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1720 Atlantic Avenue Rezoning

Environmental Assessment Statement

Address: Brooklyn, NY 11213

Block 1335, Lots 28, 30, 35

Brooklyn Community District 8

CEQR Reference: 23DCP139K

ULURP Reference: N230315ZRK, 230316ZMK

Lead Agency:
Department of City Planning
120 Broadway, 31st Floor
New York, NY 10271

Prepared for:
Bermuda Realty No. 2 LLC

Prepared by:
GZA GeoEnvironmental



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Date Submitted:
December 5, 2023

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Appendix A: Agency Correspondence

Appendix B: Illustrative Architectural Drawings

Appendix C: Phase I ESA

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EAS FULL FORM

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 1720 Atlantic Avenue Rezoning

1. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
23DCP139K	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
230316ZMK, N230315ZRK	

2a. *Lead Agency Information*			**2b. *Applicant Information***		
NAME OF LEAD AGENCY New York City Department of City Planning			NAME OF APPLICANT Bermuda Realty No. 2 LLC		
NAME OF LEAD AGENCY CONTACT PERSON Stephanie Shellooe, AICP, Director Environmental Assessment and Review Division			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Qianyu Xiang, GZA GeoEnvironmental		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 55 Lane Road		
CITY New York	STATE NY	ZIP 10271	CITY Fairfield	STATE NJ	ZIP 07004
TELEPHONE 212-720-3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 917-470-3077	EMAIL qianyu.xiang@gza.com	

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): 617.4(b)(10)

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

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

4. *Project Description*

The Applicant, Bermuda Realty No. 2 LLC, is seeking the approval of a zoning map amendment and two zoning text amendments (Proposed Actions) that would affect Block 1335, Lots 28, 30, and 35 (the "Affected Area" and "Projected Development Site") in the Crown Heights neighborhood of Brooklyn, Community District 8. The zoning map amendment would rezone Block 1335, Lots 28, 30, and 35 from an M1-1 zoning district to C4-4D, R7A/C2-4, and R7A zoning districts. The zoning text amendments include modifying Appendix F of the Zoning Resolution to establish an area coterminous with the Affected Area as a Mandatory Inclusionary Housing (MIH) area, for which Option 1 is being sought by the Applicant. The Applicant is also seeking a text amendment pursuant to ZR § 35-66 to widen the sidewalk along Atlantic Avenue. The zoning map amendment and zoning text amendments are considered the Proposed Actions.

Per the Applicant's proposal, the Proposed Actions would facilitate the development of Block 1335, Lots 28, 30, and 35 with a new 13-story (140-foot tall) 378,259 gross square foot (GSF) (263,277 zoning square foot; 5.45 FAR) mixed-use commercial, community facility, and residential building. The proposed development would include 278 dwelling units totaling 247,205 GSF (195,429 ZSF; 4.05 FAR) of residential space; 56,030 GSF (50,427 ZSF; 1.04 FAR) of commercial space; 21,776 GSF (17,421 ZSF; 0.36 FAR) of community facility space; and 112 residential parking spaces (53,248 GSF).

It should be noted that a different development scenario from the Applicant's proposed development was established as the Reasonable Worst-Case Development Scenario (RWCDS) for a more conservative analysis result. Under the RWDCS, The Applicant-Owned lots would be developed with a 14-story, 145-foot-tall, 389,339 GSF (305,001 ZSF; 6.31 FAR) mixed-use residential, commercial, and community facility building. The building would include 256,125 GSF (237,153 ZSF; 4.91 FAR) of residential space on floors 3 through 14; 56,030 GSF (50,427 ZSF; 1.04 FAR) of commercial floor area on floors 1 and 2; 21,776 GSF (17,421 ZSF; 0.36 FAR) of community facility use on the 2nd floor; and 55,408 GSF of accessory parking area split between the cellar and ground floor. For a conservative analysis under CEQR, the analysis will assume that the 31,689 GSF of ground floor commercial uses will be occupied by supermarket use; the second floor will consider 24,340 GSF of general office use; and the remainder of the second floor will assume 21,776 GSF of UG 4 medical office uses. There would be 279 total dwelling units (1 DU per 850 SF), with 25%-30% (70- 84 units) permanently set aside as

affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. There would be 84 parking spaces required, and a total of 112 parking spaces would be provided between the cellar and ground floor as per the Applicant's plans.

Project Location

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 8	STREET ADDRESS 1706, 1708, and 1720 Atlantic Avenue
TAX BLOCK(S) AND LOT(S) Block 1335 / Lots 28, 30, and 35		ZIP CODE 11213

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Atlantic Avenue to the north, Schenectady to the east, Troy Avenue to the west, and Pacific Street to the south

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-1 | ZONING SECTIONAL MAP NUMBER 17a

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

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

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

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION Appendix F, 35-66

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 ☐ Cogeneration Facility ☐ Title V Permit

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

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

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.): 48,300	Waterbody area (sq. ft.) and type:
Roads, buildings, and other paved surfaces (sq. ft.): 48,300	Other, describe (sq. ft.):

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): Applicant proposed: 378,259 / RWCDS: 389,339

NUMBER OF BUILDINGS: 1	GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): Applicant proposed: 378,259 / RWCDS: 389,339
HEIGHT OF EACH BUILDING (ft.): Applicant proposed: 140 / RWCDS: 145	NUMBER OF STORIES OF EACH BUILDING: Applicant proposed: 13 / RWCDS: 14

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

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: 48,300 sq. ft. (width x length) VOLUME OF DISTURBANCE: 483,000 cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 48,300 sq. ft. (width x length)

8. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2026

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: Factoring 12 months for technical review/environmental review, 7 months for ULURP process, and 18 months for construction

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Construction on the Projected Development Site is expected to last up to approximately 18 months beginning in January of 2025 with foundation and demolition and ending in June of 2026 with interior finishes.

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

☒ RESIDENTIAL ☐ MANUFACTURING ☒ COMMERCIAL ☐ PARK/FOREST/OPEN SPACE ☒ OTHER, specify: Public Facilities and Institutions

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			mixed-use multi-family	
No. of dwelling units			279	279
No. of low- to moderate-income units			70	70
Gross floor area (sq. ft.)			256,125	256,125
Commercial	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)	local retail	local retail	Office, Supermarket	
Gross floor area (sq. ft.)	28,680	28,680	56,030	26,900
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			UG 4 Medical Office	
Gross floor area (sq. ft.)			21,776	21,776
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			112	112
Operating hours			24/7	
Attended or non-attended			Non-attended	
Lots	☒ YES ☐ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. of public spaces	56	56		-56
No. of accessory spaces	0	0		
Operating hours	24/7	24/7		
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:			642	642
Briefly explain how the number of residents was calculated:	Based on Brooklyn Community District 8 average household size of 2.30 persons per household - 2020 Decennial Census Data (279*2.3 = 642)			

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Businesses	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. and type	10 total 2 restaurants; 1 pharmacy; 6 local retail; 1 grocery store	10 total 2 restaurants; 1 pharmacy; 6 local retail; 1 grocery store	15 total 3 medical offices and 12 local retail	
No. and type of workers by business	86 total	86 total	272 total	186
No. and type of non-residents who are not workers				
Briefly explain how the number of businesses was calculated:	3 employees per 1,000 SF for local retail, supermarket, and medical office; 1 employee per 250 SF for office			
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	M1-1	M1-1	C4-4D; R7A/C2-4; R7A	
Maximum amount of floor area that can be developed	2.40	2.40	6.31 Blended	3.91
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	R5B, R6, R6B; Manufacturing, one- and two-family, multifamily, commercial, public facilities, transportation	R5B, R6, R6B; Manufacturing, one- and two-family, multifamily, commercial, public facilities, transportation	R5B, R6, R6B, C4-4D, R7A/C2-4, R7A; Manufacturing, one- and two-family, multifamily, commercial, public facilities, transportation	
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 Supp Studies		
(e) Is the project a large, publicly sponsored project?	☐	☒
○ 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?	☐	☒
○ If "yes," complete the Consistency Assessment Form.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
○ 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.		
○ Directly displace 500 or more residents?	☐	☒
▪ If "yes," answer questions 2(b)(i), 2(b)(ii), and 2(b)(iv) below.		
○ Directly displace more than 100 employees?	☐	☒
▪ If "yes," answer questions under 2(b)(iii) and 2(b)(iv) below.		
○ 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		
○ If more than 500 residents would be displaced, would these residents represent more than 5% of the primary study area population?	☐	☒
○ 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		
○ Would expected average incomes of the new population exceed the average incomes of study area populations?	☒	☐
○ 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?	☐	☒
○ 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		
○ 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?	☐	☒
○ 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		
○ Would the project potentially introduce trends that make it difficult for businesses to remain in the area?	☐	☒
○ 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		
○ Would the project significantly affect business conditions in any industry or any category of businesses within or outside the study area?	☐	☒
○ 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		
○ 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. Early Childhood Programs		
○ 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)	☐	☒
○ If "yes," would the project result in a collective utilization rate of the Early Childhood Programs in the study area that is greater than 100 percent?	☐	☐
○ If "yes," would the project increase the collective utilization rate by 5 percent or more from the No-Action scenario?	☐	☐
ii. Public Schools		
○ 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)	☐	☒
○ If "yes," would the project result in a utilization rate of the elementary or middle schools that is equal to or greater than 100 percent?	☐	☐
○ If "yes," would the project generate 100 or more elementary or middle school students past the 100% utilization rate?	☐	☐
○ If "yes," would the project result in a utilization rate of the high schools that is equal to or greater than 100 percent?	☐	☐
○ If "yes," would the project increase the high school utilization rate by 5 percent or more from the No-Action scenario?	☐	☐
iii. Libraries		
○ 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)	☐	☒
○ If "yes," would the project increase the study area population by 5 percent or more from the No-Action levels?	☐	☐
○ If "yes," would the additional population impair the delivery of library services in the study area?	☐	☐
iv. Health Care Facilities		
○ Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
○ If "yes," would the project affect the operation of health care facilities in the area?	☐	☐
v. Fire and Police Protection		
○ Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
○ 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) Would the project generate more than 200 additional residents or 500 additional employees?	☒	☐
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 Supp Studies		

	YES	NO
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 Supp Studies		
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.		
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?	☐	☒
○ 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?	☐	☒
○ If "yes," complete the Jamaica Bay Watershed Protection Plan Project Tracking 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) Would the proposed project introduce new activities or processes using hazardous materials and increase the risk of human or environmental exposure?	☐	☒
(c) 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?	☐	☒
(d) 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 the Hazardous Materials Appendix (including nonconforming uses)?	☒	☐
(e) 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?	☐	☒
(f) 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)?	☒	☐
(g) 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?	☐	☒
(h) 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?	☐	☒
(i) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: An active Spill #9402692 at an adjacent site occupied by a Shell filling station at 1740 Atlantic Avenue (Block 1336, Lot 6); the suspect presence of an adverse impact to groundwater beneath the Site from an adjacent gasoline station; a Potential Vapor Encroachment Condition at the Projected Development Site	☒	☐
(j) 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?	☐	☒
(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,	☐	☒

	YES	NO
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): 26,645		
○ 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?	☐	☒
○ 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): 50,353,562.7		
(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:		
○ 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.*	☐	☐
○ Would the proposed project result in more than 200 subway/rail, bus trips, or 50 Citywide Ferry Service ferry 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), 200 subway/rail trips per station or line, or 25 or more Citywide Ferry Service ferry trips on a single route (in one direction), or 50 or more passengers at a Citywide Ferry Service landing?	☐	☐
○ 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, bus stop, or Citywide Ferry Service landing?	☐	☐
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?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed) See Supp Studies	☐	☒
(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.		
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?	☐	☐
○ If "yes," would the project result in inconsistencies with the City's GHG reduction goal? (See Local Law 22 of 2008; § 24-803 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?	☒	☐

	YES	NO
(b) Would the proposed project introduce new or additional receptors (see Section 114 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. See Supp Studies		
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:		
○ Construction activities lasting longer than two years?	☐	☒
○ Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☐	☒
○ Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)?	☐	☒
○ Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☐	☒
○ The operation of several pieces of diesel equipment in a single location at peak construction?	☐	☒
○ Closure of a community facility or disruption in its services?	☐	☒
○ Activities within 400 feet of a historic or cultural resource?	☐	☒
○ Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
○ 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.		

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
Qianyu Xiang	QIANYU XIANG	12/5/2023

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.

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
NAME	DATE
SIGNATURE	

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, 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 that finds the proposed project:

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).

TITLE	LEAD AGENCY
NAME	DATE
SIGNATURE	

Figure 1.1-1: Site Location Map

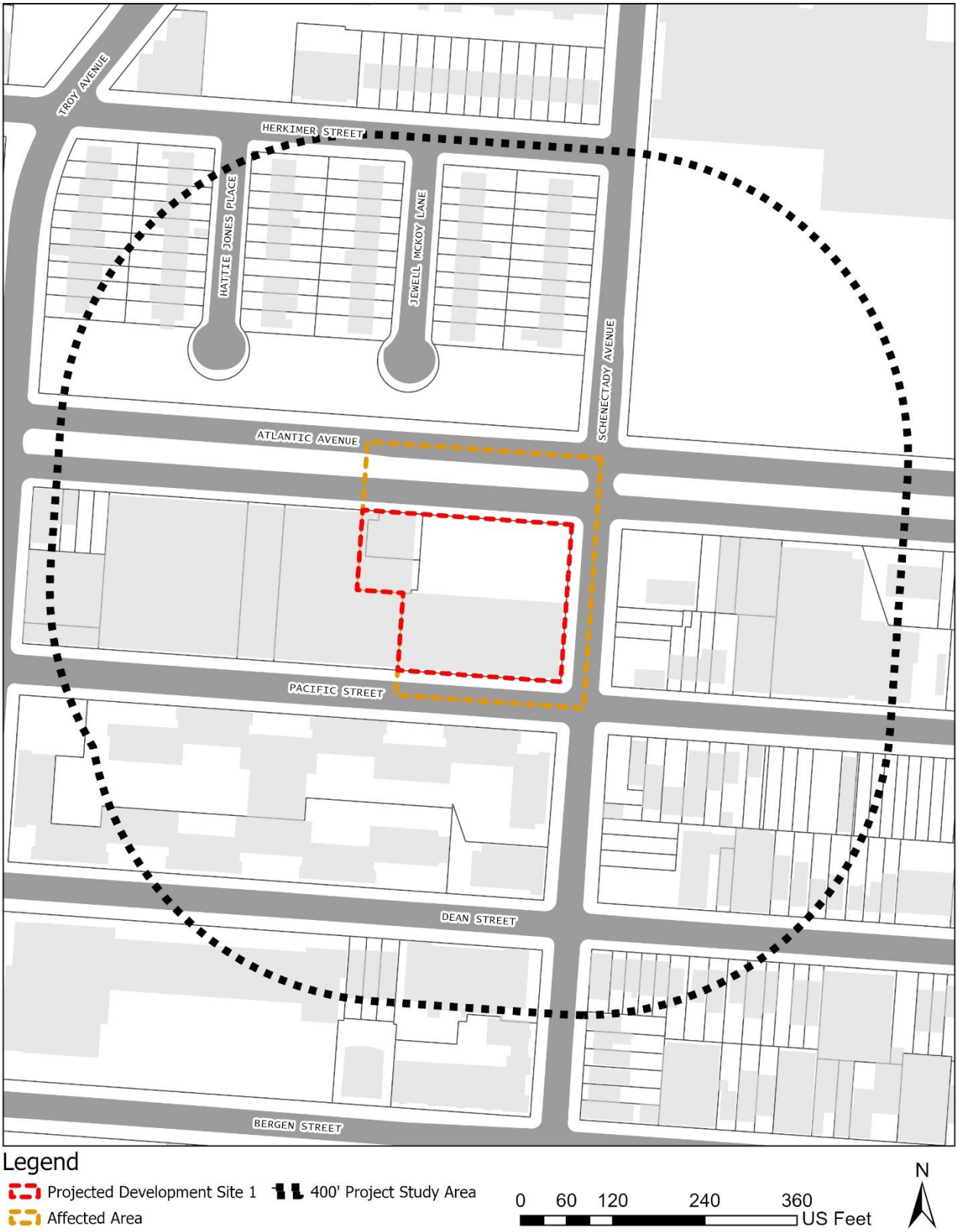


Figure 1.1-2: Existing Land Use Map

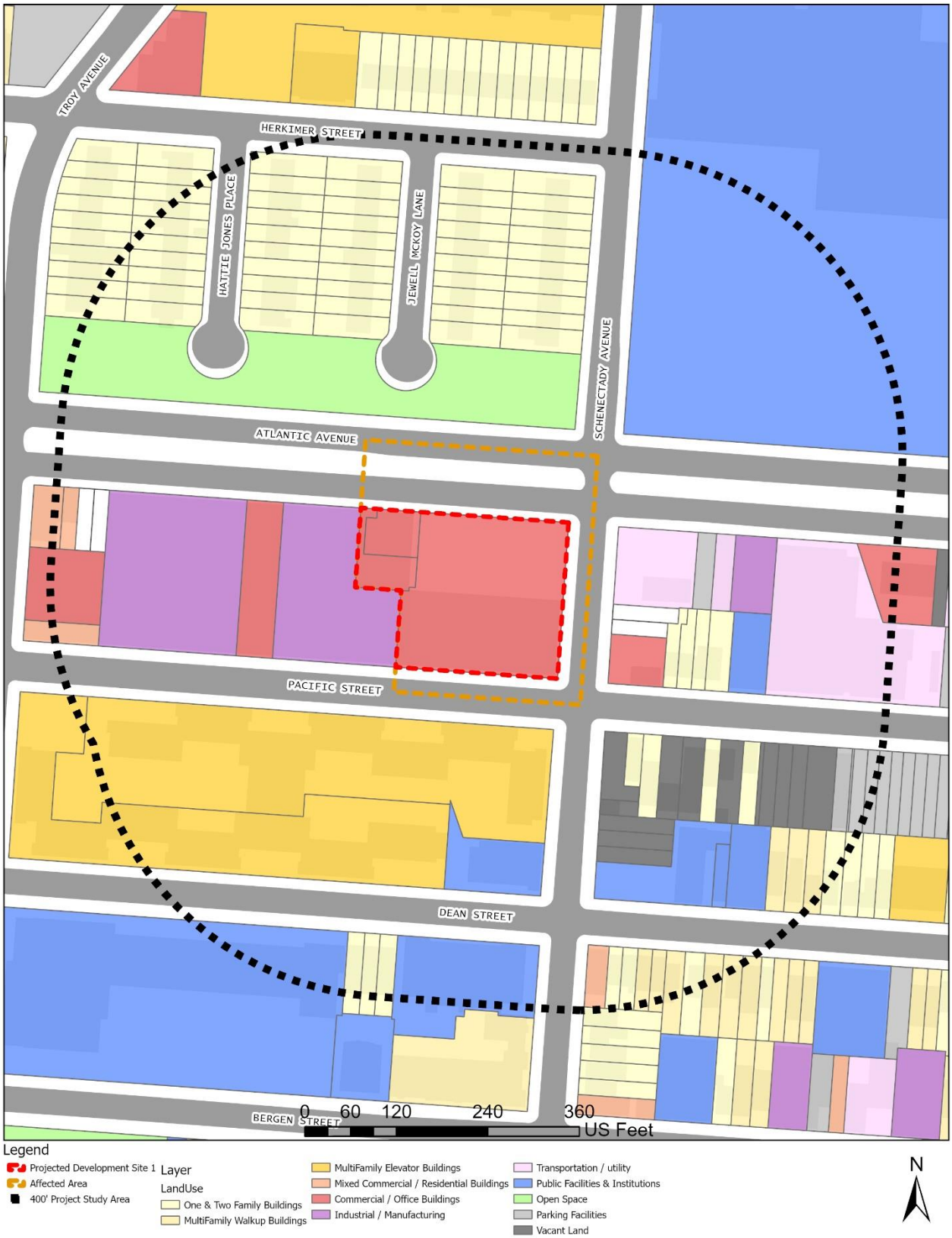


Figure 1.1-3: Zoning Sectional Map

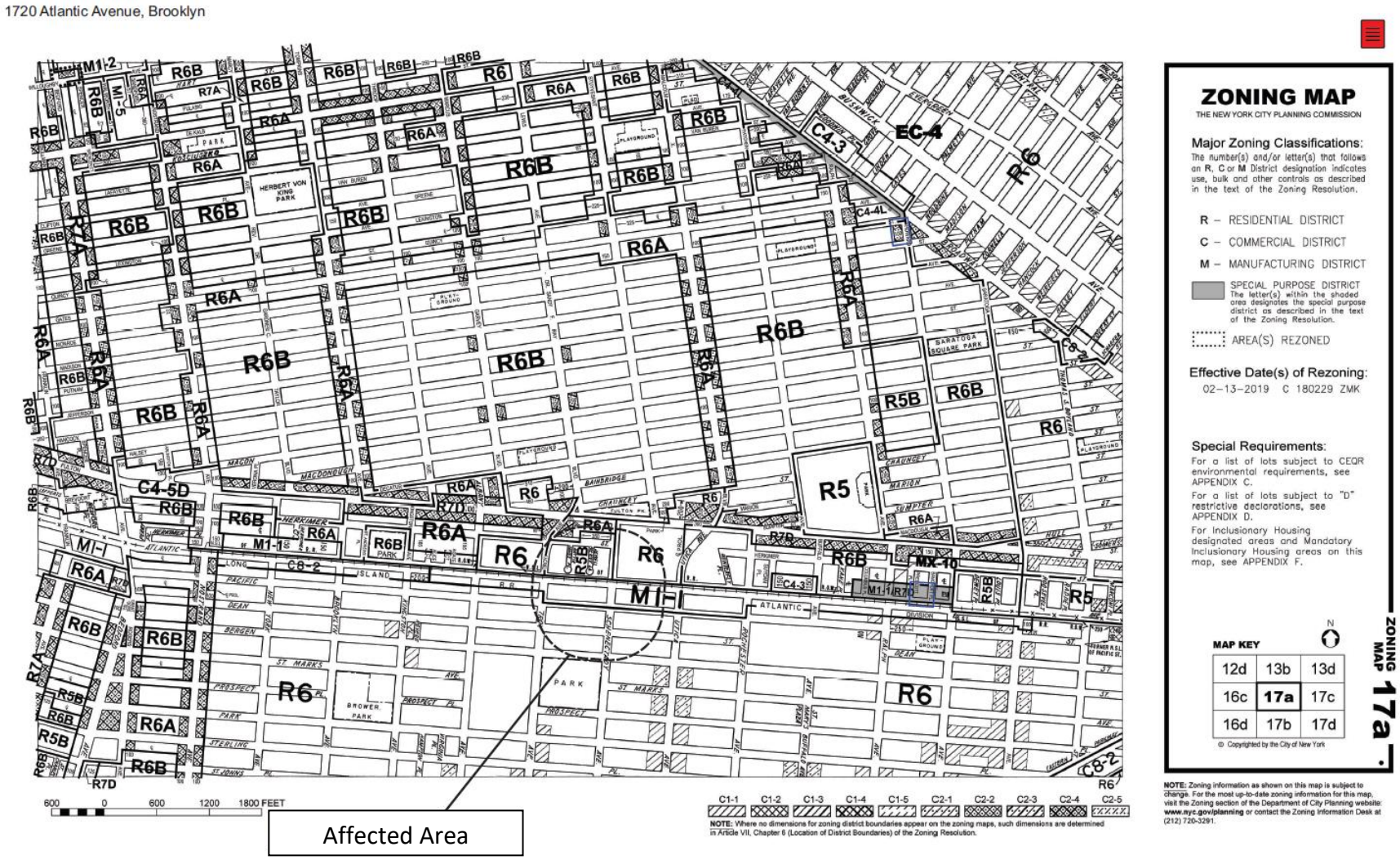
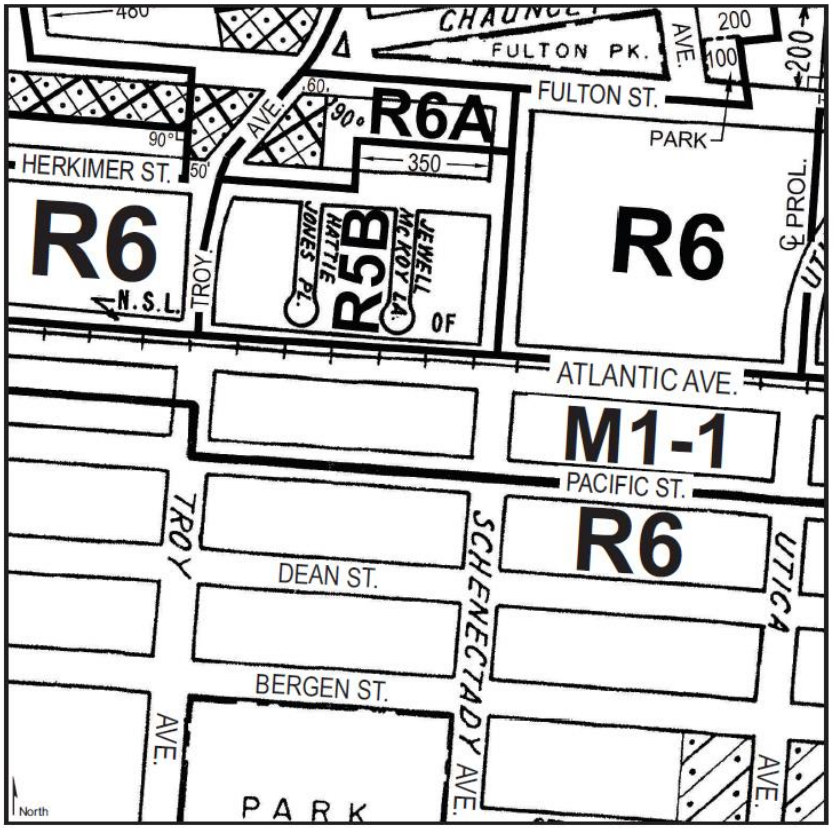
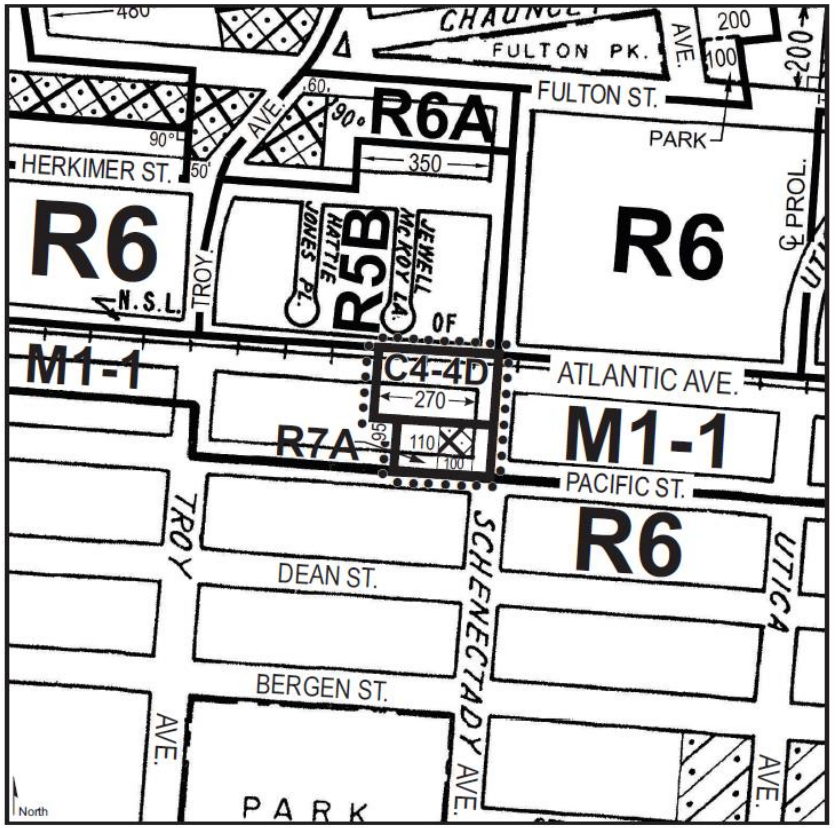


Figure 1.1-4: Zoning Change Map



Current Zoning Map (17a)



Proposed Zoning Map (17a) - Area being rezoned is outlined with dotted lines

Rezoning from M1-1 to C4-4D
Rezoning from M1-1 to R7A
Rezoning from M1-1 to R7A/C2-4

C1-1 C1-2 C1-3 C1-4 C1-5 C2-1 C2-2 C2-3 C2-4 C2-5

NOTE: Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined in Article VII, Chapter 6 (Location of District Boundaries) of the Zoning Resolution.

Figure 1.1-5: Tax Map

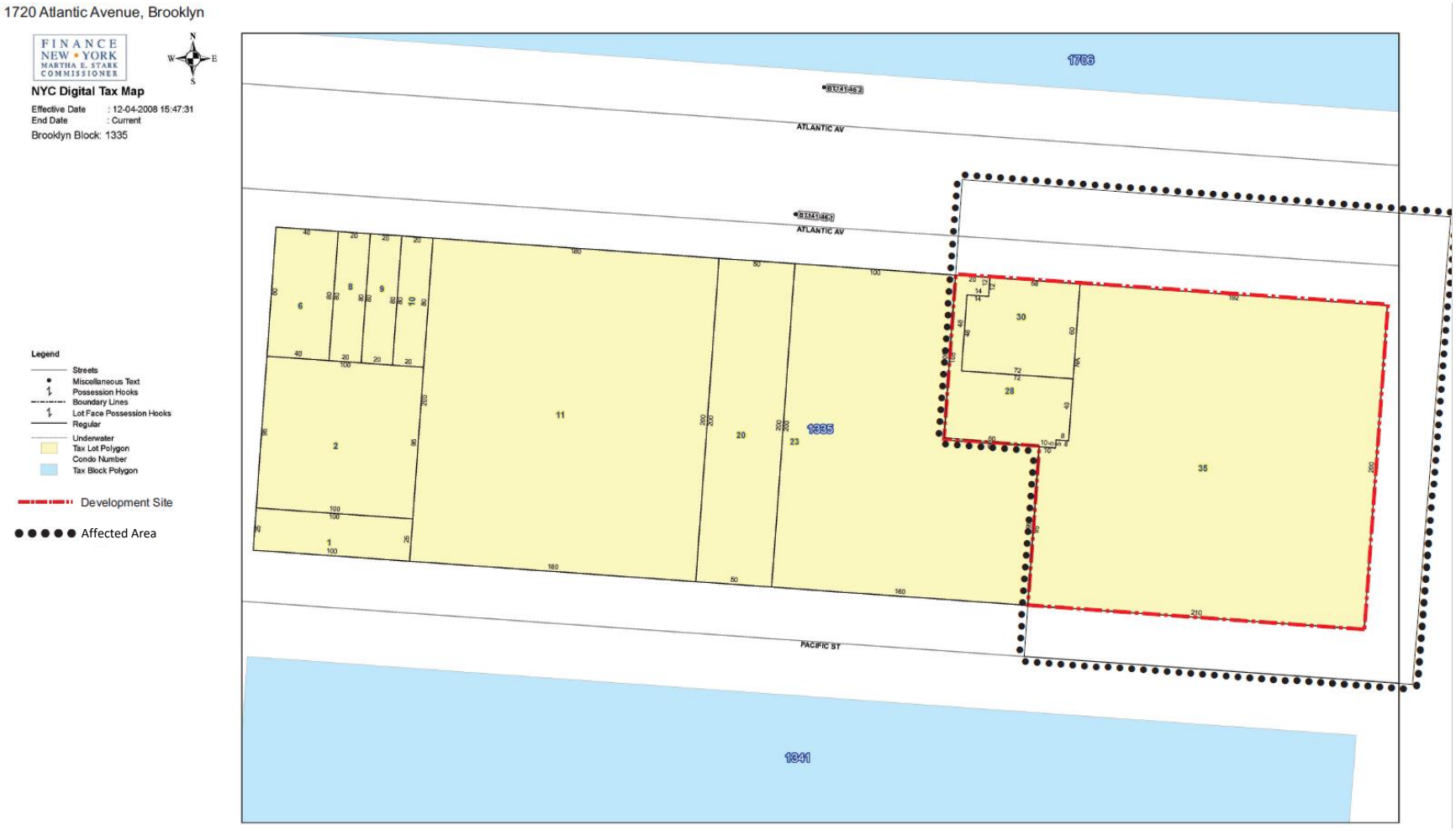


Figure 1.1-6: Site Photos (1)



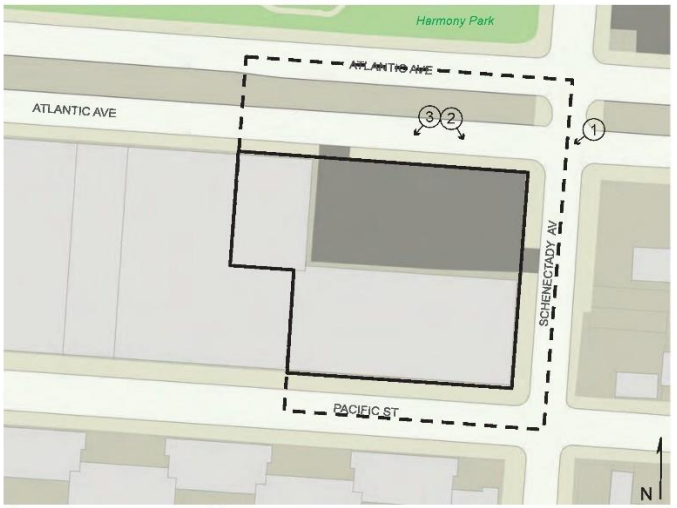
1. View of the Development Site facing southwest from the intersection of Schenectady Avenue and Atlantic Avenue.



2. View of the Development Site facing southeast from Atlantic Avenue.



3. View of the Development Site facing southwest from Atlantic Avenue.



Photographs Taken on December 5, 2023

Figure 1.1-7: Site Photos (2)



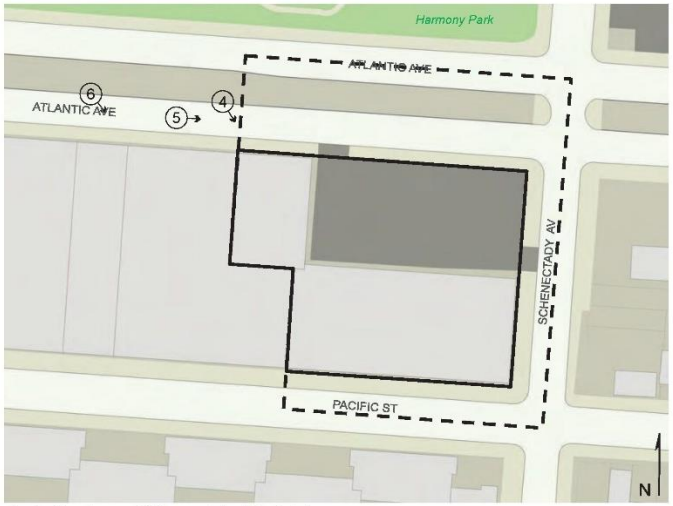
4. View of the Development Site facing southeast from Atlantic Avenue.



5. View of Atlantic Avenue facing east toward Schenectady Avenue (Development Site at right).



6. View of the south side of Atlantic Avenue facing southeast (Development Site at far left).



Photographs Taken on December 5, 2023

Figure 1.1-8: Site Photos (3)



7. View of the south side of Atlantic Avenue between Troy Avenue and Schenectady Avenue facing southwest.



8. View of the north side of Atlantic Avenue facing northwest between Schenectady Avenue and Troy Avenue.



9. View of the north side of Atlantic Avenue facing northwest from the Development Site.



Photographs Taken on December 5, 2023

Figure 1.1-9: Site Photos (4)



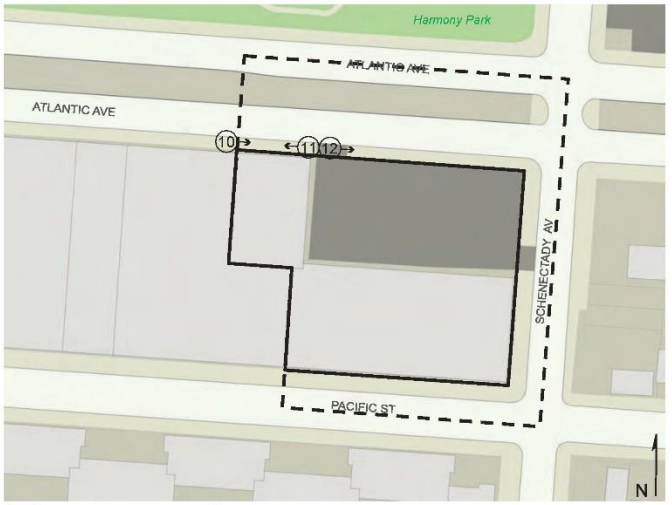
10. View of the sidewalk along the south side of Atlantic Avenue facing east toward Schenectady Avenue (Development Site at right).



11. View of the sidewalk along the south side of Atlantic Avenue facing west toward Troy Avenue (Development Site at left).



12. View of the sidewalk along the south side of Atlantic Avenue facing east toward Schenectady Avenue (Development Site at right).



Photographs Taken on December 5, 2023

Figure 1.1-10: Site Photos (5)



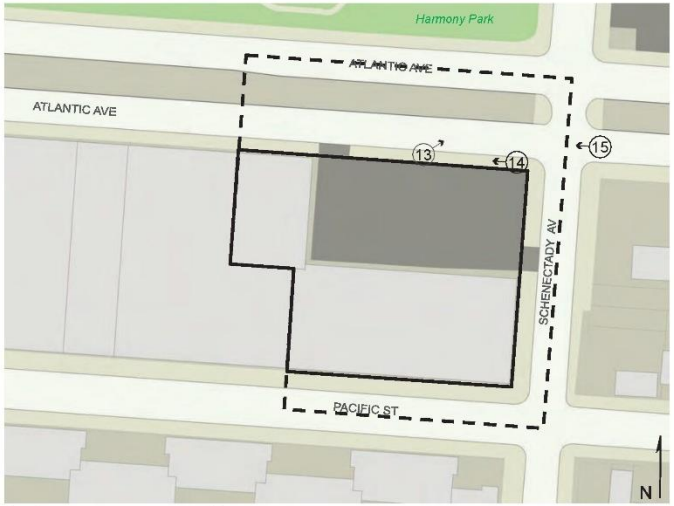
13. View of the north side of Atlantic Avenue facing northeast from the Development Site.



14. View of the sidewalk along the south side of Atlantic Avenue facing west from Schenectady Avenue (Development Site at left).



15. View of Atlantic Avenue facing west from Schenectady Avenue (Development Site at left).



Photographs Taken on December 5, 2023

Figure 1.1-11: Site Photos (6)



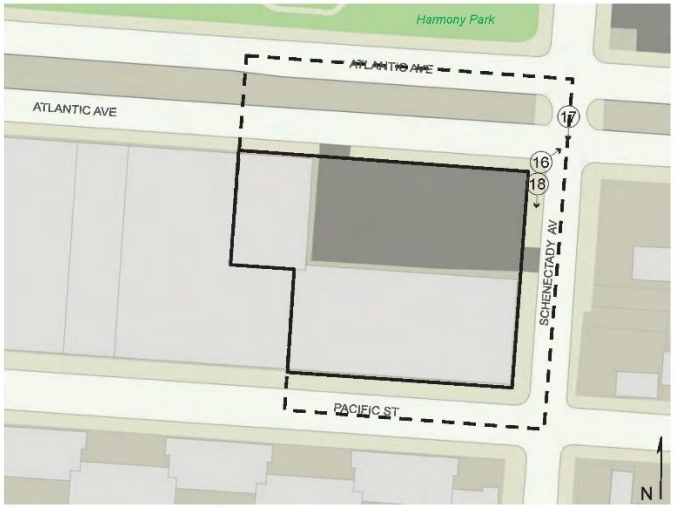
16. View of the intersection of Atlantic Avenue and Schenectady Avenue facing northeast from the Development Site.



17. View of Schenectady Avenue facing south from Atlantic Avenue (Development Site at right).



18. View of the sidewalk along the west side of Schenectady Avenue facing south from Atlantic Avenue (Development Site at right).



Photographs Taken on December 5, 2023

Figure 1.1-12: Site Photos (7)



19. View of the Development Site facing northwest from Schenectady Avenue.



20. View of the Development Site facing southwest from Schenectady Avenue.



21. View of the east side of Schenectady Avenue facing northeast from the Development Site.

Photographs Taken on December 5, 2023

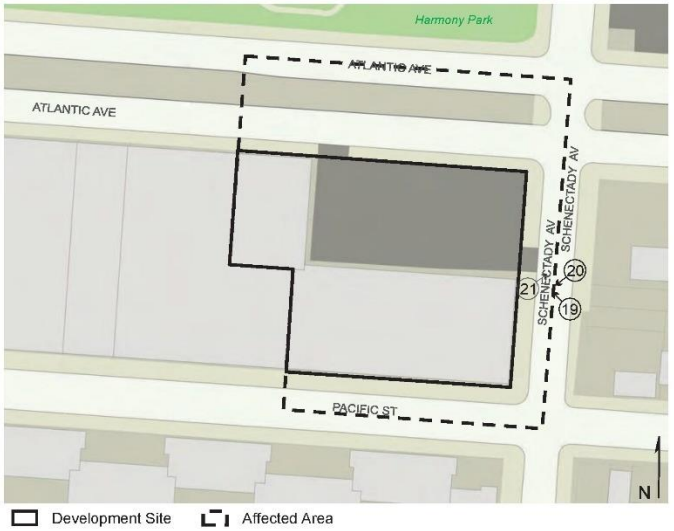


Figure 1.1-12: Site Photos (8)



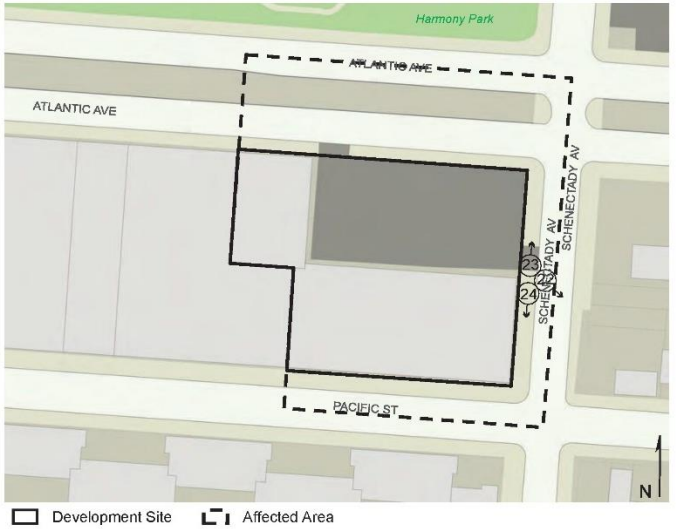
22. View of the east side of Schenectady Avenue facing southeast from the Development Site.



23. View of the sidewalk along the west side of Schenectady Avenue facing north toward Atlantic Avenue (Development Site at left).

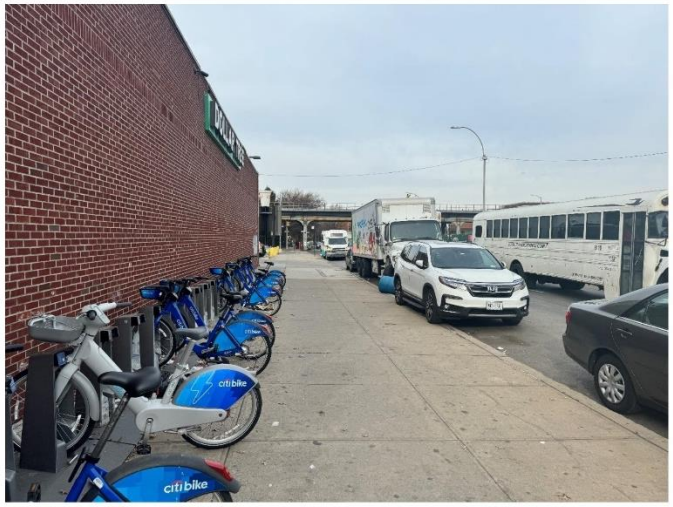


24. View of the sidewalk along the west side of Schenectady Avenue facing south toward Pacific Street (Development Site at right).



Photographs Taken on December 5, 2023

Figure 1.1-13: Site Photos (9)



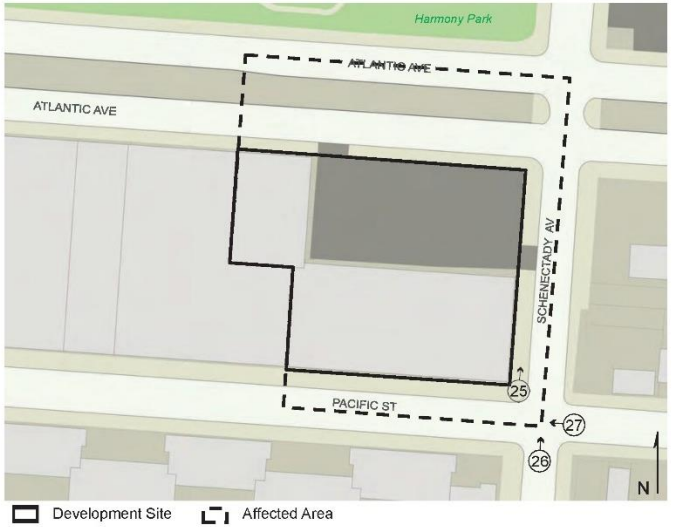
25. View of the sidewalk along the west side of Schenectady Avenue facing north from Pacific Street (Development Site at left).



26. View of Schenectady Avenue facing north from Pacific Street (Development Site at left).



27. View of Pacific Street facing west from Schenectady Avenue (Development Site at right).



Photographs Taken on December 5, 2023

Figure 1.1-14: Site Photos (10)



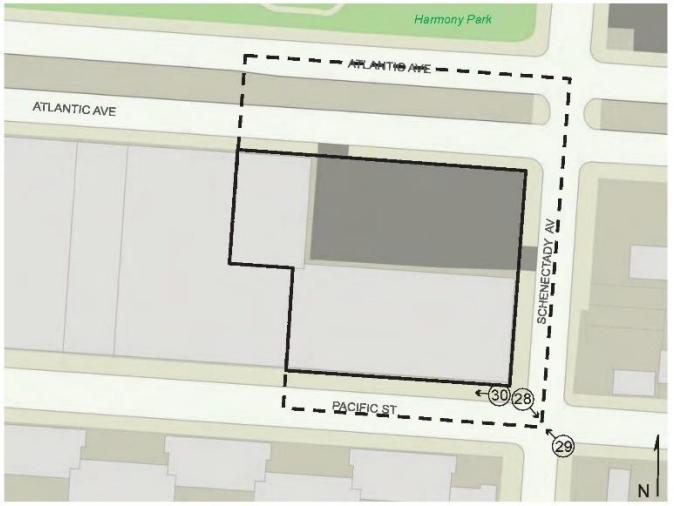
28. View of the intersection of Pacific Street and Schenectady Avenue facing southeast from the Development Site.



29. View of the Development Site facing northwest from the intersection of Pacific Street and Schenectady Avenue.



30. View of the sidewalk along the north side of Pacific Street facing west from Schenectady Avenue (Development Site at right).



Photographs Taken on December 5, 2023

Figure 1.1-15: Site Photos (11)



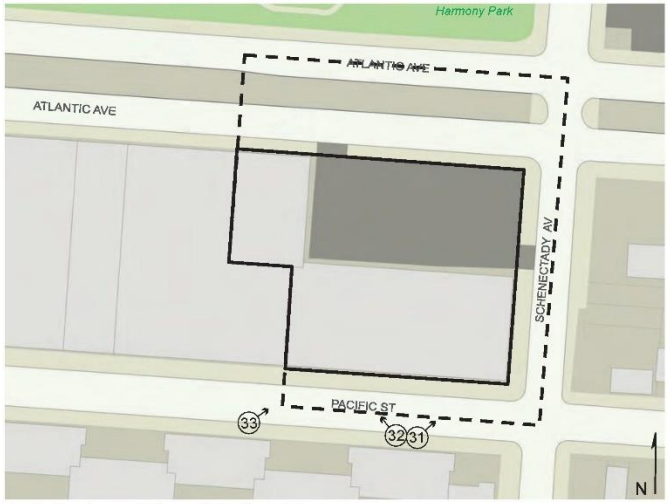
31. View of the Development Site facing northeast from Pacific Street.



32. View of the Development Site facing northwest from Pacific Street.



33. View of the Development Site facing northeast from Pacific Street.



Photographs Taken on December 5, 2023

Figure 1.1-16: Site Photos (12)



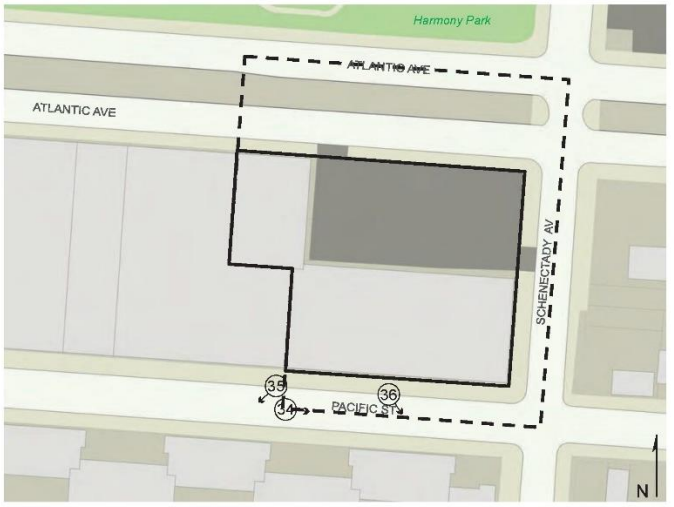
34. View of Pacific Street facing east toward Schenectady Avenue (Development Site at left).



35. View of the south side of Pacific Street facing southwest from the Development Site.



36. View of the south side of Pacific Street facing southeast from the Development Site.



Photographs Taken on December 5, 2023

Figure 1.1-17: Site Photos (13)



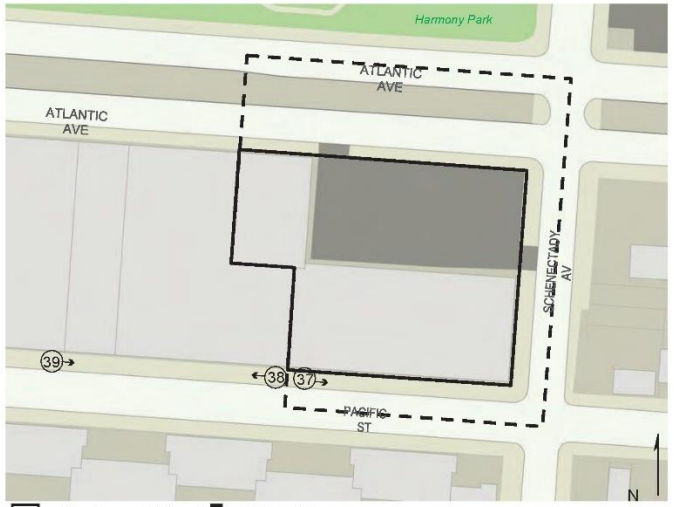
37. View of Pacific Street facing east toward Schenectady Avenue (Development Site at left).



38. View of the south side of Pacific Street facing southwest from the Development Site.



39. View of the south side of Pacific Street facing southeast from the Development Site.



Photographs Taken on December 5, 2023

Figure 1.1-18: Site Photos (14)



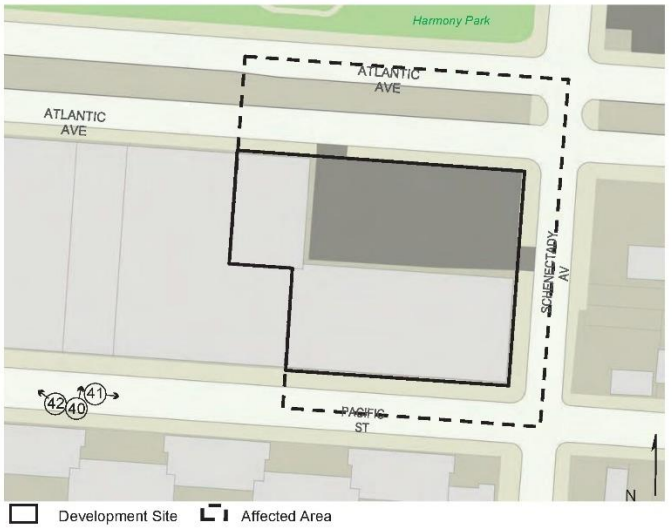
40. View of Pacific Street facing east toward Schenectady Avenue (Development Site at left).



41. View of the south side of Pacific Street facing southwest from the Development Site.



42. View of the south side of Pacific Street facing southeast from the Development Site.



Photographs Taken on December 5, 2023

1 Project Description

1.1 Introduction

The Applicant, Bermuda Realty No. 2 LLC, is seeking the approval of a zoning map amendment and two zoning text amendments (the "Proposed Actions") that would affect Block 1335, Lots 28, 30, and 35 (the "Affected Area" and "Projected Development Site 1") in the Crown Heights neighborhood of Brooklyn, Community District 8. The zoning map amendment would rezone Block 1335, Lots 28, 30, and 35 from an M1-1 zoning district to C4-4D, R7A/C2-4, and R7A zoning districts. The zoning text amendments include modifying Appendix F of the Zoning Resolution to establish an area coterminous with the rezoning area as a Mandatory Inclusionary Housing (MIH) area for which Option 1 is being sought by the Applicant. The Applicant is also seeking a text amendment to ZR Section 35-66, specifically ZR Section 35-662, to widen the existing sidewalk along Atlantic Avenue to a width of 20 feet. The zoning map amendment and zoning text amendments are considered the Proposed Actions.

The Proposed Actions would facilitate the development of Projected Development Site 1 (Block 1335, Lots 28, 30, and 35) with a new 13-story, 140-foot-tall, 378,259 gross square foot (GSF) (263,277 zoning square foot (ZSF); 5.45 FAR) mixed-use commercial, community facility, and residential building, as proposed by the Applicant. The Applicant-proposed development would include 278 dwelling units totaling 247,205 GSF (195,429 ZSF; 4.05 FAR) of residential space; 56,030 GSF (50,427 ZSF; 1.04 FAR) of commercial space; 21,776 GSF (17,421 ZSF; 0.36 FAR) of community facility space; and 112 residential parking spaces (53,248 GSF). As noted above, it is proposed that the existing sidewalk (approximately 14 feet wide) of Projected Development Site 1 along Atlantic Avenue would be widened to a width of 20 feet.

The Proposed Actions are discretionary actions subject to environmental review. The New York City (NYC) Department of City Planning (DCP) shall be the lead agency on behalf of the NYC City Planning Commission (CPC) for the City Environmental Quality Review (CEQR) process.

1.2 Background and Site History

The Affected Area was originally zoned M1-1 in 1961 and has not changed since. Lots 28, 30, and 35 are all occupied by three contiguous one-story buildings that are all part of a single shopping center that was constructed in 2002. There are no DOB records for previous development on any of the lots within the Affected Area. Historic aerials of the area indicate that the lots were vacant and undeveloped as far back as 1951, but aerials from 1924 show multiple buildings.

1.3 Description of the Surrounding Area

The Affected Area is bounded by Atlantic Avenue to the north, Schenectady Avenue to the east, Pacific Street to the south, and Troy Avenue to the west. Atlantic Avenue is a main east-west

thoroughfare through the area and is classified as a Principal Arterial Roadway by the New York State Department of Transportation (NYSDOT); it is considered a wide road with 120 feet in width and includes three moving lanes of traffic in each direction with elevated rail tracks running down the middle. Schenectady Avenue is a north to south one-way right-of-way that is classified as a Minor Arterial Road by NYSDOT with two moving lanes of traffic and curbside parking. Pacific Street is an east to west one-way right-of-way that is classified as a Local Road by NYSDOT with a single moving lane of traffic, a bike lane, and curbside parking. Troy Avenue is a south to north one-way road that is classified as a Minor Arterial Road with two moving lanes of traffic and curbside parking.

Land uses in the 400-foot surrounding area are a mix of manufacturing along Atlantic Avenue, one- and two-family buildings along Herkimer Street to the north, multi-family buildings, commercial buildings, public facilities, and mixed-use residential and commercial buildings. Major uses of note in the area include Harmony Park directly across Atlantic Avenue from Projected Development Site 1, Launch Expeditionary Learning Charter School, Boys and Girls High School, Nelson Mandela School for Social Justice, and the Interfaith Medical Center.

The Affected Area is entirely within an M1-1 zoning district that is mapped along the southern portion of Atlantic Avenue. The surrounding area to the south is zoned R6 with C2-3 and C1-3 commercial overlays along Utica Avenue; the surrounding area to the north is zoned with a mix of R5B, R6, R6A, and R6B districts, and includes several C2-4 commercial overlays along Fulton Street.

The traffic grid around the Affected Area is regularly shaped. The surrounding area includes or is adjacent to major thoroughfares including Atlantic Avenue (Principal Arterial roadway), Schenectady Avenue (Minor Arterial roadway), and Troy Avenue (Minor Arterial roadway). The area is well-served by transit and is within a Transit Zone. The Utica Avenue subway station is serviced by the MTA with stops for A and C lines and is approximately 1 block, or 950 feet to the northeast of the Affected Area. The Nostrand Avenue Long Island Rail Road station is approximately 4,000 feet to the west, with trains providing service to various locations, including West Hempstead and Far Rockaway. Stops for the B15, B25, B46, and B65 buses are in the immediate area.

1.4 Description of the Affected Area

The three lots within the Affected Area are all Applicant-controlled. Each lot is currently developed with a one-story commercial building that makes up a shopping center at the corner of Atlantic Avenue and Schenectady Avenue, with parking provided on Lot 35:

- Block 1335, Lot 28: An irregularly shaped 3,998-sf lot that was improved in 2002 with a 3,998 GSF (1.00 FAR) portion of a commercial building. The building is currently tenanted by Golden Krust Caribbean Bakery and Grill and Atlantic Pharmacy.

- Block 1335, Lot 30: A 4,152-sf lot fronting Atlantic Avenue that was improved in 2003 with a 4,152 GSF (1.00 FAR) portion of a commercial building. The building is tenanted by a Metro PCS, GEM Pawnbrokers, and Checks & More check cashing.
- Block 1335, Lot 35: The largest of the three lots, this 40,150-sf corner lot has frontage along Atlantic Avenue, Schenectady Avenue, and Pacific Street. The structure on site was built in 2002 and altered in 2007, and is 20,980 GSF and 0.52 FAR. The parking for the combined shopping center is located on Lot 35 and includes approximately 56 commercial accessory parking spaces. Uses at the site include a grocery store, a Dunkin' Donuts, a beauty supply store, a Dollar Tree, and an appliance shop.

It should be noted that the proposed zoning map amendment would create a split lot zoning condition in the Affected Area. A rectangular area of approximately 27,000 sf containing Block 1335, Lots p/o 28, 30, and p/o 35, with a depth of 100 feet from Atlantic Avenue, would be rezoned from an M1-1 zoning district to a C4-4D zoning district. An L-shaped area of approximately 11,300 sf containing Block 1335, Lots p/o 28 and p/o 35 with a depth of 100 feet from Pacific Street would be rezoned from an M1-1 zoning district to an R7A zoning district. A square area of approximately 10,000 sf containing Block 1335, Lot p/o 35 with a 100-foot frontage on Pacific Street and a 100-foot frontage on Schenectady Avenue would be rezoned from an M1-1 zoning district to an R7A/C2-4 zoning district.

1.5 Description of the Proposed Project

The Proposed Project includes the demolition of the three existing buildings and construction of a new 13-story, 140-foot-tall, 378,259 GSF mixed-use residential, commercial, and community facility building on Projected Development Site 1 (Block 1335, Lots 28, 30, and 35). The building would be 263,277 ZSF (5.45 FAR) and would include 247,205 GSF (195,429 ZSF; 4.05 FAR) of residential space on floors 3 through 13; 56,030 GSF (50,427 ZSF; 1.04 FAR) of commercial floor area on floors 1 and 2; 21,776 GSF (17,421 ZSF; 0.36 FAR) of community facility use on the 2nd floor; and 53,248 GSF of accessory parking area split between the cellar and ground floor. There would be 278 total dwelling units, with 70 (25%) of those units made affordable to incomes averaging 60% AMI per MIH Option 1. There would be 84 parking spaces required, and a total of 112 parking spaces would be provided between the cellar and ground floors. Ground floor commercial space would include a supermarket and local retail uses.

It should be noted that the Proposed Actions include a zoning text amendment to ZR Section 35-66, specifically ZR Section 35-662 (Special height and setback provisions in certain districts along Atlantic Avenue within Community District 8, Borough of Brooklyn) to widen the sidewalk along the Projected Development Site 1 Atlantic Avenue frontage from its existing width of approximately 14' to 20'.

1.6 Action(s) Necessary to Facilitate the Project

There are three actions necessary to facilitate the proposed development:

(1) A Zoning Map Amendment to rezone Block 1335, Lots 28, 30, and 35 from an M1-1 zoning district to C4-4D, R7A/C2-4, and R7A zoning districts.

(2) A Zoning Text Amendment to ZR Section 35-66, adding a Special Height and Setback Provision to allow for the sidewalk along Atlantic Avenue to be widened up to 20'.

(3) A Zoning Text Amendment to ZR Appendix F: Inclusionary Housing Designation Areas and Mandatory Inclusionary Housing Areas for Community District 8, Brooklyn, to establish the Affected Area as an MIH Area, Option 1.

1.7 Purpose and Need

The Proposed Development would not be possible under the existing M1-1 zoning regulations, which limits commercial development to 1.00 FAR and does not allow residential and certain community facility uses. The Applicant believes the increased density of residential, commercial, and community facility uses is appropriate along a wide road with ample public transportation access. The Proposed Actions would increase allowable floor area from 1.00 to 6.31 FAR (blended FAR given the split lot zoning conditions) and would designate a considerable number of affordable housing units in furtherance of the City's goals under Housing 2.0. Additionally, The Applicant believes that the increase in commercial (1.00 FAR to 2.41 FAR) and community facility (2.40 to 6.31 FAR) floor area would create a significant number of new jobs in the area.

1.8 Analysis Framework

Discretionary actions sometimes permit a range of project characteristics, or development scenarios, to occur even though the action may be sought to facilitate a specific development. From the range of possible scenarios that are considered reasonable and likely, the scenario with the worst environmental consequences is chosen for analysis. This is the Reasonable Worst-Case Development Scenario (RWCDS), the use of which ensures that, regardless of which scenario occurs, its impacts would be no worse than those considered in the environmental review. The environmental assessment examines the incremental differences between the RWCDS of the future without the project in place (No-Action Condition) and the future with the project in operation (With-Action Condition).

The *2021 CEQR Technical Manua*l categorizes soft sites as either "projected" or "potential" development sites. Projected development sites are defined as those sites that are more likely to be developed as a result of the proposed project. Potential sites are defined as sites that could be developed but have been determined to have less development potential than the projected development sites, based on observed historic and current market conditions, location, site configuration, proximity to transit, infrastructure and other facilities, and other factors that affect the likelihood that they would be developed under the Proposed Actions. Projected Development

Sites are analyzed for both site-specific and density-related effects, whereas potential development sites are only analyzed for site-specific effects.

Pursuant to *2021 CEQR Technical Manual* methodology, sites may be considered 'soft' if they are built to substantially less than the maximum permitted floor area ratio and are of a sufficient size or could be assembled into a parcel of sufficient size, to support a feasible development. Sites that have recently been developed or redeveloped are considered less likely to be soft, due to the significant recent investment in the current use.

Build Year

The analysis year for the Proposed Actions is 2026 based on an 18-month period for environmental review and ULURP process, a 6-month period to obtain permits, and an 18-month construction timeline for the Applicant's development.

