ratio of 1.08 and 79.4 spv of delay) to LOS F (to a v/c ratio of 1.14 and 102.6 spv of delay) in the weekday AM construction peak hour and within LOS E (from a v/c ratio of 1.03 and 63.4 spv of delay to a v/c ratio of 1.04 and 68.3 spv of delay) in the weekday PM construction peak hour, increases in delay of more than 4 seconds. These increases in delay constitute significant adverse impacts.
- Similar to the operational conditions, the significant adverse impacts at the eastbound left-turn during the weekday AM and PM construction peak hours, at the eastbound left-through during the weekday AM construction peak hour, and northbound approach during the weekday AM and PM construction peak hours could not be mitigated.

Schermerhorn Street and 3rd Avenue

- Eastbound left-turn at the 3rd Avenue and Schermerhorn Street intersection would deteriorate within LOS F (from a v/c ratio of 1.02 and 94.5 spv of delay to a v/c ratio of 1.08 and 113.6 spv of delay) in the weekday AM construction peak hour, an increase in delay of more than 3 seconds. This increase in delay constitutes a significant adverse impact.
- Northbound left-turn/through at the 3rd Avenue and Schermerhorn Street intersection would deteriorate within LOS F (from a v/c ratio of 1.06 and 93.1 spv of delay to a v/c ratio of 1.08 and 96.9 spv of delay) in the weekday AM construction peak hour, an increase in delay of more than 3 seconds. This increase in delay constitutes a significant adverse impact.
- The significant adverse impacts at the eastbound and northbound approaches of this intersection during the weekday AM construction peak hour could be fully mitigated by shifting three seconds of green time from the southbound/eastbound leading pedestrian phase and adding two seconds to the eastbound phase and one second to the northbound phase.

Nevins Street and State Street

- Southbound left-turn/through at the Nevins Street and State Street intersection would deteriorate within LOS D (from a v/c ratio of 0.89 and 35.5 spv of delay to a v/c ratio of 0.97 and 48.8 spv of delay) in the weekday PM construction peak hour, an increase in delay of more than 5 seconds. This increase in delay constitutes a significant adverse impact.
- The significant adverse impacts at the southbound approaches of this intersection during the weekday PM construction peak hour could be fully mitigated by applying implementing the same mitigation measures proposed under the operational condition for the With Flatbush Avenue Reconstruction Scenario.

3rd Avenue and State Street

- Eastbound left-turn/through at the 3rd Avenue and State Street intersection would deteriorate within LOS F (from a v/c ratio of 1.55 and 314.9 spv of delay to a v/c ratio of 1.64 and 353.0 spv of delay) in the weekday PM construction peak hour, an increase in delay of more than 3 seconds. This increase in delay constitutes a significant adverse impact.

- The significant adverse impact at the eastbound approach of this intersection during the weekday PM construction peak hour could be fully mitigated by shift 3 seconds of green time from northbound phase to eastbound phase.

3rd Avenue and Atlantic Avenue

- Westbound through at the 3rd Avenue and Atlantic Avenue intersection would deteriorate within LOS F (from a v/c ratio of 1.12 and 96.8 spv of delay to a v/c ratio of 1.14 and 104.8 spv of delay) in the weekday AM construction peak hour and within LOS D (from a v/c ratio of 0.93 and 41.1 spv of delay to a v/c ratio of 0.97 and 47.8 spv of delay) in the weekday PM construction peak hour, increases in delay of more than 3 seconds and 5 seconds, respectively. These increases in delay constitute significant adverse impacts.
- Westbound right-turn at the 3rd Avenue and Atlantic Avenue intersection would deteriorate within LOS D (from a v/c ratio of 0.81 and 42.2 spv of delay to a v/c ratio of 0.88 and 50 spv of delay) in the weekday AM construction peak hour, an increase in delay of more than 5 seconds. This increase in delay constitutes a significant adverse impact.
- The significant adverse impact at the westbound through and westbound right at this intersection during the weekday AM construction peak hour, and at the westbound through during the weekday PM construction peak hour, could not be mitigated.

Flatbush Avenue and 4th Avenue

- Southbound right-turn at the Flatbush Avenue and 4th Avenue intersection would deteriorate within LOS F (from a v/c ratio of 1.42 and 234.0 spv of delay to a v/c ratio of 1.52 and 275.6 spv of delay) in the weekday AM construction peak hour and within LOS F (from a v/c ratio of 1.52 and 277.3 spv of delay to a v/c ratio of 1.60 and 309.4 spv of delay) in the weekday PM construction peak hour, increases in delay of more than 3 seconds. These increases in delay constitute significant adverse impacts.
- Similar to operational conditions, the significant adverse impacts at the southbound right-turn during the weekday AM and PM construction peak hours could not be fully mitigated.

4th Avenue and Atlantic Avenue

- Westbound through at the 4th Avenue and Atlantic Avenue intersection would deteriorate from LOS D (from a v/c ratio of 0.93 and 49.6 spv of delay) to LOS E (to a v/c ratio of 0.97 and 55.6 spv of delay) in the weekday PM construction peak hour, an increase in delay of more than 5 seconds. This increase in delay constitutes a significant adverse impact.
- Southbound left-turn/through at the 4th Avenue and Atlantic Avenue intersection would deteriorate within LOS F (from a v/c ratio of 1.11 and 117.7 spv of delay to a v/c ratio of 1.12 and 122.2 spv of delay) in the weekday AM construction peak hour, an increase in delay of more than 3 seconds. This increase in delay constitutes a significant adverse impact.
- Southbound right-turn at the 4th Avenue and Atlantic Avenue intersection would deteriorate from LOS E (from a v/c ratio of 0.68 and 61.4 spv of delay) to LOS F (to a v/c ratio of 0.95 and 101.6 spv of delay) in the weekday AM construction peak hour, an increase in delay of more than 4 seconds. This increase in delay constitutes a significant adverse impact.
- The significant adverse impact at the southbound left-through and right-turn during the weekday AM construction peak hour could be fully mitigated by implementing the same mitigation measures proposed under the operational condition for the With Flatbush Avenue Reconstruction Scenario.

- The significant adverse impact at the westbound through during the weekday PM construction peak hour could be fully mitigated by shifting 1 second of green time from the northbound phase to the eastbound/westbound-through/westbound-right turn phase.

Flatbush Avenue and Atlantic Avenue

- Westbound through at the Flatbush Avenue and Atlantic Avenue intersection would deteriorate within LOS F (from a v/c ratio of 1.52 and 278.6 spv of delay to a v/c ratio of 1.54 and 287.3 spv of delay) in the weekday AM construction peak hour and within LOS F (from a v/c ratio of 1.27 and 169.3 spv of delay to a v/c ratio of 1.32 and 192.0 spv of delay) in the weekday PM construction peak hour, increases in delay of more than 3 seconds. These increases in delay constitute significant adverse impacts.
- The significant adverse impact at the westbound through-right during the weekday AM construction peak hour could be fully mitigated by applying mitigation measures (i.e. signal timing changes) similar to those proposed under the operational conditions.
- The significant adverse impact at the westbound through-right during the weekday PM construction peak hour could be fully mitigated by shifting 2 seconds of green time from the eastbound-through only phase to the eastbound/westbound phase.

