280 Bergen Street Rezoning

Environmental Assessment Statement

PREPARED FOR

BNW3 Re-Gen, LLC
MetLife Building
200 Park Avenue
New York, NY 10166

CEQR #: 22DCP149K
ULURP #: 220188ZMK, N220189ZRK

PREPARED BY

1 Penn Plaza
Suite 715
New York, NY 10119
212.857.7350

JUNE 3, 2022

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 280 Bergen Street Rezoning

1. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
22DCP149K	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
220188ZMK, N220189ZRK	

2a. *Lead Agency Information*			**2b. *Applicant Information***		
NAME OF LEAD AGENCY			NAME OF APPLICANT		
Department of City Planning			BNW3 Re-Gen, LLC		
NAME OF LEAD AGENCY CONTACT PERSON			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON		
Stephanie Shellooe, Director			Jay A. Segal, Greenberg Traurig, LLP		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 200 Park Avenue		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10166
TELEPHONE 212-720-3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 212-801-9265	EMAIL segalj@gtlaw.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): 6 NYCRR 617.4(9)

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, BNW3 Re-Gen, LLC, is seeking discretionary approvals from the City Planning Commission (CPC), including a zoning map amendment on Lots 1, 8, 9, 11, 12, 19, 31, 34 - 38, 41, 42, 51, 52, and 58 on Block 388 in the Boerum Hill neighborhood of Brooklyn, Community District 2, and a zoning text amendment to designate these lots as a Mandatory Inclusionary Housing (MIH) Area (the "Proposed Actions"). The proposed zoning map amendment would rezone the Project Area from an M1-2 district to an R7D district with a C2-4 overlay within 100 feet of Third Avenue and an R7A district on the remainder of the Project Area. The Proposed Actions would facilitate an approximately 307,000-gross-square-foot (gsf) mixed-use development within four buildings proposed on Lots 19, 42, and 51 that would range from three stories to nine stories or 37 feet to 95 feet in height (Projected Development Site 1). The proposed mixed-use development would include approximately 268,627 gsf of residential space and 302 residential units, 9,680 gsf of retail space, 10,000 gsf of medical office space, and 18,693 gsf of parking space, accommodating 125 parking garage spaces to be located at grade. Approximately 60 of the residential units would be affordable pursuant to the Mandatory Inclusionary Housing (MIH) program.

Project Location

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 2	STREET ADDRESS 280 Bergen Street
TAX BLOCK(S) AND LOT(S) Block 388, Lots 1, 8, 9, 11, 12, 19, 31, 34 - 38, 41, 42, 51, 52, and 58		ZIP CODE 11217

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Rezoning area bounded by Bergen Street to the north; Nevins Street to the west, Wyckoff Street to the south, and Third Avenue to the east (not including Lots 43 through 50 on the south side of the block)

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-2 | ZONING SECTIONAL MAP NUMBER 16c

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

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

☐ CITY MAP AMENDMENT	☐ ZONING 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

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

Other City Approvals Not Subject to CEQR (check all that apply)
☐ PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC)
☐ LANDMARKS PRESERVATION COMMISSION APPROVAL
☐ OTHER, explain:

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

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

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

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

Physical Setting (both developed and undeveloped areas)
Total directly affected area (sq. ft.): 137,800
Waterbody area (sq. ft.) and type: 0
Roads, buildings, and other paved surfaces (sq. ft.): 137,800
Other, describe (sq. ft.): 0

7. *Physical Dimensions and Scale of Project* (if the project affects multiple sites, provide the total development facilitated by the action)
SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 307,000
NUMBER OF BUILDINGS: 4
GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 254,904; 45,376; 3,360; 3,360
HEIGHT OF EACH BUILDING (ft.): 95', 95', 37', 37'
NUMBER OF STORIES OF EACH BUILDING: 9, 9, 3, 3

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: 69,400
The total square feet not owned or controlled by the applicant: 68,400

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: 58,284 sq. ft. (width x length)
VOLUME OF DISTURBANCE: 699,408 cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 58,284 sq. ft. (width x length)

8. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2025

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 36 months

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Projected Development Site 1 would be constructed in one phase.

9. *Predominant Land Use in the Vicinity of the Project* (check all that apply)
☒ RESIDENTIAL ☐ MANUFACTURING ☒ COMMERCIAL ☐ PARK/FOREST/OPEN SPACE ☐ OTHER, specify:

DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS

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

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
LAND USE				
Residential	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type of residential structures			Multi-family Apartments	
No. of dwelling units			302	+302
No. of low- to moderate-income units			60	+60
Gross floor area (sq. ft.)			268,627	+268,627
Commercial	☐ YES ☒ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)		Retail; Office	Retail	
Gross floor area (sq. ft.)		105,537	9,680	-95,857
Manufacturing/Industrial	☒ YES ☐ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use	Factory; Automotive			
Gross floor area (sq. ft.)	50,000			
Open storage area (sq. ft.)	0	0		
If any unenclosed activities, specify:				
Community Facility	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Type		Medical Office	Medical Office	
Gross floor area (sq. ft.)		20,812	10,000	-10,812
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	0	
No. of accessory spaces		425	125	-300
Operating hours		N/A	24/7	
Attended or non-attended		attended	non-attended	
Lots	☒ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces	0	0	0	
No. of accessory spaces	60	0	0	
Operating hours				
Other (includes street parking)	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," describe:	street parking	street parking	street parking	
POPULATION				
Residents	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify number:		0	683	+683
Briefly explain how the number of residents was calculated:	The number of residents is based on an average household size of 2.26 for Neighborhood DUMBO-Vinegar Hill-Downtown Brooklyn-Boerum Hill (2015-2019 ACS Survey).			

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Businesses	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. and type	2 Manufacturing/Automotive; 1 Office bldg	Office; Retail; Medical Office	Retail and community facility businesses	
No. and type of workers by business	60	490	81	-409
No. and type of non-residents who are not workers				
Briefly explain how the number of businesses was calculated:	Existing manufacturing employees provided by the applicant. Assumes 1 employee per 250 sf of office or medical office; 3 employees per 1,000 sf of retail; 1 employee per 25 dwelling units.			
Other (students, visitors, concert-goers, *etc.*)	☐ YES ☒ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If any, specify type and number:		customers/CF users (amount TBD)	customers/CF users (amount TBD)	
Briefly explain how the number was calculated:				
ZONING				
Zoning classification	M1-2	M1-2	R7A, R7D/C2-4	
Maximum amount of floor area that can be developed	279,763 zsf	121,400 zsf	238,420 zsf	+117,020
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Residential; commercial; Institutional	Residential; commercial; Institutional	Residential; commercial; Institutional	
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 attached		
(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.		

	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 attached		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
(c) If "yes" to either of the above, please provide the information requested in Chapter 10. see attached		
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: See Section 9, Hazardous Materials	☒	☐
(j) Based on the Phase I Assessment, is a Phase II Investigation needed? See Section 9, Hazardous Materials	☒	☐
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, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒

	YES	NO
(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): 6,392		
○ 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): 10,337,398 MBtus		
(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)	☐	☒
(c) Does the proposed project involve multiple buildings on the project site?	☒	☐
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
(f) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. see attached		
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?	☒	☐
(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	☐	☒

	YES	NO
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 attached		
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. see attached		
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. see attached		

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
Nancy Doon	Nancy Doon	June 3, 2022

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:

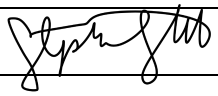
☐ **Positive Declaration**: If the lead agency has determined that the project may have a significant impact on the environment, and if a Conditional Negative Declaration is not appropriate, then the lead agency issues a *Positive Declaration* and prepares a draft Scope of Work for the Environmental 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
Director, Environmental Assessment and Review Division	Department of City Planning, acting on behalf of the City Planning Commission
NAME	DATE
Stephanie Shellooe	June 3,2022

SIGNATURE 

NEGATIVE DECLARATION

Statement of No Significant Effect

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

Reasons Supporting this Determination

The above determination is based on information contained in this EAS, which finds the proposed actions sought before the City Planning Commission would not have a significant adverse impact on the environment. Reasons supporting this determination are noted below.

Land Use, Zoning, and Public Policy

A detailed analysis of land use, zoning, and public policy is included in the EAS. The proposed actions are a Zoning Map Amendment to rezone the project area (Brooklyn Block 388, Lots 1, 8, 9, 11, 12, 19, 31, 34-38, 41, 42, 51, 52, and 58) from M1-2 to R7D/C2-4 and R7A, and a Zoning Text Amendment to establish a Mandatory Inclusionary Housing (MIH) area with MIH options 1 and 2 coterminous with the project area in the Boerum Hill neighborhood of Brooklyn, Community District 2. The proposed actions would facilitate the development of four mixed use buildings on Lots 19, 42, and 51 (projected development site 1) containing 302 residential dwelling units, about 60 of which would be affordable pursuant to MIH, 9,680 gsf of retail space, 10,000 gsf of medical office space, and approximately 125 parking spaces. The analysis framework conservatively identifies two potential development sites (Potential Site A – Lot 1, and Potential Site B - Lots 34-37, and 41), both of which are owned by the New York City Department of Housing Preservation and Development (HPD) and development of which would require additional environmental review in the future. The proposed actions are anticipated to result in a change in land use and zoning within the project area, however, given the existing residential character of the surrounding area, and the mixed-use character along Third Avenue, the change in zoning from manufacturing to residential and mixed residential/commercial would make uses within the project area more consistent with existing uses in the surrounding area. As such, the proposed actions would not constitute a significant adverse impact to land use, zoning, or public policy.

Community Facilities and Services

Public Schools – The EAS includes a detailed analysis of public schools. A significant adverse impact related to public schools may result if the proposed actions would result in both a collective utilization rate of 100% or more in the With-Action condition, and 100 or more new students generated from the proposed development past the 100% utilization rate. It is estimated that the addition of 53 project-generated elementary school students to the study area would result in a utilization rate of 101.7% but would not result in 100 or more new students from proposed project past the 100 percent utilization rate. Therefore, the proposed project would not result in a significant adverse impact to elementary schools. The proposed project would be expected to generate 11 intermediate school students, resulting in a utilization rate of 59.4%. Intermediate schools would continue to operate within capacity under the With-Action condition, and therefore, the proposed project would not result in a significant adverse impact to intermediate schools.

Open Space

A detailed analysis related to open space is included in this EAS. The proposed actions would result in an increase of approximately 683 new residents, which is above the threshold described in the CEQR Technical Manual for a detailed analysis of residential open space. The open space ratio for residents in the study area would decrease from 0.218 to 0.215 acres per thousand residents, a decrease of approximately 1.20%, as a result of the proposed actions, which is above the 1% threshold for potential impacts to open space. The analysis finds that while there would be a decrease in the open space ratio as a result of the increase in population, a number of qualitative factors would help to prevent an impact to open space resources, including proximity to several open space resources that are just outside of the open space study area including Fort Greene Park, Prospect Park, Thomas Greene Playground, South Oxford Park, Dean Playground, and University Place – all not included in the quantitative analysis. Additionally, the analysis finds low to moderate usage of 11 of the 19 existing open space resources in the study area, suggesting that these resources can absorb additional open space users. Lastly, the proposed project would include approximately 18,000 square feet of onsite passive open space for tenants, which may lessen the burden of the proposed project's residents on study area open spaces. Therefore, with the consideration of these qualitative factors, the proposed actions would not result in any significant adverse impacts to open space, and no further analysis is required.

Shadows

A detailed analysis of shadows is included in the EAS. The analysis concludes that incremental shadows from the development facilitated by the proposed actions would be cast on two sunlight-sensitive resources: Pacific School Playground and the Former New York Times Printing Press building. New incremental shadow would be cast on both resources on the December 21 analysis day. Incremental shadow would cover a small portion of the playground, containing the jungle gym, for 5 minutes on the December analysis day, which would not affect vegetation, or users of the space. Incremental shadow would be cast upon a limited area of the Former New York Times Printing Press building for 12 minutes on the December analysis day. The limited duration of shading would not detract from the views of the highly carved ornamentation of the building's stone façade. No other sunlight-sensitive resources would be affected by shadows generated by the proposed actions. As such, the proposed actions would not result in significant adverse shadow impacts, and no further analysis is warranted.

Construction

The EAS includes a detailed analysis of construction. Construction would occur over an approximately 36-month period, and would adhere to the applicable laws, regulations, and building codes that govern construction in New York City. As detailed in the construction assessment in the EAS, while construction of the proposed

Project Name: 280 Bergen Street Rezoning
CEQR # 22DCP149K
SEQRA Classification: Type I

development may result in localized, temporary disruptions, the proposed actions would not result in significant adverse construction impacts in the key technical areas of transportation, air quality, and noise. The applicant will enter a Restrictive Declaration, to be recorded against the development site in association with the proposed actions, that would include commitments to implement Project Components Related to the Environment (PCREs), including noise control and air emissions control during construction, that would preclude any potential impacts to air quality or noise related to construction activities. Therefore, with the PCREs in place, the proposed actions would not result in construction-period significant adverse impacts and no further analysis is warranted.

Hazardous Materials, Air Quality, and Noise

An (E) designation (E-682) related to hazardous materials, air quality, and noise would be established as part of the approval of the proposed actions. Refer to "Determination of Significance Appendix: (E) designation" for the applicable (E) designation requirements. The hazardous materials, air quality, and noise analyses conclude that with the (E) designation in place, the proposed actions would not result in a significant adverse impact related to hazardous materials, air quality, or noise.

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). Should you have any questions pertaining to this Negative Declaration, you may contact Rachel Antelmi at rantelmi@planning.nyc.gov.

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	Department of City Planning on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | 212.720.3328
NAME Stephanie Shellooe	DATE June 3, 2022
SIGNATURE	

TITLE	
Chair, City Planning Commission	
NAME Daniel R. Garodnick	DATE June 6, 2022
SIGNATURE	

Project Name: 280 Bergen Street Rezoning
CEQR # 22DCP149K
SEQRA Classification: Type I

Determination of Significance Appendix

The Proposed Action(s) were determined to have the potential to result in changes to development on the following site(s):

Development Site	Borough	Block and Lot
Projected Development Site 1	BK	Block 388, Lots 19, 42, 51
Potential Development Site A	BK	Block 388, Lot 1
Potential Development Site B	BK	Block 388, Lots 34, 35, 36, 37, 41

(E) Designation Requirements

To ensure that the proposed actions would not result in significant adverse impacts related to hazardous materials, air quality, and noise an (E) designation (**E-682**) would be established as part of approval of the proposed actions on **Projected Development Site 1, Potential Development Site A, and Potential Development Site B** as described below:

Development Site	Hazardous Materials	Air Quality	Noise
Projected Development Site 1	X	X	X
Potential Development Site A		X	X
Potential Development Site B		X	X

Hazardous Materials

The (E) designation requirements applicable to **Projected Development Site 1** for hazardous materials would apply as follows:

Task 1-Sampling Protocol
The applicant submits to OER, for review and approval, a Phase I of the site along with a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples should be selected to adequately characterize the site, specific sources of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2-Remediation Determination and Protocol
A written report with findings and a summary of the data must he submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

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

Project Name: 280 Bergen Street Rezoning
CEQR # 22DCP149K
SEQRA Classification: Type I

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.

Air Quality

The (E) designation requirements for air quality would apply as follows:

Block 388, Lot 19
Sycamore Place (Projected Development Site 1 – North Building): Any new residential and commercial development on the above-referenced property must utilize only natural gas in any fossil fuel-fired HVAC and hot water system be fitted with low NOx (20 ppm) burners, and ensure that the exhaust stack is located at least 123 feet above grade, at most 32 feet from the northern lot line facing Bergen Street, at least 220 feet from the eastern lot line facing Third Avenue, and no less than 180 feet from the western lot line facing Nevins Street, to avoid any potential significant adverse air quality impacts.

Linden Place (Projected Development Site 1 – South Building): Any new residential development on the above-referenced property must utilize only natural gas in any fossil fuel-fired HVAC and hot water system be fitted with low NOx (9 ppm) burners and ensure that the exhaust stack is located at least 123 feet above grade, at least 63 feet from the southern lot line facing Wyckoff Street, at least 139 feet from the northern lot line facing Bergen Street, and at least 32 feet from the western lot line facing Nevins Street and from the eastern lot line facing Third Avenue, to avoid any potential significant adverse air quality impact.

Block 388, Lot 42
Townhome 1 (Projected Development Site 1): Any new residential development on the above-referenced property must utilize only natural gas in any fossil fuel-fired HVAC and hot water system, be fitted with low NOx (20 ppm) burners and ensure that the exhaust stack is located at least 40 feet above grade, and at least 9 feet from the eastern lot line facing Third Avenue and at least 9 feet from the western lot line facing Nevins Street to avoid any potential significant adverse air quality impacts.

Block 388, Lot 51
Townhome 2 (Projected Development Site 1): Any new residential development on the above-referenced property must utilize only natural gas in any fossil fuel-fired HVAC and hot water system, be fitted with low NOx (20 ppm) burners and ensure that the exhaust stack is located at least 40 feet above grade, at least 9 feet from the eastern lot line facing Third Avenue and at least 9 feet from the western lot line facing Nevins Street to avoid any potential significant adverse air quality impacts.

Block 388, Lot 1
Hawthorn Place (Potential Development Site A): Any new residential development on the above-referenced property must utilize only natural gas in any fossil fuel-fired HVAC and hot water system, be fitted with low NOx (20 ppm) burners and ensure that the exhaust stack is located at least 123 feet above grade, and at least 27 feet from the western lot line facing Nevins Street, at least 93 feet from the southern lot line facing Bergen Street and at least 24 feet from the northern lot line facing Bergen Street to avoid any potential significant adverse air quality impacts.

Block 388, Lots 34, 35, 36, 37, 41
Silver Maple Place (Potential Development Site B): Any new residential development on the above-referenced property must utilize only natural gas in any fossil fuel-fired HVAC and hot water system, be fitted with low NOx (9 ppm) burners and ensure that the exhaust stack is located at least 143 feet above grade, and at least 24 feet from the northern lot line

of Lot 34 facing Bergen Street and at least 39 feet from the southern lot line of Lot 37 facing Wyckoff Street and at least 39 feet from the western lot line facing Nevins Street to avoid any potential significant adverse air quality impacts.

Noise

The (E) designation requirements for noise would apply as follows:

Block 338, Lots 19, 42, and 51 (Projected Development Site 1)
To ensure an acceptable interior noise environment, future residential and community facility uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on the facades facing Nevins Street, and a minimum of 31 dBA window/wall attenuation on the facades facing Third Avenue in order to maintain an interior noise level not greater than 45 dBA for residential and community facility uses. 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, air conditioning.

On the Potential Development Sites A and B, to ensure that there are no potential significant adverse noise impacts, the following restrictions would be placed through a future Land Disposition Agreement (LDA) or similar binding mechanism between the City of New York and a future developer:

Block 388, Lot 1 (Potential Development Site A)
To ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on the facades facing Nevins Street and the facades facing Bergen Street within 50 feet of Nevins Street in order to maintain an interior noise level not greater than 45 dBA for residential uses. 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, air conditioning.

Block 388, Lots 34, 35, 36, 37, and 41 (Potential Development Site B)
To ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the facades facing Third Avenue and the facades facing Bergen Street within 50 feet of Third Avenue and 28 dBA of attenuation on the facades facing Wyckoff Street within 50 feet of Third Avenue in order to maintain an interior noise level not greater than 45 dBA for residential uses. 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, air conditioning.

EAS Figures

Figure 1 Project Area Map

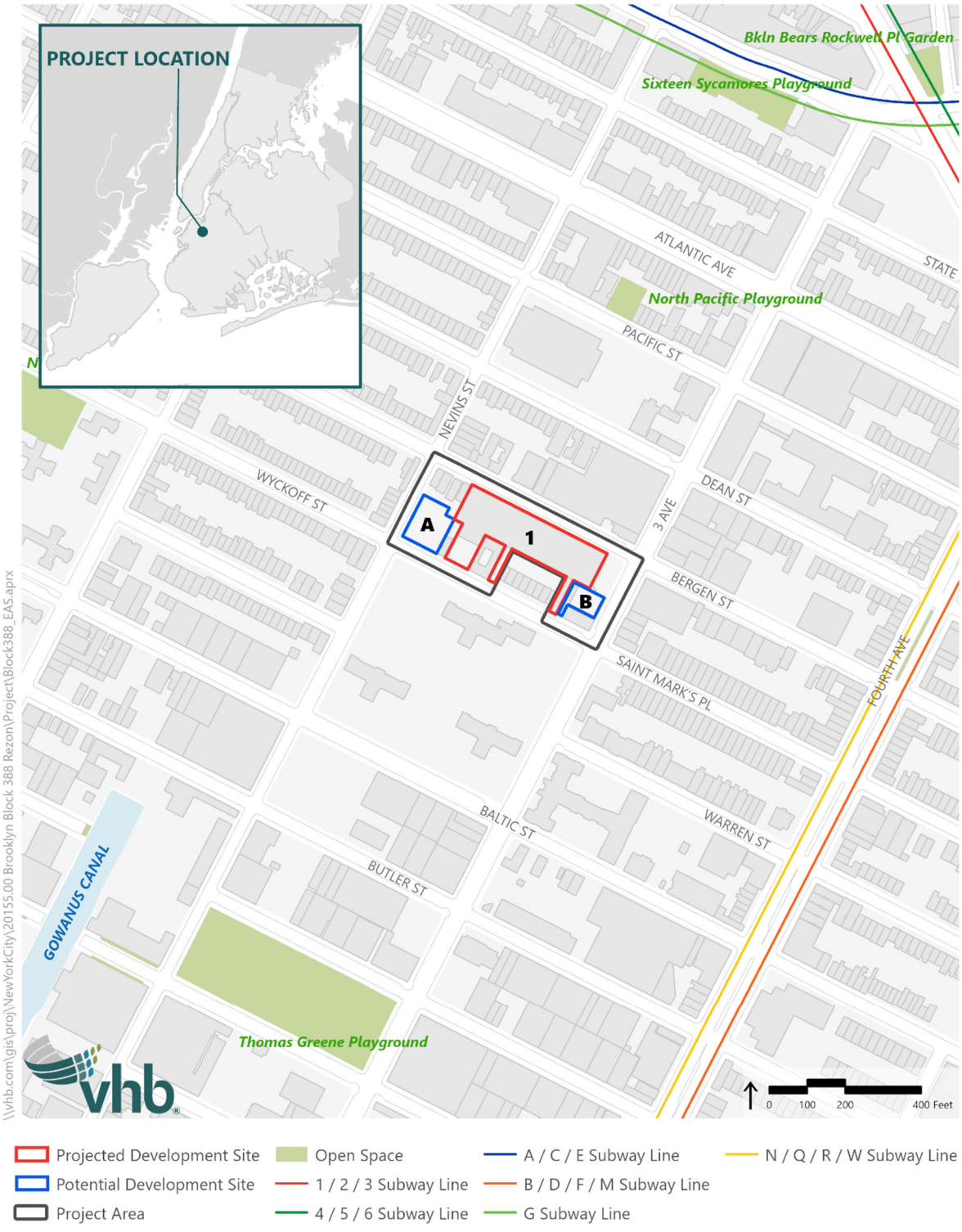


Figure 2 Tax Map

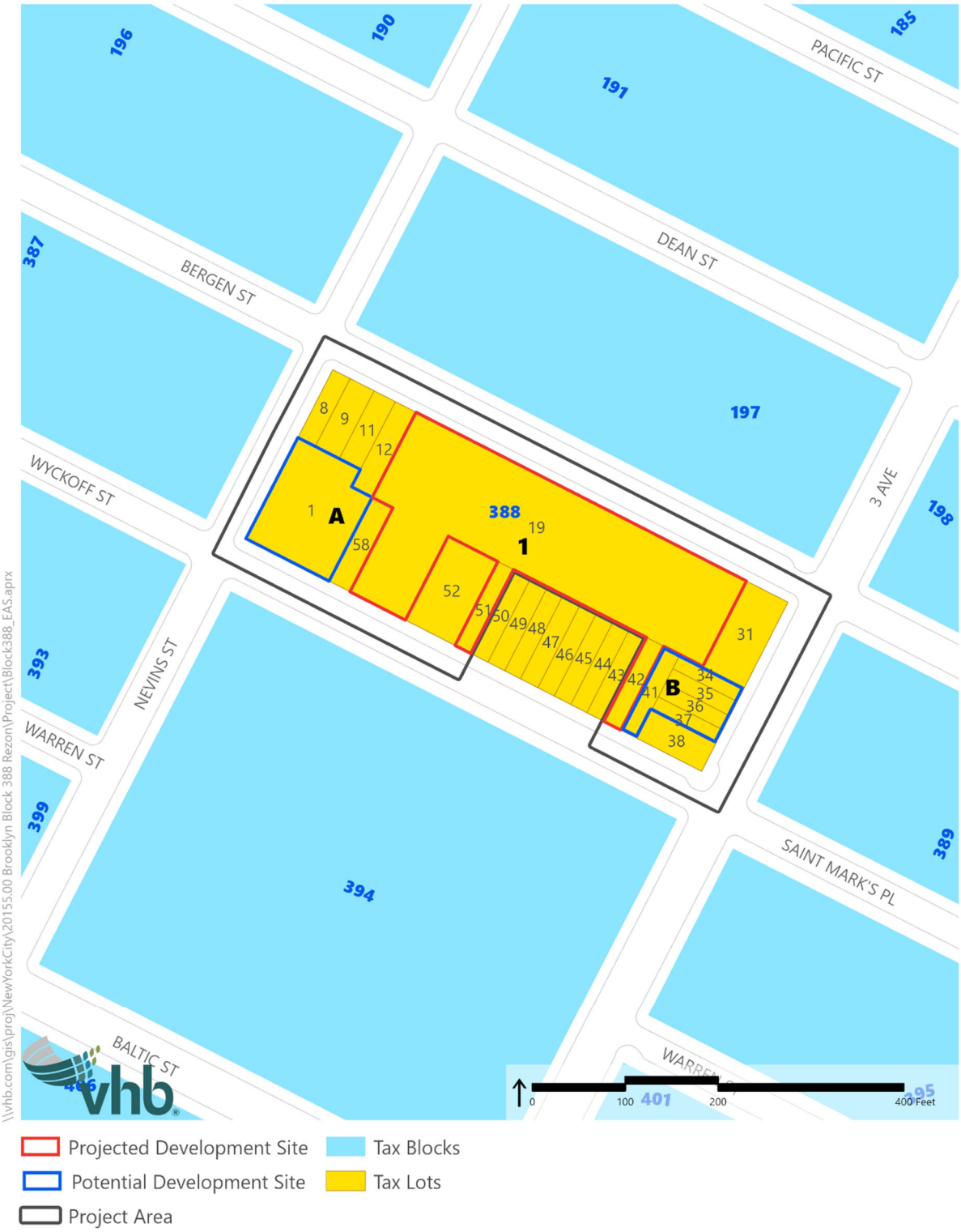


Figure 3 Existing Zoning Map

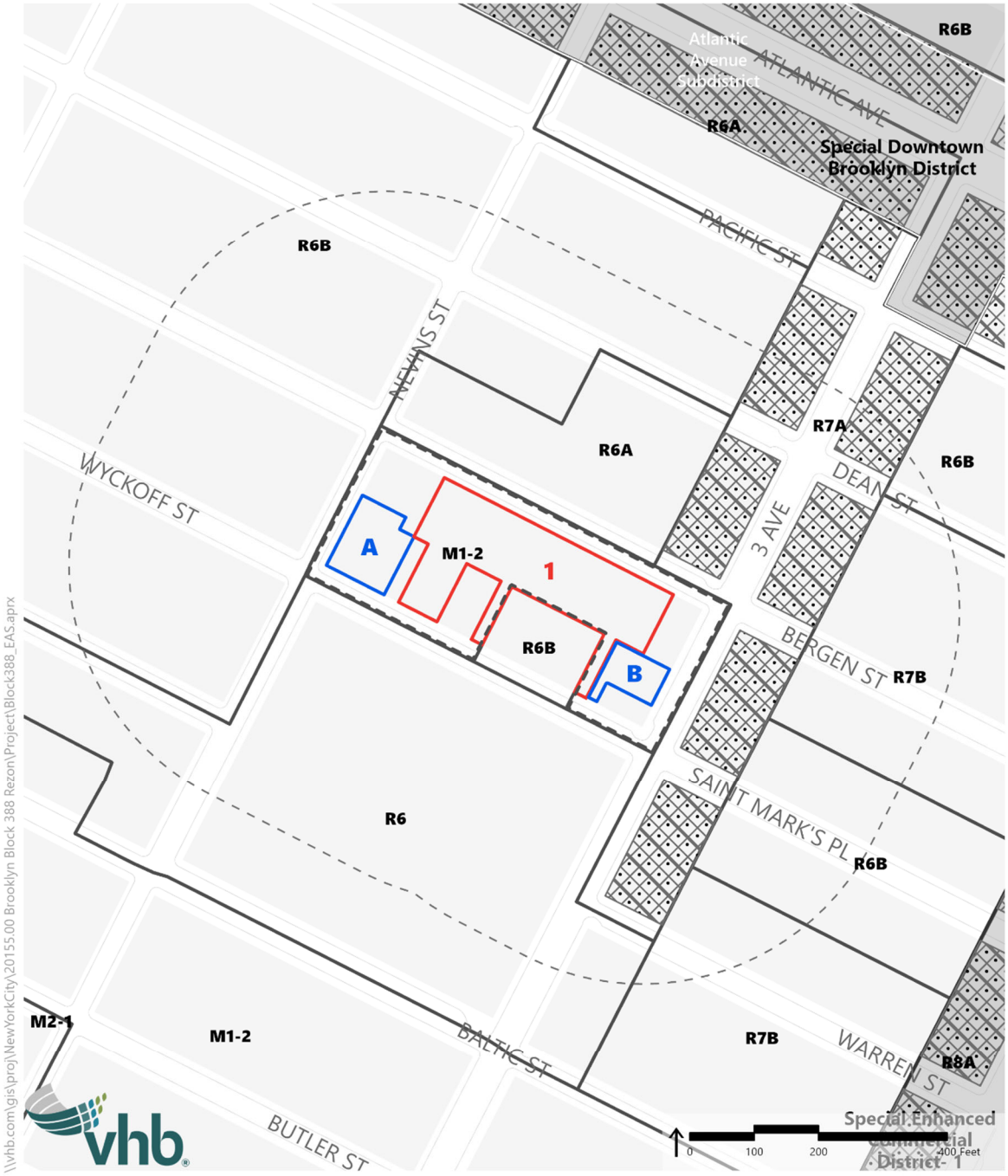


Figure 4 Proposed Zoning Map

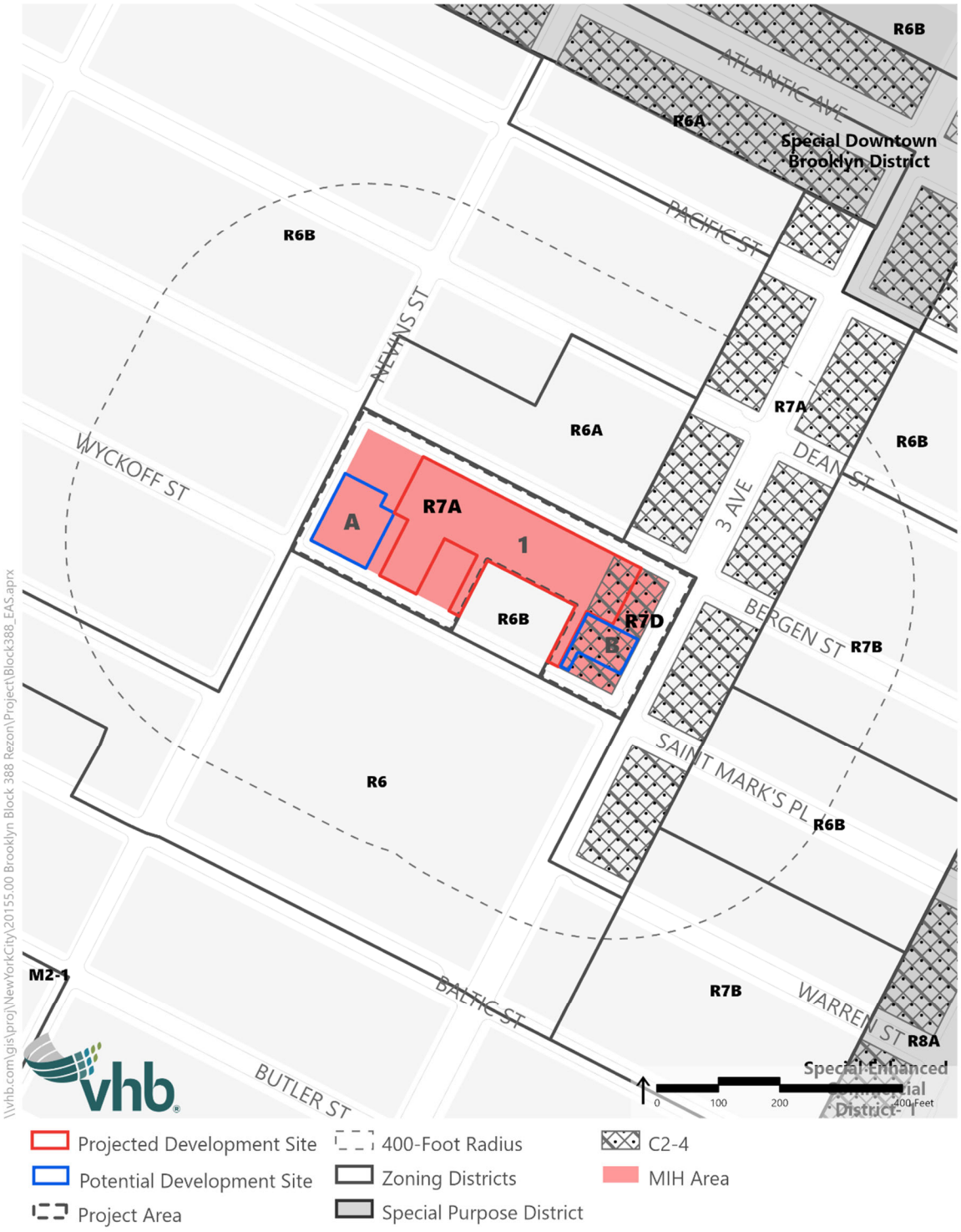


Figure 5 Land Use Map

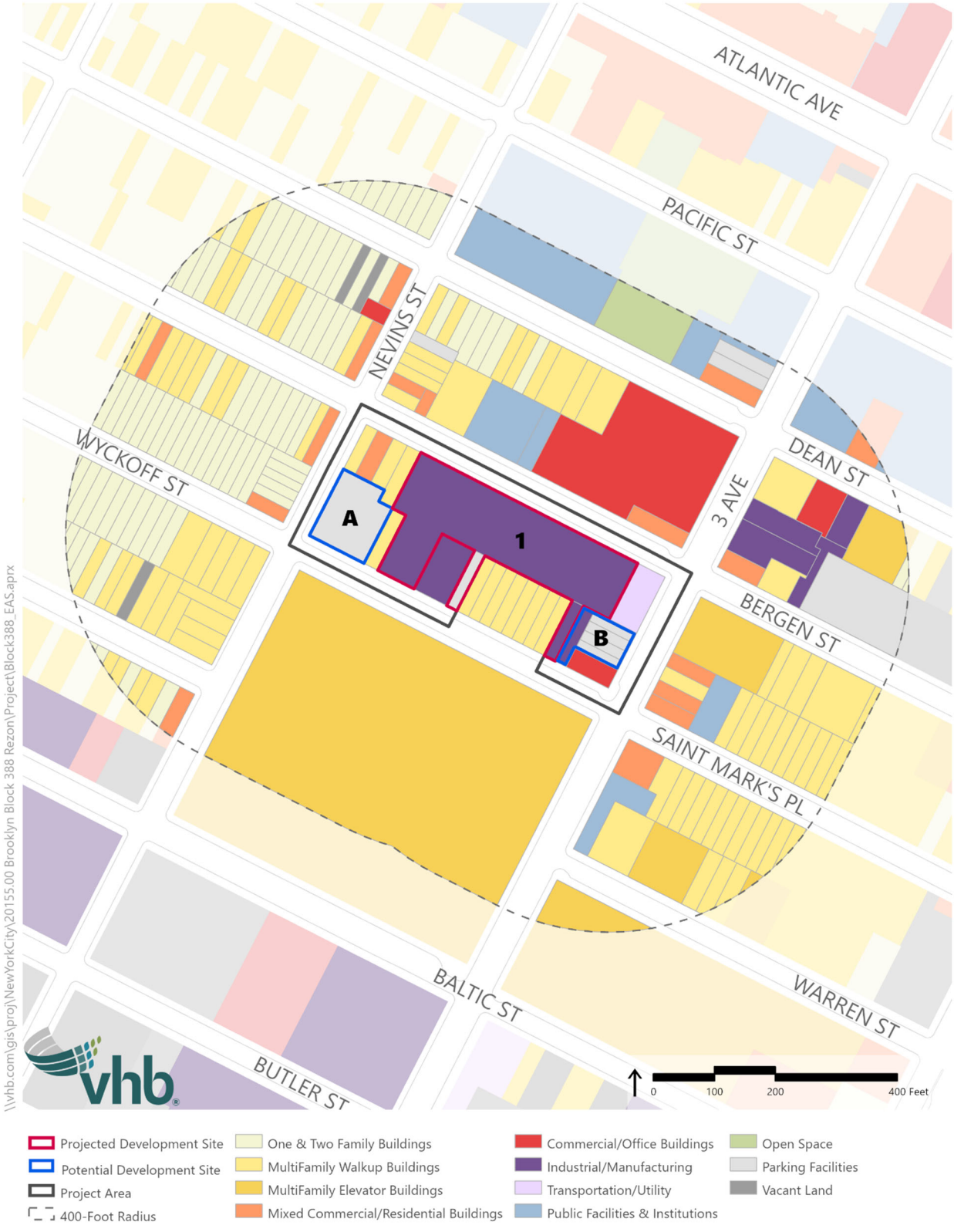


Figure 6 Photo Location Map

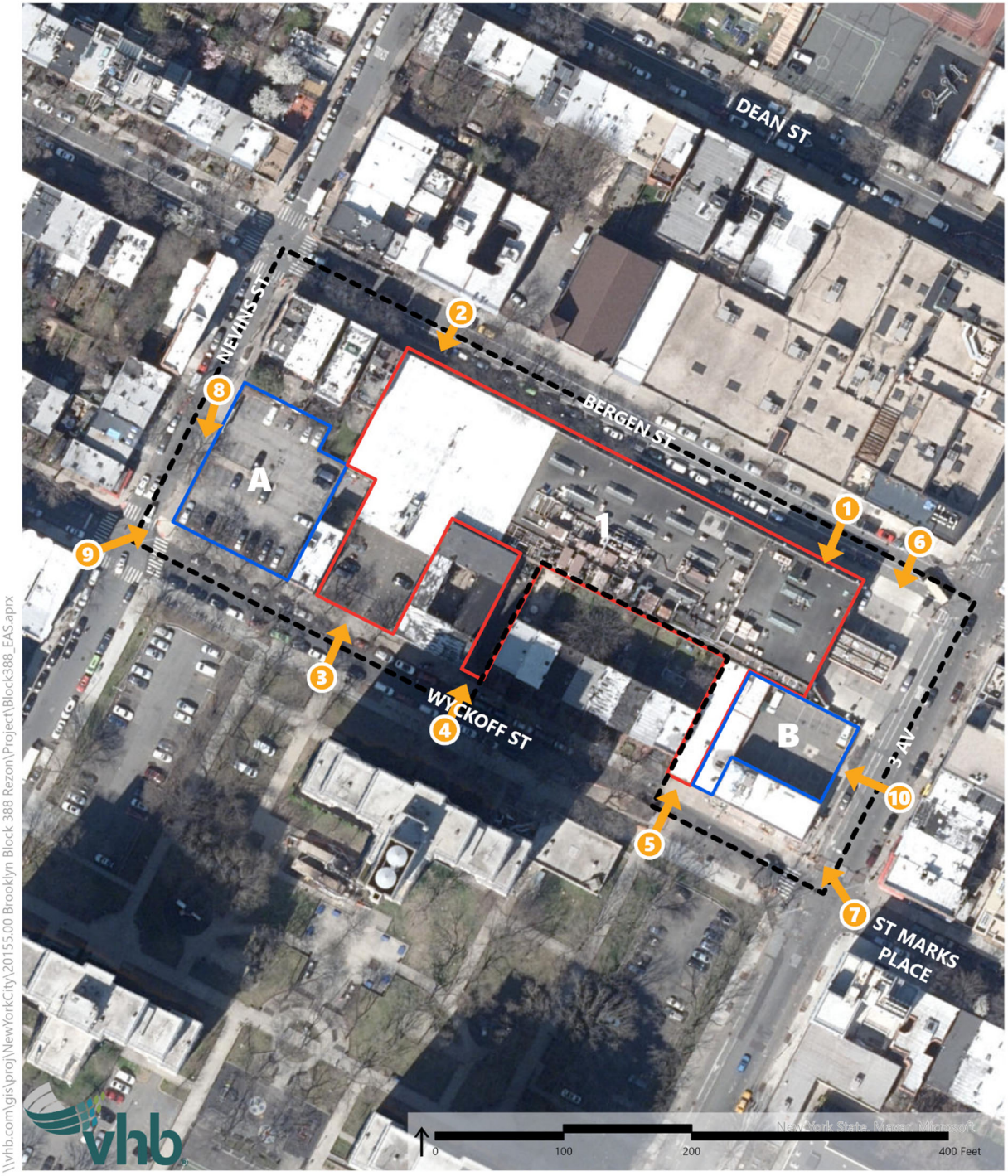


Photo 1 Projected Development Site 1 - Lot 19



Looking south on Bergen Street near corner of Third Avenue.

Photo 2 Projected Development Site 1 - Lot 19



Looking south on Bergen Street near corner of Nevins Street.

Photo 3 Projected Development Site 1 - Lot 19



Looking north on Wyckoff Street.

Photo 4 Projected Development Site 1 - Lot 51



Looking north on Wyckoff Street midblock between Nevins Street and Third Avenue.

Photo 5 Projected Development Site 1 - Lot 42



Looking north on Wyckoff Street. Lot 42 is pictured on the left. Lot 41 is pictured on the right and is part of Potential Development Site B.

Photo 6 Lot 31



Looking south on Bergen Street near corner of Nevins Street.

Photo 7 Lot 38



Looking northwest from intersection of Wyckoff Street and Third Avenue.

Photo 8 Potential Development Site A - Lot 1



Looking southeast on Nevins Street midblock between Bergen Street and Wyckoff Street.

Photo 9 Potential Development Site A - Lot 1



Looking northeast from the intersection of Wyckoff Street and Nevins Street.

Photo 10 Potential Development Site B - Lots 34-37



Looking west on Third Avenue near Wyckoff Street.

Table of Contents

Section Page

EAS Form

EAS Figures

Part I: Project Description ..... Part I-1

Introduction ..... Part I-1
Project Area and Development Sites ..... Part I-1
Project Area ..... Part I-1
Proposed Actions ..... Part I-3
Proposed Project and With-Action Condition ..... Part I-3
Project Purpose and Need ..... Part I-8
Analysis Framework and Reasonable Worst-Case Development Scenario ..... Part I-8
Future No-Action Condition ..... Part I-8
Future With-Action Condition ..... Part I-9
Increment for Analysis ..... Part I-9
Analysis (Build) Year ..... Part I-9

Part II: Supplemental Analyses ..... Part II-1

Land Use, Zoning, and Public Policy ..... Part II-1
Socioeconomic Conditions ..... Part II-1
Community Facilities and Services ..... Part II-3
Open Space ..... Part II-4
Introduction ..... Part II-4
Direct Effects ..... Part II-4
Indirect Effects ..... Part II-4
Shadows ..... Part II-4
Historic and Cultural Resources ..... Part II-5
Urban Design and Visual Resources ..... Part II-5
Hazardous Materials ..... Part II-6
Transportation ..... Part II-6
Air Quality ..... Part II-6
Noise ..... Part II-7
Neighborhood Character ..... Part II-7
Construction ..... Part II-7

Introduction 1-1

Land Use, Zoning, and Public Policy 2-1

Introduction 2-1

Methodology 2-1
Assessment 2-2
Existing Conditions *2-2*
No-Action Condition *2-9*
With-Action Condition *2-10*
Conclusion 2-13

Socioeconomic Conditions 3-1

Introduction 3-1
Methodology 3-2
Analysis Format *3-2*
Indirect Residential Displacement Methodology *3-3*
Preliminary Assessment 3-5
Existing Conditions *3-5*
No-Action Condition *3-7*
With-Action Condition *3-8*
Conclusion 3-9

Community Facilities and Services 4-1

Introduction 4-1
Methodology 4-2
Public Schools *4-3*
Detailed Assessment-Public Schools 4-5
Existing Conditions *4-5*
No-Action Condition *4-7*
With-Action Condition *4-9*
Conclusion 4-10

Open Space 5-1

Introduction 5-1
Methodology 5-2
Open Space Study Area *5-3*
Direct Effects Analysis *5-3*
Indirect Effects Analysis *5-3*
Walk-to-a-Park Initiative *5-5*
Impact Assessment *5-5*
Preliminary Assessment 5-6
Existing Conditions *5-6*
No-Action Condition *5-12*
With-Action Condition *5-14*
Detailed Assessment 5-15
Existing Conditions *5-16*
No-Action Condition *5-20*
With-Action Condition *5-21*
Conclusion 5-23

Shadows 6-1

Introduction 6-1
Methodology 6-2
Sunlight-Sensitive Resources 6-2
Preliminary Assessment 6-3
Detailed Assessment 6-3
Determination of Significance 6-4
Preliminary Assessment 6-4
Tier 1 and 2 Screening Assessment 6-4
Tier 3 Screening Assessment 6-7
Detailed Assessment 6-13
No-Action Condition 6-13
With-Action Condition 6-13
Modeling Results 6-13
Conclusion 6-17

Historic and Cultural Resources 7-1

Introduction 7-1
Methodology 7-2
Project Area and Study Area 7-2
Archaeological Resources 7-2
Architectural Resources 7-3
Preliminary Assessment 7-4
Existing Conditions 7-4
No-Action Condition 7-12
With-Action Condition 7-12
Conclusion 7-14

Urban Design and Visual Resources 8-1

Introduction 8-1
Methodology 8-2
Study Area 8-3
Preliminary Assessment 8-3
Existing Conditions 8-3
No-Action Condition 8-9
With-Action Condition 8-11
Conclusion 8-15

Hazardous Materials 9-1

Introduction 9-1
Methodology 9-2
Projected Development Site 1 & Potential Development Sites A and B 9-2
Preliminary Assessment 9-3
Existing Conditions 9-3
Projected Development Site 1 & Potential Development Sites A and B 9-3

Future No-Action Condition *9-9*
Future With-Action Condition *9-9*
Conclusion 9-11

Transportation 10-1

Introduction 10-1
Methodology 10-3
Level 1 (Trip Generation) Screening Assessment *10-3*
Level 1 Screening Results *10-6*
Conclusion 10-8

Air Quality 11-1

Introduction 11-1
Air Quality Standards 11-2
Regulatory Context 11-4
Pollutants of Concern 11-4
Impact Criteria 11-5
Background Concentrations 11-6
Methodology and Screening Analysis 11-7
Mobile Sources *11-7*
Stationary Sources *11-8*
Assessment 11-10
Mobile Sources *11-10*
HVAC Analysis *11-11*
Conclusion 11-16

Noise 12-1

Introduction 12-1
Noise Background *12-2*
Assessment Methodology *12-4*
Noise Assessment for Existing Receptors 12-4
Mobile Sources *12-4*
Stationary Sources *12-4*
Noise Assessment for New Receptors 12-5
Noise Exposure Guidelines *12-5*
Existing Sound Levels *12-6*
Acceptability Assessment *12-8*
Noise Attenuation Measures *12-9*
Conclusion 12-11

Neighborhood Character 13-1

Introduction 13-1
Methodology 13-2
Project Potential to Adversely Affect the Contributing Elements of Neighborhood Character 13-3

Project Potential to Adversely Affect the Defining Features of the Neighborhood....13-4
Identification of the Defining Features of the Neighborhood....13-4
Assessment....13-5
Conclusion....13-6

Construction....14-1

Introduction....14-1
Construction Regulation and General Practices....14-2
Governmental Oversight....14-2
Construction Oversight....14-3
Construction Practices....14-3
Construction Schedule and Activities....14-5
Construction Schedule....14-5
Construction Activities....14-8
Assessment of Project Construction....14-9
Transportation....14-10
Air Quality....14-16
Noise....14-21

Appendices

Appendix A....Historic and Cultural Resources

List of Tables

Table No.	Description	Page
Table 1	Future No-Action and With-Action Comparison, Projected Development SitesPart I	12
Table 2	Future No-Action and With-Action Comparison, Potential Development Sites Part I	12
Table 2-1	Study Area Generalized Land Uses	2-5
Table 3-1	Population	3-5
Table 3-2	Household and Housing Data	3-5
Table 3-3	Housing Tenure (2015-2019)	3-6
Table 3-4	Median Gross Rent	3-6
Table 3-5	Average and Median Household Income	3-7
Table 3-6	No-Action Condition Residential Development	3-8
Table 3-7	Estimated Income for Market Rate Units	3-9
Table 4-1	Residential Increment for Analysis	4-3
Table 4-2	Public School Enrollment, Capacity, and Utilization for Existing Conditions, School District 15, Sub-District 3	4-5
Table 4-3	Public School Enrollment, Capacity, and Utilization for Existing Conditions – CSD 15 Intermediate Schools	4-7
Table 4-4	No-Action Developments Projected Enrollment	4-8
Table 4-5	Projected Public School Enrollment, Capacity, and Utilization for No-Action Condition, School District 15, Sub-District 3	4-9
Table 4-6	Projected Public School Enrollment, Capacity, and Utilization for No-Action Condition, School District 15	4-9
Table 4-7	Projected Public School Enrollment, Capacity, and Utilization for With-Action Condition, School District 27, Sub-District 1	4-10
Table 4-8	Projected Public School Enrollment, Capacity, and Utilization for With-Action Condition, School District 15	4-10
Table 5-1	Future No-Action and With-Action Population/Employment Summaries	5-2
Table 5-2	Percent Change Guidance to Determine Possible Open Space Impact	5-6
Table 5-3	Existing Population in the Residential Study Area	5-7
Table 5-4	Preliminary Assessment-Existing Study Area Open Spaces	5-9
Table 5-5	Preliminary Assessment Existing Conditions – Adequacy of Open Space Resources in Residential Half-Mile Study Area	5-12
Table 5-6	No-Action Condition – No-Build Developments Estimated Population	5-13

Table 5-7 Preliminary Assessment No-Action Condition – Adequacy of Open Space Resources in Residential Half-Mile Study Area 5-14
Table 5-8 Preliminary Assessment With-Action Condition – Adequacy of Open Space Resources in Residential Half-Mile Study Area 5-15
Table 5-9 Preliminary Assessment Change in Open Space Ratios [1 2] 5-15
Table 5-10 Detailed Assessment – Percent Change Guidance to Determine Possible Open Space Impact 5-15
Table 5-11 Existing Population Age Distribution within the Study Area 5-17
Table 5-12 Detailed Assessment- Existing Study Area Open Spaces 5-19
Table 5-13 Detailed Assessment Existing Conditions – Adequacy of Open Space Resources in Residential Half-Mile Study Area 5-20
Table 5-14 Detailed Assessment No-Action Condition – Adequacy of Open Space Resources in Residential Half-Mile Study Area 5-21
Table 5-15 Detailed Assessment- With-Action Condition – Adequacy of Open Space Resources in Residential Half-Mile Study Area 5-22
Table 5-16 Detailed Assessment-Change in Open Space Ratios [1 2] 5-22
Table 6-1 Sunlight-Sensitive Resources in the Study Area 6-7
Table 6-2 Detailed Analysis Summary of Incremental Shadow Entry/Exit Times 6-13
Table 7-1 Lots with Potential Archaeological Sensitivity 7-3
Table 7-2 Known Architectural Resources within 400-foot Radius 7-7
Table 10-1 Development Increment for Analysis 10-3
Table 10-2 Travel Demand Characteristics 10-5
Table 10-3 Trip Generation Summary – Pedestrian Trips 10-7
Table 10-4 Trip Generation Summary – Vehicle Trips 10-8
Table 11-1 National Ambient Air Quality Standards 11-3
Table 11-2 Background Concentrations 11-7
Table 11-3 Garage Emissions (g/sec) 11-10
Table 11-4 HVAC Stack Parameters 11-11
Table 11-5 HVAC Emission Rates (g/sec) 11-13
Table 11-6 Highest Concentrations from HVAC Systems and Garage Emissions 11-14
Table 12-1 Common Indoor and Outdoor Sound Levels 12-3
Table 12-2 Noise Exposure Guidelines for Use in City Environmental Impact Review 12-5
Table 12-3 Ambient Sound Level Measurements 12-8
Table 12-4 With-Action Sound Level Acceptability 12-9

Table 12-5 Required Attenuation Values to Achieve Acceptable Interior Noise Levels 12-10
Table 14-1 Anticipated Construction Schedules 14-7
Table 14-2 Average Daily Number of Workers and Trucks by Quarter – Proposed Project 14-10
Table 14-3 Average Daily Number of Workers and Trucks by Quarter – No-Action Building 14-11
Table 14-4 Average Daily Number of PCE Trips by Quarter – Proposed Project 14-12
Table 14-5 Average Daily Number of PCE Trips by Quarter – No-Action 14-12
Table 14-6 Proposed Project Construction Vehicle Trips by Hour- Fourth Quarter of 2024 14-13
Table 14-7 No-Action Construction Vehicle Trips by Hour- Fourth Quarter of 2024 14-14
Table 14-8 Peak Hour Construction Vehicle Trip Increase (Proposed Project vs. No-Action Building) 14-15
Table 14-9 Comparison between Peak Daily $PM_{2.5}$ Construction Emissions from the Proposed Project to Other Projects. 14-21
Table 14-10 Construction Mobile Source Sound Levels (6 AM-7 AM) 14-28
Table 14-11 Equipment Sound Levels 14-32
Table 14-12 Exterior Construction Sound Levels 14-34
Table 14-13 Construction Sound Level Increases Above Existing Ambient Sound Levels 14-36
Table 14-14 Interior Construction Sound Levels 14-38
Table 14-15 Construction Noise Impacts 14-40

List of Figures

Figure No.	Description	Page

Figure 1 Site Location Map ..... Part I-2
Figure 2 With-Action Site Plan: Projected Development Site 1 and Potential Development Sites ..... Part I-5
Figure 3 With-Action Massing: Projected Development Site 1 and Potential Development Sites ..... Part I-6
Figure 4 With-Action Elevations: Projected Development Site 1 ..... Part I-7
Figure 5 No-Action Site Plan and Section: Projected Development Site 1 ..... Part I-10
Figure 6 No-Action Massing: Projected Development Site 1 ..... Part I-11
Figure 2-1 Land Use Map 2-3
Figure 2-2 Zoning Map 2-7
Figure 2-3 Proposed Zoning Map 2-12

Figure 3-1 Socioeconomic Study Area 3-4
Figure 4-1 Public Schools District 15, Sub-district 3 4-6
Figure 5-1 Residential Open Space Study Area Map 5-4
Figure 5-2 Walk to a Park Service Area 5-11
Figure 6-1 Tier 1 and Tier 2 Screening 6-6
Figure 6-2 Tier 3 Screening December 21 Analysis Day 6-9
Figure 6-3 Tier 3 Screening March 21/September 21 Analysis Day 6-10
Figure 6-4 Tier 3 Screening May 6/August 6 Analysis Day 6-11
Figure 6-5 Tier 3 Screening June 21 Analysis Day 6-12
Figure 6-6 Pacific School Playground Looking North from Dean Street 6-15
Figure 6-7 Detailed Assessment Pacific School Playground: December 21 – 2:50PM 6-16
Figure 6-8 Detailed Assessment Former New York Times Printing Press: December 21 – 2:50P 6-17
Figure 7-1 Historic Resources Map 7-6
Figure 8-1 Study Area Photograph Location Map 8-4
Figure 8-2 Building Massings: View East along Bergen Street 8-12
Figure 8-3 Building Massings: View Northeast from Wyckoff Street and Nevins Street 8-13
Figure 8-4 Building Massings: View Southwest from Third Avenue and Bergen Street 8-13
Figure 10-1 Project Area Map 10-2
Figure 11-1 Locations of Projected and Potential Development Site HVAC and Garage Exhaust Stacks 11-12
Figure 12-1 Noise Monitoring Locations 12-7
Figure 14-1 Projected Peak Daily $PM_{2.5}$ Construction Emissions 14-20
Figure 14-2 Construction Noise Receptor Locations 14-26
Figure 14-3 Construction Noise Intensity Analysis (With-Action) 14-31

List of Photos

Figure No.	Description	Page

Photo 7-1 250 and 248 Dean Street within the Boerum Hill Historic District, Current 7-8
Photo 7-2 250 and 248 Dean Street within the Boerum Hill Historic District (1940) 7-8
Photo 7-3 158A Nevins Street within the Boerum Hill Historic District Extension, Current 7-9

Photo 7-4 158A Nevins Street within the Boerum Hill Historic District Extension (1940) 7-9
Photo 7-5 P.S. 38, Current 7-9
Photo 7-6 New York Times Former Printing Plant, Current 7-11
Photo 7-7 New York Times Former Printing Plant (1940) 7-11
Photo 7-8 Brooklyn High School of the Arts, Current 7-11
Photo 7-9 Brooklyn High School of the Arts, 1940 7-11
Photo 8-1 Narrow street with parking on both sides of Nevins Street 8-7
Photo 8-2 Three-story rowhouse-style homes on St. Mark's Place 8-7
Photo 8-3 21-story multi-family apartment building, part of the Wyckoff Gardens NYCHA complex 8-7
Photo 8-4 Multi-story elevator apartment building on Third Avenue 8-7
Photo 8-5 Mixed-use brick residential building with ground floor retail at Third Avenue and Wyckoff Street 8-8
Photo 8-6 Office building on Third Avenue 8-8
Photo 8-7 View of Public School 38 facing northeast on Dean Street 8-8
Photo 8-8 Brooklyn High School of the Arts southern façade on Dean Street 8-8
Photo 8-9 Rowhouses characteristic of the buildings in the Boerum Hill Historic District Extension located west of Nevins Street along Dean Street 8-9

Part I: Project Description

Introduction

The Applicant, BNW3 Re-Gen, LLC, is seeking two discretionary approvals from the City Planning Commission (CPC): a zoning map amendment to rezone the Project Area from an M1-2 zoning district to an R7D district with a C2-4 overlay within 100 feet of Third Avenue, and an R7A district on the remainder of the Project Area; and zoning text amendment to establish a Mandatory Inclusionary Housing area (the "Proposed Actions"), to facilitate an approximately 307,000-gross-square-foot (gsf) mixed-use development within four buildings proposed on Lots 19, 42, and 51 on Brooklyn Block 388 in the Boerum Hill neighborhood of Brooklyn ("Projected Development Site 1"). The proposed mixed-use development would include approximately 268,627 gsf of residential space and 302 residential units, 9,680 gsf of retail space, 10,000 gsf of medical office space, and 18,693 gsf of parking space, accommodating 125 parking garage spaces to be located at grade (the "Proposed Project"). Approximately 60 of the residential units would be affordable pursuant to the Mandatory Inclusionary Housing (MIH) program.

Project Area and Development Sites

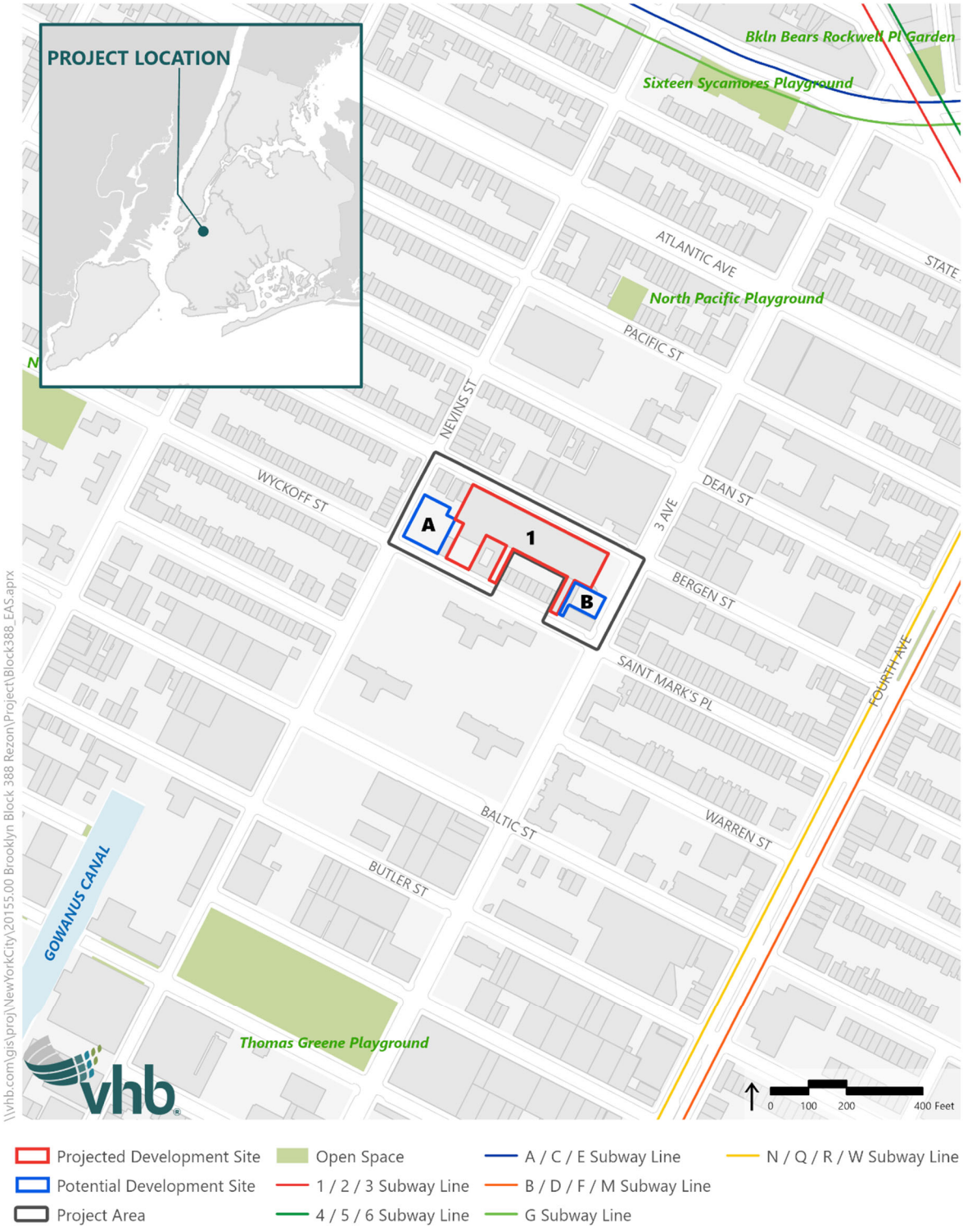
Project Area

The Proposed Actions would include a rezoning of Lots 1, 8, 9, 11, 12, 19, 31, 34 - 38, 41, 42, 51, 52, and 58 on Block 388 (the "Project Area"), which together comprise almost the entirety of Block 388, with the exception of Lots 43 through 50 located midblock along Wyckoff Street (Lots 43 through 50 are currently zoned R6B and would remain as such). Block 388 is bounded by Bergen Street to the north, Third Avenue to the east, Wyckoff Street to the south, and Nevins Street to the west (see **Figure 1**). The Project Area, currently zoned M1-2, represents the only manufacturing district within a largely residential area of Brooklyn.

Projected Development Site 1

Projected Development Site 1, located at 280 Bergen Street (Lots 19, 42, and 51), is an irregularly shaped site with approximately 400 feet of frontage along Bergen Street and a combined 107 feet of frontage along Wyckoff Street. Projected Development Site 1 has a lot area of approximately 50,700 square feet (sf) and currently contains a large footprint manufacturing building that is approximately 50,000 gsf and one story, with a small two-story section at its eastern edge along Bergen Street. The Lot 51 portion of Projected Development Site 1 is currently unimproved. The Applicant owns Projected Development Site 1, and its affiliate, Ulano Corporation ("Ulano"), uses the site for its manufacturing facility and accessory offices. However, Ulano is in the process of winding down its Brooklyn operations and will vacate the existing building within the next year.

Figure 1 Site Location Map



Potential Development Sites

There are two potential development sites within the Project Area: Potential Development Site A (Lot 1) located at the corner of Wyckoff Street and Nevins Street, and Potential Development Site B (Lots 34, 35, 36, 37, and 41) located at the corner of Wyckoff Street and Third Avenue. The Applicant, through its affiliate Ulano, has leased Lots 1, 34, 35, 36, 37, and 41 from the City of New York Department of Housing Preservation and Development (HPD) since 1973; they are currently used for accessory parking to the manufacturing operations on Projected Development Site 1 (with the exception of Lot 41 which contains a portion of the manufacturing building housing accessory office space). Pursuant to the existing lease with the City of New York, the Applicant, through its affiliate Ulano, will control Lots 1, 34, 35, 36, 37, and 41 through 2063. The lease allows for the properties to be used for industrial, manufacturing, or commercial purposes, and is not tied to the use of Projected Development Site 1.

Remainder of the Project Area

Other development within the Project Area includes a three-story, 14,322-gsf industrial building on Lot 52, a self-service gas station on Lot 31, a two-story 4,620-gsf medical office building on Lot 38, and residential walk-up apartment buildings ranging in height from three to four stories on Lots 8 through 12 and 58.

Proposed Actions

The Proposed Actions would apply to the Project Area and are:

- A zoning map amendment to rezone the Project Area from an M1-2 zoning district to an R7D district with a C2-4 overlay within 100 feet of Third Avenue, and an R7A district on the remainder of the Project Area; and,
- A zoning text amendment to establish a Mandatory Inclusionary Housing (MIH) area, coterminous with the proposed rezoning area (Project Area), pursuant to Zoning Resolution (ZR) Appendix F.

Proposed Project and With-Action Condition

Projected Development Site 1

The Proposed Project would consist of four proposed buildings on Projected Development Site 1 ranging from three to nine stories in height with a mix of residential, retail, and community facility uses. See **Figure 2** through **Figure 4** for the With-Action condition site plan, massing, and building elevations. The four proposed buildings would include:

- *Sycamore Place* – to be located on the north side of the project block along Bergen Street. This building would be nine stories tall (95 feet) with a total of 254,904 gsf, including 9,680 gsf of retail and 10,000 gsf of medical office on the ground floor and a total of 215,541 gsf of residential space (212,172 gsf above grade) accommodating 250 residential units on the upper floors. *Sycamore Place* would incorporate 15,901 sf of parking on the ground floor.

- *Townhomes 1 and 2* - to be located on existing Lots 42 and 51, respectively. These buildings would be three-story residential buildings each with 3,360 gsf and three residential units.
- *Linden Place* – to be located along Wyckoff Street on the southern portion of existing Lot 19. This building would be constructed to nine stories (95 feet tall) with a total of 45,376 gsf and 46 residential units. *Linden Place* would incorporate 2,792 sf of parking on the ground floor.

In total, the Proposed Project would incorporate 307,000 gsf, including 268,627 gsf of residential space (of which 256,140 gsf would be above grade marketable space) and 302 residential units including 60 affordable units[1], 9,680 gsf of retail space, 10,000 gsf of medical office space, and 18,693 gsf of parking space, accommodating 125 parking garage spaces to be located at grade (enclosed). Vehicular access to the parking for both the proposed *Sycamore Place* and *Linden Place* buildings would be provided from Bergen Street. Overall, the Proposed Project would be constructed with a combined Floor Area Ratio (FAR) of 4.7 and 238,420 zoning square feet (zsf), the maximum permitted floor area on Projected Development Site 1. The number of residential units (302) assumes approximately 850 gsf of above-grade residential floor area per unit for a conservative analysis. In addition, as required by the zoning regulations, the proposed mixed-use development would also include a 10,500-square foot rear yard and approximately 7,500 square feet of recreational space for tenants (as required under the Quality Housing Regulations).

Potential Development Sites

Figure 2 and **Figure 3** provide a site plan and massing for Potential Development Sites A and B. Potential Development Sites A and B would remain under the existing Ulano lease through the build year. However, these sites have been identified as Potential Development Sites for conservative analysis purposes.

Potential Development Site A would be assumed as an eight-story building accommodating 76,563 gsf, including 64,537 gsf of residential (of which 62,788 gsf would be above grade marketable space), 74 dwelling units, and 29 parking spaces.