The analysis which follows compares the difference between the future without the Proposed Actions (No-Actions Condition) and the future with the Proposed Actions (With-Action Condition) for the 2026 analysis year. This EAS studies the potential for individual and cumulative environmental impacts related to the Proposed Actions.

Future Without the Proposed Actions (No-Action Condition)

The No-Action Scenario is the same as under existing conditions. The existing shopping center would continue to operate. No alternate plans have been filed with the DOB, and the existing M1-1 zoning district's high parking requirement (1 space per 300 SF of uses) and low FAR (1.00) make redevelopment unlikely.

Future With the Proposed Actions (With-Action Condition)

Projected Development Site 1 (Block 1335, Lots 28, 30, and 35; Applicant-Owned Lots)

Projected Development Site 1 (Block 1335, Lots 28, 30, and 35) would total 48,300 SF, and would be developed with a 14-story, 145-foot-tall, 389,339 GSF (305,001 ZSF; 6.31 FAR) mixed-use residential, commercial, and community facility building. The building would include 256,125 GSF (237,153 ZSF; 4.91 FAR) of residential space on floors 3 through 14; 56,030 GSF (50,427 ZSF; 1.04 FAR) of commercial floor area on floors 1 and 2; 21,776 GSF (17,421 ZSF; 0.36 FAR) of community facility use on the 2nd floor; and 55,408 GSF of accessory parking area split between the cellar and ground floor. As noted above in Sections 1.5 and 1.6, the sidewalk along the Projected Development Site 1 Atlantic Avenue frontage would be widened from its existing width of approximately 14' to 20'.

Reasonable Worst-Case Development Scenario

For a more conservative analysis under CEQR, the analysis in this EAS will assume a slightly different development scenario under the RWCDS compared to the Applicant proposed development. While the commercial and community facility uses are the same, the RWCDS

assumes that the residential floor area would be increased to 256,125 GSF (237,153 ZSF; 4.91 FAR) instead of the Applicant proposed 247,205 GSF (195,429 ZSF; 4.05 FAR). The building height under the RWCDS is assumed to reach the maximum permitted building height of 145 feet (14 stories) within the proposed C4-4D zoning district and 95 feet (9 stories) within the proposed R7A and R7A/C2-4 zoning districts, while the Applicant proposed development has a building height of 140 feet (13 stories) within the C4-4D district and 86 feet (8 stories) within the R7A and R7A/C2-4 districts. In addition, the RWCDS assumes that ground floor commercial uses total 31,689 GSF of supermarket use; the second floor will consider 24,340 GSF of general office use; and the remainder of the second floor will assume 21,776 GSF of UG 4 medical office uses.

There would be 279 total dwelling units (1 DU per 850 SF), with 70 units or 25% permanently set aside as affordable units for households averaging 60% AMI per MIH Option 1. There would be 84 parking spaces required, and a total of 112 parking spaces would be provided between the cellar and ground floor as per the Applicant's plans.

The RWCDS Existing, No-Action, and With-Action Scenarios at the Projected Development Sites are shown below in **Table 1.8-1**. The RWCDS increment of Analysis on the Projected Development Sites within the Affected Area are presented in **Table 1.8-2**.

Table 1.8-1: RWCDS Analysis Framework - Existing, No-Action, and With-Action Conditions

Site Info				Existing Condition			No-Action Condition			With-Action Condition							
Site ID	**Block**	**Lot**	**Lot Area**	**Zoning**	**Com. (gsf)**	**Total gsf**	**Zoning**	**Com. (gsf)**	**Total gsf**	**Zoning**	**Com. (gsf)**	**CF (gsf)**	**Res. (gsf)**	**Parking (gsf)**	**Total gsf**	**Afford. DU**	**Total DU**
Projected Site 1	1335	28	3,998	M1-1	3,998	3,998	M1-1	3,998	3,998	C4-4D	56,030	21,776	256,125	55,408	389,339	70	279
		30	4,152		4,152	4,152		4,152	4,152	R7A/C2-4							
		35	40,150		20,980	20,980		20,980	20,980	R7A							
Total			**48,300**	**-**	**29,130**	**29,130**	**-**	**29,130**	**29,130**		**56,030**	**21,776**	**256,125**	**55,408**	**389,339**	**70**	**279**

DU = Dwelling Units

gsf = gross square feet

Res. = Residential

Com. = Commercial

CF = Community Facility

Afford. = Affordable Units

Table 1.8-2: RWCDS Incremental Analysis Table

Use	No-Action Condition	With-Action Condition	Increment
Commercial GSF	29,130	56,030	+26,900
Community Facility GSF	0	21,776	+21,776
Residential GSF	0	256,125	+256,125
Parking GSF	0	55,408	+55,408
Total GSF	29,130	389,339	+360,209
Residential DUs	0	279	+279
Affordable DUs[1]	0	70	+70
Residents[2]	0	642	+642
Workers[3]	86	272	+186

Notes: 'DUs' indicates Dwelling Units; 'gsf' indicates gross square feet

Increments showing only Projected Development Sites

1 Assumes 25 percent of residential floor area is reserved as affordable to households with incomes averaging 60 percent of the AMI;

2 Assumes 2.30 persons per residential dwelling unit in Brooklyn Community District 8 per 2020 Decennial Census Data;

3 Assumes 3 employees per 1,000 sf for retail, supermarket, and medical; and 1 employee per 250 sf for office uses.

2 Environmental Review

The following technical sections are provided as supplemental assessments to the Environmental Assessment Statement ("EAS") Full Form. Part II: Technical Analyses of the EAS forms a series of technical thresholds for each analysis area in the respective chapter of the *2021 CEQR Technical Manual*. If the proposed project was demonstrated not to meet or exceed the threshold, the 'NO' box in that section was checked; thus, additional analyses were not needed. If the proposed project was expected to meet or exceed the threshold, or if this was not able to be determined, the 'YES' box was checked on the EAS Full Form, resulting in a preliminary analysis to determine whether further analyses were needed. For those technical sections, the relevant chapter of the *2021 CEQR Technical Manual* was consulted for guidance on providing additional analyses (and supporting information, if needed) to determine whether detailed analysis was needed.

A 'YES' answer was provided in the following technical analyses areas on the EAS Full Form:

- Land Use, Zoning, and Public Policy
- Socioeconomic Conditions
- Open Space
- Shadows
- Historic and Cultural Resources
- Urban Design and Visual Resources
- Hazardous Materials
- Transportation
- Air Quality
- Noise

2.1 Land Use, Zoning, and Public Policy

The *2021 CEQR Technical Manual* recommends procedures for analysis of land use, zoning and public policy to ascertain the impacts of a project on the Surrounding Area. Land use, zoning, and public policy are described in detail below. This section considers existing conditions, development trends, and zoning and other public policies in relation to the Affected Area and the Surrounding Area as well as the larger area in which the Proposed Actions may have an effect. Because the Proposed Actions would permit the development of mixed-use building with a larger bulk and a wider range of uses compared to existing zoning regulations, a preliminary assessment of Land Use, Zoning, and Public Policy is provided.

Methodology

Existing land uses were determined by reference to the New York City Zoning and Land Use (Zola) database and PLUTOTM 21v4 shapefiles. These uses were then confirmed through site visits. The evaluation of lots within the 400-foot Study Area was performed with reference to New York City Zoning Maps and the Zoning Resolution of the City of New York and served as the basis for the zoning evaluation of the Future No Action and Future With-Action Conditions. Public Policy research was performed through an evaluation of NYCDCP and other city agencies programs and documentation.

2.1.1 Land Use

The *2021 CEQR Technical Manual* suggests that a land use, zoning, and public policy Study Area should generally extend 400 feet from the Affected Area ("the Surrounding Area"). Existing land uses within approximately 400 feet of the Affected Area are presented in **Figure 1.1-2**.

Existing Conditions

Land Use Study Area

As shown in **Figure 1.1-2** and stated in **Section 1.3**, the surrounding area is a mix of manufacturing, one- and two-family buildings, multi-family buildings, commercial buildings, public facilities, and mixed-use residential and commercial buildings.

On the Affected Area Block, Block 1335, are three one-story commercial or office buildings (including the existing buildings on the Projected Development Site); two industrial or manufacturing buildings that are one-story and four stories tall and both built around 1920; three, three-story mixed-commercial and residential buildings that were all constructed around 1920; and two undeveloped lots that are currently used for surface parking.

North of the Affected Area, across Atlantic Avenue, are Blocks 1706 and 1701. Block 1706 is occupied by 60 two-story one- and two-family buildings that were all constructed around 1985 with a large city-owned open space area separating the residential units from Atlantic Avenue.

Block 1701 consists of a single large lot that is entirely occupied by the campus of the Boys and Girls High School, a public facility and institutional use.

Block 1336, across Schenectady Avenue to the east, is occupied by three sites with active transportation or utility uses within buildings that range in height from one to two stories and were built between 1920 and 1972; and four one- and two-family buildings that were constructed around either 1905 or 1923.

Southwest of the Affected Area is Block 1342, with four lots that include one- and two-family buildings, three multi-family walk-up buildings that are two to three stories in height; three sites occupied by public facilities or institutional uses, and two lots with parking facilities.

Block 1341 south of the Affected Area is occupied by a large NYCHA housing development that spans two large lots (Lots 1 and 12) and is known as Weeksville Gardens. The housing development is comprised of 14 multi-family walk-up buildings ranging between four and five stories constructed around 1950. There is a smaller lot (Lot 44) that is occupied by a one-story church, the Bethel Tabernacle A.M.E Church, which was constructed in 1927.

Further south of the Affected Area and partial within the 400-foot study area are Blocks 1347 and 1348. The lots on these blocks that are captured within the study area are occupied by two-story one- and two-family buildings, two- to four-story multifamily buildings, and two sites occupied by large public facilities (former Public School 83 and the Weeksville Elementary School – PS 243).

Affected Area

A full breakdown of each lot within the Affected Area can be found in **Section 1.4**.

The Affected Area is coterminous with Projected Development Site 1 and consists of three separate lots (Block 1335, Lots 28, 30, and 35) located on the east end of the block with frontage along Atlantic Avenue and Schenectady Avenue:

- Lot 28 is an irregularly shaped 3,998 SF lot that was improved in 2002 with a 3,998 GSF (1.00 FAR) portion of a commercial building that is currently tenanted by Golden Krust Caribbean Bakery and Grill and Atlantic Pharmacy.
- Lot 30 is a 4,152 SF lot that was improved in 2003 with a 4,152 GSF (1.00 FAR) portion of a commercial building that is currently tenanted by Metro PCS, GEM Pawnbrokers, and Checks & More check cashing.
- Lot 35 is a 40,150 SF lot that was improved in 2002 with a 20,980 GSF (.52 FAR) commercial building that operates as a shopping center with 56 parking spaces (and similar to Lot 30) is tenanted by several retailers. Retailers operating on Lot 35 include a grocery store, a Dunkin' Donuts, a beauty supply store, a Dollar Tree, and an appliance shop.

Future No-Action Condition

Land Use Study Area

Two active construction permits were identified in the 400-foot study area. An Alteration permit was issued for a three-story 2,936-gsf residential building at 85 Schenectady Avenue (Block 1342, Lot 6), which would have 2 dwelling units. A New Building permit was issued for a one-story 2,367-gsf gas station building at 1746 Atlantic Avenue (Block 1336, Lot 4). Other than the two active construction permits, no other changes are expected in the 400-foot study area.

Affected Area

The No-Action Scenario is the same as existing conditions in the Affected Area. The existing shopping center would continue to operate. No alternate plans have been filed with the DOB, and the existing M1-1 zoning district's high parking requirement (1 space per 300 SF of uses) and low FAR (1.00) make redevelopment unlikely.

Future With-Action Condition

Projected Development Site 1 (Block 1335, Lots 28, 30, and 35)

The Applicant-Owned Projected Development Site 1 would total 48,300 SF, and would be developed with a 14-story, 145-foot-tall, 389,339 GSF (305,001 ZSF; 6.31 FAR) mixed-use commercial, community facility, and residential building. The building would include 256,125 GSF (237,153 ZSF; 4.91 FAR) of residential space on floors 3 through 13; 56,030 GSF (50,427 ZSF; 1.04 FAR) of commercial floor area on floors 1 and 2; 21,776 GSF (17,421 ZSF; 0.36 FAR) of community facility use on the 2nd floor; and 55,408 GSF of accessory parking area split between the cellar and ground floor. The existing sidewalk (approximately 14 feet wide) of Projected Development Site 1 along Atlantic Avenue would be widened to a width of 20 feet.

For a conservative analysis under CEQR, the analysis will assume that ground floor commercial uses total 31,689 GSF of supermarket use; the second floor will consider 24,340 GSF of general office use; and the remainder of the second floor will assume 21,776 GSF of UG 4 medical office uses. There would be 279 total dwelling units (1 DU per 850 SF), with 70 units or 25% permanently set aside as affordable. There would be 84 parking spaces required, and a total of 112 parking spaces would be provided.

Conclusion

The Applicant believes that the density and uses permitted by the Proposed Actions would be consistent with nearby mid-density residential buildings, mostly along Pacific Street and Dean Street to the south of the Affected Area. The Proposed Actions would not be incompatible with surrounding uses, which are predominantly residential and include commercial and community facility uses. The Proposed Actions would not alter or accelerate development patterns in the area. Therefore, there would be no adverse impacts on land use as a result of the Proposed Actions, and further analysis is not required.

2.1.2 Zoning

The *2021 CEQR Technical Manual* suggests that a zoning Study Area should extend 400 feet from the Affected Area. The proposed zoning map amendment would affect 1335, Lots 28, 30, and 35. A rectangular area of approximately 27,000 sf containing Block 1335, Lots p/o 28, 30, and p/o 35, with a depth of 100 feet from Atlantic Avenue, would be rezoned from an M1-1 zoning district to a C4-4D zoning district. An L-shaped area of approximately 11,300 sf containing Block 1335, Lots p/o 28 and p/o 35 with a depth of 100 feet from Pacific Street would be rezoned from an M1-1 zoning district to an R7A zoning district. A square area of approximately 10,000 sf containing Block 1335, Lot p/o 35 with a 100-foot frontage on Pacific Street and a 100-foot frontage on Schenectady Avenue would be rezoned from an M1-1 zoning district to an R7A/C2-4 zoning district. Existing zoning districts within approximately 400 feet of the Affected Area are presented in **Figure 1.1-3**.

Existing Conditions

Zoning Study Area

Zoning districts within 400 feet of the Affected Area include M1-1, R5, and R6B, as illustrated in **Table 2.1-1**.

Table 2.1-1: Zoning Districts in the Surrounding Area[1]

Zoning District	Type and Use Group	Floor Area Ratio (FAR)	Parking
M1-1	Light Manufacturing UGs 4-14, 16-17	1.0 FAR - Manufacturing 1.0 FAR - Commercial 2.4 FAR - Community Facility	1 per 300 sf
R5B	Residential UGs 1-4	1.35 FAR – Residential 2.0 FAR – Community Facility	66% of dwelling units; 42.5% of IRHUs outside of Transit Zone
R6	Residential UGs 1-4	3.60 FAR – Residential 4.80 FAR – Community Facility	50% of dwelling units; 25% of IRHUs outside of Transit Zone

[1] Zoning Handbook, New York City Department of City Planning, 2019

Existing zoning districts in the surrounding area include:

M1-1

M1 districts are often developed with multistory lofts, one- or two-story warehouses characterized by loading bays, serving as a buffer between M2 or M3 districts of intensive industrial uses and adjacent residential or commercial districts. M1 districts typically include light industrial uses, such as woodworking shops, repair shops, and wholesale service and storage facilities. M1-1 Districts are mainly found in areas with one-story industrial buildings, such as the Flatlands neighborhood of Brooklyn. The FAR for manufacturing and commercial are both 1.0 in M1-1 districts, while the FAR for community facilities is higher, reaching 2.4.

Though one parking space per 300 square feet is common in M1-1 districts, the buildings are subject to parking requirements based on the type of use and size of an establishment. For example, a warehouse in an M1-1 district requires one off-street parking space per 2,000 square feet of floor area or per every three employees, whichever would be less.

R5B

Although an R5B contextual district permits detached and semi-detached buildings, it is primarily a three-story rowhouse district that is mapped in neighborhoods such as Windsor Terrace and Bay Ridge in Brooklyn. The traditional quality of R5B districts is reflected in the district's height and setback, front yard and curb cuts regulations that maintain the character of the neighborhood. The FAR of 1.35 typically produces a building with a maximum street wall height of 30 feet, above which the building slopes or is set back to a maximum height of 33 feet. As in R4B districts, the front yard must be at least five feet deep and it must be at least as deep as one adjacent front yard and no deeper than the other, but it need not exceed a depth of 20 feet. Attached rowhouses do not require side yards but there must be at least eight feet between the end buildings in a row and buildings on adjacent zoning lots. Curb cuts are prohibited on zoning lot frontages less than 40 feet. Where off-street parking is required, on-site spaces must be provided for two-thirds of the dwelling units although parking can be waived when only one space is required. Requirements are lower for income-restricted housing units (IRHU) and are further modified within the Transit Zone. Front yard parking is prohibited.

R6

R6 districts are medium-density non-contextual zoning districts widely mapped in built-up, medium-density areas in Brooklyn, such as the Study Area. Developers can choose between two sets of bulk regulations. Standard height factor regulations, introduced in 1961, produce small multi-family buildings on small zoning lots and, on larger lots, tall buildings that are set back from the street. Optional Quality Housing regulations produce high lot coverage buildings within height limits that often reflect the scale of older, pre-1961 apartment buildings in the neighborhood. In districts mapped R6 within an MX-8 district, all buildings shall comply with the height and setback regulations as set forth in ZR 123-662.

Affected Area

The Affected Area is zoned M1-1, which permits low-density manufacturing and commercial uses at a maximum FAR of 1.00 and certain community facility uses at 2.40 FAR.

Future No-Action Condition

No changes to zoning are anticipated in the future without the Proposed Actions within the Affected Area or the 400-foot Study Area. Existing zoning patterns would remain.

Future With-Action Condition

The Projected Development Site would be rezoned from M1-1 to C4-4D, R7A/C2-4, and R7A. The proposed Zoning Map Amendment would permit residential development on the Projected Development Site to a maximum FAR of 7.20 under the proposed C4-4D zoning district and 4.60 FAR under the proposed R7A/C2-4 and R7A zoning districts. Commercial floor area would be limited to 3.40 FAR under the proposed C4-4D zoning district and 2.00 FAR under the proposed R7A/C2-4. Community facility floor area would be limited to 6.50 FAR under the proposed C4-4D zoning district and 4.00 FAR under the proposed R7A/C2-4 and R7A zoning districts.

Conclusion

The Proposed Actions would not directly displace a land use that would adversely affect surrounding area land uses, nor would it generate a land use that would be incompatible with surrounding uses. The projected development that is expected to develop because of the Proposed Actions would provide a substantial amount of market rate and permanently affordable dwelling units, as well as locally serving retail and supermarket uses along a wide road in close proximity to public transportation.

2.1.3 Public Policy

According to the *2021 CEQR Technical Manual*, a project that would be located within areas governed by public policies controlling land use, or that has the potential to substantially affect land use regulation or policy controlling land use, requires an analysis of public policy. A preliminary assessment of public policy should identify and describe any public policies, including formal plans or published reports, which pertain to the Study Area. If the Proposed Actions could potentially alter or conflict with identified policies, a detailed assessment should be conducted; otherwise, no further analysis of public policy is necessary.

The Affected Area is not part of, or subject to, an Urban Renewal Plan (URP), adopted community 197-a Plan, or a Solid Waste Management Plan. The Proposed Actions are also not a large publicly sponsored project, and as such, consistency with the City's PlaNYC 2030 for sustainability is not warranted. The Affected Area is located in a Transit Zone and a FRESH Program zone, where additional floor area is granted when a qualifying fresh food grocer is provided on the ground floor.

The Proposed Actions include a Zoning Text Amendment to ZR Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Community District 8, Brooklyn, to establish the Affected Area as an MIH Area under Program Option 1. As a result, analysis of the Proposed Actions' alignment with Housing New York 2.0 is warranted. Though the Proposed Actions are not a large publicly sponsored project, consistency with the City's OneNYC for sustainability is provided below. In addition, the Proposed Actions consistency with "Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery", "Get Stuff Built", and "Housing Our Neighbors: A Blueprint for Housing and Homelessness" is provided below.

Existing Conditions

Housing New York 2.0

Carried out by Housing Preservation and Development (HPD), Housing New York is the Mayor's plan to build or preserve 300,000 affordable homes by 2026. The plan outlines a comprehensive set of policies and programs to address the city's affordable housing crisis and retain the diversity and vitality of its neighborhoods.

OneNYC

OneNYC is New York City's long-term strategy and Green New Deal to confront climate crisis, achieve equity, and strengthen democracy so that people can build a strong and fair city. It covers eight strategies: a vibrant democracy, an inclusive economy, thriving neighborhoods, healthy lives, equity and excellence in education, a livable climate, efficient mobility, and modern infrastructure.

Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery

Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery aims to accelerate job creation and make communities more resilient to future environmental and public health emergencies, financially stronger, and more connected. It contains five main strategies, including

1. Restarting the city's economic engines and reactivating the public realm, supporting small businesses, entrepreneurship, and a more equitable economy
2. Driving inclusive sector growth
3. Building a future-focused economy
4. Connecting New Yorkers to quality jobs and in-demand skills
5. Planning and building for inclusive growth now and in the future

Get Stuff Built

Get Stuff Built is a strategy to address affordable housing crisis with the goal of 500,000 new homes. Carried out by the Building and Land Use Approval Streamlining Task Force (BLAST), "Get

Stuff Built" includes 111 concrete actions the city will take to create more housing more quickly by streamlining processes and removing bureaucratic obstacles that are slowing housing production and economic recovery. These actions will increase the speed and lower the cost of development by accelerating project timelines by 50 percent, ensure environmental protection and meaningful public participation, and stimulate the creation of affordable housing across New York City.

Housing Our Neighbors: A Blueprint for Housing and Homelessness

Housing Our Neighbors: A Blueprint for Housing and Homelessness is a plan to get New Yorkers into Safe, High-Quality, Affordable Homes. Crafted with insight from New Yorkers who experienced homelessness, blueprint focuses not just on creating homes but also on getting New Yorkers into them more quickly. The blueprint contains five main strategies, including:

1. Transforming NYCHA,
2. Addressing Homelessness and Housing Instability,
3. Creating and Preserving Affordable Housing,
4. Improving the Health and Safety of New Yorkers, and
5. Reducing Administrative Burden.

FRESH

The FRESH program provides zoning and financial incentives to promote the establishment and retention of neighborhood grocery stores in communities that lack full-line grocery stores 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. Stores that benefit from the program must fall within designated FRESH-eligible areas. Stores that benefit from the FRESH program must also meet the following criteria:

- Provide a minimum of 6,000 square feet (sf) of retail space for a general line of food and nonfood;
- Grocery products intended for home preparation, consumption and utilization;
- Provide at least 50 percent of a general line of food products intended for home preparation;
- Consumption and utilization;
- Provide at least 30 percent of retail space for perishable goods that include dairy, fresh produce;
- Fresh meats, poultry, fish and frozen foods; and

- Provide at least 500 sf of retail space for fresh produce.

Transit Zone

Transit zones in New York City are dense urban areas with a low car ownership rate and different programs of affordable housing. These neighborhoods offer several choices of public transportation and are within a half-mile away from a subway station. Building off-street parking is stimulated in the transit zones to provide the construction of more multi-family dwellings, as well as the creation of more green spaces and public space. Off-street parking is not required for newly planned public housing, senior housing, or buildings designated for low-income families. Families with a higher income or who live in subsidized housing can apply for a special permit in order to obtain their parking spot.

Future No-Action Condition

No changes to Housing New York 2.0, OneNYC, Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery, Get Stuff Built, Housing Our Neighbors: A Blueprint for Housing and Homelessness, FRESH, or Transit Zone are anticipated under Future No-Action Conditions.

Future With-Action Condition

Housing New York 2.0

The Proposed Actions are consistent with the goals of Housing New York as an MIH area would be established over the Affected Area to introduce more affordable residential units to the area. The development of Projected Development Site 1 would set aside 70 dwelling units as permanently affordable units for households making an income averaging 60% AMI, which makes up 25% of the total 279 project induced dwelling units. The affordable units that would be provided pursuant to the Proposed Actions would foster diverse and livable neighborhoods, preserve the affordability and quality of the housing stock, and build new affordable housing for all New Yorkers.

OneNYC

The Proposed Actions support the OneNYC strategies in terms of an inclusive economy and thriving neighborhoods by creating new job opportunities within the proposed commercial spaces. The Proposed Actions would also support OneNYC initiatives by constructing new multi-family housing and community facility on underbuilt land. The Proposed Actions are consistent with the goals of OneNYC, as it would create additional affordable housing and contribute to the community and economic development of the Crown Heights neighborhood and Brooklyn as a whole. Therefore, the Proposed Actions would not conflict with this public policy.

Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery

The Proposed Development would provide new-built spaces for local businesses, increase the community's economic diversity, and create quality jobs for New Yorkers. Thus, the Proposed Actions are supportive of this policy.

Get Stuff Built

The Proposed Actions would facilitate the construction of 279 incremental dwelling units within the Affected Area, including 70 dwelling units permanently affordable for households making an income averaging 60% AMI pursuant to MIH Option 1. The units that would be provided pursuant to the Proposed Actions would help address affordable housing crisis and contribute to the goal of 500,000 new homes expressed in the "Get Stuff Built" strategy.

Housing Our Neighbors: A Blueprint for Housing and Homelessness

The Proposed Actions would facilitate the construction of 279 incremental dwelling units within the Affected Area, including 70 dwelling units permanently affordable for households making an income averaging 60% AMI. By creating the affordable housing, the Proposed Actions would contribute to the goal of getting New Yorkers into safe, high-quality, affordable homes expressed in "Housing Our Neighbors: A Blueprint for Housing and Homelessness".

FRESH

The Affected Area is within a FRESH Program zone that offers zoning incentives and financial benefits to develop and retain convenient and accessible stores in underserved communities that provided fresh meat, fruit and vegetables, and other perishable goods. Such zoning incentives include additional floor area in mixed use buildings, reduced parking requirements, and the construction of larger grocery stores as-of-right in light manufacturing districts.

The Proposed Actions would include 31,689 GSF of supermarket use in the commercial space on the ground floor, where fresh vegetable and fruits are made available to the local residents. As a result, the Proposed Actions are supportive of the FRESH program.

Transit Zone

The Affected Area is in a Transit Zone, which has a lower accessory parking requirement for various types of affordable housing including IRHUs and generally apply to areas within one-half mile of a subway station where auto ownership rates area among the lowest in the city. The Proposed Actions would result in the development of 279 residential units that includes 70 IRHUs, which would reduce the overall parking requirement to 84 spaces. Despite the reduction in required parking pursuant to Transit Zone regulations, the Applicant has proposed to provide 112 parking spaces.

Conclusion

While the proposed Actions would facilitate the development of a medium-density mixed-use building that would expand the permitted bulk and range of uses on Projected Development Site 1, the Proposed Actions' intent to map the Affected Area as an MIH area would further the City's goals to provide affordable housing and facilitate the construction of 70 permanently affordable dwelling units. The Applicant's Proposed Development takes into consideration the Projected Development Site's location in a Transit Zone, which encourages the use of mass transit by meeting a lower parking requirement. No other applicable public policies are within the Affected Area, and the Proposed Actions would not affect or impact public policy. Further analysis of public policy is not required.

2.2 Socioeconomic Conditions

According to the *2021 CEQR Technical Manual*, a socioeconomic assessment should be conducted if a project may be reasonably expected to create socioeconomic changes within the area affected by the project that would not be expected to occur without the project. The following circumstances would typically require a socioeconomic assessment:

- The project would directly displace residential population to the extent that the socioeconomic character of the neighborhood would be substantially altered. Displacement of less than 500 residents would not typically be expected to alter the socioeconomic character of a neighborhood. For projects exceeding this threshold, assessments of the direct residential displacement, indirect residential displacement, and indirect business displacement are appropriate.

- The project would directly displace more than 100 employees. For projects exceeding this threshold, assessments of direct business displacement and indirect business displacement are appropriate.

- The project would directly displace a business that is unusually important because its products or services are uniquely dependent on its location; that, based on its type or location, is the subject of other regulations or publicly adopted plans aimed at its preservation; or that serves a population uniquely dependent on its services in its present location. Information provided in Chapter 4, "Land Use, Zoning, and Public Policy," may be useful in determining whether an assessment is appropriate. If any of these conditions is considered likely, assessments of direct business displacement and indirect business displacement are appropriate.

- The project would result in substantial new development that is markedly different from existing uses, development, and activities within the neighborhood. Such a project may lead to indirect displacement. Typically, projects that are small to moderate in size would not have significant socioeconomic effects unless they are likely to generate socioeconomic conditions that are very different from existing conditions in the area. Residential development of 200 units or less or commercial development of 200,000 square feet or less would typically not result in significant socioeconomic impacts. For projects exceeding these thresholds, assessments of indirect residential displacement and indirect business displacement are appropriate.

- The project would add to or create a retail concentration that may draw a substantial number 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 a potential for disinvestment on local retail streets. Projects resulting in less than 200,000 square feet of retail on a single development site would not typically result in socioeconomic impacts. If the proposed development is located on multiple sites located

across an Affected Area, a preliminary analysis is likely only warranted for retail developments in excess of 200,000 sq. ft. that are considered regional serving (not the type of retail that primarily serves the local population). For projects exceeding these thresholds, an assessment of the indirect business displacement due to market saturation is appropriate.

- If the project is expected to affect conditions within a specific industry, an assessment is appropriate. For example, a citywide regulatory change that would adversely affect the economic and operational conditions of certain types of businesses or processes may affect socioeconomic conditions in a neighborhood: (1) if a substantial number of residents or workers depend on the goods or services provided by the affected businesses; or (2) if it would result in the loss or substantial diminishment of a particularly important product or service within the city. Since the range of possible types of projects that may require an analysis of specific industries varies, the lead agency, in consultation with the Mayor's Office of Environmental Coordination (MOEC), should provide guidance as to whether an analysis is warranted.

Methodology

Typically, the socioeconomic Study Area boundaries are similar to those of the land use Study Area. The Study Area encompasses the project site and adjacent area within 400 feet, 0.25 mile, or 0.5 mile, depending on project size and area characteristics. The socioeconomic assessment seeks to examine the potential to change socioeconomic character relative to the Study Area population. For projects that result in an increase in residential population, the scale of the relative change is typically represented as a percent increase in population.

Existing Conditions

The Affected Area is located on Block 1335, Lots 28, 30, and 35 in the Crown Heights neighborhood of Brooklyn. The combined rezoning area is approximately 48,300 SF with a total of 26,680 GSF of existing commercial uses.

Future No-Action Condition

In the future without the Proposed Actions existing conditions would remain. The one-story commercial buildings would be expected to operate with their existing retail uses.

Future With-Action Condition

In the future with the Proposed Actions, the Affected Area would be redeveloped with 279 total dwelling units (70 permanently set aside as affordable per MIH Option 1), 21,776 GSF of community facility floor area, and 56,030 GSF of commercial floor area.

2.2.1 Preliminary Socioeconomic Screening

Direct Residential Displacement

There are no residential dwelling units within the Affected Area under existing conditions. The Proposed Actions would not lead to the displacement of residents. Therefore, and assessment of direct residential displacement is not warranted.

Direct Business Displacement

The Proposed Actions would replace the existing 29,130 GSF of commercial uses (local retail) and 86 workers (assuming 3 employees per 1,000 GSF of local retail uses). As the number of directly displaced employees is less than 100, an assessment of direct business displacement is not required.

Indirect Residential Displacement

The Proposed Actions would result in a net induced development of 279 dwelling units, 70 of which would be affordable per MIH Option 1. Pursuant to the *2021 CEQR Technical Manual*, for a project exceeding 200 dwelling units, an assessment of indirect residential displacement is appropriate. Therefore, further analysis of the potential for indirect displacement due to increased rents is warranted.

Indirect Business Displacement due to Retail Market Saturation

As noted above, the Proposed Actions are projected to result in the development of 56,030 GSF of commercial space and a net incremental development of 26,900 GSF of commercial uses. Induced development would be far below the 200,000 SF thresholds, and further analysis of indirect business displacement is not warranted.

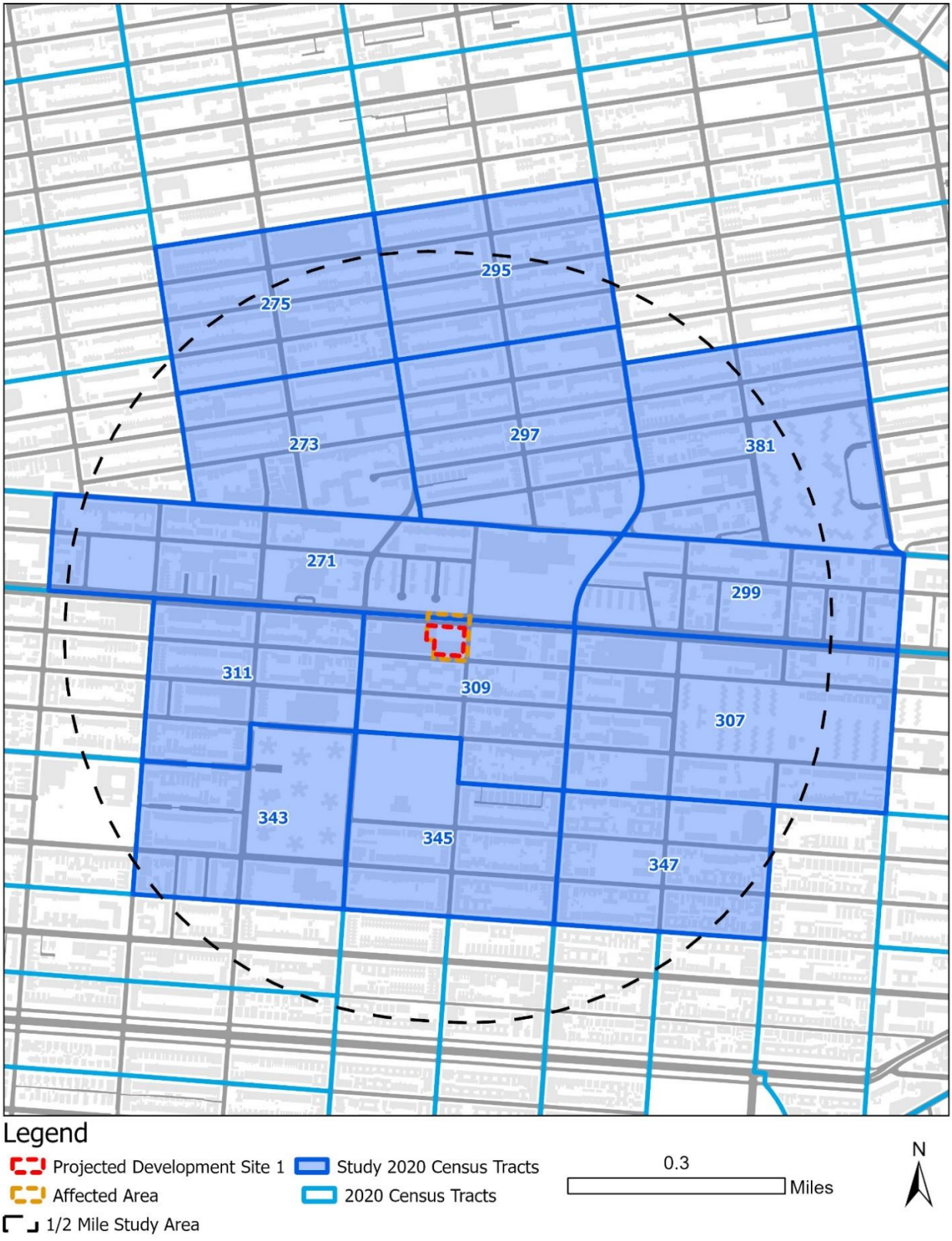
Adverse Effects on Specific Industries

The Proposed Actions would not affect a business that provides goods or services to a substantial number of residents or workers and would not result in the loss or substantial diminishment of a particularly important product or services within the city. Therefore, no adverse impacts to any industries would occur because of the Proposed Actions.

2.2.2 Preliminary Indirect Residential Displacement Assessment

Because the Proposed Actions would result in the development of over 200 residential units, further analysis of the potential for indirect impacts associated with increased rents was conducted. Pursuant to the *2021 CEQR Technical Manual*, a 1/4-mile study area is appropriate for a project producing a small increase (below 5 percent) to the quarter-mile area population. The Proposed Actions would introduce a net increment of 642 residents, which is an approximately 6.47 percent increase to the existing 1/4-mile area population. Therefore, a 1/2-mile study area is more appropriate for this analysis, which is defined to include census tracts that have more than 50 percent of their area within a 1/2-mile radius of the Affected Area (**Figure 2.2-1**). Accordingly, the 1/2-mile Study Area includes census tracts 271, 273, 275, 295, 297, 299, 307, 309, 311, 343, 345, 347, and 381.

Figure 2.2-1: Socioeconomic Study Area – 1/2 Mile



Step 1

Step 1 of the socioeconomics analysis requires a determination of whether or not the Proposed Actions would add a new population to the Study Area with higher average incomes compared to the average incomes of the existing populations and any new population expected to reside in the Study Area without the project.

Study Area Household Income

Household income characteristics within the 1/2-mile Study Area can be revealed with the median household income, the mean household income, and the percentage of households below poverty level. The median household income divides the household income distribution into two equal parts with half having income above that amount and half having income below that amount. Unlike the median household income, the mean household income is the amount obtained by dividing the total aggregate income of all households by the number of households, which is more affected by the relatively unequal distribution of the income that tilts towards the top. As a result, the mean household income is typically higher than the median household income given that the top earning households could boost the number. The percentage of households below poverty level is also important in forming a comprehensive understanding of the household income as the poverty level is determined by the Census Bureau with an official poverty measure that compares pre-tax cash income against a threshold that is set at three times the cost of a minimum food diet in 1963 and adjusted for family size.

Referencing the NYC Planning Population FactFinder[2], as shown below in **Table 2.2-1**, the 1/2-mile Study Area census tracts had a lower median household income ($45,738) and mean household income ($58,636) than those in Brooklyn ($54,646 for median household income and $78,589 for mean household income) and in NYC ($63,072 for median household income and $97,706 for mean household income) as of 2010. In 2021, the median household income within the 1/2-mile Study Area has increased by 20.84% to $55,270, which remains as the lowest compared to that in Brooklyn ($67,753) and in NYC ($70,663). The mean household income within the 1/2-mile study area has experienced the biggest jump of 43.08% to $83,897 in 2021, though it is still slightly lower than the mean household income of Brooklyn ($103,893) and NYC ($113,315).

The percentage of the households below poverty level in the 1/2-mile Study Area was 26.00% as of 2010, which is the highest compared to that in Brooklyn (18.80%) and in NYC (16.20%). In 2021, the household poverty rate within the 1/2-mile study area decreased by 4.30% to 21.70%, which remains the highest compared to those of Brooklyn (14.90%) and NYC (13.60%) that have decreased by 3.90% and 2.60% from 2010 to 2021, respectively.

Although the changes in the household income numbers and household poverty rates are not considered statistically reliable or significant, they can be viewed as directionally accurate and

[2] https://popfactfinder.planning.nyc.gov/

indicative of increasing household incomes and decreasing household poverty rates within the 1/2-mile Study Area. The increasing household median and mean incomes and the decreasing household poverty rate show an observable trend towards higher-earning residents within the Study Area census tracts.

Table 2.2-1: Household Income Characteristics of the 1/2-Mile Study Area, Brooklyn, and NYC

	Median Household Income	Mean Household Income	Households Below Poverty Level
2006-2010 ACS			
1/2-Mile Study Area	$45,738	$58,636	26.00%
Brooklyn	$54,646	$78,589	18.80%
New York City	$63,072	$97,706	16.20%
2017-2021 ACS			
1/2-Mile Study Area	$55,270	$83,897	21.70%
Brooklyn	$67,753	$103,893	14.90%
New York City	$70,663	$113,315	13.60%
Percent Changes Between 2010 and 2021 ACS			
1/2-Mile Study Area	20.84%	43.08%	-4.30%
Brooklyn	23.99%	32.20%	-3.90%
New York City	12.04%	15.98%	-2.60%

Study Area Market Rent

The US Census provides information on median contract rent, which reflects the range of rents for both units of different sizes and ages and occupants who may have moved in recently or lived in their units for a long time. However, these data are of limited use because they fail to distinguish between units subject to market rents and those under some form of rent regulation. To understand the current trends, particularly trends affecting unregulated rental units, the rental data from ACS should be supplemented by information from real estate brokers and examination of current rental apartment listings.

Though utilizing the median gross rent from the ACS data to determine market rents in a Study Area is not recommended as ACS rents do not distinguish between market and rent-regulated units, often making the data difficult to parse, the value of ACS rent data lies in its ability to show trends over time as opposed to the actual values. Therefore, the 2010 ACS and 2021 ACS have been adopted to show the trend of rent change in the 1/2-mile Study Area, Brooklyn, and New York City.

Table 2.2-2: Median Gross Rent of the 1/2-Mile Study Area, Brooklyn, and NYC

	2010 ACS	2021 ACS	Percentage Change
1/2-Mile Study Area	1,025	1,404	36.98%
Brooklyn	1,281	1,582	23.50%
New York City	1,343	1,579	17.57%

As shown in **Table 2.2-2** above, the median gross rent within the 1/2-mile Study Area was the lowest at around $1,025, compared to that in Brooklyn ($1,281) and in New York City ($1,343) in 2010. In 2021, the 1/2-mile Study Area still has a lowest median gross rent of $1,404 compared to that in Brooklyn ($1,582) and in New York City ($1,579). The median gross rent increase rate within the 1/2-mile Study Area is the highest from 2010 to 2021, reaching 36.98%, compared to 23.50% increase in Brooklyn and 17.57% increase citywide. As described above, though the ACS median gross rent data is considered to be of limited use, it still indicates that the 1/2-mile Study Area may have experienced a readily observable trend toward increasing rents in the last decade.

Table 2.2-3: GRAPI Comparison of 1/2-Mile Study Area, Brooklyn, and NYC

	Less than 15%	15% to 30%	30% or more
2006-2010 ACS			
1/2-Mile Study Area	13.50%	35.20%	51.30%
Brooklyn	12.90%	33.50%	53.60%
New York City	14.40%	34.30%	51.30%
2017-2021 ACS			
1/2-Mile Study Area	13.50%	32.70%	53.80%
Brooklyn	13.60%	33.80%	52.60%
New York City	14.70%	33.10%	52.20%
Percent Changes Between 2010 and 2021 ACS			
1/2-Mile Study Area	0.00%	-2.50%	2.50%
Brooklyn	0.70%	0.30%	-1.00%
New York City	0.30%	-1.20%	0.90%

Further investigation was undertaken regarding gross rent as a percentage of household income (GRAPI). Like the median gross rent data, though the comparison between the GRAPI values for the 1/2-mile Study Area and the city/Brooklyn are not statistically valid, it could reveal the trend of the affordability of the rental units in the area. As shown in **Table 2.2-3** above, as of 2010, the households that spend 15% to 30% of their household income on gross rent within the 1/2-mile Study Area constitute 35.20% of the total households paying rent, which has decreased to 32.70% in 2021. As for the households that spend more than 30% of the total income on the gross rent, the percentage of such rent-burdened households in the Study Area has increased by 2.50% from

51.30% in 2010 to 53.80% in 2021, which is the highest compared to those in Brooklyn (52.60% in 2021) and New York City (52.20% in 2021). The household percentage structure of GRAPI in the 1/2-mile Study Area indicates that the area has a comparable rent market compared to the market in Brooklyn and New York City as 46.20% of households in the area pay less than 30% of the total income on rent in 2021, which is similar to those in Brooklyn (47.40%) and New York City (47.80%).

In addition to the ACS data, a more appropriate data source for determining market rents in the 1/2-Mile Study Area would be from professional market reports of real estate agency websites. Since most real estate reports use the neighborhood as the basic geographic unit, Crown Heights, where the Affected Area is located, and Bedford-Stuyvesant, the closest neighborhood, which is witnessing a robust rental market, were used as the alternative and comparable of the 1/2-Mile Study Area in the market rate rental price research respectively. It should be noted that market reports in 2019 were reviewed to eliminate the huge negative impact of COVID pandemic on the NYC rental.

According to *Douglas Elliman's December 2019 Manhattan, Brooklyn, and Queens Rentals Report*[3], Brooklyn experienced yearly rises in the median rental price and average rental price by 9.2% and 9.5%, respectively. Further supplemented by the sliced data from *StreetEasy Data Dashboard* website[4], the median asking rent in Crown Heights was $2,399 in Feb 2019, which increased to $2,640 in Feb 2020. Bedford-Stuyvesant had a comparable median asking rent, which was $2,450 in Feb 2019 and $2,537 in Feb 2020.

The *M.N.S Real Estate NYC 2019 Year End market report*[5], which features a more detailed perspective in the average rental prices of different unit types in both Brooklyn and specific neighborhoods, also proves the trend of steadily increasing rent in the area. The report shows that the average rental prices in Brooklyn increased across all unit types in 2019. Average studio rental prices increased by 4.1% from $2,231 to $2,323, one-bedroom rental prices increased by 5.6% from $2,689 to $2,841, and two-bedroom rental prices increased by 6.2% from $3,495 to $3,712. Overall, the average rental price for a unit in Brooklyn was $2,959, up 5.5% from 2018's overall average of $2,805. The 2019 studio average rental price in Crown Heights increased approximately 3.9% from 2018 to $1,946. From 2018 to 2019, the average one-bedroom rental price went up by 1.4% to $2,225, and the average two-bedroom rental price also increased by 3.4% to $2,598. Over 2019, Bedford-Stuyvesant also experienced a rise in the rents, where studio prices increased by 0.3% to $1,898, one-bedroom prices increased by 3.5% to $2,241, and two-bedroom pricing increased by 4.9% to $2,604 in 2019.

[3] https://www.elliman.com/resources/siteresources/commonresources/static%20pages/images/corporate-resources/q4_2019/rental%2012_2019.pdf
[4] https://streeteasy.com/blog/data-dashboard/
[5] http://www.mns.com/pdf/brooklyn_year_end_market_report_2019.pdf

To determine market rents for the Study Area, the website StreetEasy[6] was consulted. For the Study Area, rental prices ranged from $1,333 to $5,123, which is indicative of an area in transition that has seen a large number of private developments in recent years. The range of market rents is shown below in **Table 2.2-4,** along with columns showing the estimated annual household incomes to afford the rents. Typically, rents are estimated to be 30% of the household incomes.

Table 2.2-4: StreetEasy Market Rent in Crown Heights

Bedrooms	Low Rent	Median Rent	High Rent	Annual Household Income Estimate (Low)	Annual Household Income Estimate (Median)	Annual Household Income Estimate (High)
Studio	$1,800	$2,600	$3,415	$72,000	$104,000	$136,600
1BR	$1,333	$2,975	$3,557	$53,320	$119,000	$142,280
2BR	$2,580	$3,138	$5,123	$103,200	$125,520	$204,920
3BR	$2,750	$3,500	$3,987	$110,000	$140,000	$159,480

Proposed Building Household Income and Market Rent Estimates

Since new development tends to be at the higher end of the rents, the third quartile of market rent range in Crown Heights would be referred to as the potential rent of the proposed market-rate units on Projected Development Site 1, which is approximately $3,008 for studio, $3,266 for one-bedroom, $4,131 for two-bedroom, and $3,744 for three-bedroom**.** Accordingly, the estimated annual household income to afford the rent would be $120,300 for studio, $130,640 for one-bedroom, $165,220 for two-bedroom, and $149,740 for three-bedroom. Per the architectural drawings, of all the proposed units, approximately 15.47% would be studios, 39.21% would be one-bedroom, 37.41% would be two-bedroom, and 7.91% would be three-bedroom. Accordingly, it is estimated that the average income of households occupying the market-rate units on Projected Development Site 1 would be $143,489.

The Proposed Actions would introduce an increment of 279 dwelling units on Projected Development Site 1, with 70 units or 25% permanently set aside as affordable to households with incomes averaging 60% AMI pursuant to MIH Option 1. Accordingly, the average expected household income in the proposed affordable units would be based on the New York City Area Median Income provided on the New York City Department of Housing Preservation and Development (HPD) shown in **Table 2.2-5** below. Since the average household size is 2.30 in Brooklyn Community District 8 per 2020 Decennial Census, it is estimated that the average income of households occupying the affordable units on Projected Development Site 1 would be $70,338.

[6] https://streeteasy.com/blog/data-dashboard/

Table 2.2-5: New York City Area Median Income in 2021[7]

Family Size	30% AMI	50% AMI	60% AMI	80% AMI	100% AMI	120% AMI	165% AMI
1 Person	$29,670	$49,450	$59,340	$79,120	$98,900	$118,680	$163,185
2 Persons	$33,900	$56,500	$67,800	$90,400	$113,000	$135,600	$186,450
3 Persons	$38,130	$63,550	$76,260	$101,680	$127,100	$152,520	$209,715
4 Persons	$42,360	$70,600	$84,720	$112,960	$141,200	$169,440	$232,980

As described above, the Proposed Development would be subject to MIH Option 1, with 25% of the units as affordable and 75% as market-rate. Accordingly, the average household income of the residents in the Proposed Development would be $125,201.

As shown in **Table 2.2-1** above, the 1/2-mile Study Area census tracts have an average household income of $83,897 in 2021. Although 70 units or 25% of all the proposed dwelling units would be permanently set aside as affordable for households earning incomes averaging 60% AMI, the overall average income of the introduced population would likely be higher than that of the surrounding Study Area. Therefore, the analysis will continue to Step 2.

Step 2

Step 2 of a socioeconomics analysis requires determining if the Proposed Actions would increase the Study Area's population in an amount large enough relative to the size of the population expected to reside in the Study Area without the project to affect real estate market conditions in the Study Area. If the population increase is less than five percent within the Study Area, further analysis is not warranted as the change would not be expected to affect real estate market conditions.

Existing Conditions

To determine the existing population for the Study Area, all completed DOB permits for the Study Area census tracts that were completed since 2020 were added to the 2020 Decennial Census population. As stated in the *2021 CEQR Technical Manual*, to better understand the trends of changing socioeconomic conditions of the Study Area that may potentially displace a vulnerable population, it is useful to include data from the most recent census as well as data from the completed DOB permits between the census year till now when determining the existing population of the Study Area. The data adopted to determine the existing population includes 2020 decennial census data and DCP Housing Database Project-Level Files.

Based on the 2020 Decennial Census, the total population of the thirteen census tracts within the 1/2-mile Study Area is 48,708 residents. According to the Project-Level DCP Housing Database, 113 permits were completed within the Study Area since January 1, 2020. As shown in **Table 2.2-6** below, an increment of 750 dwelling units were introduced into the 1/2-Mile Study Area as a result of the completed DOB permits since January 1, 2020. The 750 dwelling units

[7] https://www1.nyc.gov/site/hpd/services-and-information/area-median-income.page

multiplied by the average household size (2.30) for Brooklyn Community District 8 (2020 Decennial Census Data) comes out to 1,725 additional residents. In total, there would be 50,433 existing residents in the 1/2-Mile Study Area.

Future No-Action Condition

The No-Action Condition for the Study Area, projecting to the 2026 build year, is based on the household size and known developments within the Study Area. A review of active major construction projects, approved BSA applications, and approved ULURP actions was undertaken to determine known developments in the area. As shown in **Table 2.2-7** below, a total of 38 proposed projects, resulting in 614,522 GSF of development and 696 proposed dwelling units, were identified. The proposed 696 dwelling units multiplied by the average household size (2.30) for Brooklyn Community District 8 (2020 Decennial Census) comes out to 1,601 additional residents. The No-Action population for the Study Area would be the 1,601 additional residents plus the existing Study Area population of 50,433, for a total No-Action population of 52,034 residents.

Future With-Action Condition

Compared to the No-Action Condition, the Proposed Actions would introduce 279 dwelling units, 70 units or 25% of which would be permanently affordable for households with an income averaging 60% AMI. Assuming an average household size of 2.30 persons for Brooklyn Community District 8 (2020 Decennial Census Data), there would be 642 incremental residents resulting from the Proposed Actions. As a result, the With-Action Condition population would result in a 1.23 percent increase over the No-Action Condition.

Per the *2021 CEQR Technical Manual*, if the population increase induced by the Proposed Actions is greater than 5 percent in the study area, such population increase is considered large enough to potentially affect real estate market conditions in the study area. Accordingly, the population increase induced by the Proposed Actions is not considered significant to the 1/2-Mile Study Area.

2.2.3 Conclusion

Though the induced development resulting from the Proposed Actions would continue the established trend of population growth in the area and would add new population with a higher average income ($125,201) compared to the average income of the existing populations ($83,897), the Proposed Actions would not have significant adverse impacts on the socioeconomic conditions. As indicated above, the Proposed Actions are anticipated to result in a 1.23 percent population increase to the 1/2-Mile Study Area, which is not large enough (more than 5%) to be considered significant per the *2021 CEQR Technical Manual*. Therefore, no significant adverse impact is expected on the socioeconomic conditions in the area and no further analysis is warranted.

Table 2.2-6: Completed Construction Projects in 1/2-Mile Study Area Since 2020

Address	CT #	Job Type	Completion Year	Permit Year	Initial DU	Proposed DU	Net DU
1430 Fulton St	271	New Building	2021	2015	0	132	132
1556 Fulton St	271	Alteration	2020	2015	2	6	4
1660 Fulton St	271	Alteration	2020	2015	141	141	0
1520 Fulton St	271	New Building	2020	2015	0	49	49
1516 Fulton St	271	Alteration	2020	2015	4	23	19
1620 Fulton St	271	New Building	2021	2018	0	103	103
369 Herkimer St	271	Alteration	2022	2018	1	2	1
491 Herkimer St	271	New Building	2022	2020	0	121	121
33 Kingston Ave	271	Demolition	2022	2022	2	0	-2
35 Kingston Ave	271	Demolition	2021	2021	2	0	-2
191 Mac Donough St	273	Alteration	2022	2016	3	3	0
1587 Fulton St	273	Alteration	2020	2017	2	6	4
360 Macon St	273	Alteration	2021	2020	3	2	-1
1557 Fulton St	273	New Building	2020	2017	0	23	23
172 Macdonough St	273	Alteration	2020	2017	3	1	-2
156 Decatur St	273	Alteration	2021	2017	2	2	0
418A Lewis Ave	273	Alteration	2021	2018	2	3	1
221 Macdonough St	273	Alteration	2021	2017	2	1	-1
65 Bainbridge St	273	Alteration	2020	2018	5	2	-3
160 Macdonough St	273	Alteration	2020	2019	2	2	0
156 Macdonough St	273	Alteration	2021	2019	3	2	-1
361 Macon St	275	New Building	2022	2017	0	4	4
424 Halsey St	275	New Building	2021	2019	0	2	2
350 Halsey St	275	Alteration	2021	2018	2	4	2
558 Jefferson Ave	275	Alteration	2022	2015	1	1	0
402 Hancock St	275	Alteration	2021	2018	2	3	1
533 Throop Ave	275	New Building	2021	2019	0	2	2
466 Jefferson Ave	275	Alteration	2021	2019	1	2	1

Address	CT #	Job Type	Completion Year	Permit Year	Initial DU	Proposed DU	Net DU
465 Hancock St	275	Demolition	2020	2020	8	0	-8
463A Hancock St	275	Demolition	2022	2022	4	0	-4
780 Putman Ave	295	Alteration	2021	2009	3	4	1
228 Malcolm X Blvd	295	New Building	2020	2015	0	15	15
489 Halsey St	295	Alteration	2021	2018	1	2	1
527A Hancock St	295	Alteration	2020	2018	2	2	0
212 Malcolm X Blvd	295	Alteration	2020	2019	3	10	7
593 Hancock St	295	Alteration	2022	2018	0	3	3
569 Jefferson Ave	295	Alteration	2022	2020	1	3	2
702 Putnam Ave	295	Alteration	2022	2020	4	2	-2
526 Hancock St	295	Alteration	2020	2019	2	2	0
688 Jefferson Ave	295	Demolition	2021	2021	2	0	-2
636 Hancock St	295	Demolition	2021	2021	2	0	-2
263 Stuyvesant Ave	295	Alteration	2022	2022	4	4	0
335 Stuyvesant Ave	297	Alteration	2022	2016	1	2	1
120 Bainbridge St	297	Alteration	2021	2017	2	1	-1
317 Decatur St	297	Alteration	2021	2016	3	1	-2
174 Bainbridge St	297	Alteration	2021	2017	2	1	-1
172 Bainbridge St	297	Alteration	2022	2017	1	1	0
129 Chauncey St	297	Alteration	2020	2018	3	3	0
390 Stuyvesant Ave	297	Alteration	2022	2019	1	2	1
817 Herkimer St	299	Alteration	2020	2011	2	4	2
42 Rochester Ave	299	New Building	2021	2019	0	5	5
897 Herkimer St	299	New Building	2021	2018	0	7	7
901 Herkimer St	299	Alteration	2021	2018	1	6	5
15 Hunterfly Pl	299	New Building	2020	2019	0	8	8
1882 Fulton St	299	Alteration	2020	2018	6	8	2
948 Herkimer St	299	New Building	2021	2017	0	6	6
954 Herkimer St	299	New Building	2021	2017	0	6	6

Address	CT #	Job Type	Completion Year	Permit Year	Initial DU	Proposed DU	Net DU
853 Herkimer St	299	Alteration	2021	2019	2	2	0
19 Kane Pl	299	Demolition	2020	2020	2	0	-2
793 Herkimer St	299	Alteration	2022	2020	1	2	1
28 Rochester Ave	299	Alteration	2022	-	2	2	0
64 Buffalo Ave	307	New Building	2020	2008	0	3	3
85 Utica Ave	307	New Building	2021	2018	0	2	2
1668 Bergen St	307	Demolition	2022	2022	1	0	-1
1752 Pacific St	307	Alteration	2021	2019	0	1	1
1610 Bergen St	307	Demolition	2022	2022	2	0	-2
1690 Pacific St	309	New Building	2021	2019	0	10	10
1692 Pacific St	309	New Building	2021	2019	0	10	10
1545 Bergen St	309	New Building	2021	2017	0	8	8
1528 Bergen St	309	New Building	2021	2017	0	8	8
1672 Dean St	309	New Building	2020	2018	0	8	8
103 Schenectady Ave	309	New Building	2022	2021	0	7	7
1543 Bergen St	309	Demolition	2020	2020	1	0	-1
1707 Rear A Dean St	309	Demolition	2021	2021	2	0	-2
1707 Dean St	309	Demolition	2021	2021	2	0	-2
103 Schenectady Ave	309	Demolition	2020	2020	1	0	-1
1668 Dean St	309	Demolition	2021	2021	2	0	-2
1592 Pacific St	311	New Building	2020	2017	0	2	2
1332 Bergen St	311	Alteration	2021	2014	1	12	11
1572 Pacific St	311	New Building	2021	2019	0	8	8
1633 Pacific St	311	New Building	2020	2018	0	2	2
907 St Marks Ave	311	Alteration	2021	2019	0	4	4
1581 Pacific St	311	Alteration	2021	2018	2	4	2
917 St Marks Ave	311	Alteration	2020	2019	4	4	0
1381 Bergen St	311	New Building	2021	2020	0	8	8
1607 Pacific St	311	Demolition	2022	2022	1	0	-1

Address	CT #	Job Type	Completion Year	Permit Year	Initial DU	Proposed DU	Net DU
1100 Park Pl	343	Alteration	2021	2006	2	4	2
14 Hampton Pl	343	Alteration	2021	2016	2	2	0
1176 Park Pl	343	Alteration	2022	2016	2	8	6
9 Virginia Pl	343	Alteration	2020	2017	2	2	0
175 Kingston Ave	343	Alteration	2021	2019	3	2	-1
1325 Prospect Pl	345	Alteration	2022	2015	2	8	6
1296 Park Pl	345	Alteration	2020	2017	2	8	6
209 Troy Ave	345	New Building	2020	2018	0	9	9
211 Troy Ave	345	New Building	2020	2018	0	7	7
213 Troy Ave	345	New Building	2020	2018	0	8	8
1396 Prospect Pl	347	Alteration	2021	2018	2	2	0
1540 Park Pl	347	New Building	2022	2019	0	10	10
1515 Park Pl	347	New Building	2021	2019	0	52	52
1481 Sterling Pl	347	Alteration	2022	2019	2	8	6
1487 Sterling Pl	347	Alteration	2021	2017	2	6	4
170 Buffalo Ave	347	Alteration	2020	2017	0	0	0
1526 Park Pl	347	Alteration	2020	2018	4	10	6
203 Rochester Ave	347	Alteration	2020	2018	2	9	7
207 Rochester Ave	347	Alteration	2020	2018	2	9	7
205 Rochester Ave	347	Alteration	2020	2018	2	8	6
194 Buffalo Ave	347	Demolition	2020	2020	1	0	-1
1591 Sterling Pl	347	Alteration	2020	2020	4	10	6
1483 Sterling Pl	347	Alteration	2021	2021	2	8	6
488 Decatur St	381	Alteration	2021	2012	2	3	1
231 Bainbridge St	381	Alteration	2021	2020	4	5	1
216 Bainbridge St	381	New Building	2021	2020	0	8	8
266 Bainbridge St	381	Alteration	2022	2020	1	1	0
					314	**1,064**	**750**

Table 2.2-7: No-Action Developments within 1/2-Mile Study Area

Address	Permit Type	SF	DU	Story
1607 Pacific Street	New Building	7,729	8	4
85 Schenectady Avenue	Alteration	2,936	2	3
1668 Dean Street	New Building	7,651	8	4
1668 Bergen Street	New Building	7,020	10	4
1327 Prospect Place	Alteration	6,481	8	4
1266 Park Place	Alteration	8,622	8	4
1479 Sterling Place	Support of Excavation	6,173	8	4
560 Hancock Street	Mechanical Systems	3,214	2	4
274 Malcolm X Blvd	Alteration	6,609	8	4
321 Decatur Street	Structural	3,661	2	3
358 Malcolm X Blvd	New Building	3,228	3	3
1584 Fulton Street	Support of Excavation	39,186	35	10
507 Herkimer Street	Alteration	4,932	9	4
20 Suydam Place	New Building	14,485	15	4
1889 Atlantic Avenue	Structural Foundation Work	72,908	89	9
35 Kingston Avenue	New Building	17,573	21	8
1746 Atlantic Avenue	Structural Foundation Work	2,367	0	1
1707 Dean Street	New Building	9,162	13	4
524 Halsey Street	Alteration	53,396	31	4
488 Marcus Garvey Boulevard	New Building	17,123	18	62
339 Herkimer Street	Structural Foundation Work	4,534	8	4
458 Decatur Street	General Construction	3,864	4	4
699 Jefferson Avenue	New Building	3,588	3	3
13 Hunterfly Place	New Building	3,313	3	3
1835 Atlantic Avenue	New Building	3,139	3	3
191 Chauncey Street	New Building	2,721	2	3
1543 Bergen Street	New Building	7,674	8	4
423 Herkimer Street	New Building	11,881	10	5
37 Rochester Avenue	New Building	9,366	8	4
278 Bainbridge Street	New Building	3,720	3	3
1832 Fulton Street	Support of Excavation	154,413	214	11
1864 Fulton Street	Support of Excavation	83,762	110	11
46 Buffalo Av	New Building	2,956	2	3
50 Buffalo Avenue	New Building	2,295	2	3
179 Chauncey Street	New Building	3,707	3	3
444 Herkimer Street	New Building	11,881	10	5
133 Rochester Avenue	New Building	3,600	3	3
324 Macon Street	New Building	3,652	2	4
Total			**614,522**	**696**

2.3 Open Space

The *2021 CEQR Technical Manual* defines the need for an open space assessment if the Proposed Action(s) would have a direct or indirect effect on open space resources. Direct effects would occur if the Proposed Action(s) would result in the physical loss of a public open space; change of use of an open space so that it no longer serves the same user population; limit public access to an open space; or cause increased noise or air pollutant emissions, odors, or shadows on public open space that would affect its usefulness, whether temporary or permanent. Indirect effects would occur if the proposed action would result in an increase in population sufficiently large enough to noticeably diminish the ability of an area's open space to serve the future population.