Ashland Place and Fulton Street

- Eastbound left-turn/through at the Ashland Place and Fulton Street intersection would deteriorate within LOS F (from a v/c ratio of 1.95 and 458.5 spv of delay to a v/c ratio of 1.98 and 472.8 spv of delay) in the weekday AM construction peak hour and within LOS F (from a v/c ratio of 1.77 and 377.5 spv of delay to a v/c ratio of 1.82 and 399.2 spv of delay) in the weekday PM construction peak hour, increases in delay of more than 3 seconds. These increases in delay constitute significant adverse impacts.
- Northbound left-turn at the Ashland Place and Fulton Street intersection would deteriorate from LOS D (from a v/c ratio of 0.84 and 51.1 spv of delay) to LOS E (to a v/c ratio of 0.95 and 70.5 spv of delay) in the weekday PM construction peak hour, an increase in delay of more than 5 seconds. This increase in delay constitutes a significant adverse impact.
- Southbound left-turn at the Ashland Place and Fulton Street intersection would deteriorate within LOS D (from a v/c ratio of 0.63 and 44.5 spv of delay to a v/c ratio of 0.68 and 50.5 spv of delay) in the weekday AM construction peak hour and from LOS E (from a v/c ratio of 0.88 and 63.0 spv of delay) to LOS F (to a v/c ratio of 0.97 and 85.7 spv of delay) in the weekday PM construction peak hour, increases in delay of more than 5 seconds and 4 seconds, respectively. These increases in delay constitute significant adverse impacts.
- Similar to operational conditions, the significant adverse impacts at eastbound left-through, westbound left-through and southbound left during the weekday AM construction peak hour, and at the eastbound left-through, westbound left-through, northbound left, and southbound left during the weekday PM construction peak hour, could not be mitigated.

Ashland Place and Lafayette Avenue

- Eastbound approach at the Ashland Place and Lafayette Avenue intersection would deteriorate from LOS D (from a v/c ratio of 0.92 and 38.5 spv of delay) to LOS E (to a v/c ratio of 1.02 and 58.8 spv of delay) in the weekday AM construction peak hour, an increase in delay of more than 5 seconds. This increase in delay constitutes a significant adverse impact.

- Northbound through-right turn at the Ashland Place and Lafayette Avenue intersection would deteriorate from LOS D (from a v/c ratio of 0.81 and 51.6 spv of delay) to LOS E (to a v/c ratio of 0.88 and 59.9 spv of delay) in the weekday PM construction peak hour, an increase in delay of more than 5 seconds. This increase in delay constitutes a significant adverse impact.
- Southbound left-turn/through at the Ashland Place and Lafayette Avenue intersection would deteriorate within LOS E (from a v/c ratio of 0.83 and 65.2 spv of delay to a v/c ratio of 0.87 and 72.7 spv of delay) in the weekday AM construction peak hour and within LOS F (from a v/c ratio of 1.50 and 291.3 spv of delay to a v/c ratio of 1.64 and 351.0 spv of delay) in the weekday PM construction peak hour, increases in delay of more than 4 seconds and 3 seconds, respectively. These increases in delay constitute significant adverse impacts.
- The significant adverse impacts at the eastbound and southbound approaches during the weekday AM construction peak hour and at the northbound and southbound approaches during the weekday PM construction peak hour could not be mitigated.

Fort Greene Place and Hanson Place

- Northbound left-right turn at the Fort Greene Place and Hanson Place intersection would deteriorate from LOS E (from a v/c ratio of 1.04 and 78.2 spv of delay) to LOS F (to a v/c ratio of 1.11 and 99.9 spv of delay) in the weekday PM construction peak hour, an increase in delay of more than 4 seconds. This increase in delay constitutes a significant adverse impact.
- The significant adverse impact at the northbound approach during the weekday PM construction peak hour could be fully mitigated by shifting 1 second of green time from the eastbound/westbound phase to the northbound/southbound phase, respectively.

Atlantic Avenue and Nevins Street

- Westbound left-turn/through at the Atlantic Avenue and Nevins Street intersection would deteriorate within LOS E (from a v/c ratio of 1.07 and 69 spv of delay to a v/c ratio of 1.09 and 75.7 spv of delay) in the weekday AM construction peak hour and from LOS E (from a v/c ratio of 1.08 and 74.1 spv of delay) to LOS F (to a v/c ratio of 1.12 and 89.8 spv of delay) in the weekday PM construction peak hour, increases in delay of more than 4 seconds. These increases in delay constitute significant adverse impacts.
- Southbound through-right turn at the Atlantic Avenue and Nevins Street intersection would deteriorate from LOS E (from a v/c ratio of 0.95 and 77.8 spv of delay) to LOS F (to a v/c ratio of 0.96 and 80.6 spv of delay) in the weekday PM construction peak hour, an increase in delay of more than 4 seconds. This increase in delay constitutes a significant adverse impact.
- The significant adverse impact at the westbound approach during the weekday AM construction peak hour could be fully mitigated by shifting 1 second of green time from southbound phase to eastbound/westbound phase.
- The significant adverse impact at southbound through-right turn during the weekday PM construction peak hour could not be mitigated.

Hudson Avenue and Fulton Street

- Eastbound left-turn/through at the Hudson Avenue and Fulton Street intersection would deteriorate within LOS D (from a v/c ratio of 0.90 and 37.1 spv of delay to a v/c ratio of 0.95 and 46.2 spv of delay) in the weekday AM construction peak hour, an increase in delay of more than 5 seconds. This increase in delay constitutes a significant adverse impact.

- Westbound through at the Hudson Avenue and Fulton Street intersection would deteriorate within LOS F (from a v/c ratio of 1.01 and 83.1 spv of delay to a v/c ratio of 1.07 and 99.6 spv of delay) in the weekday PM construction peak hour, an increase in delay of more than 3 seconds. This increase in delay constitutes a significant adverse impact.
- The significant adverse impact at the eastbound left turn/through during the weekday AM construction peak hour could be fully mitigated by shifting 1 second of green time from the all-pedestrian phase to the eastbound/westbound phase.
- The significant adverse impact at the westbound through during the weekday PM construction peak hour could be fully mitigated by shifting 2 seconds of green time from the all-pedestrian phase to the eastbound/westbound phase.

Fulton Street and South Portland Avenue

- Westbound left-turn/through at the Fulton Street and South Portland Avenue intersection would deteriorate within LOS F (from a v/c ratio of 1.31 and 174.8 spv of delay to a v/c ratio of 1.51 and 261.9 spv of delay) in the weekday AM construction peak hour and within LOS F (from a v/c ratio of 1.59 and 298.5 spv of delay to a v/c ratio of 1.77 and 378.8 spv of delay) in the weekday PM construction peak hour, increases in delay of more than 3 seconds. These increases in delay constitute significant adverse impacts.
- The significant adverse impact at the westbound left-turn/through during the weekday PM construction peak hour could be fully mitigated by shifting 3 seconds of green time from the northbound/southbound phase to the eastbound/westbound phase.
- The significant adverse impact at the westbound left-turn/through during the weekday AM construction peak hour could not be mitigated.

