City Environmental Quality Review
ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) FULL FORM

Please fill out and submit to the appropriate agency (see instructions)

Part I: GENERAL INFORMATION

PROJECT NAME 809 Atlantic Avenue

1. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
18DCP179K	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
190073 ZSK; 190072 ZSK; 190071 ZMK, N 190074 ZRK	

2a. *Lead Agency Information*	**2b. *Applicant Information***
NAME OF LEAD AGENCY New York City Planning Commission	NAME OF APPLICANT 550 Clinton Partners LLC and 539 Vanderbilt Partners LLC
NAME OF LEAD AGENCY CONTACT PERSON Olga Abinader, Acting Director Environmental Assessment and Review Division New York City Department of City Planning	NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Jay A. Segal Greenberg Traurig ILLP
ADDRESS 120 Broadway, 31st Floor	ADDRESS 200 Park Avenue
CITY New York / STATE NY / ZIP 10271	CITY New York / STATE NY / ZIP 10166
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3. *Action Classification and Type*

SEQRA Classification

☐ UNLISTED ☒ TYPE I: Specify Category (see 6 NYCRR 617.4 and NYC Executive Order 91 of 1977, as amended): 6 NYCRR 617.4(b)(9)

Action Type (refer to Chapter 2, "Establishing the Analysis Framework" for guidance)

☐ LOCALIZED ACTION, SITE SPECIFIC ☒ LOCALIZED ACTION, SMALL AREA ☐ GENERIC ACTION

4. *Project Description*

550 Clinton Partners LLC and 539 Vanderbilt Partners LLC (collectively, the "Applicants") are seeking a zoning map amendment, a zoning text amendment, and special permits (the "proposed actions") to facilitate a mixed-use development at 809 Atlantic Avenue, Brooklyn (Block 2010, Lots 1 and 59; the "development site"). The proposed actions include: (1) a zoning map amendment to rezone the development site and portions of adjacent properties from an R7A district in an Inclusionary Housing Designated Area with a C2-4 commercial overlay within 100 feet of Atlantic Avenue to an R9 district with a C2-5 commercial overlay, and to rezone portions of adjacent properties to an R6A district; (2) a zoning text amendment to Appendix F of the Zoning Resolution (ZR) to designate the rezoning area as a Mandatory Inclusionary Housing Area (MIHA); (3) a special permit pursuant to ZR Section 74-711 to facilitate the transfer of approximately 70,000 square feet of floor area to the development site and modify regulations relating to yards, inner courts, window to lot line, lot coverage, and height and setback; and (4) a special permit pursuant to ZR Section 74-533 to waive the residential parking requirements of ZR 25-23. The proposed actions would only result in new development on the project's zoning lot, which includes the development site and adjecent lots that would transfer unused development rights to the proposed development (Lots 10, 51, 1001-1010 [f/k/a Lots 7 and 8] and 1101-1118 [f/k/a Lot 5]).

The proposed actions would facilitate an approximately 277,500 gross square foot (gsf) development on the development site containing 25,000 gsf of retail, 19,500 gsf of office use, and 233,000 gsf of residential use (the "proposed project"). Due to the separate ownership of the two tax lots on the development site to which the Applicants hold ground leases, the proposed project would be designed as two separate buildings: a 29-story, approximately 337-foot tall tower on Lot 1 (Building A) and a 4-story, approximately 62-foot tall building on Lot 59 (Building B), which would remain separate tax lots. The buildings would be structurally independent and would share a party wall. However, the two buildings would be connected via a corridor on the third and fourth floors, and would share a cooling tower (located on the Building A roof). See also Page 1a, "Project Description."

Project Location

Project Description

A. INTRODUCTION

550 Clinton Partners LLC and 539 Vanderbilt Partners LLC (collectively, the "Applicants") are seeking a zoning map amendment, a zoning text amendment, and special permits (the "proposed actions") to facilitate the development of an approximately 277,500 gross square foot (gsf) mixed-use development at 809 Atlantic Avenue, Brooklyn. The Applicants are ground lessees of the two properties that make up the 809 Atlantic Avenue site (Block 2010, Lots 1 and 59; the "development site"), which will be part of a combined zoning lot with adjacent properties (Block 2010, Lots 10, 51, 1001-1010 [f/k/a Lots 7 and 8] and 1101-1118 [f/k/a Lot 5]), shown on **Figure 1**. One of the properties, (Lot 10) contains the Church of St. Luke and St. Matthew, a New York City Landmark (NYCL) designated by the New York City Landmarks Preservation Commission (LPC) in 1981. The proposed actions include a zoning map amendment that would rezone the development site and portions of four adjacent properties that are not part of the project zoning lot (Block 2010, Lots 53, 56, 57, and 58); for the purposes of this assessment, the project zoning lot (which includes the development site) and the portions of Lots 53, 56, 57, and 58 that are within the proposed rezoning area are referred to as the "project area" (see **Figure 1**).[1] The proposed actions include a special permit pursuant to Section 74-711 of the New York City Zoning Resolution (ZR), applicable to the project zoning lot, to allow up to 70,000 sf of floor area, including floor area from the church, to be transferred to the development site across district boundary lines, and to modify regulations applicable to the development site related to yards, inner courts, window to lot line, lot coverage, and height and setback.

Overall, the area affected by the proposed actions does not contain any projected or potential development outside of the development site, and new construction facilitated by the proposed actions would only occur on the development site (see **Table 1**).

Table 1
Properties Affected by the Proposed Actions

Block	Lot	Address
Project Zoning Lot		
2010	1*	539 Vanderbilt Avenue
	59*	550 Clinton Avenue/809 Atlantic Avenue
	10	520 Clinton Avenue
	51	528 Clinton Avenue
	1001-1010	525 Vanderbilt Avenue
	1101-1118	531 Vanderbilt Avenue
Additional Properties within Project Area		
2010	53	532 Clinton Avenue
	56	536 Clinton Avenue
	57	538 Clinton Avenue
	58	540 Clinton Avenue
Note: *Development site.		

[1] The proposed zoning district boundary would be mapped 135 feet from Atlantic Avenue on the Vanderbilt Avenue frontage, which would include a 3.5 linear-foot portion of adjacent Lots 1101-1118 (f/k/a Lot 5)(245 sf) and a 3.5 foot by 30 foot portion (105 sf) of the rear of Lot 52.

PROPOSED ACTIONS

The proposed actions include the following:

1. A zoning map amendment to rezone the development site and portions of adjacent Lots 53, 56, 57, and 58 from (a) an R7A district in an Inclusionary Housing Designated Area with a C2-4 commercial overlay within 100 feet of Atlantic Avenue to an R9 district with a C2-5 commercial overlay, (b) an R7A district in an Inclusionary Housing Designated Area beyond 100 feet of Atlantic Avenue to an R9 district with a C2-5 commercial overlay, (c) an R6A district to an R9 district with a C2-5 commercial overlay, and (d) to rezone portions of Lots 57 and 58 from an R7A district in an Inclusionary Housing Designated Area with a C2-4 commercial overlay to an R6A district (see **Figure 6)**;
2. An amendment to the text of the ZR (Appendix F) to designate the rezoning area as a Mandatory Inclusionary Housing Area (MIHA);
3. A special permit pursuant to ZR Section 74-711 to modify:
    a. The zoning lots divided by district boundaries regulations of ZR 77-02 and the floor area ratio (FAR) regulations of ZR 77-22 to allow up to 70,000 sf of floor area to be transferred to the development site across district boundary lines;
    b. The commercial rear yard regulations of ZR 33-292;
    c. The residential rear yard regulations of ZR 23-52(b);
    d. The inner court regulations of ZR 23-851;
    e. The window to lot line regulations of ZR 23-861;
    f. The lot coverage regulations of ZR 23-16(a);
    g. The minimum street wall height regulations of ZR 23-651(b)(2);
    h. The tower floor area regulations of ZR 23-651(a)(3); and
    i. The inner court recess regulation so ZR 23-852(b).
4. A special permit pursuant to ZR Section 74-533 to waive the residential parking requirements of ZR 25-23.

DESCRIPTION OF THE PROJECT AREA

The project area includes the development site (Block 2010, Lots 1 and 59), for which the Applicants are the ground lessees, as well as adjacent lots (Lots 10, 51, 1001-1010 and 1101-1118) that will be part of a shared zoning lot with the development site. The development site currently contains several single-story commercial buildings including a car wash, an auto-repair shop, and a bar. Lot 10 contains the NYCL Church of St. Luke and St. Matthew. Lots 1001-1010 contain a five-story, approximately 10,000-sf residential condominium building completed in 2006, which contains 10 dwelling units (DUs). Lot 51 contains a four-story, approximately 7,500 sf walkup apartment building, which contains 5 DUs. Lots 1101-1118 contain a seven-story, approximately 12,000-sf residential condominium building completed in 2014, which contains 18 DUs.

The project area also includes portions of Lots 53, 56, 57, and 58 that are within the proposed rezoning area. Lot 53 (532 Clinton Avenue) contains a three-story, single-family residential building; however, as discussed further below, plans were recently approved by the New York City Department of Buildings (DOB) to redevelop the property with a larger multifamily apartment building. Lot 56 (536 Clinton Avenue) contains a three-story multifamily walkup apartment building with seven DUs. Lots 57 (538 Clinton Avenue) and 58 (540 Clinton Avenue) both contain three-story, plus basement and cellar, two-family dwellings. The proposed rezoning area includes the majority of Lot 58, and areas at the rear of Lots 53, 56, and 57; however, as discussed further below, the proposed zoning would not increase the development potential of these properties.

BACKGROUND AND PRIOR ACTIONS

The current auto-related uses have been on the development site since the 1930s. The Church of St. Luke and St. Matthew was built in the late 19th century and designated as a NYCL by the LPC in 1981. The residential building on Lot 51 (part of the project zoning lot), as well as the residential buildings on Lots 53, 56, 57, and 58, were all constructed between the late 19th century and the 1930s; as noted above, two lots within the project area (part of the project zoning lot) have been recently redeveloped with residential condominium buildings.

The project area is located in the area of the Fort Greene/Clinton Hill Rezoning in 2007 (CEQR No. 07DCP066K, ULURP Nos. 070430 ZMK and 070431 ZRY). The Fort Greene/Clinton Hill Rezoning mapped the zoning districts currently applicable to the project area (an R7A district in the midblock area along Vanderbilt Avenue, an R7A district with a C2-4 commercial overlay district along Atlantic Avenue, and an R6A district in the midblock area along Clinton Avenue, as shown on **Figure 6**). As part of the rezoning, the R7A district was also designated an Inclusionary Housing Designated Area (IHDA).

The development site was analyzed as a projected development site in the *Fort Greene/Clinton Hill Rezoning Environmental Assessment Statement (EAS)*, which assumed that the development site would be developed with an eight-story, 103,592-sf building with 18,016 sf of commercial use on the ground floor and 86 DUs on the upper floors. As a result of the rezoning, environmental (E) designations were applied to the development site relating to hazardous materials and noise attenuation (E-183). E-183 requires hazardous materials testing and potential sampling and remediation of the development site in coordination with the New York City Department of Environmental Protection (DEP); in order to ensure an acceptable interior noise environmental, E-183 also requires any future residential/commercial uses on the development site provide a closed window condition with window/wall attenuation on all façades.

DESCRIPTION OF THE PROPOSED PROJECT

The proposed actions would facilitate an approximately 277,500-gsf development on the development site containing 25,000 gsf of retail, 19,500 gsf of office use, and 233,000 gsf of residential use (the "proposed project"). Due to the separate ownership of the two tax lots on the development site to which the Applicants hold ground leases, the proposed project would be designed as two separate buildings: a 29-story tower building on Lot 1 (Building A) and a 4-story building on Lot 59 (Building B), which would remain separate tax lots (see **Figures 7 through 9**). The buildings would be structurally independent and would share a party wall. However, the two buildings would be connected via a corridor on the third and fourth floors, and would share a share a cooling tower (located on the Building A roof).

The proposed project would be facilitated by the proposed actions: since the lot area of the development site is 21,068 sf, and the proposed R9/C2-5 zoning district within an MIHA would allow it to be developed to 8.0 FAR, a total of 168,544 zoning square feet (zsf) would be permitted. An additional approximately 70,000 zsf of development rights would be transferred from the other lots within the project area (including the NYCL Church of St. Luke and St. Matthew) pursuant to the ZR Sec. 74-711 special permit. As the proposed project would be subject to the requirements of MIH under the proposed actions, a portion of the residential floor area generated by the proposed rezoning would be set aside for permanently affordable DUs.

B. FRAMEWORK FOR ANALYSIS

DEVELOPMENT SITE ASSUMPTIONS

As described above, the proposed actions, which include zoning changes, would affect the development site as well as portions of lots adjacent to the development (Lots 53, 56, 57, and 58) However, the proposed zoning would not increase the development potential of these adjacent properties:

- Lot 53 (532 Clinton Avenue) contains a three-story, single-family residential building. With the proposed actions, an approximately 1,130-sf area at the rear of the lot would be rezoned from R6A (maximum residential FAR of 3.0) to R9 (maximum base residential FAR of 6.0). In March 2018, DOB issued permits for the demolition of the existing building on the lot and construction of a new seven-story residential building. Therefore, independent of the proposed actions, the site is expected to be redeveloped. The increase in FAR from the proposed rezoning would only apply to approximately 16 percent of the lot area, and the permitted residential FAR on the full lot would increase by only 0.5. The building that is expected to be constructed on the lot is subject to the building height and setback limits of the R6A district: according to the approved DOB plans, at the current permitted FAR, the planned building would reach a maximum base height of 55 feet in compliance with the 40-foot minimum and 65-foot maximum base heights and the maximum building height (75 feet) set by the R6A district. Therefore, the minor increase in permitted FAR would not allow for an expansion of the planned building by adding or expanding floors, as the building would remain limited by the maximum building envelope set by the existing zoning, and the proposed actions would not result in a new or expanded development on Lot 53.

- Lot 56 (536 Clinton Avenue) contains a three-story multifamily walkup apartment building with seven DUs. With the proposed actions, an approximately 450-sf area at the rear of the lot would be rezoned from R6A to R9. However, according to data provided by the New York State Division of Housing and Community Renewal (DHCR), the building contains rent-stabilized DUs. As rent stabilized buildings are difficult to legally demolish due to the requirement to relocate tenants in rent stabilized DUs, this lot is unlikely to be redeveloped as a result of the proposed actions.
- Lots 57 (538 Clinton Avenue) and 58 (540 Clinton Avenue) both contain three-story two-family dwellings. With the proposed actions, an approximately 132-sf area at the rear of each of the lots would be rezoned from R7A to R9, and a portion of the remainder of the lots would be rezoned from R7A to R6A. The increase in permitted residential FAR in the R9 area would only increase the permitted residential FAR on the lots by approximately 0.16,[2] and this increase would be counterbalanced by the decrease in permitted FAR in the R6A area. Therefore, the proposed actions would not result in a substantial increase in permitted FAR that would facilitate redevelopment of Lots 57 and 58.

Overall, there are no "soft sites" within the rezoning area other than the development site. Similarly, the proposed special permits would only apply to the project zoning lot, and would not result in the redevelopment of the NYCL Church of St. Luke and St. Matthew or the existing residential developments on Lots 51, 1001-1010 and 1101-1118. Therefore, the area affected by the proposed actions does not contain any projected or potential development outside of the development site, and new construction facilitated by the proposed actions would only occur on the development site.

NO ACTION CONDITION

Absent the proposed actions in the future without the proposed project (the "No Action" condition), the development site would be redeveloped with an as-of-right approximately 125,000-gsf building containing approximately 88,000 gsf of residential space and approximately 37,000 gsf of retail space (see **Figure 10**). The as-of-right No Action development would comply with existing R7A/C2-4/IHDA zoning (maximum FAR of 4.6). Assuming an average DU size of 700 sf, the No Action development would contain 126 DUs. The remaining lots in the project zoning lot would remain in their current condition. In total, including the 33 existing DUs in the buildings on Lots 51, 1001-1010 and 1101-1118, in the No Action condition the project area would contain 159 DUs (see **Table 2**).

Table 2
Project Zoning Lot—No Action Condition

Lot Number	Total gsf	Retail gsf	Office gsf	Community Facility gsf	Residential gsf	# DUs	# Affordable DUs	# Accessory Parking Spaces
1 & 59[1]	125,000	37,000	–	-	88,000	126	25[3]	51
10[2]	27,029	-	–	27,029	-	-	-	-
51, 1001-1010 & 1101-1118	33,844	-	–	-	33,844	33	-	-
Total	**185,873**	**37,000**	–	**27,029**	**121,844**	**159**	**25**	**51**

Notes:
[1] Development site.
[2] Church of St. Luke and St. Matthew
[3] For purposes of analysis, 20 percent of the DUs in the No Action development are assumed to be affordable pursuant to IHDA requirements.

The as-of-right development is similar to the development projected for the site in the *Fort Greene/Clinton Hill Rezoning EAS* as described above. However, the previously analyzed project was represented in zsf rather than gsf, therefore, the sf calculations cited above did not account for mechanical or cellar space. The No Action development represents a complete design: notably, the No Action development's total above-grade space (approximately 103,927 gsf) is roughly equal to the total sf (103,592 zsf) cited for the previously analyzed development. Similarly, the *Fort Greene/Clinton Hill Rezoning EAS* assumed an average DU size of 1,000 sf for all development; the No Action development is assumed to have a smaller average DU size (700 sf), consistent with the average DU size for the proposed project (discussed below).

[2] The incremental increase in permitted residential FAR between the R7A (3.45 FAR) and R9 (6.0 FAR) districts is 2.55. As the rezoning would affect approximately 6 percent of each lot (132 sf out of a lot area of 2,332 sf), the increase in permitted residential FAR would be approximately 0.16.

WITH ACTION CONDITION

In the future with the proposed project (the "With Action" condition), the development site would be redeveloped with the proposed project, which would contain approximately 277,500 gsf of space with a mix of uses including retail, office, and residential space. The proposed project would contain approximately 233,000 gsf of residential use; assuming an average DU size of 700 sf, the proposed project would contain 333 DUs. In addition, as the proposed project would be required to provide residential floor area pursuant to MIH, 67 DUs (20 percent) are assumed to be affordable. With the addition of 333 new DUs on the development site to the 33 existing DUs in the buildings on Lots 51, 1001-1010 and 1101-1118, in the With Action condition the project zoning lot would contain 366 DUs (see **Table 3**).

Table 3
Project Zoning Lot—With Action Condition

Lot Number	Total gsf	Retail gsf	Office gsf	Community Facility gsf	Residential gsf	# DUs	# Affordable DUs	# Accessory Parking Spaces[4]
1 & 59[1]	277,500	25,000	19,500	-	233,000	333	67[3]	–
10[2]	27,029	–	–	27,029	–	–	–	–
51, 1001-1010 & 1101-1118	33,844	–	–	-	33,844	33	–	–
Total	**338,372**	**25,000**	**19,500**	**27,029**	**266,844**	**366**	**67**	**–**
Increment	**152,500**	**-12,000**	**19,500**	**–**	**145,000**	**207**	**42**	**-51**

Notes:
[1] Development site
[2] Church of St. Luke and St. Matthew
[3] For purposes of analysis, 20 percent of the DUs in the proposed project are assumed to be affordable pursuant to MIH requirements
[4] The proposed actions include a special permit pursuant to ZR Sec. 74-533 to waive the residential parking requirements applicable to the development site; therefore, unlike the No Action development, the proposed project would not include any accessory parking spaces.

NO SPECIAL PERMIT ALTERNATIVE

The With Action condition assumes that the proposed project would utilize all of the floor area permitted by the proposed rezoning to an R9/C2-5 district and the proposed ZR 74-711 special permit. However, should the proposed special permit expire prior to development, the development site could still be redeveloped with a building that conforms to the R9/C2-5 district regulations. Because the Applicants would not be able to utilize the approximately 70,000 sf of transferred development rights, this building would be smaller than the proposed project: the building would contain approximately 186,000 gsf of space, compared to the approximately 277,500 gsf proposed project. As with the proposed project, the alternative development would have commercial space in the cellar and on the first and second floors, and would contain an equivalent amount of retail (approximately 25,000 gsf) and office (approximately 19,500 gsf). However, the alternative development would have less residential space (141,000 gsf) than the proposed project, and therefore it would have fewer DUs (assuming an average DU size of 700 sf, the alternative development would contain 201 DUs, compared to the 333 DUs in the proposed project). Therefore, the alternative development does not represent the Reasonable Worst Case Development Scenario (RWCDS) for the With Action condition in terms of density.

However, the development would feature a different design than the proposed project, featuring two towers containing residential space: a 19-story tower on Lot 1 (Building A), shorter than the proposed project's 29-story tower, and an 11-story tower on Lot 59 (Building B) (see **Figure 11**). As this alternative massing may have different environmental effects than the proposed project (e.g., shadows, urban design, air quality), it is included in the analysis as an alternative With Action condition (a No Special Permit scenario) where warranted.

C. PURPOSE AND NEED

The proposed actions (including zoning map and text amendments and special permits) would facilitate the redevelopment of the development site to maximize residential space and affordable housing along the wide street frontage on Atlantic Avenue and away from the lower-scale midblock area. In particular, the proposed rezoning would increase the maximum FAR on the development site to 8.0 (compared to up to 4.6 FAR under existing zoning), which would be comparable to the 8.5 FAR permitted on the adjacent property immediately to the west (470 Vanderbilt Avenue). The proposed R9/C2-5 district would also allow for two stories of local service commercial uses, including office and retail, which, in the Applicants' opinion, would enhance the mixed-use corridor along Atlantic Avenue (the current zoning allows only one story of commercial use in a mixed-use building). In addition, the proposed text amendment to designate the rezoning area as a MIHA would provide for

affordable housing in keeping with the City's goal of building or preserving 300,000 affordable DUs, as outlined in *Housing New York: A Five-Borough, Ten-Year Housing Plan* and its recent update, *Housing New York 2.0.*

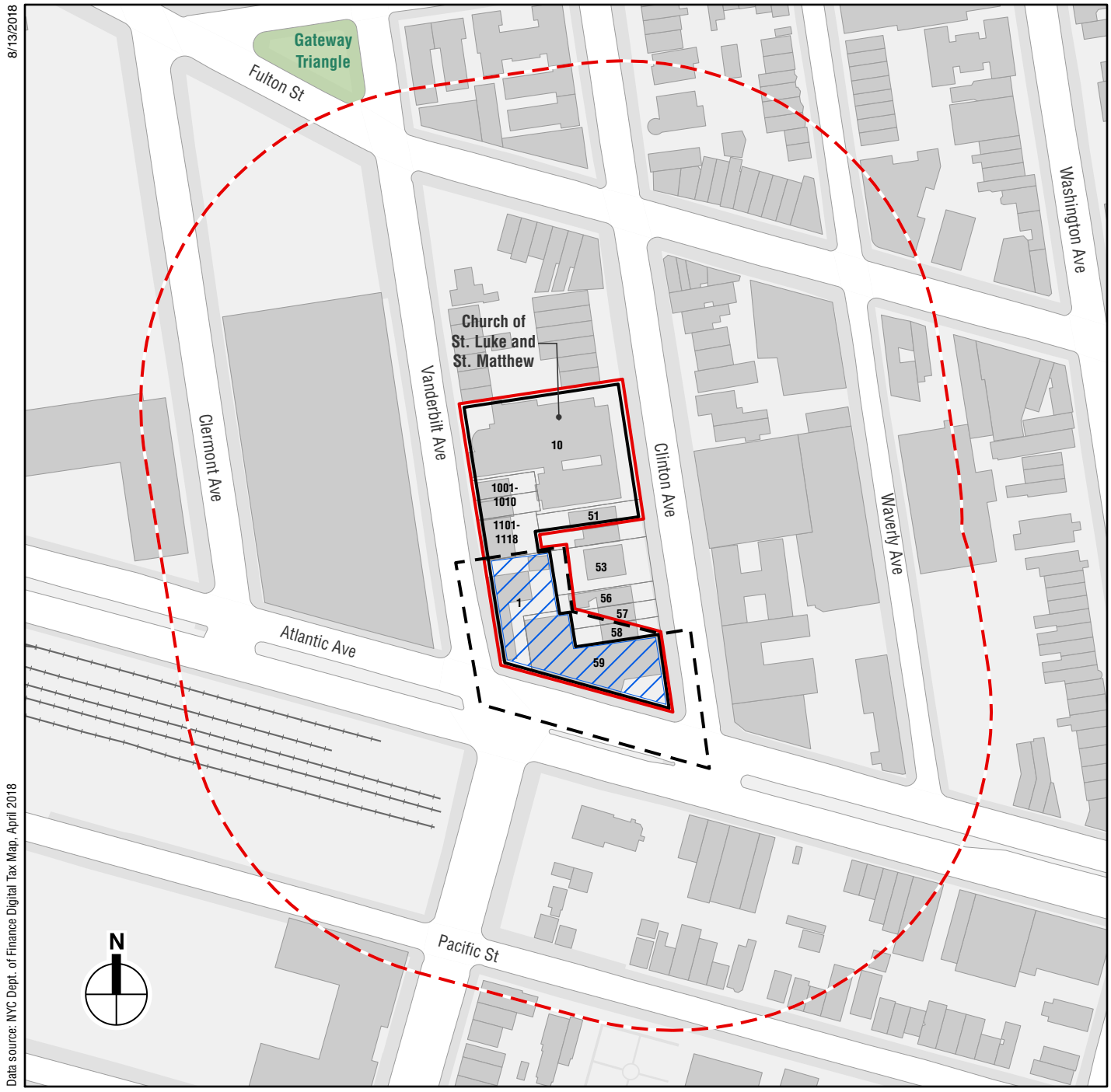
The special permit pursuant to ZR sec. 74-711 would allow for the transfer of unused development rights from the NYCL Church of St. Luke and St. Matthew to the development site, which would facilitate the a preservation and restoration program for the church. The proposed restoration work is subject to the approval of the LPC: LPC is expected to issue a Certificate of Appropriateness (CofA) for the proposed project, since the proposed special permit requires this condition. Consultation with LPC regarding the restoration program is underway.

In addition, the ZR 74-711 special permit would waive the following zoning requirements for the proposed project, which is necessary to provide for a massing that is efficient and matches the context of the surrounding neighborhood:

- Transfer of Floor Area Across District Boundaries (ZR 77-02, 77-22): with the proposed actions, Lots 10, 51, 1001-1010, and 1111-1118 would remain in their current R7A and R6A zoning districts, and their up to 70,000 sf of available development rights cannot be transferred to the development site (which would be in an R9/C2-5 district) because the maximum floor area permitted on each portion of the zoning lot would be determined by the applicable district regulations pursuant to ZR 77-02 and 77-22. With this waiver, the up to 70,000 sf of development rights could be transferred to the development site.
- Commercial Rear Yard (ZR 33-292): ZR 33-292 requires an open rear yard area of at least 30 feet at the level of the proposed project's second commercial story. This required rear yard would leave a floor plate of only 50 feet deep, which would make it less viable for efficient office use. With this waiver, no commercial rear yard would be required on the second floor, allowing for more efficient office space.
- Residential Rear Yard (ZR 23-52(b)): ZR 23-52 (b) requires a 25-foot rear yard for the interior lot portion of the proposed project's residential tower (Building A). Providing a 25-foot rear yard would leave the floor plate only 55 feet deep, which would decrease to 45 feet with the 10-foot tower setback, which would make a double-loaded corridor impractical. With this waiver, a 16-foot residential rear yard would be provided, 9 feet less than required, which would allow for more efficient residential floor plates.
- Inner Court Regulations (ZR 23-851(b)): ZR 23-851(b) requires an inner court of no less than 1,200 sf and with a minimum dimension of no less than 30 feet. Due to the irregular configuration of the development site, complying with this requirement would necessitate an awkward and irregularly shaped floor plate on the third and fourth floors. A waiver of this requirement is needed to provide an inner court of 1,399 sf with a minimum dimension of approximately 17 feet on the third and fourth floors, approximately 13 feet less than required, which would allow for more efficient floor plates.
- Inner Court Recess Regulations (ZR 23-852(b)): ZR 23-852(b) requires that the width of an inner court recess be at least equal to the depth of the inner court recess. A waiver of this requirement is needed to provide two inner courts with a total of five inner court recesses that do not comply (i.e., the width of the inner court recesses is less than their depth), which is necessitated by irregular shape of the building.
- Window to Lot Line Distance (ZR 23-861): ZR 23-861 requires a minimum of 25 or 30 feet between any legally required window and any rear lot line or side lot line. Providing the minimum 25 or 30 feet would leave the floor plate only 50 or 55 feet deep, which would decrease to 40 or 45 feet with the 10-foot tower setback, which would make a double-loaded corridor impractical. With this waiver, the proposed project would provide a 16-foot distance between legally required windows and the rear lot line on the third and fourth floors as well as on floors 6 to 29 (there are no legally required windows on the fifth floor, which would contain amenity space), 9 to 14 feet less than required, which would allow for more efficient residential floor plates.
- Interior Lot Coverage (ZR 23-16(a)): ZR 23-16(a) sets the maximum lot coverage as 70 percent on an interior lot. The proposed project's lot coverage in the interior lot area would be 71.3 percent, therefore this minor waiver is required.
- Minimum Street Wall Height (ZR 23-651(b)(2)): at the request of LPC, as part of the process of obtaining the requisite approvals, the base height of the proposed project was set at four stories in order to improve visibility of the church's belfry from Vanderbilt Avenue looking north. The four-story base would be only 52 feet high, less than the minimum 60 feet required for tower on a base buildings per ZR 23-651(b)(2). Therefore, this waiver is necessary in order to meet LPC's requirements and provide for a development that is more respectful of, and relates more harmoniously to, the landmarked Church structure.

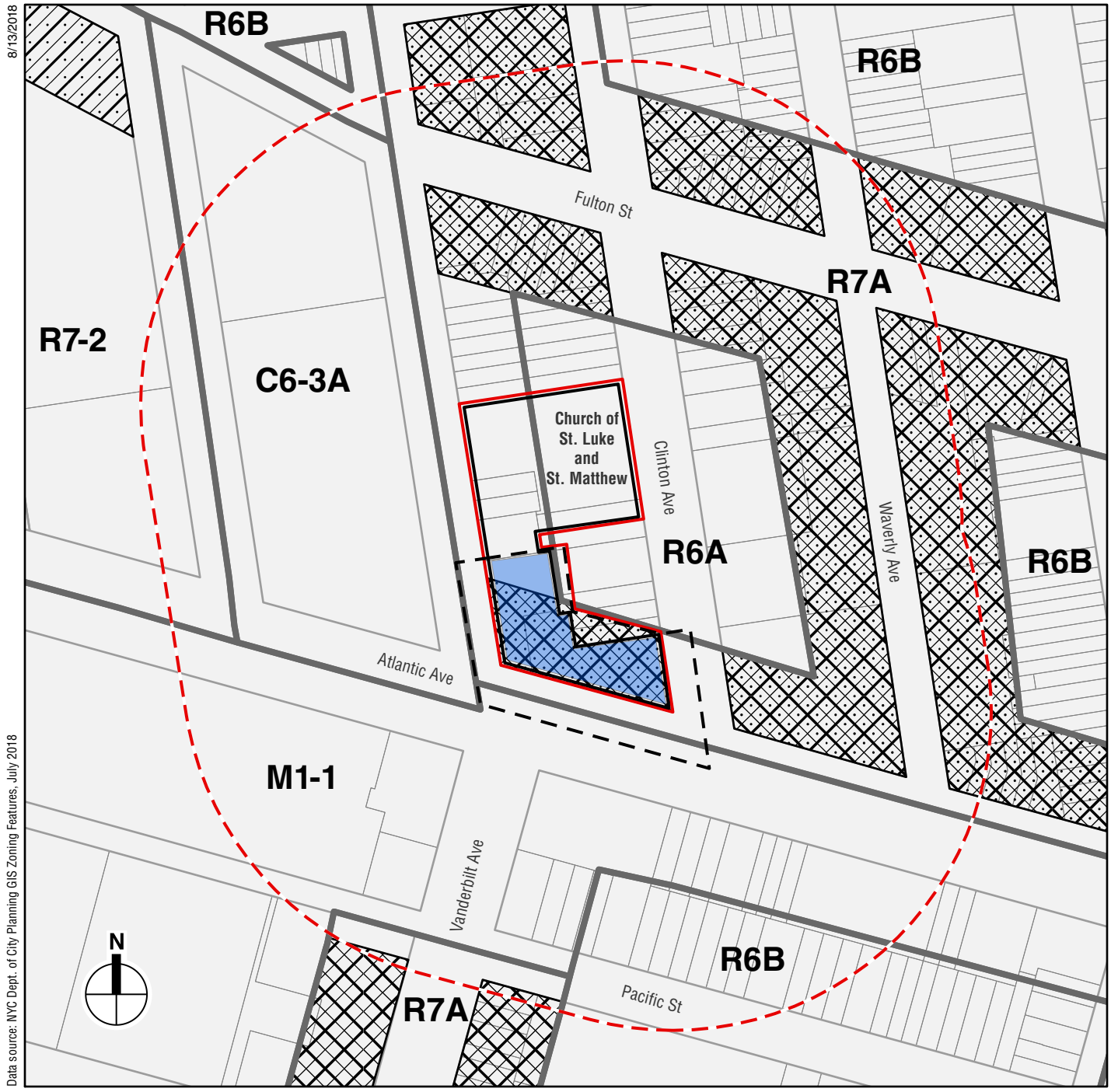
- Tower Floor Area (ZR 23-651(a)(3)): ZR 23-651(a)(3) requires that at least 58 percent of the total floor area in the proposed project be located in stories either partially or entirely below a height of 150 feet. By lowering the base height to four stories as requested by LPC, the amount of floor area in the proposed project in stories partially or entirely below 150 feet is reduced to 56.9 percent of the total floor area. Therefore, this minor waiver is necessary in order to meet LPC's requirements.

Finally, ZR 25-23 requires that the proposed project provide parking spaces for 40 percent of the market rate DUs. The development site is located in an area that is well served by mass transit: notably, Brooklyn Community District 2, which includes the development site, is a Transit Zone as designated by the ZR. Therefore, the Applicants believe that this parking is not warranted for the proposed residential space, and are seeking a special permit to ZR 74-533 to waive the parking requirement.



809 ATLANTIC AVENUE

Project Location
Figure 1



Project Area
Project Zoning Lot
Study Area (400-foot perimeter)
Development Site
Rezoning Area
Tax Block Boundary
Tax Lot Boundary

Zoning District Boundaries
C1-4 Commercial Overlay District
C2-4 Commercial Overlay District
C2-3 Commercial Overlay District

0 200 FEET

809 ATLANTIC AVENUE

Zoning
Figure 2



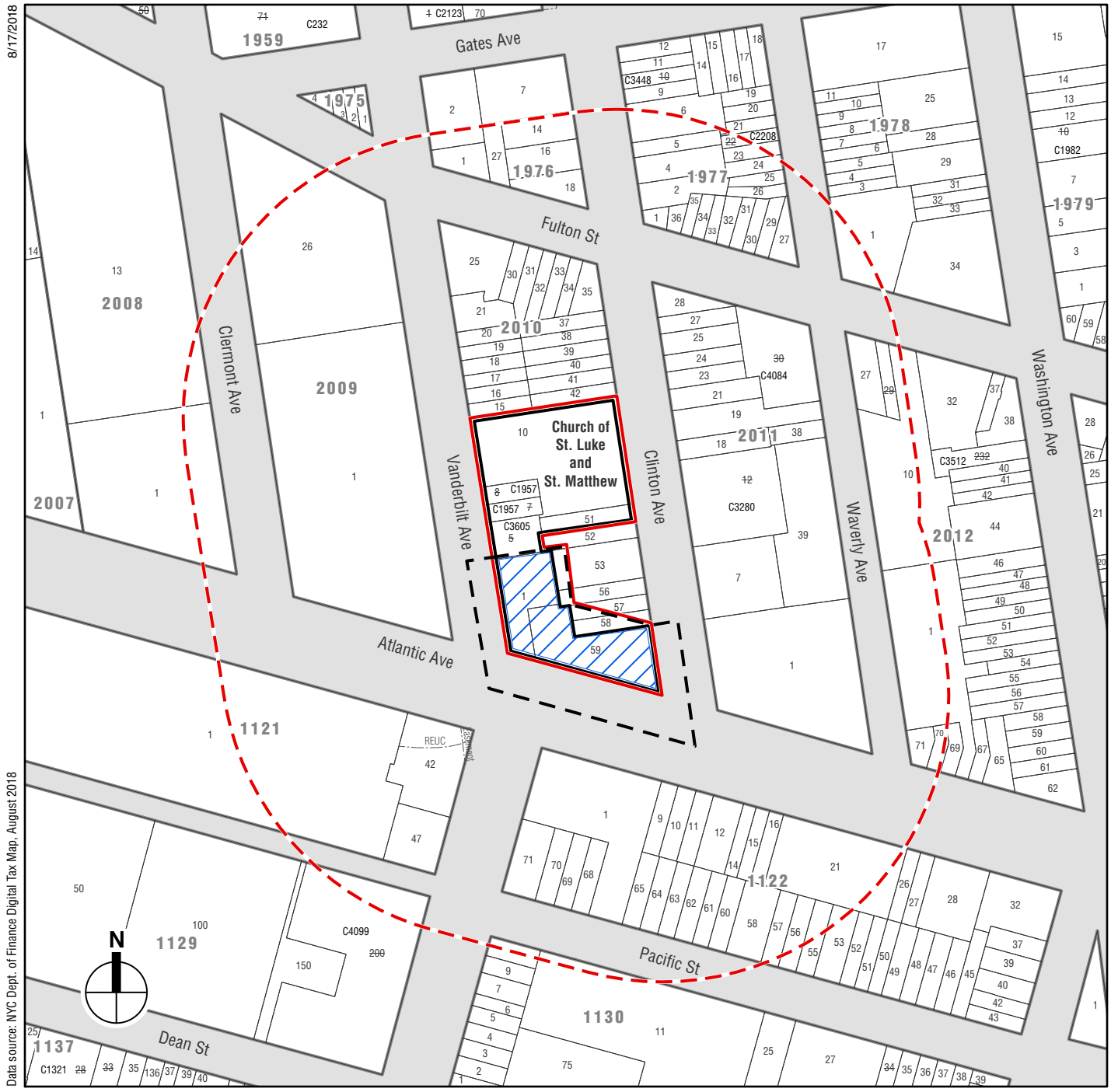
Project Area
Project Zoning Lot
Study Area (400-foot perimeter)
Development Site
Rezoning Area
10 *Tax Lots and Numbers*

Commercial and Office Buildings
Industrial and Manufacturing
Open Space and Outdoor Recreation
Parking Facilities
Public Facilities and Institutions
Residential
Residential with Commercial Below
Transportation and Utility
Vacant Land
Under Construction

0 200 FEET

809 ATLANTIC AVENUE

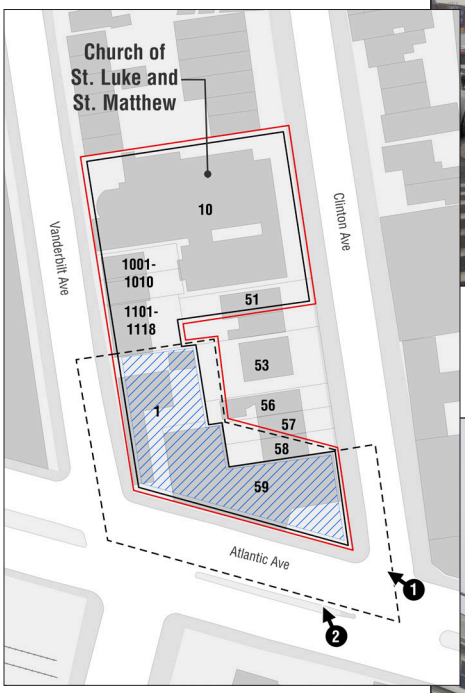
Land Use
Figure 3



Tax Map

Figure 4

809 ATLANTIC AVENUE





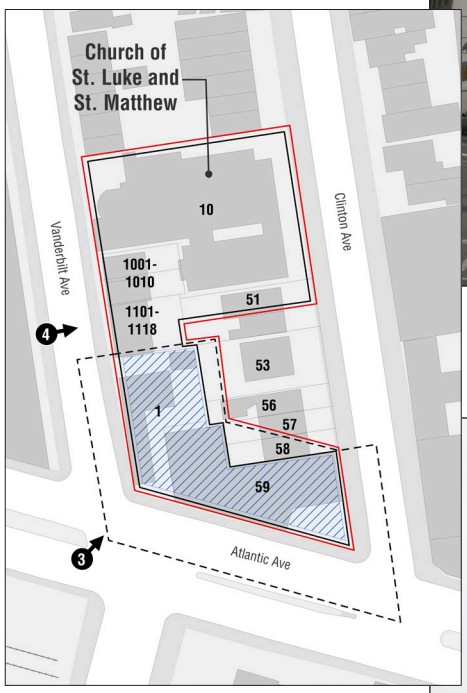
1



2

809 ATLANTIC AVENUE

Photographs
Figure 5a





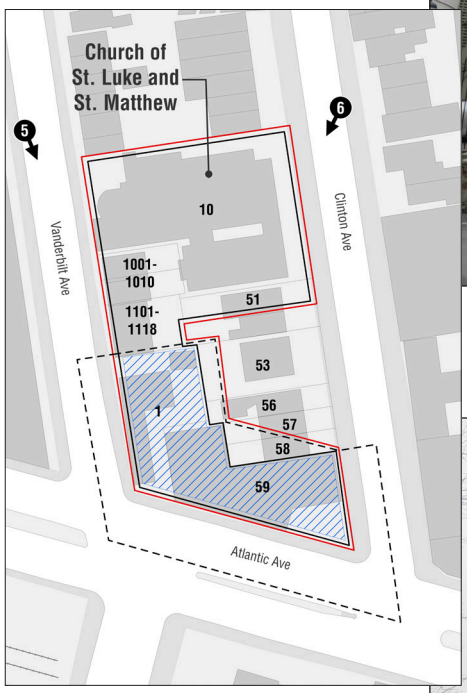
3



4

Photographs
Figure 5b

809 ATLANTIC AVENUE





5



6

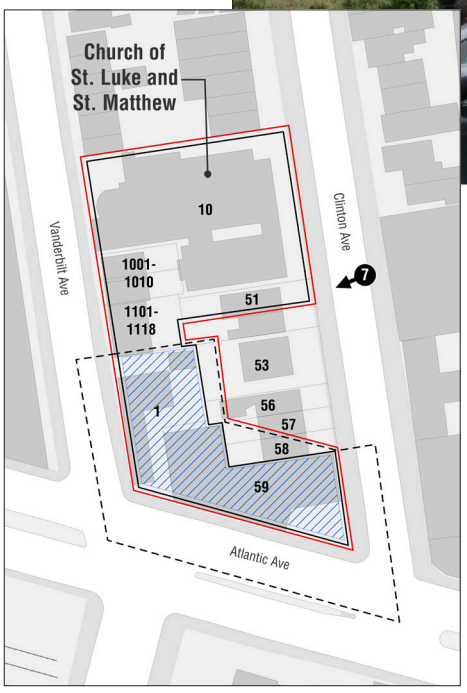
Photographs

809 ATLANTIC AVENUE

Figure 5c



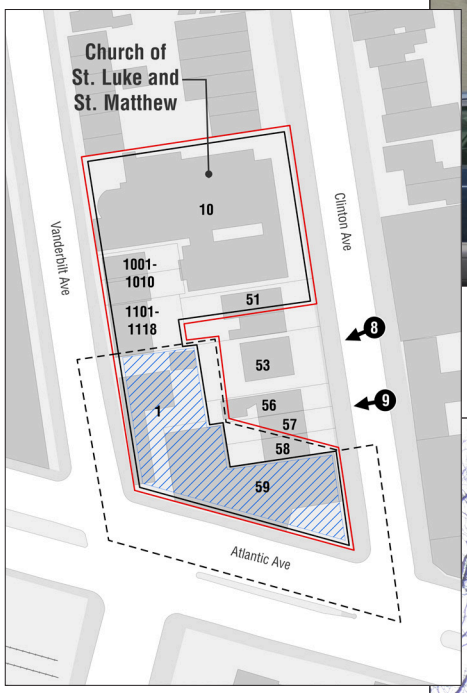
7



Photographs

809 ATLANTIC AVENUE

Figure 5d





8

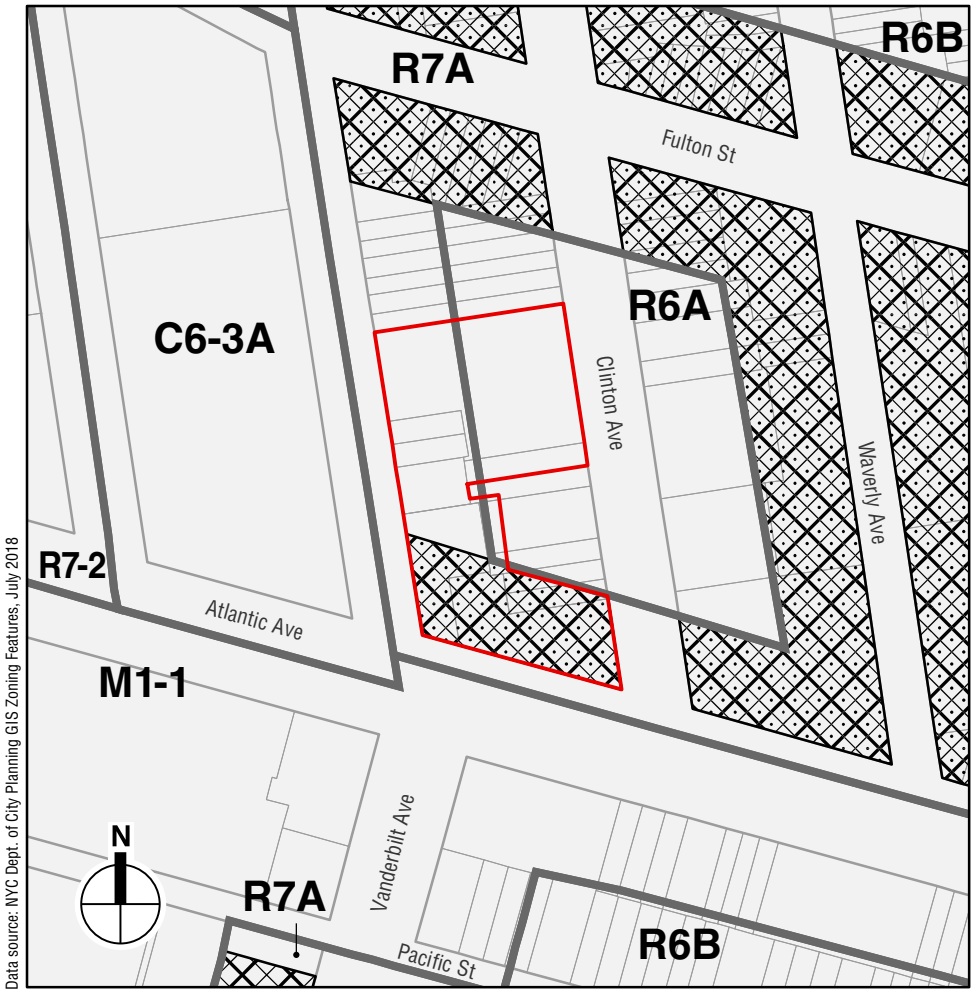


9

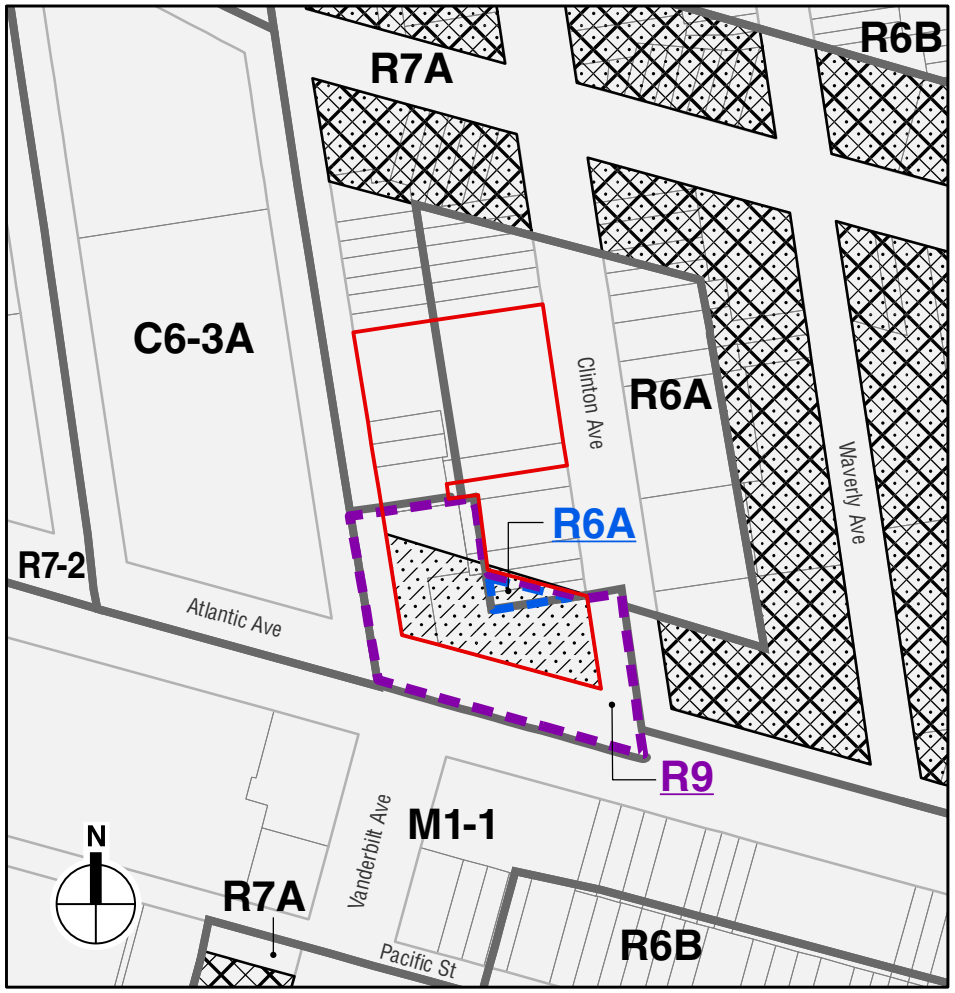
Photographs
Figure 5e

809 ATLANTIC AVENUE

8/17/2018



Existing Zoning



Proposed Zoning

Data source: NYC Dept. of City Planning GIS Zoning Features, July 2018

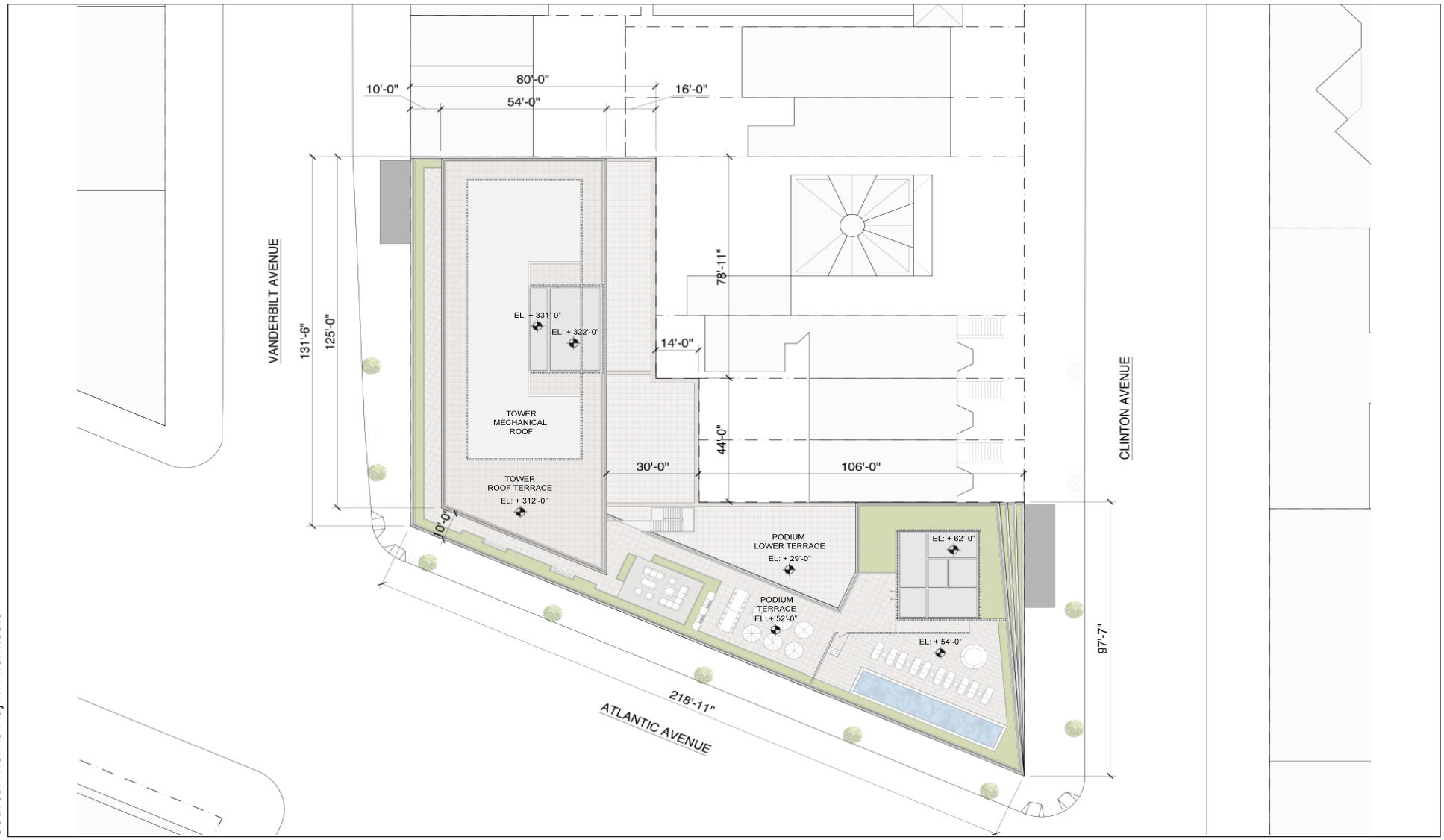
0 400 FEET

- Project Area
- Proposed Zoning District R9
- Proposed Zoning District R6A
- Zoning District Boundaries
- C1-4 Commercial Overlay District
- C2-4 Commercial Overlay District
- Proposed C2-5 Commercial Overlay District