Open space is defined as publicly or privately-owned land that is publicly accessible and operates, functions, or is available for leisure, play, or sport, or set aside for the protection and/or enhancement of the natural environment.

Pursuant to Chapter 7, Section 100 of the *2021 CEQR Technical Manual*, Open Space Resources are defined as active and/or passive, and may include, but is not limited to, the following:

- Parks operated or managed by the City, State, or Federal governments and include neighborhood and regional parks, beaches, pools, golf courses, boardwalks, playgrounds, ballfields, and recreation centers that are available to the public at no cost or through a nominal fee, as in the case of recreation centers and golf courses;
- Open space designated through regulatory approvals (such as zoning), including large-scale permits that prescribe publicly accessible open space, such as public plazas;
- Outdoor schoolyards if available to the public during non-school hours;
- Publicly-accessible institutional campuses;
- Esplanades;
- Designated greenways, as shown on the City's Bike Map, and defined as multi-use pathways for non-motorized recreation and transportation along natural and manmade linear spaces such as rail and highway rights-of-way, river corridors, and waterfront spaces;
- Landscaped medians with seating;
- Housing complex grounds, if publicly accessible;
- Nature preserves, if publicly accessible;
- Gardens, if publicly accessible on a constant and regular basis;
- Church yards (with seating) or cemeteries, if publicly accessible on a constant and regular basis for passive recreation such as strolling; or
- Waterfront piers used for recreation.

Methodology

According to the guidelines of the *2021 CEQR Technical Manual* for analysis of residential development, census tracts with at least half of their geographic area within a one-half mile radius of the Affected Area comprise the open space Study Area. Using current population figures, an open space ratio is calculated for both the future no-action and future with-action conditions, expressed as the amount of open space acreage per 1,000 user population. Typically, a comparison is made to the city's planning goal of 2.50 acres per 1,000 residents. Ideally, this would comprise 0.50 acres (20 percent) of passive space and 2.0 acres (80 percent) of active open space per 1,000 residents. For nonresidents who tend to use passive open space, for example, workers taking a break in a park, the optimal ratio for nonresidential populations is 0.15 acres of passive open space per 1,000 nonresidents.

In addition to field surveys, information from the NYC DCP Community District Needs Statements, NYC Parks Department website, and U.S. Census data were utilized in preparing the open space analysis.

Direct Effects

Direct effects to open space are addressed in the sections for those specific technical areas where warranted. Construction impacts to open space are not anticipated as there would be no physical loss of public open space, no change in existing open space so that it no longer serves the same user population, would not limit public access, and would not increase noise or air pollutant emissions, odors, or shadows on public open space that would affect its usefulness. An assessment of the effects of the Proposed Actions related to shadows on open space resources is provided in **Section 2.4: Shadows**.

Indirect Effects

The threshold for assessment of the potential for indirect open space impacts is 200 new residents or 500 additional employees. As discussed below, the Proposed Action would introduce 220 residents. Therefore, an assessment of indirect effects on public open space resources is warranted.

2.3.1 Preliminary Open Space Assessment

The Proposed Actions would result in a net increment of 360,209 GSF of development, including 256,125 GSF of residential floor area, 21,776 GSF of community facility floor area, 26,900 GSF of commercial floor area, and 55,408 GSF of parking area. The Proposed Actions are projected to result in the development of 279 dwelling units within the Affected Area. Assuming an average occupancy of 2.30 persons based on the average household size within Brooklyn Community District 8 (2020 Decennial Census Data), the population introduced as a result of the Proposed Actions would be approximately 642 residents. There would be an increment of approximately 186 additional workers as a result of the Proposed Actions. Per the *2021 CEQR Technical Manual*, the threshold for assessment of the potential for indirect impacts is 200 new residents or 500

additional employees. Since the residential population is above the threshold of 200 additional persons for assessment of the potential for indirect impacts, an assessment of indirect effects on public open space resources is warranted. The Proposed Actions would not introduce more additional employees to the area than the threshold, as such the preliminary assessment addresses the residential population introduced by the Proposed Actions.

Study Area Definition

In accordance with the guidance established in the City's *2021 CEQR Technical Manual*, the open space study area is defined to analyze both the nearby open space and the population using those open space resources. It is generally defined by a reasonable walking distance that users would travel to reach local open space and recreational areas. Pursuant to the *2021 CEQR Technical Manual*, the open space study area includes all U.S. Census Tracts that have 50 percent or more of their area within a half-mile radius of the Affected Area. As shown in **Figure 2.3-1** below, the following Census Tracts that have 50 percent or more of their area within the 1/2-mile study area are 271, 273, 275, 295, 297, 299, 307, 309, 311, 343, 345, 347, and 381.

2.3.2 Open Space Ratio Assessment

Population Size Change

Existing Condition Residential Population

The total residential population for the Study Area was established using data from the 2020 Decennial Census Data for New York City. As of 2020, the Study Area had a residential population of 48,708 persons**.**

Future No-Action Condition Residential Population

No development would occur in the future without the Proposed Actions within the Affected Area. As shown in **Table 2.3-1** below, there are 41 active permits within the study area, with 689 proposed new dwelling units. Using the same 2.30 residents per household figure as above, the No-Action condition would have 1,585 new residents introduced to the study area by the 2026 build year. The No-Action population would therefore be the existing population of 48,708 residents plus the 1,585 new residents introduced by the 41 active construction projects, for a total No-Action population of 50,293 residents.

Future With-Action Condition Residential Population

The With-Action population would be the No-Action population of 50,293 residents described above plus the 642 residents anticipated as a result of the Proposed Actions. The With-Action population would be 50,935 residents as shown below in **Table 2.3-2**.

Figure 2.3-1: Open Space Study Area Census Tracts

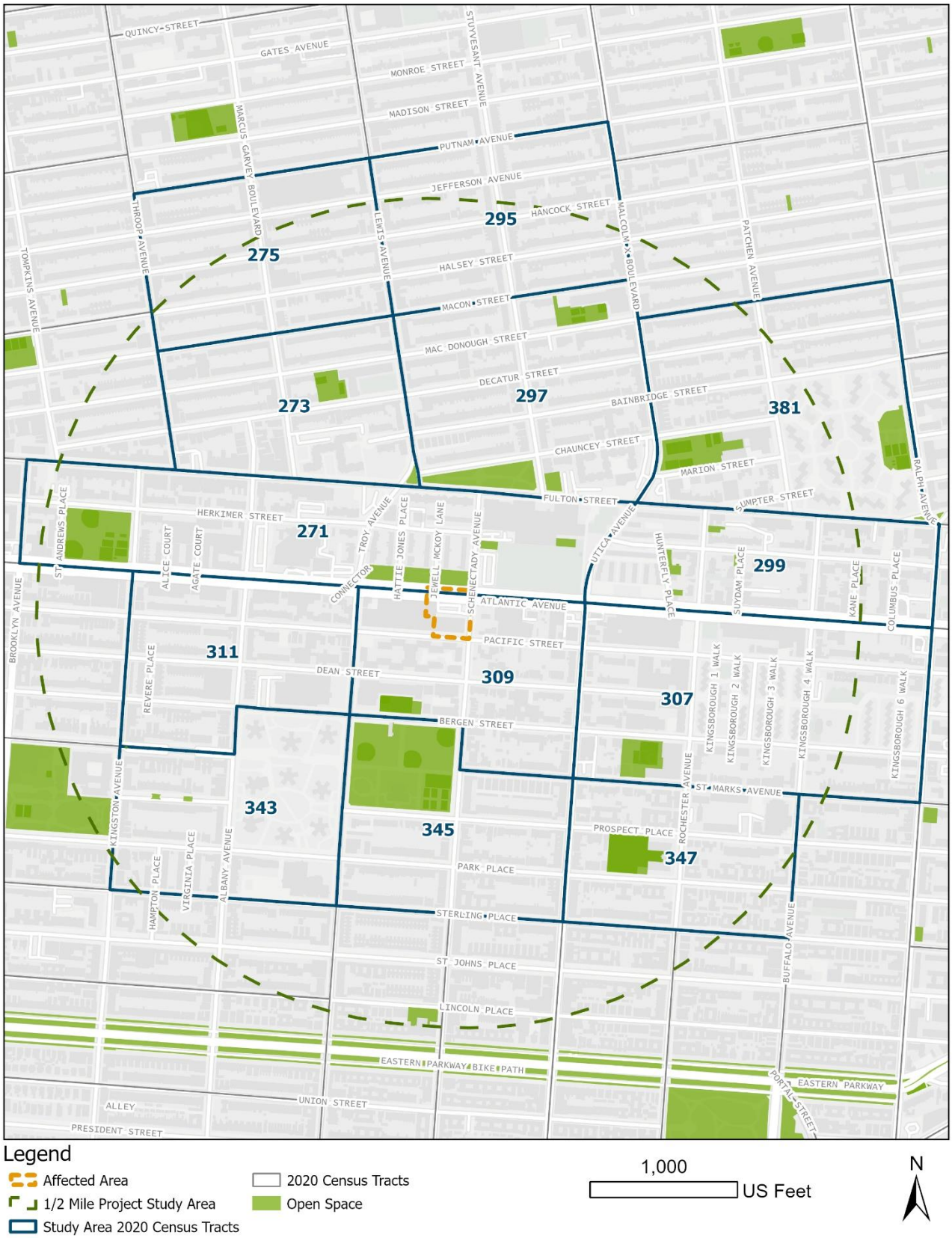


Table 2.3-1: Active Construction Permits under the No-Action Condition

Project Location	Block	Lot	Permit Type	Total GSF	Proposed Dwelling Units	Proposed Stories
1832 Fulton St	1703	9	New Building	154,413	214	11
1864 Fulton St	1703	33	New Building	83,762	110	11
1462 Atlantic Ave	1203	10	New Building	20,556	57	5
1584 Fulton St	1699	19	ALT-CO - New Building with Existing Elements to Remain	39,186	35	10
524 Halsey St	1665	33	ALT 1 Enlargement	53,396	31	4
35 Kingston Ave	1871	6	New Building	17,573	21	8
488 Marcus Garvey Blvd	1859	29	New Building	17,123	18	62
20 Suydam Pl	1709	28	New Building	14,485	15	4
1707 Dean St	1342	65	New Building	9,162	13	4
1308 Lincoln Pl	1390	15	New Building	11,341	13	6
1314 Lincoln Pl	1390	16	New Building	11,341	13	6
1668 Bergen St	1356	10	New Building	7,020	10	4
423 Herkimer St	1864	48	New Building	11,881	10	5
444 Herkimer St	1871	43	New Building	11,881	10	5
507 Herkimer St	1699	55	ALT 1 Enlargement	4,932	9	4
1607 Pacific St	1334	59	New Building	7,729	8	4
1668 Dean St	1348	13	New Building	7,651	8	4
1327 Prospect Pl	1360	80	ALT 1 Enlargement	6,481	8	4
1266 Park Pl	1371	18	ALT 1 Enlargement	8,622	8	4
1479 Sterling Pl	1373	66	ALT-CO - New Building with Existing Elements to Remain	6,173	8	4
274 Malcolm X Blvd	1666	47	ALT 1 Enlargement	6,609	8	4
339 Herkimer St	1863	53	ALT-CO - New Building with Existing Elements to Remain	4,534	8	4
1543 Bergen St	1348	77	New Building	7,674	8	4
37 Rochester Ave	1709	9	New Building	9,366	8	4
1370 Dean St	1215	18	ALT 1 Enlargement	5,511	4	3

358 Malcolm X Blvd	1686	48	New Building	3,228	3	3
13 Hunterfly Pl	1708	67	New Building	3,313	3	3
1835 Atlantic Ave	1710	52	New Building	3,139	3	3
278 Bainbridge St	1687	47	New Building	3,720	3	3
179 Chauncey St	1687	80	New Building	3,707	3	3
133 Rochester Ave	1356	6	New Building	3,600	3	3
85 Schenectady Ave	1342	6	ALT 1 Enlargement	2,936	2	3
560 Hancock St	1660	34	Alteration CO	3,214	2	4
321 Decatur St	1676	74	Alteration CO	3,661	2	3
121 Macdonough St	1852	54	ALT 1 Enlargement	5,227	2	4
191 Chauncey St	1687	73	New Building	2,721	2	3
46 Buffalo Ave	1710	47	New Building	2,956	2	3
50 Buffalo Ave	1710	49	New Building	2,295	2	3
324 Macon St	1669	2	New Building	3,652	2	4
1746 Atlantic Ave	1336	4	New Building	2,367	0	1
272 Schenectady Ave	1389	35	New Building	5,741	0	1
				593,879	**689**	

Table 2.3-2: Existing, No-Action, and With-Action Populations[8]

Existing	No-Action	With-Action
48,708	50,293	50,935

[8] Existing = 2020 Decennial Census Data; No-Action = Existing plus 689 proposed dwelling units; With-Action = No-Action plus 642 additional residents from Projected Development Site 1

Open Space Resources

There are thirteen public open space resources within the study area identified in **Table 2.3-3**. There are 26.25 acres of open spaces resources in the Study Area – approximately 64.86% or 17.03 acres are considered active and 35.14% or 9.23 acres are considered passive based on field visits and a review of open space site plans. The location of these resources present in the Study Area, are shown in **Figure 2.3-2**.

Existing Condition Open Space Ratio

The study area has 26.25 acres of open space and an existing residential population of 48,708. The open space ratio (OSR) under existing conditions is 0.539 acres per thousand residents.

Future No-Action Condition Open Space Ratio

In the future without the Proposed Actions, the population for the Study Area in the 2026 build year is forecasted to be 50,293 and is projected to be served by the same 26.25 acres of open space as in the existing condition. With this population, the OSR would be 0.522 acres per 1,000 residents. The OSR is far below the DCP planning goal of 2.5 acres per thousand people and reflects the area's shortfall of open spaces.

Future With-Action Condition Open Space Ratio

The Proposed Actions would result in an increase of the No-Action population by 642 residents by the 2026 build year. The total 2026 build year With-Action population would be 50,935. With this increase in population, the OSR would be 0.515 acres per 1,000 residents, resulting in a 1.26% OSR reduction compared to the No-Action Condition.

Figure 2.3-2: Open Space Location in Study Area

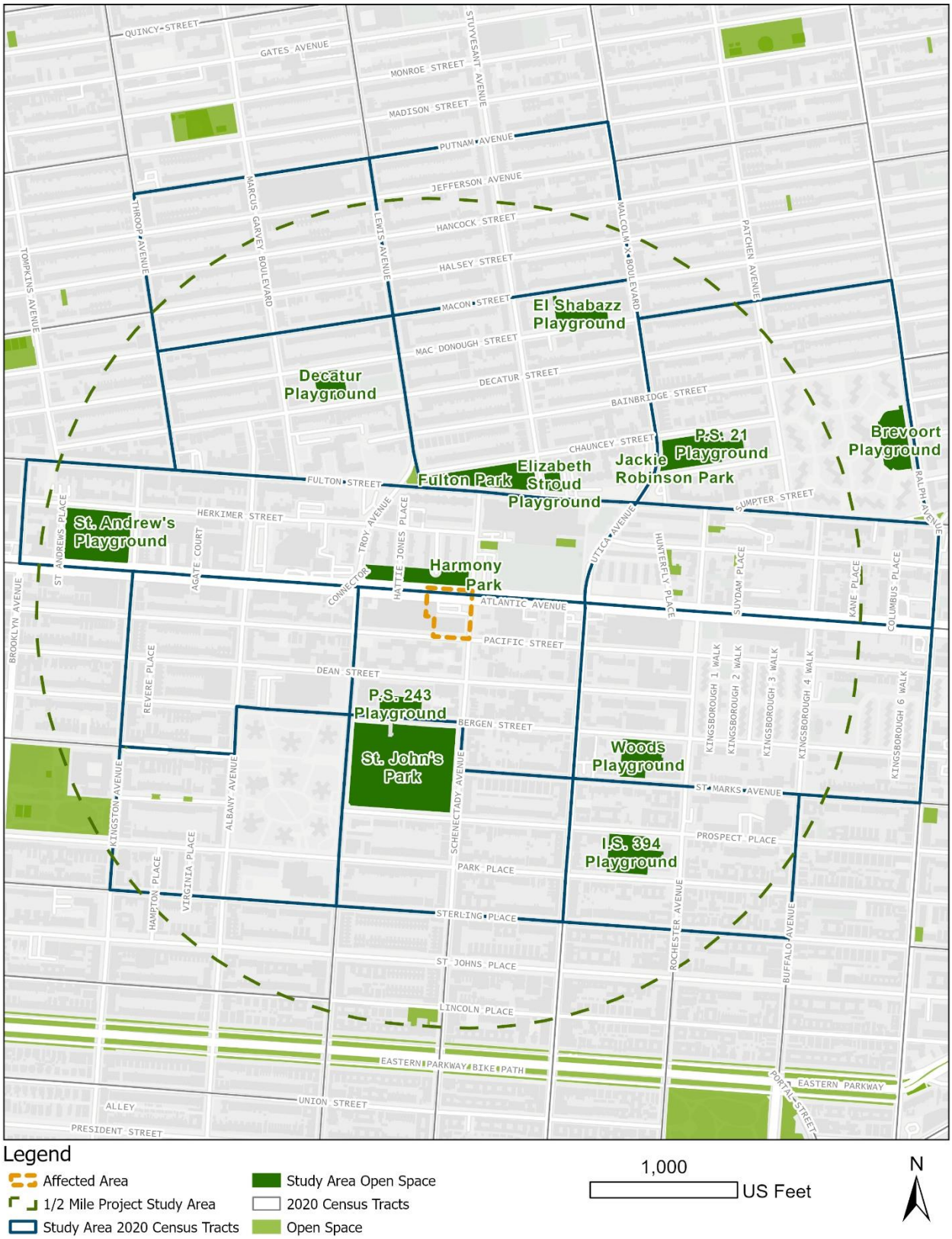


Table 2.3-3: Open Space Resources

Name	Address	Responsible Agency	Acreage	% Active	% Passive	Total Active	Total Passive	Features
Brevoort Playground	Ralph Ave. bet. Chauncey St. and Sumpter St.	NYC DPR	1.49	75	25	1.12	0.37	Ba, FE, HC, Pg
Decatur Playground	Decatur St., Macdonough St. bet. Lewis Ave. and Marcus Garvey Blvd.	NYC DPR	1.50	75	25	1.13	0.38	BC, Pg, TC
El Shabazz Playground	Macdonough St. between Malcolm X Blvd. and Stuyvesant Ave.	NYC DPR	0.89	75	25	0.67	0.22	Ba, BC, HC, Pg, SS
Elizabeth Stroud Playground	Stuyvesant Ave. and Fulton St.	NYC DPR	0.29	75	25	0.22	0.07	Pg, SS
Fulton Park	Chauncey St. bet. Lewis Ave. and Stuyvesant Ave.	NYC DPR	1.99	0	100	0	1.99	Ba, DA
Harmony Park	Troy Ave. to Schenectady Ave. between Atlantic Ave. and Herkimer St.	NYC DPR	1.56	0	100	0	1.56	Be
I.S. 394 Playground*	Prospect Pl. and Park Pl. bet. Utica Ave. and Rochester Ave.	NYC DOE	1.78	75	25	1.34	0.45	BC, HC, Pg, RL
Jackie Robinson Park Playground	Malcom X Blvd. between Chauncey St. and Marion St.	NYC DPR	1.61	75	25	1.21	0.40	Ba, BC, Ea, FE, HC, Pg, SS, TC
P.S. 21 Playground*	Chauncey St. bet. Malcom X Blvd. and Patchen Ave.	NYC DOE	0.29	75	25	0.22	0.07	BC, HC, Pg
P.S. 243 Playground*	Bergen St. bet. Troy Ave. and Schenectady Ave.	NYC DOE	0.69	75	25	0.52	0.17	BC, Pg, RL
St. Andrew's Playground	Atlantic Ave., Herkimer St., Kingston Ave., St Andrew's Pl.	NYC DPR	3.38	75	25	2.54	0.85	Ba, BC, HC, Pg, SS
St. John's Recreation Center	Troy Ave., Bergen St., Prospect Pl., Schenectady Ave.	NYC DPR	9.34	75	25	7.01	2.34	Ba, BC, BF, HC, IP, ML, Pg, RC, SF, SS, WF
Woods Playground	Bergen St., Utica Ave., Rochester Ave., St Mark's Ave.	NYC DPR	1.44	75	25	1.08	0.36	Ba, BC, HC, Pg, SS
Total			**26.25**	**64.86**	**35.14**	**17.03**	**9.23**	

* This is a Schoolyards to Playgrounds site regularly open to the public during non-school hours.
Ba = Bathrooms; BA = Badminton Courts; BC = Basketball Courts; Be = Benches; BF = Baseball Fields; DA = Dog-friendly Areas; Ea = Eateries; FE = Fitness Equipment; HC = Handball Courts; IP = Indoor Pools; ML = Media Labs; Pg = Playgrounds; RC = Recreation Centers; RL = Running Lanes; SF = Soccer Fields; SS = Spray Showers; TC = Tennis Courts; WF = Wi-Fi Hotspots

Level of Significance

Pursuant to the *2021 CEQR Technical Manual*, projects expected to result in a decrease in the open space ratio should consider the following to determine if a more detailed analysis is warranted:

- Projects in study areas where the open space ratio approaches or exceeds the City's planning goal of 2.5 acres per 1,000 residents, may generally tolerate up to a five percent decrease of the open space ratio before considering the need for more detailed analysis.
- For projects in study areas where the open space ratio is not near the City's planning goal of 2.5 acres per 1,000 residents, the percentage decrease in open space ratio is weighed against how the open space ratio of the study area compares to the City's planning goal for open space. Table 7-1 of the *2021 CEQR Technical Manual* (**Table 2.3-5** below) provides general guidelines for ranges of open space ratios and acceptable percentage changes.
- Projects that have an effect on a nonresidential population's use of passive open space would not follow the guidelines presented in **Table 2.3-5** and should consider the need for a detailed assessment based on a comparison of the open space ratio to the optimal ratio of 0.15 acres of passive space per 1,000 nonresidents. Projects that lead to the non-residential open space ratio to drop below the optimal ratio of 0.15 acres of passive open space per 1,000 non-residents may warrant a more detailed assessment.

As shown below in **Table 2.3-4**, under the No-Action and With-Action conditions, the overall residential OSR in the area would be below the planning goal in NYC of 2.5 acres per thousand residents. Under the Future With-Action condition, the OSR would be 0.515 acres per 1,000 residents, or a 1.26 percent reduction from the No-Action OSR. Referencing **Table 2.3-5** below, for areas with an open space ratio ranging from 0.51 to 1.00, a reduction of more than 2% would require detailed open space analysis. Since the Proposed Actions would not induce the reduction of the open space ratio for more than 2%, a detailed analysis of open space is not warranted.

Table 2.3-4: Existing, No-Action and With-Action Open Space Ratios

	Residential Total	Residential Active	Residential Passive
Existing OSR	0.539	0.350	0.189
No-Action OSR	0.522	0.339	0.183
With-Action OSR	0.515	0.334	0.181
% Change	-1.26%	-1.26%	-1.26%

Table 2.3-5: Preliminary Assessment Guidance for Percentage Change in Open Space Ratio

Open Space Ratio Range	Percentage Change in Open Space Ratio
2.01 to 2.50* or greater	5%
1.51 to 2.00	4%
1.01 to 1.50	3%
0.51 to 1.00	2%
0.50 or Less	1%
*2.5 OSR is the planning goal in NYC	

Source: Table 7-1 of the *2021 CEQR Technical Manual*

2.3.3 NYC Parks Walk to a Park Initiative

New York City, as part of the OneNYC 2050 Building a Strong and Fair City plan, has put forth a goal for 85 percent of New York City residents living within walking distance of a park by 2030. To help the City reach this goal, NYC Parks has a Walk to a Park initiative that focuses on increasing access to parks and open space in areas of the City where residents live further than walking distance to a park. Areas outside of Walk to a Park Service Areas are considered "walk gaps" – i.e., areas of the city that are not within walking distance to a park.

As part of the preliminary assessment for open space, a project should be reviewed to determine if it is located in an area of the city within a Walk to a Park Service Area. Project sites that are located outside of a Walk to a Park Service Area (i.e., located in a known walk gap areas) suggests there is a need for a detailed analysis to be performed to determine if the project may further exacerbate a condition of residents living in areas of the city with inadequate park access, potentially leading to a significant impact. While the focus of the Walk to a Park initiative is on residents living within walking distance to a park, projects that create a non-residential population (e.g., new workers) should also review if the project is located within a known walk gap and assess if the project would generate a new non-residential population within areas of the City with inadequate access to open space resources.

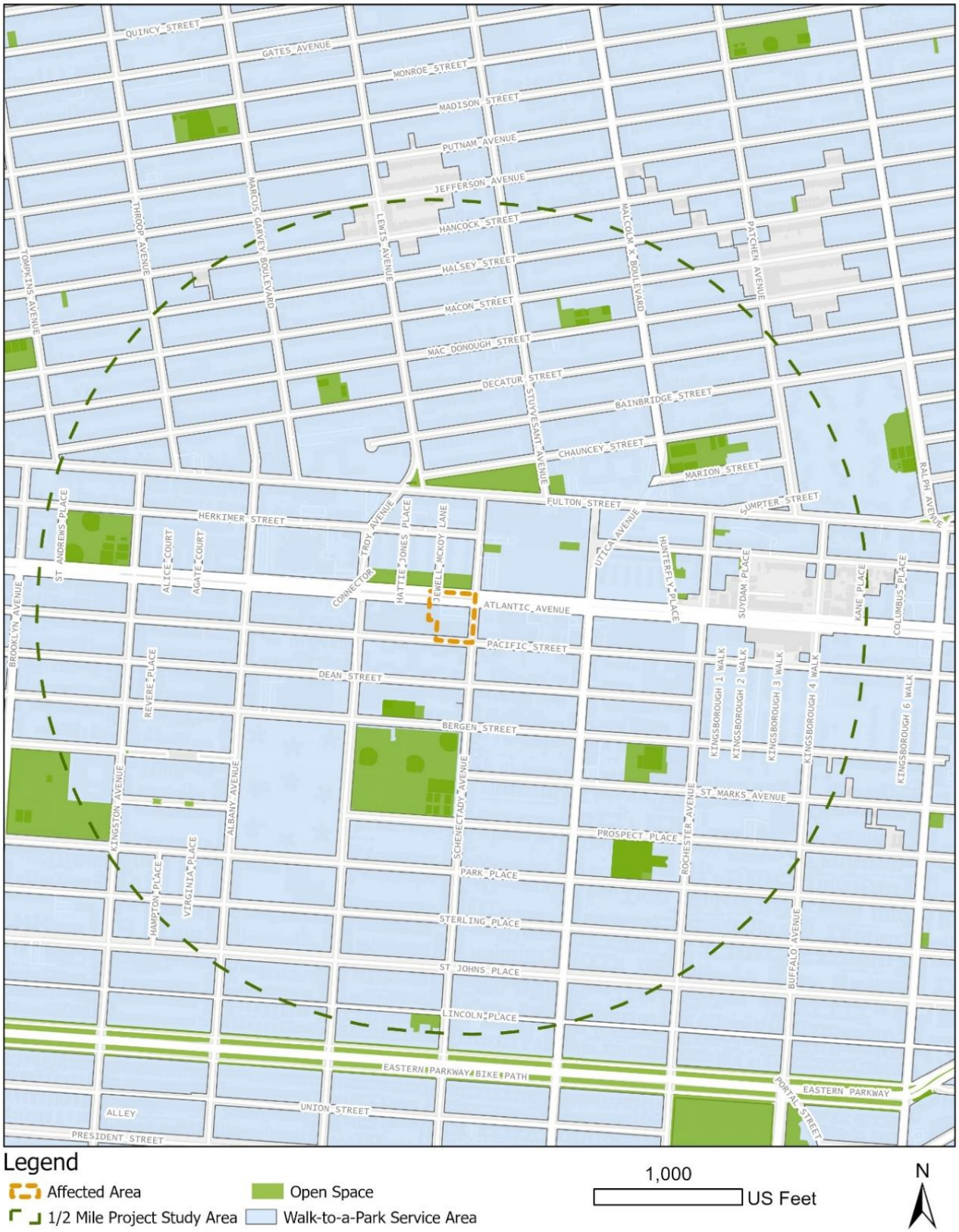
As shown in **Figure 2.3-3**, the entirety of the Affected Area is within a Walk to a Park service area, such that no further analysis is needed.

2.3.4 Conclusion

Under the existing, No-Action, and With-Action conditions, the OSR in the area would be below the city's planning goal of 2.5 acres per thousand residents. Pursuant to Table 7-1 of the *2021 CEQR Technical Manual* (See **Table 2.3-5**), an area with an OSR of 0.51 to 1.00 can tolerate up to a 2 percent decrease in the OSR between the Future No-Action and Future With-Action Condition without warranting additional analyses. As discussed above, although the area has a relatively low OSR of 0.515 under the With-Action Condition, the OSR decrease induced by the Proposed Actions would be 1.26%, which is lower than the CEQR threshold for areas with an OSR of 0.51 to 1.00. In addition, the Affected Area is located within a Walk to Park Service Area and is

therefore not identified as a walk gap area. As a result, the Proposed Actions would not have significant adverse impacts on open space resources, and further open space analysis is not warranted.

Figure 2.3-3: Walk to a Park Service Area Map



2.4 Shadows

The *2021 CEQR Technical Manual* defines a shadow as the condition that results when a building or other built structure blocks the sunlight that would otherwise directly reach a certain area, space or feature. An incremental shadow is the additional or new shadow that a building or other built structure resulting from a Proposed Actions would cast on a sunlight-sensitive resource during the year. The sunlight-sensitive resources of concern are those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity, including public open space, architectural resources and natural resources. Shadows can have impacts on publicly accessible open spaces or natural features by adversely affecting their use and important landscaping and vegetation. In general, increases in shadow coverage make parks feel darker and colder, affecting the experience of park patrons. Shadows can also have impacts on historic resources whose features are sunlight-sensitive, such as stained-glass windows, by obscuring the features or details, which make the resources significant.

The duration and dimensions of shadows are determined by the geographic location of the area from which the shadow is cast and the time of day and season. Shadows cast during the morning and evening, when the sun is low in the sky, are longer, while midday shadows are shorter in length. Shadows in winter, when the sun arcs low across the southern sky, are also longer throughout the day than at corresponding times in spring and fall seasons. In summer, the high arc of the sun casts shorter shadows than at any other time of year, and early and late shadows during the summer are cast farther towards the south than shadows cast in early and late winter months.

The *2021 CEQR Technical Manual* states that a shadow assessment considers projects that result in new shadows long enough to reach a sunlight-sensitive resource. Therefore, a shadow assessment is warranted only if the project would either result in: (a) new structures (or additions to existing structures, including the addition of rooftop mechanical equipment) of 50 feet or more; or, (b) be located adjacent to, or across the street from, a sunlight-sensitive resource. However, a project located adjacent to or across the street from a sunlight-sensitive open space resource (which is not a designated New York City Landmark or listed on the State/National Registers of Historic Places, or eligible for these programs) may not require a detailed shadow assessment if the project's height increase is ten feet or less.

The sunlight-sensitive resources of concern are those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity, including public open space, architectural resources and natural resources. In general, shadows on city streets and sidewalks or on other buildings are not considered significant. Some open spaces also contain facilities that are not sensitive to sunlight. These are usually paved, such as handball or basketball courts, places containing no seating areas and no vegetation, no unusual or historic plantings, or containing only unusual or historic plantings that are shade tolerant.

These types of facilities do not need to be analyzed for shadow impacts. Additionally, it is generally not necessary to assess resources located to the south of projected development sites, as shadows cast by the action-generated development would not be cast in the direction of these resources. Furthermore, shadows occurring within one and one-half hour of sunrise or sunset generally are not considered significant in accordance with *2021 CEQR Technical Manual* guidance.

Methodology

This preliminary analysis of shadows follows the guidelines set forth in the *2021 CEQR Technical Manual* for a preliminary assessment (Section 310). According to the *2021 CEQR Technical Manual*, a preliminary shadow assessment includes the development of a base map showing the site location in relationship to any sunlight-sensitive resources as per guidelines provided in the *2021 CEQR Technical Manual*. Following these guidelines, the longest shadow Study Area is determined, and a Tier 1 screening assessment is conducted to determine if any sunlight-sensitive resources fall within the Study Area. If no resources are identified, no further analysis would be required. If sunlight-sensitive resources lay within the longest shadow Study Area, the next tier of screening assessment should be conducted. This preliminary assessment includes a basic description of the proposed project that would be facilitated by the Proposed Actions in order to determine whether a more detailed assessment would be appropriate.

Analysis Framework

Projected Development Site 1 would be developed with one building of 160 feet in height (145-foot building plus an additional 15 feet for mechanical bulkheads) in the proximity of sunlight sensitive resources. Accordingly, a preliminary assessment of shadows is warranted.

2.4.1 Tier 1 Shadow Screening Assessment

The shadow assessment begins with a preliminary screening assessment to ascertain whether a project's shadow may reach any sunlight-sensitive resources at any time of the year. If the screening assessment does not eliminate this possibility, detailed shadow analysis may be warranted to be determine the extent and duration of the net incremental shadow resulting from the project. The effect of shadows on a sunlight-sensitive resources are site-specific; therefore, as directed in the *2021 CEQR Technical Manual*, the screening assessment was performed for the relevant Projected Development Site to determine whether it falls within the range of maximum possible shadow cast on potential sunlight sensitive resources as described above.

To determine whether the Proposed Actions would reach any potential sunlight sensitive resources, a Tier I Screening Assessment was performed in accordance with the *2021 CEQR Technical Manual*. A base map is developed that illustrates the proposed site location in relation to any sunlight-sensitive resources. The longest shadow study area is then determined, which encompasses the site of the proposed project and a perimeter around the site's boundary with

a radius equal to the longest shadow that could be cast by the proposed structure, which is 4.3 times the height of the structure that occurs on December 21st, the winter solstice. A map as shown in **Figure 2.4-1** was prepared placing NYC Department of Parks Resources and Selected Facilities and Program Sites provided on the NYC.gov Department of City Planning GIS portal, as well as a list of park and public spaces provided from NYC.gov DOITT – GIS and Mapping Portal, as well as a screen of SHPO and NYC Landmark Listed Properties. After this a buffer map was prepared to display the maximum possible shadow of 688 feet, which could be cast from Projected Development Site 1 in the proposed rezoning area. This shadow cast was derived by multiplying the height of 160 feet (the maximum possible height under the proposed rezoning with MIH bonus plus a 15-foot bulkhead) by 4.3 (the 2021 *CEQR Technical Manual* multiplier representing the maximum shadow cast from any object as being 4.3 times its height). The potential impacted area of shadow from the projected site was then compared to those resources identified above to see if any fell within the shadow cast area.

Based on the Tier 1 analysis in **Figure 2.4-1**, it was determined that two (2) sunlight-sensitive resources, Harmony Park (Resource 1) and P.S. 243 playground/athletic field (Resource 2) are within reach of the longest possible shadow that could be cast from Projected Development Site 1 associated with the requested rezoning within the Affected Area. Though schoolyards are not typically listed as sunlight sensitive resources, the P.S. 243 playground/athletic field is analyzed as it is included in the Schoolyards to Playgrounds Program, which is open to the public regularly from school close to dusk on weekdays and from 8:00 am to dusk on weekends.

Therefore, a Tier 2 Assessment is required to determine what impacts, if any, may occur as a result of the Proposed Actions on these two sunlight sensitive resources.

Figure 2.4-1: Tier 1 Shadow Screening Assessment



2.4.2 Tier 2 Shadow Screening Assessment

The *2021 CEQR Technical Manual* states that if any portion of a sunlight-sensitive resource lies within the longest Shadow Study Area, a Tier 2 screening assessment should be performed. Because of the path 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. For a Tier 2 screening assessment, sunlight-sensitive resources within the triangular area cannot be shaded by Projected Development Site 1 and are screened out. The complementing portion to the north within the longest Shadow Study Area is the area that can be shaded by the proposed project.

As shown in **Figure 2.4-2**, the Tier 2 screening assessment shows that Harmony Park (Resource 1) is within of the -108/+180-degree area. Accordingly, a tier 3 shadow screening assessment is required.

2.4.3 Tier 3 Shadow Screening Assessment

The *2021 CEQR Technical Manual* states that if any portion of a sunlight-sensitive resource is within the area that could be shaded by the Proposed Project, a Tier 3 screening assessment should be performed. Because the sun rises in the east and travels across the southern part of the sky to set in the west, a project's earliest shadows would be cast almost directly westward. Throughout the day, they would shift clockwise (moving northwest, then north, then northeast) until sunset, when they would fall east. Therefore, a project's earliest shadow on a sunlight-sensitive resource would occur in a similar pattern, depending on the location of the resource in relation to the Projected Development Sites. For a Tier 3 screening assessment, if the assessment determines that no shadows from the development would reach any of the sunlight-sensitive resources on any of the representative analysis days, then no further assessment for those days is needed. If, however, in the absence of intervening buildings, shadows from the proposed buildings would reach sunlight-sensitive resources on any of the representative analysis days, then a detailed shadow analysis would be warranted for those days.

As shown in **Figure 2.4-3** to **Figure 2.4-6** below, shadows from the Proposed Development would reach Harmony Park (Resource 1) on the winter solstice (December 21st), the vernal equinox (March 21st), and the autumn equinox (September 21st).

Figure 2.4-2: Tier 2 Shadow Screening Assessment



Figure 2.4-3: Tier 3 Shadow Screening December 21st (Winter Solstice)

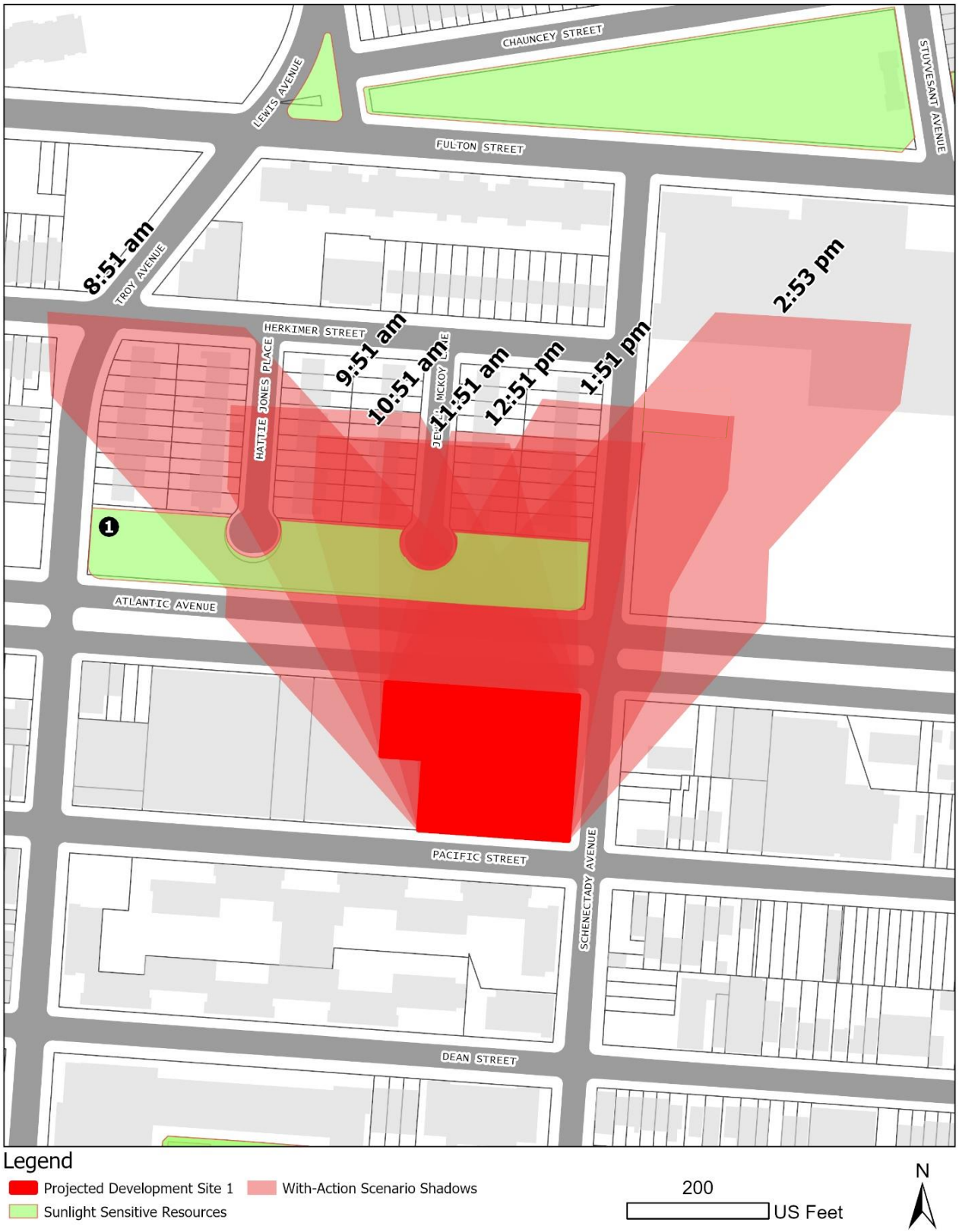


Figure 2.4-4: Tier 3 Shadow Screening March/September 21st (Vernal and Autumnal Equinox)

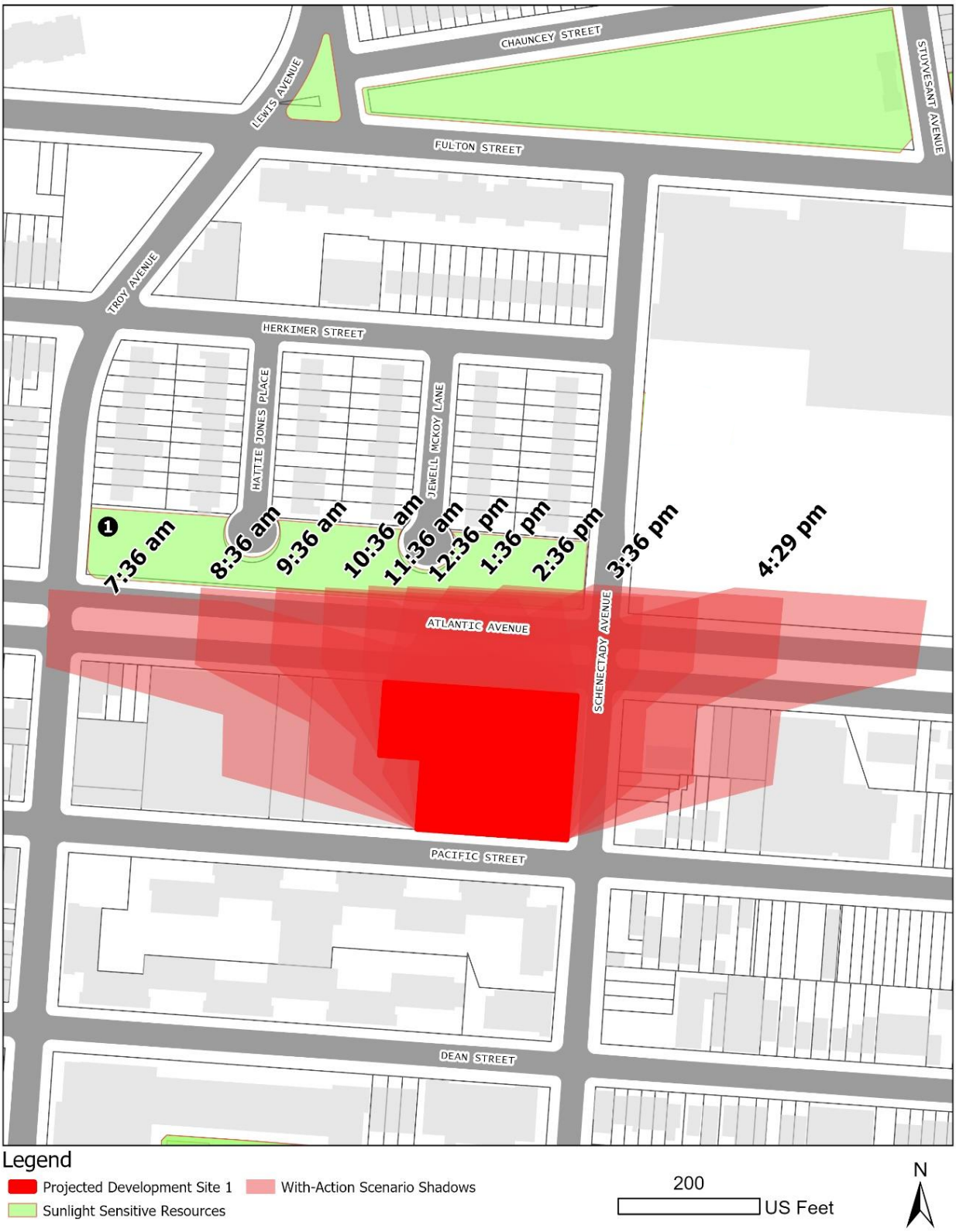


Figure 2.4-5: Tier 3 Shadow Screening May/August 6th

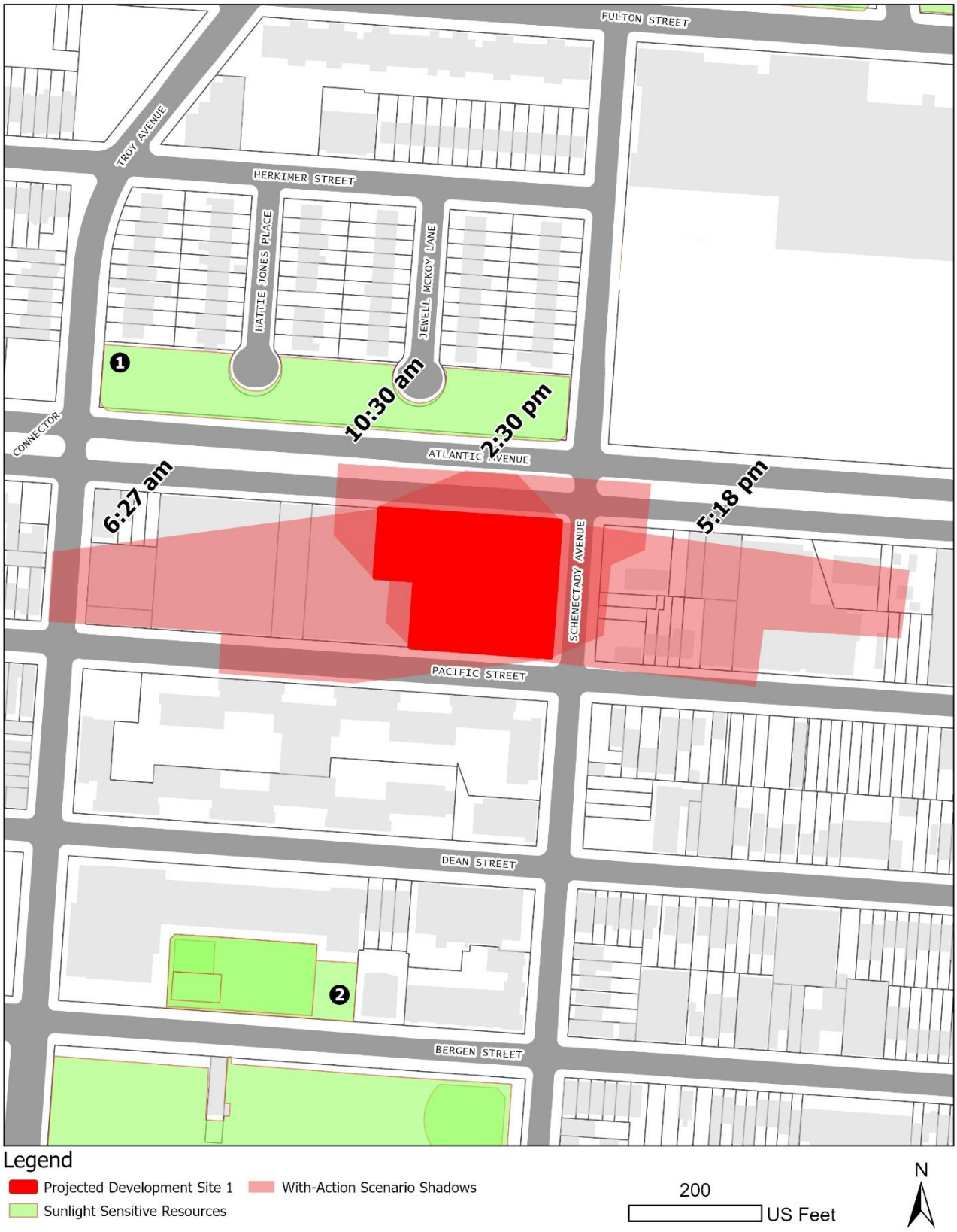


Figure 2.4-6: Tier 3 Shadow Screening June 21st (Summer Solstice)

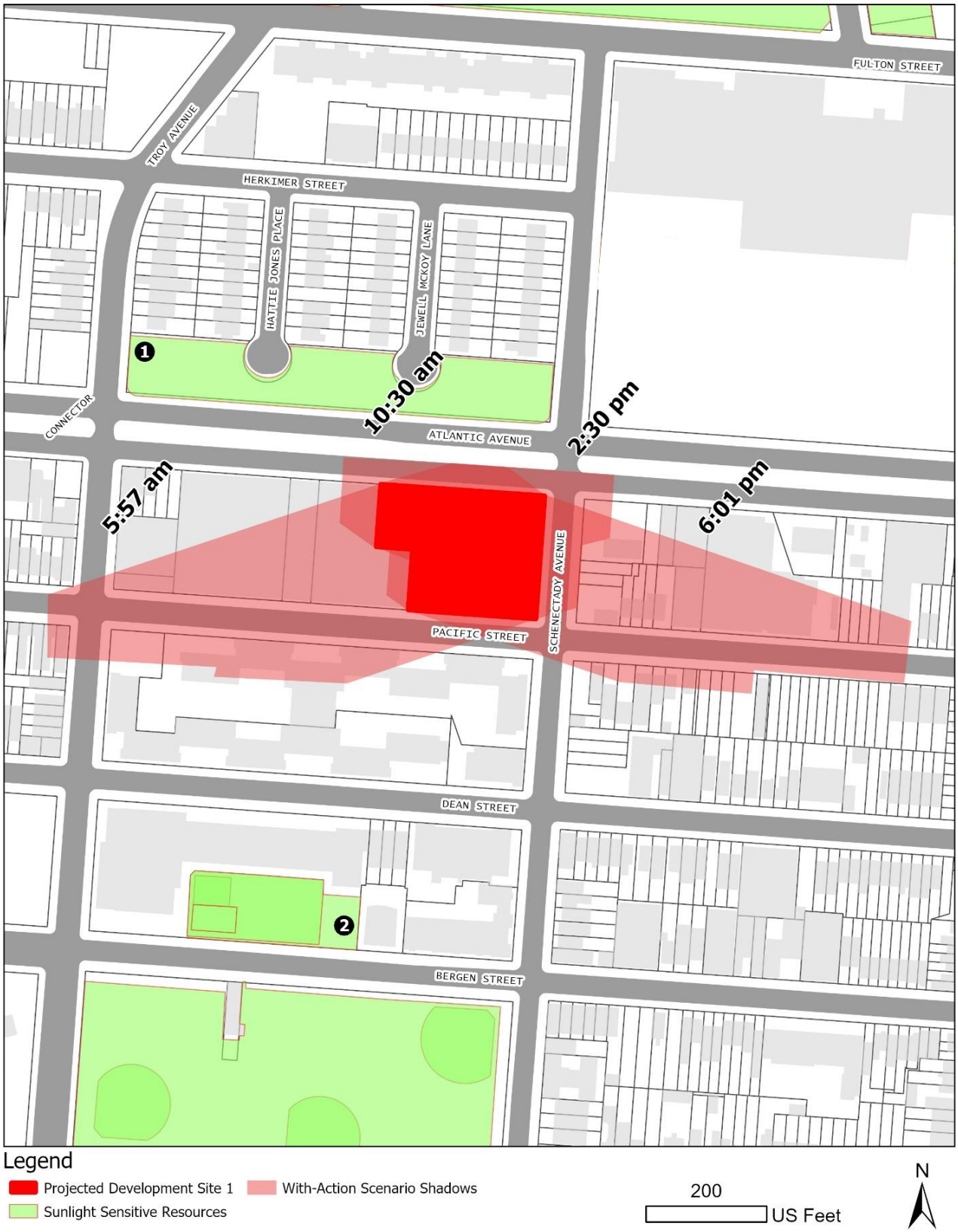


Figure 2.4-7: Detailed Shadow Analysis - December 21st (8:51 am)



Figure 2.4-8: Detailed Shadow Analysis - December 21st (9:51 am)



Figure 2.4-9: Detailed Shadow Analysis - December 21st (10:51 am)



Figure 2.4-10: Detailed Shadow Analysis - December 21st (11:51 am)



Figure 2.4-11: Detailed Shadow Analysis - December 21st (12:51 pm)



Figure 2.4-12: Detailed Shadow Analysis - December 21st (1:51 pm)



Figure 2.4-13: Detailed Shadow Analysis - December 21st (2:53 pm)



2.4.4 Detailed Shadow Analysis

The *2021 CEQR Technical Manual* states that a detailed shadow analysis is warranted when the screening analyses do not rule out the possibility that project-generated shadows, in absence of shadows cast by intervening buildings, would reach any sunlight-sensitive resources. The detailed analysis aims to determine the extent and duration of shadows that fall on a sunlight-sensitive resource due to the proposed project. To evaluate the extent and duration of new shadows that would be cast on a sunlight-sensitive resource as a result of the proposed project, shadows that would exist in the future without the proposed project are also defined.

The results of the detailed shadow analyses on the identified resources of concern are summarized in **Table 2.4-1**. The incremental shadows cast by Projected Development Site 1 are shown above in **Figure 2.4-7** to **Figure 2.4-13** above. Based on the findings of the detailed shadow analysis, the Proposed Actions would result in casting of shadows on Harmony Park (Sunlight Sensitive Resource 1) on December 21st for 6 hours and 2 minutes and on March 21st/September 21st for 7 hours and 31 minutes. While Projected Development Site 1 would cast incremental shadows on Harmony Park on the March 21st/September 21st analysis day, only a small portion along the southern edge of the park would be cast in shadow (see **Figure 2.4-4** above). The shadow that would be cast on the park would only encroach on an approximately 20-foot portion along the southern edge and would not impact the chess tables or benches. Open space utilization of the sunlight sensitive resource would not be impacted, and due to the minimal shadow cast on the resource, there is minimal potential for impact on vegetation.

Harmony Park is a 1.56-acre park featuring walking paths, benches, chess tables. The park consists of grassy areas, waking paths, trees, and shrubbery. There is an elevated rail line located between the Project Site and Harmony Park shown in **Figure 2.4-14**.

Table 2.4-1: Tier 3 Shadow Analysis Results

Analysis Day	December 21	March 21 / September 21	May 6 / August 6	June 21
Timeframe Window	**8:51 a.m. - 2:53 p.m.**	**7:36 a.m. - 4:29 p.m.**	**6:27 a.m. - 5:18 p.m.**	**5:57 a.m. - 6:01 p.m.**
Sunlight Sensitive Resource 1	**Harmony Park**			
Shadow enter - exit times	8:51 am - 2:53 pm	8:29 am - 4:00 pm	-	-
Incremental Shadow Duration	6 Hours 2 Minutes	7 Hours 31 Minutes	-	-
Note: Daylight savings time not used				

Figure 2.4-14: Harmony Park (Sunlight Sensitive Resource 1)



The *2021 CEQR Technical Manual* states that the determination of significance of shadow on a sunlight-sensitive resource is based on: (1) the information resulting from the detailed shadow analysis describing the extent and duration of incremental shadows; and (2) an analysis of the resource's sensitivity to reduced sunlight. Determining whether this impact is significant or not, under CEQR, depends on the extent and duration of the incremental shadow and the specific context in which the impact occurs.

For open space and natural resources, the uses and features of a resource are an indicator of its sensitivity to shadows. Shadows occurring during the cold-weather months, for example, generally do not affect the growing season of outdoor vegetation. This sensitivity is assessed for warm-weather-dependent features such as vegetation that could be affected by a loss of sunlight during the growing season, and for features (such as benches) that could be affected by a loss of winter sunlight. Generally, four to six hours a day of sunlight, particularly in the growing season, is often a minimum requirement. Where the incremental shadows from the project fall on sunlight-sensitive features or uses, the analysis assesses the loss of sunlight relative to sunlight that would be available without the project.

As stated in the *2021 CEQR Technical Manual*, to determine impact significance, an incremental shadow is generally not considered significant when its duration is no longer than 10 minutes at any time of year and the resource continues to receive substantial direct sunlight. A significant shadow impact generally occurs when an incremental shadow of 10 minutes or longer falls on a sunlight-sensitive resource and results in one of the following:

- Vegetation - A substantial reduction in sunlight available to a sunlight-sensitive feature of the resource to less than the minimum time necessary for its survival (when there was sufficient sunlight in the future without the project). Or a reduction in direct sunlight exposure where the sunlight-sensitive feature of the resource is already subject to substandard sunlight (i.e., less than minimum time necessary for its survival).
- Open Space Utilization - A substantial reduction in the usability of open space as a result of increased shadow.
- For Any Sunlight-Sensitive Feature of a Resource - Complete elimination of all direct sunlight on the sunlight-sensitive feature of the resource, when the complete elimination results in substantial effects on the survival, enjoyment, or, in the case of open space or natural resources, the use of the resource.

2.4.5 Conclusion

Sunlight Sensitive Resource 1 (Harmony Park)

Shadows from the Proposed Actions would cast on Sunlight Sensitive Resource 1 on December 21st for 6 hours and 2 minutes, entering from the southwest corner at 8:51 am and exiting the southeast corner at 2:53 pm. As the analysis period is outside of the growing season, it eliminates any potential impacts on the vegetation in Harmony Park. The chess boards would only be covered for 1 hour from 8:51 am to 9:51 am, leaving approximately 5 hours of sunlight on the chess tables. The benches would be covered in shadow from approximately 11:51 am to 1:51 pm, leaving 4 hours of sunlight on the benches. The increment of shadows cast on the chess tables and benches within the park for the December 21st analysis period would still leave a significant amount of sunlight and would not be expected to have an adverse impact. Open space utilization of the resource would not be significantly impacted for the December analysis period.

Shadows from the Proposed Actions would cast on Sunlight Sensitive Resource 1 on September 21st for 7 hours and 31 minutes entering from the southwest corner at 8:29 am and exiting the southeast corner at 4:00 pm. The shadow that would be cast on the park would only encroach on an approximately 20-foot portion along the southern edge and would not impact the chess tables or benches. Open space utilization of the sunlight sensitive resource would not be impacted, and due to the minimal shadow cast on the resource, there is minimal potential for impact on vegetation.

2.5 Historic and Cultural Resources

An assessment of historic and cultural resources is usually necessary for projects that are located in close proximity to historic or landmark structures or districts, or for projects that require in-ground disturbance, unless such disturbance occurs in an area that has been formerly excavated, according to the *2021 CEQR Technical Manual*.

The term "historic resources" defines districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, architectural and archaeological importance. In assessing both historic and cultural resources, the findings of the appropriate city, state, and federal agencies are consulted. Historic resources include the New York City Landmarks Preservation Commission (LPC) designated landmarks, interior landmarks, scenic landmarks, and historic districts; locations being considered for landmark status by the LPC; properties/districts listed on, or formally determined eligible for, inclusion on the State and/or National Register (S/NR) of Historic Places; locations recommended by the New York State Board for Listings on the State and/or National Register of Historic Places and National Historic Landmarks.

Methodology

Archaeological and architectural resources usually need to be assessed for projects that would result in any in-ground disturbance. In-ground disturbance is any disturbance to an area not previously excavated, including new excavation that is deeper and/or wider than previous excavation on the same site.

For projects that may affect historic or cultural resources, the first step in evaluating a project's potential effects on historic resources is to consider what area the project might affect and then identify historic resources—whether officially recognized or eligible for such recognition—within that area. The area of subsurface work for the proposed project is considered the impact area for archaeological resources, while the Study Area for architectural resources is the area in which any resources may be affected by the project, which is defined by the radius of 400 feet from the borders of the project site for most proposals.

After the study areas have been established, all known archaeological and architectural resources within the study areas are identified, and the potential for unknown resources is investigated. It is recommended that lead agencies and applicants contact LPC for archaeological and architectural resources review. Based on the report from LPC, if any listed historic or cultural resources are located in the study areas, then further analysis of the project's impact on these resources must be performed. The proposed project's effects on any designated or potential archaeological and architectural resources are then analyzed under Existing, No-Action, and With-Action conditions. The assessment specifically considers whether the project may result in the disturbance or destruction of those archaeological and architectural resources as a result of the Proposed Actions.

2.5.1 Architectural Resources

Per *2021 CEQR Technical Manual* guidelines, impacts on historic resources are considered on those sites affected by the Proposed Action(s) and in the area surrounding identified development sites. The historic resources Study Area is defined as the project site plus an approximately 400-foot radius around the Proposed Action area.

According to the *2021 CEQR Technical Manual*, significant adverse impacts to historic and cultural resources could potentially result if a proposed action affects those characteristics that make a resource eligible for LPC designation or S/NR listing. This section assesses the potential for the proposed action to result in significant adverse impacts on identified historic and cultural resources. **Table 2.5-1** below provides information about possible direct, indirect and construction-related impacts on historic and cultural resources. Generally, architectural resources should be surveyed and assessed if the proposed project would result in any of the following, whether or not any known historic resources are located near the site of the project:

Table 2.5-1: Possible Impacts to Historic and Cultural Resources

Construction resulting in ground disturbance, including construction of temporary roads and access facilities, grading, and landscaping.
Below-ground construction, such as excavation or installation of utilities.
Physical destruction, demolition, damage, alteration or neglect of all or part of an historic property.
Changes to the architectural resource that cause it to become a different visual entity, such as a new location, design, materials, or architectural features.
Isolation of the property from, or alteration of, its setting or visual relationship with the streetscape. This includes changes to the resource's visual prominence so that it no longer conforms to the streetscape in terms of height, footprint, or setback; is no longer part of an open setting; or can no longer be seen as part of a significant view corridor.
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.
Introduction of significant new shadows, or significant lengthening of the duration of existing shadows, over an historic landscape or an historic structure to the extent that the architectural details that distinguish that resource as significant are obscured.

The LPC was contacted for their initial review of the project's potential to impact nearby historic and cultural resources. By letter dated September 17, 2020, LPC indicated that the study area does not contain any buildings of known architectural significance (see **Appendix A**). Therefore,

significant adverse impacts to architectural resources are not expected because of the Proposed Actions, and further analysis is not warranted.

2.5.2 Archaeological Resources

Unlike the architectural evaluation of a Study Area that extends beyond the footprint of a project's block and lot lines, the analysis of potential and/or projected impacts to archaeological resources is controlled by the actual footprint of the limits of soil disturbance. Archeological resources are physical remains, usually subsurface, of the prehistoric and historic periods such as burials, foundations, artifacts, wells and privies. The *2021 CEQR Technical Manual* requires a detailed evaluation of a project's potential effect on the archeological resources if it would potentially result in an in-ground disturbance to an area not previously excavated.

The Proposed Actions would result in new in-ground construction on Projected Development Site 1. As noted, the LPC was contacted for their initial review of the project's potential to impact nearby historic and cultural resources, and a response was received on September 17, 2020 (see **Appendix A**). The LPC has indicated that no cultural resource of archaeological significance is associated with the study area. Therefore, significant adverse impacts to archaeological resources are not expected because of the Proposed Actions, and further analysis is not warranted.