Atlantic Avenue and Bond Street

- Westbound through-right turn at the Atlantic Avenue and Bond Street intersection would deteriorate within LOS F (from a v/c ratio of 1.14 and 102.1 spv of delay to a v/c ratio of 1.15 and 107.5 spv of delay) in the weekday AM construction peak hour and from LOS E (from a v/c ratio of 1.06 and 69.9 spv of delay) to LOS F (to a v/c ratio of 1.10 and 83.1 spv of delay) in the weekday PM construction peak hour, increases in delay of more than 3 seconds and 4 seconds, respectively. These increases in delay constitute significant adverse impacts.
- The significant adverse impact at the westbound through-right turn during the weekday AM construction peak hour could be fully mitigated by shifting 1 second of green time from the northbound phase to the eastbound/westbound phase.
- The significant adverse impact at the westbound through-right turn during the weekday PM peak hour could not be mitigated.

Atlantic Avenue and Fort Greene Place

- Westbound through-right turn at the Atlantic Avenue and Fort Greene Place intersection would deteriorate within LOS D (from a v/c ratio of 0.98 and 48.8 spv of delay to a v/c ratio of 1.00 and 54.1 spv of delay) in the weekday AM construction peak hour, an increase in delay of more than 5 seconds. This increase in delay constitutes a significant adverse impact.
- Southbound left-turn at the Atlantic Avenue and Fort Greene Place intersection would deteriorate within LOS D (from a v/c ratio of 0.57 and 43.0 spv of delay to a v/c ratio of 0.77 and 52.8 spv of delay) in the weekday PM construction peak hour, an increase in delay of more than 5 seconds. This increase in delay constitutes a significant adverse impact.

- Southbound right-turn at the Atlantic Avenue and Fort Greene Place intersection would deteriorate from LOS D (from a v/c ratio of 0.62 and 50.4 spv of delay) to LOS E (to a v/c ratio of 0.88 and 77.8 spv of delay) in the weekday PM peak hour, an increase in delay of more than 5 seconds. This increase in delay constitutes a significant adverse impact.
- The significant adverse impact at the westbound through-right turn during the weekday AM construction peak hour could be fully mitigated by shifting 1 second from the southbound phase to the eastbound/westbound phase.
- The significant adverse impacts at the southbound left-turn and southbound right-turn during the weekday PM construction peak hour could not be mitigated.

Fulton Street and Hanson Place / Greene Avenue

- Eastbound left-turn/through at the Fulton Street and Hanson Place / Greene Avenue intersection would deteriorate within LOS F (from a v/c ratio of 1.06 and 80.3 spv of delay to a v/c ratio of 1.14 and 107.7 spv of delay) in the weekday AM construction peak hour and within LOS F (from a v/c ratio of 1.45 and 233.4 spv of delay to a v/c ratio of 1.55 and 276 spv of delay) in the weekday PM construction peak hour, increases in delay of more than 3 seconds. These increases in delay constitute significant adverse impacts.
- Westbound through at the Fulton Street and Hanson Place / Greene Avenue intersection would deteriorate within LOS F (from a v/c ratio of 1.12 and 100.4 spv of delay to a v/c ratio of 1.18 and 120.3 spv of delay) in the weekday AM construction peak hour, increases in delay of more than 3 seconds. This increase in delay constitutes a significant adverse impact.
- The significant adverse impact at the eastbound left-turn/through during the weekday PM construction peak hour could be fully mitigated by shifting 3 seconds of green time from the northbound phase to the eastbound/southbound phase.
- The significant adverse impacts at the eastbound left-turn/through and at the westbound through during the weekday AM construction peak hour could not be mitigated.

Table 20
2024 No Action, With Action, and Mitigation Condition Level of Service Analysis
Signalized Intersections – Weekday AM Construction Peak Hour

Intersection	Weekday AM Construction Peak Hour												Recommended Mitigation Measures
	Construction 2024 No Action				Construction 2024 With Action				Construction 2024 Mitigation				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	
Flatbush Avenue and DeKalb Avenue													
WB	LTR	1.09	98.9	F	LTR	1.09	98.9	F	LTR	1.09	98.9	F	Shift 1 second of green time from eastbound / westbound leading pedestrian interval phase to southbound phase
NB	T	0.92	36.5	D	T	0.93	37.7	D	T	0.91	35.3	D	
SB	TR	0.96	42.3	D	TR	0.98	47.5	D+	TR	0.97	43.4	D	
	Int.		51.6	D	Int.		54.0	D	Int.		51.4	D	
Flatbush Avenue and 4th Avenue													
NB	T	0.77	29.9	C	T	0.78	30.2	C	Unmitigated				
SB	T	0.59	26.2	C	T	0.59	26.2	C					
	R	1.42	234.0	F	R	1.52	275.6	F+					
	Int.		74.8	E	Int.		86.8	F					
Ashland Place and Fulton Street													
EB	LT	1.95	458.5	F	LT	1.98	472.8	F+	Unmitigated				
	R	0.22	12.7	B	R	0.23	12.9	B					
WB	LT	0.78	25.5	C	LT	0.79	26.3	C					
	R	0.75	28.8	C	R	0.75	28.8	C					
NB	L	0.37	24.0	C	L	0.42	25.2	C					
	TR	0.85	41.5	D	TR	0.89	45.8	D					
SB	L	0.63	44.5	D	L	0.68	50.5	D+					
	TR	0.10	19.2	B	TR	0.10	19.2	B					
	Int.		144.0	F	Int.		148.4	F					
Flatbush Avenue and Atlantic Avenue													
EB	T	0.76	32.1	C	T	0.77	32.6	C	T	0.77	32.6	C	Implement Operational Mitigation Measures
	R	0.81	53.8	D	R	0.81	53.8	D	R	0.79	50.9	D	
WB	T	1.52	278.6	F	T	1.54	287.3	F+	T	1.50	269.4	F	
	R	0.90	66.6	E	R	0.91	68.5	E	R	0.88	63.3	E	
NB	T	0.86	33.9	C	T	0.89	36.4	D	T	0.89	36.4	D	
	R	0.43	22.2	C	R	0.43	22.2	C	R	0.43	22.2	C	
	Int.		100.8	F	Int.		103.7	F	Int.		98.4	F	
4th Avenue and Atlantic Avenue													
EB	T	0.67	30.2	C	T	0.69	30.5	C	T	0.77	37.9	D	Implement Operational Mitigation Measures
	R	0.26	27.7	C	R	0.26	27.7	C	R	0.31	32.9	D	
WB	T	0.78	32.5	C	T	0.79	32.9	C	T	0.89	42.8	D	
	L	0.90	78.7	E	L	0.90	78.7	E	L	0.90	78.7	E	
NB	LR	0.88	74.9	E	LR	0.88	74.9	E	LR	0.88	74.9	E	
	R	0.85	72.9	E	R	0.85	72.9	E	R	0.85	72.9	E	
SB	LT	1.11	117.7	F	LT	1.12	122.2	F+	LT	0.92	61.0	E	
	R	0.68	61.4	E	R	0.95	101.6	F+	R	0.75	60.2	E	
	Int.		55.3	E	Int.		57.9	E	Int.		51.5	D	
Flatbush Avenue and Fulton Street													
EB	LTR	0.55	45.7	D	LTR	0.55	45.7	D	Unmitigated				
WB	LT	1.31	209.1	F	LT	1.39	243.4	F+					
	R	0.53	26.7	C	R	0.52	26.7	C					
NB	T	0.90	43.0	D	T	0.92	44.2	D					
	L	2.20	605.1	F	L	2.34	667.2	F+					
	T	0.59	17.1	B	T	0.60	17.2	B					
	Int.		110.4	F	Int.		124.2	F					
3rd Avenue and Schermerhorn Street													
EB	L	1.02	94.5	F	L	1.08	113.6	F+	L	1.02	94.1	F	Shift 3 seconds of green time from the all-pedestrian phase: 2 seconds to eastbound phase and 1 second to northbound phase.
NB	LT	1.06	93.1	F	LT	1.08	96.9	F+	LT	1.05	86.5	F	
	Int.		93.5	F	Int.		102.5	F	Int.		89.0	F	
Nevins Street and Schermerhorn Street													
EB	TR	0.79	27.7	C	TR	0.95	47.4	D+	Unmitigated				
WB	LT	0.26	12.0	B	LT	0.27	12.2	B					
SB	LTR	1.16	129.4	F	LTR	1.25	161.9	F+					
	Int.		68.1	E	Int.		90.3	F					
3rd Avenue and Atlantic Avenue													
EB	TR	0.73	29.6	C	TR	0.73	29.6	C	Unmitigated				
WB	T	1.12	96.8	F	T	1.14	104.8	F+					
	R	0.81	42.2	D	R	0.88	50.0	D+					
NB	LTR	0.84	46.8	D	LTR	0.86	48.9	D					
	Int.		64.0	E	Int.		68.7	E					
Lafayette Avenue and Ashland Place													
EB	LTR	0.92	38.5	D	LTR	1.02	58.8	E+	Unmitigated				
NB	TR	0.72	42.0	D	TR	0.75	43.9	D					
SB	LT	0.83	65.2	E	LT	0.87	72.7	E+					
	Int.		42.0	D	Int.		57.2	E					
Flatbush Avenue and Lafayette Avenue													
EB	L	1.35	225.1	F	L	1.43	256.4	F+	Unmitigated				
	LT	0.88	55.7	E	LT	0.93	63.0	E+					
NB	TR	1.08	79.4	E	TR	1.14	102.6	F+					
	DefL	0.56	49.4	D	DefL	0.56	49.7	D					
SB	T	0.78	19.9	B	T	0.79	19.9	B					
	Int.		68.5	E	Int.		82.9	F					