809 ATLANTIC AVENUE

Existing and Proposed Zoning

Figure 6

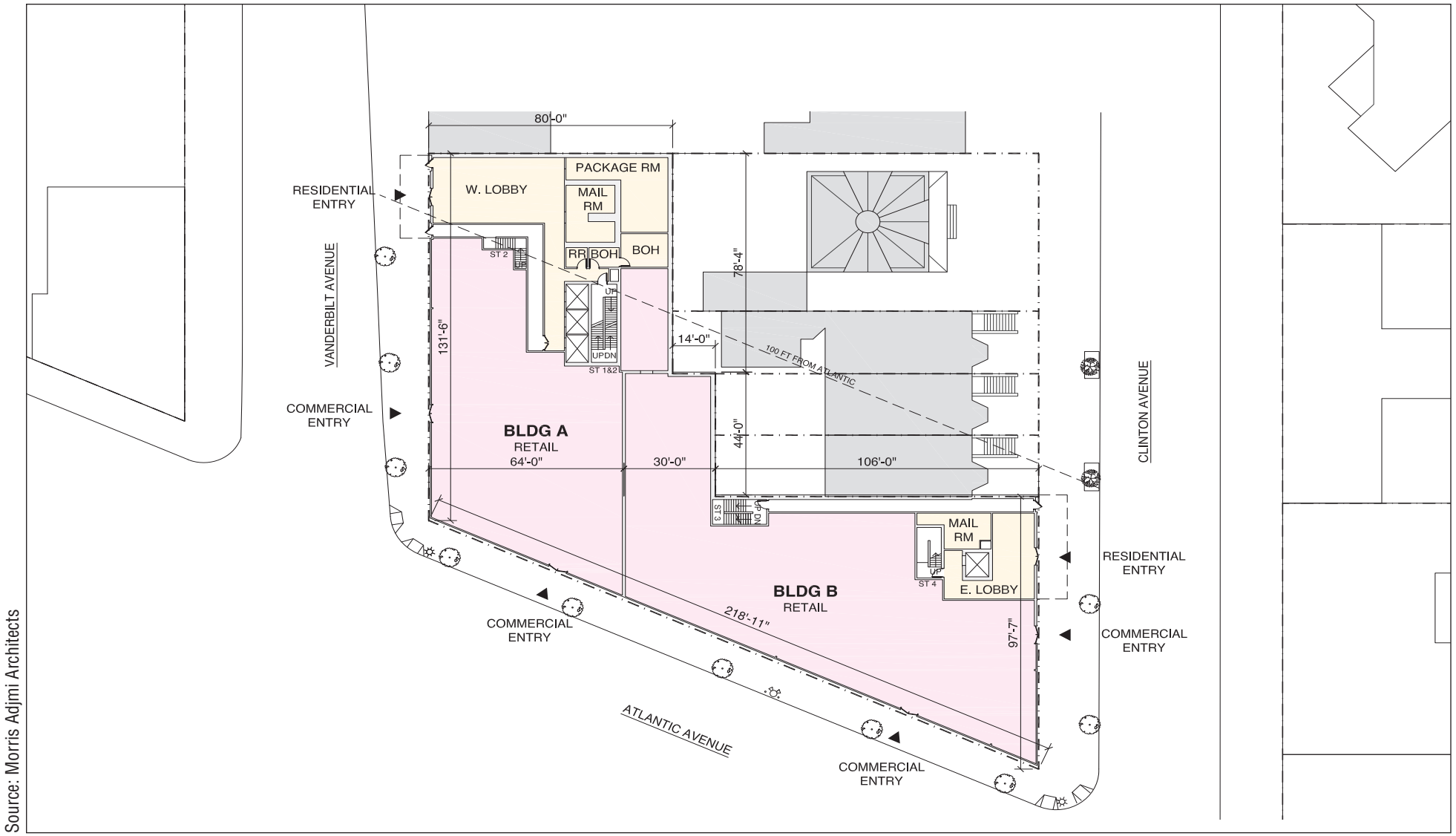


Source: Morris Adjmi Architects

Proposed Project Roof Plan

Figure 7

8.17.18



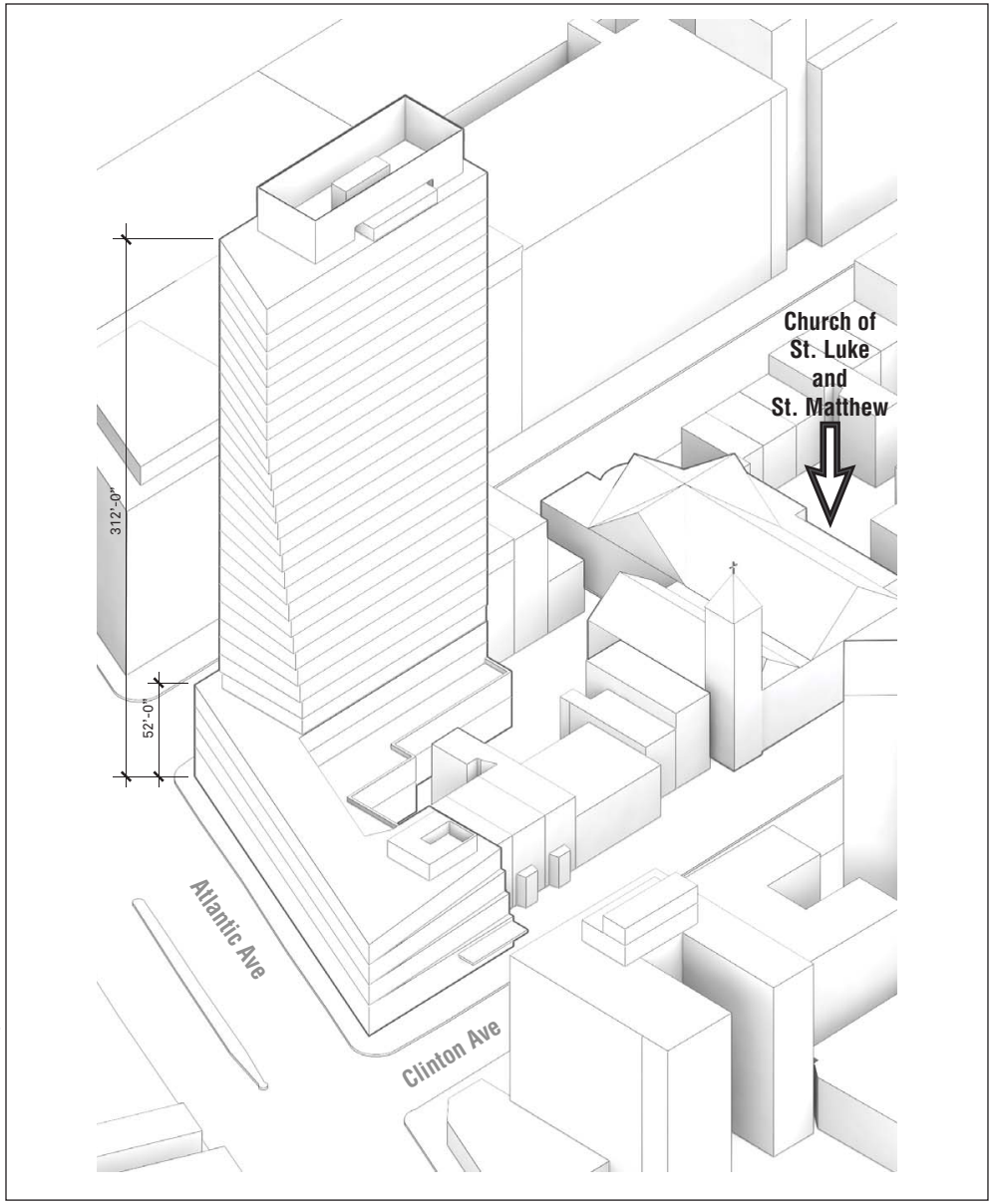
Source: Morris Adjmi Architects

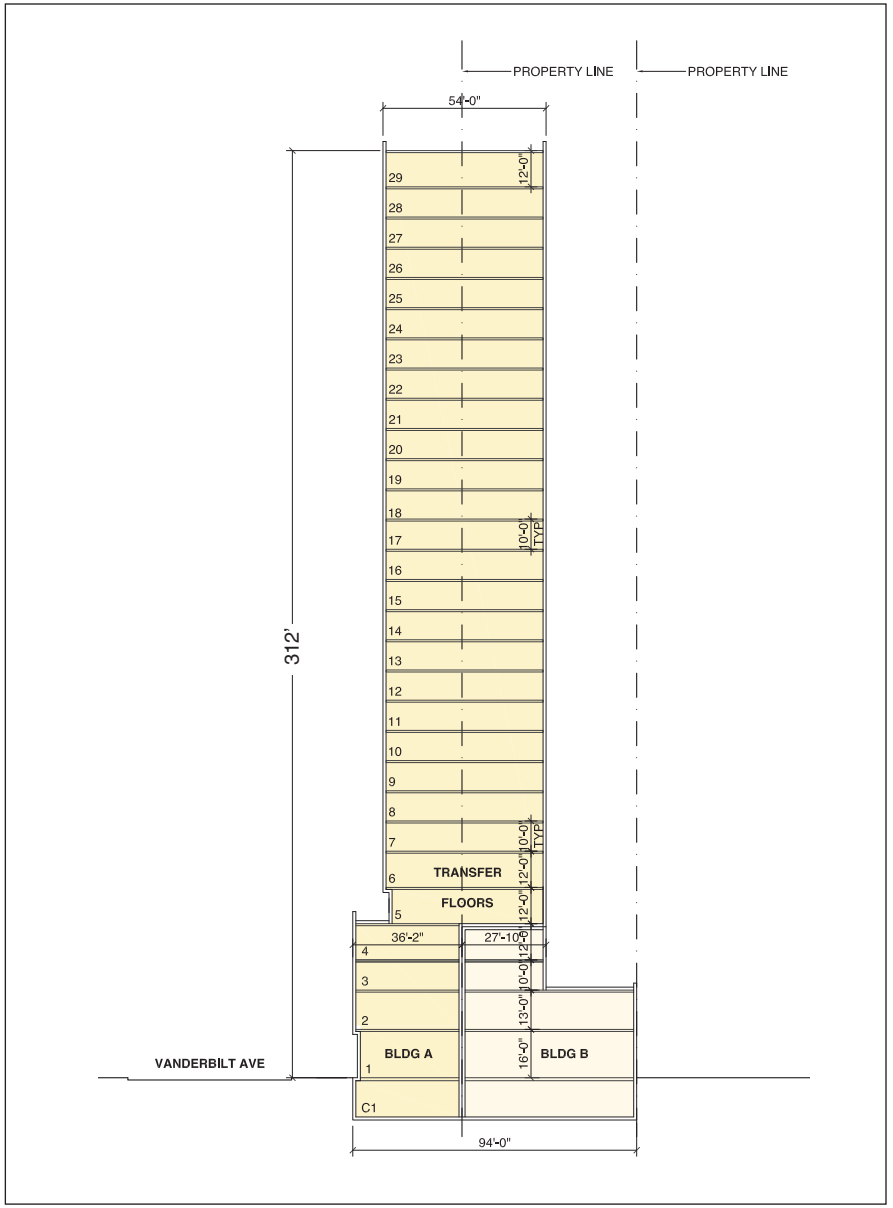
Proposed Project Ground Floor Plan

809 ATLANTIC AVENUE

Figure 8

8.17.18





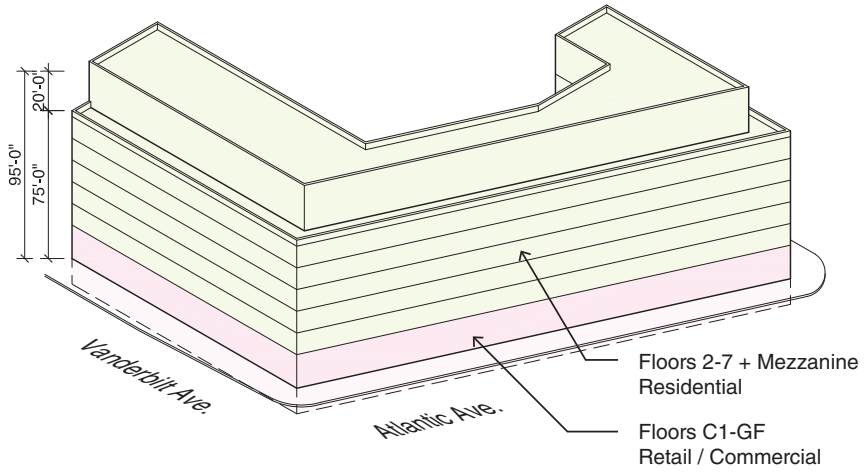
Source: Morris Adjmi Architects

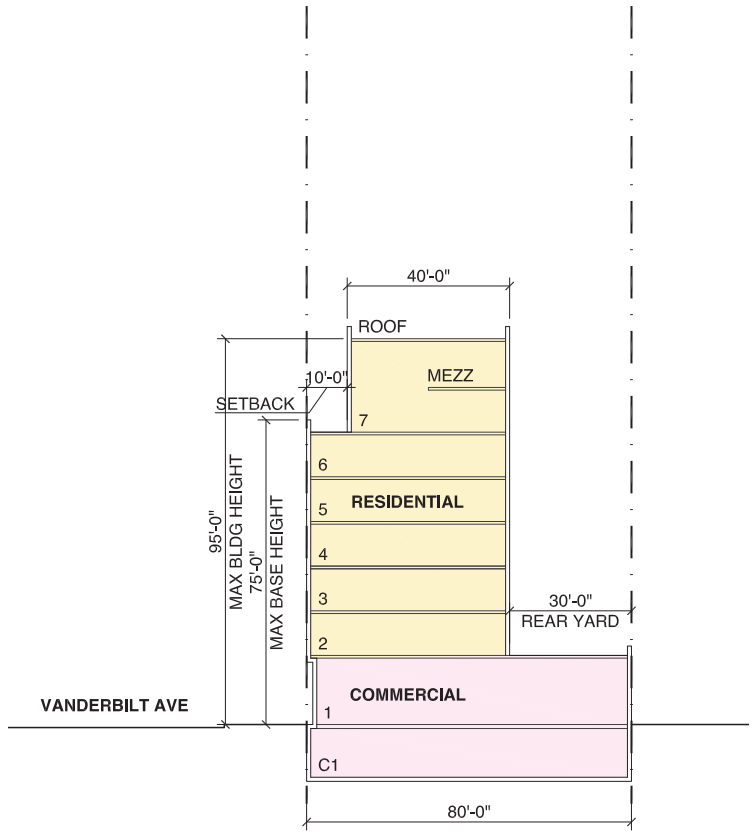
Proposed Project Massing and Section

809 ATLANTIC AVENUE

Figure 9

8.17.18





EAST/WEST SECTION

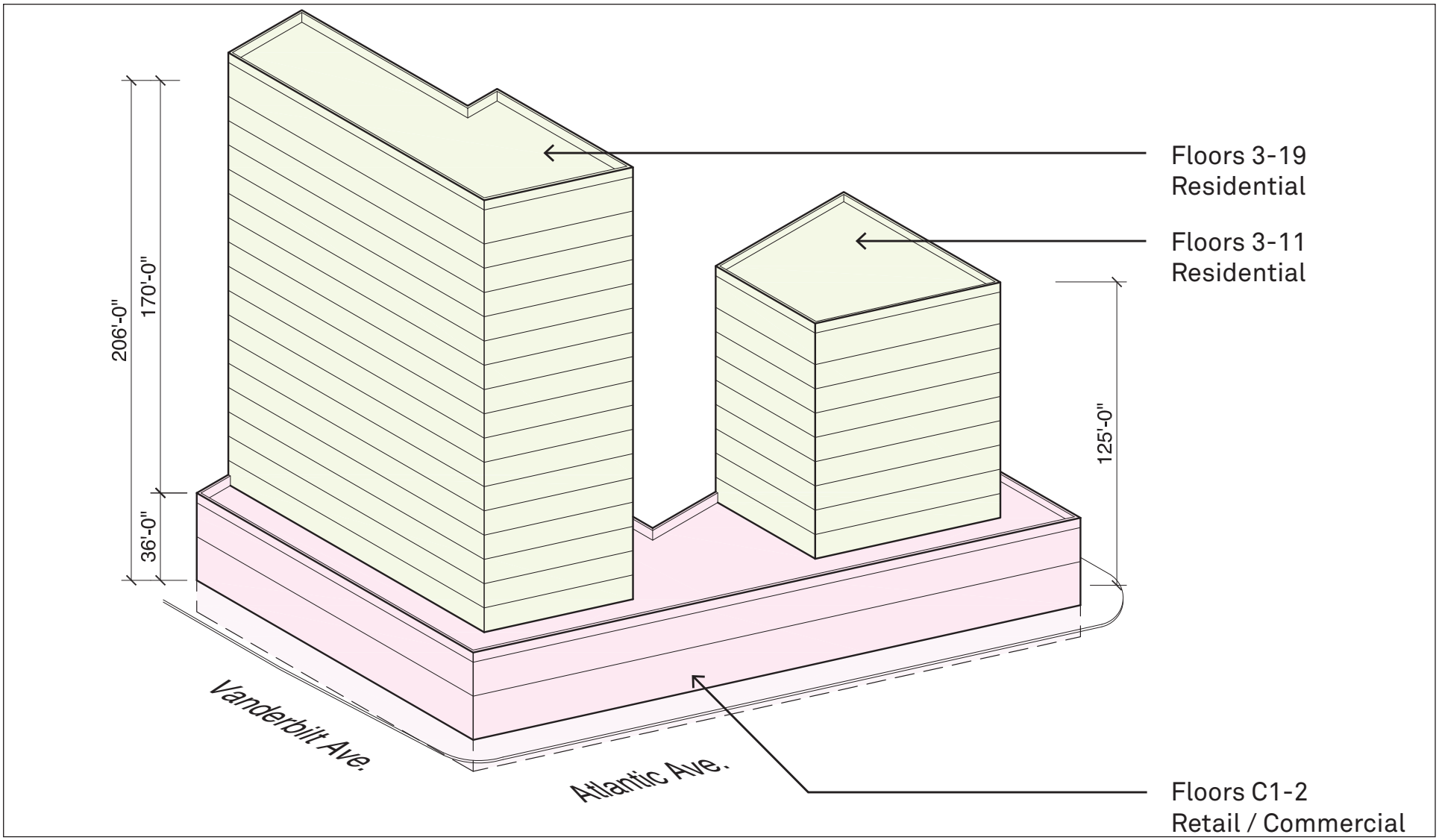
Source: Morris Adjmi Architects

No Action Condition

809 ATLANTIC AVENUE

Figure 10

8.17.18



Source: Morris Adjmi Architects

With Action Condition—
No Special Permit Scenario

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 302	STREET ADDRESS See Page 1a, Project Description
TAX BLOCK(S) AND LOT(S) Block 2010, Lots 1, 10, 51, 53, 56, 57, 58, 59, 1001-1010, 1101-1118		ZIP CODE 11238
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Portion of the block bounded by Atlantic Avenue, Vanderbilt Avenue, Fulton Street, and Clinton Avenue		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R7A, R7A/C2-4 overlay, R6A		ZONING SECTIONAL MAP NUMBER 16c

5. *Required Actions or Approvals* (check all that apply)

***City Planning Commission*:** ☒ YES ☐ NO ☒ UNIFORM LAND USE REVIEW PROCEDURE (ULURP)

- ☐ CITY MAP AMENDMENT
- ☒ ZONING MAP AMENDMENT
- ☒ ZONING TEXT AMENDMENT
- ☐ SITE SELECTION—PUBLIC FACILITY
- ☐ HOUSING PLAN & PROJECT
- ☐ ZONING CERTIFICATION
- ☐ ZONING AUTHORIZATION
- ☐ ACQUISITION—REAL PROPERTY
- ☐ DISPOSITION—REAL PROPERTY
- ☐ OTHER, explain:
- ☐ CONCESSION
- ☐ UDAAP
- ☐ REVOCABLE CONSENT
- ☐ FRANCHISE

☒ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION 74-711 (77-02, 77-22, 33-292, 23-52, 23-851, 23-852, 23-861, 23-16, 23-651); 74-533 (25-23); Appendix F

***Board of Standards and Appeals*:** ☐ YES ☒ NO

- ☐ VARIANCE (use)
- ☐ VARIANCE (bulk)
- ☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

***Department of Environmental Protection*:** ☐ YES ☒ NO If "yes," specify:

Other City Approvals Subject to CEQR (check all that apply)

- ☐ LEGISLATION
- ☐ RULEMAKING
- ☐ CONSTRUCTION OF PUBLIC FACILITIES
- ☐ 384(b)(4) APPROVAL
- ☐ OTHER, explain:
- ☐ FUNDING OF CONSTRUCTION, specify:
- ☐ POLICY OR PLAN, specify:
- ☐ FUNDING OF PROGRAMS, specify:
- ☐ PERMITS, specify:

Other City Approvals Not Subject to CEQR (check all that apply)

- ☒ PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC)
- ☒ LANDMARKS PRESERVATION COMMISSION APPROVAL
- ☐ OTHER, explain:

***State or Federal Actions/Approvals/Funding*:** ☐ YES ☒ NO If "yes," specify:

6. *Site Description:* *The directly affected area consists of the project site and the area subject to any change in regulatory controls. Except where otherwise indicated, provide the following information with regard to the directly affected area.*

***Graphics*:** *The following graphics must be attached and each box must be checked off before the EAS is complete. Each map must clearly depict the boundaries of the directly affected area or areas and indicate a 400-foot radius drawn from the outer boundaries of the project site. Maps may not exceed 11 x 17 inches in size and, for paper filings, must be folded to 8.5 x 11 inches.*

- ☒ SITE LOCATION MAP
- ☒ ZONING MAP
- ☒ SANBORN OR OTHER LAND USE MAP
- ☒ TAX MAP
- ☐ FOR LARGE AREAS OR MULTIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)
- ☒ PHOTOGRAPHS OF THE PROJECT SITE TAKEN WITHIN 6 MONTHS OF EAS SUBMISSION AND KEYED TO THE SITE LOCATION MAP

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 76,930

Waterbody area (sq. ft.) and type: 0

Roads, buildings, and other paved surfaces (sq. ft.): 76,930

Other, describe (sq. ft.): 0

7. *Physical Dimensions and Scale of Project* (if the project affects multiple sites, provide the total development facilitated by the action)

SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 277,500 gsf

NUMBER OF BUILDINGS: 2

GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): Building A: 231,500 gsf; Building B: 46,000 gsf

HEIGHT OF EACH BUILDING (ft.): Building A: 337 ft; Building B: 62 ft

NUMBER OF STORIES OF EACH BUILDING: Building A: 29 stories; Building B: 4 stories

Does the proposed project involve changes in zoning on one or more sites? ☒ YES ☐ NO

If "yes," specify: The total square feet owned or controlled by the applicant: 21,069

The total square feet not owned or controlled by the applicant: 14,134

Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? ☒ YES ☐ NO

If "yes," indicate the estimated area and volume dimensions of subsurface disturbance (if known):

AREA OF TEMPORARY DISTURBANCE: 21,069 sq. ft. (width x length) VOLUME OF DISTURBANCE: 273,900 cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 21,069 sq. ft. (width x length)

8. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2021

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 24

WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☐ YES ☒ NO | IF MULTIPLE PHASES, HOW MANY?

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE:

9. *Predominant Land Use in the Vicinity of the Project* (check all that apply)

☒ RESIDENTIAL ☐ MANUFACTURING ☒ COMMERCIAL ☐ PARK/FOREST/OPEN SPACE ☐ OTHER, specify:

DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS

The information requested in this table applies to the directly affected area. The directly affected area consists of the project site and the area subject to any change in regulatory control. The increment is the difference between the No-Action and the With-Action conditions.

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
LAND USE				
Residential	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type of residential structures	Apartment buildings	Apartment buildings	Apartment buildings	
No. of dwelling units	33	159	366	+207
No. of low- to moderate-income units	0	25	67	+42
Gross floor area (sq. ft.)	33,844	121,844	266,844	+145,000
Commercial	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)	Car wash, auto repair, bar	Retail	Retail and office	
Gross floor area (sq. ft.)	13,920	37,000	44,500 (25,000 retail; 19,500 office)	+7,500 (-12,000 retail; +19,500 office)
Manufacturing/Industrial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use				
Gross floor area (sq. ft.)				
Open storage area (sq. ft.)				
If any unenclosed activities, specify:				
Community Facility	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Type	Church	Church	Church	
Gross floor area (sq. ft.)	27,029	27,029	27,029	No change
Vacant Land	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
Publicly Accessible Open Space	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify type (mapped City, State, or Federal parkland, wetland—mapped or otherwise known, other):				
Other Land Uses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
PARKING				
Garages	☐ YES ☒ NO	☒ YES ☐ NO	☒ YES ☒ NO	
If "yes," specify the following:				
No. of public spaces		0		
No. of accessory spaces		51		-51
Operating hours		24 hours		
Attended or non-attended		TBD		
Lots	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces				
Operating hours				
Other (includes street parking)	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
POPULATION				
Residents	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify number:	66	320	736	+416

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Briefly explain how the number of residents was calculated:	Number of dwelling units multiplied by average household size of Brooklyn Community District 2 (2.01 persons per household) as of 2010 Census.			
Businesses	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. and type	4 (car wash, 2 auto repair shops, bar)	TBD retail	TBD retail and office	
No. and type of workers by business	42	111	153	+42
No. and type of non-residents who are not workers				
Briefly explain how the number of businesses was calculated:	Worker estimates assume 1 worker per 333 sf of retail space and 1 worker per 250 sf of office space			
Other (students, visitors, concert-goers, *etc.*)	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If any, specify type and number:				
Briefly explain how the number was calculated:				
ZONING				
Zoning classification	R7A/C2-4; R6A; R7A	R7A/C2-4; R6A; R7A	R9/C2-5; R6A; R7A	
Maximum amount of floor area that can be developed	R7A/C2-4: 4.6 FAR Res, 2.0 FAR Com R6A: 3.0 FAR Res R7A: 4.6 FAR Res	R7A/C2-4: 4.6 FAR Res, 2.0 FAR Com R6A: 3.0 FAR Res R7A: 4.6 FAR Res	R9/C2-5: 8.0 FAR Res, 2.0 FAR Com R6A: 3.0 FAR Res R7A: 4.6 FAR Res	
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Residential (R6B, R7-2); Commercial (C6-3A); Manufacturing (M1-1)	Residential (R6B, R7-2); Commercial (C6-3A); Manufacturing (M1-1	Residential (R6B, R7-2); Commercial (C6-3A); Manufacturing (M1-1	
Attach any additional information that may be needed to describe the project. If your project involves changes that affect one or more sites not associated with a specific development, it is generally appropriate to include total development projections in the above table and attach separate tables outlining the reasonable development scenarios for each site.				

Part II: TECHNICAL ANALYSIS

INSTRUCTIONS: For each of the analysis categories listed in this section, assess the proposed project's impacts based on the thresholds and criteria presented in the CEQR Technical Manual. Check each box that applies.

- If the proposed project can be demonstrated not to meet or exceed the threshold, check the "no" box.
- If the proposed project will meet or exceed the threshold, or if this cannot be determined, check the "yes" box.
- For each "yes" response, provide additional analyses (and, if needed, attach supporting information) based on guidance in the CEQR Technical Manual to determine whether the potential for significant impacts exists. Please note that a "yes" answer does not mean that an EIS must be prepared—it means that more information may be required for the lead agency to make a determination of significance.
- The lead agency, upon reviewing Part II, may require an applicant to provide additional information to support the Full EAS Form. For example, if a question is answered "no," an agency may request a short explanation for this response.

	YES	NO
1. *LAND USE, ZONING, AND PUBLIC POLICY*: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	☐	☒
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	☒	☐
(c) Is there the potential to affect an applicable public policy?	☐	☒
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach. See Attachment A		
(e) Is the project a large, publicly sponsored project?	☐	☒
o If "yes," complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?	☐	☒
o If "yes," complete the Consistency Assessment Form.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
o Generate a net increase of more than 200 residential units *or* 200,000 square feet of commercial space?	☒	☐
▪ If "yes," answer *both* questions 2(b)(ii) and 2(b)(iv) below.		
o Directly displace 500 or more residents?	☐	☒
▪ If "yes," answer questions 2(b)(i), 2(b)(ii), and 2(b)(iv) below.		
o Directly displace more than 100 employees?	☐	☒
▪ If "yes," answer questions under 2(b)(iii) and 2(b)(iv) below.		
o Affect conditions in a specific industry?	☐	☒
▪ If "yes," answer question 2(b)(v) below.		
(b) If "yes" to any of the above, attach supporting information to answer the relevant questions below. If "no" was checked for each category above, the remaining questions in this technical area do not need to be answered.		
i. Direct Residential Displacement		
o If more than 500 residents would be displaced, would these residents represent more than 5% of the primary study area population?	☐	☐
o If "yes," is the average income of the directly displaced population markedly lower than the average income of the rest of the study area population?	☐	☐
ii. Indirect Residential Displacement		
o Would expected average incomes of the new population exceed the average incomes of study area populations?	☒	☐
o If "yes:"		
▪ Would the population of the primary study area increase by more than 10 percent?	☐	☒
▪ Would the population of the primary study area increase by more than 5 percent in an area where there is the potential to accelerate trends toward increasing rents?	☐	☒
o If "yes" to either of the preceding questions, would more than 5 percent of all housing units be renter-occupied and unprotected?	☐	☐
iii. Direct Business Displacement		
o Do any of the displaced businesses provide goods or services that otherwise would not be found within the trade area, either under existing conditions or in the future with the proposed project?	☐	☒
o Is any category of business to be displaced the subject of other regulations or publicly adopted plans to preserve,	☐	☒

	YES	NO
enhance, or otherwise protect it?		
iv. Indirect Business Displacement		
o Would the project potentially introduce trends that make it difficult for businesses to remain in the area?	☐	☒
o Would the project capture retail sales in a particular category of goods to the extent that the market for such goods would become saturated, potentially resulting in vacancies and disinvestment on neighborhood commercial streets?	☐	☒
v. Effects on Industry		
o Would the project significantly affect business conditions in any industry or any category of businesses within or outside the study area?	☐	☐
o Would the project indirectly substantially reduce employment or impair the economic viability in the industry or category of businesses?	☐	☐
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
o Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
i. Child Care Centers		
o Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
o If "yes," would the project result in a collective utilization rate of the group child care/Head Start centers in the study area that is greater than 100 percent?	☐	☐
o If "yes," would the project increase the collective utilization rate by 5 percent or more from the No-Action scenario?	☐	☐
ii. Libraries		
o Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☒
o If "yes," would the project increase the study area population by 5 percent or more from the No-Action levels?	☐	☐
o If "yes," would the additional population impair the delivery of library services in the study area?	☐	☐
iii. Public Schools		
o Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☒	☐
o If "yes," would the project result in a collective utilization rate of the elementary and/or intermediate schools in the study area that is equal to or greater than 100 percent?	☐	☐
o If "yes," would the project increase this collective utilization rate by 5 percent or more from the No-Action scenario?	☐	☐
iv. Health Care Facilities		
o Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
o If "yes," would the project affect the operation of health care facilities in the area?	☐	☐
v. Fire and Police Protection		
o Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
o If "yes," would the project affect the operation of fire or police protection in the area?	☐	☐
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
(c) If "yes," would the project generate more than 50 additional residents or 125 additional employees?	☐	☐
(d) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
(e) If "yes," would the project generate more than 350 additional residents or 750 additional employees?	☐	☐
(f) If the project is located in an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☒	☐
(g) If "yes" to questions (c), (e), or (f) above, attach supporting information to answer the following:		
o If in an under-served area, would the project result in a decrease in the open space ratio by more than 1 percent?	☐	☐
o If in an area that is not under-served, would the project result in a decrease in the open space ratio by more than 5	☐	☒

	YES	NO
percent?		
o If "yes," are there qualitative considerations, such as the quality of open space, that need to be considered? Please specify: See Attachment C	☒	☐
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☒	☐
(c) If "yes" to either of the above questions, attach supporting information explaining whether the project's shadow would reach any sunlight-sensitive resource at any time of the year. See Attachment D		
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☒	☐
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See Attachment E		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
(c) If "yes" to either of the above, please provide the information requested in Chapter 10. See Attachment F		
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
o If "yes," list the resources and attach supporting information on whether the project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
o If "yes," complete the Jamaica Bay Watershed Form and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☒	☐
(b) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☒	☐
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☒	☐
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☒	☐
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☒	☐
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
o If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: historical gas station and auto servicing	☒	☐
(i) Based on the Phase I Assessment, is a Phase II Investigation needed?	☒	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒

	YES	NO
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than that listed in Table 13-1 in Chapter 13?	☐	☐
(d) Would the project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☐
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or contribute contaminated stormwater to a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
(i) If "yes" to any of the above, conduct the appropriate preliminary analyses and attach supporting documentation.		
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): 21,740		
o Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	☐	☒
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	☐	☒
o If "yes," would the proposed project comply with the City's Solid Waste Management Plan?	☐	☐
12. *ENERGY*: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15, the project's projected energy use is estimated to be (annual BTUs): 42,389 million		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the appropriate screening analyses, attach back up data as needed for each stage, and answer the following questions:		
o Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☐	☒
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☐
o Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	☐	☒
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway/rail trips per station or line?	☐	☐
o Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☐	☒
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☐	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☐	☒
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
o If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed)	☐	☒
(c) Does the proposed project involve multiple buildings on the project site?	☒	☐
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
(f) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. See Attachment H.		
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) Would the proposed project result in the development of 350,000 square feet or more?	☐	☒
(d) If "yes" to any of the above, would the project require a GHG emissions assessment based on guidance in Chapter 18?	☐	☐
o If "yes," would the project result in inconsistencies with the City's GHG reduction goal? (See Local Law 22 of 2008; § 24-	☐	☐

Additional Technical Information for EAS Part II

A. LAND USE, ZONING, AND PUBLIC POLICY

See Attachment A, "Land Use, Zoning, and Public Policy."

B. SOCIOECONOMIC CONDITIONS

According to the 2014 *City Environmental Quality Review* (*CEQR) Technical Manual*, the six principal issues of concern with respect to socioeconomic conditions are whether a proposed action would result in significant adverse impacts due to (1) direct residential displacement; (2) direct business displacement; (3) indirect residential displacement; (4) indirect business displacement due to increased rents; (5) indirect business displacement due to retail market saturation; and (6) adverse effects on specific industries. A socioeconomic assessment should be conducted if an action may reasonably be expected to create substantial socioeconomic changes in an area. This can occur if an action would directly displace a residential population, affect substantial numbers of businesses or employees, or eliminate a business or institution that is unusually important to the community. It can also occur if an action would bring substantial new development that is markedly different from existing uses and activities in the neighborhood, and therefore would have the potential to lead to indirect displacement of businesses or residents from the area.

As detailed below, based on *CEQR Technical Manual* guidelines the proposed actions do not have the potential to result in significant adverse impacts with respect to any of the six socioeconomic issues of concern.

DIRECT RESIDENTIAL DISPLACEMENT

The proposed actions and associated Reasonable Worst Case Development Scenario (RWCDS) would not directly displace any residents because there are no dwelling units (DUs) on the development site (Block 2010, Lots 1 and 59).

DIRECT BUSINESS DISPLACEMENT

The proposed actions and associated RWCDS would directly displace five businesses with an estimated 31 employees. The five businesses include a car wash, an automotive repair shop, an automotive glass repair shop, a retailer of flooring and tiles, and a bar and restaurant. The employment associated with the directly displaced businesses is not of an amount that could result in substantial socioeconomic changes (according to *CEQR Technical Manual* guidelines, projects that displace less than 100 employees do not warrant further assessment). In addition, the potentially displaced businesses are not uniquely dependent on their location, are not the subject of other regulations or publicly adopted plans aimed at their preservation, and do not serve a population uniquely dependent on their services at the development site. Therefore, further assessment of this concern is unwarranted.

INDIRECT RESIDENTIAL DISPLACEMENT

The CEQR concern with respect to indirect residential displacement is whether a project may introduce a trend or accelerate a trend of changing socioeconomic conditions that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change. According to the *CEQR Technical Manual*, indirect effects can occur if a project would introduce a substantial new use that is markedly different from existing uses, development, and activities within the neighborhood. The proposed project is located in a dense residential neighborhood such that the incremental population associated with the 207 DUs under the RWCDS would not alter or accelerate socioeconomic trends.

The proposed actions would result in an increase to the ¼-mile socioeconomic study area[1] population of approximately 2.5 percent.[2] According to the *CEQR Technical Manual*, if the population increase is less than 5 percent within the study area, or identified sub-areas, a project would not be expected to affect real estate market conditions.

An additional consideration is whether the study area has already experienced a readily observable trend toward increasing rents. Based on U.S. Census American Community Survey (ACS) data obtained from the New York City Department of City Planning's (DCP) Population FactFinder database, residential median gross rent has increased in the ¼-mile study area since 2006 (see **Table 1)**. According to ACS data, the median gross rent in the study area has increased from an estimated $1,415 per month in 2010 to an estimated $1,619 in 2016.[3] The margin of error (MOE) for these data points exceeds the range that would allow one to accurately estimate the absolute and percent change between 2010 and 2016 data; however, the MOEs allow for the qualitative conclusion that an upward trend exists.[4]

The comparative geographies of Brooklyn and New York City experienced quantifiable increases in rent over the same period of time, but had lower absolute rents than the study area.

Table 1
Median Gross Rent[1] (2000-2010 ACS, 2012–2016 ACS)

	2006–2010 ACS	2012–2016 ACS	Total Change	Percent Change
Socioeconomic Study Area	$1,415	$1,619	$204	Observable Upward Trend
Brooklyn	$1,123	$1,262	$139	12.4
New York City	$1,179	$1,294	$115	9.8

Source:
U.S. Census Bureau 2006–2010 and 2012–2016 ACS, obtained from DCP's Population FactFinder database: https://popfactfinder.planning.nyc.gov

ACS data do not provide specific rent information according to regulation status or DU size. Instead, they paint a general picture about the rental rate at which housing costs are changing in a neighborhood by including rental rates for all types of DUs, including subsidized and rent protected apartments. Market comparables, on the other hand, only include DUs that are transacted by brokers. These comparables serve to supplement the understanding of current market trends and price movements. **Table 2** summarizes average apartment rents for 2010 and 2016 for the two neighborhoods within which the study area is located (Clinton Hill and Crown Heights), based on data provided by the Real Estate Group NY. The data illustrate that past rent levels in Clinton Hill were already significantly higher than in Crown Heights. With the exception of studio apartments, rent increases in the Clinton Hill neighborhood were lower than in the Crown Heights neighborhood. For example, between 2010 and 2016 the average market-rate one-bedroom apartment rent in Clinton Hill increased by over 43 percent and by about 50 percent in the Crown Heights neighborhood.

Overall, the ACS as well as the market-rate data indicate that the study area has already experienced a readily observable trend toward increasing rents. Conversions and new market-rate development have created a trend towards higher rents and real estate prices. According to the *CEQR Technical Manual*, if the vast majority of the study area has already experienced a readily observable trend toward increasing rents and new market-rate development, a project is unlikely

[1] For this screening analysis, the census tracts that compose the "socioeconomic study area" include Census Tracts 163, 179, 199, 201, and 203. The socioeconomic study area is generally bounded by Greene Avenue to the north, Grand Avenue to the east, Bergen Street and Butler Street to the south, and Carlton Avenue and South Portland Avenue to the west.

[2] Residential population estimate for the proposed actions is based on the average household size for Brooklyn Community District 2 (2.01 persons per household), the community district in which the proposed project is located.

[3] Based on the MOE for the median gross rent of the study area according to the 2006–2010 ACS, (an MOE of $161), the median gross rent could range from $1,254 to $1,576 while the median gross rent for the study area for the 2012–2016 ACS ranges between $1,427 and $1,811, based on a MOE of $192.

[4] If the square root of the sum of the squared individual MOEs is less than one third of the rent difference between the years, the difference is considered statistically significant and can be quantified. However, if this value is larger than a third but smaller than the rent difference, it can be concluded that a directional trend, albeit unquantifiable, exists.

to influence trends in a manner that would result in significant adverse impacts due to indirect residential displacement, and further analysis of this concern is not necessary.

Table 2
Market Rate Rents for 2010 and 2016 in the Adjacent Neighborhoods of Clinton Hill and Crown Heights

Apartment Type	Mean Rent 2010	Mean Rent 2016	Percent Change 2010 to 2016
Clinton Hill			
Studio	$1,319	$2,041	55%
One-Bedroom	$1,742	$2,491	43%
Two-Bedroom	$2,281	$3,032	33%
Prospect Heights			
Studio	$1,000	$1,509	51%
One-Bedroom	$1,233	$1,846	50%
Two-Bedroom	$1,464	$2,272	55%

Source: The Brooklyn Rental Market Report: The Real Estate Group NY, 2010 and 2016.

INDIRECT BUSINESS DISPLACEMENT DUE TO INCREASED RENTS

The concern with respect to indirect business displacement due to increased rents is whether a project could lead to increases in property values, and thus rents, making it difficult for some businesses or institutions to remain in the area. According to the *CEQR Technical Manual*, indirect effects can occur if a project would introduce a substantial new use that is markedly different from existing uses, development, and activities within the neighborhood. Commercial development of 200,000 square feet (sf) or less would not typically result in socioeconomic impacts. The proposed actions and associated RWCDS would result in an increment of 7,500 sf of commercial development, less than the CEQR amount of 200,000 sf. As such, a preliminary assessment of indirect business displacement due to increased rents is not warranted.

INDIRECT BUSINESS DISPLACEMENT DUE TO RETAIL MARKET SATURATION

The concern with respect to indirect business displacement due to retail market saturation is whether a project would add to, or create, a retail concentration that may draw a substantial amount of sales from existing businesses within the study area to the extent that certain categories of business close and vacancies in the area increase, thus resulting in potential for disinvestment on local retail streets. Projects resulting in less than 200,000 gsf of retail on a single development site, or less than 200,000 gsf of retail that is regional-serving (not the type of retail that primarily serves the local population) on multiple sites would not typically result in socioeconomic impacts. The RWCDS would introduce a net total of 25,000 gsf of retail space, less than the CEQR amount of 200,000 gsf of retail. Based on *CEQR Technical Manual* guidelines, an assessment of potential indirect business displacement due to retail market saturation (i.e., competition) is not warranted.

ADVERSE EFFECTS ON SPECIFIC INDUSTRIES

According to the *CEQR Technical Manual*, a significant adverse impact due to adverse effects on specific industries may occur if an action would quantifiably diminish the viability of a specific industry that has substantial economic value to the City's economy. The proposed project would not significantly affect business conditions in any industry or any category of business within or outside the study area. Under the RWCDS, the proposed actions would directly displace five businesses with an estimated 31 employees. The potentially directly displaced businesses do not represent a critical mass of businesses within any City industry, category of business, or category of employment. Although all businesses are valuable to the City's economy, the goods and services offered by the potentially displaced uses (i.e., car washing, automotive repair services, food and beverage services, and sales of tile and flooring) can be found elsewhere within the socioeconomic study area, within the broader trade area, and within the City as a whole. Furthermore, the products and services offered by the businesses that would potentially be displaced are not expected to be essential to the viability of other businesses within or outside the study area.

As described in the indirect business displacement discussion above, the proposed actions do not have the potential to result in significant indirect business displacement. Therefore, the proposed project would not indirectly substantially

reduce employment or have an impact on the economic viability in any specific industry or category of business. As such, the proposed project would not result in significant adverse impacts due to adverse effects on specific industries.

C. COMMUNITY FACILITIES AND SERVICES

See Attachment B, "Community Facilities and Services."

D. OPEN SPACE

See Attachment C, "Open Space."

E. SHADOWS

See Attachment D, "Shadows."

F. HISTORIC AND CULTURAL RESOURCES

See Attachment E, "Historic and Cultural Resources."

G. URBAN DESIGN AND VISUAL RESOURCES

See Attachment F, "Urban Design."

H. HAZARDOUS MATERIALS

This section addresses the potential for the presence of hazardous materials on the development site resulting from previous and existing uses both on-site and in the surrounding area, and potential risks related to the proposed project with respect to any such hazardous materials. The proposed project would result in demolition of the structures on the development site (Block 2010, Lots 1 and 59), which has three auto-repair shops, a car wash facility, and a bar with a large closed-in patio, followed by excavation for the new building. As discussed on Page 1a of the EAS, "Project Description," the proposed actions would not result in the redevelopment of the other properties within the project area (lots where unused development rights would be transferred to the development site and other properties within the proposed rezoning area). Therefore, there would be no disturbance on any property other than the development site as a result of the proposed actions.

This screening is based on a May 2016 Phase I Environmental Site Assessment (ESA) for Lot 1 (prepared by Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.) and a March 2015 Phase I ESA for Lot 59 (prepared by Warren Panzer Engineers, P.C.). Each ESA included the findings of a reconnaissance of the lot, an evaluation of readily available historical information, and selected environmental databases and electronic records in accordance with American Society for Testing and Materials (ASTM) E1527-13. Both Phase I ESAs identified Recognized Environmental Conditions (RECs), i.e., "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property." For Lot 1, the RECs were vehicle and tire service facilities on-site between 1940 and 1973; nearby properties with a gasoline station (with documented subsurface petroleum impacts), a vehicle repair facility, historical manufacturing, and petroleum bulk storage; and reported petroleum spills on the western adjoining property (one of which was associated with free-phase petroleum product). For Lot 59, the RECs were current and historical use of petroleum products involving auto repair and servicing (with staining and leakage noted); two underground oil/water separators; contaminated soil identified during tank removals in 2004, but not addressed; and lift mechanisms that may contain polychlorinated biphenyls (PCB) oils. The Phase I ESAs also noted that, given the age of the buildings on the development site, they could be constructed with asbestos-containing materials (ACM), lead-based paint (LBP), or other hazardous substances.

As a result of the Fort Greene/Clinton Hill Rezoning in 2007, both lots were assigned (E) designations for hazardous materials (E-183). This designation would be updated with a new (E) designation (E-499) requiring submission of Phase I ESAs along with implementation of a Phase II (Subsurface) Investigation (typically consisting of collection and laboratory analysis of soil, groundwater and soil vapor samples) in accordance with a work plan pre-approved by the New York City Office of Environmental Remediation (OER)—the previous (E) designation required submissions to the

New York City Department of Environmental Protection (DEP). Based on the findings of the investigation, remedial or other measures required prior to, during, or following construction of the proposed project would be set out in a Remedial Action Plan (also subject to OER review and approval). Measures could include procedures for removal of petroleum tanks and any associated contamination, management of excavated soils, and vapor controls for new buildings.

The (E) designation requirements, which would apply equally to the proposed project and any other development scenario (including the No Action condition or the No Special Permit scenario), would serve to avoid the potential for significant adverse impacts relating to subsurface hazardous materials. In addition, demolition of the existing buildings on the development site would follow applicable regulatory requirements to address management of ACMs, LBPs, or other hazardous substances in a manner to avoid impacts to workers, the community and the environment. Therefore, no further analysis of hazardous materials is required.

The text for the updated (E) designation related to hazardous materials, superseding the previous (E) designation, would be as follows:

Task 1—Sampling Protocol

The applicant submits to OER, for review and approval, a Phase I of the site along with a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples should be selected to adequately characterize the site, specific sources of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2—Remediation Determination and Protocol

A written report with findings and a summary of the data must he submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

If remediation is indicated from test results, a proposed remediation plan must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER. The applicant should then provide proper documentation that the work has been satisfactorily completed.

A construction-related health and safety plan should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation.

I. TRANSPORTATION

See Attachment G, “Transportation.”

J. AIR QUALITY

See Attachment H, “Air Quality.”

K. NOISE

This section considers the potential for the proposed project to result in significant adverse noise impacts. The development site (Block 2010, Lots 1 and 59) is located on the southwest corner of the block bounded by Atlantic Avenue to the south, Vanderbilt Avenue to the west, Clinton Avenue to the east, and Fulton Street to the north. The development site is currently occupied by three auto-repair shops, a car wash facility, and a bar with a large closed-in patio. The development site was previously analyzed as a projected development site in the *Fort Greene/Clinton Hill Rezoning EAS*.

According to the guidelines established in the *CEQR Technical Manual*, an initial noise impact screening considers whether a proposed action would generate any mobile or stationary source noise, or be located in an area with high ambient noise levels. A noise analysis examines an action for its potential effects on sensitive noise receptors (which can be both indoors or outdoors), and the effects on the interior noise levels of residential, community facility and retail uses.

In terms of mobile sources, the number of vehicle trips generated by the proposed project would be lower than the threshold that would require any detailed analysis. It is therefore not expected that the proposed project would generate sufficient traffic to have the potential to cause a significant noise impact (i.e., it would not result in a doubling of noise passenger car equivalents [Noise PCEs] which would be necessary to cause a 3 dBA, or A-weighted decibel, increase in noise levels) and further assessment is not warranted.

MECHANICAL SYSTEMS

The building mechanical system (i.e., heating, ventilation, and air conditioning systems) would be designed to meet all applicable noise regulations (i.e., Subchapter 5, §24-227 of the New York City Noise Control Code and the New York City Department of Buildings Code) and to avoid producing levels that would result in any significant increase in ambient noise levels. Therefore, no significant adverse impacts from stationary sources would occur with the proposed actions.

NOISE ATTENUATION MEASURES

As a result of the analysis of the development site in the *Fort Greene/Clinton Hill Rezoning EAS*, an (E) designation (E-183) was placed on the development site in order to create a mechanism for providing sufficient building noise attenuation. The noise (E) designation for Block 2010, Lots 1 and 59 will be updated. The text of the new noise (E) designation (E-499), superseding the previous (E) designation, is as follows:

> *"In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 35 dBA window/wall attenuation on all building's façades in order to maintain an interior noise level of 45 dBA. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning or air conditioning sleeves containing air conditioners or HUD-approved fans."*

OER is responsible for enforcement of the noise (E) designation for the development site. To demonstrate compliance with the noise (E) designation, a noise Remedial Action Plan (RAP) must be submitted to OER for the proposed project (Buildings A and B) describing the specific façade construction and alternate means of ventilation that will be used to meet the noise (E) designation. If OER approves the RAP for Buildings A and B, it will issue a Notice to Proceed (NTP) allowing construction to begin on the (E)-designated site.

The proposed project would adhere to the requirements of the development site's noise (E) designation. By adhering to these requirements, the proposed project would achieve the CEQR interior noise level guideline of 45 dBA or lower for residential or community facility uses and 50 dBA or lower for commercial or retail uses. With these attenuation measures in place, there would be no potential for significant adverse noise impacts.