2.5.3 Conclusion

The project would require in-ground disturbance to develop the proposed mixed-use building with a cellar for parking and mechanical space. LPC was contacted for their initial review of the proposed project's potential to impact historic and cultural resources on or near the Affected Area. In a letter dated September 17, 2020, LPC indicated that the Study Area does not contain any sites or buildings of known architectural or archeological significance (see **Appendix A**). The Proposed Actions, therefore, are not anticipated to result in significant adverse impacts to sensitive architectural or archaeology resources.

2.6 Urban Design and Visual Resources

According to the *2021 CEQR Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. Elements that play an important role in the pedestrian's experience include streets, buildings, visual resources, open space, and natural features, as well as wind as it relates to channelization and downwash pressure from tall buildings. Pursuant to the *2021 CEQR Technical Manual*, an assessment of Urban Design may be warranted when a Proposed Action may affect one or more of the elements that contribute to the pedestrian experience of an area, specifically the arrangement, appearance, and functionality of the built environment.

The proposed rezoning of the Affected Area from M1-1 to C4-4D, R7A, and R7A/C2-4 would alter permitted use, bulk, and height within the Affected Area. Therefore, further analysis is warranted. The differences between existing and proposed zoning, with regards to those aspects of zoning affecting urban design, are presented in **Table 2.6-1**.

Table 2.6-1: No-Action and With-Action Zoning Comparison

	No-Action	**With-Action**	
Zoning	M1-1	C4-4D, R7A/C2-4, and R7A	
Permitted Uses	Manu., Com., CF	Res., Com., and CF	
Maximum FAR	Manu.: 1.00 Com.: 1.00 CF: 2.4	Res.:	C4-4D = 7.20; R7A/C2-4 and R7A = 4.60
		Com.:	C4-4D = 3.40; R7A/C2-4 = 2.00; R7A = N/A
		CF:	C4-4D = 6.50; R7A/C2-4 and R7A = 4.00
Maximum Height	Sky Exposure Plane starting at: 30 feet	C4-4D	Min. Base Height: 60 feet Max Base Height: 105 feet Max Building Height: 140 feet Max Building Height (w/QGF): 145 feet
		R7A/C2-4 and R7A	Min. Base Height: 40 feet Max Base Height: 75 feet Max Building Height: 90 feet Max Building Height (w/QGF): 95 feet
Lot Coverage	Minimum 20-foot rear yard	C4-4D	Residential Corner Lot Coverage: 100% Residential Interior Lot Coverage: 70%
		R7A/C2-4 and R7A	Residential Corner Lot Coverage: 100% Residential Interior Lot Coverage: 65%

Com. = Commercial; CF = Community Facility; Manu. = Manufacturing; Res. = Residential; QGF = Qualifying Ground Floor

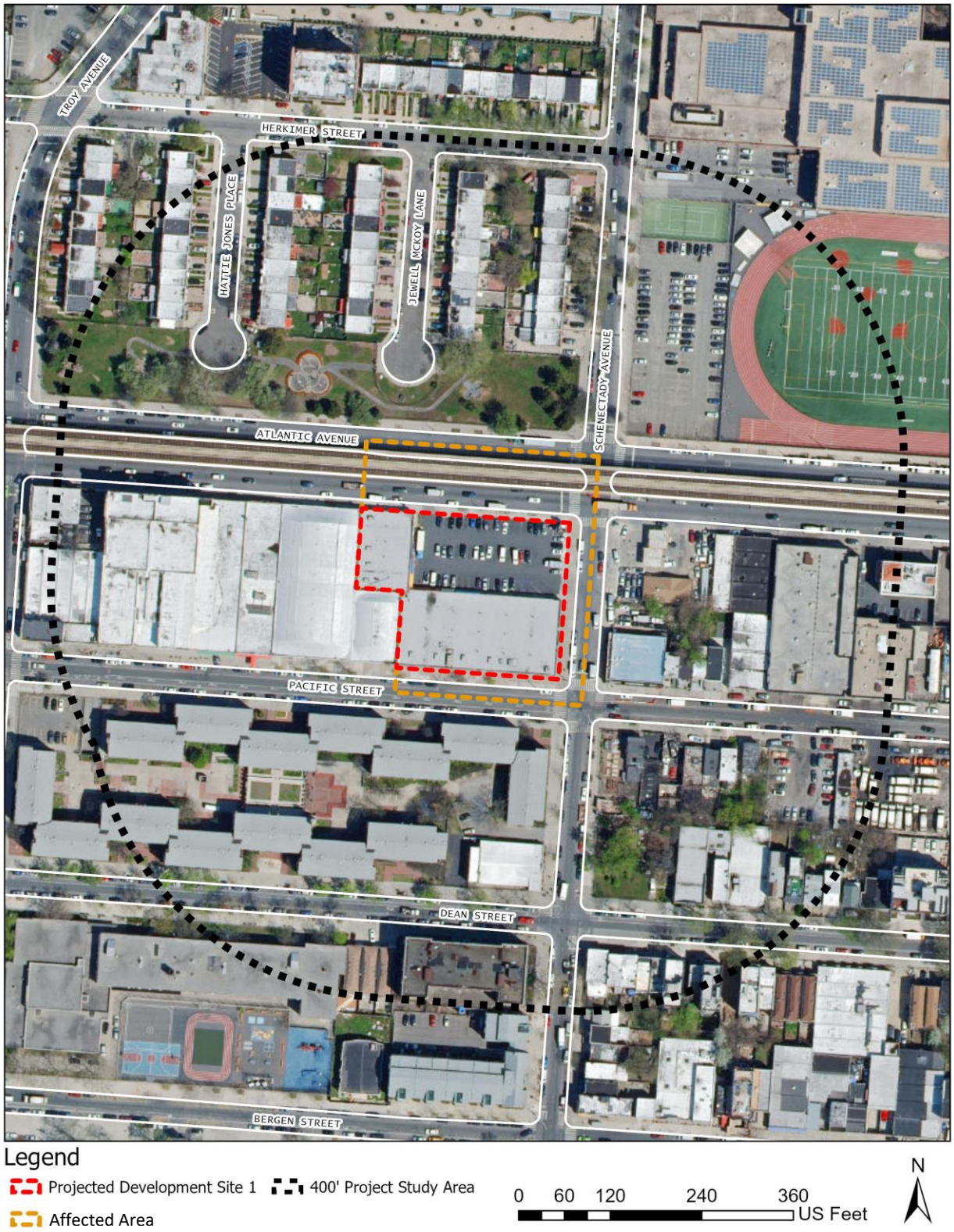
Methodology

Pursuant to the *2021 CEQR Technical Manual*, an assessment of urban design is appropriate when a project may affect one or more of the elements that contribute to the pedestrian experience of the public realm. This assessment of Urban Design and Visual Resources focuses on those elements of the Proposed Action that may have the potential to impact the use, arrangement, appearance, and functionality of the built environment. The *2021 CEQR Technical Manual* states that a preliminary urban design analysis is appropriate when there is potential for a pedestrian to observer a material alteration beyond what is allowed by existing zoning. This preliminary analysis provides an assessment of the Proposed Action; to determine when comparing existing and future conditions with and without the Proposed Actions whether the project may result in a significant adverse environmental impact.

The following analysis examines each of those elements that play an important role in the pedestrian experience, including street hierarchy and streetscape (including the arrangement and orientation of streets); building scale as defined by their height and bulk in relation to adjusting built form and arrangement; as well as natural features, open space, and topography. These components are further considered in relation to changes in use and density or use, in so far as it impacts the experience of the pedestrian.

The following preliminary analysis also considers the effects of the Proposed Actions on an area's visual resources, or those important public view corridors, vistas, natural or built features. Visual resources can include waterfront views, public parks, landmark structures or districts, or natural features, such as rivers or geological formations. Based on the *2021 CEQR Technical Manual* guidelines, the study area for urban design is the area where the project may influence land use patterns and the built environmental. The urban design study area consists of both a primary study area (where urban design defects of the Proposed Actions are direct) and a secondary study area. For the purpose of this assessment, the primary study area is the Affected Area. As with the analysis of land use, zoning, and public policy, the second study area for the urban design assessment is defined as the area within approximately 400 feet of the Affected Area (see **Figure 2.6-1**). The analysis is based on field visits, aerial views, computerized massing studies and montages, photographs, geographic information systems analysis and other graphic images of the Affected Area and surrounding 400-foot study area. Zoning calculations, including floor area calculations, building heights, and lot coverage information are also provided.

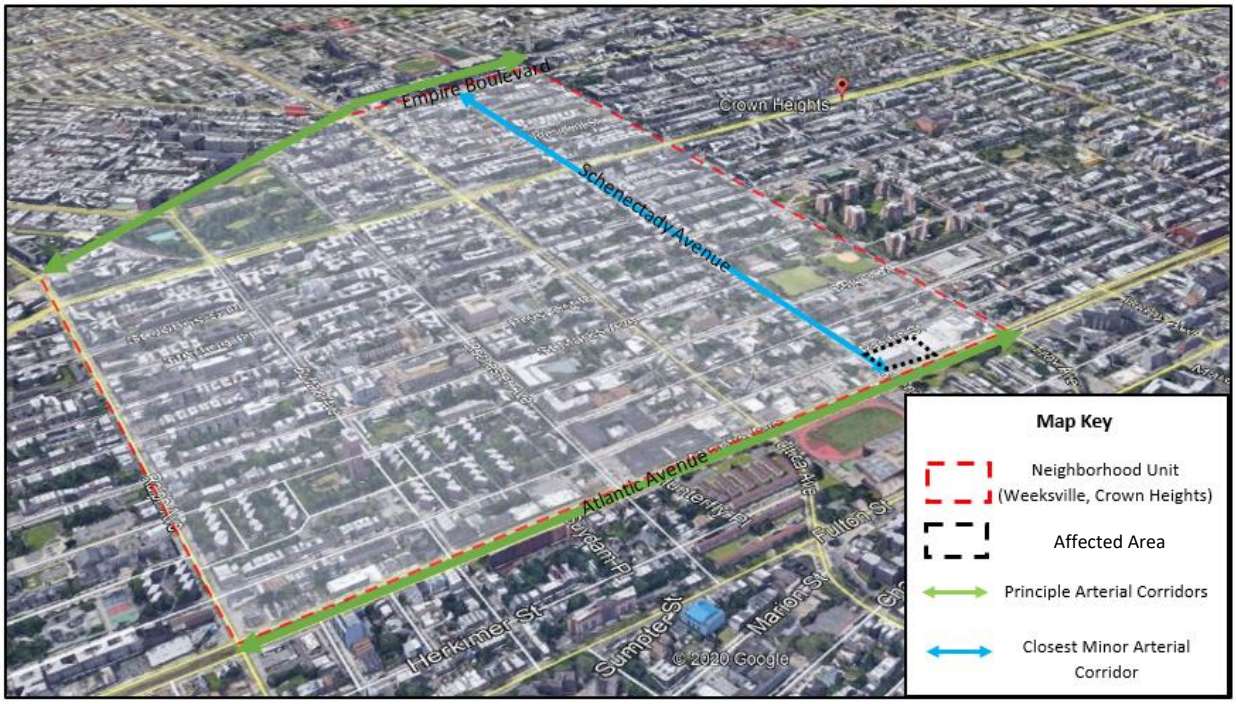
Figure 2.6-1: Primary and Secondary Study Area



2.6.1 Existing Conditions

The Affected Area consists of three lots on Block 1335 bounded by Atlantic Avenue, Schenectady Avenue, Pacific Street, and Troy Avenue in the Crown Heights neighborhood in Brooklyn, described in detail in **Section 1.4** and **Section 2.1**. From an urban design perspective, the study area, lies within a smaller, walkable neighborhood unit (See **Figure 2.6-2**).

Figure 2.6-2: Neighborhood Unit Context



Land Uses

The primary study area, as well as the 400-foot secondary study area, located in the Weeksville section of Crown Heights, is characterized by a mix of low- to medium-density land uses that varies in height and bulk. This impression is the result of the presence of many pre-existing conforming industrial and commercial uses set amongst a variety of housing topologies and densities. This section evaluates the characteristics of existing land uses, height, bulk and density within the primary and secondary study areas as well as the sidewalks and roadways linking the built form of the neighborhood, the integrated consideration of which establishes the basis for the overall urban design character experienced by the pedestrian.

Located at the north end of the block, Projected Development Site 1 (Block 1335, Lots 28, 30, and 35) is owned and controlled by the Applicant and is developed with a single-story commercial building that is currently occupied by two retailers, Golden Krust restaurant and Atlantic Pharmacy. Lot 30 is developed with a single -story commercial building that is currently occupied by three retailers; Metro MCS, GEM Pawnbrokers, and Money Gram/Checks & More – check

cashing and payment center. Lot 35 is developed with a single-story commercial building that is currently occupied by five retailers; Dollar Tree, Aaron's, Raisa Beauty Supply, Dunkin' Donuts, and Food Universe Marketplace.

In terms of land use, there is an eclectic of mix commercial, light industrial, public facilities and institutions, residential, transportation and utility uses, and vacant land within the 400-foot secondary study area and which characterizes the broader neighborhood generally. The predominant land use in the secondary study area are residential, public facilities and institutions, and commercial uses. The lots and buildings housing these uses vary very little in height and bulk as shown in **Figure 2.6-3.** Directly abutting the study area on all frontages generally consists of a mix of residential buildings, public facilities and institutions to the north and south of the primary study area with commercial buildings and transportation and utility uses to the east and west along Atlantic Avenue.

The commercial buildings, which are more proximal to the primary study area and are located to the east and west along Atlantic Avenue, are characterized by brick one-story buildings. East of the primary study area, across Schenectady Avenue, the commercial uses are largely occupied by transportation and utility uses with residential buildings among those uses. There a Shell gas station on the southeastern corner of Atlantic Avenue and Schenectady Avenue and a large NYC Department of Sanitation facility in the middle of the block between Schenectady Avenue and Utica Avenue at 1760 Atlantic Avenue.

The residential uses that are generally located north of Atlantic Avenue and south the primary study area can be characterized by two-story one- and two-family building north the primary study area and four- and five-story buildings immediately south of the primary study area, which includes the NYCHA Weeksville Gardens that occupies the majority of Block 1341.

Other notable uses in the surrounding area includes the NYSDOE Boys and Girls High School located northwest of primary study that occupies the entirety of Block 1701 and the NYCDOE Weeksville Elementary School (P.S. 243) located at Block 1347, Lot 1. Just beyond the 400-foot secondary study area is St. John's Park (Park ID: B245), which is 650-feet away from the primary study area.

Bulk and Height

Within the secondary study area, built FARs vary depending on use: one- and two-family homes range from approximately 0.47 to 0.67 FAR, multifamily buildings range from 0.67 to 1.58 FAR with the vast majority being multifamily elevator buildings that have a built FAR of either .97 or 1.04 (i.e. the NYCHA Weeksville Gardens). Both Commercial and office buildings and Industrial or manufacturing buildings tend to be less than or equal to 1.00 FAR in accordance with existing M1-1 zoning regulations that have been in place since 1961.

In regard to building height, the tallest existing building in the secondary study area are the multifamily elevator buildings on Block 1341, Lot 1 where the build heights rang from four- to

five-stories. Generally, all the buildings in the secondary study area range between one- and two-stories in height.

Access

The traffic grid around the primary study area is regularly shaped and sites at the intersection of major thoroughfares, Atlantic Avenue (a principal arterial) and Schenectady Avenue (a minor arterial). Vehicular traffic derived from both the primary study area, a shopping center in addition to the transportation and utility and uses to the east (i.e., the Shell gas station) contribute to the presence of automobiles and trucks in the area.

Sidewalks, ranging from 15 feet to 20 feet wide, are in good condition with paved surfaces and regular streetlights through the study area except that the limited number of street trees need to be improved. All the intersections are under good control with clear crossing markings and stop signs, securing the safety of the pedestrians when across the streets. Pedestrian activity is high because of the local retail within the primary study area and its proximity to the surrounding residential buildings.

Visual Resources

There are no eligible resources in the secondary study area, thus the projected development on the Projected Development Site would not result in an adverse effect on the streetscape.

Figure 2.6-3: Height and Bulk Visualization



Figure 2.6-4: Building Heights – Secondary Study Area

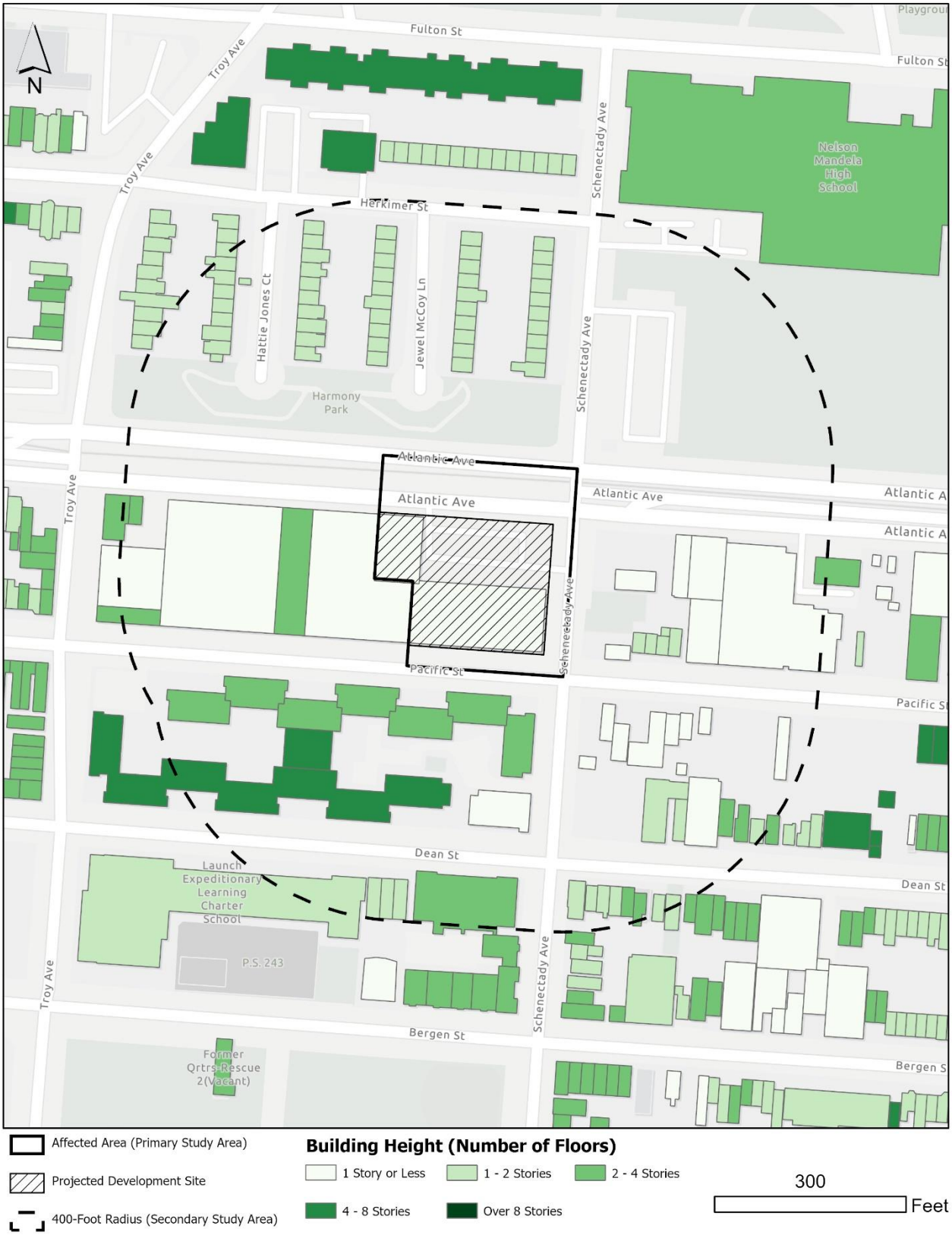


Figure 2.6-5: Built FAR – Secondary Study Area

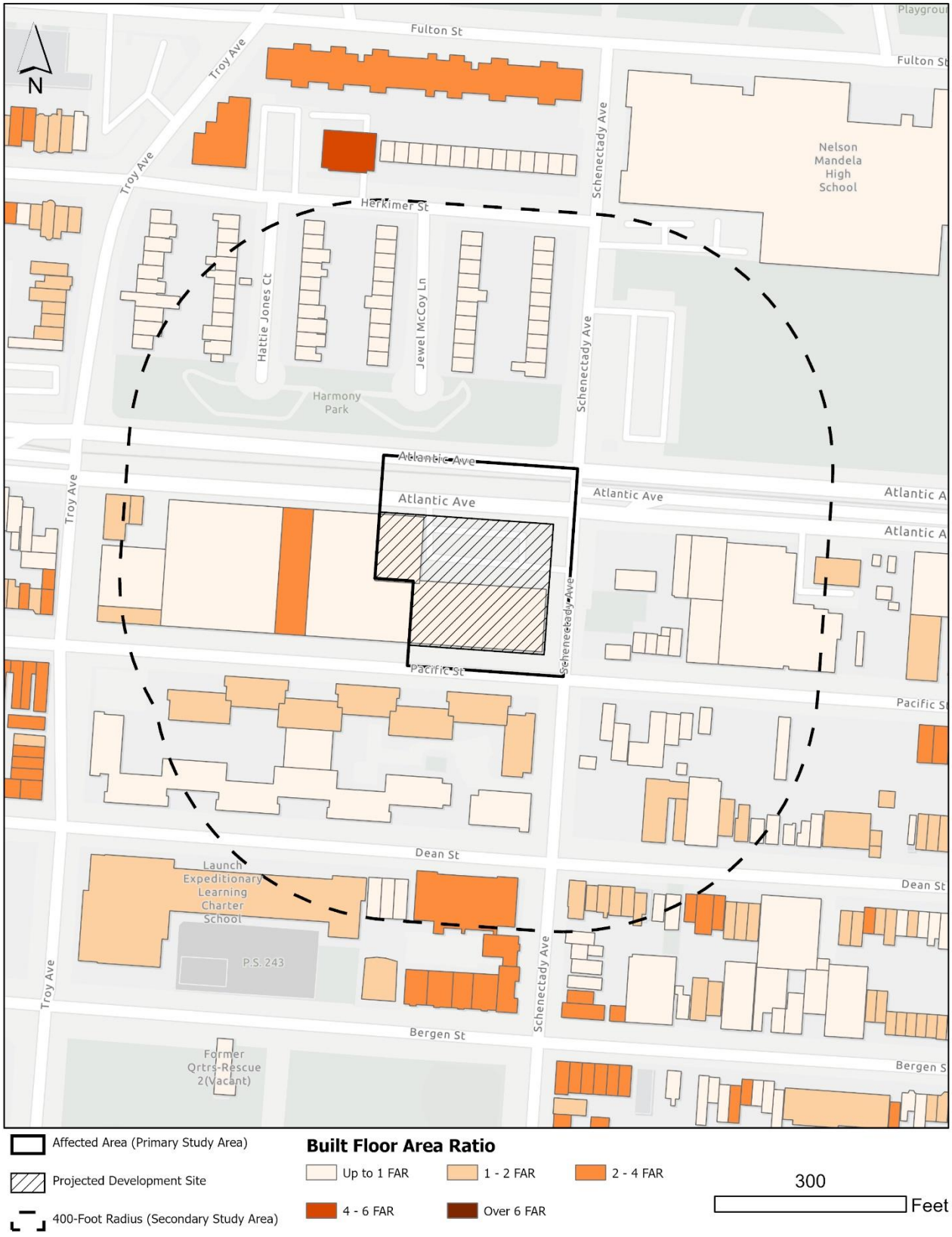


Figure 2.6-6: Pedestrian Views Along the Atlantic Avenue Corridor











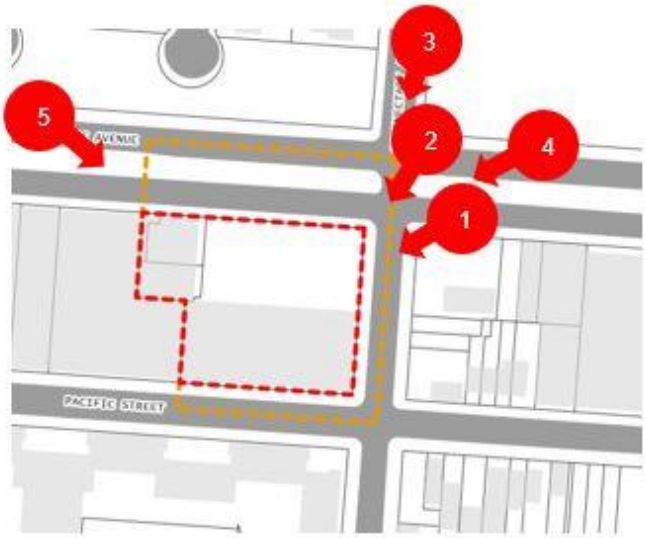
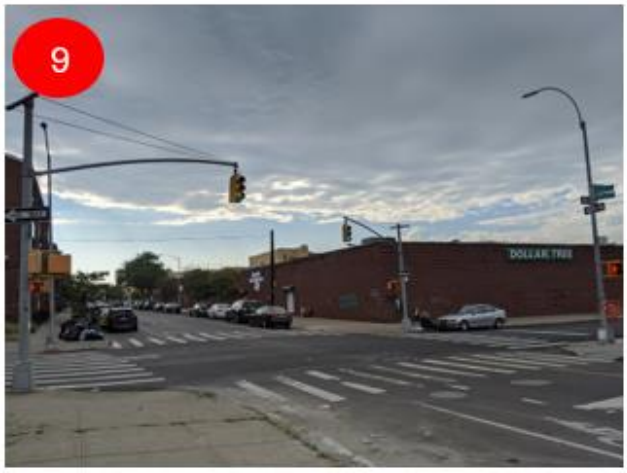


Figure 2.6-7: Pedestrian Views Along Pacific Street and the Schenectady Avenue Corridor

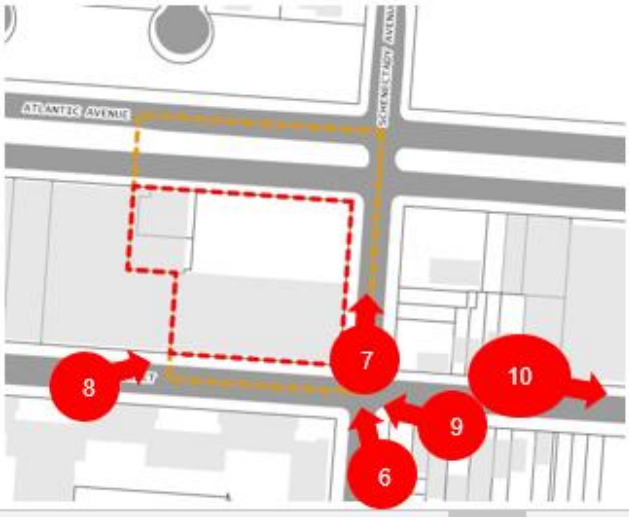












2.6.2 Future No-Action Condition

No changes to zoning are anticipated in the future without the Proposed Actions within the Affected Area. The Affected Area would continue to be subject to M1-1 zoning. Figure 2.6-8, **Figure 2.6-10**, **Figure 2.6-12**, and **Figure 2.6-14** show the No-Action Condition of the Affected Area.

2.6.3 Future With-Action Condition

On the Projected Development Site, the Applicant-owned Projected Development Site would be rezoned from M1-1 to C4-4D, R7A/C2-4, and R7A. The proposed Zoning Map Amendment would permit residential development on the Projected Development Site to a maximum FAR of 7.20 under the proposed C4-4D zoning district and 4.60 FAR under the proposed R7A/C2-4 and R7A zoning districts. Commercial floor area would be limited to 3.40 FAR under the proposed C4-4D zoning district and 2.0 FAR under the proposed R7A/C2-4. Community facility floor area would be limited to 6.50 FAR under the proposed C4-4D zoning district and 4.0 FAR under the proposed R7A/C2-4 and R7A zoning districts. The Future With-Action Condition would mirror the Applicant's Proposed Development of a 14-story, 145-foot tall, 378,259 GSF (263,277 ZSF; 5.45 FAR), mixed-use commercial, community facility, and residential building. The building would include 247,205 GSF (195,429 ZSF; 4.05 FAR) of residential space to provide 278 dwelling units; 56,030 GSF (50,427 ZSF; 1.04 FAR) of commercial floor area; 21,776 GSF (17,421 ZSF; 0.36 FAR) of community facility space; and 53,248 GSF of accessory parking to provide 112 parking spaces. The existing sidewalk (approximately 14 feet wide) of Projected Development Site 1 along Atlantic Avenue would be widened to a width of 20 feet.

Figure 2.6-9, **Figure 2.6-11**, **Figure 2.6-13**, and **Figure 2.6-15** show the With-Action Condition of the Affected Area.

2.6.4 Conclusion

Although the Proposed Actions would introduce a new building height limit and bulk restriction that is greater than the currently exist in the surrounding area, the Projected Development would not adversely impact any of the constituent urban design elements or impact the overall character of the neighborhood. The Proposed Development would not only consist of ground floor commercial space and significant residential space, but there will be new community facility space. The expanded set of uses that would be permitted is consistent with the majority of uses that currently exist in the surrounding area. Therefore, the Proposed Actions would not result in any significant adverse impact to the constituent elements of Urban Design, and a detailed analysis is not warranted.

There are no significant visual resources within the vicinity of the Affected Area. The Proposed Actions would not block any public view of a resource of significant aesthetic value. Therefore, it would not result in significant adverse impacts related to urban design and visual resources.

Figure 2.6-8: No-Action View of Projected Development Site from North Side of Atlantic Avenue Facing Southwest



Figure 2.6-9: With-Action View of Projected Development Site from North Side of Atlantic Avenue Facing Southwest



Figure 2.6-10: No-Action View of Projected Development Site from North Side of Atlantic Avenue Facing Southeast



Figure 2.6-11: With-Action View of Projected Development Site from North Side of Atlantic Avenue Facing Southeast



Figure 2.6-12: No-Action View of Projected Development Site from East Side of Schenectady Avenue Facing Northwest



Figure 2.6-13: With-Action View of Projected Development Site from East Side of Schenectady Avenue Facing Northwest



Figure 2.6-14: No-Action View of Projected Development Site from South Side of Pacific Street Facing Northeast



Figure 2.6-15: With-Action View of Projected Development Site from South Side of Pacific Street Facing Northeast



2.7 Hazardous Materials

According to the *2021 CEQR Technical Manual*, the potential for significant impacts from hazardous materials can occur when: (a) hazardous material exists on a site, and (b) an action would increase pathways to their exposure, or (c) an action would introduce new activities or processes using hazardous materials.

Methodology

The hazardous materials assessment begins with a Phase 1 ESA, which is a qualitative evaluation of the environmental conditions present at a site, based on a review of available information, site observations, and interviews. Pursuant to the *2021 CEQR Technical Manual*, the Phase 1 ESA is conducted in accordance with the standards established by the current ASTM Phase 1 ESA Standard and includes research and field observations to determine whether the site may contain contamination from either past or present activities on the site or as a result of activities on adjacent or nearby properties. If a potential Recognized Environmental Conditions (RECs) is identified during this assessment, then building any subsurface investigations are usually conducted as part of a Phase II ESA to confirm the presence and extent of the contamination.

2.7.1 Phase I Environmental Site Assessment

The proposed rezoning from an M1-1 to an C4-4D, R7A/C2-4, and R7A zoning districts are being sought to facilitate the construction of a new 14-story, 145-foot-tall 378,259 GSF mixed-use building that would contain 279 dwelling units, 21,776 GSF of community facility space, and 56,030 GSF of commercial space. Accordingly, a Phase I ESA was conducted for Projected Development Site 1 by HydroTech Environmental in September of 2020. The Phase I ESA will be reviewed by the Department of Environmental Protection (DEP).

The purpose of a Phase I ESA is to determine whether any type of environmental hazard exists within or adjacent to the project site. Environmental hazards may include, but are not limited to, hazardous/toxic wastes or raw chemicals stored, dumped, or spilled on the site, underground and above ground storage of petroleum or hazardous materials; asbestos within the building materials/structures; and identification of potential off-site sources of hazardous waste contamination, such as industrial facilities adjacent to the subject property.

Recognized Environmental Conditions (RECs) are defined as the presence or likely presence of any hazardous substances or petroleum products under conditions that indicate an existing release, past release, or a material threat of a release into structures on the property or into the ground, groundwater, or surface waters of the property. De minimis RECs are those that do not present a threat to health or the environment and would not be the subject of an enforcement action by a government agency. All RECs, excluding de minimis RECs, were considered in the Phase I ESA.

HydroTech Environmental has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-13. The following conditions were observed:

- The Subject Property - It is comprised of 48,300 square feet of land and is currently occupied by a 1-story shopping center that consist of 29,130 GSF of commercial space and a 19,170 SF surface parking lot built between 2002 and 2003. The commercial space is comprised of several vendors that include a Dollar Tree, Aaron's Furniture, Food Universe Marketplace, MetroPCS, Beauty Supply, Dunkin' Donuts, Golden Krust, Atlantic Pharmacy, Gen Pawnbrokers and Checks Cashed. Sanborn Fire Rate Insurance Map for the Subject Property indicate that prior to the construction of the existing buildings that constitute the current shopping center the site had been vacant since as early as 1982. Earlier records indicate that between 1932 and 1980 the Projected Development Site was occupied by a 1-story building for a printing company (as of 1932), a clothing manufacturer built (as of 1951), and a machine shop (as of 1963). Records also indicate the presence of a 3-story building that was occupied by "Raydn Mill" (circa 1932) and a fire door manufacture (circa 1951).
- RECs - HydroTech Environmental found three RECs associated with Projected Development Site 1 that include:
    - The presence of an active Spill #9402692 at an adjacent site occupied by a Shell filling station at 1740 Atlantic Avenue (Block 1336, Lot 6) that was first reported on May 24, 1994 when free product was found in multiple monitoring wells during an investigation. Periodic monitoring and sampling had been performed throughout the years. A Soil Vapor Extraction (SVE) system was installed and operated to remediate the contamination. However, the SVE system did not prove to be effective as the soil on the site is too compact. A multi-phase extraction (total fluid pumps) system was proposed to remove the free phase product in addition to a proposed high vacuum SVE system to address the dissolved petroleum contamination. Both remediation proposals were approved by the New York State Department of Environmental Conservation (NYSDEC) in 2016. No further information is available regarding the remedial work on the site.
    - The suspect presence of an adverse impact to groundwater beneath the Site from an adjacent gasoline station. Three (3) monitoring wells with 5-inch manhole covers were identified on the sidewalk around the Projected Development Site including two (2) in the northwest along Atlantic Avenue and one (1) in the mid-east along Schenectady Avenue. The property owner is not able to provide further information on these wells. The presence of monitoring wells is typically related to previous/ongoing investigation or monitoring activities and might be indicative of potential impact on groundwater, which should be considered a REC. Furthermore, multiple monitoring wells with manhole coverings ranging from 5-

inch to 12-inch were observed in the adjacent Shell filling station at the eastern adjacent property. Based upon spill records, the monitoring wells at the Shell filling station is also indicative of a suspected impact on groundwater.

- The presence of a Potential Vapor Encroachment Condition at the Projected Development Site.

- HRECs - HydroTech Environmental found no HRECs associated with Projected Development Site 1.
- CRECs - HydroTech Environmental found no CRECs associated with Projected Development Site 1.
- VECs - HydroTech Environmental's Tier I evaluation of potential Vapor Encroachment Conditions (PVEC) indicates the historic/current operations of the gas station at the eastern-adjacent property as a PVEC at Projected Development Site 1.
- One non-scope consideration - presence of an LIRR aboveground rail within 200 feet from Projected Development Site 1.

The following conditions were identified in the surrounding area:

Environmental Database Reports (EDR) identified 43 sites within a 0.5-mile radius of the Projected Development Site that are listed on the Leaking Underground Storage Tank (LTANKs) database of which 41 have been cleaned up to the satisfaction of the NYSDEC and considered closed and one (1) LTANK site was identified as active and two (2) have been either closed or remediated with periodic monitoring; 17 sites listed in the New York Spills database within a 0.125-mile radius of the Projected Development Site; three (3) sites located within a 0.5-mile radius of the Projected Development Site that are listed in the Voluntary Cleanup Program (VCP) database; one (1) site located within a 0.5-mile radius of the Projected Development Site that is listed in the Brownfield Cleanup Program (BCP) database.

Based on the findings of the Phase I ESA, RECs were identified related to the Subject Property. Therefore, the development of Projected Development Site 1 under the Proposed Actions may have the potential for adverse impacts associated to hazardous materials and a Phase II ESA would be required.

As described above, Projected Development Site 1 is currently occupied by a 1-story shopping center that consist of 29,130 GSF of commercial space and a 19,170 SF surface parking lot. The commercial space is comprised of several vendors that include a Dollar Tree, Aaron's Furniture, Food Universe Marketplace, MetroPCS, Beauty Supply, Dunkin' Donuts, Golden Krust, Atlantic Pharmacy, Gen Pawnbrokers and Checks Cashed. Given the Applicant's complicated tenancy relationships with multiple active vendors that have different business hours, making Projected Development Site 1 active in business from 5:00 AM to 10:00 PM seven days a week.

Phase II ESA testing will require site investigative work in multiple locations on the property, including the drilling of multiple borings into pavement area, as no area of the property is undeveloped with exposed earth - and the only open areas on the property are paved parking and/or drive through areas. Furthermore, the parking spaces in the area are in high demand, which are always occupied to its full capacity all day. The remaining open area consisting of active egress area associated with the drive in.

Phase II ESAs require multiple borings (typically 2-3) deep into the ground to capture subsurface conditions for the entire property, with a rig powerful enough to penetrate pavement. It should be noted these rigs are large enough to prevent parking lot, dumpster, and drive through access. Based on our experience, these tests take approximately a half-day to complete, with some additional time to patch the borings. Given the invasive nature of boring with a large rig, the businesses would be required to close to permit this work, as it would occur during business hours.

As the Applicant rents the Development Site to active tenants, it does not have the ability to force the business to close until expiration of the lease, which is anticipated to occur following approval of the Proposed Actions. As such, Phase II investigative work is not feasible at this time and an (E) Designation is required to undertake Phase II work once the property is vacated, demolished and cleared, following approval of the Proposed Actions.

2.7.2 Conclusion

Based on the findings of the Phase I ESA, no HREC and CRECs were identified related to Projected Development Site 1. However, three RECs were identified related to potential impacts from the adjacent Shell filling station. Because the site is currently occupied by several vendors and an accessory parking lot, the Applicant intends on waiting for project approvals and site preparation activities before completing the Phase II work. Therefore, the development of Projected Development Site 1 under the Proposed Actions may have the potential for adverse impacts related to hazardous materials and an E-Designation will be mapped on the Affected Area.

The E-Designation language related to Hazardous Materials is as follows:

E-Designation (E-XXX)

An (E) Designation should be placed on the Projected Development Site (Block 1335; Lots 28, 30, and 35) to assure that testing and mitigation will be performed, as necessary be performed, as necessary, before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation (OER).

E-XXX Requirements

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 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 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.

With this (E) designation in place, no significant adverse impacts related to hazardous materials are expected, and no further analysis is warranted.

2.8 Transportation

Pursuant to *2021 CEQR Technical Manual* methodology, a transportation assessment may be necessary when a proposed action would alter the transportation network by closing, opening, or realigning an element of the transportation system such as a roadway, pedestrian way, or transit route, or if it would generate new trips on the transportation network. The objective of the transportation analyses is to determine whether a proposed project may have a potential significant impact on traffic operations and mobility, public transportation facilities and services, pedestrian elements and flow, safety of all roadway users (pedestrians, bicyclists and vehicles), on- and off-street parking, or goods movement.

This chapter assesses the potential for project-generated vehicle, transit, and pedestrian trips to affect the local transportation network.

Analysis

Future No-Action Condition

Existing conditions are expected to remain in the future No-Action Condition.

Future With-Action Condition

As further discussed in **Section 1.8**, the Proposed Actions would result in an additional 279 dwelling units (70 affordable), 26,900 GSF of commercial space, and 21,776 GSF of community facility space.

Table 2.8-1: Increment Summary Table

Land Use	Existing	No-Action	With-Action	Increment
Residential	0	0	279 DU	+279 DU
Community Facility	0	0	21,776 GSF	+21,776 GSF
Local Retail	*29,130 GSF*	*29,130 GSF*	*0*	*-29,130 GSF*
Office	*0*	*0*	*24,340 GSF*	*+24,340 GSF*
Supermarket	*0*	*0*	*31,690 GSF*	*+31,690 GSF*
Total Commercial	29,130 GSF	29,130 GSF	56,030 GSF	+26,900 GSF

2.8.1 Preliminary Assessment

The Affected Area is within Traffic Zone 2. According to Table 16-1 of the *2021 CEQR Technical Manual,* in this zone, a development of fewer than 200 residential units, 100,000 square feet of commercial office, 15,000 square feet of local retail, 25,000 square feet of community facility space, or a weighted average below 1.00, typically does not warrant further assessment of the potential for adverse effects on transportation. As shown above in **Table 2.8-1**, while the proposed increases in commercial and community facility uses do not exceed their individual analysis threshold, the residential component with 279 new dwelling units does exceed the analysis threshold and therefore a Tier 1 trip generation is required.

2.8.2 Level 1 Trip Generation Screening Assessment

The *2021 CEQR Technical Manual* states that a preliminary Level 1 Trip Generation Screening Assessment should be prepared to determine whether a quantified analysis of any technical areas of the transportation system is necessary. Except in unusual circumstances, a further quantified analysis would typically not be needed for a technical area if the Proposed Development would result in fewer than the following increments:

- 50 peak hour vehicle trips;
- 200 peak hour subway/rail or bus transit riders (or 50 bus trips in a single direction on a single route during a peak hour);
- 50 CWFS Ferry Trips; or
- 200 peak hour pedestrian trips.

The *2021 CEQR Technical Manual* also states that if the threshold for traffic is surpassed, a parking assessment may also be warranted.

Transportation Planning Assumptions

As described below in more detail for individual land uses, the CEQR TM; East New York Rezoning FEIS; 809 Atlantic Avenue EAS; American Community Survey (ACS) 2015-2019 5-Year as well as 2012-2016 Journey-to-Work and Reverse-Journey-to-Work Census data (for Kings County Census Tracts 271, 299, 307, 309, 311, 343, 345, and 347); and data provided by NYCDOT were used to develop the Travel Demand Factors as shown in **Table 2.8-2** below. **Table 2.8-3** below shows the person trips, vehicular trips, and pedestrian trips generated based on the travel demand factors presented in **Table 2.8-2**.

Supermarket

The daily person trip generation rates, temporal and directional distributions, and truck trip generation rates are based on the *2021 CEQR Technical Manual*. The modal splits are based on data provided by NYC DCP, while the vehicle occupancy rates are based the 2016 East New York FEIS. A CEQR standard linked-trip credit of 25% was applied.

Office

The daily person trip generation rates, temporal and directional distributions, and truck trip generation rates are based on the *2021 CEQR Technical Manual*. The modal splits and the auto vehicle occupancy rate are based on 2012-2016 Reverse-Journey-to-Work census data, while the taxi vehicle occupancy rate is based the 2016 East New York FEIS.

Community Facility (Medical Office)

The daily person trip generation rates, temporal and directional distributions are based on the *2021 CEQR Technical Manual.* The modal splits and the vehicle occupancy rates are based on data provided by NYC DCP, while the truck trip generation, temporal and directional distributions are based on the 2016 East New York Rezoning FEIS.

Local Retail

The daily person trip generation rates, temporal and directional distributions, and truck trip generation rates are based on the *2021 CEQR Technical Manual*. The modal splits are based on 2012-2016 census data, while the vehicle occupancy rates are based on 2019 809 Atlantic Avenue EAS. A CEQR standard linked-trip credit of 25% was applied.

Residential

The daily person trip generation rates, temporal and directional distributions, and truck trip generation rates are based on the *2021 CEQR Technical Manual*. The modal splits and auto vehicle occupancy rate are based on 2015-2019 American Community Survey (ACS) Journey-to-Work data for census tracts 271, 299, 307, 309, 311, 343, 345, and 347, while the taxi vehicle occupancy rate is based on the 2016 East New York Rezoning FEIS.

Table 2.8-2: Travel Demand Factors

	Supermarket		Office		Community Facility (Medical Office)		Local Retail		Residential	
Trip Generation	(1)		(1)		(1)		(1)		(1)	
Weekday	256		18		66.626(x)+141.77*		329		8.18	
Saturday	300		3.9		16.6		358		9.08	
	per 1,000 sf		per 1,000 sf		per 1,000 sf		per 1,000 sf		per dwelling unit	
Linked-trip	25%						25%			
Temporal Distribution	(1)		(1)		(1)		(1)		(1)	
AM	4.00%		12.40%		11.00%		4.80%		9.30%	
MD	7.00%		11.00%		12.60%		8.00%		5.60%	
PM	10.60%		10.50%		8.50%		10.90%		8.50%	
Sat MD	9.50%		14.10%		16.60%		11.70%		8.40%	
Modal Splits	(5)		(6)		(5)		(6)(7)		(3)	
Auto	25%		54%		22%		32%		16%	
Taxi	5%		0.2%		4%		0.8%		2%	
Bus	6%		8%		13%		12%		14%	
Subway	0%		24%		13%		45%		61%	
Walk/Other	64%		13%		48%		10%		6%	
In/Out Splits	In (1)	Out (1)	In (1)	Out (1)	In (1)	Out (1)	In (1)	Out (1)	In (1)	Out (1)
AM	51%	49%	89%	11%	62%	38%	53%	47%	22%	78%
MD	51%	49%	48%	52%	47%	53%	50%	50%	50%	50%
PM	50%	50%	17%	83%	35%	65%	50%	50%	63%	37%
Sat MD	50%	50%	50%	50%	49%	51%	50%	50%	51%	49%
Vehicle Occupancy	(2)		(6)(2)		(4)		(8)		(3)(2)	
Auto	1.65		1.05		1.50		1.20		1.05	
Taxi	1.40		1.20		1.50		1.20		1.30	
Truck Trip Generation	(1)		(1)		(2)		(1)		(1)	
Weekday	0.35		0.32		0.29		0.35		0.06	
Saturday	0.04		0.01		0.29		0.04		0.02	
Temporal Distribution	(1)		(1)		(2)		(1)		(1)	
AM	8.00%		10.00%		3.00%		8.00%		12.00%	
MD	11.00%		11.00%		11.00%		11.00%		9.00%	
PM	2.00%		2.00%		1.00%		2.00%		2.00%	
Saturday	11.00%		11.00%		0.00%		11.00%		9.00%	
In/Out Splits	In (1)	Out (1)	In (1)	Out (1)	In (2)	Out (2)	In (1)	Out (1)	In (1)	Out (1)
AM/MD/PM/Sat	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%

1 = 2021 CEQR Technical Manual

2 = East New York FEIS

3 = 5-year ACS Journey to Work (2015 - 2019) for Kings County Tracts 271, 299, 307, 309, 311, 343, 345, and 347

4 = Data provided by NYC DCP for Medical Office

5 = Modal splits provided by NYC DCP

6 = 2012 - 2016 CTPP RJTW Data for Kings County Tracts 271, 299, 307, 309, 311, 343, 345, and 347

7 = 2012 - 2016 CTPP JTW Data for Kings County Tracts 271, 299, 307, 309, 311, 343, 345, and 347

8 = 809 Atlantic Avenue EAS, 2019

Table 2.8-3: Total Project Generated Trips

	Supermarket		Office		Community Facility (Medical Office)		Local Retail		Residential		Total		
Size (gsf)	31,690 gsf		24,340 gsf		21,776 gsf		-29,130 gsf		279 du				
Peak Hour Trips													
AM	243		54		175		-345		212		340		
MD	426		48		201		-575		128		227		
PM	645		46		135		-783		194		237		
Sat MD	677		13		60		-915		213		48		
Person Trips													
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Auto	31	30	26	3	24	15	-58	-52	7	26	30	22	53
Taxi	6	6	0	0	4	3	-1	-1	1	4	10	11	22
Bus	7	7	4	1	14	9	-23	-20	7	23	9	19	29
Subway	0	0	12	1	14	9	-82	-73	29	102	-28	39	11
Walk/Other	79	76	6	1	52	32	-18	-16	3	10	123	103	226
Total	124	119	48	6	109	67	-183	-162	47	166	145	195	340
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Auto	54	52	12	14	21	23	-92	-92	10	10	6	8	14
Taxi	11	10	0	0	4	4	-2	-2	2	2	14	14	28
Bus	13	13	2	2	12	14	-36	-36	9	9	0	2	2
Subway	0	0	6	6	12	14	-130	-130	39	39	-72	-70	-143
Walk/Other	139	134	3	3	45	51	-28	-28	4	4	163	163	326
Total	217	209	23	25	94	106	-288	-288	64	64	111	116	227
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Auto	81	81	4	21	10	19	-125	-125	20	11	-10	7	-3
Taxi	16	16	0	0	2	4	-3	-3	3	2	18	19	37
Bus	19	19	1	3	6	11	-49	-49	17	10	-5	-5	-10
Subway	0	0	2	9	6	11	-176	-176	75	44	-93	-112	-205
Walk/Other	206	206	1	5	23	42	-39	-39	7	4	199	219	418
Total	322	322	8	38	47	88	-392	-392	122	72	108	129	237
Saturday	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Auto	85	85	4	4	6	7	-146	-146	17	17	-34	-34	-68
Taxi	17	17	0	0	1	1	-3	-3	3	3	17	17	35
Bus	20	20	1	1	4	4	-57	-57	15	15	-17	-17	-34
Subway	0	0	2	2	4	4	-206	-206	67	64	-134	-136	-270
Walk/Other	217	217	1	1	14	15	-45	-45	7	6	193	194	387
Total	339	339	7	7	29	31	-458	-458	109	104	26	23	48
Taxi Overlap Rate													
Vehicle Trips													
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Auto	19	18	25	3	16	10	-49	-43	7	25	18	13	31
Taxi	4	4	0	0	3	2	-1	-1	1	3	7	8	15
Taxi Balanced	8	8	0	0	5	5	-2	-2	4	4	15	15	30
Truck	0	0	0	0	0	0	0	0	1	1	2	2	3
Total	27	27	25	3	21	15	-51	-45	12	30	35	30	63
MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Auto	33	32	12	13	14	16	-76	-76	10	10	-8	-7	-15
Taxi	8	7	0	0	3	3	-2	-2	1	1	10	9	19
Taxi Balanced	15	15	0	0	6	6	-4	-4	2	2	19	19	38
Truck	1	1	0	0	0	0	-1	-1	1	1	2	2	3
Total	49	47	12	13	20	22	-81	-81	12	12	13	14	27
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Auto	49	49	4	20	7	13	-104	-104	19	11	-26	-12	-37
Taxi	12	12	0	0	1	2	-2	-2	2	1	13	13	26
Taxi Balanced	24	24	0	0	3	3	-4	-4	3	3	26	26	52
Truck	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	73	73	4	20	10	16	-108	-108	22	14	1	15	15
Saturday	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Auto	51	51	3	3	4	4	-122	-122	17	16	-46	-46	-92
Taxi	12	12	0	0	1	1	-3	-3	2	2	12	12	24
Taxi Balanced	24	24	0	0	2	2	-6	-6	4	4	24	24	48
Truck	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	75	75	3	3	6	6	-128	-128	21	20	-22	-22	-44

Trip Generation Summary

The *2021 CEQR Technical Manual* provides a methodology for evaluating the potential impacts of a Proposed Project on the transportation system. In accordance with the *2021 CEQR Technical Manual*, a Level 1 Screening Assessment includes a trip generation analysis to determine whether the project would result in more than 50 vehicle trip-ends, 200 subway/rail or bus transit riders, 50 CWFS ferry trips, or 200 pedestrian trip-ends in a peak hour.

The incremental project-generated trip ends determined based on the Level 1 Trip Generation Screening are summarized below in **Table 2.8-4**.

Table 2.8-4: Summary of Project Generated Trip Ends

Peak Hour	AM Peak Hour	Midday Peak Hour	PM Peak Hour	Saturday Peak Hour
Total Subway Trip-Ends	11	-143	-205	-270
Total MTA Bus Trip-Ends	29	2	-10	-34
Total Walk-Only Trip-Ends	226	327	419	388
Total Pedestrian Trip-Ends	**266**	**186**	**203**	**82**
Total Vehicular Trip-Ends	**63**	**27**	**15**	**-44**

Highlighted cells denote trips in exceedance of 200 transit/pedestrian trip ends or 50 vehicles per peak hour

Traffic

As shown in **Table 2.8-4**, the Proposed Project would generate greater than 50 vehicle trips during the AM peak hour. Therefore, a Level 2 screening assessment of vehicular trips during the AM Peak Hour is warranted.

Subway

As shown in **Table 2.8-4**, the Proposed Project would generate fewer than 200 subway trips during all identified peak hours and therefore no further analysis of subway trips is warranted.

Bus

As shown in **Table 2.8-4**, the Proposed Project would generate fewer than 200 MTA bus trips during all identified peak hours and therefore no further analysis of bus trips is warranted.

Pedestrians

As shown in **Table 2.8-4**, the Proposed Project would generate more than 200 combined pedestrian trip ends (including pedestrians walking to / from subway stations and bus stops as well as walk-only trips) during the AM and PM peak hours, thereby exceeding the Level 1 threshold. As such, a Level 2 Screening assessment of pedestrian trips is warranted during the AM and PM peak hours.

2.8.3 Level 2 Screening Assessment

Level 2 Screening Assessment assigns project-generated vehicular and pedestrian trips to specific intersections, bus routes, subway lines, CWFS ferry routes, or parking facilities. If the results of the analysis concludes that the Proposed Action(s) would result in intersections with 50 or more vehicle trips, pedestrian elements with 200 or more pedestrian trips, 50 or more bus trips in a single direction on a single route, 25 or more passenger ferry trips in a single direction on a single route, 50 or more passengers at a ferry landing, or 200 or more passengers at a subway station or on a subway line during any analysis peak hour, further detailed analysis may be needed for a particular technical area.

Traffic

As discussed above, incremental vehicle trip-ends resulting from the Proposed Project would exceed the CEQR Level-1 screening threshold during the Weekday AM peak hour. As such, a Level 2 Trip Assignment was prepared for the AM peak hour, as shown below in **Figure 2.8-1**.

Site Access and Egress Assumptions

Per the Proposed Project's architectural plans, the entrance and exit to/from the accessory parking garage will be located on the Michael Griffith (Pacific) Street frontage. As such, all auto trips to and from the Project Site were assigned to this frontage. Truck trips were also assigned to this frontage as this is assumed to be the most likely access point for truck deliveries. Taxi trips were assumed to drop off and pick up riders along all three site frontages, with most drop-offs and pick-ups expected to occur along the Atlantic Avenue frontage.

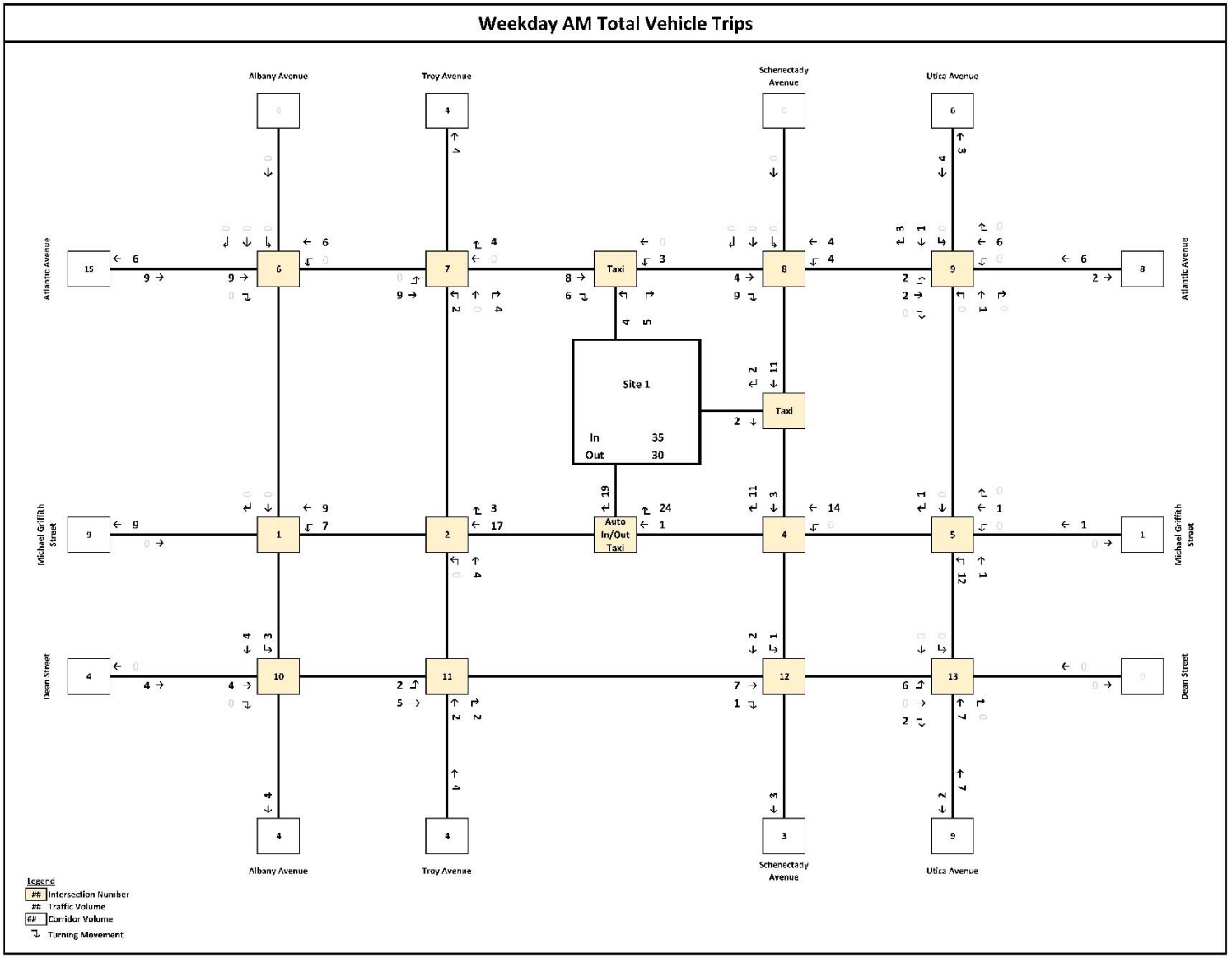
Origin and Destination Assumptions

The most likely travel routes to and from the Projected Development Sites, prevailing travel patterns, commuter origin-destination (O-D) summaries from the most recent census data, the configuration of the roadway network, and the anticipated locations of site access and egress by site and land use were examined and utilized to perform vehicular trip assignments. Census Transportation Planning Product (CTPP) Reverse Journey to Work and Journey to Work (2012 – 2016) data were utilized to determine the relative O-D points of trips.

Conclusion

As shown in **Figure 2.8-1**, based on the assignment of vehicular trips, none of the intersections in the study area would exceed the 50 vehicular trips analysis threshold during the Weekday AM peak hour. As such, a detailed Level of Service traffic analysis is not warranted.

Figure 2.8-1: Weekday AM Peak Hour Project Increment Traffic Volumes



Pedestrians

As discussed above, incremental pedestrian trips resulting from the proposed project would exceed the CEQR Level-1 screening threshold during the Weekday AM and PM peak hours. As such, Level 2 Trip Assignments were prepared for the AM and PM peak hour, as shown below in **Figure 2.8-2** and

Figure 2.8-3**.**

The number of pedestrian trips shown in **Figure 2.8-2** and

Figure 2.8-3 include walk-only trips, which were distributed based on census origin-destination data; trips by subway riders, which are assumed to all walk the shortest available routes to/from the Utica Avenue (A,C) subway station on Fulton Street northeast of the site; and trips by bus trips, which are assumed to walk to the B15, B25, B49, and B65 bus stops closest to the project site.

The trips were further distributed to the various entrances along the three site frontages on Atlantic Avenue, Schenectady Avenue and Michael Griffith (Pacific) Street.

As shown in **Figure 2.8-2** and

Figure 2.8-3, none of the sidewalks, crosswalks, or corners in the study area would exceed the 200 pedestrian trips analysis threshold. As such, a detailed Level of Service pedestrian analysis is not warranted.