Table 20 (cont'd)
2024 No Action, With Action, and Mitigation Condition Level of Service Analysis
Signalized Intersections – Weekday AM Construction Peak Hour

Intersection	Weekday AM Construction Peak Hour												Recommended Mitigation Measures
	Construction 2024 No Action				Construction 2024 With Action				Construction 2024 Mitigation				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	
Atlantic Avenue and Nevins Street													
EB	T	0.61	26.6	C	T	0.61	26.6	C	T	0.60	25.8	C	Shift 1 second of green time from southbound phase to eastbound/westbound phase
	R	0.25	21.4	C	R	0.25	21.4	C	R	0.24	20.7	C	
WB	LT	1.07	69.0	E	LT	1.09	75.7	E+	LT	1.07	69.4	E	
SB	L	0.37	36.3	D	L	0.37	36.3	D	L	0.38	37.4	D	
	TR	0.68	45.9	D	TR	0.68	45.9	D	TR	0.71	48.0	D	
	Int.		52.7	D	Int.		56.7	E	Int.		53.1	D	
Hudson Avenue and Fulton Street													
EB	LT	0.90	37.1	D	LT	0.95	46.2	D+	LT	0.93	41.2	D	Shift 1 second of green time from all-pedestrian phase to eastbound/westbound phase
WB	TR	0.78	43.4	D	TR	0.80	44.5	D	TR	0.78	42.7	D	
	Int.		40.4	D	Int.		45.3	D	Int.		41.9	D	
Fulton Street and South Portland Avenue													
EB	T	0.53	16.5	B	T	0.56	17.0	B	Unmitigated				
	R	0.06	10.4	B	R	0.06	10.4	B					
WB	LT	1.31	174.8	F	LT	1.51	261.9	F+					
NB	LR	1.04	96.0	F	LR	1.04	96.0	F					
SB	LTR	0.16	20.6	C	LTR	0.16	20.6	C					
	Int.		108.4	F	Int.		151.6	F					
Atlantic Avenue and Bond Street													
EB	T	0.63	24.2	C	T	0.63	24.2	C	T	0.62	23.4	C	Shift 1 second of green time from northbound phase to eastbound/westbound phase
WB	TR	1.14	102.1	F	TR	1.15	107.5	F+	TR	1.13	99.4	F	
NB	LTR	0.89	54.6	D	LTR	0.89	54.6	D	LTR	0.91	58.7	E	
	Int.		72.3	E	Int.		75.5	E	Int.		71.3	E	
Atlantic Avenue and Fort Greene Place													
EB	L	0.49	29.4	C	L	0.59	37.7	D	L	0.59	37.6	D	Shift 1 second of green time from southbound phase to eastbound/westbound phase
	T	0.52	16.1	B	T	0.52	16.1	B	T	0.51	15.5	B	
WB	TR	0.98	48.8	D	TR	1.00	54.1	D+	TR	0.98	48.9	D	
	R	0.38	24.6	C	R	0.45	26.5	C	R	0.44	25.4	C	
SB	L	0.25	35.5	D	L	0.26	35.6	D	L	0.26	36.5	D	
	R	0.27	37.0	D	R	0.35	39.2	D	R	0.36	40.4	D	
	Int.		37.2	D	Int.		40.7	D	Int.		37.5	D	
Fulton Street and Hanson Place / Greene Avenue													
EB	LT	1.06	80.3	F	LT	1.14	107.7	F+	Unmitigated				
WB	T	1.12	100.4	F	T	1.18	120.3	F+					
	R	0.00	15.6	B	R	0.00	15.6	B					
NB	LT	0.80	50.8	D	LT	0.80	51.1	D					
	R	0.30	30.6	C	R	0.30	30.6	C					
SB	R	0.55	43.1	D	R	0.55	43.1	D					
	Int.		80.0	E	Int.		96.9	F					

Notes: L = Left-turn; T = Through; R = Right-turn; LOS = Level of Service; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection
 *Unsignalized intersection in 2017 Existing Conditions

Table 21
2024 No Action, With Action, and Mitigation Condition Level of Service Analysis
Signalized Intersections – Weekday PM Construction Peak Hour

Intersection	Weekday PM Construction Peak Hour												Recommended Mitigation Measures
	Construction 2024 No Action				Construction 2024 With Action				Construction 2024 Mitigation				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	
Flatbush Avenue and DeKalb Avenue													
WB	LTR	1.43	241.0	F	LTR	1.46	253.7	F+	LTR	1.41	232.9	F	Shift 1 second of green time from eastbound / westbound leading pedestrian interval phase to eastbound/westbound 92.1 phase F
NB	T	0.85	30.8	C	T	0.86	31.4	C	T	0.86	31.4	C	
SB	TR	1.02	54.9	D	TR	1.02	56.5	E	TR	1.02	56.5	E	
	Int.				Int.				Int.		87.9	F	
Flatbush Avenue and 4th Avenue													
NB	T	0.66	26.6	C	T	0.66	26.8	C	Unmitigated				
SB	T	0.80	33.2	C	T	0.81	33.5	C					
	R	1.52	277.3	F	R	1.60	309.4	F+					
	Int.		87.9	F	Int.		99.1	F					
Ashland Place and Fulton Street													
EB	LT	1.77	377.5	F	LT	1.82	399.2	F+	Unmitigated				
	R	0.18	12.3	B	R	0.19	12.4	B					
WB	LT	0.80	30.5	C	LT	0.85	37.0	D					
	R	0.40	16.1	B	R	0.40	16.1	B					
NB	L	0.84	51.1	D	L	0.95	70.5	E+					
	TR	0.58	27.2	C	TR	0.65	29.5	C					
SB	L	0.88	63.0	E	L	0.97	85.7	F+					
	TR	0.34	22.5	C	TR	0.34	22.5	C					
	Int.		155.0	F	Int.		166.6	F					

Int.