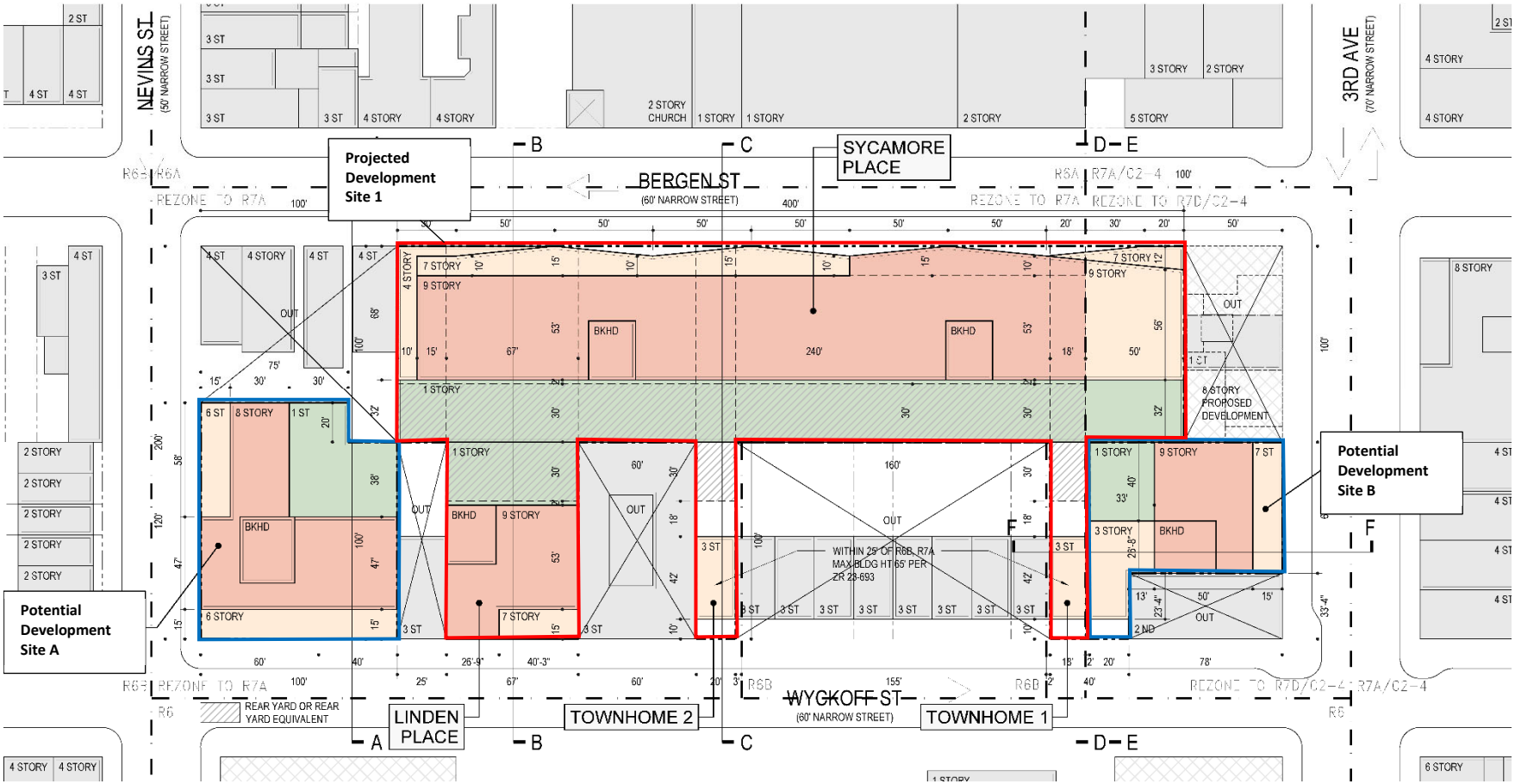
Potential Development Site B would be assumed as a ten-story building accommodating 53,691 gsf, including 45,130 gsf of residential (of which 41,396 gsf would be above grade marketable space), 49 residential units, and 8,561 gsf of retail space with no parking spaces.

Potential Development Sites A and B would be 100 percent affordable housing developments.[2]

[1] The Applicant is proposing both Options 1 and 2 pursuant to the MIH program. However, per New York City Department of City Planning (DCP) guidance, for the purposes of CEQR analysis, unless otherwise noted, it is assumed that 20 percent of the residential floor area (60 units) would be affordable to residents earning not more than 80 percent of the Area Median Income (AMI). The proposed residential gross floor area (268,627 gsf) includes approximately 12,487 gsf of non-marketable space, including mechanical space and residential floor area located on the cellar level, leaving approximately 256,140 gsf of marketable residential floor area.

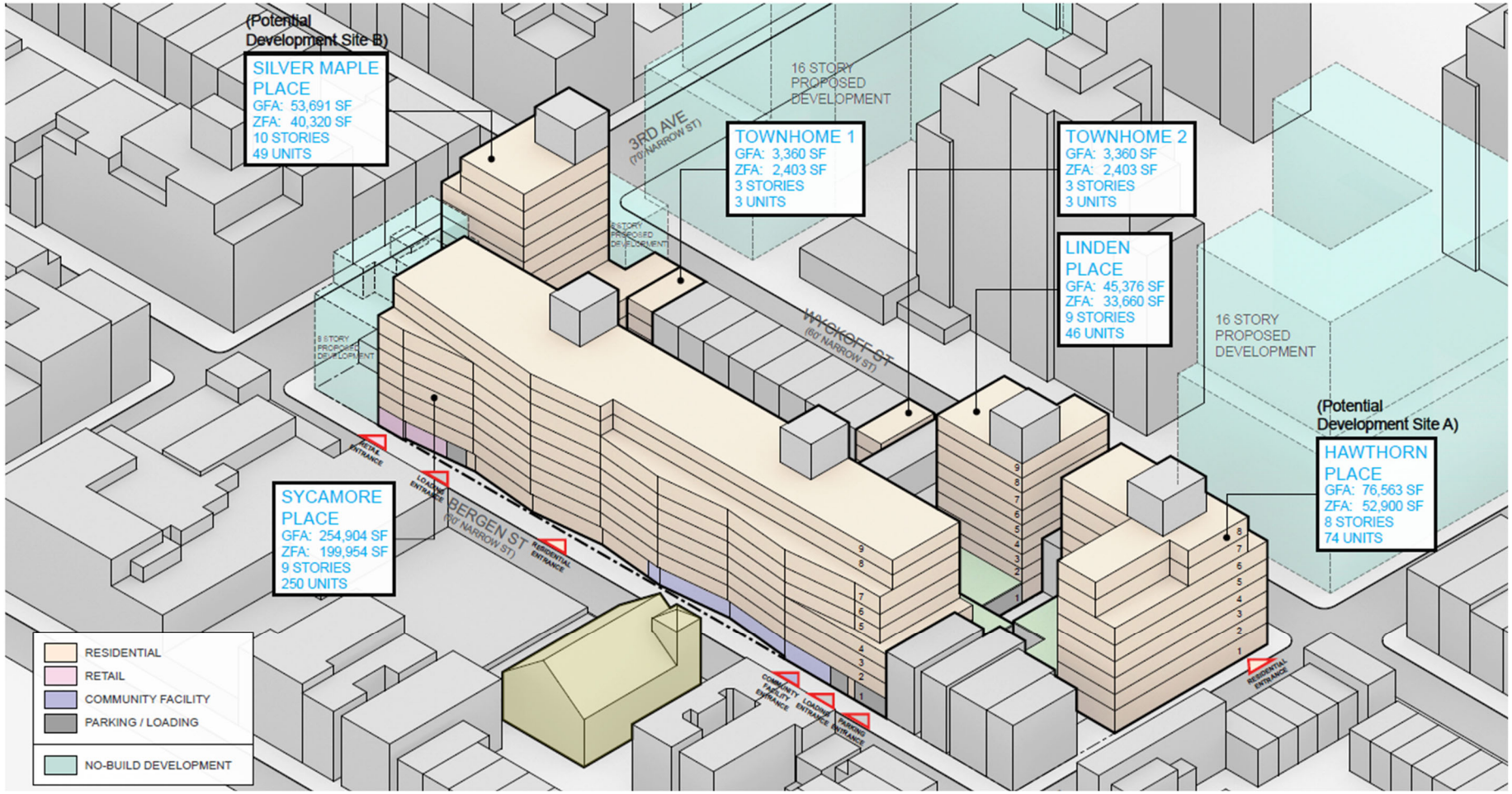
[2] The Applicant would retain control of these potential development sites pursuant to its existing lease. However, they are included in the environmental assessment for conservative analysis purposes. It is assumed that HPD would require 100 percent affordable developments on these sites as part of any redevelopment scenario.

Figure 2 With-Action Site Plan: Projected Development Site 1 and Potential Development Sites



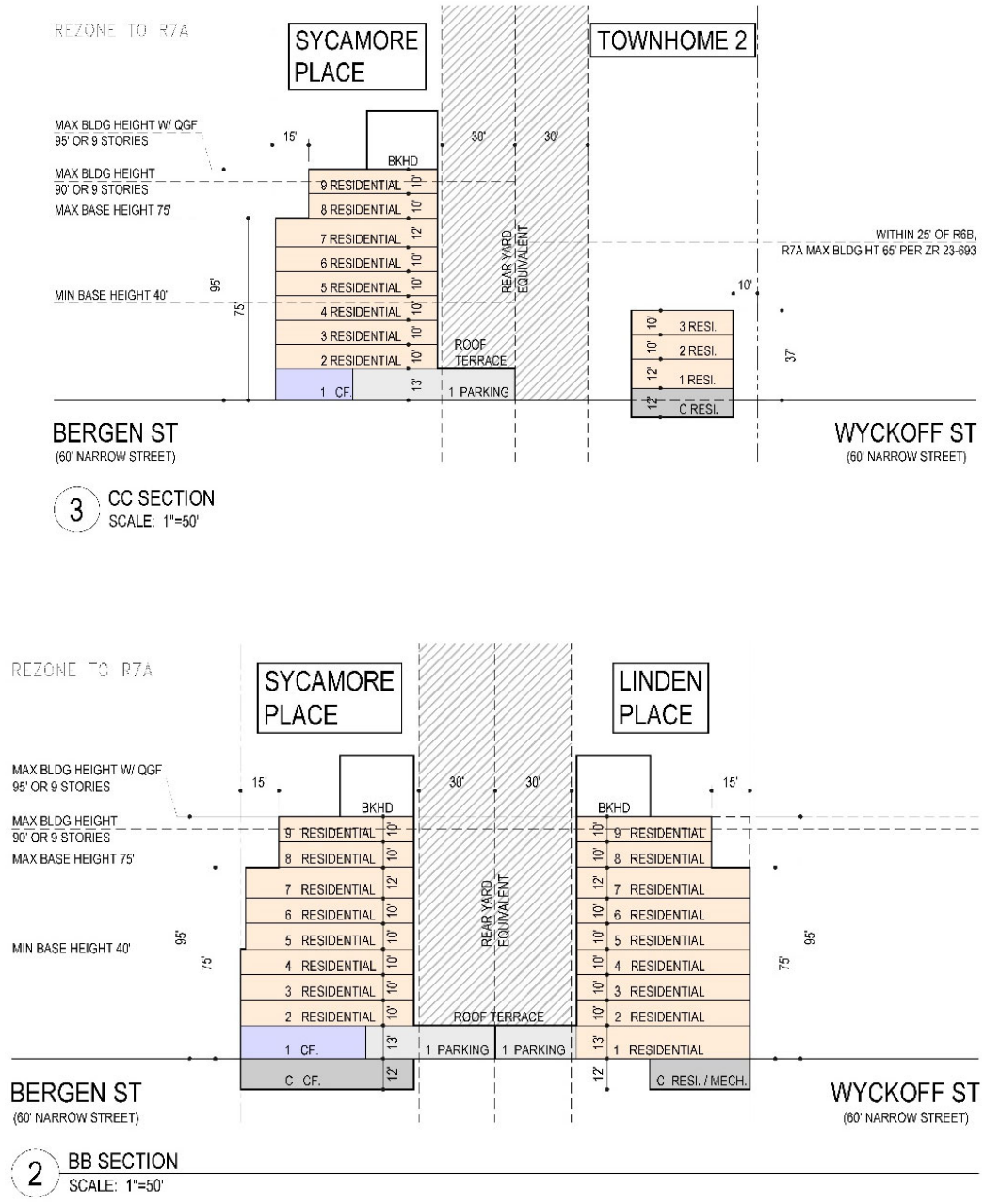
Source: Hill West Architects
For Illustrative Purposes Only

Figure 3 With-Action Massing: Projected Development Site 1 and Potential Development Sites



Source: Hill West Architects
For Illustrative Purposes Only

Figure 4 With-Action Elevations: Projected Development Site 1



Source: Hill West Architects
For Illustrative Purposes Only

Project Purpose and Need

The M1-2 portion of Block 388 was rezoned in 1973 from an R6 district to an M1-2 district, in conjunction with the Bergen Street Urban Renewal Plan, to accommodate the Ulano manufacturing facility. However, the Urban Renewal Plan expired in 2011 and Ulano began winding down its Brooklyn operations in 2019. Based on existing site and market conditions, the Applicant believes continued use of the Ulano property for manufacturing uses is not feasible moving forward, and that the manufacturing zoning currently mapped on the project block is no longer appropriate. Ulano is phasing out its operations in the Project Area and consolidating its operations to locations outside the City.

The Applicant believes the Proposed Actions would facilitate a development that would better fit within the residential context of the surrounding neighborhood of Brooklyn and would return the Project Area to its former residential nature. The Proposed Actions would facilitate the development of new affordable housing units pursuant to the MIH program and allow for the provision of local retail and community facility uses, creating a more cohesive and active streetscape that would better serve existing and future residents in the neighborhood.

The proposed zoning map amendment would establish an R7D district with a C2-4 overlay within 100 feet of Third Avenue and an R7A district on the remainder of the Project Area. The proposed overlay would provide a continuation of commercial uses along Third Avenue, consistent with this corridor to the north and across Third Avenue from the project block. The proposed R7 zoning districts are appropriate for the existing residential character of the surrounding area. The proposed zoning text amendment is required to establish an MIH area. In accordance with the MIH program, the Proposed Project would dedicate a percentage of the residential floor area to affordable housing, contributing to the Mayor's Housing New York Plan goal of building 300,000 affordable housing units by 2026.

Analysis Framework and Reasonable Worst-Case Development Scenario

For the purpose of the environmental analyses, the No-Action condition represents the future absent the Proposed Actions and serves as the baseline by which the With-Action condition (future with the Proposed Actions) is compared to determine the potential for significant environmental impacts. The difference between the No-Action and With-Action conditions represents the increment to be analyzed in the CEQR process.

Future No-Action Condition

Projected Development Site 1

In the future No-Action condition, the existing manufacturing facility would be demolished. As mentioned above, Ulano began winding down its Brooklyn operations in 2019 and is in the process of shifting operations to sister facilities elsewhere outside the City. The Projected Development Site 1 would be redeveloped as a five-story building containing a mix of office, retail, and community facility space with parking accommodated on the cellar and first floors. Specifically, the No-Action condition would include 90,424 gsf of commercial office

space, 15,113 gsf of locally-serving retail space, 20,812 gsf of medical office uses, and 44,352 gsf of parking space on the cellar and first floors, accommodating 425 attended/stacker parking spaces. In total, the No-Action condition on Projected Development Site 1 would incorporate 170,701 gsf. The proposed retail and medical office space would be located along Bergen Street on the ground floor and a portion of the second floor, with commercial office uses on floors two through five. Most of the building bulk would be oriented along Bergen Street, with the exception of the first floor which would extend to Wyckoff Street on Lot 19.

See **Figure 5** and **Figure 6** for the No-Action condition site plan, massing, and building elevations for Projected Development Site 1.

Potential Development Sites

Under the No-Action condition, Potential Development Sites A and B would remain under the City's ownership, and the Applicant would retain a leasehold interest in each. Therefore, these sites would be used as accessory parking to the proposed commercial/community facility space on Projected Development Site 1, with 48 attended/stacker parking spaces accommodated on Potential Development Site B and 77 attended/stacker parking spaces accommodated on Potential Development Site A.

Future With-Action Condition

In the future With-Action condition, the Proposed Actions would facilitate development on Projected Development Site 1 and may facilitate development on Potential Development Sites A and B, as set forth in detail above. The Proposed Project maximizes the potential development on the projected and potential development sites, as permitted by the proposed zoning, and therefore is the same as the With-Action condition.

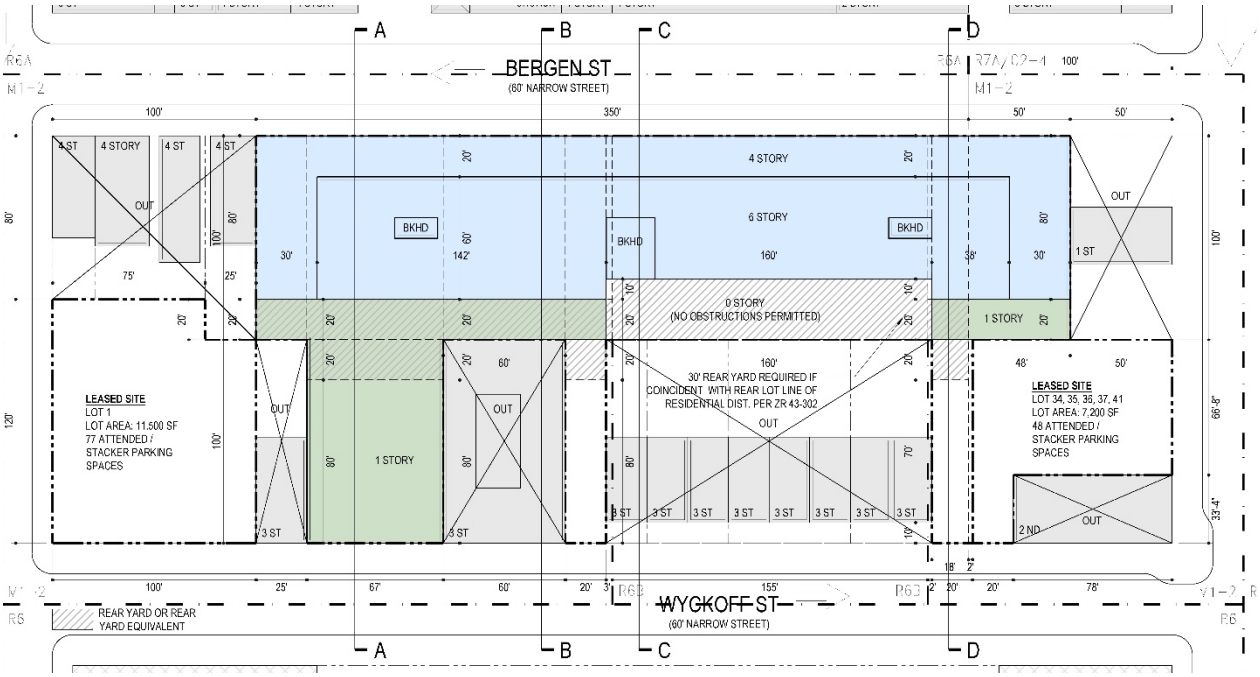
Increment for Analysis

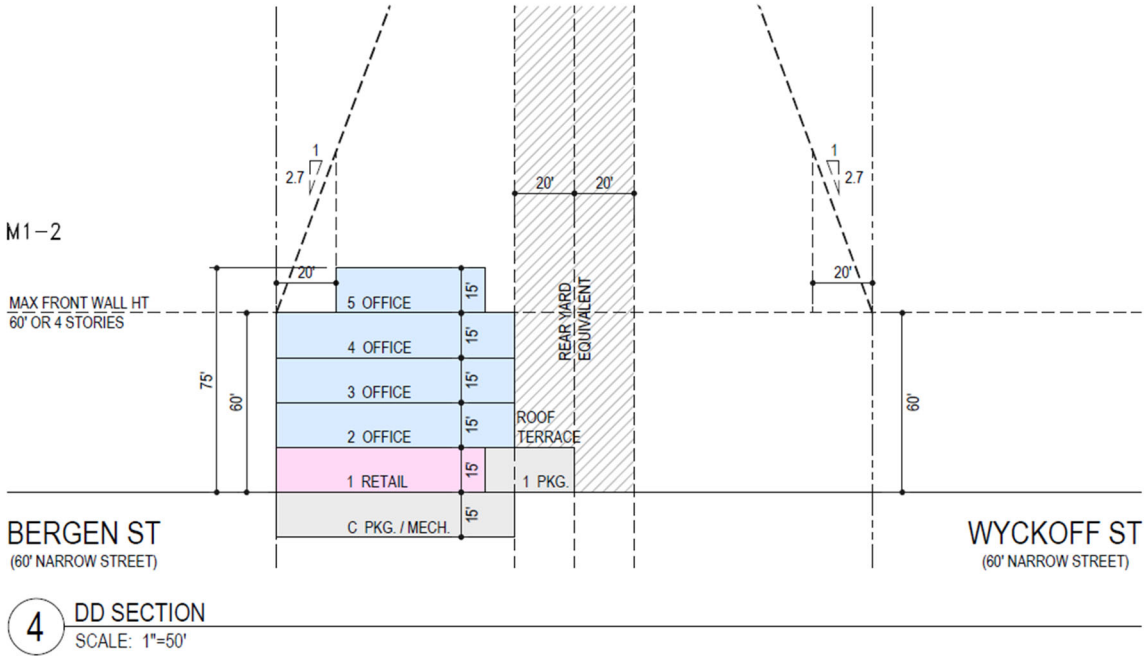
In total, the future With-Action condition would result in a net increase of 136,299 gsf over the future No-Action condition, with an increase of 268,627 gsf of residential space and a decrease of 95,857 gsf of commercial space, and 10,812 gsf of medical office space (see **Table 1**).

Analysis (Build) Year

The build year for the Proposed Project is 2025, assuming receipt of project approvals in Q2 2022 and a construction start date of Q1 2023 to allow for site remediation activities, with a 36-month, single-phase construction period.

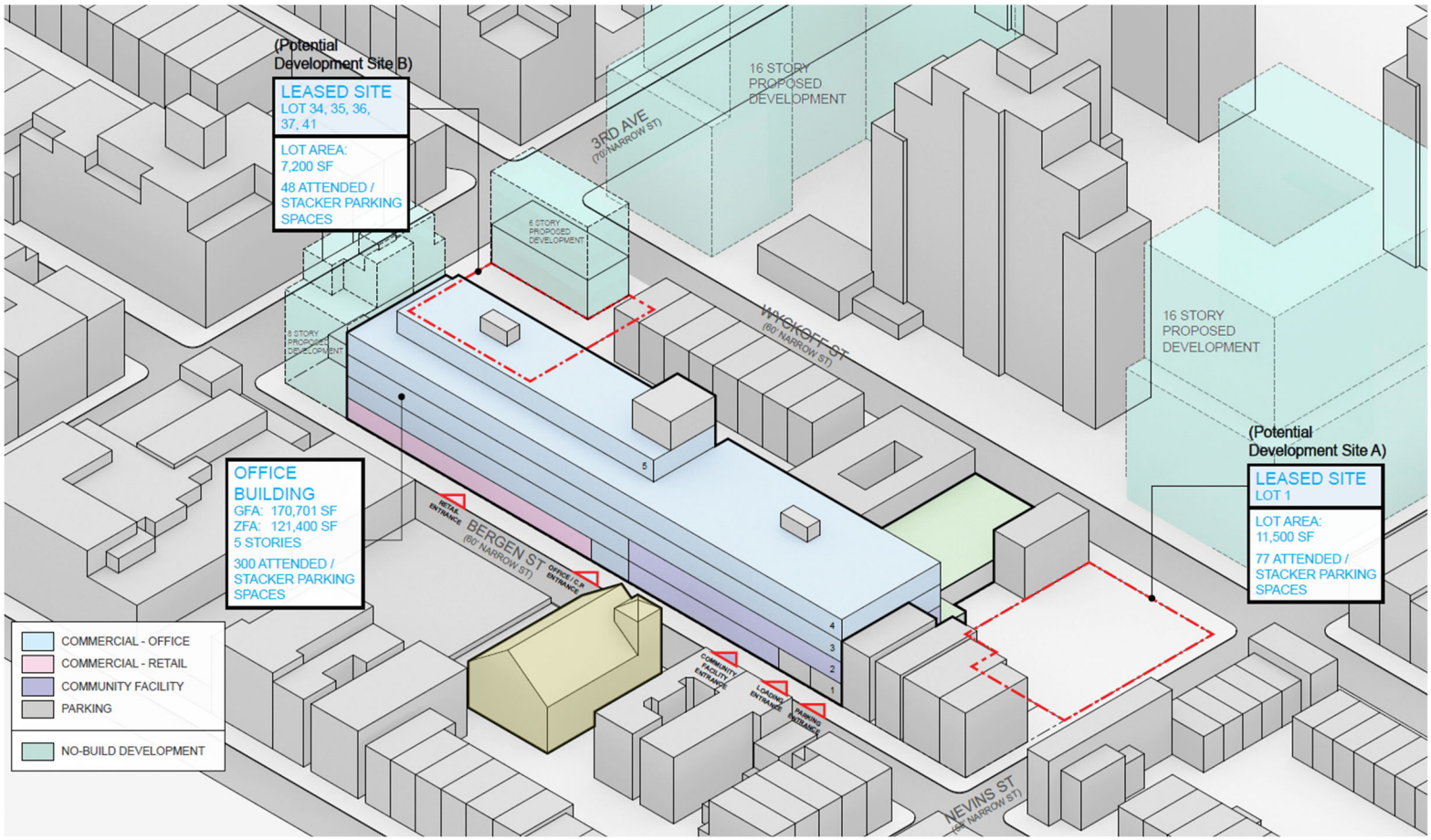
Figure 5 No-Action Site Plan and Section: Projected Development Site 1





Source: Hill West Architects
For Illustrative Purposes Only

Figure 6 No-Action Massing: Projected Development Site 1



Source: Hill West Architects
For Illustrative Purposes Only

Table 1 Future No-Action and With-Action Comparison, Projected Development Sites

	No-Action Condition	With-Action Condition	Increment
Projected Development Site 1			
Residential GSF	-	268,627	+268,627
Total Dwelling Units	-	302	+302
Affordable Units	-	60	+60
Commercial - Retail GSF	15,113	9,680	- 5,433
Commercial - Office GSF	90,424	-	- 90,424
Medical Office GSF	20,812	10,000	- 10,812
Parking GSF	44,352	18,693	- 25,659
Total GSF (ZSF)	170,701 (121,400)	307,000 (238,420)	+136,299 (117,020)
Parking Spaces	425	125	- 300

Table 2 Future No-Action and With-Action Comparison, Potential Development Sites

	No-Action Condition	With-Action Condition	Increment
Potential Development Site A			
Residential GSF	-	64,537	+64,537
Dwelling Units	-	74	+74
Affordable Units	-	74	+74
Parking GSF	-	12,026	+12,026
Total GSF	-	76,563	+76,563
Parking Spaces	77	29	- 48
Potential Development Site B			
Residential GSF	-	45,130	+45,130
Dwelling Units	-	49	+49
Affordable Units	-	49	+49
Commercial Retail GSF	-	8,561	+8,561
Total GSF (ZSF)	-	53,691	+53,691
Parking Spaces	48	0	- 48

Part II: Supplemental Analyses

Additional Technical Information for EAS Full Form

An analysis framework has been established to assess the potential for the Proposed Actions to result in significant adverse environmental impacts.

The EAS examines the potential for significant adverse impacts to result from the Proposed Actions. As detailed in **Part I: Project Description**, the Proposed Actions include two discretionary approvals from the City Planning Commission (CPC): a zoning map amendment and zoning text amendment, to facilitate an approximately 307,000-gross-square-foot (gsf) mixed-use development within four buildings proposed on Lots 19, 42, and 51 on Brooklyn Block 388 in the Boerum Hill neighborhood of Brooklyn ("Projected Development Site 1"). The proposed mixed-use development would include approximately 268,627 gsf of residential space (256,140 gsf above grade) and 302 residential units, 9,680 gsf of retail space, 10,000 gsf of medical office space, and 18,693 gsf of parking space, accommodating 125 parking garage spaces to be located at grade (the "Proposed Project"). Approximately 60 of the residential units would be affordable pursuant to the Mandatory Inclusionary Housing (MIH) program.

The Proposed Actions would include a rezoning of Lots 1, 8, 9, 11, 12, 19, 31, 34 - 38, 41, 42, 51, 52, and 58 on Block 388 (the "Project Area"), which together comprise almost the entirety of Block 388, with the exception of Lots 43 through 50 located midblock along Wyckoff Street. In addition to Projected Development Site 1, Lot 1 (Potential Development Site A) and Lots 34, 35, 36, 37, and 41 (Potential Development Site B) are sites that have the potential for redevelopment but are considered less likely than a projected development site. The analysis framework, including Projected Development Site 1 and Potential Development Sites A and B, is detailed in **Part I: Project Description**.

Provided below are preliminary screening analyses, conducted based on guidelines presented in the *2021 CEQR Technical Manual* in order to determine whether further analysis of a given technical area is necessary to determine the potential for significant adverse impacts to the environment in that area.

Land Use, Zoning, and Public Policy

According to the *CEQR Technical Manual,* a land use analysis is warranted for projects that would affect land use or change zoning on a site. Because the Proposed Actions would include a zoning map amendment and a zoning text amendment, a land use, zoning, and public policy analysis is warranted. See **Section 2, Land Use, Zoning, and Public Policy.**

Socioeconomic Conditions

The socioeconomic character of an area includes its population, housing, and economic activity. Socioeconomic changes may occur when a project directly or indirectly changes any of these elements. Although socioeconomic changes may not result in impacts under CEQR,

they are disclosed if they would affect land use patterns, low-income populations, the availability of goods and services, or economic investment in a way that changes the socioeconomic character of the area.

According to the *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 screening assessment considers threshold circumstances identified in the *CEQR Technical Manual* and enumerated below that can lead to socioeconomic changes warranting further assessment.

- **Direct Residential Displacement:** *Would the project directly displace residential population to the extent that the socioeconomic character of the neighborhood would be substantially altered? Displacement of fewer than 500 residents would not typically be expected to alter the socioeconomic character of a neighborhood.*

  Projected Development Site 1 does not contain any residential uses or population. Therefore, no analysis of direct residential displacement is warranted.

- **Direct Business Displacement:** *Would the project directly displace more than 100 employees, or would the project directly displace a business whose products or services are uniquely dependent on its location, are the subject of policies or plans aimed at its preservation or serve a population uniquely dependent on its services in its present location? If so, assessments of direct business displacement and indirect business displacement are appropriate.*

  The Proposed Project includes demolition of an existing manufacturing business. However, the business will be leaving Projected Development Site 1 regardless of the Proposed Project; therefore, no direct business displacement would occur. Further assessment of direct business displacement is not warranted.

- **Indirect Displacement due to Increased Rents:** *Would the project result in substantial new development that is markedly different from existing uses, development and activities within the neighborhood? 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 Proposed Actions would result in the introduction of more than 200 residential units; therefore, an assessment of potential indirect residential displacement is warranted.

  The Proposed Actions would not result in the addition of more than 200,000 square feet of commercial space. Therefore, there is no potential for indirect business displacement, and further assessment is not warranted.

- **Indirect Business Displacement due to Retail Market Saturation:** *Would the project result in a total of 200,000 sf or more of retail on a single development site or 200,000 sf or more of region-serving retail across multiple sites?*

  The Proposed Actions would not result in retail space exceeding 200,000 square feet, and thus, an assessment of potential indirect business displacement due to retail market saturation is not warranted.

› **Adverse Effects on Specific Industries:** Is the project expected to affect conditions within a specific industry? *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.*

The Proposed Actions would not be expected to affect conditions within a specific industry, affect a substantial number of workers or residents who depend on the goods or services provided by affected businesses, or result in the loss or substantial diminishment of a particularly important product or service within the City; therefore, an assessment of adverse effects on specific industries is not warranted.

Based on the screening assessment presented above, the Proposed Actions warrant an analysis of indirect residential displacement (see **Section 3, Socioeconomic Conditions**) but do not warrant additional analysis for the potential for direct residential displacement, direct business displacement, indirect business displacement due to retail market saturation, or adverse effects on specific industries.

Community Facilities and Services

The *CEQR Technical Manual* states that a community facilities assessment is appropriate if a project would have a direct effect on a community facility (e.g., public schools, early childhood program facilities, libraries, health care facilities, police and fire protection services) or if it would have an indirect effect by introducing new populations that would overburden existing facilities. The manual further states that for public schools, libraries, and early childhood program centers, potential impacts depend on the size, income characteristics, and age distribution of the new population.

The Proposed Actions would result in fewer than 20 early childhood program eligible children under the age of six based on the number of low or low/moderate income residential units. Therefore, an assessment of early childhood programs is not warranted.

The Proposed Actions would introduce 302 residential units, which is less than the 834 residential unit threshold outlined in Table 6-1 of the *CEQR Technical Manual*. Therefore, an assessment of libraries is not warranted.

The Proposed Actions would not directly eliminate, displace, or alter public or publicly funded community facilities such as health care facilities, police stations, or fire stations. Therefore, the Proposed Actions do not warrant an analysis of direct effects on these community facilities.

Based on the number of residential units, the Proposed Actions would introduce 53 public elementary students, 11 middle school students, and 15 high school students. Because the Proposed Actions would introduce more than 50 elementary and middle school students, an assessment of elementary and intermediate public schools is warranted. See **Section 4, Community Facilities and Services**.

Open Space

Introduction

The *CEQR Technical Manual* recommends performing an open space assessment if a project would result in either a direct or indirect effect on open space.

A project would have a direct effect on an open space if it causes the physical loss of public open space because of encroachment onto the space or displacement of the space; changes the use of an open space so that it no longer serves the same user population; limits public access to an open space; results in increased noise or air pollutant emissions, odor, or shadows that would affect the usefulness of a public open space, whether on a permanent or temporary basis; entails the use of parkland for a non-parkland purpose or the conveyance of municipal parkland, or involves the termination of use for outdoor recreation of City-owned parkland that has received federal funds for acquisition or improvement. A project can also directly affect an open space by enhancing its design or increasing its accessibility to the public.

Indirect effects may occur when the population generated by a project overtaxes the capacity of existing open spaces so that their service to the future population of the affected area would be substantially or noticeably diminished. The *CEQR Technical Manual* threshold for the preliminary assessment of indirect effects is whether the proposed actions would introduce more than 200 residents or 500 employees.

Direct Effects

The Proposed Actions would not result in a physical loss of public open space, affect the use of an open space so that it no longer serves the same user population, limit public access to an open space, cause increased noise or air pollutant emissions, odors, or shadows on public open space that would affect its usefulness, or involves the alienation or conversion of public parkland. Therefore, no analysis of direct effects to open space is warranted.

Indirect Effects

Because the Proposed Project would introduce 695 residents, which is above the 200-resident threshold, an analysis of potential indirect effects on residential open space is warranted. See **Section 5, Open Space**. The Proposed Project would not exceed the threshold to warrant an assessment of indirect effects on non-residential open space ratios.

Shadows

The *CEQR Technical Manual* requires a shadows assessment for actions that would result in new structures (or additions to existing structures) greater than 50 feet in height or located adjacent to, or across the street from, a sunlight-sensitive resource. Such resources include publicly accessible open spaces, sunlight-sensitive natural features, or historic resources with sun-sensitive features.

The Proposed Actions would result in the construction of four new buildings of which two would be 95 feet in height, and the Project Area is adjacent to a historic district with the

potential to contain sunlight-sensitive resources. Therefore, a shadows assessment is warranted. See **Section 6, Shadows**.

Historic and Cultural Resources

According to the *CEQR Technical Manual,* a historic and cultural resources assessment is warranted if there is the potential to affect either archaeological or architectural resources; the manual further recommends that a historic resources assessment be prepared if an action would result in any of the following: in-ground disturbance; new construction, demolition, or significant physical alteration of any building, structure, or object; the change in scale, visual prominence, or visual context of any building, structure, or object or landscape feature; or the screening or elimination of publicly accessible views, even if no known historic resources are located nearby.

Archaeological resources are physical remains, usually subsurface, of the precontact, Native American, and historic periods—such as burials, foundations, artifacts, wells, and privies. Archaeological resources are considered only in those areas where new in-ground disturbance is likely to occur. The Project Area is within an Area of Archaeological Sensitivity as defined by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). The Proposed Project involves demolition of existing buildings and new ground disturbance. In correspondence dated January 13, 2021, LPC determined that the Project Area was archaeologically sensitive. For these reasons, an assessment of archaeological resources is warranted. See **Section 7, Historic and Cultural Resources**.

Architectural resources generally include historically important buildings, structures, objects, sites, and districts. Historic and cultural resources include designated New York City Landmarks (NYCLs) and Historic Districts; properties calendared for consideration as NYCLs by the New York City Landmarks Preservation Commission (LPC) or determined eligible for NYCL designation (NYCL-eligible); properties listed on the State and National Register of Historic Places (S/NR) or formally determined eligible for S/NR listing (S/NR-eligible), or properties contained within a S/NR listed or eligible district; properties recommended by the New York State Board for listing on the S/NR; National Historic Landmarks (NHLs); and potential historic resources (i.e., properties not identified by one of the programs listed above, but that appear to meet their eligibility requirements). The Project Area is located within 400 feet of significant resources that are listed within the Boerum Hill Historic District, which is listed on the State/National Register of Historic Places (90PR05855) and is a New York City Landmark. Therefore, an assessment of architectural resources is warranted. See **Section 7, Historic and Cultural Resources**.

Urban Design and Visual Resources

According to the methodologies of the *CEQR Technical Manual,* if a project requires actions that would result in physical changes to a project site beyond those allowable by existing zoning and which could be observed by a pedestrian from street level, a preliminary assessment of urban design and visual resources should be prepared.

Because the Proposed Actions would result in physical changes to the Project Area beyond those allowable by existing zoning and which could be observed by a pedestrian from street

level, a preliminary assessment of urban design and visual resources is warranted. See **Section 8, Urban Design and Visual Resources**.

Hazardous Materials

According to the *CEQR Technical Manual,* a hazardous materials assessment is conducted when elevated levels of hazardous materials exist on a site, when an action would increase pathways to their exposure, either human or environmental, or when an action would introduce new activities or processes using hazardous materials, thereby increasing the risk of human or environmental exposure. Because the Proposed Project would result in new in-ground disturbance, an assessment of hazardous materials is warranted. See **Section 9, Hazardous Materials**.

Transportation

According to the *CEQR Technical Manual,* detailed transportation analyses may be warranted if a project results in 50 or more vehicle trips and/or 200 or more transit/pedestrian trips during a given peak hour.

Based on a preliminary assessment, it is expected that the Proposed Actions would not result in 50 or more vehicle trips and/or 200 or more transit/pedestrian trips during a given peak hour and does not require further analysis. See **Section 10, Transportation.**

Air Quality

Ambient air quality, or the quality of the surrounding air, may be affected by air pollutants produced by motor vehicles, referred to as "mobile sources"; by fixed facilities, usually referenced as "stationary sources"; or by a combination of both. Under CEQR, an air quality assessment determines both a project's effects on ambient air quality as well as the effects of ambient air quality on the project. As discussed in the *CEQR Technical Manual*, a project may potentially result in the following types of air quality impacts:

- Potential impacts from mobile sources introduced by a project.
- Potential impacts from potential air pollutant sources introduced by a project, such as:
  - Emissions from a project's heating, ventilation, and air conditioning (HVAC) system
  - Emissions from a project's enclosed parking garage.
- Potential impacts on the project from either manufacturing/processing facilities or large/major sources that are located near the project site.

Because the Proposed Actions would not result in vehicular trips that exceed the thresholds outlined in the *CEQR Technical Manual*, an analysis of mobile sources is not warranted. A stationary source air quality analysis will be conducted and will focus on an assessment of the Proposed Project's HVAC systems and enclosed parking garage and their potential to affect uses in the surrounding area, as well as the potential of Projected Development Site 1 and Potential Development Sites A and B to impact each other. The air quality assessment will also consider potential impacts on the Proposed Project from manufacturing/processing

facilities or large/major sources that are located near the Project Area. See **Section 11, Air Quality.**

Noise

As discussed in the *CEQR Technical Manual*, a noise analysis is appropriate if an action would generate mobile or stationary sources of noise or would introduce noise-sensitive receptors in an area with high ambient noise levels. Mobile sources include vehicular traffic; stationary sources include rooftop equipment such as emergency generators, cooling towers, and other mechanical equipment.

The Proposed Project is not anticipated to include any substantial stationary source noise generators, such as unenclosed cooling or ventilation equipment, loudspeaker systems, stationary diesel engines, or other similar types of uses. The design and specifications for mechanical equipment—such as heating, ventilation, and air conditioning (HVAC) systems—would incorporate sufficient noise reduction to comply with applicable noise regulations and standards, including the standards contained in the revised New York City Noise Control Code. This will ensure that mechanical equipment does not result in any significant increases in noise levels, either by itself or cumulatively with other project noise sources.

As the Proposed Actions would introduce new noise-sensitive land uses, a noise analysis is warranted. See **Section 12, Noise.**

Neighborhood Character

As discussed in the *CEQR Technical Manual*, an analysis of neighborhood character is warranted when a project has the potential to result in significant adverse impacts in any of the following technical areas: land use, zoning, and public policy; socioeconomic conditions; community facilities; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; or noise. In addition, an assessment may be warranted when there is a combination of moderate effects in these technical areas that, when considered together, may affect the defining elements of neighborhood character. Because the Proposed Actions have the potential to result in moderate effects in some of these technical areas and because there is the potential for significant adverse effects, a neighborhood character analysis is warranted. See **Section 13, Neighborhood Character**.

Construction

Construction impacts, although temporary, can include disruptive and noticeable effects resulting from an action. Determination of their significance and need for mitigation is generally based on the duration and magnitude of the impacts. Construction impacts are considered when construction activity could affect traffic conditions, archaeological resources, the integrity of historic resources, community noise levels, and area air quality conditions. In addition, because soils may be disturbed during construction, any action proposed for a site that has been found to have the potential to contain hazardous materials should also consider the potential construction impacts that could result from contamination.

A construction assessment is typically warranted for construction activities (a) lasting longer than two years; (b) located along an arterial highway or major thoroughfare; (c) involving the closing, narrowing, or otherwise impeding of traffic, transit, or pedestrian elements; (d) involving multiple buildings; (e) involving the operation of several pieces of diesel equipment in a single location; (f) resulting in the closure or disruption of a community facility service; (g) located within 400 feet of a historic or cultural resource; (h) disturbing a site containing or adjacent to a natural resources; and/or (i) occurring on multiple sites in the same geographic area.

Because construction on the Project Area is expected to last longer than 24 months, involves the operation of several pieces of diesel equipment in a single location, and is located within 400 feet of a historic resource, further analysis is warranted. See **Section 14, Construction**.

1

Introduction

As discussed in **Part II: Supplemental Analysis** of this Environmental Assessment Statement (EAS), several technical areas were identified for further analysis:

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

Analysis of these areas follow in **Section 2** through **Section 14**.

2

Land Use, Zoning, and Public Policy

This section considers the potential for the Proposed Project to result in significant adverse impacts to land use, zoning, and public policy. Under the guidelines of the *2021 City Environmental Quality Review (CEQR) Technical Manual*, this analysis evaluates the uses in the area that may be affected by the Proposed Project and determines whether the Proposed Project is compatible with land use, zoning, and public policy conditions, or may otherwise affect them. The analysis also considers the Proposed Project's compatibility with zoning regulations and other public policies applicable to the area.

Introduction

This analysis of land use, zoning and public policy follows the guidelines set forth in the *CEQR Technical Manual*. It characterizes the existing conditions within the Project Area and its surroundings and addresses potential impacts to land use, zoning, and public policy that would be associated with the Proposed Actions.

Methodology

This analysis of Land Use, Zoning, and Public Policy follows the guidelines set forth in the *CEQR Technical Manual* for a preliminary assessment (Section 320). According to the *CEQR Technical Manual*, a preliminary land use and zoning assessment:

- Describes existing and future land uses and zoning information, and describes any changes in zoning that could cause changes in land use;
- Characterizes the land use development trends in the area surrounding the Project Area that might be affected by the Proposed Actions; and
- Determines whether the Proposed Project is compatible with those trends or may alter them.

The following assessment method was used to determine the potential for the Proposed Actions to result in significant adverse impacts on land use, zoning, and public policy:

1. Establish a "study area", a geographic area surrounding the Project Area to determine how the Proposed Actions may affect the immediate surrounding area. For this assessment, a study area of 400 feet surrounding the Project Area was used.
2. Identify data sources, including any public policies (formal plans, published reports) to be used to describe the existing and No-Action conditions related to land use, zoning, and/or public policy.
3. Assess the Proposed Action's potential effects on land use, zoning and public policy to determine whether the Proposed Project is consistent with or conflicts with area land uses, zoning, or the identified policies.
   - If the Proposed Project could conflict with the identified policies, a detailed assessment would be conducted; or
   - If the Proposed Project is found to not conflict with the identified policies, no further assessment is needed.

The study area for this analysis is the area within 400-feet of the Project Area which, for the Proposed Actions is bounded by a line approximately 80 feet north of and parallel to Dean Street to the north, midblock between Nevins Street and Bond Street to the west, midblock between Third Avenue and Fourth Avenue to the east, and a line approximately 300 feet south of and parallel to Wykoff Street to the south.

Assessment

Existing Conditions

Land Use

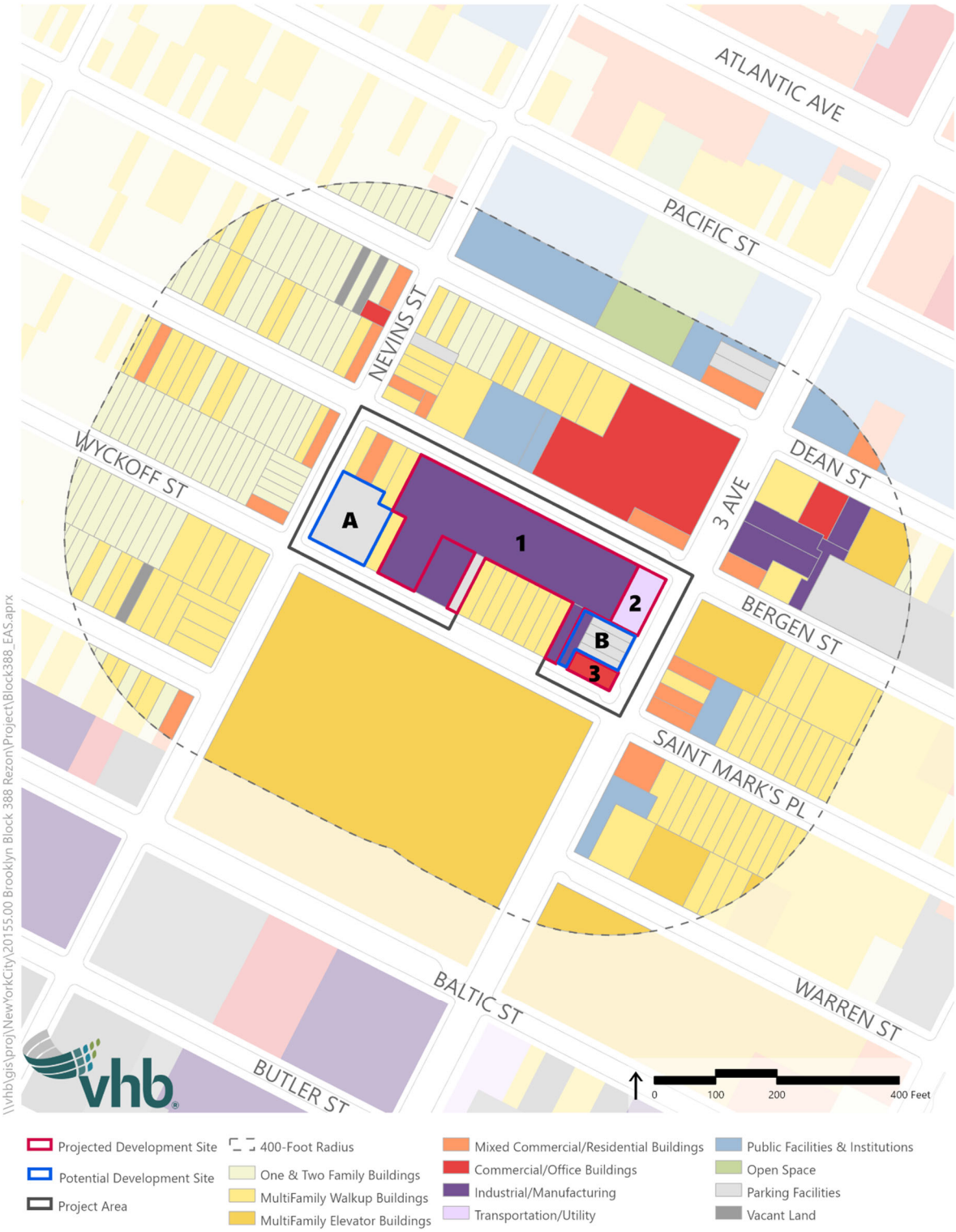
Project Area

The Project Area contains a mix of uses ranging from residential to manufacturing (**Figure 2-1**).

Projected Development Sites

Projected Development Site 1 has a lot area of approximately 50,700 square feet (sf) and currently contains a large footprint manufacturing building that is approximately 50,000 gsf and one story, with a small two-story section at its eastern edge along Bergen Street. A small portion of Projected Development Site 1 (the portion of Lot 19 fronting on Wyckoff Street) is currently used for surface parking.

Figure 2-1 Land Use Map



Projected Development Site 2 is located on Lot 31 on the project block at the corner of Bergen Street and Third Avenue and is currently improved with a self-service gas station. Lot 31 has a lot area of 4,984 sf.

Projected Development Site 3 is located on Lot 38 at the corner of Third Avenue and Wyckoff Street and is currently improved with a two-story medical office building. This site has a lot area of approximately 2,600 sf.

Potential Development Sites

Both Potential Development Sites (A and B) are currently used as surface parking facilities. Potential Development Site B is a parking lot with 20 accessory parking spaces located between the gas station and the medical office building. Potential Development Site A is located at the southeast corner of the project block and includes a total of 40 accessory parking spaces.

Remainder of the Project Area

Other uses within the Project Area include several multi-family walk-up buildings that range from three to four stories located on the southeast corner of Bergen Street and Nevins Street, and midblock on Wykoff Street between Nevins Street and Third Avenue. One of these buildings is mixed residential and commercial with a yoga studio on the ground floor. There is also a three-story industrial building midblock on the south side of the project block.

Study Area

The study area is predominantly residential, with some commercial, institutional, and industrial uses concentrated to the northeast of the Project Area (**Figure 2-1** and **Table 2-1**). To the west of Nevins Street, there are predominantly attached one- and two-family homes between two and three stories. The other residential use west of Nevins Street is two- to four-story multi-family walkup apartment buildings with three to nine residential units. There are several mixed residential and commercial buildings fronting on Nevins Street, with commercial space on the ground floor and residential units above.

Two blocks north of the Project Area on Dean Street is Public School 38 with an associated playground. On the same block, to the east of the school, is a church with a parking lot and a multi-family apartment with retail on the ground floor. The block directly north of the Project Area, between Dean Street and Bergen Street, contains a mix of uses. The western portion of the block is developed with one- and two-family homes and multi-family walk-up apartments. These buildings are three to five stories in height. There are also a few mixed use residential and commercial buildings with office or retail space on the ground floor as well as a church building on the north side of Bergen Street. The eastern portion of the block contains a large office building as well as one mixed residential and commercial building at the northwest corner of Bergen Street and Third Avenue.

The northeast portion of the Project Area is predominantly institutional and industrial uses. The Brooklyn High School of the Arts is located between Pacific Street and Dean Street east of Third Avenue. South of Dean Street are one- to four-story light manufacturing buildings and warehouses. There are also four- to five-story multi-family apartment buildings, one of

which has an educational program center on the ground floor, as well as a three-story office building. Between Bergen Street and St. Mark's Place is an eight-story multi-family elevator building, multi-family walk-up apartments, mixed-use apartment buildings with local retail on the ground floor, and a church. Between St. Mark's Place and Warren Street east of Third Avenue is an eight-story multi-family elevator building, a church, and multi-family walk-up apartments.

Directly south of the Project Area is the New York City Housing Authority's Wykoff Gardens, a complex with three multi-family elevator buildings, a community center, open space, and parking.

Table 2-1 Study Area Generalized Land Uses

Land Use	Number of Tax Lots[2]	Percentage of Total Lots (%)	Lot Area (sf)	Percentage of Total Lot Area (%)
One & Two Family Residential	91	37	168,384	14
Multifamily Walkup Residential	96	39	230,725	19
Multifamily Elevator Residential	6	2	361,900	30
Mixed Commercial/Residential	18	7	38,980	3
Commercial/Office	3	1	47,284	4
Industrial & Manufacturing	9	4	78,109	7
Transportation & Utility	1	0	5,000	0
Public Facilities and Institutions	9	4	167,240	14
Open Space	1	0	30,900	3
Parking Facilities	10	4	62,100	5
Vacant Land	3	1	5,250	0
Total	**247**	**100%[1]**	**1,195,872**	**100%[1]**

Source: Map PLUTO 19v1

[1] Numbers may not add up to 100% due to rounding

[2] All Lots intersecting the 400-foot radius study area were included in analysis

Zoning

Project Area

The entirety of the Project Area, including the Projected Development Sites 1, 2, and 3 as well as the Potential Development Sites A and B, is mapped with an M1-2 zoning district (**Figure 2-2**). M1 districts typically include light industrial uses, such as woodworking shops, repair shops, and wholesale service and storage facilities. Offices and most retail uses are also permitted. The maximum manufacturing floor area ratio (FAR) for an M1-2 district is 2.0.

M1-2 districts are also subject to parking requirements, generally one accessory parking space per 300 square feet.

The M1-2 portion of the project block was rezoned from an R6 district to an M1-2 district in 1973, in conjunction with the Bergen Street Urban Renewal Plan (the "URP"), to accommodate the Ulano manufacturing facility. The URP expired in 2011. The Ulano Corporation began winding down its Brooklyn operations in 2019 and is expected to vacate the building within the next year.

Study Area

The entirety of the study area is zoned residential, including R6, R6A, R6B, R7A with a C2-4 commercial overlay, and R7B districts (**Figure 2-2**).

Directly south of the Project Area is an R6 zoning district. These districts are widely mapped in built-up, medium-density areas in Brooklyn, Queens, and the Bronx. The FAR ranges from 0.78 (for a single-story building) to 2.43 at a typical height of 13 stories. The open space ratio (OSR) ranges from 27.5 to 37.5, with taller buildings having more open space. Off-street parking is generally required for 70 percent of a building's dwelling units.

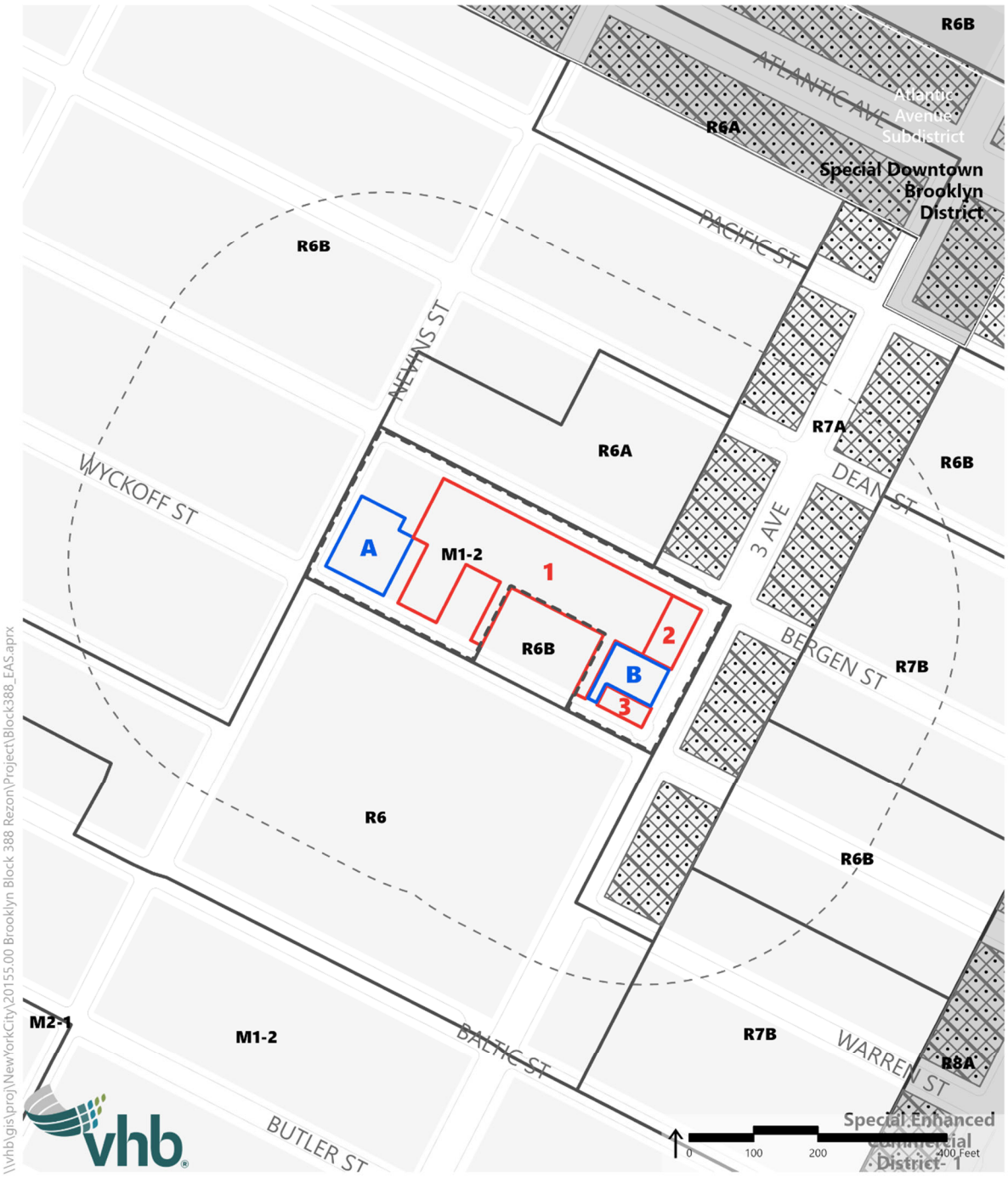
Directly north of the Project Area is an R6A zoning district, a contextual district where Quality Housing bulk regulations are mandatory and produce high lot coverage, six- to eight-story apartment buildings set at or near the street line. The FAR in R6A districts is 3.0, or 3.6 with inclusionary housing. Off-street parking is generally required for 50 percent of a building's dwelling units.

The portion of the project block not incorporated within the Project Area is zoned R6B. This zoning district is mapped directly northwest and west of the Project Area as well on portions of blocks to the east. R6B contextual districts are often traditional row house districts that contain houses set back from the street with stoops and small front yards, typical of Brooklyn's "brownstone" neighborhoods such as Park Slope, Boerum Hill, and Bedford Stuyvesant. A maximum FAR of 2.0 is allowed (2.2 with inclusionary housing) and the mandatory Quality Housing regulations accommodate apartment buildings at a four- to five-story scale. Off-street parking requirements are the same as R6A zoning districts.

Directly to the east and northeast of the Project Area along Third Avenue is an R7A zoning district with a C2-4 commercial overlay. Quality Housing regulations, which are mandatory in R7A districts, typically produce high lot coverage, seven- to nine-story apartment buildings. The maximum FAR is 4.0, or 4.6 with inclusionary housing. Off-street parking requirements are the same as R6A zoning districts. The C2-4 overlay allows for local retail such as grocery stores and restaurants. C2 overlay districts permit a slightly wider range of uses compared with C1 overlays, including funeral homes and repair services. In mixed buildings, commercial uses are limited to one or two floors and must always be located below the residential use. The maximum FAR is 2.0 and one accessory parking space per 1,000 square feet is required.

Finally, portions of the study area to the east and southeast of the Project Area are zoned R7B. The mandatory Quality Housing regulations are similar to those of R6B districts but R7B permits a higher FAR of 3.0 and height limit of 75 feet, generally producing six- to seven-story apartment buildings rather than the rowhouses typical of R6B districts. Off-street parking requirements are the same as R6A zoning districts.

Figure 2-2 Zoning Map



Public Policy

Housing New York 2.0

The City first released Mayor Bill de Blasio's affordable housing plan, "Housing New York: A Five-Borough Ten-Year Plan," in May 2014 to create and preserve 200,000 high-quality, affordable homes over ten years. An updated version of the plan titled "Housing New York 2.0" was unveiled in November 2017, which commits to completing the initial goal of 200,000 affordable homes two years ahead of schedule, by 2022, and generating an additional 100,000 homes over the following four years.

PlaNYC/OneNYC 2050

In 2011, the Mayor's Office of Long-Term Planning and Sustainability released an update to PlaNYC: A Greener, Greater New York. PlaNYC represents a comprehensive and integrated approach to planning for New York City's future. It includes policies to address three key challenges that the City faces over the next twenty years: population growth; aging infrastructure; and global climate change. In the 2011 update, elements of the plan were organized into ten categories—housing and neighborhoods, parks and public space, brownfields, waterways, water supply, transportation, energy, air quality, solid waste, and climate change—with corresponding goals and initiatives for each category.

In April 2015, the Mayor's Office of Sustainability and the Mayor's Office of Recovery and Resiliency released OneNYC, a comprehensive plan for a sustainable and resilient city. OneNYC represents a reworking of the sustainability plan for the City, known as PlaNYC: A Greener, Greater New York, discussed above. Like PlaNYC, growth, sustainability, and resiliency remain at the core of OneNYC, but promoting economic equity is a guiding principle throughout the plan. OneNYC has since been updated to OneNYC 2050, which was released in 2019 and consists of eight goals and thirty initiatives.

The goals of the plan are:

- A Vibrant Democracy through empowering participation, welcoming immigrants, promoting justice and equal rights, and promoting democracy and civic innovation
- An Inclusive Economy through good paying jobs and job training, economic security through fair wages and benefits, and expanded decision-making power of workers and communities
- Thriving Neighborhoods through affordable housing, access to neighborhood open spaces and cultural resources, community safety, and place-based community planning
- Healthy Lives through high quality, accessible health care, addressing health and mental health needs of communities, making healthy lifestyles easier, and designing a healthy physical environment
- Equity and Excellence in Education through early childhood education, equity in K-12 opportunity, and increasing integration, diversity, and inclusion in NYC schools
- A Livable Climate through carbon neutrality and clean electricity, resilience, economic opportunities through climate action, and climate accountability and justice
- Efficient Mobility through modern mass transit, safe and accessible streets, reduced congestion and emissions, and regional and global connections

› Modern Infrastructure through investments in core physical infrastructure and hazard mitigation, digital infrastructure improvement, and best practices for asset maintenance and capital project delivery.

No-Action Condition

A description of the Projected Development Sites and Potential Development Sites absent the Proposed Actions (the future No-Action condition), is provided in **Part 1, Project Description** and summarized below.

Land Use

Project Area

Projected Development Sites

As detailed above, the Ulano Corporation is currently winding down its operations on Projected Development Site 1 and the existing building is expected to be vacant within the next year. In the future No-Action condition, the existing manufacturing facility would be demolished, and Projected Development Site 1 would be redeveloped as a five-story building containing a mix of office, retail, and community facility space with parking accommodated on the cellar level and first floor. Specifically, the No-Action condition would include 90,424 gsf of commercial office space, 15,113 gsf of locally-serving retail space, 20,812 gsf of medical office uses, and 44,352 gsf of parking and mechanical space on the cellar level and first floor, accommodating 425 attended/stacker parking spaces. In total, the No-Action condition on Projected Development Site 1 would incorporate 170,701 gsf. The proposed retail and medical office space would be located along Bergen Street on the ground floor, with additional medical office space on floor two and commercial office uses on floors two through five. Most of the building bulk would be oriented along Bergen Street, with the exception of the first floor which would extend to Wyckoff Street on Lot 19.

As set forth in the 98 Third Avenue Rezoning proposal, Projected Development Site 2 would remain in its existing condition, with 154 gsf of manufacturing use (gas station). Likewise, Projected Development Site 3 would continue to operate under the existing conditions detailed above, with 4,620 gsf of medical office use.

Potential Development Sites

Under the No-Action condition, Potential Development Sites A and B would be used as accessory parking, with 48 attended/stacker parking spaces accommodated on Potential Development Site B and 77 attended/stacker parking spaces accommodated on Potential Development Site A.

Study Area

Within the study area, there is one proposed development, the Wyckoff Gardens Infill project, that is anticipated to be completed by the 2025 analysis year. The project would result in the construction of two 16-story multi-family elevator buildings containing 500

residential units. Half of the units would be market-rate, and the other half would be affordable.[1]

Zoning

There are no anticipated zoning changes within the Project Area and study area under the No-Action condition. The Project Area and study area would continue to be governed by the various zoning regulations in the area, as described in the existing conditions section above.

Public Policy

In the future No-Action condition, there are no known public policy changes that are anticipated to affect the Project Area or study area.

With-Action Condition

As detailed in **Part 1, Project Description**, the With-Action condition would include the Proposed Project on Projected Development Site 1. The Proposed Project consists of four proposed buildings ranging from three to nine stories in height with a mix of residential, retail, and medical office space. In addition, the With-Action condition would include an 8-story mixed use building containing residential uses and ground-floor retail on Projected Development Site 2, and a 6-story mixed residential and retail building on Projected Development Site 3. In total, the With-Action condition Projected Development Sites would incorporate 311,044 gsf of residential space including 361 residential units of which 79 would be affordable pursuant to MIH, 15,203 gsf of retail, 10,000 gsf of medical office space, and 125 parking spaces. Overall, 359,874 gsf (280,890 zoning square feet) would be developed on the Projected Development Sites.

Potential Development Site A would be assumed as an eight-story building accommodating 76,563 gsf, including 64,537 gsf of residential, 74 affordable dwelling units, 1,890 gsf of mechanical space, and 29 parking spaces. Potential Development Site B would be assumed as a ten-story building accommodating 53,691 gsf, including 43,015 gsf of residential, 49 affordable residential units, and 8,561 gsf of retail space with no parking spaces.

Land Use

The Proposed Actions would facilitate a change in land use under the future With-Action condition, as compared to the future No-Action condition, with the introduction of residential uses in the Project Area. As discussed above, the study area is characterized predominately by residential, institutional, and commercial uses, with mixed-use commercial/residential uses prevalent along Nevins Street to the west and Third Avenue to the east. The projected development would be consistent with the mixed-use buildings in the surrounding area and the predominantly residential character of the study area to the west, south, and east of the Project Area. The projected development would also be consistent with the higher-density mixed-use Wyckoff Gardens infill development immediately to the south of the Project Area. As such, the Proposed Actions would be

[1] https://www.nydailynews.com/new-york/de-blasio-donors-chosen-build-luxury-towers-nycha-land-article-1.3779939

consistent with the mixed-use residential and commercial character of the Project Area and its immediate surroundings, and would not have a significant adverse impact on land use.

Zoning

Proposed Actions

As detailed in **Part 1, Project Description**, the Proposed Actions would include the following zoning changes:

Proposed Zoning Map Amendment

The Applicant is proposing to rezone the Project Area from its current M1-2 zoning district to an R7D zoning district with a C2-4 commercial overlay within 100 feet of Third Avenue and an R7A zoning district on the remainder of the Project Area.

Proposed Zoning Text Amendment

A zoning text amendment to Appendix F of the Zoning Resolution (ZR), "Mandatory Inclusionary Housing Areas," would establish an MIH Area that is coterminous with the Project Area. The applicant is considering both Options 1 and 2 pursuant to the MIH program.

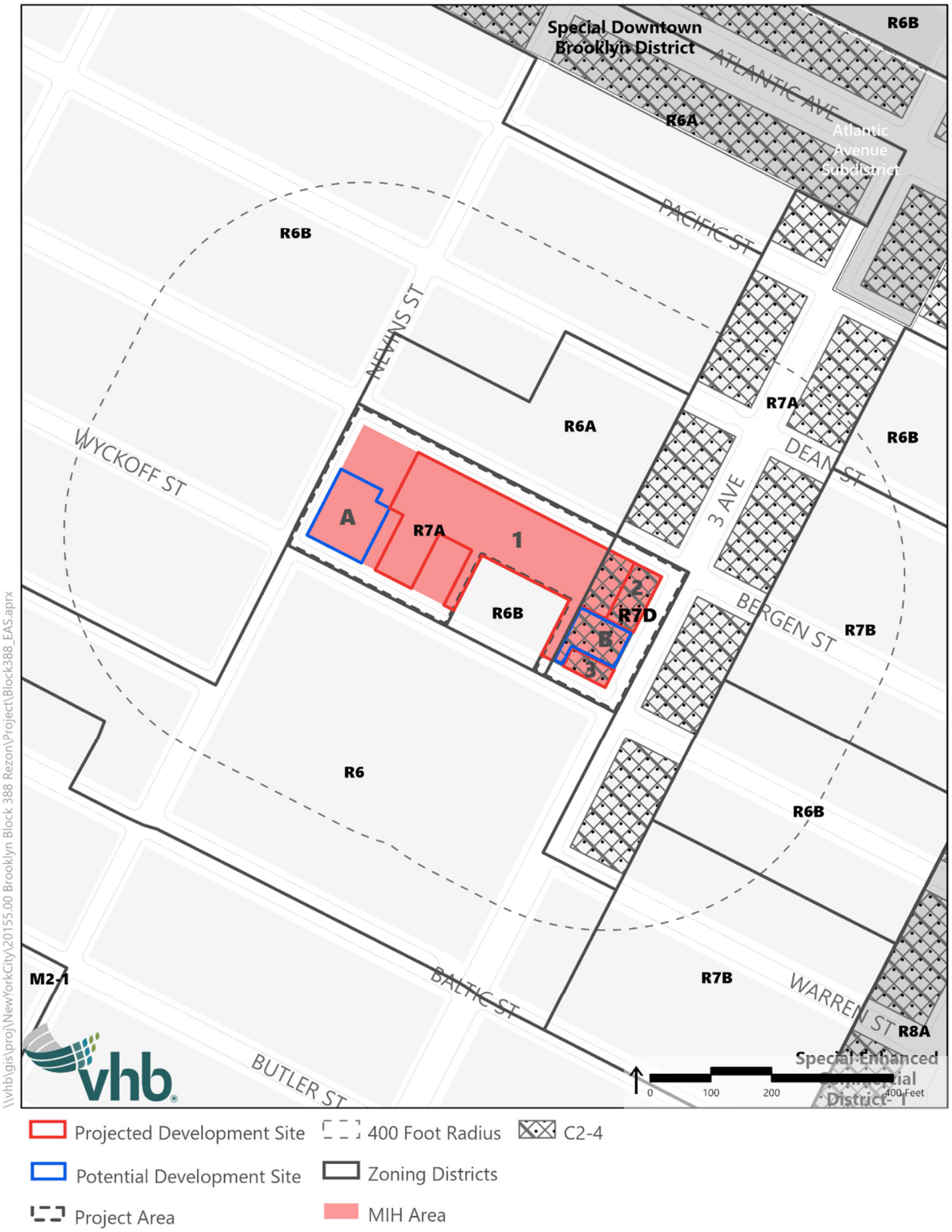
Discussion

As detailed in **Part 1, Project Description**, the M1-2 portion of the project block was rezoned in 1973 from an R6 district to an M1-2 district, in conjunction with the Bergen Street Urban Renewal Plan. However, the Urban Renewal Plan expired in 2011 and the continued use of the property for manufacturing is no longer feasible.