Figure 2.8-2: Weekday AM Peak Hour Project Increment Pedestrian Volumes

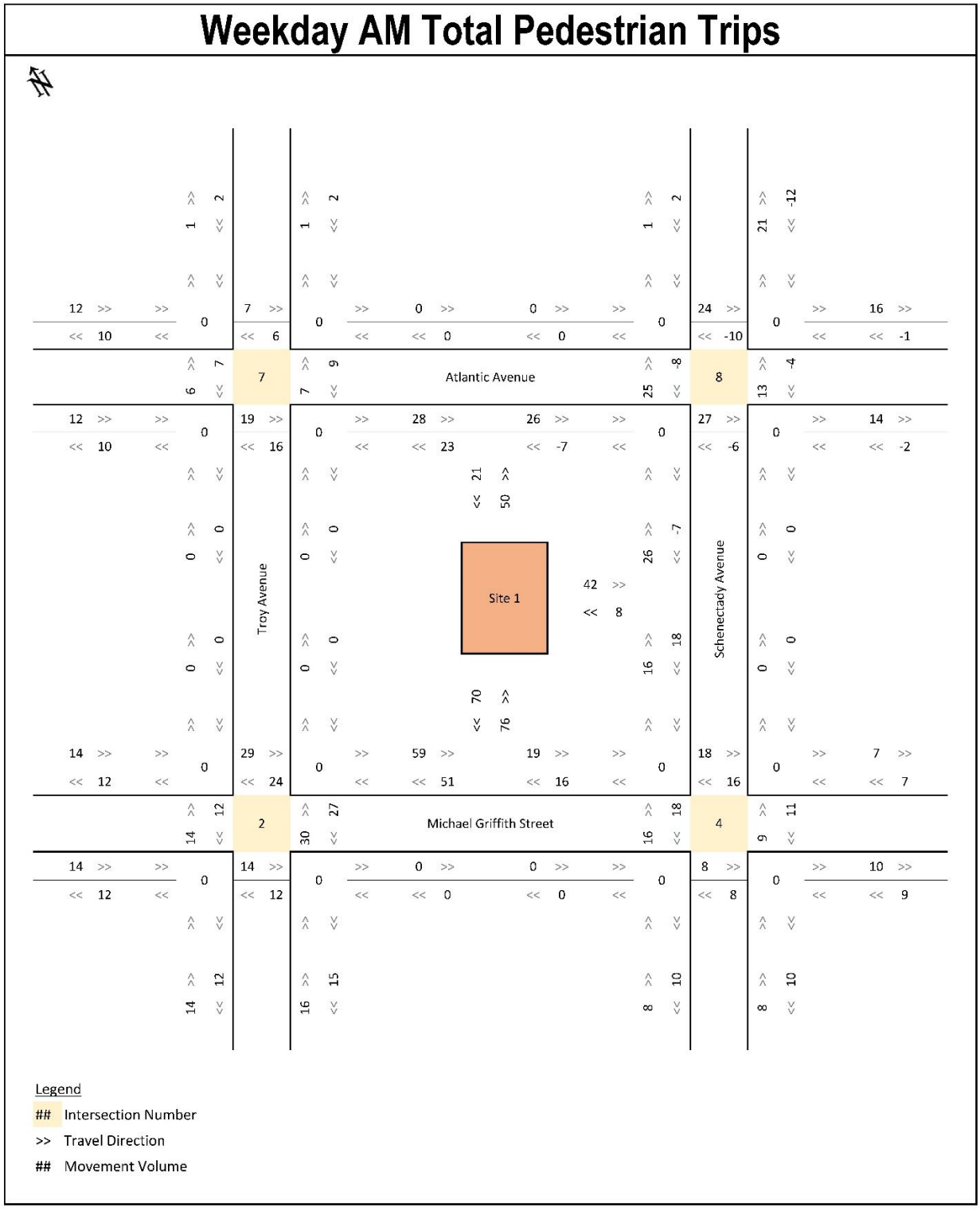
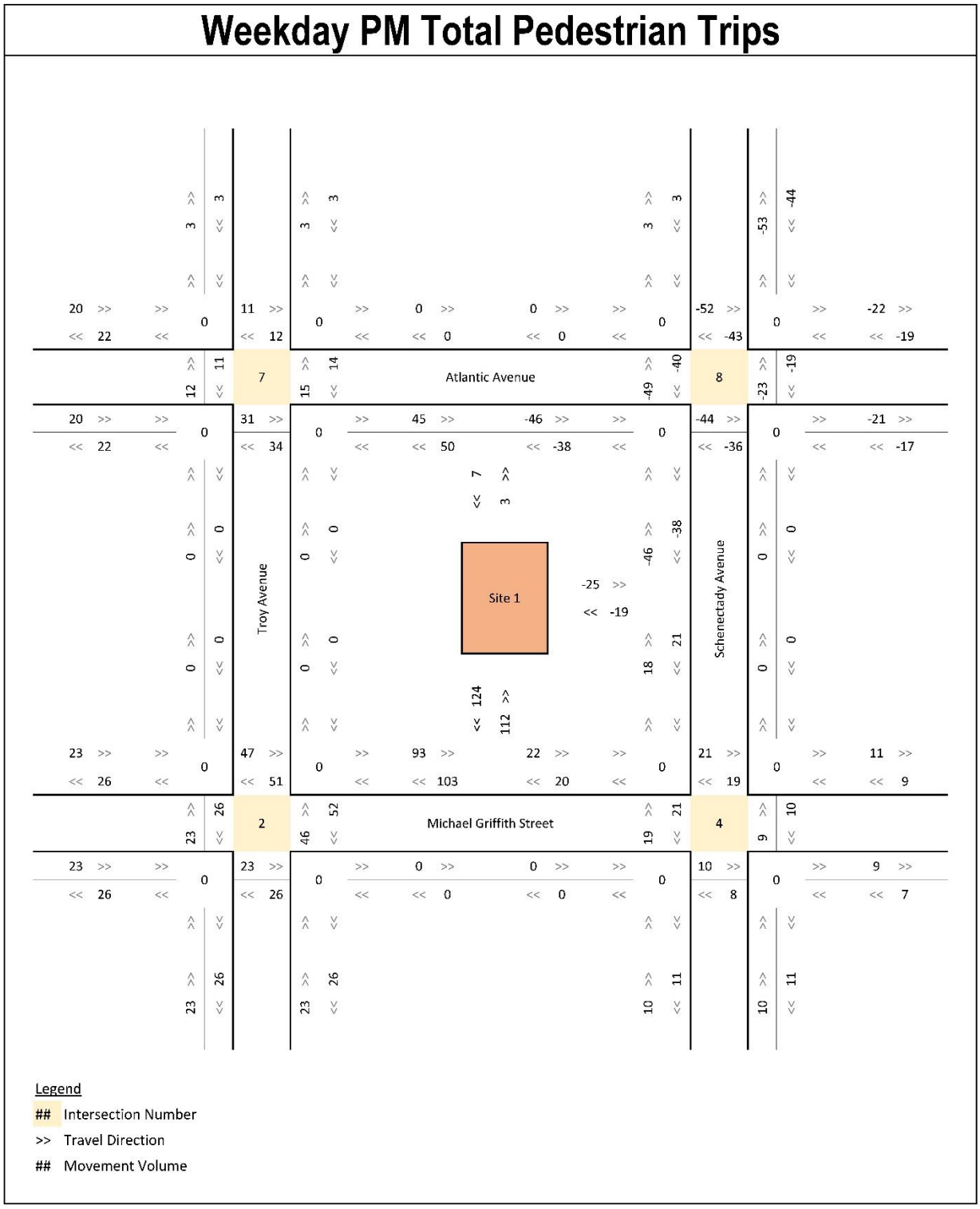


Figure 2.8-3: Weekday PM Peak Hour Project Increment Pedestrian Volumes



2.9 Air Quality

Ambient air quality describes pollutant levels in the surrounding environment to which the public has access. The impact of air pollutants emitted by motor vehicles (mobile source) and by fixed facilities (stationary source) are analyzed to assess potential health hazards due to ambient air quality, where the effects of both the proposed project on ambient air quality and the ambient air quality effect on the proposed project are considered. The analysis framework, as mandated by the State Environmental Review Act, follows the *New York City Environmental Quality Review 2020 Technical Manual (CEQR TM)*. The potential air quality impacts of the resulting emissions are estimated following the procedures and methodologies prescribed in the *CEQR TM*:

- The potential for changes in vehicular travel associated with Proposed Project activities to result in significant mobile source (vehicular related) air quality impacts.
- The potential for an atypical (e.g., not at-grade) source of vehicular pollutants to significantly impact the Proposed Project.
- The potential for emissions from the heating, ventilation and air conditioning (HVAC) systems of the Proposed Project to significantly impact nearby planned and/or existing land uses.
- The potential for air toxic emissions released from existing industrial facilities to significantly impact the Proposed Project.
- The potential for significant air quality impacts from the emissions of facilities that require Prevention of Significant Deterioration permits (Title V), and facilities which require a state facility permit to significantly impact the Proposed Project.
- The potential for facilities' malodorous emissions to unreasonably interfere with the proposed project's occupant's comfortable enjoyment of life or their property.

Project Description

The Projected Development Site would be developed with a 14-story, 145-foot-tall, 378,259 GSF (263,277 ZSF; 5.45 FAR) mixed-use commercial, community facility, and residential building. The building would include 247,205 GSF (195,429 ZSF; 4.05 FAR) of residential space on floors 3 through 13; 56,030 GSF (50,427 ZSF; 1.04 FAR) of commercial floor area on floors 1 and 2; 21,776 GSF (17,421 ZSF; 0.36 FAR) of community facility use on the 2nd floor; and 53,248 GSF of accessory parking area split between the cellar and ground floor. For a conservative analysis under CEQR the analysis will assume that ground floor commercial uses total 33,805 GSF of supermarket use; the second floor will consider 27,780 GSF of general office use; and the remainder of the second floor will assume 19,724 GSF of UG 4 medical office uses. There would be 278 total dwelling units. There would be 84 parking spaces required, and a total of 112 parking spaces would be provided between the cellar and ground floors.

2.9.1 Mobile Sources

According to the *2021 CEQR Technical Manual*, projects, whether site- specific or generic, may result in significant mobile source air quality impacts when they increase or cause a redistribution of traffic; create any other mobile sources of pollutants (such as diesel trains, helicopters etc.); or add new uses near mobile sources (roadways, garages, parking lots, etc.). Projects requiring further assessment include:

- Projects that would result in placement of operable windows, balconies, air intakes or intake vents generally within 200 feet of an atypical source of vehicular pollutants.
- Projects that would result in the creation of a fully or partially covered roadway, would exacerbate traffic conditions on such a roadway, or would add new uses near such a roadway.
- Projects that would generate peak hour auto traffic or divert existing peak hour traffic of 170 or more auto trips in this area of the City.
- Projects that would generate peak hour heavy- duty diesel vehicle traffic or its equivalent in vehicular emissions resulting from 12 or more heavy-duty diesel vehicles (HDDVs) for paved roads with average daily traffic of fewer than 5,000 vehicles, 19 or more HDDVs for collector roads, 23 or more HDDVs for principal and minor arterials, or 23 or more HDDVs for expressways and limited-access roads.
- Projects that would result in new sensitive uses (e.g., schools or hospitals) adjacent to large existing parking facilities or parking garage exhaust vents.
- Projects that would result in parking facilities or applications requesting the grant of a special permit or authorization for parking facilities; or projects that would result in a sizable number of other mobile sources of pollution (e.g., a heliport or a new railroad terminal).
- Projects that would substantially increase the vehicle miles traveled in a large area.

Projects may result in significant mobile source impacts when they create mobile sources of pollutants, change traffic patterns, or add new uses near mobile sources of pollutants. Per CEQR guidelines, a detailed analysis is conducted to predict whether the Proposed Actions could potentially have a significant adverse air quality impact if certain threshold criteria are met or exceeded, while proposed projects that do not meet or exceed the threshold criteria (screen out) are not expected to have a mobile source impact. Projects that require a detailed analysis model the ambient air CO and PM_{10}/$PM_{2.5}$ concentrations—the mobile source pollutants of concern—and compare the modeled concentrations with the applicable air quality standard.

Mobile Source Screening

The Proposed Actions would not result in operable windows or air intakes within 200 feet of an atypical roadway. It would not result in creation of a covered roadway or affect any covered roadway. Peak hour trip generation is far below the 170-car threshold, as per the transportation section, as potentially warranting further assessment (see **EAS Short Form** screen). The project would not create a new sensitive receptor adjacent to large parking facilities. The project would not result in creation of a new parking facility. The project would not result in the incremental generation of HDDVs exceeding the thresholds. As such, a mobile source analysis is not required.

2.9.2 Mobile Sources Conclusion

As described above, the Proposed Actions would not exceed any of the thresholds listed in the *2021 CEQR Technical Manual*. Therefore, no significant adverse air quality impacts are expected at intersections effected by the project-generated traffic.

2.9.3 Stationary Sources

According to the *2021 CEQR Technical Manual*, projects may result in stationary source air quality impacts when one or more of the following occurs:

- New stationary sources of pollutants are created (e.g., emission stacks for industrial plants, hospitals, and other large institutional uses).
- Certain new uses near existing (or planned future) emissions stacks are introduced that may affect the use.
- Structures near such stacks are introduced so that the structures may change the dispersion of emissions from the stacks so that surrounding uses are affected.
- Fossil fuels (fuel oil or natural gas) for heating/hot water, ventilation, and air conditioning systems are used.
- Large emission sources are created (e.g., solid waste or medical-waste incinerators, cogeneration facilities, asphalt/concrete plants, or power-generating plants, etc.).
- New sensitive uses are located near a large emission source.
- Medical, chemical, or research labs are created or result in new uses being located near them.
- Operation of manufacturing or processing facilities is created.
- New sensitive uses created within 400 feet of manufacturing or processing facilities.
- New uses created within 400 feet of a stack associated with commercial, institutional, or residential developments (and the height of the new structures would be similar to or greater than the height of the emission stack).

- Potentially significant odors are created.
- New uses near an odor-producing facility are created.
- "Non-point" sources that could result in fugitive dust are created.
- New uses near nonpoint sources are created.
- A generic or programmatic action is introduced that would change or create a stationary source or that would expose new populations to such a station.

Analysis Framework

The stationary source analysis will study the potential impacts of the Projected Development Site 1 on nearby receptors. The Reasonable Worst Case Development Scenario for Projected Development Site 1 is described below.

Projected Development Site 1 (Block 1335, Lots 28, 30, and 35) would total 48,300 SF, and would be developed with a 14-story, 145-foot-tall, 389,339 GSF (305,001 ZSF; 6.31 FAR) mixed-use residential, commercial, and community facility building. The building would include 256,125 GSF (237,153 ZSF; 4.91 FAR) of residential space on floors 3 through 14; 56,030 GSF (50,427 ZSF; 1.04 FAR) of commercial floor area on floors 1 and 2; 21,776 GSF (17,421 ZSF; 0.36 FAR) of community facility use on the 2nd floor; and 55,408 GSF of accessory parking area split between the cellar and ground floor.

Air Pollutants and Applicable Standards/Guidelines

Criteria Pollutants

The U.S. Environmental Protection Agency (EPA) has identified six pollutants, known as criteria pollutants which are being of concern nationwide, and established threshold concentration based upon adverse effect on human health. The six pollutants and their characteristics are:

- Carbon Monoxide (CO) is mainly produced by motor vehicles from the incomplete combustion of gasoline. The impact of CO on the ambient air is analyzed next to roadways, intersections, parking lots, and parking garages vents as these locations are the most affected.
- Nitrogen Dioxide (NO_2) is a main concern related to the burning of natural gas. Emitted NOx from the burning of fossil fuel gradually convert to NO_2 in a chemical reaction that is affected by ozone concentration and the presence of sunlight. In a micro scale analysis, buildings HVAC systems are analyzed for NO_2 impact.
- Ozone (O_3) is formed by chemical reaction between hydrocarbons and nitrogen oxides and its impact is analyzed on a regional scale by monitoring stations.

- Lead (Pb) in the ambient air is monitored on a regional level. In a project scale analysis, impact due to Lead concentration levels are analyzed if a new source, such as lead smelters, is introduced into the environment or if a project is located next to a lead emitter.
- Particulate Matter emissions are associated with both stationary sources and mobile sources. Two sizes of particulate matters are analyzed: Inhalable Particles (PM_{10}) and Fine Particulate Matter ($PM_{2.5}$), where the subscript number refers to the diameter of the particulate matter in micrometers.
- Sulfur Dioxide (SO_2) emission is principally associated with stationary sources that burn oil or coal. These fuels contain sulfur that bond to oxygen atoms in the burning process.

As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for the criteria pollutants by EPA, and New York State has adopted the NAAQS as the State ambient air quality standards. The NO_2, SO_2, and $PM_{2.5}$ standards together with their health-related averaging periods are presented in **Table 2.9-1**.

Table 2.9-1: National and New York State Ambient Air Quality

Pollutant	Averaging Period	National and State Standards
NO_2	Maximum 1-Hour Concentration	0.10 ppm (188 μg/m^3)
	Annual Arithmetic Average	0.053 ppm (100 μg/m^3)
$PM_{2.5}$	24-Hour Concentration	35 μg/m^3
	Average of 3 Consecutive Annual Means	12 μg/m^3
SO_2	Maximum 1-Hour Concentration	75 ppb (196 μg/m^3)
	Annual Arithmetic Mean	30 ppb (80 μg/m^3)

<u>New York State Standards</u>

As mentioned, New York State has adopted the national standard, NAAQS. In addition, the NYSDEC has established guidelines for maximum allowable concentration of "noncriteria pollutants," which are potentially toxic or carcinogenic pollutants. The maximum allowable guidelines set a maximum 1-hour and annual averaging time concentrations and are published in the DAR-1 AGC/SGC Table, where AGC/SGC refers to Annual and Short-term Guideline Concentrations. The most recent DAR-1 guidelines were published on February 12, 2021.

NYSDEC also regulates pollutants that produce discomfort due to odors, where significant discomfort is evaluated on quantity, characteristic or duration.

NYC Interim Guidelines

In addition to the NAAQS, the *2021 CEQR Technical Manual* requires that projects subject to CEQR apply a $PM_{2.5}$ significant impact criteria (based on concentration increments). These criteria are called de minimis and they are more stringent than the NAAQS and the state standards as the criteria set a maximum increase of pollutant concentration that is below the national standard. If the estimated impacts of a proposed project are less than the de minimis criteria, the impacts are not considered to be significant. As outlined in the *2021 CEQR Technical Manual*, $PM_{2.5}$ significant impacts are evaluated as follow:

- Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard; or
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.3 $\mu g/m^3$ at any receptor location for stationary sources.

Background Concentrations

Determination of significant impact criteria is evaluated by adding the background concentrations at the nearest NYSDEC monitoring stations to the concentrations of criteria pollutants in the ambient air of the Affected Area. Background concentrations of NO_2, SO_2, and $PM_{2.5}$—the criteria pollutants relevant for HVAC system fueled by natural gas or fuel oil #2 analysis—were obtained from the NYSDEC's annual report for 2022 at the nearest monitoring stations. **Table 2.9-2** shows the background concentrations.

Table 2.9-2: Background Concentrations (NYSDEC 2022 Report)

Pollutant	Averaging Period	National and State Standards	Background Concentration	Monitoring Station
NO_2	98th Percentile of Daily Maximum 1-hour averaged over last 3 years	188 µg/m3	51.53 ppb (96.9 µg/m3)	Queens
	Annual Arithmetic Mean	100 µg/m3	13.66 ppb (25.69 µg/m3)	
$PM_{2.5}$	24-Hour average of 98th percentile for last 3 years	35 µg/m3	16.5 $\mu g/m^3$	Division Street (F)
	Average of last 3 years annual means	12 µg/m3	9.1 $\mu g/m^3$	
SO_2	99th Percentile of Daily Maximum 1-hour averaged over last 3 years	196 µg/m3	5.73 ppb (14.99 µg/m3)	Queens
	Annual Arithmetic Mean	80 µg/m3	0.37 ppb (0.97 µg/m3)	

The de minimis criteria for $PM_{2.5}$ was evaluated as described in the NYC Interim Guidelines. The concentration increments are presented below:

- 24-hour $PM_{2.5}$ 9.25 $\mu g/m^3$
- Annual $PM_{2.5}$ 0.3 $\mu g/m^3$

Heating and Hot Water Systems

The HVAC analysis considers the potential for emissions from the HVAC systems of the proposed development to significantly impact existing land uses (project-on-existing) within 400 feet, and, if multiple buildings are proposed, the potential of each or all of the proposed developments to significantly impact each other (project-on-project).

As outlined in the *2021 CEQR Technical Manual*, the analysis of buildings' HVAC systems follows stationary sources methodology; a preliminary screening analysis is to be conducted as a first step to predict whether the potential impacts of the heat and hot water system boiler emissions can be significant. This CEQR screening procedure is applicable to buildings that are not less than 30 feet from the nearest building of similar or greater height. Otherwise, a detailed dispersion analysis is required.

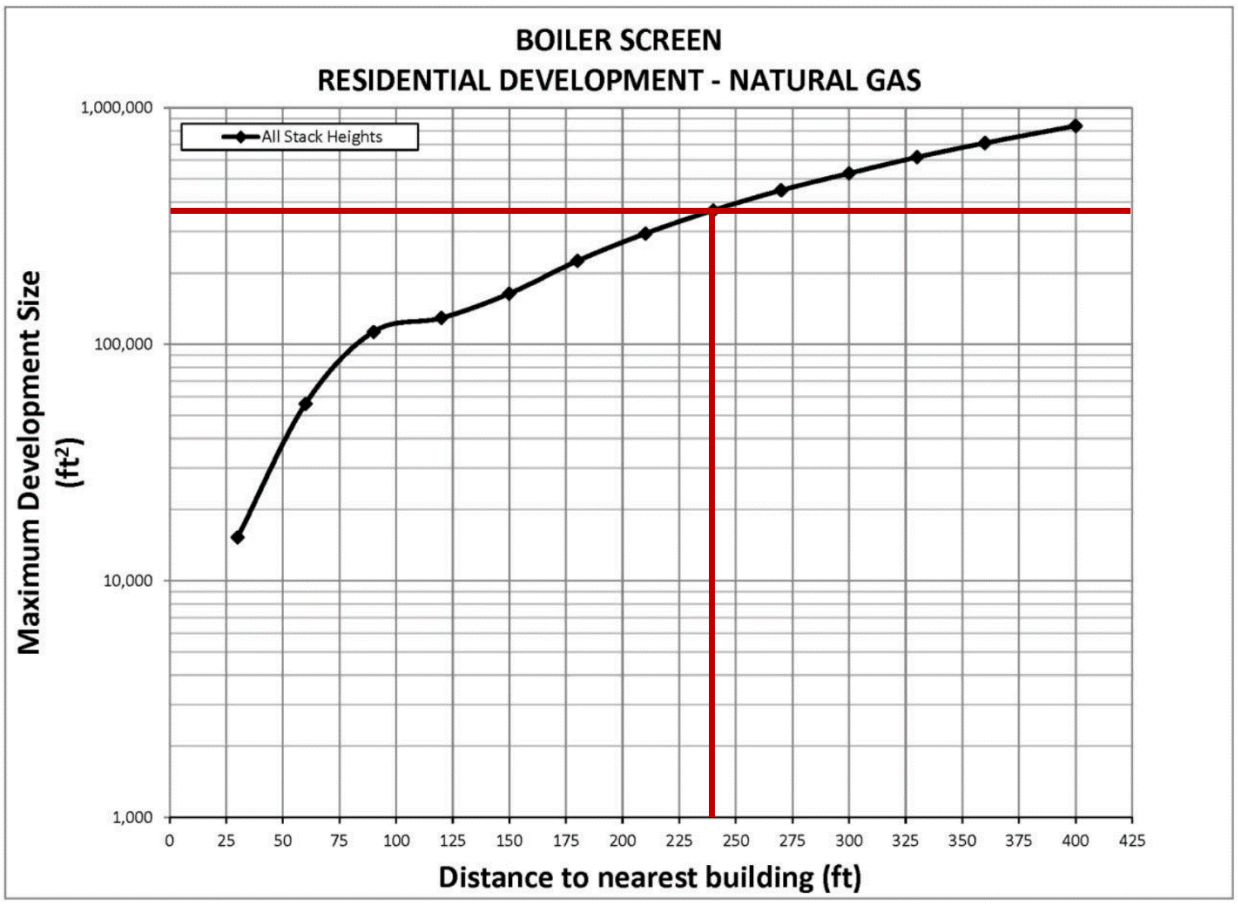
A new stationary source of emissions (HVAC System) would be introduced as a result of the Proposed Actions. The Proposed Development would consist of a 14-story mixed-use building with a natural gas-fueled heat and hot water system. The cellar would consist of parking for the facility, while the ground floor would be used for primarily commercial space with some residential. The second floor would be used as additional commercial space, a community facility space, and residential. The remaining eleven floors would be all residential space.

A screening (project-on-existing) analysis was performed for a residential use HVAC fueled by natural gas to determine if the proposed HVAC system has the potential for adverse stationary source impacts on adjacent receptors. Residential use was specified for screening because it is a more conservative estimate than the non-residential use screening. There is no need for a project-on-project analysis because the Proposed Actions would only introduce a single building.

Impacts from boiler emissions at Projected Development Site 1 are a function of fuel oil type, stack height, the minimum distance from the source to the nearest building, and square footage of the development. The proposed 389,339 GSF development would be heated by a natural gas-fired HVAC system, venting on the roofs at a height of approximately 160 feet (the maximum permitted 145-foot building height plus a 15-foot mechanical bulkhead). The development size of Projected Development Site 1 was plotted on the nomograph for residential developments utilizing natural gas depicted in Figure App 17-2 of the *2021 CEQR Technical Manual* Appendix (**Figure 2.9-1** below). This nomograph indicates the minimum distance between the Proposed Development and buildings of a similar or greater height to avoid a potential air quality impact.

The screening analysis in the nomograph shows that a detailed analysis is required if a building of similar or greater height is 160 feet or closer from the Proposed Development. A review of existing land uses shows that the nearest building of similar or greater height is a 172-foot NYCHA apartment building, located at 1414 Bergen Street (Block 1352, Lot 1), which is approximately 1,440 feet from Projected Development Site 1. The Proposed Actions are too far to cause an impact to the nearest similar sized building, and no further HVAC stationary assessment is warranted.

Figure 2.9-1: Project Development Site 1 Screening Analysis on Existing Land Uses



2.9.4 Stationary Sources Conclusion

Based on the analysis, conditions associated with the Proposed Actions HVAC systems would not result in any violations of the ambient air quality standards. Therefore, there is no reason to believe that the Proposed Actions HVAC systems would potentially cause any significant adverse air quality impacts, and further assessment is not warranted.

2.9.5 Industrial Emissions

400-Foot Study Area

A search of potential industrial sites was performed to identify any NYC DEP, and USEPA1 Air Quality Permits issued within 400 feet of the Affected Area. This Study Area and uses, preliminarily identified as manufacturing or industrial based on NYCDCP MAPPLUTO database, are identified in **Figure 2.9-2**. This search was performed to determine if hazardous air toxics would have the potential to impact the proposed development.

Three (3) sites were originally identified as potentially manufacturing or industrial in nature as identified in **Figure 2.9-2**. These sites were further reviewed for permit activity. As shown in **Table 2.9-3**, three sites were determined to have industrial or manufacturing type uses and none of these have an active DEP industrial permit. Since there are no active emission permits in the surrounding area, there is no potential for significant impact from industrial sources on the Proposed Development.

Table 2.9-3: Industrial/Manufacturing within 400 feet of the Affected Area

Site ID	Block	Lot	Address	Current Use	Industrial Permit Search Results
1	1336	15	1750 Atlantic Avenue	Warehouse	No Record
2	1335	23	1700 Atlantic Avenue	Warehouse	No Record
3	1335	11	1680 Atlantic Avenue	Warehouse	No Record

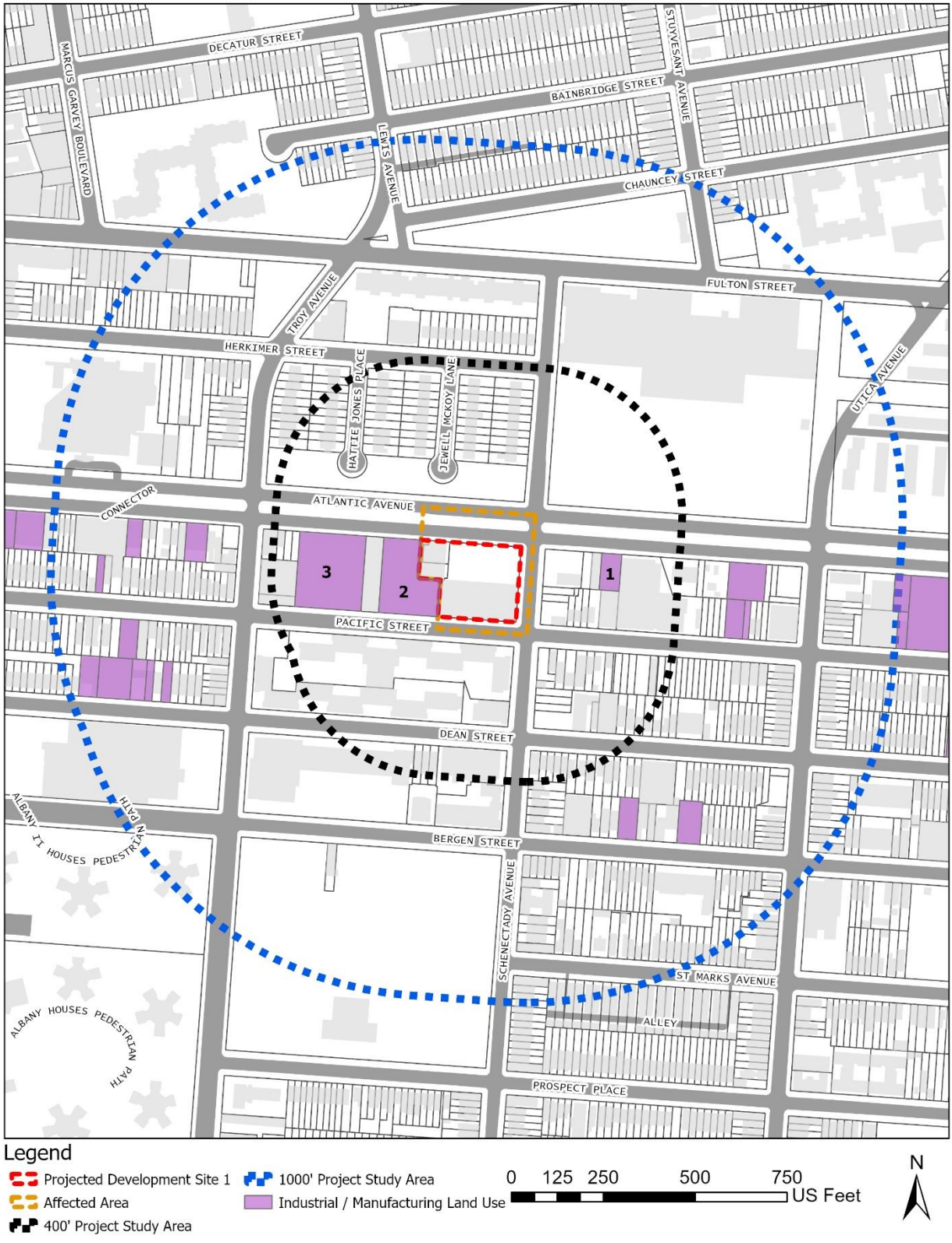
1,000-Foot Study Area

A search of the EPA Envirofacts ICIS-AIR database and the Toxics Release Inventory (TRI) was conducted for all parcels within the 400- and 1000-foot Study Area. The Envirofacts ICIS Air Database contains compliance and permit data for stationary sources of air pollution (such as electric power plants, steel mills, factories, and universities) regulated by EPA, state and local air pollution agencies. The Toxics Release Inventory (TRI) is a publicly available database containing information on toxic chemical releases and other waste management activities in the United States. The search did not identify any large or major sources of industrial emissions or odor-producing facilities within 1,000 feet of the. As such, no further analysis of large emissions sources is warranted.

2.9.6 Industrial Emissions Conclusion

As indicated above, there are no active industrial emissions permits within 400-foot Study Area. No large or major industrial emission sources were identified within the 1,000-foot Study Area. Additionally, there is no evidence present to conclude that there are illegal unpermitted air emissions present in the Study Area. Therefore, there does not appear to be any potentially significant impact in terms of air toxics to project occupants.

Figure 2.9-2: Industrial Emissions Screening



2.10 Noise

Introduction

This Noise Analysis was conducted to assess the potential for adverse noise impacts related to the proposal for a zoning map amendment and two zoning text amendments that would affect Block 1335, Lots 28, 30, and 35 (Projected Development Site 1) in the Crown Heights neighborhood of Brooklyn, Community District 8. The zoning map amendment would rezone Block 1335, Lots 28, 30, and 35 from an M1-1 zoning district to C4-4D, R7A/C2-4, and R7A zoning districts. The zoning text amendments include modifying Appendix F of the Zoning Resolution to establish an area coterminous with the rezoning area as a Mandatory Inclusionary Housing (MIH) area for which Option 1 is being sought by the Applicant. The Applicant is also seeking a text amendment pursuant to ZR § 35-66 to widen the existing sidewalk along Atlantic Avenue to a width of 20 feet.

Projected Development Site 1, also known as Block 1335, Lots 28, 30, and 35, is bounded by Atlantic Avenue to the north, Schenectady Avenue to the east, Pacific Street to the south, and Troy Avenue to the west. Atlantic Avenue is a main east-west thoroughfare through the area and is classified as a Principal Arterial Roadway by the New York State Department of Transportation (NYSDOT); it is considered a wide road with 120 feet in width and includes three moving lanes of traffic in each direction with elevated rail tracks running down the middle. Schenectady Avenue is a north to south one-way right-of-way that is classified as a Minor Arterial Road by NYSDOT with two moving lanes of traffic and curbside parking. Pacific Street is an east to west one-way right-of-way that is classified as a Local Road by NYSDOT with a single moving lane of traffic, a bike lane, and curbside parking. Troy Avenue is a south to north one-way road that is classified as a Minor Arterial Road with two moving lanes of traffic and curbside parking.

This noise analysis is limited to an assessment of ambient noise that could adversely affect building occupants of the proposed development.

Framework of Noise Analysis

Noise is defined as any unwanted sound, and sound is defined as any pressure variation that the human ear can detect. Humans can detect a large range of sound pressures, from 20 to 20 million micropascals, but only those air pressure variations occurring within a particular set of frequencies are experienced as sound. Air pressure changes that occur between 20 and 20,000 times a second, stated as units of Hertz (Hz), are registered as sound.

Because the human ear can detect such a wide range of sound pressures, sound pressure is converted to sound pressure level (SPL), which is measured in units called decibels (dB). The decibel is a relative measure of the sound pressure with respect to a standardized reference quantity. Because the dB scale is logarithmic, a relative increase of 10 dB represents acoustic

energy that is 10 times higher. However, humans do not perceive a 10-dB increase as 10 times louder. Instead, they perceive it as twice as loud.

Sound is often measured and described in terms of its overall energy, taking all frequencies into account. However, the human hearing process is not the same at all frequencies. Humans are less sensitive to low frequencies (less than 250 Hz) than mid-frequencies (500 Hz to 1,000 Hz) and are most sensitive to frequencies in the 1,000- to 5,000-Hz range. Therefore, noise measurements are often adjusted, or weighted, as a function of frequency to account for human perception and sensitivities. The most common frequency weightings used are the A- and C-weightings. These weight scales were developed to allow sound level meters, which use filter networks to approximate the characteristic of the human hearing mechanism, to simulate the frequency sensitivity of human hearing. The A-weighting is the most commonly used for environmental measurements, and sound levels measured using this weighting are denoted as dBA. The letter "A" indicates that the sound has been filtered to reduce the strength of very low and very high-frequency sounds, much as the human ear does. C-weighting gives nearly equal emphasis to sounds of most frequencies. Mid-range frequencies approximate the actual (unweighted) sound level, while the very low and very high-frequency bands are significantly affected by C-weighting. **Table 2.10-1** notes the decibel levels of common noise sources.

Table 2.10-1: Noise Levels of Common Sources[9]

Sound Source	SPL (dB(A))
Air Raid Siren at 50 feet	120
Maximum Levels at Rock Concerts (Rear Seats)	110
On Platform by Passing Subway Train	100
On Sidewalk by Passing Heavy Truck or Bus	90
On Sidewalk by Typical Highway	80
On Sidewalk by Passing Automobiles with Mufflers	70
Typical Urban Area	60-70
Typical Suburban Area	50-60
Quiet Suburban Area at Night	40-50
Typical Rural Area at Night	30-40
Isolated Broadcast Studio	20
Audiometric (Hearing Testing) Booth	10
Threshold of Hearing	0
Notes: A change in 3dB(A) is a just noticeable change in SPL. A change in 10 dB(A)Is perceived as a doubling or halving in SPL.	

[9] Source: *2021 CEQR Technical Manual*

The following are typical human perceptions of dB(A) relative to changes in noise level:

- 3 dB(A) change is the threshold of change detectable by the human ear;
- 5 dB(A) change is readily noticeable; and
- 10 dB(A) increase is perceived as a doubling of the noise level.

The decrease in sound level caused by the distance from any single noise source normally follows the inverse square law. In a large open area with no obstructive or reflective surfaces, it is a general rule that at distances greater than 50 feet, the SPL from a point source of noise drops off at a rate of 6 dB with each doubling of distance away from the source. For "line" sources, such as vehicles on a street, the SPL drops off at a rate of 3 dBA with each doubling of the distance from the source. Sound energy is absorbed in the air as a function of temperature, humidity, and the frequency of the sound. This attenuation can be up to 2 dB over 1,000 feet. The drop-off rate also will vary with both terrain conditions and the presence of obstructions in the sound propagation path.

The SPL that humans experience typically varies from moment to moment. Therefore, various descriptors are used to evaluate noise levels over time. Some typical descriptors are defined below.

- L_{eq} is the continuous equivalent sound level. The sound energy from the fluctuating SPLs is averaged over time to create a single number to describe the mean energy, or intensity level. High noise levels during a measurement period will have a greater effect on the L_{eq} than low noise levels. L_{eq} has an advantage over other descriptors because L_{eq} values from various noise sources can be added and subtracted to determine cumulative noise levels.
- $L_{eq(24)}$ is the continuous equivalent sound level over a 24-hour time period.
- Lmax is the highest SPL measured during a given period of time. It is useful in evaluating Leqs for time periods that have an especially wide range of noise levels.
- L_{dn} is the day-night equivalent sound level, defined as a 24-hour continuous Leq with a 10 dB adjustment added to all hourly noise levels recorded between the hours of 10 PM and 7 AM. This 10 dB addition accounts for the extra sensitivity people have to noise during typical sleeping hours.
- DNL is the annual average day-night average sound level. Aircraft noise around airports is usually mapped out in terms of DNL, which are normally depicted as noise contours on a map.

The sound level exceeded during a given percentage of a measurement period is the percentile-exceeded sound level (L_X). Examples include L_{10}, L_{50}, and L_{90}. L_{10} is the A-weighted sound level that is exceeded 10% of the measurement period.

Noise Standards and Guidelines

In 1983, the New York City Department of Environmental Protection (NYCDEP) adopted the CEQR noise exposure guidelines for exterior noise levels. As shown in **Table 2.10-2** below, noise standards classify noise exposure into four categories based on noise level limits and land use, for vehicular traffic, rail, and aircraft noise sources: Acceptable, Marginally Acceptable, Marginally Unacceptable and Clearly Unacceptable, Table 19-3 of the *2021 CEQR Technical Manual* defines attenuation requirements for buildings based on exterior noise exposure levels. Recommended noise attenuation values for buildings are designed to maintain interior L_{10} noise levels of 45 dB(A) or below or interior Ldn noise levels of 40 dB(A) or below depending on the noise source, as shown below in **Table 2.10-3**.

Table 2.10-2: Noise Exposure Guidelines for Use in City Environmental Impact Review

Receptor Type	Time Period	Acceptable General External Exposure	Airport[3] Exposure	Marginally Acceptable General External Exposure	Airport[3] Exposure	Marginally Unacceptable General External Exposure	Airport[3] Exposure	Clearly Unacceptable General External Exposure	Airport[3] Exposure
1. Outdoor area requiring serenity and quiet[2]		$L_{10} \leq 55$ dBA	----------DNL ≤ 60 dBA----------		----------60 < DNL ≤ 65 dBA----------		(I) 65 < DNL ≤ 75 dBA		---------- 75 dBA < DNL ----------
2. Hospital, nursing home		$L_{10} \leq 55$ dBA		55 < $L_{10} \leq 65$ dBA		65 < $L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
3. Residence, residential hotel, or motel	(7 AM to 10 PM)	$L_{10} \leq 65$ dBA		65 < $L_{10} \leq 70$ dBA		70 < $L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
	(10 PM to 7 AM)	$L_{10} \leq 55$ dBA		55 < $L_{10} \leq 70$ dBA		70 < $L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
4. School, museum, library, court, house of worship, transient hotel or motel, public meeting room, auditorium, out-patient public health facility		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	
5. Commercial or office		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	
6. Industrial, public areas only[4]	Note 4	Note 4		Note 4		Note 4		Note 4	

Notes:

(i) In addition, any new activity shall comply with Impact Thresholds detailed in Section 410.

[1] Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by American National Standards Institute (ANSI) Standards; all values are for the worst hour in the time period.

[2] Tracts of land where serenity and quiet are extraordinarily important and serve as important public need, and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. Examples are grounds for ambulatory hospital patients and patients and residents of sanitariums and nursing homes.

[3] One may use the FAA-approved DNL contours supplied by the Port Authority of New York and New Jersey (PANYNJ), or the noise contours may be computed from the federally approved Aviation Environmental Design Tool (AEDT) Computer Model using flight data supplied by the PANYNJ.

[4] External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are listed by octave bands).

Sources: New York City Department of Environmental Protection (adopted policy 1983).

Table 2.10-3: Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Vehicular Traffic	70 < L10 ≤ 73	73 < L10 ≤ 76	76 < L10 ≤ 78	78 < L10 ≤ 80	80 < L10
Aircraft[A]	65 < DNL ≤ 68	68 < DNL ≤ 71	71 < DNL ≤ 73	73 < DNL ≤ 75	75 < DNL
Train	65 < Ldn ≤ 68	68 < Ldn ≤ 71	71 < Ldn ≤ 73	73 < Ldn ≤ 75	75 < Ldn
Attenuation[B]	(i) 28 dB(A)	(ii) 31 dB(A)	(iii) 33 dB(A)	(iv) 35 dB(A)	See Note c

Note:

A. DNL descriptor based on average values of Ldn over a year period.
B. The above composite window-wall attenuation values are for residential dwellings and community facility development. Commercial office spaces and meeting rooms would be 5 dB(A) less in each category. All of the above categories require a closed window situation and hence an alternate means of ventilation.
C. The required attenuation value is the difference between Lbuild and Linterior, using the appropriate noise descriptor Where:
Lbuild is the projected noise level under the build condition rounded up to the whole number
Linterior is the designed interior noise level (45 dB(A) for vehicular noise, 40 dB(A) for aircraft and train noise)

2.10.1 Initial Impact Screening

Future No-Action Condition

Block 1335, Lots 28, 30, and 35 within the Affected Area are all Applicant-controlled. Each lot is developed with a one-story commercial building that makes up a shopping center at the corner of Atlantic Avenue and Schenectady Avenue, with parking provided on Lot 35.

The No-Action Scenario is the same as existing conditions. The existing shopping center would continue to operate. No alternate plans have been filed with the DOB, and the existing M1-1 zoning district's high parking requirement (1 space per 300 SF of uses) and low FAR (1.00) make redevelopment unlikely.

Future With-Action Condition

Projected Development Site 1 (Block 1335, Lots 28, 30, and 35) would total 48,300 SF, and would be developed with a 14-story, 145-foot-tall, 389,339 GSF (305,001 ZSF; 6.31 FAR) mixed-use residential, commercial, and community facility building. The building would include 256,125 GSF (237,153 ZSF; 4.91 FAR) of residential space on floors 3 through 14; 56,030 GSF (50,427 ZSF; 1.04 FAR) of commercial floor area on floors 1 and 2; 21,776 GSF (17,421 ZSF; 0.36 FAR) of community facility use on the 2nd floor; and 55,408 GSF of accessory parking area split between the cellar and ground floor. The existing sidewalk (approximately 14 feet wide) of Projected Development Site 1 along Atlantic Avenue would be widened to a width of 20 feet.

For a conservative analysis under CEQR, the analysis will assume that ground floor commercial uses total 31,689 GSF of supermarket use; the second floor will consider 24,340 GSF of general office use; and the remainder of the second floor will assume 21,776 GSF of UG 4 medical office uses. There would be 279 total dwelling units (1 DU per 850 SF), with 70 units or 25% permanently set aside as affordable. There would be 84 parking spaces required, and a total of 112 parking spaces would be provided.

Stationary Sources

The *2021 CEQR Technical Manual* states that based upon previous studies, unless existing ambient noise levels are very low and/or stationary source levels are very high (and there are no structures that provide shielding), it is unusual for stationary sources to have significant impacts at distances beyond 1,500 feet. A detailed analysis may be appropriate if the Proposed Project would: cause a substantial stationary source (i.e., unenclosed mechanical equipment for manufacturing or building ventilation purposes, playground, etc.) to be operating within 1,500 feet of a receptor, with a direct line of sight to that receptor; or introduce a receptor in an area with high ambient noise levels resulting from stationary sources, such as unenclosed manufacturing activities or other loud uses. Machinery, mechanical equipment, heating, ventilating and air-conditioning units, loudspeakers, new loading docks, and other noise associated with building structures may also be considered in a stationary source noise analysis. Impacts may occur when a stationary noise source is near a sensitive receptor and is unenclosed.

No unenclosed stationary noise sources of concern were observed during field inspections. As the Projected Development Sites are not subject to high ambient noise levels from any nearby stationary source, no stationary source noise impacts from surrounding uses are anticipated. Additionally, it is assumed that the building mechanical systems (i.e., HVAC systems) would be designed to meet all applicable noise regulations (i.e., Subchapter 5, §24-227 of the New York City Noise Control Code, 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, the Proposed Actions would not result in any significant adverse noise impacts related to building mechanical equipment.

Mobile Sources

Pursuant to Section 111 of the *2021 CEQR Technical Manual*, mobile sources are those noise sources that move in relation to a noise-sensitive receptor—principally automobiles, buses, trucks, aircraft, and trains. Each has its own distinctive noise character, and, consequently, an associated set of noise assessment descriptors.

For Mobile Sources, an initial noise assessment may be appropriate if a proposed action would generate additional project-generated vehicular traffic in an area where roadways currently carry no or very low traffic volumes, or where a nearby receptor would potentially be impacted by high ambient noise levels.

Vehicular traffic and rail traffic are the predominant sources of noise in the area. Therefore, the noise analysis presented in this chapter focuses on the operational noise effects of the Proposed Actions to determine the level of building attenuation necessary to ensure that interior noise levels satisfy CEQR requirements. The Proposed Actions are not expected to increase existing noise passenger car equivalents (PCEs) by greater than 100% and would therefore not result in significant adverse noise impacts associated with project-generated vehicles.

2.10.2 Noise Monitoring Results

Measurement Location and Equipment

Because the predominant noise sources in the area of the proposed project consist of train and vehicular traffic, noise monitoring was conducted during peak weekday train and vehicular travel periods (AM, Midday, PM) on a typical midweek day for a 24-hour period at location 1, an hour long period at location 2, and for a 20-minute period at location 3. Noise Monitoring Location One (1) was located on the rooftop level at 1708 Atlantic Avenue approximately fifteen feet above street level; Noise Monitoring Location Two (2) was located at the 1708 Atlantic Avenue frontage at street level; and Noise Monitoring Location Three (3) was located on Pacific Street along the southern portion of 1720 Atlantic Avenue at street level. The noise monitoring locations are shown in **Figure 2.10-1** to **Figure 2.10-4** below.

Noise monitoring was conducted using Type 1 Casella CEL-633 sound level meters with wind screens. The monitors were placed on a tripod at a height of approximately four feet above the ground, away from any other noise-reflective surfaces. The monitors were calibrated prior to and following each monitoring session. Periods of peak vehicular around the Affected Area constitute a worst-case condition for noise at the project site. Noise meter calibration certification and back up data are provided in **Appendix D**.

Figure 2.10-1: Noise Monitoring Locations



Figure 2.10-2: Location 1 – Project Site Roof



Figure 2.10-3: Location 2 – 1708 Atlantic Avenue Frontage



Figure 2.10-4: Location 3 - Southern Portion of 1720 Atlantic Avenue



Existing Conditions

Monitoring was conducted during typical midweek conditions, on Wednesday, June 21, 2023, and Thursday, June 22, 2023. The weather was dry and wind speeds were moderate during all monitoring periods. **Table 2.10-4** to **Table 2.10-6** below contains the results for the measurements taken at Location 1 to Location 3, respectively.

Table 2.10-4: Noise Levels in dBA at Location 1

Start Date & Time	LAeq	LASmin	LAS 10%	LAS 50%	LAS 90%	LASmax
6/21/2023 7:09	78.1 dB	61.7 dB	73.0 dB	67.0 dB	64.0 dB	94.2 dB
6/21/2023 8:09	78.3 dB	62.4 dB	74.0 dB	67.0 dB	65.0 dB	94.3 dB
6/21/2023 9:09	77.1 dB	61.3 dB	71.5 dB	66.5 dB	64.0 dB	94.2 dB
6/21/2023 10:09	74.0 dB	57.7 dB	68.5 dB	63.5 dB	60.5 dB	93.3 dB
6/21/2023 11:09	74.7 dB	57.2 dB	69.0 dB	63.5 dB	60.5 dB	94.4 dB
6/21/2023 12:09	74.7 dB	56.6 dB	70.0 dB	64.0 dB	60.5 dB	94.1 dB
6/21/2023 13:09	75.6 dB	57.8 dB	70.0 dB	64.0 dB	61.0 dB	98.8 dB
6/21/2023 14:09	74.5 dB	58.0 dB	70.5 dB	64.5 dB	61.5 dB	93.5 dB
6/21/2023 15:09	73.8 dB	57.5 dB	69.5 dB	64.5 dB	61.0 dB	93.2 dB
6/21/2023 16:09	78.6 dB	58.5 dB	76.0 dB	65.5 dB	61.5 dB	95.7 dB
6/21/2023 17:09	77.4 dB	57.7 dB	75.0 dB	65.5 dB	61.5 dB	93.4 dB
6/21/2023 18:09	77.2 dB	57.9 dB	74.5 dB	65.0 dB	60.5 dB	93.7 dB
6/21/2023 19:09	75.4 dB	54.1 dB	69.0 dB	64.5 dB	59.5 dB	93.3 dB
6/21/2023 20:09	74.5 dB	53.1 dB	68.0 dB	62.0 dB	57.0 dB	96.4 dB
6/21/2023 21:09	74.9 dB	52.9 dB	69.0 dB	62.5 dB	57.5 dB	94.1 dB
6/21/2023 22:09	74.3 dB	51.6 dB	67.5 dB	62.0 dB	57.0 dB	93.2 dB
6/21/2023 23:09	76.1 dB	51.0 dB	69.0 dB	61.5 dB	56.0 dB	97.4 dB
6/22/2023 0:09	75.4 dB	47.1 dB	67.5 dB	59.0 dB	51.0 dB	94.1 dB
6/22/2023 1:09	71.8 dB	49.8 dB	66.0 dB	58.0 dB	52.5 dB	93.9 dB
6/22/2023 2:09	60.5 dB	52.7 dB	64.0 dB	56.0 dB	54.0 dB	75.7 dB
6/22/2023 3:09	60.3 dB	52.1 dB	63.0 dB	56.0 dB	53.5 dB	79.6 dB
6/22/2023 4:09	71.5 dB	49.6 dB	66.5 dB	58.0 dB	51.5 dB	92.0 dB
6/22/2023 5:09	73.5 dB	49.8 dB	69.5 dB	65.0 dB	55.0 dB	92.4 dB
6/22/2023 6:09	75.8 dB	55.6 dB	70.0 dB	65.5 dB	62.0 dB	92.6 dB
LDN	80.2					

Table 2.10-5: Noise Levels in dBA at Location 2

Wednesday, June 21, 2023			
Time	**7:30 am – 8:30 am**	**12:00 pm – 1:00 pm**	**4:30 pm – 5:30 pm**
L_{max}	102.5	104.1	102.9
L_{10}	78.0	74.0	77.0
L_{eq}	84.3	79.8	81.9
L_{50}	70.0	68.5	69.0
L_{90}	65.5	64.0	64.5
L_{min}	58.7	56.7	54.1

Table 2.10-6: Noise Levels in dBA at Location 3

Wednesday, June 21, 2023			
Time	**8:33 am – 8:53 am**	**1:03 pm – 1:23 pm**	**5:33 pm – 5:53 pm**
L_{max}	83.1	95.0	95.2
L_{10}	68.5	68.5	69.5
L_{eq}	65.2	69.6	67.5
L_{50}	61.0	63.0	53.0
L_{90}	57.0	57.5	58.5
L_{min}	53.3	52.3	53.3

The traffic volumes (vehicle counts) and vehicle classifications collected during peak vehicular travel periods [morning (AM), noon (MD), and evening (PM)] are shown below in **Table 2.10-7** and **Table 2.10-8**.

Table 2.10-7: Traffic Volumes and Vehicle Classifications Noise Location 2

	7:30 am – 8:30 am	**12:00 pm – 1:00 pm**	**4:30 pm – 5:30 pm**
Car/ Taxi	375	309	402
Van/Light Truck/SUV	435	390	427
Medium Truck	30	22	19
Heavy Truck	15	7	12
Bus	32	22	37
Train	13	9	12

Table 2.10-8: Traffic Volumes and Vehicle Classifications Noise Location 3

	8:33 am – 8:53 am	1:03 pm – 1:23 pm	5:33 pm – 5:53 pm
Car/ Taxi	22	18	27
Van/Light Truck/SUV	24	20	20
Medium Truck	5	3	6
Heavy Truck	0	0	1
Bus	2	1	0

2.10.3 Conclusion

The *2021 CEQR Technical Manual* sets external noise exposure standards, which are classified into four categories: acceptable, marginally acceptable, marginally unacceptable, and clearly unacceptable. Table 19-3 of the *2021 CEQR Technical Manual* defines attenuation requirements for buildings based on exterior noise exposure levels. Recommended noise attenuation values for buildings are designed to maintain interior noise levels of 40 dB(A) or lower where rail movement is the noise source and 45 dB(A) or lower where traffic movements are the noise source.

The LDN at Location 1 was 80.2 dB(A). The highest recorded L_{eq} at Location 2 ground level was 84.3 dB(A) during the morning period. The highest recorded L_{eq} at Location 3 was 69.6 dB(A) during the morning period.

To ensure that no significant adverse impacts related to noise occur as a result of the Proposed Actions, the following E-Designation would be placed on Projected Development Site 1:

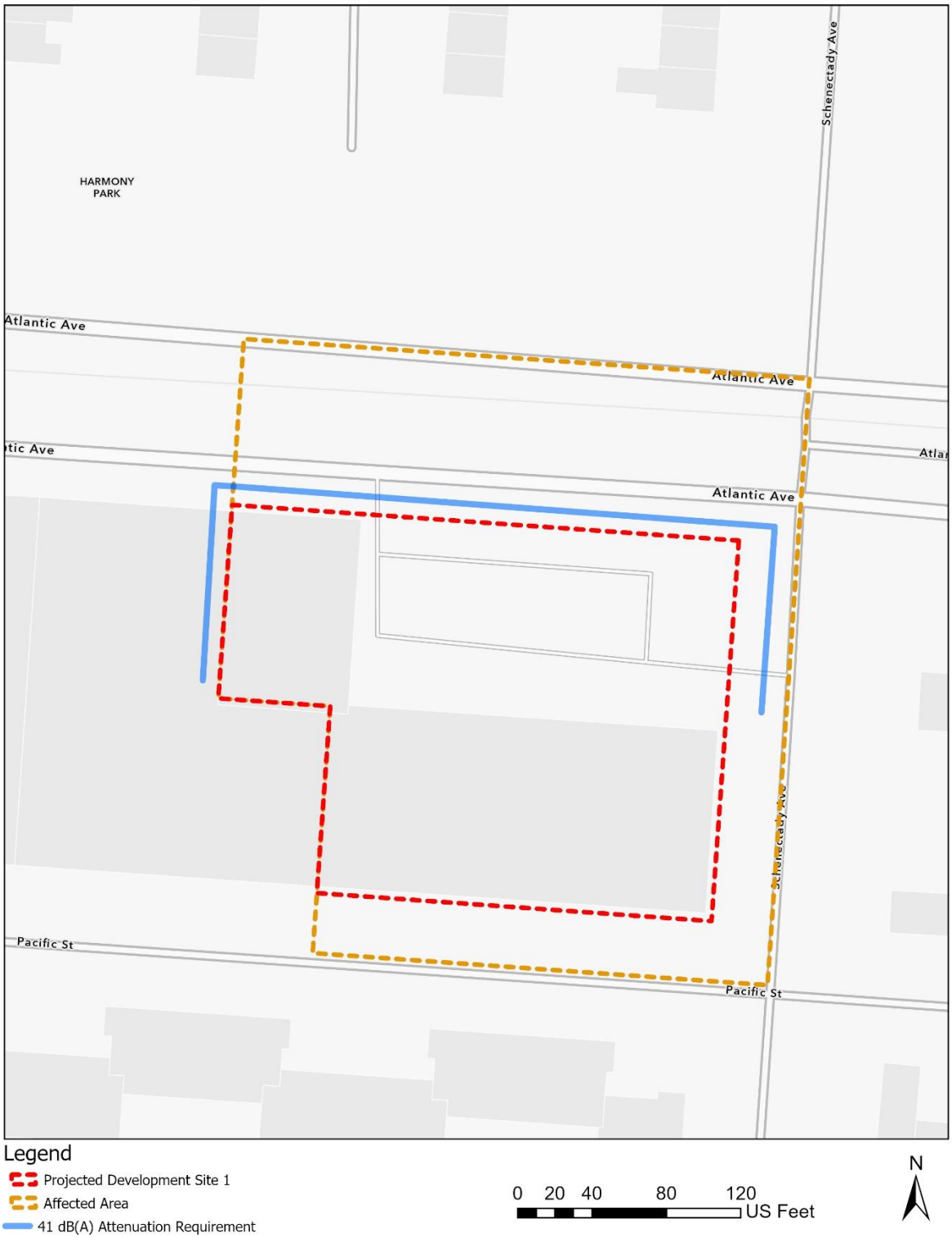
The text for E-Designation would be as follows:

E-XXX

Block 1335, Lots 28, 30, and 35 (Projected Development Site 1): In order to ensure an acceptable interior noise environment, future residential/community facility/commercial office uses must provide a closed-window condition with a minimum of 41 dBA window/wall attenuation on the northern facades facing Atlantic Avenue, Schenectady Avenue for 100 feet from the north, and the eastern façade for 100 feet from the north in order to maintain an interior L10 noise level not greater than 40 dBA for residential/community facility uses or not greater than 45 dBA for commercial office uses. No other façades require attenuation. 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.

The facade attenuation requirements above are detailed in **Figure 2.10-5** below.

Figure 2.10-5: Noise Attenuation Requirements[10]



[10] The above attenuation requirements are for residential and community facility uses. Commercial office uses would require attenuation 5 dBA less.

Appendix A

Agency Correspondence

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: 1720 ATLANTIC AVENUE REZONING
Date Received: 9/9/2020

Properties with no Architectural or Archaeological significance:

1) 1706 ATLANTIC AVENUE, BBL: 3013350028
2) 1708 ATLANTIC AVENUE, BBL: 3013350030
3) 1720 ATLANTIC AVENUE, BBL: 3013350035

Gina Santucci 9/17/2020

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 35165_FSO_DNP_09172020.docx

Appendix B

Illustrative Architectural Drawings



IMC ARCHITECTURE DPC
254 36TH ST, UNIT #21
BLDG#2, 3RD FLR. SUITE C312
BROOKLYN, NY 11232

1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

AREA PLAN

DATE: 04/22/20

JOB NUMBER: 1980

A-0

Location				**1720 Atlantic Avenue, Brooklyn NY 11213**
Block				**1335**
Lots				**35, 28, 30**
Zoning Map				**17a**
Zoning district				**Proposed C4-4D, R7A & C2-4**
Special district				**N/A**
Inclusionary Housing (Appendix F)				**MIH**
Transit Zone (Appendix I) Within				**Within the Transit Zone**
Community District				**BK8**
Special Flood Hazard District (Not a Flood Zone)				**3604970216F**
CEQR # (Appendix C)				**N/A**
Lot Area				
Total Lot Dimensions		**270.00' x 210.00' IRR**		
Total Lot Area SF		**48,300.00**		
Zoning District	**C4-4D**	**R7A/C2-4**	**R7A**	
Lot Dimensions	**270.00' x 100.00'**	**100.00' x 100.00'**	**110.00' x 100.00' IRR**	
Lot Area SF	**27,000.00**	**10,000.00**	**11,300.00**	
Use	**Allowable**	**Allowable**	**Allowable**	**Proposed**
Use Groups	1-6, 8-10 and 12	1-9 and 14	1 through 4	**2, 3, 4 & 6**
Use Groups			N/A	
Bulk	**Allowable**	**Allowable**	**Allowable**	**Existing/ Proposed**
In C2-4 mapped withinan R7A District and in a C4-4D District all buildings shall comply with the bulk regulations for Quality Housing buildings set forth in this Chapter, and the applicable provisions of Article II, Chapter 8 Quality Housing Program.			N/A	
FAR	**Allowable**	**Allowable**	**Allowable**	**Existing/ Proposed**
Residential Bulk Equivalent from C4-4D = R8A				
Residential FAR (MIH)	**7.20**	**4.60**	**4.60**	**4.05**
Allowable Residential SF (MIH)	**194,400.00**	**46,000.00**	**51,980.00**	
Total Residential SF			**292,380.00**	**195,429.28**
Community Facility FAR	**6.50**	**4.00**	**4.00**	**0.36**
Max Allowable Community Facility SF	**175,500.00**	**40,000.00**	**45,200.00**	
Total Community Facity SF			**260,700.00**	**17,420.54**
Commercial FAR	**3.40**	**2.00**		**1.04**
Max Allowable Commercial SF	**91,800.00**	**20,000.00**	**N/A**	
Total Commercial SF		**111,800.00**		**50,426.66**
Maximum Lot Coverage	**Allowable**	**Allowable**	**Allowable**	**Proposed**
Residential Corner Lot Coverage % (100%)	**100.00%**	**100.00%**	**100.00%**	
Max Residential Interior Lot Coverage SF	**10,000.00**	**10,000.00**	**0.00**	
Residential Interior Lot Coverage %	**70.00%**	**65.00%**	**65.00%**	
Max Residential Interior Lot Coverage SF	**11,900.00**	**0.00**	**7,345.00**	
Total Allowable Lot Coverage SF	**21,900.00**	**10,000.00**	**7,345.00**	
Proposed Lot Coverage	**18,120.00**	**8,400.00**	**6,600.00**	**33,120.00**
Density Regulation	**Allowable**	**Allowable**	**Allowable**	**Proposed**
The maximum number of dwelling units on a zoning lot shall equal the maximum residential floor area permitted for the zoning lot.				
Density Factor	680	680	680	
Allowable Residential DU	**285.88**	**67.65**	**76.44**	
Total allowabe residential DU			**429.97**	
Proposed Residential Units	**194.00**	**40.00**	**44.00**	**278.00**
Yard Regulations	**Allowable**	**Allowable**	**Allowable**	**Proposed**
Side Yard - Residential / Commercial / Community Facility		0'-0" or a Minimum of 8'-0" if provided.		**0'-0"**
Rear Yard - Residential			30'-0"	**35'-0" (minimum)**
Rear Yard - Commercial / Community Facility		20'-0"		**0-'0"**
Rear Yard - Within 100'-0" of a corner		0'-0"		**0'-0"**
Rear Yard - Along the short dimension of the block: whenever a front lot line of a zoning lot coincides with all or part of a street line measuring less than 230 feet in length between two intersecting streets, no rear yard shall be required within 100 feet of such front lot line.		0'-0"	N/A	**0-0""**
Permitted Obstruction in Rear Yard: Any building or portion of a building used for any permitted use other than residences, and provided that the height of such building shall not exceed one story, nor in any event 23 feet above curb level.				**N/A**
Height/Setback	**Allowable**	**Allowable**	**Allowable**	**Proposed**
Building shall follow the Quality Housing requirements.				
Min Base Height - MIH	60'-0"	40'-0"	40'-0"	**86'-0" Base height in C4-4D**
Max Base Height -MIH	105'-0"	75'-0"	75'-0"	**48'-0" - 75'-0" Base Height in R7A**
Max Building Height - MIH	140'-0"	90'-0"	90'-0"	**140'-0" in C4-4D**
Max Building Height - MIH with Qualifying ground floors.	145'-0"	95'-0"	N/A	**86'-0" in R7A**
Max Number of Stories - MIH.	14 stories	9 stories	9 stories	**13 Stories in C4-4D** **8 Stories in R7A**
Min Req Setback Beyond Max Base Height - Wide Street	10'-0"	10'-0"	10'-0"	**10'-0"**
Min Req Setback Beyond Max Base Height - Narrow Street	15'-0"	15'-0"	15'-0"	**15'-0"**

Street Wall Location	**Allowable / Required**	**Allowable / Required**	**Allowable / Required**	**Proposed**
(1) at least 70 percent of the aggregate width of street walls shall be located within eight feet of the street line and shall extend to at least the minimum base height, or the height of the building, whichever is less. Up to 30 percent of the aggregate width of street walls may be recessed beyond eight feet of the street line, provided that any such recesses deeper than 10 feet along a wide street or 15 feet along a narrow street are located within an outer court; (3) for zoning lots bounded by more than one street line, these street wall location provisions shall be mandatory along only one street line; and	N/A	Applies	N/A	
(1) The street wall shall be located on the street line and extend along the entire street frontage of the zoning lot up to at least the minimum base height specified in Section 35-652 and 23-662, or the height of the building, whichever is less. However, to allow articulation of street walls at the intersection of two street lines, the street wall may be located anywhere within an area bounded by the two street lines and a line connecting such street lines at points 15 feet from their intersection, or, for corner lots with an angle of 75 degrees or less, at points 30 feet from their intersection (2) Above a height of 15 feet above the base plane, or the height of the first story, whichever is lower, up to 30 percent of the aggregate width of street walls may be recessed beyond the street line, provided any such recesses deeper than 10 feet along a wide street, or 15 feet along a narrow street, are located within an outer court. Furthermore, no recesses shall be permitted within 30 feet of the intersection of two street lines except to articulate the street walls as set forth in paragraph (b)(1) of this Section. (3) Where a continuous sidewalk widening is provided on the zoning lot, along the entire block frontage of a street, the boundary of the sidewalk widening shall be considered to be the street line for the purposes of this Section.	Applies	N/A		**Complies**
The *street wall* shall be located no closer to the *street line* than the closest *street wall*, or portion thereof, of an existing adjacent *building* on the same or an adjoining *zoning lot* located on the same *street* frontage, that is both within 10 feet of the *street line* and within 25 feet of such *Quality Housing building*. Where such existing adjacent *building*, or portion thereof, has *street walls* located at varying depths, the *street wall* shall not be located closer to the *street line* than the furthest portion of such existing adjacent *street wall* that is at least five feet in width	N/A		Applies	
Street wall articulation, including, but not limited to, window recesses and structural expression on the building facade, shall be permitted to project or recess beyond the street wall locations established in paragraphs (a), (b), (c) or (d) of this Section, provided such articulation does not exceed a depth or projection of 12 inches. In addition, to accommodate other forms of street wall articulation, such as bay windows, and facade recesses, up to 50 percent of the aggregate width of street wall, at any level, may recess or project beyond such street wall location provisions of this Section, provided that no such recess or projection exceeds a depth of three feet, as measured perpendicular from the street wall, or portion thereof. No projection shall extend beyond the street line, except where encroachments into the public right-of-way are permitted by the New York City Administrative Code.	Applies		N/A	
Court Regulations	**Allowable / Required**			**Proposed**
Wide Outer Courts	30'-0" or more in Width can extend to any depth.			**Complies**
Inner Court	The Area shall be a minimum of 1,200 SF with a minimum dimension of 30'-0"			**80'-0" x 210'-0" IRR, 14,700 SF**
Parking Requirement	**Required**	**Required**	**Required**	**Proposed**
Required Residential Parking %	40.00%	30.00%	50.00%	
Market Rate Units	146	30	33	
Required Parking Spaces	58	9	17	
Total Required Parking Spaces			84	**112**
Income Restricted Housing Units - Not required when within the transit zone.	0	0	0	
Income Restricted Units	49	10	11	
Total Required Spaces	0	0	0	**0**
Commercial or Community Facility Parking	Depend on Use	Depend on Use		
Waiver of Commercial / Community Facility Parking Spaces.	Less than 40 spaces can be waived	Less than 40 spaces can be waived	N/A	**Complies**
Bicycle Enclosed Parking Requirement	**Required**			**Proposed**
Residential	1 per 2 dwelling units			**Complies**
Commercial and Community Facility	Depend on Use			**Complies**
Notes				
Lot area based on the on-line digital tax map				
The information contained in the above report is the opinion of IMC Architecture DPC's interpretation of the various NYC construction codes and laws referenced therein. It is also based on the information that you have provided. As this opinion is only adversary, the final decision is the responsibility of the designated authority charged with the administration and the enforcement of said codes.				