Table 21 (cont'd)
2024 No Action, With Action, and Mitigation Condition Level of Service Analysis
Signalized Intersections – Weekday PM Construction Peak Hour

Intersection	Weekday PM Construction Peak Hour												Recommended Mitigation Measures
	Construction 2024 No Action				Construction 2024 With Action				Construction 2024 Mitigation				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	
Flatbush Avenue and Atlantic Avenue													Shift 2 seconds of green time from eastbound-only phase to eastbound/westbound phase
EB	T	1.04	67.8	E	T	1.04	68.2	E	T	1.04	68.2	E	
	R	1.55	308.0	F	R	1.55	308.0	F	R	1.45	263.1	F	
WB	T	1.27	169.3	F	T	1.32	192.0	F+	T	1.26	162.7	F	
	R	1.16	146.0	F	R	1.16	146.0	F	R	1.10	120.7	F	
NB	T	0.75	29.0	C	T	0.75	29.3	C	T	0.75	29.3	C	
SB	T	0.60	25.1	C	T	0.60	25.2	C	T	0.60	25.2	C	
	Int.		92.0	F	Int.		97.4	F	Int.		86.8	F	
4th Avenue and Atlantic Avenue													Shift 1 second of green time from northbound only phase to eastbound/westbound-through/westbound-right turn phase
EB	T	1.20	137.1	F	T	1.20	137.9	F	T	1.17	125.5	F	
	R	0.60	48.3	D	R	0.60	48.3	D	R	0.58	46.3	D	
WB	T	0.93	49.6	D	T	0.97	55.6	E+	T	0.94	50.9	D	
	L	0.70	56.5	E	L	0.70	56.5	E	L	0.73	59.7	E	
NB	LR	0.67	55.3	D	LR	0.67	55.3	E	LR	0.70	58.2	E	
	R	0.65	54.3	D	R	0.65	54.3	D	R	0.68	56.8	E	
SB	LT	0.98	66.7	E	LT	0.98	68.4	E	LT	0.98	68.4	E	
	R	0.27	33.3	C	R	0.40	36.8	D	R	0.40	36.8	D	
	Int.		79.5	E	Int.		81.3	F	Int.		76.5	E	
Flatbush Avenue and Fulton Street													Unmitigated
EB	LTR	0.81	69.9	E	LTR	0.85	76.9	E+					
WB	LT	1.47	277.2	F	LT	1.59	329.6	F+					
	R	0.37	19.9	B	R	0.38	20.1	C					
NB	T	0.92	47.6	D	T	0.93	48.7	D					
SB	L	2.04	530.2	F	L	2.13	570.0	F+					
	T	0.71	19.7	B	T	0.72	19.8	B					
	Int.		115.6	F	Int.		128.3	F					
Nevins Street and Schermerhorn Street													Unmitigated
EB	TR	1.10	88.1	F	TR	1.15	107.4	F+					
WB	LT	0.21	11.5	B	LT	0.22	11.6	B					
SB	LTR	1.37	212.7	F	LTR	1.43	236.2	F+					
	Int.		133.3	F	Int.		153.7	F					
Nevins Street and State Street													Implement Operational Mitigation Measures
EB	TR	0.72	34.5	C	TR	0.73	35.0	D	TR	0.78	40.1	D	
SB	LT	0.89	35.5	D	LT	0.97	48.8	D	LT	0.93	39.2	D	
	Int.		35.1	D	Int.		43.6	D	Int.		39.6	D	
3rd Avenue and State Street													Shift 3 seconds of green time from northbound phase to eastbound phase
EB	LT	1.55	314.9	F	LT	1.64	353.0	F+	LT	1.45	266.7	F	
SB	TR	0.37	6.7	A	TR	0.36	6.7	A	TR	0.37	7.9	A	
	Int.		121.9	F	Int.		141.6	F	Int.		108.7	F	
3rd Avenue and Atlantic Avenue													Unmitigated
EB	TR	0.95	44.9	D	TR	0.95	45.2	D					
WB	T	0.93	41.1	D	T	0.97	47.8	D+					
NB	R	0.52	25.4	C	R	0.59	27.6	C					
	LTR	1.01	75.2	E	LTR	1.01	75.2	E					
	Int.		49.2	D	Int.		51.7	D					
Lafayette Avenue and Ashland Place													Unmitigated
EB	LTR	0.74	22.0	C	LTR	0.78	23.5	C					
NB	TR	0.81	51.6	D	TR	0.88	59.9	E+					
SB	LT	1.50	291.3	F	LT	1.64	351.0	F+					
	Int.		71.0	E	Int.		81.5	F					
Fort Greene Place and Hanson Place													Shift 1 second of green time from eastbound/westbound phase to northbound/southbound phase
EB	TR	0.75	25.7	C	TR	0.82	31.4	C	TR	0.86	36.4	D	
WB	LT	0.57	20.0	B	LT	0.58	20.2	C	LT	0.63	23.2	C	
NB	LR	1.04	78.2	E	LR	1.11	99.9	F+	LR	1.06	81.0	F	
SB	LTR	0.37	14.0	B	LTR	0.39	14.3	B	LTR	0.38	13.4	B	
	Int.		39.7	D	Int.		48.6	D	Int.		44.4	D	
Flatbush Avenue and Lafayette Avenue													Unmitigated
EB	L	1.46	271.9	F	L	1.52	299.5	F+					
	LT	0.88	57.1	E	LT	0.90	59.5	E					
NB	TR	1.03	63.4	E	TR	1.04	68.3	E+					
SB	DefL	0.55	43.5	D	DefL	0.55	43.6	D					
	T	0.91	26.6	C	T	0.92	27.0	C					
	Int.		64.0	E	Int.		68.9	E					
Atlantic Avenue and Nevins Street													Unmitigated
EB	T	0.69	26.3	C	T	0.69	26.3	C					
	R	0.29	19.8	B	R	0.29	19.8	B					
WB	LT	1.08	74.1	E	LT	1.12	89.8	F+					
SB	L	0.70	51.9	D	L	0.70	51.9	D					
	TR	0.95	77.8	E	TR	0.96	80.6	F					
	Int.		55.5	E	Int.		63.5	E					

Table 21
2024 No Action, With Action, and Mitigation Condition Level of Service Analysis
Signalized Intersections – Weekday PM Construction Peak Hour