For that reason, the existing manufacturing zoning currently mapped on the project block is no longer appropriate. The establishment of an R7D district with a C2-4 overlay would provide a continuation of commercial uses along Third Avenue, consistent with this corridor to the north and across Third Avenue from the project block. The proposed R7 contextual zoning districts (R7A and R7D) are appropriate for the existing residential character of the surrounding area, and would preserve the contextual built condition of the study area. The proposed zoning text amendment is required to establish an MIH area.

As compared to the No-Action condition, the Proposed Actions would provide substantial benefits to the surrounding community by introducing more community facility and commercial space to the Project Area as a continuation of existing patterns, activating an underutilized manufacturing site, and by providing needed housing. These changes would be consistent with the residential zoning of the study area. Therefore, the Proposed Actions would not have a significant adverse impact on zoning.

Figure 2-3 Proposed Zoning Map



Public Policy

Housing New York 2.0

The Proposed Actions would be consistent with the Housing New York plan and would result in approximately 79 affordable housing units pursuant to the MIH program in the Boerum Hill neighborhood, providing affordable residences for low- and middle-income New Yorkers, a stated goal of the Housing New York 2.0 Plan as discussed above. Therefore, the Proposed Actions would be supportive of this public policy, and no significant adverse impact with regards to Housing New York would occur.

PlaNYC/OneNYC 2050

The Proposed Actions would support the initiatives outlined in OneNYC 2050, as detailed below.

Goal 3: Thriving Neighborhoods

Initiative 9: Ensure all New Yorkers have access to safe, secure, and affordable housing

This goal is focused around fostering communities that have safe and affordable housing, and are well-served by parks, cultural resources, and shared spaces. As noted, the Proposed Actions would introduce 79 new affordable housing units to the Boerum Hill neighborhood. As such, the Proposed Actions would be in support of this initiative by expanding the City's affordable housing stock.

Conclusion

As described above, the Proposed Actions would facilitate the development of mixed-use residential and commercial buildings within the Project Area. Though the Proposed Actions would facilitate an increase in density compared with the No-Action condition, the proposed density and uses within the Project Area (i.e., residential and commercial) would be consistent with the residential and mixed-use character and building scale exhibited in the study area. The proposed contextual zoning would be in keeping with the existing zoning within the study area, and would facilitate the development of a contextual, mid-rise building consistent with the conditions of the study area and in line with applicable public policies, including Housing New York 2.0. In addition, the Proposed Actions would provide additional affordable housing units to the neighborhood. Therefore, the Proposed Actions would not result in any significant adverse impacts to land use, zoning, or public policy and further analysis is not needed.

3

Socioeconomic Conditions

This section considers the potential for the Proposed Actions to result in significant adverse impacts to the socioeconomic character of the surrounding area, which includes its population, housing, and economic activity.

Introduction

According to the *2021 CEQR Technical Manual*, an analysis of socioeconomic conditions may be necessary when a project would directly or indirectly change an area's socioeconomic character (population, housing, and economic activity); the assessment usually considers the socioeconomic conditions of area residents separately from those of area businesses, although projects may affect both in similar ways. An assessment of socioeconomic conditions is warranted when a project would result in:

- Direct displacement of residential population on a development site;
- Direct displacement of existing businesses or institutions on a development site;
- Indirect displacement of residential population in a study area;
- Indirect displacement of businesses or institutions in a study area;
- Indirect displacement of businesses due to retail market saturation; and
- Adverse effects on specific industries.

For the Proposed Actions, a preliminary analysis of indirect residential displacement was warranted. Analyses of direct residential displacement, direct and indirect business

displacement, and adverse effects on specific industries are not warranted as described in the preliminary screening analysis in **Part II: Supplemental Analyses**. The preliminary analysis determined the Proposed Actions would not result in significant adverse impacts to socioeconomic conditions.

Methodology

Under CEQR, the socioeconomic character of an area is defined by its population, housing and economic activities. The assessment of socioeconomic conditions usually distinguishes between the socioeconomic conditions of an area's residents and businesses. However, proposed action(s) may affect either or both segments in the same ways; they may directly displace residents or businesses, or they may alter one or more of the underlying forces that shape socioeconomic conditions in an area and thus may cause indirect displacement of residents or businesses.

Direct displacement is defined as the involuntary displacement of residents, businesses or institutions from the actual site of (or sites directly affected by) a proposed project. Indirect or secondary displacement is defined as the involuntary displacement of residents, businesses, or employees in an area adjacent or close to a development site that results from changes in socioeconomic conditions created by a proposed project. Examples include rising rents in an area that result from a new concentration of higher-income housing introduced by a project, which ultimately could make existing housing unaffordable to lower income residents.

The objective of the analysis is to disclose whether any potential changes created by the Proposed Actions would have a significant adverse impact compared with what would happen in the future without the Proposed Actions (i.e., the No-Action condition).

Analysis Format

Following *CEQR Technical Manual* guidelines, the analysis begins with an initial screen that considers threshold circumstances identified in the *CEQR Technical Manual* that can lead to socioeconomic changes warranting further assessment. If the initial screen determines that further assessment is warranted, a preliminary assessment is then undertaken. The purpose of the preliminary assessment is to learn enough about the effects of the Proposed Actions to either rule out the possibility of significant adverse impacts or determine that a more detailed analysis is required to resolve the issue.

The analysis of the Proposed Actions is based on a Reasonable Worst Case Development Scenario (RWCDS) analysis that includes development within the Project Area on Projected Development Site 1. A socioeconomic analysis is not warranted for Potential Development Sites associated with the Proposed Actions, per *CEQR Technical Manual* guidelines.

The build year for the full build-out of the With-Action condition is 2025, which was examined to assess the potential impacts of the Proposed Actions. The socioeconomic analysis will assess the potential impacts of Projected Development Site 1, included in the RWCDS of the Proposed Actions. As discussed in **Part I: Project Description**, in the With-Action condition Projected Development Site 1, located at 280 Bergen Street (Lots 19, 42, and 51), would

contain 302 dwelling units, ground floor commercial and community facility space, and parking.

Indirect Residential Displacement Methodology

Per *CEQR Technical Manual* guidelines, a preliminary assessment of a project's potential to cause indirect residential displacement is necessary to determine whether a proposed project may either introduce a trend or accelerate a trend of changing socioeconomic conditions that may potentially displace a vulnerable population to the extent that the socioeconomic character of a neighborhood would change.

The first step of the preliminary analysis is to determine if a proposed project would add new population 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. If the project would introduce a costlier type of housing compared to existing housing and the housing expected to be built in the future No-Action condition, then the new population may be expected to have higher incomes. If the expected average incomes of the new population would exceed the average incomes of the study area populations, then the next step of the analysis is conducted. This preliminary assessment follows the step-by-step preliminary assessment guidelines described in Section 322.1 of the *CEQR Technical Manual*.

Study Area Definition

The *CEQR Technical Manual* states that a quarter-mile socioeconomic study area is appropriate unless the project could increase the population by more than five percent as compared with the population expected to reside in a quarter-mile study area in the future No-Action condition.

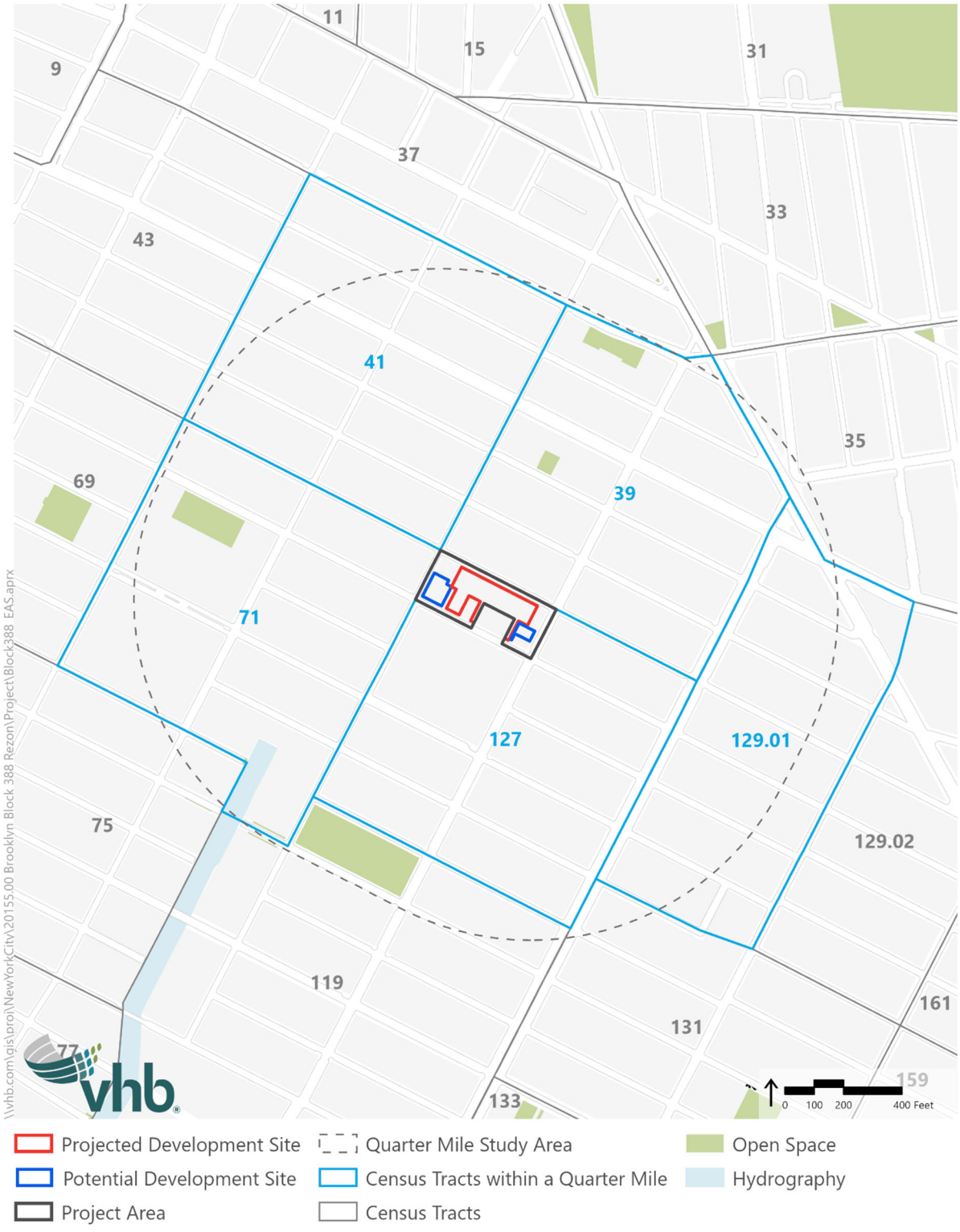
The Project Area is located within Brooklyn Census Tract 127. A quarter-mile study area would also contain Brooklyn Census Tracts 39, 41, 71, and 129.01.[1] Combined, these census tracts have a population of 16,773.[2] Seven new residential development projects are anticipated in the quarter-mile study area under the future No-Action condition, resulting in the construction of 2,042 new residential units (see **Table 3-7**). Using an average household size of 2.26 people per household,[3] the new residential units would generate approximately 4,615 residents, for a total population within the quarter-mile study area of 21,388 in the future No-Action condition. The Proposed Actions would increase the quarter-mile area population by an estimated 683 residents. This is estimated to result in a residential population increase of 3.19 percent, and therefore the quarter-mile study area is appropriate (see **Figure 3-1**).

[1] Census tracts that contain at least 50% of their area within the quarter mile radius were included in the study area analysis.

[2] 2015-2019 American Community Survey (ACS), compiled through NYC Population FactFinder.

[3] Based on the average household size of the Census Tracts that make up the Open Space study area (see Section 5)

Figure 3-1 Socioeconomic Study Area



Data Sources

Information used in the socioeconomic analysis includes data from the U.S. Census Bureau's 2010 Census, 2020 Census, 2006-2010 American Community Survey (ACS) and 2015-2019 ACS, compiled through the NYC Population FactFinder. The 2015-2019 data reflects five-year averages of income distribution, mean income, and median rent for the trailing 12 months in 2019 inflation-adjusted dollars. The mean income and median gross rent of each census tract were compiled by the NYC Population FactFinder. 2010 and 2020 Census data were used for population estimates.

Real estate property listing data was obtained from www.streeteasy.com. Area Median Income (AMI) for the New York City region was obtained from the U.S. Department of Housing and Urban Development (HUD).

Preliminary Assessment

Existing Conditions

The existing population of the socioeconomic study area is 16,773 per the 2020 Census and has increased since 2010 by 4.9 percent from 15,988 (see **Table 3-1**). See **Figure 3-1** for the boundaries of the study area. The population of both Brooklyn and New York City, as a whole, have increased over the same time period by 9.2 percent and 7.7 percent, respectively.

Table 3-1 Population

Area	Population 2010	Population 2020	Percent Change
Study Area	15,988	16,773	4.9%
Brooklyn	2,504,700	2,736,074	9.2%
New York City	8,175,133	8,804,190	7.7%

Source: 2010 Census and 2020 Census

The number of housing units and households increased in the study area between 2010 and 2019 (see **Table 3-2**). Brooklyn and New York City showed increases in both the number of households and the number of housing units, corresponding to an increase in population in both areas. Brooklyn households and housing units increased by 6.0 percent and 5.9 percent respectively. New York City households and housing units increased by 3.9 percent and 4.5 percent respectively.

Table 3-2 Household and Housing Data

Area	2006-2010 Households	2015-2019 Households	Households Percent Change	2006-2010 Housing Units	2015-2019 Housing Units	Housing Units Percent Change
Study Area	6,723	6,896	Increase[1]	7,315	7,732	Increase[1]
Brooklyn	903,991	958,567	6.0%	986,482	1,044,493	5.9%
New York City	3,047,249	3,167,034	3.9%	3,343,424	3,494,228	4.5%

Source: 2006-2010 American Community Survey (ACS) 5-year Estimate and 2015-2019 ACS 5-year Estimate

[1] The Margin of Error (MOE) of the difference between 2006-2010 ACS 5-year Estimates and 2015-2019 ACS 5-year Estimates is greater than one-third of the estimated difference but less than the difference itself; therefore, a direction of change, rather than a percentage of change, can be estimated with confidence.

The majority of occupied housing units in the study area are rented (76.0 percent) rather than owned (24.0 percent) (see **Table 3-3**). New York City has similar tenure rates compared to the study area although a higher ownership rate with 67.3 percent of housing tenure being renter occupied units and 32.7 percent owner occupied. Brooklyn has a 69.9 percent rate of renter occupied units.

Table 3-3 Housing Tenure (2015-2019)

Area	% Vacant	% Renter Occupied Units	% Owner Occupied Units
Study Area	10.8%	76.0%	24.0%
Brooklyn	8.2%	69.9%	30.1%
New York City	9.4%	67.3%	32.7%

Source: 2014-2018 U.S. American Community Survey (ACS) 5-year Estimate.
Notes: % Vacant, as defined by the U.S. Census, includes vacant housing units for rent or sale, units that are occupied by persons who have a usual residence elsewhere, and vacant units held off the market.

Median gross rent in the study area was $872 in 2010 (statistically reliable data was not available for the study area in 2019, see **Table 3-4**). Median gross rent in Brooklyn is $1,426, an 18.9 percent increase from 2010, and $1,443 in New York City, a 14.7 percent increase from 2010. A review of current rental listings in the study area on www.streeteasy.com revealed an average rent of $2,200 for a studio or one-bedroom unit, $2,600 for two-bedroom units, and $3,700 for three-bedroom units. Three four-bedroom units ranging from $3,500 to $11,000 were listed for rent on www.streeteasy.com.[4]

Table 3-4 Median Gross Rent

Area	Years 2006-2010	Years 2015-2019	Change	Percent Change
Study Area	$872	$1,350[1]	-[1]	-[1]
Brooklyn	$1,200	$1,426	$226	18.9%
New York City	$1,259	$1,443	$184	14.7%

Source: 2006-2010 American Community Survey (ACS) 5-year Estimate and 2014-2018 American Community Survey (ACS) 5-year Estimate.

[1] According to NYC Population FactFinder, this value is not statistically reliable, therefore it is reported in grey text and no conclusions are drawn from this data. Change over time cannot be estimated with confidence.

There are three public housing developments in the study area.[5] The first, located in the block south of the Project Area, is Wyckoff Gardens. Wyckoff Gardens has 529 total units across three residential buildings, and is home to 1,118 residents.[6] The second is 572 Warren Street, which is located to the southeast of the Project Area along Third Avenue. 572 Warren Street has 200 dwelling units in one residential building; the number of residents is not reported.[7] Gowanus is the third public housing development; it is located to the west of the Project Area and contains 1,139 units across 15 residential buildings. It is home to 2,631 residents.[8]

[4] www.streeteasy.com, accessed January 13, 2021.
[5] https://www1.nyc.gov/assets/nycha/downloads/pdf/officialmap-2019.pdf, accessed January 13, 2021.
[6] https://nycha.maps.arcgis.com/apps/webappviewer/index.html?id=41c6ff5e73ec459092e982060b7cf1a1, accessed January 13, 2021
[7] https://nycha.maps.arcgis.com/apps/webappviewer/index.html?id=41c6ff5e73ec459092e982060b7cf1a1, accessed January 13, 2021
[8] https://nycha.maps.arcgis.com/apps/webappviewer/index.html?id=41c6ff5e73ec459092e982060b7cf1a1, accessed January 13, 2021

Table 3-5 shows the average household incomes across the comparison geographies. The average household income in the study area is $151,175, as per the 2015-2019 ACS 5-year Estimate, which is higher than the average income in Brooklyn, $91,610, and in New York City, $102,946. While the average income in Brooklyn increased by 24.4 percent from 2010, the average income in New York City increased by 12.5 percent. Median household income is also provided in **Table 3-5** for reference.

Table 3-5 Average and Median Household Income

Area	2006-2010 Average Household Income	2015-2019 Average Household Income	Average Household Income Percent Change	2006-2010 Median Household Income	2015-2019 Median Household Income	Median Household Income Percent Change
Study Area	$101,949	$151,175	-[1]	$62,504	$92,416	-[1]
Brooklyn	$73,627	$91,610	24.4%	$51,196	$60,231	17.6%
New York City	$91,537	$102,946	12.5%	$59,090	$63,998	8.3%

Source: 2006-2010 American Community Survey (ACS) 5-year Estimate data and 2015-2019 American Community Survey (ACS) 5-year Estimate data.

Notes: Average, or mean household income, is defined as the aggregate household income divided by total households. Median Household income is calculated through linear interpolation by NYC Population FactFinder.

[1] The Margin of Error (MOE) of the difference between 2006-2010 ACS 5-year Estimates and 2015-2019 ACS 5-year Estimates is greater than the estimated difference. Therefore, a percentage change cannot be estimated with confidence.

No-Action Condition

Under the No-Action condition, Projected Development Site 1 would be developed as-of-right within the current zoning regulations with commercial and medical office uses. Seven new residential development projects are currently planned or under construction within the study area, as discussed above under the **Study Area Definition** section (see **Table 3-6**). These developments are expected to generate approximately 4,698 residents. Therefore, the study area population under the No-Action condition would be 23,035 people. The new population would result in a 25.6 percent increase in population over existing conditions.

The 80/100 Flatbush Avenue site was rezoned and established as a Mandatory Inclusionary Housing (MIH) Area. The site is mapped with MIH Option 1 and Option 2 and is expected to contain 200 affordable units. The Wyckoff Gardens Infill project is to be developed on NYCHA property and is expected to contain 250 affordable units and 250 market-rate units. It is not known at this time whether the other No-Action developments will contain affordable or market-rate residential units. It is assumed that the other developments would contain only market-rate units for conservative analysis purposes.

Table 3-6 No-Action Condition Residential Development

Address	Residential Units	Estimated Residents
80/100 Flatbush Avenue	922	2,084
58 St. Marks Place	105	237
50 Nevins Street	129	292
540 Fulton Street	327	739
Wyckoff Gardens Infill	500	1,130
98 Third Avenue	38	86
118 Third Avenue	21	47
Total	**2,042**	**4,615**

Sources: Department of Buildings, CEQR Access
Notes: Residents estimated using the average household size of the census tracts that make up the Open Space study area (see Section 5) of 2.26 people per household

With-Action Condition

The Proposed Actions would facilitate redevelopment on Projected Development Site 1 to contain a total of 302 dwelling units, along with retail and medical office uses. The Applicant anticipates both MIH Options 1 and 2 for Projected Development Site 1. Overall, it is anticipated that the Proposed Actions would result in a total of 60 affordable units. However, because the MIH Option is not yet finalized for this project, it is assumed for conservative analysis purposes that the option producing the highest average income for the introduced population would be followed, which is Option 2 requiring 30 percent of floor area (total of 91 units) for residents with incomes averaging 80 percent of AMI. The levels of affordability are established by HUD and are subject to change. The 80 percent AMI income limit per HUD is $66,880 for a family of one, $76,400 for a family of two, $85,920 for a family of three, $95,440 for a family of four, and $103,120 for a family of five.[9] Median household income in the study area is $92,416.

Using the average household size of 2.26 and weighing the AMI estimates listed above for a family size of between 2 and 3, an average income of households occupying the proposed affordable residential units at 80 percent of AMI is estimated to be $78,875.

As described in the **Existing Conditions** section above, average market-rate listed rents for the study area range from $2,200 for a studio apartment to $3,700 for a three-bedroom apartment. The market-rate unit mix for the Proposed Project is not yet known, however, for the purposes of this analysis, a unit mix is assumed based on the existing market-rate units in the area to include approximately 45 percent studio and one-bedroom units, 40 percent two-bedroom units, and 15 percent three-bedroom units. In addition, the range of average incomes for the new tenants can be estimated by assuming that the new households would pay 30 percent of their income on housing. This ratio is based on the HUD definition of cost-burdened families which states that those paying more than 30 percent of their income on housing may have difficulty affording other necessities. Using these assumptions, it is

[9] FY 2021 Income Limits Summary for New York, NY HUD Metro FMR Area.

estimated that households in the market-rate units would have average annual incomes ranging from $88,000 to $148,000 (see **Table 3-7**), or a weighted average of approximately $103,261 based on the assumed unit mix.

Table 3-7 Estimated Income for Market Rate Units

Unit Type	Average Rent	Estimated Monthly Income	Estimated Average Annual Income
Studio	$2,200	$7,333	$88,000
1-Bedroom	$2,200	$7,333	$88,000
2-Bedroom	$2,600	$8,667	$104,000
3-Bedroom	$3,700	$12,333	$148,000

Notes: Average rent is based on rental listings as described in the Existing Conditions section. Estimated average monthly income and annual income assumes that the household pays 30 percent of income on rent.

Using a weighted average based on the anticipated number of affordable and market-rate units to be provided, the average income of households occupying the proposed residential units is estimated to be approximately $95,945. This is lower than the average household income for the study area of $151,175.

According to the *CEQR Technical Manual*, if a proposed project is expected to introduce new population with similar average incomes to the existing average income of the study area, then no further analysis is warranted.

Conclusion

This preliminary analysis finds that the Proposed Actions would not result in significant adverse impacts to the socioeconomic conditions of the study area. As detailed in **Part II: Supplemental Analyses**, the Proposed Actions would not result in the direct displacement of any residents or businesses or in adverse effects on specific industries, and the incremental commercial uses would not represent a substantial new use or size warranting assessment of potential indirect business displacement.

With respect to potential indirect residential displacement, the Proposed Actions would spur development of both affordable and market-rate housing units. The estimated weighted average incomes of the new population is expected to be smaller than the average incomes of the study area populations. Therefore, the Proposed Actions would not be expected to introduce or accelerate a trend that would potentially lead to the displacement of vulnerable populations or create a significant indirect residential displacement adverse impact, and no further analysis is warranted.

4

Community Facilities and Services

This section assesses the potential impacts of the Proposed Actions on community facilities and services. The *2021 City Environmental Quality Review (CEQR) Technical Manual* defines community facilities as public or publicly funded facilities including schools, libraries, childcare centers, health care facilities, and fire and police protection services.

Introduction

This section assesses the potential impacts of the Proposed Actions on community facilities and services. According to the *2021 City Environmental Quality Review* (CEQR) Technical Manual, a community facilities assessment should be conducted if a project would directly or indirectly affect existing community facilities, including publicly supported early childhood programs, libraries, public schools, health care facilities, and fire and police protection services. A project can affect community services when it physically displaces or alters a community facility or causes a change in population that may affect the services delivered by a community facility, as might happen if a facility is already over-utilized, or if a project is large enough to create a demand that could not be met by the existing facility.

The Proposed Actions would facilitate an approximately 307,000-gross-square-foot (gsf) mixed-use development within four buildings proposed on Lots 19, 42, and 51 on Brooklyn Block 388 in the Boerum Hill neighborhood of Brooklyn ("Projected Development Site 1"). The proposed mixed-use development would include approximately 268,627 gsf of residential space and 302 residential units, 9,680 gsf of retail space, 10,000 gsf of medical

office space, and 18,693 gsf of parking space, accommodating 125 parking garage spaces to be located at grade (the "Proposed Project"). Approximately 60 of the residential units would be affordable pursuant to the Mandatory Inclusionary Housing (MIH) program.

Methodology

The *CEQR Technical Manual* provides thresholds to make an initial determination of whether detailed studies are necessary to determine potential indirect impacts on public schools, libraries, early childhood program centers, health care facilities, and fire and police protection services. According to CEQR guidelines, a project would need to introduce a sizeable new neighborhood to trigger further analysis on police/fire services and health care facilities. A project introducing 139 units affordable to residents earning not more than 80 percent of the area median income would introduce 20 or more eligible children under age six and would warrant further analysis on childcare centers. A project generating more than 50 elementary and intermediate school aged children would warrant an elementary schools analysis, and a project generating more than 150 high school students would warrant a high school analysis. Finally, a project introducing a minimum of 734 total units would trigger a detailed analysis on libraries.

Using the CEQR App, an analysis tool developed by the New York City Department of City Planning (DCP), the need for detailed analysis was assessed for these areas. As stated previously, the Proposed Project would introduce 302 dwelling units, of which 60 are anticipated to be affordable units.

As analyzed in the **Part II: Supplemental Analysis**, the Proposed Project does not have the potential to impact libraries, early childhood programs, health care facilities or police and fire services. However, as shown in **Table 4-1** below, an assessment of public schools is warranted because the Proposed Project would introduce a total of 64 elementary and intermediate school students into the study area (53 elementary and 11 intermediate). Furthermore, the Proposed Project would not directly displace a community facility, nor place a physical barrier to service delivery. Therefore, an analysis of direct effects is not warranted.

Table 4-1 Residential Increment for Analysis

Land Use	Unit	Existing Condition	No-Action Condition	With-Action Condition	Increment
Residential	*Dwelling Units*	0	0	302	302
	Affordable Units	0	0	60	60
	Total Residential gsf	0	0	268,627	268,627
Residents[1]		0	0	695	695
Elementary Students[2]		0	0	53	53
Intermediate Students[2]		0	0	11	11
High School Students[2]		0	0	15	15

[1] The number of residents is based on an average household size of 2.30 for the neighborhood, Boerum Hill (2014-2018 ACS Survey).
[2] The number of students generated is based on the 2019 School Multipliers provided by the SCA for Brooklyn District 15. The multipliers assume 0.174 Elementary Students per unit, 0.037 intermediate students per unit, and .050 high school students per unit.

Public Schools

In conformance with *2021 CEQR Technical Manual* guidance, the public school analysis uses the most recent New York City Department of Education (DOE) data on school capacity, enrollment, and utilization rates for elementary and intermediate schools in the sub-district study area and the New York City School Construction Authority (SCA) projections of future enrollment to determine indirect effects on public schools (the 2018-2019 SCA Enrollment, Capacity and Utilization Blue Book). Then the existing conditions of the public schools within the study area are examined by assessing their enrollment, target capacity, and available seats to understand the percent utilization for the study area.

Future conditions are then predicted based on SCA enrollment projections and data obtained from SCA Capital Planning Division on the number of new housing units and students expected at the sub-district and borough levels. The future utilization rate for school facilities is calculated by adding the estimated enrollment from proposed residential developments in the schools' study area to DOE's projected enrollment and then comparing that number with projected school capacity. DOE does not include charter school enrollment in its projections. DOE's enrollment projections for years 2019 through 2028, the most recent data currently available, is posted on the SCA website and accessed through the CEQR App.[1] The latest available enrollment projections to 2028 have been used in this analysis. These enrollment projections are based on broad demographic trends and do not explicitly account for discrete new residential development projects expected to be completed within the study area. Therefore, the estimated student population from other new development projects expected to be completed within the study area have been obtained from the SCA Capital Planning Division and are added to the projected enrollment to ensure a more conservative prediction of future enrollment and utilization. In addition, any new school

[1] Consistent with CEQR methodology, the analysis focuses only on potential impacts on public schools operated by the DOE; private and parochial education facilities as well as charter schools are excluded from the analysis.

projects identified in the DOE Five-Year Capital Plan are included if construction has begun, or if deemed appropriate to include in the analysis by the lead agency and the SCA. This data together provides the analysis of the No-Action Condition analysis.

The number of students that would be generated by a proposed project are estimated by "Projected Public School Ratios" (i.e., the number of elementary, intermediate, and high school students that would be generated by each residential unit) and assessed under the With-Action Condition. The With-Action condition is assessed against the No-Action condition by calculating the change in utilization rates.

Study Area

According to the guidelines presented in the *CEQR Technical Manual*, the study area for the analysis of public elementary and intermediate schools is the school districts' "sub-district" (also known as "regions" or "school planning zones") in which the Project Area is located. The Project Area is in sub-district 3 of Community School District (CSD) 15 (see **Figure 4-1**).

Data Sources

As discussed above, this analysis presents the most recent DOE data on school capacity, enrollment, and utilization rates for elementary and intermediate schools and the SCA projections of future enrollment in the study area, as provided and guided by DCP and the CEQR App. The existing conditions analysis uses data provided in the DOE's *Utilization Profiles: Enrollment/Capacity/ Utilization, 2018- 2019 Edition*. Future conditions are predicted based on SCA enrollment and capacity projections for current schools and schools under construction as provided by the CEQR App. DOE's enrollment projections for years 2019-2028, the most recent data currently available, were provided by DCP through the CEQR App.

Impact Criteria

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

- A collective utilization rate of that is equal to or greater than 100 percent in the future With-Action condition;
- 100 or more new elementary or intermediates students generated from the proposed development past the 100 percent utilization rate; and
- An increase of five percentage points or more in the utilization rate for high schools between the No-Action and With-Action conditions.

Detailed Assessment-Public Schools

Existing Conditions

CSD 15/Sub-district 3

As shown in **Table 4-2** and **Figure 4-1**, the sub-district contains eight elementary schools with a total enrollment of 5,092 students and a deficit of 27 seats leading to a utilization rate of 101 percent.

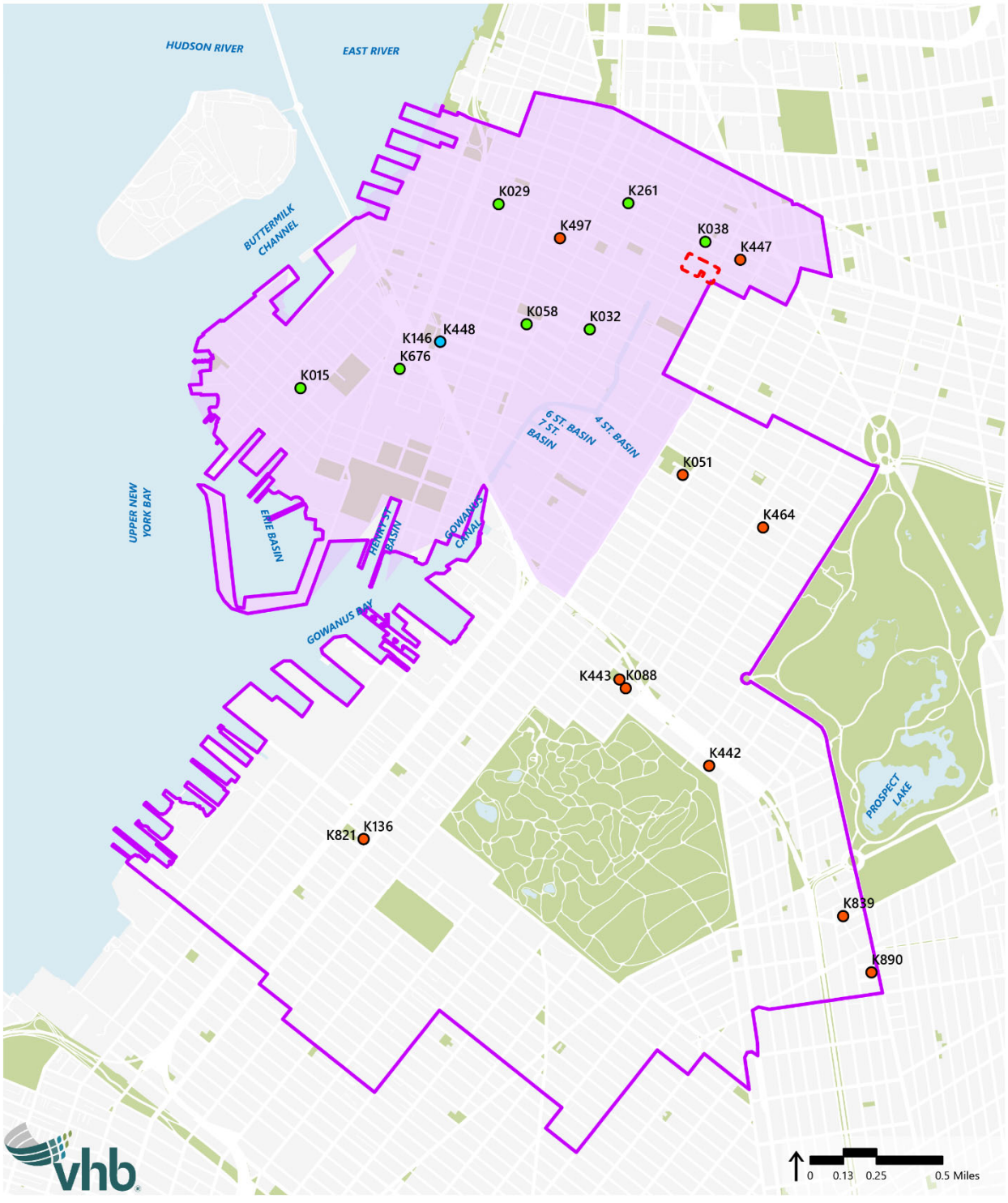
The sub-district contains three intermediate school that have an existing total enrollment of 1,278 students and a surplus of 166 seats leading to an overall utilization rate of 89 percent.

Table 4-2 Public School Enrollment, Capacity, and Utilization for Existing Conditions, School District 15, Sub-District 3

Map No.	Org. ID	Bldg. ID	School Name	Address	Grades	Enrollment	Target Capacity	Available Seats	Utilization
Elementary Schools									
	K015	K015	P.S. 15	71 Sullivan Street		485	602	117	81%
	K029	K029	P.S. 29	425 Henry Street		950	761	-189	125%
	K032	K032	P.S. 32	317 Hoyt Street		480	577	97	83%
	K038	K038	P.S. 38	450 Pacific Street		613	659	46	93%
	K058	N058	P.S. 58	330 Smith Street		955	771	-184	124%
	K146	K142	P.S. 146	610 Henry Street		694	552	-142	126%
	K261	K261	P.S. 261	314 Pacific Street		794	710	-84	112%
	K676	K027	P.S. 27	27 Huntington Street		121	433	312	28%
					Study Area Total	**5,092**	**5,065**	**-27**	**101%**
Intermediate Schools									
	K447	K655	I.S. 447	345 Dean Street		545	657	112	83%
	K448	K142	J.H.S. 142	610 Henry Street		296	329	33	90%
	K497	K293	J.H.S. 293	284 Baltic Street		437	458	21	95%
					Study Area Total	**1,278**	**1,444**	**166**	**89%**

Source: CEQR App, NYC DOE Enrollment, Capacity and Utilization Blue Book 2018-2019
Note: Only enrollment and capacity data for relevant grades were included for each elementary and intermediate school. Charter, citywide gifted and talented, D75 special education, and D79 alternative high school equivalency schools are not included in analysis.

Figure 4-1 Public Schools District 15, Sub-district 3



Community School District 15 - "Choice District"

Sub-district 3 in CSD 15 does not have a zoned intermediate school. CSD 15 has a school choice program which allows students to apply to any intermediate school within the district. Therefore, an analysis of the whole district is warranted in the event the potential for significant adverse impacts is identified for intermediate schools at the CSD level. As shown in **Table 4-3** and **Figure 4-1**, there are 12 intermediate schools in CSD 15 including the three described previously in sub-district 3. They have a total enrollment of 6,589 students and are currently operating at a 104% utilization with a deficit of 248 seats.

Table 4-3 Public School Enrollment, Capacity, and Utilization for Existing Conditions – CSD 15 Intermediate Schools

Sub-District	Org. ID	Bldg. ID	School Name	Address	Enrollment	Target Capacity	Available Seats	Utilization
Intermediate Schools								
1	K136	K136	I.S. 136	4004 4 Avenue	506	564	58	90%
1	K821	K136	Sunset Park Prep	4004 4 Avenue	533	510	-23	105%
1	K839	K437	M.S. 839	713 Caton Avenue	345	224	-121	154%
1	K890	K338	M.S. 890	21 Hinckley Place	213	303	90	70%
2	K051	K051	M.S. 51	303 5 Avenue	1,135	961	-174	118%
2	K088	K088	I.S. 88	544 7 Avenue	1,447	1,315	-132	110%
2	K442	K280	M.S. 442	500 19 Street	302	288	-14	105%
2	K443	K845	P.S. 295	330 18 Street	580	496	-84	117%
2	K460	K460	Park Slope Collegiate	237 7 Avenue	250	236	-14	106%
3	K447	K655	I.S. 447	345 Dean Street	545	657	112	83%
3	K448	K142	J.H.S. 142	610 Henry Street	296	329	33	90%
3	K497	K293	J.H.S. 293	284 Baltic Street	437	458	21	95%
				Study Area Total	**6,589**	**6,341**	**-248**	**104%**

Source: CEQR App, NYC DOE Enrollment, Capacity and Utilization Blue Book 2018-2019
Note: Only Enrollment and capacity data for relevant grades were included for each elementary and intermediate school. Charter, citywide gifted and talented, D75 special education, and D79 alternative high school equivalency schools are not included in analysis

No-Action Condition

Enrollment Projections

Projected enrollment was determined for the future 2025 No-Action condition using SCA's *Enrollment Projections for the New York City Public Schools, 2019 - 2028*, which references DOE's projected New Housing Starts, as well as Panel for Educational Policy (PEP) proposals for changes in school utilization. SCA enrollment projections focus on the natural growth of the city's student population (through births and grade retention) and do not account for future residential developments planned for the sub-district study area (No-Action projects). Therefore, future utilization rates for school facilities are calculated by adding the estimated enrollment from proposed residential developments in the school study area to SCA's projected enrollment, and then comparing that number with projected school capacity. For this study, three projects were added to the No-Action condition. The 80/100 Flatbush Avenue development was added as a conservative measure because it may not have been

included in the SCA's natural growth calculations. There are two sites in the Project Area that are anticipated for redevelopment as part of the adjacent 98 Third Avenue Rezoning proposal, including 98 Third Avenue, located on the corner of Third Avenue and Bergen Street, and 118 Third Avenue, located on the corner of Third Avenue and Wyckoff Street. As the 98 Third Avenue Rezoning is anticipated to be approved prior to the Proposed Actions, these two developments are considered No-Action projects in the study area for the purposes of this environmental analysis.

As shown in **Table 4-4**, 172 elementary students and 37 intermediate students would be added in the No-Action condition from No-Action residential developments.

Table 4-4 No-Action Developments Projected Enrollment

No-Action Developments	Residential Units	Estimated Students	
		Elementary	Intermediate
80/100 Flatbush Avenue	922	161	35
98 Third Avenue	38	7	1
118 Third Avenue	21	4	1
Total	**981**	**172**	**37**

Source: ECF 80 Flatbush Avenue FEIS (17ECF001K)

Projected Capacity Changes

There are three expected capacity changes within CSD 15, sub-district 3 as it relates to elementary and intermediate schools and within CSD 15 overall as it relates to intermediate schools. First, P.S. 032 (Org. ID K032) is undergoing expansion, which will add an additional 436 elementary school seats in sub-district 3. Second, I.S. 21-31 & 35 is a new school under construction, which will create an additional 646 intermediate school seats in sub-district 3 and CSD 15 overall.

Third, a new P.S./H.S. is under construction at 362 Schermerhorn Street in sub-district 3. The elementary school component has a future anticipated capacity of 350 students. This school is proposed as part of the 80/100 Flatbush project. The FEIS (CEQR No. 17ECF001K) for 80/100 Flatbush identified the need to provide additional lower and high school capacity.

Analysis

As shown in **Table 4-5**, in the No-Action condition, elementary schools in CSD 15, sub-district 3 would operate over capacity with a 100.8 percent utilization rate and a deficit of 46 seats. Intermediate schools would operate within capacity with a 58.9 percent utilization rate and a surplus of 859 seats. As shown in **Table 4-6**, intermediate schools in CSD 15 overall would operate under capacity with an 88.7 percent utilization rate and a surplus of 790 seats.

Table 4-5 Projected Public School Enrollment, Capacity, and Utilization for No-Action Condition, School District 15, Sub-District 3

Projected Enrollment	Students Introduced by No-Action Residential Development	Total No-Action Enrollment	Capacity	Available Seats	Utilization (%)
Elementary Schools					
4,936	961	5,897	5,851	-46	100.8%
Intermediate Schools					
1,143	88	1,231	2,090	859	58.9%

Source: CEQR App, SCA Enrollment Projections for New York City Public Schools by the Statistical Forecasting (2019-2028)

Table 4-6 Projected Public School Enrollment, Capacity, and Utilization for No-Action Condition, School District 15

Projected Enrollment	Students Introduced by No-Action Residential Development	Total No Action Enrollment	Capacity	Available Seats	Utilization (%)
Intermediate Schools					
5,898	299	6,197	6,987	790	88.7%

Source: CEQR App, SCA Enrollment Projections for New York City Public Schools by the Statistical Forecasting (2019-2028)

With-Action Condition

As described in **Part I: Project Description**, the Proposed Project is anticipated to result in the development of 302 dwelling units, which would introduce approximately 53 elementary students and 11 intermediate students to the sub-district. The Proposed Project is not anticipated to provide additional capacity within the Project Area for public schools.

As shown in **Table 4-7**, elementary schools in CSD 15, sub-district 3 would continue to operate with a shortfall of seats in the With-Action condition. The sub-district elementary schools would operate at 101.7 percent utilization rate with a deficit of 99 seats. The collective utilization rate in the With-Action condition would increase 0.9 percent from the No-Action condition. The sub-district intermediate schools would operate within capacity at 59.4 percent utilization and a surplus of 848 seats. The collective utilization rate in the With-Action condition would increase 0.5 percent from the No-Action condition.

Intermediate schools in CSD 15 overall, as shown in **Table 4-8**, would continue to operate within capacity. Under the With-Action condition, the CSD 15 intermediate schools would operate at 88.9 percent capacity with 779 available seats. The collective utilization rate in the With-Action condition would increase 0.2 percent from the No-Action condition.

Table 4-7 Projected Public School Enrollment, Capacity, and Utilization for With-Action Condition, School District 27, Sub-District 1

Projected Enrollment Without Project	Students Generated by Project	Total With-Action Enrollment	Projected Capacity	Available Seats	Utilization (%) with Project	Change in Utilization (%) from No-Action
Elementary Schools						
5,897	53	5,950	5,851	-99	101.7%	0.90%
Intermediate Schools						
1,231	11	1,242	2,090	848	59.4%	0.54%

Source: CEQR App, SCA Enrollment Projections for New York City Public Schools by the Statistical Forecasting (2019-2028)

Table 4-8 Projected Public School Enrollment, Capacity, and Utilization for With-Action Condition, School District 15

Projected Enrollment Without Project	Students Generated by Project	Total With-Action Enrollment	Projected Capacity	Available Seats	Utilization (%) with Project	Change in Utilization (%) from No-Action
Intermediate Schools						
6,197	11	6,208	6,987	779	88.9%	0.16%

Source: CEQR App, SCA Enrollment Projections for New York City Public Schools by the Statistical Forecasting (2019-2028)

The collective utilization rate for public elementary schools in the With-Action condition would be greater than 100 percent, but would not result in 100 or more new students from Proposed Project past the 100 percent utilization rate, since the Proposed Project would only generate 53 elementary students. Therefore, the Proposed Project would not result in a significant adverse impact to elementary schools. Intermediate schools would continue to operate within capacity under the With-Action condition, and therefore the Proposed Project would not result in a significant adverse impact to intermediate schools.

Conclusion

As discussed above, the Proposed Project would introduce 302 dwelling units, 60 of which would be affordable. This represents an increase of 242 market rate units and 60 affordable units over the No-Action condition. This increment would not exceed CEQR thresholds for analysis of libraries, police/fire services, early childhood programs, or health care facilities. As such, further analysis of these areas was not warranted, and no significant adverse impacts would result. However, the 53 elementary school children and 11 intermediate school children that would be generated by the Proposed Project would exceed CEQR thresholds for an analysis of public schools.

The *CEQR Technical Manual* indicates that a significant adverse impact on public schools would occur when: (1) the collective utilization rate of public schools in the study area is greater than 100 percent in the With-Action condition, (2) 100 or more new elementary or intermediate school students generated from the proposed development past the 100 percent utilization rate, and (3) an increase of five percentage points or more in the

utilization rate between the No-Action and With-Action conditions. In the With-Action condition, elementary schools in CSD 15, sub-district 3 would operate with a deficit of 99 seats at a 101.7 percent utilization rate, a 0.9 percent increase over the No-Action condition. Therefore, although the collective utilization rate would surpass 100 percent, 100 or more new elementary school students would not be generated from the Proposed Project past the 100 percent utilization rate, since the Proposed Project would only generate 53 elementary students. Therefore, no significant adverse impacts to elementary schools are anticipated. Intermediate schools in CSD 15 sub-district 3 would operate with a surplus of 848 seats and a collective utilization rate of 59.4 percent, a 0.5 percent increase over the No-Action condition. CSD 15 as a whole would operate with a surplus of 779 intermediate school seats and a collective utilization rate of 88.9 percent, which is a 0.2 percent increase over the No-Action condition. Therefore, the Proposed Project would not result in significant adverse impacts to intermediate schools and no further analysis is required.

5

Open Space

This section assesses the potential impacts of the Proposed Actions on open space. The *2021 City Environmental Quality Review (CEQR) Technical Manual* defines open space as publicly or privately-owned land that is publicly accessible and available for leisure, play, or sport, or is set aside for the protection and/or enhancement of the natural environment.

Introduction

The Applicant is seeking two discretionary approvals from the City Planning Commission (CPC): a zoning map amendment and zoning text amendment (the "Proposed Actions"), to facilitate an approximately 307,000-gross-square-foot (gsf) mixed-use development within four buildings proposed on Lots 19, 42, and 51 on Brooklyn Block 388 in the Boerum Hill neighborhood of Brooklyn ("Projected Development Site 1"). The proposed mixed-use development would include approximately 268,627 gsf of residential space and 302 residential units, 9,680 gsf of retail space, 10,000 gsf of medical office space, and 18,693 gsf of parking space, accommodating 125 parking garage spaces to be located at grade (the "Proposed Project"). Approximately 60 of the residential units would be affordable pursuant to the Mandatory Inclusionary Housing (MIH) program. In addition, as required by the zoning regulations, the proposed mixed-use development would also include a 10,500-square foot rear yard and approximately 7,500 square feet of recreational space for tenants (as required under the Quality Housing Regulations).

The Proposed Actions would include a rezoning of Lots 1, 8, 9, 11, 12, 19, 31, 34 - 38, 41, 42, 51, 52, and 58 on Block 388 (the "Project Area"), which together comprise almost the entirety of Block 388. In addition to Projected Development Site 1, the analysis framework also includes two potential development sites. Lot 1 (Potential Development Site A) and Lots 34, 35, 36, 37, and 41 (Potential Development Site B) are sites that have the potential for redevelopment but are considered less likely than the projected development sites. The analysis framework, including Projected Development Site 1 and Potential Development Sites A and B, is detailed in **Part I: Project Description**.

Methodology

Per guidance in the *CEQR Technical Manual*, an open space analysis is generally conducted if a proposed project would generate more than 200 new residents or 500 new employees. Per the *CEQR Technical Manual*, across analysis categories, projected development sites are analyzed for both density-related and site-specific impacts, whereas potential sites are analyzed for potential site-specific impacts only. Therefore, only Projected Development Site 1 is analyzed in this section. As shown in **Table 5-1**, the Proposed Actions would introduce a new residential population above the 200-resident threshold, and thus a residential open space analysis is necessary. The anticipated number of workers introduced by the Proposed Actions is not expected to exceed 500. Therefore, a non-residential open space analysis is not required.

Table 5-1 Future No-Action and With-Action Population/Employment Summaries

Use	Existing Conditions	Future No-Action Condition	Future With-Action Condition	Increment
Residential[1]	0	0	256,140 gsf	256,140 gsf
Local Retail	0	15,113 gsf	9,680 gsf	(5,433) gsf
Office Space	0	90,424 gsf	0 gsf	(90,424) gsf
Medical Office Space	0	20,812 gsf	10,000 gsf	(10,812) gsf
Manufacturing		154 gsf	0 gsf	(154) gsf
Population/Employment				
Residents[2]	0	0	683	683
Workers	0	490	81	(409)

Notes:

[1] Marketable residential space only

[2] Based on the average household size (2.26) for the census tracts that comprise the residential open space study area (2015-2019 5-year ACS)

The open space analysis has been conducted in accordance with the methodology outlined in the *CEQR Technical Manual*. The purpose of the analysis is to provide an evaluation of the study area's existing open space conditions relative to the open space needs of the study area's open space users, and to predict and compare open space conditions relative to open space needs in the future No-Action and With-Action conditions. Because the Proposed Actions would introduce additional residents to the area, which would place demands on the study area's active and passive open space resources, the analysis examines the amount of

active and passive open space available in the No-Action and With-Action conditions in order to quantify the potential project-related impact.

Open Space Study Area

According to the *CEQR Technical Manual*, the first step in an open space analysis is to define and map a study area to allow analysis of both the open spaces and the population using those open spaces within a specified distance of a project. The size of the study area is based on the distance a person may be reasonably assumed to walk to reach a local open space. Workers typically use passive open spaces within a quarter-mile of their workplace, while residents use both passive and active open spaces and are more likely to travel farther—up to a half-mile from their places of residence—to reach open spaces. Because the Proposed Project would not generate a net increase in workers above the 500 employee threshold compared to the future No-Action condition, only a residential study area was defined. The residential study area comprises the area within a half-mile distance from the Project Area.

Pursuant to *CEQR Technical Manual* guidance, the residential study area comprises all census tracts that have at least 50 percent of their area located within a half-mile radius of the Project Area. 13 census tracts in Kings County have at least 50 percent of their area located within a half-mile of the Project Area: Tracts 33, 35, 37, 39, 41, 43, 69, 71, 75, 127, 129.01, 129.02 and 131. See **Figure 5-1** for the open space study area and census tracts.

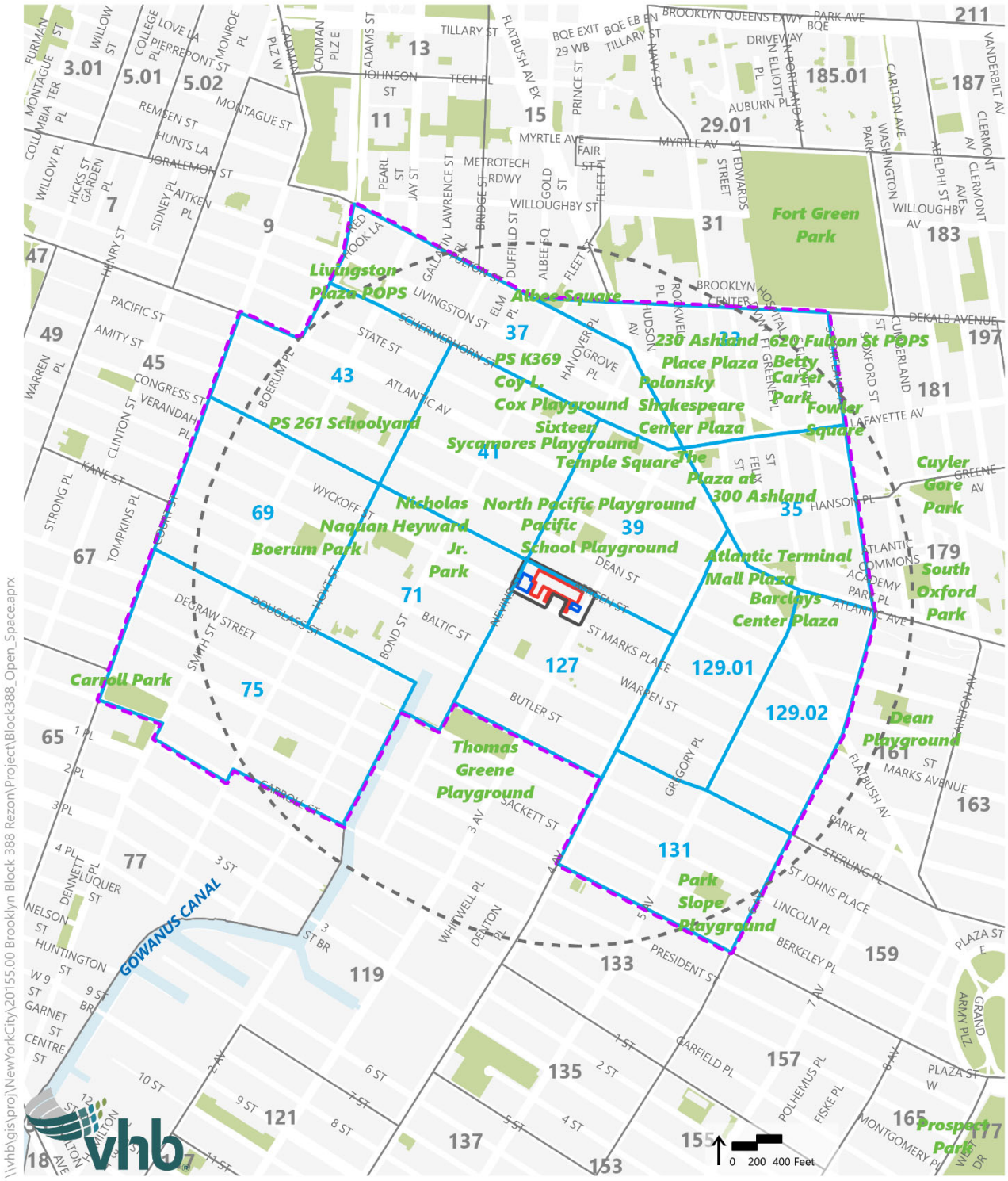
Direct Effects Analysis

Consistent with the *CEQR Technical Manual*, a direct effects analysis should be performed if a proposed project would directly affect open space conditions by causing the loss of public open space; changing the use of an open space so that it no longer serves the same user population; limiting public access to an open space; or increasing noise or air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. A proposed project can also directly affect an open space by enhancing its design or increasing its accessibility to the public. The proposed project would not result in the physical loss or direct displacement of publicly accessible open space or increase access to open space, and therefore no direct effects analysis is warranted.

Indirect Effects Analysis

The *CEQR Technical Manual* states that indirect effects may occur when the population generated by a project would overtax the capacity of open spaces so that their service to the future population of the affected area would be substantially or noticeably diminished. The Proposed Actions would result in a net increase of 683 residents compared to the future No-Action condition.

Figure 5-1 Residential Open Space Study Area Map



Therefore, a residential analysis of indirect effects is required, with a study area encompassing an approximately half-mile distance around the Project Area. The purpose of the indirect effects analysis is to quantitatively assess the adequacy of open space in the study area for existing and potential future users based on an inventory of open space resources and the effect of the residential population increase anticipated with the Proposed Project as well as any population increase in the No-Action condition due to other planned or proposed developments.

Specifically, an indirect effects analysis includes:

- Identification of the open space user groups: residents. To determine the number of residents to be included in the analysis, population data from the 2015-2019 5-year American Community Survey (ACS) were compiled for census tracts within the study area.
- An inventory of all publicly accessible open spaces in the study area, using secondary sources supplemented with field surveys.
- A quantitative assessment of the open space ratio in the study area—calculated as the ratio of open space acreage to user population—compared to benchmarks established in the *CEQR Technical Manual*. These include the optimal ratio for resident populations, which is 2.0 acres of active open space per 1,000 residents and 0.5 acres of passive open space per 1,000 residents.
- An evaluation of qualitative factors affecting open space resources.

According to the *CEQR Technical Manual*, projects that may result in significant quantitative impacts on open space resources are typically further assessed in a qualitative assessment to determine the overall significance of the impact. Factors such as close proximity to substantial open space resources just outside of the study area and park condition and utilization are considered in the qualitative assessment.

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 a 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 a walk to a park. If the project overlaps with any known walk gap a detailed assessment may be warranted.

Impact Assessment

The adequacy of open space in the study area is based on ratios of usable open space acreage to the study area populations (the "open space ratios" or "OSR"). The *CEQR Technical Manual* outlines the following guidelines for residential assessments:

- The City attempts to achieve a ratio of 2.50 acres per 1,000 residents for large-scale proposals. Ideally, this would consist of 0.50 acres of passive open space and 2.00 acres of active open space per 1,000 residents. However, these goals are often not feasible for many areas of the City and they do not constitute an impact threshold. Rather, it is a benchmark that represents how well an area is served by its open space.

› A ratio that meets the Citywide Community District median ratio of 1.50 acres of open space per 1,000 residents is also recommended.

The determination of significant adverse impacts is based on how a project would change the open space ratios in a study area, as well as qualitative factors not reflected in the quantitative assessment. According to the *CEQR Technical Manual*, if a project would reduce an open space ratio and consequently result in overburdening existing facilities, or if it would substantially exacerbate an existing deficiency in open space, it may result in a significant impact on open space resources. In general, if (1) a study area's open space ratios fall below City guidelines, and (2) a project would result in a decrease in the open space ratio greater than the percent change threshold associated with OSR ranges, it could be considered a substantial change requiring additional analysis. In areas that have been determined to be extremely lacking in open space, a reduction as small as one percent may be considered significant, warranting further analysis (see **Table 5-2**).

Table 5-2 Percent Change Guidance to Determine Possible Open Space Impact

Total Open Space Ratio Range	Percentage Change in Open Space Ratio Signifying a Possible Adverse Open Space Impact
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, with optimal distribution goal of 2.0 Active OSR and 0.5 Passive OSR

Preliminary Assessment

Existing Conditions

Study Area Population

The existing estimated residential population in the study area is shown in **Table 5-3.**

Table 5-3 Existing Population in the Residential Study Area

Census Tract	Residential Population
33	4,202
35	1,907
37	2,250
39	2,262
41	3,654
43	3,727
69	3,591
71	5,050
75	4,969
127	4,318
129.01	2,387
129.02	2,554
131	4,155
Total	**45,026**

Source: 2015-2019 ACS 5-year estimates.

Study Area Open Space Resources

Open space that is accessible to the public on a constant and regular basis, including for designated daily periods, is defined as publicly accessible and is analyzed as such per *CEQR Technical Manual* guidelines. Publicly-accessible open space may be under government or private jurisdiction and includes open space designated through regulatory approvals, such as public plazas. Private open space—that which is not publicly-accessible or is available only to limited users and is not available to the public on a constant and regular basis—is not included in CEQR-compliant quantitative open space analyses.

In addition to the distinction between public and private open spaces, individual spaces may also be classified as either active or passive, according to the types of activities for which the space is primarily used. Open space that is used for sports, exercise, or active play is classified as active and consists mainly of recreational facilities, while open space that is used for relaxation, such as a plaza, is classified as passive. Some types of open space facilities, such as esplanades, may be devoted to both active and passive uses.

In conducting the open space analysis for the Proposed Actions, publicly-accessible open spaces within the study area were inventoried. The open space resources were identified by their location, owner, features, total acreage, and acreage of passive and active areas. The secondary sources for this analysis included land use and geographic PLUTO data at the tax lot level and additional data provided by the New York City Department of Parks and Recreation (DPR). According to the *CEQR Technical Manual*, public open space does not include Greenstreets, malls without seating, or sidewalks.

Quantitative Assessment

As depicted in **Figure 5-1** and listed in **Table 5-4**, 19 open space resources are included in the quantitative analysis. The study area contains a total of 10.39 acres of publicly accessible open space. Approximately 62.08 percent of the total open space area (approximately 6.45 acres) is composed of active open space and approximately 37.82 percent of the total open space area (approximately 3.93 acres) is composed of passive open space.

There are several open space resources in the residential open space study area interspersed between the brownstones and rowhouses of the Boerum Hill, Carroll Gardens, and Gowanus neighborhoods. The largest of these parks (and largest in the study area) is Carroll Park, located at the southwest extent of the study area, which is 1.87 acres and fills a full block. The park contains a bathroom, bocce courts, playground, spray shower, trees and benches. Parks like Boerum Park and Nicholas Naquan Heyward Jr. Park are located midblock and contain a similar array of amenities: basketball courts, spray showers, bathrooms, and turf fields.

A number of open spaces in the study area are publicly-accessible schoolyards located adjacent to public schools. They are similarly interspersed between Boerum Hill rowhouses and brownstones like the Pacific School Playground and the P.S. 261 Schoolyard. The schoolyards contain basketball courts, a playground, tracks, turf fields, and trees.

On the northeast side of the study area is a cluster of small Privately Owned Public Spaces (POPS). These POPS are adjacent to newly-constructed buildings like 230 Ashland Place, 620 Fulton Street, and 300 Ashland Place (BAM South POPS). The BAM South POPS is notable for its grand staircase which is interspersed with tree pits that rises along Flatbush Avenue from Lafayette Avenue.

Table 5-4 Preliminary Assessment-Existing Study Area Open Spaces

Map No.	Name	Owner/ Agency	Features and Amenities	Total Acres
O1	Park Slope Playground	NYC Parks/NYC DOE	Bathrooms, playground, spray showers	1.04
O2	Carroll Park	NYC Parks	Bathroom, bocce courts, playground, spray shower, trees, benches	1.87
O3	Boerum Park	NYC Parks/ NYC DOE	Playground, spray showers	0.92
O4	Nicholas Naquan Heyward Jr. Park	NYC Parks	Basketball and handball courts, bathrooms, playground, spray showers	1.04
O5	North Pacific Playground	NYC Parks	Playground, garden, seating, trees	0.16
O6	Sixteen Sycamores Playground	NYC Parks	Playground, basketball courts, handball courts, spray showers, bathroom, trees, benches	0.57
O7	Livingston Plaza POPS	130 Livingston Street	Fixed benches, planters, tress	0.25
O8	Albee Square	NYC DOT	Tiered seating, moveable tables and chairs, planter beds, trees	0.49
O9	230 Ashland Place Plaza	230 Ashland Place	Bench seating, planter beds, trees	0.13
O10	Fowler Square	NYC Parks/DOT	Plaza, statue, planters, moveable chairs and tables, trees	0.06
O11	Polonsky Shakespeare Center Plaza	NYC HPD	Plaza, bench seating, trees	0.17
O12	Atlantic Terminal Mall Plaza	Atlantic Terminal Mall	Plaza, seating, trees and platers, Citibike station	0.48
O13	Barclays Center Plaza	BSE Global	Plaza, seating, planters	0.81
O14	The Plaza at 300 Ashland	Two Trees	Plaza, seating, steps	0.36
O15	Temple Square[3]	NYC DOT	Benches and trees	0.07
O16	620 Fulton Street POPS	620 Fulton Street	Plaza, trees and planter beds, benches	0.07
O17	PS 261 Schoolyard	NYC DOE	Basketball court, playground, track, turf field, trees	0.87
O18	Pacific School Playground	NYC DOE	Basketball court, playground, track, turf field, trees	0.80
O19	Betty Carter Park	NYC Parks	Benches, planter beds, trees	0.23
			Total[1]	**10.39**
			Percent of Total	**100**

Qualitative Assessment

There are four parks within a half mile that are excluded from the analysis due to CEQR methodology but that provide valuable amenities to residents of the study area: Thomas Greene Playground, Dean Playground, South Oxford Park, and University Place. Thomas Greene Playground is located only a quarter-mile south of the Project Area, but outside of the study area, that residents of the Proposed Project would be expected to visit. Thomas Greene Playground located between Douglass Street and Degraw Street contains features and amenities that are not available at other open spaces in the study area such as a pool and a skatepark. Dean Playground and South Oxford Park provide active recreational uses in the form of turf fields, tennis courts and ball courts among other amenities. University Place is a passive recreational space along Flatbush Avenue.

In addition, Fort Greene Park is located just outside the study area, with an entrance across the street from the half mile study area boundary. Fort Greene Park is the largest open space in the Downtown Brooklyn area at 30.2 acres and is a destination open space in Brooklyn given its size and the numerous amenities it provides such as tennis courts, dog runs, playgrounds, and basketball courts. Furthermore, Prospect Park is less than a mile from the Project Area and only two stops on the nearby 2/3 subway line from Atlantic Avenue. The 526-acre Prospect Park serves as a regional park for many Brooklyn residents and includes a variety of active and passive recreational amenities, such as large open playfields, playgrounds, walking trails, an ice rink, a zoo, and a historic carousel. In addition, some study area residents are in proximity to the Red Hook Recreation Area, a grouping of large sports fields, open lawns, and a public pool, which provide opportunities for both passive and active recreation. These resources were not considered in the quantitative open space analysis but are considered qualitatively due to their proximity to the Project Area and the likelihood that residents in the area use them for their active and passive recreational needs.

Walk-to-a-Park Initiative

According to Walk-to-a-Park service area geographic data provided by the City, the Project Area does not overlap with any known walk gap areas (see **Figure 5-2**). Therefore, a detailed assessment is not required based on the results of the Walk-to-a-Park analysis. However, a detailed assessment is warranted based on the low open space ratios in the study area.

Figure 5-2 Walk to a Park Service Area



Adequacy of Open Spaces

The open space analysis focuses on open space that may be used by residential populations. Using *CEQR Technical Manual* guidelines, the adequacy of open space was first analyzed quantitatively by calculating the total open space ratio in the study area per 1,000 residents with the CEQR benchmark of 2.5 acres total open space per 1,000 residents.

The existing residential population of the study area was estimated at 45,026 people. The residential study area currently has an overall open space ratio of 0.231 acres per 1,000 residents, which is well below the City's goal of 2.5 acres per 1,000 residents and average of 1.5 acres per 1,000 residents (see **Table 5-5**).

Thus, based on the quantitative analysis, there is an existing deficit in open space to serve the residential population of the study area.

Table 5-5 Preliminary Assessment Existing Conditions – Adequacy of Open Space Resources in Residential Half-Mile Study Area

Population	Total Open Space Acreage	Ratios[1] [2]	DCP Guidelines
45,026	10.39	0.231	2.50

[1]Acres per 1,000 people
[2]Numbers may not add exactly due to rounding

No-Action Condition

As described in the Methodology section above, the No-Action condition accounts for population growth and changes expected to the inventory of open space resources within the study area by the build year of 2025.

Study Area Population

Twelve new developments in the residential study area would result in an additional 4,859 residential units, increasing the residential population by 11,176 for a total residential population of 56,202 persons in 2025 (see **Table 5-6**).