L. CONSTRUCTION

The activities associated with the construction of the proposed project would be expected to result in conditions typical of construction projects in New York City, over a period of up to approximately 24 months. Construction activities would be carried out in accordance with New York City laws and regulations, which allow construction activities between 7:00 AM and 6:00 PM on weekdays. If work is required outside of normal hours, necessary approvals would be obtained from the appropriate agencies (i.e., the New York City Department of Buildings and New York City Department of Environmental Protection). All necessary measures would be implemented to ensure adherence to the New York City Air Pollution Control Code regulating construction-related dust emissions and the New York City Noise Control Code regulating construction noise. If needed, Maintenance and Protection of Traffic plans would be developed for any curb-lane and/or sidewalk closures. Approval of these plans and implementation of all temporary closures during construction would be coordinated with the New York City Department of Transportation's Office of Construction Mitigation and Coordination.

Overall, through implementation of the measures described above, adverse effects associated with the construction activities would be minimized. Accordingly, the proposed project would not result in significant adverse construction impacts, and no further analysis is required.

	YES	NO
803 of the Administrative Code of the City of New York). Please attach supporting documentation.		
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☒	☐
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☒	☐
(e) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation.		
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☐	☒
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary.		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☐	☒
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary.		
19. *CONSTRUCTION*: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
o Construction activities lasting longer than two years?	☐	☒
o Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☒	☐
o Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)?	☒	☐
o Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☐	☒
o The operation of several pieces of diesel equipment in a single location at peak construction?	☒	☐
o Closure of a community facility or disruption in its services?	☐	☒
o Activities within 400 feet of a historic or cultural resource?	☒	☐
o Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
o Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	☐	☒
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in Chapter 22, "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination.		

See Page 9a, Screening Analyses

20. *APPLICANT'S CERTIFICATION*

I swear or affirm under oath and subject to the penalties for perjury that the information provided in this Environmental Assessment Statement (EAS) is true and accurate to the best of my knowledge and belief, based upon my personal knowledge and familiarity with the information described herein and after examination of the pertinent books and records and/or after inquiry of persons who have personal knowledge of such information or who have examined pertinent books and records.

Still under oath, I further swear or affirm that I make this statement in my capacity as the applicant or representative of the entity that seeks the permits, approvals, funding, or other governmental action(s) described in this EAS.

APPLICANT/REPRESENTATIVE NAME	SIGNATURE	DATE
Linh Do, Senior Vice President, AKRF Inc.		September 6, 2018

PLEASE NOTE THAT APPLICANTS MAY BE REQUIRED TO SUBSTANTIATE RESPONSES IN THIS FORM AT THE DISCRETION OF THE LEAD AGENCY SO THAT IT MAY SUPPORT ITS DETERMINATION OF SIGNIFICANCE.

Project Name: 809 Atlantic Avenue Rezoning
CEQR #: 18DCP179K
SEQRA Classification: Type I

Part III: DETERMINATION OF SIGNIFICANCE (To Be Completed by Lead Agency)

INSTRUCTIONS: In completing Part III, the lead agency should consult 6 NYCRR 617.7 and 43 RCNY § 6-06 (Executive Order 91 or 1977, as amended), which contain the State and City criteria for determining significance.

1. For each of the impact categories listed below, consider whether the project may have a significant adverse effect on the environment, taking into account its (a) location; (b) probability of occurring; (c) duration; (d) irreversibility; (e) geographic scope; and (f) magnitude.

IMPACT CATEGORY	Potentially Significant Adverse Impact: YES	NO
Land Use, Zoning, and Public Policy	☐	☒
Socioeconomic Conditions	☐	☒
Community Facilities and Services	☐	☒
Open Space	☐	☒
Shadows	☐	☒
Historic and Cultural Resources	☐	☒
Urban Design/Visual Resources	☐	☒
Natural Resources	☐	☒
Hazardous Materials	☐	☒
Water and Sewer Infrastructure	☐	☒
Solid Waste and Sanitation Services	☐	☒
Energy	☐	☒
Transportation	☐	☒
Air Quality	☐	☒
Greenhouse Gas Emissions	☐	☒
Noise	☐	☒
Public Health	☐	☒
Neighborhood Character	☐	☒
Construction	☐	☒

2. Are there any aspects of the project relevant to the determination of whether the project may have a significant impact on the environment, such as combined or cumulative impacts, that were not fully covered by other responses and supporting materials? ☐ YES ☒ NO

If there are such impacts, attach an explanation stating whether, as a result of them, the project may have a significant impact on the environment.

3. Check determination to be issued by the lead agency:

☐ **Positive Declaration**: If the lead agency has determined that the project may have a significant impact on the environment, and if a Conditional Negative Declaration is not appropriate, then the lead agency issues a *Positive Declaration* and prepares a draft Scope of Work for the Environmental Impact Statement (EIS).

☐ **Conditional Negative Declaration:** A *Conditional Negative Declaration* (CND) may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result. The CND is prepared as a separate document and is subject to the requirements of 6 NYCRR Part 617.

☒ **Negative Declaration:** If the lead agency has determined that the project would not result in potentially significant adverse environmental impacts, then the lead agency issues a *Negative Declaration*. The *Negative Declaration* may be prepared as a separate document (see template) or using the embedded Negative Declaration on the next page.

4. ***LEAD AGENCY'S CERTIFICATION***

TITLE	LEAD AGENCY
Acting Director, Environmental Assessment and Review Division	Department of City Planning, acting on behalf of the City Planning Commission
NAME: Olga Abinader	DATE: 9/21/2018
SIGNATURE: Olga Abinader	

NEGATIVE DECLARATION (Use of this form is optional)

Statement of No Significant Effect

Pursuant to Executive Order 91 of 1977, as amended, and the Rules of Procedure for City Environmental Quality Review, found at Title 62, Chapter 5 of the Rules of the City of New York and 6 NYCRR, Part 617, State Environmental Quality Review, the Department of City Planning, acting on behalf of the City Planning Commission assumed the role of lead agency for the environmental review of the proposed project. Based on a review of information about the project contained in this environmental assessment statement and any attachments hereto, which are incorporated by reference herein, the lead agency has determined that the proposed project would not have a significant adverse impact on the environment.

Reasons Supporting this Determination

The above determination is based on information contained in this EAS, which finds the proposed actions sought before the City Planning Commission would have no significant effect on the quality of the environment. Reasons supporting this determination are noted below.

Hazardous Materials, Air Quality, Noise
An (E) designation (E-499) for hazardous materials, air quality, and noise has been incorporated into the sites affected by the proposed development. Refer to "Determination of Significance Appendix: (E) Designation" for a list of the sites affected by the proposed (E) designation and applicable requirements. With these measures in place, the proposed actions would not result in significant adverse impacts related to hazardous materials, air quality, or noise.

Open Space
A detailed analysis of open space resources is included in this EAS. The analysis incorporates quantitative and qualitative data to determine no significant impact for open space resources is expected as a result of the proposed actions. Though the total, active, and inactive open space ratios in the open space study area are below City guidelines of 2.5, 2.0, and 0.5 acres per thousand residents, respectively, the proposed project would reduce the open space ratios by approximately 1 percent, well below the *CEQR Technical Manual* threshold of a 5 percent of more reduction to constitute a significant adverse impact. Additionally, large open space resources such as Prospect Park, while outside the open space study area and thus excluded from quantitative analysis, were discussed qualitatively. The analysis concludes that the proposed project would not result in significant adverse impacts on open space resources.

Shadows
A detailed shadows analysis is included in this EAS. As a result of the proposed actions, three sunlight-sensitive resources, including Gateway Triangle, Brown Memorial Baptist Church, and the Church of St. Luke and St. Matthew are anticipated to experience incremental shadows cast from the proposed project. Considering the following factors: the projected duration of the incremental shadows, the percentage of incremental shadow coverage on the affected resources, the availability of other sunlit areas nearby, the effect on peak usage times, and the number of analysis days a shadow is projected to reach affected sunlight-sensitive resources, the analysis finds that the shadows cast by the proposed project would not result in significant adverse impacts related to shadows.

Historic and Cultural Resources and Construction
The proposed project is situated within a zoning lot that contains the Church of St. Luke and St. Matthew, a Landmarks and Preservation Commission (LPC) designated individual landmark and architectural resource; as well as 528 Clinton Avenue, a contributing building within the S/NR eligible Clinton Avenue Historic District. The design of the proposed project has been developed in coordination with the Landmarks Preservation Commission (LPC); a Construction Protection Plan (CPP) has also been developed to avoid the potential for construction-related effects on architectural resources. A restoration and ongoing maintenance plan for the landmarked property has also been developed in coordination with LPC. The analysis finds that with these measures in place, the proposed project would not significantly alter or affect the setting, visual relationship, or publicly accessible views of the identified historic resources within the study area, and that no significant adverse impacts related to historic and cultural resources or construction would result from the proposed actions.

Urban Design
A detailed analysis of Urban Design and Visual resources is included in this EAS. The analysis concludes that the proposed actions would not result in significant adverse impacts related to urban design or visual resources.

No other significant effects upon the environment that would require the preparation of a Draft Environmental Impact Statement are foreseeable. This Negative Declaration has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law (SEQRA)

Appendix 1: (E) Designations

To ensure that there would be no significant adverse hazardous materials, air quality, and noise impacts associated with the proposed project, an E designation (E-499) will be placed on the project site as follows:

The E designation requirements related to hazardous materials, air quality, and noise would apply to:

Project Site:

Block 2010, Lots 1 and 59

Hazardous Materials

Task 1

The applicant submits to OER, for review and approval, a Phase I ESA of the site along with a soil and groundwater testing protocol (a.k.a. Remedial Investigation Work Plan [RIWP] along with a site-specific Health and Safety Plan (HASP), including a description of methods and a project site map with all sampling locations clearly and precisely represented. If site sampling is required, no sampling should begin until written approval of a protocol is received from OER. The number and location of sample sites should be selected to adequately characterize the site, the specific source of suspected contamination (i.e., petroleum based contamination and nonpetroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2

A written report with findings and a summary of the data must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

If remediation is indicated from the test results, a proposed remediation plan must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER. The applicant should then provide proper documentation that the work has been satisfactorily completed.

A construction-related HASP should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation.

Noise

The (E) Designation requirements for noise are as follows:

Block 2010, Lots 1 and 59:

In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 35 dBA window/wall attenuation on all building's façades in order to maintain an interior noise level of 45 dBA. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning, or air conditioning sleeves containing air conditioners or HUD-approved fans.

Air Quality

The (E) Designation requirements for air quality are as follows:

Proposed Project

Building A (Block 2010, Lot 1)

Any new development on the above-referenced property must utilize only natural gas in any fossil fuel-fired heating and hot water equipment, and ensure that the exhaust vent(s) are located at the highest tier and at least 315 feet above grade, to avoid any potential significant air quality impacts.

Building B (Block 2010, Lot 59)

Any fossil fuel-fired hot water equipment with exhaust vents located on the roof of this development must have no more than a 3,000 MBH capacity, utilize only natural gas, be fitted with low NO_x (30 ppm) burner, and the exhaust vents must be located at least 65 feet above and at most 46 feet from the lot line facing Clinton Avenue, and at least 25 feet from the northern lot line facing Fulton Street. Any heating system exhaust vent(s) will be located on the roof of Building A.

No Special Permit Scenario

Buildings A and B (Block 2010, Lots 1 and 59)

Any new development on the above-referenced property must utilize only natural gas in an fossil fuel-fired heating and hot water equipment and ensure that the exhaust vent(s) are locate on the roof of taller Building A at least 209 feet above grade, to avoid any potential significant air quality impacts.

Attachment A: Land Use, Zoning, and Public Policy

A. INTRODUCTION

This attachment assesses the potential impacts of the proposed actions on land use, zoning, and public policy. According to the 2014 *City Environmental Quality Review (CEQR) Technical Manual* guidelines, a land use analysis evaluates the uses and development trends in the area that may be affected by a proposed action, and determines whether a proposed action is compatible with those conditions or may affect them. The analysis also considers a proposed action's compliance with, and effect on, the area's zoning and other applicable public policies.

The project area is located in the Clinton Hill neighborhood in Brooklyn and includes two properties to which the Applicants are ground lessees (Block 2010, Lots 1 and 59; the "development site") as well as adjacent properties (Block 2010, Lots 10, 51, 1001-1010 [f/k/a Lots 7 and 8] and 1101-1118 [f/k/a Lot 5]) that will be part of a combined zoning lot with the development site. The project area also includes portions of four adjacent properties that are not part of the project zoning lot (Block 2010, Lots 53, 56, 57, and 58) but are within the proposed rezoning area. The Applicants are seeking a zoning map amendment, a zoning text amendment, and special permits (the "proposed actions") to facilitate the development of two separate buildings on the development site: a 29-story tower building (Building A) and a four-story building (Building B) (the "proposed project"). The buildings would be structurally independent but would be connected via a corridor on the third and fourth floors and share a cooling tower. The proposed project would be approximately 277,500 gross square feet (gsf), containing 25,000 gsf of retail use, 20,000 gsf of office use, and 233,000 gsf of residential use (or approximately 333 dwelling units [DUs], including 67 affordable DUs, with an average of 700 gsf per unit). The remaining lots within the project zoning lot (Lots 10, 51, 1001-1010 and 1101-1118) would transfer development rights to the development site, but would not be redeveloped as a result of the proposed actions. Similarly, the project area includes portions of adjacent properties on the same block that are within the proposed rezoning area (Lots 53, 56, 57, and 58), but the proposed actions would not facilitate new or different development on these lots.

As described below, this assessment concludes that the proposed actions would not result in significant adverse impacts on land use, zoning, or public policy.

B. METHODOLOGY

According to the *CEQR Technical Manual*, a preliminary land use assessment, which includes a basic description of existing and future land uses and public policy, should be provided for all projects that would affect land use or public policy on a site, regardless of the project's anticipated effects. Accordingly, a preliminary analysis has been prepared that describes existing and anticipated future conditions for the 2021 analysis year, assesses the nature of any changes to these conditions that would be created by the proposed actions, and identifies those changes, if any, that could be significant or adverse.

This analysis of land use, zoning, and public policy examines the area within a ¼-mile of project area, which is the area where the proposed project could reasonably be expected to cause potential effects. As shown on **Figure A-1**, the ¼-mile study area roughly extends from Greene Avenue to the north, St. Marks Avenue to the south, Grand Avenue to the east, and South Oxford Street to the west. The project area and the portion of the ¼-mile study area generally north of Atlantic Avenue are located in the Clinton Hill neighborhood of Brooklyn, and are within the boundaries of Brooklyn Community District (CD) 2; the portion of the study area generally south of Atlantic Avenue is located within the boundaries of Brooklyn CD 8. Sources for this analysis include online resources provided by the New York City Department of City Planning (DCP) and the New York City Department of Buildings (DOB) as well as environmental review documents for other nearby projects.

C. EXISTING CONDITIONS

LAND USE

PROJECT AREA

The development site is located on the southwest corner of the block bounded by Atlantic Avenue to the south, Vanderbilt Avenue to the west, Clinton Avenue to the east, and Fulton Street to the north. The development site includes frontages on Atlantic Avenue, Vanderbilt Avenue, and Clinton Avenue. The development site is currently occupied by several one-story buildings that contain auto-repair shops, a car wash facility, and a bar with a large closed-in patio located at the corner of Atlantic Avenue and Clinton Avenue.

In addition to the development site, the project area contains properties that will be part of a combined zoning lot (Lots 10, 51, 1001-1010, and 1101-1118). Lot 10 contains the Church of St. Luke and St. Matthew, a New York City Landmark (NYCL) designated by the New York City Landmarks Preservation Commission (LPC) in 1981. Lot 51 contains a four-story, approximately 7,500-sf walkup apartment building, which contains 5 DUs. Lots 1001-1010 contain a five-story, approximately 10,000-sf residential condominium building completed in 2006, which contains 10 DUs. Lots 1101-1118 contain a seven-story, approximately 12,000-sf residential condominium building completed in 2014, which contains 18 DUs.

The project area also includes portions of Lots 53, 56, 57, and 58. Lot 53 (532 Clinton Avenue) contains a three-story, single-family residential building; however, as discussed further below, plans were recently approved by DOB to redevelop the property with a larger multifamily apartment building. Lot 56 (536 Clinton Avenue) contains a three-story multifamily walkup apartment building with seven units. Lots 57 (538 Clinton Avenue) and 58 (540 Clinton Avenue) both contain three-story, plus basement and cellar, two-family dwellings.

STUDY AREA

As shown on **Figure A-2**, the study area contains a mix of primarily residential, commercial, and public facilities and institutions. The block containing the development site is primarily occupied by one- to seven-story residential and mixed-use buildings. The mixed-use buildings have frontage along Fulton Street. A new seven-story mixed-use building is under construction north of the project area at the Vanderbilt Avenue and Futon Street intersection.

The area to the north of Atlantic Avenue and west of the project area generally consists of three- to four-story residential walkup buildings, but also contains a recently constructed six-story

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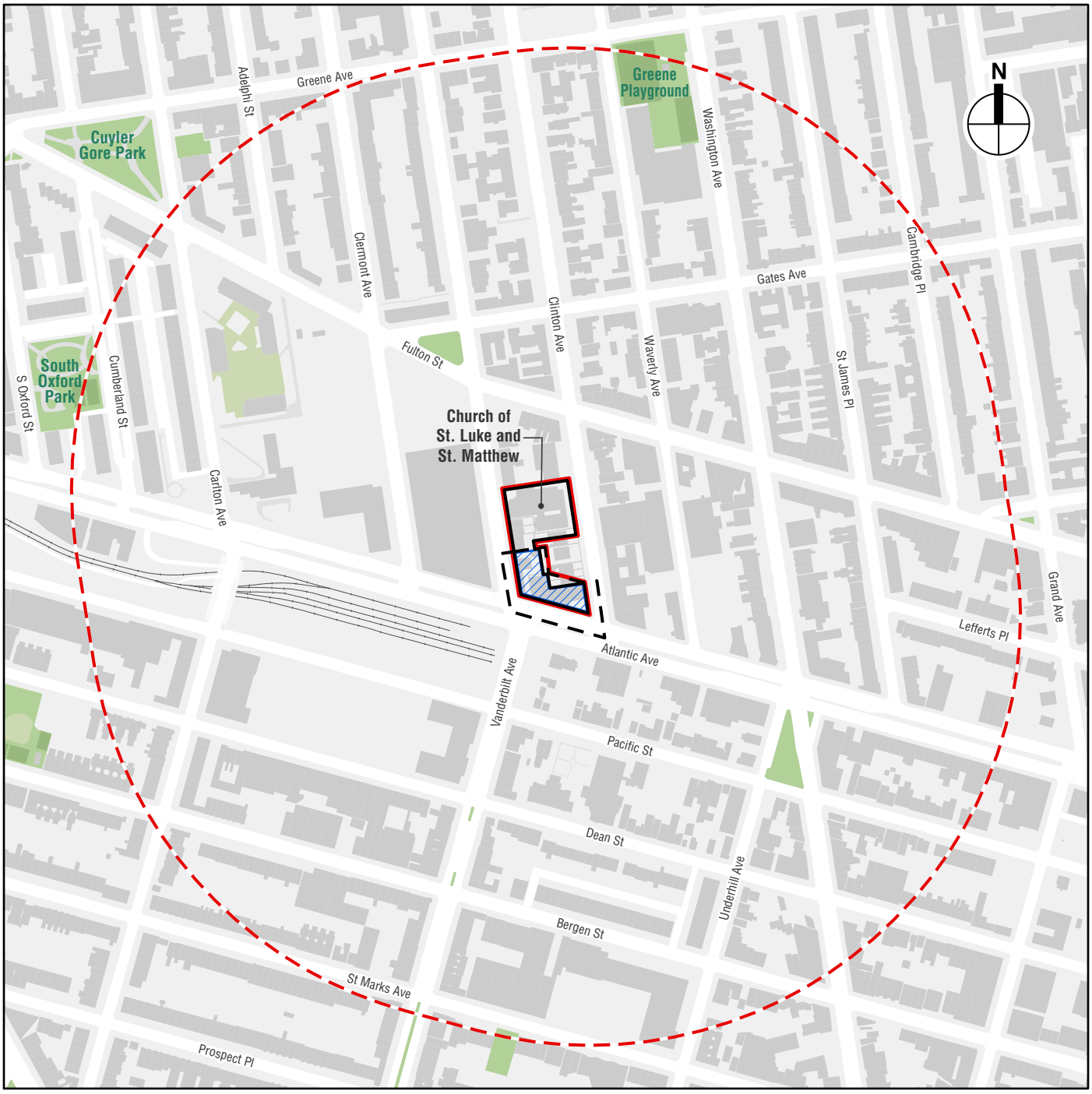


Project Area

Project Zoning Lot

Study Area (1/4-mile boundary)

Development Site

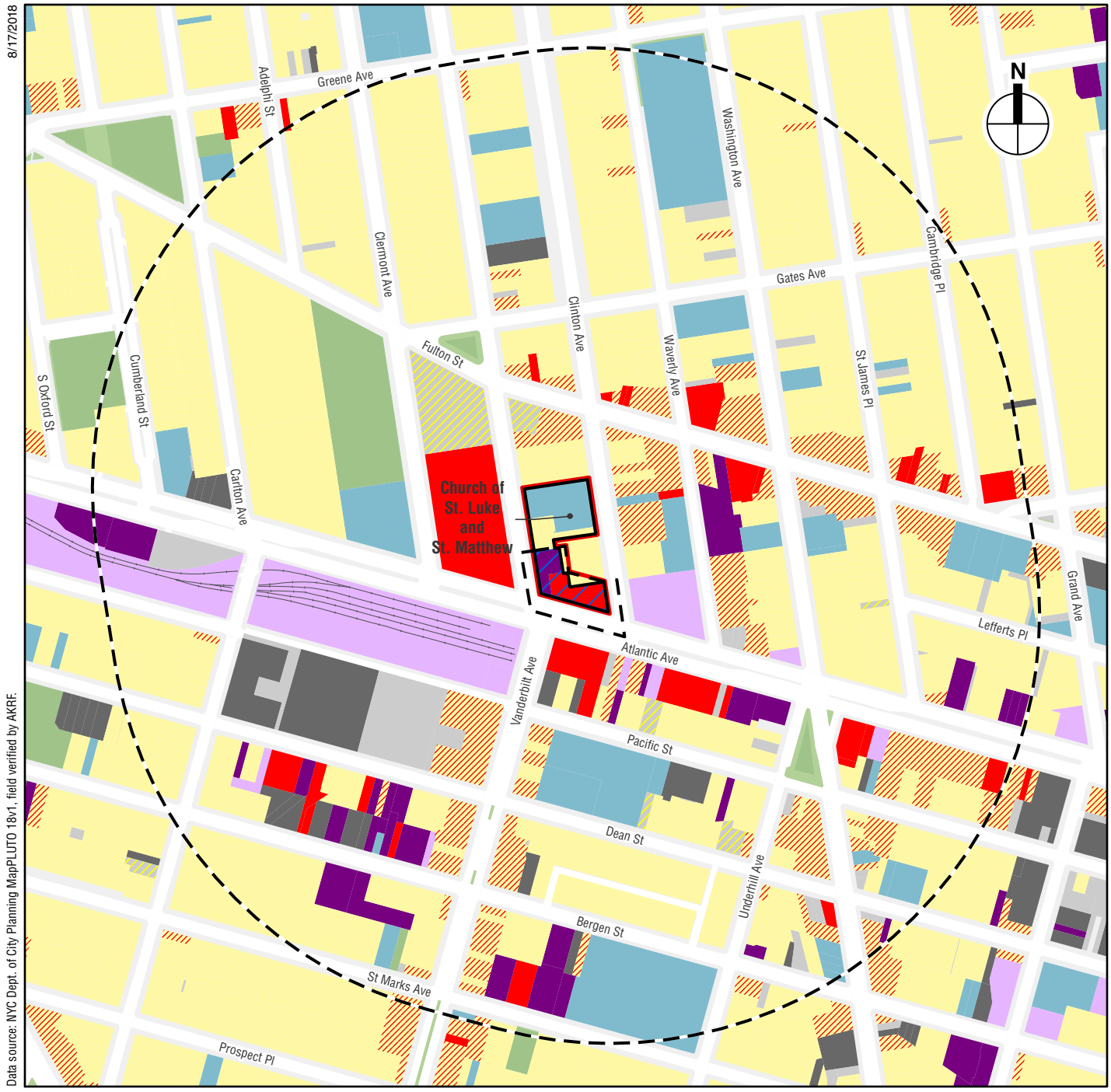
Rezoning Area

0 400 FEET

809 ATLANTIC AVENUE

Project Location

Figure A-1



809 ATLANTIC AVENUE

Land Use
Figure A-2

commercial building (470 Vanderbilt Avenue), a construction site for a seven-story mixed-use building, a school building controlled by the New York City Department of Education (DOE) that is currently in use by a special-needs school, and the private sports field for Brooklyn Technical High School.[1] The Atlantic Terminal housing complex, which is controlled by the New York City Housing Authority (NYCHA) is located west of the Brooklyn Technical High School along Carlton Avenue, and includes several 15- to 25-story residential towers. Three- to four-story residential walkup buildings are located to the west of Carlton Avenue, with South Oxford Park located at the far western edge of the study area.

The area to the east of the project area on the northern side of Atlantic Avenue generally contains three- to eight-story residential buildings with some mixed-use commercial and residential buildings located along Fulton Street. Institutional uses in this area include P.S. 11 Purvis J. Behan Elementary School and several churches, including the Galilee Baptist Church and the Brown Memorial Baptist Church. Open space uses include the Greene Playground at the northern edge of the study area and community gardens such as the Hollenback Community Garden.

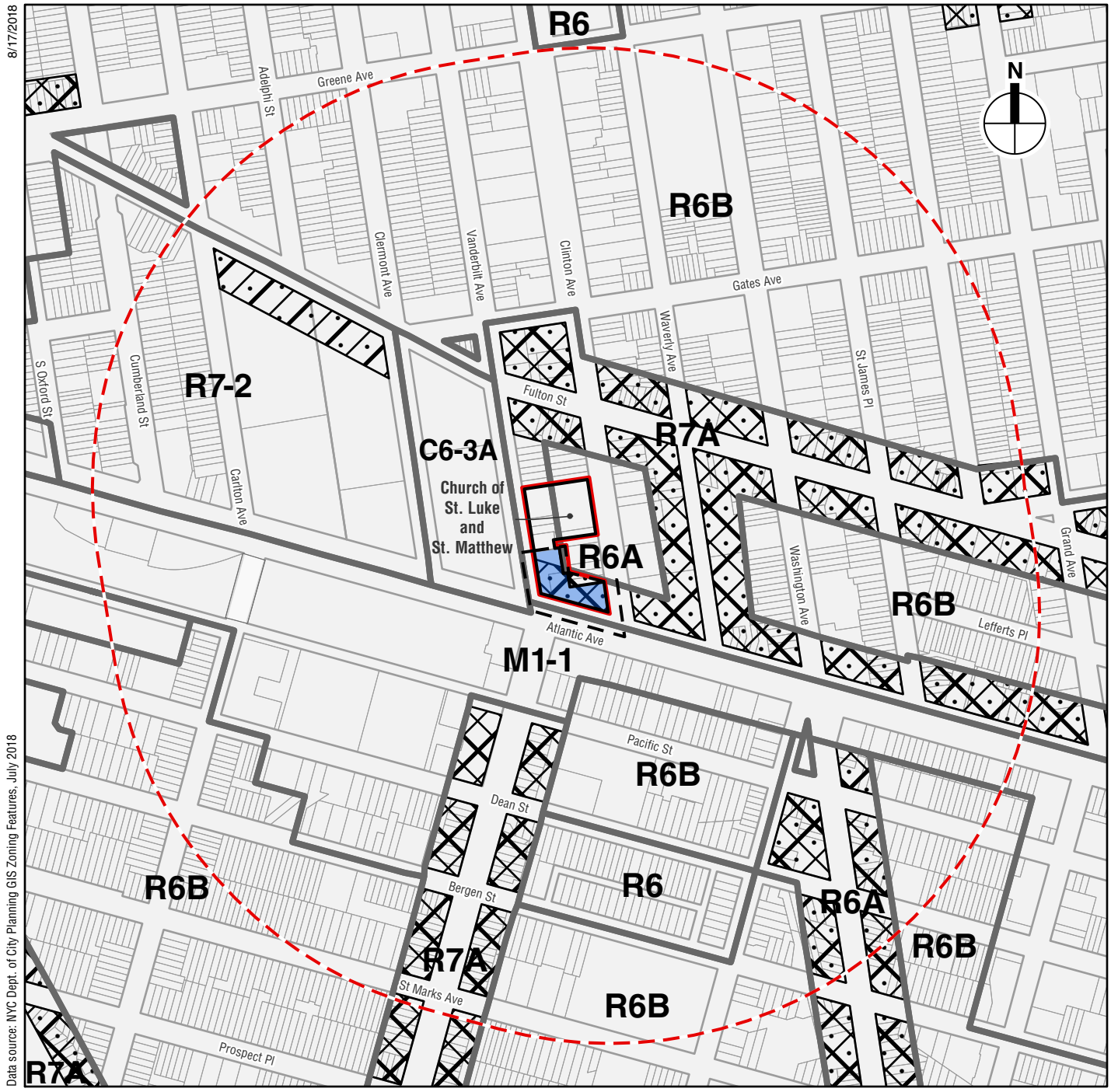
Similar to the area north of Atlantic Avenue, the area south of the project area, located to the south of Atlantic Avenue, is composed mainly of two- to four-story residential walkup buildings. The area to the south of the project area also includes the Atlantic Yards railyard, which is currently being developed as a large-scale residential and commercial project (known as Pacific Park), which has a target completion date of 2025. These new residential buildings would be approximately 25 to 27 stories tall, and would also include commercial uses and open spaces. Two of the buildings (550 Vanderbilt Avenue and 535 Carlton Avenue) have been recently completed; the remaining buildings are currently in the beginning stages of construction and are not expected to be complete by the proposed actions' analysis year of 2021. Further south are three- to five-story residential buildings and some institutional uses, including schools (P.S. 9 Teunis G. Bergen School and St. Joseph's High School) and churches such as the Co-Cathedral of St. Joseph and Our Lady of Good Counsel Church. Commercial uses, in particular ground-floor retail, are located along Atlantic Avenue, Vanderbilt Avenue, and Washington Avenue.

ZONING

PROJECT AREA

As shown on **Figure A-3**, the development site is located in an R7A zoning district with a C2-4 commercial overlay, which was mapped as part of the Fort Greene/Clinton Hill Rezoning in 2007. R7A districts are contextual residential zoning districts, which apply lot coverage and height and setback regulations intended to produce buildings set at or near the street line, that are compatible with older buildings in traditional residential neighborhoods, typically resulting in seven- or eight-story apartment buildings. The development site is also within an Inclusionary Housing Designated Area (IHDA), through which the maximum floor area ratio (FAR) can be increased from 3.45 to 4.6 with the provision of affordable residential units. The C2-4 commercial overlay allows retail uses in separate buildings or on the lower floors of residential buildings; the overlay is intended to provide local retail facilities to serve the nearby residential area, such as restaurants, grocery stores and pharmacies. The C2-4 overlay's FAR is governed by the residential district in

[1] Brooklyn Technical High School's main building is located the north and west of the project area near Fort Greene Park, outside of the ¼-mile study area.



809 ATLANTIC AVENUE

Zoning
Figure A-3

which the overlay is mapped, and in this case (R7A district), the C2-4 overlay has a commercial FAR of 2.0, and retail uses are allowed above the ground floor.

The Church of St. Luke and St. Matthew (Lot 10) is split between the R7A zoning district and an R6A zoning district, which is located in the midblock area along Clinton Avenue. R6A districts are contextual residential districts similar to the R7A, and have a maximum FAR of 3.0. R6A districts typically result in six- or seven-story apartment buildings. The two lots along Vanderbilt Avenue within the project area (Lots 1001-1010, and 1101-1118) are within the R7A district, and the remaining lots within the project area along Clinton Avenue (Lots 51, 53, 56, 57, and 58) are within the R6A district, with a portion of this area also within the C2-4 overlay district.

STUDY AREA

The study area contains several commercial and residential zoning districts as well as one manufacturing district (see **Figure A-3**). In addition to the zoning districts described above, the study area contains R6, R6B, R7-2, C6-3A, and M1-1 zoning districts, as well as C1-4 and C2-3 overlay districts.

The block directly west of the project area is mapped C6-3A. C6-3A is a contextual commercial district which allows medium- to high-density commercial developments such as large hotels, office buildings, department stores, and entertainment facilities. The maximum FAR for commercial uses in a C6-3A district is 6.0. The district also allows residential uses: the residential district equivalent of a C6-3A district is R9A, with a base maximum residential FAR of 6.5; under IHDA regulations, R9A districts allow a maximum residential FAR of 8.5.

An R7-2 zoning district is mapped to the west of the C6-3A district. A portion of the district fronting Fulton Street also has a C2-3 overlay district. Residential bulk in R7-2 is governed by height factor regulations that permit larger towers set back from the street, with FAR determined by the amount of open space provided (the "open space ratio") up to a maximum of 3.44.

A large R6B zoning district is located to the north, east, and south of the project area. R6B zoning districts are medium-density contextual residential districts similar to the R6A district and typically contain a mix of apartment buildings. An R6 zoning district is located to the south of the project area. Residential bulk in the R6 district is governed by height factor regulations that permit larger towers set back from the street. The maximum residential FAR is 2.43 for the R6 district, and 2.0 for R6B zoning district.

The M1-1 district is located south of the project area along Atlantic Avenue. M1-1 districts are manufacturing districts with uses that typically include light industrial uses, subject to performance standards, as well as most commercial uses, including retail, office, and hotels. The maximum manufacturing and commercial FAR for this zone is 1.0. The study area also contains commercial overlay districts mapped along the major avenues: C1-4 along Vanderbilt avenue south of Atlantic Avenue, C2-4 overlays along Atlantic Avenue, Fulton Street, and Waverly Avenue to the east of the development site, and C2-3 overlay along Fulton Street between Carlton Avenue and Clermont Avenue. As noted above, commercial overlay districts permit local retail facilities, located either in separate buildings or on the lower floors of residential buildings. While C1 overlays are intended to provide local retail stores and personal service establishments that are generally found under Use Group 6 (e.g., grocery stores, restaurants, or drug stores). C2 overlays, in addition to providing for local retail establishments, provide for a wider range of establishments that are not used for day-to-day activities and are found under Use Groups 7, 8, 9, and 14 (e.g., funeral homes or movie theaters).

Table A-1 summarizes the zoning districts located in the study area.

Table A-1
Existing Zoning Districts in the Study Area

Zoning District	Maximum FAR[1]	Uses/Zone Type
Commercial Districts		
C1-4 overlay	2.0 commercial uses[5]	Commercial overlay mapped within residential districts; local shopping and services
C2-3 overlay	2.0 commercial uses[5]	Commercial overlay mapped within residential districts; local shopping and services as well as non-day-to-day retail establishments
C2-4 overlay	2.0 commercial uses[5]	Commercial overlay mapped within residential districts; includes local shopping and services as well as non-day-to-day retail establishments
C6-3A	6.5–8.5 residential uses[*] 6.00 commercial uses[3]	Medium density in areas outside central business cores
Residential Districts		
R6	2.43 residential uses 2.43 community facility uses	Contextual residential district, medium-density housing, low-rise buildings with greater lot coverage
R6A	3.0 residential uses[4] 3.0 community facility uses	Contextual residential district, medium-density housing, low-rise buildings with greater lot coverage
R6B	2.0 residential uses[4] 2.0 community facility uses	Contextual residential district, medium-density housing, low-rise buildings with greater lot coverage
R7A	3.45–4.6** residential uses 4.0 community facility uses	Contextual residential district, medium-density housing, low-rise buildings with greater lot coverage
R7-2	3.44 residential uses 3.44 community facility uses	Contextual residential district, medium-density housing, compatible with existing older neighborhoods
Manufacturing Districts		
M1-1	1.0 manufacturing uses 1.0 commercial uses 2.4 community facility uses[8]	Manufacturing uses for light industrial uses, as well as offices, hotels, and most retail.

Notes:
[*] Maximum FAR permitted in Inclusionary Housing Designated Areas (IHDAs)
[1] FAR is a measure of density establishing the amount of development allowed in proportion to the base lot area. For example, a lot of 10,000 sf with a FAR of 1 has an allowable building area of 10,000 sf. The same lot with an FAR of 10 has an allowable building area of 100,000 sf
[2] 4.0 FAR permitted on wide streets outside the Manhattan Core under the Quality Housing Program
[3] Up to 20 percent increase for a public plaza bonus
[4] Can be increased with Inclusionary Housing Program bonus
[5] Within R6-R10 (1.0 commercial within R1-R5)
[6] 3.6 FAR with Inclusionary Housing designated area bonus
[7] 7.2 FAR on wide streets outside the Manhattan Core under the Quality Housing Program
[8] Use Group 4 only
** Within IHDA
Source: *New York City Zoning Resolution*

PUBLIC POLICY

NEW YORK CITY LANDMARKS

As described in more detail in Attachment E, "Historic and Cultural Resources," the study area contains historic resources that have been designated as NYCLs or New York City Historic Districts (NYCHDs) under the New York City Landmarks Law. These include the Church of St. Luke & St. Matthew within the project area, which is NYCL designated by LPC in 1981. Under the New York City Landmarks Law, all development projects within the boundaries of a historic district are subject to the review and approval of LPC for consistency with the architectural and historic character of the district.

HOUSING NEW YORK: A FIVE-BOROUGH, TEN-YEAR PLAN

In May 2014, the de Blasio administration released *Housing New York: A Five-Borough, Ten-Year Housing Plan* ("*Housing New York*"), a plan to build or preserve 200,000 affordable DUs.

To achieve this goal, the plan aims to double the New York City Department of Housing Preservation and Development's (HPD)'s capital budget, target vacant and underused land, protect tenants in rent-regulated apartments, streamline rules and processes to unlock new development opportunities, contain costs, and accelerate affordable construction. The plan details the key policies and programs for implementation, including developing affordable housing on underused public and private sites. In an update released in October 2017 (*Housing New York 2.0*), the City announced a new goal of preserving and/or creating 300,000 affordable DUs by 2026.

ONENYC

In 2011, the Mayor's Office of Long Term Planning and Sustainability released an update to *PlaNYC: A Greener, Greater New York*. It includes policies to address three key challenges the City faces over the next 20 years, including population growth, aging infrastructure, and global climate change. Elements of the plan are organized into six categories—land, water, transportation, energy, air quality, and climate change—with corresponding goals and objectives for each. In 2015, *One New York: The Plan for a Strong and Just City* (OneNYC) was released by the Mayor's Office of Sustainability and the Mayor's Office of Recovery and Resiliency. OneNYC builds upon the sustainability goals established by PlaNYC and focuses on growth, equity, sustainability, and resiliency.

ATLANTIC TERMINAL URBAN RENEWAL AREA

The western portion of the study area is within the boundaries of the Atlantic Terminal Urban Renewal Area, which was established in 1968 and last revised in 2004. The goals of the Atlantic Terminal Urban Renewal Plan (URP) are to rehabilitate substandard or insanitary structures, encourage development and employment opportunities in the area, and encourage community facility construction (which would include retail areas, park space, and parking provisions) as well as high quality housing.

FRESH PROGRAM

The southern portion of the study area is located within the Food Retail Expansion to Support Health (FRESH) zoning and tax incentive area. This special zoning designation provides zoning and financial incentives to promote the establishment and retention of neighborhood grocery stores in underserved communities throughout the five boroughs. The FRESH program is open to grocery store operators renovating existing retail space or developers seeking to construct or renovate retail space that will be leased by a full-line grocery store operator. Zoning and tax incentives are discretionary and assessed on a per-case basis.

D. FUTURE WITHOUT THE PROPOSED PROJECT

LAND USE

PROJECT AREA

In the future without the proposed project (the "No Action" condition), the development site would be redeveloped with an as-of-right, approximately 125,000-gsf building containing approximately 88,000 gsf of residential space and approximately 37,000 gsf of retail space. Assuming an average DU size of 700 gsf, the No Action development would contain 126 DUs. The remaining lots in the project zoning lot would remain in their current condition. In total, including the 33 existing DUs in the buildings on

Lots 51, 1001-1010 and 1101-1118, in the No Action condition the project zoning lot would contain 159 DUs (including 25 affordable DUs) and 37,000 gsf of retail space.

In the No Action condition, independent of the proposed project, one of the lots adjacent to the development site within the rezoning area (Lot 53) is expected to be redeveloped with a new seven-story residential building. According to DOB permits for the project issued in March 2018, the building is expected to contain 18 DUs. The remaining lots within the rezoning area are expected to remain in their current condition.

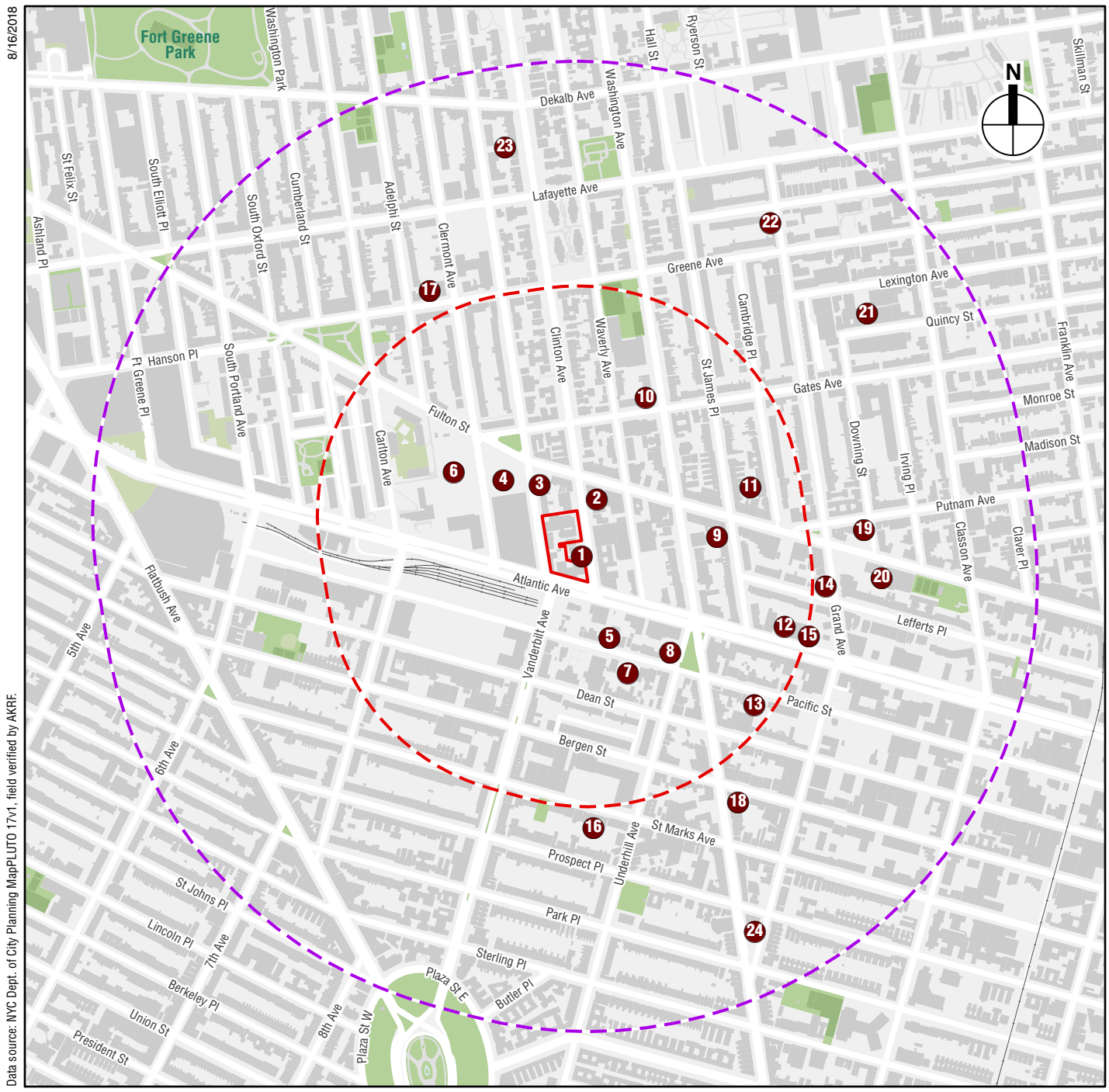
STUDY AREA

Including the project on Lot 53 described above, there are 13 developments within the ¼-mile study area that are currently under construction or expected to be completed by the proposed project's analysis year. Additionally, 11 more developments will be built within ½-mile of the project area (these projects are listed below for informational purposes; see also Attachment C, "Open Space"). Overall, the projects expected to be complete by 2021 are predominantly residential in nature, with an ongoing trend of redeveloping underutilized sites or renovating existing buildings to improve the housing stock. In particular, this trend is expected to introduce more multifamily residential space to the area. Additionally, more residential and commercial development is expected to be built as a result of the Pacific Park project to the south of the project area, however, the remaining buildings in the project area are not expected to be complete by the 2021 analysis year. These projects are summarized in **Table A-2** and shown in **Figure A-4**.

Table A-2
No Action Condition Projects[1]

Reference Number[2]	Project Location/Address	Development Program
¼-mile Study Area		
1	532 Clinton Avenue	Residential Building (7 stories): 16 DUs
2	505 Clinton Avenue	Residential Building (6 stories): 11 DUs
3	840 Fulton Street	Mixed Use (7 stories): 39 DU, 1,400 gsf commercial
4	810 Fulton Street	Mixed Use (13 stories): 363 DU, 32,358 gsf commercial
5	873 Pacific Street	Residential Building (5 stories): 8 DUs
6	470 Clermont Avenue	Community Facilities (2 stories): 1,870 gsf school
7	860 Pacific Street	Commercial building (5 stories): 30,527 gsf
8	16 Underhill Avenue	Residential building (4 stories): 4 DUs
9	258 St. James Place	Residential building (8 stories): 7 DUs
10	476 Washington Avenue	Residential building (4 stories): 4 DUs
11	132 Cambridge Avenue	Residential building (4 stories): 4 DUs
12	909 Atlantic Avenue	Residential building (9 stories): 78 DUs
13	920 Pacific Street	Residential building (5 stories): 8 DUs
½-mile Study Area		
14	408 Grand Avenue	Residential building (4 stories): 8 DUs
15	927 Atlantic Avenue	Residential building (7 stories): 21 DUs
16	280 St. Mark's Avenue	Residential building (5 stories): 31 DUs
17	69 Greene Avenue	Residential building (4 stories): 4 DUs
18	641 Washington Avenue	Mixed Use (4 stories): 2 DUs, 1,173 gsf commercial
19	26 Putnam Avenue	Mixed Use (5 stories): 1 DU, 1,531 gsf commercial
20	1010 Fulton Street	Mixed Use (7 stories): 8 DUs, 1,665 gsf commercial
21	32 Lexington Avenue	Community Facilities (7 stories): 43,448 gsf school
22	50 Clifton Place	Residential building (3 stories): 1 DU
23	311 Vanderbilt Avenue	Residential building (4 stories): 1 DU
24	701 Washington Avenue	Mixed Use (7 stories): 22 DUs, 1,471 gsf commercial

Notes:
[1] For purposes of analysis, all projects currently planned or under construction are assumed to be complete by the proposed project's 2021 build year.
[2] See **Figure A-4**.
Sources:
DOB; AKRF field visit, July 2017.



No Build Projects

809 ATLANTIC AVENUE

Figure A-4

ZONING

No changes to zoning regulations applicable to the project area and the study area are expected by 2021, and the area is expected to remain a mix of primarily residential and commercial districts.

PUBLIC POLICY

No other changes affecting public policies applicable to the project area and the study area are anticipated by 2021.

E. FUTURE WITH THE PROPOSED PROJECT

LAND USE

PROJECT AREA

As discussed above, in the future with the proposed project (the "With Action" condition), the proposed actions would facilitate the development of two mixed-use towers on the development site. This development would total approximately 277,500 gsf of development, containing 25,000 gsf of retail use, 20,000 gsf of office use, and 233,000 gsf of residential use (or approximately 333 DUs with an average of 700 gsf per unit). The proposed actions would result in the same residential and commercial uses expected under the No Action condition; however, it would allow residential and commercial development at greater densities than under the No Action condition. As discussed in Page 1a of the EAS, "Project Description," the proposed actions would not result in other any new or different development within the project area.

STUDY AREA

The proposed project would not result in any land use changes in the study area. The study area would continue to have a mix of predominantly residential, commercial, and institutional uses, and the proposed project's residential, office, retail, and public school uses would be consistent with those uses. In the Applicants' opinion, the proposed project would continue the existing study area trends toward increased density and mixed-use development, in particular along Atlantic Avenue. Overall, the proposed project would be compatible with and supportive of land uses in the surrounding area and would not result in significant adverse land use impacts.

ZONING

The proposed actions include a zoning map amendment that would change the existing R7A/C2-4 zoning district on the development site to a R9/C2-5 zoning district and a related zoning text amendment to designate the rezoning area as a Mandatory Inclusionary Housing Area (MIHA). The R9/C2-5 district would allow for higher densities than currently permitted (maximum residential FAR of 8.0). With the proposed actions, an adjacent area would be rezoned from R7A to R6A; this downzoning is intended to reduce the development potential that would be allowed with the creation of the R9 district and maintain the two-family residences located along Clinton Avenue.

Additionally, the proposed actions include a special permit pursuant to ZR 74-711 to facilitate the transfer of 70,000 sf of development rights from the other lots within the project area (including the NYCL Church of St. Luke and St. Matthew) to the development site. The ZR 74-711 special permit would also modify zoning requirements for the proposed project related to yards, inner courts, window to lot line, lot coverage, and height and setback to allow for the proposed project's

design. The proposed actions also include a special permit pursuant to Section 74-533 to waive the residential parking requirement for the proposed actions. The proposed actions would only result in new development on the development site.

Overall, there are no sites that would be redeveloped as a result of the proposed actions within the rezoning area other than the development site. Similarly, the proposed special permits would only apply to the project zoning lot and would not result in the redevelopment of the NYCL Church of St. Luke and St. Matthew or the existing residential developments on Lots 51, 1001-1010 and 1101-1118.

The proposed project, which would be facilitated by the proposed rezoning and special permits, would be similar to other residential buildings and mixed-use buildings in the study area. In the Applicants' opinion, it would be in keeping with the ongoing trend of redeveloping the Clinton Hill area as a mixed-use district with higher-density residential and commercial uses. Therefore, the proposed actions would be consistent with existing zoning in the study area and would not result in any significant adverse zoning impacts.

PUBLIC POLICY

The proposed project would be compatible and consistent with the public policies that currently apply to the site and the surrounding area. In particular, the proposed project would contribute to the goals of *Housing New York* by providing approximately 67 affordable DUs (an increment of 42 DUs from the No Action development). In addition, the proposed actions would facilitate the preservation and restoration of the NYCL Church of St. Luke and St. Matthew (discussed further in Attachment E, "Historic and Cultural Resources"). Overall, the proposed project would not result in any significant adverse impacts to public policy. ✷

Attachment B: Community Facilities and Services

A. INTRODUCTION

This attachment assesses the potential impacts of the proposed actions on community facilities and services. The 2014 *City Environmental Quality Review (CEQR) Technical Manual* defines community facilities as public or publicly funded schools, child care centers, libraries, health care facilities, and fire and police protection services. CEQR methodology focuses on direct effects on community facilities (e.g., when a facility is physically displaced or altered) and on indirect effects, which could result from increased demand for community facilities and services generated by new users (e.g., the new population that would result from the proposed project).

As described on Page 1a of the EAS, "Project Description," the proposed actions would facilitate the creation of up to 333 dwelling units (DUs), as well as retail and office space on the development site located in the Clinton Hill neighborhood of Brooklyn, Community District 2. In the future without the proposed project (the "No Action" condition), the development site would be redeveloped with an as-of-right building containing up to 126 DUs; therefore, the proposed actions would result in an incremental increase of 207 DUs. The proposed project would introduce a new residential population to the study area, which could result in increased demand for community facilities and services. Therefore, an assessment was conducted to determine whether the proposed actions would result in any indirect significant adverse impacts to community facilities. As described in this attachment, the proposed actions would not result in any significant adverse impacts on community facilities.