Intersection	Weekday PM Construction Peak Hour												Recommended Mitigation Measures
	Construction 2024 No Action				Construction 2024 With Action				Construction 2024 Mitigation				
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	
Hudson Avenue and Fulton Street													
EB	LT	0.85	29.2	C	LT	0.90	34.6	C	LT	0.86	29.4	C	Shift 2 seconds of green time from all-pedestrian phase to eastbound/westbound phase
WB	T	1.01	83.1	F	T	1.07	99.6	F+	T	1.03	85.8	F	
	R	0.07	27.7	C	R	0.07	27.7	C	R	0.06	26.7	C	
	Int.		51.6	D	Int.		61.8	E	Int.		53.1	E	
Fulton Street and South Portland Avenue													
EB	T	0.90	34.5	C	T	0.95	42.4	D	T	0.90	31.4	C	Shift 3 seconds of green time from northbound/southbound phase to eastbound/westbound phase
	R	0.13	11.2	B	R	0.13	11.2	B	R	0.12	9.6	A	
WB	LT	1.59	298.5	F	LT	1.77	378.8	F+	LT	1.54	274.3	F	
NB	LR	0.54	31.6	C	LR	0.54	31.6	C	LR	0.61	38.0	D	
SB	LTR	0.22	21.2	C	LTR	0.22	21.2	C	LTR	0.24	23.7	C	
	Int.		124.7	F	Int.		155.2	F	Int.		114.5	F	
Atlantic Avenue and Bond Street													
EB	T	0.81	27.2	C	T	0.81	27.3	C	Unmitigated				
WB	TR	1.06	69.9	E	TR	1.10	83.1	F+					
NB	LTR	0.87	55.8	E	LTR	0.87	55.8	E					
	Int.		51.5	D	Int.		58.4	E					
Atlantic Avenue and Fort Greene Place													
EB	L	0.49	25.0	C	L	0.50	25.5	C	Unmitigated				
	T	0.71	20.2	C	T	0.71	20.2	C					
WB	TR	0.81	32.1	C	TR	0.81	32.1	C					
	R	0.40	26.6	C	R	0.40	26.6	C					
SB	L	0.57	43.0	D	L	0.77	52.8	D+					
	R	0.62	50.4	D	R	0.88	77.8	E+					
	Int.		28.9	C	Int.		32.1	C					
Fulton Street and Hanson Place / Greene Avenue													
EB	LT	1.45	233.4	F	LT	1.55	276.0	F+	LT	1.42	218.3	F	Shift 3 seconds of green time from northbound phase to eastbound/southbound phase
WB	T	0.81	36.6	D	T	0.83	38.3	D	T	0.83	38.3	D	
	R	0.02	17.0	B	R	0.02	17.0	B	R	0.02	17.0	B	
NB	LT	0.63	35.8	D	LT	0.64	36.0	D	LT	0.74	44.9	D	
	R	0.51	34.0	C	R	0.51	34.0	C	R	0.61	42.4	D	
SB	R	0.55	43.0	D	R	0.55	43.0	D	R	0.46	36.8	D	
	Int.		115.9	F	Int.		136.0	F	Int.		113.7	F	

Notes: L = Left-turn; T = Through; R = Right-turn; LOS = Level of Service; EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; Int. = Intersection
 *Unsignalized intersection in 2017 Existing Conditions

PEDESTRIANS

The pedestrian analysis concluded that construction of the proposed project would result in the potential for significant adverse pedestrian impacts at 1 crosswalk and 1 corner during the AM and PM construction peak hours, and one sidewalk during the PM construction peak hour. **Table 22** provides a summary of the impacted pedestrian elements and analysis time periods, which are described below. **Table 23** summarizes the capacity analysis results and mitigation measures for the 6:00 AM to 7:00 AM peak hour.

Table 22
Summary of Significant Adverse Pedestrian Impacts (Construction Peak Hours)

Intersection	Pedestrian Element	2024 With Action Condition	
		Weekday AM Peak Hour (6 AM–7 AM)	Weekday PM Peak Hour (3 PM–4 PM)
3rd Avenue and Schermerhorn Street	West Sidewalk along 3rd Avenue between Schermerhorn Street and State Street		X
3rd Avenue and State Street	North Crosswalk	X	X
	Northwest Corner	X	X
Total Impacted Pedestrian Elements		2	3

Note: X = Impacted.

Table 23
2024 No Action, With Action, and Mitigation Conditions
Construction Peak Hour Pedestrian Level of Service Analysis

Location	Mitigation Measures	2024 No Action		2024 With Action		2024 Mitigation	
		SFP	LOS	SFP	LOS	SFP	LOS
Weekday Construction AM Peak Hour							
North Crosswalk of 3rd Avenue and State Street	Unmitigated	30.02	C	9.74	E		
Northwest Corner of 3rd Avenue and State Street	Add 2.5 feet of corner reservoir space via a curb extension	64.42	A	14.92	E	26.89	C
Weekday Construction PM Peak Hour							
West Sidewalk along 3rd Avenue between Schermerhorn Street and State Street	Unmitigated	200.87	B	26.34	D		
North Crosswalk of 3rd Avenue and State Street	Unmitigated	8.14	E	2.80	F		
Northwest Corner of 3rd Avenue and State Street	Add 2.5 feet of corner reservoir space via a curb extension	39.84	C	11.62	E	20.37	D

- The west sidewalk along 3rd Avenue between Schermerhorn Street and State Street would deteriorate from LOS B with 200.87 SFP to LOS D with 26.34 SFP during the weekday PM construction peak hour.
- The north crosswalk at 3rd Avenue and State Street would deteriorate from LOS C with 30.02 SFP to LOS E with 9.74 SFP during the weekday AM construction peak hour, and from LOS E with 8.14 SFP to LOS F with 2.80 SFP during the weekday PM construction peak hour.

The northwest corner of 3rd Avenue and State Street would deteriorate from LOS A with 64.42 SFP to LOS E with 14.92 SFP during the weekday AM construction peak hour, and from LOS C with 39.84 SFP to LOS E with 11.62 SFP during the weekday PM construction peak hour.

ALTERNATIVES

In accordance with the *CEQR Technical Manual*, alternatives selected for consideration in an EIS are generally those that are feasible and have the potential to reduce, eliminate, or avoid any adverse impacts of a proposed action while meeting some or all of the goals and objectives of the action. As described above, the proposed actions consist of a series of land use approvals to facilitate the redevelopment of the project site with a new mixed residential, community facility, and commercial development. Therefore, the alternatives discussed in this EIS were assessed to determine to what extent they would meet the goals and objectives of the proposed project, namely to facilitate the productive use of the project site by replacing the existing Khalil Gibran International Academy with a state-of-the-art facility to achieve a better learning environment, providing an additional 350-seat-capacity lower school in CSD 15, and the creation of affordable housing, cultural space, and office space.