Table 5-6 No-Action Condition – No-Build Developments Estimated Population

Development Name/Location	Total GSF	Residential Units	Estimated Residents[1]
50 Nevins Street	42,009	129	297
18 Sixth Avenue	832,448	858	1,973
58 St. Marks Place	200,263	105	242
100 Flatbush Avenue	1,125,000	922	2,121
80 Flatbush Avenue			
625 Fulton Street	1,800,000	902	2,075
540 Fulton Street	333,041	327	752
11 Hoyt Street	613,338	480	1,104
9 Dekalb Avenue	556,164	417	959
Wyckoff Gardens Infill	500,000	500	1,150
308 Livingston Street	115,881	160	368
98 Third Avenue	35,274	38	87
118 Third Avenue	17,600	21	48
Total	**6,171,018**	**4,859**	**11,176**

Source: New York City Department of Buildings, New York City Department of City Planning
Notes: [1] Based on the Average Household Size for the study area census tracts of (2.26) for the census tracts that comprise the residential open space study area (2015-2019 5-year ACS)

Study Area Open Spaces

In the No-Action condition, there are two new confirmed open space planned within the study area:

- 625 Fulton Street - Plans include a quarter of an acre (0.25) of outdoor space. It is expected that this will include passive open space like other POPS in the study area.
- Head End – 1.6 acres of open space will be constructed at the Head End of the Gowanus Canal in the form of a 50-foot-wide esplanade with plans for active and passive recreational space.

The Gowanus Neighborhood Rezoning will also facilitate a Gowanus Canal Esplanade along the canal, in the form of a 40-foot-wide esplanade and supplemental public access areas totaling about 4 acres. It is estimated that about an acre of the esplanade would fall into the study area according to the plans published in the Gowanus Neighborhood Rezoning FEIS. However, it is not known when the Esplanade will be completed and therefore it is not included in the assessment. Times Plaza, a NYC Department of Transportation initiative to create a plaza at the intersection of Flatbush Avenue, Fourth Avenue, and Atlantic Avenue, was slated for 2018 construction and is still on the current projects list. However, it is unknown if it will be completed before the build year and therefore was not included for conservative analysis purposes. The Pacific Park Site also has 8 acres of open space planned within the half-mile radius from the Project Area, but it is outside the study area census tracts and therefore not included.

The two open spaces expected in the No-Action condition would bring the study area total to 12.83 acres, with 7.58 acres of active open space and 5.25 acres of passive open space.

Adequacy of Open Spaces

In the No-Action condition, the open space ratios in the residential study area would decrease slightly and would remain below the City's guidelines. The total open space ratio would decrease from 0.231 acres per 1,000 residents to 0.218 acres per 1,000 residents and would remain well below the guideline of 2.5 acres per 1,000 residents (see **Table 5-7**).

Table 5-7 Preliminary Assessment No-Action Condition – Adequacy of Open Space Resources in Residential Half-Mile Study Area

Population	Open Space Acreage	Ratios[1] [2]	DCP Guidelines
56,202	12.24	0.218	2.50

[1]Acres per 1,000 people

[2]Numbers may not add exactly due to rounding

With-Action Condition

Study Area Population

In the With-Action condition, the increment of additional residential units between the No-Action and With-Action conditions is a total of 302 units, which is estimated to introduce approximately 683 residents and result in a total residential population of 56,885 in the half-mile study area.

Study Area Open Spaces

No new open spaces would be developed under the With-Action condition as a result of the Proposed Actions. Therefore, the open space acreage remains the same under the With-Action condition as in the No-Action condition.

Adequacy of Open Spaces

Quantitative Assessment

Under the With-Action condition, the open space ratio for the residential population would decrease only slightly from the No-Action condition open space ratio (see **Table 5-8**). The total open space ratio would be reduced from 0.218 acres per 1,000 residents in the No-Action condition to 0.215 acres per 1,000 residents in the With-Action condition. This is a 1.20 percent decrease in overall open space ratio (see **Table 5-9**). The overall open space ratio would decrease by more than one percent, which is above the associated threshold. Furthermore, the total open space ratios in the study area are well below guidelines, and therefore a detailed assessment was undertaken to take a closer look at active and passive open space as well as qualitative factors of condition and utilization.

Table 5-8 Preliminary Assessment With-Action Condition – Adequacy of Open Space Resources in Residential Half-Mile Study Area

Population	Open Space Acreage		Ratios[1] [2]	DCP Guidelines
56,885	Total	12.24	0.215	2.50

[1] Acres per 1,000 people
[2]Numbers may not add exactly due to rounding

Table 5-9 Preliminary Assessment Change in Open Space Ratios [1] [2]

	No-Action	With-Action	Percent Change (%)	CEQR TM Threshold
Total Open Space	0.218	0.215	-1.20	1.0

[1]Acres per 1,000 people
[2]Numbers may not add exactly due to rounding

Detailed Assessment

As noted in the *2021 CEQR Technical Manual*, the City's optimal open space ratios and percentage reductions, as shown in **Table 5-10**, do not constitute an absolute impact threshold. Projects that may result in significant quantitative impacts on open space are further assessed below to determine the overall significance of the impact. The detailed assessment includes a calculation of active and passive open space ratios. Furthermore, it includes a break-down of the study area population by age group and details the amount and quality of various types of open space to assess the availability of particular types of open space for particular age groups. A discussion of study area open spaces is also provided detailing the utilization levels, accessibility, and conditions all of which are field-verified typically during peak hours of park usage and good weather conditions.

Table 5-10 Detailed Assessment – Percent Change Guidance to Determine Possible Open Space Impact

Total Open Space Ratio Range	Active Open Space Ratio Range	Passive Open Space Ratio Range	Percentage Change in Open Space Ratio Signifying a Possible Adverse Open Space Impact
2.01 to 2.50 or greater	1.61 to 2.0 or greater	0.41 to 0.50 or greater	5%
1.51 to 2.00	1.21 to 1.60	0.31 to 0.40	4%
1.01 to 1.50	0.81 to 1.20	0.21 to 0.30	3%
0.51 to 1.00	0.41 to 0.80	0.11 to 0.20	2%
0.50 or less	0.01 to 0.40	0.01 to 0.10	1%

*2.5 OSR is the planning goal in NYC, with optimal distribution goal of 2.0 Active OSR and 0.5 Passive OSR

Existing Conditions

Study Area Population

Within a given area, the age distribution of a population affects the way open spaces are used and the need for various types of recreational facilities. Typically, children four years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children ages five through nine typically use traditional playgrounds, as well as grassy and hard-surfaced open spaces, which are important for activities such as ball playing, running, and skipping rope. Children ages ten through 14 use playground equipment, court spaces, and sports fields. Teenagers' and young adults' needs tend toward court game facilities such as basketball and field sports. Adults between the ages of 20 and 64 continue to use court game facilities and fields for sports, as well as more individualized recreation such as rollerblading, biking, and jogging, requiring bike paths, promenades, and roadways. Adults also gather with families for picnicking, ad hoc active sports, and recreational activities in which all ages can participate. Senior citizens engage in active recreation such as tennis, gardening, and swimming, as well as recreational activities that require passive facilities.

As shown in **Table 5-11**, residents between 20 and 64 make up the largest age cohort (approximately 71.9 percent) of the residential population in the half-mile residential study area. The next highest cohort is residents aged 65 years and over (approximately 9.1 percent). There is a higher percentage of 20 and 64 residents in the study area as compared to Kings County (61 percent) and New York City (62.8 percent) as a whole. The higher percentage of 20 and 64 residents in the study area is also evident when comparing the median age of the study area to that of Kings County and New York City. The study area's median age is 34.3 compared with 35.6 in Kings County and 37.2 in New York City. The study area median ages by census tract range from a low of 31.7 in Census Tract 37 and to a high of 38.5 in Census Tract 358. This demographic data for the residential open space study area suggests a need for facilities geared towards the recreational needs of adults, as the study area exhibits a high percentage of residents in the 20 and 64 age bracket. The intensity of demand for publicly accessible active open space is slightly more in the residential study area than in Kings County or New York City as a whole because of a higher-than-average median age and percentage of adults as a portion of the population total. However, this is offset by the second highest percentage of senior residents aged 65 years and older, who require access to passive recreational uses.

Table 5-11 Existing Population Age Distribution within the Study Area

Census Tract	Total Residential Population	Age Distribution												Median Age
		Under 5		5 to 9		10 to 14		15 to 19		20 to 64		65 years and over		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
33	4,202	201	4.8%	177	4.2%	214	5.1%	69	1.6%	3,331	79.3%	210	5.0%	33.6
35	1,907	117	6.1%	66	3.5%	55	2.9%	39	2.0%	1,391	72.9%	239	12.5%	38.5
37	2,250	211	9.4%	35	1.6%	46	2.0%	37	1.6%	1,861	82.7%	60	2.7%	31.7
39	2,262	189	8.4%	110	4.9%	113	5.0%	51	2.3%	1,615	71.4%	184	8.1%	33.9
41	3,654	334	9.1%	89	2.4%	231	6.3%	104	2.8%	2,474	67.7%	422	11.5%	36.2
43	3,727	322	8.6%	133	3.6%	119	3.2%	83	2.2%	2,838	76.1%	232	6.2%	34.4
69	3,591	290	8.1%	194	5.4%	57	1.6%	48	1.3%	2,566	71.5%	270	7.5%	36.1
71	5,050	149	3.0%	308	6.1%	400	7.9%	326	6.5%	3,252	64.4%	615	12.2%	37.6
75	4,969	513	10.3%	233	4.7%	235	4.7%	213	4.3%	3,244	65.3%	531	10.7%	36.0
127	4,318	327	7.6%	180	4.2%	131	3.0%	145	3.4%	3,116	72.2%	419	9.7%	32.1
129.01	2,387	252	10.6%	77	3.2%	40	1.7%	8	0.3%	1,810	75.8%	200	8.4%	33.6
129.02	2,554	199	7.8%	107	4.2%	139	5.4%	121	4.7%	1,871	73.3%	117	4.6%	32.2
131	4,155	419	10.1%	68	1.6%	151	3.6%	74	1.8%	3,021	72.7%	422	10.2%	33.7
Total	**45,026**	**3,523**	**7.8%**	**1,777**	**3.9%**	**1,931**	**4.3%**	**1,318**	**2.9%**	**32,390**	**71.9%**	**4,087**	**9.1%**	**34.3**
Kings County Total	**2,559,903**	**182,787**	**7.1%**	**151,579**	**5.9%**	**159,586**	**6.2%**	**135,493**	**5.3%**	**1,563,080**	**61%**	**367,378**	**14.3%**	**35.6**
NYC Total	**8,336,817**	**551,869**	**6.5%**	**476,567**	**5.6%**	**464,704**	**5.5%**	**455,674**	**5.4%**	**5,305,538**	**62.8%**	**1,189,361**	**14.1%**	**37.2**

Source: 2015-2019 ACS 5-year Estimates
Note: Percentages may not add up to 100 due to rounding

Study Area Open Space Resources

As shown in **Table 5-12**, the condition of each open space resource was categorized as "Excellent," "Good," "Fair," or "Poor." A resource was considered in excellent condition if the space was clean and attractive, and all equipment was present and in a state of good repair. A good resource had minor problems such as litter or older but operative equipment. A fair or poor resource was one that was poorly maintained, had broken or missing equipment or lack of security, or other factors that would diminish the facility's attractiveness to potential users. Determinations were made subjectively, based on a visual assessment of the open space resources. Most of the open spaces within the study area are in either good or excellent condition. Three of the spaces have low utilization, eight have moderate utilization, and nine have high utilization.

Table 5-12 Detailed Assessment- Existing Study Area Open Spaces

Map No.	Name	Features and Amenities	Total Acres	Active (Acres)	Passive (Acres)	Condition/Utilization[2]
O1	Park Slope Playground	Bathrooms, playground, spray showers	1.04	0.93	0.10	Good/High
O2	Carroll Park	Bathroom, bocce courts, playground, spray shower, trees, benches	1.87	1.50	0.37	Good/High
O3	Boerum Park	Playground, spray showers	0.92	0.83	0.09	Good/High
O4	Nicholas Naquan Heyward Jr. Park	Basketball and handball courts, bathrooms, playground, spray showers	1.04	1.04	0.00	Excellent/Moderate
O5	North Pacific Playground	Playground, garden, seating, trees	0.16	0.05	0.11	Good/Low
O6	Sixteen Sycamores Playground	Playground, basketball courts, handball courts, spray showers, bathroom, trees, benches	0.57	0.43	0.14	Good/High
O7	Livingston Plaza POPS	Fixed benches, planters, tress	0.25	0.00	0.25	Good/High
O8	Albee Square	Tiered seating, moveable tables and chairs, planter beds, trees	0.49	0.00	0.49	Excellent/High
O9	230 Ashland Place Plaza	Bench seating, planter beds, trees	0.13	0.00	0.13	Excellent/High
O10	Fowler Square	Plaza, statue, planters, moveable chairs and tables, trees	0.06	0.00	0.06	Excellent/Moderate
O11	Polonsky Shakespeare Center Plaza	Plaza, bench seating, trees	0.17	0.00	0.17	Good/Moderate
O12	Atlantic Terminal Mall Plaza	Plaza, seating, trees and platers, Citibike station	0.48	0.00	0.48	Excellent/High
O13	Barclays Center Plaza	Plaza, seating, planters	0.81	0.00	0.81	Excellent/High
O14	The Plaza at 300 Ashland	Plaza, seating, steps	0.36	0.00	0.36	Excellent/Moderate
O15	Temple Square[3]	Benches and trees	0.07	0.00	0.07	Poor/Moderate
O16	620 Fulton Street POPS	Plaza, trees and planter beds, benches	0.07	0.00	0.07	Excellent/Moderate
O17	PS 261 Schoolyard	Basketball court, playground, track, turf field, trees	0.87	0.87	0.00	Good/Moderate
O18	Pacific School Playground	Basketball court, playground, track, turf field, trees	0.80	0.80	0.00	Good/Low
O19	Betty Carter Park	Benches, planter beds, trees	0.23	0.00	0.23	Excellent/Moderate
		Total[1]	**10.39**	**6.45**	**3.93**	
		Percent of Total	**100**	**62.08**	**37.82**	

Quantitative Assessment

As listed in **Table 5-13**, approximately 62.08 percent of the total open space area (approximately 6.45 acres) is composed of active open space and approximately 37.82 percent of the total open space area (approximately 3.93 acres) is composed of passive open space.

Adequacy of Open Spaces

The existing residential population of the study area was estimated at 45,026 people. The study area's residential active open space ratio is 0.143 acres per 1,000 residents, which is also well below the City's guideline of 2.0 acres per 1,000 residents, and the residential passive open space ratio is 0.087 acres per 1,000 residents, which is well below the City guideline of 0.5 acres per 1,000 residents.

Thus, based on the quantitative analysis, there is an existing deficit in open space to serve the residential population of the study area.

Table 5-13 Detailed Assessment Existing Conditions – Adequacy of Open Space Resources in Residential Half-Mile Study Area

Population	Open Space Acreage		Ratios[1] [2]	DCP Guidelines
45,026	Active	6.45	0.143	2.00
	Passive	3.93	0.087	0.50
	Total	**10.39**	**0.231**	**2.50**

[1]Acres per 1,000 people
[2]Numbers may not add exactly due to rounding

No-Action Condition

Study Area Population

As mentioned above under the Preliminary Assessment section, there are twelve new developments in the residential study area would result in an additional 4,859 residential units, increasing the residential population by 11,176 for a total residential population of 56,202 persons in 2025 (see **Table 5-14**).

Study Area Open Spaces

As mentioned above under the Preliminary Assessment section, in the No-Action condition, there are two new confirmed open space planned within the study area: 625 Fulton and Head End, which would bring the study area total to 12.83 acres, with 7.58 acres of active open space and 5.25 acres of passive open space.

Adequacy of Open Spaces

In the No-Action condition, the open space ratios in the residential study area would decrease slightly and would remain below the City's guidelines. The active open space ratio

would also decrease to 0.118 acres per 1,000 residents, but the passive open space ratio would increase to 0.100 acres per 1,000 residents, with the addition of 1.85 acres of new open space, 1.69 acres of which would be passive. As in existing conditions, the active and passive open space ratios would remain below the guidelines of 2.0 acres of active space and 0.5 acres of passive open space per 1,000 residents (see **Table 5-14**).

Table 5-14 Detailed Assessment No-Action Condition – Adequacy of Open Space Resources in Residential Half-Mile Study Area

Population	Open Space	Acreage	Ratios[1] [2]	DCP Guidelines
56,202	Active	6.61	0.118	2.00
	Passive	5.62	0.100	0.50
	Total	**12.24**	**0.218**	**2.50**

[1]Acres per 1,000 people
[2]Numbers may not add exactly due to rounding

With-Action Condition

Study Area Population

As mentioned above under the Preliminary Assessment section, in the With-Action condition, the increment of additional residential units between the No-Action and With-Action conditions is a total of 302 units, which is estimated to introduce approximately 683 residents and result in a total residential population of 56,885 in the half-mile study area.

Study Area Open Spaces

As mentioned above under the Preliminary Assessment section, no new open spaces would be developed under the With-Action condition as a result of the Proposed Actions. Therefore, the open space acreage remains the same under the With-Action condition as in the No-Action condition.

Adequacy of Open Spaces

Quantitative Assessment

Under the With-Action condition, the open space ratio for the residential population would decrease only slightly from the No-Action condition open space ratio (see **Table 5-15**). The active and passive open space ratios would also be reduced slightly: from 0.118 acres and 0.100 acres per 1,000 residents to 0.116 and 0.099 acres per 1,000 residents, respectively.

The active and passive open space ratios would decrease by between 1.69 and 1.00 percent (see **Table 5-16**), which are close or near to the percent change threshold of one percent for those open space types, signifying a possible adverse open space impact. However, as discussed below, the study area has open spaces not included in the quantitative assessment that would provide additional options for residents to use.

Table 5-15 Detailed Assessment- With-Action Condition – Adequacy of Open Space Resources in Residential Half-Mile Study Area

Population	Open Space Acreage		Ratios[1] [2]	DCP Guidelines
56,885	Active	6.61	0.1116	2.00
	Passive	5.62	0.099	0.50
	Total	**12.24**	**0.215**	**2.50**

[1] Acres per 1,000 people
[2]Numbers may not add exactly due to rounding

Table 5-16 Detailed Assessment-Change in Open Space Ratios [1] [2]

	No-Action	With-Action	Percent Change (%)	CEQR Threshold (%)
Active	0.118	0.116	-1.69	1.00
Passive	0.100	0.099	-1.00	1.00
Total	**0.218**	**0.215**	**-1.20**	**1.00**

[1]Acres per 1,000 people
[2]Numbers may not add exactly due to rounding

Qualitative Assessment

Projected Development Site 1 would include a 10,500-square foot rear yard (as required by the zoning district) and about 7,500 square feet of recreational space for tenants (as required by Quality Housing Regulations) all of which would be characterized as passive. It is anticipated that some of this space would be provided in the form of an outdoor roof terrace above the first-floor parking on the Sycamore Place building and some in the interior of the building. These open space amenities may lessen the burden of the Proposed Development's residents on study area open spaces.

As shown in the existing conditions assessment, all but two of the 19 parks in the residential study area are in good or excellent condition and 11 of them have only low or moderate utilization. This suggests that the parks in the study area currently, along with the new open space being added under the No-Action condition, have capacity to serve new residents generated by the Proposed Project.

In addition, there are four open space resources located within a half mile of the Project Area but just outside of the study area census tracts. Residents of the Proposed Project and surrounding neighborhood would be reasonably expected to utilize these spaces. These include Thomas Greene playground, South Oxford Park, Dean Playground and University place. Some of which contain amenities not found in other study area parks such as tennis courts, a skatepark, and a pool. Although Thomas Greene playground is only a quarter-mile south of the Project Area, due to the large size of the census tract in which Thomas Greene playground is located (census tract 119), it does meet the quantitative assessment criteria to have at least 50 percent of the census tract area located within a half-mile radius to be included in the study area.

There are also open space resources that are located in close proximity to the study area that have a draw for residents of the Boerum Hill neighborhood. One is Fort Greene Park located

just outside the boundary of the study area with an entrance across the street from the half mile study area boundary. Fort Greene Park is a destination for open space activities in Brooklyn and also the largest open space in the Downtown Brooklyn area at 30.2 acres. It contains numerous amenities such as tennis courts, dog runs, playgrounds, and basketball courts. Given its size and rich amenities, residents within the Project Area are likely to utilize this open space. Another resource is the New York City Housing Authority's (NYCHA) Wyckoff Gardens is located directly south of the Project Area. The campus is comprised of three apartment buildings and surface parking lots, a community garden, playground, and pedestrian paths interspersed throughout the campus.

Furthermore, the 526-acre Prospect Park is a regional Brooklyn park that is a short transit or bike ride away from the Project Area. As discussed under Existing Conditions, it is a major draw to residents of the surrounding neighborhoods given its size and the variety of recreational amenities.

Under the No-Action condition, there are also three open spaces that will be added in the study area that were not accounted for in the quantitative analysis due to the uncertainty of when they will be constructed. These include the Pacific Park open space, Gowanus Canal Esplanade, and Times Plaza. These would add at least 9 acres of open space within a half mile of the site.

All of these resources were not considered in the quantitative open space analysis but are considered qualitatively due to their proximity to the Project Area and the likelihood that residents in the area use them for their active and passive recreational needs.

Conclusion

According to the *CEQR Technical Manual*, a proposed action may result in an indirect significant adverse open space impact if it would reduce the open space ratios by more than the percent change threshold for the associated open space ratio range and cause the study area's open space ratios to fall or remain below City guidelines, which could indicate that open space facilities may become overburdened or that a deficiency in open space may become exacerbated.

Under the With-Action condition, the passive and active open space ratios would decrease by between 1.00 and 0.81 percent, which meet the percent change threshold of one percent for passive and active open space ratios, while the overall open space ratio would decrease by 0.89 percent, which is below the associated one percent threshold. However, as discussed above, the quantitative analysis does not fully account for all of the open space resources available to residents in close proximity to the Project Area because it excludes Thomas Greene Park, Dean Street Playground, South Oxford Park, University Place, and Fort Greene Park, which have open spaces and unique amenities that would draw residents from the Project Area. In particular, Fort Greene Park is a destination open space in Brooklyn given its size and numerous amenities and would likely draw residents from the study area. Furthermore, Thomas Greene Park is only a quarter-mile south of the Project Area, but is excluded from the analysis due to *CEQR Technical Manual* methodology. In addition, Prospect Park is a regional open space and provides recreational amenities to neighborhoods all over central Brooklyn but is also not accounted for in the quantitative assessment Finally, NYCHA's Wyckoff Gardens also includes open space amenities in the form of a community garden and playground. There are also new open spaces coming to the

study area in the future without the Proposed Action that were not accounted for. The totality of these spaces would provide sufficient resources for the study area's residents which primarily consists of adults between the ages of 20 and 64.

The Proposed Project would also include recreational amenities for building residents (as required by zoning), which would lessen their burden on study area open spaces. Consequently, the quantitative analysis is not fully reflective of how well-served the area is by nearby open spaces. Therefore, no significant adverse impacts to open space resources would result from the Proposed Project and no further analysis is required.

6

Shadows

A shadow is defined in the *2021 CEQR Technical Manual* 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. The purpose of this section is to assess whether new structures may cast shadows on sunlight sensitive publicly accessible resources or other resources of concern such as natural resources, and to assess the significance of their impact.

Introduction

According to the *CEQR Technical Manual*, a shadows assessment is required for proposed actions that would result in new structures greater than 50 feet in height or located adjacent to, or across the street from, a sunlight-sensitive resource. Such resources include publicly accessible open spaces, important sunlight-sensitive natural features, or historic resources with sun-sensitive features. A significant adverse shadow impact occurs when the incremental shadow added by a proposed project falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight exposure, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other resources.

The Proposed Actions are expected to facilitate development of two buildings on Projected Development Site 1 and two buildings on two Potential Development Sites that exceed 50 feet in height. Therefore, further assessment is warranted.

Methodology

According to the *CEQR Technical Manual*, the longest shadow a structure will cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height. In accordance with the *CEQR Technical Manual*, a preliminary screening assessment is conducted to ascertain whether shadows resulting from a project would reach any sunlight-sensitive resource at any time of year; if the preliminary assessment indicates that, in the absence of intervening buildings, shadows from a project would reach sunlight-sensitive resources on any of the representative analysis days, a detailed analysis is typically warranted.

Due to the proximity of Projected Development Site 1 and two Potential Development Sites to each other on Brooklyn Block 388, the maximum shadow screening radius was drawn at a uniform radius around the Project Area (the area to be rezoned under the Proposed Actions). The maximum building height for a structure on the block as a result of the Proposed Actions is 120 feet, including bulkhead. Therefore, the maximum shadow screening radius is 516 feet. Since there are multiple Projected and Potential Development Sites, there is overlap between the areas that cannot be shaded. Therefore, for conservative analysis purposes, the area that cannot be shaded by the With-Action condition was drawn from the southernmost point of the Project Area only.

Sunlight-Sensitive Resources

The *CEQR Technical Manual* defines sunlight-sensitive resources as those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity. The following are considered to be sunlight-sensitive resources:[1]

- **Public open space** (e.g., parks, beaches, playgrounds, plazas, schoolyards, greenways, and landscaped medians with seating). Planted areas within unused portions of roadbeds that are part of the Greenstreets program are also considered sunlight-sensitive resources. The uses and vegetation in an open space establish its sensitivity to shadows. This sensitivity is assessed for both (1) warm-weather-dependent features like wading pools and sand boxes, or vegetation that could be affected by loss of sunlight during the growing season (i.e., March through October); and (2) features, such as benches, that could be affected by a loss of winter sunlight. Uses that rely on sunlight include passive uses, such as sitting or sunning; active uses, such as playfields or paved courts; and such activities as gardening, or children's wading pools and sprinklers. Where lawns are actively used, the turf requires extensive sunlight. Vegetation requiring direct sunlight includes the tree canopy, flowering plants, and plots in community gardens. Generally, four to six hours a day of sunlight, particularly in the growing season, is a minimum requirement.
- **Features of historic architectural resources that depend on sunlight for their enjoyment by the public.** Only the sunlight-sensitive features are considered, as opposed to the entire architectural resource. Sunlight-sensitive features include the following: design elements that are part of a recognized architectural style that depends

[1] According to the *CEQR Technical Manual*, City streets, sidewalks, and private open spaces (such as private residential front and back yards, stoops, and vacant lots) are not considered to be sunlight-sensitive resources.

on the contrast between light and dark (e.g., deep recesses or voids such as open galleries, arcades, recessed balconies, deep window reveals, and prominent rustication); elaborate, highly carved ornamentation; stained-glass windows; exterior building materials and color that depend on direct sunlight for visual character (e.g., the polychromy (multicolored) features found on Victorian Gothic Revival or Art Deco façades); historic landscapes, such as scenic landmarks including vegetation recognized as an historic feature of the landscape; and structural features for which the effect of direct sunlight is described as playing a significant role in the structure's importance as an historic landmark.

- **Natural resources where the introduction of shadows could alter the resource's condition or microclimate.** Such resources could include surface water bodies, wetlands, or designated resources such as coastal fish and wildlife habitats.

Preliminary Assessment

The preliminary screening assessment consists of three tiers of analysis:

- **Tier 1 Screening:** The first tier determines a simple radius around the proposed building representing the longest shadow that would be cast. If there are sunlight-sensitive resources within the radius, the analysis proceeds to the second tier.
- **Tier 2 Screening:** The second-tier analysis reduces the area that would be affected by project-generated shadows by accounting for a specific range of angles that can never receive shade in New York City due to the path of the sun in the northern hemisphere. According to the *CEQR Technical Manual*, shadows cannot be cast within New York City within 108 degrees from True North. Topographic lines are included to demonstrate the terrain of the area.
- **Tier 3 Screening:** If the second tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a third tier of screening analysis further refines the area that would be reached by new shadows by looking at specific representative days of the year and determining the maximum extent of shadow over the course of each representative day. For the Tier 3 screening, three-dimensional modeling software with the capacity to model shadows is used, and the maximum building envelope that would be achieved as a result of the proposed project is modeled and geo-located within the program. Terrain, which has been included in the Tier 1 and Tier 2 Screenings, is also incorporated into the model to account for how changes in elevation throughout the study area can influence shadows that would be cast by the proposed project. The representative days are December 21 (winter solstice), June 21 (summer solstice), March 21/September 21 (vernal/autumnal equinox), and May 6/August 6 (halfway between summer solstice and the equinoxes). The modeling software is also used to approximate times that shadows cast from the proposed project would enter and exit a resource.

Detailed Assessment

As noted above, if the Tier 3 screening indicates that, in the absence of intervening buildings, shadows from a proposed project would reach a sunlight-sensitive resource on any of the representative analysis days, a detailed shadow analysis would be warranted. Because existing buildings (or No-Action buildings) may already cast shadows on a sun-sensitive

resource, a proposed project may not result in additional (incremental) shadows upon that resource. The detailed shadow analysis models a baseline condition (future No-Action) that is compared to the future condition resulting from a proposed project (future With-Action) to illustrate the shadows cast by the No-Action development and distinguish the additional (incremental) shadow cast by the project. The detailed shadows analysis uses a combination of Geographic Information Systems (GIS) 3D modeling and modeling in Sketchup, as well as GIS data provided publicly.

Determination of Significance

As described in the *CEQR Technical Manual*, 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 sensitive feature of the resource is already subject to substandard sunlight (i.e., less than the minimum time necessary for its survival).
- **Historic and cultural resources**: a substantial reduction in sunlight available for the enjoyment or appreciation of the sunlight-sensitive features of an historic or cultural resource.
- **Open space utilization**: a substantial reduction in the usability of open space as a result of increased shadow, with consideration given to anticipated new users and the open space's utilization rates throughout the affected time periods as well as to the inventory of available open space resources in the study area.
- **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.

In general, a significant adverse shadow impact occurs when the incremental shadow added by a proposed action falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight exposure, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other resources.

Preliminary Assessment

Tier 1 and 2 Screening Assessment

As described in **Part I: Project Description**, the Proposed Project would consist of four proposed buildings on Projected Development Site 1, two of which would exceed 50 feet.

- Sycamore Place – to be located on the north side of the project block along Bergen Street. This building would be nine stories and 120 feet tall (including bulkhead).

› Linden Place – to be located along Wyckoff Street on the southern portion of existing Lot 19. This building would be constructed to nine stories and 120 feet tall (including bulkhead).

The Applicant, through its affiliate Ulano, has leased six lots from the City of New York since 1973. These sites would remain under the existing Ulano lease through the build year. However, these sites have been identified as Potential Development Sites A and B for conservative analysis purposes. Both would exceed 50 feet.

› Potential Development Site A – located on the corner of Nevins Street and Wyckoff Street, would be assumed to be eight stories and 120 feet tall (including bulkhead).
› Potential Development Site B – located on the corner of Wyckoff Street and 3rd Avenue, would be assumed to be nine stories and 120 feet tall (including bulkhead).

In addition, there are two sites in the Project Area that are anticipated for redevelopment as part of the adjacent 98 Third Avenue Rezoning proposal, including 98 Third Avenue, located on the corner of Third Avenue and Bergen Street, and 118 Third Avenue, located on the corner of Third Avenue and Wyckoff Street. As the 98 Third Avenue Rezoning is anticipated to be approved prior to the Proposed Actions, these two developments are considered No-Action projects in the study area for the purposes of this environmental analysis (see **Section 2, Land Use, Zoning, and Public Policy**). However, to provide a conservative shadows analysis, they are also included in the Tier 1 through Tier 3 analyses detailed below. 98 Third Avenue is assumed to be approximately 99 feet tall (including bulkhead) and 118 Third Avenue is assumed to be 64 feet tall (including bulkhead).

One publicly accessible open space resource and one sunlight sensitive historic resource are located wholly or partially within the maximum shadow screening area as shown in **Figure 6-1**. The maximum shadow screening area also intersects with the Boerum Hill Historic District and Boerum Hill Historic District Extension. However, these districts are not noted for their sunlight-sensitive features and were therefore removed from further consideration.

The Tier 1 and 2 screening analysis could not rule out the potential for incremental shadows to reach the Pacific School Playground (O1) and the Former Printing Plant of the New York Times (H1). Therefore, these resources were advanced to a Tier 3 screening, which is provided below.

Table 6-1 shows the sunlight-sensitive resources identified in the Tier 1 and Tier 2 screening analysis.

Figure 6-1 Tier 1 and Tier 2 Screening

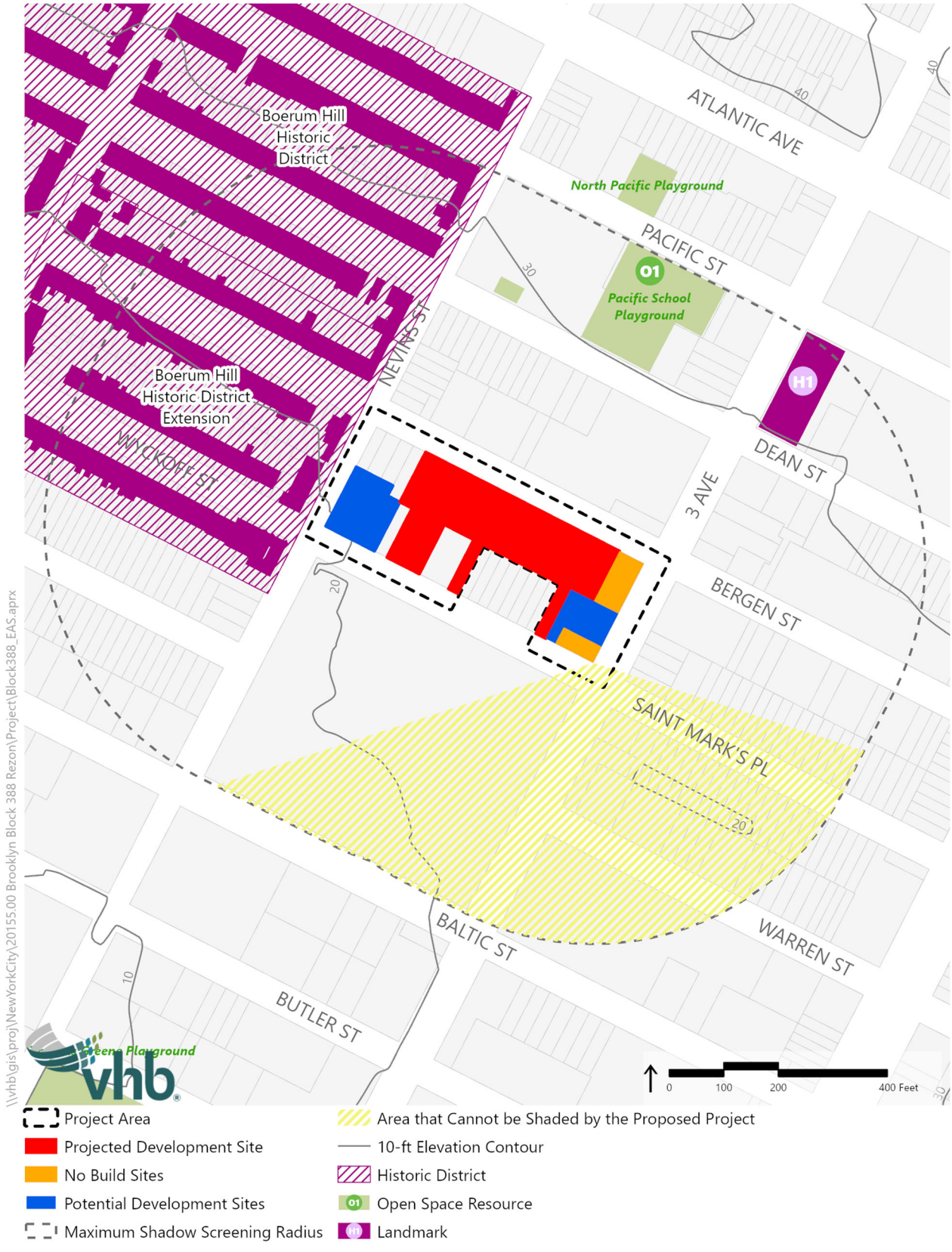


Table 6-1 Sunlight-Sensitive Resources in the Study Area

Map ID	Resource Name	Potential Resource Summary	Sunlight-Sensitive Elements
Open Space Resources			
O1	**Pacific School Playground**	Publicly-accessible schoolyard with running tack, basketball court, benches, trees, and turf field	Active recreation, vegetation
Historic Resources			
H1	**Former Printing Plant of the New York Times (S/NR-Eligible)**	Three-story building, now used as a school, with decorative stone façade on Third Avenue between Dean Street and Pacific Street	Decorative carvings on stone façade

Tier 3 Screening Assessment

In accordance with the *CEQR Technical Manual*, a Tier 3 screening assessment was performed because the Tier 1 and Tier 2 assessments identified several sunlight-sensitive resources within ±108 degrees of True North and within the area of the longest shadow that would be cast by the Proposed Project.

The Tier 3 screening assessment was performed for the four representative days of the year set forth in the *CEQR Technical Manual*: December 21, the winter solstice and shortest day of the year; March 21/September 21, the equinoxes; May 6/August 6, the midpoints between the summer solstice and the equinoxes; and June 21, the summer solstice and the longest day of the year.

In accordance with the *CEQR Technical Manual*, a model of the buildings in the With-Action condition was developed in a three-dimensional computer program (ArcGIS Pro). The model was geolocated, and the surrounding terrain was imported into the model to account for differences in topography. As noted above, the Tier 3 shadow screening shows the shadows that would be cast as a result of the Proposed Project but does not account for existing buildings which may already cast shadows on the identified resources. The Tier 3 analysis for this project also considers the shadow that would be cast by the two potential developments, and as detailed above, by two No-Action developments also located within the Project Area. See **Figure 6-2** through **Figure 6-5** below. The two No-Action developments are included for the purposes of providing a conservative shadows analysis.

The Tier 3 screening indicates that in the absence of intervening structures, the Proposed Project would cast shadows on the Pacific School Playground (O1) and on the Former Printing Plant of the New York Times (H1).

(O1) Pacific School Playground

The potential for incremental shadows on this open space resource by the Projected or Potential Development Sites could not be ruled out by the Tier 1 and 2 analyses; therefore, it was advanced to the Tier 3 analysis. As shown in **Figure 6-2**, the Tier 3 analysis shows that there would be potential shading on this open space resource from the Projected and

Potential Development Sites on the December 21 analysis day. Project-generated shadows would not occur on this resource on any of the other analysis days.

(H1) Former Printing Plant of the New York Times

The potential for incremental shadows on this historic resource by the Projected and Potential Development Sites could not be ruled out by the Tier 1 and 2 analyses, and therefore it was advanced to the Tier 3 analysis. As shown in **Figure 6-2**, the Tier 3 analysis shows that there would be potential shading on this sunlight-sensitive historic resource from the Projected and Potential Developments on the December 21 analysis day. Project-generated shadows would not occur on this resource on any of the other analysis days.

Figure 6-2 Tier 3 Screening December 21 Analysis Day

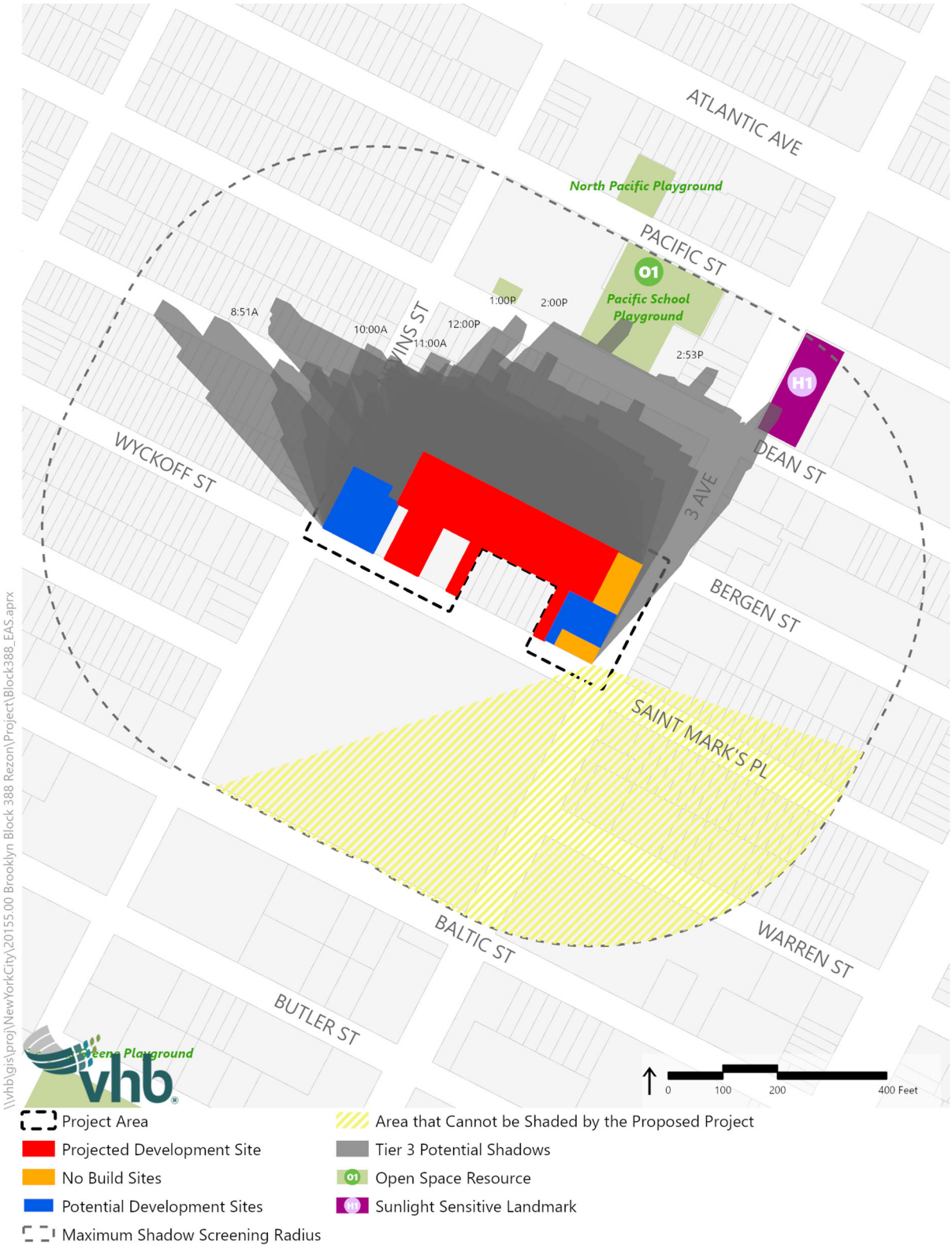


Figure 6-3 Tier 3 Screening March 21/September 21 Analysis Day

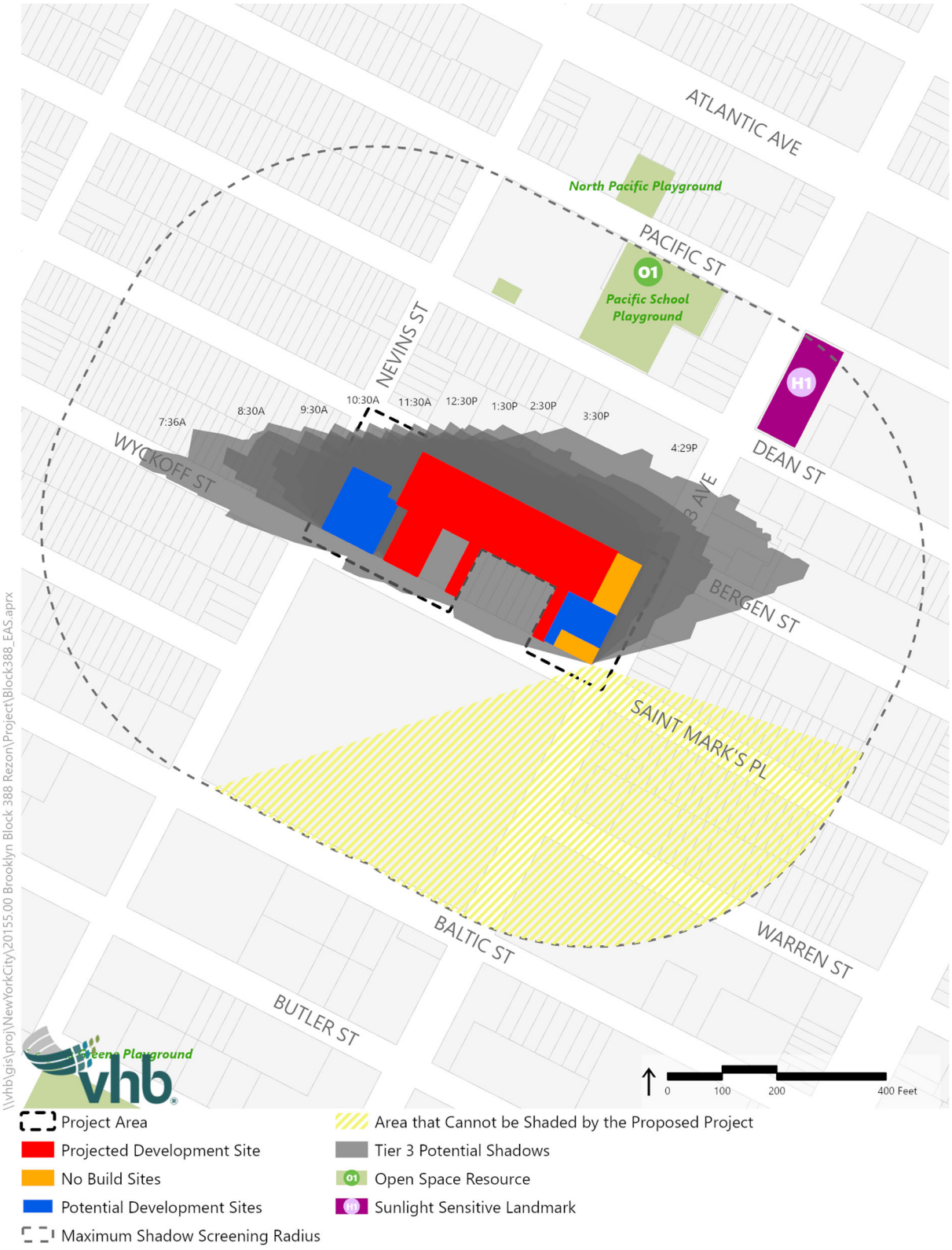


Figure 6-4 Tier 3 Screening May 6/August 6 Analysis Day

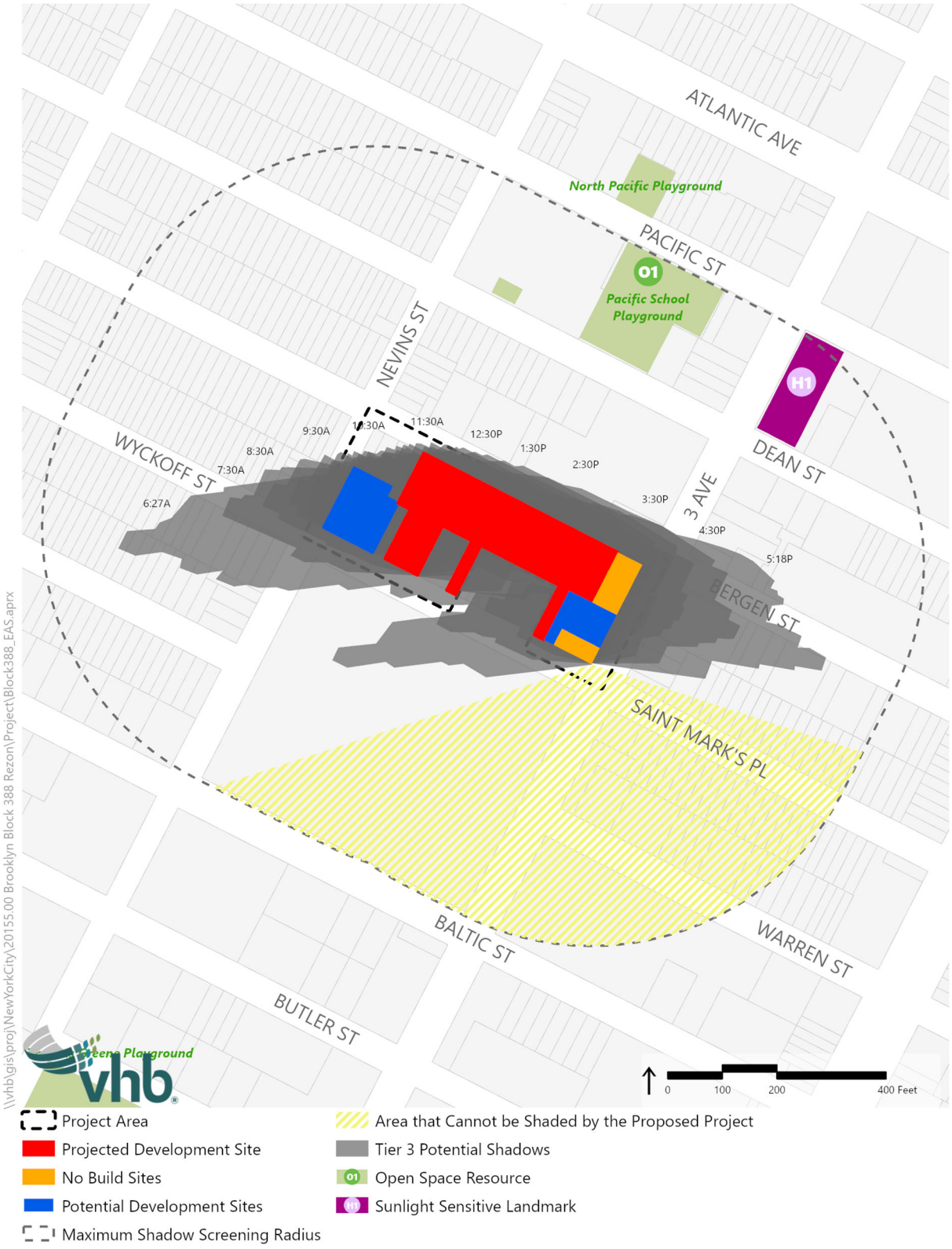
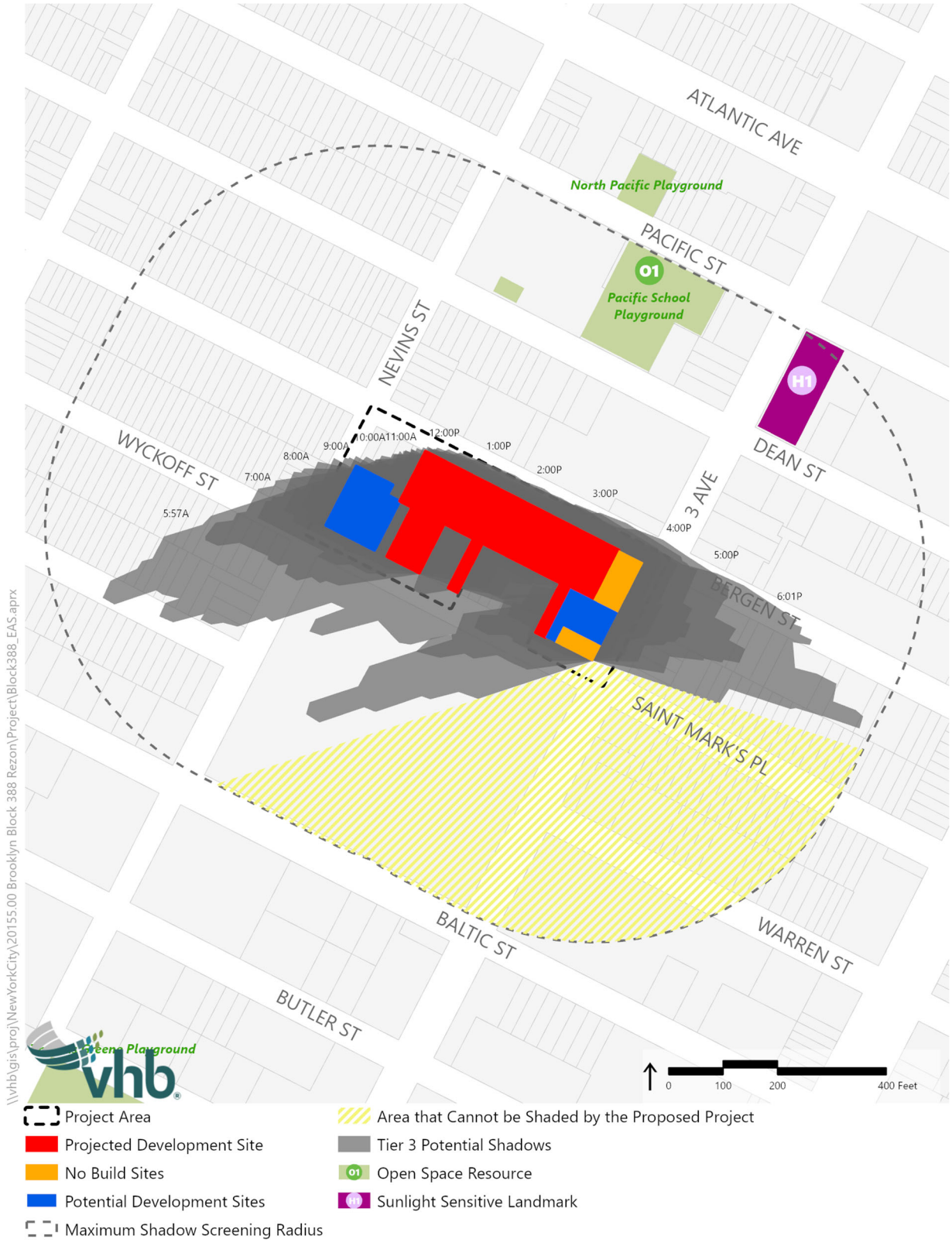


Figure 6-5 Tier 3 Screening June 21 Analysis Day



Detailed Assessment

No-Action Condition

In the future No-Action condition, Projected Development Site 1 would be redeveloped as a 75-foot tall five-story building containing a mix of office, retail, and community facility space with parking accommodated on the cellar and first floors.

With-Action Condition

As described above, in the With-Action condition, the Proposed Project would consist of four proposed buildings on Projected Development Site 1, two of which would exceed 50 feet. Two Potential Development Sites, Sites A and B, were identified for conservative analysis purposes both of which would be developed with buildings that exceed 50 feet. In addition, there are two sites in the Project Area that are anticipated for redevelopment as part of the adjacent 98 Third Avenue Rezoning proposal, which would yield three buildings above 50 feet that are included for analysis purposes.

Modeling Results

The detailed shadow analysis builds on the three-dimensional modeling used in the Tier 3 analysis to identify whether the With-Action development that would be constructed on the Project Area could cast shadows on the identified resources of concern. Any new shadows projected to be cast onto the identified resources from the Proposed Project are considered "incremental shadows."

Table 6-2 provides the modeled incremental shadow entry/exit times for the sunlight sensitive resources. Pacific School Playground (O1) and the Former New York Times Printing Press (N1) could receive incremental shadow on the December 21 analysis day only. Incremental shadows from the Proposed Project would not occur on any of the other analysis days. Due to the short duration of incremental shading, one representative image was exported for each resource, **Figure 6-6** for Pacific School Playground and **Figure 6-8** for the Former New York Times Printing Press.

Table 6-2 Detailed Analysis Summary of Incremental Shadow Entry/Exit Times

	Analysis Day			
Resource **Analysis Timeframe**	**Dec 21** **8:51A- 02:53P**	**March 21/Sept 21** **7:36A-4:29P**	**May 6/Aug 6** **6:27A-5:18P**	**June 21** **5:57A-6:01P**
Open Space Resources				
O1 – Pacific School Playground	2:48P – 2:53P (5 minutes)	--	--	--
N1 – Former New York Times Printing Press	2:41P – 2:53P (12 minutes)	--	--	--

Pacific School Playground (O1)

Pacific School Playground is a publicly accessible schoolyard, located adjacent to and serving Public School 38 between Third Avenue, Nevins Street, Pacific Street, and Dean Street (**Figure 6-6**). The playground is divided into two distinct parts, a larger midblock area with a basketball court, turf field, running track and playground and a smaller area with a jungle gym on the corner of Dean Street and Nevins Street, directly in front of the school building. There are approximately half a dozen trees located within the larger schoolyard area along the edges of the turf and paved areas. A similar number of benches and tables is located in between the short rows of trees.

Figure 6-6 Pacific School Playground Looking North from Dean Street



The resource would be shaded for approximately 5 minutes between 2:48PM and 2:53PM, which is the end of the analysis period. The shading would occur on the portion of the schoolyard containing the jungle gym, which has no vegetation or benches, and therefore is not sunlight sensitive (see **Figure 6-7**). Furthermore, the shading would occur during the winter analysis period, when students from the adjacent school and children from the surrounding neighborhood would be least likely to utilize the space due to the cold weather. It is anticipated that the shading that would occur on this open space resource would be minimal and have limited effect on the vegetation and users of the space. Therefore, no significant adverse impacts as a result of incremental shadows cast by the Proposed Project are anticipated.

Figure 6-7 Detailed Assessment Pacific School Playground: December 21 – 2:50PM



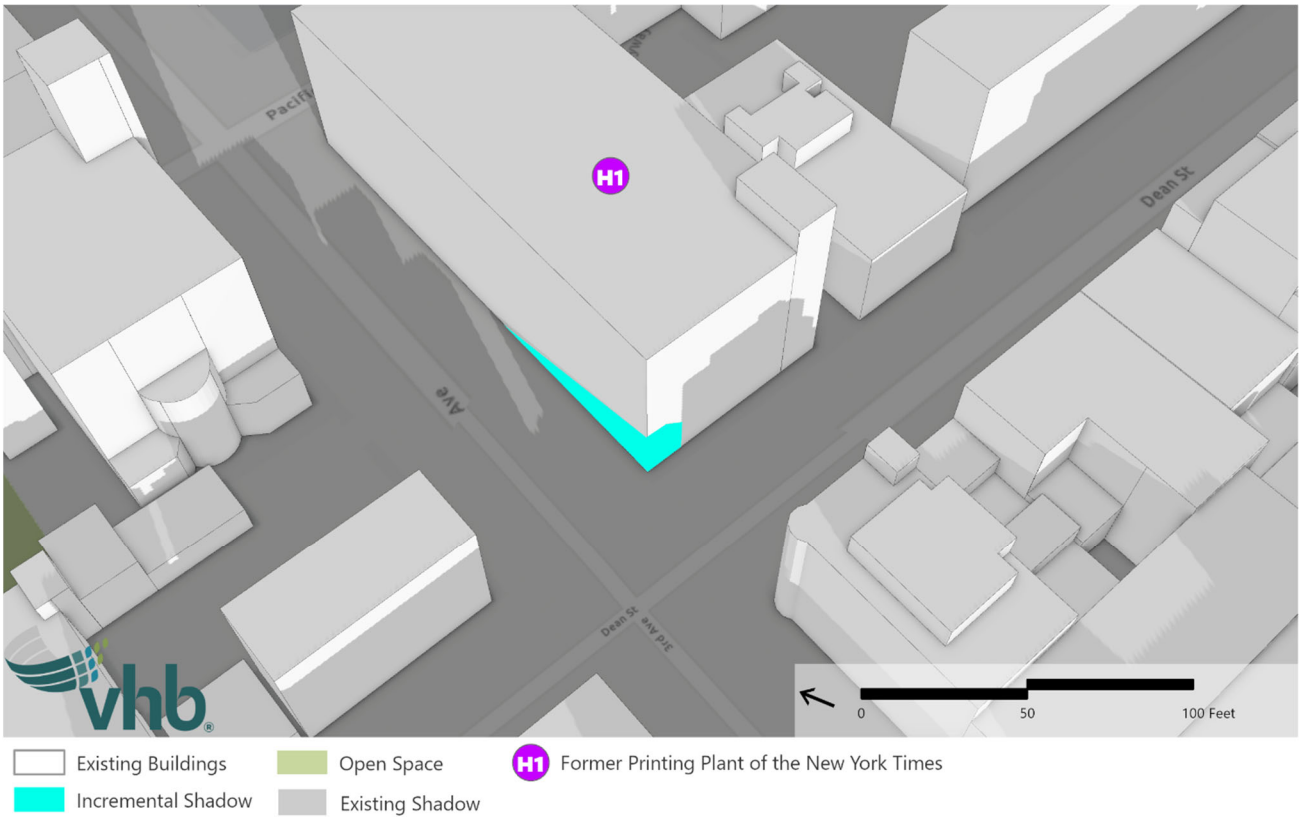
Former Printing Plant of the New York Times (H1)

The Former Printing Plant of the New York Times is a three-story building located on Third Avenue between Pacific Street and Dean Street, which is now used as a public school. It is considered a sunlight-sensitive resource due to the highly carved ornamentation of its stone façade (see **Figure 6-8**).

The resource would receive shading on a very limited area for a brief duration at the end of the analysis period. Specifically, shading would occur for a period of approximately 12 minutes from 2:41PM to 2:53PM at the end of the December 21 analysis period (**Figure 6-8**). The area that would receive shading is also limited to a small corner area at the intersection of Third Avenue and Dean Street. The limited duration of shading would not detract from

the views of the highly carved ornamentation of the building's stone façade. Therefore, no significant adverse impacts as the result of incremental shadows cast by the Proposed Project are anticipated.

Figure 6-8 Detailed Assessment Former New York Times Printing Press: December 21 – 2:50P



Conclusion

According to the detailed shadow analysis described above, shading would occur on the Pacific School Playground (O1) and the Former Printing Plant for the New York Times (H1) during the December 21 analysis period. However, the duration of the shading period would be short and would occur at the end of the day for both resources. In addition, the areas that would receive shading are relatively small. For the Pacific School Playground, the shading would occur in December, when the least number of students from the adjacent school and children from the surrounding neighborhood would be expected to utilize the resource due to the cold weather. Furthermore, this open space resource has a limited amount of vegetation and seating areas, neither of which would be affected by the potential shadow. A limited amount of shading on the Former Printing Plant for the New York Times (H1) would also occur for a short duration. The shadow duration would be brief, and it would occur only on a small area on the resource. Therefore, as described above, no significant adverse shadow impacts to the two sunlight-sensitive resources are expected as a result of the Proposed Project.

7

Historic and Cultural Resources

This section assesses the potential for a proposed action to result in significant adverse impacts on historic and cultural resources, including both archaeological and architectural resources.

Introduction

Historic and cultural resources are defined as improvements or landscape features that could be or have been determined to have a special character, historical, or aesthetic interest or value. Historic and cultural resources comprise districts, buildings, structures, sites and objects of historical, aesthetic, cultural, and archaeological significance. Per the *2021 CEQR Technical Manual*, these resources include:

- Designated New York City landmarks (NYCL), interior landmarks, scenic landmarks, and properties within designated New York City historic districts (or resources calendared for consideration by the New York City Landmarks Preservation Commission [LPC]).
- Resources listed on, or formally determined eligible for inclusion on, the State and/or National Register of Historic Places, or contained within a district listed on, or formally determined eligible for listing on, the State and/or National Register of Historic Places (S/NR).
- Resources recommended by the New York State Board for Historic Preservation for listing on the State and/or National Registers of Historic Places.
- National Historic Landmarks.
- Resources not identified by one of the programs listed above, but that meet their eligibility requirements.

This section assesses the potential for the Proposed Actions to affect architectural and archaeological resources located in the Project Area and in the study area.

Methodology

The *2021 CEQR Technical Manual* notes that environmental review for historic and cultural resources includes a survey and planning process that helps protect New York City cultural heritage from the potential impacts of projects undergoing CEQR. Historic and cultural resources include both archaeological and architectural resources. Archaeological resources are physical remains, usually subsurface, of precontact, post-contact and historic periods—such as burials, foundations, artifacts, wells, and privies. Architectural resources generally include historically important buildings, structures, objects, sites, and districts. They may include bridges, canals, piers, wharves, and railroad transfer bridges that may be wholly or partially visible above ground.

Project Area and Study Area

The Project Area, as described in **Part I: Project Description**, contains Lots 1, 8, 9, 11, 12, 19, 31, 34 - 38, 41, 42, 51, 52, and 58 on Block 388. Per the *CEQR Technical Manual*, a 400-foot study area is considered appropriate for the purposes of a Historic and Cultural Resources assessment. The 400-foot study area is generally defined as the area bounded by an imaginary line midblock between Dean Street and Pacific Street to the north, to the east by an imaginary line midblock between Third Avenue and Fourth Avenue, to the south near Baltic Street, and to the west by an imaginary line midblock between Nevins Street and Bond Street (see **Figure 7-1**).

Archaeological Resources

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

LPC guidelines require an initial review of the Proposed Actions. This review is designed to determine whether any archaeological evaluations are necessary. If the initial review concludes that the Proposed Actions could disturb or destroy potentially significant archaeological resources, a documentary study is warranted. The documentary study is known as a Phase 1A study and if the documentary study concludes that potentially significant archaeological resources could be present and that proposed construction could disturb or destroy the resource, archaeological field testing could be warranted. This may take the form of a Phase 1B, which involves subsurface testing to determine whether any archaeological resources are actually present, and Phase 2, which consists of more extensive subsurface investigations (if Phase 1B testing indicated that resources are present) and additional research to establish the age, integrity, and research potential of the archaeological resources. If the archaeological field testing demonstrates that significant archaeological resources are not present, then no further work is necessary. If the archaeological field testing indicates that significant archaeological resources are present, then Phase 3 data recovery would be necessary.

In accordance with CEQR, a letter requesting environmental review and historic clearance was submitted to LPC for the Project Area. A findings statement issued by LPC on January 25, 2021, indicated that after a review of archaeological sensitivity models and historic maps, there are five properties with the potential for the recovery of remains from 19th Century occupation within the Project Area (see **Appendix A**). These include the lot that comprises Potential Development Site A and four lots within Potential Development Site B (see **Table 7-1**). LPC recommended that an archaeological documentary study be performed to clarify these initial findings.[1]

Table 7-1 Lots with Potential Archaeological Sensitivity

Block, Lot	Existing Condition	Project Area Location
388, 1	Surface Parking Lot	Potential Development Site A
388, 34	Surface Parking Lot	Potential Development Site B
388, 35	Surface Parking Lot	Potential Development Site B
388, 36	Surface Parking Lot	Potential Development Site B
388, 37	Surface Parking Lot	Potential Development Site B

Source: LPC Correspondence Dated January 25, 2021 (see Appendix A)

Architectural Resources

Generally, architectural resources should be surveyed and assessed if a proposed project would result in any of the following, whether any known historic resources are located near the site of the project:

- New construction, demolition, or significant physical alteration to any building, structure, or object;
- A change in scale, visual prominence, or visual context of any building, structure, object or landscape feature. Visual prominence is generally the way in which a building, structure, object, or landscape feature is viewed. For example, a building may be part of an open setting, such as a tower within a plaza, which is either conforming or nonconforming with the street wall in terms of its height, footprint, and/or setback. Visual context is the character of the surrounding built or natural environment. This may include the following: the architectural components of an area's buildings (e.g., height, scale, proportion, massing, fenestration, ground-floor configuration, style), streetscapes, skyline, landforms, vegetation, and openness to the sky;
- Construction, including but not limited to, excavating vibration, subsidence, dewatering, and the possibility of falling objects;
- Additions to or significant removal, grading, or replanting of significant historic landscape features;
- Screening or elimination of publicly accessible views;

[1] The LPC findings statement initially indicated that further study would be required on Lot 58, however as Lot 58 is not included within a development site, it is not considered as having potential for site disturbance. Therefore, this lot is excluded from further archaeological study.

› Introduction of significant new shadows or significant lengthening of the duration of existing shadows on an historic landscape or on an historic structure if the features that make the structure significant depend on sunlight. For example, stained glass windows that cannot be seen without sunlight, or buildings containing design elements that are part of a recognized architectural style that depends on the contrast between light and dark design elements, such as deep window reveals and prominent rustication.

In correspondence dated January 25, 2021, LPC confirmed that none of the lots within the Project Area are architecturally significant, but that architectural resources did exist within the study area; these are documented below under existing conditions (see **Appendix A**). Consistent with *CEQR Technical Manual* guidance, the assessment of the Proposed Project's potential to result in impacts on architectural resources begins with the survey and documentation of existing resources in the study area, which for this analysis is the area within 400 feet of the Project Area. Following existing conditions, the assessment provides a description of future conditions absent the Proposed Actions (No-Action condition), and conditions expected with the Proposed Actions (With-Action condition).

Preliminary Assessment

Existing Conditions

Archaeological Resources

According to the New York State Office of Parks, Recreation and Historic Preservation (NY OPRHP) Cultural Resource Information System (CRIS), the Project Area lies within an "Area of Archaeological Sensitivity." The Project Area is largely developed with residences, commercial, and industrial properties where there has been previous ground disturbance. However, there is the potential for new in-ground disturbance in portions of the Project Area resulting from the Proposed Actions. LPC was consulted to identify the potential for archaeological resources to be located within the Project Area. In response, LPC issued a letter dated January 25, 2021 noting that lots located within Potential Development Sites A and B (Lots 1, 34, 35, 36, and 37) have the potential for the identification of nineteenth century archaeological data (see **Appendix A**). LPC requested that an archaeological documentary study (Phase IA) be performed for these lots to clarify these initial findings.