B. PRELIMINARY SCREENING

This analysis of community facilities has been conducted in accordance with *CEQR Technical Manual* methodologies and the latest data and guidance from agencies such as the New York City Department of Education (DOE), the New York City School Construction Authority (SCA), and the New York City Department of City Planning (DCP).

The purpose of the preliminary screening is to determine whether a community facilities assessment is warranted. As recommended by the *CEQR Technical Manual*, a community facilities assessment is warranted if a project has the potential to result in either direct or indirect effects on community facilities. If a project would physically alter a community facility, whether by displacement of the facility or other physical change, this "direct" effect triggers the need to assess the service delivery of the facility and the potential effect that the physical change may have on that service delivery. New population added to an area as a result of a project would use existing services, which may result in potential "indirect" effects on service delivery. Depending on the size, income characteristics, and age distribution of the new population, there may be effects on public schools, libraries, or child care centers.

DIRECT EFFECTS

The proposed project would not displace or otherwise directly affect any public schools, child care centers, libraries, health care facilities, or police and fire protection services facilities. Therefore, an analysis of direct effects is not warranted.

INDIRECT EFFECTS

The *CEQR Technical Manual* provides thresholds for guidance in making an initial determination of whether a detailed analysis is necessary to determine potential impacts due to indirect effects on community facilities. **Table B-1** lists those *CEQR Technical Manual* analysis thresholds for each community facility type. If a project exceeds the threshold for a specific facility type, a more detailed analysis is warranted. A preliminary screening analysis was conducted to determine if the proposed actions would exceed any of the *CEQR Technical Manual* thresholds.

Table B-1
Preliminary Screening Analysis Criteria

Community Facility	Threshold for Detailed Analysis
Public schools	More than 50 elementary/intermediate school or 150 high school students
Libraries	Greater than 5 percent increase in ratio of DUs to libraries in borough
Health care facilities (outpatient)	Introduction of sizeable new neighborhood where none existed before[1]
Child care centers (publicly funded)	More than 20 eligible children based on number of low- and low/moderate-income units by borough
Fire protection	Introduction of sizeable new neighborhood where none existed before[1]
Police protection	Introduction of sizeable new neighborhood where none existed before[1]

Note:
[1] The *CEQR Technical Manual* cites the Hunter's Point South project as an example of a project that would introduce a sizeable new neighborhood where none existed before. The Hunter's Point South project would introduce approximately 5,000 new DUs to the Hunter's Point South waterfront in Long Island City, Queens.
Source: *CEQR Technical Manual.*

The proposed actions would result in a new mixed-use development containing residential and retail and office uses. The proposed actions would result in the development of up to 333 DUs, an increment of 207 DUs above the No Action condition, as well as 44,500 gross square feet (gsf) of retail and office space (an increment of approximately 7,500 gsf of commercial space).

As described below, based on the screening criteria in **Table B-1**, detailed assessments of public schools (elementary and intermediate) are warranted. The proposed actions would not have the potential to have a significant adverse impact on high schools, child care facilities, libraries, health care facilities, or police and fire services; therefore, detailed analyses of indirect effects on high schools, child care facilities, libraries, health care facilities, and police and fire services are not warranted.

PUBLIC SCHOOLS

The *CEQR Technical Manual* recommends conducting a detailed analysis of public schools if a proposed action would generate more than 50 elementary/intermediate school students and/or more than 150 high school students. The proposed actions would introduce an increment of 207 new DUs. Based on the student generation rates provided in the *CEQR Technical Manual* (0.29 elementary, 0.12 intermediate, and 0.14 high school students per housing DU in Brooklyn), the proposed actions would generate approximately 60 elementary school students, 25 intermediate school students, and 29 high school students. This number of students warrants a detailed analysis

of the proposed actions' potential effects on elementary and intermediate schools. The number of high school students added by the proposed actions does not exceed the *CEQR Technical Manual* threshold warranting an analysis of potential effects on high schools.

LIBRARIES

Potential impacts on libraries can result from an increased user population. According to the *CEQR Technical Manual*, a proposed action that results in a 5 percent increase in the average number of DUs served per branch—which is 734 DUs in Brooklyn—may cause a significant impact on library services and require further analysis. The proposed actions would introduce an increment of 207 DUs. Therefore, the proposed project does not approach this threshold, and a detailed analysis of libraries is not warranted.

CHILD CARE CENTERS

According to the *CEQR Technical Manual*, if a proposed action would add more than 20 children eligible for child care to the study area's child care facilities, a detailed analysis of its impact on publicly funded child care facilities is warranted. This threshold is based on the number of low-income and low/moderate-income DUs introduced by a proposed action. Low-income and low/moderate-income affordability levels are intended to approximate the financial eligibility criteria for publicly funded child care facilities established by the New York City Administration for Children's Services (ACS), which generally corresponds to 200 percent of the Federal Poverty Level or 80 percent of Area Median Income (AMI). In Brooklyn, projects introducing 110 or more low- to moderate-income DUs would meet the threshold for analysis of introducing 20 or more children eligible for child care services. The proposed project would introduce an increment of 42 new affordable DUs; therefore, a detailed assessment of child care centers is not warranted.

HEALTH CARE FACILITIES

Health care facilities include public, proprietary, and nonprofit facilities that accept government funds (usually in the form of Medicare and Medicaid reimbursements) and that are available to any member of the community. Examples of these types of facilities include hospitals, nursing homes, clinics, and other facilities providing outpatient health services.

According to the *CEQR Technical Manual*, if a proposed action would create a sizeable new neighborhood where none existed before, there may be increased demand on local public health care facilities, which may warrant further analysis of the potential for indirect impacts on outpatient health care facilities. The proposed action is located within Clinton Hill, which is a well-established residential neighborhood in Brooklyn, and therefore would not result in the creation of a sizeable new neighborhood where none existed before. In addition, the proposed actions would only introduce an increment of 207 new DUs. Therefore, a detailed analysis of indirect effects on health care facilities is not warranted.

POLICE AND FIRE SERVICES

The *CEQR Technical Manual* recommends detailed analyses of impacts on police and fire service in cases where a proposed action would affect the physical operations of, or direct access to and from, a precinct house or fire station, or where a proposed action would create a sizeable new neighborhood where none existed before. The proposed actions would not result in these direct effects on either police or fire services, nor would it create a sizeable new neighborhood where none existed before; therefore, no further analysis is warranted.

C. POTENTIAL INDIRECT EFFECTS ON PUBLIC ELEMENTARY AND INTERMEDIATE SCHOOLS

METHODOLOGY

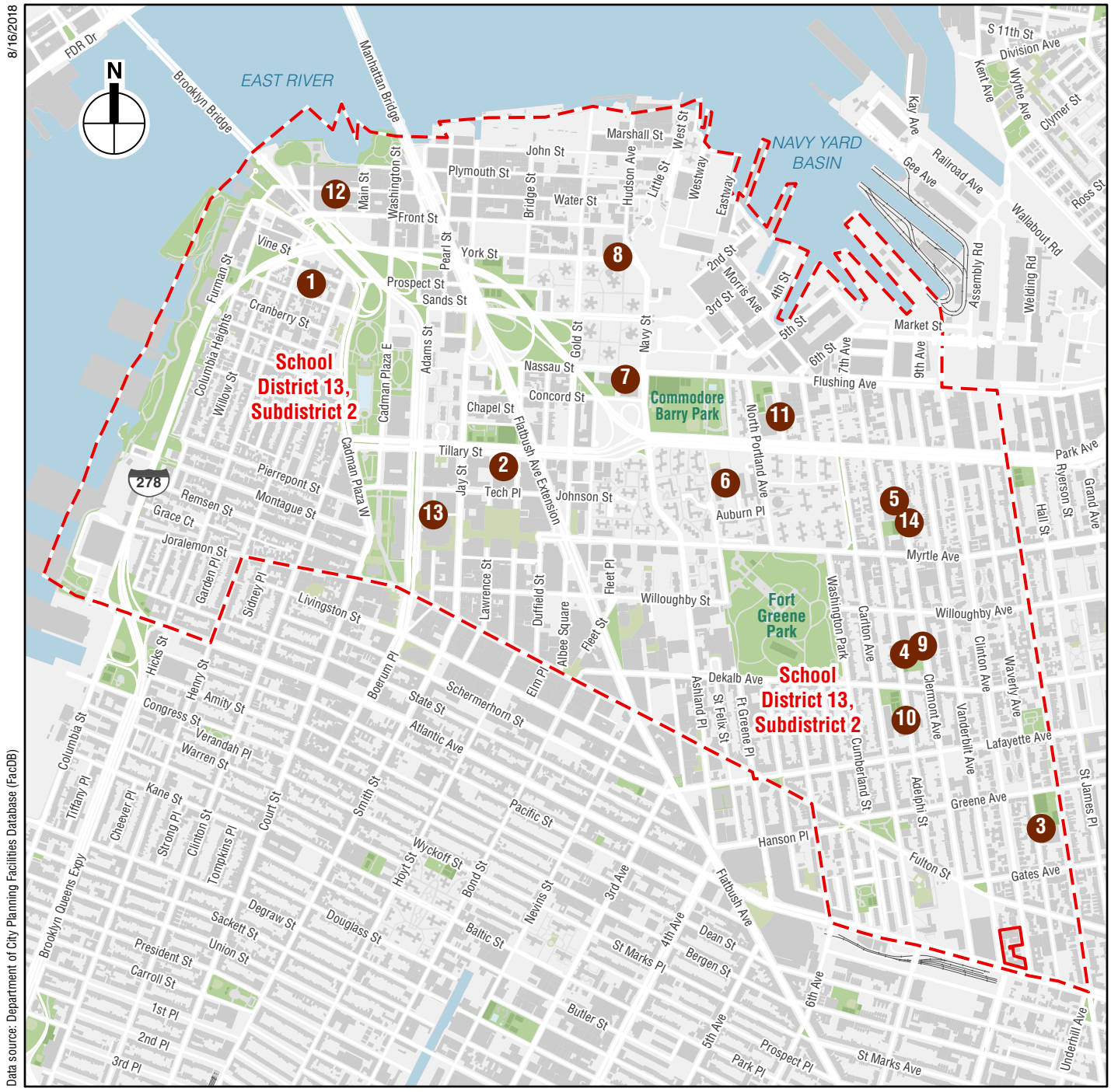
This section presents an assessment of the potential effects of the proposed actions on public elementary and intermediate schools serving the development site. Following the methodologies in the *CEQR Technical Manual*, the study area for the analysis of elementary and intermediate schools is the school district's "subdistrict" (also known as the "region" or "school planning zone") in which the project is located. The development site is located in Subdistrict 2 of Community School District (CSD) 13 (see **Figure B-1**). The zoned elementary school for the development site is P.S. 11 Purvis J Behan. There is no zoned intermediate school, as the development site is zoned to District 13. If a project is located within a school district that has an elementary and/or middle school choice program and the potential for a significant adverse impact is identified at the subdistrict level, an analysis of the whole district is appropriate.

In accordance with the *CEQR Technical Manual*, this schools analysis uses the most recent DOE data on school capacity, enrollment, and utilization rates for elementary and intermediate schools in the subdistrict study area and SCA projections of future enrollment. Specifically, the existing conditions analysis uses data provided in the DOE's *Utilization Profiles: Enrollment/Capacity/Utilization, 2016–2017* edition. Future conditions are then predicted based on SCA enrollment projections and data obtained from SCA's Capital Planning Division on the number of new housing DUs and students expected at the subdistrict level.

The future utilization rate for school facilities is calculated by adding the estimated enrollment from the proposed residential project in the schools' study area to DOE's projected enrollment, and then comparing that number with projected capacity. DOE does not include charter school enrollment in its enrollment projections. DOE's enrollment projections for years 2016 through 2025, the most recent data currently available, were obtained from DCP. These enrollment projections are based on broad demographic trends and do not explicitly account for discrete new residential projects planned for the study area. Therefore, estimates for the student population that would be introduced by other new projects expected to be completed within the study area have been obtained from SCA's Capital Planning Division and are added to the projected enrollment to ensure a more conservative prediction of future enrollment and utilization. In addition, new capacity from any new school project identified in the DOE Five-Year Capital Plan are included if construction has begun or if deemed appropriate to include in the analysis by the lead agency and SCA.

The effect of the new students introduced by the proposed project on the capacity of schools within the study area is then evaluated. According to the *CEQR Technical Manual*, a significant adverse impact may occur if a project would result in both of the following conditions:

1. A utilization rate of the elementary and/or intermediate schools in the subdistrict study area that is equal to or greater than 100 percent in the With Action condition; and
2. An increase of 5 percentage points or more in the collective utilization rate between the No Action and With Action conditions.



Elementary and Intermediate Public Schools Serving the Study Area

809 ATLANTIC AVENUE

Figure B-1

EXISTING CONDITIONS

ELEMENTARY SCHOOLS—SUBDISTRICT 2 OF CSD 13

Nine elementary schools serve Subdistrict 2/CSD 13 (see **Figure B-1**). As shown in **Table B-2**, elementary schools in the subdistrict have a total enrollment of 3,429 and are currently operating at 93.2 percent utilization, with a surplus of 251 seats. The zoned elementary school for the development site is P.S. 11 Purvis J Behan.

Table B-2
Public Elementary and Intermediate Schools Serving the Study Area, Enrollment and Capacity Data, 2016–2017 School Year

Map No.	Name	Address	Enrollment	Capacity	Available Seats	Utilization
Elementary Schools						
Subdistrict 2 of CSD 13						
1	P.S. 8 (The Robert Fulton School) (PS Component)	37 Hicks Street	502	399	-103	125.8%
2	P.S. 8 (The Robert Fulton School) (PS Component)	105 Johnson Street	187	260	73	71.9%
3	P.S. 11 (Purvis J Behan)	419 Waverly Avenue	876	754	-122	116.2%
4	P.S. 20 (The Clinton Hill School)	225 Adelphi Street	410	336	-74	122.0%
5	P.S. 46 (Edward C. Blum)	100 Clermont Avenue	320	390	70	82.1%
6	P.S. 67 (Charles A. Dorsey)	51 St. Edwards Street	223	247	24	90.3%
7	P.S. 287 (Bailey K. Ashford)	50 Navy Street	200	361	161	55.4%
8	P.S. 307 (Daniel Hale Williams)	209 York Street	383	691	308	55.4%
9	I.S. 492 (Academy of Arts & Letters) (PS Component)	225 Adelphi Street	328	242	-86	135.5%
	CSD 13, Subdistrict 2 Total		3,429	3,680	251	93.2%
Intermediate/Middle Schools						
Subdistrict 2 of CSD 13						
1	P.S. 8 (The Robert Fulton School) (IS Component)	37 Hicks Street	188	150	-38	125.3%
2	P.S. 8 (The Robert Fulton School) (IS Component)	105 Johnson Street	70	97	27	72.2%
9	I.S. 492 (Academy of Arts & Letters) (IS Component)	225 Adelphi Street	189	140	-49	135.0%
10	I.S. 113 (Anthony J. Pranzo)	300 Adelphi Street	321	856	535	37.5%
11	I.S. 265 (Dr. Susan S. McKinney Secondary School of the Arts)	101 Park Avenue	107	194	87	55.1%
12	The Dock Street School for STEAM Studies	19 Dock Street	137	243	106	56.4%
13	I.S. 527 (Urban Assembly Institute of Math and Science for Young Women)	283 Adams Street	166	209	43	79.4%
14	Fort Greene Preparatory Academy	100 Clermont Avenue	218	236	18	92.4%
	CSD 13, Subdistrict 2 Total		1,396	2,125	729	65.7%

Note: [1] See **Figure B-1**.
Source: DOE *Utilization Profiles: Enrollment/Capacity/Utilization, 2016–2017*.

INTERMEDIATE SCHOOLS—SUBDISTRICT 2 OF CSD 13

According to DOE's 2016–2017 school year enrollment figures, eight intermediate schools serve Subdistrict 2/CSD 13 (see **Figure B-1** and **Table B-2**). Intermediate schools in the subdistrict have a total enrollment of 1,396 students and are currently operating at 65.7 percent utilization, with a surplus of 729 seats. There is no zoned intermediate school for the development site, which is zoned to District 13.

FUTURE WITHOUT THE PROPOSED PROJECT

The latest available SCA enrollment projections for Subdistrict 2/CSD 13 projected for 2021 were used to form the baseline projected enrollment in the No Action condition, shown in **Table B-3** in the column titled "Projected Enrollment in 2021." The students introduced by other No Action projects in the study area are added to this baseline projected enrollment using the SCA No Action

student numbers for Subdistrict 2/CSD 13 (derived from the SCA's "Projected New Housing Starts"). These students are represented in the column titled "Students Introduced by Residential Projects in the No Action Condition" in **Table B-3**.

Table B-3
Estimated Public Elementary and Intermediate School Enrollment, Capacity, and Utilization: No Action Condition

Study Area	Projected Enrollment in 2021[1]	Students Introduced by Residential Projects in the No Action Condition[2]	Total No Action Condition Enrollment	Capacity	Available Seats	Utilization
Elementary Schools						
Subdistrict 2 of CSD 13	3,325	2,904	6,229	3,680	-2,549	169.3%
Intermediate Schools						
Subdistrict 2 of CSD 13	1,423	1,011	2,434	1,949[3,4,5]	-485	124.9%

Notes:
[1] Elementary and intermediate school enrollment in the subdistrict study area in 2021 was calculated by applying SCA supplied percentages for the subdistrict to the relevant district enrollment projections. For Subdistrict 2/CSD 13, the district's 2021 elementary and pre-school enrollment projection of 7,312 was multiplied by 45.47 percent. The subdistrict's intermediate enrollment projection of 2,168 was multiplied by 65.64 percent.
[2] SCA "Projected New Housing Starts" student numbers for Subdistrict 1/CSD 23.
[3] In the future with the ongoing co-location of a the Compass Charter School with I.S. 113, it is assumed that approximately 86 seats of the existing intermediate capacity at I.S. 113 will be converted to charter school seats.
[4] In the future with the ongoing co-location of a the SA-Brooklyn 5 Charter School with I.S. 265, it is assumed that approximately 180 seats of the existing intermediate capacity at I.S. 265 will be converted to charter school seats.
[5] In the future with the ongoing scale-up of the Dock Street School for STEAM Studies (K313) at building K611, it is assumed that scale-up will continue in accordance with the PEP, and that 333 of the 405 seats of capacity in building K611 would be utilized by the Dock Street School for STEAM Studies, an increase in capacity of 90 seats over the existing condition.
Sources:
DOE Enrollment Projections (Projected 2015–2025)*; DOE, Utilization Profiles: Enrollment/Capacity/Utilization, 2016–2017*, DOE *2015–2019 Proposed Five-Year Capital Plan, Amendment February 2018;* SCA.

Analysis of the No Action condition also takes into account a series of proposals recently approved by the DOE's Panel of Educational Policy (PEP). These include an approved and underway proposal to co-locate the Compass Charter School with I.S. 113 in Building K113, beginning in the 2014–2015 school year and finishing in 2018–2019.[1] The co-location would be fully implemented by the analysis year; the analysis conservatively assumes that 86 seats will be removed from I.S. 113's intermediate school capacity as they would be utilized by the expanding Charter School.

The PEP has also approved the co-location of the Success Academy Charter School Brooklyn 5 (SA-Brooklyn 5) with I.S. 265 in Building K265, beginning in the 2013–2014 school year and finishing in 2017–2018.[2] The co-location would be fully implemented by the analysis year; the analysis conservatively assumes that 180 seats will be removed from I.S. 265's intermediate school capacity as they would be utilized by the expanding Charter School.

[1] Educational Impact Statement: The Proposed Opening and Co-location of New Public Charter Elementary School Compass Charger School with Existing School M.S. 113 Ronald Edmonds Learning Center (13K113) and a District 75 Program, P372K@K113, in Building K113 Beginning in 2014-2015. DOE. September 12, 2013.

[2] Educational Impact Statement: The Proposed Co-location of a New Public Charter School Success Academy Charter School Brooklyn 5 (84KTBD) with Existing Schools Dr. Susan S. McKinney Secondary School of the Arts (13K265) and a District 75 Inclusion Program P369K@265K (75K369) in Building K265 Beginning in 2013–2014. DOE. November 5, 2012.

Finally, PEP approved the re-siting of the Satellite West Middle School (K313), now known as the Dock Street School for STEAM Studies, to new building K611 at 19 Dock Street.[3] The Dock Street School for STEAM Studies moved to building K611 at the beginning of the 2016–2017 school year, and therefore the move is reflected in the existing conditions section of this analysis. Scale-up of the school at the new building is ongoing, and is anticipated to continue through the 2018–2019 school year, affecting future No Action capacity within the subdistrict. According to the PEP, at full scale the intermediate school is anticipated to use all but 72 seats of the 405 seats in building K611 (333 seats). This indicates an additional 90 seats of intermediate school capacity for the Dock Street School for STEAM Studies above the existing 243 seats that would be realized by the 2021 build year. The relocation of the formerly named Satellite West Middle School out of building K307 also allowed for the growth of P.S. 307 into the vacated building space; as the relocation has already occurred, this increased P.S. 307 capacity is reflected in the 2016–2017 Blue Book data and reflected in existing conditions.

It should also be noted that new school I.S. 653, identified in SCA's 2015–2019 Proposed Five-Year Capital Plan, Amendment February 2018, is currently in the design phase, and is projected to begin construction in the future. However, as it has not yet begun construction, I.S. 653's future capacity was not included in the quantitative analysis of future conditions.

ELEMENTARY SCHOOLS—SUBDISTRICT 1 OF CSD 23

As shown in **Table B-3**, the total No Action condition enrollment in the subdistrict is projected to be 6,229 elementary students. Elementary schools in the subdistrict study area would operate over capacity (169.3 percent utilization) with a deficit of 2,549 seats in the No Action condition.

INTERMEDIATE SCHOOLS—SUBDISTRICT 1 OF CSD 23

As shown in **Table B-3**, the total No Action condition enrollment measured at the subdistrict level is projected to be 2,434 intermediate students. Intermediate schools measured at the subdistrict level would operate over capacity with a deficit of 485 seats (124.9 percent utilization).

FUTURE WITH THE PROPOSED PROJECT

In the future with the proposed project (the "With Action" condition), the proposed actions would introduce an increment of 207 DUs to the development site. Based on the public school student generation rates in the *CEQR Technical Manual*, these DUs would introduce approximately 60 elementary students to Subdistrict 2/CSD 13. The proposed actions would also introduce 25 intermediate school students (see **Table B-4**).

[3] Educational Impact Statement: The Proposed Re-Siting of Satellite West Middle School (13K313) to New Building K611 in the 2016–2017 School Year. DOE. October 2, 2015.

Table B-4
Estimated Public Elementary and Intermediate School Enrollment, Capacity, and Utilization: With Action Condition

Study Area	No Action Enrollment	Students Introduced by the Proposed Project	Total With Action Enrollment	Capacity	Available Seats	Utilization	Change in Utilization Compared with No Action
Elementary Schools							
Subdistrict 2 of CSD 13	6,229	60	6,289	3,680	-2,609	170.9%	1.6%
Intermediate Schools							
Subdistrict 2 of CSD 13	2,434	25	2,459	1,949	-510	126.2%	1.3%

Sources:
DOE Enrollment Projections (Projected 2015–2025); *DOE, Utilization Profiles: Enrollment/Capacity/Utilization, 2016–2017*, DOE *2015–2019 Proposed Five-Year Capital Plan, Amendment February 2018;* SCA.

ELEMENTARY SCHOOLS—SUBDISTRICT 2 OF CSD 13

In the With Action condition, total elementary school enrollment of Subdistrict 2/CSD 13 would increase by 60 students to 6,289 (170.9 percent utilization) with a deficit of 2,609 seats. As compared to the No Action condition, the proposed actions would result in an increase in the utilization rate of 1.6 percentage points.

As noted above, a significant adverse impact may occur if the proposed actions would result in both of the following conditions: (1) a utilization rate in the subdistrict study area that is equal to or greater than 100 percent in the With Action condition; and (2) an increase of 5 percentage points or more in the collective utilization rate between the No Action and With Action conditions.

The proposed actions would not result in an increase in the utilization rate to over 100 percent, as elementary schools in the district are projected to already be above 100 percent utilization in the No Action condition. Nor would the proposed actions result in a collective utilization rate of more than 5 percentage points over the No Action condition. As the proposed actions would not have the potential for a significant adverse impact at the subdistrict level, an elementary schools analysis of the whole district is not warranted. Therefore, the proposed actions would not result in a significant adverse impact to elementary schools.

INTERMEDIATE SCHOOLS—SUBDISTRICT 2 OF CSD 13

In the With Action condition, assuming measurement of capacity and utilization at the subdistrict level, total intermediate school enrollment of Subdistrict 2/CSD 13 would increase by 25 students to 2,459 (126.2 percent utilization) with a deficit of 510 seats. Intermediate school utilization in Subdistrict 2/CSD 13 would increase by 1.3 percentage points above the No Action condition. The proposed actions would not result in an increase in the utilization rate to over 100 percent, as intermediate schools in the district are projected to be already above 100 percent utilization in the No Action condition. Nor would the proposed actions result in the collective utilization rate of more than 5 percentage points above the No Action condition. As the proposed actions would not have the potential for a significant adverse impact at the subdistrict level, an intermediate schools analysis of the whole district is not warranted. Therefore, the proposed actions would not result in a significant adverse impact to intermediate schools. ✶

Attachment C: Open Space

A. INTRODUCTION

This attachment assesses the potential impacts of the proposed actions on open space resources. Open space is defined in the 2014 *City Environmental Quality Review (CEQR) Technical Manual* as publicly accessible, publicly or privately owned land that is available for leisure, play, or sport or serves to protect or enhance the natural environment. An open space assessment should be conducted if a project would have a direct effect on open space, such as eliminating or altering a public open space, or an indirect effect, such as when a substantial new population could place added demand on an area's open spaces.

The proposed actions would facilitate a development of approximately 277,500 gross square feet (gsf) at the development site at 809 Atlantic Avenue, Brooklyn (Block 2010, Lots 1 and 59), containing approximately 25,000 gsf of retail space, 20,000 gsf of office space, and 233,000 gsf of residential space (or approximately 333 dwelling units [DUs] with an average of 700 gsf per unit) (the "proposed project"). As discussed in Page 1a of the EAS, "Project Description," under the Reasonable Worst Case Development Scenario (RWCDS), the proposed actions would result in a net increment of approximately 207 DUs, and approximately 7,500 gsf of commercial space.

As discussed in more detail below, the proposed actions would result in the introduction of residential uses that would increase the residential population in the project area. Therefore, in accordance with *CEQR Technical Manual* guidelines, an open space assessment was conducted to determine whether the proposed actions would result in significant adverse open space impacts. This assessment finds that the proposed actions would not result in significant adverse open space impacts.

B. METHODOLOGY

As defined by the *CEQR Technical Manual*, open space is accessible to the public on a constant and regular basis, including for designated daily periods. Public open space may be under government or private jurisdiction and typically includes City, state, and federal parkland, esplanades, and plazas designated through regulatory approvals such as zoning. Private open space is not publicly accessible or is available only to limited users. It is not available to the public on a regular or constant basis. Examples of private open space are natural areas with no public access, front and rear yards, rooftop recreational facilities, and stoops or landscaped grounds used by community facilities, such as public and private educational institutions, where the open space is accessible only to the institution-related population.

Open spaces can be characterized as either active or passive depending on the activities the space allows. In many cases, open space may be used for both active and passive recreation. Open space that is used for sports, exercise, or active play is classified as "active open space," and consists primarily of recreational facilities. Passive open spaces are used for relaxation, such as sitting or strolling. Active and passive open spaces are defined further in Section C, "Preliminary Assessment."

DIRECT EFFECTS

According to the *CEQR Technical Manual*, a proposed project would directly affect open space conditions if it causes the loss of public open space, changes the use of an open space so that it no longer serves the same user population, limits public access to an open space, or results in increased noise or air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. This attachment will determine whether the proposed actions would directly impact any open spaces within, or in close proximity to, the project area.

INDIRECT EFFECTS

As described in the *CEQR Technical Manual*, open space can be indirectly affected by a proposed action if a 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. Typically, an assessment of indirect effects is conducted when a project would introduce more than 200 residents or 500 workers to an area; however, the thresholds for assessment are different for areas of the City that have been identified as either underserved or well-served by open space. The project area is not located within an area that has been identified as either underserved or well-served.

In accordance with *CEQR Technical Manual* guidelines, the open space analysis and impact assessment is based on the anticipated development on the development site. As discussed in Attachment A, "Land Use, Zoning, and Public Policy," the proposed project would introduce up to 207 incremental DUs, which would introduce an estimated 416 residents to the project area as compared with the future without the proposed project (the "No Action" condition). However, the proposed actions would only introduce approximately 42 new workers to the project area as compared to the No Action condition. Therefore, only an open space assessment for the residential population generated by the proposed actions is warranted.

STUDY AREA

The *CEQR Technical Manual* recommends establishing a study area as the first step in an open space assessment. The study area is based on the distance that the respective users—workers and residents—are likely to walk to an open space. According to the *CEQR Technical Manual,* workers are assumed to walk approximately 10 minutes, or ¼-mile from their place of work to an open space, while residents are assumed to walk approximately 20 minutes, or ½-mile to an open space.

Because the proposed actions would only introduce new residential population above the 200-resident population threshold and not a substantial enough population to exceed the 500-worker threshold, the adequacy of open space resources was assessed for the ½-mile (residential) study area. This study area was adjusted to include all census tracts with at least 50 percent of their area within the ½-mile boundary. In this way, the study area allows for analysis of both the open spaces in the area as well as population data. As shown on **Figure C-1**, the ½-mile residential study area includes the area within Census Tracts 35, 129.02, 161, 163, 179, 181, 197, 199, 201, 203, 205, 207, and 231. The residential study area is generally bounded by DeKalb Avenue to the north, Classon Avenue to the east, Eastern Parkway to the south, and 4th Avenue and Flatbush Avenue to the west.

ANALYSIS FRAMEWORK

Publicly accessible open spaces and recreational facilities were inventoried to determine their size, character, utilization, amenities, and condition. Open spaces that are not accessible to the general public or that do not offer usable recreational areas, such as spaces where seating is unavailable,



Open Space Resources and Study Area

809 ATLANTIC AVENUE

Figure C-1

were generally excluded from the survey. In accordance with the *CEQR Technical Manual*, publicly accessible open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts using both a quantitative and qualitative analysis, whereas private open space is not accessible to the general public on a regular basis and is considered qualitatively. Field surveys conducted in July 2017 and secondary sources, such as the New York City Department of Parks and Recreation (NYC Parks) and New York City Department of Informational Technology and Telecommunications (DoITT) Geographic information system (GIS) data, were used to determine the number, size, availability, and condition of publicly accessible open space resources in the residential study area.

Each open space was determined to be active or passive by the uses that the design of the space allows. Active open space is part of a facility used for active play such as sports or exercise and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf courses, lawns, and paved areas for active recreation. Passive open space is used for sitting, strolling, and relaxation, and typically contains benches, walkways, and picnicking areas. However, some passive spaces can be used for both passive and active recreation; a green lawn or a riverfront walkway, for example, can also be used for ball playing, jogging, or rollerblading.

With an inventory of available open space resources and potential users, the adequacy of open space in the study area can be assessed both quantitatively and qualitatively. The quantitative approach calculates the ratio of open space acreage to the population in the study area (i.e., acres of open space per 1,000 residents) and compares this ratio with certain guidelines. The qualitative assessment examines other factors that may affect conclusions about adequacy, including proximity to additional resources beyond the study area, the availability of private recreational facilities, and the demographic characteristics of the area's population. Specifically, the analysis in this attachment includes:

- Open space study area population. The population of the open space study area was compiled from American Community Survey (ACS) data.
- An inventory of all publicly accessible passive and active recreational facilities in the residential open space study area.
- An assessment of the quantitative ratio of open space in the study area is calculated by computing the ratio of open space acreage to the residential population in the study area and comparing this open space ratio with certain guidelines. In New York City, local open space ratios vary widely, and the median ratio at the Citywide Community District level is 1.5 acres of open space per 1,000 residents. Typically, for the assessment of both direct and indirect effects, citywide local norms have been calculated for comparison and analysis. As a planning goal, a ratio of 2.5 acres per 1,000 residents represents an area well-served by open spaces, and is consequently used as an optimal benchmark for residential populations in large-scale proposals. Ideally, this would comprise 2.0 acres of active open space and 0.5 acres of passive open space per 1,000 residents. For large-scale projects (and for planning purposes), the City also seeks to attain its planning goal of a balance of 80 percent active open space and 20 percent passive open space. These goals are often not feasible for many areas of the City and they do not constitute an impact threshold. Rather, it is a benchmark that represents how well an area is served by its open space.
- An evaluation of qualitative factors affecting open space use.
- A determination of the adequacy of open space in the residential open space study area in existing conditions, the No Action condition, and the With Action condition.

- An assessment of expected changes in future levels of open space supply and demand in the 2021 analysis year, based on other planned development projects within the open space study area. To estimate the population expected in the study area in the No Action condition, an average household size of 2.01 persons is applied to the number of new DUs expected in the study area located within Brooklyn CD 2. Any new open space or recreational facilities that are anticipated to be operational by the analysis year are also accounted for. Open space ratios are calculated for No Action and With Action conditions and compared to determine changes in future levels of adequacy.

IMPACT ASSESSMENT

Impacts are based in part on how a project would change the open space ratios in the study area as well as other qualitative considerations. According to the *CEQR Technical Manual*, a decrease in an open space ratio of 5 percent or more compared to the No Action condition is generally considered to be a significant adverse impact. If a study area exhibits a low open space ratio, indicating a shortfall of open space, smaller decreases in that ratio as a result of the action may constitute significant adverse impacts. In addition to the quantitative factors cited above, the *CEQR Technical Manual* also recommends consideration of qualitative factors in assessing the potential for open space impacts. These include the availability of nearby destination resources, the beneficial effects of new open space resources provided by a project, and the comparison of projected open space ratios with established City guidelines. As noted above, it is recognized that the open space ratios of the City guidelines are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these are benchmarks that indicate how well an area is served by open space. When assessing the effects of a change in the open space ratio, the assessment should consider the balance of passive and active open space resources appropriate to support the affected population and the condition of existing open spaces within the study area. Determinations as to what constitutes a significant adverse open space impact are not based solely on the results of the quantitative assessment. Qualitative considerations such as the distribution of open space, whether an area is considered "well-served" or "underserved" by open space, the distance to regional parks, the connectivity of open space, and any additional open space provided by the proposed project, should be considered in a determination of significance.

C. EXISTING CONDITIONS

STUDY AREA POPULATION

As shown on **Figure C-1** and summarized in **Table C-1**, the study area for the proposed project includes 13 census tracts with a total population of 41,078 residents.

Table C-1
Study Area Residential Population

Census Tract[1]	Residential Population
35	1,589
129.02	1,908
161	3,239
163	3,299
179	4,274
181	3,531
197	3,632
199	3,454
201	3,828
203	1,776
205	2,703
207	4,310
231	3,535
Residential Study Area Total	**41,078**

Note:
[1] See **Figure C-1** for a map of census tracks included in the study area.
Sources:
U.S. Census Bureau, American Community Survey (ACS) 2012–2016 5-Year Estimates

STUDY AREA OPEN SPACE RESOURCES RESIDENTIAL (½-MILE) STUDY AREA

Within the open space ½-mile study area, there are 14 publicly accessible open space resources, as shown on **Figure C-1** and summarized in **Table C-2**. These resources provide approximately 9.41 acres of open space. Of this total, approximately 7.22 acres (77 percent) is active space and 2.19 acres (23 percent) is passive open space. Most resources are operated by NYC Parks.

In addition to the resources included in the quantitative assessment, and consistent with *CEQR Technical Manual* guidance, there are several open space resources that have not been included. These resources, discussed further below, are expected to provide additional open space amenities to project area residents.

Table C-2
Existing Publicly Accessible Open Space Inventory

Fig. C-14 Ref.[1]	Name/Location	Owner or Agency	Features	Acres of Active Open Space	Acres of Passive Open Space	Total Acres	Condition/ Utilization
1	Gateway Triangle	NYC Parks	Benches	0.00	0.07	0.07	Excellent/ Low
2	Lowry Triangle	NYC Parks	Benches, trees	0.00	0.11	0.11	Excellent/ Low
3	Greene Playground	NYC Parks	Basketball courts, handball courts, baby swings, play structures, restrooms, water element, chess tables, full size swings, benches	1.13	0.13	1.26	Excellent/ Moderate
4	P.S. 9 Playground	NYC Parks	Basketball court, handball court, half-track, soccer, play structure, chess table	0.86	0.10	0.96	Excellent/ Moderate
5	Putnam Triangle	NYC Parks	Tables and chairs, umbrellas	0.00	0.01	0.01	Excellent/ Moderate
6	South Oxford Park	NYC Parks	Playground, water element, benches, tennis courts, turf field	1.07	0.12	1.19	Excellent/ High
7	Cuyler Gore	NYC Parks	Playground, water elements, benches	0.93	0.23	1.16	Excellent / Moderate
8	Dean Playground	NYC Parks	Soccer/baseball turf field, basketball courts, benches/picnic tables, bathrooms, chess, two playgrounds, baby swings, water fountain	1.06	0.26	1.32	Excellent / Moderate
9	Underhill Playground	NYC Parks	Playground, water element, swings	0.44	0.15	0.59	Excellent / very high
10	Underwood Park	NYC Parks	Water play element, playground, swings, benches, picnic area, restrooms	0.89	0.30	1.19	Excellent / very high
11	Atlantic Terminal Mall Plaza	HPD	Benches, trees	0.00	0.54	0.54	Excellent/ Moderate
12	Edmonds Playground	NYC Parks	Benches, trees, tennis court, basketball court, playground	0.83	0.09	0.92	Good/ Moderate
13	Fowler Square	NYC Parks	Landscaping, benches	0	0.06	0.06	Excellent/ Low
14	300 Ashland Place Plaza	Private/ 20 Lafayette LLC	Landscaping, benches	0	0.03	0.03	Excellent/ Low
			Total	**7.22**	**2.19**	**9.41**	

Note: [1] See **Figure C-1** for location of open spaces
Sources: NYC Parks open space data base; AKRF, Inc. field survey, July 2017

ASSESSMENT OF OPEN SPACE ADEQUACY

RESIDENTIAL (½-MILE) STUDY AREA

The following analysis of the adequacy of open space resources within the residential study area presents the ratios of active, passive, and total open space resources per 1,000 residents.

Quantitative Assessment

The study area has an overall open space ratio of 0.229 acres per 1,000 residents **(see Table C 3)**. This is lower than the City's planning guideline of 2.5 acres per 1,000 residents. The study area's active and passive open space ratios are 0.176 acres and 0.053 acres per 1,000 residents, respectively, which is below the *CEQR Technical Manual* guideline of 2.0 acres of active open space and 0.5 acres of passive open space per 1,000 residents.

Table C-3
Adequacy of Study Area Open Space Resources: Existing Conditions

Existing Residential Population	Open Space Acreage			Open Space Ratios per 1,000 Persons			City Open Space Guidelines		
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
41,078	9.41	7.22	2.19	0.229	0.176	0.053	2.5	2	0.5

Qualitative Assessment

In addition to the open space resources listed above, the study area contains open space resources that have not been included in the quantitative assessment. This includes a playground located within the Atlantic Terminal housing complex, which is controlled by the New York City Housing Authority (NYCHA), and several community gardens. NYCHA-owned open spaces and other quasi-public open spaces are not accounted for in the quantified analysis but serve to offset the demand for publicly accessible open space resources.

There are also several additional open space resources immediately outside the study area that would be readily accessible by residents of the study area. These open spaces include the Fort Greene Park, and Prospect Park, as well as other smaller parks. Both Fort Greene Park and Prospect Park are large open spaces (Fort Greene Park is 30 acres, and Prospect Park is 526 acres) controlled by NYC Parks which include a variety of amenities. In particular, both parks include active open space areas such as basketball courts, playgrounds, baseball fields, and tennis courts. These parks in large part provide for the open space needs of the residents of this portion of Brooklyn, and are within a reasonable distance (just over ½-mile) of the project area.

D. FUTURE WITHOUT THE PROPOSED PROJECT

In the No Action condition, the development site would be developed with two mixed-use buildings containing 154 DUs and retail space.

STUDY AREA POPULATION

The 154 DUs that would be developed under the No Action condition would add 310 additional residents to the study area. In addition, as described in Attachment A "Land Use, Zoning, and Public Policy," under the No Action condition, there are 632 DUs expected to be constructed by other projects within the study area, which would introduce a new population of 1,270. In total, the development that would occur on the development site in the No Action condition and other known developments expected in the study area would add an additional 1,580 residents to the study area by 2021, increasing the total population to 42,658.

STUDY AREA OPEN SPACE RESOURCES

In the No Action condition, it is expected that each of the study area's existing open spaces would continue to be open for public use. There are no new open space resources anticipated in the study area in the No Action condition.

ASSESSMENT OF OPEN SPACE ADEQUACY

RESIDENTIAL (½-MILE) STUDY AREA

Quantitative Assessment

As shown below in **Table C-4**, in the No Action condition, the total open space ratio is projected to decrease from 0.229 acres per 1,000 residents to 0.221 acres per 1,000 residents. The passive open space ratio would fall from 0.053 to 0.051 acres per 1,000 residents, and the active open space ratio would fall from 0.176 to 0.169 acres per 1,000 residents. Similar to existing conditions, the total, passive, and active open space ratios would be below the City guidelines.

Table C-4
Adequacy of Study Area Open Space Resources: No Action Condition

2021 Residential Population	Open Space Acreage			Open Space Ratios per 1,000 Persons			City Open Space Guidelines		
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
42,658	9.41	7.22	2.19	0.221	0.169	0.051	2.5	2	0.5

E. FUTURE WITH THE PROPOSED PROJECT

STUDY AREA POPULATION

The proposed project would result in an incremental development of 207 DUs compared to the No Action condition, which would introduce 416 residents to the study area, bringing the total population to 43,074 with the proposed project.

STUDY AREA OPEN SPACE RESOURCES

Study area open space resources are expected to remain the same as in existing conditions and the No Action condition.

ASSESSMENT OF OPEN SPACE ADEQUACY

RESIDENTIAL (½-MILE) STUDY AREA

Quantitative Assessment

As shown in below in **Table C-5**, in the With Action condition the total open space ratio is projected to fall from 0.221 acres per 1,000 residents to 0.219 acres per 1,000 residents. The passive open space ratio would decrease incrementally but would remain at approximately 0.051 acres per 1,000 residents, and the active open space ratio would decrease from approximately 0.169 to 0.168 acres per 1,000 residents. As in the No Action condition, all of these open space ratios would be below the City guidelines of 2.5 acres of total open space per 1,000 residents, 0.5 acres of passive open space per 1,000 residents, and 2.0 acres of active open space per 1,000 residents. Compared to the No Action condition, the total, active, and passive open space ratio would all decrease by roughly 1 percent (see **Table C-6**).

Table C-5
Adequacy of Study Area Open Space Resources: With Action Condition

Residential Population	Open Space Acreage			Open Space Ratios per 1,000 Persons			City Open Space Guidelines		
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
43,074	9.41	7.22	2.19	0.219	0.168	0.051	2.5	2	0.5

Table C-6
Study Area Open Space Ratio Summary

Ratio	City Open Space Guideline	Open Space Ratios per 1,000		Percent Change (Future No Action to Future With Action)*
		No Action	With Action	
Total—Residents	2.5	0.221	0.219	-0.95%
Active—Residents	2.0	0.169	0.168	-1.00%
Passive—Residents	0.5	0.051	0.051	-0.97%
Note: * Decrease in open space ratio may not be apparent due to rounding.				

Qualitative Assessment

As noted above, several additional large open space resources, in particular Fort Greene Park and Prospect Park, were not analyzed in the quantitative assessment as they are located immediately adjacent to, but not within, the study area boundaries. These large parks are utilized by the study area's residents and provide extensive recreational amenities to support the area's needs. In the case of Fort Greene Park, the main feature is the Prison Ship Martyrs Monument, whose elevated locations also provides extensive views of the surrounding area and the Manhattan skyline. Other amenities in Fort Greene Park include extensive walking paths and lawn areas, tennis courts, basketball courts, and playgrounds. Prospect Park is one of the City's preeminent regional parks that serves as valuable resource for the residents within the study area and the entire borough. The main features of the park are its extensive natural areas and rolling hills with walking and biking paths, as well as a 60-acre lake available for recreational boating and ice skating during the winter, and the Prospect Park Zoo. The park also features several picnic areas and playgrounds, sports fields, and basketball and tennis courts. Although Fort Greene Park and Prospect Park are not located within the study area boundaries, they are within a reasonable distance of the project area, and would largely support the recreational needs of the residents that would be introduced to the area by the proposed project.

DETERMINING IMPACT SIGNIFICANCE

INDIRECT EFFECTS

According to the *CEQR Technical Manual*, if the decrease in the open space ratio approaches or exceeds 5 percent, it is generally considered a substantial change. However, the change in the open space ratio should be balanced against how well-served an area is by open space. **Table C-6** shows the percentage change from the No Action condition to the With Action condition for the open space study area.

Though all of the open space ratios in the study area would be below the City's guidelines, the proposed project would reduce the open space ratios by roughly 1 percent, well below the *CEQR Technical Manual* threshold of a 5 percent reduction in an open space ratio to constitute a significant adverse impact. The open space study area is projected to experience shortfalls in all categories of open space in the No Action condition, but the shortfall would not be substantially increased by the proposed project. Furthermore, residents of the study area and of the proposed

project would have access to several additional open space resources such as Fort Greene Park and Prospect Park near the study area that have not been included in the quantitative assessment but would be available for use. Therefore, the proposed project would not result in significant adverse impacts on open space resources.

DIRECT EFFECTS

As discussed in Attachment D, "Shadows," the proposed project would potentially cast shadow on one open space resource, Gateway Triangle. With the proposed actions, Gateway Triangle would be cast in approximately 40 minutes of new shadow in the mid-morning on the December 21 analysis day. This minimal incremental shadow would neither threaten the viability of vegetation within Gateway Triangle nor substantially reduce its usability; therefore, the proposed actions would not result in a significant adverse shadow impact on this open space resource. Similarly, the proposed actions would not result in any significant adverse impacts to noise or air quality that would affect an open space (see the noise assessment in Page 9a, "Additional Technical Information for EAS Part II" and Attachment H, "Air Quality"). Therefore, the proposed actions would directly impact any open spaces in close proximity to the project area. ✷

Attachment D: Shadows

A. INTRODUCTION

This attachment examines whether the proposed actions would result in a significant adverse shadow impact on any sunlight-sensitive resources. According to the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, sunlight-sensitive resources of concern include public open space, sunlight-dependent features of historic architectural resources, and natural resources that depend on sunlight. A shadow assessment is required for actions that would result in new structures or additions to existing structures at least 50 feet in height or when the structure or addition is located adjacent to a sunlight-sensitive resource.

As discussed in Page 1a of the EAS, "Project Description," with the proposed actions, the proposed project would consist of two separate buildings on the development site: a 29-story tower (Building A) and a 4-story building (Building B). An alternative condition for the future with the proposed project, or the "With Action" condition, (the No Special Permit scenario) has also been evaluated[1]: this scenario features a 19-story tower on Lot 1 (Building A), shorter than the proposed project's 29-story tower, and an 11-story tower on Lot 59 (Building B) (see Figure 11). For purposes of the shadows analysis, the maximum development bulk under the With Action condition and the No Special Permit scenario are considered together (referred to in this attachment as the "Shadow Assessment Scenario"). The Shadow Assessment Scenario combines the tapered, 312-foot height of Building A as envisioned under the With Action condition with the bulkier, non-tapered base of Building A and the adjacent, 125-foot tower of Building B as envisioned under the No Special Permit scenario. Absent the proposed actions (the No Action condition), the existing one-story buildings on the development site would be demolished and the site would be redeveloped with an as-of-right seven-story building (95 feet tall).

As discussed below, the detailed shadow analysis determined that the Shadow Assessment Scenario would result in new shadows on three sunlight-sensitive resources near the development site. This includes one publicly accessible open space (Gateway Triangle) and two historic architectural resources (the Church of St. Luke and St. Matthew, which is on the development site's zoning lot, and Brown Memorial Baptist Church). The analysis determined that development resulting from the proposed actions would not result in substantial new shadows that would significantly alter the public utilization of the affected open space or its ability to support vegetation, and would not substantially reduce the availability of direct sunlight on the affected

[1] As discussed on Page 1a of the EAS, "Project Description," the No Special Permit scenario assumes that, should the proposed special permit expire prior to development, the development site could still be redeveloped with a building that conforms to the R9/C2-5 district regulations. Because the Applicants would not be able to utilize the approximately 70,000 sf of transferred development rights, this building would be smaller than the proposed project; however, the development would feature a different design than the proposed project which would potentially result in different shadows.

historic resources' sunlight-sensitive features. Therefore, the proposed actions would not result in significant adverse shadow impact on any sunlight-sensitive resources.

B. DEFINITIONS AND METHODOLOGY

This analysis has been prepared in accordance with CEQR procedures and follows the guidelines of the *CEQR Technical Manual*.

DEFINITIONS

Incremental shadow is the additional, or new, shadow that a structure resulting from a proposed project would cast on a sunlight-sensitive resource.

Sunlight-sensitive resources are those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity. Such resources generally include:

- *Public open space* such as parks, beaches, playgrounds, plazas, schoolyards (if open to the public during non-school hours), greenways, and landscaped medians with seating. Planted areas within unused portions of roadbeds that are part of the Greenstreets program are also considered sunlight-sensitive resources.
- *Features of architectural resources that depend on sunlight for their enjoyment by the public*. Only the sunlight-sensitive features need be considered, as opposed to the entire resource. Such sunlight-sensitive features might include design elements that depend on the contrast between light and dark (e.g., recessed balconies, arcades, deep window reveals); elaborate, highly carved ornamentation; stained glass windows; historic landscapes and scenic landmarks; and features for which the effect of direct sunlight is described as playing a significant role in the structure's importance as a historic landmark.
- *Natural resources* where the introduction of shadows could alter the resource's condition or microclimate. Such resources could include surface waterbodies, wetlands, or designated resources such as coastal fish and wildlife habitats.

Non-sunlight-sensitive resources include, for the purposes of CEQR:

- *City streets and sidewalks* (except Greenstreets);
- *Private open space* (e.g., front and back yards, stoops, vacant lots, and any private, non-publicly accessible open space);
- *Project-generated open space* cannot experience a significant adverse shadow impact from the project, according to CEQR, because without the project the open space would not exist.

A significant adverse shadow impact occurs when the incremental shadow added by a proposed project falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other resources. Each case must be considered on its own merits based on the extent and duration of new shadow and an analysis of the resource's sensitivity to reduced sunlight.

METHODOLOGY

Following the guidelines of the *CEQR Technical Manual*, a preliminary screening assessment is first conducted to ascertain whether a project's shadow could reach any sunlight-sensitive resources at any time of year. The preliminary screening assessment consists of three tiers of analysis. The first tier

determines a simple radius around the development site representing the longest shadow that could be cast. If there are sunlight-sensitive resources within this radius, the analysis proceeds to the second tier, which reduces the area that could be affected by project-generated shadow by accounting for the fact that shadows can never be cast between a certain range of angles south of the development site due to the path of the sun through the sky at the latitude of New York City.

If the second tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a third tier of screening analysis further refines the area that could be reached by project-generated shadow by looking at specific representative days in each season and determining the maximum extent of shadow over the course of each representative day.

If the third tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a detailed shadow analysis is required to determine the extent and duration of the incremental shadow resulting from the proposed project. The detailed analysis provides the data needed to assess the shadow impacts. The effects of the new shadows on the sunlight-sensitive resources are described, and their degree of significance is considered. The results of the analysis and assessment are documented with graphics, a table of incremental shadow durations, and narrative text.

To ensure a conservative analysis, the maximum development bulk that could be developed on the development site as a result of the proposed actions was used. This scenario combines the proposed project's design with the maximum zoning envelope that would be possible with the proposed rezoning (as represented by the No Special Permit scenario). For purposes of the shadows analysis, the maximum development bulk under the two scenarios are considered together (the Shadow Assessment Scenario); this scenario features both a 312-foot tower on the western side of the development site (Building A) and a 125-foot-tower on the eastern side of the development site (Building B). The *CEQR Technical Manual* requires the shadow assessment to account for shadow cast by rooftop mechanical equipment. The Shadow Assessment Scenario includes 25 feet of mechanical equipment on top of the taller tower for a total maximum height of 337 feet. This scenario is larger in terms of massing and tower location than what could ultimately be built on the development site, since the amount of floor area permitted is not sufficient to fill out the combined envelope, and it consequently would cast larger shadows than what would be cast by the actual development pursuant to the proposed actions.