Floor	Elev	Residential Gross Area	Community Facilty Gross Area	Accessory Parking	Commercial Gross Area	Total Gross Area	QH & MH Deductions Res	QH & MH Deduction CF	MH Deduction Commercial	Residential ZFA	Total Residential FAR	Community Facilty ZFA	Total Community Facilty FAR	Commercial ZFA	Total Commercial FAR	Total Zoning FA	Total Zoning FAR	Res 0 BR	Res 1 BR	Res 2BR	Res 3 BR	Total DU
C	-10	2,918.83	0.00	43,221.17	0.00	**46,140.00**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0
1	0.0	3,651.97	772.08	10,026.60	31,689.34	**46,139.99**	730.39	154.42	3,168.93	2,921.58	0.06	617.66	0.01	28,520.41	0.59	32,059.65	0.66	0	0	0	0	0
2	15.0	796.13	21,003.59	0.00	24,340.28	**46,140.00**	159.23	4,200.72	2,434.03	636.90	0.01	16,802.87	0.35	21,906.25	0.45	39,346.03	0.81	0	0	0	0	0
3	30.0	33,120.00	0.00	0.00	0.00	**33,120.00**	6,624.00	0.00	0.00	26,496.00	0.55	0.00	0.00	0.00	0.00	26,496.00	0.55	5	15	15	4	39
4	39.0	33,120.00	0.00	0.00	0.00	**33,120.00**	6,624.00	0.00	0.00	26,496.00	0.55	0.00	0.00	0.00	0.00	26,496.00	0.55	5	15	15	4	39
5	48.0	31,320.00	0.00	0.00	0.00	**31,320.00**	6,264.00	0.00	0.00	25,056.00	0.52	0.00	0.00	0.00	0.00	25,056.00	0.52	5	15	15	2	37
6	57.0	30,870.00	0.00	0.00	0.00	**30,870.00**	6,174.00	0.00	0.00	24,696.00	0.51	0.00	0.00	0.00	0.00	24,696.00	0.51	6	15	14	2	37
7	66.0	30,420.00	0.00	0.00	0.00	**30,420.00**	6,084.00	0.00	0.00	24,336.00	0.50	0.00	0.00	0.00	0.00	24,336.00	0.50	7	14	14	2	37
8	75.0	27,795.00	0.00	0.00	0.00	**27,795.00**	5,559.00	0.00	0.00	22,236.00	0.46	0.00	0.00	0.00	0.00	22,236.00	0.46	6	14	10	3	33
9	86.0	12,606.67	0.00	0.00	0.00	**12,606.67**	2,521.33	0.00	0.00	10,085.34	0.21	0.00	0.00	0.00	0.00	10,085.34	0.21	2	3	7	1	13
10	97.0	12,606.67	0.00	0.00	0.00	**12,606.67**	2,521.33	0.00	0.00	10,085.34	0.21	0.00	0.00	0.00	0.00	10,085.34	0.21	1	4	7	1	13
11	108.0	9,940.00	0.00	0.00	0.00	**9,940.00**	1,988.00	0.00	0.00	7,952.00	0.16	0.00	0.00	0.00	0.00	7,952.00	0.16	3	4	3	1	11
12	119.0	9,940.00	0.00	0.00	0.00	**9,940.00**	1,988.00	0.00	0.00	7,952.00	0.16	0.00	0.00	0.00	0.00	7,952.00	0.16	2	5	3	1	11
13	130.0	7,190.00	0.00	0.00	0.00	**7,190.00**	1,438.00	0.00	0.00	5,752.00	0.12	0.00	0.00	0.00	0.00	5,752.00	0.12	1	5	1	1	8
Roof / Bulkhead	140.0	910.16	0.00	0.00	0.00	**910.16**	182.03	0.00	0.00	728.13	0.02	0.00	0.00	0.00	0.00	728.13	0.02	0	0	0	0	0
		247,205.43	21,775.67	53,247.77	56,029.62	378,258.49	48,857.32	4,355.13	5,602.96	195,429.28	4.05	17,420.54	0.36	50,426.66	1.04	263,276.47	5.45	43	109	104	22	278
																		15%	39%	37%	8%	100%

Quality Housing & Mechanical deductions each include 1% of floor area.

UNIT COUNT PER ZONE			
Floor	C4-4D (40%)	R7A/C2-4 (30%)	R7A (50%)
C	0	0	0
1	0	0	0
2	0	0	0
3	23	8	8
4	23	8	8
5	23	6	8
6	23	6	8
7	23	6	8
8	23	6	4
9	13	0	0
10	13	0	0
11	11	0	0
12	11	0	0
13	8	0	0
TOTAL	**194**	**40**	**44**
REQ. # OF PARKING	78	12	22
TOATAL	**112**		

IMC ARCHITECTURE

IMC ARCHITECTURE DPC
254 36TH ST, UNIT #21
BLDG#2, 3RD FLR. SUITE C312
BROOKLYN, NY 11232

1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

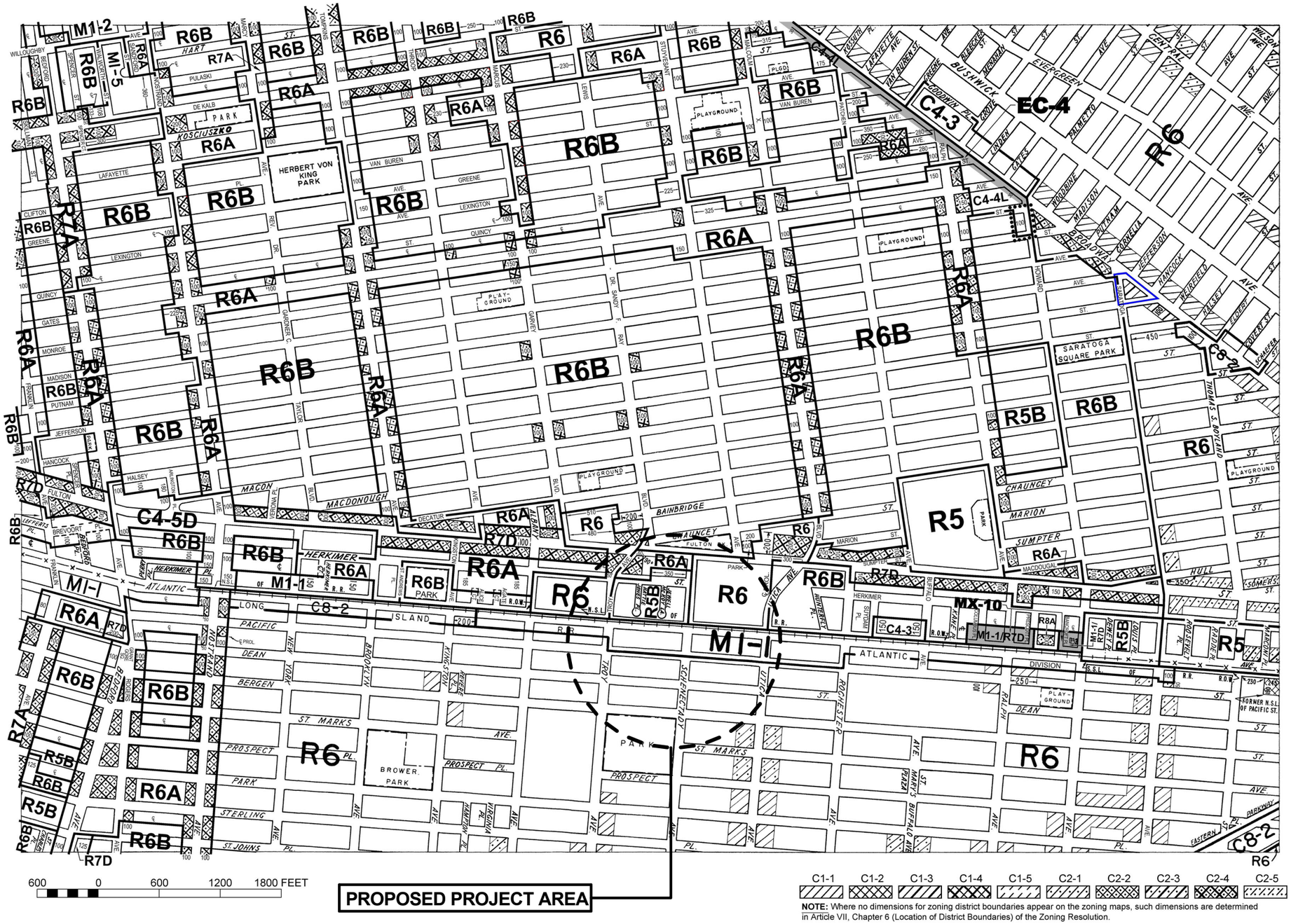
ZONING ANALYSIS

DATE: 04/22/20

JOB NUMBER: 1980

A-1

Click blue outline on map to view diagram of **proposed** zoning change



C1-1 C1-2 C1-3 C1-4 C1-5 C2-1 C2-2 C2-3 C2-4 C2-5

NOTE: Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined in Article VII, Chapter 6 (Location of District Boundaries) of the Zoning Resolution.

ZONING MAP

THE NEW YORK CITY PLANNING COMMISSION

Major Zoning Classifications:

The number(s) and/or letter(s) that follows an **R**, **C** or **M** District designation indicates use, bulk and other controls as described in the text of the Zoning Resolution.

R – RESIDENTIAL DISTRICT

C – COMMERCIAL DISTRICT

M – MANUFACTURING DISTRICT

SPECIAL PURPOSE DISTRICT
The letter(s) within the shaded area designates the special purpose district as described in the text of the Zoning Resolution.

AREA(S) REZONED

Effective Date(s) of Rezoning:

06–26–2019 C 180292 ZMK

Special Requirements:

For a list of lots subject to CEQR environmental requirements, see APPENDIX C.

For a list of lots subject to "D" restrictive declarations, see APPENDIX D.

For Inclusionary Housing designated areas and Mandatory Inclusionary Housing areas on this map, see APPENDIX F.

N

MAP KEY

12d	13b	13d
16c	**17a**	17c
16d	17b	17d

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ZONING MAP **17a**

NOTE: Zoning information as shown on this map is subject to change. For the most up-to-date zoning information for this map, visit the Zoning section of the Department of City Planning website: **www.nyc.gov/planning** or contact the Zoning Information Desk at (212) 720-3291.

IMC ARCHITECTURE DPC
254 36TH ST, UNIT #21
BLDG#2, 3RD FLR. SUITE C312
BROOKLYN, NY 11232

1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

ZONING MAP
DATE: 04/22/20
JOB NUMBER: 1980

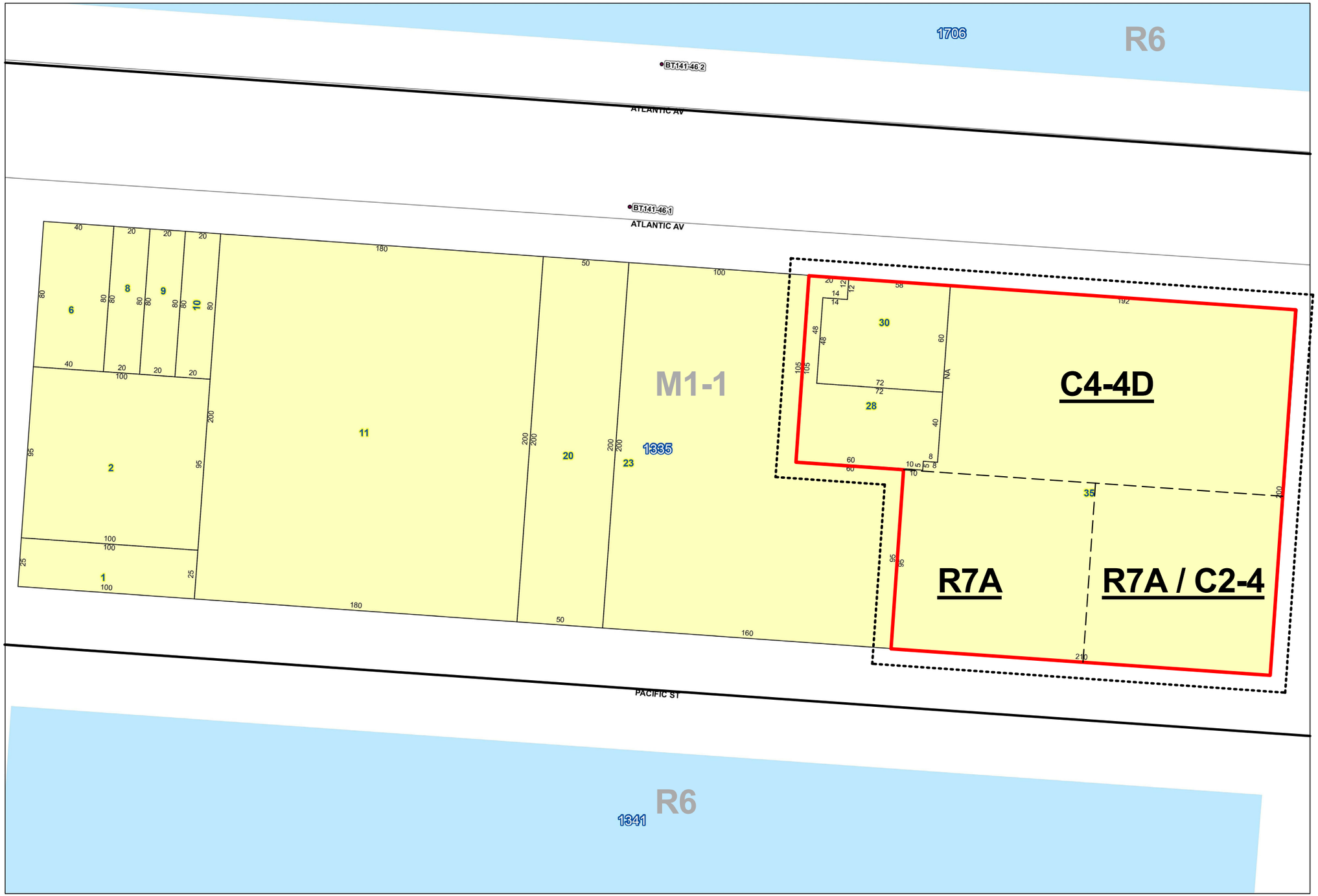
A-2

FINANCE NEW • YORK
MARTHA E. STARK
COMMISSIONER

NYC Digital Tax Map

Effective Date : 12-04-2008 15:47:31
End Date : Current

Brooklyn Block: 1335



Legend

- Streets
- Miscellaneous Text
- Possession Hooks
- Boundary Lines
- Lot Face Possession Hooks
- Regular
- Underwater
- Tax Lot Polygon
- Condo Number
- Tax Block Polygon
- **ZONING DISTRICT LINE**
- **DEVELOPMENT SITE**
- **AREA REZONING**
- **C4-4D** PROPOSED ZONING DISTRICT
- **R7A / C2-4** PROPOSED ZONING DISTRICT
- **R7A** PROPOSED ZONING DISTRICT
- M1-1 EXISTING ZONING DISTRICT

Feet
0 125 250

IMC ARCHITECTURE DPC
254 36TH ST, UNIT #21
BLDG#2, 3RD FLR. SUITE C312
BROOKLYN, NY 11232

1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

TAX MAP
DATE: 04/22/20
JOB NUMBER: 1980

A-3

1720 Atlantic Ave Area Map

Project

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

Zoning

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

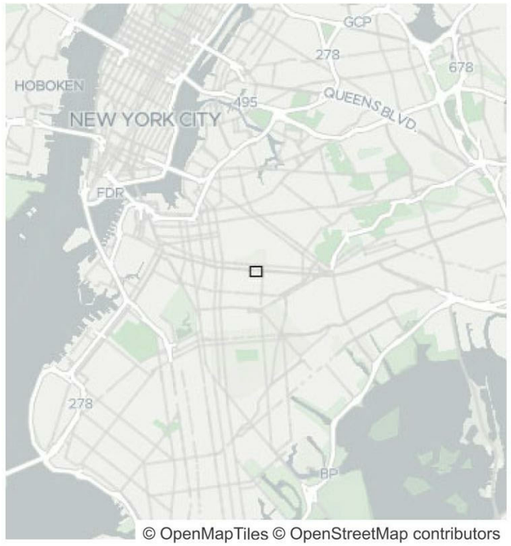
Land Use

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Instiutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

Transportation

- Subway Stop
- Subway Entrance

Map Created: Apr 16, 2020, 8:12pm
Data Sources: layers-api.planninglabs.nyc/v1/sources
pluto MapPLUTO™ 20v2, Bytes of the Big Apple (March 2020); zoning-districts (March 2020); digital-citymap (6 April 2018); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (Dec 2019)



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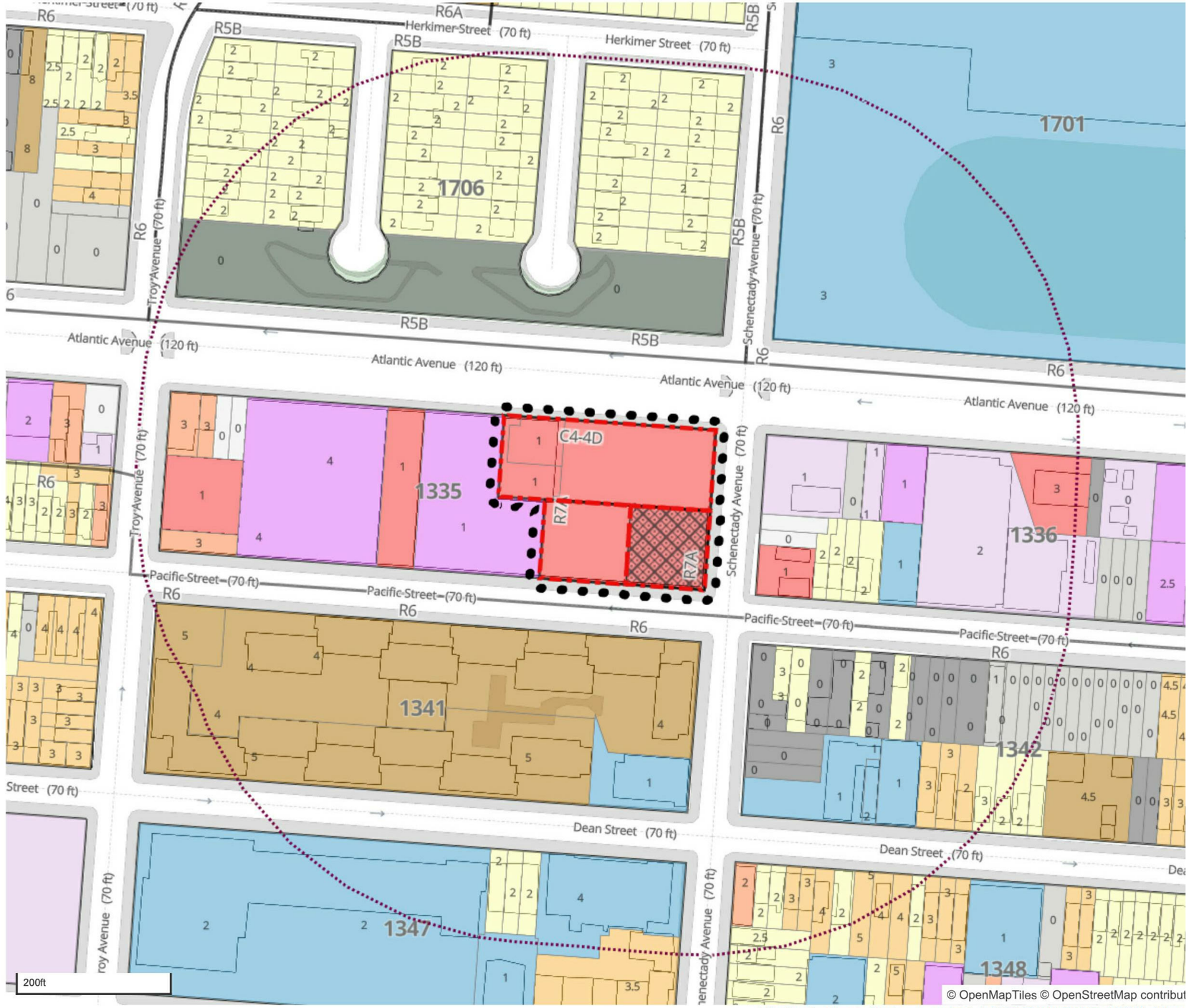

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https://applicantmaps.planning.nyc.gov/projects/NrF%2F4AHhBbMcBhpLYELY/edit/map

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1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

LAND USE MAP
DATE: 04/22/20
JOB NUMBER: 1980

A-4



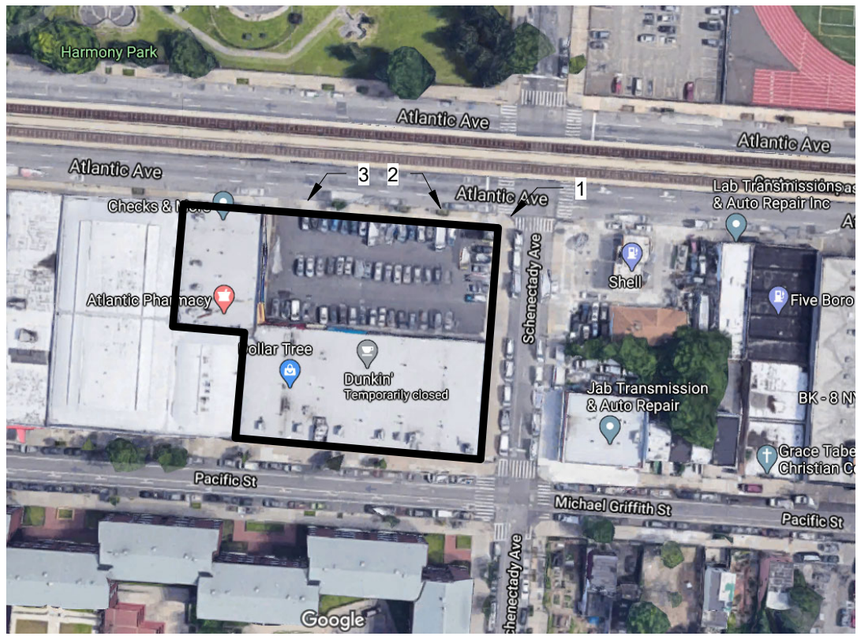
1. VIEW OF THE DEVELOPMENT SITE FACING SOUTHWEST FROM THE INTERSECTION OF SCHENECTADY AVE AND ATLANTIC AVE.



2. VIEW OF THE DEVELOPMENT SITE FACING SOUTHEAST FROM ATLANTIC AVE.



3. VIEW OF THE DEVELOPMENT SITE FACING SOUTHWEST FROM ATLANTIC AVE.



ALL PHOTOGRAPHS TAKEN ON APRIL 23, 2019

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1720 ATLANTIC AVENUE REZONING

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Brooklyn, NY 11213

SITE PHOTOS
DATE: 04/22/20
JOB NUMBER: 1980

A-5



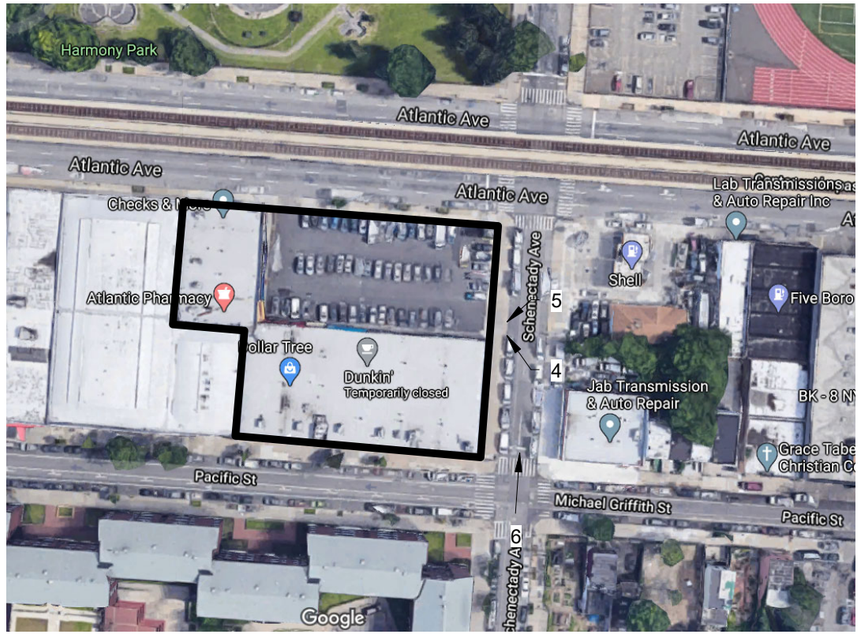
4. VIEW OF THE DEVELOPMENT SITE FACING NORTHWEST FROM SCHENECTADY AVE.



5. VIEW OF THE DEVELOPMENT SITE FACING SOUTHWEST FROM SCHENECTADY AVE.



6. VIEW OF THE DEVELOPMENT SITE FACING NORTH FROM PACIFIC STREET.



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Brooklyn, NY 11213

SITE PHOTOS
DATE: 04/22/20
JOB NUMBER: 1980

A-6



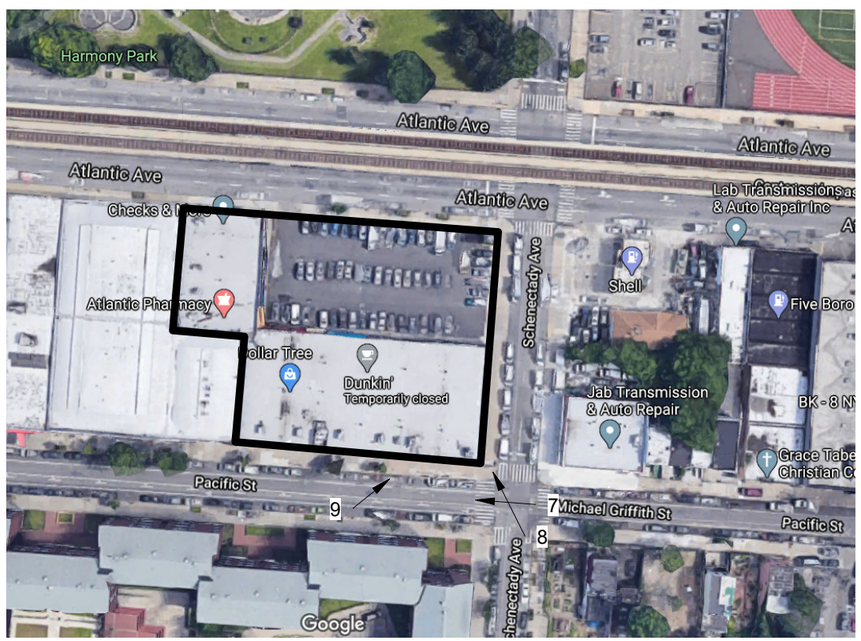
7. VIEW OF PACIFIC STREET FACING WEST FROM SCHENECTADY AVE (DEVELOPMENT SITE AT RIGHT).



8. VIEW OF THE DEVELOPMENT SITE FACING NORTHWEST FROM THE INTERSECTION OF PACIFIC STREET AND SCHENECTADY AVE.



9. VIEW OF THE DEVELOPMENT SITE FACING NORTHEAST FROM PACIFIC STREET.



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1720 ATLANTIC AVENUE REZONING

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SITE PHOTOS
DATE: 04/22/20
JOB NUMBER: 1980

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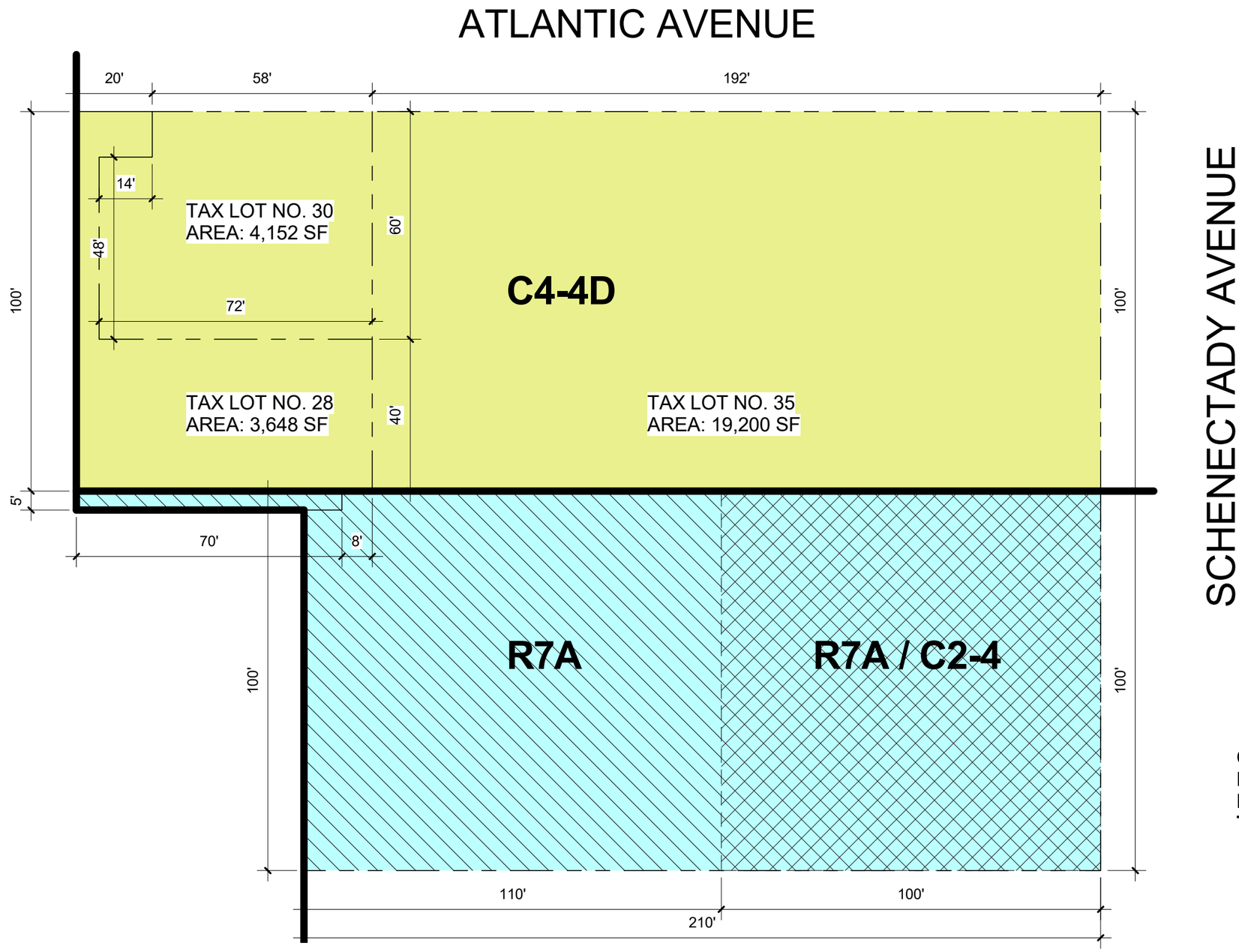

C4-4D LOT AREA: 27,000 SF
R7A/C2-4 LOT AREA: 10,000 SF
R7A: 11,300 SF
TOTAL LOT AREA: 48,300 SF

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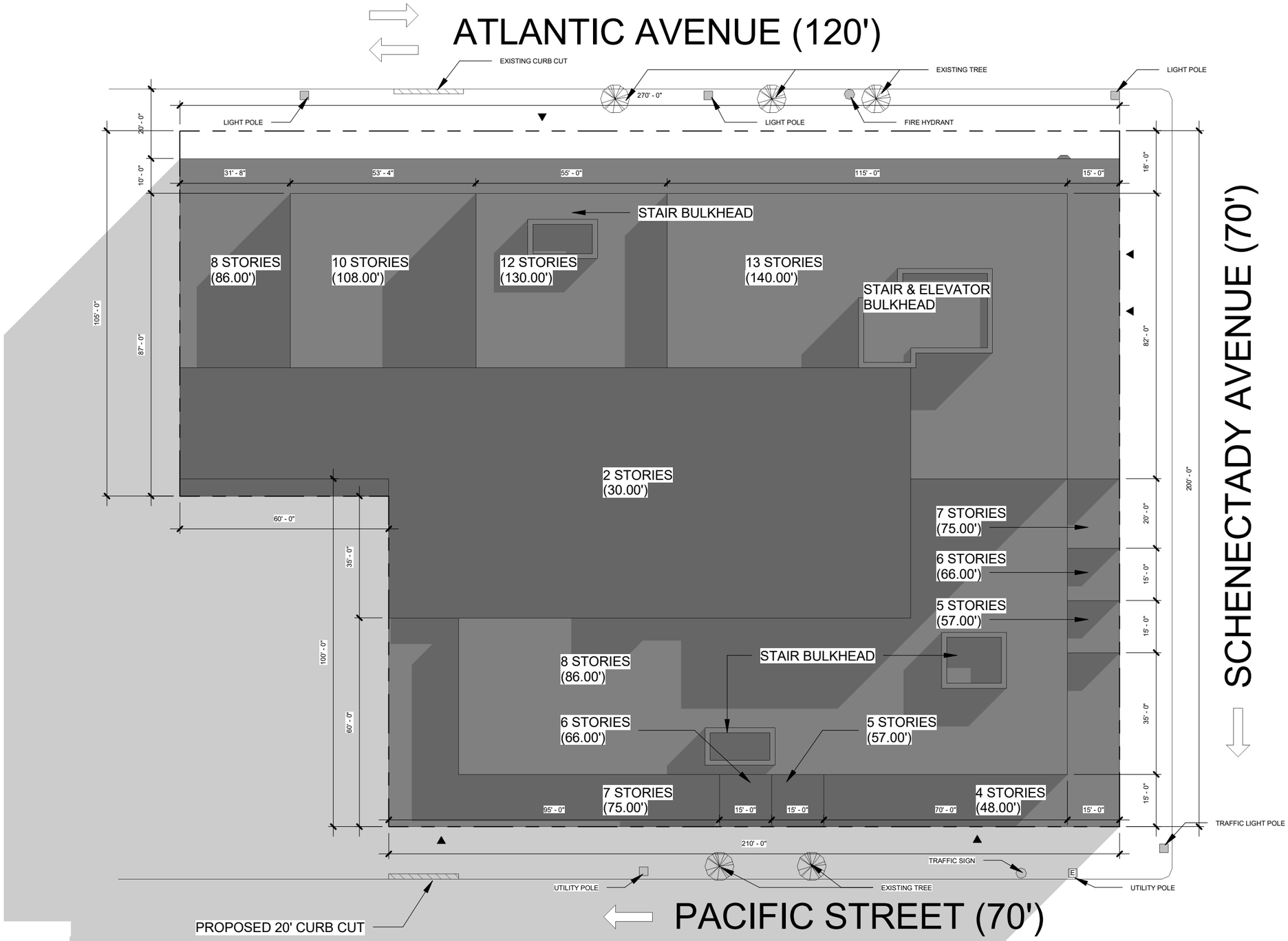
PLOT PLAN
DATE: 04/22/20
JOB NUMBER: 1980

A-8



1 SITE PLAN
1" = 30'-0"

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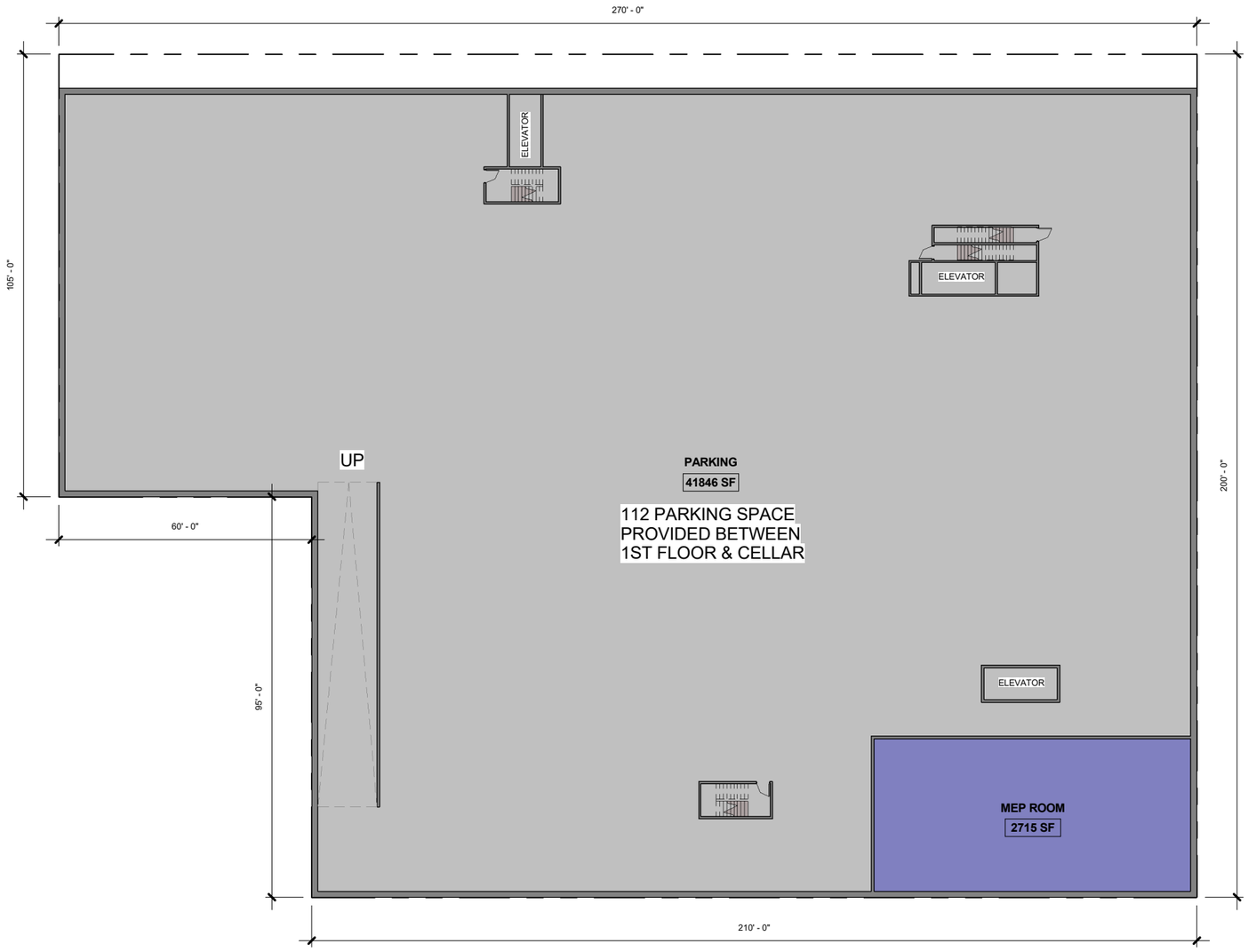
SITE PLAN
DATE: 04/22/20
JOB NUMBER: 1980

A-9



Gross Area (Zone) - Cellar		
Level	**Mass: Type**	**Floor Area**
Cellar	**C4-4D**	**24840 SF**
Cellar	**R7A**	**11300 SF**
Cellar	**R7A/C2-4(1)**	**10000 SF**
Grand total		**46140 SF**

Room Legend

- MEP ROOM
- PARKING

1 Cellar
1/32" = 1'-0"

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1720 ATLANTIC AVENUE REZONING

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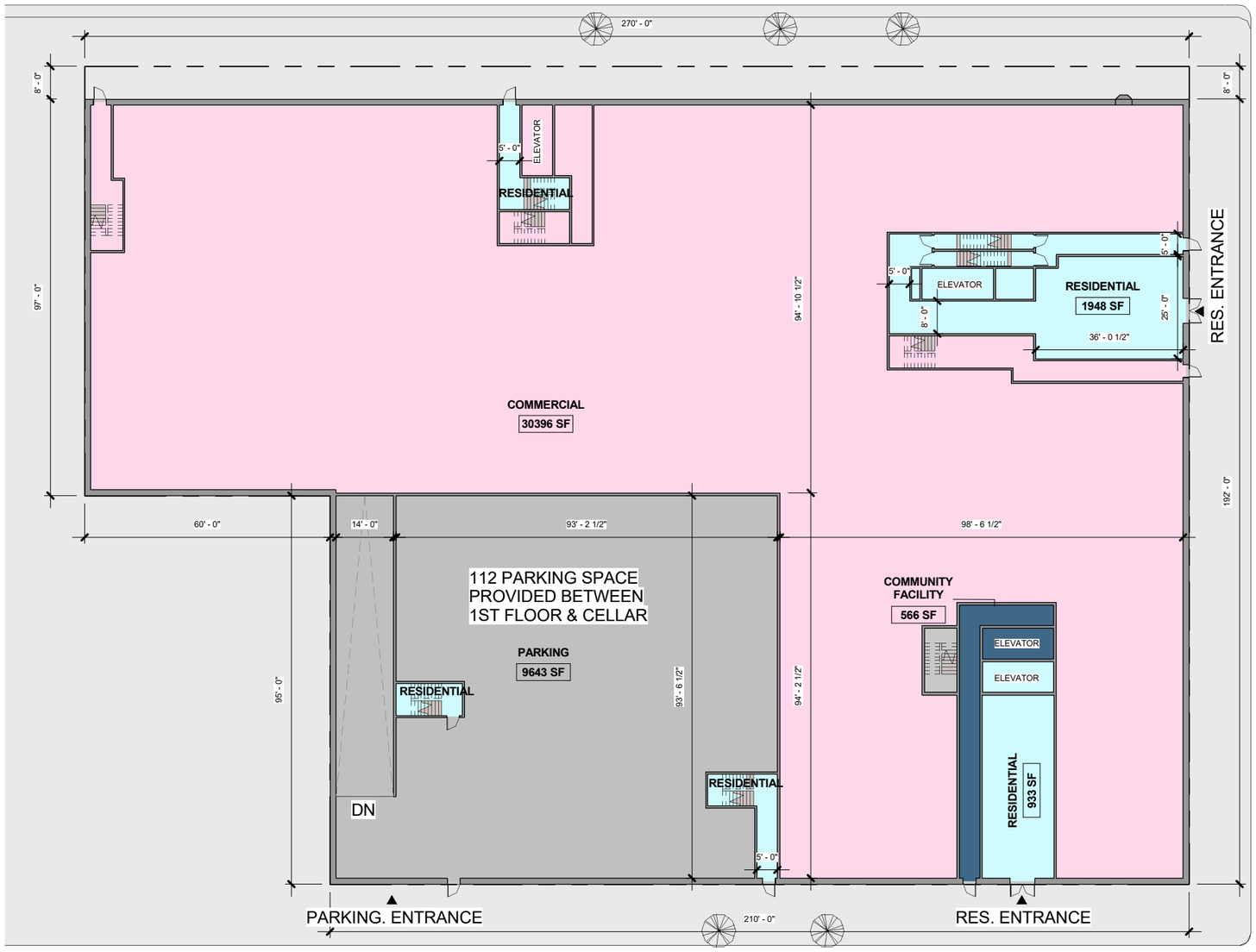
CELLAR FLOOR
DATE: 04/22/20
JOB NUMBER: 1980

A-10



Gross Area (Zone) - 1st Floor		
Level	**Mass: Type**	**Floor Area**
1st Floor	**C4-4D**	**24840 SF**
1st Floor	**R7A**	**11300 SF**
1st Floor	**R7A/C2-4(1)**	**10000 SF**
Grand total		**46140 SF**

Room Legend

- COMMERCIAL
- COMMUNITY FACILITY
- PARKING
- RESIDENTIAL

1 1st Floor
1/32" = 1'-0"

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1ST FLOOR
DATE: 04/22/20
JOB NUMBER: 1980

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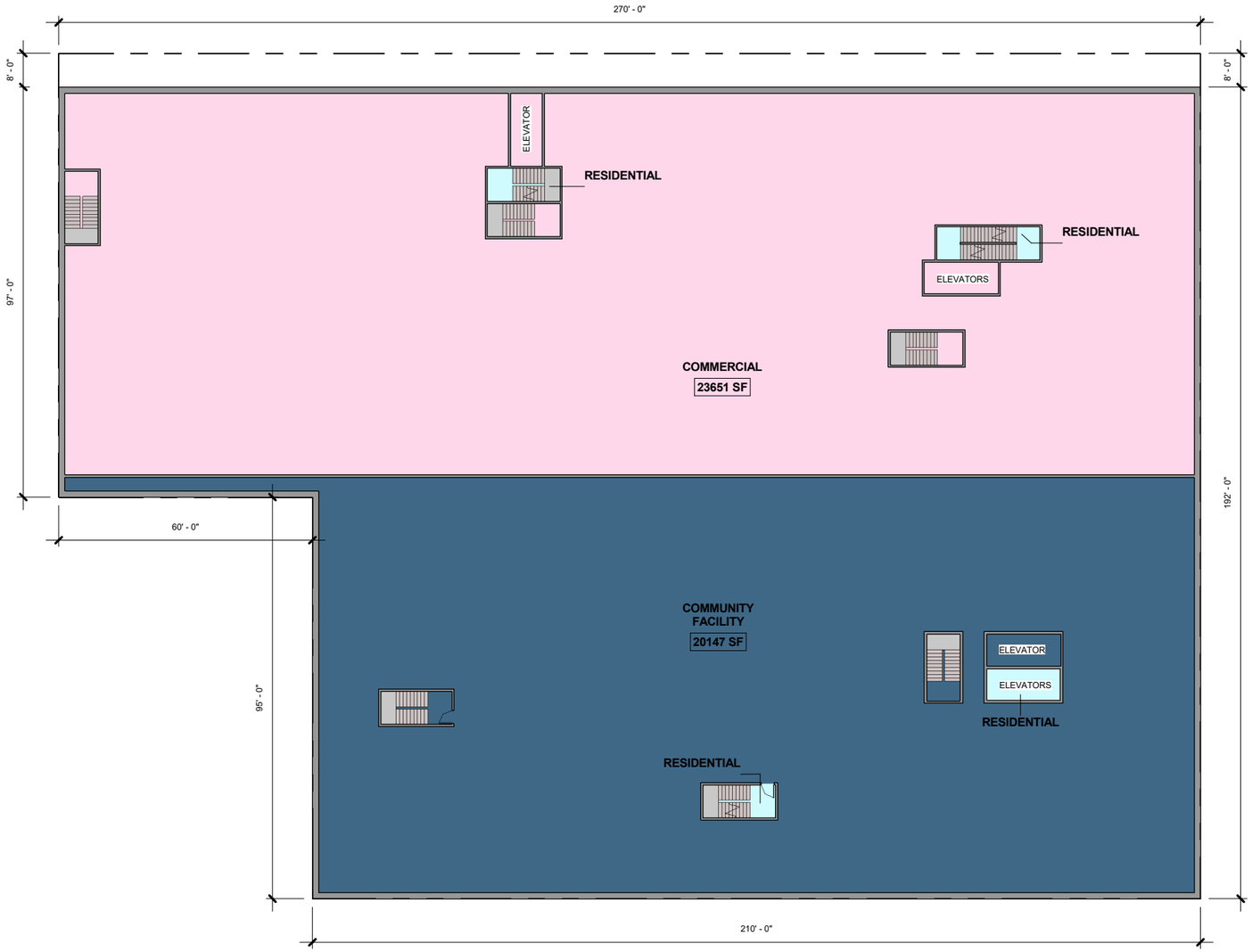

Gross Area (Zone) - 2nd Floor		
Level	**Mass: Type**	**Floor Area**
2nd Floor	C4-4D	24840 SF
2nd Floor	R7A	11300 SF
2nd Floor	R7A/C2-4(1)	10000 SF
Grand total		46140 SF

Room Legend

- COMMERCIAL
- COMMUNITY FACILITY
- RESIDENTIAL

1 2nd Floor
1/32" = 1'-0"

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1720 ATLANTIC AVENUE REZONING

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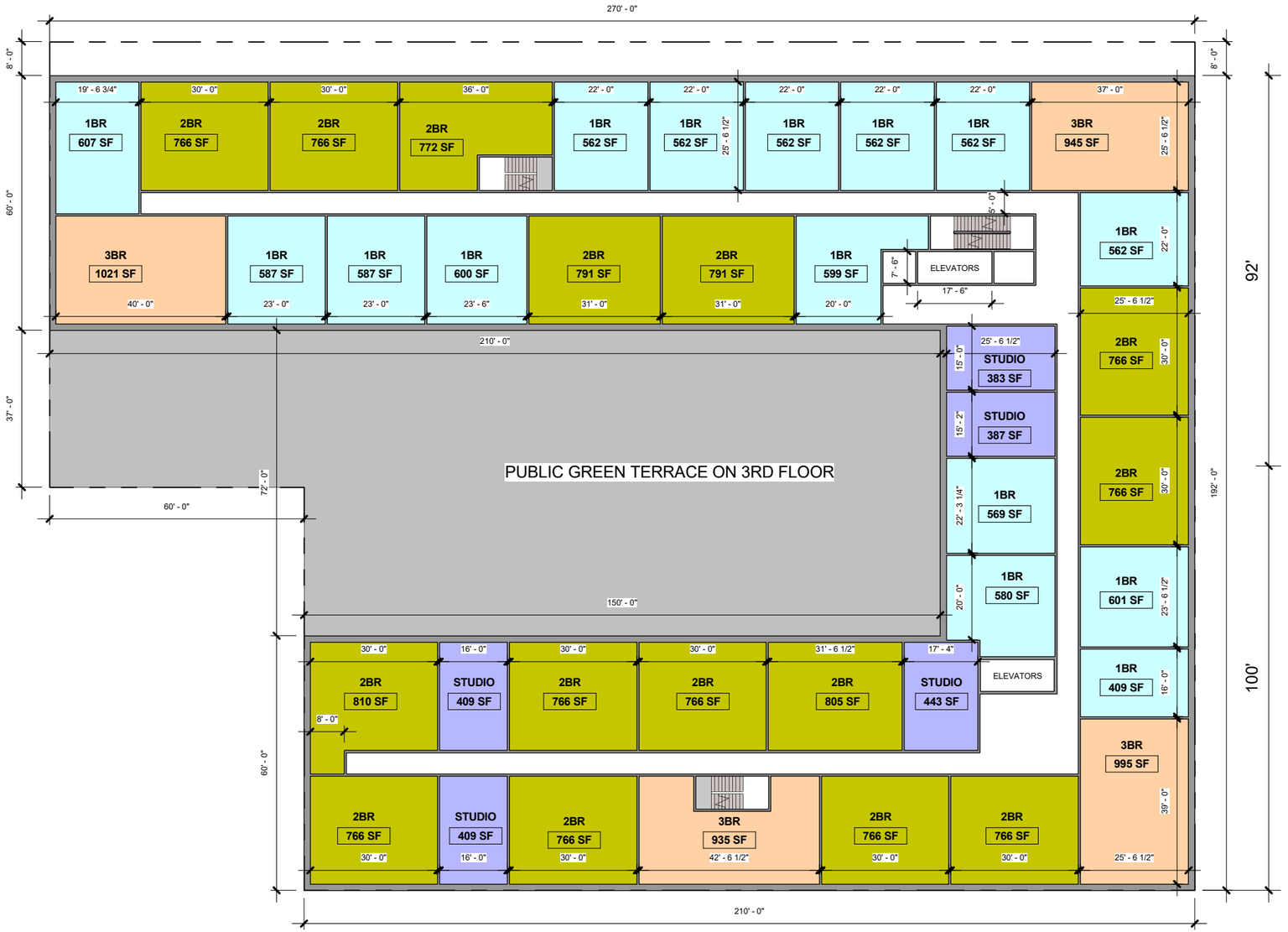
2ND FLOOR
DATE: 04/22/20
JOB NUMBER: 1980

A-12



1 3rd & 4th Floor
1" = 30'-0"

Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

Gross Area (Zone) - 3rd Floor		
Level	**Mass: Type**	**Floor Area**
3rd Floor	C4-4D	18120 SF
3rd Floor	R7A	6600 SF
3rd Floor	R7A/C2-4(1)	8400 SF
Grand total		33120 SF

Gross Area (Zone) - 4th Floor		
Level	**Mass: Type**	**Floor Area**
4th Floor	C4-4D	18120 SF
4th Floor	R7A	6600 SF
4th Floor	R7A/C2-4(1)	8400 SF
Grand total		33120 SF

* NO TERRACE ON 4TH FLOOR

Unit Mix - 3rd Floor	
Level	**Name**
1BR	
3rd Floor	1BR
1BR: 15	
2BR	
3rd Floor	2BR
2BR: 15	
3BR	
3rd Floor	3BR
3BR: 4	
STUDIO	
3rd Floor	STUDIO
STUDIO: 5	
Grand total: 39	

Unit Mix - 4th Floor	
Level	**Name**
1BR	
4th Floor	1BR
1BR: 15	
2BR	
4th Floor	2BR
2BR: 15	
3BR	
4th Floor	3BR
3BR: 4	
STUDIO	
4th Floor	STUDIO
STUDIO: 5	
Grand total: 39	

IMC ARCHITECTURE

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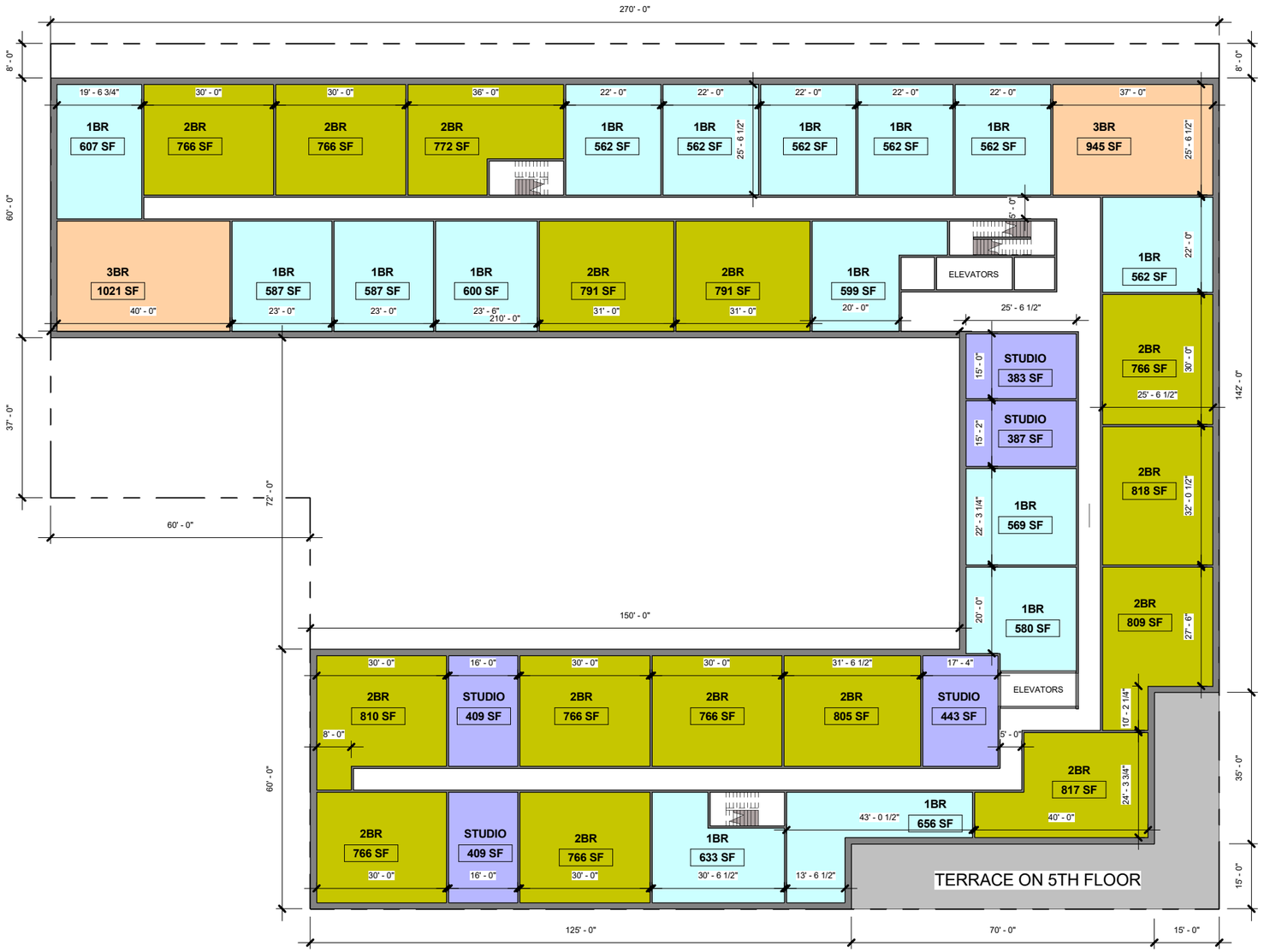
3RD - 4TH FLOOR
DATE: 04/22/20
JOB NUMBER: 1980

A-13



Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

Gross Area (Zone) - 5th Floor		
Level	**Mass: Type**	**Floor Area**
5th Floor	C4-4D	18120 SF
5th Floor	R7A	6600 SF
5th Floor	R7A/C2-4(1)	6600 SF
Grand total		31320 SF

Unit Mix - 5th Floor	
Level	**Name**
5th Floor	1BR
5th Floor	2BR
5th Floor	3BR
5th Floor	STUDIO

1BR

1BR: 15

2BR

2BR: 15

3BR

3BR: 2

STUDIO

STUDIO: 5

Grand total: 37

1 5th Floor
1" = 30'-0"

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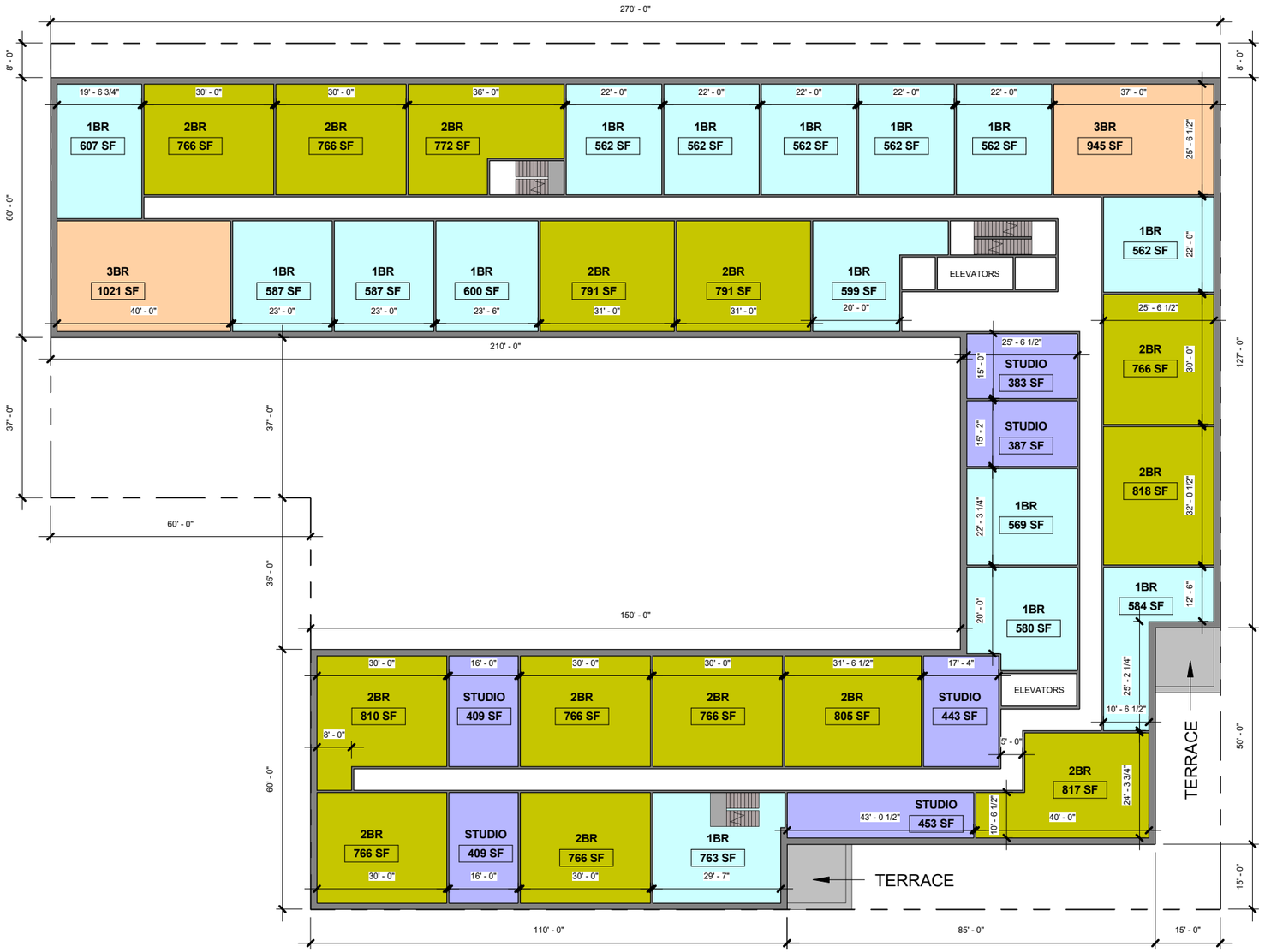
5TH FLOOR
DATE: 04/22/20
JOB NUMBER: 1980

A-14



Gross Area (Zone) - 6th Floor		
Level	**Mass: Type**	**Floor Area**
6th Floor	C4-4D	18120 SF
6th Floor	R7A	6600 SF
6th Floor	R7A/C2-4(1)	6150 SF
Grand total		30870 SF

Unit Mix - 6th Floor	
Level	**Name**
1BR	
6th Floor	1BR
1BR: 15	
2BR	
6th Floor	2BR
2BR: 14	
3BR	
6th Floor	3BR
3BR: 2	
STUDIO	
6th Floor	STUDIO
STUDIO: 6	
Grand total: 37	

Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

1 6th Floor
1" = 30'-0"

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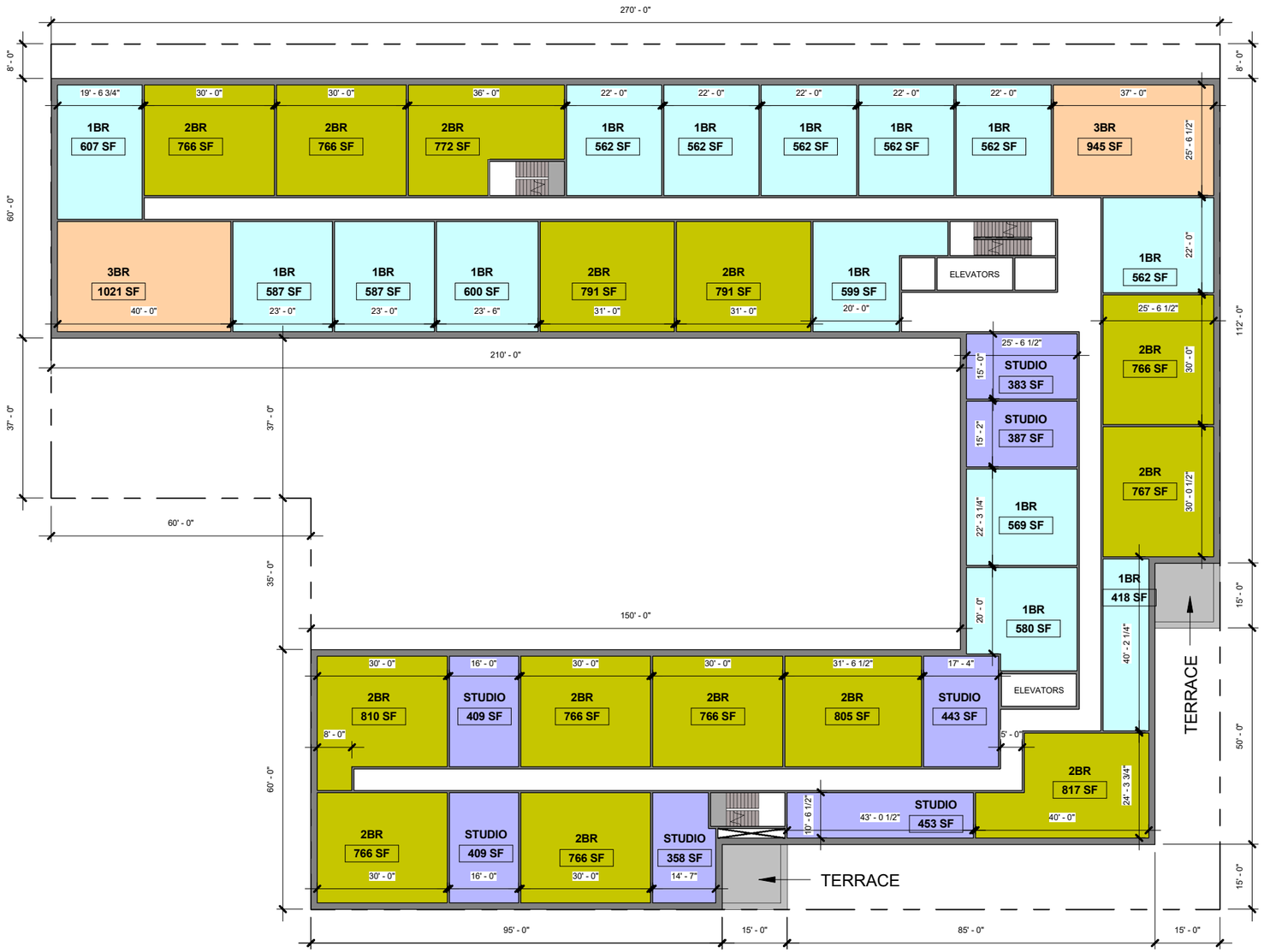
6TH FLOOR
DATE: 04/22/20
JOB NUMBER: 1980

A-15



1 7th Floor
1" = 30'-0"

Gross Area (Zone) - 7th Floor		
Level	**Mass: Type**	**Floor Area**
7th Floor	C4-4D	18120 SF
7th Floor	R7A	6375 SF
7th Floor	R7A/C2-4(1)	5925 SF
Grand total		30420 SF

Unit Mix - 7th Floor	
Level	**Name**
1BR	
7th Floor	1BR
1BR: 14	
2BR	
7th Floor	2BR
2BR: 14	
3BR	
7th Floor	3BR
3BR: 2	
STUDIO	
7th Floor	STUDIO
STUDIO: 7	
Grand total: 37	

Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

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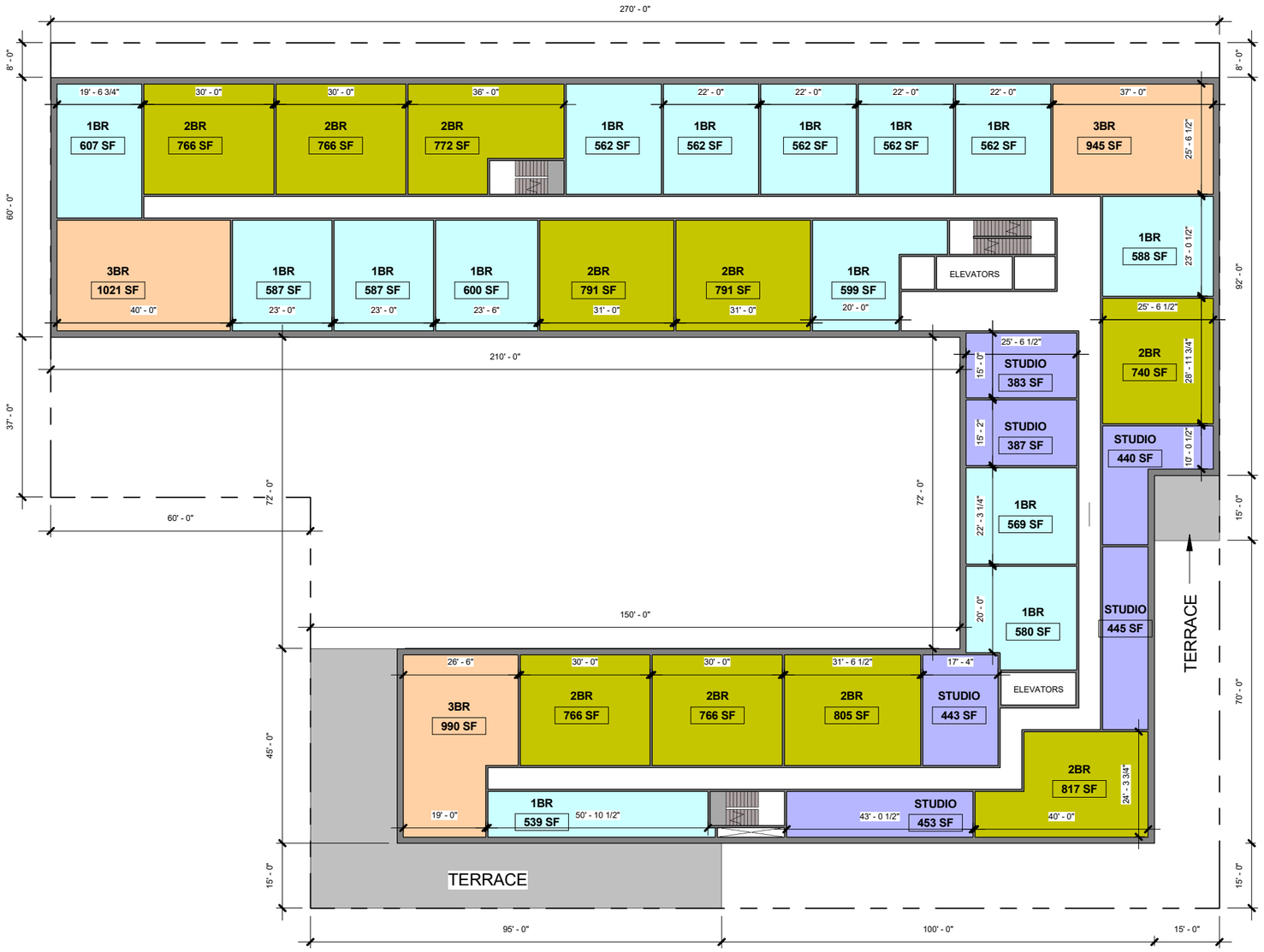
7TH FLOOR
DATE: 04/22/20
JOB NUMBER: 1980

A-16



1 8th Floor
1" = 30'-0"

Gross Area (Zone) - 8th Floor		
Level	**Mass: Type**	**Floor Area**
8th Floor	C4-4D	18120 SF
8th Floor	R7A	4050 SF
8th Floor	R7A/C2-4(1)	5625 SF
Grand total		27795 SF

Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

Unit Mix - 8th Floor	
Level	**Name**
8th Floor	1BR
8th Floor	2BR
8th Floor	3BR
8th Floor	STUDIO

1BR

1BR: 14

2BR

2BR: 10

3BR

3BR: 3

STUDIO

STUDIO: 6

Grand total: 33

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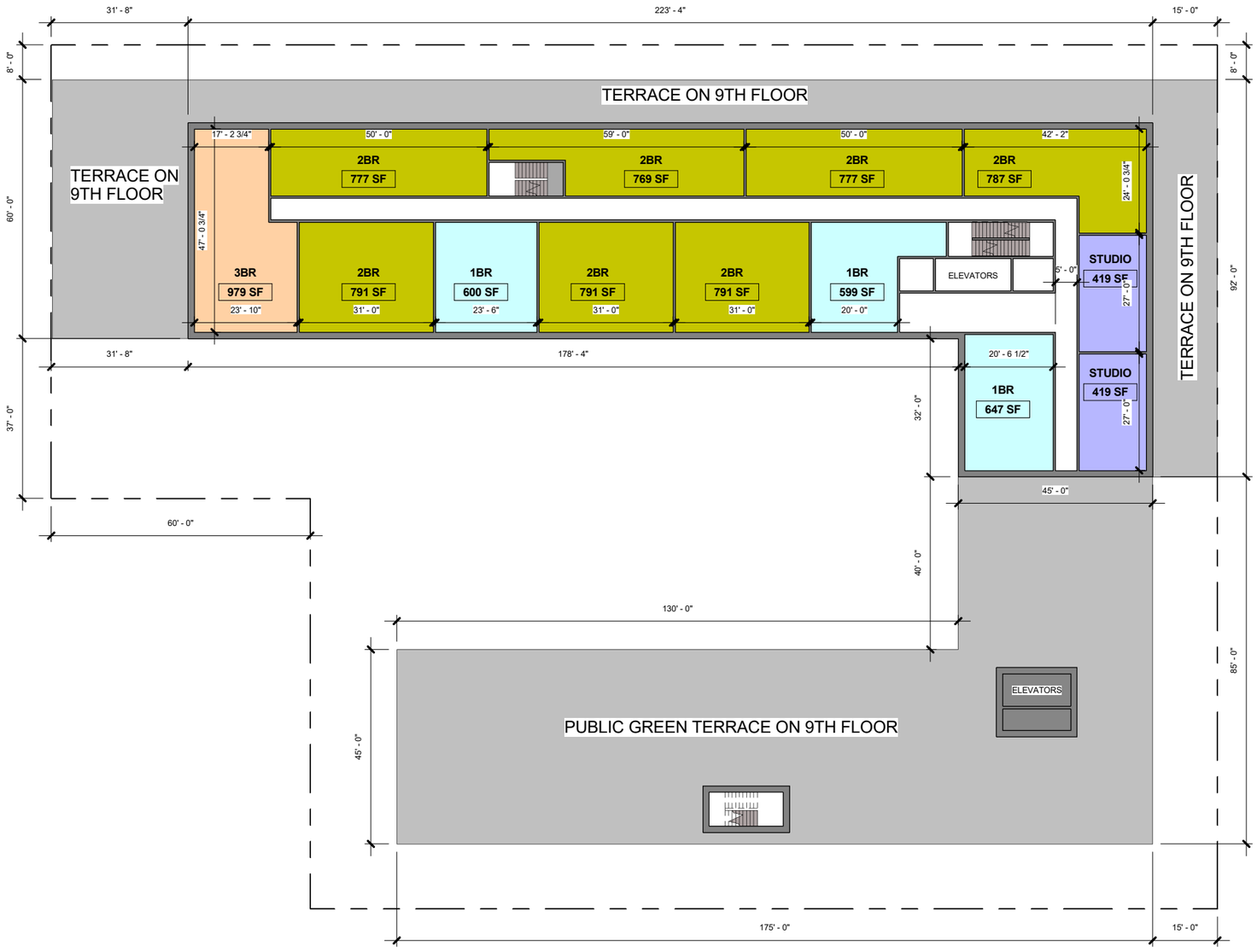
8TH FLOOR
DATE: 04/22/20
JOB NUMBER: 1980

A-17



1 9th Floor
1" = 30'-0"

Gross Area (Zone) - 9th Floor		
Level	Mass: Type	Floor Area
9th Floor	C4-4D	12607 SF
Grand total		12607 SF

Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

Unit Mix - 9th Floor	
Level	Name
1BR	
9th Floor	1BR
1BR: 3	
2BR	
9th Floor	2BR
2BR: 7	
3BR	
9th Floor	3BR
3BR: 1	
STUDIO	
9th Floor	STUDIO
STUDIO: 2	
Grand total: 13	

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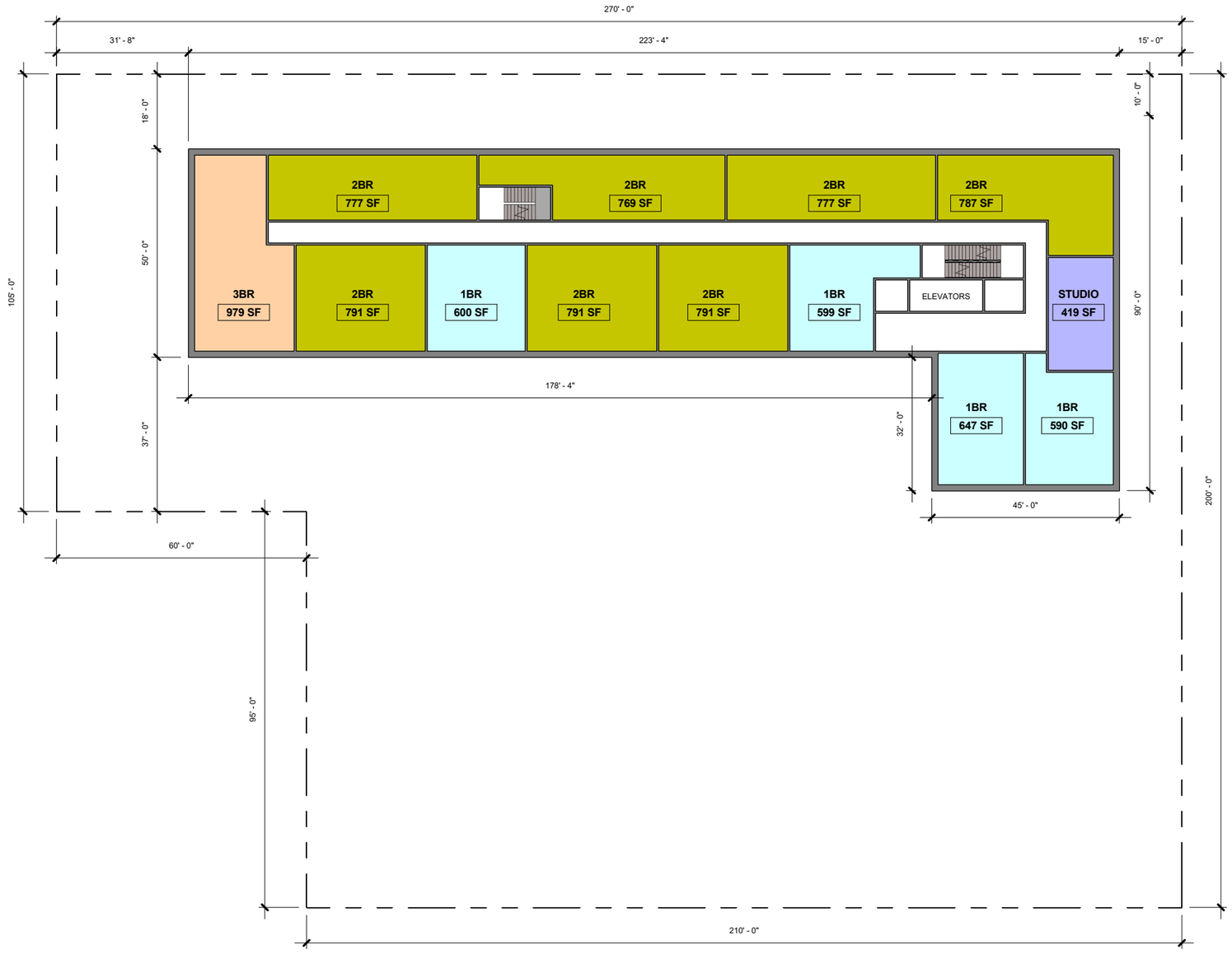
9TH FLOOR
DATE: 04/22/20
JOB NUMBER: 1980

A-18



Gross Area (Zone) - 10th Floor		
Level	**Mass: Type**	**Floor Area**
10th Floor	**C4-4D**	**12607 SF**
Grand total		**12607 SF**

Unit Mix - 10th Floor	
Level	**Name**

1BR

10th Floor	**1BR**

1BR: 4

2BR

10th Floor	**2BR**

2BR: 7

3BR

10th Floor	**3BR**

3BR: 1

STUDIO

10th Floor	**STUDIO**

STUDIO: 1

Grand total: 13

Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

1 10th Floor
1" = 30'-0"

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10TH FLOOR
DATE: 04/22/20
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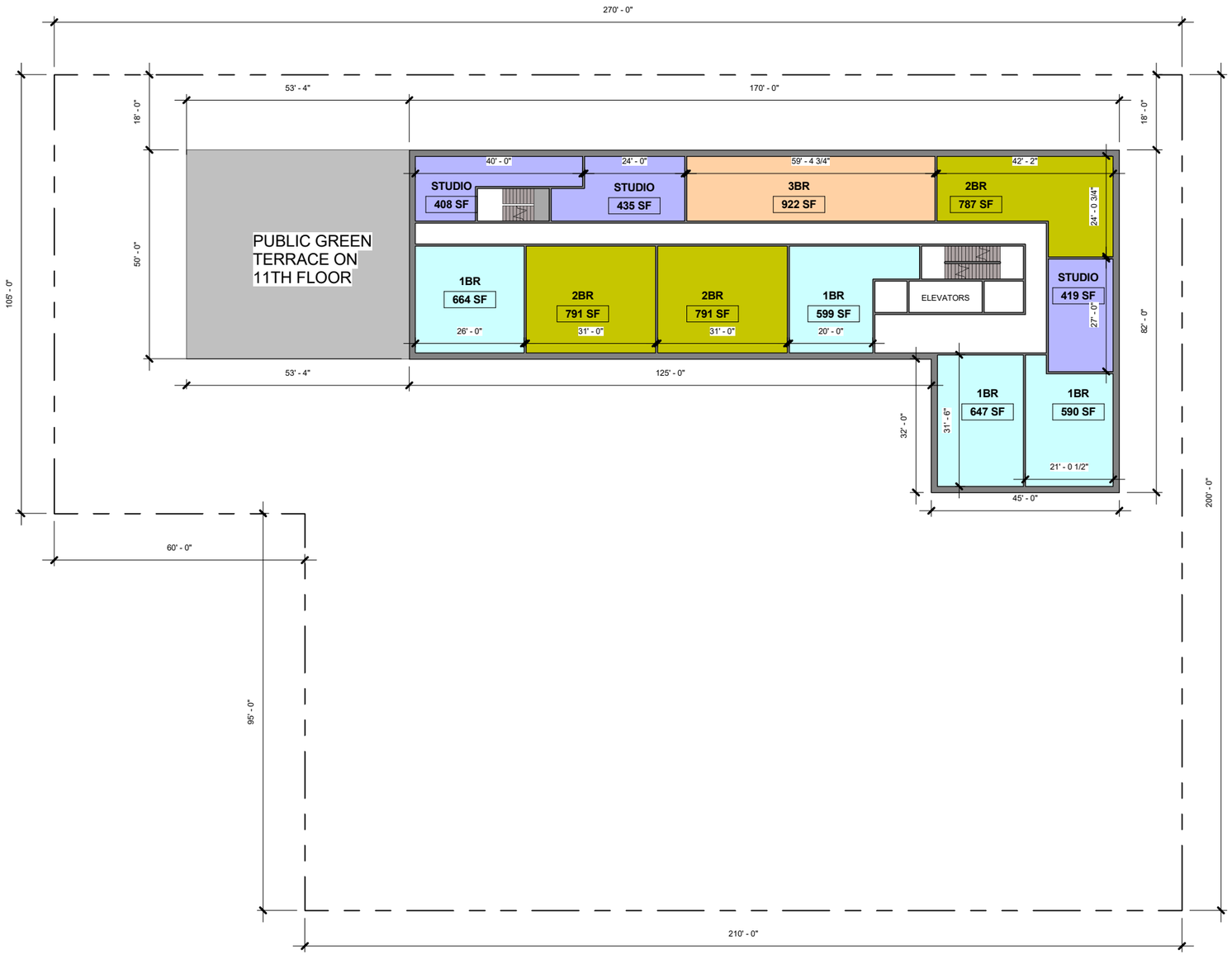

Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

Gross Area (Zone) - 11th Floor		
Level	**Mass: Type**	**Floor Area**
11th Floor	**C4-4D**	**9940 SF**
Grand total		**9940 SF**

Unit Mix - 11th Floor	
Level	**Name**

1BR

11th Floor	**1BR**

1BR: 4

2BR

11th Floor	**2BR**

2BR: 3

3BR

11th Floor	**3BR**

3BR: 1

STUDIO

11th Floor	**STUDIO**

STUDIO: 3

Grand total: 11

1 11th Floor
1" = 30'-0"

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11TH FLOOR
DATE: 04/22/20
JOB NUMBER: 1980

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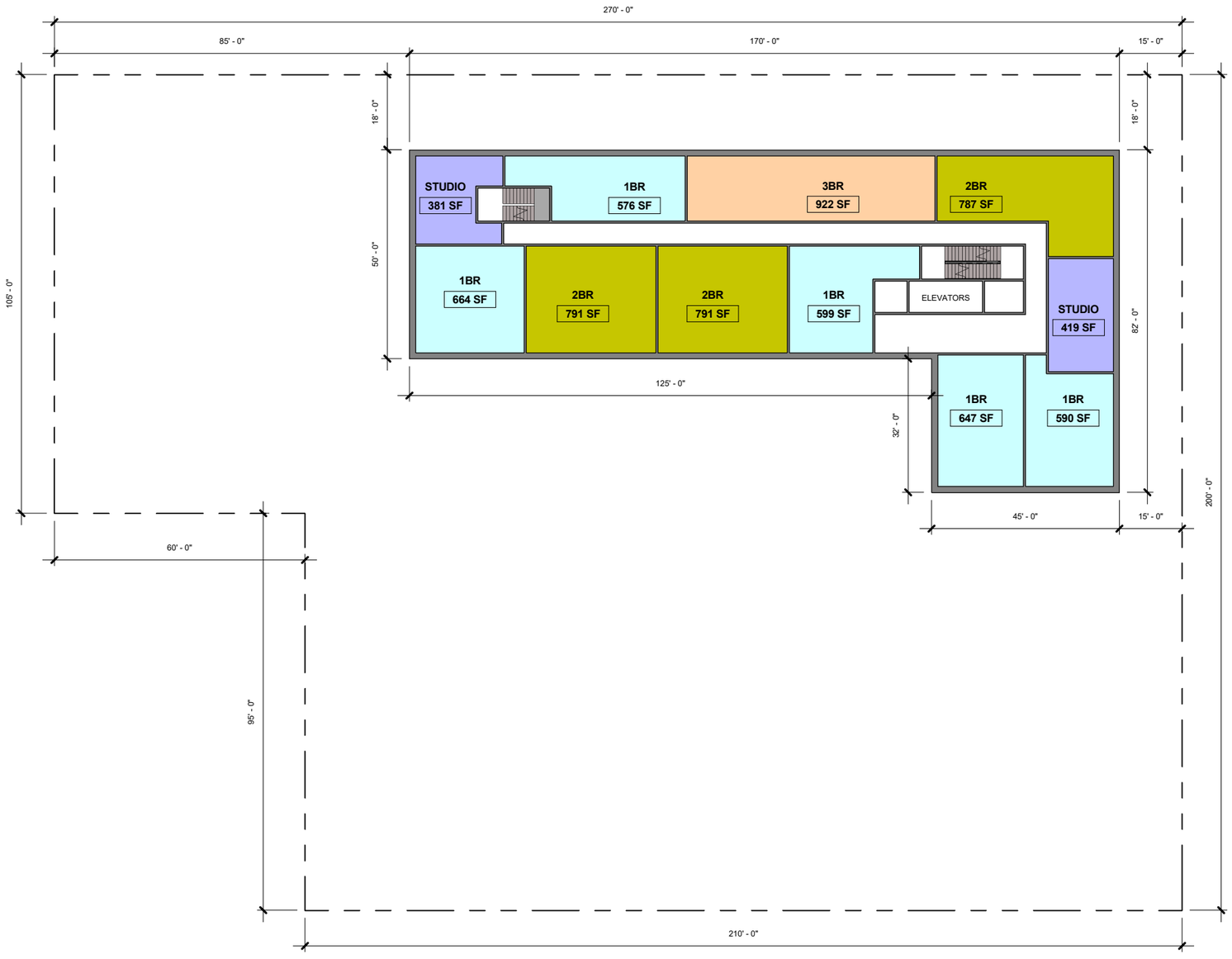

Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

Gross Area (Zone) - 12th Floor		
Level	Mass: Type	Floor Area
12th Floor	C4-4D	9940 SF
Grand total		9940 SF

Unit Mix - 12th Floor	
Level	Name

1BR

12th Floor	1BR

1BR: 5

2BR

12th Floor	2BR

2BR: 3

3BR

12th Floor	3BR

3BR: 1

STUDIO

12th Floor	STUDIO

STUDIO: 2

Grand total: 11

1 12th Floor
1" = 30'-0"

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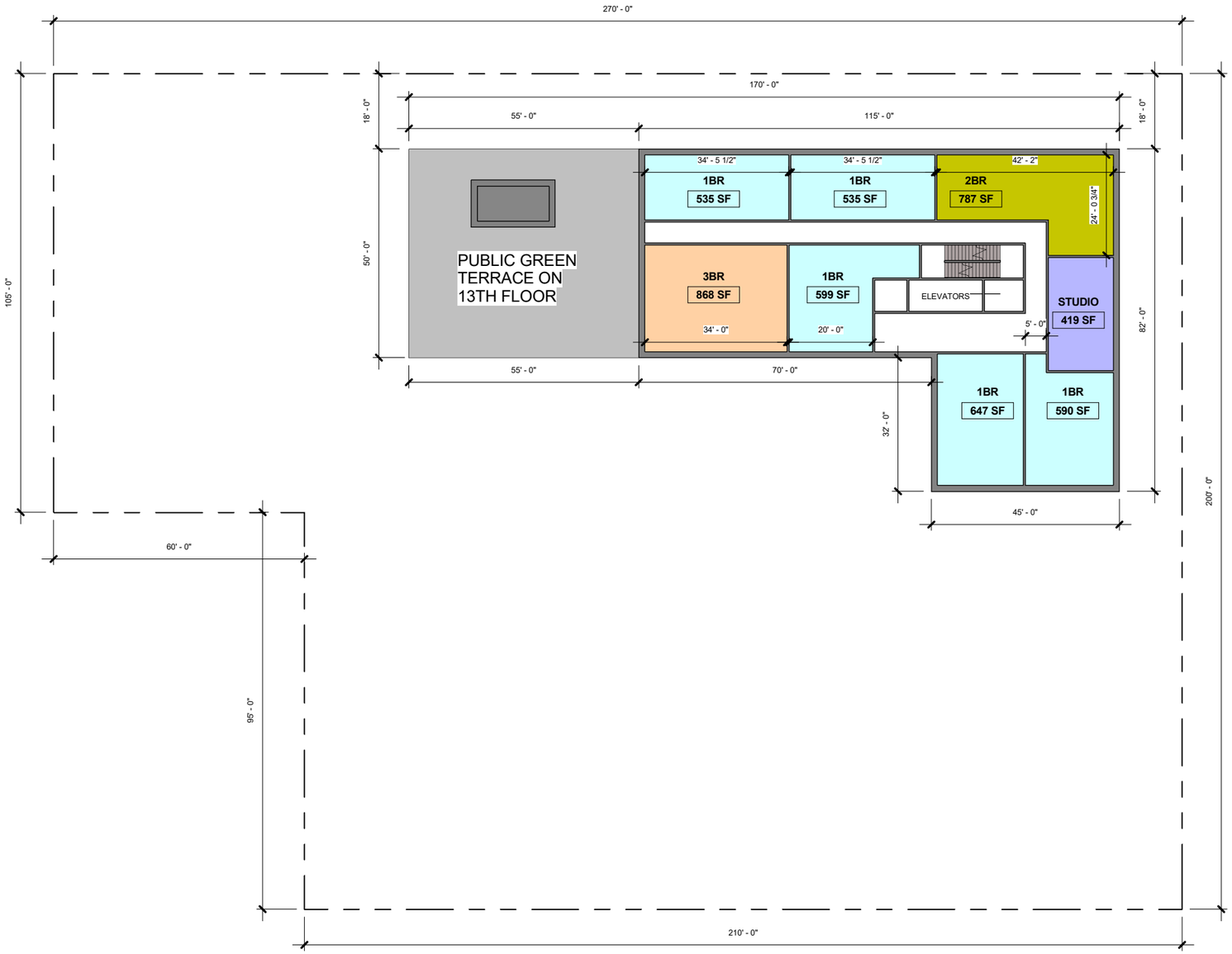
12TH FLOOR
DATE: 04/22/20
JOB NUMBER: 1980

A-21



Gross Area (Zone) - 13th Floor		
Level	**Mass: Type**	**Floor Area**
13th Floor	**C4-4D**	**7190 SF**
Grand total		**7190 SF**

Unit Mix - 13th Floor	
Level	**Name**
13th Floor	**1BR**
1BR: 5	
13th Floor	**2BR**
2BR: 1	
13th Floor	**3BR**
3BR: 1	
13th Floor	**STUDIO**
STUDIO: 1	
Grand total: 8	

Room Legend

- 1BR
- 2BR
- 3BR
- STUDIO

1 13th Floor
1" = 30'-0"

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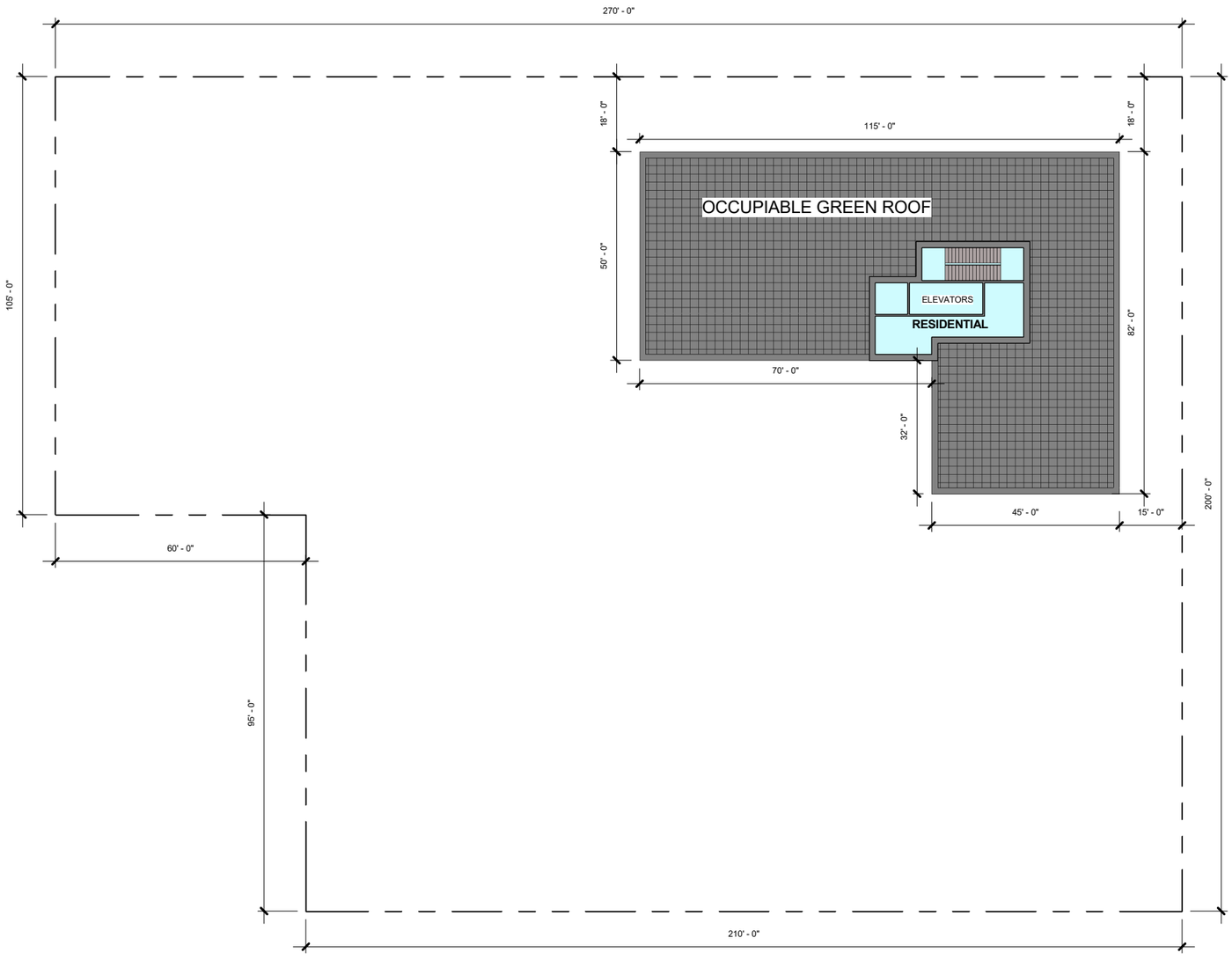
13TH FLOOR
DATE: 04/22/20
JOB NUMBER: 1980

A-22



Room Legend

RESIDENTIAL

1 ROOF
1/32" = 1'-0"

IMC ARCHITECTURE DPC
254 36TH ST, UNIT #21
BLDG#2, 3RD FLR. SUITE C312
BROOKLYN, NY 11232

1720 ATLANTIC AVENUE REZONING

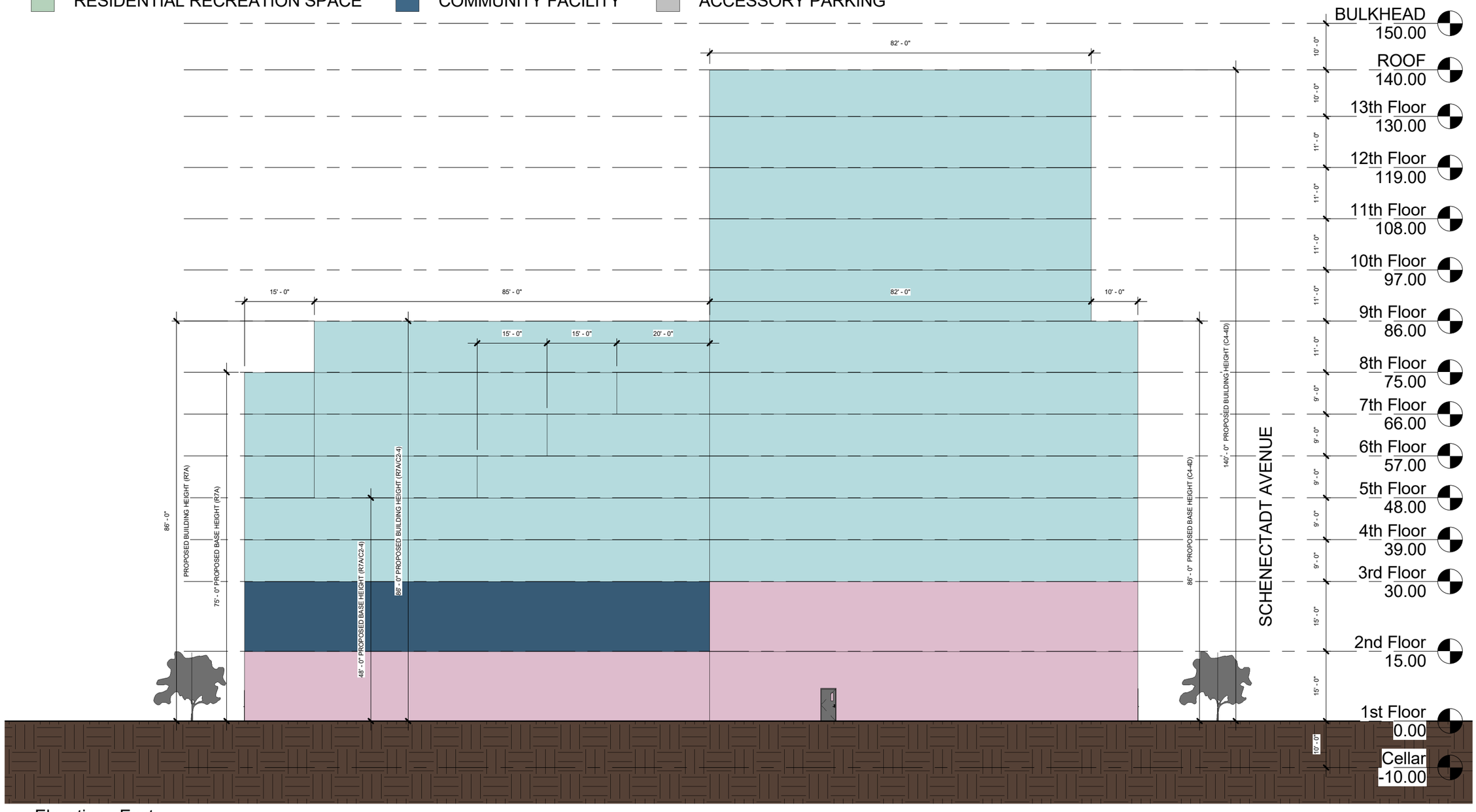
1720 Atlantic Ave
Brooklyn, NY 11213

ROOF
DATE: 04/22/20
JOB NUMBER: 1980

A-23

BUILDING AREA LEGEND

- RESIDENTIAL DWELLING UNIT
- COMMERCIAL
- RESIDENTIAL RECREATION SPACE
- COMMUNITY FACILITY
- ACCESSORY PARKING



1 Elevation - East
3/64" = 1'-0"

IMC ARCHITECTURE DPC
254 36TH ST, UNIT #21
BLDG#2, 3RD FLR. SUITE C312
BROOKLYN, NY 11232

1720 ATLANTIC AVENUE REZONING

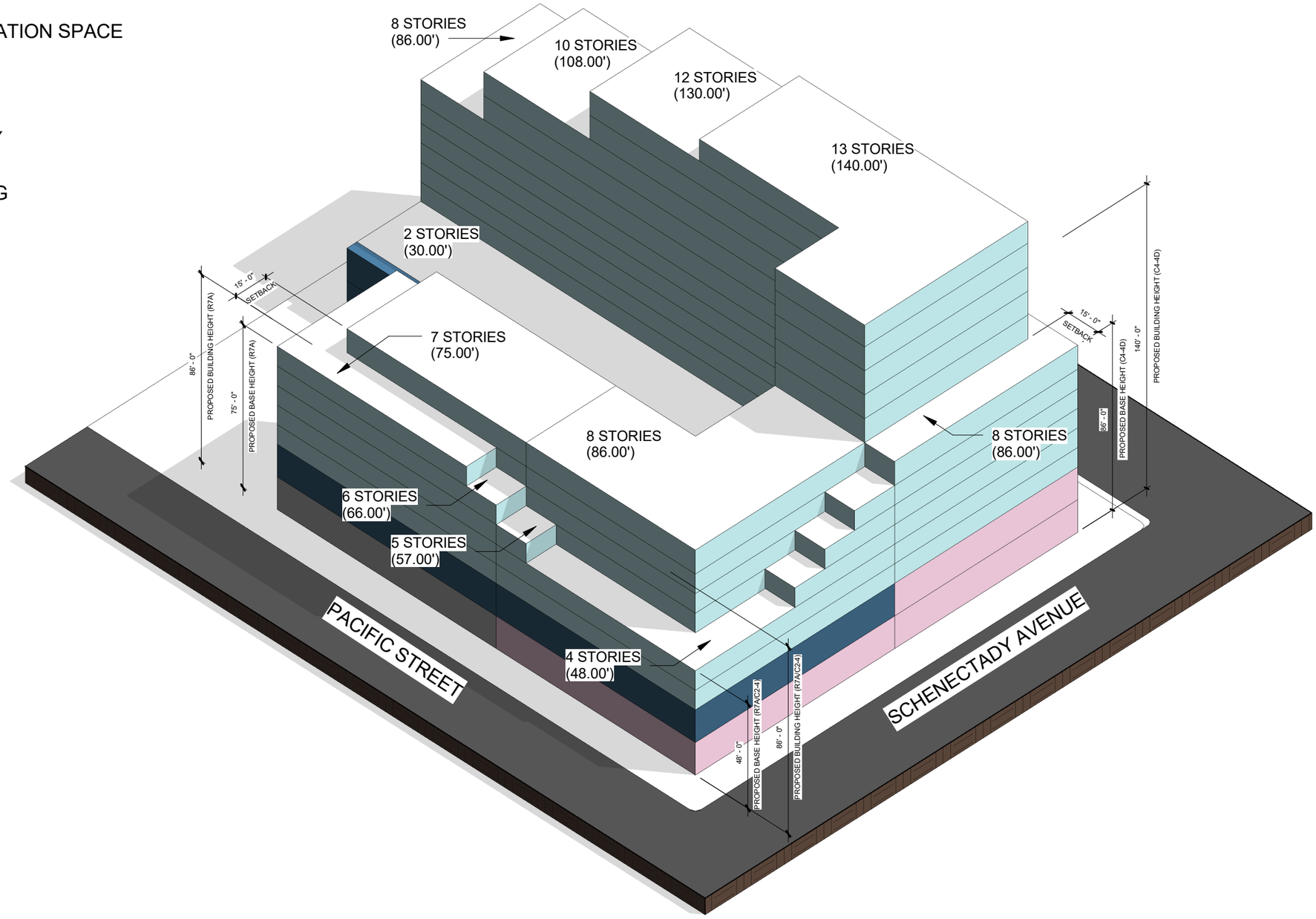
1720 Atlantic Ave
Brooklyn, NY 11213

ZONING BULK ELEVATION
DATE: 04/22/20
JOB NUMBER: 1980

A-24

BUILDING AREA LEGEND

- RESIDENTIAL DWELLING UNIT
- RESIDENTIAL RECREATION SPACE
- COMMERCIAL
- COMMUNITY FACILITY
- ACCESSORY PARKING



1 Massing Diagram (60')

IMC ARCHITECTURE DPC
254 36TH ST, UNIT #21
BLDG#2, 3RD FLR. SUITE C312
BROOKLYN, NY 11232

1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

ZONING BULK
DATE: 04/22/20
JOB NUMBER: 1980

A-25

Gross Building Area			
Level	**Area Group**	**Name**	**Area**
Cellar	ACCESSARY PARKING	1	43221.17 SF
Cellar	RESIDENTIAL	1	2918.83 SF
			46140.00 SF
1st Floor	ACCESSARY PARKING	1	10026.60 SF
1st Floor	COMMERCIAL	1	31689.34 SF
1st Floor	COMMUNITY FACILITY	1	772.08 SF
1st Floor	RESIDENTIAL	1	252.15 SF
1st Floor	RESIDENTIAL	2	139.58 SF
1st Floor	RESIDENTIAL	3	990.63 SF
1st Floor	RESIDENTIAL	4	2062.35 SF
1st Floor	RESIDENTIAL	5	207.26 SF
			46140.00 SF
2nd Floor	COMMERCIAL	1	24340.28 SF
2nd Floor	COMMUNITY FACILITY	1	21003.59 SF
2nd Floor	RESIDENTIAL	1	147.22 SF
2nd Floor	RESIDENTIAL	2	352.50 SF
2nd Floor	RESIDENTIAL	3	149.19 SF
2nd Floor	RESIDENTIAL	4	147.22 SF
			46140.00 SF

Gross Building Area			
Level	**Area Group**	**Name**	**Area**
3rd Floor	RESIDENTIAL	1	33120.00 SF
			33120.00 SF
4th Floor	RESIDENTIAL	1	33120.00 SF
			33120.00 SF
5th Floor	RESIDENTIAL	1	31320.00 SF
			31320.00 SF
6th Floor	RESIDENTIAL	1	30870.00 SF
			30870.00 SF
7th Floor	RESIDENTIAL	1	30420.00 SF
			30420.00 SF
8th Floor	RESIDENTIAL	1	27795.00 SF
			27795.00 SF
9th Floor	RESIDENTIAL	1	12606.67 SF
			12606.67 SF
10th Floor	RESIDENTIAL	1	12606.67 SF
			12606.67 SF
11th Floor	RESIDENTIAL	1	9940.00 SF
			9940.00 SF
12th Floor	RESIDENTIAL	1	9940.00 SF
			9940.00 SF
13th Floor	RESIDENTIAL	1	7190.00 SF
			7190.00 SF
ROOF	RESIDENTIAL	1	910.16 SF
			910.16 SF
Grand total: 30			378258.50 SF

IMC ARCHITECTURE DPC
254 36TH ST, UNIT #21
BLDG#2, 3RD FLR. SUITE C312
BROOKLYN, NY 11232

1720 ATLANTIC AVENUE REZONING

1720 Atlantic Ave
Brooklyn, NY 11213

BUILDING GROSS AREA
DATE: 04/22/20
JOB NUMBER: 1980

A-26

Appendix C

Phase I ESA

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Phase I Environmental Site Assessment Report

1720 Atlantic Avenue
Brooklyn, NY



Prepared For:

Cheyenne Realty
15 Ocean Avenue
Brooklyn, NY 11225

September 9, 2020

HydroTech Job No. 200039

Phase I Environmental Site Assessment Report

1720 Atlantic Avenue, Brooklyn, NY

September 9, 2020

HydroTech Environmental Engineering and Geology, DPC appreciates the opportunity to work for Cheyenne Realty at the property located at 1720 Atlantic Avenue in Brooklyn, New York.

Should you require any additional information or have any comments regarding the contents of this report, please feel free to contact our office at your convenience.

We declare that, to the best of my professional knowledge and belief, HydroTech personnel meet the definition of an environmental professional as defined in §312.10 of 40 C.F.R. Part 312, and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 C.F.R. Part 312.

Very Truly Yours,

HydroTech Environmental Engineering and Geology, DPC

Prepared By:

X_____

Ruijie Xu

Project Manager



Approved By:

X_____

Mark E. Robbins, PG

Principal

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1.0 EXECUTIVE SUMMARY

HydroTech Environmental Engineering and Geology, DPC. (HydroTech) has performed a Phase I Environmental Site Assessment (Phase I ESA) at the Subject Property located at 1720 Atlantic Avenue, Brooklyn, New York. The Phase I ESA was performed to meet or surpass the American Standard of Testing Materials Standard for Phase I Environmental Site Assessments E 1527-13. The purpose of the assessment was to characterize the environmental quality of the Subject Property through the identification of Recognized Environmental Conditions. All work was performed under the supervision of a HydroTech Project Manager and under the guidance of a HydroTech geologist.

The results of the Phase I Environmental Site Assessment are contained in this report. The Phase I ESA has identified the following Recognized Environmental Conditions:

- The presence of active Spill #9402692 at adjacent site (§5.0)
- The suspect presence of an adverse impact to groundwater beneath the Site from adjacent gasoline station (§5.0, 6.0)
- The presence of a Potential Vapor Encroachment Condition at the Subject Property (§5.0)

The following Non-Scope Consideration was identified:

- The presence of LIRR aboveground rail within 200 feet from the Subject Property (§7.0)

No effort has been made to perform any investigation beyond what is included in this Report. The observations and conclusions included herein summarize the results of the Phase I Environmental Site Assessment up to the date of the fieldwork and the date of this Report.

The following sections provide the details and specific information pertaining to the various components of the Phase I Environmental Site Assessment.

2.0 INTRODUCTION & SCOPE OF WORK

2.1 Introduction

HydroTech Environmental Engineering and Geology, DPC (HydroTech, HTE, the "*Preparer*") has been retained by Cheyenne Realty (the "*User*") to perform a Phase I Environmental Site Assessment (ESA, Assessment) at the property located at 1720 Atlantic Avenue in Brooklyn, New York. The User is a current owner for the property. The Phase I was prepared for due diligence purposes as part of CEQR Environment Assessment process. The property will hereafter be referred to as the "*Subject Property*".

The purpose of a Phase I Assessment is to characterize the environmental quality of the Subject Property through the determination of the presence of Recognized Environmental Conditions (RECs). As defined by the American Society of Testing and Materials (ASTM), a REC is, "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." (ASTM E 1527-13, §1.1.1). As defined by the ASTM, a Controlled Recognized Environmental Condition (CREC) is, "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls." (ASTM E 1527-13, §3.2.18). As defined by the American Society of Testing and Materials (ASTM), a HREC is, "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls" (ASTM E 1527-13, §3.2.42). Adjacent and surrounding sites are evaluated as part of a Phase I Assessment with regards to conditions that may indicate a high probability of the migration of hazardous substances or petroleum products to a property. As defined by ASTM, migrate/migration is, "the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface." (ASTM E 1527-13, §3.2.56).

To this end, HydroTech has collected information through several sources including, but not limited to a property and neighborhood inspection by trained environmental personnel, a review of historical and current information collected from various federal, state, county and municipal agencies and personal interviews with Site representatives. Recommendations are offered where prudent. Firms subcontracted by HydroTech and the User may have collected some information used in this report. Some or all the Assessment has been performed or supervised by environmental professionals as required by 40 C.F.R. Part 310. The procurement of Title and Judicial Records for Environmental Liens and/or Activity and Use Limitations ("AULs") by HTE is beyond the scope of this practice (ASTM E 1527-13) and investigation.

2.2 Scope of Work

The general activities of the Phase I Assessment included the performance of the following tasks:

1. A detailed inspection of the Site and its general vicinity.
2. A review of all reasonably ascertainable regulatory agency documents.
3. A neighborhood hazardous waste survey utilizing Federal and State databases.
4. A review and evaluation of reasonably ascertainable geologic and hydrogeologic reference materials.
5. Interviews with representatives of the Site.
6. The preparation of a Phase I Environmental Site Assessment Report.

The Phase I ESA was performed in accordance with ASTM E 1527 except where noted in Section 2.3 and HydroTech's Proposal dated June 8, 2020. As required by ASTM, the User has supplied information that has been relied upon by HydroTech in the rendering of findings, conclusions, and opinions, except where indicated in Section 2.3 or elsewhere in the report.

2.3 Limitations and Exceptions & Data Gaps

In addition to those items outlined by ASTM E 1527, asbestos, radon, lead-based paint, radon, wetlands, and lead in water were also considered in the scope of work. While this Phase I Assessment provides information with respect to both asbestos and lead-based paint, the presence of these materials can only be confirmed through the collection and analysis of bulk samples.

This report is not intended to serve as a full or complete asbestos survey or lead-based paint survey. These surveys are commonly performed for building demolition/ renovation or the recognition/identification of any building materials that may contain asbestos or lead-based paint and it is recommended that they are performed prior to any such work.

Business Environmental Risks have not been considered and are not included in the scope of work. This Phase I Assessment is not intended to address the soil/groundwater quality at the Subject Property for general Site characterization or waste disposal purposes. This Phase I Assessment is not intended to evaluate the fair market price of the property if it is not affected by hazardous or petroleum products.

Portions of this report have been prepared utilizing information provided by third-party sources or the user. As such, HydroTech relies upon these sources and has recorded findings, conclusions, and opinions based upon this information. HydroTech cannot attest to the accuracy of this information but where possible had attempted to verify the information.

This Phase I ESA Report is not intended to serve or be construed as a regulatory compliance report for the property. No legal opinions are provided with this report.

It should be noted that the United States Environmental Protection Agency (USEPA) has determined in their final ruling (40 C.F.R. Part 312, Standards and Practices for All Appropriate Inquires) of December 30, 2013 that "persons conducting all appropriate inquiries may use the procedures included in the ASTM E 1527-13 standard to comply with today's final rule." Therefore, while all appropriate inquiry could be considered satisfied as this ESA was prepared in exceedance(s) of the ASTM E 1527-13 standard, persons attempting to utilize this ESA while seeking one of the Comprehensive Environmental Response, Compensation, and Liability Act's (CERCLA's) Limited Liability Protections (LLPs) must note that; a) they will not maintain CERCLA liability protections unless they also comply with all of the continuing obligations established under the statute that is beyond the scope of this practice (ASTM E 1527-13) and investigation; and b) in order to qualify for one of the CERCLA LLPs, the person commissioning the Phase I Environmental Site Assessment must have provided site-specific information (if available) to HydroTech before the date of this ESA, otherwise a determination could be made that all appropriate inquiry is not complete.

As defined by ASTM, a Data Gap is defined as an inability to obtain information during the Phase I process, as required under the Standard, despite a good faith effort by the Environmental Professional to obtain this information. The Phase I ESA report must contain information pertaining to Data Gap(s) and evaluate their relative significance.

The following table provides a breakdown of the Data Gap(s) encountered and their relative significance.

Data Gap	**Significance**
Site History – not conducted to the time of first development and/or 5-year intervals.	Low – unlikely to alter conclusions due to findings of other resource(s).
No environmental lien provided.	Low – unlikely to alter conclusions due to findings of other resource(s).
Municipal Records – FOIAs not returned as of the date of the report.	Unknown – Any FOIA responses that alter the conclusions of the report will be provided upon receipt.
No access to a crawl space/partial basement	Low – unlikely to alter conclusions due to findings of other resource(s).

Due to other historical information obtained over the course of this investigation, HydroTech does not consider these data failures/data gaps significant, as they appear unlikely to have affected potential Recognized Environmental Conditions at the Subject Property.

3.0 SUBJECT PROPERTY DESCRIPTION

3.1 Subject Property Vicinity

The Subject Property is located on the west side of Schenectady Avenue between Atlantic Avenue to the north and Pacific Street to the south, in the borough of Brooklyn New York. The borough of Brooklyn is situated in the eastern portion of New York City.

The vicinity of the Subject Property consists of commercial and residential properties. The ground surfaces in the vicinity of the Site consist of concrete and landscaped areas.

3.2 Subject Property Description

The Subject Property is identified as 1720 Atlantic Avenue, Brooklyn, NY. The Subject Property consists of three tax lots (Block 1335, Lots 28, 30 and 35) with a total area of 47,850 square feet. The Site is developded with 1-story shopping center in the southern half of Lot 35 and entire Lot 28 and Lot 30 and outdoor parking in the northern half of Lot 35. The current tenants consist of Dollar Tree, Aaron's Furniture, Food Universe Marketplace, MetroPCS, Beauty Supply, Dunkin' Donuts, Golden Krust, Atlantic Pharmacy, Gem Pawnbrokers and Checks Cashed. The building in the southern portion has a full basement divided into several spaces utilized as storage/mechanical space for each commercial tenant. The building in the northwestern portion has a partial basement underneath the northern portion and may have a crawl space/partial basement underneath the central portion, which couldn't be confirmed due to lack of access.

Each commercial tenant has their own gas-fired/electrical heating system. The utility meters are located in the basement. Electricity, water and gas services enter the property underground via Atlantic Avenue to the north and Schenectady Avenue to the east. **Appendix A** provides photographs of the Subject Property.

Access to the Subject Property is via Atlantic Avenue to the north and Schenectady Avenue to the east. The topography of the Subject Property and its vicinity is generally even. **Figure 1** provides a Site Plan.

3.3 Adjacent Land Use

The Subject Property is located in a residential and commercial area. The following properties were identified immediately adjacent to the Subject Property:

Direction	Adjacent Parcel	Surrounding Parcels
North	Long Island Rail Road (Aboveground railroad) and Atlantic Avenue throughout; Harmony Park	Residential/ Commercial/Recreational/Manufacturing
South	Pacific Street throughout; 4-story residential building	
East	Schenectady Avenue throughout; Gas station (Shell); 1-story vacant commercial building	
West	1-story manufacturing building	

HydroTech does not believe that the present uses of any adjacent properties identified above should impact upon the environmental quality of the Subject Property. The impact of the eastern property operated as a gas station will be further evaluated in Section 5.0.

HydroTech does not believe that any of the surrounding parcels should impact upon the environmental quality of the Subject Property.

3.4 Proximity to Environmentally Sensitive Areas

The results of the Site inspection and an evaluation of the United States Geological Survey (USGS) 7.5 Minute Topographic Map containing the properties indicate that there are six (6) sensitive receptors within 0.125 miles radius of the Subject Property: Arthur Gorham, Young Ones Day Care, Brooklyn Kindergarten Society, Good Hepherd Services, PS 243 and Interfaith Medical Center. HydroTech does not believe that the Subject Property should adversely impact upon the sensitive receptors.

3.5 Environmental Setting

The Site is located in the northern portion of Brooklyn, New York. The elevation of the Subject Property is approximately 65 feet above mean sea level (USGS 7.5-Minute Brooklyn, New York Quadrangle, 2013).

Brooklyn, New York is located in the western portion of Long Island. Long Island consists of a wedge-shaped mass of unconsolidated deposits that overlie an ancient basement rock.

The thickness of these deposits ranges from approximately 100 feet on the Island's north shore to approximately 2,000 feet in some portions of the south shore. These deposits contain groundwater that is the sole source of drinking water for the Island's over 3.1 million residents.

The major landforms of Long Island of importance to the hydrologic system are the moraines and outwash plains, which originated from glacial activity. The moraines represent the farthest extent of the glacial advances. The moraines consist of till, which is a poorly sorted mixture of sand, silt, clay, gravel, and boulders. The till is poor to moderately permeable in most areas. Outwash plains are located to the south of the moraines. The outwash plains were formed by the action of glacial meltwater streams, which eroded the headland material of the moraines and laid down deposits of well-sorted sands, silts, and gravels. These outwash deposits have a moderate to high permeability.

The **Upper Glacial Aquifer** is the uppermost hydrogeologic unit. This aquifer encompasses the moraine and outwash deposits, in addition to some localized lacustrine, marine and reworked materials. A relatively high horizontal hydraulic conductivity and a low vertical hydraulic conductivity characterize the outwash plain portion of this unit. Since the water table is situated in the Upper Glacial Aquifer.

The **Magothy Formation** directly underlies the Upper Glacial Aquifer in the vicinity of the site. This formation is a Cretaceous coastal-shelf deposit, which consists principally of layers of sand and gravel with some interbedded clay. This formation ranges from moderate to highly permeable. A clay layer in some parts of Long Island confines the uppermost portion of the aquifer. The Magothy is Long Island's principal aquifer for public water supply. The United States Environmental Protection Agency (USEPA) has classified the Long Island aquifer system as a sole source aquifer.

The **Raritan Formation** is the deepest unit and rests directly above the bedrock units. This formation is comprised of a sand member (**Lloyd Aquifer**) and a clay member (**Raritan Clay**). The Lloyd sand extends southward from Flushing Bay to the Atlantic Ocean. The thickness of the sand member ranges in depth from 200 to 800 feet below sea level and increases in thickness to the southeast. The clay member acts as an aquitard confining the lower Lloyd aquifer between the clay and the underlying bedrock.

Long Island has a humid, temperate climate that is strongly influenced by the Long Island Sound and the Atlantic Ocean. These bodies of water temper extremes of heat in summer and cold in winters. Climate affects the formation of soil through its influence on chemical, biological and physical processes. The amount and content of rainwater, as it percolates through the soil, chemically alter the composition of the soils. Chemical and biological processes are also affected by temperature changes. The physical weathering of the soil and rocks is affected by freezing.

The soils of Long Island are relatively young, having developed since the last recession of glaciation approximately 25,000 years ago. Over thousands of years, the minerals in the bedrock debris slowly decayed and disintegrated, providing the necessary substrate to support biological activity. Rock-forming minerals such as feldspars and micas, that are rich in potassium and aluminum, release their important elements as they are converted to clays. Soils formed in glacial drift are commonly known as loam, a mixture of sand, silt, and clay.

The soils of Long Island formed three distinct soil horizons or zones on glacial deposits. The lowest horizon, designated as the C-horizon, is similar in composition to the transported glacial rock debris. The B-horizon is above the C-horizon and consists of sediments that have been considerably altered from their C-horizon source. Vadose zone water percolates through the B-horizon, carrying compounds of clay, iron, aluminum oxides, carbonates, and humic acid. These materials are redeposited within the lower portions of the B-horizon and form the zone of accumulation. The zone of accumulation may also be the zone of groundwater saturation.

The zone of leaching is found in the A-horizon, which is the upper, organic-rich and life-sustaining layer with abundant roots and organic matter at the surface. The A-horizon is distinct from the underlying B & C-horizons because it is darker and more friable.

Differentiation in soil horizons is the result of various soil-forming processes such as the physical breakdown of particles, the leaching of salts, the accumulation of organic matter and the chemical weathering of primary minerals. The chemical weathering of

primary minerals occurs through processes such as chelation, the formation of silicate clay minerals and the translocation of silicate clay minerals by percolating water from one horizon to another and the accumulation of iron.

According to the USGS Groundwater Conditions on Long Island, New York 2006 Potentiometric Surface Map, the regional groundwater flow direction in the vicinity of the Site is presumed to be toward the northwest in the direction of the East River. According to the USGS Long Island Depth to Water View (2013), the depth to water in the immediate vicinity of the Site is between 51 and 75 feet.

4.0 HISTORICAL USE

4.1 Sanborn Maps

Sanborn Fire Rate Insurance Maps for the Subject Property and its vicinity dated 1888, 1908, 1932, 1951, 1963, 1965, 1978 – 1980, 1982, 1987 – 1989, 1991 – 1994 and 2001 – 2007 were obtained from EDR and evaluated in order to establish the history of the Site. **Appendix B** provides a copy of the Sanborn Fire Rate Insurance Maps:

Date	Subject Property Shown As	Surrounding area
1888	Three (3) lots addressed as 1706-1718 Atlantic Avenue, 1734 Atlantic Avenue (a.k.a. 1711-1723 Pacific Street and 54-72 Schenectady Avenue) and 1709 Pacific Street. 1706-1718 Atlantic Avenue: Vacant 1734 Atlantic Avenue: Operated as "The Brooklyn Mill & Lumber Co." with a 1-story storage building, a 2-story lumber building and a 3-story building with 1-story boiler room in the southern portion. Two horizontal steam boilers are observed in the boiler room. A small room inside the 3-story building is marked as "Shear & Dry Painting". 1709 Pacific Street: a 2-story dwelling in the northwest and a 1-story stable in the southeast.	Commercial, residential
1908	Three (3) lots addressed as 1706-1718 Atlantic Avenue, 1720-1734 Atlantic Avenue (a.k.a. 1711-1725 Pacific Street and 54-72 Schenectady Avenue) and 1705-1709 Pacific Street. Entire site is operated as "Wichert Gardner & Shoe Factory"with a 3-story, a 4-story and a 5-story factory buildings connected to each other and several 1-story and 2-story extensions for packaging, auto house, coal shed, boiler room, nickle plating. Four horizontal steam boilers were noted in the boiler room in mid-eastern portion. The western portion of 1706-1718 Atlantic Avenue is vacant. The third floor of the 5-story in the northern portion of 1720-1734 Atlantic Avenue is operated by "Dudley & Co.".	