In April 2021, VHB completed a Phase IA archaeological documentary study of the Project Area. Due to the limited subsurface development and/or limited recorded disturbance within Lots 1, 34, 35, 36, and 37 of Block 388, VHB found that there was potential for these lots to contain potentially intact subsurface archaeological features and deposits related to previous nineteenth century occupations. This finding was submitted to the LPC and concurred with by the department in a letter dated May 24, 2022. As the disposition of these lots would require further review under CEQR and the New York City Uniform Land Use Review Procedure (ULURP), further archaeological investigation at the Phase IB or data recovery level would be required as part of that review and prior to any development activity. Therefore, due to this condition, the LPC stated that it had no further archaeological concerns with the current action in a letter dated May 24, 2022 (see **Appendix A**).

Architectural Resources

As mentioned above, a letter requesting environmental review and historic clearance was submitted to the LPC for the Project Area. A response letter dated January 25, 2021 indicated that there are no properties with architectural significance in the Project Area (see **Appendix A**). A 400-foot study radius is implemented to identify and address any potential impacts to historic architectural resources. There are five identified architectural resources within the study area (see **Table 7-2** and **Figure 7-1**). These historic resources are described in further detail below.

Figure 7-1 Historic Resources Map



Table 7-2 Known Architectural Resources within 400-foot Radius

Map No.	Block, Lot	Resource Name	NYCL	NYCL-eligible	S/NR	S/NR-eligible
Study Area						
H1	-	Boerum Hill Historic District	X		X	
H2	-	Boerum Hill Historic District Extension	X			X
H3	191, 1	P.S. 38, 450 Pacific Street				X
H4	192, 1	New York Times Former Brooklyn Printing Plant				X
H5	192, 13	Brooklyn High School of The Arts*				X

Source: MapPLUTO16v2, NYS Cultural Resources Information System (CRIS), LPC Designation Reports, and LPC correspondence dated 01/25/2021

* Located immediately outside the 400-foot radius from the Project Area

H1- Boerum Hill Historic District

The Boerum Hill Historic District was designated by LPC in 1973, and is an NYCL and listed on the S/NR (90NR01315, LP-0767).[2,3] The district falls northwest of the Project Area, and some of the buildings within it along Dean Street and Nevins Street fall within the study area (see **Photo 7-1** and **Photo 7-2**).

It is roughly bounded by Pacific Street to the north, Wyckoff and Bergen Streets to the south, Nevins and Bond Streets to the east, and Hoyt Street to the west. The districts' rows of mid-19th Century townhouses and several small-scale commercial structures are concentrated on Pacific, Dean, Bergen, and Wyckoff Streets, and almost all of the 250 buildings within the bounds of the district are considered contributing. The residences are generally late Greek Revival or early Italianate in style with three bays[4], three stories, brick facades, the doorway as the focal point, and projecting stoops. A majority of the houses have elaborate cast-iron railings on stoops and across the property line. The uniformity in fenestration[5] and building heights imbue the neighborhood with its distinctive architectural character. It also represents a historically significant expression of urban middle-class housing of the mid-19th century.

H2- Boerum Hill Historic District Extension

The Boerum Hill Historic District Extension is an LPC-designated historic district and is S/NR-eligible (LP-2599, USN 04701.023564).[6] The district falls to the west of the Project Area, and some of the buildings within it along Bergen, Wyckoff, and Nevins Streets fall within the study area (see **Photo 7-3** and **Photo 7-4**).

[2] Landmarks Preservation Commission and Parks, Recreation and Cultural Affairs Administration. Boerum Hill Historic District Designation Report dated 1973, accessed via CRIS

[3] United States Department of the Interior National Park Service. National Register of Historic Places Inventory—Nomination Form for Boerum Hill Historic District dated 06/1983, accessed via CRIS.

[4] In the field of architecture, a bay is considered the space between architectural elements, or a recess or compartment.

[5] The arrangement of windows and doors on the elevations of a building.

[6] NYC Landmarks Preservation Commission. Designation Report for Boerum Hill Historic District Extension dated 06/26/2018, accessed via LPC Discover NYC Landmarks Map Tool

The Boerum Hill Historic District Extension consists of approximately 288 buildings developed in the mid-19th century. Encompassing residential blocks and an important commercial corridor adjacent to the Boerum Hill Historic District, the Extension contains cohesive rows of buildings designed in the Greek Revival, Italianate, and other 19th-century styles. The blocks included in the Extension share a similar development history, architectural styles, and character as the Boerum Hill Historic District. The single-family row houses and the row house-scale residential buildings with historic storefronts dating from the 1850s to the 1870s were mostly designed in the Greek Revival and Italianate styles. More eclectic styles appeared in the 1880s as the last remaining empty lots were filled, including a row of Second-Empire-style houses on Bergen Street, and neo-Grec-style apartment buildings scattered throughout the Extension. This mix of styles and the handsome decorative details applied to relatively modest structures reveal the aspirations of local residents and developers, many of whom had arrived as immigrants. The residences were largely constructed for the working- and middle-class as the growth of commerce, industry, and transportation drove development in Brooklyn around the Civil War.

Photo 7-1 250 and 248 Dean Street within the Boerum Hill Historic District, Current



Photo 7-2 250 and 248 Dean Street within the Boerum Hill Historic District (1940)



Photo captured 12/23/20

Photo 7-3 158A Nevins Street within the Boerum Hill Historic District Extension, Current



Photo captured 12/23/20

Source: Department of Finance, Tax Photos

Photo 7-4 158A Nevins Street within the Boerum Hill Historic District Extension (1940)



Source: Department of Finance, Tax Photos

H3- P.S. 38

P.S. 38, also known as the Pacific School, is an S/NR-eligible building located at 450 Pacific Street (USN 04701.022771).[7] The three-story school is significant as a reflection of postwar changes in architectural design, building materials and technology, and educational philosophy (see **Photo 7-5**). It was built in 1964 to the design of the Bureau of Design, under the supervision of Eugene E. Hult, then Superintendent of Design, Construction and Physical Plant for the Board of Education.

Located at the corner of Pacific and Nevins Streets, the buff-colored brick school is rectangular in plan with an interior court area on the second floor. The facade has vertical bays of aluminum windows and blue ceramic tile panels separated by concrete piers coated with a marble chip finish.[8] Contrasting glazed bricks with an aluminum grille overlay are located at the entrance bays. P.S. 38 possesses the character-defining features of schools of its period including flat roofs, modern application of materials, vertical bays of windows, and the use of contrasting color. It retains its massing, roof form, horizontal emphasis, building materials, pattern of window and door openings, and basic interior configuration.

Photo 7-5 P.S. 38, Current

[7] New York State Office of Parks, Recreation and Historic Preservation. Resource Evaluation for P.S. 38 Pacific School dated 04/09/2019, accessed through CRIS

[8] A pier, in architecture, is an upright support for a structure. Sections of structural walls between openings (bays) can function as piers.



Photo captured 12/23/20

H4- New York Times Former Brooklyn Printing Plant

The former Brooklyn Printing plant of the New York Times is an S/NR-eligible building located at 59-75 Third Avenue/500 Pacific Street (USN 04701.015872).[9] It is a four-story limestone and granite clad Neo-Classical Revival commercial-industrial building design by Alber Kahn in 1929 (see **Photo 7-6** and **Photo 7-7**). It was built to house the printing plant and the news and advertising department of the Brooklyn-Queens-Long Island edition of the New York Times. The building has fluted pilasters[10], wide frieze[11], and an attic story and is considered significant for its Neo-Classical design. Materials used on the façade include buff marble, green granite, bronze and copper and the ornamentation is art-deco in style. It is also considered significant in the area of commercial history. Today it functions as an annex to the Brooklyn High School of the Arts, discussed below.

H5- Brooklyn High School of the Arts

The Brooklyn High School of the Arts is an S/NR-eligible building located at 508-530 Pacific Street/372-345 Dean Street (USN 04701.015873).[12] It was formerly known as the Sarah J Hale High School built in 1929 as a vocational school for girls (see **Photo 7-8** and **Photo 7-9**). The four-story limestone clad building is an example of a streamlined Art Deco style school building and is significant in its association with vocational education. The building features ornamental carvings above the window line on the third story.

[9] New York State Office of Parks, Recreation and Historic Preservation. Resource Evaluation dated 05/16/06, accessed through CRIS

[10] A rectangular column, such as one projecting from a wall.

[11] A long, narrow, horizontal panel or band used for decorative purposes. In Greco-Roman Classical architecture, the middle of the three main divisions of an entablature (section resting on the capital), below the cornice.

[12] New York State Office of Parks, Recreation and Historic Preservation. Resource Evaluation dated 05/16/06, accessed through CRIS

Photo 7-6 New York Times Former Printing Plant, Current



Photo captured 12/23/20

Photo 7-7 New York Times Former Printing Plant (1940)



Source: Department of Finance, Tax Photos

Photo 7-8 Brooklyn High School of the Arts, Current



Photo captured 02/03/2021

Photo 7-9 Brooklyn High School of the Arts, 1940



Source: Department of Finance, Tax Photos

No-Action Condition

As described in **Part I: Project Description,** in the future No-Action condition, the existing manufacturing facility would be demolished, and Projected Development Site 1 would be redeveloped as a six-story building containing a mix of office, retail, and community facility space with parking accommodated on the ground floor and cellar levels. In total, the No-Action condition on Projected Development Site 1 would incorporate 170,701 gsf.

Under the No-Action condition, Potential Development Sites A and B would remain under ownership of the City of New York, and the Applicant would retain a leasehold interest in each. Therefore, these sites would be used as accessory parking, with 48 attended/stacker parking spaces accommodated on Potential Development Site B and 77 attended/stacker parking spaces accommodated on Potential Development Site A.

Archaeological Resources

Under the No-Action condition, there would be no new in-ground disturbance on any of the sites identified by LPC to be potentially archaeologically sensitive.

Architectural Resources

The No-Action condition development on Projected Development Site 1 would not be directly adjacent to any of the architectural resources within the study area identified under Existing Conditions.

Furthermore, the No-Action building on Projected Development Site 1 would conform to existing zoning and would not alter the setting of any of the architectural resources in the Study Area. It would be replacing an existing building and would be of a similar scale to existing buildings along Third Avenue. Furthermore, it would not cast shadows on any sunlight-sensitive architectural resources (see **Section 6, Shadows**).

With-Action Condition

As described in **Part I, Project Description**, the Proposed Actions would result in development on three sites within the Project Area, including Projected Development Site 1, and Potential Development Sites A and B. The Proposed Project would consist of four proposed buildings on Projected Development Site 1 (*Sycamore Place, Linden Place,* and two townhomes) ranging from three to nine stories in height with a mix of residential, retail, and community facility uses. In total, the Proposed Project would incorporate 307,000 gsf.

Potential Development Sites A and B would remain under the City's ownership and the existing Ulano lease through the build year. However, these sites have been identified as Potential Development Sites for conservative analysis purposes. Potential Development Site A is assumed to be redeveloped as an eight-story building accommodating 77,008 gsf, including residential units and 29 parking spaces. Potential Development Site B is assumed to be redeveloped as a nine-story building accommodating 52,798 gsf, including residential units and retail space.

See **Figure 7-1** for all Projected and Potential Development Site locations.

Archaeological Resources

LPC identified Lots 1, 34, 35, 36, and 37 within Potential Development Sites A and B as well as Lot 58 within the Project Area as potentially archaeologically sensitive. However, Lot 58 is not expected to be affected by the Proposed Actions, and therefore there would be no potential for impacts to archaeological resources. As discussed above, Potential Development Sites A and B are under the City's ownership and are not expected to be developed under the With-Action Condition but have been included as Potential Development Sites for conservative analysis purposes.

A Phase 1A, dated April 28, 2021, has been prepared for Lots 1 and 34 through 37 and was submitted to LPC for review. The Phase 1A determined that further investigation as part of a Phase 1B is warranted based on the study area's archaeological sensitivity for nineteenth century archaeological features and/or deposits. The LPC concurred with the findings of the Phase 1A in a letter dated May 14, 2021 (see **Appendix A**).

However, the actual presence of archaeological resources could only be determined with field verification, which is outside the control of the Applicant. Because these sites are publicly owned, the City would need to dispose of the sites to a new owner prior to their redevelopment. This disposition action would require review under CEQR and the New York City Uniform Land Use Review Procedure (ULURP). As further investigation would be undertaken as part of that environmental review, any further study or data recovery would be a condition of that review. Due to this condition, the LPC stated that it had no further archaeological concerns with the current action in a letter dated May 24, 2022 (see **Appendix A**). Therefore, with this condition, there would be no anticipated adverse impacts to archaeological resources due to the Proposed Actions.

Projected Development Site 1 has not been identified to contain archaeologically sensitive resources and therefore would not have the potential to result in significant adverse impacts on archaeological resources.

Architectural Resources

The Proposed Actions would result in construction on Potential Development Site A, located at the corner of Wyckoff Street and Nevins Street and less than 90 feet from the boundary of the Boerum Hill Historic District Extension and contributing residences such as the one shown in **Photo 7-3.**[13] To avoid the potential for construction-related impacts (such as falling objects, vibration, dewatering, subsidence, or collapse), a Construction Protection Plan (CPP) would be developed in coordination with LPC and implemented to protect the buildings within 90 feet of Potential Development Site A within the Boerum Hill Historic District Extension. The CPP would follow the guidelines of the New York City Department of Buildings' Technical Policy and Procedure Notice (TPPN) #10/88. The CPP would be submitted to LPC for review and approval prior to the start of construction. Because the property is publicly-owned, the City would be the responsible entity to ensure that a CPP would be made a condition of the future environmental review in connection with disposal of Potential Development Site A to a future developer, as detailed above. With a CPP, the Proposed Actions would not have potential adverse impacts on architectural resources in the

[13] DOB's TPPN #10/88 applies to New York City Landmarks, properties within New York City Historic Districts, and National Register-listed properties within 90 feet of a construction site.

study area from direct physical impact, demolition, alteration, or damage from adjacent construction.

Furthermore, the Proposed Actions would not have indirect impacts such as the isolation of a property from its surrounding environment, or the introduction of visual, audible, or atmospheric (i.e., pollutants) elements that are out of character with a property or that alter its historic setting and context (e.g., contextual effects). As detailed in **Section 8, Urban Design and Visual Resources**, the Proposed Project would be constructed within the existing street grid to the east of the Boerum Hill Historic District Extension, and therefore would not obstruct existing views along study area roadways to the rowhouses and mixed-use buildings that contribute to the district. As detailed above, these resources are identified for their distinct architectural features, and infill development within the Project Area adjacent to these districts would have no adverse impact on their historic context or setting. Additionally, the Proposed Project would be contextual with the surrounding mixed residential, community facility, and commercial buildings, which have heights ranging from three to twenty-one stories and vary widely in architectural style, meaning the project would not be out of character with the existing built conditions of the area. Furthermore, there is no potential for shadows to reach any sunlight-sensitive historic resources in the study area, and no views of these resources would be obstructed by the Proposed Actions (see **Section 6, Shadows**). Therefore, there would be no indirect impacts to architectural resources as a result of the Proposed Actions.

Conclusion

A Phase 1A was prepared and submitted to LPC and determined that further investigation was warranted. However, the actual presence of archaeological resources on Potential Development Sites A and B could only be determined with field verification. The disposition of these sites from the City of New York to a developer would require further environmental review which would ensure that any necessary further archaeological study would occur. With this future requirement, there would be no adverse impacts to archaeological resources due to the Proposed Actions.

Five architectural resources fall within the study area. The Proposed Actions would not impact these historic resources with respect to shadows or contextual impacts. In addition, the Proposed Actions would not have the potential to result in significant adverse direct impacts on resources located within 90 feet of Potential Development Site A because a CPP would be made a condition of environmental review through the City's disposition action.

Overall, the Proposed Actions would not result in significant adverse impacts to historic and cultural resources.

8

Urban Design and Visual Resources

An urban design assessment under CEQR considers whether and how the Proposed Actions may change the experience of a pedestrian in the study area. The assessment focuses on the components of the Proposed Actions that may have the potential to alter the arrangement, appearance, and functionality of the built environment.

Introduction

Urban design is the totality of components that may affect a pedestrian's experience of public space. To determine if the Proposed Actions have the potential to change the pedestrian experience, an urban design assessment under CEQR guidelines focuses on the components of the Proposed Actions that may alter the arrangement, appearance, and functionality of the built environment from the pedestrian's perspective. In accordance with the *2021 CEQR Technical Manual*, a preliminary assessment of urban design is appropriate when there is the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning regulations. A visual resource is the connection from the public realm to significant natural or built features, including views of the waterfront, public parks, landmark structures or districts, otherwise distinct buildings or groups of buildings, or natural resources.

The Proposed Actions would result in zoning districts that have different bulk and dimensional regulations than those of the existing zoning district within the Project Area. Thus, an urban design and visual resources analysis is warranted.

Methodology

In accordance with the *CEQR Technical Manual* guidelines, the following preliminary urban design and visual resources assessment considers a 400-foot radius study area where the Proposed Actions would be most likely to influence the built environment. The preliminary assessment focuses on those project elements that have the potential to alter the built environment, or urban design, of the Project Area, which is collectively formed by the following components:

- **Street Pattern and Streetscape:** The arrangement and orientation of streets define location, flow of activity, street views, and create blocks on which buildings and open spaces are arranged. Other elements including sidewalks, plantings, streetlights, curb cuts, and street furniture also contribute to an area's streetscape.
- **Buildings:** A building's size, shape, setbacks, pedestrian and vehicular entrances, lot coverage, and orientation to the street are important urban design components that define the appearance of the built environment.
- **Open Space:** Open space includes public and private areas that do not contain structures, including parks and other landscaped areas, cemeteries, and parking lots.
- **Natural Features:** Natural features include vegetation and geologic and aquatic features that are natural to the area.
- **View Corridors and Visual Resources:** Visual resources include significant natural or built features, including important view corridors, public parks, landmark structures or districts, or otherwise distinct buildings.

The following information is included in a preliminary assessment:

- A narrative describing the existing Project Area, and conditions under the future No-Action and With-Action conditions;
- An aerial photograph of the study area and ground-level photographs of the Project Area with immediate context;
- Zoning and floor area calculations of the existing, future No-Action, and future With-Action conditions;
- Lot and tower coverage, and building heights;
- A three-dimensional representation of the future No-Action (if relevant) and With-Action condition streetscape; and
- A pedestrian wind condition analysis as necessary pursuant to Section 230 of the *CEQR Technical Manual*.

If the preliminary assessment determines that a change to the pedestrian experience is minimal and unlikely to disturb the vitality, walkability, or the visual character of the area, then no further assessment is warranted. However, if it shows that changes to the pedestrian environment and/or visual resources are significant enough to require greater explanation and further study, then a detailed analysis may be appropriate.

The following preliminary urban design and visual resources assessment follows these guidelines and provides a characterization of existing conditions followed by a description of urban design and visual resources under the future No-Action and With-Action conditions, and an analysis determining the extent to which physical changes resulting from the

Proposed Actions would alter the pedestrian experience. Per the criteria listed in Section 230 of the *CEQR Technical Manual*, a pedestrian wind condition analysis is not warranted for the Proposed Actions as the Project Area is not located in a high wind location, such as directly along the waterfront; instead, the Project Area is in a location where wind conditions from the waterfront are attenuated by existing buildings.

Study Area

The urban design and visual resources study area is typically defined as the area within 400 feet the Project Area which, for the Proposed Project is a line approximately 80 feet to the north of Dean Street, midblock west of Nevins Street, midblock east of Third Avenue, and a line approximately 300 feet south of Wyckoff Street. A field survey was conducted on December 23, 2020 to document existing conditions in the study area. Representative photographs of the study area are included in the discussion below. **Figure 8-1** provides a key map depicting the location from which each photograph was captured as well as the viewpoint direction.

Preliminary Assessment

Existing Conditions

Project Area

As described in **Part 1: Project Description** and **Section 2, Land Use, Zoning, and Public Policy**, the Project Area is located in the Boreum Hill neighborhood on Brooklyn Block 388 bounded by Bergen Street to the north, Third Avenue to the east, Wyckoff Street to the south, and Nevins Street to the west. See **EAS Figure 6** for photos of the Project Area and individual projected and potential development sites.

Projected Development Sites

Projected Development Site 1 contains a brick warehouse building with a flat roof along Bergen Street. It is one story, with a small two-story section at its eastern edge along Bergen Street approximately 33 feet in height, with several roll down gates to permit entry of vehicles. This building extends along much of the length of Bergen Street between Third Avenue and Nevins Street. With no setbacks, the building forms a consistent street wall. The southern portions of Projected Development Site 1 facing Wyckoff Street contain a parking lot with approximately 16 accessory parking spaces and an additional single-story brick building.

Projected Development Site 2 is located at the corner of Bergen Street and Third Avenue. It is currently occupied by a gas station with an awning over the gas pumps, and signage on the corner.

Projected Development Site 3, located on the corner of Wyckoff Street and Third Avenue, contains a two-story building that is approximately 24 feet in height and is used as a medical office. The building has a flat roof with large windows on the front and side façades.

Figure 8-1 Study Area Photograph Location Map



Potential Development Sites

Both Potential Development Sites (Site A and Site B) contain surface accessory parking to the manufacturing operations on Projected Development Site 1. Potential Development Site A is located on the northwest corner of Wyckoff Street and Nevins Street and includes a total of 42 accessory parking spaces. The parking lot has a chain-link fence around the perimeter of the site with a roll-down gate fronting on the Nevins Street side to permit entry of vehicles. Potential Development Site B, located between Projected Development Sites 2 and 3, is primarily a parking lot with 15 accessory parking spaces, with a single-story manufacturing building on the portion of the site that fronts on Wyckoff Street.

Study Area

Urban Design

The study area is generally characterized by regularly shaped blocks organized along a typical street grid with blocks that are shorter along Third Avenue and longer along the streets. The surrounding streets are local one-way roadways that are 60 feet in width (i.e. Bergen Street, Dean Street, Nevins Street, and Wyckoff Street). Third Avenue, a north-south street, has traffic in both directions and is 70 feet in width. Generally, concrete sidewalks interspersed with street trees and limited grassed areas line either side of the roadways within the study area. Parking is permitted on both sides of the streets and parked cars typically line these roadways (**Photo 8-1**).

The Project Area is located at the intersection of various areas with distinct urban design characters, including the Boerum Hill Historic District Extension to the west, Wyckoff Gardens to the south, and the mix of residential, institutional, and commercial buildings to the north and east along Third Avenue. This gives rise to an assortment of building shapes and forms within the study area and marks the Project Area as a transition block from the lower density development west of Nevins Street to higher density development along Third Avenue.

Generally, buildings to the west of Nevins Street are residential buildings that are low- to mid-rise in scale and exhibit a consistent urban design character that defines the Boerum Hill Historic District Extension. These buildings are predominately rowhouse style, single- and multi-family residences that are three to five stories with flat roofs. Façade treatments of the rowhomes consist of brick, stucco, and varying color sandstone with leaf brackets and ornamental patterns above some doorways, as well as high front stoops. The rowhouses contain small front yards improved with a paved patio area and minimal landscaping, providing a consistent street wall. Fences, typically cast-iron, line the front yards and railings line the front stairs and stoops. This building character typical of the area west of Nevins Street can also be found east of the Project Area along St. Mark's Place (**Photo 8-2**).

The New York City Housing Authority's (NYCHA) Wyckoff Gardens is located directly south of the Project Area. The campus is located on a superblock bounded by Wyckoff Street to the north, Nevins Street to the west, Third Avenue to the east, and Baltic Street to the south. The complex has the tallest buildings in the study area with three, 21-story buildings (approximately 180 feet in height) that form a T-shape, with tiered levels along the sides of the buildings that create a step-down effect (**Photo 8-3**). There are surface parking lots with accessory spaces on the four corners of the superblock, a community garden, playground, and pedestrian paths interspersed throughout the campus.

The remainder of the study area to the north and east of the Project Area contains additional residential, mixed-use, and large-scale public facility buildings. The urban design character of these buildings correlates closely with their use, the year that they were constructed, and their location.

Mixed-use buildings in the study area have commercial space on the lower levels with multiple stories of residential uses above. These buildings' façade treatment styles correlate with when they were constructed. Generally, newer buildings are modern in design with primarily glass cladding and textured, geometric façade treatments with flat roofs, such as the elevator apartment along Third Avenue constructed in 2017 (**Photo 8-4**). Older buildings, such as the old law tenement building on Third Avenue and Wyckoff Street constructed around 1900, typically have brick or stucco facades and parapet treatments (**Photo 8-5**). Commercial uses on the ground floor are small-scale local retail uses or office spaces with modern glass facades. The majority of the commercial uses on the ground floors contain awnings, signage, and advertisements associated with the commercial business. A four-story large-scale office building with brick facades and a flat roof with parapet treatments is located to the north of the Project Area along Third Avenue (**Photo 8-4**).

The presence of large public facilities defines the urban design character of the northernmost portion of the study area. Public School 38 is located on Dean Street between Nevins Street and Third Avenue. The school is set back from the street allowing for grassy front and side yards with metal fencing along the perimeter. It is three stories (approximately 37 feet in height) (**Photo 8-4**). Adjacent to the school is a playground with a track and courts. In comparison to Public School 38, Brooklyn High School of the Arts located to the northeast of the Project Area has more historic components. It was the site of the former New York Times Brooklyn Printing Plant (see **Section 7, Historic and Cultural Resources**) and is three stories and approximately 59 feet in height with a limestone façade and ornamental parapet treatments (**Photo 8-4**). On the block immediately south of the Brooklyn High School of the Arts are various factory and industrial buildings, with similar design characteristics as the existing warehouse on Projected Development Site 1. These buildings, however, are greater in height at three stories.

Photo 8-1 Narrow street with parking on both sides of Nevins Street



Photo captured 12/23/2020

Photo 8-2 Three-story rowhouse-style homes on St. Mark's Place



Photo captured 12/23/2020

Photo 8-3 21-story multi-family apartment building, part of the Wyckoff Gardens NYCHA complex



Photo captured 12/23/2020

Photo 8-4 Multi-story elevator apartment building on Third Avenue



Photo captured 12/23/2020

Photo 8-5 Mixed-use brick residential building with ground floor retail at Third Avenue and Wyckoff Street



Photo captured 12/23/2020

Photo 8-6 Office building on Third Avenue



Photo captured 12/23/2020

Photo 8-7 View of Public School 38 facing northeast on Dean Street



Photo captured 12/23/2020

Photo 8-8 Brooklyn High School of the Arts southern façade on Dean Street



Photo captured 12/23/2020

Visual Resources

There are no existing natural features or views to the waterfront in the study area. The western portion of the study area intersects with the Boerum Hill Historic District and Boerum Hill Historic District Extension. The Historic District Extension consists of approximately 288 buildings adjacent to the Boerum Hill Historic District designated in 1973. The eastern section includes blocks of Wyckoff and Bergen Streets between Bond and Nevins Streets. The blocks included in the extension share a similar development history and architectural styles and character as the Boerum Hill Historic District. The single-family rowhouses and the rowhouse-scale residential buildings with historic storefronts dating from the 1850s to the 1870s were mostly designed in the Greek Revival and Italianate styles. More eclectic styles appeared in the 1880s as the last remaining empty lots were filled, including a row of Second-Empire-style houses on Bergen Street, and neo-Grec-style apartment buildings scattered throughout the Historic District Extension. Its architecture is representative of this period of residential design, and its intact streetscapes retain a distinct and cohesive historic character (see **Photo 8-9**). No other visual resources exist in the study area.

Photo 8-9 Rowhouses characteristic of the buildings in the Boerum Hill Historic District Extension located west of Nevins Street along Dean Street



Photo captured 12/23/2020

No-Action Condition

As described in **Part I: Project Description**, absent the Proposed Actions, Projected Development Site 1 would be developed while Projected Development Sites 2 and 3 and Potential Development Sites A and B would remain in their existing condition.

On Projected Development Site 1, the existing manufacturing facility would be demolished, and the site would be redeveloped as a five-story building containing a mix of office, retail, and community facility space with parking accommodated on the cellar level. Projected

Development Site 1 would include 90,424 gsf of commercial office space, 15,113 gsf of locally-serving retail space, 20,812 gsf of medical office uses, and 44,352 gsf of parking and mechanical space on the first and second floors, accommodating 425 attended/stacker parking spaces. In total, the No-Action condition on Projected Development Site 1 would incorporate 170,701 gsf.

The proposed retail and medical office space would be located along Bergen Street on the ground floor, with additional medical office space on the second floor and commercial office uses on floors two through five. Most of the building bulk would be oriented along Bergen Street, with the exception of the first floor, which would extend to Wyckoff Street. The building would have a base height of 60 feet before a 20-foot setback above the fourth floor, with a total height of 75 feet. The No-Action condition would facilitate a change in the visual character of Projected Development Site 1, with increased height and building bulk.

In the No-Action condition, Projected Development Site 2 would continue to be occupied by a gas station, and Projected Development Site 3 would continue to be occupied by a medical office facility. Similarly, Potential Development Sites A and B would continue to operate under the existing conditions detailed above, used as accessory parking, with 48 attended/stacker parking spaces and 77 attended/stacker parking spaces, respectively.

Proposed building massings under the No-Action condition are shown in **Figure 8-2** to **Figure 8-4**.

In the No-Action condition, development of Projected Development Site 1 would change the study area's urban design and visual character by replacing an existing brick warehouse building with new construction of a five-story mixed commercial and community facility building that has parking on the cellar level. While there would be no changes to Projected Development Sites 2 and 3 or Potential Development Sites A and B, the Project Area would be modernized with new development that would be consistent with the existing commercial and public facilities in the study area.

Within the study area, as discussed in **Section 2, Land Use, Zoning and Public Policy**, there is one proposed development, the Wyckoff Gardens Infill project, on the NYCHA complex directly south of the Project Area, that would be anticipated to be completed under the No-Action condition. This project would result in the construction of two additional 16-story multi-family elevator buildings containing 500 residential units. The new buildings would be located on the northern corners of the existing complex over the parking lots that currently exist at the intersections of Wyckoff Street with Nevins Street and Third Avenue. Based on the most recent renderings released, the new buildings would be constructed to the lot lines with setbacks above the ninth floor.[1] These buildings would provide a more continuous streetscape by developing on the existing parking areas within the NYCHA complex superblock. The infill development of the above two buildings, which would be of similar height and bulk to the existing buildings on the site, would modify the existing urban design character and visual conditions of the study area by adding further density to the superblock.

[1] https://newyorkyimby.com/2018/01/16-story-nycha-infill-development-coming-to-120-3rd-avenue-boerum-hill-brooklyn.html

With-Action Condition

As detailed in **Part 1: Project Description**, the With-Action condition would include the Proposed Project on Projected Development Site 1. The Proposed Project consists of four proposed buildings ranging from three to nine stories in height with a mix of residential, retail, and medical office space. In addition, the With-Action condition would include an 8-story mixed use building containing residential uses and ground-floor retail on Projected Development Site 2 and a 6-story mixed residential and retail building on Projected Development Site 3. In total, the With-Action condition Projected Development Sites would incorporate 311,044 gsf of residential space including 361 residential units, 15,203 gsf of retail, 10,000 gsf of medical office space, and 125 parking spaces. Overall, 359,874 gsf (280,890 zoning square feet) would be developed on the Projected Development Sites.

Potential Development Site A would be assumed as an eight-story building accommodating 76,563 gsf, including 64,537 gsf of residential, 74 affordable dwelling units, 1,890 gsf of mechanical space, and 29 parking spaces. Potential Development Site B would be assumed as a 10-story building accommodating 53,691 gsf, including 43,015 gsf of residential, 49 affordable residential units, and 8,561 gsf of retail space with no parking spaces.

Urban Design

Projected Development Sites

As detailed above, a total of four buildings would be developed on Project Development Site 1. The largest building, "Sycamore Place," would be constructed along the full length of the Bergen Street frontage of Projected Development Site 1. It would total nine stories and would reach a base height of 75 feet up to the seventh floor before setting back 15 feet to a maximum height of 95 feet, 20 feet taller than the building under the No-Action condition (see **Figure 8-2**). The building would feature community facility space, retail, and parking on the ground floor with residential units on the upper floors. The front façade of the building along Bergen Street features an angled and non-uniform design to provide design diversity, increase visual interest, and provide vertical breaks in the building massing.

Three buildings are proposed along Wyckoff Street on Projected Development Site 1, including another nine-story building, "Linden Place," on the west side of the block and two three-story townhomes that would infill on either side of the existing rowhouses on the south side of the block. These three buildings would be fully residential. The two townhomes would have flat roofs to better integrate with the existing lower-scale buildings on the block (see **Figure 8-3**).

Projected Development Site 2 located on the corner of Bergen Street and Third Avenue would rise eight stories or 85 feet in height and would contain residential units above ground-floor retail. It would be 85 feet taller than the No-Action condition. Projected Development Site 3 located on the corner of Wyckoff Street and Third Avenue would rise six stories or 64 feet in height and would also contain residential uses above ground-floor retail. In comparison to the No-Action condition, the proposed building would be 30 feet taller than the existing medical office building (see **Figure 8-2**).

Potential Development Sites

Potential Development Site A, located at the corner of Wyckoff Street and Nevins Street, would be an eight-story building, 95 feet tall with a setback above the sixth floor along Wyckoff Street, housing 74 dwelling units (see **Figure 8-3**). Potential Development Site B would be constructed along Third Avenue as a 10-story building that is 115 feet tall with a base height of 91 feet, a 15-foot setback above the eighth floor, and 49 residential units with ground-floor retail space. The building would have a small three-story portion along Wyckoff Street to match the adjacent proposed townhome on Projected Development Site 1.

Discussion

Compared with the No-Action condition, under the With-Action condition, the Project Area would be developed with increased height and building bulk. Projected Development Site 1 would include the construction of three additional buildings, with the tallest building (Sycamore Place) rising 20 feet taller than the five-story building projected under the No-Action condition (see **Figure 8-2**). Projected Development Site 2 would be constructed with an 85-foot building (85 feet taller than the No-Action condition), with residential units on the upper floors and retail on the ground-floor. Projected Development Site 3 would introduce a building that is approximately 40 feet taller than the existing two-story medical office building, which would remain under the No-Action condition (see **Figure 8-2**). Potential Development Sites A and B would be developed with an eight-story building and 10-story building, respectively, in place of the existing parking lots (see **Figure 8-3** and **Figure 8-2**).

Figure 8-2 Building Massings: View East along Bergen Street

No-Action Condition



With-Action Condition



Figure 8-3 Building Massings: View Northeast from Wyckoff Street and Nevins Street

No-Action Condition



With-Action Condition

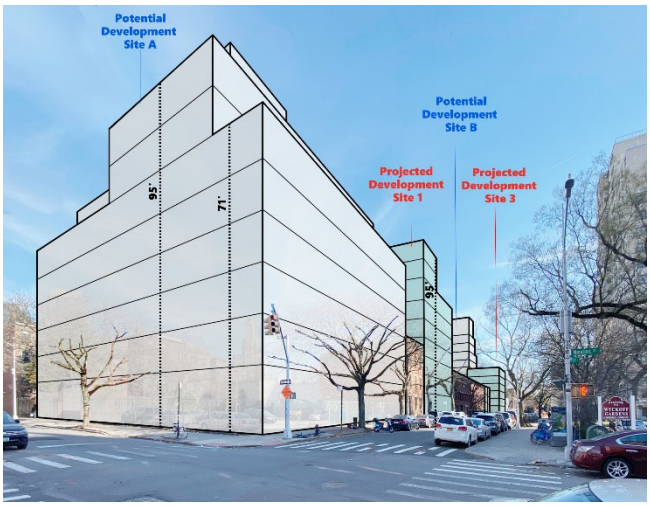
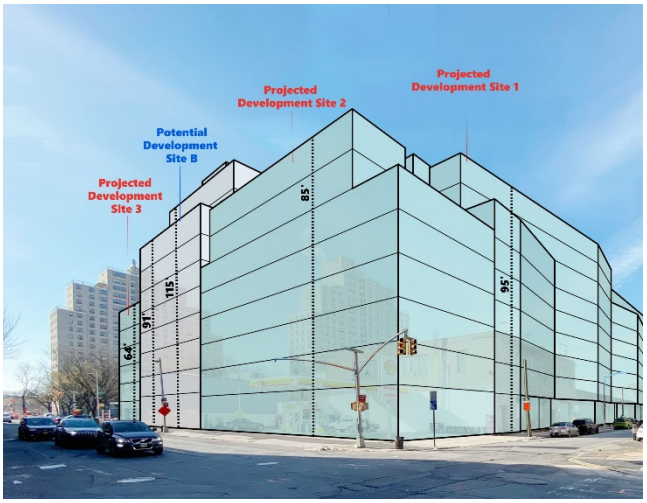


Figure 8-4 Building Massings: View Southwest from Third Avenue and Bergen Street

No-Action Condition



With-Action Condition



Note: Building massings do not show the No-Action development on Wyckoff Gardens to the south of the Project Area.

The Proposed Project would incorporate building forms and various design elements that would be consistent with the design character in the study area. For instance, the townhouses proposed along Wyckoff Street would be the same height as the existing buildings on the south side of the project block, helping to integrate the proposed buildings with the existing built condition along Wyckoff Street. The increased height and bulk of the proposed buildings overall is consistent with the higher density mixed-use and multi-family buildings along Third Avenue, which rise up to eight stories in height, and future development along Wyckoff Street, up to 21 stories within the Wyckoff Gardens complex. For example, the Linden Place building along Wyckoff Street would provide a nine-story infill development along the roadway that is more consistent with the future built conditions and

would animate the streetfront, compared with the one-story parking structure proposed for that location under the No-Action condition, In addition, as discussed above, the angled and non-uniform design of the front façade of the building along Bergen Street would provide design diversity and increase visual interest of the streetwall, particularly in comparison to the more simple streetwall projected under the No-Action condition, and therefore would improve the pedestrian experience.

Furthermore, the Proposed Project would provide infill development on lots that are currently underutilized and would remain so under the No-Action condition. These include, in particular, Potential Development Sites A and B, which would remain as parking lots, and Projected Development Site 2, which would continue to operate as a gas station. While the No-Action condition would introduce a mix of uses including office, local retail, and community facility space only on Projected Development Site 1, the Proposed Actions would facilitate new development on all of the development sites within the Project Area, activating the full block as opposed to a singular site. Infill development on these lots would facilitate several urban design improvements over the No-Action condition, including a continuous streetwall along Third Avenue and greater bulk and density to match the existing built conditions that exists to the north and east of the Project Area along this corridor. Moreover, the proposed height and bulk under the With-Action condition would continue to be less than the anticipated Wyckoff Gardens project directly south of the Project Area, where two 16-story buildings would be constructed on the existing NYCHA parking lots. Together with the Wyckoff Gardens project, the Proposed Actions would result in a continuous and active streetfront along the entire length of Third Avenue within the study area.

Under the With-Action condition, the Project Area would provide a visual transition from the lower density of the Boerum Hill Historic District Extension to the west and the higher bulk residential, commercial, and community facility buildings existing along Third Avenue and proposed for south of Wyckoff Street (the Wyckoff Gardens project). As detailed above, the buildings west of Nevins Street are lower scale and more uniform in design compared with buildings along Third Avenue, which are built up to eight stories with a mix of building styles. In addition, the proposed Wyckoff Gardens project, under both the No-Action and With Action conditions, would result in the tallest buildings in the study area within the Wyckoff Gardens complex, with 16-story proposed buildings and 21-story existing NYCHA buildings. With proposed heights that are comparable to the existing eight-story buildings along Third Avenue and shorter than the Wyckoff Gardens buildings, the proposed With-Action condition would provide a visual transition between the various urban design characters within the study area.

Overall, the Proposed Actions would result in changes to the visual character of the Project Area through increased bulk and density on the development sites. However, the proposed bulk and various design components introduced by the Proposed Project would be consistent with surrounding building forms and urban design characteristics in the study area. The Proposed Project would provide infill development on underutilized lots within the Project Area that would remain underutilized in the No-Action condition. In addition, the proposed heights and infill across the Project Area would allow the Project Area to further serve as a transition block within the study area. As such, the With-Action condition would not result in significant adverse impacts to urban design.

Visual Resources

As detailed above, the Boerum Hill Historic District and Boerum Hill Historic District Extension are prominent visual resources within the study area, located across Nevins Street to the west of the Project Area.

The Proposed Actions' potential to result in indirect, or contextual impacts to this visual resource within the study area was evaluated. Indirect impacts are defined as those impacts that could result from blocking significant public views of a resource; isolating a resource from its setting or relationship to the streetscape; altering the setting of a resource; introducing incompatible visual elements to a resource's setting; or introducing shadows over a historic landscape or an architectural resource with sun-sensitive features that contribute to that resource's significance, such as a church with notable stained-glass windows.

The With-Action condition would be constructed within the existing street grid to the east of the Boerum Hill Historic District Extension, and therefore would not obstruct views to the rowhouses and mixed-use buildings that contribute to the district. Because there are no architectural resources with sunlight-sensitive features such as stained-glass windows within the district, potential shadows cast by the With-Action condition would not result in adverse impacts. In addition, as described above, the With-Action condition would incorporate various design elements that would support the integration of the proposed buildings into the context of its surroundings, including the historic district to the east. As such, the With-Action condition would not result in significant adverse impacts to the visual resource.

Conclusion

Overall, the With-Action condition would be compatible with the urban design character and built conditions of the study area. The proposed building forms and design components introduced by the Proposed Project would be consistent with the existing buildings along Third Avenue and would provide a visual transition between lower densities to the west and higher densities to the south and east of the Project Area. The Proposed Project would provide infill development on currently underutilized lots, facilitating a more active project block and continuous streetwall along Third Avenue compared to the No-Action condition. The proposed buildings' design would respect and complement the existing character of the Boerum Hill Historic District Extension and would not obstruct views to this visual resource within the study area. Therefore, the Proposed Actions would not result in a significant adverse impact on urban design and visual resources, and no further analysis is necessary.

9

Hazardous Materials

This section assesses whether the Proposed Actions may increase the exposure of people or the environment to hazardous materials, and, if so, whether this increased exposure would result in potential significant public health or environmental impacts.

Introduction

A hazardous material is any substance that poses a threat to human health or the environment. Substances that can be of concern include, but are not limited to, heavy metals, volatile and semi-volatile organic compounds, methane, polychlorinated biphenyls (PCBs), and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive or toxic).

According to the *2021 CEQR Technical Manual*, the potential for significant impacts from hazardous materials can occur when:

- hazardous materials exist on a site;
- an action would increase pathways to their exposure; or
- an action would introduce new activities or processes using hazardous materials.

As indicated in the *CEQR Technical Manual*, the hazardous materials (E) designation is an institutional control that may be placed on a site to establish a hazardous materials review

and approval framework. It provides a mechanism to ensure that testing for and remediation of hazardous materials, if necessary, are completed prior to future development of an affected site, thereby eliminating the potential for a hazardous materials impact. (E) designated parcels are administered under the authority of the New York City Mayor's Office of Environmental Remediation (OER).

This section presents the findings of the hazardous materials assessment and identifies potential issues of concern with respect to workers, the community, and/or the environment during construction and after implementation of the Proposed Actions.

Methodology

As indicated in **Part I: Project Description**, the Proposed Actions would include a rezoning of Lots 1, 8, 9, 11, 12, 19, 31, 34 - 38, 41, 42, 51, 52, and 58 on Brooklyn Block 388 (the "Project Area"). The Proposed Actions would result in the construction of four buildings on Projected Development Site 1 (Block 388 Lots 19, 42, and 51) ranging from three to nine stories in height with a mix of residential, retail, and community facility uses. Projected Development Site 1 is owned by the Applicant. Potential Development Site A (Block 388 Lot 1) is assumed to be redeveloped with eight-story residential building accommodating 74 dwelling units. Finally, Potential Development Site B (Block 388 Lots 34, 35, 36, 37, and 41) is assumed to be redeveloped with a ten-story building accommodating 49 residential units and ground-floor retail space. The Applicant, through its affiliate Ulano, has leased Potential Development Sites A and B from the City of New York since 1973. Pursuant to the existing lease, the Applicant, through its affiliate Ulano, will control Lots 1, 34, 35, 36, 37, and 41 through 2063.

The analysis provided below was performed for the Project Area to determine the potential for significant adverse impacts related to hazardous materials as a result of the Proposed Actions.

Projected Development Site 1 & Potential Development Sites A and B

The potential for hazardous materials was evaluated for Projected Development Site 1, and Potential Development Sites A and B in the following environmental documents:

- *Phase I Environmental Site Assessment* for Projected Development Site 1, prepared by Matrix New World Engineering, Land Surveying and Landscape Architecture, P.C. (Matrix), dated August 2018.
- *Phase I Environmental Site Assessment* for Potential Development Sites A and B, prepared by Matrix, dated August 2018.

The Phase I ESAs were prepared in accordance with the American Society for Testing and Materials (ASTM) Practice E1527-13, inclusive of the "All Appropriate Inquiry" requirement amended in the Federal Register on December 30, 2013. The United States Environmental Protection Agency (EPA) "All Appropriate Inquiry" requirement establishes specific regulatory requirements for conducting appropriate inquiries into the previous ownership, uses, and environmental conditions of a property for the purposes of qualifying for certain landowner liability protections under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

The goal of a Phase I ESA process is to identify "Recognized Environmental Conditions" (RECs), which means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. As stated in Practice E1527-13, there may be environmental issues or conditions at the site, which may be requested by the user to be addressed as part of the Phase I ESA, which are not covered within the Practice. These additional environmental issues (or non-scope considerations) could evaluate for the potential presence of radon, lead-based paint (LBP), asbestos-containing materials (ACM), wetlands, and mold and water damage. Additional environmental issues, or non-scope considerations, are typically characterized in a Phase I ESA as Business Environmental Risks (BERs), which are risks that can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated.

Per the ASTM Standard, a Phase I ESA reviews a variety of information sources, including current and historic Sanborn Fire Insurance Maps and aerial photographs; state and federal environmental regulatory databases identifying listed sites; and local environmental records. The Phase I ESA summarized herein also included reconnaissance of Projected Development Site 1 as well as Potential Development Sites A and B, and the surrounding neighborhood.

Preliminary Assessment

Existing Conditions

Projected Development Site 1 & Potential Development Sites A and B

Phase I Environmental Site Assessment, Projected Development Site 1

The Phase I ESA prepared by Matrix, dated August 2018, was completed for Projected Development Site 1 and included analyses as specified in the ASTM Method E1527-13. The goal of the Phase I ESA process is to identify RECs, which means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. Per the current ASTM Standard, the Phase I ESA reviewed a variety of information sources, including current and historic Sanborn Fire Insurance Maps and aerial photographs; state and federal environmental regulatory databases identifying listed sites; and local environmental records.

The following is a summary of relevant findings and conclusions of the Phase I ESA:

- Projected Development Site 1 consists of the following three parcels and improvements:
  - 280 Bergen Street: 39,992 square foot (sf) screen-printing manufacturing building with an asphalt-paved parking lot.
  - 287 Wyckoff Street: a one-story office building.

- 276 Wyckoff Street: a vacant parcel.

› Projected Development Site 1 contained a mix of residential dwellings and commercial properties for a period of time prior to 1915, when the R.F. Stevens Milk Co. inhabited the building at 280-284 Bergen Street, with the remainder of Projected Development Site 1 remaining residential/commercial uses. By 1938, Bordens Farm Products Co. had taken over the previous Milk facility and by 1950, further expanded to 276-298 Bergen Street. According to information provided by the owner, by 1969, the Projected Development Site 1 was acquired by Diagravure Film Corporation and Bordens Farm Products Co. reportedly vacated the site. The company was eventually renamed Ulano Corporation and the remainder of the lots were either vacant (265 and 273 Wyckoff Street) or mixed-use (residential dwellings, commercial spaces or surface parking). In 1982, the existing warehouse was constructed at 264-274 Bergen Street and Projected Development Site 1 was at its current configuration.

› Depth-to-groundwater beneath the site is presumed to be approximately 10 feet below grade surface (bgs) and likely flows to the southwest, toward the Gowanus Canal.[1]

› Projected Development Site 1 was identified on the Resource Conservation and Recovery Act (RCRA) Conditionally Exempt Small Quantity Hazardous Waste Generator (CESQG) for the generation of various hazardous wastes and five resolved violations. Projected Development Site 1 was similarly identified with several manifest listings associated with the generation of hazardous waste attributed to on-site uses.

› Projected Development Site 1 was identified on the NYSDEC Petroleum Bulk Storage Underground Storage Tank (PBS-UST) database which indicated eight (8) former gasoline USTs that were removed on December 1, 1993, and two (2) closed-in-place USTs. One of the two USTs containing fuel oil was closed-in-place on February 9, 2018 and the second UST (contents unspecified) was also closed-in-place at an unspecified date.

› One spill incident was identified for Projected Development Site 1. NYSDEC Spill No. 97-13764 was assigned on March 12, 1998 due to a tank test failure. The spill was closed on May 18, 1998.

› An off-site release (Spill No. 14-06201) identified from the adjacent gasoline filling station (98 Third Avenue). Contamination resulting from this release has the potential to encroach onto Projected Development Site 1.

› An off-site dry cleaning facility (Fashion Cleaners, 118 Third Avenue) was identified approximately 0.026 mile southeast of Projected Development Site 1. This facility was identified with the potential to have impacted subsurface conditions at Projected Development Site 1.

› Various chemicals related to screen printing manufacturing were observed to be stored in 55-gallon drums, buckets and totes within the interior portions of the site reconnaissance. Visual staining was present on the floors proximate to the drum, bucket and tote storage areas. No evidence of hazardous substances was observed at exterior areas during the site reconnaissance.

[1] It should be noted the Phase I ESA for Projected Development Site 1 indicates the Gowanus Canal and groundwater flow direction to the southeast. However, the Gowanus Canal is located southwest of Projected Development Site 1. As such, groundwater was presumed to flow to the southwest as it relates to the Phase I ESA.

- No evidence of aboveground storage tanks (ASTs) was observed during the site reconnaissance. However, a fill and vent line were observed on the portion of the building located on Bergen Street, which was attributed to an abandoned-in-place UST.
- Sanitary wastes generated at Projected Development Site 1 discharge to the municipal sewer.
- One stormwater collection basin was observed in the rear parking lot (Block 388, Lot 19). One dry well was observed on Block 388, Lot 51 (273 Wyckoff Street). Two area drains were observed at the loading dock area.
- A retention pit is present in the on-site building for the collection of wastewater from gelatin production. The wastewater is collected as non-hazardous waste and disposed off-site by a third party.
- Floor drains observed discharge to the retention area. As previously indicated, the contents of the retention pit are collected as non-hazardous waste and disposed off-site by a third party.
- No generation of solid waste/disposal or dumpsters were observed during the site reconnaissance.
- Bags of fertilizer were observed along the rear western corner of Block 388, Lot 51 (273 Wyckoff Street) during the site reconnaissance.
- One (1) sidewalk transformer vault was observed in the sidewalk along Bergen Street.
- Multiple laboratories were observed on the second floor with chemical storage relating to screen printing processes. The chemicals were observed to be stored in proper, good condition with no evidence of leaks or release.

Based upon the findings of the Phase I ESA, the following RECs, historic recognized environmental conditions (HRECs) and *de minimis* conditions were identified for Projected Development Site 1:

- REC-1: Chemical Storage in Drums/Totes and Staining on Interior Concrete Floor and Around Floor Cracks. Due to the large volume and long-term storage of drums, buckets and totes without spill containment, there is a potential for release. Staining was also observed in support of this conclusion.
- REC-2: Adjacent Gasoline Filling Station. Records revealed the adjacent property to the east (98 Third Avenue) has historically been a gasoline filling station since at least 1969. Historic auto repair was also identified on this parcel. The site is currently a Shell gasoline station with an active NYSDEC spill incident (Spill No. 14-06201), which was assigned to the site as a result of a Phase II ESA, which revealed the presence of soil, groundwater and soil vapor contamination due to current and historic operations. Groundwater flow was confirmed to flow to the north toward the eastern corner of Projected Development Site 1 and correspondence to NYCDEP in the Phase II ESA indicated groundwater contamination extends past the boundaries of the site. Remedial action associated with this site is proposed under the NYC VCP under a RAWP which would delineate off-site groundwater contamination in the direction of Projected Development Site 1.
- REC-3: Fill Material and Former Structures. Historic resources including aerial photographs and Sanborn maps indicate dwellings, stores and factories were previously

located at Projected Development Site 1 prior to the current warehouse configuration. As such, the potential for demolition debris to have been disposed on-site was identified. Fill material, if present, has a potential to be contaminated with lead, asbestos and other typical fill material contaminants including polycyclic aromatic hydrocarbons (PAHs), PCBs, metals, etc.

- REC-4: Off-Site Dry Cleaner. Fashion Cleaners was identified at 118 Third Avenue. The site was listed for the generation of hazardous waste in connection with dry cleaning activities and was identified with the potential to have affected subsurface conditions at Projected Development Site 1.
- REC-5: Former Gasoline Tank. Historic Sanborn maps indicated the presence of a gasoline tank within the northeastern portions of the manufacturing building from 1969 through at least 2007. The gasoline tank was located within the same general location as the 10,000-gallon fuel oil UST that was removed in 2018. Available information could not determine whether Sanborn map depictions were actually in reference to the fuel oil UST, or if a gasoline tank may still be present.
- REC-6: Vapor Encroachment Condition (VEC). A VEC could not be ruled out at Projected Development Site 1 due to the documented contamination at an upgradient gasoline filling station, as well as various upgradient industrial facilities.

In addition to the above-listed RECs, the following HREC and *de minimis condition* were identified for Projected Development Site 1:

- HREC-1: Former USTs/Closed Spill. All ten (10) USTs at Projected Development Site 1 have either been removed or abandoned-in-place to the satisfaction of NYSDEC. This includes eight (8) 550-gallon gasoline USTs removed on December 1, 1993, one (1) 10,000-gallon No. 2 fuel oil UST closed-in-place on February 9, 2018 and one (1) 2,000-gallon UST closed-in-place on an unknown date. One (1) closed spill incident, Spill No. 97-13764, was assigned to a release associated with a tank test failure on March 12, 1998. The spill was subsequently closed on May 18, 1999.
- *De minimis* condition 1: Household refuse and litter in empty lot and parking lots. In addition, bags of fertilizer were located on the empty parcel (273 Wyckoff Street; Block 388 Lot 51) near the stormwater collection basin.

Several "other findings" were identified in the Phase I ESA. These "other findings" were not considered RECs and were based on information provided during the records review and site reconnaissance. These "other findings" identified site features and certain nearby uses within 0.1 miles and a higher topographic elevation, which could have a potential impact to Projected Development Site 1 in the event of an off-site release:

- Several historic auto repair facilities were identified within one-eighth mile of Projected Development Site 1. Given the relative proximity, there is a potential for contaminants from these facilities to have migrated to Projected Development Site 1.
- Two historic dry-cleaning facilities were identified within 0.10 mile of Projected Development Site 1.
- A dry well observed on the vacant parcel (Block 388, Lot 51) discharges directly to the subsurface. The age and purpose of the dry well is unknown but could be a conduit to the subsurface in the event of a release.

Phase I Environmental Site Assessment, Potential Development Sites A & B

The Phase I ESA prepared by Matrix, dated August 2018, was completed for Potential Development Sites A and B, and included analyses as specified in the ASTM Method E1527-13. The following is a summary of relevant findings and conclusions from the Phase I ESA:

- Potential Development Site A consists of the following parcel and improvements:
  - 153 Nevins Street (Block 388 Lot 1): an asphalt-paved parking lot.
- Potential Development Site B consists of the following five parcels and improvements:
  - 289 Wyckoff Street (Block 388 Lot 41): a one-story accessory office building.
  - 110 Third Avenue (Block 388 Lots 34, 35, 36 and 37): an asphalt-paved parking lot.
- A history of Potential Development Site A (Block 388 Lot 1) was established back to 1886, when the site previously consisted of residential dwellings and stores until at least 1950, when the majority of the structures were demolished and the majority of the parcel became vacant, with one remaining commercial structure on the southwestern portions. Between 1950 and 1969, the remaining structure on Potential Development Site A was demolished, and the site was at its current configuration and utilized for parking.
- A history of Potential Development Site B (Block 388 Lot 41; Block 388 Lots 34, 35, 36 and 37) was established back to 1886, when the site consisted of residential dwellings and stores until at least 1950. Between 1950 and 1969, the dwellings and stores on the eastern portions of the site were demolished and these portions of the site were suspected to be used for parking. Lot 41 was previously improved with a dwelling from 1886 through at least 1938. The use of this parcel changed at some point between 1938 and 1950, when the site was utilized as a factory from 1950 to at least 2007. A one-story administrative building is currently present on Lot 41 which also occupies the adjacent Lot 42.
- Potential Development Site A is a 12,000-sf asphalt-paved parking lot with two catch basins and an electric fence. At the time of the Phase I ESA, Potential Development Site A was used for parking.
- Potential Development Site B is improved with a 2,000-sf one-story office building (Block 388 Lot 41) that is accessible from the parking lot along Third Avenue. The remaining portion of Potential Development Site B (Block 388 Lots 34, 35, 36 and 37) is a 5,200-sf parking lot with one catch basin that drains to the street. The parking lot is enclosed with an electric gate.
- Depth-to-groundwater beneath Potential Development Sites A and B is presumed to be approximately 10 feet below grade surface (bgs) and presumably flows to the southwest, toward the Gowanus Canal.[2]
- Neither Potential Development Site A nor Potential Development Site B are listed on any regulatory agency database listings in the EDR report provided in the Phase I ESA.
- Three (3) stormwater catch basins were observed during the site reconnaissance. Two (2) catch basins were observed on Potential Development Site A and one (1) observed on Potential Development Site B. Catch basins on Potential Development Site B reportedly

[2] Although the Phase I ESA indicates groundwater flow to the southeast, the Gowanus Canal is present to the southwest of both Potential Development Sites A and B. As such, groundwater was presumed to flow to the southwest.

discharge to the storm sewer. No floor drains or other points of discharge were observed on Potential Development Sites A and B.

- Current and historic sanitary wastes generated at both Potential Development Sites discharge to the New York City municipal sewer system.
- No evidence of petroleum or chemical underground or aboveground storage tanks was observed during the Phase I ESA site reconnaissance.
- No evidence of hazardous waste generation, storage or disposal was identified on Potential Development Sites A and B during the Phase I ESA site reconnaissance.
- No transformers or other equipment with the potential to be equipped with PCB-containing hydraulic or dielectric fluids was observed during the Phase I ESA site reconnaissance.

Based upon the results of the Phase I ESA, it was determined that there were site-specific RECs identified for both Potential Development Site A and Potential Development Site B. These RECs are summarized as follows:

- REC-1 (specific to Potential Development Site B): Former Chemical Manufacturing Facility On-Site (Block 388 Lot 41). Based on a review of EDR City Directory Records, a chemical manufacturing facility under the names Sanikem Chemical and Sanipro Chemical was identified on Lot 41 of Potential Development Site B as early as 1960 through at least 1965. The parcel was also identified as factory/manufacturing on historic Sanborn Fire Insurance Maps from 1950 through 2007. The former storage, handling and manufacturing of chemicals in the building, which still exists, represents an REC for Potential Development Site B with the potential to have affected subsurface conditions.
- REC-2 (specific to Potential Development Site B): Adjacent Gasoline Station. The adjacent parcel to the north/northeast of Potential Development Site Bwas historically a gasoline filling station since at least 1969 and currently operates as a Shell gasoline station with an active NYSDEC release (NYSDEC Spill No. 14-0621). The site was also listed as an historic automobile service station from 1969 to 1970 and from 1992 to 1999. A Phase II ESA conducted at the Shell Station in April 2014 indicated soil, groundwater and soil vapor contamination at the site. The Phase II ESA further indicated groundwater contamination extends beyond the boundaries of the gasoline station parcel and requires delineation. The adjacent gasoline station site was enrolled in the NYC VCP and a RAWP was prepared, which proposes off-site delineation in the direction of groundwater flow, which could impact off-site/adjacent parcels including Potential Development Site B and Projected Development Site 1.
- REC-3: Adjacent Ulano Facility (specific to both Potential Development Sites A and B). Ulano, formerly the Diagravure Film Corporation, has operated a manufacturing facility at 280 Bergen Street (also known as Projected Development Site 1; see previous analysis relating to on-site conditions for this portion of the Project Area)since at least 1965. Long-term history of manufacturing related to the screen printing industry, the storage/use of chemicals, as well as a history of petroleum and gasoline storage tanks and associated NYSDEC spill incidents at this facility has the potential to have affected subsurface conditions at Potential Development Sites A and B.
- REC-4: Off-Site Dry Cleaners (specific to Potential Development Site B). Fashion Cleaners was located at 118 Third Avenue from 1997 to 2002. This facility was identified as an RCRA hazardous waste generator relating to the former dry cleaning operation. Given

the close proximity, there is a potential for this facility to have affected subsurface conditions at Potential Development Site B.

- REC-5: Fill Material and Former Structures (specific to both Potential Development Sites A and B). Site history for both Potential Development Sites A and B indicate former residential dwellings on Potential Development Site A, which were demolished between 1938 and 1950, and two (2) stores and a residential dwelling on Potential Development Site B, which were demolished between 1951 and 1969. Given the development history, there is potential for demolition debris to have disposed on both Potential Development Sites A and B. Therefore, historic/urban fill material have the potential to be present and contain contaminants that are typical of this type of material (i.e., asbestos, SVOCs, metals and PCBs).
- REC-6: VEC (specific to both Potential Development Sites A and B). Based upon a review of surrounding property uses including industrial facilities, a VEC could not be ruled out.

Future No-Action Condition

In the future No-Action condition, the existing manufacturing facility on Projected Development Site 1 would be demolished and the site would be redeveloped as a six-story building containing a mix of office, retail, and community facility space with parking. Regulatory requirements for asbestos, LBP and PCBs would be followed as part of standard demolition procedures. Furthermore, regulatory requirements relating to any USTs, if encountered, would be followed including following proper registration and removal protocols in accordance NYSDEC and New York City Fire Department (FDNY) procedures. However, an (E) Designation would not be applied to Potential Development Site 1 and regulatory oversight by OER would not be provided for the investigation and mitigation of potential subsurface contamination from on- and off-site sources.

Under the No-Action condition, Potential Development Sites A and B would remain under City ownership, and the Applicant would retain a leasehold interest in each. Therefore, these sites would continue to be used as accessory parking, with 48 attended/stacker parking spaces accommodated on Potential Development Site B and 77 attended/stacker parking spaces accommodated on Potential Development Site A.

Notwithstanding the above, under the No-Action condition, regulatory requirements pertaining to the disturbance and handling of any LBP, ACM and PCB-containing building materials, if any, would be followed as part of standard demolition and site redevelopment practices for each of the Projected and Potential Development Sites.

Future With-Action Condition

The future With-Action condition would result in the construction of four buildings on Projected Development Site 1 ranging from three to nine stories in height with a mix of residential, retail, and community facility uses. Potential Development Site A is assumed to be redeveloped as a eight-story residential building accommodating 74 dwelling units. Finally, Potential Development Site B is assumed to be redeveloped as a nine-story building accommodating 48 residential units and ground-floor retail space.

Based upon a review of environmental documentation, potential on- and/or off-site sources of contamination were identified for each of the Projected and Potential Development Sites . Projected Development Site 1 currently contains a large (50,000 gsf) one-story footprint manufacturing building, with a small two-story section at its eastern edge along Bergen Street. The building is still an operational business with active uses and employees. Therefore, site constraints prevent adequately characterizing the subsurface while the building is still in-place with the active business use. To address these conditions during proposed and potential future site redevelopment, the Proposed Actions would include an (E) Designation for hazardous materials (E-682), which would be applied to Projected Development Site 1 (Block 388 Lots 19, 42 and 51). Applying an (E) Designation provides a mechanism for regulatory oversight for future remedial action as a pre-construction requirement that would reduce or eliminate the potential for future risk or exposure as it relates to hazardous materials to the maximum extent practicable. Compliance in association with the hazardous materials (E) Designation on Projected Development Site 1 would be conducted under the administration of OER.

The (E) Designation process generally begins with the evaluation of RECs and/or areas of concern (AOCs) that may require additional investigation based upon the results of a Phase I ESA. Any potential RECs or AOCs identified would follow the (E) Designation protocol for additional investigation and potential remedial action. (E) Designation compliance will utilize information from the existing Phase I ESA for Projected Development Site 1 to the maximum extent practicable.

The applicable text for the (E) Designation (E-682) to be applied to Brooklyn Block 388, Lots 19, 42, and 51 would be as follows:

Task 1: Sampling Protocol

Prior to construction, the applicant submits to OER, for review and approval, a Phase II Investigation protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented.

No sampling should begin until written approval of a protocol is received from OER. The number and location of sample sites should be selected to adequately characterize the site, the specific source of suspected contamination (i.e., petroleum-based contamination and 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 the 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 the test results, a proposed Remedial Action Work Plan (RAWP) must be submitted to OER for review and approval. The applicant must complete

such remediation as determined necessary by OER in accordance with the approved RAWP. The applicant should then provide proper documentation that remedial action has been satisfactorily completed.

An OER-approved construction-related Health and Safety Plan (CHASP) would be implemented during excavation and construction and activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil and/or groundwater. This plan would be submitted to OER for review and approval prior to implementation.

Similar to Projected Development Site 1, potential on- and/or off-site sources of contamination were identified for Potential Development Sites A and B. To address these conditions during future site redevelopment, similar requirements to those associated with the (E) Designation protocols would be instituted on Potential Development Site A (Block 388, Lot 1) and Potential Development Site B (Block 388, Lots 34, 35, 36, 37 and 41), which are City-owned. Subsurface testing in accordance with an agency-approved protocol will be required and an agency-approved RAWP will be required through a future Land Disposition Agreement (LDA) or similar binding mechanism between the City of New York and a future developer.

In addition to the above, regulatory requirements relating to ACM, LBP and PCB-containing building materials would be followed on Projected Development Site 1 and Potential Development Sites A and B as part of standard demolition and site redevelopment practices.

Conclusion

Based upon a review of environmental documentation, potential on- and/or off-site sources of subsurface contamination were identified for Projected Development Site 1 and Potential Development Sites A and B. Projected Development Site 1 currently contains a large footprint manufacturing. The building is still an operational business with active uses and employees. Therefore, site constraints prevent adequately characterizing the subsurface while the building is still in-place with the active business use. To address these conditions for any future redevelopment of Projected Development Site 1, the Proposed Actions would include an (E) Designation for hazardous materials (E-682) which would be applied to Projected Development Site 1 (Block 388 Lots 19, 42 and 51). Applying an (E) Designation provides a mechanism for regulatory oversight by OER as a pre-construction requirement that would reduce or eliminate the potential for future risk or exposure as it relates to hazardous materials to the maximum extent practicable. The implementation of the preventative and remedial measures required under the (E) Designation would avoid the potential for significant adverse hazardous materials impacts to the subsurface due to the Proposed Actions through the development and implementation of OER-approved RAWPs and CHASPs for each respective site. Similar requirements to those associated with the (E) Designation protocols would be instituted on Potential Development Site A (Block 388, Lot 1) and Potential Development Site B (Block 388, Lots 34, 35, 36, 37 and 41), both of which are City-owned. Subsurface testing in accordance with an agency-approved protocol will be required and an agency-approved RAWP will be required through a future Land Disposition Agreement (LDA) or similar binding mechanism between the City of New York and a future developer.

In addition, regulatory requirements pertaining to the disturbance and handling of any LBP, ACM and PCB-containing building materials, if any, would be followed as part of standard demolition and site redevelopment practices on Projected Development Site 1 and Potential Development Sites A and B. As such, implementation of the Proposed Actions would not result in significant adverse impacts related to hazardous materials.

10

Transportation

The objective of the transportation analysis 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, cyclists, and motorists), and on- and off-street parking.

Introduction

The Proposed Actions would facilitate the development of four buildings (Projected Development Site 1) consisting of a mix of residential, retail, and community facility uses. The Project Area is located in the Boerum Hill section of Brooklyn, on a block bounded by Bergen Street to the north, Third Avenue to the east, Wyckoff Street to the south, and Nevins Street to the west. Overall, the Proposed Project (i.e., the With-Action condition) would be developed with approximately 302 residential dwelling units (DUs), 9,680 gross square feet (gsf) of commercial retail use, 10,000 gsf of medical office use, and 125 on-site parking spaces. Parking would be provided for two of the four buildings to be developed (*Sycamore Place* and *Linden Place*); site access/egress for vehicle parking would be provided on Bergen Street.