NO ACTION ALTERNATIVE

The No Action Alternative examines future conditions on the project site and surrounding area, but assumes the absence of the proposed actions (i.e., none of the discretionary approvals proposed as part of the proposed actions would be adopted). Under the No Action Alternative, existing zoning would remain in the area affected by the proposed actions. It is anticipated that the non-City-owned portion of the project site would be developed with an as-of-right mixed-use building (400 feet in height, including bulkhead) that complies with the current zoning regulations, and that the Khalil Gibran International Academy would remain in its existing facility. With the No Action Alternative, no replacement school facility would be provided for Khalil Gibran International Academy, and a new lower school would not be provided. The

obsolete conditions of the existing high school would continue and the increased school capacity that would occur with the new 350-seat lower school would not be achieved. In addition, as compared to the proposed actions, the benefits associated with improved economic activity, cultural community facility space, and the substantial amount of affordable housing would be not realized.

NO UNMITIGATED SIGNIFICANT ADVERSE IMPACTS ALTERNATIVE

The No Unmitigated Significant Adverse Impacts Alternative examines a scenario in which the density and other components of the proposed actions are changed specifically to avoid the unmitigated significant adverse impacts associated with the proposed actions. There is the potential for the proposed actions to result in unmitigated significant adverse impacts related to shadows, historic and cultural resources, transportation (traffic), and construction (noise).

LOWER DENSITY ALTERNATIVE

The LDA was developed for the purposes of assessing whether lower density development on the project site would eliminate or reduce the significant, adverse impacts of the proposed actions while also meeting the goals and objectives of the proposed actions. Compared to the proposed project, there is the potential for the LDA to result in reduced, but still significant adverse impacts related to shadows, historic and cultural resources, transportation (traffic), and construction (noise, traffic, and pedestrians). Since the LDA does not provide a lower school, office space, cultural space and has fewer affordable housing units, it does not meet the goals and objectives of the proposed project.

UNAVOIDABLE ADVERSE IMPACTS

The proposed actions would result in significant adverse impacts with respect to 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 project 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.

As described above in "Mitigation," a number of the potential impacts identified for the proposed project could be mitigated. However, as described below, in some cases, impacts from the proposed project would not be fully mitigated.

SHADOWS

As described in Chapter 6, "Shadows," the proposed actions would result in significant adverse shadow impacts to three open spaces. The detailed analysis found that the Rockwell Place Bears Community Garden, the BAM South Plaza at 300 Ashland Place, and Temple Square would be potentially significantly impacted by new shadow originating from the proposed project.

The *CEQR Technical Manual* identifies several different measures that could mitigate significant adverse shadow impacts on open spaces. These measures include relocating or replacing vegetation; undertaking additional maintenance to reduce the likelihood of species loss; or providing replacement facilities on another nearby site. CEQR guidelines also discuss alternatives that may reduce or eliminate shadow impacts, including reorientation of building

bulk or reorientation of the site plan. Due to the narrowness of the project site and its immediate proximity to the impacted resources, it is not possible to alter the site plan so as to avoid a substantial amount of shadow being cast on these open spaces.

The co-applicants consulted with New York City Department of Parks and Recreation (NYC Parks), New York City Department of Transportation (DOT), and/or the New York City Department of City Planning (DCP) between the DEIS and FEIS to develop suitable mitigation to partially offset the significant adverse impacts.

Measures to partially offset significant adverse shadow impacts at the Rockwell Place Bears Community Garden include payments for the following purposes: (1) hiring a landscape or horticultural consultant; (2) replacing potentially affected vegetation with more shade-tolerant species; (3) enriching the soil to help plants adjust to the increased shade; and (4) providing electricity to allow for lighting in the garden.

Mitigation to partially offset the significant adverse impact to the BAM South Plaza users and the plaza's vegetation was developed. The co-applicants will monitor the plaza's vegetation and replace the vegetation with more shade-tolerant species, as necessary.

Mitigation to partially offset the significant adverse impact at Temple Square includes the monitoring of the vegetation and replacement with more shade-tolerant species, as necessary. To the extent that the co-applicants funds the design and construction of the potential future improvements to Temple Square (planned by DOT), the replacement of vegetation with shade tolerant plantings will be undertaken in connection with such improvements.

As feasible mitigation was found, the impacts are considered partially mitigated. As the impacts can only be partially mitigated, the proposed project would result in unmitigated significant adverse shadow impacts.

HISTORIC AND CULTURAL RESOURCES

As discussed in Chapter 7, "Historic and Cultural Resources," and Chapter 19, "Mitigation," the proposed project would result in a significant adverse impact to the historic resource on the western portion of the project site (Lot 1), the five connected school buildings currently occupied by the Khalil Gibran International Academy, which the LPC has determined to be eligible for NYCL designation and for listing on the S/NR.

Measures to mitigate this impact have been developed in consultation with LPC. Per the guidelines of the CEQR Technical Manual, possible mitigation measures for significant adverse effects on architectural resources include redesign (i.e., relocating the action away from the resource, or redesign of the proposal to be more compatible with the resource), adaptive reuse, CPP, data recovery/recording, or relocation of the architectural resource. Data recovery can include recordation of a structure to the standards of the HABS.

HABS Level II documentation of the school complex would take place as partial mitigation for the demolition of Building D, the connecting school building on 3rd Avenue, and part of Building E. While development allowed under the maximum zoning envelope could result in the demolition of School Building 2/Building D, and the connecting building on 3rd Avenue, as well as a portion of School Building 1/Building E, the current proposed design would preserve and adaptively reuse School Building 2/Building D and School Building 1/Building E. To avoid inadvertent demolition and/or construction-related damage from ground-borne construction period vibrations, falling debris, collapse, etc., any historic buildings to be retained on the project site would be included in a CPP for historic structures that would be prepared in coordination with LPC and implemented in

consultation with a licensed professional engineer. The CPP would be prepared and implemented prior to demolition and construction activities on the project site, and project-related demolition and construction activities would be monitored as specified in the CPP.

TRANSPORTATION

As discussed in Chapter 11, "Transportation," and Chapter 19, "Mitigation," the significant adverse vehicular traffic impacts at the intersections of Flatbush Avenue and Fulton Street during the AM, midday, and PM peak hours; Flatbush Avenue and Lafayette Avenue during the AM, midday, and PM peak hours; Flatbush Avenue and 4th Avenue during the AM and PM peak hours; Atlantic Avenue and 3rd Avenue during the AM peak hour; Lafayette Avenue and Ashland Place during the AM, midday, and PM peak hours; Schermerhorn Street and Nevins Street during the AM, midday, and PM peak hours; and Fulton Street and Ashland Place during the AM and PM peak hours that would potentially occur could not be fully mitigated with standard traffic mitigation measures. In the Without Flatbush Avenue Reconstruction Scenario, the significant adverse vehicular traffic impact at the Flatbush Avenue and Schermerhorn Street intersection in the PM peak hour also could not be fully mitigated with standard traffic mitigation measures, in addition to the same intersections described above. Because these impacts cannot be fully mitigated, the impacts would constitute an unavoidable impact of the proposed actions.

CONSTRUCTION

Noise

The detailed analysis of construction noise determined that construction of the proposed project has the potential to result in construction noise levels that would constitute temporary significant adverse impacts at residences immediately across State Street south of the project site, the existing Khalil Gibran International Academy, and residences along 3rd Avenue between Schermerhorn Street State Street, and the YWCA on 3rd Avenue between State Street and Atlantic Avenue.