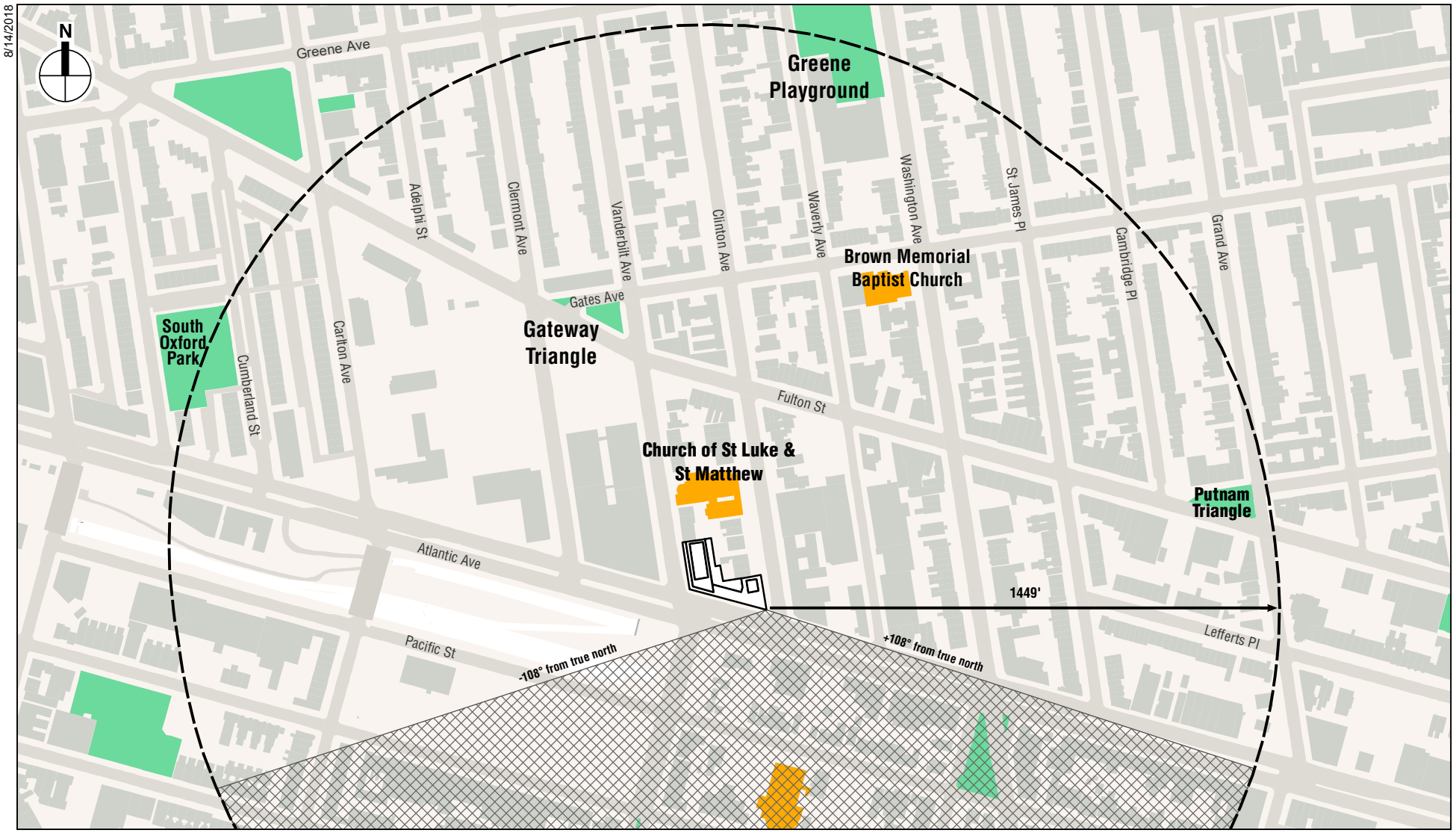
C. PRELIMINARY SCREENING ASSESSMENT

A base map was developed using Geographic Information Systems (GIS)[2] showing the location of the proposed project and the surrounding street layout (see **Figure D-1**). In coordination with the land use and historic and cultural resources assessments presented in other attachments of this EAS, potential sunlight-sensitive resources were identified and shown on the map.

TIER 1 SCREENING ASSESSMENT

For the Tier 1 assessment, the longest shadow that the proposed project could cast was calculated, and, using this length as the radius, a perimeter was drawn around the development site. Anything outside this perimeter representing the longest possible shadow could never be affected by project-generated shadow, while anything inside the perimeter needs additional assessment. According to the *CEQR Technical Manual*, the longest shadow that a structure can cast at the latitude of New

[2] Software: Esri ArcGIS 10.3; Data: New York City Department of Information Technology and Telecommunications (DoITT) and other City agencies, and AKRF site visits.



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Tier 1 and Tier 2 Assessments

Figure D-1

York City occurs on December 21, the winter solstice, at the start of the analysis day at 8:51 AM, and is equal to 4.3 times the height of the structure.

PROPOSED PROJECT

The structure developed under the Shadow Assessment Scenario would rise to a maximum height of 337 feet (including mechanical space) above street level and would produce shadows up to 1,449 feet long. Using this length as the radius, a perimeter was drawn around the development site (see **Figure D-1**). Two historic architectural resources with sunlight-sensitive features (the Church of St. Luke and St. Matthew and Brown Memorial Baptist Church) and four publicly accessible open spaces (South Oxford Park, Gateway Triangle, Putnam Triangle, and Greene Playground) are located within the longest shadow study area. Therefore, a Tier 2 assessment is required.

TIER 2 SCREENING ASSESSMENT

Because of the path that the sun travels across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City, this area lies between -108 and +108 degrees from true north. **Figure D-1** illustrates this triangular area south of the development site. The complementing area to the north within the longest shadow study areas represents the remaining area that could potentially experience new shadow from the proposed project. As illustrated in **Figure D-1,** the two architectural resources with sunlight-sensitive features and four sunlight-sensitive open space resources noted above were identified by the Tier 2 study. A Tier 3 assessment was required to model new shadows on these resources on specific representative days of the year.

TIER 3 SCREENING ASSESSMENT

The direction and length of shadows vary throughout the course of the day and also differ depending on the season. Shadows move constantly but more quickly at the start and the end of the day than they do in the middle of the day. In order to determine whether project-generated shadow could fall on a sunlight-sensitive resource, three-dimensional computer mapping software is used in the Tier 3 assessment to calculate and display the incremental shadows from the Shadow Analysis Scenario. A computer model was developed containing three-dimensional representations of the elements in the base map used in the preceding assessments, the topographic information of the study area, and the massing of the Shadow Assessment Scenario building.

REPRESENTATIVE DAYS FOR ANALYSIS

Following the guidance of the *CEQR Technical Manual*, shadows on the summer solstice (June 21), winter solstice (December 21), and spring and fall equinoxes (March 21 and September 21, which are approximately the same in terms of shadow patterns) are modeled, to represent the range of shadows over the course of the year. An additional representative day during the growing season is also modeled, the day halfway between the summer solstice and the equinoxes, i.e., May 6 or August 6, which have approximately the same shadow patterns.

TIMEFRAME WINDOW OF ANALYSIS

The shadow assessment considers shadows occurring between 90 minutes after sunrise and 90 minutes before sunset. Within the 90 minutes after sunrise and the 90 minutes before sunset, the sun is low on the horizon, and its rays reach the vicinity of the development site at low angles, producing shadows that are very long, move fast, and generally blend with shadows from existing structures

until the sun reaches the horizon and sets. Consequently, shadows occurring in these two 90-minute periods are not considered significant under CEQR, and their assessment is not required.

TIER 3 SCREENING ASSESSMENT RESULTS

Figures D-2a and D-2b illustrate the range of shadows that would occur (in the absence of intervening buildings), from the Shadow Assessment Scenario on the four representative analysis days. The extent of shadow is shown between the start of the analysis day (90 minutes after sunrise) and the end of the analysis day (90 minutes before sunset).The Tier 3 assessment finds the shadows of the Shadow Assessment Scenario would reach both of the historic architectural resources, and one of the open space resources. The Tier 3 assessment finds that, in the absence of intervening buildings, the Shadow Assessment Scenario would cast new shadow on Gateway Triangle and Brown Memorial Baptist Church (which may contain sunlight-sensitive features facing the development site, discussed below) on December 21. The sunlight-sensitive architectural features of the Church of St. Luke and St. Matthew (described in detail below) would be cast in new shadow from the Shadow Assessment Scenario on all analysis days. Therefore, the extent and duration of incremental shadows originating from the Shadow Assessment Scenario on all resources identified in the Tier 3 assessment were determined with a detailed shadow analysis.

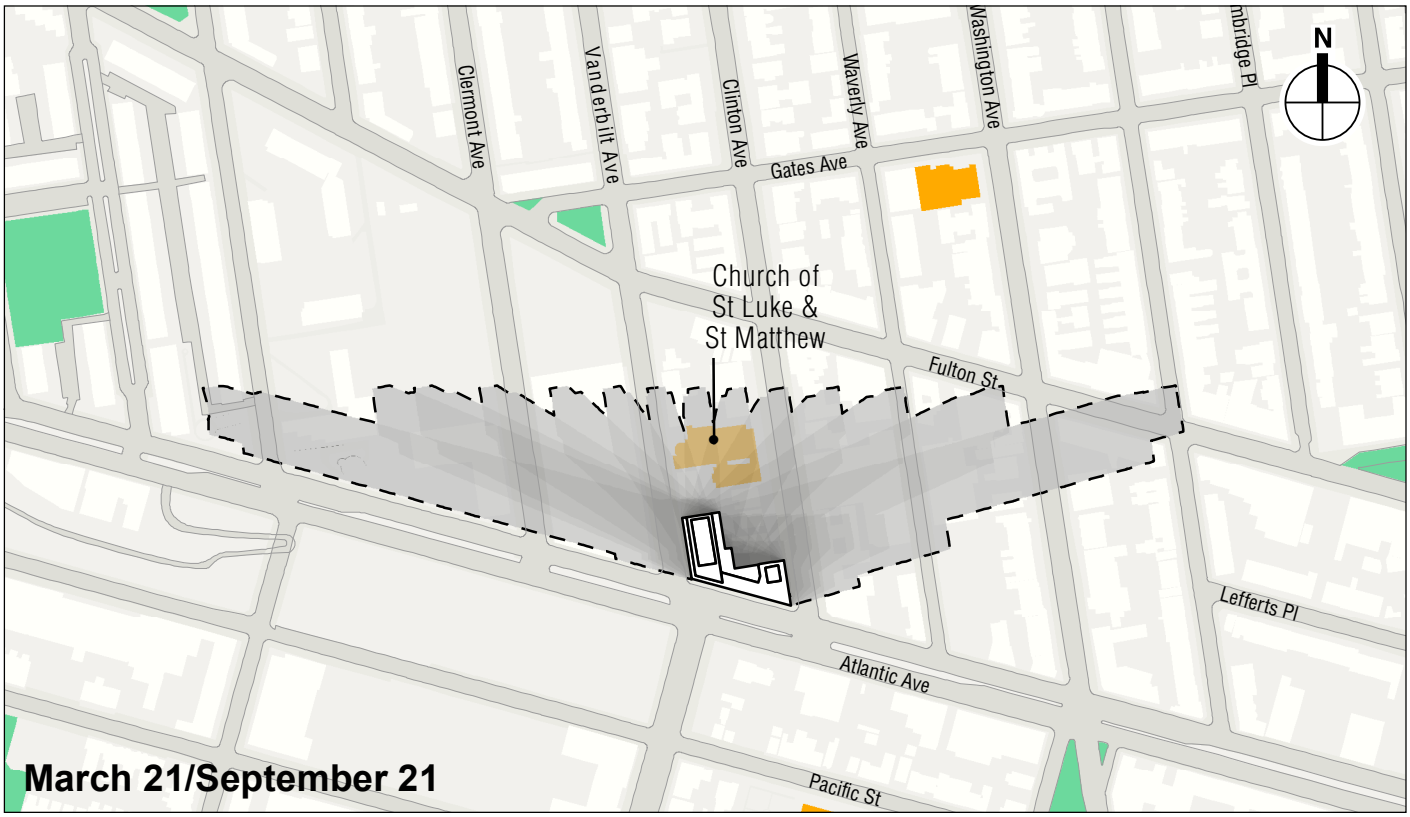
D. DETAILED ANALYSIS

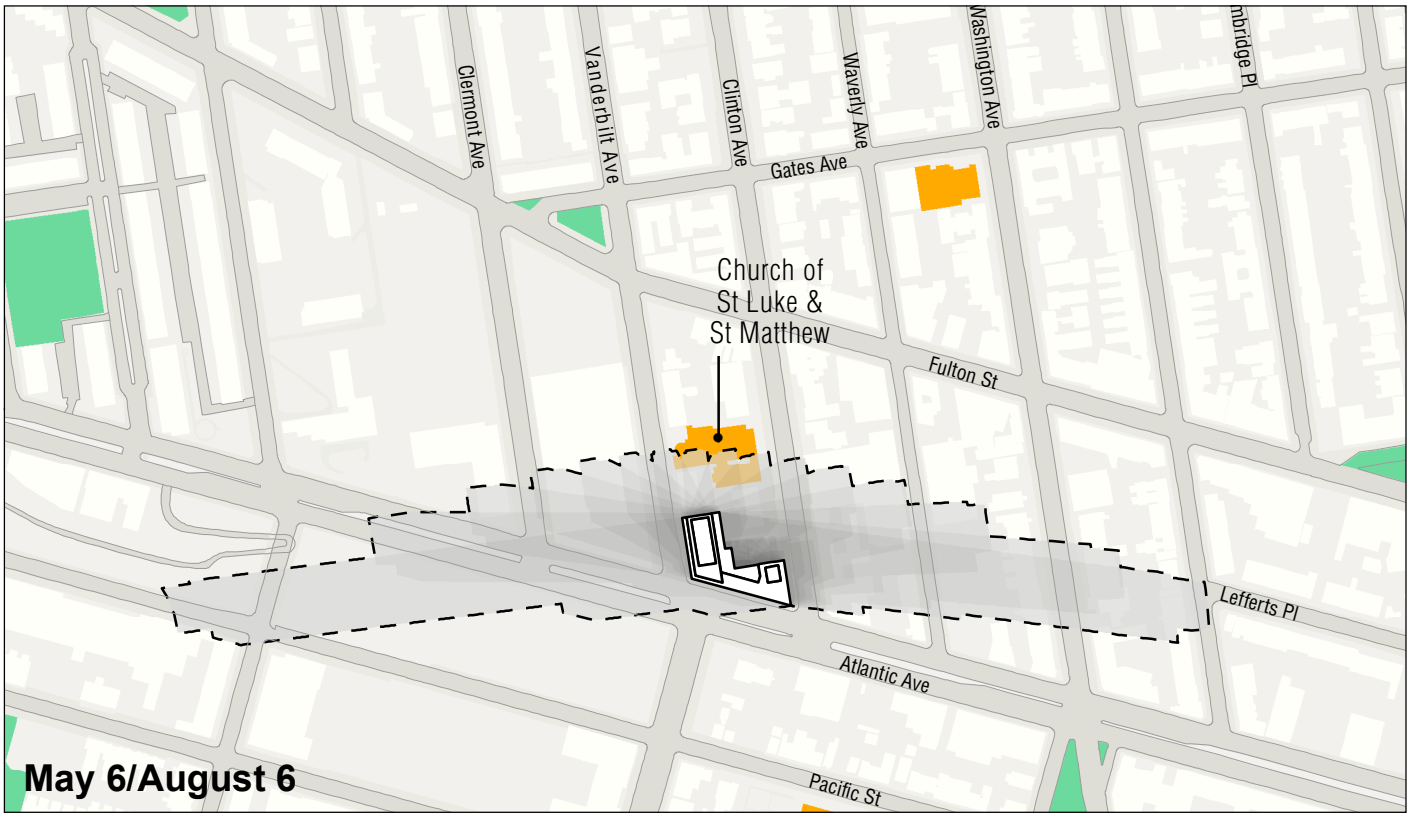
The purpose of the detailed shadow analysis is to determine the extent and duration of *incremental* shadows that would fall on the sunlight-sensitive resources identified in the Tier 3 assessment. To complete the analysis, three-dimensional representations of the existing buildings, relative planned future developments, and the anticipated structure occupying the development site absent the proposed actions (the No Action development) are appended to the Tier 3 assessment model. The shadows cast in the No Action condition can then be compared with those cast in the Shadow Assessment Scenario.

As documented in the EAS, absent the proposed actions, the development site would be occupied with an as-of-right 95-foot-tall structure. Similar to the proposed project, the base of the No Action development would occupy the majority of the development site; however, the No Action development's base would extend up to the sixth floor (74 feet tall), compared to the shorter four-story base (52 feet tall) of the proposed project. The seventh floor of the No Action development would also occupy a majority of the site, set back from the street frontages; unlike the proposed project, there would be no narrow towers. Also, in the No Action condition, independent of the proposed project, there would be a new seven-story development at 532 Clinton Avenue (see Attachment A, "Land Use, Zoning, and Public Policy"). This project is on the project block between the development site and the Church of St. Luke and St. Matthew, and a small portion of the lot is within the proposed rezoning area. This project and other identified developments in the area expected to be complete by the analysis year (2021) were modeled with information collected primarily from Zoning Diagrams provided by New York City Department of Buildings (DOB).

ANALYSIS RESULTS

The detailed shadow analysis finds that the Shadow Assessment Scenario would result in incremental shadow on Gateway Triangle, the sunlight-sensitive features of Brown Memorial Baptist Church, and the sunlight-sensitive features of the Church of St. Luke and St. Matthew. **Table D-1** shows the entry and exit times and total duration of incremental shadow originating from the Shadow Assessment Scenario on the affected resources.





Development Site

Tier 3 Shadow Extent

Historic Resources w/ Potentially Sunlight Sensitive Features

Sunlight Sensitive Open Space Resources

Notes:
1. Daylight Saving Time not used.
2. Shadows are shown occurring at approximately one hour intervals from the start of the analysis day (one and a half hours after sunrise) to the end of the analysis day (one and a half hours before sunset). The Tier 3 assessment serves to illustrate the daily path or "sweep" of the proposed project's shadow across the landscape, without accounting for any existing buildings and their shadows.

0 300FEET

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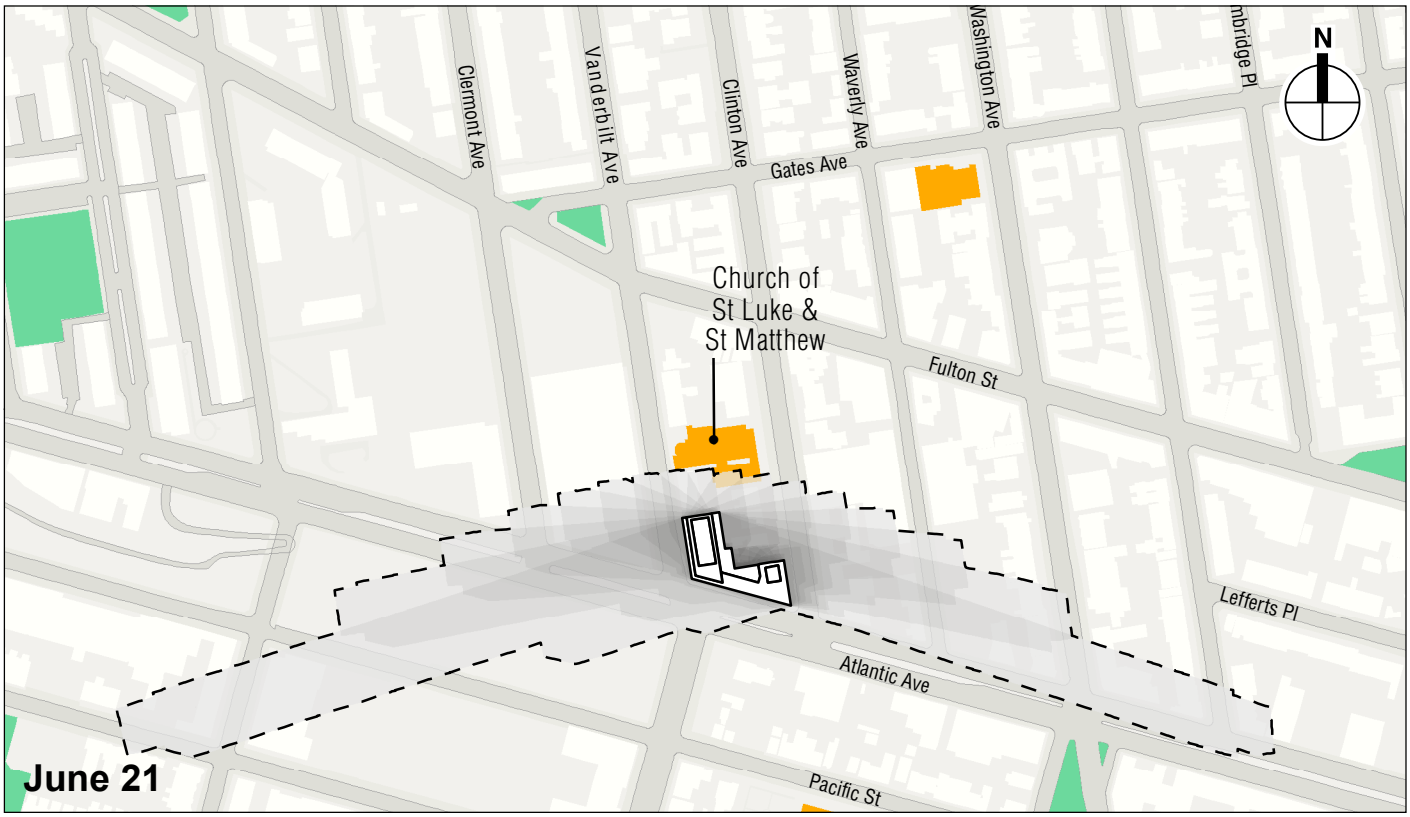
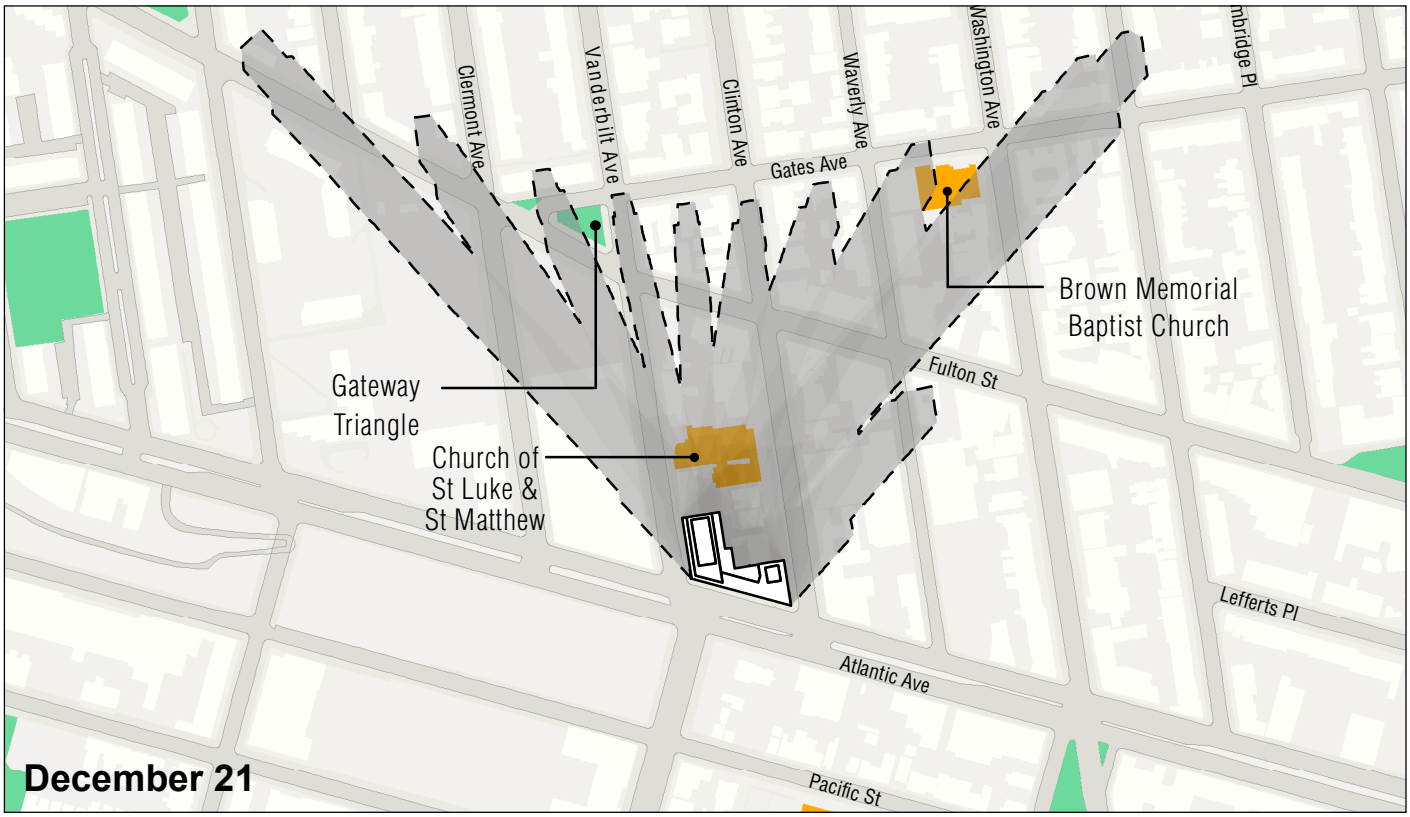
Tier 3 Assessment
Figure D-2a





Development Site

Tier 3 Shadow Extent

Historic Resources w/ Potentially Sunlight Sensitive Features

Sunlight Sensitive Open Space Resources

Notes:
1. Daylight Saving Time not used.
2. Shadows are shown occurring at approximately one hour intervals from the start of the analysis day (one and a half hours after sunrise) to the end of the analysis day (one and a half hours before sunset). The Tier 3 assessment serves to illustrate the daily path or "sweep" of the proposed project's shadow across the landscape, without accounting for any existing buildings and their shadows.

0 300 FEET

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Tier 3 Assessment
Figure D-2b

Table D-1
Incremental Shadow Durations (Shadow Assessment Scenario)

Analysis day and timeframe window	March 21 / Sept. 21 7:36 AM–4:29 PM	May 6 / August 6 6:27 AM–5:18 PM	June 21 5:57 AM–6:01 PM	December 21 8:51 AM–2:53 PM
Gateway Triangle	—	—	—	10:15 AM–10:55 AM Total: 0 hr 40 min
Brown Memorial Baptist Church	—	—	—	2:00 PM-2:45 PM Total: 0 hr 45 min
Church of St. Luke and St. Matthew				
Church transept windows	11:15 AM–1:15 PM Total: 2 hr 00 min	11:30 AM–12:40 PM Total: 1 hr 10 min	—	9:00 AM–12:15PM Total: 3 hr 15 min
Church clerestory windows	12:05 PM–2:00PM Total:1 hr 55 min	—	—	11:45 AM–2:55 PM Total: 3 hr 10 min
Rectory arch windows	11:55 AM–2:45PM Total: 2 hr 50 min	11:55 AM–1:45 PM Total: 1 hr 50 min	12:00 PM–1:30 PM Total: 1 hr 30 min	10:00 AM–1:00 PM Total: 3 hr 0 min

Notes:
Table indicates entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource.
Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add 1 hour to the given times to determine the actual clock time.

Figures D-3 through D-11 illustrate the placement and geographic extent of new shadow at specific times during the analysis days. The area of the resource affected by incremental shadow is outlined in red. Below is a description of the resources and the duration and extent of incremental shadow.

AFFECTED RESOURCES

GATEWAY TRIANGLE

Gateway Triangle is a 0.07-acre public open space operated by the New York City Department of Parks and Recreation (NYC Parks) located on the triangular block formed by the intersection of Gates Avenue, Fulton Street, and Vanderbilt Avenue. The sunlight-sensitive features of the open space are its fenced-in landscaped area with trees and its benches.

With the proposed actions, the Gateway Triangle would be cast in incremental shadow on 1 of 4 analysis days (see **Figure D-3**). On December 21, Gateway Triangle would be cast in approximately 40 minutes of new shadow in the mid-morning (between 10 AM and 11 AM). During this approximately 40-minute period, new shadow would partially cover the trees, landscaping, and benches located in the affected areas of the resource.

Determination of Significance

Incremental shadow cast by the Shadow Assessment Scenario would fall on the Gateway Triangle on December 21. New shadow cast in December would fall outside of the growing season and would not affect the resource's vegetation. All new shadow would fall mid-morning, when park use would be lower than average, and all of the affected areas of the open space supporting sunlight-sensitive passive uses would be in direct sunlight for almost all of the remaining analysis day. Therefore, incremental shadow resulting from the proposed actions would neither threaten the viability of vegetation within the Gateway Triangle nor substantially reduce its usability, and the proposed actions would not result in a significant adverse shadow impact on this resource.



Detailed Shadow Analysis
Gateway Triangle

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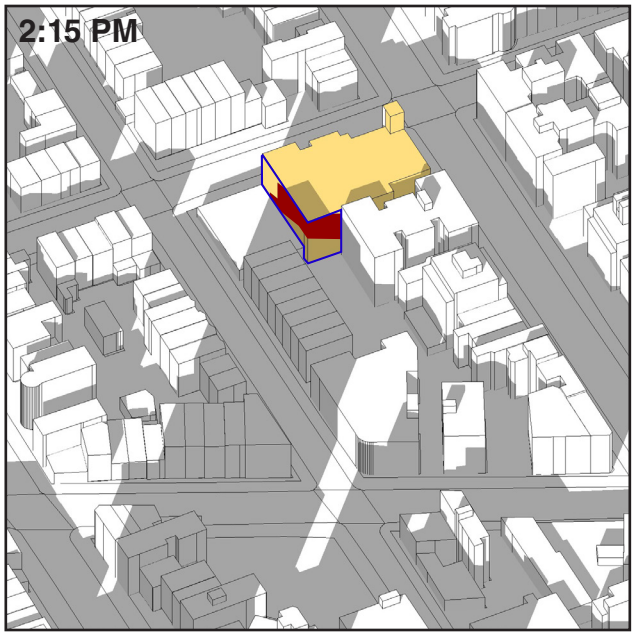
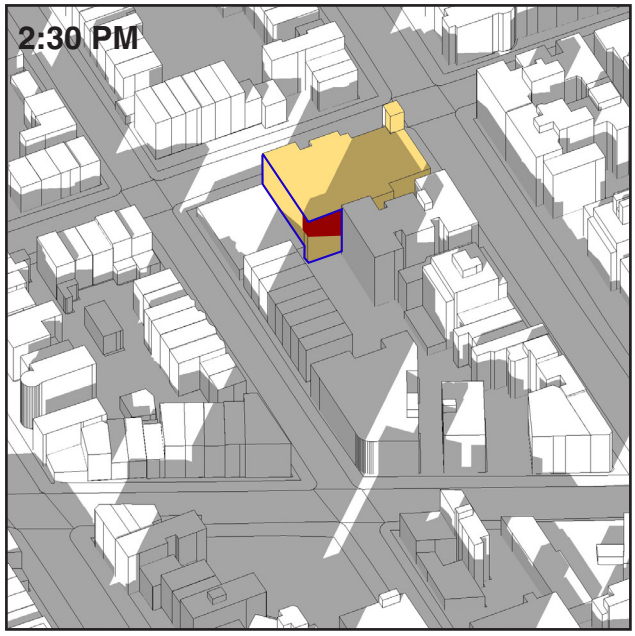
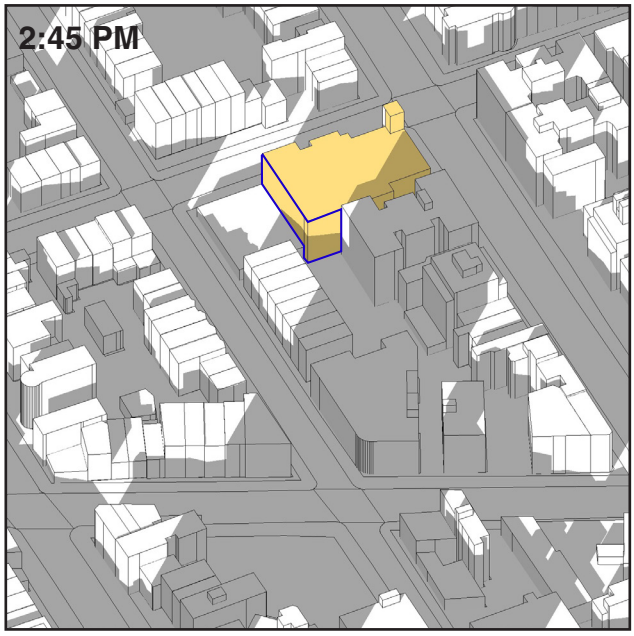
Figure D-3









Facades with Sunlight-Sensitive Resources

Incremental With Action Shadow on Resource

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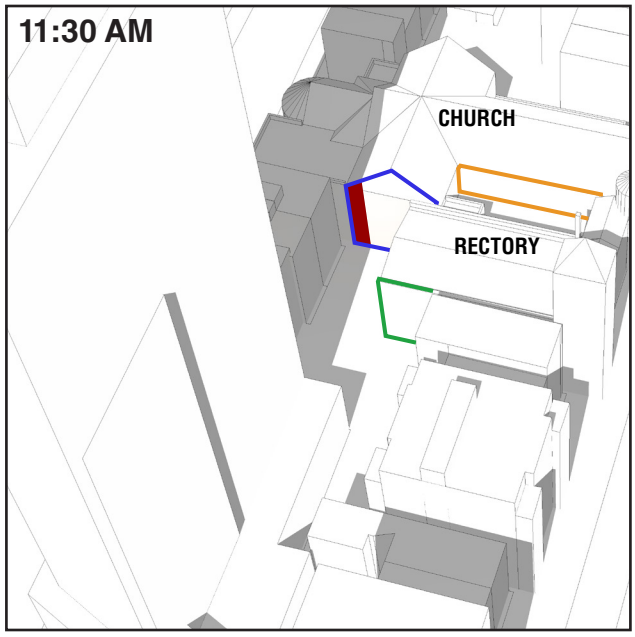
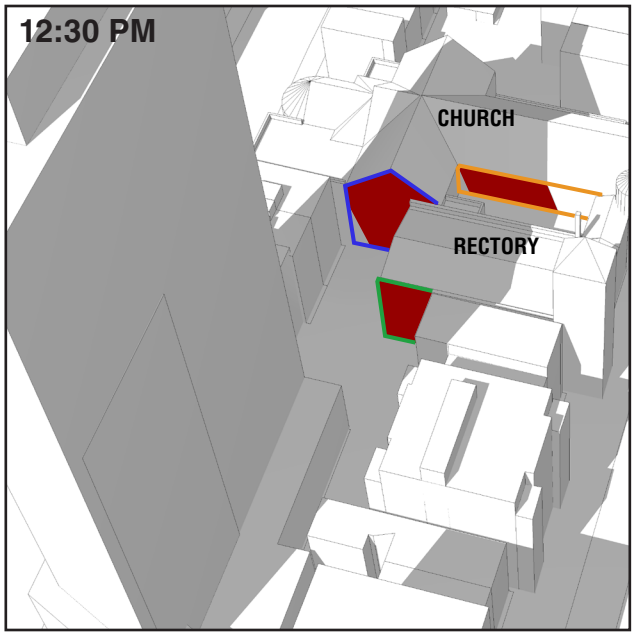
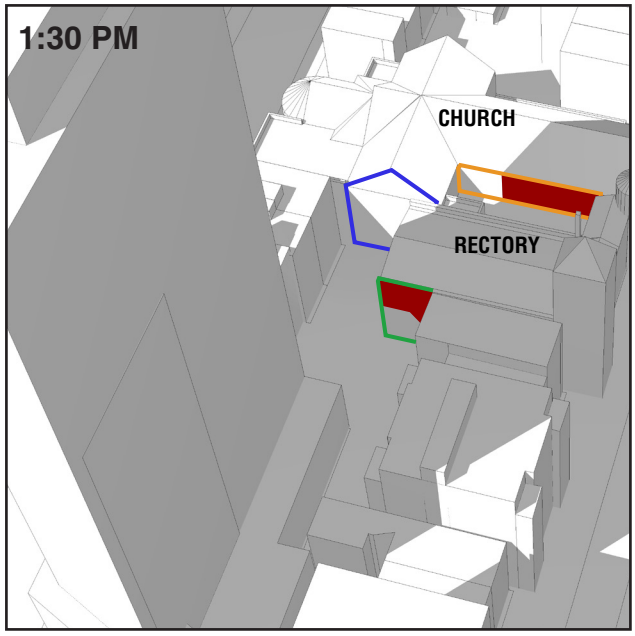
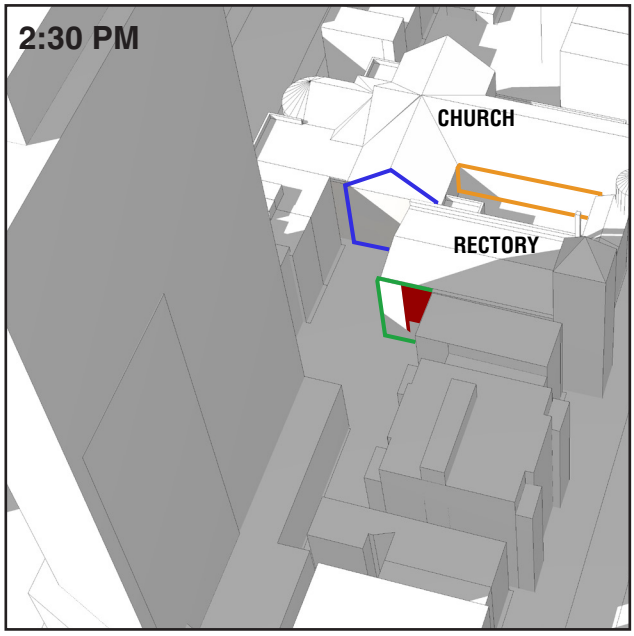
Detailed Shadow Analysis
Brown Memorial Baptist Church
December 21

Figure D-4









Church transept windows

Church clerestory windows

Rectory arch windows

Incremental With Action Shadow on Resource

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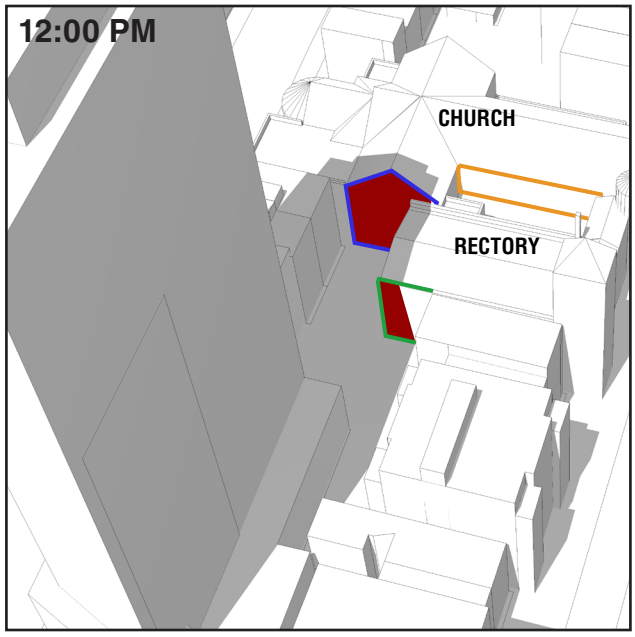
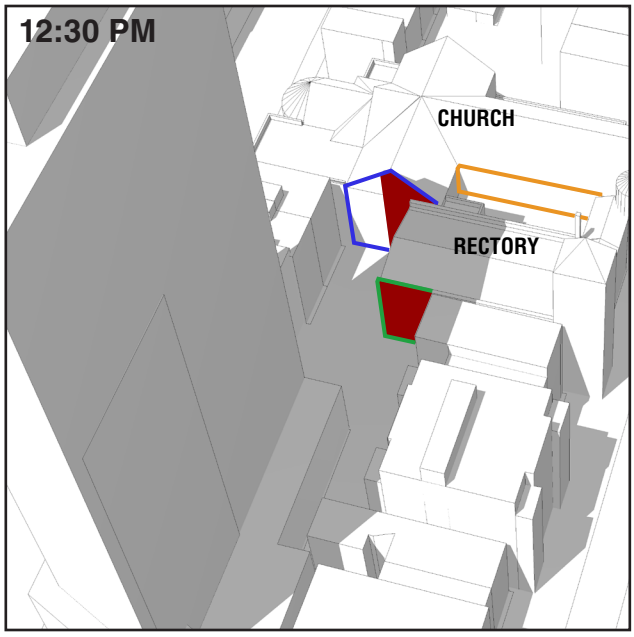
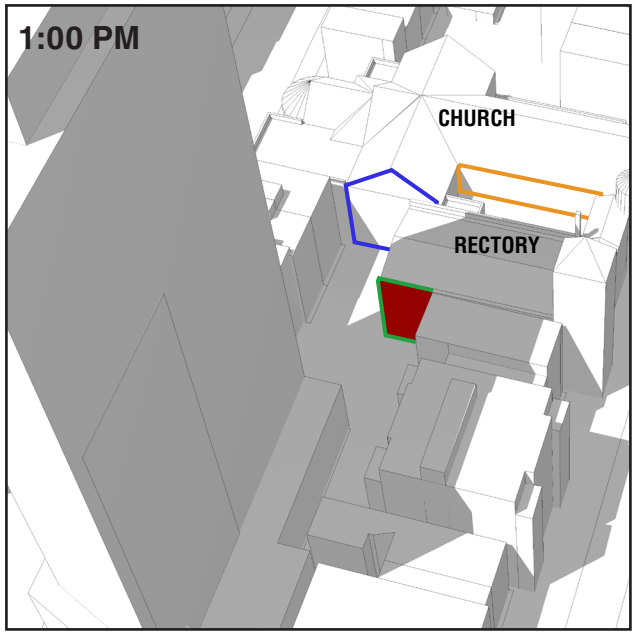
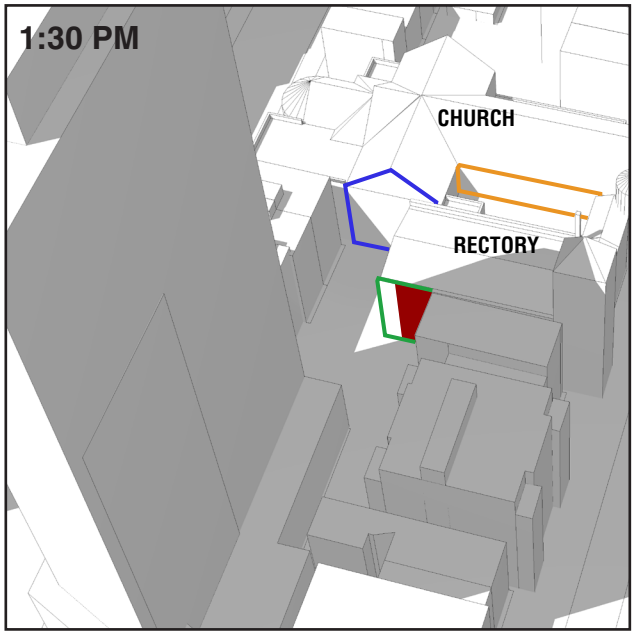
Detailed Shadow Analysis
Church of St. Luke and St. Matthew
March 21/September 21

Figure D-5









Church transept windows

Church clerestory windows

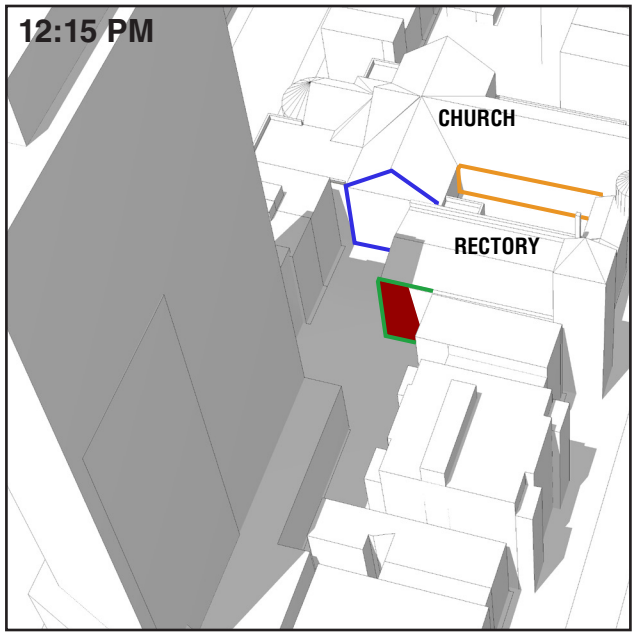
Rectory arch windows

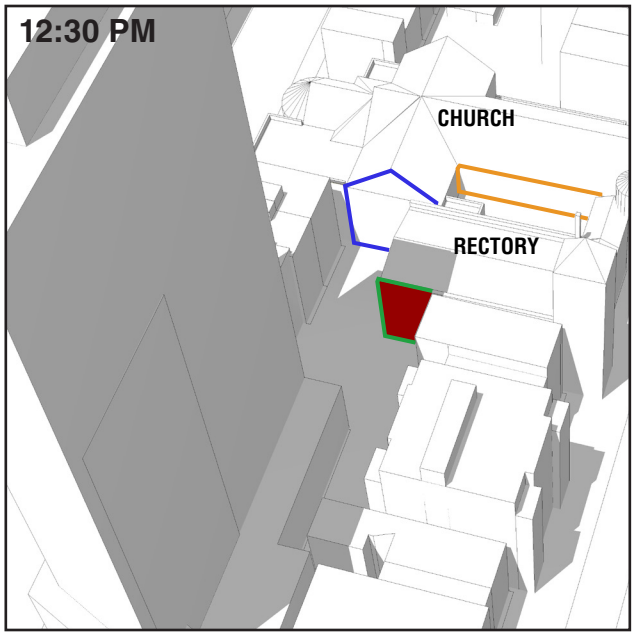
Incremental With Action Shadow on Resource

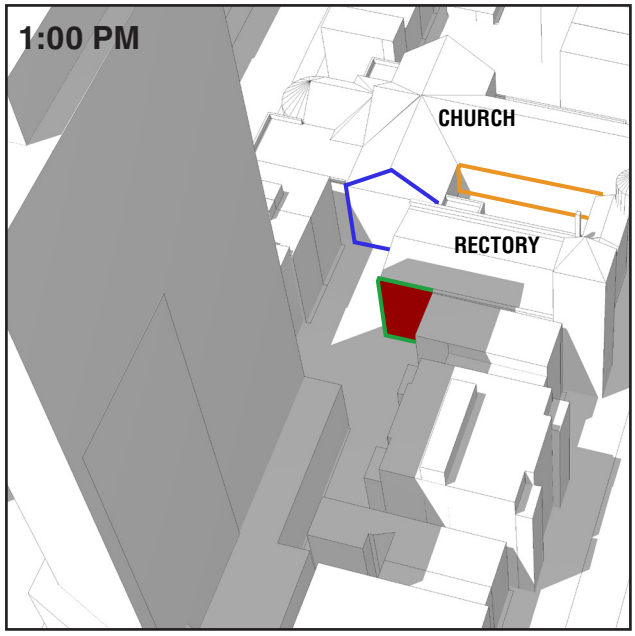
809 ATLANTIC AVENUE

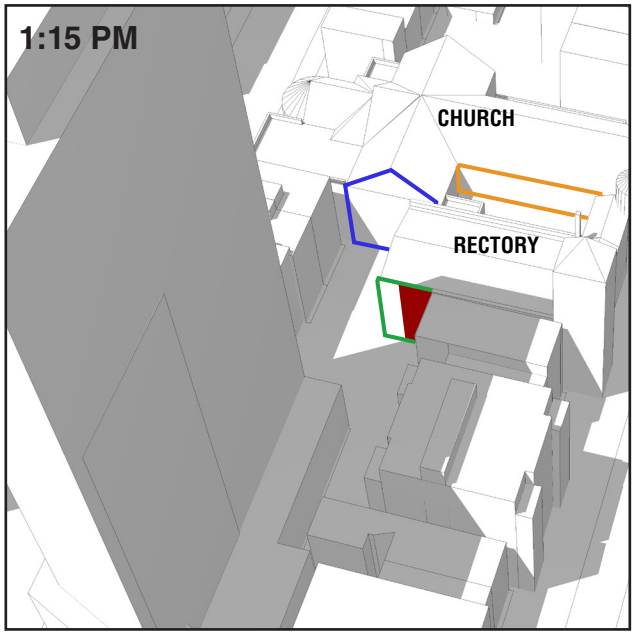
Detailed Shadow Analysis
Church of St. Luke and St. Matthew
May 6/August 6

Figure D-6









Church transept windows

Church clerestory windows

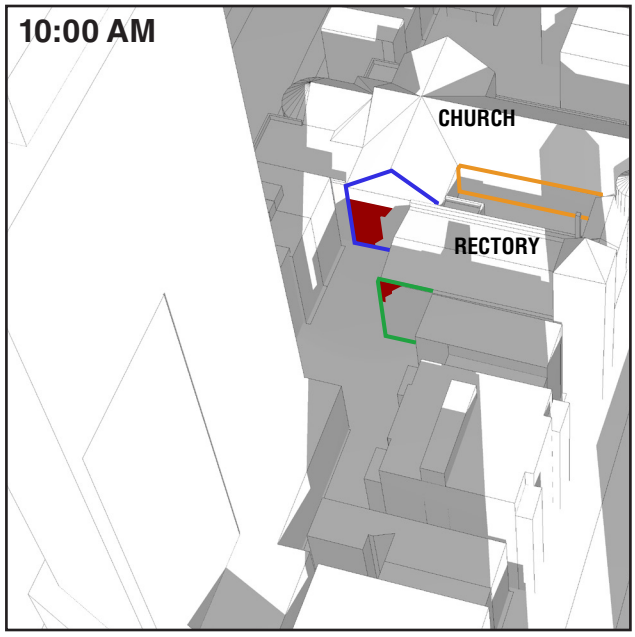
Rectory arch windows

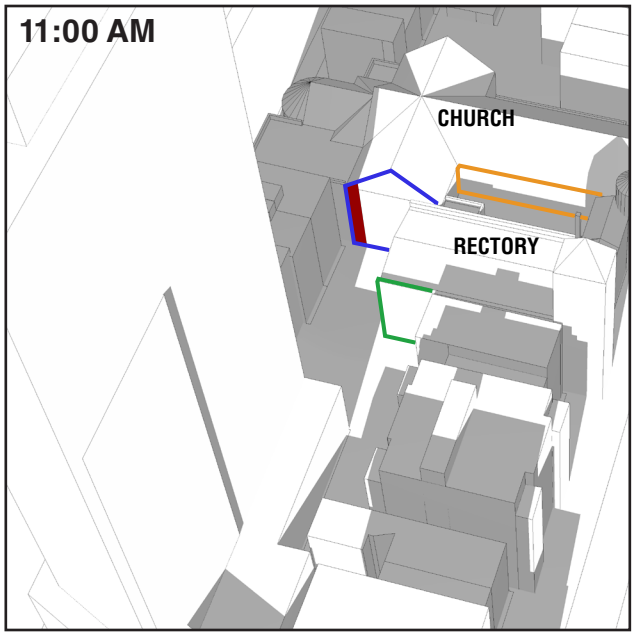
Incremental With Action Shadow on Resource

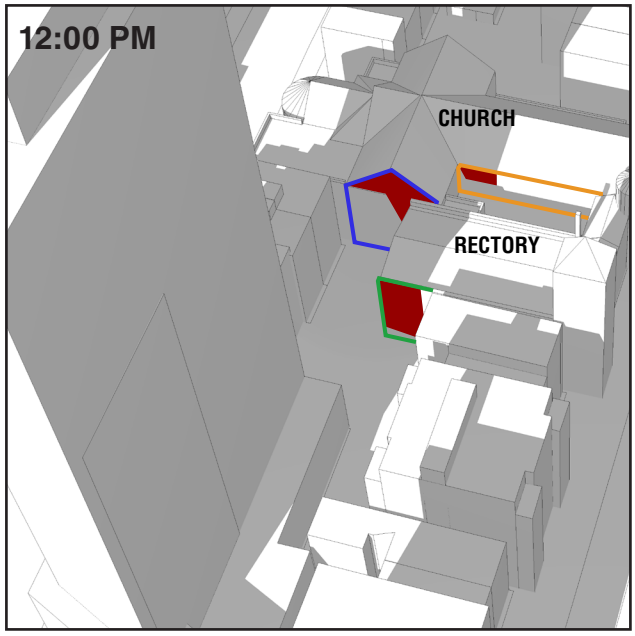
809 ATLANTIC AVENUE

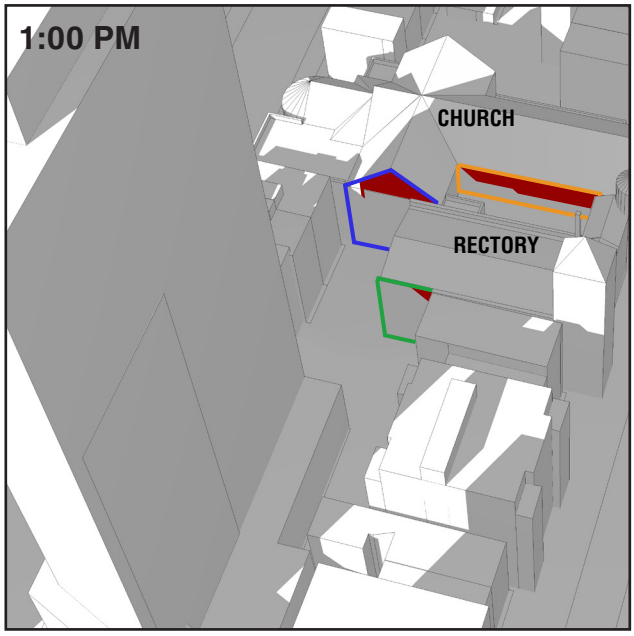
Detailed Shadow Analysis
Church of St. Luke and St. Matthew
June 21

Figure D-7









Church transept windows

Church clerestory windows

Rectory arch windows

Incremental With Action Shadow on Resource

809 ATLANTIC AVENUE

Detailed Shadow Analysis
Church of St. Luke and St. Matthew
December 21

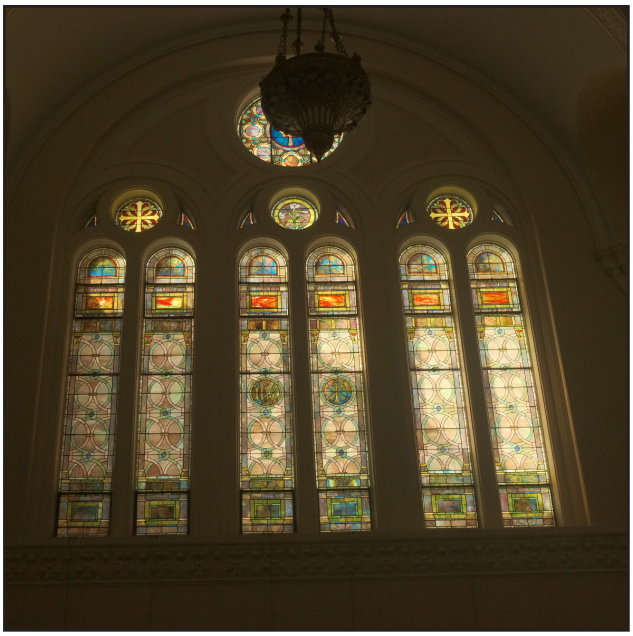
Figure D-8



source: Google Earth

View of the Church of St. Luke and St. Matthew

Church Transept Windows



Interior photos of Church Transept Windows



Church of St. Luke and St. Matthew — Church Transept Windows

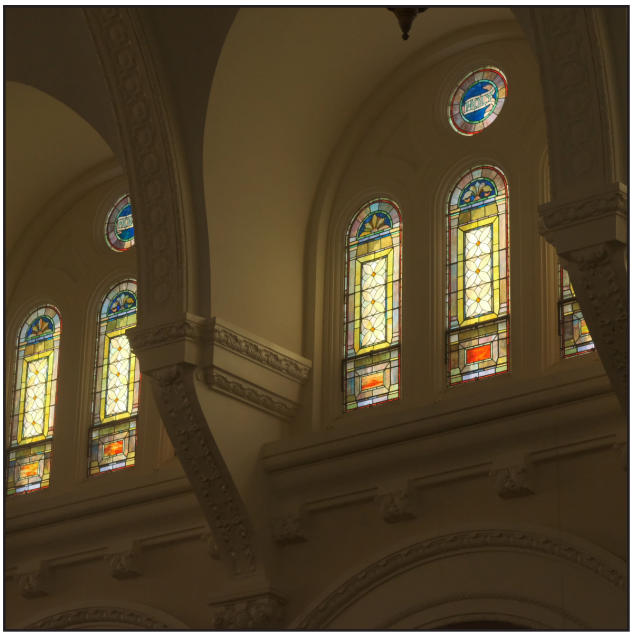
Figure D-9



source: Google Earth

View of the Church of St. Luke and St. Matthew

Church Clerestory Windows





Interior photos of Church Clerestory Windows

Church of St. Luke and St. Matthew — Church Clerestory Windows



source: Google Earth

View of the Church of St. Luke and St. Matthew

Rectory Arch Windows





Interior photos of Rectory Arch Windows

Church of St. Luke and St. Matthew — Rectory Arch Windows

BROWN MEMORIAL BAPTIST CHURCH

Brown Memorial Baptist Church is a historic architectural resource located on the south side of Gates Avenue between Waverly and Washington Avenues. The church is a listed resource within the Clinton Hill Historic District (S/NR-listed; NYCHD). The church's façades along Gates and Washington Avenues feature stained glass windows; the south and west façades of the main church building, which face the development site, may also contain stained glass windows. Therefore, a detailed analysis was performed to determine if the Shadow Assessment Scenario would cast substantial shadow on these façades.