Absent the Proposed Actions (i.e., the No-Action condition), Projected Development Site 1 would be redeveloped as one building with a mix of commercial and community facility uses (approximately 90,424 gsf of office use, 15,113 gsf commercial retail use, and 20,812 gsf of medical office) with 425 attended/stacked parking spaces. The Project Area and Projected Development Site 1 is shown in **Figure 10-1.**

Figure 10-1 Project Area Map

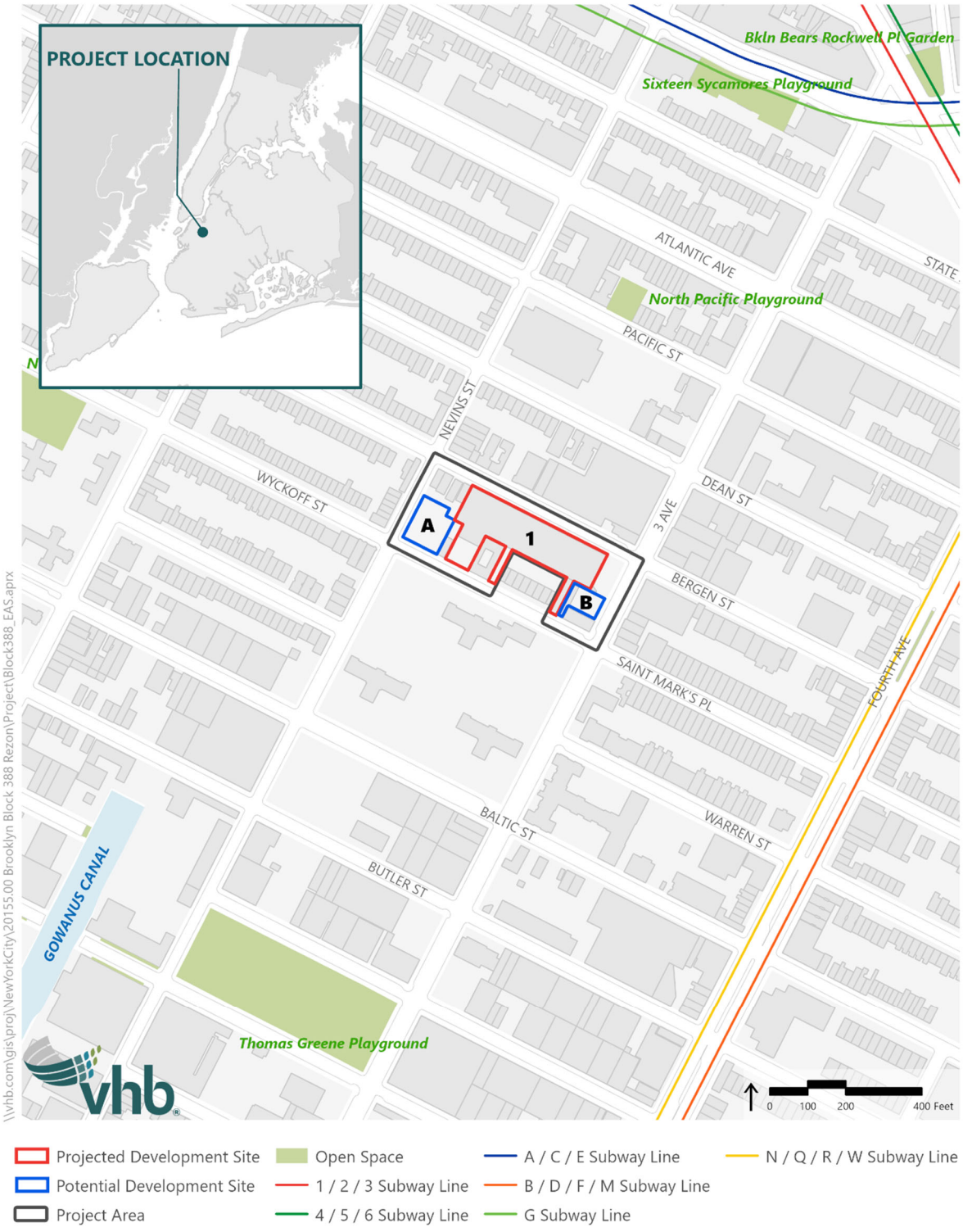


Table 10-1 provides a comparison of the total development under the With-Action and No-Action conditions and shows the resulting net increment of uses (With-Action condition minus the No-Action condition).

Table 10-1 Development Increment for Analysis

Use	No-Action Condition	With-Action Condition	Increment for Analysis
Residential	0 units	302 units	+ 302 units
Local Retail	15,113 gsf	9,680 gsf	- 5,433 gsf
Office	90,424 gsf	-	- 90,424 gsf
Medical Office	20,812 gsf	10,000 gsf	- 10,812 sf
Parking	425 spaces	125 spaces	-300 spaces

Methodology

According to the *2021 CEQR Technical Manual* procedures for transportation analysis, a two-tiered screening process is to be undertaken to determine whether a quantified analysis is necessary. The first step, the Level 1 (Trip Generation) screening, determines whether the volume of peak hour person and vehicle trips generated by the Proposed Actions would remain below the minimum thresholds for further study.

These thresholds are:

- 50 peak hour vehicle trip ends;
- 200 peak hour subway/rail or bus transit riders;
- 50 peak hour city-wide ferry riders;
- 200 peak hour pedestrian trips.

If the Proposed Actions result in increments that would exceed any of these thresholds, a Level 2 (Trip Assignment) screening assessment is usually performed. Under this assessment, project-generated trips that exceed Level 1 thresholds are assigned to and from the projected development sites through their respective networks (streets; bus, subway and rail lines, ferry stops, sidewalks, etc.) based on expected origin-destination patterns and travel routes. This determines the volume of peak hour vehicle traffic that would be added per intersection, the volume of riders that would be added per transit option (subway line, commuter rail line, bus route, or ferry route), and the walk trips that would be added per individual pedestrian network element (crosswalk, corner reservoir area, etc.). If the Level 2 screening assessment determines that any specific traffic location, transit line/route or station element, or pedestrian network element would experience an increase of trips beyond the above thresholds for any peak hour, then a detailed analysis is typically warranted.

Level 1 (Trip Generation) Screening Assessment

The travel demand factors used to calculate the projected number of trips were obtained primarily from *the 2021 CEQR Technical Manual*, information provided by the New York City Department of Transportation (NYCDOT), American Community Survey (ACS) journey to

work data, and information from recently approved New York City environmental impact studies such as the *300 Huntington Street EAS (2019)* and *East New York Rezoning Proposal FEIS (2016)*. **Table 10-2** provides the travel demand assumptions used for the weekday AM, midday, PM, and Saturday midday peak hours.

Residential

Residential use trip generation rates of 8.18 and 9.08 daily person trips per dwelling unit for the weekday and Saturday, respectively, were obtained from the *2021 CEQR Technical Manual*. Temporal distributions of 9.3 percent, 5.6 percent, 8.5 percent, and 8.4 percent for the weekday AM, midday, PM, and Saturday midday peak hours, respectively, were also obtained from the *2021 CEQR Technical Manual*. The weekday and Saturday modal splits of 6.4 percent by auto, 1.2 percent by taxi, 3.7 percent by bus, 74.0 percent by subway, and 14.7 percent by walk were based on 2015 – 2019 ACS journey-to-work data for census tracts 39, 71, 119, 127, 129.01, and 131. Vehicle occupancies of 1.10 persons by auto and 1.30 person by taxi were based on ACS journey-to-work data and data provided in the *East New York Rezoning Proposal FEIS (2016)*, respectively. The directional distributions of 22 percent "in", 50 percent "in", 63 percent "in" and 51 percent "in" were used for the weekday AM, midday, PM, and Saturday midday peak hours, respectively, and were based on the *2021 CEQR Technical Manual*.

For residential delivery trips, trip generation rates of 0.06 and 0.02 daily truck trips per 1,000 sf for the weekday and Saturday peak hours were obtained from the *2021 CEQR Technical Manual*. Temporal distributions of 12 percent, 9 percent, 2 percent, and 9 percent for the weekday AM, midday, PM, and Saturday midday peak hours, respectively, were also obtained from the *2021 CEQR Technical Manual*.

Local Retail

For the local retail use, trip generation rates, modal splits, and temporal and directional distributions were obtained from the *2021 CEQR Technical Manual*. The trip generation rates used were 329 and 358 person trips per 1,000 sf for weekdays and Saturdays, respectively. Temporal distributions of 4.8 percent, 8.0 percent, 10.9 percent, and 11.7 percent during the weekday AM, midday, PM, and Saturday peak hours, respectively, were assumed. The directional distributions of 53 percent "in" for the weekday AM peak hour and 50 percent "in" for the weekday midday, weekday PM, and Saturday peak hours were also assumed. The weekday and Saturday modal splits used were 11 percent by auto, 2 percent by bus, 3 percent by subway, and 84 percent by walk. Vehicle occupancies of 2.00 persons by auto and taxi were obtained from the *300 Huntington Street EAS (2019)*.

For local retail delivery trips, daily trip generation rates of 0.35 and 0.04 daily truck trips per 1,000 sf were used for the weekday and Saturday. Temporal distributions of 8 percent, 11 percent, 2 percent, and 11 percent were used for the weekday AM, midday, PM, and Saturday midday peak hours, respectively. Both the trip generation rates and temporal distributions were obtained from the *2021 CEQR Technical Manual*.

Table 10-2 Travel Demand Characteristics

Daily Trip Generation Rates	Residential	Local Retail	Office	Medical Office
Person Trip Gen Rate (Weekday/ Saturday)	8.18/9.08[1] per unit	329/358[1] per 1,000 SF	18/3.9[1] per 1,000 SF	74.6/37[1] per 1,000 sf
Linked Trip Credit	0%	0%	0%	0%
Temporal Distribution				
Weekday AM Peak	9.3%[1]	4.8%[1]	12.4%[1]	11.0%[1]
Weekday Midday Peak	5.6%[1]	8.0%[1]	11.0%[1]	12.6%[1]
Weekday PM Peak	8.5%[1]	10.9%[1]	10.5%[1]	8.5%[1]
Saturday Midday Peak	8.4%[1]	11.7%[1]	14.1%[1]	16.6%[1]
Modal Split (Weekday/Saturday)			All other times / Weekday Midday	
Auto	6.4%[2]	11%[1]	28.7% / 2%[4]	22%[1]
Taxi	1.2%[2]	0%[1]	4.9% / 1%[4]	4%[1]
Bus	3.7%[2]	2%[1]	12.7% / 7%[4]	13%[1]
Subway	74.0%[2]	3%[1]	32.1% / 7%[4]	13%[1]
Walk	14.7%[2]	84%[1]	21.6% / 83%[4]	48%[1]
Vehicle Occupancy (Weekday/Saturday)				
Auto	1.10[2]	2.00[4]	1.42[4]	1.50[5]
Taxi	1.30[3]	2.00[4]	1.42[4]	1.50[5]
Directional Split (In/Out)				
Weekday AM Peak	22%/78%[1]	53% / 47%[1]	89% / 11%[1]	62% / 38%[1]
Weekday Midday Peak	50%/50%[1]	50% / 50%[1]	48% / 52%[1]	47% / 53%[1]
Weekday PM Peak	63%/37%[1]	50% / 50%[1]	17% / 83%[1]	35% / 65%[1]
Saturday Midday Peak	51%/49%[1]	50% / 50%[1]	50% / 50%[1]	49% / 51%[1]
Truck Trip Gen (Weekday/ Saturday)	0.06/0.02[1] *per unit*	0.35/0.04[1] *per 1,000 SF*	0.32/0.01[1] *per 1,000 SF*	0.29/0.29[3] *per 1,000 SF*
Truck Temporal Distribution				
Weekday AM Peak	12%[1]	8%[1]	10%[1]	3%[3]
Weekday Midday Peak	9%[1]	11%[1]	11%[1]	11%[3]
Weekday PM Peak	2%[1]	2%[1]	2%[1]	1%[3]
Saturday Midday Peak	9%[1]	11%[1]	11%[1]	0%[3]
Truck Trip Directional Split (In/out) - 50%/ 50%				

Source:

[1] *2021 CEQR Technical Manual*

[2] 2015 - 2019 American Community Survey journey to work data for Brooklyn census tracts 39, 71, 119, 127, 129.01, and 131

[3] *East New York Rezoning Proposal FEIS (2016)*

[4] *300 Huntington Street EAS (2019)*

[5] NYCDOT surveys

Office

For office use, trip generation rates, and temporal and directional distributions were obtained from the *2021 CEQR Technical Manual*. Trip generation rates of 18 and 3.9 person trips per 1,000 sf for the weekday and Saturday, respectively, and temporal distributions of 12.4 percent, 11.0 percent, 10.5 percent, and 14.1 percent during the weekday AM, midday, PM, and Saturday midday peak hours, respectively, were assumed. Directional distributions of 89 percent "in", 48 percent "in", 17 percent "in", and 50 percent "in" were used for the weekday AM, midday, PM, and Saturday midday peak hours, respectively.

Modal splits and vehicle occupancies were obtained from the *300 Huntington Street EAS (2019)*. Modal splits of 28.7 percent by auto, 4.9 percent by taxi, 12.7 percent by bus, 32.1 percent by subway, and 21.6 percent by walk were used for the weekday AM, PM, and Saturday midday peak hours. Modal splits of 2 percent by auto, 1 percent by taxi, 7 percent by bus, 7 percent by subway, and 83 percent by walk were used for the weekday midday peak hour. Vehicle occupancies of 1.42 persons by auto and taxi were used for all peak hours.

For office delivery trips, daily trip generation rates of 0.32 and 0.01 daily truck trips per 1,000 sf for the weekday and Saturday were obtained from the *2021 CEQR Technical Manual*. Temporal distributions of 10 percent, 1 percent, 2 percent, and 11 percent for the weekday AM, midday, PM, and Saturday midday peak hours, respectively, were also obtained from the *2021 CEQR Technical Manual*.

Medical Office

For the medical office use, trip generation rates, modal splits, and temporal and directional distribution were obtained from the *2021 CEQR Technical Manual*. The trip generation rates assumed were 74.6 and 37 person trips per 1,000 sf for the weekday and Saturday, respectively. The temporal distributions assumed were 11.0 percent, 12.6 percent, 8.5 percent, and 16.6 percent for the weekday AM, midday, PM, and Saturday midday peak hours. Directional distributions of 62 percent "in", 47 percent "in", 35 percent "in", and 49 percent "in" were used for the weekday AM, midday, PM, and Saturday midday peak hours, respectively. Modal splits of 22 percent by auto, 4 percent by taxi, 13 percent by bus, 13 percent by subway, and 48 percent by walk were used. Vehicle occupancies of 1.50 persons by auto and taxi were used for the four peak hours and were based on NYCDOT survey information.

For medical office delivery trips, daily trip generation rates of 0.29 daily truck trips per 1,000 sf and a temporal distribution of 3 percent, 11 percent, 1 percent, and 0 percent for the weekday AM, midday, PM, and Saturday midday peak hours, respectively, were based on the *East New York Rezoning Proposal FEIS (2016)*.

Level 1 Screening Results

The following presents the estimated number of project-generated person trips for the transit (bus and subway), walking, auto and taxi modes. As the Proposed Project is not located near a city-wide ferry stop, no project-generated ferry trips are anticipated.

Transit and Pedestrians

The total number of transit (bus and subway) or pedestrian person trips generated by the Proposed Project per analysis hour is provided in **Table 10-3** and would not be expected to exceed the *2021 CEQR Technical Manual* Level 1 screening thresholds for detailed analysis during any of the peak hours analyzed. The number of transit trips per peak hour (bus and subway) and pedestrian trips are summarized below:

- During the weekday AM peak hour, the project increment would result in a decrease of 30 bus trips, an increase of 91 subway trips, and a decrease of 65 pedestrian trips (walk plus bus and subway).
- During the weekday midday peak hour, the project increment would result in a decrease of 22 bus trips, an increase of 72 subway trips, and a decrease of 247 pedestrian trips (walk plus bus and subway).
- During the weekday PM peak hour, the project increment would result in a decrease of 27 bus trips, an increase of 85 subway trips, and a decrease of 145 pedestrian trips (walk plus bus and subway).
- During the Saturday midday peak hour, the project increment would result in a decrease of 10 bus trips, an increase of 141 subway trips, and a decrease of 69 pedestrian trips (walk plus bus and subway).

As the number of peak hour bus, subway, and pedestrian trips are not expected to exceed the *CEQR Technical Manual* Level 1 screening thresholds, a Level 2 trip assignment is not needed for any of these travel modes, and further detailed analyses are not warranted.

Table 10-3 Trip Generation Summary – Pedestrian Trips

	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
Mode	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Auto	-66	-6	-72	-16	-18	-34	-16	-57	-73	-19	-20	-39
Taxi	-10	-1	-11	-2	-2	-4	0	-7	-7	-2	-2	-4
Bus	-29	-1	-30	-10	-12	-22	-4	-23	-27	-5	-5	-10
Subway	-30	121	91	37	35	72	83	2	85	72	69	141
Walk	-97	-29	-126	-144	-153	-297	-80	-123	-203	-100	-100	-200
Total	**-232**	**84**	**-148**	**-135**	**-150**	**-285**	**-17**	**-208**	**-225**	**-54**	**-58**	**-112**

Traffic and Parking

Table 10-4 summarizes the total peak hour vehicular volumes ("ins" plus "outs") expected to be generated by the Proposed Project. The Proposed Project would result in incremental decreases during all four peak hours – a 58 vehicle per hour (vph) decrease during the weekday AM peak hour, a 26 vph decrease in the weekday midday peak hour, a 52 vph decrease in the weekday PM peak hour, and a 23 vph decrease in the Saturday midday peak hour. Since the volume of vehicle trips would be expected to decrease in the With-Action condition as compared to the No-Action condition and would not exceed the 50-vehicle threshold increase during any of the peak hours, a Level 2 trip assignment is not warranted, and no further analysis is needed.

Table 10-4 Trip Generation Summary – Vehicle Trips

	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
Mode	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Auto	-44	0	-44	-7	-9	-16	-8	-36	-44	-9	-10	-19
Taxi	-7	-7	-14	-4	-4	-8	-4	-4	-8	-2	-2	-4
Truck	0	0	0	-1	-1	-2	0	0	0	0	0	0
Total	**-51**	**-7**	**-58**	**-12**	**-14**	**-26**	**-12**	**-40**	**-52**	**-11**	**-12**	**-23**

Conclusion

The projected number of traffic, transit, and pedestrian trips generated by the Proposed Project would not exceed the transportation screening thresholds and, therefore, no further analysis is warranted. In fact, for the Proposed Project, traffic, transit, and pedestrian volumes would be significantly lower than in the No-Action condition during several periods for several modes. Therefore, significant traffic, transit and pedestrian impacts are not expected.

11

Air Quality

Ambient air quality, or the quality of the surrounding air, may be affected by air pollutants produced by motor vehicles, referred to as "mobile sources"; by fixed facilities, usually referred to as "stationary sources"; or by a combination of both. Under CEQR, an air quality assessment determines both a proposed project's effects on ambient air quality as well as the effects of ambient air quality on the project.

Introduction

As indicated in **Part I: Project Description**, the Proposed Actions would include a rezoning of Lots 1, 8, 9, 11, 12, 19, 31, 34 - 38, 41, 42, 51, 52, and 58 on Brooklyn Block 388 (the "Project Area"). Block 388 is bounded by Bergen Street to the north, Third Avenue to the east, Wyckoff Street to the south, and Nevins Street to the west. The Proposed Actions would facilitate the development of four proposed buildings on Projected Development Site 1 ranging from three to nine stories in height with a mix of residential, retail, and medical office uses. The four buildings would include *Sycamore Place*, a nine-story mixed use building with parking on the ground floor; *Linden Place*, a nine-story residential building with parking on the ground floor; and two three-story townhomes with a residential unit on each floor.

Potential Development Site A is assumed to be redeveloped with an eight-story residential building and Potential Development Site B is assumed to be redeveloped with a ten-story mixed-use building with residential space and ground-floor retail.

Potential air quality impacts of the Proposed Actions include potential impacts from the project-generated traffic and from the proposed buildings' heating, ventilation and air conditioning (HVAC) systems. Consistent with the *2021 CEQR Technical Manual*, the air quality analysis also includes potential impacts on the proposed buildings from nearby industrial sources and "large" and "major" sources (i.e., facilities with State and Title V air permits).

The key issues addressed in these analyses are the potential for:

- Emissions from the project-generated vehicular travel to significantly impact air quality near affected intersections;
- Emissions from the vehicle idling and moving in the parking garages of the proposed buildings to significantly impact existing and proposed land uses;
- Emissions from the HVAC systems of the proposed buildings to significantly impact existing and proposed land uses;
- Emissions from the large/major sources to impact the proposed buildings; and,
- Emissions from industrial and manufacturing facilities to impact the proposed buildings.

Air Quality Standards

Ambient air quality is affected by air pollutants produced by both motor vehicles and stationary sources. Emissions from motor vehicles are referred to as mobile source emissions, while emissions from fixed facilities are referred to as stationary source emissions. Ambient concentrations of carbon monoxide (CO) are predominantly influenced by mobile source emissions. Particulate matter (PM), volatile organic compounds (VOCs), and nitrogen oxides (nitric oxide (NO) and nitrogen dioxide (NO_2), collectively referred to as NO_x) are emitted from both mobile and stationary sources. Fine PM is also formed when emissions of NO_x, sulfur oxides (SO_x), ammonia, organic compounds, and other gases react or condense in the atmosphere. Emissions of sulfur dioxide (SO_2) are associated mainly with stationary sources, and some sources utilizing non-road diesel such as large international marine engines. On-road diesel vehicles currently contribute very little to SO_2 emissions since the sulfur content of on-road diesel fuel, which is federally regulated, is extremely low. Ozone is formed in the atmosphere by complex photochemical processes that include NO_x and VOCs.

In accordance with the requirements of the Clean Air Act (CAA), as amended in 1990, the U.S. Environmental Protection Agency (EPA) has promulgated National Ambient Air Quality Standards (NAAQS) (40 CFR part 50) for pollutants considered harmful to public health and the environment. The CAA established two types of national air quality standards. Primary standards set limits to protect public health, including the health of sensitive populations such as the sick, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

The EPA Office of Air Quality Planning and Standards (OAQPS) has set NAAQS for six principal pollutants, which are called "criteria" pollutants. These six pollutants are ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter less than 10 microns in aerodynamic diameter (PM_{10}) and less than 2.5 microns in aerodynamic diameter ($PM_{2.5}$), and lead (Pb). These standards are reviewed from time to time and may be revised.

The State of New York has adopted similar standards as those set by the EPA, and has state-specific standards for sulfur dioxide, particulates, fluorides, and hydrogen sulfide. The NAAQS are presented in **Table 11-1**.

Table 11-1 National Ambient Air Quality Standards

Pollutant	Primary/ Secondary	Averaging Level	Level	Form
Carbon Monoxide (CO)	Primary	8 hours	9 ppm	Not to be exceeded more than once per year
		1 hour	35 ppm	
Lead (Pb)	Primary and secondary	Rolling 3-month average	0.15 µg/m^3 [(1)]	Not to be exceeded
Nitrogen Dioxide (NO_2)	Primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Primary and secondary	1 year	53 ppb [(2)]	Annual mean
Ozone (O_3)	Primary and secondary	8 hours	0.070 ppm [(3)]	Annual fourth-highest daily maximum concentration, averaged over 3 years
Particulate Matter ($PM_{2.5}$)	Primary	1 year	12.0 µg/m^3	Annual mean, averaged over 3 years
	Secondary	1 year	15.0 µg/m^3	Annual mean, averaged over 3 years
	Primary and secondary	24 hours	35 µg/m^3	98th percentile, averaged over 3 years
Particulate Matter (PM_{10})	Primary and secondary	24 hours	150 µg/m^3	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO_2)	Primary	1 hour	75 ppb [(4)]	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year

Notes:

[(1)] In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m3 as a calendar quarter average) also remain in effect.

[(2)] The level of the annual NO2 standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.

[(3)] Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O3 standards additionally remain in effect in some areas. Revocation of the previous (2008) O3 standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current standards.

[(4)] The previous SO_2 standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2)any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO2 standards or is not meeting the requirements of a SIP call under the previous SO2 standards (40 CFR 50.4(3)). A SIP call is a USEPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the required NAAQS.

Source: EPA NAAQS Table, https://www.epa.gov/criteria-air-pollutants/naaqs-table, accessed March 2021

In addition to criteria pollutants, there are other toxic air pollutants not included by the EPA in the list of principal pollutants. Non-criteria pollutants are emitted by a wide range of man-made and naturally occurring sources. These pollutants are sometimes referred to as

hazardous air pollutants (HAP) and, when emitted from mobile sources, as Mobile Source Air Toxics (MSATs).

Federal ambient air quality standards do not exist for non-criteria pollutants; however, the New York State Department of Environmental Conservation (NYSDEC) has issued standards for certain non-criteria compounds, including beryllium, gaseous fluorides, and hydrogen sulfide. NYSDEC has also developed guidance document DAR-1 (August 2016), which contains a compilation of annual and short term (1-hour) guideline concentration thresholds for toxic non-criteria compounds. The NYSDEC's DAR-1 guidance thresholds represent ambient levels that are considered safe for public exposure. EPA has also developed guidelines for assessing exposure to non-criteria pollutants. These exposure guidelines are used in health risk assessments to determine the potential effects to the public.

Regulatory Context

The 1990 CAA with Amendments resulted in states being divided into attainment and non-attainment areas, with classifications based upon the severity of their air quality problems. Air quality control regions are classified and divided into one of three categories: attainment, unclassified, or non-attainment depending upon air quality data and ambient concentrations of pollutants. Attainment areas are regions where ambient concentrations of a pollutant are below the respective NAAQS; non-attainment areas are those where concentrations exceed the NAAQS. Maintenance areas are former non-attainment that achieved attainment. An unclassified area is a region where data are insufficient to make a determination and is generally considered as an attainment area for administrative purposes. A single area can be in attainment of the standards for some pollutants while being in non-attainment for others. When an area is designated as non-attainment by EPA, the state is required to submit a State Implementation Plan (SIP) which outlines the plan to achieve conformity with the NAAQS and a follow-up plan for maintaining the attainment status.

Kings County is designated as a serious non-attainment area for the 2008 8-hour ozone standard and a moderate non-attainment area for the 2015 8-hour ozone standard. Both designations are part of a larger New York-Northern New Jersey-Long Island, NY-NJ-CT non-attainment area. Kings County has been designated as a CO maintenance area as of May 20, 2002 and as a $PM_{2.5}$ maintenance area for the 2006 24-hour $PM_{2.5}$ standard as of April 18, 2014. Kings County is in attainment for all other criteria pollutants (PM_{10}, Pb, NO_2, and SO_2).

Pollutants of Concern

Air pollution is of concern because of its demonstrated effects on human health. Of special concern are the respiratory effects of the pollutants and their potential toxic effects, as described below.

Carbon monoxide (CO) is a colorless and odorless gas that is a product of incomplete combustion. Carbon monoxide is absorbed by the lungs and reacts with hemoglobin to reduce the oxygen carrying capacity of the blood. At low concentrations, CO has been shown to aggravate the symptoms of cardiovascular disease. It can cause headaches, nausea, and at sustained high concentration levels, can lead to coma and death.

Particulate matter is made up of small solid particles and liquid droplets. PM_{10} refers to particulate matter with a nominal aerodynamic diameter of 10 micrometers or less, and $PM_{2.5}$ refers to particulate matter with an aerodynamic diameter of 2.5 micrometers or less. Particulates can enter the body through the respiratory system. Particulates over 10 micrometers in size are generally captured in the nose and throat and are readily expelled from the body. Particulates smaller than 10 micrometers, and especially particles smaller than 2.5 micrometers, can reach the air ducts (bronchi) and the air sacs (alveoli) in the lungs. Particulates are associated with increased incidence of respiratory diseases, cardiopulmonary disease, and cancer.

Nitrogen oxides (NO_X), the most significant of which are nitric oxide (NO) and nitrogen dioxide (NO_2), can occur when combustion temperatures are extremely high (such as in engines) and atmosphere nitrogen gas combines with oxygen gas. NO is relatively harmless to humans but quickly converts to NO_2. Nitrogen dioxide has been found to be a lung irritant and can lead to respiratory illnesses. Nitrogen oxides, along with VOCs, are also precursors to ozone formation.

Non-criteria pollutants may be of concern in addition to the criteria pollutants discussed above. Non-criteria pollutants are emitted by a wide range of man-made and naturally occurring sources. These pollutants could come from industrial or manufacturing processes, depending on the nature of business. Health problems caused by air toxics can include cancer, respiratory irritation, nervous system problems, and birth defects. Some health problems occur very soon after a person inhales a toxic air pollutant. These immediate effects may be minor, such as watery eyes. Or they may be serious, such as life-threatening lung damage.

Impact Criteria

The predicted concentrations of pollutants of concern associated with a proposed project are compared with either the NAAQS for criteria air pollutants or ambient guideline concentrations for non-criteria pollutants. In general, if a project would cause the standards for any pollutant to be exceeded, it would likely result in a significant adverse air quality impact. In addition, New York City's de minimis criteria, detailed below, are also used to determine significance of impacts for CO and $PM_{2.5}$.

The NYSDEC DAR-1 guidance document presents guideline concentrations in micrograms per cubic meter (µg/m3) for the one-hour (short-term guideline concentrations (SGC)) and annual average time (annual guideline concentration (AGC)) periods for various air toxic compounds.[1] In order to evaluate residual risk of non-carcinogenic toxic air emissions, a hazard index is calculated based on annual exposure limits. If the combined ratio of pollutant concentration divided by its annual exposure threshold for each of the toxic pollutants is found to be less than 2.0, according to DAR-1, the residual risk is deemed acceptable. In addition, the potential cancer risk associated with each carcinogenic pollutant, as well as the total cancer risk of the releases of all the carcinogenic toxic pollutants combined, can be estimated. If the total incremental cancer risk of all the carcinogenic toxic pollutants combined is less than one-in-one million, the residual risk is deemed acceptable.

[1] NYSDEC DAR-1 - http://www.dec.ny.gov/docs/air_pdf/dar1.pdf.

CO De Minimis Criteria

New York City has developed *de minimis* criteria to assess the significance of the increase in CO concentrations that would result from the impact of project-generated mobile sources, as set forth in the *2021 CEQR Technical Manual*. These criteria set the minimum change in CO concentration that defines a significant adverse environmental impact. Significant increases of CO concentrations in New York City are defined as:

- An increase of 0.5 ppm or more in the maximum eight-hour average CO concentration at a location where the predicted No-Action eight-hour concentration is equal to or between 8.0 and 9.0 ppm; or
- An increase of more than half the difference between baseline (i.e., No-Action) concentrations and the eight-hour standard, when No-Action concentrations are below 8.0 ppm.

$PM_{2.5}$ De Minimis Criteria

New York City uses de minimis criteria to determine a project's potential to result in a significant adverse $PM_{2.5}$ impact as set forth in the *2021 CEQR Technical Manual*. The *de minimis* criteria are as follows:

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

Background Concentrations

Background concentrations are ambient pollution levels associated with existing stationary, mobile, and other emission sources from the area and not associated with the proposed project. The Proposed Actions are expected to affect ambient concentrations of CO, NO_2, and $PM_{2.5}$. The latest three years of monitoring data (2018 to 2020) from the representative monitoring stations were used to develop background concentrations for pollutants of concern (see **Table 11-2**). $PM_{2.5}$ was collected from the station in Brooklyn, at JHS 126, 424 Leonard Street. 1-hour and annual NO_2 background concentrations were developed from monitoring data collected from the Queens College monitoring station at 65-30 Kissena Boulevard. CO concentrations were collected at 160 Convent Avenue station in Manhattan. Background concentrations were estimated using the form of the NAAQS (see **Table 11-1**, column Form for information).

Table 11-2 Background Concentrations

Pollutant	Averaging Time	Monitoring Location	Background Concentration
Carbon Monoxide	1-Hour	160 Convent Avenue	2.5 ppm
	8-Hour		1.4 ppm
Nitrogen Dioxide	1-Hour	Queens College	53 ppb
	Annual		13.7 ppb
Particulate Matter ($PM_{2.5}$)	24-Hour	JHS 126	18.7 $\mu g/m^3$
	Annual		7.6 $\mu g/m^3$

The *2021 CEQR Technical Manual* de minimis threshold for the 24-hour $PM_{2.5}$ concentrations was estimated from the JHS 126 observations and is equal to 8.2 $\mu g/m^3$.

Methodology and Screening Analyses

Mobile Sources

Mobile Source Screening Analysis

A screening analysis of mobile source emissions of CO and PM on ambient pollutant levels in the study area was conducted per *2021 CEQR Technical Manual* guidance using information from **Table 10-4** in **Section 10, Transportation**. For the project's study area, as described in Chapter 17, Sections 210 and 311 of the *2021 CEQR Technical Manual*, the threshold for conducting an analysis of CO emissions corresponds to 170 project-generated vehicles at a given intersection in the peak hour. The need for conducting an analysis of PM emissions is based on road type and the number of project-generated peak hour heavy-duty diesel vehicles (or its equivalency in vehicular $PM_{2.5}$ emissions), as determined using the worksheet provided on page 17-12 of the *2021 CEQR Technical Manual* (Autos are assumed to be LDGT1 and trucks, such as pick-up trucks or vans, are assumed to be HDGV2B in the worksheet).

Parking Facilities

Under the With-Action condition, it is anticipated that an enclosed parking garage would be constructed on the cellar level and ground floor of the proposed nine-story buildings (*Sycamore Place* and *Linden Place*) on Projected Development Site 1. This garage would be mechanically ventilated with exhausts vented through the stacks at the roofs of the proposed nine-story buildings. Emissions from the garage were estimated using the *2021 CEQR Technical Manual* guidance for the primary pollutants of concern from the parking garage, CO and PM. Roof-top garage stacks were included into the EPA's AERMOD model (described below) together with the HVAC exhaust stacks to estimate cumulative impacts for the common pollutants of concern.

Stationary Sources

HVAC Analysis

As described in **Part I: Project Description**, the Proposed Project would introduce four buildings on Projected Development Site 1 and two buildings on Potential Development Sites A and B, all of which are assumed to have natural gas-fueled low NOx boilers to service the buildings' HVAC and hot-water systems. The HVAC analysis assesses the potential for emissions from the HVAC and hot-water systems to significantly impact the other proposed buildings in the Project Area, and the existing and proposed buildings in the surrounding area. Based on the number of proposed buildings, the *2021 CEQR Technical Manual* requires the detailed dispersion analysis using the USEPA's AERMOD model.

Refined Dispersion Modeling

For projects where a need for detailed analysis is identified, an air quality analysis is performed using the latest version of the EPA's AERMOD model (version 19191). AERMOD is a state-of-the-art dispersion model, applicable to rural and urban areas, flat and complex terrain, surface and elevated releases, and multiple sources (including point, area, and volume sources). AERMOD is a steady-state plume model that incorporates current concepts about flow and dispersion in complex terrain, including updated treatments of the boundary layer theory, understanding of turbulence and dispersion, and includes handling of terrain interactions. The AERMOD model calculates pollutant concentrations from one or more points (e.g., exhaust stacks) based on hourly meteorological data and has the capability to calculate pollutant concentrations at locations where the plume from the exhaust stack is affected by the aerodynamic wakes and eddies (downwash) produced by nearby structures. AERMOD can be run with and without building downwash (the downwash option accounts for the effects on plume dispersion created by the structure the stack is located on, and other nearby structures).

Emission Rates and Stack Parameters

Emission rates for the proposed HVAC systems were estimated using information using the AP-42, EPA's Compilation of Air Emissions.[2] Low NO_x boilers were assumed based on information provided by the Proposed Project's MEP (Mechanical, Electrical, and Plumbing) engineer.

Methodology Utilized for Estimating NO_2 Concentrations

The 1-hour NO_2 concentration associated with the proposed buildings was estimated using the AERMOD Plume Volume Molar Ratio Method (PVMRM) module. The PVMRM module limits the NO_x to NO_2 conversion by considering NO_2 formation based on the amount of ozone within the plume volume.

[2] https://www.epa.gov/sites/production/files/2020-09/documents/1.4_natural_gas_combustion.pdf

Meteorological Data

Dispersion analysis used the latest available five years (2015-2019) of hourly meteorological observations from La Guardia Airport National Weather Service station and upper air data obtained from the Brookhaven station, New York.

Receptor Locations

Receptors were placed on the proposed buildings of similar or greater height within the Project Area and on existing buildings of similar and greater height around the Project Area, on Wyckoff and Nevins Streets and Third Avenue. In addition, receptors were added to the roof terrace of the one-story parking garage buildings on Projected Development Site 1.

Industrial Source Analysis

As described in Section 220 and Section 321 in Chapter 17 of the *CEQR Technical* Manual, an air quality assessment is required to evaluate the potential impacts of air toxics emissions from ventilation exhaust systems of manufacturing or processing facilities within a 400-foot radius of a project site when a project would result in new sensitive uses (particularly residences, schools, hospitals, or parks). If any sources are identified, a screening analysis is performed based on Table 17-3 in Chapter 17 of the *CEQR Technical Manual*. The screening table provides the maximum 1-hour, 8-hour, 24-hour, and annual average modeled values based on a generic emission rate of 1 gram per second of a pollutant from a 20-foot tall point source for the distances between 30 feet and 400 feet from the receptor of same height. Potential impacts predicted from the industrial source of concern based on the screen table are compared with the SGCs and AGCs recommended in NYSDEC's DAR-1 AGC/SGC Tables. If a proposed project fails the above screening analysis, or the screening analysis methodology is not applicable to the project, further refined analysis using EPA's AERSCREEN and/or AERMOD model is warranted to determine any potential for significant adverse impacts.

Large or Major Source Analysis

As described in Section 220 and Section 321 in Chapter 17 of the *CEQR Technical Manual*, an air quality assessment is required to evaluate the potential impacts of emissions from "large" or "major" emission sources within a 1,000-foot radius of a project site. "Major" sources are identified as those sources located at Title V facilities that require Prevention of Significant Deterioration permits. "Large" sources are identified as sources located at facilities that require a State Facility Permit. A detailed analysis is usually performed for such sources, if any are identified, to determine any potential for significant adverse impact.

No large or major sources were found in a 1,000-foot radius around the Project Area. As such, no adverse air quality impacts on the project are anticipated from large or major sources.

Assessment

Mobile Sources

Screening Analysis

As described in **Section 10, Transportation**, a Level 1 screening traffic analysis has been conducted to evaluate the potential for significant adverse transportation impacts. The analysis evaluated the vehicle trip generation during the weekday AM, midday, PM, and Saturday midday periods. As detailed, the volume of vehicle trips would be expected to decrease between the No-Action and With-Action conditions. Therefore, there would be no incremental air quality impact generated by mobile source emissions between No-Action and With-Action conditions. As such, the Proposed Actions are not anticipated to have significant adverse air quality impacts from mobile sources.

Parking Analysis

The transportation analysis conducted in **Section 10, Transportation,** estimated trips in and out of the Project Area, but does not calculate trips for the parking facility specifically on Projected Development Site 1. To be conservative, total auto and delivery trips in and out of the garage were conservatively estimated based on the trips during the AM peak hour traffic generated by the residential, retail and medical office uses on Projected Development Site 1. The proposed garage would be primarily used by gasoline-fueled passenger vehicles and delivery vans. The delivery vans were conservatively assumed to be diesel-fueled heavier trucks. Parking emissions were estimated using the *CEQR Technical Manual* approach for mechanically ventilated garages. **Table 11-3** presents total CO and PM emissions generated by vehicles idling and moving inside the proposed garage.

Emissions from the garage would be exhausted through the stacks at the roofs of both the *Linden Place* and *Sycamore Place* buildings on Projected Development Site 1; therefore, these buildings are accounted for separately in **Table 11-3**. Garage stacks were assumed to be three feet taller than the bulkhead on the same roof. These emissions were modeled together with the HVAC stack emissions for the common pollutants to account for cumulative impacts. The results of the cumulative analysis are shown in **Table 11-6** below.

Table 11-3 Garage Emissions (g/sec)

	In		Out			
Building	**Auto**	**Delivery Vans (assumed trucks)**	**Auto**	**Delivery Vans (assumed trucks)**	**CO**	**$PM_{2.5}$**
Linden Place	29	1	31	1	0.0235	0.19E-04
Sycamore Place	29	1	31	1	0.0334	0.45E-04

Source: VHB, March 2021

HVAC Analysis

Refined HVAC Analysis

Potential impacts from the Proposed Project's HVAC systems were estimated on the nearby buildings of similar or greater height. The potential impacts were considered from the Projected and Potential Development Sites, including potential impacts from the projected and potential buildings on each other (project on project) and from the projected and potential buildings on existing buildings (project on existing). **Figure 11-1** shows the locations of the stacks as they were modeled for this analysis.

The proposed buildings would use natural gas-fired low NO_x boilers with exhausts located on the roofs of the respective buildings. It was assumed that the stack heights would be located three feet above the height of bulkheads on the building roofs (or in the case of the townhomes, three feet above roof level).

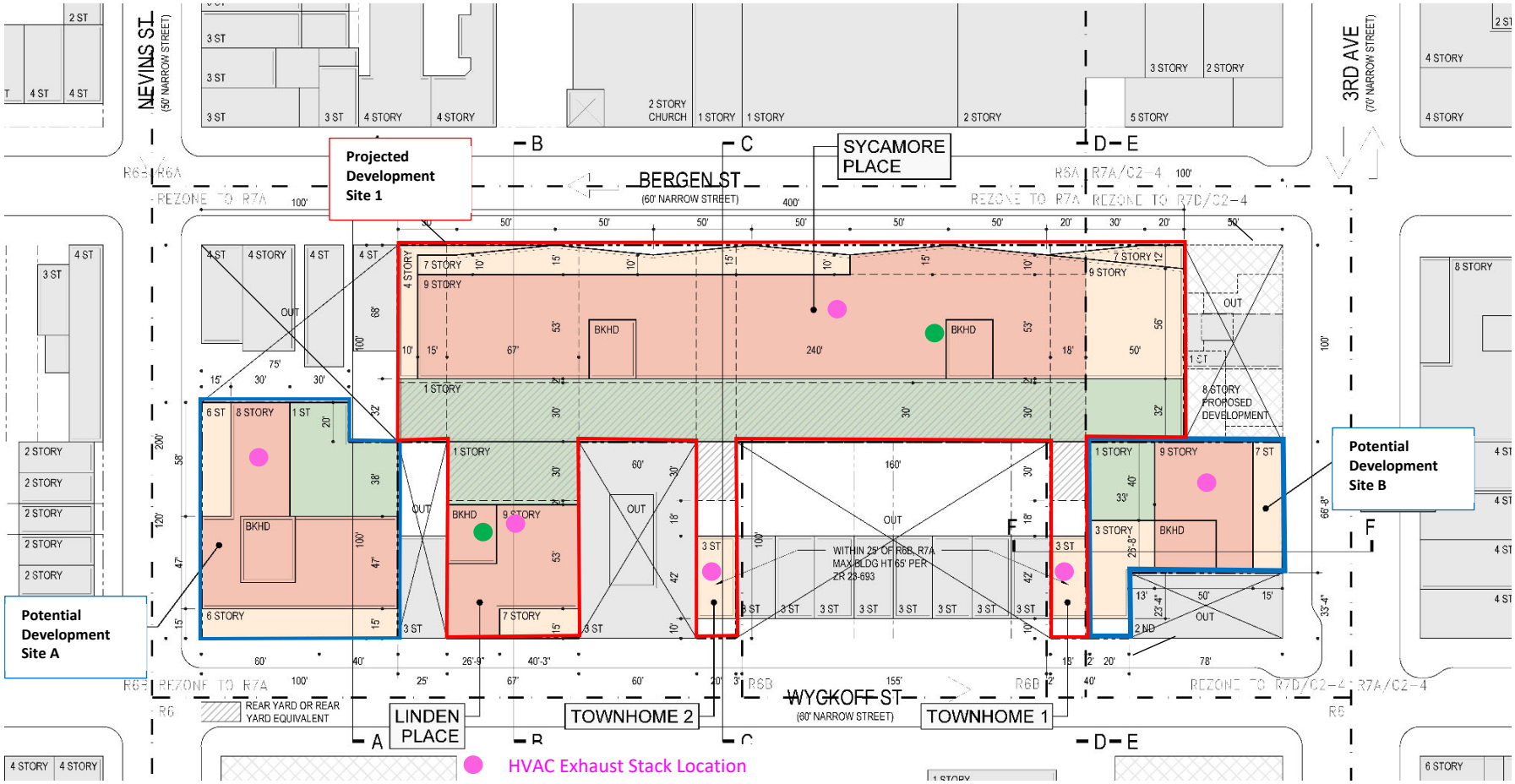
The AERMOD model included HVAC and parking garage emissions. Garage emissions were only considered for the two proposed nine-story buildings on Projected Development Site 1. The same height assumptions were used for the garage stacks. The model was run with and without downwash to assess the potential direct impacts of the HVAC and garage emissions with the added turbulence from surrounding structures. **Table 11-4** presents the dimensions of the buildings and the stack parameters for the HVAC systems.

Table 11-4 HVAC Stack Parameters

Project Development Site		Building Size (gsf)	Stack Height (ft)	Stack Temperature (°F)	Stack Diameter (ft)
Projected Development Site 1	Sycamore Place	254,904	123	366.48	1.0
	Linden Place	45,376	123	320.37	1.5
	Townhomes (each)	3,360	40	318.15	1.0
Potential Development Site A		76,653	123	320.37	1.0
Potential Development Site B		53,691	143	369.26	1.0

Source: VHB, March 2021

Figure 11-1 Locations of Projected and Potential Development Site HVAC and Garage Exhaust Stacks



HVAC emissions were estimated using the EPA's AP-42 emission factors for a low NO_x boiler, building size, and the annual natural gas consumption rates from the latest Energy Information Administration (EIA) Residential Building Energy Consumption Survey. The Proposed Project buildings would include mostly residential uses, with medical office and retail uses incorporated within *Sycamore Place* on Projected Development Site 1. Natural gas fuel consumption for a residential use in the Northeast region was conservatively assumed to be used for all buildings.

Based on information provided by the Proposed Project's MEP engineer, low NOx boilers were assumed for this analysis. Sycamore Place, the Townhomes, and Potential Development Site A were assumed to use 20 ppm NOx boilers; Linden Place and Potential Development Site B were assumed to use 9 ppm NOx boilers. Emission rates used in the HVAC analysis are presented in **Table 11-5**. Annual emission rates were estimated assuming that the boilers would operate only during the 100-day heating season.

Table 11-5 HVAC Emission Rates (g/sec)

Project Development Site		HVAC Boiler (MBH)	Units	1-Hour NO_x	Annual NO_x	24-hr $PM_{2.5}$	Annual $PM_{2.5}$
Projected Development Site 1	Linden Place	1,000	2	0.0028	0.0008	0.0019	0.0005
	Sycamore Place	4,000	3	0.0374	0.0102	0.0115	0.0031
	Townhomes (each)	200	1	0.0006	0.0002	0.0002	0.0001
Potential Development Site A		4,000	1	0.0125	0.0034	0.0038	0.0010
Potential Development Site B		1,500	2	0.0042	0.0012	0.0029	0.0008

Source: VHB, March 2021

Results of the air quality dispersion analysis accounting for HVAC and parking garage emissions are included in **Table 11-6**; the table presents the highest concentrations, including the background concentration where appropriate.

Table 11-6 Highest Concentrations from HVAC Systems and Garage Emissions

Pollutant	Time period	Unit	Predicted Impact	Background Concentration	Total Concentration	NAAQS/*De minimis*
Nitrogen Dioxide	1-hour	ppb	67.9[1]		67.9	100
	Annual	ppb	0.3	13.7	14.0	53
Particulate Matter ($PM_{2.5}$)[2]	24-Hour	$\mu g/m^3$	5.9	--	5.9	8.2
	Annual	$\mu g/m^3$	0.29	--	0.29	0.3
Carbon Monoxide (CO)[2]	1-Hour	ppm	0.1	2.5	2.6	35
	8-Hour	ppm	0.1	1.4	1.5	9/3.8

[1] This includes predicted impact and background concentration, as they were added by AERMOD during the modeling run.

[2] Increase in parking traffic amplified emissions of both $PM_{2.5}$ and CO. While $PM_{2.5}$ emissions increase is insignificant compared to the HVAC emissions on the same roofs and would not perceptibly change the result, CO emissions would increase the predicted impact. However, since the CO impact is very small, the increase would not create a qualitative change. CO concentrations would still be below the City's *de minimis* and NAAQS.

Source: VHB July 2021

As shown in **Table 11-6**, the highest predicted concentrations for all pollutants do not exceed NAAQS or CEQR *de minimis* criteria. As such, there is no potential for a significant adverse air quality impact from the Proposed Action's cumulative HVAC systems and garage emissions.

To ensure that there are no significant adverse impacts from the HVAC systems of the Proposed Project, certain restrictions related to the HVAC systems and stacks would be required through the mapping of an (E) Designation for air quality.

The (E) Designation (E-682) text would be as follows:

Block 388, Lot 19

Sycamore Place (Projected Development Site 1 – North Building): Any new residential and commercial development on the above-referenced property must utilize only natural gas in any fossil fuel-fired HVAC and hot water system be fitted with low NO_x (20 ppm) burners, and ensure that the exhaust stack is located at least 123 feet above grade, at most 32 feet from the northern lot line facing Bergen Street, at least 220 feet from the eastern lot line facing Third Avenue, and no less than 180 feet from the western lot line facing Nevins Street, to avoid any potential significant adverse air quality impacts.

Linden Place (Projected Development Site 1 – South Building): Any new residential development on the above-referenced property must utilize only natural gas in any fossil fuel-fired HVAC and hot water system be fitted with low NO_x (9 ppm) burners and ensure that the exhaust stack is located at least 123 feet above grade, at least 63 feet from the southern lot line facing Wyckoff Street, at least 139 feet from the northern lot line facing Bergen Street, and at least 32 feet from the western lot line facing Nevins Street and from the eastern lot line facing Third Avenue, to avoid any potential significant adverse air quality impact.

Block 388, Lot 42

Townhome 1 (Projected Development Site 1): Any new residential development on the above-referenced property must utilize only natural gas in any fossil fuel-fired HVAC and hot water system, be fitted with low NO_x (20 ppm) burners and ensure that the exhaust stack is located at least 40 feet above grade, and at least 9 feet from the eastern lot line facing Third Avenue and at least 9 feet from the western lot line facing Nevins Street to avoid any potential significant adverse air quality impacts.

Block 388, Lot 51

Townhome 2 (Projected Development Site 1): Any new residential development on the above-referenced property must utilize only natural gas in any fossil fuel-fired HVAC and hot water system, be fitted with low NO_x (20 ppm) burners and ensure that the exhaust stack is located at least 40 feet above grade, at least 9 feet from the eastern lot line facing Third Avenue and at least 9 feet from the western lot line facing Nevins Street to avoid any potential significant adverse air quality impacts.

Similar to Projected Development Site 1, restrictions related to the HVAC systems and stack locations would be required for Potential Development Sites A and B. To address these conditions during future site redevelopment, similar requirements to those associated with the (E) Designation would be instituted on Potential Development Site A (Block 388, Lot 1) and Potential Development Site B (Block 388, Lots 34, 35, 36, 37, and 41), which are owned by the City of New York. Specifically, any new residential and commercial development on Potential Development Sites A and B must utilize natural gas in any fossil fuel-fired HVAC and hot water systems.

Block 388, Lot 1

Hawthorn Place (Potential Development A): Any new residential development on the above-referenced property must utilize only natural gas in any fossil fuel-fired HVAC and hot water system, be fitted with low NO_x (20 ppm) burners and ensure that the exhaust stack is located at least 123 feet above grade, and at least 27 feet from the western lot line facing Nevins Street, at least 93 feet from the southern lot line facing Bergen Street and at least 24 feet from the northern lot line facing Bergen Street to avoid any potential significant adverse air quality impacts.

Block 388, Lots 34, 35, 36, 37, 41

Silver Maple Place (Potential Development B): Any new residential development on the above-referenced property must utilize only natural gas in any fossil fuel-fired HVAC and hot water system, be fitted with low NO_x (9 ppm) burners and ensure that the exhaust stack is located at least 143 feet above grade, and at least 24 feet from the northern lot line of Lot 34 facing Bergen Street and at least 39 feet from the southern lot line of Lot 37 facing Wyckoff Street and at least 39 feet from the western lot line facing Nevins Street to avoid any potential significant adverse air quality impacts.

These measures would be required through a future Land Disposition Agreement (LDA) or similar binding mechanism between the City of New York and a future developer.

Industrial Source Analysis

To assess potential air quality impacts on the Proposed Project from existing industrial sources that emit toxic air contaminants, an investigation of existing land uses within a 400-foot radius of the project block was conducted to identify potential sources and determine if there are active permits associated with those sources. This analysis revealed that, except for the manufacturing facility on Projected Development Site 1 that would be replaced as a result of the Proposed Actions, there are no manufacturing or processing facilities in the vicinity of the Project Area. Thus, no significant adverse air quality impacts on the Proposed Project are expected from industrial sources and no further analysis is required.

Conclusion

The volume of vehicle trips would be expected to decrease as a result of the Proposed Actions compared with the No-Action condition. Therefore, traffic emissions from the Proposed Project would not significantly impact air quality.

The detailed dispersion analysis demonstrated that the Proposed Project should meet certain requirements, including the use of natural gas in any fossil fuel-fired heating and hot water system with low NO_x burners to avoid any potential significant adverse air quality impacts. These commitments would be memorialized in an (E) designation for the Proposed Project (E-682), or through a future LDA for the Potential Development Sites. With these commitments, the Proposed Actions would not result in significant adverse air quality impacts.

Emissions from the proposed parking facilities were modeled together with the HVAC systems emissions, and as detailed, would not result in significant adverse air quality impacts. In addition, no industrial facilities or existing large and major sources were identified near the Project Area.

Therefore, there would be no significant adverse air quality impacts as a result of the Proposed Actions.

12

Noise

The goal of this section is to determine whether the Proposed Project may increase noise exposure at existing sensitive receptors and whether new receptors would be introduced into an acceptable ambient noise environment.

Introduction

The Proposed Actions would facilitate mixed-use development on Projected Development Site 1 (Lots 19, 42, and 51) and two potential development sites within the area comprising Lots 1, 8, 9, 11, 12, 19, 31, 34 - 38, 41, 42, 51, 52, and 58 on Brooklyn Block 388 in the Boerum Hill neighborhood of Brooklyn (the "Project Area"). The proposed mixed-use development would include residences, retail space, and community facility space. Because the Proposed Actions would introduce new noise-sensitive receptors (i.e., residences and community facilities) to the Project Area, a noise assessment is required under CEQR to determine if:

- The Proposed Actions would significantly increase sound levels from mobile and stationary sources at existing noise receptors adjacent to the Project Area, including residential, commercial, and institutional land uses; and
- New noise receptors introduced at the Project Area would be in an acceptable ambient sound level environment.

Per the *2021 CEQR Technical Manual*, a noise analysis is appropriate if an action would generate mobile or stationary sources of noise or would be located in an area with high ambient noise levels. Mobile sources include vehicular traffic; stationary sources include

rooftop equipment such as emergency generators, cooling towers, and other mechanical equipment.

The noise assessment includes the following:

- Background on metrics used to describe noise;
- The methodology and criteria used to assess potential impacts;
- An assessment of the potential for the proposed development to significantly affect existing receptors due to the introduction of new mobile or stationary sources;
- Results from ambient sound level monitoring; and
- An evaluation of the ambient sound levels at new receptor locations.

Noise Background

Noise is defined as unwanted or excessive sound. Sound becomes unwanted when it interferes with normal activities such as sleep, work, or recreation. How people perceive sound depends on several measurable physical characteristics. These factors include:

- Level - Sound level is based on the amplitude of sound pressure fluctuations and is often equated to perceived loudness.
- Frequency - Sounds are comprised of acoustic energy distributed over a variety of frequencies. Acoustic frequencies, commonly referred to as tone or pitch, are typically measured in Hertz (Hz). Pure tones have energy concentrated in a narrow frequency range and can be more audible to humans than broadband sounds. Sound levels are most often measured on a logarithmic scale of decibels (dB). The decibel scale compresses the audible acoustic pressure levels which can vary from the threshold of hearing (0 dB) to the threshold of pain (120 dB). Because sound levels are measured in dB, the addition of two sound levels is not linear. Adding two equal sound levels results in a 3 dB increase in the overall level. Research indicates the following general relationships between sound level and human perception:
  - A 3-dB increase is a doubling of acoustic energy and is the threshold of perceptibility to the average person.
  - A 10-dB increase is a tenfold increase in acoustic energy and is perceived as a doubling in loudness to the average person.

Audible sound is comprised of acoustic energy over a range of frequencies typically from 20 to 20,000 Hz. The human ear does not perceive sound levels at each frequency as equally loud. To compensate for this phenomenon in perception, a frequency filter known as A-weighting (dBA) is used to evaluate environmental noise levels. **Table 12-1** presents a list of common outdoor and indoor sound levels.

Table 12-1 Common Indoor and Outdoor Sound Levels

Outdoor Sound Levels	Sound Pressure μPa		Sound Level dBA	Indoor Sound Levels
	6,324,555	-	110	Rock Band at 5 m
Jet Over-Flight at 300 m		-	105	
	2,000,000	-	100	Inside New York Subway Train
Gas Lawn Mower at 1 m		-	95	
	632,456	-	90	Food Blender at 1 m
Diesel Truck at 15 m		-	85	
Noisy Urban Area—Daytime	200,000	-	80	Garbage Disposal at 1 m
		-	75	Shouting at 1 m
Gas Lawn Mower at 30 m	63,246	-	70	Vacuum Cleaner at 3 m
Suburban Commercial Area		-	65	Normal Speech at 1 m
	20,000	-	60	
Quiet Urban Area—Daytime		-	55	Quiet Conversation at 1 m
	6,325	-	50	Dishwasher Next Room
Quiet Urban Area—Nighttime		-	45	
	2,000	-	40	Empty Theater or Library
Quiet Suburb—Nighttime		-	35	
	632	-	30	Quiet Bedroom at Night
Quiet Rural Area—Nighttime		-	25	Empty Concert Hall
Rustling Leaves	200	-	20	
		-	15	Broadcast and Recording Studios
	63	-	10	
		-	5	
Reference Pressure Level	20	-	0	Threshold of Hearing

μPA: MicroPascals describe pressure. The pressure level is what sound level monitors measure.
dBA: A-weighted decibels describe pressure logarithmically with respect to 20 μPa (the reference pressure level).
Source: Highway Noise Fundamentals, Federal Highway Administration, September 1980.

Because sound levels change over time, a variety of sound level metrics can be used to describe environmental noise. The following is a list of sound level descriptors that are used in the noise analysis:

- L_{10} is the sound level which is exceeded for 10 percent of the time during a given time period. Therefore, it represents the higher end of the range of sound levels. The unit is commonly used in the *2021 CEQR Technical Manual* to evaluate acceptable thresholds for noise exposure for new receptors that would be introduced by a proposed development.
- L_{eq} is the energy-average A-weighted sound level. The L_{eq} is a single value that is equivalent in sound energy to the fluctuating levels over a period of time. Therefore, the L_{eq} considers how loud noise events are during the period, how long they last, and how many times they occur. L_{eq} is commonly used to describe environmental noise and relates well to human annoyance. In accordance with the *2021 CEQR Technical Manual*, the L_{eq} sound level is used to assess the potential for significant increases in noise due to a proposed development at existing receptors in the study area.

Assessment Methodology

This noise analysis considers two receptor types when evaluating noise for a proposed development: existing and new receptor(s). Since the Proposed Project would introduce new residences and community facility space, these are considered "new receptors."

The analysis also considers "existing receptors" which are the current noise-sensitive uses, such as residential and commercial office properties surrounding the Project Area. The following describes the results of the noise assessment for these two types of receptors.

Noise Assessment for Existing Receptors

Noise impact at existing nearby sensitive receptors is assessed according to the relative increase between No-Action and With-Action sound levels. Noise impact is assessed according to the increase in the L_{eq} sound level in accordance with the *2021 CEQR Technical Manual*. If mobile or stationary sources associated with the Proposed Actions would increase L_{eq} sound levels by 3 dB or more and absolute levels would exceed 65 dBA L_{eq}, the Proposed Actions would cause a significant adverse impact prior to mitigation. Additionally, if No-Action condition noise levels are 60 dBA L_{eq} or less, a 5-dB increase would be considered a significant adverse noise impact.

Mobile Sources

As described in **Section 10, Transportation**, a Level 1 screening traffic analysis has been conducted to evaluate the potential for adverse transportation impacts. The analysis evaluated the vehicle trip generation during the weekday AM, midday, PM, and Saturday midday periods. The volume of vehicle trips would be expected to decrease as a result of the Proposed Actions and would not exceed the 50-vehicle trip threshold during any of the peak periods. With the relatively moderate to high numbers of vehicles in the immediate area, noise from mobile sources would not result in a doubling or more of existing noise PCEs and it would not result in a 3 dBA or greater increase in noise levels. Therefore, there would not be a significant adverse vehicular noise impact, and no further mobile source noise analysis is warranted.

Stationary Sources

The Proposed Project is not anticipated to include any substantial stationary source noise generators, such as unenclosed cooling or ventilation equipment, loudspeaker systems, car washes, or other similar types of uses. The design and specifications for the mechanical equipment, such as heating, ventilation, and air conditioning, are not known at this time. As the project design advances, mechanical equipment would be selected that incorporates sufficient noise reduction to comply with applicable noise regulations and standards, including the standards contained in the revised New York City Noise Control Code. This would ensure that mechanical equipment does not result in any significant increases in noise levels by themselves or cumulatively with other project noise sources.

Noise Assessment for New Receptors

As the Proposed Actions would not likely significantly increase the existing noise levels, existing noise levels would be considered comparable to and representative of future With-Action noise levels. With-Action noise conditions at new sensitive receptors that would be introduced by the Proposed Project are evaluated according to absolute exterior sound level. The noise exposure guidelines for acceptable ambient conditions depend on the type of land use; for residences and community facility space, the goal is to maintain interior noise levels of 45 dBA or lower. With-Action exterior sound levels are evaluated to determine if receptors would be in an acceptable ambient sound level environment. It is generally assumed that without specific information about a building's window and wall construction, the outdoor-to-indoor noise reduction of the building is 25 decibels. Therefore, exterior ambient sound levels exceeding 70 dBA (L_{10}) at residential receptors during the daytime (7 AM to 10 PM) (which would equate to an interior noise level of 45 dBA) are considered to be Marginally Unacceptable. Exterior sound levels exceeding 80 dBA (L_{10}) are considered Clearly Unacceptable. If there would be Marginally Unacceptable or Clearly Unacceptable ambient noise conditions, there is a need to provide window/wall sound attenuation that is sufficient to reduce interior sound levels to acceptable levels.

Since the Proposed Actions would introduce community facility and residential uses to the Project Area, the highest L_{10} sound level is used to evaluate whether the Proposed Actions would introduce new receptors into an acceptable noise environment. The analysis presents the results of ambient noise monitoring that was conducted at the Project Area and the assessment of whether new receptors would be in a high ambient noise environment.

Noise Exposure Guidelines

The *2021 CEQR Technical Manual* provides noise exposure guidelines for assessing ambient noise conditions at new residential and community facility receptors, as shown in **Table 12-2.**

Table 12-2 Noise Exposure Guidelines for Use in City Environmental Impact Review

Receptor Type	Time Period	Acceptable External Exposure	Marginally Acceptable External Exposure	Marginally Unacceptable External Exposure	Clearly Unacceptable External Exposure
Community Facility	All Times	$L_{10} \leq 65$ dBA	$65 < L_{10} \leq 70$ dBA	$70 < L_{10} \leq 80$ dBA	$L_{10} > 80$ dBA
Residence, Hotel or Motel	7 AM to 10 PM				
Residence. Hotel or Motel	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

Source: Table 19-2, 2021 *CEQR Technical Manual.*

Existing Sound Levels

Noise monitoring was conducted at six sites on Tuesday March 23, 2021, and Saturday March 27, 2021, in accordance with the *CEQR Technical Manual* as shown in **Figure 12-1**. Noise monitors were placed with a minimum of four feet between the microphone and nearby reflecting surfaces. With roadway activity dominating the overall noise environment, 20-minute noise measurements were conducted during the morning peak period (8 to 9 AM), midday period (12 to 1 PM) and evening peak period (5 to 6 PM). Measurements were conducted using a Type I sound level meter at ground level. Site 1 measurements were conducted at the corner of Bergen Street and Nevins Street. Site 2 measurements were conducted along Bergen Street, between Nevins Street and Third Avenue. Site 3 measurements were conducted at the corner of Bergen Street and Third Avenue. Site 4 measurements were conducted at the corner of Wyckoff Street and Nevins Street. Site 5 measurements were conducted along Wyckoff Street, between Nevins Street and Third Avenue. Site 6 measurements were conducted at the corner of Wyckoff Street and Third Avenue.

Observations were made during the noise measurements and traffic with vehicle classifications were counted. During the midday and evening period, fire truck sirens generated abnormally high sound for a brief period (less than 1 minute) that affected the measurement at Site 1 and during the midday and evening period, fire truck sirens generated abnormally high sound at Site 4. There were construction activities near Site 3 which included a brief period (less than 1 minute) of abnormally high sound due to construction during the morning and midday periods. At Site 6, a car alarm sounded briefly (less than 1 minute) during the morning. In accordance with the *2021 CEQR Technical Manual*, the measurement data was suspended during these periods and the measurement results corrected accordingly.

Table 12-3 summarizes the measurement results. The measured L_{eq} levels ranged from 58.3 to 71.7 dBA and the L_{10} levels ranged from 60.9 and 74.4 dBA.

Figure 12-1 Noise Monitoring Locations

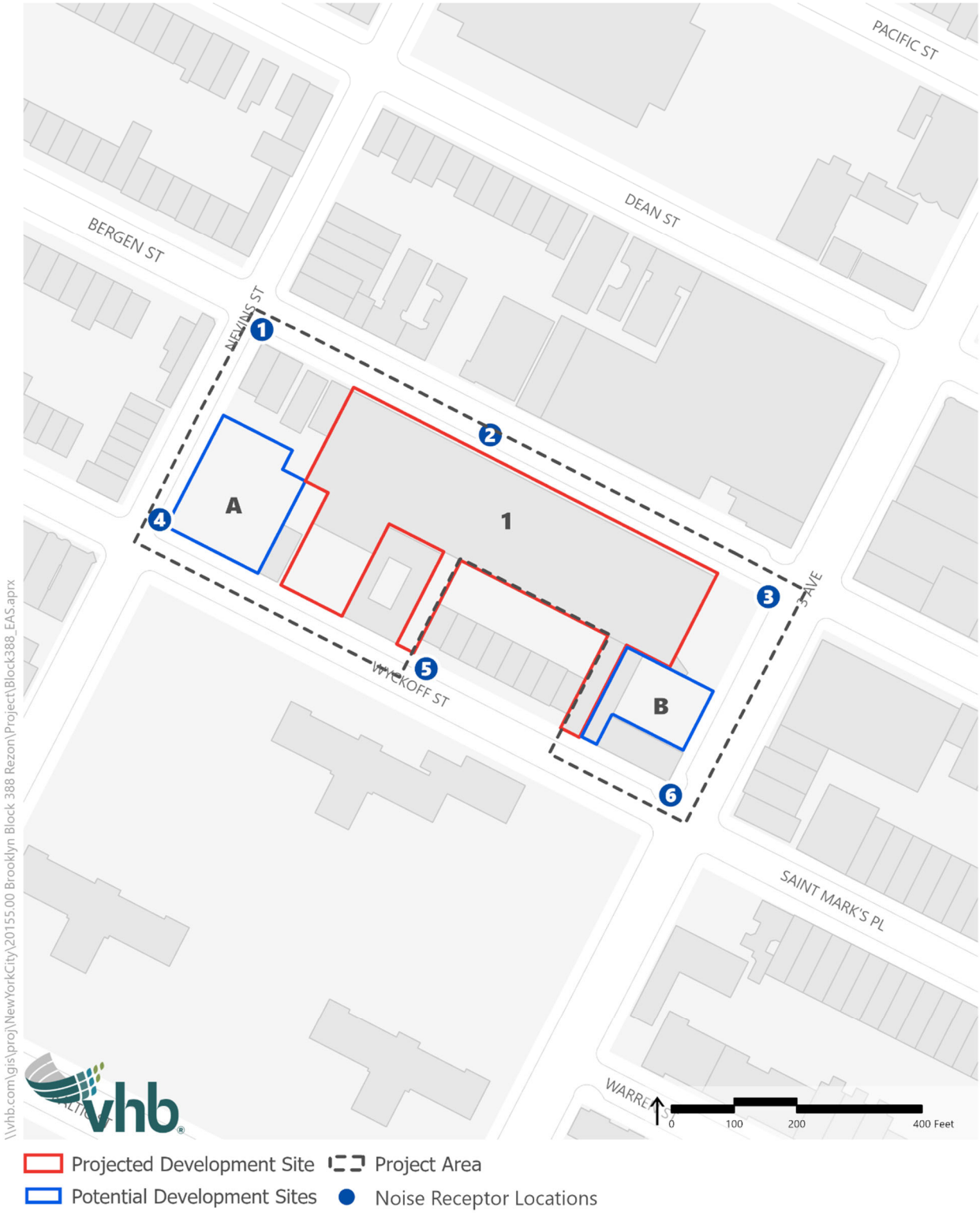


Table 12-3 Ambient Sound Level Measurements

Site	Monitoring Location	Day	Period	Duration	L_{min}	L_{max}	L_{eq}	L_{10}	L_{50}	L_{90}
1	Bergen St & Nevins St	Tuesday	Morning	20 mins	55.1	93.4	71.7	71.3	63.2	58.1
			Midday	20 mins	52.4	88.4	69.2	70.5	63.7	55.8
			Evening	20 mins	53.3	88.8	69.2	70.4	65.2	57.3
		Saturday	Midday	20 mins	53.5	91.5	69.4	69.1	64.6	58.2
2	Bergen St	Tuesday	Morning	20 mins	54.7	76.0	65.0	67.8	64.0	59.2
			Midday	20 mins	52.8	75.9	62.8	66.4	59.4	55.3
			Evening	20 mins	48.7	75.6	58.5	61.3	54.5	50.5
		Saturday	Midday	20 mins	46.7	72.0	58.3	62.1	54.7	49.3
3	Bergen St & Third Ave	Tuesday	Morning	20 mins	59.3	80.5	71.7	74.4	71.2	64.8
			Midday	20 mins	57.6	83.9	70.2	73.7	67.0	62.0
			Evening	20 mins	54.4	83.9	66.0	68.4	62.5	58.2
		Saturday	Midday	20 mins	52.1	85.6	66.4	69.0	62.4	56.1
4	Wyckoff St & Nevins St	Tuesday	Morning	20 mins	51.3	89.7	67.3	67.4	58.6	54.0
			Midday	20 mins	50.1	97.7	67.5	67.9	58.8	53.2
			Evening	20 mins	50.3	82.9	66.0	69.2	61.2	53.4
		Saturday	Midday	20 mins	47.4	81.1	64.7	67.9	58.9	53.1
5	Wyckoff St	Tuesday	Morning	20 mins	56.2	72.1	60.9	62.3	60.1	58.0
			Midday	20 mins	54.5	81.7	62.2	64.7	58.2	55.4
			Evening	20 mins	57.5	75.2	59.9	60.9	58.7	58.0
		Saturday	Midday	20 mins	50.9	81.7	60.0	61.4	55.0	52.8
6	Wyckoff St & Third Ave	Tuesday	Morning	20 mins	60.0	79.7	70.1	72.7	69.4	63.8
			Midday	20 mins	55.6	81.1	68.6	72.6	65.6	60.4
			Evening	20 mins	54.2	85.2	65.5	67.8	62.0	57.9
		Saturday	Midday	20 mins	53.3	91.6	70.5	70.9	62.1	56.4

Source: Measurements conducted by VHB on March 23 & 27, 2021.