The affected residences on State Street would experience exterior noise levels in the mid-70s dBA, which represent increases in noise level up to approximately 13 dBA compared with existing levels, for intermittent periods during approximately 18 non-consecutive months during construction at the middle and eastern portions of the site. During the remainder of the construction period, the affected residences on State Street would at times experience exterior noise levels in the mid-70s dBA, which represent increases in noise level up to approximately 10 dBA. The affected residences on the west side of 3rd Avenue would experience exterior noise levels in the mid-70s dBA, which represent increases in noise level up to approximately 11 dBA compared with existing levels, for portions of up to approximately 12 months during construction at the middle and eastern portions of the site. During the remainder of the construction period, the affected residences on the west side of 3rd Avenue would at times experience exterior noise levels in the mid-70s dBA, which represent increases in noise level up to approximately 8 dBA. The affected residences on the east side of 3rd Avenue would experience exterior noise levels in the mid-70s dBA, which represent increases in noise level up to approximately 6 dBA compared with existing levels, for up to approximately 10 months during construction at the middle and eastern portion of the site. The Khalil Gibran International Academy would at times experience exterior noise levels in the mid-70s dBA, resulting in increases in noise level up to approximately 12 dBA compared to existing levels for portions of up to approximately 25 months during construction at the middle and eastern portions of the site.

Potential construction noise levels of this magnitude over the course of such an extended duration would constitute a temporary significant adverse impact. Field observations determined that many of these buildings have insulated glass windows and alternate means of ventilation (i.e., air conditioning). Even with these measures, buildings with these constructions would be expected to experience episodic interior $L_{10(1)}$ values greater than the 45 dBA guideline recommended for residential and community spaces according to CEQR noise exposure guidelines. Older buildings that do not include insulated windows and alternate means of ventilation would be expected to experience higher interior noise levels. There are no feasible and practicable mitigation measures that would be able to reduce or eliminate the potential significant adverse noise impacts. Source or path controls beyond those already identified for the construction of the proposed project would not be effective in reducing the level of construction noise at the receptors that have the potential to experience significant adverse construction noise impacts. Additional noise receptor controls at these locations would require change to the buildings' design that would have disproportionately high cost considering that the potential noise impacts would be temporary, the interior noise levels during construction are expected to be no more than approximately 10 dBA over the acceptable threshold levels, and that the potential impacts would be limited to construction hours, which would not include regular nighttime or weekend periods with limited exceptions that would require variances from the DOB. This temporary significant adverse impact would be an unavoidable impact of the proposed actions.

TRANSPORTATION

Traffic

As discussed in Chapter 16, "Construction," and Chapter 19, "Mitigation," the significant adverse vehicular traffic impacts at the intersections of Flatbush Avenue and Fulton Street during the AM and PM peak hours; Flatbush Avenue and Lafayette Avenue during the AM and PM peak hours; Flatbush Avenue and 4th Avenue during the AM and PM peak hours; Atlantic Avenue and 3rd Avenue during the AM and PM peak hours; Lafayette Avenue and Ashland Place during the AM, midday, and PM peak hours; Schermerhorn Street and Nevins Street during the AM, midday, and PM peak hours; Fulton Street and Ashland Place during the AM and PM peak hours; Atlantic Avenue and Nevins Street during the PM peak hour; South Portland Avenue and Fulton Street during the AM peak hour; Atlantic Avenue and Bond Street during the PM peak hour; Atlantic Avenue and Fort Greene Place during the PM peak hour; and Fulton Street and Hanson Place / Greene Avenue during the AM peak hour that would potentially occur could not be fully mitigated with standard traffic mitigation measures. Because these impacts cannot be fully mitigated, construction under the proposed project would result in unavoidable significant adverse traffic impacts.

Pedestrians

As discussed in Chapter 16, "Construction," and Chapter 19, "Mitigation," the significant adverse pedestrian impacts at the north crosswalk of 3rd Avenue and State Street and the west sidewalk along 3rd Avenue between Schermerhorn Street and State Street that would potentially occur could not be fully mitigated with standard pedestrian mitigation measures. Because these impacts cannot be fully mitigated, construction under the proposed project would result in unavoidable significant adverse pedestrian impacts.

GROWTH-INDUCING IMPACTS OF THE PROPOSED ACTIONS

The term "growth-inducing aspects" generally refers to the potential for a proposed project to trigger additional development in areas outside the project site that would otherwise not have

such development without the proposed project. The *CEQR Technical Manual* indicates that an analysis of the growth-inducing aspects of a proposed project is appropriate when the project (1) adds substantial new land use, residents, or new employment that could induce additional development of a similar kind or of support uses, such as retail establishments to serve new residential uses; and/or (2) introduces or greatly expands infrastructure capacity.

As described above, the proposed actions are intended to replace the existing Khalil Gibran International Academy with a new modern high school as well as provide a new lower school to increase public school capacity. In addition, the proposed actions would encourage economic development in Downtown Brooklyn by providing new office space and a significant amount of needed affordable housing.

The proposed actions would result in more intensive land uses on the project site. However, it is not anticipated that the proposed actions would generate significant secondary impacts resulting in substantial new development in nearby areas. As stated above in “Socioeconomic Conditions,” the proposed actions would not introduce a new economic activity that would alter existing economic patterns in the study area. The neighborhoods surrounding the project site are developed with residential, commercial, and institutional spaces and substantial amounts of new housing and commercial development is expected by the proposed project’s 2025 build year. As the study area already has a well-established residential market and a critical mass of non-residential uses, including retail, office, and community facility uses, the proposed actions would not create the critical mass of uses or populations that would induce additional development outside the project site. Moreover, the proposed actions do not include the introduction of new infrastructure or an expansion of infrastructure capacity that would result in indirect development; any proposed infrastructure improvements would be made to support development of the proposed project itself. Therefore, the proposed actions would not induce significant new growth in the surrounding area.

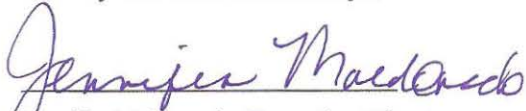
IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Resources, both natural and built, would be expended in the construction and operation of the proposed project. These resources include the materials used in construction; energy in the form of fuel and electricity consumed during construction and operation of the proposed project; and the human effort (i.e., time and labor) required to develop, construct, and operate various components of the proposed project. These are considered irretrievably committed because their reuse for some other purpose would be highly unlikely.

The proposed project constitutes an irreversible and irretrievable commitment of the project site as a land resource, thereby rendering land use for other purposes infeasible, at least in the near term. However, the land use changes that would occur as a result of the proposed actions would make more efficient use of the land occupying the project site and the proposed project would be compatible in terms of use and scale with existing conditions and trends in the area as a whole. The project site does possess any natural resource of significant value, and the site has in large part been previously developed.

These commitments of land resources and materials are weighed against the benefits of the proposed project. The proposed actions are intended to replace the existing Khalil Gibran International Academy with a new modern high school as well as provide a new lower school to increase public school capacity. In addition, the proposed actions would encourage economic development in Downtown Brooklyn by providing new office space, a significant amount of needed affordable housing, new cultural community facility space, and retail. Although the

proposed project would require an irretrievable commitment of resources, it would provide a public benefit in the form of new public schools, housing (including affordable housing), and commercial development to support and ensure the long-term residential and commercial viability of Downtown Brooklyn. *


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