With the proposed actions, Brown Memorial Baptist Church would be cast in incremental shadow on 1 of 4 analysis days (see **Figure D-4**). On December 21, the sunlight-sensitive features of Brown Memorial Baptist Church would be cast in approximately 45 minutes of new shadow, from approximately 2 PM to the end of the analysis day.

Determination of Significance

In the With Action condition, incremental shadow cast by the Shadow Assessment Scenario would fall on Brown Memorial Baptist Church on December 21. In this condition, the affected windows would be cast in direct sunlight for over half of the December 21 analysis day timeframe. The new shadow cast on these windows in the winter would not significantly diminish the amount of direct sunlight that they receive beyond that available to them in the No Action condition. The building modeled in the Shadow Assessment Scenario would not significantly alter the public's enjoyment of the sunlight-sensitive features of the church; therefore, with the proposed actions, the church would not experience a significant adverse shadow impact.

CHURCH OF ST. LUKE AND ST. MATTHEW

The Church of St. Luke and St. Matthew is located north of the development site at 520 Clinton Avenue on a through-block site with frontages on Clinton and Vanderbilt Avenues. The Romanesque Revival-style church was designated as a NYCL in 1981 and listed on the S/NR in 1982. Sunlight-sensitive features for the church include stained glass windows on both the front and back of the building on Clinton Avenue and Vanderbilt Avenue, respectively. In particular, there are stained glass arched windows on the south-facing façade of the church transept, stained glass arched windows and stained glass ox's eye windows on the church's south-facing clerestory, and stained glass arched windows on the south-facing façade of the church's rectory. A detailed analysis was performed to determine the project-generated shadows that would be cast on each of these sunlight-sensitive windows (see **Figures D-5 through D-8)**.

South Transept Stained Glass

With the proposed actions, the stained glass windows of the church's south transept (see **Figure D-9**) would be cast in incremental shadow on 3 of 4 analysis days. The duration of the incremental shadow would be approximately 1 to 3 hours. On December 21, as in the No Action condition, the stained glass windows of the church's south transept would receive little direct sunlight throughout the analysis day. Although all windows on the south-facing transept would receive at least 20 minutes of direct sunlight, none of the windows would receive more than 1 hour of direct sunlight under the With Action condition. By March 21/September 21, the windows would receive considerably more direct sunlight, with some window areas receiving up to 5 hours of sunlight. The proposed actions would cast no new shadow on these windows from mid-spring through mid-summer, and some window areas would receive over 8 hours of direct sunlight on the longest days of the year.

Clerestory Windows

With the proposed actions, the church's clerestory windows (see **Figure D-10**) would be cast in incremental shadow on 2 of 4 analysis days. The duration of the incremental shadow would be approximately 2 to 3 hours. On December 21, in the With Action condition, when there are only 6 hours of sunlight (roughly 9 AM to 3 PM), the top tier of the of the main church building's south-facing ox's eye clerestory windows would be in direct sunlight for between approximately 2 hours and 3 hours and 15 minutes. As in the No Action condition, the lower tier of arched clerestory windows would receive no direct sunlight. On March 21/September 21, most of the these same clerestory windows would continue to receive over 5 hours and 30 minutes of direct sunlight, and all of the clerestory windows would receive direct sunlight for over 2 hours. During spring and summer, incremental shadow from the Shadow Assessment Scenario would never reach either tier of the clerestory windows, and almost all of the clerestory windows would receive over 6 hours of direct sunlight per day, with some of them receiving up to 10 hours a day of sun on the longest days of the year.

Rectory Stained Glass

With the proposed actions, the church's rectory stained glass windows (see **Figure D-11**) would be cast in incremental shadow on all analysis days. The duration of the incremental shadow would be approximately 1.5 to 3 hours. Through the fall and winter, the stained glass windows located on the south-facing façade of the rectory would all receive approximately 1 to 2 hours of direct sunlight, which, for most of the stained glass windows, would be approximately 1 hour less of direct sun than the windows would receive in the No Action condition. By mid-spring, all of the rectory's stained glass windows would receive at least 3 hours of direct sunlight; by June 21, the minimum amount of direct sunlight received by these windows would increase to 4 hours, with some areas of the windows receiving over 8 hours of direct sunlight.

Determination of Significance

With the Shadow Assessment Scenario, some of the sunlight-sensitive stained glass windows of the Church of St. Luke and St. Matthew would receive less direct sunlight. From mid-spring through the summer season, these windows would receive direct sunlight for long periods. The new shadow cast on these windows in the fall and winter would not significantly diminish the amount of direct sunlight that they receive beyond that available to them in the No Action condition. The building modeled in the Shadow Assessment Scenario would not significantly alter the public's enjoyment of the sunlight-sensitive features of the church; therefore, with the proposed actions, the church would not experience a significant adverse shadow impact. ✷

A. INTRODUCTION

This attachment assesses the potential impacts of the proposed actions on historic and cultural resources, including both archaeological and architectural resources. The proposed actions would facilitate the development of an approximately 277,500 gross square foot (gsf) mixed-use development (the "proposed project") at 809 Atlantic Avenue (Block 2010, Lots 1 and 59, the "development site") in the Clinton Hill neighborhood of Brooklyn. The proposed project would contain approximately 25,000 gsf of retail, approximately 20,000 gsf of office use, and approximately 233,000 gsf of residential use. For the purposes of this assessment, the project zoning lot, which includes the development site and the adjacent properties (Block 2010, Lots 10, 51, 1001-1010 [f/k/a Lots 7 and 8], and 1101-1118 [f/k/a Lot 5]), and portions of adjacent properties that are within the proposed rezoning area (Lots 53, 56, 57, and 58) are referred to as the project area. The project zoning lot includes the Church of St. Luke and St. Matthew (Lot 10), a New York City Landmark (NYCL) that is also listed on the State and National Registers of Historic Places (S/NR). The adjacent lots in the project zoning lot would transfer development rights to the development site, but would not be redeveloped as a result of the proposed actions. Similarly, the proposed actions would not facilitate new or different development on the other lots within the propose rezoning area (Lots 53, 56, 57, and 58). The proposed rezoning area includes a portion of the Clinton Avenue Historic District, which has been determined eligible for S/NR listing.

The analysis describes existing conditions and evaluates potential changes to historic and cultural resources that are expected to occur in the future without the proposed project (the "No Action" condition) and could potentially occur in the future with the proposed project (the "With Action" condition).

As described below, this assessment concludes that the proposed actions would not have a significant adverse impact on known and potential architectural resources located within the project area and study area.

B. METHODOLOGY

Consistent with the guidance of the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, in order to determine whether the proposed actions could potentially affect architectural resources, this attachment assesses whether the proposed actions would result in a physical change to any resource, a physical change to the setting of any resource (such as context or visual prominence), and, if so, whether the change is likely to alter or eliminate the significant characteristics of the resource that make it important. More specifically, as set forth in the *CEQR Technical Manual*, potential impacts to architectural resources may include the following:

- Physical destruction, demolition, damage, alteration, or neglect of all or part of an historic property;
- Changes to an architectural resource that cause it to become a different visual entity;

- Isolation of the property from, or alteration of, its setting or visual relationships with the streetscape, including changes to the resource's visual prominence;
- Introduction of incompatible visual, audible, or atmospheric elements to a resource's setting;
- Replication of aspects of the resource so as to create a false historical appearance;
- Elimination or screening of publicly accessible views of the resource;
- Construction-related impacts, such as falling objects, vibration, dewatering, flooding, subsidence, or collapse; and
- Introduction of significant new shadows, or significant lengthening of the duration of existing shadows, over an historic landscape or on an historic structure (if the features that make the resource significant depend on sunlight) to the extent that the architectural details that distinguish that resource as significant are obscured.

ARCHAEOLOGICAL RESOURCES

Archaeological resources include material culture and other physical remnants of past human activities on a site. They can include archaeological resources associated with Native American populations that used or occupied a site, and can include stone tools or refuse from tool-making activities, remnants of habitation sites, and similar items. These resources are also referred to as "precontact," since they were deposited before Native Americans' contact with European settlers. Archaeological resources can also include remains from activities that occurred during the historic period, which began with the European colonization of New York City in the 17th century. Such resources can include remains associated with European contact with Native Americans, battle sites, landfill deposits, structural foundations, waterfront structures (such as sea walls, wharves, docks, and piers) and domestic shaft features such as cisterns, wells, and privies.

Archaeological investigations typically proceed in a multiphase process consisting of three phases: Phase 1, determining the presence or absence of archaeological resources through documentary research and field testing; Phase 2, gathering sufficient information to assess S/NR eligibility; and Phase 3, mitigating unavoidable effects through data recovery or another form of mitigation. The need for advancing to an additional phase of work is dependent upon the results of the preceding phase. In urban contexts, the first phase of work is typically divided into two smaller phases: a Phase 1A Archaeological Documentary Study ("Phase 1A Study"), which involves documentary research, and a Phase 1B Archaeological Investigation, which involves field testing to confirm the results of the Phase 1A Study.

Pursuant to CEQR, consultation was initiated with New York City Landmarks Preservation Commission (LPC) in order to obtain a preliminary determination of the project area's potential archaeological sensitivity. In a comment letter dated July 21, 2017, LPC determined that the development site (Block 2010, Lots 1 and 59) as well as portions of the project area and rezoning area (Block 2010, Lots 10, 56, 57, and 58) are potentially archaeologically significant, and requested that a Phase 1A Study be prepared (see **Appendix A**). Subsequent to the initial consultation with LPC, the proposed actions and project area were revised and it was determined that subsurface disturbance would only occur on the development site. In a comment letter issued April 18, 2018, LPC confirmed that a Phase 1A Study was only required for the development site (see **Appendix A**).

ARCHITECTURAL RESOURCES

Study areas for architectural resources are determined based on the area of potential effect for construction impacts, as well as the larger area in which there may be visual or contextual impacts.

To evaluate potential effects due to on-site construction activities, and also to account for visual or contextual impacts, the study area for architectural resources is defined as extending 400 feet from the project area (see **Figures E-1 and E-2**). As defined in the New York City Department of Building's (DOB) *Technical Policy and Procedure Notice (TPPN) #10/88,* adjacent construction is defined as any construction activity that would occur within 90 feet of an architectural resource.[1] Consistent with the guidance of the *CEQR Technical Manual*, designated architectural resources that were analyzed include NYCLs, Interior Landmarks, Scenic Landmarks, and New York City Historic Districts (NYCHD); resources calendared for consideration as one of the above by LPC; resources listed on or formally determined eligible for inclusion on the S/NR or contained within a district listed on or formally determined eligible for listing on the S/NR; resources recommended by the New York State Board for listing on the S/NR; and National Historic Landmarks (NHL). Additionally, a field survey was conducted to identify any previously undesignated properties that appear to meet S/NR or NYCL eligibility criteria.

C. EXISTING CONDITIONS

ARCHAEOLOGICAL RESOURCES

As described above, the development site has been identified as potentially archaeologically significant. Prior to construction, a Phase 1A Study of the development site will be prepared to determine its archaeological sensitivity and clarify the initial findings by LPC and to determine if any additional phases of work (e.g., a Phase 1B Archaeological Investigation) will be necessary. Following its completion, the Phase 1A Study will be submitted to LPC for review.

ARCHITECTURAL RESOURCES

DEVELOPMENT SITE

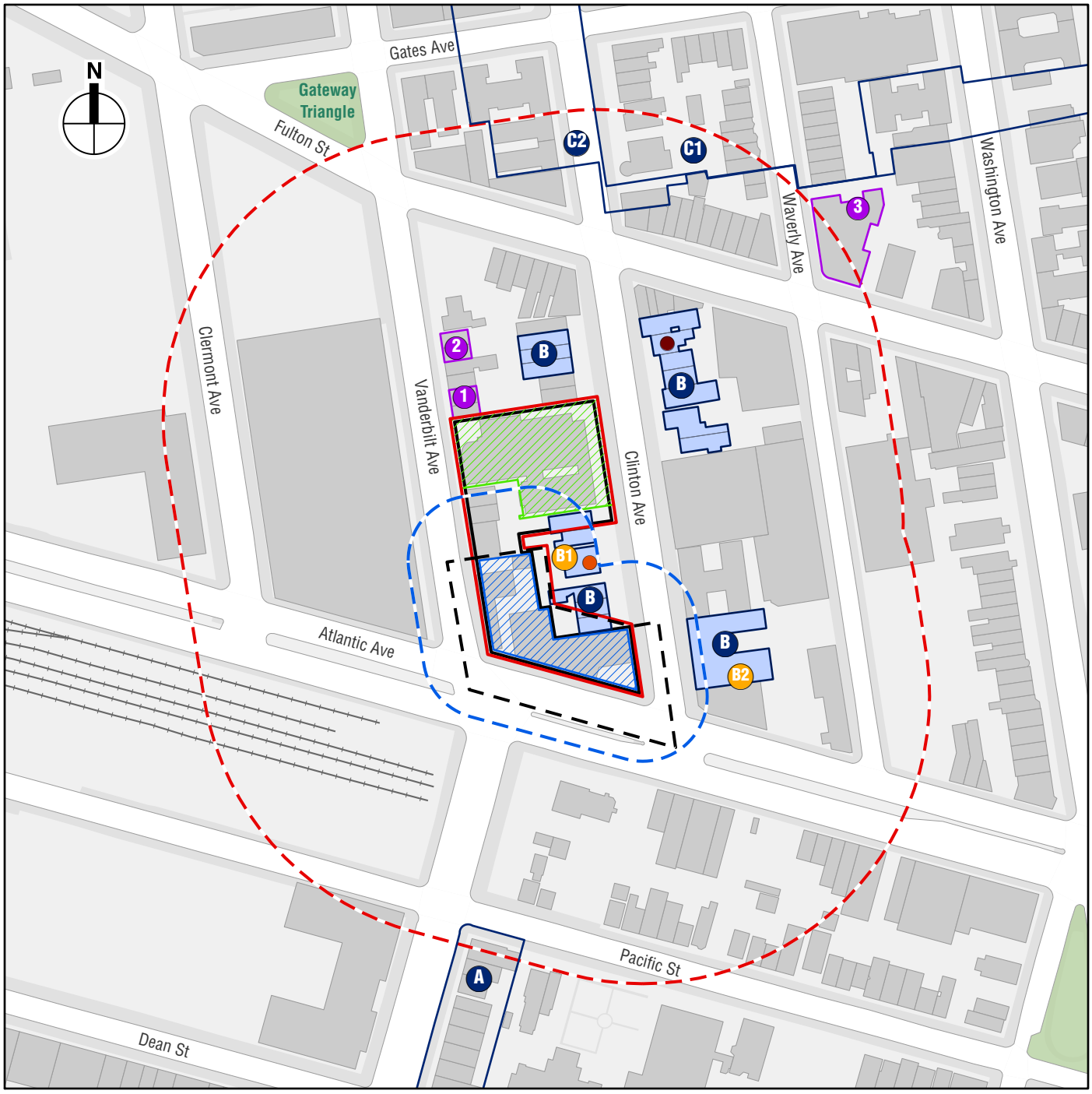
The development site is located on the southwest corner of the block bounded by Atlantic Avenue to the south, Vanderbilt Avenue to the west, Clinton Avenue to the east, and Fulton Street to the north. The development site is currently occupied by several one-story buildings that contain auto-repair shops, a car wash facility, and a bar with a large closed-in patio located at the corner of Atlantic Avenue and Clinton Avenue. There are no known or potential architectural resources located on the development site. In a letter dated July 21, 2017, LPC determined that the buildings on the development site have no architectural significance (see **Appendix A**).

PROJECT AREA

The project area includes the development site and the adjacent lots north of the development site (Block 2010, Lots 10, 51, 1001-1010, and 1101-1118). Lots 1001-1010 contain a five-story residential building completed in 2006, and Lots 1101-1118 contain a seven-story residential building completed in 2014. There are no known or potential architectural resources on these lots. Lot 10 contains the Church of St. Luke and St. Matthew, an NYCL also listed on the S/NR. Lot

[1] TPPN #10/88 was issued by DOB on June 6, 1988, to supplement New York City Building Code regulations with regard to historic structures. TPPN #10/88 outlines procedures for the avoidance of damage to historic structures resulting from adjacent construction, defined as construction within a lateral distance of 90 feet from the historic resource.

8/16/2018



Project Area

Project Zoning Lot

Study Area (90-foot perimeter)

Study Area (400-foot perimeter)

Development Site

Rezoning Area

Building on this site has been demolished

Building on this site being demolished by a No Build project

Known Architectural Resources

- A — Prospect Heights Historic District (S/NR-listed, NYCHD)
- B — Clinton Avenue Historic District (S/NR-eligible)
- C1 — Clinton Hill Historic District (NYCHD)
- C2 — Clinton Hill Historic District (S/NR-listed)
- Church of St. Luke and St. Matthew (S/NR-listed, NYCHD)

- B1 — 532-534 Clinton Avenue (S/NR- and NYCL-eligible)
- B2 — 547 Clinton Avenue (S/NR-eligible)

Potential Architectural Resources

- 1 — 511 & 513 Vanderbilt Avenue
- 2 — 503 & 505 Vanderbilt Avenue
- 3 — 937 Fulton Street

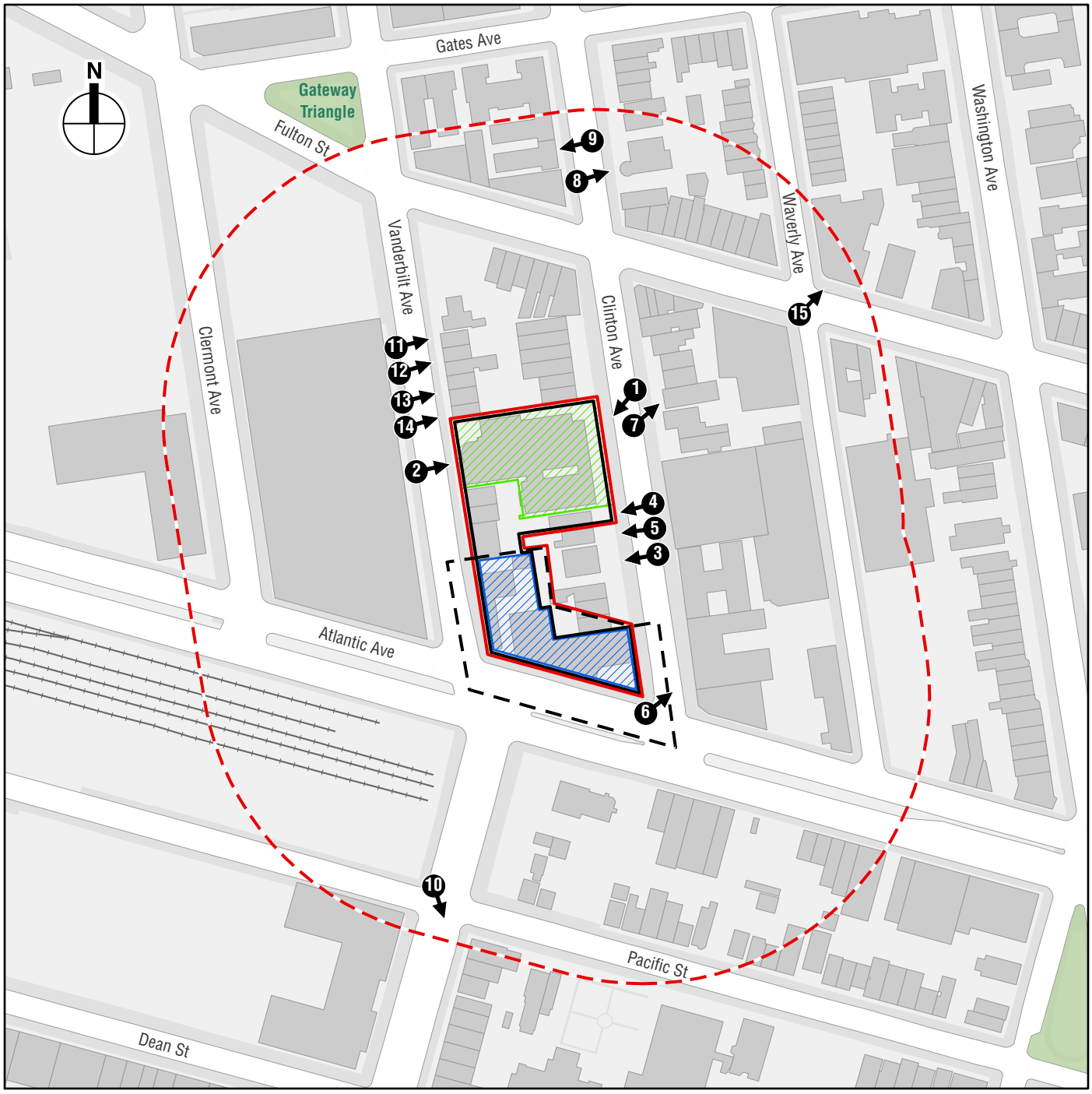
0 200 FEET

809 ATLANTIC AVENUE

Architectural Resources

Figure E-1

8/16/2018



Project Area

Project Zoning Lot

Study Area (400-foot perimeter)

Church of St. Luke and St. Matthew (S/NR-listed, NYCHD)

Development Site

Rezoning Area

Photograph View Direction and Reference Number

0 200 FEET

809 ATLANTIC AVENUE

Photograph Key

Figure E-2

51 (528 Clinton Avenue) contains a four-story apartment building that is located within the S/NR-eligible Clinton Avenue Historic District, which is discussed in more detail below.

The Church of St. Luke and St. Matthew, originally known as St. Luke's Protestant Episcopal Church, is located north of the development site at 520 Clinton Avenue on a through-block site with frontages on Clinton and Vanderbilt Avenues (see **Figure E-1**). The church is located approximately 56 feet from the development site at its closest point. The Romanesque Revival-style church complex, which includes an adjoining chapel and former Sunday school building, was designed by John Welch, a local Brooklyn architect, beginning in 1888 and completed in 1891.[2] Built on what used to be one of Brooklyn's most elite streets, the church has northern Italian Romanesque-style church detailing and is constructed of six materials, including sandstone, terra-cotta, and granite (see **Figure E-3**). The entrance to the church is highlighted by a tripartite arched portal with granite columns and ornate terra-cotta blocks. Above the entrance is a wheel window with stained glass windows flanked by an arched terra-cotta molding, pilasters, and two additional columns. The church and the rest of the complex façades are decorated with a corbelled cornice.

The church is connected to the chapel and former Sunday school building by a two-story cloister; the ground floor is supported by four arches, of which two are enclosed. Four rectangular windows are on the second story. The two-story chapel has a bell tower that uses the same arched detailing seen across the churches main façade, as well as round-arched openings. The entrance to the chapel is a triple-arched porch supported by granite columns; the capitals of the central columns are in the form of female heads, portrait busts of the donor's deceased daughter. On the second floor are three round-arched windows with stained glass windows.

At the rear of the church, facing Vanderbilt Avenue, is a three-story brick structure that has little architectural detailing. Erected in 1889, the building was previously known as the Ellen Woolsey Memorial Hall (see **Figure E-3**). The rear of the church (the chancel) has simple round-arched, stained glass windows with a keystone detail above each. Some of the windows in the rear of the church have been infilled.

The rezoning area includes portions of Lots 53, 56, 57, and 58 on the project block. Lot 53 (532 Clinton Avenue) contains a two-and-a-half-story frame house; however, as discussed further below, plans were recently approved by DOB to redevelop the property with a larger multifamily apartment building. Lots 56 (536 Clinton Avenue), 57 (538 Clinton Avenue), and 58 (540 Clinton Avenue) contain three-and-a-half-story row houses. All four lots are located within the boundaries of the Clinton Avenue Historic District, which has been determined S/NR-eligible. The frame house on Lot 53 also was separately identified as S/NR-eligible and NYCL-eligible by LPC in a comment letter dated August 2, 2005, for a project at 525 Clinton Avenue.

The Clinton Avenue Historic District consists of approximately 16 residential properties built during the mid- to late 19th century, as well as a former telephone building constructed in 1905 in the Beaux Arts style, located on Clinton Avenue between Fulton Street and Atlantic Avenue (see **Figure E-1**). The residential structures in the historic district include brownstones and row houses designed in the Greek Revival, Gothic Revival, Neo-Grec, Second Empire, Renaissance Revival, and Moorish Revivals styles (see **Figures E-4 through E-6**). One of the residential structures in the historic

[2] This description of the Church of St. Luke and St. Matthew is from the *National Register of Historic Places Inventory-Nomination Form* prepared by Andrew Dolkart in June 1981 for the National Register of Historic Places, National Park Service.



View southwest along Clinton Avenue of the Church of St. Luke and St. Matthew **1**



View southeast along Vanderbilt Avenue of the rear façade of the Church of St. Luke and St. Matthew **2**

Project Area—S/NR-Listed, NYCL
Church of St. Luke and St. Matthew

Figure E-3



View east of the eastern (front) façade of 532 Clinton Avenue (S/NR- and NYCL-eligible) **3**



View west of the eastern (front) façade of 528 Clinton Avenue **4**

Project Area and Rezoning Area—S/NR-Eligible Clinton Avenue Historic District

8.17.18



View west of the eastern (front) façade of 530 Clinton Avenue **5**



View northeast of the western (front) façade of the old telephone building at 547 Clinton Avenue (S/NR-eligible) **6**

Study Area—S/NR-Eligible
Clinton Avenue Historic District

809 ATLANTIC AVENUE

Figure E-5



View east of the western (front) façade of the apartment building at 515 Clinton Avenue **7**

Study Area—S/NR-Eligible
Clinton Avenue Historic District

Figure E-6

district (but outside of the rezoning area), 505 Clinton Avenue, was demolished subsequent to the 2006 determination of eligibility for the historic district.

In its comment letter dated July 21, 2017, LPC determined that while the properties at 536, 538, and 540 Clinton Avenue are located within the boundaries of the S/NR-eligible Clinton Avenue Historic District, they do not appear eligible for NYCL designation (see **Appendix A**). LPC also determined that the property within the project zoning lot at 528 Clinton Avenue (Block 2010, Lot 51), which is within the boundaries of the S/NR-eligible historic district, does not appear eligible for NYCL designation.[3]

STUDY AREA

There are three known architectural resources and five potential architectural resources located within the 400-foot study area surrounding the project area. One of the known architectural resources is the Clinton Avenue Historic District (S/NR-eligible), described above. One of the buildings within the Clinton Avenue Historic District—the former telephone building at 547-555 Clinton Avenue—was separately identified as S/NR-eligible in 2006.

The remainder of the known and potential architectural resources within the study area are described below and their locations are shown on **Figure E-1**.

Known Architectural Resources

Clinton Hill Historic District[4]

The Clinton Hill Historic District (S/NR-listed; NYCHD) is generally bounded by Vanderbilt Avenue to the west, Willoughby Avenue to the north, Hall Street, St. James Place, and Classon Avenue to the east, and Fulton Street to the south. Only the southeast section of the historic district is located within the 400-foot study area. The S/NR-listed historic district boundary is located approximately 346 feet from the north end of the project area and approximately 533 feet from the north end of the development site. The boundary line for the NYCHD, which is slightly smaller than the S/NR-listed district, is located approximately 544 feet from the north end of the development site and approximately 348 feet from the north end of the project area.

The Clinton Hill Historic District comprises mainly residential buildings built between 1840 and 1930. The earliest of the residential buildings are clapboard houses constructed in the Greek Revival style. The historic district also includes Gothic Revival residences, Italianate row houses, French Second Empire style row houses and mansions, and neo-Grec row houses. Additionally, the neighborhood has many Romanesque Revival and Queen Anne residences, apartment buildings, and Classical- and Renaissance-inspired designs from the late 1800s. The historic district also has many Colonial Revival-style residences. In addition, the historic district contains one of the City's largest concentrations of private carriage houses and stables, and includes a large number of churches of different denominations and institutional buildings.

The historic district buildings located in the study area are two five-story Beaux-Arts apartment buildings located at 484 and 480 Clinton Avenue; 476-478 Waverly Avenue; and 479-493 Clinton Avenue (479 Clinton Avenue is non-contributing to the historic district) (see **Figure E-7**).

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[3] Per the July 21, 2017 letter, LPC has "no interest" in 528, 536, 538, and 540 Clinton Avenue.

[4] This description of the Clinton Hill Historic District is from the *National Register of Historic Places Inventory-Nomination Form for the Clinton Hill Historic District* prepared by Merrill Hesch in September 1984 for the National Register of Historic Places, National Park Service.



View east of the western (front) façades of 483 Clinton Avenue and 487 Clinton Avenue **8**



View west of the Fulton Court Apartments (484 Clinton Avenue) and Clinton Court Apartments (480 Clinton Avenue) **9**

Study Area—S/NR-Listed, NYCHD
Clinton Hill Historic District

Prospect Heights Historic District[5]

The Prospect Heights Historic District (S/NR-listed; NYCHD) is located at the southern end of the 400-foot study area; only one building from the historic district falls within the study area boundary. The historic district's boundaries were expanded in 2015, encompassing properties located in the area bounded by Pacific Street and St. Mark's Avenue to the north, Washington Avenue to the east, Sterling Place to the south, and Flatbush Avenue to the west. The northern edge of this historic district is approximately 392 feet from the development site and project area. The historic district includes row houses, two-family houses, semi-attached houses, free-standing houses, apartment buildings, and institutional and commercial buildings from the mid-19th to mid-20th century of a multitude of designs, including Italianate, neo-Grec, French Second Empire, Romanesque, French Renaissance, Italian Renaissance, Colonial, Arts and Crafts, Art Deco, and Art Moderne. Additionally, some of the buildings in the Prospect Heights Historic District expansion were designed by well-known Brooklyn architects of the day, such as Magnus Dahlander and Slee & Bryson, as well as nationally prominent designers.

565 Vanderbilt Avenue is the only Prospect Heights Historic District property that is located within the study area (see **Figure E-8**). The three-story brick structure was designed in the Italianate style sometime between 1869 and 1880. The building has molded eyebrow lintels and an ornate wraparound cornice, in addition to a cast-iron column at the corner of the ground-floor retail and a paneled cast-iron pilaster.

Potential Architectural Resources

503, 505, 511, and 513 Vanderbilt Avenue

513 Vanderbilt Avenue is directly adjacent to the project area and approximately 204 feet from the development site; 511 Vanderbilt Avenue is approximately 20 feet from the project area and 224 feet from the development site; 505 Vanderbilt Avenue is approximately 284 feet from the development site and approximately 80 feet from the project area; and lastly, 503 Vanderbilt Avenue is approximately 100 feet from the project area and approximately 304 feet from the development site (see **Figure E-1**).

Built circa 1880, the Italianate structures are faced with red brick. 503 and 511 Vanderbilt Avenue are two stories with an exposed basement; 505 Vanderbilt Avenue is three stories with an exposed basement; and 513 Vanderbilt Avenue is two-and-a-half stories with an exposed basement. The first floor of each structure is above grade accessed by a set of stairs. Above the doorways are brownstone pediments supported by stone brackets. The second story of each building has three bays with arched openings with brownstone window lintels. 513 Vanderbilt Avenue underwent an addition in the past that added a half floor; therefore, the building now has a mansard roof with two arched windows hiding the original cornice underneath. 505 Vanderbilt Avenue has added a third story, carrying the original design upwards. 503, 505, and 511 Vanderbilt Avenue each have an intact decorative arched cornice with brackets (see **Figures E-9 through E-10**).

937 Fulton Street

937 Fulton Street is located on the northeast corner of Waverly Avenue and Fulton Street. The building is approximately 548 feet from the northern edge of the development site and approximately 363 feet from the northeastern corner of the project area. Originally built in 1928 by Rubel Coal and

[5] This description of the Prospect Heights Historic District is from the *National Register of Historic Places Registration Form for the Prospect Heights Historic District (Boundary Expansion),* prepared by Gregory Dietrich on August 30, 2015 for the National Register of Historic Places, National Park Service.



View southeast from the intersection of Pacific Street and Vanderbilt Avenue of the northern end of the Prospect Heights Historic District along Vanderbilt Avenue **10**

Study Area—S/NR-Listed, NYCHD
Prospect Heights Historic District

8.17.18



View of the western (front) façade of 503 Vanderbilt Avenue **11**



View of the western (front) façade of 505 Vanderbilt Avenue **12**

Study Area—Potential Architecural Resources

809 ATLANTIC AVENUE

Figure E-9

8.17.18



View of the western (front) façade of 511 Vanderbilt Avenue **13**



View of the western (front) façade of 513 Vanderbilt Avenue **14**

809 ATLANTIC AVENUE

Study Area—Potential Architecural Resources

Figure E-10

Ice Corporation, the building served as an office building to house executive and clerical staff. The three-story Art Deco style building was designed by architect and engineer Edward N. Adelsohn, and was said to be one of the largest coal and ice offices in the world.[6] The ground floor is faced in stone with tan brick facing the façade on the floors above. The corner of the structure is curved with an embellished stone pediment above the main entrance and decorative broken pediment detailing above the second-story window above. The second-story windows that are at the full extents of the building have broken pediments (see **Figure E-11**). Near the top of the building is an engraved stone plaque that reads "Rubel Coal & Ice Corporation."

D. FUTURE WITHOUT THE PROPOSED PROJECT

ARCHAEOLOGICAL RESOURCES

In the No Action condition, the development site would be redeveloped with an as-of-right, approximately 125,000-gsf building containing approximately 126 dwelling units (DUs) with 88,000 gsf of residential space, and approximately 37,000 gsf of retail space (see Figure 10 of the EAS). The as-of-right structure would be approximately 95 feet (7 stories) in height. The as-of-right construction would not be subject to CEQR and therefore, the archaeological investigation of any areas of archaeological sensitivity that may be identified in the Phase 1A Study would not be required.

ARCHITECTURAL RESOURCES

In the No Action condition, the status of architectural resources could change. The S/NR-eligible Clinton Avenue Historic District could be listed on the S/NR, and potential architectural resources could be determined S/NR-eligible or considered for NYCL designation. It is also possible that additional sites within the study area could be identified as architectural resources and/or potential architectural resources by the proposed project's 2021 analysis year.

In the No Action condition, changes to architectural resources or to their settings could occur. For instance, indirect impacts from future projects could include blocking public views of a resource, isolating a resource from its setting or relationship to the streetscape, altering the setting of a resource, introducing incompatible visual, audible, or atmospheric elements to a resource's settings or introducing shadows over an architectural resource with sun-sensitive features. It is also possible that some of the architectural resources in the project area and rezoning area could deteriorate or experience direct impacts through alteration or demolition, while others could be restored.

Architectural resources that are listed on the S/NR or that have been found eligible for listing are given a measure of protection under Section 106 of the National Historic Preservation Act from the effects of projects sponsored, assisted, or approved by federal agencies. Although preservation is not mandated, federal agencies must attempt to avoid adverse effects on such resources through a notice, review, and consultation process. Properties listed on the S/NR are similarly protected against effects resulting from projects sponsored, assisted, or approved by State agencies under the State Historic Preservation Act. However, private owners of properties eligible for, or even listed on, the S/NR using private funds can alter or demolish their properties without such a review process. Privately owned properties that are NYCLs, in NYCHDs, or pending designation as NYCLs are protected under the New York City Landmarks Law, which requires LPC review and approval before any alteration or demolition can occur, regardless of whether the project is publicly or privately funded.

[6] "Leadership – The Reward of Service," *The Brooklyn Daily Eagle.* June 22, 1928: 15.



View northeast of 937 Fulton Street from the intersection of Fulton Street and Waverly Avenue **15**

Study Area—Potential Architecural Resources

Figure E-11

Publicly owned resources are also subject to review by LPC before the start of a project; however, LPC's role in projects sponsored by other City or State agencies generally is advisory only.

The New York City Building Code, in Section BC 3309: Protection of Adjoining Property, provides some measures of protection for all properties against accidental damage from adjacent construction by requiring that all buildings, lots, and service facilities adjacent to foundation and earthwork areas be protected and supported. While these regulations serve to protect all structures adjacent to construction areas, they do not afford special consideration for historic structures.

The second protective measure applies to NYCLs, properties within NYCHDs, and NR-listed properties. For these structures, *TPPN #10/88* applies. *TPPN #10/88* supplements the standard building protections afforded by Building Code C26-112.4 by requiring a monitoring program to reduce the likelihood of construction damage to adjacent NYCLs and NR-listed properties (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed.

DEVELOPMENT SITE AND PROJECT AREA

In the No Action condition, the existing buildings on the development site would be demolished and the site would be redeveloped with an approximately 125,000 gsf building containing approximately 126 DUs (88,000 gsf of residential space), and approximately 37,000 gsf of retail space. The building would be seven stories, or approximately 95 feet in height. As described above, there are no known or potential architectural resources on the development site. The remaining lots in the project zoning lot would remain in their current condition. In the No Action condition, the preservation program for the Church of St. Luke and St. Matthew that is part of the proposed project (discussed below) would not be implemented, since the development rights transfer from that site to the development site pursuant to the proposed special permit under Zoning Resolution (ZR) Sec. 74-711 would not occur. Architectural resources within the project area that are located within 90 feet of construction for the as-of-right development would be offered some protection through DOB controls governing the protection of adjacent properties from construction activities.

In the No Action condition, the proposed rezoning would not occur. Independent of the proposed project, one of the lots adjacent to the development site within the rezoning area (Lot 53, 532 Clinton Avenue) is expected to be redeveloped with a new seven-story residential building. This development would require the demolition of the existing two-and-a-half-story frame house on this lot, which is within the boundaries of the Clinton Avenue Historic District. The remaining lots within the rezoning area are expected to remain in their current condition. Architectural resources within the rezoning area that are located within 90 feet of construction for the as-of-right development would be offered some protection through DOB controls governing the protection of adjacent properties from construction activities.

STUDY AREA

Architectural resources within the study area that are located within 90 feet of construction for the as-of-right development would be offered some protection through DOB controls governing the protection of adjacent properties from construction activities.

As discussed in Attachment A, "Land Use, Zoning, and Public Policy," six development projects are currently anticipated to be completed by 2021 within the 400-foot study area (see Figure A-4). Overall, the projects expected to be complete by 2021 are predominantly residential in nature, with an ongoing trend of redeveloping underutilized sites to improve the housing stock in the area. In addition to the development at 532 Clinton Avenue (described above), these include a new six-story

residential building at 505 Clinton Avenue; as described earlier, the two-story frame house formerly on this site was within the boundaries of the Clinton Avenue Historic District, but has been demolished. North of the development site and project area at 840 Fulton Street, a mixed-use (residential and commercial) seven-story building will be built. To the west of this development site, at 810 Fulton Street, a 13-story, mixed-use (residential and commercial) building will be built. Towards the southern end of the study area, at 873 Pacific Street, a new five-story residential building will be built. Lastly, at 470 Clermont Avenue, a new two-story school will be developed.

The new developments located along Clinton Avenue will be two to five stories taller than the residential buildings within the Clinton Avenue Historic District. However, along the east side of Clinton Avenue towards Atlantic Avenue, the buildings outside of the historic district are six and 13 stories tall; the latter structure dates from 2006. Additionally, the new developments located along Fulton and Pacific Streets would be visually separated from the architectural resources within the study area due to the existing built environment and would fit contextually with the height and massing of existing buildings located adjacent to or across the street from them. Therefore, the new developments would fit contextually with current development on their streets and would not be expected to negatively affect the context of surrounding architectural resources.

E. FUTURE WITH THE PROPOSED PROJECT

ARCHAEOLOGICAL RESOURCES

As described above, prior to construction, a Phase 1A Study of the development site will be prepared to document the occupation and development histories of the site and to determine the likelihood that archaeological resources may be present. In the event that the Phase 1A Study identifies any areas of archaeological sensitivity, a Phase 1B Archaeological Investigation will be necessary as outlined in the *CEQR Technical Manual* and LPC's 2002 *Guidelines for Archaeological Work in New York City*. If the Phase 1B Investigation confirms that archaeological resources are present within the development site, then a Phase 2 Evaluation will be required to confirm the horizontal and vertical limits of the archaeological site and to determine its eligibility for S/NR listing. In the event that any archaeological resources on the site are determined to be S/NR-eligible, then a Phase 3 Data Recovery would be required.

All phases of any necessary archaeological investigation would be completed in consultation with LPC and work plans will be submitted to LPC for approval prior to the initiation of such work. With the completion of the Phase 1A Study and LPC's concurrence with its conclusions, as well as the completion of any additional phases of archaeological investigation that may become necessary and continued consultation with LPC, the proposed actions would not result in significant adverse impacts on archaeological resources.

ARCHITECTURAL RESOURCES

DEVELOPMENT SITE

In With Action condition, the development site would be redeveloped with an approximately 277,500-gsf mixed-use development (see Figures 7 through 9 of the EAS). The proposed project would contain approximately 25,000 gsf of retail, approximately 20,000 gsf of office use, and approximately 233,000 gsf of residential use. Due to the separate ownership of the two tax lots on the development site to which the applicants hold ground leases, the proposed project would be designed as two separate buildings: a 29-story tower building on Lot 1 (Building A) and a four-

story building on Lot 59 (Building B), which would remain separate tax lots. The buildings would be structurally independent and would share a party wall; however, the two buildings would be connected via a corridor on the third and fourth floors and share a cooling tower.

Building A would be oriented along Vanderbilt Avenue and would be approximately 22 stories (217 feet) taller than the No Action development. Building B would be oriented along Atlantic Avenue and would be approximately three stories (43 feet) shorter than the No Action development. Unlike the No Action development, the proposed project would incorporate the development rights from the other lots within the project area, including the historic Church of St. Luke and St. Matthew, pursuant to the proposed ZR 74-711 special permit. The proposed project also would be approximately 150,000 gsf larger, include additional residential use and less retail, and would introduce approximately 19,500 gsf of office space compared to the No Action development.

There are no known or potential architectural resources on the development site, and thus no such resources would be directly affected by the proposed project. There are seven known and potential architectural resources located within 90 feet of the proposed project: 528-530 Clinton Avenue, 536-540 Clinton Avenue, and 547-555 Clinton Avenue within the Clinton Avenue Historic District, and the Church of St. Luke and St. Matthew.[7] Therefore, in comparison to the No Action condition and to avoid inadvertent construction-related impacts to these resources, a Construction Protection Plan (CPP) would be developed and implemented in consultation with LPC. The CPP would be implemented in coordination with a licensed professional engineer and would describe the measures to be taken to protect the resources noted above during construction of the proposed project. The CPP would follow the guidelines set forth in the *CEQR Technical Manual*, including conforming to LPC's *New York City Landmarks Preservation Commission Guidelines for Construction Adjacent to a Historic Landmark* and *Protection Programs for Landmark Buildings*. The CPP would also comply with the procedures set forth in DOB's *TPPN #10/88*.

PROJECT AREA

As described above, the Church of St. Luke and St. Matthew and 528 Clinton Avenue, which are in the project zoning lot and within 90 feet of the development site, would be included in the CPP that will be developed and implemented in consultation with LPC to avoid inadvertent construction-related impacts to those resources.

In the With Action condition, floor area would be transferred from the Church of St. Luke and St. Matthew to the development site via a special permit pursuant to ZR 74-711. This special permit would also modify regulations applicable to the development site related to yards, inner courts, window to lot line, lot coverage, and height and setback. The ZR 74-711 special permit requires that a program be established for continuing maintenance that will result in the preservation of the landmark building or buildings, and that the restorative work required under the continuing maintenance program contributes to a preservation purpose. It also requires a Certificate of Appropriateness (CofA) or report from LPC stating that the bulk modifications relate harmoniously to the subject landmark. LPC has not yet issued a CofA for the project; however, since the proposed special permit requires this condition, the project would not move forward in its proposed form without this approval.

As part of the consultation process with LPC, the base height of the proposed project was set at four stories in order to improve visibility of the church's belfry from Vanderbilt Avenue looking north.

[7] 532 Clinton Avenue, which will be demolished independent of the proposed project, is not included.

The four-story base would be only 52 feet high, less than the minimum 60 feet required for tower on a base buildings per ZR 23-651(b)(2); in addition, the amount of floor area in the proposed project in stories partially or entirely below 150 feet would be reduced to 56.9 percent of the total floor area. Therefore, the proposed waivers of tower floor area and the minimum street wall height are necessary in order to meet LPC's requirements and provide for a development that is more respectful of, and relates more harmoniously to, the landmarked church structure.

As required by the ZR 74-711 special permit, the proposed project would facilitate the preservation and restoration of the Church of St. Luke and St. Matthew. The restoration of the church would entail, among other work, cleaning the façade; repointing deteriorated masonry joints, removing incompatible patching, and retooling or composite patching deteriorated stone; patching brownstone/sandstone to match the original; repairing cracks in brownstone; repairing granite columns; removing ferrous materials at a former plaque location; stabilizing entry landing substructure; removing and reinstalling tiles; cleaning windows; scraping and painting deteriorated window frames; replacing damaged protective glazing, providing new caulking at window perimeters; and scraping and repainting a sheet metal wheel window. The proposed restoration work is subject to the approval of the LPC. Consultation with LPC regarding the restoration program is underway.

The stained glass windows on the façades of the Church of St. Luke and St. Matthew complex are considered a sunlight-sensitive historic architectural resource. In particular, there are stained glass arched windows on the south-facing façade of the church transept, stained glass arched windows and stained glass ox's eye windows on the church's south-facing clerestory, and stained glass arched windows on the south-facing façade of the church's rectory. As described in Attachment D, "Shadows," with the proposed actions, some of the sunlight-sensitive stained glass windows of the Church of St. Luke and St. Matthew would receive less direct sunlight due to incremental shadow. Specifically, the stained glass windows of the church's south transept would be cast in incremental shadow on 3 of 4 analysis days; the clerestory windows would be cast in incremental shadow on 2 of 4 analysis days; and the rectory's stained glass windows would be cast in incremental shadow on all analysis days. From mid-spring through the summer season, these windows would receive direct sunlight for long periods. The new shadow cast on these windows in the fall and winter would not significantly diminish the amount of direct sunlight that they receive beyond that available to them in the No Action condition. Therefore, with the proposed actions, incremental shadow would not significantly alter the public's enjoyment of the sunlight-sensitive features of the church and the church would not experience a significant adverse shadow impact. In a comment letter dated August 3, 2018, LPC confirmed the conclusions of the shadows analysis (see **Appendix A**).

As described above, the architectural resources within the rezoning area that are within 90 feet of the development site—536, 538, and 540 Clinton Avenue, all within the boundaries of the Clinton Avenue Historic District—would be included in the CPP that will be developed and implemented in consultation with LPC to avoid inadvertent construction-related impacts to those resources. 532 Clinton Avenue, which is within the boundaries of both the rezoning area and the Clinton Avenue Historic District, will be demolished by the No Action project for that site.