Acceptability Assessment

The *2021 CEQR Technical Manual* provides noise exposure guidelines for assessing ambient sound levels, as shown in **Table 12-2**. Based on these noise exposure guidelines, noise impact has been assessed to determine the level of acceptability for new sensitive receptors within the Project Area. As the Proposed Actions would not likely significantly increase the existing noise levels, existing noise levels would be considered comparable to and representative of future With-Action noise levels. **Table 12-4** summarizes the maximum of the L_{eq} and L_{10} sound levels at each measurement location and whether the With-Action sound levels are considered to be acceptable according to the *2021 CEQR Technical Manual*.

Table 12-4 With-Action Sound Level Acceptability

Site	Monitoring Location	Day	Period	Sound Level (dBA)	Acceptability
1	**Bergen St & Nevins St**	Tuesday	Morning	**71.7 (Leq)**	**Marginally Unacceptable**
			Midday	70.5 (L10)	Marginally Unacceptable
			Evening	70.4 (L10)	Marginally Unacceptable
		Saturday	Midday	69.4 (Leq)	Marginally Acceptable
2	**Bergen St**	Tuesday	Morning	**67.8 (L10)**	**Marginally Acceptable**
			Midday	66.4 (L10)	Marginally Acceptable
			Evening	61.3 (L10)	Acceptable
		Saturday	Midday	62.1 (L10)	Acceptable
3	**Bergen St & Third Ave**	Tuesday	Morning	**74.4 (L10)**	**Marginally Unacceptable**
			Midday	73.7 (L10)	Marginally Unacceptable
			Evening	68.4 (L10)	Marginally Acceptable
		Saturday	Midday	69.0 (L10)	Marginally Acceptable
4	**Wyckoff St & Nevins St**	Tuesday	Morning	67.4 (L10)	Marginally Acceptable
			Midday	67.9 (L10)	Marginally Acceptable
			Evening	**69.2 (L10)**	**Marginally Acceptable**
		Saturday	Midday	67.9 (L10)	Marginally Acceptable
5	**Wyckoff St**	Tuesday	Morning	62.3 (L10)	Acceptable
			Midday	**64.7 (L10)**	**Acceptable**
			Evening	60.9 (L10)	Acceptable
		Saturday	Midday	61.4 (L10)	Acceptable
6	**Wyckoff St & Third Ave**	Tuesday	Morning	**72.7 (L10)**	**Marginally Unacceptable**
			Midday	72.6 (L10)	Marginally Unacceptable
			Evening	67.8 (L10)	Marginally Acceptable
		Saturday	Midday	70.9 (L10)	Marginally Unacceptable

Source: VHB, 2021

Bold values are maximum for each site.

According to the noise exposure guidelines in the *CEQR Technical Manual*, With-Action sound levels are Marginally Unacceptable at the Project Area for one or more periods at Sites 1, 3, and 6 at the corners of the Project Area along Nevins Street and Third Avenue. The highest sound level was 74.4 dBA during the morning peak period at the corner of Bergen Street and Third Avenue (Site 3). Based on the finding of Marginally Unacceptable sound levels, sufficient outdoor-to-indoor sound attenuation of the window/wall must be specified to provide acceptable sound attenuation from the window/wall materials of the Proposed Project.

Noise Attenuation Measures

The most common measure for reducing interior noise from ambient sources is to specify sufficient outdoor-to-indoor sound attenuation for the proposed buildings. As shown in

Table 12-5, the required level of attenuation varies based on the exterior sound levels and type of receptor. Based on a maximum sound level of 71.7 dBA on Nevins Street (Site 1), and a maximum sound level of 74.4 dBA on Third Avenue (Site 3), a composite outdoor-to-indoor window/wall sound attenuation of 28 dBA or more is required on the Nevins Street facade and a composite outdoor-to-indoor window/wall sound attenuation of 31 dBA or more is required on Third Avenue facade to obtain acceptable interior noise conditions in residences and community facility spaces, as well as alternate means of ventilation such as well-sealed air conditioners, package-terminal air conditioners, or central air conditioning.

Table 12-5 Required Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				**Clearly Unacceptable**
With-Action Sound Level	$70<L_{10}\leq73$	$73<L_{10}\leq76$	$76<L_{10}\leq78$	$78<L_{10}\leq80$	$80<L_{10}$
Attenuation for Residences [A]	(I) 28 dBA	(II) 31 dBA	(III) 33 dBA	(IV) 35 dBA	See note [C]

Note:
[A] The above composite window-wall attenuation values are for residential dwellings and community facility development. Commercial office spaces and meeting rooms would be 5 dBA less in each category. All of the above categories require a closed window situation and hence an alternate means of ventilation.

[B] Required attenuation values increase by 1 dBA increments for L_{10} values greater than 80 dBA.

[C] The required attenuation value is the difference between L_{build} and $L_{interior}$,, using the appropriate noise descriptor

Where:

L_{build} is the projected noise level under the build condition rounded up to the whole number

$L_{interior}$ is the designed interior noise level (45 dB(A) for vehicular noise, 40 dB(A) for aircraft and train noise

Source: New York City Department of Environmental Protection (2021 CEQR Technical Manual, Table 19-3)

The composite outdoor-to-indoor transmission classification (OITC) value of the window-wall structure is used to determine the necessary sound attenuation. Sound attenuation measures would be achieved through construction materials and techniques with sufficient OITC-rated windows and walls. To implement these attenuation requirements, an (E) Designation for noise would be applied to Projected Development Site 1 specifying the appropriate amount of window/wall attenuation and the need for alternate means of ventilation. The text for the (E) Designation would be as follows:

Block 338, Lots 19, 42, and 51

To ensure an acceptable interior noise environment, future residential and community facility uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on the facades facing Nevins Street, and a minimum of 31 dBA window/wall attenuation on the facades facing Third Avenue in order to maintain an interior noise level not greater than 45 dBA for residential and community facility uses. 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, air conditioning.

On the Potential Development Sites A (Block 388, Lot 1) and B (Block 388, Lots 34, 35, 36, 37, and 41), to ensure that there are no potential significant noise impacts, following restrictions would be placed through a future Land Disposition Agreement (LDA) or similar binding mechanism between the City of New York and a future developer:

Block 388, Lot 1 (Potential Development Site A)

To ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on the facades facing Nevins Street and the facades facing Bergen Street within 50 feet of Nevins Street *in order to maintain an interior noise level not greater than 45 dBA for residential uses. 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, air conditioning.*

Block 388, Lots 34, 35, 36, 37, and 41 (Potential Development Site B)

To ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the facades facing Third Avenue and the facades facing Bergen Street within 50 feet of Third Avenue and 28 dBA of attenuation on the facades facing Wyckoff Street within 50 feet of Third Avenue in order to maintain an interior noise level not greater than 45 dBA for residential uses. 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, air conditioning.

With this commitment, no significant adverse impacts related to noise are expected and no further analysis is warranted.

Conclusion

A noise assessment was conducted to determine whether the Proposed Actions would significantly increase sound levels from mobile and stationary sources at existing noise receptors adjacent to the Project Area, and if new noise receptors that would be introduced by the Proposed Actions would be in an acceptable ambient sound level environment.

As the Proposed Actions do not exceed the detailed transportation analysis thresholds of Table 16-1 in the *2021 CEQR Technical Manual* and with the relatively moderate to high numbers of vehicles in the immediate area, they would not result in a doubling of noise PCEs, which would be necessary to cause a 3-dBA increase in noise levels. Therefore, the Proposed Actions would not result in a significant adverse noise impact to existing receptors.

The Proposed Actions are not anticipated to include any substantial stationary source noise generators. The design and specifications for the building's mechanical equipment would incorporate sufficient noise reduction devices that would comply with applicable noise regulations and standards, including the standards contained in the revised New York City Noise Control Code.

Noise monitoring was conducted at six locations in accordance with the *2021 CEQR Technical Manual*. Based on a maximum sound level of 71.7 dBA on Nevins Street (Site 1) and a maximum sound level of 74.4 dBA on Third Avenue (Site 3), a composite outdoor-to-indoor window/wall sound attenuation of 31 dBA or more is required on the relevant facades to obtain acceptable interior noise conditions in residences and community facility spaces, as well as alternate means of ventilation such as well-sealed air conditioners, package-terminal air conditioners, or central air conditioning.

13

Neighborhood Character

This section considers how the Proposed Actions would affect neighborhood character, which is defined as the elements of the environment that combine to create the context and feeling of a neighborhood.

Introduction

This analysis of neighborhood character follows the guidelines set forth in the *CEQR Technical Manual*. As defined within the manual, neighborhood character is an amalgam of various elements that give neighborhoods a distinct "personality," including land use, urban design and visual resources, historic resources, socioeconomic conditions, transportation, and noise. Not all of these elements affect neighborhood character in all cases; a neighborhood usually draws its distinctive character from a few defining elements. According to the *CEQR Technical Manual*, neighborhood character impacts are rare and occur under unusual circumstances.

As described in **Part 1: Project Description**, the Proposed Actions would facilitate the development of an approximately 307,000-gross-square-foot (gsf) mixed-use development within four buildings proposed on Lots 19, 42, and 51 on Brooklyn Block 388 in the Boerum Hill neighborhood of Brooklyn ("Projected Development Site 1"). The proposed mixed-use development would include approximately 238,420 gsf of residential space and 302 residential units, 9,680 gsf of retail space, 10,000 gsf of medical office space, and 23,627 gsf of mechanical and parking space, accommodating 125 parking garage spaces to be located at grade (the "Proposed Project"). The Proposed Project would range from six to nine stories and 64 to 95 feet in height.

The Proposed Actions would include a rezoning of Lots 1, 8, 9, 11, 12, 19, 31, 34 - 38, 41, 42, 51, 52, and 58 on Block 388 (the "Project Area"), which together comprise almost the entirety of Block 388. In addition to Projected Development Site 1, the analysis framework also includes two additional projected development sites as well as two potential development sites. Lot 31 (Projected Development Site 2) and Lot 38 (Projected Development Site 3) have been determined to be sites where development may be reasonably expected to occur.

This section includes a preliminary assessment of neighborhood character; prepared in conformance with the *CEQR Technical Manual* using information from the technical analyses presented in other relevant sections of this EAS.

Methodology

A neighborhood character assessment is generally needed when the Proposed Actions have the potential to generate significant adverse impacts to one or more of the contributing elements of neighborhood character. In the absence of an impact on any of the relevant technical areas, a combination of moderate effects to the neighborhood could result in an impact to neighborhood character. A significant impact identified in one of the technical areas that contribute to a neighborhood's character is not necessarily equivalent to a significant impact on neighborhood character. Therefore, an assessment of neighborhood character is generally appropriate if the Proposed Actions have the potential to result in any significant adverse impacts in the technical areas listed above or on open space or shadows. Examples of possible changes in those technical areas that could result in an adverse effect on neighborhood character, should those technical areas contribute to the defining features of the neighborhood, are as follows:

- **Land Use, Zoning, and Public Policy**: If development resulting from the Proposed Actions would conflict with surrounding uses, conflict with land use policy or other public plans for the area, or change land use character, neighborhood character could be affected.
- **Socioeconomic Conditions**: If the Proposed Actions result in substantial direct or indirect displacement; additional population, employment, or businesses; or differences in population or employment density, neighborhood character could be affected.
- **Open Space**: If the Proposed Actions would result in a reduction or displacement of an open space or result in additional population that would place a substantial demand on open space, neighborhood character could be affected.
- **Historic and Cultural Resources**: If the Proposed Actions would result in substantial direct changes to a historic resource or substantial changes to public views of a historic resource, neighborhood character could be affected.
- **Urban Design and Visual Resources**: If the Proposed Actions would result in substantially different building block, form, size, scale, or arrangement; block form, street pattern or street hierarchy; streetscape elements; or substantial direct changes to a visual feature, such as unique and important public view corridors and vistas, or to public visual access to such a feature, neighborhood character could be affected.
- **Shadows**: If the Proposed Project would cast an incremental shadow on sun-sensitive resources, neighborhood character could be affected.

- **Transportation**: If the Proposed Actions would result in a change in traffic patterns or would substantially increase traffic volumes on residential streets, neighborhood character could be affected.
- **Noise**: If the Proposed Actions would substantially increase noise levels in an area, neighborhood character could be affected.

As part of a neighborhood character analysis, the defining features of the neighborhood are identified and then a determination is made as to whether the Proposed Actions have the potential to adversely affect these defining features, either through the potential for a significant adverse impact or a combination of moderate effects in relevant technical areas. If the assessment concludes that the Proposed Actions have the potential to adversely affect defining features of a neighborhood, a detailed analysis is undertaken to determine whether the project would result in a significant adverse impact on neighborhood character.

The neighborhood character analysis draws from the technical assessments listed above. As recommended in the *CEQR Technical Manual*, the study area for the neighborhood character analysis is consistent with the study areas in the relevant technical areas assessed under CEQR that contribute to the defining elements of the neighborhood. As such, the study area for neighborhood character is consistent with the 400-foot study area used for the analysis of land use, zoning, and public policy.

As detailed in the previous sections of this EAS, the Proposed Actions would not result in significant adverse impacts in any of the above technical areas; therefore, this analysis evaluates the potential for the Proposed Actions to affect neighborhood character through a combination of moderate effects. The analysis begins with an assessment of each of the technical areas, then identifies the defining features of the neighborhood and assesses whether the project would adversely affect those defining features.

Project Potential to Adversely Affect the Contributing Elements of Neighborhood Character

This section evaluates the potential for the Proposed Actions to result in an adverse impact on neighborhood character through a combination of moderate effects in the various technical areas.

- **Land Use, Zoning, and Public Policy**: As discussed in **Section 2, Land Use, Zoning, and Public Policy**, the Proposed Actions would be consistent with the mixed use character of the study area, and would facilitate a building that provides affordable housing that would conform to applicable public policies for the area.
- **Socioeconomic Conditions**: As discussed in **Section 3, Socioeconomic Conditions**, the Proposed Actions would not result in the direct displacement of any residents or businesses, potentially lead to the displacement of vulnerable populations, or create a significant indirect residential displacement.
- **Open Space**: As discussed in **Section 5, Open Space**, the Proposed Actions would not result in the reduction or displacement of open space, nor would it place a substantial demand on open space.
- **Historic and Cultural Resources**: As discussed in **Section 7, Historic and Cultural Resources** and **Section 8, Urban Design and Visual Resources**, the Proposed Actions

would not significantly alter or affect the setting, visual relationship, or publicly accessible views of the identified historic resources within the study area.

- **Urban Design and Visual Resources**: As discussed in **Section 8, Urban Design and Visual Resources**, the Proposed Project would be compatible with the urban design character of the surrounding area, consistent with the surrounding building form and streetscape, and would provide infill development on vacant lots within the Project Area. The proposed building design would respect the existing visual character of the Boerum Hill Historic District Extension. Additionally, the Proposed Actions would not result in any significant adverse impacts on views to and from the prominent visual resources within the study area.
- **Shadows**: As discussed in **Section 4, Shadows**, the Proposed Actions have the potential to cast shadows on one open space resource and one historic resource. However, due to the limited duration and extent of incremental shadow, the Proposed Actions would not result in significant adverse shadow impacts to any of the identified sunlight-sensitive resources.
- **Transportation**: As discussed in **Section 10, Transportation**, there would be no potential for significant adverse transportation impacts as a result of the Proposed Actions.
- **Noise**: As discussed in **Section 12, Noise**, the Proposed Actions would not substantially increase noise in the study area.

Overall, the Proposed Actions would not result in a combination of moderate effects that would adversely affect neighborhood character.

Project Potential to Adversely Affect the Defining Features of the Neighborhood

Identification of the Defining Features of the Neighborhood

The study area for this analysis is the area within 400-feet of the Project Area which, for the Proposed Actions is bounded by a line approximately 80 feet north of and parallel to Dean Street to the north, midblock between Nevins Street and Bond Street to the west, midblock between Third Avenue and Fourth Avenue to the east, and a line approximately 300 feet south of and parallel to Wykoff Street to the south (see **EAS Figure 5**). The study area contains several distinct areas, distinguishable from each other by key characteristics including roadway orientation, land use, building bulk and density, and historic character. These areas include the predominantly residential blocks to the west of Nevins Street; areas to the north containing commercial and institutional buildings; and large-footprint residential buildings to the south and southeast of the study area.

The portion of the study area to the west of the Project Area is generally characterized by smaller residential lots organized along a standard street grid, which are part of the Boerum Hill Historic District and Boerum Hill Historic District Extension. Buildings on these blocks are predominately single-family row houses and row house-scale residential buildings with historic storefronts dating from the 1850s to the 1870s, mostly designed in the Greek Revival and Italianate styles. Streets are lined with trees and are typically narrow one-way roads with parking on both sides.

The area to the north and northeast of the study area contains larger scale commercial and institutional buildings, which line the more heavily trafficked Third Avenue. These buildings are a mix of historic and modern designs. For example, the Brooklyn High School of the Arts was constructed in 1929 with a limestone façade and ornamental parapet treatments. By contrast, Public School 38 located between Dean Street and Pacific Street was built to a smaller scale in the 1960s and has a more modern design with a flat roof. Other uses to the north include the New York City Human Resources Administration, a four-story commercial office building along Third Avenue, as well as a few churches which vary in design but are typically brick buildings with pitched roofs.

The south and southwest portions of the study area consist of primarily multi-family walk up residential and mixed-use buildings with commercial space on the lower levels and multiple stories of residential uses above. The character of this area is heavily influenced by the presence of the New York City Housing Authority's Wyckoff Gardens, a complex with three multi-family elevator buildings, a community center, open space, and parking. These buildings have a "tower in the park" design and are the tallest in the study area at 21 stories. There are also two proposed 16-story mixed-use commercial and residential infill developments to be constructed on the existing parking lots within the Wyckoff Gardens complex, which will further densify the area to the south of the Project Area.

Overall, given the presence of these distinct areas within the study area and the central location of the Project Area within this context, the defining features of the neighborhood include the following:

- Presence of the small-scale historic residential buildings to the west of the Project Area which compose the Boerum Hill Historic District and Historic District Extension
- Transition from lower-density, historic residential development to the west toward mid-scale institutional, residential, and mixed-use buildings to the east and north and higher-density residential development to the south
- Higher activity and traffic along Third Avenue associated with a mix of uses

Assessment

Overall, the Proposed Actions would not adversely affect the defining features of the neighborhood.

The Proposed Actions would facilitate a development that would align with the predominantly residential and mixed-use context of the surrounding neighborhood by allowing for residential development within the Project Area. A large portion of the Project Area currently contains manufacturing uses that are inconsistent with the surrounding context of the neighborhood. The Proposed Actions would facilitate development that creates a more cohesive and active streetscape, and would better serve existing and future residents in the neighborhood through the provision of affordable housing units. The Proposed Actions would also add to the activity and economic vitality of Third Avenue. In addition to residential uses, several of the new buildings would allow for the provision of local retail and community facility uses in the form of medical offices. Compared with the No-Action condition, which would maintain a gas station and parking facilities along Third Avenue, the residential and retail uses introduced by the Proposed Actions would contribute to a more vibrant and contiguous mixed-use corridor along this major roadway within the study area.

As discussed in detail in **Section 6, Urban Design and Visual Resources,** the Proposed Project would incorporate a building form and several design elements that would be compatible with surrounding development, including the nearby visual and historic resources within the Boerum Hill Historic District and Boerum Hill Historic District Extension. These design elements would include setbacks above the base height and an angled and non-uniform front façade along Bergen Street. These design features would increase visual interest and provide vertical breaks in the building massing along the streetfront. It would also allow for a more gradual transition from the lower-scale residential buildings to the west and the taller, higher bulk institutional and residential buildings to the north and east of the Project Area, as well as the comparatively tall and high-density residential buildings, both existing and proposed, within the Wyckoff Gardens complex. This would reinforce the function of the project block as a transition block within the study area.

As compared to the No-Action condition, development under the With-Action condition would include infill development both on the Projected Development Sites as well as on the Potential Development Sites, which currently contain parking facilities and are underutilized. This would contribute to a more continuous and vibrant streetscape particularly along Third Avenue. Together with the Wyckoff Gardens project, the Proposed Actions would result in a continuous and active streetfront along the entire length of Third Avenue within the study area.

The proposed buildings along Wyckoff Street would also provide infill development along this roadway, and would be designed to match the height and bulk of the existing three-story rowhouses along the south side of the project block. In addition, the project would be constructed within the existing street grid, and therefore would not compete with or obstruct existing views to the rowhouses within the adjacent Boerum Hill Historic District Extension.

Overall, the Proposed Actions would not result in a significant adverse impact on the defining features of the neighborhood.

Conclusion

The Proposed Actions would not result in significant adverse impacts in any of the technical areas that contribute to neighborhood character, nor would it adversely affect the defining features of the neighborhood or result in a combination of moderate effects that would adversely affect neighborhood character. As described above, the Proposed Project would be designed to align with the character of the neighborhood by facilitating a building that is in context with surrounding conditions in terms of height and design features. The Proposed Project would reinforce the existing transitional function of the project block, and provide a continuous and pedestrian-oriented streetfront that activates the area's major roadways. Therefore, the Proposed Actions would not result in significant adverse impacts on neighborhood character and no further assessment is warranted.

14

Construction

A project's construction activities may affect a number of technical areas analyzed for the operational period, such as air quality, noise, and traffic; therefore, a construction assessment relies to a significant extent on the methodologies and resulting information gathered in the analyses of these technical areas.

Introduction

Construction activities, although temporary in nature, can sometimes result in significant adverse environmental impacts. Consideration of several factors, including the location and setting of the project in relation to other uses, and the intensity and duration of the construction activities, may indicate that a project's construction activities warrant analysis.

As described in **Part I: Project Description**, Projected Development Site 1, located at 280 Bergen Street (Lots 19, 42, and 51), has a lot area of approximately 50,700 square feet (sf) and currently contains a large footprint one-story manufacturing building that is approximately 50,700 gsf, with a small two-story section at its eastern edge along Bergen Street. A small portion of Projected Development Site 1 (the portion of Lot 19 fronting on Wyckoff Street) is currently used for surface parking.

Based on the construction schedule, construction activity associated with the Proposed Actions is anticipated to last a total of approximately 36 months. Because the construction period would be longer than two years ("long-term" per the *2021 CEQR Technical Manual*), a preliminary assessment of potential construction impacts was prepared in accordance with

CEQR guidelines. As detailed in the assessment below, construction of the Proposed Project would not result in significant adverse impacts.

Construction Regulation and General Practices

Governmental Oversight

Governmental oversight of construction in New York City is extensive and involves a number of City, State, and Federal agencies, each with specific areas of responsibility, as follows.

- The New York City Department of Buildings (DOB) has primary oversight of construction. DOB oversees compliance with the New York City Building Code to ensure that buildings are structurally, electrically, and mechanically safe. In addition, DOB enforces safety regulations to protect both workers and the general public during construction. Areas of oversight include installation and operation of equipment such as cranes and lifts, sidewalk sheds, safety netting, and scaffolding.
- The New York City Department of Environmental Protection (DEP) enforces the New York City Noise Code, reviews and approves any needed Remedial Action Plans (RAPs) and associated Construction Health and Safety Plans (CHASPs) as well as the removal of fuel tanks and abatement of hazardous materials. DEP also regulates water disposal into the sewer system and reviews and approves any rerouting of wastewater flow.
- The New York City Fire Department (FDNY) has primary oversight of compliance with the New York City Fire Code and the installation of tanks containing flammable materials.
- The New York City Department of Transportation Office of Construction Mitigation and Coordination (NYCDOT OCMC) reviews and approves any traffic lane and sidewalk closures.
- The New York City Landmarks Preservation Commission (LPC) approves studies and testing to prevent loss of archaeological resources and to prevent damage to architectural resources.
- New York City Transit approves any excavation proposed within 200 feet of any subway or tunnel under its jurisdiction.
- The New York State Department of Environmental Conservation (NYSDEC) regulates disposal of hazardous materials, and construction, operation, and removal of bulk petroleum and chemical storage tanks. NYSDEC also regulates discharge of water into rivers and streams.
- The New York State Department of Labor (DOL) licenses asbestos workers.
- The New York State Department of Transportation (NYSDOT) reviews and approves any traffic lane closures on its roadways, should any be necessary.
- The U.S. Environmental Protection Agency (EPA) has wide-ranging authority over environmental matters, including air emissions, noise, hazardous materials, and the use of poisons, however, much of its responsibility is delegated to the state level.

› The Occupational Safety and Health Administration (OSHA) sets standards for work site safety and construction equipment.

Construction Oversight

New York City regulates the hours of construction work through the New York City Noise Control Code, as amended in December 2005 and effective July 1, 2007. Construction is limited to weekdays between the hours of 7:00 AM and 6:00 PM and noise limits are set for certain specific pieces of construction equipment. Most workers arrive between 6:00 AM and 7:00 AM. In New York City, work typically ends at 3:30 PM, with some exceptions when certain critical tasks (e.g., finishing a concrete pour for a floor deck, completing the drilling of piles, or completing the bolting of a steel frame erected that day) require that the workday be extended beyond normal work hours. Any extended workdays generally last until approximately 6:00 PM and do not include all construction workers or pieces of equipment in operation on-site, but only those involved in the specific task requiring additional work time. The City may permit work outside of these hours to accommodate: (1) emergency conditions; (2) public safety; (3) construction projects by or on behalf of City agencies; (4) construction activities with minimal noise impacts; and (5) undue hardship resulting from unique site characteristics, unforeseen conditions, scheduling conflicts, and/or financial considerations. The DOB issues these work permits, and in some instances, approval of a noise mitigation plan from the DEP under the City's Noise Code is also required. Overall, the level of activity for any work outside of normal construction hours is less than a normal workday.

Construction Practices

Access, Delivery and Staging Areas

Access to construction sites is controlled. Work areas are fenced off, and limited access points for workers and construction-related trucks are provided. Typically, worker vehicles are not allowed into the construction area, and workers or trucks without a need to be on the site are not allowed entry. After work hours, the gates are closed and locked. Security guards may patrol the construction site after work hours and over weekends to prevent unauthorized access.

Material deliveries to construction sites are controlled and scheduled. Flaggers supplied by either the subcontractor on-site at the time or by the construction manager are typically employed at each of the construction site's access points. The flaggers control trucks entering and exiting the construction site so that they do not interfere with one another. In addition, they provide an additional traffic aid as trucks enter and exit the on-street traffic streams.

Trucks would deliver construction materials from the south side of Bergen Street. Beginning with the demolition phase for Projected Development Site 1 and continuing through the subsequent construction phases, a delivery lane would be established along the south side of Bergen Street, from Third Avenue westward to the western terminus of Projected Development Site 1. A mobile crane operating from the adjacent sidewalk would offload materials from delivery trucks for staging and hoisting during construction. These delivery

and staging practices would necessitate temporary lane and walkway closures, as discussed below.

Lane and Walkway Closures

Temporary parking lane and sidewalk closures are typical for construction projects in New York City; temporary pedestrian walkways would be constructed to maintain pedestrian access. To manage such closures, a Maintenance and Protection of Traffic (MPT) plan is developed consistent with NYCDOT requirements. NYCDOT OCMC reviews and approves MPT plans, and the implementation of the closures is also coordinated with NYCDOT OCMC. In general, construction managers for major projects on adjacent sites also coordinate their activities to avoid delays and inefficiencies.

An MPT plan would be developed for review and approval by NYCDOT OCMC for the temporary sidewalk and lane closures for Bergen Street, Wyckoff Street, and Third Avenue, as described below.

Bergen Street

Beginning with the demolition phase, the parking lane and sidewalk on the south side of Bergen Street would be closed to establish a construction delivery lane that would be enclosed with temporary construction fencing. During this phase, a temporary pedestrian walkway and sidewalk bridge for overhead protection would be constructed and maintained along the south side of Bergen Street and portions of the adjacent sidewalk. To establish the expanded construction delivery lane and materials staging areas needed for the superstructure and exterior closure phases and subsequent construction phases, the parking lanes on both the north and south sides of Bergen Street would be eliminated, so that a single travel lane could be maintained along the north side of the street. The expanded construction delivery lane would be enclosed by temporary construction fencing with sliding access gates. The sidewalk on the south side of Bergen Street would remain closed to pedestrians during the superstructure and exterior closeout phases and for subsequent phases, as necessary. Signs informing pedestrians of the sidewalk closures would be posted at the corner of Bergen Street and Third Avenue, and at the western terminus of Projected Development Site 1.

Wyckoff Street

Beginning with the demolition phase and continuing through the excavation/foundation phase, a portion of the sidewalk and portions of the adjacent parking lane would be closed at two locations on Wyckoff Street, so that temporary five-foot wide pedestrian walkways could be established on the north side of the street. During the superstructure and exterior closure phases, these conditions would remain in effect and temporary pedestrian walkways and sidewalk bridges for overhead protection would be established along portions of the north side of Wyckoff Street. A travel lane would be maintained on Wyckoff Street during all construction phases.

Third Avenue

Beginning with the demolition phase, a sidewalk area and portions of the adjacent parking lane would be closed on Third Avenue, so that a temporary pedestrian walkway could be

established on the west side of the street. These conditions would remain in effect through the superstructure phase. The existing travel lanes and bicycle lane on Third Avenue are anticipated to remain open during all construction phases.

Public Safety

A variety of measures are employed to ensure public safety during construction at sites within New York City. Examples include the use of sidewalk bridges to provide overhead protection for pedestrians passing by the construction site and the employment of flaggers to control trucks entering and exiting the construction site, to provide guidance to pedestrians, and/or to alert or slow down the traffic. Other safety measures include the installation of safety nettings on the sides of the project as the superstructure advances upward to prevent debris from falling to the ground.

As noted above, flaggers would be posted to manage deliveries, and temporary pedestrian walkways with sidewalk bridges for overhead protection would be installed during most phases of construction to ensure pedestrian safety. In addition, as at other New York City construction sites, the Proposed Project would follow all DOB safety requirements to ensure that construction of the project is conducted with care, so as to minimize the disruption to the community.

Rodent Control

Construction projects in New York City typically include provisions for a rodent (i.e., mouse and rat) control program that is formalized in construction contracts for the development. Rodent control programs are typically carried out throughout construction, beginning with surveying and baiting appropriate areas prior to construction and providing for proper site sanitation and maintenance during construction. Signage would be posted, and coordination would be conducted with appropriate public agencies. Only EPA- and NYSDEC-registered rodenticides would be permitted, and the contractor would be required to implement the rodent control program in a manner that is not hazardous to the general public, domestic animals, and non-target wildlife.

Construction Schedule and Activities

The information provided below is based on the construction schedule and logistics for the Proposed Project, developed by the construction management company New Line Structures.

Construction Schedule

Table 14-1 shows the anticipated construction schedule for the Proposed Project under the No-Action and With-Action conditions and reflects a reasonable assumption for construction activities within Projected Development Site 1. The details of each construction schedule are described further below.

No-Action Condition

In the future No-Action condition, the existing manufacturing facility would be demolished, and Projected Development Site 1 would be redeveloped as a five-story building containing

a mix of office, retail, and community facility space with parking accommodated on the cellar and first floors. Specifically, the No-Action condition would include 90,424 gsf of commercial office space, 15,113 gsf of locally serving retail space, 20,812 gsf of medical office uses, and 44,352 gsf of parking space on the cellar and first floors. In total, the No-Action condition on Projected Development Site 1 would incorporate 170,701 gsf.

The future No-Action condition building would begin construction in the first quarter of 2023 but is anticipated to take 32 months to complete as compared with 36 months for the Proposed Project, as discussed below. Construction activity would begin with the excavation/foundation phase at Projected Development Site 1. It is assumed that the No-Action development would be completed by the third quarter of 2025. The construction phases typically associated with higher potential levels of environmental disturbance (i.e., the demolition, excavation/foundation, and superstructure and exterior closure phases) for the No-Action development would occur within a 24-month period, overlapping slightly for three months with interior build-out and site cleanup (which occurs in total over an 11-month period).

With-Action Condition

In the future With-Action condition, construction activity would begin with the excavation/foundation phase at Projected Development Site 1 in the first quarter of 2023 (same as the No-Action condition building). Based on a feasible development timeline, the full build out of Projected Development Site 1 would be completed by the end of the fourth quarter of 2025. As such, it is projected that construction activities would occur at Projected Development Site 1 over a period of 36 months. The construction phases typically associated with higher potential levels of environmental disturbance (i.e., the demolition, excavation/foundation, and superstructure and exterior closure phases) at Projected Development Site 1 would occur within a 26-month period, overlapping for five months with interior build-out and site cleanup (which occurs in total over a 15-month period).

The main stages of construction are discussed in more detail in the following section.

Table 14-1 Anticipated Construction Schedules

Construction Phase	2023												2024												2025											
	Q1			Q2			Q3			Q4			Q1			Q2			Q3			Q4			Q1			Q2			Q3			Q4		
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
No-Action Condition																																				
Abatement & Demo																																				
Excav./Foundations																																				
Superstructure																																				
Exterior Closure																																				
Interior Buildout																																				
Site Work																																				
With-Action Condition																																				
Abatement & Demo																																				
Excav./Foundations																																				
Superstructure																																				
Exterior Closure																																				
Interior Buildout																																				
Site Work																																				

Source: New Line Structures

Construction Activities

Construction of the Proposed Project or the No-Action building would be subject to the government regulations and oversight detailed above and would employ the general construction activities described below.

Site Preparation, Abatement and Demolition

Initial work at Projected Development Site 1 would begin with a number of activities to prepare the sites for construction activities. Early activities would involve the installation of public safety measures, such as fencing and Jersey barriers. Trailers for the construction engineers and managers would be hauled to the site and installed. Also, portable toilets, dumpsters for trash, and water and fuel tankers would be brought to the site and installed. Temporary utilities would be connected to the construction trailers. Interior access roads and turnarounds would be established.

Following the initial site preparation activities, abatement and demolition of the existing improvements at Projected Development Site 1 would commence. Equipment typically used during this period would include articulating boom cranes, telehandlers, skidsteers, delivery trucks, dump trucks, fuel trucks, generators, compressors, and various power tools.

Abatement and demolition materials would be hauled off-site and transported to appropriate receiving facilities. To reduce the potential for public exposure to contaminants during abatement and demolition activities, work would be performed in accordance with all applicable regulatory requirements, as described in **Section 9, Hazardous Materials.**

Excavation/Foundation

Excavation/foundation work would include excavation of foundations, the driving of piles that would support the proposed buildings, and installation of foundations and below-grade elements. Site utilities (electric, water, and sewer lines) would also be installed. Equipment typically used during this period of construction would include backhoe/loaders, caisson drilling rigs, bulldozers, articulating boom cranes, mobile cranes, temporary construction elevators (hoists), telehandlers, skidsteers, concrete pumps, concrete trucks, portable concrete/grout mixers, pile drivers, rebar benders, delivery trucks, dump trucks, tractor trailers, fuel trucks, generators, compressors, compactors, and various power tools.

Any soil to be removed from Projected Development Site 1 would be loaded onto dump trucks for transport to a licensed disposal facility. To reduce the potential for public exposure to contaminants during excavation activities, excavation and foundation work would be performed in accordance with all applicable regulatory requirements, as described in **Section 9, Hazardous Materials.**

Excavation/foundation work is anticipated to occur over a period of eight months for both the No-Action and With-Action conditions.

Superstructure and Exterior Closure (Core and Shell)

Construction of the core and shell involves construction of the building's framework, core, and exterior. The superstructure is the building's framework (beams and columns) and floor

decks. Construction of the core, or interior structure, includes construction of the building's elevator shafts; vertical risers for mechanical, electrical, and plumbing systems; electrical and mechanical equipment rooms; core stairs; and restroom areas. Construction of the exterior involves the installation of the façade (exterior walls, windows, and cladding and the roof).

Equipment during this construction phase would include articulating boom cranes, mobile cranes, hoists, telehandlers, skidsteers, concrete pumps, concrete trucks, portable concrete/grout mixers, concrete placing booms, rebar benders, delivery trucks, dump trucks, fuel trucks, tractor trailers, generators, compressors, compactors, welders, impact wrenches, and various power tools.

Superstructure and exterior closure work for Projected Development Site 1 is anticipated to take a total of approximately 10 months in the No-Action condition and 12 months in the With-Action condition.

Interior Buildout and Site Work

Interior buildout activities include the construction of interior partitions, installation of lighting fixtures and interior finishes (i.e., flooring, painting, etc.), and mechanical and electrical work such as the installation of elevators, and lobby finishes. In addition, final cleanup and touchup of the proposed buildings and final building systems testing (i.e., electrical system, fire alarm, plumbing, etc.) and inspections would be part of this stage of construction.

Interior buildout is typically the quietest work type and does not generate fugitive dust since it occurs within the building interiors after the building facades have been substantially completed. This phase of construction would also include site work for the final finishing of the building and grounds, including landscaping activities and other exterior finishing work. Additionally, the removal of construction protection measures (fencing, sidewalk enclosures, bridges, remaining scaffolding, etc.) from the construction site would occur. Equipment used during interior buildout and site work typically includes articulating boom cranes, mobile cranes, telehandlers, skidsteers, compactors, compressors, generators, delivery trucks, dump trucks, fuel trucks, tractor trailers, portable concrete/grout mixers and various power tools.

Interior buildout and site work on Projected Development Site 1 is anticipated to take a total of 11 months in the No-Action condition and 15 months in the With-Action condition.

Assessment of Project Construction

In accordance with the guidelines of the *CEQR Technical Manual*, this preliminary assessment evaluates the effects associated with the Proposed Action's construction related activities including transportation, air quality, and noise. Hazardous materials are discussed in **Section 9, Hazardous Materials**.

As discussed in more detail in **Section 2, Land Use, Zoning, and Public Policy**, the surrounding neighborhood is predominantly residential, with some commercial, institutional, and industrial uses concentrated to the northeast.

Transportation

Daily Workforce and Truck Deliveries

Construction of the Proposed Project would extend over a period of 36 months and would be completed by the end of the year 2025. It would generate trips from construction workers traveling to and from the site as well as from the delivery of materials and equipment and the removal of debris. An evaluation of construction sequencing and projections of workers and trucks was undertaken to assess potential traffic-related impacts associated with construction. **Table 14-2** shows the estimated number of workers and truck deliveries to Projected Development Site 1 per quarter (i.e., three-month period) of each calendar year for the duration of construction activities. These represent the average number of daily workers and trucks within each quarter. The average number of workers would be approximately 99 workers per day with the peak number of workers, 200 workers per day, occurring in the second quarter of 2025. For truck trips, the average number of trucks would be 19 trucks per day, and the peak would occur in the third quarter of 2023 with 34 trucks per day.

Table 14-2 Average Daily Number of Workers and Trucks by Quarter – Proposed Project

Year	2023				2024			
Quarter	1st	2nd	3rd	4th	1st	2nd	3rd	4th
Workers	10	20	47	41	85	110	115	167
Trucks	13	12	34	18	19	28	28	33

Year	2025				Project	
Quarter	1st	2nd	3rd	4th	Average	Peak
Workers	184	200	143	71	99	200
Trucks	23	5	5	8	19	34

In comparison, construction of the No-Action building would extend over a period of 32 months, with a completion date in 2025 similar to the Proposed Project. Construction activities for the No-Action building would be comparable to the Proposed Project. **Table 14-3** shows the estimated daily numbers of workers and truck deliveries to Projected Development Site 1 per quarter of each calendar year for the duration of the construction activities for the No-Action building. The average number of workers during the construction period would be approximately 94 workers per day. The peak number of workers would be 200 workers per day and would occur in the second quarter of 2025. For truck trips, the average number of trucks would be 17 per day, and the peak would occur in the third quarter of 2023, with 34 trucks per day.

Table 14-3 Average Daily Number of Workers and Trucks by Quarter – No-Action Building

Year	2023				2024			
Quarter	1st	2nd	3rd	4th	1st	2nd	3rd	4th
Workers	10	20	47	41	85	110	115	168
Trucks	13	12	34	18	19	28	28	33

Year	2025				Project	
Quarter	1st	2nd	3rd	4th	Average	Peak
Workers	184	200	143	0	94	200
Trucks	5	5	9	0	17	34

Construction Worker Modal Splits

The average daily workforce and truck trip estimates in **Table 14-2** and **Table 14-3** were then used to determine the peak quarter for potential traffic-related impacts during construction for both the Proposed Project and No-Action buildings. These projections were further refined to account for the travel characteristics of construction workers including modal splits and vehicle occupancy rates. Based on construction travel pattens assumed for the *Atlantic Yards Arena and Redevelopment Project FEIS (2006),* located approximately a quarter-mile away from Projected Development Site 1, it is anticipated that approximately 55 percent of construction workers would drive to the site (average auto occupancy of 1.90) and the remaining 45 percent of construction workers would take public transportation. Transit service within the study area include the B, D, N, Q, and R, and No. 2, 3, 4, 5, 6, 7 and S subway lines at the Atlantic Yards – Barclay Center station, the A, C, and G subway lines at the Hoyt-Schermerhorn Street station, the F and G subway lines at the Bergen Street station, and a multitude of bus routes including the B37, B63, B65, and B103. Long Island Rail Road service is also available at the Atlantic Terminal station.

Based on the auto modal split and vehicle occupancy data cited above, the average daily construction auto trips and truck trips were determined for each quarter, as shown in **Table 14-4** and **Table 14-5**. The peak quarter with the maximum construction vehicle trips and passenger-car equivalents [PCEs][1]) is expected to be approximately 162 vehicle trips (228 PCE trips) during the fourth quarter of 2024 for the Proposed Project, and 164 vehicle trips (230 PCE trips) also during the fourth quarter of 2024 for the No-Action building.

[1] Since larger vehicles such as trucks typically make up a significant portion of construction traffic, a passenger car equivalent factor is applied to these vehicles to account for their size difference. Per the *CEQR Technical Manual*, it is assumed that one truck is equivalent to two passenger cars.

Table 14-4 Average Daily Number of PCE Trips by Quarter – Proposed Project

Year	2023				2024			
Quarter	1st	2nd	3rd	4th	1st	2nd	3rd	4th
Auto Trips	6	12	28	24	50	64	66	96
Truck Trips	26	24	68	36	38	56	56	66
Vehicle Trips	32	36	96	60	88	120	122	162
PCE Trips	58	60	164	96	126	176	178	**228**

Year	2025			
Quarter	1st	2nd	3rd	4th
Auto Trips	106	116	82	42
Truck Trips	46	10	10	16
Vehicle Trips	152	126	92	58
PCE Trips	198	136	102	74

Table 14-5 Average Daily Number of PCE Trips by Quarter – No-Action

Year	2023				2024			
Quarter	1st	2nd	3rd	4th	1st	2nd	3rd	4th
Auto Trips	6	12	28	24	50	64	66	98
Truck Trips	26	24	68	36	38	56	56	66
Vehicle Trips	32	36	96	60	88	120	122	164
PCE Trips	58	60	164	96	126	176	178	**230**

Year	2025			
Quarter	1st	2nd	3rd	4th
Auto Trips	106	116	82	0
Truck Trips	10	10	18	0
Vehicle Trips	116	126	100	0
PCE Trips	126	136	118	0

Traffic

Peak Hour Construction Worker Vehicle and Truck Trips

Construction activities would be expected to occur on weekdays during the typical construction shift of 7 AM to 3:30 PM. Construction truck trips would typically be distributed throughout the day and most trucks would remain in the area for short durations. Auto trips associated with construction worker travel would typically take place during the hours immediately before and after the daily work shift. For analysis purposes, each worker vehicle was assumed to arrive in the morning and depart in the afternoon or evening, and each truck delivery was assumed to result in one "in" trip and one "out" trip during the same hour.

The estimated daily vehicle trips for the peak quarter of construction traffic were distributed throughout the workday based on projected arrival/departure patterns of construction workers, and the projected pattern of truck deliveries were based on the types of construction activities that would occur during the peak quarters for the Proposed Project and the No-Action building. For construction workers, typical arrival patterns show that most arrivals (approximately 80 percent) occur during the 6 AM to 7 AM hour (the hour before the beginning of a regular day shift) and the same percentage of departure trips occurs during the 3 PM to 4 PM hour (at the end of the shift). For trucks, deliveries are usually spread throughout the day, but the peak activity (approximately 25 percent) would occur during the 6 AM to 7 AM hour.

The estimated daily average number of construction worker vehicle trips and truck deliveries during the peak construction quarter, which is expected to be the fourth quarter of 2024, is approximately 167 construction worker vehicle trips and 33 trucks per day for the Proposed Project. The Proposed Project construction peak hourly trip projections for the peak construction quarter are summarized in **Table 14-6.** The estimated number of vehicle trips generated by construction activities during the peak quarter would be 55 vehicle trips (71 PCEs) during the AM peak hour (6 AM to 7 AM) and 43 vehicle trips (47 PCEs) during the PM peak hour (3 PM to 4 PM).

Table 14-6 Proposed Project Construction Vehicle Trips by Hour- Fourth Quarter of 2024

	Auto Trips		Truck Trips		Total Vehicle Trips			Total PCE Trips		
Hour	**In**	**Out**	**In**	**Out**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
6 AM – 7 AM	39	0	8	8	47	8	55	55	16	71
7 AM – 8 AM	9	0	3	3	12	3	15	15	6	21
8 AM – 9 AM	0	0	3	3	3	3	6	6	6	12
9 AM – 10 AM	0	0	3	3	3	3	6	6	6	12
10 AM – 11 AM	0	0	3	3	3	3	6	6	6	12
11 AM – 12 PM	0	0	3	3	3	3	6	6	6	12
12 PM – 1 PM	0	0	3	3	3	3	6	6	6	12
1 PM – 2 PM	0	0	3	3	3	3	6	6	6	12
2 PM – 3 PM	0	2	2	2	2	4	6	4	6	10
3 PM – 4 PM	0	39	2	2	2	41	43	4	43	47
4 PM – 5 PM	0	7	0	0	0	7	7	0	7	7
5 PM – 6 PM	0	0	0	0	0	0	0	0	0	0
6 PM – 7 PM	0	0	0	0	0	0	0	0	0	0

Using the same methodology, construction vehicle trip projections were also developed for the No-Action building. The estimated daily average number of construction workers and truck deliveries during the peak construction quarter, which is also expected to be the fourth quarter of 2024, is approximately 168 construction workers and 33 trucks per day for the No-Action building. The peak No-Action construction hourly trip projections for the peak construction quarter are summarized in **Table 14-7**.

Table 14-7 No-Action Construction Vehicle Trips by Hour- Fourth Quarter of 2024

	Auto Trips		Truck Trips		Total Vehicle Trips			Total PCE Trips		
Hour	In	Out	In	Out	In	Out	Total	In	Out	Total
6 AM – 7 AM	39	0	8	8	47	8	55	55	16	71
7 AM – 8 AM	10	0	3	3	13	3	16	16	6	22
8 AM – 9 AM	0	0	3	3	3	3	6	6	6	12
9 AM – 10 AM	0	0	3	3	3	3	6	6	6	12
10 AM – 11 AM	0	0	3	3	3	3	6	6	6	12
11 AM – 12 PM	0	0	3	3	3	3	6	6	6	12
12 PM – 1 PM	0	0	3	3	3	3	6	6	6	12
1 PM – 2 PM	0	0	3	3	3	3	6	6	6	12
2 PM – 3 PM	0	2	2	2	2	4	6	4	6	10
3 PM – 4 PM	0	40	2	2	2	42	44	4	44	48
4 PM – 5 PM	0	7	0	0	0	7	7	0	7	7
5 PM – 6 PM	0	0	0	0	0	0	0	0	0	0
6 PM – 7 PM	0	0	0	0	0	0	0	0	0	0

The estimated number of peak hour trips during the peak quarter of construction of the No-Action building is expected to be similar to construction of the Proposed Project with the addition of one vehicle trip in the PM peak hour. The construction trips in PCEs are presented in **Table 14-8**.

Since the magnitude of construction PCEs would be similar (nearly identical) for the peak quarter of construction for the Proposed Project and the No-Action, the difference in vehicle trips is below the *2021 CEQR Technical Manual* 50-vehicle trip analysis threshold and, as a result, no further quantified analysis is warranted. Therefore, the Proposed Project is not expected to result in significant adverse construction traffic impacts.

Table 14-8 Peak Hour Construction Vehicle Trip Increase (Proposed Project vs. No-Action Building)

	Auto Trips			Truck Trips			Total (PCE)		
Scenario	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Peak Hour (6 AM to 7 AM)									
Proposed Project	39	0	39	8	8	16	47	8	55
No-Action Building	39	0	39	8	8	16	47	8	55
Increment	0	0	0	0	0	0	0	0	0
Peak Hour (3 PM to 4 PM)									
Proposed Project	0	39	39	2	2	4	2	41	43
No-Action Building	0	40	40	2	2	4	2	42	44
Increment	0	-1	-1	0	0	0	0	-1	-1

Deliveries

Construction trucks would be required to use NYCDOT-designated truck routes, including Third Avenue, Fourth Avenue, Atlantic Avenue, and Bergen Street. Trucks would then use local streets to access the construction site. Construction site deliveries would use the designated loading zone along Bergen Street.

Parking

Construction workers would generate an estimated maximum daily parking demand of 58 spaces during the peak construction in the second quarter of 2025 for the Proposed Project. The No-Action condition is expected to generate similar levels of parking demand (one more parking space as compared to the Proposed Project) during the peak construction quarter. Since the parking demand would remain similar between the peak quarters of construction for the Proposed Project and the No-Action building, construction of the Proposed Project would not result in significant adverse parking impacts.

Transit and Pedestrians

Based on construction survey data, it is anticipated that approximately 45 percent of construction workers would commute to the development site by public transportation. During the peak construction quarter, i.e., the second quarter of 2025, the Proposed Project would be expected to generate 200 daily construction workers. It is expected that the majority of workers (80 percent) would arrive during the AM construction peak hour and depart during the PM construction peak hour and generate approximately 72 construction worker trips by public transportation during those construction peak hours. Construction activities for the No-Action building would generate the same amount of construction workers during the peak quarter of construction as the peak quarter construction of the Proposed Project. Transit service within a quarter mile of the sites includes the Atlantic Avenue Barclays Center Station (served by the 2, 3, 4, 5, B, D, N, Q, and R subway lines), Atlantic Terminal (served by Long Island Rail Road), and multiple bus routes including the B37, B63 B65, and B103. Access to the A, C, F, and G subway lines is also available between a quarter mile and half mile of the sites. These trips would be distributed to the different

transit options and construction activities are not expected to result in transit or pedestrian impacts.

Air Quality

Construction impacts on air quality may occur because of impacts of emissions from construction equipment and construction trucks, particulate matter (fugitive dust) created by demolition, excavation, earth moving operations, etc., and increased truck traffic on local roadways and/or because of temporary road closings. As described in the *2021 CEQR Technical Manual*, the determination whether it is sufficient to conduct a qualitative analysis of these emissions or whether a quantitative analysis is required should take into account such factors as the location of the project in relation to existing residential uses or other sensitive receptors, the intensity of the construction activity, and the extent to which a project incorporates commitments to appropriate emission control measures. These factors are analyzed below.

On-site Construction Related Emissions

For stationary source emissions, the most intense construction activities in terms of air pollutant emissions are typically the demolition and excavation/foundation phases, since it is during these phases that the largest number of large non-road diesel engines would be employed, resulting in the highest levels of air emissions. The other stages of construction, including superstructure, exterior closure, interior buildout, and site work, typically result in much lower air emissions since they require fewer pieces of heavy-duty diesel equipment. Equipment used in the latter stages of construction generally have small engines and are dispersed vertically throughout proposed structures, resulting in very low concentration increments in adjacent areas. Additionally, the latter stages of construction do not involve soil disturbance activities and therefore would result in significantly lower dust emissions. Interior buildout activities are better shielded from nearby sensitive receptors by the proposed structures themselves.

For the Proposed Project, the overall construction period would be 36 months; however, the most intense construction activities in terms of air pollutant emissions (demolition and excavation/foundation) are anticipated to occur over the course of approximately 14 months: demolition would require six months and the excavation and foundation phases would last eight months. Following the completion of demolition and excavation/foundation work, overall air emissions from the latter stages of construction would be lower, for the reasons described above. Finally, the Proposed Project would adhere to existing applicable laws, regulations, and building codes that focus on clean fuel, dust suppression measures, and idling restrictions for on-road vehicles.

Off-site Construction Related Emissions

Off-site mobile source emissions typically result from trucks delivering materials and removing debris, workers' private vehicles, or occasional disruptions in traffic near the construction site. As described above in the Transportation section, the Proposed Project would not result in significant adverse construction-related traffic impacts. Therefore, a detailed assessment of construction-related mobile source emissions is not warranted, and it

is not anticipated that the Proposed Project construction would result in significant adverse air quality impacts from mobile source emissions.

Nearby Sensitive Receptors

The Proposed Project is located in the Boerum Hill neighborhood of Brooklyn. Projected Development Site 1 is located immediately adjacent to residential uses on the project block, including the rowhomes on the south side and northwest corner of the project block. During construction, 20-foot-wide overhead building protection would be provided for all adjacent uses. Therefore, the closest sensitive receptors to construction would be located no closer than 20 feet away from the construction activities.

Emission Intensity Analysis

Because the Proposed Project's construction period would last over two years and the project is located next to sensitive residential receptors, a construction emission intensity analysis was conducted. A construction emission intensity analysis includes estimating construction particulate matter (PM) emissions – specifically $PM_{2.5}$ – which are the emissions of primary concern from construction. $PM_{2.5}$ emissions were estimated for the full duration of construction. This analysis also provides a comparison of the Proposed Project's peak daily and annual $PM_{2.5}$ emissions and proximity to nearby sensitive receptors to those of a comparable project that conducted a dispersion analysis and demonstrated no significant adverse air quality impacts.

The approach to estimate emissions includes a determination of the peak emission period based on an estimated monthly construction work schedule in which the number of on-site construction equipment types and rated horsepower of each unit, quantities of materials to be excavated, and number of trucks arriving, working, and leaving the site vary from month to month.

The peak daily emissions and the maximum annual emissions (based on a 12-month rolling average) for the Proposed Project construction were determined based on the construction schedule activities and equipment projected to be required for this construction period. The assessment considered main phases of construction: demolition, excavation and foundation, superstructure-exterior, and interiors.

The specific construction information used to calculate emissions generated from the construction process included, but is not limited to, the following:

- The number of units and fuel-type of construction equipment to be used;
- Rated horsepower and load factors for each piece of equipment;
- Utilization rates for equipment;
- Hours of operation on site;
- Excavation processing rates; and
- Average distance to approach and enter the site and idling time by dump and fuel trucks, cement trucks, box and delivery trucks, and trailers for equipment delivery.

Emission Reduction Measures

As noted above, construction-period air emissions could adversely affect air quality because of on-site emissions from the construction equipment and dust-generating activities. To address potential emissions during construction, the Proposed Project would adhere to the existing applicable laws, regulations, and building codes that focus on clean fuel, dust control, vehicle idling and diesel-powered equipment, as described below.

- Clean Fuel. Ultra-low sulfur diesel (ULSD) would be used for diesel engines throughout the construction site.[2]
- Dust Control. Fugitive dust control plans would be required as part of contract specifications. For example, stabilized truck exit areas would be established for washing off the wheels of all trucks that exit the construction site. Truck routes within the site would be watered as needed to avoid the re-suspension of dust. All trucks hauling loose material would be equipped with tight fitting tailgates and their loads securely covered prior to leaving the site. All measures required by the portion of the New York City Air Pollution Control Code regulating construction-related dust emissions would be implemented.
- Restrictions on Vehicle Idling. In addition to adhering to the local law restricting unnecessary idling on roadways, on-site vehicle idle time would also be restricted to three minutes for all equipment and vehicles that are not using their engines to operate a loading, unloading, or processing device (e.g., concrete mixing trucks) or otherwise required for the proper operation of the engine.
- Diesel Equipment Reduction. Construction of the Proposed Project would minimize the use of diesel engines and use electric engines, to the extent practical. This would reduce the need for on-site generators and require the use of electric engines in lieu of diesel, where practical. This is a common practice that has been achieving wider use as technology improves.
- Given the construction timeframe, equipment meeting Tier 4 standards for diesel engines (model years 2011/12 and beyond) would be expected to be in wide use and comprise the majority of contractors' fleets. If contractors choose to use older diesel equipment; the use of diesel particulate filters (DPF) in Tier 3 emission standard for diesel engines (model years 2006-2011 for engine sizes between 100 and 600 hp)[3] would be implemented. Tier 3 with DPF achieves the same emission reductions as a newer Tier 4 emission standard for diesel engines. The combination of Tier 4 and Tier 3 engines with DPF would achieve diesel particulate matter reductions of approximately 90 percent when compared to older uncontrolled engines.

In addition, as detailed in **Section 9, Hazardous Materials**, as required by the (E) Designation for Projected Development Site 1, additional requirements, including the implementation of a Phase II Investigation protocol and, if required, the preparation and implementation of a Remedial Action Work Plan (RAWP) and construction-related health and safety plan (CHASP), will be conducted. These documents must undergo a thorough review

[2] The Environmental Protection Agency (EPA) required a major reduction in the sulfur content of diesel fuel intended for use in locomotive, marine, and non-road engines, and equipment, including construction equipment. As of 2015, the diesel fuel produced by all large refiners, small refiners, and importers must be ULSD fuel. Sulfur levels in non-road diesel fuel are limited to a maximum of 15 parts per million.

[3] See Table 2-1 of the USEPA's Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES2014b document

and are ultimately approved by the New York City Mayor's Office of Environmental Remediation (OER).

Emissions Intensity Assessment

Emission factors for construction equipment were estimated using the MOVES2014b NONROAD model for each piece of equipment for Kings County as a weighted average between the years 2008 and 2020 and assuming Tier 4 or Tier 3 with DPF diesel equipment. Emission factors for trucks were also estimated using MOVES2014b for Kings County. Idling was limited to NYC restrictions for heavy trucks with the exception of cement trucks, for which one hour idling was assumed. Unpaved road dust emissions were estimated using EPA AP-42, Section 13.2.2 equations.[4] Emissions from material transfer operations for loading debris during excavation were estimated using equations from AP-42, Section 13.2.4.[5]

Construction-related emissions were calculated throughout the duration of construction on a monthly basis using peak daily emissions for short term $PM_{2.5}$, and average monthly usage for annual $PM_{2.5}$ to determine the construction phase that constitutes the peak $PM_{2.5}$ emissions. Based on the results of the $PM_{2.5}$ emissions analysis for the entire construction period, the eighth month of construction, or August 2023, was identified as having the highest daily $PM_{2.5}$ emissions. **Figure 14-1** presents the projected peak daily $PM_{2.5}$ emissions during construction of the Proposed Project. As shown, at the end of first quarter of 2025, after the superstructure/exterior phase ends, daily $PM_{2.5}$ emissions from construction become very low, about one percent of the peak daily emissions. The increase in emissions in the last two months is connected with site work (sidewalk construction). **Figure 14-2** shows the rolling average annual emissions for the entire duration of construction. The highest annual emissions were identified for the period of construction between July 2023 and June 2024, which corresponds to the entire excavation and foundation phase and the start of the superstructure/exterior phase.

[4] AP-42: Compilation of Air Emission Factors: https://www.epa.gov/sites/production/files/2020-10/documents/13.2.2_unpaved_roads.pdf

[5] AP-42: Compilation of Air Emission Factors: https://www.epa.gov/sites/production/files/2020-10/documents/13.2.4_aggregate_handling_and_storage_piles.pdf

Figure 14-1 Projected Peak Daily $PM_{2.5}$ Construction Emissions

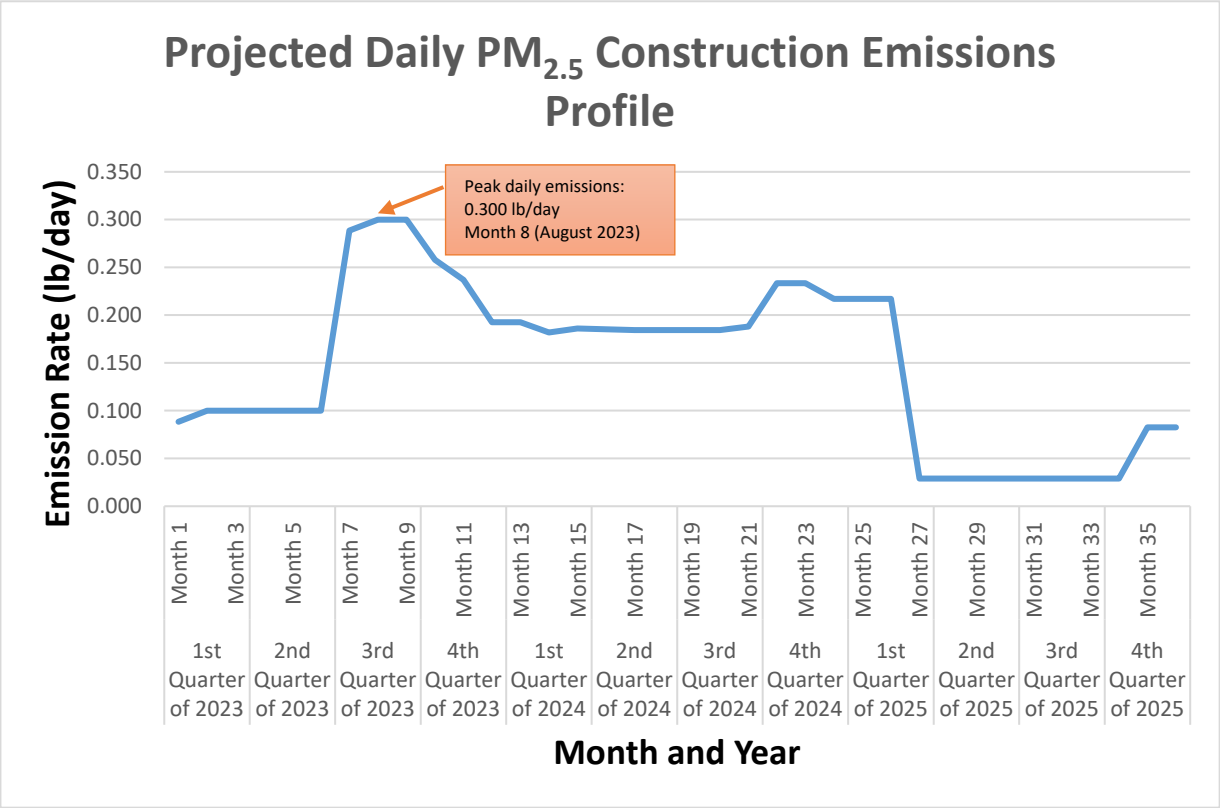
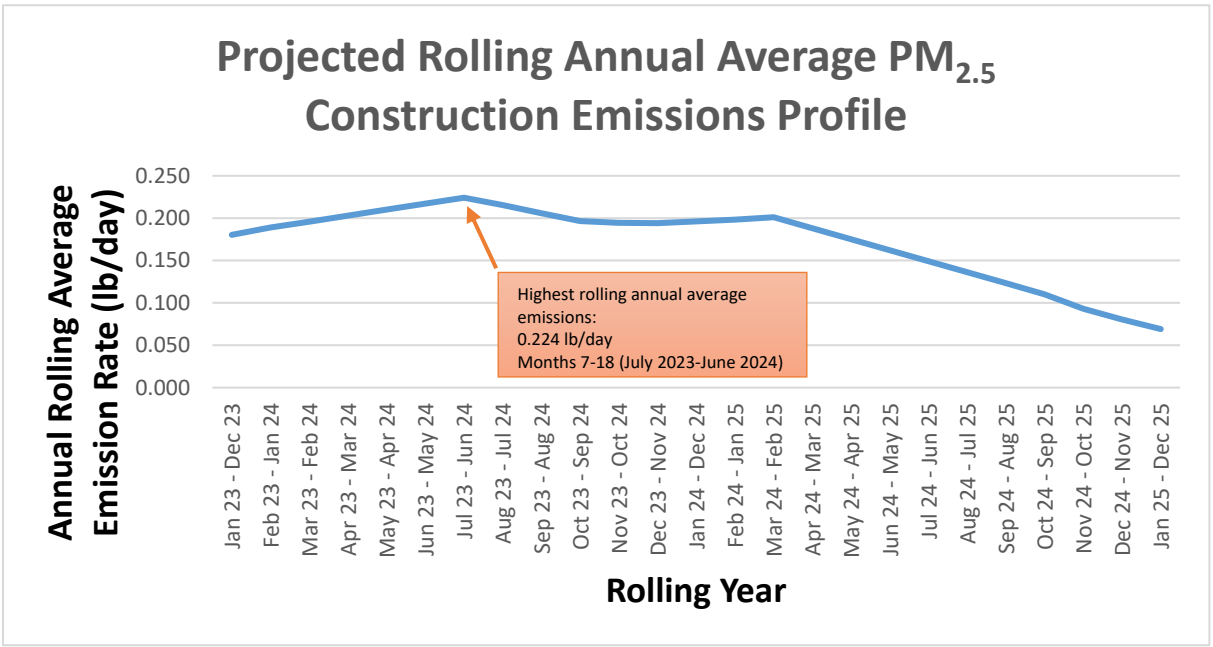


Figure 14-2 Projected Rolling Annual $PM_{2.5}$ Construction Emissions



In order to determine whether there is a potential for construction emissions from the Proposed Project to adversely impact the air quality levels in the neighborhood, the peak

daily emissions estimated for the Proposed Project were compared to the peak daily emissions from other projects, which conducted dispersion analyses and demonstrated no significant adverse air quality impacts from construction. **Table 14-9** presents the results of this comparison. As shown in this table, peak daily $PM_{2.5}$ emissions from the Proposed Project are about 40-45 percent lower than the Greater East Midtown and 175 Park Avenue projects' peak daily $PM_{2.5}$ emissions from construction. Peak daily emissions at the 343 Madison Avenue project construction were about 20 percent lower, which was likely connected with the much smaller project site and limited equipment that could have been used.

The Proposed Project construction schedule is very aggressive which added to the intensity of construction. The Proposed Project would be constructed in 36 months including demolition, while the 343 Madison Avenue project construction period was 42 months without demolition. Peak annual emissions from the Proposed Project are lower for all comparison projects including the 343 Madison Avenue project. Sensitive receptors surrounding these projects' construction sites were located a little closer when compared with the Proposed Project's construction site, e.g., at least 10 feet away compared with around 20 feet.

Table 14-9 Comparison between Peak Daily $PM_{2.5}$ Construction Emissions from the Proposed Project to Other Projects

Project Name	Proposed Building Size(s) (gsf)	Construction Duration (months)	Peak Daily $PM_{2.5}$ emissions (lb/day)	Peak Annual $PM_{2.5}$ emissions (lb/day)
Greater East Midtown Rezoning	1,000,000	62	0.505	0.352
175 Park Avenue	2,992,161	110	0.545	0.532
343 Madison Avenue	925,630	42	0.252	0.246
Proposed Project	**307,000**	36	0.300	0.224

Conclusion

Based on the location of nearby sensitive receptors relative to the sources of construction air quality emissions, the duration and intensity of construction activities, a comparison of emissions profiles, and the use of emission control measures, the Proposed Project would not result in any significant adverse construction air quality impacts. Further, the maximum number of construction-related vehicle trips is not expected to exceed the *CEQR Technical Manual* thresholds for conducting a mobile source analysis. Therefore, no further analysis is required.

Noise

Construction activities have the potential to affect the noise conditions of existing receptors near the Project Area. Construction noise can vary widely depending on the phase of construction (e.g., demolition, excavation/foundation, superstructure, exterior closure, interior buildout, and site work) and the specific equipment and methods that are utilized.