1932, 1951, 1963, 1965, 1978, 1980	Same address and similar building layout and usage as in 1908. The Site is no longer operated by "Wichert Gardner & Shoe Factory". Starting from at least 1963, the majority of the Site is used for steel storage and steel door manufacturing. The vacant portion in 1706-1718 Atlantic Avenue is developed with a 1-story building for printing (1932), clothing manufacturing (1951) and machine shop (1963) and a 3-story building operated as "Raydn Mill" (1932) and as fire door manufacturing (1951). The steam boilers are no longer noted.	Commercial, residential, garage, vacant 1670-1676 Pacific Street (a.k.a. 74-80 Schenectady Avenue): Filling Station and Auto Laundry (1932 - 1965)
1982, 1987–1989, 1991–1994, 2001	One (1) vacant lot addressed as 1706-1734 Atlantic Avenue (a.k.a. 1705-1725 Pacific Street and 54-72 Schenectady Avenue).	Commercial, residential, garage 1736-1744 Atlantive Avenue (a.k.a. 59-63 Schenectady Avenue): Filling Station (1987 - 2007)
2002 - 2007	One (1) lot addressed as 1706-1734 Atlantic Avenue (a.k.a. 1705-1725 Pacific Street and 54-72 Schenectady Avenue). Northwestern and southern portion are developed with a 1-story commercial building. The remaining portion in the north is vacant in 2002 and then utilized for parking.	

4.2 City Directory Search

In order to further assess the property's history, available City Directory files were obtained from EDR for review. The City Directories document in known occupants of specific properties and sorted by individual addresses. **Appendix C** provides a copy of the City Directory Search.

The following provides a listing of all documented usages of all the address for the Subject Property.

Date	**Use of Subject Property**	**Surrounding Property Use**
1928	The Bigger Press; Progressive Knitting Works; Progressive Rayon Fabric, Thermal Syndicate LTD; Wichert Inc. Shoes; Linden C A Intr Dectr	Commercial, residential
1934	Bigger Press Inc The (NY) WM C Bigger Pres Jesse H Bigger Sec Printers; Automotive Camp Mtr Corp Nicholas F Ryder Pres Mrs Eva F Ryder Sec-Treas H; Knitting Co Inc Harry Rubenstcin Pres Knit Gds Mfrs; Hudson Gosale Porter Mizrabi Shoe Reprs R; Nelson Jas Lab R; Residential	

Date	Use of Subject Property	Surrounding Property Use
1940	Independent Fireproof Door Co.; Rosen & Rosen Store Fixts; Rubinger Knitting Mills; Biltwell Steel Prods Corp.	
1945	Mar Lou Knitting Mills; Advance Rayon Fabrics Co.; Advance Mills; JM March Co. Inc.; Animate Toy Co.; Ancira Lock & Seal; Woodhaven Metal Stamping Co. Inc.; Waterbury S&Son Co. Shoe Mfrs; Norma Footwear Co.; M&M Elbow Corp.; Goldberg & Smith; Fitrite Elbow Gorp; Bklyn Hndkrchf Co; Residential	
1949	Suva Mfg Co. Inc.; Independent Fireproof Door Co. Inc.; Biltwell Steel Prods Corp; Animate Toy Co; Ancira Lock & Seal; JM Mach Co. Inc.; Norma Footwear Corp; Koslow Carton Co; Fitrite Elbow Corp; Cosmos Footwear Corp; Bklyn Hndkrchf Co;	
1960	Small Stuff Togs Inc.; Independent Fireproof Door Co. Inc.; Cru-Cut Knitwear Corp; Bilt-Rite Steel Buck Corp; Bass & Gray; Abbey Sportswr; Pioneer Sportswr Inc.; Sylu Knitg Mills Inc; Tavin & Ehrenberg Knitng Mills; Star Clothing Co Inc; Rako Elec Mfg Co; Plisco WM B Molds; Olis Knitng Mills Inc; Metalectrics Inc; Kal Mfg Corp; Goldberg & Smith; Cosmos Footwear Corp; Brooklyn Hndkrchf Co; Residential; Pee Wee Molding Corp; Jacor Inc; Harris Prods Co; Flair Mfg Corp	
1965	Small Stuff Togs Inc; Independent Fireproof Door Co Inc; Bilt Rite Steel Buck Corp; Pee Wee Molding Corp; Fine Bros Corp	
1970	Small Stuff Togs Inc., Independent Fireproof Door Co Inc; Gale Fashns Inc; Bilt Rite Steel Buck Corp; Bass & Gray; Abbey Sportswr; Fine Bros Corp	
1973	Ken Wire & Metal Prods; Fine Bros Corp	
1976	Jassen Geo Inc.; Sylu Knitg Mills Inc.; Weinberg Louis P Atty; Tavin Knitg Mills Inc; Olis Knitg Mills Inc; Goldberg & Smith; Bklyn Hndkrchf Co Main Ofc & Fcty; Fine Bros Corp	
1980	Sylu Knitg Mills Inc	
2004	P&P Drugs Inc; Franchise Development Assoc; Elestronic Mall Inc; U Rove Check Cashing; Atlantic Florist; Ahmad Edalmnsora; LA Moda Furniture Inc	
2005	Atlantic Pharmacies; Ahmad Edalmrnsora; Ninety Nine Atlantic Corp; A&E Stores Inc	

Date	Use of Subject Property	Surrounding Property Use
2009	Unknown occupant; Atlantic Pharmacy; Philannryan Inc; Franchise Development Associates Inc; Ahmad Edalmrnsora; Electronic Mall Inc; U Rove Check Cashing Inc; LA Moda Furniture Inc; B&S Stores; A&E Stores Inc; 99 Atlantic Corp	
2014	Unknown occupant; Atlantic Pharmacy; Golden Krust; Ahmad Edalmrnsora; Checks & More; Locksmith in Brooklyn; LA Moda Furniture; Dunkin Donuts; Beauty & More; Aarons Furniture; A&E Stores Inc	
2017	Atlantic Pharmacies; Golden Krust; Ahmad Edalmrnsora; Checks & More; Electric Mall; Gem Pawnbrokers; Locksmith in Brooklyn; Lamoda Furniture; Dunkin Donuts; Dollar Tree; Beauty & More; Aarons Furniture	

4.3 Previous Studies

HydroTech requested copies of any available historical environmental reports associated with the Subject Property. No environmental reports were available for review.

4.4 Current/Previous Owners

According to the property listing on file with the NYC Automated City Register Information System (ACRIS) database and the New York City Department of City Planning, the following provides a list of historical owners of the Site:

Year	Name of Previous Owner(s) at Lot 28
1978	Louis P. Weinberg; Paul S. Weinberg; Katz Helen; St. German of Alaska Eastern Orthodox Catholic Church; Dorothy A. Smith; Hownde Realty Corp.; Thompson Allie Mae
1979	Commissioner of Finance of The City of New York
1985	City of New York; Charles Gardyn
1998	Charles Gardyn; Bermuda Realty LLC
2005	Bermuda Realty LLC; Bermuda Realty No. 2 LLC
Year	**Name of Previous Owner(s) at Lot 30 and Lot 35**
2005	Bermuda Realty LLC; Bermuda Realty No. 2 LLC

4.5 Historic Aerials

Publicly available historical aerial photographs for the Subject Property and its vicinity dated 1954, 1966, 1980, 1994, 2004, 2008, 2009, 2011-2013 and 2015 were reviewed and evaluated. The photo from 1994 was not clear to identify the structure on the Subject Property. The following summary provides a summary of this evaluation.

Date	Subject Property Shown As	Surrounding area
1954, 1966, 1980	Three buildings are located on the Subject Property.	Developed with commercial/residential structures
2004, 2008, 2009, 2011-2013, 2015	Two buildings are located in the northwestern and southern portion of the Subject Property. The remaining northern portion is used for parking.	

4.6 Historical Use Summary

Based on a review of available information provided and/or obtained for the Subject Property as of the date of this ESA, it appears that the Subject Property was developed prior to 1888 with several buildings occupying most of the Site and operated as "The Brooklyn Mill and Lumber Co". A small portion in the southwestern portion was developed with dwelling and stable. The Site was further developed in early 1900s and operated as "Wichert Gardner Shoe Factory". Two buildings were constructed in the northwestern portion of the Site prior to 1930s and utilized for printing, mill, machine shop, fire door manufacturing, clothing manufacturing. Starting from at least 1963, the majority of the Site is used for steel storage and steel door manufacturing. In 1982, the Sanborn Map indicated all the structures on Site were demolished. The Site had remained vacant and undeveloped until 2002 when the northwestern and southern portions of the Site were developed with a 1-story commercial building. The vacant portion in the north has been utilized for parking since 2003. None of the historic use of the Subject Property should be a concern.

According to Sanborn Map records, two (2) horizontal steam boilers were observed in the mid-eastern portion in 1888 and four (4) horizontal steam boilers were observed in the similar area in 1908 after the Site is redeveloped. No fuel storage tanks were noted in any Sanborn Maps.

A review of the available records, including the Sanborn Maps, City Directory, Historic Aerials, and ACRIS records, indicates that the historic uses of the surrounding properties consisted of mostly commercial and residential uses. The southern property at 1670-1676 Pacific Street (a.k.a. 74-80 Schenectady Avenue) is located over 90 feet from the Subject Property and upgradient, which was operated as a filling station and auto laundry between 1932 and 1965 as noted on Sanborn Maps. The eastern property at 1736-1744 Atlantive Avenue (a.k.a. 59-63 Schenectady Avenue) is located over 90 feet from the Subject Property and crossgradient, which has been operated as Filling Station between 1987 and 2007 as noted on Sanborn Maps. As observed during site inspection, this adjacent site is still operated as filling station (Shell). These sites will be further evaluated in Section 5.0.

5.0 RECORDS REVIEW

5.1 Environmental Databases

Federal, State, Local and Tribal hazardous waste databases were reviewed with respect to the Subject Property and surrounding properties. ASTM E 1527 specifies the search area for each database. In addition, all orphan sites (those without adequate information for mapping purposes) listed in the database search were also reviewed, evaluated and incorporated (as needed). **Appendix D** provides a copy of the Database Search Results. The following databases, with the appropriate search radius, were reviewed:

ASTM Standard Environmental Record Source	**Minimum Search Distance (MSD)**	**Number of Mapped Sites within MSD**	**Number of Orphan Sites**
1. NPL (Superfund) *National Priorities List*	1.0 Mile	0	0
2. Delisted NPL Site *Delisted National Priorities List Site*	0.5 Mile	0	0
3. SEMS (Former CERCLIS) *Superfund Enterprise Management System*	0.5 Mile	1	0
4. SEMS-ARCHIVE (Former CERCLIS-NFRAP) *SEMS Archive*	0.5 Mile	0	0
5. RCRA-TSD CORRACTS *Resource Conservation & Recovery T/S/D Facility Subject to Corrective Action*	1.0 Mile	0	0
6. RCRA-TSD *Resource Conservation & Recovery T/S/D Facility (Non-Corrective Action)*	0.5 Mile	0	0
7. RCRA-LG *Resource Conservation & Recovery Large Quantity Generator*	Site & Adjoining	0	0
8. RCRA-SG *Resource Conservation & Recovery Small Quantity Generator*	Site & Adjoining	0	0
9. ERNS *Emergency Response Notification System*	Property Only	0	0
10. Local / State / Tribal UST, PBS *Registered Storage Tanks*	Site & Adjoining	0	0
11. Local / State / Tribal LTANKS *Leaking Underground Storage Tanks*	0.5 Mile	43	0
12. State Spill Incidents *NYSDEC Spill Sites*	0.125 Mile	17	0

13. Local / State / Tribal SWF *Solid Waste Facility / Landfill*	0.5 Mile	0	0
14. Local / State / Tribal CERCLIS *Inactive Hazardous Waste Disposal Site*	0.5 Mile	0	0
15. Inst. / Engineering Controls *Registry of Institutional/ Engineering Controls*	Property Only	0	0
16. Voluntary Cleanup Program Sites *Local / State / Tribal VCP Sites*	0.5 Mile	3	0
17. Brownfield Sites *Local / State / Tribal Brownfield Sites*	0.5 Mile	1	0
18. Non-ASTM Record Source(s)	Not Applicable	No MSD has been established by ASTM for these sources.	

A review and evaluation of the above Federal and State/Tribal/Local Databases indicate that the Subject Property is not identified in any of their databases.

One (1) site is listed in the Superfund Enterprise Management System (SEMS) database located within a ½-mile radius of the Subject Property. The site is located over 1,200 feet to the east-southeast and crossgradient of the Subject Property. Due to its proximity to the Subject Property and related location to the groundwater flow direction, this site should not be a concern.

Forty-three (43) sites are listed on the Leaking Underground Storage Tanks (LTANKs) database, within a 0.5-mile radius of the Subject Property. The adjacent LTANK site is identified as Atlantic Schenectady at 1740 Atlantic Avenue, which is located over 90 feet to the east-northeast and crossgradient of the Subject Property. The Site has been operated as gas station as noted in Section 4.0. Four (4) spills are listed in the LTANK records and are identified as following:

- Spill #0007587 was reported on September 27, 2000 when semi-volatile organic compounds (SVOCs) were identified in the analytical results of endpoint samples for removal of one 550-gallon and one 1,000-gallon waste oil USTs. The spill was determined to be investigated and remediated under Spill #9402692 and closed on February 24, 2004.
- Spill #0313509 was reported on March 9, 2004 due to a tank test failure. The spill was closed on July 7, 2004 after the tank was retested and passed.
- Spill #8605149 was reported on November 2, 1986 when pressure loss was observed at two 4,000-gallon gasoline tanks with no product release. The spill was closed the same day.
- Spill #9402692 was reported on May 24, 1994 when free product was found in multiple monitoring wells during an investigation. Periodic monitoring and sampling had been performed throughout the years. Soil Vapor Extraction (SVE)

system was installed and operated to remediate the contamination. However, it was proved not efficient as expected as the soil at the Site is too compacted. Therefore, a multi-phase extraction (total fluid pumps) system was proposed to remove the free phase product and a high vacuum SVE was proposed to address the dissolved petroleum contamination and approved by NYSDEC in 2016. No further information was provided regarding to spill closure. Due to the current regulatory status, the presence of an active spill should be considered a REC.

The site is also listed in the NY Spills database with following spills:

- Spill #0313485 was reported on March 9, 2004 due to line test failure. All product was contained in a double wall lined pipe. Replacement was performed and the spill was closed on October 18, 2004.
- Spill #1200181 was reported on November 18, 2011 when two flex hose from dispensers were found leaking. The hose was replaced. As soil below the dispensers were impacted, the spill was consolidated with spill #9402692 and closed on April 6, 2012.

Based upon the records from EDR Hist Auto database, the property at 1740 Atlantic Avenue has been operated as following:

Gasoline Service Stations:

- SAF-MAR Service Inc. in 1977 – 1982;
- Ellis Petro Corp. in 1986 – 1988;
- Bronco Gas Inc. in 1991 – 1996;
- Arminda Service in 1996 – 1999.

General Automotive Repair Shop/Automotive Repair Shop, NEC:

- Kings Amoco Repair Service Inc. in 1987 – 1989;
- Zulu Auto Repair Serv Inc. in 1988 – 1990;
- 1740 Auto Service Inc. in 1991 – 1995;
- Arminda Service Station Inc. in 2000 – 2014.

Forty-one (41) LTANK sites have been cleaned up to the satisfaction of the NYSDEC and are considered closed; one (1) LTANK site is currently active. The active LTANK site is identified as Dept of Sanitation at 1760 Atlantic Avenue, which is over 300 feet to the east and crossgradient of the Subject Property. Two (2) spills are listed in the LTANK records. Spill #9300017 was reported on April 1, 1993 when 50 gallons of diesel were spilled onto the pavement due to tank overfill. The spill was cleaned up with speedi-dri to the satisfaction of NYSDEC and closed on December 30, 2002. Spill #0002025 was reported on May 17, 2000 when gross soil contamination were observed in the vicinity of the sealed fill ports and piping of a hoist oil tank. Remediation including soil excavation and installation/operation of Soil Vapor Extraction (SVE) system were performed since 2014. Periodic monitoring and sampling has been continuously performed to address off-site plume related to the former fill port.

None of the these LTANK sites should impact upon the environmental quality of the Subject Property due to various factors such as their location relative to the groundwater flow direction, their current regulatory status, the nature of the spills and/or their proximity.

Seventeen (17) sites are listed in the New York Spills database within a 0.125-mile radius of the Subject Property. Six (6) sites are located in the adjacent properties and are identified as following:

- MH 71430 at Pacific St/Schenectady Ave, which is located over 40 feet to the southeast and upgradient of Subject Property. Spill #0206401 was reported on September 20, 2002 when 1 quart of unknown oil were spilled on 2 gallons of water. The spill was cleaned up to the satisfaction of the NYSDEC and closed on November 27, 2002.
- Schenectady Ave and Atlantic Avenue, which is located over 60 feet to the northeast and crossgradient of the Subject Property. Spill #9809732 was reported on November 3, 1998 when approximately 10 gallons of unknown oil was found in the transformer vault. The spill was cleaned up to the satisfaction of the NYSDEC and closed on November 4, 2002.
- Con Ed Manhole 2372 at Schenectady Avenue/Atlantic Avenue, which is located over 40 feet to the northeast and crossgradient of the Subject Property. Spill #0400864 was reported on April 25, 2004 when approximately 2 gallons of petroleum were spilled onto 300 gallons of water. Spill was cleaned up to the satisfaction of the NYSDEC and closed on July 19, 2004.
- Manhole 302 at Schenectady Ave/Atlantic Avenue, which is located over 40 feet to the northeast and crossgradient of the Subject Property. Spill #9813026 was reported on January 23, 1999 when approximately 1 gallon of unknown petroleum was contained inside a manhole. Spill was cleaned up to the satisfaction of the NYSDEC and closed on October 18, 2002.
- Atlantic Schenectady at 1740 Atlantic Avenue, which is discussed above.
- Shell Gas Station at 1746 Atlantic Ave, which is located over 170 feet to the east and crossgradient of the Subject Property. Spill #0603361 was reported on June 27, 2006 due to line test failure and no release was identified. Spill was cleaned up to the satisfaction of the NYSDEC and closed on August 8, 2006.

Ten (10) sites have been cleaned up to the satisfaction of NYSDEC and closed; the remaining one (1) site is currently active. The active site is identified as Brooklyn North 08 DOS - DDC at 1755 Pacific Street, which is located over 350 feet to the east-southeast and crossgradient of the Subject Property. The following spills are listed in the records associated with this site:

- Spill #0005325 was reported on August 3, 2000 as contamination was identified during excavation around fill port piping of a waste oil tank. Petroleum impact was also identified in the groundwater during further investigation. SVE and Groundwater Extraction (GWET) system had been actively operated as part of the remediation and the GWET was shut down in 2006. Spill closure is pending addressing the off-site plume related to the former fill port.

- Spill #9610332 was reported on November 18, 1996 when approximately 3 yards of contaminated soil were identified during tank upgrade. The spill was consolidated with spill #9703288 and closed on March 2, 2005.
- Spill #9703288 was reported on June 16, 1997 related to suspect underground tank leak. Based upon periodic groundwater sampling results from March 2019, no significant impact was observed in groundwater any more and the spill was closed on August 5, 2019.

None of the spill sites should be considered a REC due to various factors such as their location relative to the groundwater flow direction, their current regulatory status, the nature of the spills and/or their proximity.

Three (3) sites are listed in Voluntary Cleanup Program (VCP) database located within a ½-mile radius of Subject Property. All sites are located over 1,700 feet to the northwest/west-northwest and crossgradient of the Subject Property. Due to their proximity to the Subject Property and relative location to the groundwater flow direction, these sites should not be a concern.

One (1) site is listed in Brownfield Cleanup Program (BCP) database located within a ½-mile radius of Subject Property. The site is located over 1,700 feet to east-southeast and crossgradient of the Subject Property. Due to its proximity to the Subject Property and relative location to the groundwater flow direction, the site should not be a concern.

A vapor encroachment screening consisting of a Tier 1 evaluation of potential Vapor Encroachment Conditions (PVEC) was performed in accordance with ASTM E2600-10. A Tier 1 evaluation determines the presence or likely presence of a PVEC based upon Federal, State and Local database search results and includes an evaluation of distance, depth to water, potential migration pathways, groundwater flow direction, hydraulic barriers, soil characteristics and other factors impacting soil vapor migration. The results of the Tier 1 evaluation indicate that the historic/current operation as gas station at eastern-adjacent property present PVEC at the Subject Property.

None of the remaining properties identified in the databases, including Orphan Sites, should impact upon the environmental quality of the Subject Property.

5.2 Municipal Records

FOIA requests were issued to the following municipal agencies with respect to the Subject Property. All reasonably ascertainable municipal records are provided with this report. **Appendix E** provides copies of the municipal documents.

- New York City Department of City Planning
- New York City Department of Building
- New York City Department of Housing Preservation and Development
- New York City Department of Health
- New York City Bureau of Fire Department
- New York State Department of Environmental Conservation
- New York City Department of Environmental Protection

New York City Department of City Planning

A FOIA request was submitted to the New York City Zoning Department. The Tax Map revealed that the Subject Property consists of three (3) lots, which are identified as the following:

- Block 1335, Lot 35 — 1716 – 1734 Atlantic Avenue, Brooklyn, NY 11213; 1705 – 1725 Pacific Street, Brooklyn, NY 11213; 54 – 72 Schenectady Avenue, Brooklyn, NY 11213
- Block 1335, Lot 30 — 1708 Atlantic Avenue, Brooklyn, NY 11213
- Block 1335, Lot 28 — 1706 Atlantic Avenue, Brooklyn, NY 11213; 1734 Atlantic Avenue, Brooklyn, NY 11213

The New York City Zoning Department indicated that the Subject Property is zoned for M1-1. The Subject Property is not listed as a local landmark in Brooklyn.

New York City Department of Building

All obtainable FOIA documents were obtained via a written request or other means. A FOIA request was submitted to the New York City Department of Building (NYCDOB).

The NYCDOB file for the Subject Property, lists 8 complaints (none open), 5 DOB violations (1 open), 10 ECB violations (3 open), 45 job/filings and 29 actions. The open DOB violation is related to violation without work permit. The open ECB violations are related to unapproved/unsafe/unsuitable electrical equipment or wiring in use and electric work without a permit. The jobs/filings are related to erection of an illuminated accessory business sign on wall, erection of an non-illuminated accessory business sign on wall, new & relocated sprinkler head, interior work, installation new fire suppression system, illuminate non-advertising accessory sign on ground struction, non-illuminated non-advertising accessory sign, interior partitions on the first floor, renovation of an existing store and new building. The actions are related to alteration, building notice, Certificate of Occupancy (CO), new building, sprinklers, plumbing slip, special report, demolition permit signed off, oil burner application and plumbing repair slip. The oil burner application was filed in 1904 with no further information. There are no Cos available on the DOB's website. There's no boiler record or elevator record available on DOB's website. The buildings at the Subject Property are classided as "K6-Store Building" by Department of Finance.

New York City Department of Housing Preservation and Development

A FOIA request was submitted to the New York City Department of Housing Preservation and Development (NYCHPD). The NYCHPD indicated that there is no open violations listed for the Subject Property.

New York City Department of Health

A FOIA request was submitted to the New York City Department of Health (NYCDOH). As of the date of this report, the NYCDOH has not provided any information pertaining

to our FOIA request. Any information provided by the NYCDOH will be provided as soon as it has been received and evaluated.

New York City Bureau of Fire Prevention

A FOIA request was submitted to the New York City Bureau of Fire Prevention (NYCBFP). As of the date of this report, the NYCBFP has not responded to our search request. Any information provided by the NYCBFP will be provided as soon as it has been received and evaluated.

New York State Department of Environmental Conservation

A FOIA request was submitted to the New York State Department of Environmental Conservation (NYSDEC). As of the date of this report, the NYSDEC has not responded to our search request. Any information provided by the NYSDEC will be provided as soon as it has been received and evaluated. The Subject Property is not listed in NYSDEC Petroleum Bulk Storage (PBS) database or any NYSDEC remedial programs database including the Spill Response Program (SRP) database, State Superfund Program (SSF) database, Voluntary Cleanup Program (VCP) database, Brownfield Clean-up Program (BCP) database or Environmental Remediation Program (ERP) database.

New York City Department of Environmental Protection

A FOIA request was submitted to the New York City Department of Environmental Protection (NYCDEP). As of the date of this report, the NYCDEP has not responded to our search request. Any information provided by the NYCDEP will be provided as soon as it has been received and evaluated.

6.0 SITE RECONNAISSANCE

Ms. Ruijie Xu of HydroTech performed the site reconnaissance portion of the Phase I Assessment on July 8, 2020. The weather during the inspection was sunny and approximately 85 degrees Fahrenheit.

HydroTech inspected all accessible portions of the Subject Property except a suspect crawl space/partial basement in the northwestern portion, which was not accessible during the inspection. The following pertinent information was obtained during the Subject Property Reconnaissance:

1. Industrial Processes

   No evidence of historical or current industrial processes was observed at the Subject Property.

2. Drum Storage Areas

   No current or former drum storage areas were observed at the Subject Property.

3. Storage Tanks

   No visual evidence of current underground storage tanks (USTs) or ASTs was identified at the Subject Property.

   No evidence of former USTs/ASTs was identified at the Subject Property.

4. Subsurface Drainage Structures/Drains/Sumps

   One (1) drywell was observed in the northeastern corner of the parking lot. The bottom of the drain was dry and contains crushed stones with no stains or odor.

   No other subsurface drainage structures, such as dry wells, leaching pools or cesspools were observed at the Subject Property. No evidence of former subsurface drainage structures was observed at the Subject Property.

   No evidence of current or former septic/wastewater/stormwater discharge systems was identified at the Subject Property.

   No evidence of current or former floor drains was identified at the Subject Property.

   No evidence of sump pumps was identified at the Subject Property.

5. PCB-Containing Equipment

   No suspect PCB-containing equipment was identified at the Subject Property.

6. Monitoring / Potable Water Wells

   Three (3) monitoring wells with 5-inch manhole covers were identified on the sidewalk around the Site including two (2) in the northwest along Atlantic Avenue and one (1) in the mid-east along Schenectady Avenue. The client is not able to

provide further information for these wells. The presence of monitoring wells are typically related to previous/ongoing investigation or monitoring activities and might be indicative of potential impact in groundwater, which should be considered a REC.

Multiple monitoring wells with manhole covers ranging from 5-inch to 12-inch were observed in the filling station at the eastern adjacent property. Based upon the spill records discussed in Section 5.1, these monitoring wells should be related to the historic/ongoing monitoring activities for several spills. The presence of monitoring wells at the adjacent property and Subject Property should be indicative of suspect impact in groundwater from eastern adjacent property, which should be considered a REC.

No potable wells were identified at Subject Property or the adjacent properties.

7. Pits, Ponds, or Lagoons

   No waste disposal pits, ponds or lagoons were observed at the Subject Property. No evidence of former pits, ponds, pools of liquid or lagoons was observed at the Subject Property.

8. Staining/Stressed Vegetation

   No stains noticed at the Subject Property.

   No evidence of stressed vegetation was observed at the Subject Property.

9. Fill / Land Disposal / Solid Waste

   No visual areas of fill or evidence of land disposal of solid waste material(s) were observed at the Subject Property.

10. Engineering Controls

    No engineering controls were noted at the Subject Property.

11. Odors/Air Emissions

    No odors indicative of a petroleum, chemical or hazardous substance spill or release were identified at the Subject Property. No evidence of air emissions or air emission equipment was identified at the Subject Property.

12. Hazardous Substance / Petroleum Containers

    No evidence of suspect hazardous substance or other petroleum containers were identified at the Subject Property.

7.0 NON-SCOPE CONSIDERATIONS

The following non-scope considerations were evaluated:

1. Suspect Asbestos-Containing Materials

   No visual evidence of suspect asbestos-containing materials were identified at the Subject Property.

2. Suspect Lead-Based Paint

   Visual evidence of peeling paint was identified on the bathroom wall of the drug store in the mid-western portion of the Site. Due to the age of the building, this peeling paint may not contain lead.

3. Lead in Water

   The City of New York is provided with potable water from a series of reservoirs located to the north and northwest of the city. The City of New York is responsible for maintaining the quality of this potable water. The Subject Property is served by public water.

4. Mold

   No suspect mold growth was identified at the Subject Property.

5. Wetlands

   No evidence of wetlands or wetlands growth is identified at the Subject Property. The location of the Subject Property and its vicinity do not appear in the USA National Wetlands Inventory.

6. Radon

   USEPA's recommended action level is 4 picocuries/liter and the average radon gas concentrations predicted in the Brooklyn area is 1.3 picocuries/liter. Since Brooklyn is located in a Low Radon Potential area, radon gas should not represent a potential environmental concern that would warrant the sampling for radon gas at the Subject Property.

7. NYC MTA

   According to the OASISnyc.net, there are no MTA tunnels or els within 200 feet of the Subject Property boundaries. Long Island Rail Road (LIRR) aboveground rail is located less than 50 feet from the northern boundary of the Subject Property along Atlantic Avenue.

8. NYC "E" Designation

   NYC City Environmental Quality Review (CEQR) assigns an "E" Designation to properties that may have development issues related to Hazardous Materials, Noise

or Air Quality. The assignment of an "E" Designation to a property requires developers to obtain signoff from the NYC Office of Environmental Remediation.

The Subject Property is not listed as an "E" Designation site.

8.0 CLIENT / USER-PROVIDED INFORMATION & INTERVIEWS

8.1 Client / User-Provided Information

During the course of the Phase I Assessment, the Client/User Questionnaire is required to provide specific information. The following provides a breakdown of this information.

1. The Client/User provided no records to HydroTech's request for information associated with Environmental Liens or Activity and Use Limitations against the property that may have been filed or listed under federal, tribal, state or local law.

2. The Client/User reported no specialized or actual knowledge or experience related to potential Recognized Environmental Conditions at the Subject Property or nearby properties.

3. The Client/User did not respond to HydroTech's request for information regarding the relationship of the purchase price of the property to a fair market value, specifically if it has been adjusted due to the known or potential presence of on-site contamination.

4. Other than provided in Section 8.2, the Client/User reported no commonly known information or information within the local community regarding past use(s) of the property (including the storage and/or release of chemicals, hazardous substances, petroleum products, etc.) that could have affected the environmental integrity of the subject site.

5. The Client/User could not confirm whether no environmental contamination or cleanups have occurred at the property in the past.

6. HydroTech had sent out questionnaire to the client (the current owner). At the time of this report, no completed questionnaire is provided.

8.2 Interviews

During the course of the Phase I Assessment, interviews were conducted with key site personnel with respect to the operation and history of the Subject Property.

Joey M. Bawabeh – *Owner's representative*

The following information was provided:

- Mr. Bawabeh was not aware of any presence of tanks and was not aware of presence/usage of any petroleum-powered equipment on Site.
- Mr. Bawabeh was not aware of any historic release of petroleum-related and/or hazardous product on Site.
- Mr. Bawabeh was aware of any previous investigation.

Occupants and/or Operators

No other occupants and/or operators were identified and/or available to be interviewed during the course of this Assessment.

Past Owners and/or Occupants

No past owners and/or occupants were identified and/or available to be interviewed during the course of this Assessment.

The interviews did not reveal the presence of any potential Recognized Environmental Conditions in connection with the Subject Property and did not provide any additional information with respect to the environmental integrity of the Subject Property, that was not obtained from other sources over the course of this investigation.

In addition, although an interview with the former owner(s) or occupant(s) or operator(s) was not possible as none were provided to HydroTech as of the date of this ESA, we do not believe that any such owner(s) would have additional material information regarding the potential for contamination at the property that was not obtained from other sources over the course of this investigation.

9.0 CONCLUSIONS

HydroTech has performed a Phase I Environmental Site Assessment at the Subject Property and has revealed the following Recognized Environmental Conditions:

- The presence of active Spill #9402692 at adjacent site (§5.0)
- The suspect presence of an adverse impact to groundwater beneath the Site from adjacent gasoline station (§5.0, 6.0)
- The presence of a Potential Vapor Encroachment Condition at the Subject Property (§5.0)

The following Non-Scope Consideration was identified:

- The presence of LIRR aboveground rail within 200 feet from the Subject Property (§7.0)

10.0 CREDENTIALS & DECLARATION

10.1 Credentials

In accordance with ASTM E 1527, the credentials of those personnel directly involved with the production of this report are provided with this report. **Appendix F** provides a copy of the personnel credentials.

10.2 Environmental Professional Declaration

We declare that to the best of our professional knowledge and belief, we meet the definition of environmental professional as defined in 40 C.F.R. Part 312. We have the specific qualifications based on education, training, and experience to access a property of the nature, history, and setting of the Subject Property. Only where indicated we have developed and performed the AAIs in conformance with the standards and practices set forth in 40 C.F.R. Part 312.

11.0 REFERENCES

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12.0 EXCLUSIONS & DISCLAIMERS

The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by the Client. No warranty, expressed or implied, is made whatsoever in connection with this report.

In preparing this report, HydroTech Environmental Engineering and Geology, DPC. may have relied on certain information provided by state and local officials and other parties referenced therein, and on information contained in the files of state and/or local agencies available to HydroTech Environmental Engineering and Geology, DPC. at the time of the subject property assessment. Although there may have been some degree of overlap in the information provided by these various sources, HydroTech Environmental Engineering and Geology, DPC. did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this subject property assessment.

No environmental site assessment can wholly eliminate uncertainty regarding the potential for RECs in connection with a Subject Property (ASTM E 1527-13 Section 4.5.1). The intent of an environmental site assessment is to reduce but not eliminate uncertainty regarding the presence of potential RECs within reasonable limits of both time and cost.

Observations were made of the subject property and of structures on the subject property as indicated within the report. Where access to portions of the subject property or to structures on the subject property was unavailable or limited, HydroTech Environmental Engineering and Geology, DPC. renders no opinion as to the presence of non-hazardous or hazardous materials, or to the presence of indirect evidence relating to a non-hazardous or hazardous material, in that portion of the subject property or structure. In addition, HydroTech Environmental Engineering and Geology, DPC. renders no opinion as to the presence of hazardous materials, or the presence of indirect evidence relating to hazardous materials, where direct observation of the interior walls, floors, or ceiling of a structure on a subject property was obstructed by objects or coverings on or over these surfaces.

HydroTech Environmental Engineering and Geology, DPC. did not perform testing or analyses to determine the presence or concentration of asbestos or lead-based paint at the Subject Property or in the environment of the subject property under the scope of the services performed.

Any water level reading made in test pits, borings, and/or observation wells were made at the times and under the conditions stated in the report. However, it must be noted that fluctuations in the level of groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

Except as noted within the text of the report, no qualitative laboratory testing was performed as part of the subject property assessment. Where an outside laboratory has conducted such analyses, HydroTech Environmental Engineering and Geology, DPC

has relied upon the data provided and has not conducted an independent evaluation of the reliability of the data.

The conclusions contained in this report are based in part, where noted, upon various types of chemical data and are contingent upon their validity. The data have been reviewed and interpretations were made in the report. As indicated within the report, some of the data may be preliminary "screening" level data and should be confirmed with quantitative analyses if more specific information is necessary. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, the data should be reviewed, and the conclusions and recommendations presented herein modified accordingly. If in the opinion of the Client/User or any third-party claiming reliance on this report, that HydroTech was negligent or in breach of contract, such aforementioned parties shall have 6 months from the date of HydroTech's visit to make a claim.

This report was prepared solely for the use of the Client/User and is not intended for use by third parties. Unauthorized third parties shall indemnify and hold HydroTech harmless against any liability for any loss arising out of, or related to, reliance by any third party on any work performed hereunder, or the contents of this report.

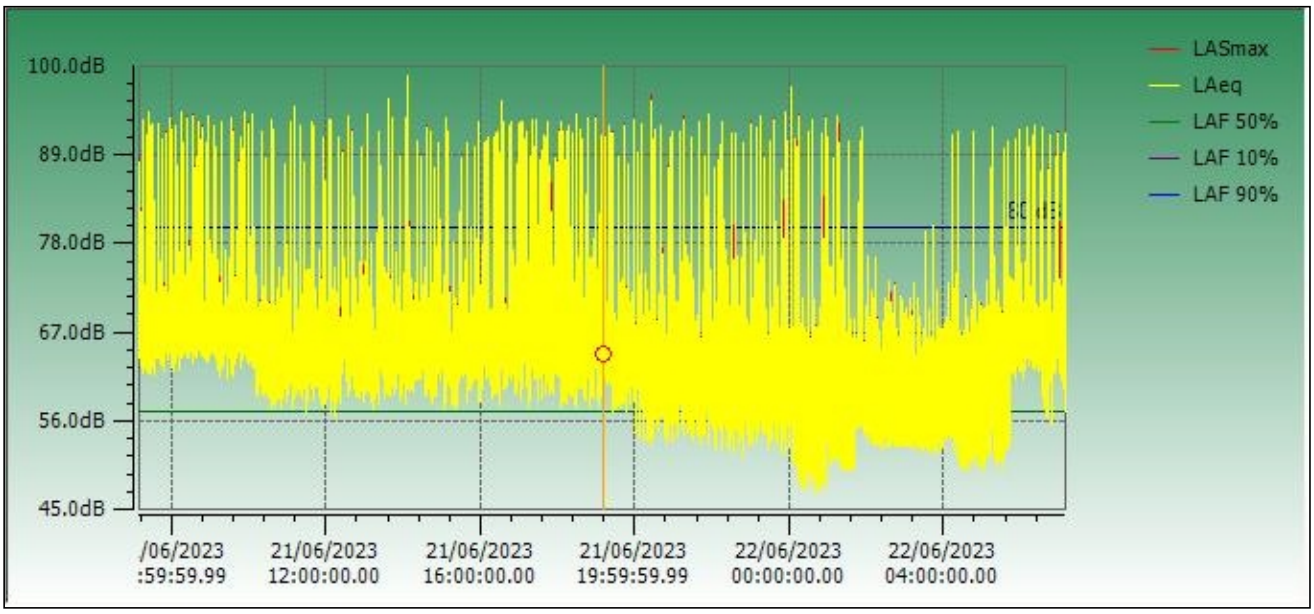
Appendix D

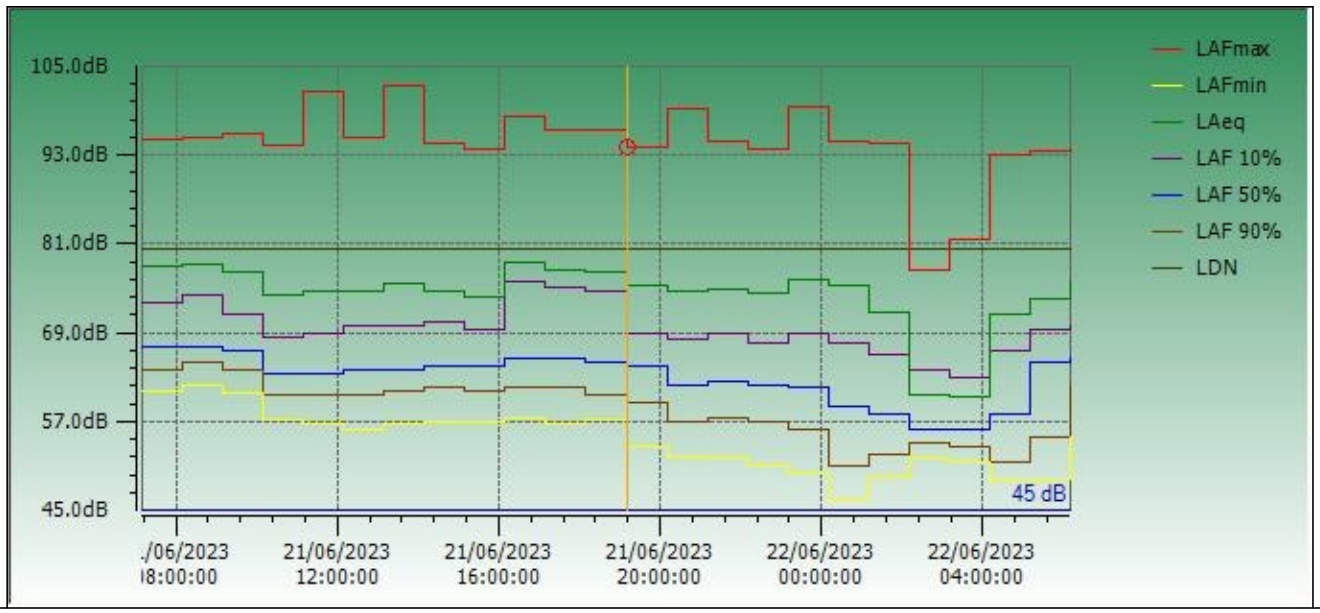
Noise Backup Data

Casella CEL Ltd.

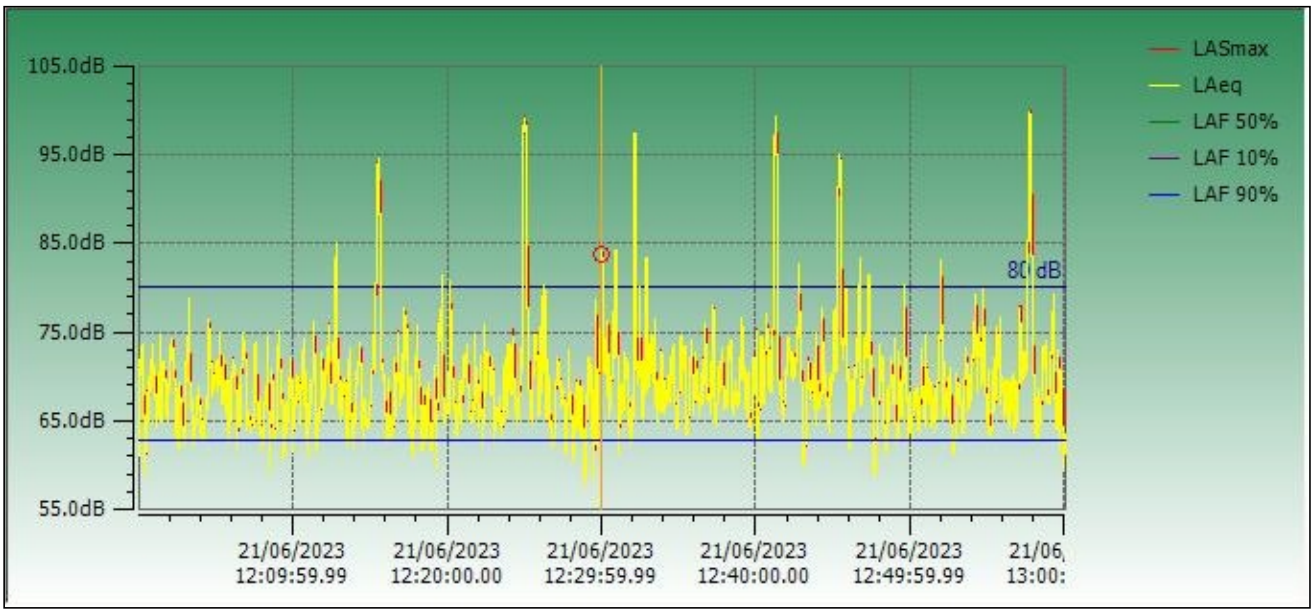
Report On CEL-63X

Instrument Model	**CEL-633C**		
Serial Number	1488256	LASmin	46.5 dB
Start Date & Time	6/21/2023 7:09:47 AM	LAeq	75.4 dB
End Date & Time	6/22/2023 7:09:47 AM	LAS 10%	N/A
Duration	24:00:00 HH:MM:SS	LAS 50%	N/A
Pause Duration	00:00:00 HH:MM:SS	LAS 90%	N/A
Calibration (Before) Date	6/21/2023 7:08:09 AM	LDN	80.2
Calibration (After) Date	6/22/2023 12:45:15 PM	Result	Period
LASmax	102.4 dB		

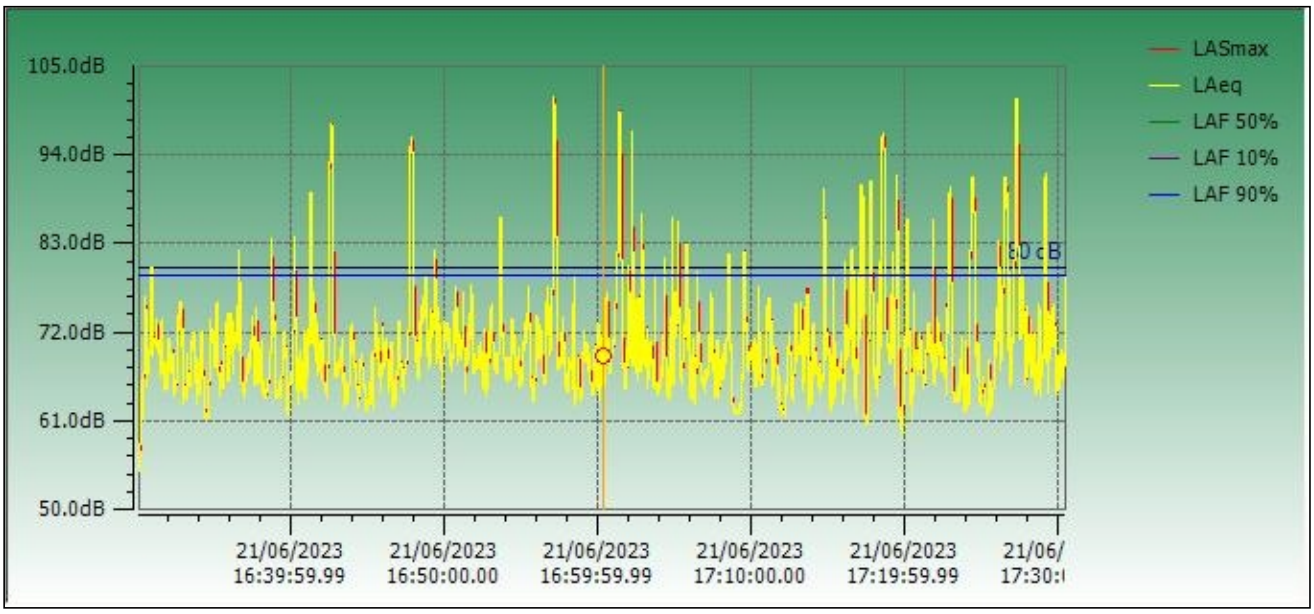




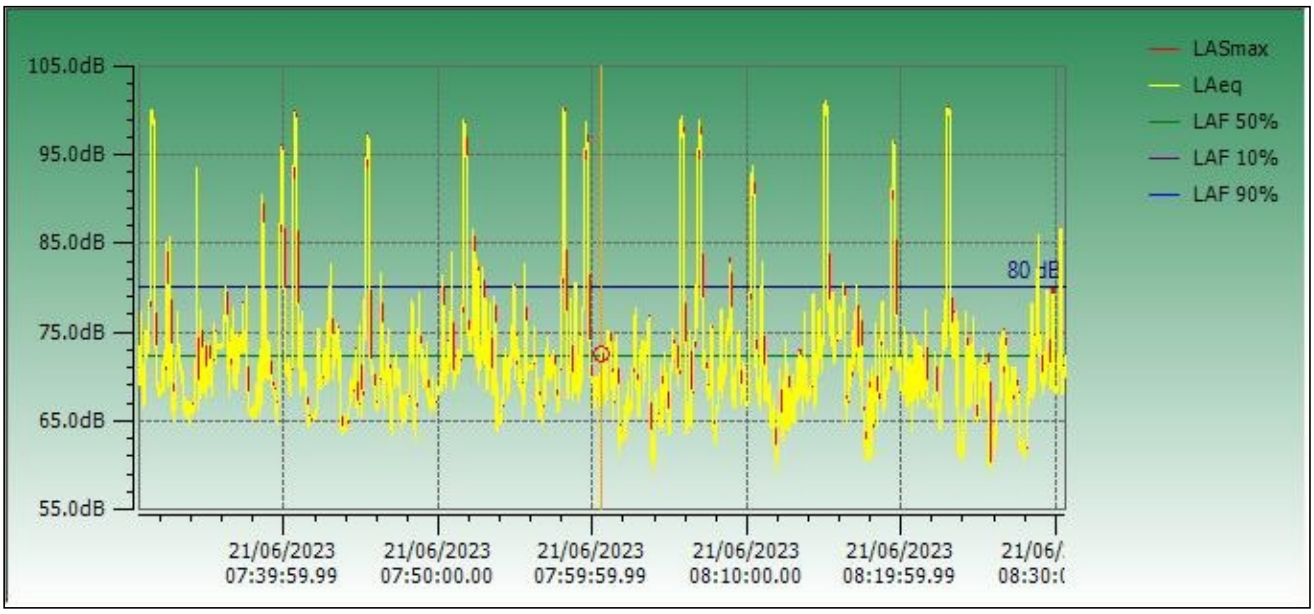
Instrument Model	**CEL-633C**
Serial Number	1274486
Start Date & Time	6/21/2023 12:00:02 PM
End Date & Time	6/21/2023 1:00:04 PM
Duration	01:00:02 HH:MM:SS
Pause Duration	115:12:43 HH:MM:SS
Calibration (Before) Date	6/21/2023 11:59:10 AM
Calibration (After) Date	6/21/2023 1:24:04 PM
LASmax	104.1 dB
LASmin	56.7 dB
LAeq	79.8 dB
LAS 10%	74 dB
LAS 50%	68.5 dB
LAS 90%	64 dB
LDN	0
Result	Cumulative



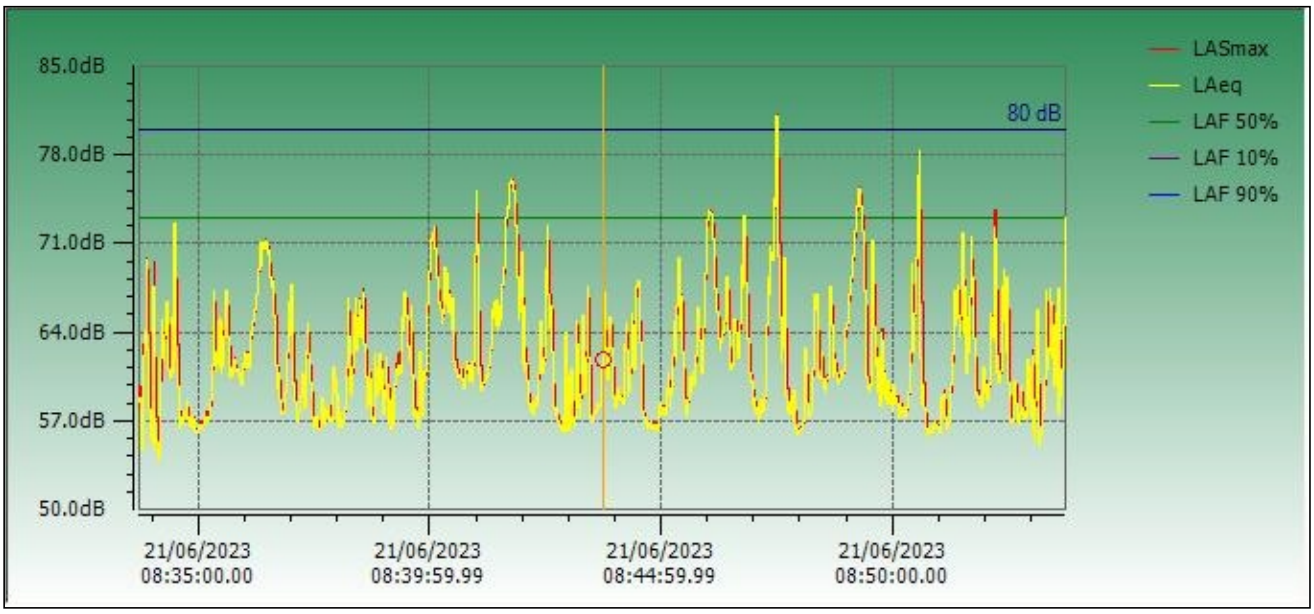
Instrument Model	**CEL-633C**		
Serial Number	1274486	LASmin	54.1 dB
Start Date & Time	6/21/2023 4:30:05 PM	LAeq	81.9 dB
End Date & Time	6/21/2023 5:30:29 PM	LAS 10%	77 dB
Duration	01:00:24 HH:MM:SS	LAS 50%	69 dB
Pause Duration	60:05:18 HH:MM:SS	LAS 90%	64.5 dB
Calibration (Before) Date	6/21/2023 4:29:43 PM	LDN	0
Calibration (After) Date	6/21/2023 5:53:45 PM	Result	Cumulative
LASmax	102.9 dB		



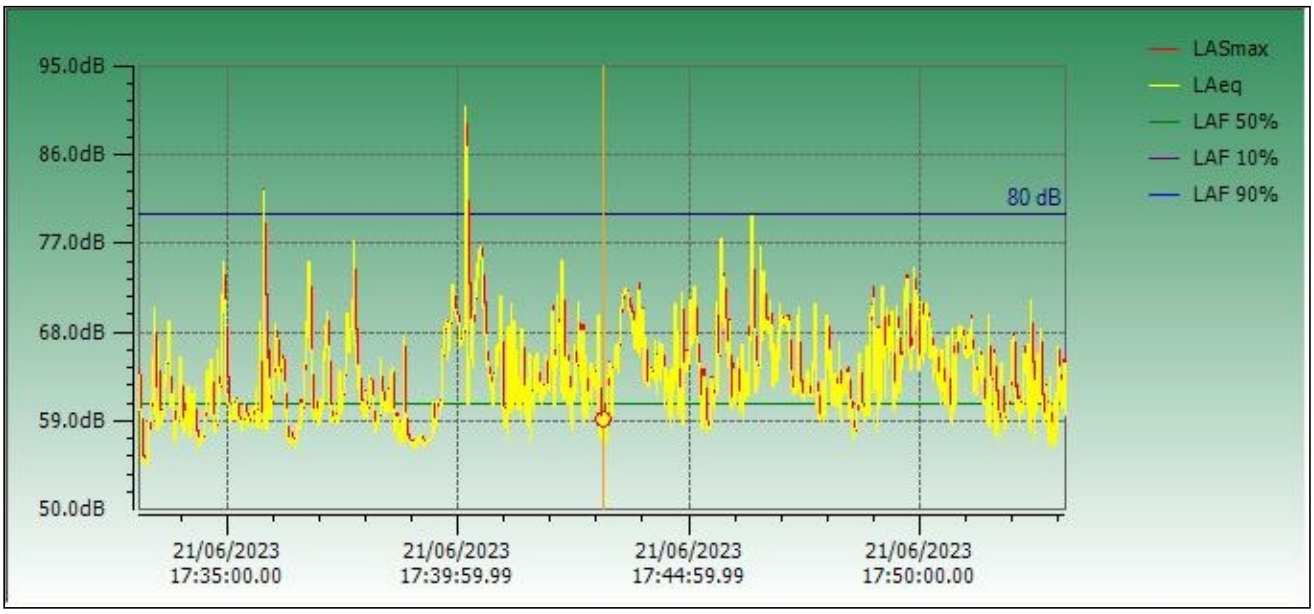
Instrument Model	**CEL-633C**
Serial Number	1274486
Start Date & Time	6/21/2023 7:30:37 AM
End Date & Time	6/21/2023 8:30:39 AM
Duration	01:00:02 HH:MM:SS
Pause Duration	00:00:00 HH:MM:SS
Calibration (Before) Date	6/21/2023 7:25:12 AM
Calibration (After) Date	6/21/2023 8:53:56 AM
LASmax	102.5 dB
LASmin	58.7 dB
LAeq	84.3 dB
LAS 10%	78 dB
LAS 50%	70 dB
LAS 90%	65.5 dB
LDN	0
Result	Cumulative



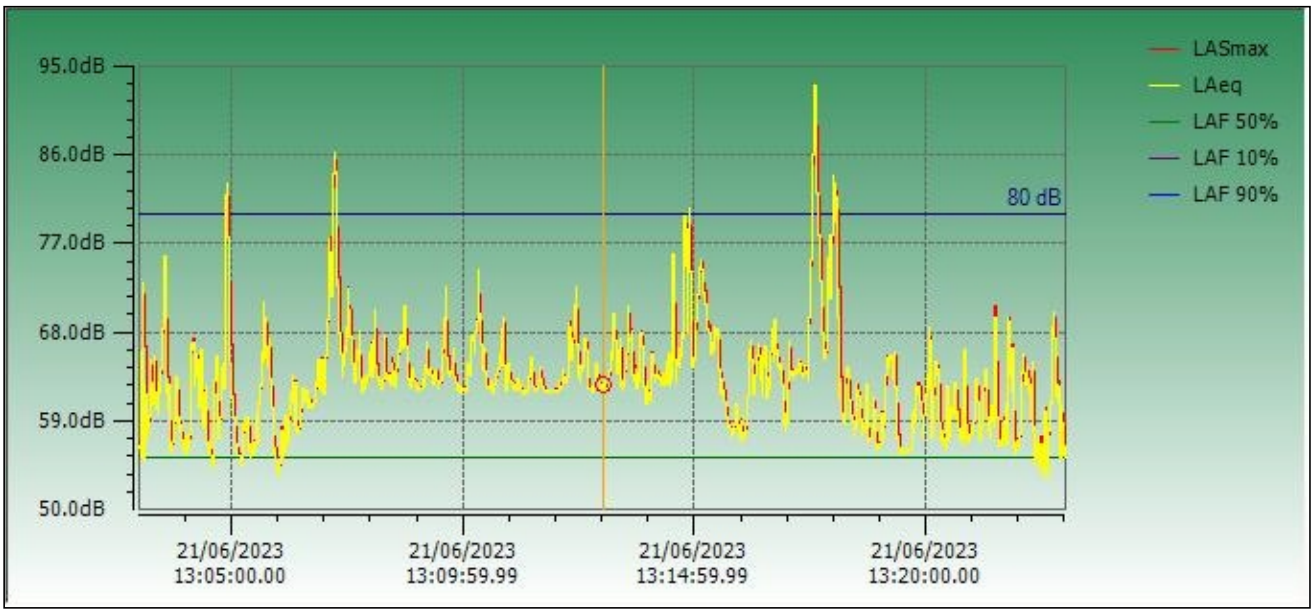
Instrument Model	**CEL-633C**
Serial Number	1274486
Start Date & Time	6/21/2023 8:33:43 AM
End Date & Time	6/21/2023 8:53:44 AM
Duration	00:20:01 HH:MM:SS
Pause Duration	00:00:00 HH:MM:SS
Calibration (Before) Date	6/21/2023 7:25:12 AM
Calibration (After) Date	6/21/2023 8:53:56 AM
LASmax	83.1 dB
LASmin	53.3 dB
LAeq	65.2 dB
LAS 10%	68.5 dB
LAS 50%	61 dB
LAS 90%	57 dB
LDN	0
Result	Cumulative



Instrument Model	CEL-633C		
Serial Number	1274486	LASmin	53.3 dB
Start Date & Time	6/21/2023 5:33:06 PM	LAeq	67.5 dB
End Date & Time	6/21/2023 5:53:10 PM	LAS10%	69.5 dB
Duration	00:20:04 HH:MM:SS	LAS 50%	63 dB
Pause Duration	00:00:00 HH:MM:SS	LAS 90%	58.5 dB
Calibration (Before) Date	6/21/2023 4:29:43 PM	LDN	0
Calibration (After) Date	6/21/2023 5:53:45 PM	Result	Cumulative
LASmax	95.2 dB		



Instrument Model	**CEL-633C**
Serial Number	1274486
Start Date & Time	6/21/2023 1:03:00 PM
End Date & Time	6/21/2023 1:23:01 PM
Duration	00:20:01 HH:MM:SS
Pause Duration	00:00:00 HH:MM:SS
Calibration (Before) Date	6/21/2023 11:59:10 AM
Calibration (After) Date	6/21/2023 1:24:04 PM
LASmax	95 dB
LASmin	52.3 dB
LAeq	69.6 dB
LAS 10%	68.5 dB
LAS 50%	63 dB
LAS 90%	57.5 dB
LDN	0
Result	Cumulative





equity environmental engineering
A Division of GZA

PLANNING
GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

Northern NJ
500 International Drive
Suite 150
Mount Olive, NJ 07828

Manhattan
104 West 29th Street
10th Floor
New York, NY 10001

Noise Assignment Field Sheet

Name of Project: 1720 Atlantic Avenue 12.0077598

Project Address: 1720 Atlantic Avenue Brooklyn, New York

Date(s) of Field Work: 4/18 – 4/19 2023

Personnel: Christian DiGennaro

Project Specific Scope of Work:

1 x 1-hour readings reading AM, Midday, PM
1 x rooftop 24-hour reading
1 x 20-minute reading AM, Midday, PM (location 3)

Bring Ladder

Site Contact – Soly Bawabeh 717-703-8441

I. Start of Noise Monitoring Day

Departure Time: 5:00 Arrival Time: 6:45

Weather Conditions (temp, wind speed, precipitation): Sunny, low wind, 60-70's

Meter Type: Casella Meter Serial #: 148825 6 Meter Location: 1 (rooftop)

Meter Type: Casella Meter Serial #: 274486 Meter Location: 2+3

Meter Type: _____ Meter Serial #: _____ Meter Location: _____

*If more locations are needed for a project use a second Field Sheet

Calibrator Serial #: 3574248 Meters used on: 148825 6

Calibrator Serial #: 1090999 Meters used on: 274486

Calibrator Serial #: _____ Meters used on: _____

Were Photos Taken of Each Location? (Y) N *Discuss specific photo instructions w/ Project Manager

On a separate sheet of paper (field book) make a sketch of the noise meter locations and the distances to nearest wall, fence, building, or other solid surfaces.

II. Morning Session 7:30 AM – 9:00 AM

Before Measurement:

Meter Serial #: 1488256 Time: 7:08 Calibration Passed at 114 dB? (Y) / N

Meter Serial #: 1274486 Time: 7:25 Calibration Passed at 114 dB? (Y) / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

Meter Serial #: 1274486 Time: 9:04 Calibration Passed at 114 dB? (Y) / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

*If more locations are needed for a project use a second Field Sheet

Location #	Start Time	End Time	
1	7:04		
2	7:30	8:30	78
3	8:33	9:03	68.5

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
2	375	435	30	15	32	13
3	22	24	5	0	2	—

*If more locations are needed for a project use a second Field Sheet

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc): 7:33 – 7:34 : music

**Please place noise meters in their respective cases between sessions to avoid damage.*

III. Midday 12:00 PM – 1:30 PM

Before Measurement:

Meter Serial #: 1274486 Time: 11:59 Calibration Passed at 114 dB? (Y) / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

Meter Serial #: 1274486 Time: 13:24 Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

*If more locations are needed for a project use a second Field Sheet

Location #	Start Time	End Time	
2	12:00	13:00	74
3	13:03	13:23	68.5

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
2	309	390	22	7	22	9
3	18	20	3	0	1	–

*If more locations are needed for a project use a second Field Sheet

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):

_____

_____

_____

Please place noise meters in their respective cases between sessions to avoid damage.

IV. Evening Session 4:30 PM – 6:00 PM

Before Measurement:

Meter Serial #: 1274486 Time: 16:29 Calibration Passed at 114 dB? (Y) / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

Meter Serial #: 1274486 Time: 17:53 Calibration Passed at 114 dB? (Y) / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

*If more locations are needed for a project use a second Field Sheet

Location #	Start Time	End Time
2	16:30	17:30
3	17:33	17:53

77

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
2	902	427	19	12	37	12
3	27	20	6	1	0	—

*If more locations are needed for a project use a second Field Sheet

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):

_____

_____

_____

**Please place noise meters in their respective cases between sessions to avoid damage.*

V. End of Noise Monitoring Day

- Please return all noise meters to their cases.
- Do not return dead batteries to the cases, throw them out.
- Did you take photos? (Y) / N
- Did you complete the site sketch? Y / N
- If a meter(s) was rented, please scan in calibration documents.

Anything of note/concern for the day: _____

_____

_____

Departure Time: _____ Arrival Time: _____

Total Time to Be Billed: 15