As detailed in Page 1a the EAS, "Project Description," the proposed actions would only result in new development on the development site, and would not directly affect any other buildings located within the rezoning area. The proposed zoning would not increase the development potential of these adjacent properties. The proposed project would be much taller than the architectural resources within the rezoning area, but would not negatively impact the resources visually or contextually due to the fact that the architectural resources already exist in a mixed

visual context. As discussed above, there are new, larger-scale developments expected along Fulton Street, including the new development at 550 Vanderbilt, which is 17 stories and directly adjacent to the Prospect Heights Historic District.

STUDY AREA

As described above, the two architectural resources in the study area that are within 90 feet of the development site—530 and 547-555 Clinton Avenue, within the boundaries of the Clinton Avenue Historic District—would be included in the CPP that will be developed and implemented in consultation with LPC to avoid inadvertent construction-related impacts to architectural resources.

The proposed actions would not result in any significant adverse visual or contextual impacts to the architectural resources in the study area. The proposed project would replace low-scale, one-story commercial and industrial buildings with new mixed-use development that would be similar in use to the development constructed on the site in the No Action condition. Although the proposed project would be considerably taller than the No Action development, it would not obstruct any views to architectural resources. Views to the Church of St. Luke and St. Matthew from the study area are already partially obstructed by existing development and mature foliage. The potential architectural resources to the north of the development site, and the buildings of the Clinton Hill, Prospect Heights, and Clinton Avenue Historic Districts, are all predominately low-scale; therefore, views to these resources are currently largely obstructed by existing development or not visible from further distances due to intervening buildings and foliage.

The proposed project would be taller than other buildings in the study area, and taller than the No Action development. However, given that the building at 487 Clermont Avenue on the west side of Vanderbilt Avenue is 10 stories, the proposed new buildings from the No Action condition are at a maximum of 13 stories, and the new 550 Vanderbilt Avenue development located at the southern edge of the study area is 17 stories, the proposed project would be in keeping with the mix of shorter and taller buildings in the study area that make up the architectural resources' setting.[8] Therefore, the proposed actions would not introduce incompatible visual, audible, or atmospheric elements to a resource's setting, nor would it isolate a resource from its relationship with the streetscape.

Therefore, the proposed actions would not result in any significant adverse impacts to historic and cultural resources. ✷

[8] As part of the Pacific Park project (described in Attachment A, "Land Use, Zoning, and Public Policy"), a building similar in height to the proposed project (approximately 313 feet tall) is expected to be constructed at the intersection of Atlantic and Vanderbilt Avenues southwest of the development site. However, the building is proposed to be built on a platform above the Long Island Rail Road railyard, which has yet to begin construction, and is not expected to be completed by the proposed project's 2021 analysis year.

Attachment F: Urban Design and Visual Resources

A. INTRODUCTION

This attachment assesses the potential for the proposed actions to result in significant adverse impacts to urban design and visual resources. The Applicants are seeking a zoning map amendment, a zoning text amendment, and special permits (the "proposed actions") to facilitate the development of two separate buildings on the development site (Block 2010, Lots 1 and 59) in the Clinton Hill neighborhood of Brooklyn. The proposed development comprises a 29-story tower building (Building A) and a four-story building (Building B) (the "proposed project"). The proposed project would be approximately 277,500 gross square feet (gsf), containing 25,000 gsf of retail use, 20,000 gsf of office use, and 233,000 gsf of residential use. The remaining lots within the project zoning lot (Lots 10, 51, 1001-1010, and 1101-1118) would transfer development rights to the development site, but would not be redeveloped as a result of the proposed actions. Similarly, the project area includes portions of adjacent properties on the same block that are within the proposed rezoning area (Lots 53, 56, 57, and 58), but the proposed actions would not facilitate new or different development on these lots.

As defined in the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. A visual resource can include views of the waterfront, public parks, landmark structures or districts, otherwise distinct buildings, and natural resources.

The proposed actions would make noticeable alterations to the development site and the streetscape of the surrounding area by constructing two new buildings on the site ranging in height from approximately 52 feet to 312 feet (4 to 29 stories) as compared to the future without the proposed project (the "No Action" condition), in which an as-of-right mixed-use building approximately 7 stories (95 feet) in height that complies with the current zoning regulations would be developed. Therefore, the following detailed urban design and visual resources analysis has been prepared in consideration of the characteristics identified above for the No Action condition and future with the proposed project (the "With Action" condition) for the 2021 build year.

As described below, this assessment concludes that the proposed actions would not result in any significant adverse impacts to urban design or visual resources in the study area.

B. METHODOLOGY

According to the guidance of the *CEQR Technical Manual*, a preliminary assessment of urban design and visual resources is appropriate when there is the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning. Examples include projects that permit the modification of yard, height, and setback requirements, and projects that result in an increase in built floor area beyond what would be allowed "as-of-right" or in the No Action condition.

As described in detail on Page 1a of the EAS, "Project Description," the proposed project would require several discretionary approvals including zoning map and text changes and a special

permit pursuant to Section 74-711 of the New York City Zoning Resolution (ZR) to allow up to 70,000 sf of floor area to be transferred to the development site across district boundary lines, and to modify regulations applicable to the development site related to yards, inner courts, window to lot line, lot coverage, and height and setbacks. Therefore, as the proposed actions would result in physical alterations on the development site beyond those allowed by existing zoning, they would meet the threshold for a preliminary assessment of urban design and visual resources.

The *CEQR Technical Manual* guidelines state that if the preliminary assessment shows that changes to the pedestrian environment are sufficiently significant to require greater explanation and further study, then a detailed analysis is appropriate. Examples include projects that would potentially obstruct view corridors, compete with icons in the skyline, or make substantial alterations to the streetscape of a neighborhood by noticeably changing the scale of buildings. Detailed analyses also are generally appropriate for area-wide rezonings that include an increase in permitted floor area or changes in height and setback requirements, general large-scale developments, or projects that would result in substantial changes to the built environment of a historic district or components of a historic building that contribute to the resource's historic significance. Conditions that merit consideration for further analysis of visual resources include when the project partially or totally blocks a view corridor or a natural or built visual resource and that resource is rare in the area or considered a defining feature of the neighborhood; or when the project changes urban design features so that the context of a natural or built visual resource is altered (i.e., if the project alters the street grid so that the approach to the resource changes; if the project changes the scale of surrounding buildings so that the context changes; or if the project removes lawns or other open areas that serve as a setting for the resource).

The proposed actions would facilitate the development of a new, mixed-use development that would be taller than that allowed under the current zoning and would introduce changes that would make noticeable alterations to the development site as compared to the No Action condition. Therefore, the proposed project would meet the threshold for a detailed assessment of urban design and visual resources. This analysis is provided below.

In accordance with the *CEQR Technical Manual*, this analysis considers the effects of the proposed project on the experience of a pedestrian in the study area. The assessment focuses on those project elements that have the potential to alter the built environment, or urban design, of the development site, which is collectively formed by the following components:

- *Streets*. For many neighborhoods, streets are the primary component of public space. The arrangement and orientation of streets define the location and flow of activity in an area, set street views, and create the blocks on which buildings and open spaces are organized. The apportionment of street space between cars, bicycles, transit, and sidewalks and the careful design of street furniture, grade, materials used, and permanent fixtures, including plantings, street lights, fire hydrants, curb cuts, or newsstands are critical to making a successful streetscape.
- *Buildings*. Buildings support streets. A building's street walls form the most common backdrop in the City for public space. A building's size, shape, setbacks, lot coverage, and placement on the zoning lot and block; the orientation of active uses; and pedestrian and vehicular entrances all play major roles in the vitality of the streetscape. The public realm also extends to building façades and rooftops, offering more opportunity to enrich the visual character of an area.
- *Open Space*. Open space includes public and private areas such as parks, yards, cemeteries, parking lots, and privately owned public spaces.

- *Natural Features*. Natural features include vegetation and geologic, topographic, and aquatic features. Rock outcroppings, steep slopes or varied ground elevation, beaches, or wetlands may help define the overall visual character of an area.
- *View Corridors and Visual Resources*. A visual resource is the connection from the public realm to significant natural or built features, including important view corridors, views of the waterfront, public parks, landmark structures or districts, otherwise distinct buildings or groups of buildings, or natural resources.
- *Wind*. Channelized wind pressure from between tall buildings and downwashed wind pressure from parallel tall buildings may cause winds that affect pedestrian comfort and safety.

This analysis considers the urban design characteristics and visual resources of the development site, project area, rezoning area, and a surrounding study area (see **Figures F-1 and F-2**). The following analysis addresses each of these characteristics for existing conditions and the No Action and With Action conditions for the 2021 build year. The study area is the area within a ¼-mile radius of the development site. The development site, project area, and study area are discussed in detail for the existing conditions, No Action condition, and With Action condition. The view corridor analysis focuses on those corridors that could experience the greatest change to the pedestrian experience as a result of the proposed project.

The *CEQR Technical Manual* recommends an analysis of pedestrian wind conditions for projects involving the construction of multiple, tall buildings at or in close proximity to waterfront sites, which may result in an exacerbation of wind conditions due to "channelization" or "downwash" effects that may affect pedestrian comfort and safety. Factors to be considered in determining whether such a study should be conducted include locations that could experience high-wind conditions, such as a site's location relative to the waterfront. Further consideration may include size, and orientation of the proposed buildings; the number of proposed buildings to be constructed; and the site plan and surrounding pedestrian context of the proposed project. As the development site is not located near the waterfront or in an area likely to experience high winds, an analysis of wind conditions and its effect on pedestrian level safety is not warranted under CEQR.

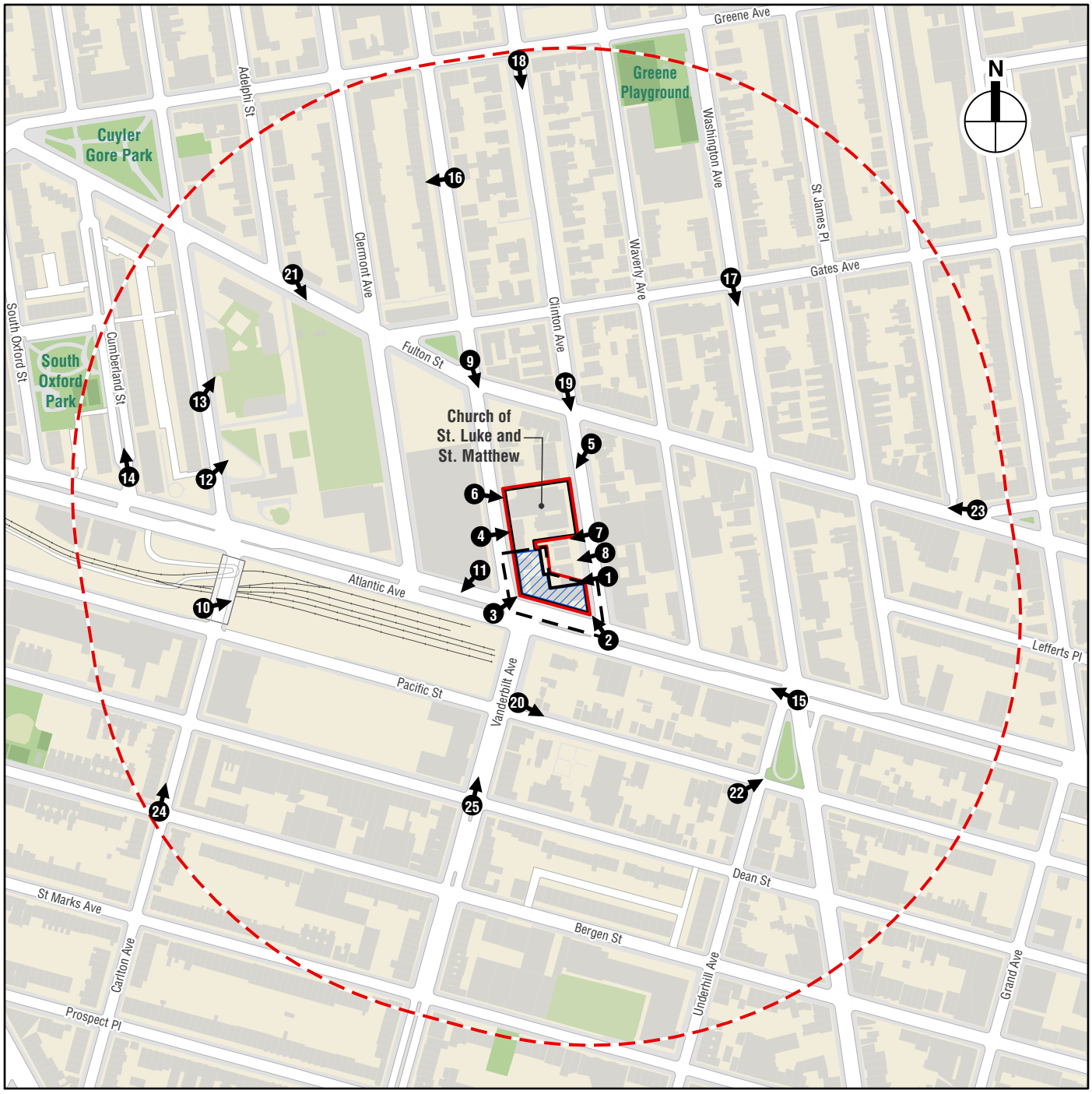
C. EXISTING CONDITIONS

URBAN DESIGN

DEVELOPMENT SITE

The development site comprises the southern end of the block bounded by Atlantic, Vanderbilt, and Clinton Avenues and Fulton Street in the Clinton Hill neighborhood of Brooklyn (Block 2010, Lots 1 and 59). The development site includes frontages on Atlantic Avenue, Vanderbilt Avenue, and Clinton Avenue. The development site is currently occupied by several one-story buildings that contain auto-repair shops, a car wash facility, and a bar with a large patio located at the corner of Atlantic Avenue and Clinton Avenue (see views 1–3 of **Figure F-3**). The patio is enclosed by a tall wood fence. The buildings are built to the lot line and generally cover most of their lots; the built floor area ratio (FAR) of the development site is approximately 0.66. There are several curb cuts along Atlantic Avenue for the auto-related uses.

8/16/2018



Project Area

Project Zoning Lot

Study Area (1/4-mile boundary)

Development Site

Rezoning Area

Photograph View Direction and Reference Number

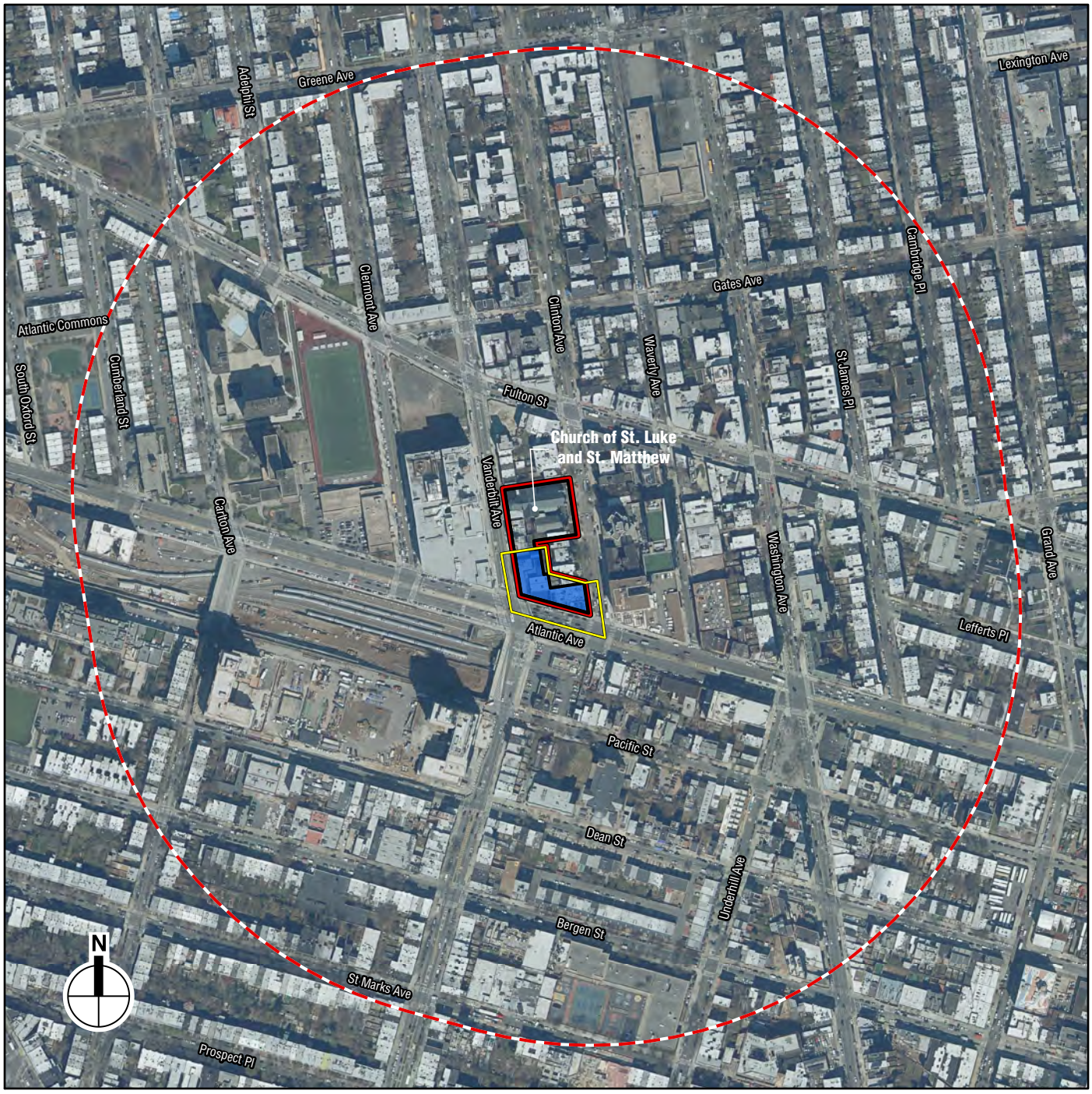
0 400 FEET

Urban Design and Visual Resources
Project Location

809 ATLANTIC AVENUE

Figure F-1

8/16/2018



0 400 FEET

Project Area

Project Zoning Lot

Study Area (1/4-mile boundary)

Development Site

Rezoning Area

Urban Design and Visual Resources
Aerial

809 ATLANTIC AVENUE

Figure F-2



Development site, view from Clinton Avenue **1**



Development site, view northwest from Atlantic Avenue **2**



Development site, view northeast from Atlantic Avenue **3**

Development Site Photographs
Figure F-3

PROJECT AREA

For the purpose of this assessment, the project zoning lot, which includes the development site and the adjacent lots north of the development site on the project block (Block 2010, Lots 10, 51, 1001-1010, and 1101-1118), and portions of adjacent properties that are within the proposed rezoning area (Lots 53, 56, 57, and 58), are referred to as the project area. Lots 1001-1010 contain a five-story residential building completed in 2006, and Lots 1101-1118 contain a seven-story residential building completed in 2014 (see view 4 of **Figure F-4**). These buildings are built to the lot line and occupy most of their lots. Lot 51, located in the S/NR-eligible Clinton Avenue Historic District, contains a four-story, approximately 7,500 sf walkup apartment building. The building is set back from the lot line and occupies a small portion of the lot. Lot 10 contains the Church of St. Luke and St. Matthew, a New York City Landmark (NYCL) that is also listed on the State and National Registers of Historic Places (S/NR) (see Attachment E, "Historic and Cultural Resources").

The Church of St. Luke and St. Matthew is located at 520 Clinton Avenue and occupies a large through-block site, with frontages on both Clinton and Vanderbilt Avenues. The Romanesque Revival-style church complex includes an adjoining chapel and former Sunday school building (see view 5 of **Figure F-4**). The church has northern Italian Romanesque-style detailing and is constructed of varied materials including sandstone, terra-cotta, and granite. The two-story chapel has a bell tower that is visible from surrounding streets. The portions of the church complex facing Clinton Avenue are set back slightly from the street behind a narrow, brick-paved plaza with small landscaped areas. At the rear of the church, facing Vanderbilt Avenue, is a three-story brick structure that has little architectural detailing (see view 6 of **Figure F-4**).

The rezoning area includes portions of Lots 53, 56, 57, and 58 on the project block. Lot 53 (532 Clinton Avenue) contains a two-and-a-half-story frame house; however, as discussed further below, plans were recently approved by the New York City Department of Buildings (DOB) to redevelop this property with a larger multifamily apartment building (see view 7 of **Figure F-5**). Lots 56 (536 Clinton Avenue), 57 (538 Clinton Avenue), and 58 (540 Clinton Avenue) contain three-and-a-half-story row houses with bay windows and mansard roofs (see view 8 of **Figure F-5**). These buildings are set back from the street, with steep stone stoops and small paved areas enclosed by a low metal fence. All four lots are located within the boundaries of the Clinton Avenue Historic District, which has been determined eligible for listing on the S/NR (S/NR-eligible) (see Attachment E, "Historic and Cultural Resources").

STUDY AREA

The study area is generally bounded by Greene Avenue to the north, Grand Avenue to the east, St. Marks Avenue to the south, and South Oxford Street to the west (see **Figures F-1 and F-2**). The discussion below focuses first on the study area's urban design—its basic layout and structures—and then describes its visual resources.

URBAN DESIGN

Streets

The study area streets form an irregular grid pattern. North of Atlantic Avenue, blocks are generally oriented north-south; south of Atlantic Avenue, blocks are generally oriented east-west. Fulton Street runs at an angle through the study area, creating irregularly shaped blocks as well as triangular-shaped open spaces at two intersections. There is one superblock in the study area, bounded by Clermont, Carlton, and Atlantic Avenues and Fulton Street. Private streets run through



Lots 1001-1010 and 1101-1118 within project area, view from Vanderbilt Avenue **4**



Church of St. Luke and St. Matthew within project area, view from Clinton Avenue **5**



Church of St. Luke and St. Matthew, view from Vanderbilt Avenue **6**

Project Area Photographs

Figure F-4



532 Clinton Avenue within rezoning area **7**



536-540 Clinton Avenue within rezoning area **8**



New construction on project block, view south from Vanderbilt Avenue and Fulton Street **9**

Rezoning Area
and Study Area Photographs
Figure F-5

the center of the two blocks directly east of the superblock, which are bounded by South Oxford and Fulton Streets and Atlantic and Carlton Avenues, as well as through the center of the block bounded by Dean and Bergen Streets and Vanderbilt and Underhill Avenues.

The New York City Transit (NYCT) Clinton–Washington Avenues station for the C line is located at the intersection of Clinton Avenue and Fulton Street. There are several NYCT bus routes along Fulton, Dean, and Bergen Streets and Vanderbilt, Washington, and Atlantic Avenues, as well as a number of Citi Bike stations, including stations adjacent to the Clinton–Washington Avenues station. Street furniture within the study area includes cobra-head street lamps, twin-arm Flatbush-style street lamps (on Cumberland Street north of Atlantic Avenue), traffic lights, bus stop signs and shelters, fire hydrants, trash cans and recycling bins, mailboxes, newsstands, and bike racks.

The primary thoroughfare in the study area is Atlantic Avenue, which is 100 feet wide with curbside parking and two-way traffic separated by a raised concrete median. Fulton Street is another busy thoroughfare, with two lanes of two-way traffic and curbside parking. Vanderbilt and Clinton Avenues, flanking the project block to the west and east, also are two-way streets with curbside parking. Most of the remaining streets in the study area are narrow, carry one-way traffic, and have curbside parking. There are bicycle lanes in the study area along portions of Carlton, Vanderbilt, Washington, and Lafayette Avenues and Cumberland, Dean, and Bergen Streets. Cumberland Avenue also has a raised median, with Belgian block. Sidewalk widths are particularly wide on Vanderbilt and Atlantic Avenues.

Active ground-floor commercial uses are located mostly along Fulton Street east of Vanderbilt Avenue and on Vanderbilt and Washington Avenues south of Atlantic Avenue in the study area. Many streets in the study area have mature trees forming a canopy over the street, with the exception of Atlantic Avenue.

Buildings

The study area is primarily residential and institutional in use, with commercial uses mainly oriented along Fulton Street and Vanderbilt and Washington Avenues as noted above. The residential buildings in the study area typically have low lot coverage, with the exception of newer, taller developments, which generally occupy all or most of their lots. The institutional buildings in the study area typically have larger footprints and are located on larger lots. There are also transportation, industrial, and utility uses in the study area, mostly oriented along Atlantic Avenue and Bergen Street between Carlton and Underhill Avenues.

The block containing the development site, project area, and rezoning area is primarily occupied by one- to seven-story residential and mixed-use buildings. The mixed-use buildings have frontage along Fulton Street. A new seven-story mixed-use building is under construction north of the project area at the intersection of Vanderbilt Avenue and Fulton Street (see view 9 of **Figure F-5**).

The portion of the study area between Atlantic Avenue and Pacific Street west of Vanderbilt Avenue is currently occupied by the Atlantic Yards rail yard. The below-grade open rail yard, which is planned for redevelopment as part of the Pacific Park project, creates a long physical break in the urban fabric of the area (see view 10 of **Figure F-6**). These portions of the study area are enclosed by an approximately 10-foot-high chain-link fence. Carlton Avenue bridges the rail yard. Some portions of these blocks also have construction fencing and barricades at their perimeter, related to ongoing work for the Pacific Park project, which has a target completion date of 2025. Anticipated buildings within this area will be approximately 25 to 27 stories tall and will be primarily residential, with some commercial use and open space. Four Pacific Park buildings have already been completed or are nearing completion; within the study area, these are 550



View northeast from Carlton Avenue near Pacific Street **10**



View southwest from Atlantic Avenue near Clermont Avenue **11**



Atlantic Terminal complex,
view northeast from Carlton Avenue **12**

Study Area Photographs
Figure F-6

Vanderbilt Avenue, a 17-story building on the west side of Vanderbilt Avenue between Pacific and Dean Streets, and 535 Carlton Avenue, an 18-story building on the east side of Carlton Avenue between Pacific and Dean Streets (see view 11 of **Figure F-6**). (Two other Pacific Park buildings, a 32-story residential tower at 461 Dean Street and a 23-story residential tower at 38 Sixth Avenue, are directly adjacent to the Barclays Center, west of the study area boundary.) Both buildings are built to the lot line and have large U-shaped floorplates. The remaining Pacific Park buildings are currently in the beginning stages of construction and are not expected to be complete by the proposed actions' analysis year of 2021.

To the west of the project block is a superblock occupied by P.S. K753 (the School for Career Development), a low-scale, mid-century structure with a large footprint; a large, private football field for Brooklyn Technical High School to the north of the school; the 31-story, roughly L-shaped Atlantic Terminal housing complex, which is controlled by the New York City Housing Authority (NYCHA); and the four-building Atlantic Terminal II complex (see views 12 and 13 of **Figures F-6 and F-7**). The Atlantic Terminal II buildings range in height from 9 to 15 stories, and both housing complexes on the superblock are set back from adjacent streets and surrounded by landscaped grounds and play structures.

The study area also includes two sets of modern red brick, three-story row house developments, both with gated, private streets on their interior. The first is on the block bounded by Dean and Bergen Streets and Vanderbilt and Underhill Avenues, south of Atlantic Avenue; the second is on the block bounded by Fulton and Cumberland Streets and Carlton and Atlantic Avenues, west of the project area (see view 14 of **Figure F-7**). There are also more modern, red brick row house developments west of Cumberland Street, just outside the study area boundary.

The built environment within the study area is varied, with buildings ranging from tall apartment towers to two- and three-story row houses. Many of the low-scale buildings in the study area are located within historic districts: the Prospect Heights Historic District to the south of Atlantic Avenue, and the Fort Greene and Clinton Hill Historic Districts to the north of Atlantic Avenue (see views 15-19 of **Figures F-7 through F-9**). The block directly west of the project block also contains a recently constructed six-story commercial building at 470 Vanderbilt Avenue, and a seven-story mixed-use building currently under construction. Buildings in the area are predominantly brick and brownstone; however, there are also some frame structures, as well as glass- and metal-clad modern structures. The row houses in the study area are typically set back from the street, with high stoops and small front areas which are paved, landscaped, and/or fenced. P.S. 9, P.S. 11, and P.S. K753 within the study area are all low-scale, mid-century structures with large footprints. There are also a number of churches in the study area, including the Co-Cathedral of St. Joseph and Our Lady of Good Counsel Church (see view 20 of **Figure F-9**). The Co-Cathedral of St. Joseph, on Pacific Street east of Vanderbilt Avenue, has a raised, enclosed yard between the church and its rectory.

The tallest buildings in the study area are the 31-story Atlantic Terminal NYCHA development; the 18- and 17-story Pacific Park buildings (535 Carlton Avenue and 550 Vanderbilt Avenue, respectively); the 15-story Atlantic Terminal II building; and the 13-story residential tower at 525 Clinton Avenue, on the block directly east of the project area.

Natural Features and Open Space

As noted above, the topography of the study area is generally flat, with a slight rise to the south of Atlantic Avenue and from west to east. South Oxford Park at the western boundary of the study area, Greene Playground at the northern boundary of the study area, and the P.S. 9 Playground at the southern boundary of the study area are the principal open spaces. There are no natural features in



Atlantic Terminal II complex, view northeast from Carlton Avenue **13**



Cumberland Street, looking north from near Atlantic Avenue **14**



View west on Atlantic Avenue from Underhill Avenue **15**

Study Area Photographs
Figure F-7



Vanderbilt Avenue, looking west from north of Gates Avenue **16**



Washington Avenue, looking south from near Gates Avenue **17**



Clinton Avenue, view south from near Greene Avenue **18**

Study Area Photographs
Figure F-8



Clinton Avenue, view south from Fulton Street **19**



Pacific Street looking east from Vanderbilt Avenue, with Co-Cathedral of St. Joseph on the right **20**



View southeast from Fulton Street west of Clermont Avenue **21**

Study Area Photographs
Figure F-9

the primary study area. South Oxford Park contains a playground, tennis courts, a turf field, benches, and a water element. Greene Playground includes basketball and handball courts, play equipment, benches, and a water element. The P.S. 9 Playground is fully paved and contains basketball and handball courts, a half track, a soccer field, and play equipment, surrounded by a tall chain-link fence. There are also playgrounds on the superblock occupied by the Atlantic Terminal NYCHA and Atlantic Terminal II developments, which are for use by building residents, as well as the large, private football field for Brooklyn Technical High School to the north of P.S. K753 (see view 21 of **Figure F-9**). Other open spaces in the study area include small areas with trees and benches at street intersections, like the Gateway Triangle and the Lowry Triangle (see view 22 of **Figure F-10**).

VISUAL RESOURCES

Visual resources are an area's unique or important public view corridors, vistas, or natural or built features. These can include historic structures, parks, natural features (such as rivers), or important views.

DEVELOPMENT SITE

There are no visual resources located on the development site. Views from the sidewalks adjacent to the development site include the tower of the Church of St. Luke and St. Matthew, looking north on Clinton Avenue as well as more limited views looking north on Vanderbilt Avenue. Looking south from all three sides of the development site, the twin towers of the Co-Cathedral of St. Joseph on Pacific Street can be seen. The historic district buildings along Clinton Avenue adjacent to the development site are visually interesting, but are not highly visible except along this streetfront, with the exception of the six-story former New York and New Jersey Telephone Company building at the corner of Clinton and Atlantic Avenues.

PROJECT AREA

There is one visual resource located within the project area: the Church of St. Luke and St. Matthew. As described above, the tower of the church is visible in views north along Clinton and Vanderbilt Avenues adjacent to the project area; the church's ornamented main façade on Clinton Avenue is also prominent in nearby views along this street. The church's secondary façade, on Vanderbilt Avenue, is not prominent in views along that street. The Clinton Avenue Historic District buildings along Clinton Avenue—Lot 51 within the project zoning lot, and the additional properties within the rezoning area (Lots 53, 56, 57, and 58)—are visually interesting, but are not highly visible except along this streetfront. As noted above, views along Clinton Avenue adjacent to the rezoning area include the former New York and New Jersey Telephone Company building directly east of the development site and rezoning area, the twin towers of the Co-Cathedral of St. Joseph to the south, and the tower of the Church of St. Luke and St. Matthew on the project block.

STUDY AREA

Views within the study area are most extensive along Atlantic Avenue, given the lack of development above the rail yards on the south side of the street as well as its width (see views 10 and 11 of Figure G-6 and view 15 of **Figure F-7**). The large, tall new Pacific Park buildings discussed above are prominent in these views. Views west on the avenue also include the Barclays Center as well as the former Williamsburgh Savings Bank tower in the distance. Views west on Fulton Street and Greene Avenue also include the former Williamsburgh Savings Bank tower; from Fulton Street, the tall buildings of Downtown Brooklyn are visible in the distance as well (see view 23 of **Figure F-10**).



Lowry Triangle, view northeast from Pacific Street and Underhill Avenue **22**



Fulton Street, view west from Cambridge Place **23**



View north on Carlton Avenue from Bergen Street **24**

Study Area Photographs
Figure F-10

Views west on Pacific Street end at the Barclays Center (located west of 6th Avenue). Views east on Pacific Street, west on Dean Street, and south on Clermont and Carlton Avenues (from north of Atlantic Avenue) include the new Pacific Park buildings. Views north on Carlton Avenue from south of Atlantic Avenue include the 31-story Atlantic Terminal building; views south on the avenue end at Flatbush Avenue (see view 24 of **Figure F-10**). Views north on Vanderbilt Avenue from south of Atlantic Avenue include the new 550 Vanderbilt Avenue tower, as well as the bell tower of the Church of St. Luke and St. Matthew and the former New York and New Jersey Telephone Company building in the background (see view 25 of **Figure F-11**). Views along other streets in the study area generally extend for long distances, but without any notable focus or visual resources within those views.

Views west on Lefferts Place end at St. James Place; views south on St. James Place, Waverly Avenue, Clinton Avenue, and Cumberland Street end at Atlantic Avenue. Views south on Adelphi Street and Cambridge Place, and west on Gates Avenue, end at Fulton Street. Views north on Underhill Avenue from south of Atlantic Avenue end at Atlantic Avenue.

D. FUTURE WITHOUT THE PROPOSED PROJECT

This section considers urban design and visual resources in the No Action condition in 2021. These conditions are projected by considering changes that are likely or expected to occur on the development site, project area, rezoning area, and study area.

DEVELOPMENT SITE AND PROJECT AREA

In the No Action condition, the existing buildings on the development site would be demolished and the site would be redeveloped with an approximately 125,000-gsf building containing approximately 88,000 gsf of residential space and approximately 37,000 gsf of retail space. The building would be seven stories, or approximately 95 feet in height (see **Figure F-12**, and Figure 10 of the EAS). It would have a setback above the sixth floor and a roughly U-shaped plan. The remaining lots in the project zoning lot would remain in their current condition. In the No Action condition, no development rights would be transferred from the other lots in the project zoning lot to the development site.

In the No Action condition, the proposed rezoning would not occur. Independent of the proposed project, one of the lots adjacent to the development site within the rezoning area (Lot 53, 532 Clinton Avenue) is expected to be redeveloped with a new seven-story residential building. This development would require the demolition of the historic two-and-a-half-story frame house on this lot. The remaining lots within the rezoning area are expected to remain in their current condition.

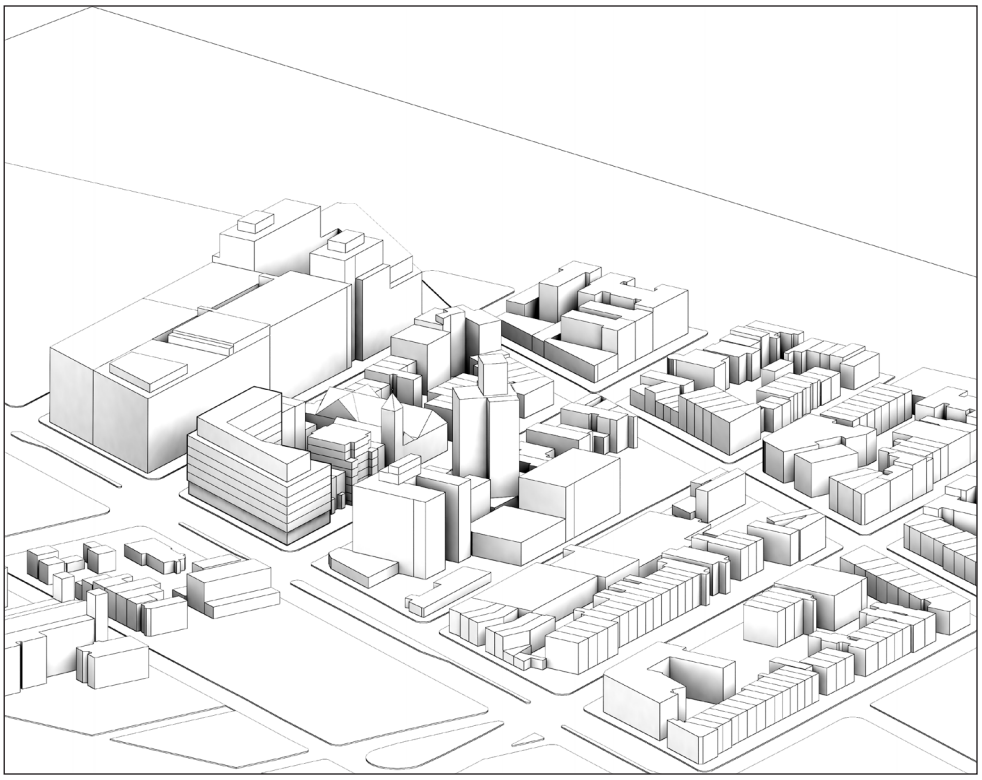
STUDY AREA

As discussed in Attachment A, "Land Use, Zoning, and Public Policy," there are 13 development projects located within the ¼-mile study area anticipated to be complete by 2021, including the project on Lot 53 described above. The buildings to be developed range in size from 2 to 13 stories. Overall, the projects expected to be complete by 2021 are predominantly residential in nature, with an ongoing trend of redeveloping underutilized sites or renovating existing buildings. Additional residential and commercial development is expected to be built as a result of the Pacific Park project to the south of the project area, however, the remaining buildings in the Pacific Park area are not expected to be complete by the 2021 analysis year.

These projects will add new buildings clad in a variety of materials to the area. The No Build developments will enhance the pedestrian experience of the study area closest to these

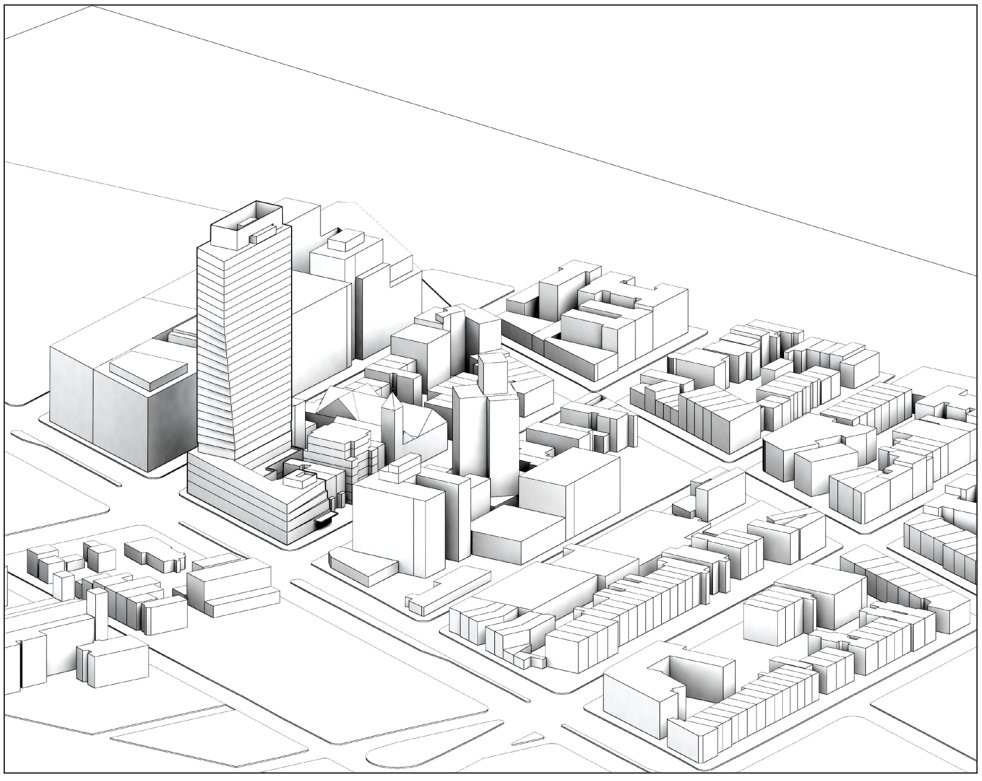


View north on Vanderbilt Avenue from Dean Street **25**



Source: Morris Adjmi Architects

As-of-Right Development



Source: Morris Adjmi Architects

With Action Condition

Aerial Massings,
With Action vs. As-of-Right Development

Figure F-12

developments by adding active ground-floor uses and improving the streetscape by replacing underutilized sites with new active uses.

In the No Action condition, views in the study area will remain similar to existing conditions along most streets. The as-of-right building that will be constructed on the development site would not substantially alter views north-south along Vanderbilt and Clinton Avenues or east-west along Atlantic Avenue (see **Figures F-14, F-16, and F-17**). The as-of-right building could partially obscure some views of the bell tower of the Church of St. Luke and St. Matthew from Atlantic Avenue, and Vanderbilt Avenue south of Atlantic Avenue (see **Figure F-15**), but views of the tower from other perspectives will remain.

E. FUTURE WITH THE PROPOSED PROJECT

URBAN DESIGN

DEVELOPMENT SITE

In With Action condition, a new 277,500 gsf mixed-use development would be constructed on the development site (see **Figure F-13**, and Figures 7 through 9 of the EAS). The proposed project would contain approximately 25,000 gsf of retail, approximately 20,000 gsf of office use, and approximately 233,000 gsf of residential use. Due to the separate ownership of the two tax lots on the development site to which the Applicants hold ground leases, the proposed project would be designed as two separate buildings: a 29-story, approximately 312-foot-tall tower building on Lot 1 (Building A) and a four-story, approximately 52-foot-tall building on Lot 59 (Building B), which would remain separate tax lots. The buildings would be structurally independent and would share a party wall; however, the two buildings would be connected via a corridor on the third and fourth floors and share a cooling tower. Residential entries to the buildings would be located on Vanderbilt and Clinton Avenues; commercial entries to the buildings would be on all three street frontages.

Building A would be oriented along Vanderbilt Avenue and would be approximately 22 stories (217 feet) taller than the No Action development (see **Figure F-12**). The building would set back slightly from the avenue above the fourth floor. Building B would be oriented along Atlantic Avenue and would be approximately 3 stories (43 feet) shorter than the No Action development. The rear of the buildings, facing the interior of the project block, would be two stories in height, to provide visual separation between the proposed development and the low-rise buildings on the remainder of the project block. As with the No Action development, the proposed project would fully occupy the development site. The built FAR of the proposed project on the development site would be approximately 11.26, compared to the No Action development, which would have a built FAR of approximately 4.60. Including the other parcels in the project zoning lot, the FAR for the proposed project's zoning lot is 4.66.

As compared to the No Action development, the proposed project would incorporate the development rights from the other lots within the project area, including the historic Church of St. Luke and St. Matthew. The requested ZR 74-711 special permit would add greater density to the site. With the increased density permitted by the proposed rezoning and the floor area transferred from the other lots that would be facilitated by the proposed actions, the proposed project would be approximately 150,000 gsf larger. It also would include additional residential use and less retail, and would introduce approximately 19,500 gsf of office space compared to the No Action development.



Source: Morris Adjmi Architects

Proposed Development,
Aerial Rendering
Figure F-13



Source: Morris Adjmi Architects

No Action Condition



Source: Morris Adjmi Architects

With Action Condition

No Action/With Action Comparison
View on Clinton Avenue

Figure F-14

8.16.18



Source: Morris Adjmi Architects

No Action Condition



Source: Morris Adjmi Architects

With Action Condition

No Action/With Action Comparison
View north on Vanderbilt Avenue

Figure F-15

8.16.18



Source: Morris Adjmi Architects

No Action Condition



Source: Morris Adjmi Architects

With Action Condition

No Action/With Action Comparison
View south on Vanderbilt Avenue
Figure F-16



Source: Morris Adjmi Architects

No Action Condition



Source: Morris Adjmi Architects

With Action Condition

No Action/With Action Comparison
View west on Atlantic Avenue
Figure F-17

In both the No Action and With Action conditions, the new buildings on the development site would be built closer to the lot line on Atlantic Avenue, and thus would create stronger streetwall along this street. At up to 29 stories, the height of the proposed buildings would be considerably taller than the existing one-story structures on this site; however, there are other tower developments in the study area, as described below. The residential and retail uses of the proposed buildings would remain the same as in the No Action condition.

PROJECT AREA

As discussed in Page 1a of the EAS, "Project Description," the proposed actions would not result in any new development within the project area other than the proposed project. In comparison to the No Action condition, the preservation program for the Church of St. Luke and St. Matthew that is part of the proposed project would be implemented and would be anticipated to enhance the appearance of this historic and visual resource.

STUDY AREA

The proposed project would not result in any changes to buildings, natural features, open spaces, or streets in the study area. In comparison with the No Action condition, the proposed project would alter the visual character of the surrounding area, but this character is already changing through the buildings currently under construction. The proposed project also would enhance the visual character of the development site as compared to existing conditions, and thus would enhance the pedestrian experience of the neighborhood.

Compared to the No Action condition, the proposed actions would result in the development of a tall tower as well as a four-story building on the development site. The new buildings on the development site also would change the urban design context of the study area by replacing underdeveloped sites with two new structures, including one that would be taller than most buildings in the study area; however, the proposed project would be consistent in height with the 31-story Atlantic Terminal building west of the development site, as well as the 32-story residential tower at 461 Dean Street, just west of the study area.[1] The proposed project would add visual interest to the site and would improve the pedestrian experience on surrounding streets. The new tower portion of the proposed project would be much taller and would have greater lot coverage and a larger footprint than most of the existing buildings in the study area; however, the four-story Building B would be similar in height to the residential buildings in the surrounding area and the shorter buildings in the surrounding area, and three stories (approximately 43 feet) shorter than the No Action development.

The proposed project's mix of residential, office, and retail uses would be in keeping with existing uses in the study area. Similar to the No Action condition, the proposed project would activate underutilized lots and provide visual interest to the pedestrian at street level. The new residential and ground-floor retail uses would contribute to enlivened pedestrian activity along surrounding

[1] In addition, as part of the Pacific Park project described above, a building similar in height to the proposed project (approximately 313 feet tall) is expected to be constructed at the intersection of Atlantic and Vanderbilt Avenues southwest of the development site. However, the building is proposed to be built on a platform above the LIRR railyard, which has yet to begin construction, and is not expected to be completed by the proposed project's 2021 analysis year.

streets. Therefore, the proposed actions would not be anticipated to adversely affect any urban design features of the primary study area or the pedestrian's experience of those characteristics.

VISUAL RESOURCES

DEVELOPMENT SITE

As described above, there are no visual resources located on the development site. In the With Action condition, views from the sidewalks adjacent to the development site would continue to include the tower of the Church of St. Luke and St. Matthew, from Clinton and Vanderbilt Avenues (see **Figure F-14**), as well as the former New York and New Jersey Telephone Company building from Clinton and Atlantic Avenues, and the twin towers of the Co-Cathedral of St. Joseph, looking south from all three sides of the development site.

PROJECT AREA

In the With Action condition, as in the No Action condition, the tower of the Church of St. Luke and St. Matthew would continue to be visible in views north along Clinton and Vanderbilt Avenues adjacent to the project area. In particular, the proposed project's design is intended to maintain this view: at the request of the Landmarks Preservation Commission (LPC), as part of the process of obtaining the requisite approvals, the base height of the proposed project was set at four stories in order to improve visibility of the tower from Vanderbilt Avenue looking north (see **Figure F-15**). This element of the proposed project's design does not comply with the zoning regulations relating to minimum street wall height and tower floor area, but would be permitted through waivers pursuant to the proposed ZR 74-711 special permit. Views south along Clinton Avenue adjacent to the rezoning area would continue to include the former New York and New Jersey Telephone Company building and the twin towers of the Co-Cathedral of St. Joseph.

STUDY AREA

In the With Action condition, the proposed buildings would be prominent in views along surrounding streets, particularly along Atlantic, Vanderbilt, and Clinton Avenues (see **Figures F-16 and F-17**). In such views, the proposed project would be more consistent with the Pacific Park residential towers south of Atlantic Avenue and the 31-story Atlantic Terminal building to the west than the surrounding lower-scale development; the 29-story Building A would be one of the tallest and most prominent building in these views.

The proposed buildings would not obstruct or eliminate views to any visual resources in the surrounding area. The proposed buildings would change the immediate context of the Church of St. Luke and St. Matthew, but this change in context is not considered to be a significant adverse effect on this visual resource, and the bell tower, as well the remainder of the church complex, would continue to be visible from existing nearby vantage points. The proposed building could obscure some views of the bell tower of the Church of St. Luke and St. Matthew from Atlantic Avenue, and from Vanderbilt Avenue south of Atlantic Avenue, but views of the tower from these perspectives would already be limited or obscured by the No Action development, and other perspectives of the tower would remain. In addition, as noted above, the proposed project's design was reviewed by LPC and, and at the request of LPC the base height was set at four stories in order to improve the visibility of the tower from Vanderbilt Avenue looking north.

As described above, other historic resources in the surrounding area, including those in the rezoning area, are visually interesting, but are not highly visible except along adjacent streets, and

thus the proposed buildings would not be anticipated to adversely affect views to those resources. The former New York and New Jersey Telephone Company building would still be visible along Atlantic Avenue. Views west on Atlantic and Gates Avenues and Fulton Street to the former Williamsburgh Savings Bank tower in the distance would not be altered. Views along other study area streets would not be expected to change, due to their distance from the site as well as the narrowness of the streets and surrounding mature street trees.

In conclusion, the proposed actions would not result in the elimination of any existing view corridors, or the obstruction of views to any visual resources, or result in an area-wide rezoning. The new buildings on the development site would change the urban design context of the study area by replacing underdeveloped sites with two new structures, including one that would be taller than most buildings in the study area; however, the proposed project would be consistent in height with the 31-story Atlantic Terminal building west of the development site, as well as the 32-story residential tower at 461 Dean Street, just west of the study area. The proposed project would contribute to an active urban design character within the nearby study area. Therefore, the proposed actions would not result in any significant adverse impacts on urban design and visual resources. ✷

A. INTRODUCTION

This attachment examines the potential impacts of the proposed actions on the study area transportation systems. As described on Page 1a of the EAS, "Project Description," 550 Clinton Partners LLC and 539 Vanderbilt Partners LLC (collectively, the "Applicants") are seeking a zoning map amendment, a zoning text amendment, and special permits (the "proposed actions") to facilitate the development of a mixed-use development at 809 Atlantic Avenue, Brooklyn (the "proposed project"). The development site (Block 2010, Lots 1 and 59) will be part of a combined zoning lot with adjacent properties, including Lots 10, 51, 1001-1010, and 1101-1118. The proposed actions include a zoning map amendment that would rezone the development site and portions of four adjacent properties that are not part of the project zoning lot (Block 2010, Lots 53, 56, 57, and 58). For the purposes of this assessment, the project zoning lot (which includes the development site) and the portions of Lots 53, 56, 57, and 58 that are within the proposed rezoning area are referred to as the "project area."

In the future without the proposed project (the "No Action" condition), the development site would be redeveloped as-of-right (AOR) with 126 dwelling units (DUs) and approximately 37,000 gross square feet (gsf) of local retail space. The remaining lots in the project area would remain in their current condition, including the 33 existing DUs in the buildings within the project zoning lot on Lots 51, 1001-1010, and 1101-1118. In total, under the No Action condition, the project zoning lot would contain 159 DUs. In the future with the proposed project (the "With Action" condition), the development site would be redeveloped with 333 DUs, approximately 25,000 gsf of local retail space, and 19,500 gsf of office space. Similarly, the 33 existing DUs on Lots 51, 1001-1010, and 1101-1118 would remain under the With Action condition for a total of 366 DUs in the project zoning lot. **Table G-1** provides a comparison of the development programs for the No Action and With Action conditions.

Table G-1
Comparison of No Action and With Action Development Programs
(Project Zoning Lot)

Components	No Action	With Action	Increment
Residential (DUs)	159	366	207
Local Retail (gsf)	37,000	25,000	-12,000
Office (gsf)	0	19,500	19,500
Accessory Parking Spaces	51	0	-51

The travel demand projections and screening assessments presented in this attachment were conducted pursuant to the methodologies outlined in the 2014 *City Environmental Quality Review (CEQR) Technical Manual*.

B. PRELIMINARY ANALYSIS METHODOLOGY AND SCREENING ASSESSMENT

The *CEQR Technical Manual* recommends a two-tier screening procedure for the preparation of a "preliminary analysis" to determine if quantified analyses of transportation conditions are warranted. As discussed below, the preliminary analysis begins with a trip generation analysis (Level 1) to estimate the volume of person and vehicle trips attributable to the proposed project. If the proposed project is expected to result in fewer than 50 peak-hour vehicle trips and fewer than 200 peak-hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (Level 2) are performed to estimate the incremental trips at specific transportation elements and to identify potential locations for further analyses. If the trip assignments show that the proposed project would result in 50 or more peak-hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a pedestrian element, then further quantified analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, vehicular and pedestrian safety, and parking.

TRANSPORTATION PLANNING ASSUMPTIONS

Trip generation factors for the No Action and the With Action development programs were developed based on information from the *CEQR Technical Manual*, the 2014 *Atlantic Yards Arena and Redevelopment Project Final Supplemental Environmental Impact Statement (FSEIS)*, and U.S. Census Data—as summarized in **Table G-2**.

RESIDENTIAL

The daily person trip rate and temporal distribution for the residential component are from the *CEQR Technical Manual*. The directional distribution is from the *Atlantic Yards Arena and Redevelopment Project FSEIS*. Journey-to-Work (JTW) data for the U.S. Census Bureau 2012–2016 ACS for Brooklyn Census tracts 163, 179, 181, 197, 199, 201, and 203 were used to estimate the modal splits. The vehicle occupancies are from the U.S. Census 2012–2016 ACS for autos and from the *Atlantic Yards Arena and Redevelopment Project FSEIS* for taxis. The daily delivery trip rate and temporal and directional distributions are from the *CEQR Technical Manual*.

OFFICE

The daily person trip generation rate and temporal distribution for the office component are from the *CEQR Technical Manual*. The directional distribution, modal splits, and vehicle occupancies are from the *Atlantic Yards Arena and Redevelopment Project FSEIS*. The daily delivery trip rate and temporal and directional distributions are from the *CEQR Technical Manual*.

LOCAL RETAIL

The daily person trip generation rate for the local neighborhood retail component is from the *CEQR Technical Manual*. In line with accepted City practice, a 25-percent linked trip credit was applied to the local retail trip generation estimates. The temporal and directional distributions are from the *CEQR Technical Manual* and the *Atlantic Yards Arena and Redevelopment Project FSEIS*, respectively. The modal splits are from the DOT trip generation and mode choice survey for local retail in the Brooklyn transit zone. The vehicle occupancies are from the *Atlantic Yards*

Arena and Redevelopment Project FSEIS. The daily delivery trip rate and temporal and directional distributions are from the *CEQR Technical Manual*.

Table G-2
Travel Demand Assumptions

Use	Residential			Office			Local Retail		
Total Daily Person Trip	(1) Weekday 8.075 Trips / DU			(1) Weekday 18.0 Trips / KSF			(1) Weekday 205.00 Trips / KSF		
Trip Linkage	0%			0%			25%		
Net Daily Person trip	Weekday 8.075 Trips / DU			Weekday 18.0 Trips / KSF			Weekday 153.75 Trips / KSF		
	AM	MD	PM	AM	MD	PM	AM	MD	PM
Temporal	(1)			(1)			(1)		
	10.0%	5.0%	11.0%	12.0%	15.0%	14.0%	3.0%	19.0%	10.0%
Direction	(2)			(2)			(2)		
In	20%	51%	65%	96%	39%	5%	50%	50%	50%
Out	80%	49%	35%	4%	61%	95%	50%	50%	50%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
Modal Split	(3)			(2)			(4)		
	AM	MD	PM	AM	MD	PM	AM	MD	PM
Auto	11.0%	11.0%	11.0%	12.0%	2.0%	12.0%	11.0%	11.0%	11.0%
Taxi	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	0.0%	0.0%	0.0%
Subway	71.0%	71.0%	71.0%	65.0%	7.0%	65.0%	3.0%	3.0%	3.0%
Railroad	2.0%	2.0%	2.0%	12.0%	0.0%	12.0%	0.0%	0.0%	0.0%
Bus	5.0%	5.0%	5.0%	6.0%	7.0%	6.0%	2.0%	2.0%	2.0%
Walk	10.0%	10.0%	10.0%	4.0%	83.0%	4.0%	84.0%	84.0%	84.0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
Vehicle Occupancy	(2)(3) Weekday			(2) Weekday			(2) Weekday		
Auto	1.12			1.42			2.00		
Taxi	1.40			1.42			2.00		
Daily Delivery Trip Generation Rate	(1) Weekday 0.06 Delivery Trips / DU			(1) Weekday 0.32 Delivery Trips / KSF			(1) Weekday 0.35 Delivery Trips / KSF		
	AM	MD	PM	AM	MD	PM	AM	MD	PM
Delivery Temporal	(1)			(1)			(1)		
	12.0%	9.0%	2.0%	10.0%	11.0%	2.0%	8.0%	11.0%	2.0%
Delivery Direction	(1)			(1)			(1)		
In	50%	50%	50%	50%	50%	50%	50%	50%	50%
Out	50%	50%	50%	50%	50%	50%	50%	50%	50%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Sources:
(1) *CEQR Technical Manual*
(2) *Atlantic Yards Arena and Redevelopment Project FEIS* (2014)
(3) U.S. Census 2012–2016 American Community Survey (ACS) Journey-to-Work (JTW) Data for Brooklyn Census tracts 163, 179, 181, 197, 199, 201, and 203
(4) New York City Department of Transportation (DOT) Trip Generation and Mode Choice Survey for Local Retail in Transit Zone (Brooklyn).

TRIP GENERATION SUMMARY

As summarized in **Table G-3**, under the No Action condition, the AOR project would generate a total of 300, 1,144, and 710 person trips during the weekday AM, midday, and PM peak hours, respectively. Approximately 29, 69, and 47 vehicle trips would be generated during the same respective peak hours.

As summarized in **Table G-4**, under the With Action condition, the proposed project would generate a total of 452, 930, and 758 person trips during the weekday AM, midday, and PM peak hours, respectively. Approximately 45, 61, and 63 vehicle trips would be generated during the same respective peak hours.

Table G-3
Trip Generation Summary: No Action Condition

Program	Peak Hour	In/Out	Person Trip							Vehicle Trip			
			Auto	Taxi	Subway	Railroad	Bus	Walk	Total	Auto	Taxi	Delivery	Total
Residential 159 DUs	AM	In	3	0	18	1	1	3	26	3	1	1	5
		Out	11	1	73	2	5	10	102	10	1	1	12
		Total	14	1	91	3	6	13	128	13	2	2	17
	Midday	In	4	0	23	1	2	3	33	4	0	0	4
		Out	3	0	22	1	2	3	31	3	0	0	3
		Total	7	0	45	2	4	6	64	7	0	0	7
	PM	In	10	1	65	2	5	9	92	9	1	0	10
		Out	5	0	35	1	2	5	48	4	1	0	5
		Total	15	1	100	3	7	14	140	13	2	0	15
Office 0 gsf	AM	In	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0
	Midday	In	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0
Local Retail 37,000 gsf	AM	In	9	0	3	0	2	72	86	5	0	1	5
		Out	9	0	3	0	2	72	86	5	0	1	5
		Total	18	0	6	0	4	144	172	10	0	2	10
	Midday	In	59	0	16	0	11	454	540	30	0	1	31
		Out	59	0	16	0	11	454	540	30	0	1	31
		Total	118	0	32	0	22	908	1,080	60	0	2	62
	PM	In	31	0	9	0	6	239	285	16	0	0	16
		Out	31	0	9	0	6	239	285	16	0	0	16
		Total	62	0	18	0	12	478	570	32	0	0	32
Total	AM	In	12	0	21	1	3	75	112	8	1	2	11
		Out	20	1	76	2	7	82	188	15	1	2	18
		Total	32	1	97	3	10	157	300	23	2	4	29
	Midday	In	63	0	39	1	13	457	573	34	0	1	35
		Out	62	0	38	1	13	457	571	33	0	1	34
		Total	125	0	77	2	26	914	1,144	67	0	2	69
	PM	In	41	1	74	2	11	248	377	25	1	0	26
		Out	36	0	44	1	8	244	333	20	1	0	21
		Total	77	1	118	3	19	492	710	45	2	0	47

Table G-4
Trip Generation Summary: With Action Condition

Program	Peak Hour	In/Out	Person Trip							Vehicle Trip			
			Auto	Taxi	Subway	Railroad	Bus	Walk	Total	Auto	Taxi	Delivery	Total
Residential 366 DU	AM	In	7	1	42	1	3	6	60	6	2	1	9
		Out	26	2	168	5	12	24	237	23	2	1	26
		Total	33	3	210	6	15	30	297	29	4	2	35
	Midday	In	8	1	54	2	4	8	77	7	2	1	10
		Out	8	1	51	1	4	7	72	7	2	1	10
		Total	16	2	105	3	8	15	149	14	4	2	20
	PM	In	23	2	150	4	11	21	211	21	2	0	23
		Out	13	1	81	2	6	11	114	12	2	0	14
		Total	36	3	231	6	17	32	325	33	4	0	37
Office 19,500 gsf	AM	In	5	0	26	5	2	2	40	4	0	0	4
		Out	0	0	1	0	0	0	1	0	0	0	0
		Total	5	0	27	5	2	2	41	4	0	0	4
	Midday	In	0	0	1	0	1	17	19	0	0	0	0
		Out	1	0	2	0	2	27	32	1	0	0	1
		Total	1	0	3	0	3	44	51	1	0	0	1
	PM	In	0	0	2	0	0	0	2	0	0	0	0
		Out	6	0	30	6	3	2	47	4	0	0	4
		Total	6	0	32	6	3	2	49	4	0	0	4
Local Retail 25,000 gsf	AM	In	6	0	2	0	1	48	57	3	0	0	3
		Out	6	0	2	0	1	48	57	3	0	0	3
		Total	12	0	4	0	2	96	114	6	0	0	6
	Midday	In	40	0	11	0	7	307	365	20	0	0	20
		Out	40	0	11	0	7	307	365	20	0	0	20
		Total	80	0	22	0	14	614	730	40	0	0	40
	PM	In	21	0	6	0	4	161	192	11	0	0	11
		Out	21	0	6	0	4	161	192	11	0	0	11
		Total	42	0	12	0	8	322	384	22	0	0	22
Total	AM	In	18	1	70	6	6	56	157	13	2	1	16
		Out	32	2	171	5	13	72	295	26	2	1	29
		Total	50	3	241	11	19	128	452	39	4	2	45
	Midday	In	48	1	66	2	12	332	461	27	2	1	30
		Out	49	1	64	1	13	341	469	28	2	1	31
		Total	97	2	130	3	25	673	930	55	4	2	61
	PM	In	44	2	158	4	15	182	405	32	2	0	34
		Out	40	1	117	8	13	174	353	27	2	0	29
		Total	84	3	275	12	28	356	758	59	4	0	63

LEVEL 1 SCREENING ASSESSMENT

A Level 1 trip generation screening assessment was conducted to estimate the numbers of person and vehicle trips by mode expected to be generated by the proposed project during the weekday AM, midday, and PM peak hours. These estimates were then compared to the *CEQR Technical Manual* thresholds to determine if a Level 2 screening and/or quantified operational analyses would be warranted. The net incremental trips generated by the No Action and With Action conditions are shown in **Table G-5**.

Table G-5
Trip Generation Summary: Net Incremental Trips

Peak Hour	In/Out	Person Trip							Vehicle Trip			
		Auto	Taxi	Subway	Railroad	Bus	Walk	Total	Auto	Taxi	Delivery	Total
AM	In	6	1	49	5	3	-19	45	5	1	-1	5
	Out	12	1	95	3	6	-10	107	11	1	-1	11
	Total	18	2	144	8	9	-29	152	16	2	-2	16
Midday	In	-15	1	27	1	-1	-125	-112	-7	2	0	-5
	Out	-13	1	36	0	0	-116	-102	-5	2	0	-3
	Total	-28	2	53	1	-1	-241	-214	-12	4	0	-8
PM	In	3	1	84	2	4	-66	28	7	1	0	8
	Out	4	1	73	7	5	-70	20	7	1	0	8
	Total	7	2	157	9	9	-136	48	14	2	0	16

TRAFFIC

As shown in **Table G-5**, the proposed project would generate 16, -8, and 16 incremental vehicle trips during the weekday AM, midday, and PM peak hours, respectively. Since the number of peak-hour incremental vehicle trips is below the *CEQR Technical Manual* analysis threshold of 50 peak-hour vehicle trips, a detailed traffic analysis is not warranted and the proposed project is not expected to result in any significant adverse traffic impacts.

TRANSIT

As shown in **Table G-5**, the proposed project would generate 144, 53, and 157 incremental subway trips during the weekday AM, midday, and PM peak hours, respectively. Since these increments do not exceed the *CEQR Technical Manual* analysis threshold of 200 or more peak-hour subway trips, a detailed analysis of subway facilities or line-haul conditions is not warranted and the proposed project is not expected to result in any significant adverse subway impacts.

As shown in **Table G-5**, the incremental railroad trips generated by the proposed project would be 8, 1, and 9 person trips during the weekday AM, midday, and PM peak hours, respectively. Since these increments do not exceed the *CEQR Technical Manual* analysis threshold of 200 peak-hour trips made by rail, a detailed analysis of rail facilities is not warranted and the proposed project is not expected to result in any significant adverse rail impacts.

For buses, as summarized in **Table G-5**, the incremental bus trips generated by the proposed project would be 9, -1, and 9 person trips during the weekday AM, midday, and PM peak hours, respectively. These incremental bus trips would not exceed the *CEQR Technical Manual* analysis threshold of 50 or more peak-hour bus riders in a single direction. Therefore, a detailed bus line-haul analysis is also not warranted and the proposed project is not expected to result in any significant adverse bus line-haul impacts.

PEDESTRIANS

All incremental person trips generated by the proposed project would traverse the pedestrian elements (i.e., sidewalks, corners, and crosswalks) surrounding the development site. As shown in **Table G-5**, the incremental pedestrian trips generated by the proposed project would be 152, -214, and 48 during the weekday AM, midday, and PM peak hours, respectively. Since these increments do not exceed the *CEQR Technical Manual* threshold of 200 peak-hour pedestrian trips, a detailed pedestrian analysis is not warranted and the proposed project is not expected to result in any significant adverse pedestrian impacts.

C. PARKING ASSESSMENT

The *CEQR Technical Manual* states that if a quantified traffic analysis is not required, an assessment of parking supply and utilization is also typically not warranted. However, because the proposed project would include a special permit waiver to eliminate the residential parking requirements on the development site, a detailed parking study was conducted to demonstrate that there would be sufficient parking supply to accommodate the proposed project's residential parking demand.

An inventory of the off-street parking supply and utilization within a ¼-mile of the project area was conducted in February 2018. The off-street survey provided an inventory of the area's public parking facilities and their legal capacities and daytime utilization. Based on this information and the projection of the proposed project's incremental residential parking demand, an assessment of

future parking conditions surrounding the project area was conducted to determine if there would be a potential for a parking shortfall or a significant adverse parking impact attributable to the proposed project. As described below, based on this assessment, the proposed project would not result in a parking shortfall or have a significant adverse parking impact.

OFF-STREET PARKING

Off-street publicly accessible parking lots and garages within ¼-mile of the project area were surveyed in February 2018. Each facility's operating license and legal capacity were noted. Based on responses given by parking attendants and visual inspections, where possible, estimates were made on the parking occupancy or utilization at each facility for the weekday morning, midday, evening, and overnight time periods. A graphical representation of the surveyed parking facilities and a summary of the recorded information, including the area's overall off-street public parking supply and utilization, are presented in **Figure G-1** and **Table G-6**.

Table G-6
Existing Off-Street Public Parking—¼-Mile Study Area
Weekday Utilization

Map #	Name	Address	License Number	Licensed Capacity	Utilization Rate				Utilized Spaces				Available Spaces			
					AM	MD	PM	ON	AM	MD	PM	ON	AM	MD	PM	ON
1	A&P Parking Corp.	525 Clinton Avenue	2049780	55	33%	66%	66%	33%	18	36	36	18	37	19	19	37
2	WOC Waverly Garage	502 Waverly Avenue	2050957	34	80%	80%	60%	60%	27	27	20	20	7	7	14	14
3	Enterprise Washington Garage	545 Washington Avenue	1460723	67	60%	60%	60%	60%	40	40	40	40	27	27	27	27
4	786 Parking Corporation	313 St. Marks Avenue	2060564	38	75%	85%	66%	50%	29	32	25	19	9	6	13	19
5	Pacific Parking LLC	700 Pacific Street	1244293	170	50%	60%	50%	1%	85	102	85	2	85	68	85	168
Totals				**364**	**55%**	**65%**	**57%**	**27%**	**199**	**237**	**206**	**99**	**165**	**127**	**158**	**265**

Notes: MD = Weekday Midday; ON = Weekday Overnight
Sources: Survey conducted by AKRF Inc. February 2018

Within the ¼-mile parking study area, five public parking facilities were inventoried. The combined capacity of these facilities totals 364 parking spaces. Overall, they were 55, 65, 57, and 27-percent utilized, with 165, 127, 158, and 265 parking spaces available during the weekday AM, midday, PM, and overnight time periods, respectively.

Applying the travel demand assumptions presented in **Table G-2**, the weekday parking profile was developed to estimate the hourly parking demand from the proposed project's residential units. [1] The proposed DUs would be all rentals. Based on the most recent U.S. Census 2012–2016 ACS auto ownership data, the renter-occupied auto ownership rate in the study area is approximately 30 percent. Applying the 30 percent renter-occupied auto ownership rate to the proposed 333 DUs results in an overnight parking demand of approximately 100 parking spaces. **Table G-7** presents the projected weekday hourly parking demand for the proposed DUs. As shown, the proposed DUs would generate parking demands of 76, 58, 72, and 100 spaces during the weekday AM, midday, PM, and overnight time periods, respectively. The projected parking demands would be accommodated by the available parking supply during the respective time

[1] The proposed project's residential parking demand is based on a net total of 333 DUs. The parking demand from the existing 33 DUs in the project zoning lot is already accounted for in the existing off-street parking survey results.

8/16/2018



Project Area

Study Area (1/4-mile boundary)

Parking Facility

0 400 FEET

Off-Street Parking Facilities

809 ATLANTIC AVENUE

Figure G-1

periods. Therefore, eliminating the residential parking requirement on the development site would not result in a parking shortfall or have the potential for a significant adverse parking impact.

Table G-7
Proposed Residential Parking Demand—Weekday

Hour	Residential
12 AM–1 AM	100
1 AM–2 AM	100
2 AM–3 AM	100
3 AM–4 AM	100
4 AM–5 AM	100
5 AM–6 AM	100
6 AM–7 AM	100
7 AM–8 AM	92
8 AM–9 AM	76
9 AM–10 AM	66
10 AM–11 AM	59
11 AM–12 PM	57
12 PM–1 PM	58
1 PM–2 PM	58
2 PM–3 PM	58
3 PM–4 PM	58
4 PM–5 PM	63
5 PM–6 PM	72
6 PM–7 PM	82
7 PM–8 PM	90
8 PM–9 PM	93
9 PM–10 PM	96
10 PM–11 PM	98
11 PM–12 AM	100

✷

A. INTRODUCTION

This attachment assesses the potential for air quality impacts associated with the proposed actions. The proposed actions would facilitate the development of an approximately 277,500 gross square foot (gsf) mixed-use development at 809 Atlantic Avenue, Brooklyn (the "proposed project").

The proposed project is not expected to significantly alter traffic conditions. As discussed in Attachment G, "Transportation," the incremental trips generated by the proposed project—primarily automobiles—would be 15, 1, and 15 vehicle trips during the weekday AM, midday, and PM peak hours, respectively. Since the proposed project would not exceed any thresholds defined in the 2014 *City Environmental Quality Review (CEQR) Technical Manual* for traffic analysis, it is assumed that the maximum hourly increase in traffic volume due to the proposed project would not exceed the carbon monoxide (CO) or particulate matter (PM) emission screening thresholds defined in the *CEQR Technical Manual* (170 auto trips for peak-hour trips at nearby intersections in the study area for CO and PM emission equivalent to 12 to 23 heavy-duty vehicles, depending on roadway type). Therefore, no mobile source analysis is required.

With the proposed actions, the proposed project would consist of two separate buildings: a 29-story tower (Building A) and a 4-story building (Building B). Since the buildings would include natural gas-fired heat and hot water systems, a stationary source analysis was conducted to evaluate the potential impact from these sources on air quality. An alternative condition for the future with the proposed project, or the "With Action" condition, (the No Special Permit scenario) has also been evaluated. In the No Special Permit scenario, development would feature a different design than the proposed project, featuring two towers containing residential space (see Figure 11 of the EAS): a 19-story tower (Building A), shorter than the proposed project's 29-story tower, and an 11-story tower (Building B). Since the proposed project and the No Special Permit scenario massings are different, both massings have been analyzed in this attachment.

The project area is located within 400 feet of manufacturing zoned area; therefore, air quality impacts from nearby industrial sources of air pollution (e.g., from manufacturing or processing facilities) were also evaluated. In addition, the potential for emissions from large or major sources to impact air quality within the project area was assessed. A review of major- and large-source permits[1] found no such facilities within 1,000 feet of the proposed project, and therefore no additional analysis is required for major or large sources.

As discussed in detail below, the proposed actions would not result in any significant adverse impacts on air quality.

[1] NYSDEC. *Access to DEC Air Permits*. http://www.dec.ny.gov/chemical/32249.html. Accessed 4/10/2018.

B. METHODOLOGY

HEAT AND HOT WATER SYSTEMS

OVERVIEW AND APPROACH

Stationary source analyses were conducted using the methodology described in the *CEQR Technical Manual* to assess air quality impacts associated with emissions from the building heat and hot water systems for the proposed project or the alternative development under the No Special Permit scenario. The primary pollutant of concern when burning natural gas is nitrogen dioxide (NO_2). Initial screening was prepared using basic project information and applying thresholds defined in the *CEQR Technical Manual*, and further screening was prepared using the U.S. Environmental Protection Agency's (EPA) AERSCREEN model to evaluate potential 1-hour average NO_2 and 24-hour and annual average concentrations of particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$), which are not included in the initial screening procedure.

Potential 1-hour average NO_2 concentrations, added to representative background concentrations in the area, were compared with the National Ambient Air Quality Standards (NAAQS). Potential 24-hour and annual average incremental concentrations of $PM_{2.5}$ were compared with the $PM_{2.5}$ *de minimis* criteria defined in the *CEQR Technical Manual:*

- Predicted increase of more than half the difference between the background concentration and the 24-hour standard;
- Annual average $PM_{2.5}$ concentration increments which are predicted to be greater than 0.1 $\mu g/m^3$ at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources); or
- Annual average $PM_{2.5}$ concentration increments which are predicted to be greater than 0.3 $\mu g/m^3$ at a discrete location (elevated or ground level).

INITIAL SCREENING ANALYSIS

Initial screening was undertaken using the methodology described in Chapter 17, Section 322.1 of the *CEQR Technical Manual*. This analysis determines the threshold of development size below which the action would not have a significant adverse impact relative to CO, PM less than 10 micrometers in diameter (PM_{10}), and annual average NO_2 NAAQS levels (see AERSCREEN Analysis below for additional standards). The screening is based on the distance from the development to the nearest building of similar or greater height. The screening procedure uses information regarding the type of fuel to be burned, the development type and maximum size, and the exhaust stack height to evaluate whether or not a significant impact is possible.

Based on the distance from the development to the nearest building of similar or greater height, if the maximum development size is greater than the threshold size in the *CEQR Technical Manual*, then there is the potential for significant air quality impacts and a refined dispersion modeling analysis would be required. Otherwise, the source passes the screening analysis and no further study is required.

The initial screening for the proposed project was based on a 277,500-gsf building, with the nearest receptor of similar or greater height at a distance of 400 feet. The No Special Permit scenario screening was based on a 186,000-gsf building, with the nearest receptor of similar or greater height at a distance of 685 feet.

AERSCREEN ANALYSIS

Potential 1-hour average NO_2 and 24-hour and annual average $PM_{2.5}$ impacts from the proposed project's heat and hot water system's emissions were evaluated using the latest version of EPA's AERSCREEN model (version 16216). The AERSCREEN model projects worst-case 1-hour average concentrations downwind from a point, area, or volume source, and longer-period averages are estimated by multiplying the 1-hour results by persistence factors established by EPA or provided in the *CEQR Technical Manual*. AERSCREEN generates application-specific worst-case meteorology using representative minimum and maximum ambient air temperatures, and site-specific surface characteristics such as albedo, Bowen ratio, and surface roughness length.[2] The AERSCREEN model was used to calculate worst-case ambient concentrations of NO_2 and $PM_{2.5}$ from the proposed project downwind of the stack.

The model incorporates the Plume Rise Model Enhancements (PRIME) downwash algorithm, which is designed to predict concentrations in the "cavity region" (i.e., the area around a structure which under certain conditions may affect an exhaust plume, causing a portion of the plume to become entrained in a recirculation region). AERSCREEN uses the Building Profile Input Program for PRIME (BPIPPRM) to provide a detailed analysis of downwash influences on a direction-specific basis. AERSCREEN also incorporates AERMOD's complex terrain algorithms and utilizes the AERMAP terrain processor to account for the actual terrain in the vicinity of the source on a direction-specific basis.

The AERSCREEN model was run both with and without the influence of building downwash, using urban diffusion coefficients that were based on a review of land-use maps of the area. Other model options were selected based on EPA guidance.

Maximum 1-hour average NO_2 concentrations were estimated using an NO_2 to NO_x ratio of 0.8—the recommended default ambient ratio per EPA guidance.[3]

Emission Rates and Stack Parameters

Proposed Project

Based on the project's design, Buildings A and B will have a shared heating system, however, domestic hot water would be provided by individual systems located in each building. Building A will have natural gas-fired boilers and hot water heaters located on the roof to provide heating to both buildings and domestic hot water to Building A, respectively. Annual emission rates for heating and hot water systems located on the roof of Building A were calculated based on fuel consumption estimates, using energy intensity estimates based on type of development and size of the building (277,500 gsf) as recommended in the *CEQR Technical Manual*, and applying emission factors for natural gas-fired boilers.[4] $PM_{2.5}$ emissions include both the filterable and condensable components. The short-term emission rates (24-hour and shorter) were calculated by scaling the annual emissions to account for a 100-day heating season. The exhaust from the heat

[2] Albedo is the fraction of the total incident solar radiation reflected by the ground surface. The Bowen ratio is the ratio of the sensible heat flux to the latent (evaporative) heat flux. The surface roughness length is related to the height of obstacles to the wind flow and represents the height at which the mean horizontal wind speed is zero based on a logarithmic profile.

[3] EPA. Memorandum: Clarification on the use of AERMOD Dispersion Modeling for Demonstrating Compliance with the NO_2 National Ambient Air Quality Standard. September 30, 2014.

[4] EPA. Compilation of Air Pollutant Emission Factors AP-42. 5th Ed., V. I, Ch. 1.4. September, 1998.

and hot water systems was assumed to be vented through a single stack located 3.0 feet above the roof of the building at a height of approximately 315 feet above grade.

Building B would include two natural gas-fired domestic hot water heaters rated at 1.5 million British thermal units per hour (MMBtu/hr) for domestic hot water. Pollutant emission rates were estimated based on peak and annual fuel usage estimates provided by the design team. The 1-hour average emission rate for NO_x was calculated using the maximum hot water heater operating capacity of 2.3 MMBtu/hr and assuming the use of low NO_x burners (30 ppm). The PM emission rate was calculated using AP-42 emission factors. The exhaust from the hot water systems was assumed to be vented through a single stack located 3.0 feet above the roof of the building at a height of approximately 65 feet above grade.

To calculate exhaust velocity, the fuel consumption of the proposed project was multiplied by EPA's fuel factor for natural gas,[5] providing the exhaust flow rate at standard temperature; the flow rate was then corrected for the exhaust temperature, and exhaust velocity was calculated based on the stack diameter.

The emission rates and exhaust stack parameters used in the modeling analyses are presented in **Table H-1**.

Table H-1
Exhaust Stack Parameters and Emission Rates (Proposed Project)

Stack Parameter	Building A (Building Heat and Hot Water)	Building B (Domestic Hot Water)
Stack Height (feet)	315	65
Stack Diameter (feet)(1)	3.2	2.0
Exhaust Velocity (meters/second)(2)	1.15	0.96
Exhaust Temperature (degrees Fahrenheit)(1)	307.8	307.8
Emission Rate (grams/second)		
NO_2 (1-hour average)	0.0852	0.0103(3)
$PM_{2.5}$ (24-hour average)	0.0065	0.0003
$PM_{2.5}$ (Annual average)	0.0018	0.0003

Notes:
(1) Stack diameter and exhaust temperature for the proposed systems were obtained from a survey of boiler exhaust data prepared and provided by New York City Department of Environmental Protection (DEP).[6]
(2) The stack exhaust flow rate and velocity estimated based on the type of fuel and heat input rate.
(3) Emission rate based on 30 ppm low NO_x burners.

No Special Permit Scenario

Since there is no building-specific design information for the alternative massing analysis, conservative assumptions were used for boiler equipment which would be used to provide building space heating and domestic hot water. It was assumed that the combustion equipment would utilize natural gas exclusively and there would be a central boiler installation with the exhaust stack located on the roof of the taller Building A.

[5] EPA. *Standards of Performance for New Stationary Sources.* 40 CFR Chapter I Subchapter C Part 60. Appendix A-7, Table 19-2. 2013.

[6] DEP. *Boiler Database*. Personal communication from Mitchell Wimbish on August 11, 2017.

Annual emission rates for heating and hot water systems were calculated based on fuel consumption estimates, using energy intensity estimates based on type of development and size of the building as recommended in the *CEQR Technical Manual*, and applying AP-42 emission factors for natural gas-fired boilers. The short-term emission rates (24-hour and shorter) were calculated by scaling the annual emissions to account for a 100-day heating season. The exhaust from the heat and hot water systems was assumed to be vented through a single stack located 3.0 feet above the roof of Building A at a height of approximately 209 feet above grade.

The emission rates and exhaust stack parameters used in the modeling analyses are presented in **Table H-2**.

Table H-2
Exhaust Stack Parameters and Emission Rates (No Special Permit Scenario)

Stack Parameter	Value
Stack Height (feet)	209
Stack Diameter (feet)(1)	2.0
Exhaust Velocity (meters/second)(2)	1.98
Exhaust Temperature (degrees Fahrenheit)(1)	307.8
Emission Rate (grams/second)	
NO_2 (1-hour average)	0.057
$PM_{2.5}$ (24-hour average)	0.004
$PM_{2.5}$ (Annual average)	0.001

Notes:
(1) Stack diameter and exhaust temperature for the proposed systems were obtained from a survey of boiler exhaust data prepared and provided by DEP.
(2) The stack exhaust flow rate and velocity estimated based on the type of fuel and heat input rate.

Background Concentrations

To estimate the maximum projected total 1-hour average NO_2 concentration at a given receptor, the projected concentration increment from the source was added to corresponding background concentration of 112.3 $\mu g/m^3$. This background level represents the 3-year average (2014–2016) of the annual 98th percentile of the daily-highest 1-hour average NO_2 concentrations (this is the statistical form of the standard) monitored at the nearest New York State Department of Environmental Conservation (NYSDEC) background monitoring station—Queens College, Queens. Note that the maximum concentration increment would not necessarily coincide with the maximum background levels, and, therefore, this approach results in a conservatively high estimate.

$PM_{2.5}$ impacts are assessed on an incremental basis and compared with the $PM_{2.5}$ *de minimis* criteria. The $PM_{2.5}$ 24-hour average background concentration of 20.5 $\mu g/m^3$ from the JHS 126 ambient monitoring station was used to establish the *de minimis* value of 7.2 $\mu g/m^3$ (based on the 98th percentile concentration, averaged over the years 2014–2016).

Receptor Placement

Receptors (locations at which concentrations are projected) generally include operable windows in residential or other buildings, air intakes, and publicly accessible open space locations, as applicable. For the proposed project, the nearest building of similar or greater height to Building A is beyond 400 feet; therefore this distance was conservatively used in the analysis, as per *CEQR Technical Manual* guidance; receptors representing the nearest lower buildings at distances of 379 feet and 685 feet were also included. For Building B, the nearest building of similar or greater height is the seven-story building expected to be constructed to the north of the development site at 532 Clinton Avenue (see Attachment A, "Land Use, Zoning, and Public Policy") located at a distance of 65 feet. In

addition, the adjacent proposed Building A (proposed project) was evaluated; multiple distances were modeled to determine the minimum setback distance required for placement of hot water heater vents. The worst-case ground level concentration was also evaluated.

For the No Special Permit scenario, the nearest building of similar or greater height is located at a distance of 685 feet. Receptors representing the nearest building at a distance of 685 feet and a lower building at a distance of 379 feet were included. Lower receptors were also included at those same distances.

EXISTING INDUSTRIAL FACILITIES

Nearby industrial facilities were examined to identify any potential for adverse impacts on future residents of the proposed project from air toxics. All industrial and manufacturing uses within 400 feet of the development site ("industrial source study area") were considered for inclusion in the air quality impact analyses.

Land use maps and aerial photographs were reviewed to identify potential sources of emissions from manufacturing/industrial operations. A search of federal, state, and city compliance and permit data within the study area was conducted using DEP's Clean Air Tracking System (CATS) database[7] and EPA's Envirofacts database.[8] Next, a field survey of uses within 400 feet of the development site was conducted on March 28, 2018 to determine the operating status of permitted industries, and identify any potential industrial sites not included in the permit databases.

C. FUTURE WITH THE PROPOSED PROJECT

HEAT AND HOT WATER SYSTEMS

PROPOSED PROJECT

The results of the simplified screening analysis are presented in **Figure H-1**. The distance below which impacts might occur on buildings of similar height was estimated at 120 feet. The distance to the nearest building of similar height would be beyond 400 feet, which is further from the source, indicating that no significant impact is projected. Since annual average NO_2 is the critical pollutant in this analysis, impacts would also not be expected for the PM_{10}, and CO standards.

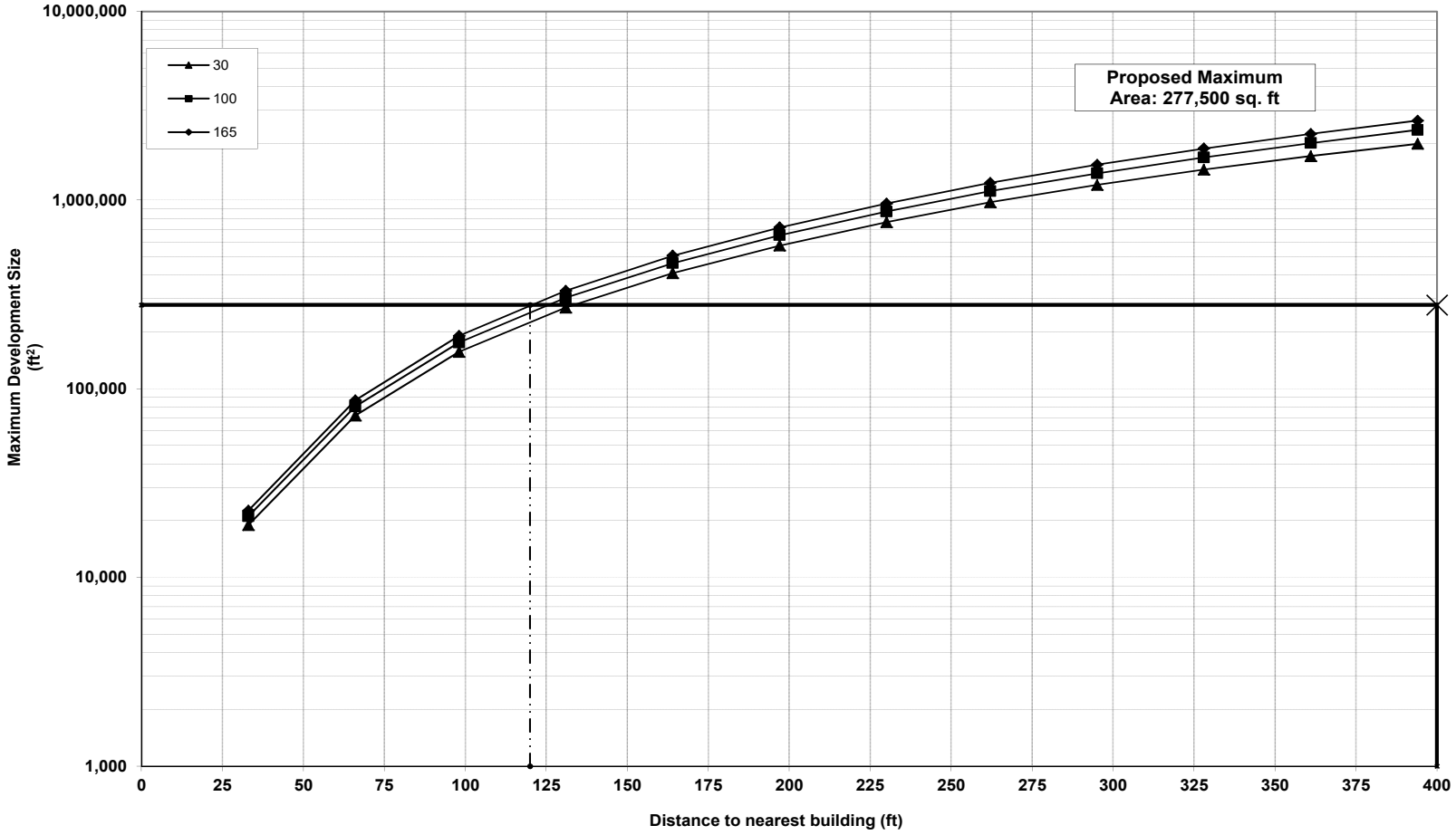
The results of the AERSCREEN analysis for 1-hour average NO_2 and 24-hour and annual average $PM_{2.5}$ from Buildings A and B are presented in **Table H-3**. No exceedance of criterial levels was identified in the AERSCREEN analysis. Overall, based on the two analyses presented, the proposed project's heating and hot water system would not result in any significant adverse air quality impacts.

[7] DEP. Clean Air Tracking System database. https://a826-web01.nyc.gov/DEP.BoilerInformationExt. Accessed March 21, 2018

[8] EPA. Envirofacts Data Warehouse. https://www3.epa.gov/enviro/. Accessed March 21, 2018.

HVAC Screening Analysis
Site: 809 Atlantic Ave_With Action
Date: 4/25/2018
Pass

FIG App 17-7
NO_2 BOILER SCREEN
RESIDENTIAL DEVELOPMENT - NATURAL GAS



Stack Height: 315 ft
Distance to Nearest Building of Similar or Greater Height: 400 ft
Proposed Maximum SQFA: 277,500 sq. ft
Minimum Allowable Distance to Nearest Building: 120 ft

Notes:

Table H-3
Maximum Modeled Pollutant Concentrations
(With Action Condition) (µg/m^3)

Building	Pollutant	Averaging Period	Maximum Modeled Impact	Background	Total Concentration	Criterion
Building A	NO_2	1-hour	47.6[(1)]	112.3	159.8	188 [(2)]
	$PM_{2.5}$	24-hour	2.71	N/A	N/A	7.2 [(3)]
		Annual	0.12	N/A	N/A	0.3 [(4)]
Building B	NO_2	1-hour	69.4 [(1)]	112.3	181.6	188 [(2)]
	$PM_{2.5}$	24-hour	1.59	N/A	N/A	7.2 [(3)]
		Annual	0.27	N/A	N/A	0.3 [(4)]

Notes:
N/A—Not Applicable
[(1)] The 1-hour average NO_2 concentration is estimated using NO_2 to NO_x ratio of 0.8 as per EPA guidance
[(2)] NAAQS
[(3)] $PM_{2.5}$ *de minimis* criteria—24-hour average, not to exceed more than half the difference between the background concentration and the 24-hour standard of 35 µg/m^3
[(4)] $PM_{2.5}$ *de minimis* criteria—annual (discrete receptor)

NO SPECIAL PERMIT SCENARIO

The results of the simplified screening analysis are presented in **Figure H-2**. The distance below which impacts might occur on buildings of similar height was estimated at 120 feet. The distance to the nearest building of similar height would be beyond 400 feet, which is further from the source, indicating that no significant impact is projected. Since annual average NO_2 is the critical pollutant in this analysis, impacts would also not be expected for the PM_{10} and CO standards.

The results of the AERSCREEN analysis for 1-hour average NO_2 and 24-hour and annual average $PM_{2.5}$ are presented in **Table H-4**. No exceedance of criterial levels was identified in the AERSCREEN analysis. Overall, based on the two analyses presented, the proposed project's heating and hot water system would not result in any significant adverse air quality impacts.

Table H-4
Maximum Modeled Pollutant Concentrations
(No Special Permit Scenario) (µg/m^3)

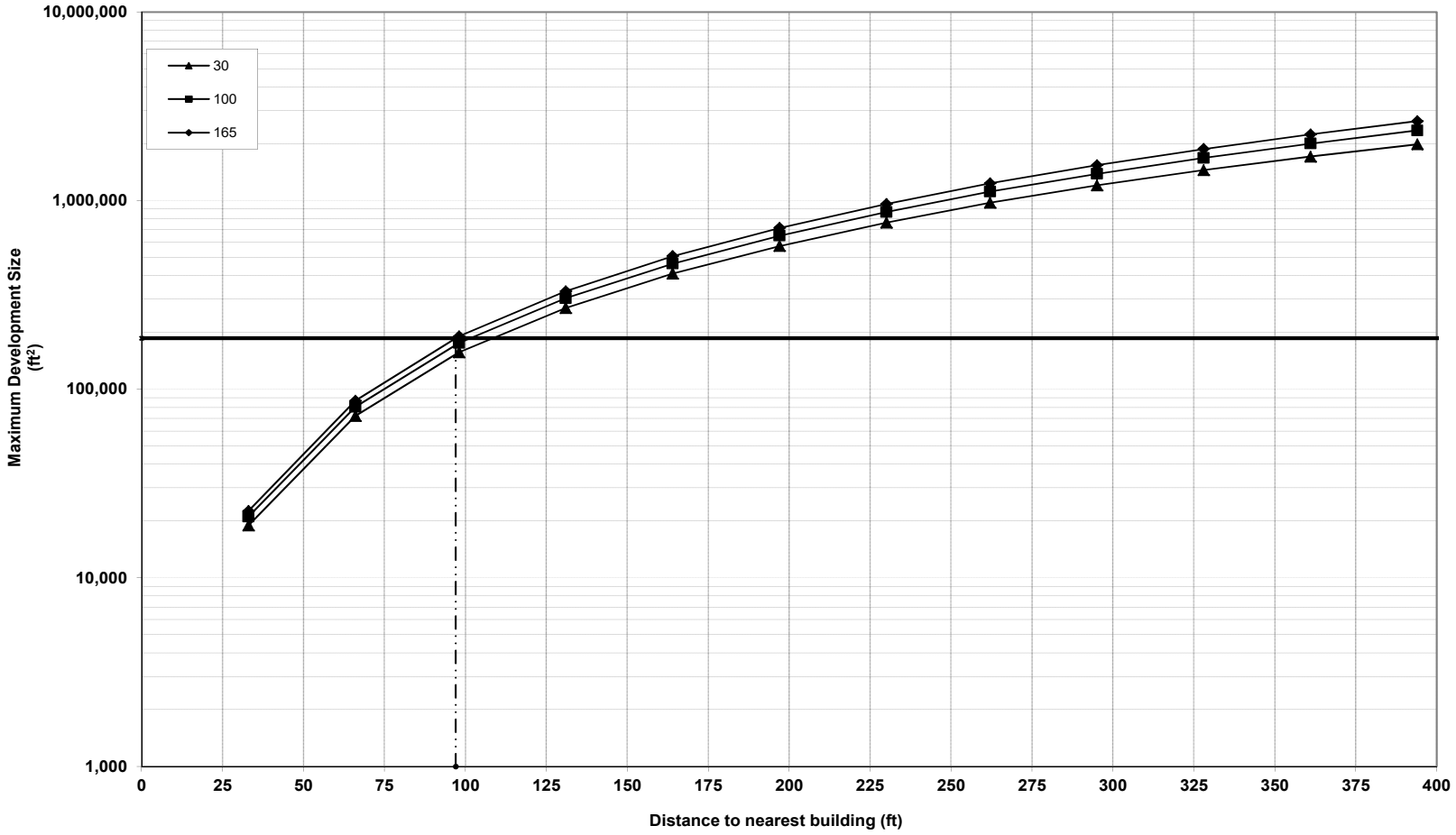
Pollutant	Averaging Period	Maximum Modeled Impact	Background	Total Concentration	Criterion
NO_2	1-hour	23.3[(1)]	112.3	135.6	188 [(2)]
$PM_{2.5}$	24-hour	1.33	N/A	N/A	7.2 [(3)]
	Annual	0.06	N/A	N/A	0.3 [(4)]

Notes:
N/A—Not Applicable
1 The 1-hour average NO_2 concentration is estimated using NO_2 to NO_x ratio of 0.8 as per EPA guidance
2 NAAQS
3 $PM_{2.5}$ *de minimis* criteria—24-hour average, not to exceed more than half the difference between the background concentration and the 24-hour standard of 35 µg/m^3
4 $PM_{2.5}$ *de minimis* criteria—annual (discrete receptor)

To avoid potential significant adverse air quality impacts on nearby receptors, the following restrictions are required. The restrictions described below would be required as part of the proposed

HVAC Screening Analysis
Site: 809 Atlantic Ave_Alternative
Date: 4/25/2018
Pass

FIG App 17-7
NO_2 BOILER SCREEN
RESIDENTIAL DEVELOPMENT - NATURAL GAS



Stack Height: 209 ft
Distance to Nearest Building of Similar or Greater Height: 685 ft
Proposed Maximum SQFA: 186,000 sq. ft
Minimum Allowable Distance to Nearest Building: 97 ft

Notes:

actions through air quality (E) designation that would be placed on the development site. With these measures included as part of the proposed project, no significant adverse impacts would occur.

PROPOSED PROJECT

Building A (Block 2010, Lot 1)

Any new development on the above-referenced property must utilize only natural gas in any fossil fuel-fired heating and hot water equipment, and ensure that the exhaust vents(s) are located at the highest tier and at least 315 feet above grade, to avoid any potential significant air quality impacts.

Building B (Block 2010, Lot 59)

Any fossil fuel-fired hot water equipment with exhaust vents located on the roof of this development must have no more than a 3,000 MBH capacity, utilize only natural gas, be fitted with low NO_x (30 ppm) burner, and the exhaust vents must be located at least 65 feet above grade and at most 46 feet from the lot line facing Clinton Avenue, and at least 25 feet from the northern lot line facing Fulton Street. Any heating system exhaust vents(s) will be located on the roof of Building A.

NO SPECIAL PERMIT SCENARIO

Buildings A and B (Block 2010, Lots 1, 59)

Any new development on the above-referenced property must utilize only natural gas in any fossil fuel-fired heating and hot water equipment and ensure that the exhaust vent(s) are located on the roof of the taller Building A at least 209 feet above grade, to avoid any potential significant air quality impacts.

EXISTING INDUSTRIAL FACILITIES

Based on the initial permit search, one DEP-permitted dry cleaning facility located at 856 Fulton Street (Block 2010, Lot 34; Application # PB466303) was identified within the study area. Dry cleaners in New York City use the best available technology for controlling dry cleaning emissions and meet stringent DEP regulations. Based on this information, it was determined that the contaminants emitted by the dry cleaning facility would not lead to any significant adverse impacts on the proposed project. In addition, one facility was identified with registrations for emergency generators located at 547 Clinton Avenue (Block 2011, Lot 1; Application # PB010811, and Application # PB047913) which is not an industrial source of emissions, and furthermore, the operation of this type of source would be very limited. Therefore, an analysis of these sources was not required. No other potential sources of concern were identified. Therefore, no potential significant adverse air quality impacts from industrial sources would occur with the proposed actions, and no further analysis was warranted. ✷

Appendix A
Historic and Cultural Resources

Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

Voice (212)-669-7700
Fax (212)-669-7960
http://nyc.gov/landmarks

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / LA-CEQR-K
Project: 809 ATLANTIC AVENUE
Date received: 7/11/2017

Properties with no Architectural significance:
1) ADDRESS: 539 Vanderbilt Avenue, BBL: 3020100001
2) ADDRESS: 809 Atlantic Avenue, BBL: 3020100059

Properties with Architectural significance within the S/NR eligible Clinton Avenue Historic District:
1) ADDRESS: 536 Clinton Avenue, BBL: 3020100056, LPC FINDINGS: NO INTEREST, STATE/NATIONAL REGISTER FINDINGS: ELIG PROPERTY W/IN ELIGIBLE NR HD
2) ADDRESS: 538 Clinton Avenue, BBL: 3020100057, LPC FINDINGS: NO INTEREST, STATE/NATIONAL REGISTER FINDINGS: ELIG PROPERTY W/IN ELIGIBLE NR HD
3) ADDRESS: 540 Clinton Avenue, BBL: 3020100058, LPC FINDINGS: NO INTEREST, STATE/NATIONAL REGISTER FINDINGS: ELIG PROPERTY W/IN ELIGIBLE NR HD
4) ADDRESS: 520 Clinton Avenue, BBL: 3020100010, PROPERTY NAME: ST. LUKE'S PROTESTANT EPISCOPAL CHURCH, LPC FINDINGS: INDIVIDUAL DESIGNATION, STATE/NATIONAL REGISTER FINDINGS: PROPERTY NATIONAL REGISTER LISTED
5) ADDRESS: 528 Clinton Avenue, BBL: 3020100051, LPC FINDINGS: NO INTEREST, STATE/NATIONAL REGISTER FINDINGS: ELIG PROPERTY W/IN ELIGIBLE NR HD

Properties with Archaeological significance:
1) ADDRESS: 539 Vanderbilt Avenue, BBL: 3020100001
2) ADDRESS: 809 Atlantic Avenue, BBL: 3020100059
3) ADDRESS: 536 Clinton Avenue, BBL: 3020100056
4) ADDRESS: 538 Clinton Avenue, BBL: 3020100057
5) ADDRESS: 540 Clinton Avenue, BBL: 3020100058
6) ADDRESS: 520 Clinton Avenue, BBL: 3020100010
7) ADDRESS: 528 Clinton Avenue, BBL: 3020100051

LPC review of archaeological sensitivity models and historic maps indicates that there is potential for the recovery of remains from 19th Century occupation and possible Church of St. Luke cemetery c. 1850 on the project site (BBL 3020100010). Accordingly, the Commission recommends that an archaeological documentary study be performed for this site to clarify these initial findings and provide the threshold for the next level of review, if such review is necessary (see CEQR Technical Manual 2014).

Gina Santucci

7/21/2017

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 32576_FSO_GS_07212017.doc

Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

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http://nyc.gov/landmarks

ARCHAEOLOGY

Project number: DEPARTMENT OF CITY PLANNING / LA-CEQR-K
Project: 809 ATLANTIC AVENUE
Date received: 4/18/2018

Comments: as indicated below. Properties that are individually LPC designated or in LPC historic districts require permits from the LPC Preservation department. Properties that are S/NR listed or S/NR eligible require consultation with SHPO if there are State or Federal permits or funding required as part of the action.

This document only contains Archaeological review findings. If your request also requires Architecture review, the findings from that review will come in a separate document.

Comments: The LPC is in receipt of a request from DCP that LPC review the archaeological potential of Block 2010, Lots 1 and 59 because they have determined that these are the only lots that will be developed as a result of their rezoning.

LPC review of archaeological sensitivity models and historic maps indicates that there is potential for the recovery of remains from 19th Century occupation on Block 2010 Lots 1 and 59. Accordingly, the Commission recommends that an archaeological documentary study be performed for this site to clarify these initial findings and provide the threshold for the next level of review, if such review is necessary (see CEQR Technical Manual 2014).



4/18/2018

SIGNATURE DATE
Amanda Sutphin, Director of Archaeology

File Name: 32576_FSO_ALS_04182018.doc

Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

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ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / 18DCP179K
Project: 809 ATLANTIC AVENUE
Date received: 7/20/2018

Comments:

The LPC is in receipt of the Shadows Analysis dated 6/12/18. There are no concerns.

Gina Santucci

8/3/2018

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 32576_FSO_GS_08032018.doc