The most significant construction noise sources at construction sites are generally the movement of trucks to and from the site, back-up alarms, and equipment such as excavators, hoe rams, drill rigs, pile driving rigs, and cranes. The noisiest construction phases are typically demolition, excavation/foundation, and superstructure work. Interior finishes typically result in lower noise emissions since they require fewer pieces of heavy-duty diesel equipment and because interior finish activities are better shielded from nearby sensitive receptors by the proposed structure itself.

Pursuant to Section 310 of the Construction chapter of the *2021 CEQR Technical Manual*:

"*For stationary sources, construction noise, generated by pile driving, truck traffic, blasting, demolition, etc., is generally analyzed in detail only when it affects a sensitive receptor over a long period of time. The determination whether it is sufficient to conduct a qualitative analysis or whether a quantitative analysis is required cannot be made based solely on the duration of the construction period and should take into account such factors as the location of the project site in relation to existing residential uses or other sensitive receptors, the intensity of the construction activity, and the extent to which the project incorporates commitments to appropriate noise control measures.*"

The determining factors identified in Section 310 are assessed below.

For the Proposed Project, the overall construction period would be approximately 36 months; however, the most intense construction activities in terms of noise are anticipated to occur during month 7 through month 36, during the excavation/foundation, superstructure/interior fit out overlap, and interior fit out/site work phases. In addition, these relatively intense construction activities would be sequenced to minimize the impact, meaning the noisiest activities would be spread across the Project Area at different times during the total construction period.

Noise Reduction Measures

Noise from construction activities and some construction equipment is regulated by the New York City Noise Control Code and by the EPA. The New York City Noise Control Code limits construction activities to weekdays between the hours of 7:00 AM and 6:00 PM, sets noise limits for specific pieces of construction equipment, and requires the implementation of a Construction Noise Mitigation Plan. The Construction Noise Mitigation Plan outlines project-specific noise control measures and identifies applicable noise source and noise path controls. Source noise controls are designed to mitigate noises at their origin, while path noise controls focus on the available route(s) between a noise source and any receptors.

As noted above, the determination whether it is sufficient to conduct a qualitative analysis of construction-period noise should consider the extent to which the project incorporates commitments to appropriate noise control measures. In terms of source controls (i.e., reducing noise levels at the source or during the most sensitive time periods), the following measures would be mandated in accordance with the New York City Noise Code and include additional measures beyond the New York City Noise Code:

- The contractor would self-certify that all construction tools and equipment have been maintained to not generate excessive or unnecessary noise and that the noise emissions would not exceed the levels specified in Subchapter 5 of the NYC Noise Control Code

and Table 22-1 of the *2021 CEQR Technical Manual*. Table 14-11 shows the noise levels for typical construction equipment.

- All construction equipment would be equipped with necessary noise reduction equipment, including mufflers. All equipment with internal combustion engines would include noise-insulating materials and would be operated with the doors closed and at the lowest engine speed allowable.
- Where feasible, practical, and safe, the use of back-up alarms would be minimized and/or quieter back-up alarms would be installed in accordance with OSHA standards.
- Vehicles would not be allowed to idle more than three minutes, in accordance with New York City Administrative Code §24-163.
- The contractor would implement a training program to inform workers on methods that can minimize construction noise.
- For certain types of equipment such as impact equipment (i.e., jackhammers) and earth-moving equipment, quieter makes and models would be selected, as feasible.
- In general, the quietest equipment and methods would be used for excavators, dump trucks, cranes, pile drivers etc., to the extent feasible and practical.
- Pile installation and foundation elements shall be constructed by drilling rather than pile driving.

In terms of path controls (e.g., placement of equipment, implementation of barriers or enclosures between equipment and sensitive receptors), the following measures for construction would be implemented:

- When the DOB regulations require a perimeter barrier or "construction fence" and the site is within 200 feet of a receptor, the barrier shall be constructed in a specific manner (as described in the New York City Noise Code) to provide sufficient sound attenuation. Section 3307.7 of the New York City Building Code requires that a solid 8-foot-tall wall made of wood or other suitable material is installed where a new building is being constructed or a building is being demolished to grade. The project would include an 8-foot-tall perimeter wall surrounding Projected Development Site 1. There is also an 8-foot-tall perimeter wall around the staging area at the intersection of Nevins Street and Wyckoff Street and an additional 8-foot-tall wall along Bergen Street, which would provide shielding to nearby receptors from heavy trucks associated with the Project, as required by New York City Noise Code.
- Where logistics allow, noisy equipment, such as cranes, concrete pumps, concrete trucks, and delivery trucks, would be located away from and shielded from sensitive receptor locations.
- Should noise complaints occur during construction, the contractor would use path noise control measures such as temporary noise barriers, jersey barriers and/or portable noise enclosures for small equipment.

Construction Noise Impact Criteria

The construction noise analysis methodology involves identifying noise-sensitive receptors, including residential, commercial office spaces, and community facilities near Projected Development Site 1, assessing the potential for construction noise impacts due to mobile sources (i.e., construction trucks and construction worker vehicles), and assessing potential

stationary construction noise impacts by evaluating the noise emissions during each month of construction, identifying the loudest periods for each phase (i.e., demolition, excavation/foundation, superstructure, and interior fit out), predicting construction noise levels at each receptor location, assessing potential impacts according to applicable construction noise impact criteria, and evaluating whether noise mitigation is warranted, feasible, and effective.

The noise impact criteria described in Chapter 19, Section 410 of the CEQR Technical Manual serve as a screening-level threshold for potential construction noise impacts. As described in Chapter 19 (Noise), Section 410, there would be a significant noise impact from long-term operational conditions if ambient sound levels increase by 3 dBA (L_{eq}) or more and absolute levels would exceed 65 dBA L_{eq}, or, if existing ambient sound levels are 60 dBA L_{eq} or less, and noise levels would increase by 5 dBA (L_{eq}) or more. The significance of construction noise effects depends on the intensity and duration of construction activities. If construction of a proposed project would not result in any exceedances of these criteria at a given receptor, then that receptor would not have the potential to experience a construction noise impact. However, if construction would result in exceedances of these noise impact criteria, then further consideration of the intensity and duration of construction noise is warranted at that receptor to determine significant adverse construction noise impact.

The detailed construction noise analysis evaluates the specific activities, types of equipment, duration of activities, and locations of nearby sensitive receptors. Based on the results of the detailed analysis, there would be a significant adverse noise impact if construction noise due to the Proposed Project exceeds the following:

- A significant adverse noise impact would result if the maximum noise level exceeded 85 dBA (L_{eq}) for a prolonged period of time, as indicated in the *CEQR Technical Manual* Public Health chapter.

The following criteria must all be met:

- Exterior construction noise levels exceed ambient levels by 15 dBA or more for 12 continuous months or more, or exceed ambient levels by 20 dBA or more for 3 continuous months or more.
- Interior construction noise levels exceed the interior noise criteria which are 45 dBA (L_{10}) for residential and community facilities and 50 dBA (L_{10}) for commercial office uses.
- The exterior and interior noise criteria are exceeded for the With-Action condition and are not exceeded for the No-Action condition.

Both the No-Action and With-Action developments would include the same number and types of construction equipment. Construction of the Proposed Project is planned to last for 36 months. The No-Action development is scheduled for 32 months. Due to the differences in durations of the With-Action and No-Action condition, a detailed construction noise analysis is warranted to determine if there would be new additional significant adverse noise impact due to the Proposed Actions, to assess potential exceedances of the public health criterion, and to document the anticipated construction noise levels for the No-Action and With-Action conditions.

Construction Noise Receptors

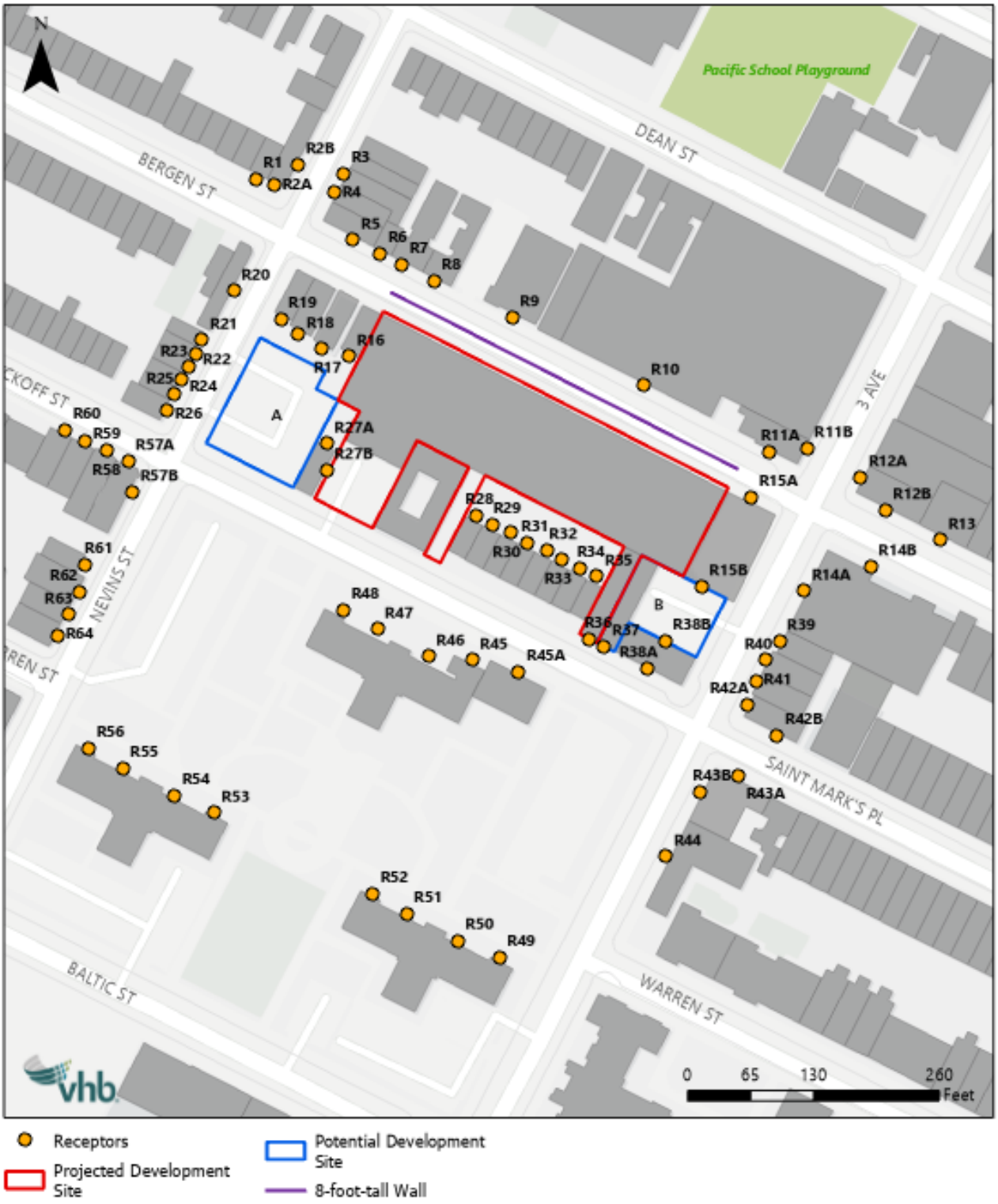
The Proposed Project is near existing residential and commercial land uses. Based on the proximity of these noise-sensitive land uses, there is the potential for construction noise levels to exceed the screening criteria. As shown in **Figure 14-3,** the study area for construction noise includes 74 buildings (or building façades) located on Blocks 196, 197, 198, 387, 388, 389, 393, 394, and 395 with residential, commercial office, or community facility uses. Receptors were included on the closest location of each building, or building façade, to Projected Development Site 1 and on each floor of the buildings. Multiple receptors were included for the buildings immediately adjacent to the east and west of the development site where there is the greatest potential for construction noise impacts.

The receptors included in the construction noise assessment include the following:

- R1 – R8, R11 – R35, R38 – R43, and R57 – R64 include residential receptors
- R45 – R56 include the high-rise multi-family dwellings at the Wyckoff Gardens complex
- R2, R4, R6, R10 – R12, R18, R20, R26, R36, R37, R39, and R41 include commercial use buildings, primarily located on the first floor with residences on upper floors
- R9, R44, and R45 are religious or community institutions, including Bethel Baptist Church, Kingdom Hall of Jehovah's Witnesses, and Wyckoff Gardens Community Center.

The outdoor-to-indoor noise reduction of the receptor buildings has been estimated based on a visual survey of the buildings' facades. Buildings have been assumed to provide outdoor-to-indoor noise reduction of 10, 25, or 30 dBA for buildings with open window conditions, double-pane windows and alternate means of ventilation, or central air, respectively.

Figure 14-3 Construction Noise Receptor Locations



Source: VHB, 2022

Construction Mobile Sources Noise Assessment

As described in the Construction Traffic section, the peak construction vehicle trips during the peak construction quarter (fourth quarter of 2024) would include 39 automobiles and 8 truck trips in the 6:00 AM to 7:00 AM period. These vehicle trips would be distributed along 3rd Avenue and Bergen Street. Existing traffic volumes in the morning peak period between 8:00 AM and 9:00 AM were counted during the ambient sound measurements.

The potential for construction mobile sources to increase ambient sound conditions has been determined based on proportional modeling of noise passenger-car equivalents (PCEs). If construction mobile sources would result in a noise increment of 15 dBA or greater, the increase is considered objectionable. If PCEs would not result in an objectionable increase during construction, there would not be a significant adverse vehicular noise impact and no further mobile source noise analysis is warranted. The *2021 CEQR Technical Manual* describes the process to determine PCEs. Vehicle classes are defined to have the following PCEs based on typical vehicles speeds:

- Each automobile or light truck: 1 noise PCE
- Each medium truck: 13 noise PCEs
- Each bus: 18 noise PCEs
- Each heavy truck: 47 noise PCEs

Increases in noise due to construction mobile sources are calculated using the following equation:

$$Sound\ Level\ Increase\ (Leq) = 10 * \log\left(\frac{Existing\ and\ Construction\ PCEs}{Existing\ PCEs}\right)$$

There are 440 existing noise PCEs on Bergen Street in the morning peak period based on the traffic counts during the noise measurements. Based on New York State traffic count data on Bergen Street (October 2017, NYC DOT TIMS Count ID 112500), traffic volumes during the 6:00 AM to 7:00 AM period were 52% of the volume during the 8:00 AM to 9:00 AM period. Therefore, there are 211 existing noise PCEs on Bergen Street in the 6:00 AM to 7:00 AM hour. Construction mobile sources would result in 415 noise PCEs and there would be 626 total existing and construction-period noise PCEs. Construction mobile sources would increase sound levels by 4.7 dBA based on proportional modeling. While there are roadways that would experience doubling of Noise PCEs during the peak construction traffic condition, peak construction traffic during 6:00 AM to 7:00 AM would not result in noise increment that would be considered objectionable (i.e., 15 dBA or greater). Therefore, considering the limited magnitude and duration of predicted noise increases, construction work vehicles and trucks traveling to and from the construction sites between 6:00 AM and 7:00 AM would not likely result in a significant adverse construction noise impact.

Construction mobile source noise has been analyzed using Cadna-A, assuming construction trucks and vehicles during the 6:00 AM to 7:00 AM period would arrive to Projected Development Site 1 from Bergen Street and 3rd Avenue. Trip assignments for construction vehicle traffic assume 40 percent of the construction vehicle traffic would arrive by way of 3rd Avenue traveling south to Bergen Street, 40 percent traveling north on 3rd Avenue to

Bergen Street, and 20 percent of traffic traveling west on Bergen Street, with all construction traffic arriving to Projected Development Site 1 along Bergen Street.

Table 14-10 shows that construction mobile source noise would result in an increase in noise up to 0.9 dBA above ambient conditions. Since noise from construction mobile sources would increase less than 15 dBA above ambient conditions, there would not be a significant adverse noise impact.

Table 14-10 Construction Mobile Source Sound Levels (6 AM -7 AM)

Receptor	Location	Ambient Sound Level (6-7 AM) (dBA, L_{eq})	Construction Mobile Source SL (dBA, L_{eq})	Future Sound Level (dBA, L_{eq})	Maximum Increase (dBA)	Increase of 15 dBA or More Over Ambient
R1	243 BERGEN STREET	57.3 - 63.8	31.9 - 35.2	57.3 - 63.8	0.0	No
R2A	245 BERGEN STREET	65.0 - 66.8	29.3 - 29.9	65.0 - 66.8	0.0	No
R2B	245 BERGEN STREET	58.9 - 61.2	20.0 - 26.6	58.9 - 61.2	0.0	No
R3	139 NEVINS STREET	60.5 - 63.0	12.8 - 24.1	60.5 - 63.0	0.0	No
R4	141 NEVINS STREET	60.2 - 63.4	24.2 - 29.6	60.2 - 63.4	0.0	No
R5	143 NEVINS STREET	62.0 - 62.9	41.1 - 41.8	62.1 - 63.0	0.0	No
R6	253 BERGEN STREET	64.6 - 65.9	40.2 - 41.4	64.7 - 65.9	0.0	No
R7	255 BERGEN STREET	63.1 - 66.4	46.8 - 47.7	63.2 - 66.5	0.1	No
R8	259 BERGEN STREET	57.4 - 62.8	47.6 - 53.9	57.9 - 63.4	0.9	No
R9	265 BERGEN STREET	65.5 - 65.7	54.2 - 54.4	65.9 - 66.0	0.3	No
R10	88 3 AVENUE	63.0 - 63.0	52.2 - 52.2	63.4 - 63.4	0.3	No
R11A	96 3 AVENUE	62.6 - 63.5	52.1 - 52.7	63.0 - 63.8	0.4	No
R11B	96 3 AVENUE	59.8 - 68.1	43.0 - 51.1	59.9 - 68.2	0.1	No
R12A	93 3 AVENUE	60.2 - 67.0	43.8 - 48.7	60.3 - 67.1	0.1	No
R12B	93 3 AVENUE	57.4 - 61.4	43.2 - 46.4	57.6 - 61.5	0.2	No
R13	305 BERGEN STREET	61.9 - 64.2	46.8 - 49.3	62.0 - 64.3	0.1	No
R14A	101 3 AVENUE	66.8 - 69.5	48.5 - 52.3	66.9 - 69.6	0.1	No
R14B	101 3 AVENUE	60.1 - 66.7	44.6 - 49.4	60.2 - 66.8	0.1	No
R15A	300 BERGEN STREET	64.6 - 67.1	52.5 - 53.9	64.9 - 67.3	0.3	No
R15B	300 BERGEN STREET	61.3 - 65.9	41.1 - 47.9	61.3 - 66.0	0.1	No
R16	262 BERGEN STREET	56.8 - 59.0	19.0 - 38.3	56.8 - 59.1	0.0	No
R17	260 BERGEN STREET	56.8 - 59.4	23.1 - 32.9	56.8 - 59.4	0.0	No
R18	258 BERGEN STREET	56.8 - 60.8	22.2 - 31.4	56.8 - 60.8	0.0	No
R19	256 BERGEN STREET	56.8 - 62.5	20.3 - 31.7	56.8 - 62.5	0.0	No
R20	254 BERGEN STREET	61.0 - 67.5	18.9 - 31.8	61.0 - 67.5	0.0	No
R21	156 NEVINS STREET	56.8 - 56.8	20.5 - 27.1	56.8 - 56.8	0.0	No
R22	158 NEVINS STREET	56.8 - 56.8	20.0 - 26.0	56.8 - 56.8	0.0	No
R23	158A NEVINS STREET	56.8 - 56.8	19.3 - 24.7	56.8 - 56.8	0.0	No
R24	160 NEVINS STREET	56.8 - 56.8	20.9 - 25.4	56.8 - 56.8	0.0	No
R25	162 NEVINS STREET	56.8 - 56.8	21.8 - 24.6	56.8 - 56.8	0.0	No
R26	164 NEVINS STREET	56.8 - 56.8	19.8 - 25.5	56.8 - 56.8	0.0	No
R27A	259 WYCKOFF STREET	56.8 - 56.9	22.5 - 28.4	56.8 - 56.9	0.0	No
R27B	259 WYCKOFF STREET	56.8 - 56.8	22.7 - 30.0	56.8 - 56.8	0.0	No
R28	275 WYCKOFF STREET	56.8 - 56.8	22.6 - 30.1	56.8 - 56.8	0.0	No
R29	275A WYCKOFF STREET	56.8 - 56.8	23.4 - 31.4	56.8 - 56.8	0.0	No
R30	277 WYCKOFF STREET	56.8 - 56.8	22.8 - 34.9	56.8 - 56.8	0.0	No
R31	279 WYCKOFF STREET	56.8 - 58.4	21.7 - 37.5	56.8 - 58.5	0.0	No
R32	281 WYCKOFF STREET	56.8 - 56.8	23.7 - 34.9	56.8 - 56.8	0.0	No
R33	283 WYCKOFF STREET	56.8 - 57.9	24.1 - 35.9	56.8 - 58.0	0.0	No
R34	283 1/2 WYCKOFF STREET	56.8 - 59.5	24.8 - 37.5	56.8 - 59.6	0.0	No
R35	285 WYCKOFF STREET	56.8 - 64.6	23.3 - 42.0	56.8 - 64.7	0.0	No

Table 14-10 Construction Mobile Source Sound Levels (6 AM -7 AM)

Receptor	Location	Ambient Sound Level (6-7 AM) (dBA, L_{eq})	Construction Mobile Source SL (dBA, L_{eq})	Future Sound Level (dBA, L_{eq})	Maximum Increase (dBA)	Increase of 15 dBA or More Over Ambient
R36	287 WYCKOFF STREET	60.4 - 60.4	33.7 - 33.7	60.4 - 60.4	0.0	No
R37	289 WYCKOFF STREET	60.9 - 60.9	34.4 - 34.4	60.9 - 60.9	0.0	No
R38A	118 3 AVENUE	63.3 - 70.2	36.1 - 46.6	63.3 - 70.2	0.0	No
R38B	118 3 AVENUE	61.6 - 70.8	38.9 - 46.5	61.6 - 70.8	0.0	No
R39	103 3 AVENUE	67.0 - 72.3	43.9 - 49.2	67.0 - 72.3	0.0	No
R40	105 3 AVENUE	72.7 - 74.5	50.8 - 52.0	72.7 - 74.5	0.0	No
R41	107 3 AVENUE	66.6 - 74.0	43.0 - 51.4	66.6 - 74.0	0.0	No
R42A	109 3 AVENUE	67.9 - 69.7	44.8 - 46.6	67.9 - 69.7	0.0	No
R42B	109 3 AVENUE	60.0 - 67.1	34.2 - 41.7	60.0 - 67.1	0.0	No
R43A	8 ST MARKS PLACE	64.2 - 70.3	39.5 - 47.2	64.2 - 70.3	0.0	No
R43B	8 ST MARKS PLACE	68.8 - 75.4	43.8 - 52.7	68.8 - 75.4	0.0	No
R44	127 3 AVENUE	65.7 - 65.7	41.6 - 41.6	65.7 - 65.7	0.0	No
R45A	280 WYCKOFF STREET	57.0 - 57.0	29.8 - 29.8	57.0 - 57.0	0.0	No
R45	120 3 AVENUE WYCKOFF GARDENS A	56.8 - 67.7	27.8 - 45.2	56.8 - 67.8	0.0	No
R46	120 3 AVENUE WYCKOFF GARDENS A	56.8 - 67.5	24.4 - 45.2	56.8 - 67.6	0.0	No
R47	120 3 AVENUE WYCKOFF GARDENS A	56.8 - 67.4	26.6 - 44.7	56.8 - 67.5	0.0	No
R48	120 3 AVENUE WYCKOFF GARDENS A	56.8 - 65.5	24.8 - 43.0	56.8 - 65.6	0.0	No
R49	120 3 AVENUE WYCKOFF GARDENS B	63.7 - 67.1	38.1 - 43.2	63.7 - 67.2	0.0	No
R50	120 3 AVENUE WYCKOFF GARDENS B	57.8 - 65.7	33.3 - 42.4	57.8 - 65.8	0.0	No
R51	120 3 AVENUE WYCKOFF GARDENS B	56.8 - 64.6	31.2 - 40.8	56.8 - 64.7	0.0	No
R52	120 3 AVENUE WYCKOFF GARDENS B	56.8 - 62.4	31.0 - 39.1	56.8 - 62.5	0.0	No
R53	120 3 AVENUE WYCKOFF GARDENS C	56.8 - 60.3	24.6 - 34.2	56.8 - 60.3	0.0	No
R54	120 3 AVENUE WYCKOFF GARDENS C	56.8 - 62.9	24.3 - 38.0	56.8 - 62.9	0.0	No
R55	120 3 AVENUE WYCKOFF GARDENS C	56.8 - 63.6	23.2 - 37.7	56.8 - 63.6	0.0	No
R56	120 3 AVENUE WYCKOFF GARDENS C	57.7 - 64.4	24.0 - 33.5	57.7 - 64.4	0.0	No
R57A	258 WYCKOFF STREET	56.8 - 56.8	21.2 - 25.8	56.8 - 56.8	0.0	No
R57B	258 WYCKOFF STREET	56.8 - 56.8	32.2 - 35.2	56.8 - 56.8	0.0	No
R58	256 WYCKOFF STREET	56.8 - 56.8	23.5 - 27.8	56.8 - 56.8	0.0	No
R59	254 WYCKOFF STREET	56.8 - 56.8	20.3 - 28.1	56.8 - 56.8	0.0	No
R60	252 WYCKOFF STREET	56.8 - 56.8	21.2 - 27.2	56.8 - 56.8	0.0	No
R61	176 NEVINS STREET	56.8 - 56.8	25.1 - 29.4	56.8 - 56.8	0.0	No
R62	178 NEVINS STREET	56.8 - 56.8	24.1 - 26.4	56.8 - 56.8	0.0	No
R63	180 NEVINS STREET	56.8 - 56.8	22.6 - 25.6	56.8 - 56.8	0.0	No
R64	182 NEVINS STREET	56.8 - 56.8	22.7 - 28.7	56.8 - 56.8	0.0	No

Source: VHB, 2022.

Construction Stationary Sources Noise Assessment

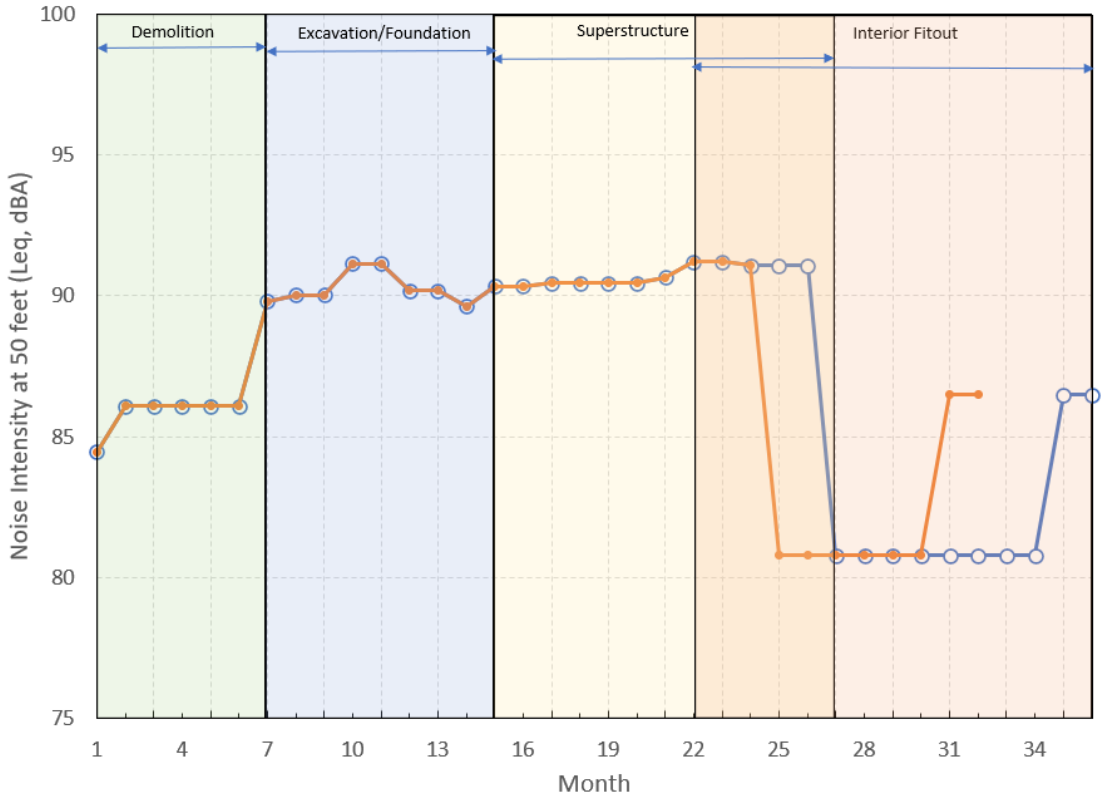
Construction Noise Intensity/Peak Months

Construction schedule was assessed based on the anticipated construction equipment. **Figure 14-4** presents the cumulative sound emissions from stationary construction equipment during the peak noise month of each phase for the With-Action and No-Action conditions. The cumulative sound emissions represent the total energy-average (L_{eq}) level of all equipment operating at a distance of 50 feet. This sound emission is not the actual sound level that would exist on Projected Development Site 1 since actual equipment is distributed throughout the site, but the cumulative emissions level indicates which periods of construction are expected to be the loudest and which months should be used for analysis.

Construction activity associated with the Proposed Project is anticipated to last a total of 36 months for the With-Action condition and 32 months for No-Action condition.

- The demolition phase of construction for the With-Action and the No-Action conditions would take six months and shows a peak noise intensity in the mid 80's dBA. Demolition noise has been evaluated during month 4.
- The excavation/foundation phase of construction for both the With-Action and the No-Action conditions would take eight months and shows a peak noise intensity in the low 90's dBA. Excavation/foundation noise has been evaluated for month 10.
- The superstructure phase of construction for the With-Action condition would take 12 months and for the No-Action condition would take 10 months. The interior fit out phase of construction is scheduled to overlap with the superstructure phase from month 22 through month 26 in the With-Action condition and from month 22 through month 24 in the No-Action condition. The peak noise intensity would occur during the overlapping period in the low 90's dBA. Superstructure noise has been evaluated during month 23.
- The interior fit out phase of construction would take 15 months for the With-Action condition and 11 months for the No-Action condition. Planned sidewalk improvements at Projected Development Site 1 would overlap with the last two months of the interior fit out phase for both the With-Action and the No-Action. The peak noise intensity would occur during the interior fit out and sidewalk overlapping period in the mid 80's. Interior fit out noise has been evaluated during month 35 of the With-Action condition and month 31 of the No-Action condition.

Figure 14-4 Cumulative Sound Emissions from Stationary Equipment during Each Month (No-Action and With-Action)



Source: VHB, 2022.

The detailed construction noise analysis including stationary sources is based on typical equipment used during demolition, excavation/foundation, superstructure, and interior fit out phases of construction.

Table 14-11 presents the type of equipment, the maximum sound level at 50 feet, the utilization factors (percentage of time the equipment is operating at full power), and the number of each piece of equipment that is used during the loudest month of each phase of construction based on the *2021 CEQR Technical Manual*. These equipment assumptions are based on conceptual site plans and construction schedules. Therefore, these represent a worst-case condition regarding the number of pieces of construction equipment and the duration of construction activities. This table does not include trucks at Projected Development Site 1 such as box trucks, pickup trucks, tractor trailers, packer trucks, container trucks, and dump trucks since they are not allowed to idle more than three minutes in accordance with New York City Administrative Code §24-163.

Table 14-11 Equipment Sound Levels

Equipment[1]	Maximum Sound Level at 50 feet (dBA, L_{max})	Utilization Factor (%)	Number of Construction Pieces of Equipment: Demolition Phase (Month 4)	Excavation/ Foundation Phase (Month 10)	Superstructure Phase (Month 23)	Interior Fit out Phase (Month 35 - With-Action; Month 31 - No-Action)
Concrete Mixer Truck	85	40	0	3	3	1
Concrete Pump Truck	82	20	0	1	1	0
Excavator	85	40	1	4	0	0
Skidsteer	80	40	1	1	0	0
Caisson Rig	84	20	0	0	0	0
Portable Concrete Mixer	80	50	0	0	2	0
Compressors (diesel)	80	40	2	2	3	3
Tie-back drill rig (track rig)	84	20	0	0	0	0
Generator	82	50	2	3	5	0
Mobile Cranes	85	16	0	0	1	0
Rebar Bender	80	20	0	1	1	0
Backhoe/Loader	80	40	0	0	0	0
Forklift[2]	64	40	0	0	2	1
Asphalt Laying Equipment	85	50	0	0	1	1
Dual Hoist (400 amp)[3]	75	50	0	0	2	0
Circular Saw[4]	76	20	0	0	5	5

Source: VHB, 2022.

[1] Since dump trucks and pickup trucks are not allowed to idle more than three minutes in accordance with New York City Administrative Code §24-163, they have been excluded from the construction noise predictions.

[2] East Harlem Rezoning FEIS. CEQR No. 17DCP048M, 2017.

[3] Noise Control for Construction Equipment and Construction Sites" Report for Hydro Quebec, 1985.

[4] Federal Transit Administration Transit Noise and Vibration Assessment Manual, 2018.

Existing Ambient Sound Levels

Existing ambient sound levels at all receptor locations have been determined based on measurements conducted in the study area (results are presented in **Chapter 12, Noise**) and Cadna-A modeling of the traffic noise conditions for the 8:00 AM to 9:00 AM hour. Measurements were conducted during the morning (8:00 AM to 9:00 AM) at six locations adjacent to Projected Development Site 1.

The ambient sound level at each receptor was determined based on the measured sound level at the closest measurement location and an adjustment based on the difference in the modeled sound levels at the closest measurement location and each specific receptor location. The minimum background sound level assumed for any receptor was 59.7 dBA, which is the average L_{90} at all sites at AM hours. Based on this analysis, the existing daytime ambient sound levels range from 59.7 to 78.2 dBA (L_{eq}).

Construction Noise Impact Assessment

Construction Noise has been modeled using the Cadna-A sound prediction model at 74 noise sensitive receptors (buildings or building façades) for the demolition (month 4),

excavation/foundation (month 10), superstructure (month 23), and interior fit out (months 31/35) phases of construction. The Cadna-A model implements the International Standards Organization standard 9613-2 "Outdoor Sound Propagation" which accounts for ground type, intervening objects such as buildings, sound reflections, and atmospheric conditions. The construction noise model assumes that the ground is acoustically hard (ground absorption coefficient of 0), that buildings have a brick façade with minimal acoustic absorption (0.07 or lower), and three orders of sound reflections.

Exterior and interior construction noise levels have been predicted at each receptor. An 8-foot-tall perimeter construction wall has been included in the models around Projected Development Site 1 and a segment along Bergen Street during all months of analysis.

Based on street-level field observations, buildings in the vicinity of the Development Site have central air, window air conditioning units, or no alternative means of ventilation. Not all building facades that allow for window units have these; therefore, facades with the combination of ventilation methods (window unit or open window conditions) have been evaluated as having open window conditions to ensure a conservative assessment of interior noise levels. For buildings with central air, interior noise levels would be approximately 30 dBA less than exterior noise levels. For buildings evaluated using open window conditions, interior noise levels would be approximately 10 dBA less than exterior noise levels. The *2021 CEQR Technical Manual* defines 45 dBA L_{10} as an acceptable interior noise level limit for residential spaces and community facilities, as discussed in **Chapter 12**, **Noise**. Interior noise levels of 50 dBA L_{10} is typically considered to be an acceptable interior noise level limit for commercial office uses. The L_{10} metric is calculated by adding a 3-dBA adjustment factor to the calculated L_{eq} in conformance with FHWA's Roadway Construction Noise Model (RCNM) guidance.

Table 14-12 presents the range of existing ambient sound levels for the 8:00 AM to 9:00 AM period at each building and the range of exterior construction sound levels for each month of analysis. The construction sound levels include both existing ambient sources and construction equipment sources. Existing ambient sound levels range from 59.7 to 78.2 dBA (L_{eq}). For active noise-sensitive receptors, exterior construction noise levels range from 59.9 to 78.4 dBA (L_{eq}) during month 4, 59.8 to 81.7 dBA (L_{eq}) during month 10, 61.1 to 83.3 dBA (L_{eq}) during month 23, and from 59.9 to 81.2 dBA (L_{eq}) during months 31/35. Exterior construction noise levels would not exceed 85 dBA (L_{eq}) at any receptor and would therefore not exceed the Public Health criterion.

Table 14-12 Exterior Construction Sound Levels

Receptor	Location	Existing Sound Level (8-9 AM) (dBA, L_{eq})	Demolition (dBA, L_{eq})	Excavation/ Foundation (dBA, L_{eq})	Super-structure (dBA, L_{eq})	Interior Fitout (dBA, L_{eq})
R1	243 BERGEN STREET	60.2 - 66.7	62.9 - 68.3	67.9 - 69.8	67.6 - 70.6	61.9 - 67.4
R2A	245 BERGEN STREET	67.9 - 69.7	68.5 - 70.7	70.4 - 71.5	70.3 - 72.4	68.2 - 70.1
R2B	245 BERGEN STREET	61.8 - 64.1	63.1 - 65.0	63.8 - 66.0	63.4 - 65.3	62.0 - 64.3
R3	139 NEVINS STREET	63.4 - 65.9	64.3 - 67.1	64.2 - 67.0	64.1 - 66.8	63.5 - 66.1
R4	141 NEVINS STREET	63.1 - 66.3	63.2 - 66.5	63.5 - 66.7	63.6 - 66.8	63.2 - 66.4
R5	143 NEVINS STREET	64.9 - 65.8	69.9 - 73.2	73.2 - 76.8	73.3 - 76.6	68.7 - 71.5
R6	253 BERGEN STREET	67.5 - 68.8	70.4 - 72.0	72.7 - 76.5	73.4 - 77.7	71.2 - 74.0
R7	255 BERGEN STREET	66.0 - 69.3	71.2 - 76.2	75.4 - 81.7	76.5 - 81.8	72.5 - 77.7
R8	259 BERGEN STREET	60.3 - 65.7	69.3 - 75.4	74.4 - 80.5	75.1 - 79.9	70.0 - 75.3
R9	265 BERGEN STREET	68.4 - 68.6	73.9 - 78.7	77.5 - 83.5	77.5 - 81.1	73.4 - 77.4
R10	88 3 AVENUE	65.9 - 65.9	70.5 - 70.5	73.9 - 73.9	74.2 - 74.2	72.3 - 72.3
R11A	96 3 AVENUE	65.4 - 66.3	67.6 - 71.6	69.8 - 75.7	75.8 - 77.7	69.7 - 73.3
R11B	96 3 AVENUE	62.6 - 70.9	63.4 - 71.1	64.9 - 72.1	64.8 - 71.8	64.8 - 71.8
R12A	93 3 AVENUE	63.0 - 69.8	64.2 - 70.7	66.6 - 72.4	66.1 - 71.7	66.0 - 71.4
R12B	93 3 AVENUE	60.2 - 64.2	62.7 - 66.5	66.9 - 69.9	66.2 - 68.3	65.6 - 68.7
R13	305 BERGEN STREET	64.7 - 67.0	65.7 - 68.4	67.5 - 70.5	66.9 - 69.3	66.9 - 69.2
R14A	101 3 AVENUE	71.2 - 72.3	71.5 - 72.5	72.0 - 73.8	71.8 - 73.0	71.7 - 72.8
R14B	101 3 AVENUE	62.9 - 69.5	64.7 - 70.1	67.7 - 71.8	68.1 - 71.7	65.5 - 70.7
R15A	300 BERGEN STREET	67.4 - 69.9	69.6 - 73.3	71.6 - 77.5	73.5 - 78.9	71.3 - 74.6
R15B	300 BERGEN STREET	64.1 - 68.7	64.5 - 70.1	68.1 - 73.4	66.7 - 72.5	65.0 - 70.7
R16	262 BERGEN STREET	59.7 - 61.9	67.6 - 74.8	70.2 - 79.1	75.7 - 83.3	73.1 - 81.2
R17	260 BERGEN STREET	59.7 - 62.3	66.1 - 72.2	66.9 - 75.6	71.4 - 77.2	69.8 - 76.3
R18	258 BERGEN STREET	59.7 - 63.7	60.4 - 68.7	64.3 - 72.9	68.5 - 74.1	62.3 - 71.8
R19	256 BERGEN STREET	59.7 - 65.4	60.1 - 67.0	62.9 - 70.4	66.6 - 72.1	61.9 - 68.7
R20	254 BERGEN STREET	63.9 - 70.4	64.0 - 70.7	64.7 - 71.6	66.3 - 72.1	64.4 - 71.1
R21	156 NEVINS STREET	59.7 - 59.7	64.4 - 66.7	66.3 - 68.0	67.2 - 68.9	65.4 - 66.5
R22	158 NEVINS STREET	59.7 - 59.7	64.9 - 67.1	66.8 - 68.5	67.2 - 68.9	65.2 - 66.3
R23	158A NEVINS STREET	59.7 - 59.7	65.4 - 67.5	66.1 - 68.2	67.8 - 69.3	65.4 - 66.4
R24	160 NEVINS STREET	59.7 - 59.7	64.7 - 66.8	65.7 - 68.0	67.4 - 69.1	65.3 - 66.2
R25	162 NEVINS STREET	59.7 - 59.7	64.4 - 66.4	65.4 - 67.7	67.1 - 68.9	65.5 - 66.2
R26	164 NEVINS STREET	59.7 - 59.7	62.4 - 66.3	62.3 - 67.6	64.3 - 68.9	62.2 - 65.5
R27A	259 WYCKOFF STREET	59.7 - 59.7	67.7 - 72.3	72.0 - 79.6	73.7 - 78.7	69.8 - 74.7
R27B	259 WYCKOFF STREET	59.7 - 59.7	65.7 - 71.4	72.0 - 79.1	72.4 - 78.8	68.4 - 74.1
R28	275 WYCKOFF STREET	59.7 - 59.7	70.8 - 75.0	73.0 - 79.5	74.3 - 78.8	69.9 - 74.1
R29	275A WYCKOFF STREET	59.7 - 59.7	72.2 - 76.2	73.4 - 79.8	74.5 - 79.0	70.1 - 74.2
R30	277 WYCKOFF STREET	59.7 - 59.7	72.5 - 76.6	73.5 - 79.9	74.8 - 79.2	69.9 - 74.3
R31	279 WYCKOFF STREET	59.7 - 61.2	72.2 - 76.2	73.6 - 80.1	75.0 - 79.5	70.3 - 74.9
R32	281 WYCKOFF STREET	59.7 - 59.7	72.4 - 76.2	73.8 - 80.1	75.3 - 79.7	71.0 - 75.2
R33	283 WYCKOFF STREET	59.7 - 60.7	72.6 - 76.3	74.3 - 80.4	75.9 - 80.2	71.3 - 75.4
R34	283 1/2 WYCKOFF STREET	59.7 - 62.3	72.2 - 76.1	74.0 - 80.4	76.2 - 80.5	71.1 - 75.4
R35	285 WYCKOFF STREET	59.7 - 67.4	71.3 - 76.1	73.2 - 79.8	76.5 - 81.8	70.6 - 75.9
R36	287 WYCKOFF STREET	63.2 - 63.2	64.9 - 64.9	71.6 - 71.6	75.4 - 75.4	70.9 - 70.9
R37	289 WYCKOFF STREET	63.7 - 63.7	64.0 - 64.0	64.6 - 64.6	64.9 - 64.9	64.1 - 64.1
R38A	118 3 AVENUE	66.1 - 73.0	66.2 - 73.0	66.3 - 73.1	66.3 - 73.1	66.2 - 73.0
R38B	118 3 AVENUE	64.4 - 73.6	64.9 - 75.4	65.1 - 77.1	72.1 - 77.3	65.0 - 75.1
R39	103 3 AVENUE	69.8 - 75.1	69.9 - 75.3	70.1 - 75.5	70.3 - 75.6	69.9 - 75.3
R40	105 3 AVENUE	75.5 - 77.3	75.6 - 77.6	75.6 - 77.7	75.6 - 77.7	75.5 - 77.5
R41	107 3 AVENUE	69.4 - 76.8	69.6 - 77.0	69.9 - 77.3	69.8 - 77.2	69.5 - 76.9

Table 14-12 Exterior Construction Sound Levels

Receptor	Location	Existing Sound Level (8-9 AM) (dBA, L_{eq})	Demolition (dBA, L_{eq})	Excavation/ Foundation (dBA, L_{eq})	Super-structure (dBA, L_{eq})	Interior Fitout (dBA, L_{eq})
R42A	109 3 AVENUE	70.7 - 72.5	71.1 - 73.0	71.6 - 73.9	71.6 - 73.6	71.1 - 72.9
R42B	109 3 AVENUE	62.8 - 69.9	62.9 - 69.9	62.9 - 70.0	63.1 - 70.1	63.1 - 70.0
R43A	8 ST MARKS PLACE	67.0 - 73.1	67.1 - 73.7	68.0 - 75.2	67.5 - 74.6	67.1 - 73.7
R43B	8 ST MARKS PLACE	71.6 - 78.2	71.7 - 78.4	71.8 - 78.6	71.9 - 78.6	71.8 - 78.4
R44	127 3 AVENUE	68.5 - 68.5	68.6 - 68.6	68.6 - 68.6	68.7 - 68.7	68.6 - 68.6
R45A	280 WYCKOFF STREET	59.8 - 59.8	60.7 - 60.7	60.7 - 60.7	64.1 - 64.1	60.6 - 60.6
R45	120 3 AVENUE WYCKOFF GARDENS A	59.7 - 70.5	61.1 - 74.1	62.2 - 76.6	67.4 - 76.8	61.8 - 73.9
R46	120 3 AVENUE WYCKOFF GARDENS A	59.7 - 70.3	60.8 - 73.6	62.5 - 76.6	68.1 - 76.8	61.0 - 73.4
R47	120 3 AVENUE WYCKOFF GARDENS A	59.7 - 70.2	62.1 - 73.7	63.9 - 77.0	70.7 - 76.9	63.7 - 73.4
R48	120 3 AVENUE WYCKOFF GARDENS A	59.7 - 68.3	63.6 - 72.6	67.9 - 76.8	71.7 - 77.1	66.3 - 73.3
R49	120 3 AVENUE WYCKOFF GARDENS B	66.5 - 69.9	66.6 - 70.3	66.7 - 71.0	66.9 - 71.0	66.9 - 70.5
R50	120 3 AVENUE WYCKOFF GARDENS B	60.6 - 68.5	60.9 - 69.2	62.4 - 70.5	62.5 - 70.6	61.5 - 69.5
R51	120 3 AVENUE WYCKOFF GARDENS B	59.7 - 67.4	60.5 - 68.7	60.3 - 69.8	61.8 - 70.1	60.5 - 68.7
R52	120 3 AVENUE WYCKOFF GARDENS B	59.7 - 65.2	59.9 - 66.1	59.8 - 67.0	61.1 - 67.9	59.9 - 66.0
R53	120 3 AVENUE WYCKOFF GARDENS C	59.7 - 63.1	60.8 - 64.3	61.6 - 66.3	62.9 - 67.2	61.3 - 65.3
R54	120 3 AVENUE WYCKOFF GARDENS C	59.7 - 65.7	61.6 - 67.1	63.3 - 69.6	64.6 - 70.0	62.8 - 68.0
R55	120 3 AVENUE WYCKOFF GARDENS C	59.7 - 66.4	62.1 - 68.1	62.7 - 70.4	64.5 - 70.8	60.4 - 68.1
R56	120 3 AVENUE WYCKOFF GARDENS C	60.5 - 67.2	61.7 - 68.1	61.9 - 69.6	63.8 - 69.8	61.7 - 68.2
R57A	258 WYCKOFF STREET	59.7 - 59.7	63.6 - 68.0	63.4 - 68.6	65.8 - 69.7	62.7 - 65.7
R57B	258 WYCKOFF STREET	59.7 - 59.7	63.5 - 68.0	63.5 - 68.8	67.0 - 70.5	62.7 - 65.6
R58	256 WYCKOFF STREET	59.7 - 59.7	62.2 - 65.5	61.7 - 66.3	64.6 - 68.2	61.5 - 63.9
R59	254 WYCKOFF STREET	59.7 - 59.7	63.5 - 66.3	63.0 - 67.6	65.4 - 69.3	62.7 - 65.3
R60	252 WYCKOFF STREET	59.7 - 59.7	62.2 - 65.1	62.2 - 66.7	64.3 - 68.3	61.5 - 65.6
R61	176 NEVINS STREET	59.7 - 59.7	62.5 - 65.8	63.5 - 67.6	66.7 - 69.7	63.7 - 65.8
R62	178 NEVINS STREET	59.7 - 59.7	60.5 - 62.3	61.1 - 63.7	62.9 - 66.8	62.1 - 63.2
R63	180 NEVINS STREET	59.7 - 59.7	60.6 - 62.1	61.0 - 63.4	63.7 - 66.5	62.0 - 63.1
R64	182 NEVINS STREET	59.7 - 59.7	60.0 - 62.2	60.8 - 63.2	64.0 - 66.4	61.9 - 63.1

Source: VHB, 2022

Table 14-13 presents the range of increases in construction noise over ambient conditions during the four months of analysis. Construction sound levels would increase up to 16.9 dBA (L_{eq}) during month 4, 20.5 dBA (L_{eq}) during month 10, 23.7 dBA (L_{eq}) during month 23, and 21.6 dBA (L_{eq}) during months 31/35.

Table 14-13 Construction Sound Level Increases Above Existing Ambient Sound Levels

Receptor	Location	Demolition (dBA, L_{eq})	Excavation/ Foundation (dBA, L_{eq})	Super-structure (dBA, L_{eq})	Interior Fitout (dBA, L_{eq})
R1	243 BERGEN STREET	1.6 - 2.7	2.8 - 7.7	3.9 - 7.4	0.8 - 1.8
R2A	245 BERGEN STREET	0.6 - 1.0	1.5 - 2.6	2.4 - 2.7	0.3 - 0.5
R2B	245 BERGEN STREET	0.1 - 1.3	1.0 - 2.1	1.0 - 1.7	0.1 - 0.2
R3	139 NEVINS STREET	0.8 - 1.2	0.8 - 1.2	0.7 - 0.9	0.2 - 0.2
R4	141 NEVINS STREET	0.1 - 0.2	0.3 - 0.5	0.3 - 0.6	0.1 - 0.2
R5	143 NEVINS STREET	5.0 - 8.0	8.3 - 11.6	8.4 - 11.4	3.8 - 6.3

Table 14-13 Construction Sound Level Increases Above Existing Ambient Sound Levels

Receptor	Location	Demolition (dBA, L_{eq})	Excavation/ Foundation (dBA, L_{eq})	Super-structure (dBA, L_{eq})	Interior Fitout (dBA, L_{eq})
R6	253 BERGEN STREET	1.6 - 4.5	3.9 - 8.4	4.6 - 10.3	2.4 - 6.5
R7	255 BERGEN STREET	5.2 - 6.9	9.4 - 12.4	10.5 - 12.8	6.5 - 8.6
R8	259 BERGEN STREET	9.0 - 10.2	14.1 - 17.0	13.5 - 16.4	9.6 - 12.5
R9	265 BERGEN STREET	5.5 - 10.1	9.1 - 15.0	9.1 - 12.6	5.0 - 8.8
R10	88 3 AVENUE	4.6 - 4.6	8.0 - 8.0	8.3 - 8.3	6.4 - 6.4
R11A	96 3 AVENUE	2.1 - 5.3	4.3 - 9.4	9.9 - 11.4	4.2 - 6.9
R11B	96 3 AVENUE	0.2 - 0.7	1.1 - 2.3	0.8 - 2.1	0.9 - 2.2
R12A	93 3 AVENUE	0.9 - 1.2	2.6 - 3.7	1.9 - 3.0	1.6 - 3.4
R12B	93 3 AVENUE	2.3 - 2.9	5.5 - 6.6	4.1 - 6.0	3.9 - 5.6
R13	305 BERGEN STREET	0.9 - 1.6	2.7 - 3.6	2.2 - 3.6	2.0 - 2.2
R14A	101 3 AVENUE	0.1 - 0.3	0.8 - 1.5	0.5 - 0.8	0.4 - 0.5
R14B	101 3 AVENUE	0.6 - 1.8	2.1 - 5.4	2.1 - 5.9	1.1 - 3.9
R15A	300 BERGEN STREET	1.8 - 4.3	3.9 - 8.8	5.8 - 11.3	3.5 - 6.3
R15B	300 BERGEN STREET	0.4 - 4.0	3.9 - 6.8	2.5 - 7.8	0.9 - 3.5
R16	262 BERGEN STREET	7.9 - 15.1	10.5 - 19.5	16.1 - 23.7	13.4 - 21.6
R17	260 BERGEN STREET	6.5 - 11.9	7.3 - 15.3	11.7 - 17.0	10.2 - 16.2
R18	258 BERGEN STREET	0.7 - 7.8	4.6 - 9.7	8.9 - 12.2	2.6 - 11.7
R19	256 BERGEN STREET	0.4 - 4.0	3.2 - 6.7	6.8 - 9.1	2.2 - 5.1
R20	254 BERGEN STREET	0.1 - 0.4	0.6 - 1.3	1.3 - 2.4	0.3 - 0.7
R21	156 NEVINS STREET	4.7 - 7.1	6.6 - 8.3	7.5 - 9.3	5.7 - 6.8
R22	158 NEVINS STREET	5.3 - 7.4	7.2 - 8.9	7.5 - 9.2	5.6 - 6.6
R23	158A NEVINS STREET	5.8 - 7.8	6.5 - 8.6	8.2 - 9.6	5.8 - 6.8
R24	160 NEVINS STREET	5.1 - 7.2	6.1 - 8.3	7.7 - 9.5	5.6 - 6.5
R25	162 NEVINS STREET	4.7 - 6.8	5.7 - 8.1	7.4 - 9.2	5.9 - 6.5
R26	164 NEVINS STREET	2.7 - 6.6	2.6 - 7.9	4.6 - 9.3	2.5 - 5.9
R27A	259 WYCKOFF STREET	8.1 - 12.7	12.3 - 19.9	14.0 - 18.9	10.2 - 15.1
R27B	259 WYCKOFF STREET	6.0 - 11.7	12.3 - 19.5	12.8 - 19.1	8.8 - 14.4
R28	275 WYCKOFF STREET	11.1 - 15.4	13.4 - 19.9	14.6 - 19.1	10.3 - 14.4
R29	275A WYCKOFF STREET	12.5 - 16.5	13.7 - 20.2	14.9 - 19.3	10.5 - 14.5
R30	277 WYCKOFF STREET	12.9 - 16.9	13.8 - 20.3	15.2 - 19.6	10.3 - 14.6
R31	279 WYCKOFF STREET	12.5 - 16.4	13.9 - 18.8	15.4 - 19.1	10.6 - 14.6
R32	281 WYCKOFF STREET	12.8 - 16.5	14.1 - 20.5	15.7 - 20.1	11.4 - 15.6
R33	283 WYCKOFF STREET	13.0 - 16.6	14.6 - 19.7	16.2 - 20.1	11.7 - 15.2
R34	283 1/2 WYCKOFF STREET	12.5 - 16.4	14.3 - 18.5	16.5 - 20.9	11.5 - 15.3
R35	285 WYCKOFF STREET	8.7 - 15.7	12.3 - 18.8	14.3 - 21.0	8.4 - 15.1
R36	287 WYCKOFF STREET	1.7 - 1.7	8.4 - 8.4	12.2 - 12.2	7.7 - 7.7
R37	289 WYCKOFF STREET	0.3 - 0.3	0.9 - 0.9	1.2 - 1.2	0.4 - 0.4
R38A	118 3 AVENUE	0.0 - 0.1	0.1 - 0.2	0.1 - 0.3	0.0 - 0.1
R38B	118 3 AVENUE	0.5 - 4.8	0.7 - 6.7	3.7 - 7.7	0.6 - 4.4
R39	103 3 AVENUE	0.1 - 0.3	0.3 - 0.5	0.4 - 0.6	0.1 - 0.2
R40	105 3 AVENUE	0.1 - 0.3	0.1 - 0.5	0.1 - 0.4	0.0 - 0.2
R41	107 3 AVENUE	0.2 - 0.3	0.5 - 0.7	0.4 - 0.6	0.1 - 0.1
R42A	109 3 AVENUE	0.1 - 0.5	0.3 - 1.6	0.3 - 1.2	0.1 - 0.4
R42B	109 3 AVENUE	0.0 - 0.1	0.1 - 0.1	0.1 - 0.3	0.1 - 0.3
R43A	8 ST MARKS PLACE	0.1 - 0.6	0.8 - 2.2	0.5 - 1.5	0.1 - 0.6
R43B	8 ST MARKS PLACE	0.0 - 0.3	0.1 - 0.6	0.2 - 0.5	0.1 - 0.3
R44	127 3 AVENUE	0.1 - 0.1	0.1 - 0.1	0.2 - 0.2	0.1 - 0.1
R45A	280 WYCKOFF STREET	0.9 - 0.9	0.9 - 0.9	4.3 - 4.3	0.8 - 0.8
R45	120 3 AVENUE WYCKOFF GARDENS A	0.9 - 3.6	2.6 - 6.0	3.7 - 8.3	1.5 - 3.5
R46	120 3 AVENUE WYCKOFF GARDENS A	1.1 - 4.5	2.8 - 8.3	6.1 - 11.1	1.3 - 4.6

Table 14-13 Construction Sound Level Increases Above Existing Ambient Sound Levels

Receptor	Location	Demolition (dBA, L_{eq})	Excavation/ Foundation (dBA, L_{eq})	Super-structure (dBA, L_{eq})	Interior Fitout (dBA, L_{eq})
R47	120 3 AVENUE WYCKOFF GARDENS A	2.4 - 5.9	4.3 - 11.6	6.3 - 14.6	3.1 - 7.7
R48	120 3 AVENUE WYCKOFF GARDENS A	3.9 - 8.1	8.2 - 13.5	8.8 - 14.7	4.9 - 10.4
R49	120 3 AVENUE WYCKOFF GARDENS B	0.1 - 0.4	0.2 - 1.0	0.4 - 1.1	0.4 - 0.7
R50	120 3 AVENUE WYCKOFF GARDENS B	0.2 - 0.7	1.2 - 2.4	1.4 - 2.4	0.2 - 1.0
R51	120 3 AVENUE WYCKOFF GARDENS B	0.5 - 1.4	0.4 - 2.4	1.5 - 3.7	0.5 - 1.4
R52	120 3 AVENUE WYCKOFF GARDENS B	0.3 - 1.6	0.2 - 1.8	1.4 - 4.8	0.2 - 1.2
R53	120 3 AVENUE WYCKOFF GARDENS C	1.1 - 2.8	2.0 - 4.4	3.2 - 6.3	1.6 - 3.5
R54	120 3 AVENUE WYCKOFF GARDENS C	1.4 - 4.4	3.7 - 6.2	4.2 - 8.4	2.3 - 5.3
R55	120 3 AVENUE WYCKOFF GARDENS C	1.7 - 4.2	3.1 - 4.7	4.2 - 6.3	0.7 - 2.1
R56	120 3 AVENUE WYCKOFF GARDENS C	0.6 - 1.4	0.9 - 2.4	2.5 - 3.5	0.7 - 1.4
R57A	258 WYCKOFF STREET	4.0 - 8.3	3.8 - 8.9	6.2 - 10.1	3.1 - 6.0
R57B	258 WYCKOFF STREET	3.9 - 8.3	3.9 - 9.1	7.3 - 10.8	3.0 - 5.9
R58	256 WYCKOFF STREET	2.5 - 5.9	2.1 - 6.6	4.9 - 8.5	1.9 - 4.3
R59	254 WYCKOFF STREET	3.9 - 6.6	3.3 - 7.9	5.8 - 9.6	3.0 - 5.6
R60	252 WYCKOFF STREET	2.5 - 5.4	2.5 - 7.0	4.6 - 8.7	1.8 - 5.9
R61	176 NEVINS STREET	2.8 - 6.2	3.9 - 7.9	7.1 - 10.1	4.1 - 6.2
R62	178 NEVINS STREET	0.9 - 2.6	1.4 - 4.0	3.2 - 7.2	2.4 - 3.6
R63	180 NEVINS STREET	0.9 - 2.4	1.4 - 3.8	4.1 - 6.8	2.3 - 3.5
R64	182 NEVINS STREET	0.4 - 2.6	1.2 - 3.6	4.3 - 6.8	2.3 - 3.5

Source: VHB, 2022

Table 14-14 presents the range of interior sound levels for the four months of analysis. Interior levels would be up to 70.6 dBA (L_{10}) during month 4, up to 74.7 dBA (L_{10}) during month 10, up to 76.3 dBA (L_{10}) during month 23, and up to 74.2 dBA (L_{10}) during months 31/35. Interior construction noise levels would exceed the interior noise criterion at 67 facades by up to 25.6 dBA during month 4, at 70 facades by up to 29.7 dBA during month 10, at 69 facades by up to 31.3 dBA during month 23, and at 68 facades by up to 29.2 dBA during months 31/35.

Table 14-14 Interior Construction Sound Levels

Receptor	Location	Interior Sound Level Limit (dBA, L_{10})	Demolition (dBA, L_{10})	Excavation/ Foundation (dBA, L_{10})	Super-structure (dBA, L_{10})	Interior Fitout (dBA, L_{10})
R1	243 BERGEN STREET	45	55.9 - 61.3	60.9 - 62.8	60.6 - 63.6	54.9 - 60.4
R2A	245 BERGEN STREET	45	61.5 - 63.7	63.4 - 64.5	63.3 - 65.4	61.2 - 63.1
R2B	245 BERGEN STREET	45	56.1 - 58.0	56.8 - 59.0	56.4 - 58.3	55.0 - 57.3
R3	139 NEVINS STREET	45	57.3 - 60.1	57.2 - 60.0	57.1 - 59.8	56.5 - 59.1
R4	141 NEVINS STREET	45	56.2 - 59.5	56.5 - 59.7	56.6 - 59.8	56.2 - 59.4
R5	143 NEVINS STREET	45	62.9 - 66.2	66.2 - 69.8	66.3 - 69.6	61.7 - 64.5
R6	253 BERGEN STREET	45	63.4 - 65.0	65.7 - 69.5	66.4 - 70.7	64.2 - 67.0
R7	255 BERGEN STREET	45	64.2 - 69.2	68.4 - 74.7	69.5 - 74.8	65.5 - 70.7
R8	259 BERGEN STREET	45	62.3 - 68.4	67.4 - 73.5	68.1 - 72.9	63.0 - 68.3
R9	265 BERGEN STREET	N/A	N/A	N/A	N/A	N/A
R10	88 3 AVENUE	50	63.5 - 63.5	66.9 - 66.9	67.2 - 67.2	65.3 - 65.3
R11A	96 3 AVENUE	45	40.6 - 44.6	42.8 - 48.7	48.8 - 50.7	42.7 - 46.3
R11B	96 3 AVENUE	45	36.4 - 44.1	37.9 - 45.1	37.8 - 44.8	37.8 - 44.8
R12A	93 3 AVENUE	45	57.2 - 63.7	59.6 - 65.4	59.1 - 64.7	59.0 - 64.4

Table 14-14 Interior Construction Sound Levels

Receptor	Location	Interior Sound Level Limit (dBA, L_{10})	Demolition (dBA, L_{10})	Excavation/ Foundation (dBA, L_{10})	Super-structure (dBA, L_{10})	Interior Fitout (dBA, L_{10})
R12B	93 3 AVENUE	45	55.7 - 59.5	59.9 - 62.9	59.2 - 61.3	58.6 - 61.7
R13	305 BERGEN STREET	45	58.7 - 61.4	60.5 - 63.5	59.9 - 62.3	59.9 - 62.2
R14A	101 3 AVENUE	45	44.5 - 45.5	45.0 - 46.8	44.8 - 46.0	44.7 - 45.8
R14B	101 3 AVENUE	45	37.7 - 43.1	40.7 - 44.8	41.1 - 44.7	38.5 - 43.7
R15A	300 BERGEN STREET	45	42.6 - 46.3	44.6 - 50.5	46.5 - 51.9	44.3 - 47.6
R15B	300 BERGEN STREET	45	37.5 - 43.1	41.1 - 46.4	39.7 - 45.5	38.0 - 43.7
R16	262 BERGEN STREET	45	60.6 - 67.8	63.2 - 72.1	68.7 - 76.3	66.1 - 74.2
R17	260 BERGEN STREET	45	59.1 - 65.2	59.9 - 68.6	64.4 - 70.2	62.8 - 69.3
R18	258 BERGEN STREET	45	53.4 - 61.7	57.3 - 65.9	61.5 - 67.1	55.3 - 64.8
R19	256 BERGEN STREET	45	53.1 - 60.0	55.9 - 63.4	59.6 - 65.1	54.9 - 61.7
R20	254 BERGEN STREET	45	57.0 - 63.7	57.7 - 64.6	59.3 - 65.1	57.4 - 64.1
R21	156 NEVINS STREET	45	57.4 - 59.7	59.3 - 61.0	60.2 - 61.9	58.4 - 59.5
R22	158 NEVINS STREET	45	57.9 - 60.1	59.8 - 61.5	60.2 - 61.9	58.2 - 59.3
R23	158A NEVINS STREET	45	58.4 - 60.5	59.1 - 61.2	60.8 - 62.3	58.4 - 59.4
R24	160 NEVINS STREET	45	57.7 - 59.8	58.7 - 61.0	60.4 - 62.1	58.3 - 59.2
R25	162 NEVINS STREET	45	57.4 - 59.4	58.4 - 60.7	60.1 - 61.9	58.5 - 59.2
R26	164 NEVINS STREET	45	55.4 - 59.3	55.3 - 60.6	57.3 - 61.9	55.2 - 58.5
R27A	259 WYCKOFF STREET	45	60.7 - 65.3	65.0 - 72.6	66.7 - 71.7	62.8 - 67.7
R27B	259 WYCKOFF STREET	45	58.7 - 64.4	65.0 - 72.1	65.4 - 71.8	61.4 - 67.1
R28	275 WYCKOFF STREET	45	63.8 - 68.0	66.0 - 72.5	67.3 - 71.8	62.9 - 67.1
R29	275A WYCKOFF STREET	45	65.2 - 69.2	66.4 - 72.8	67.5 - 72.0	63.1 - 67.2
R30	277 WYCKOFF STREET	45	65.5 - 69.6	66.5 - 72.9	67.8 - 72.2	62.9 - 67.3
R31	279 WYCKOFF STREET	45	65.2 - 69.2	66.6 - 73.1	68.0 - 72.5	63.3 - 67.9
R32	281 WYCKOFF STREET	45	65.4 - 69.2	66.8 - 73.1	68.3 - 72.7	64.0 - 68.2
R33	283 WYCKOFF STREET	45	65.6 - 69.3	67.3 - 73.4	68.9 - 73.2	64.3 - 68.4
R34	283 1/2 WYCKOFF STREET	45	65.2 - 69.1	67.0 - 73.4	69.2 - 73.5	64.1 - 68.4
R35	285 WYCKOFF STREET	45	64.3 - 69.1	66.2 - 72.8	69.5 - 74.8	63.6 - 68.9
R36	287 WYCKOFF STREET	50	57.9 - 57.9	64.6 - 64.6	68.4 - 68.4	63.9 - 63.9
R37	289 WYCKOFF STREET	N/A	N/A	N/A	N/A	N/A
R38A	118 3 AVENUE	45	39.2 - 46.0	39.3 - 46.1	39.3 - 46.1	39.2 - 46.0
R38B	118 3 AVENUE	45	37.9 - 48.4	38.1 - 50.1	45.1 - 50.3	38.0 - 48.1
R39	103 3 AVENUE	45	62.9 - 68.3	63.1 - 68.5	63.3 - 68.6	62.9 - 68.3
R40	105 3 AVENUE	45	68.6 - 70.6	68.6 - 70.7	68.6 - 70.7	68.5 - 70.5
R41	107 3 AVENUE	45	62.6 - 70.0	62.9 - 70.3	62.8 - 70.2	62.5 - 69.9
R42A	109 3 AVENUE	45	64.1 - 66.0	64.6 - 66.9	64.6 - 66.6	64.1 - 65.9
R42B	109 3 AVENUE	45	55.9 - 62.9	55.9 - 63.0	56.1 - 63.1	56.1 - 63.0
R43A	8 ST MARKS PLACE	45	40.1 - 46.7	41.0 - 48.2	40.5 - 47.6	40.1 - 46.7
R43B	8 ST MARKS PLACE	45	44.7 - 51.4	44.8 - 51.6	44.9 - 51.6	44.8 - 51.4
R44	127 3 AVENUE	N/A	N/A	N/A	N/A	N/A
R45A	280 WYCKOFF STREET	45	33.7 - 33.7	33.7 - 33.7	37.1 - 37.1	33.6 - 33.6
R45	120 3 AVENUE WYCKOFF GARDENS A	45	54.1 - 67.1	55.2 - 69.6	60.4 - 69.8	54.8 - 66.9
R46	120 3 AVENUE WYCKOFF GARDENS A	45	53.8 - 66.6	55.5 - 69.6	61.1 - 69.8	54.0 - 66.4
R47	120 3 AVENUE WYCKOFF GARDENS A	45	55.1 - 66.7	56.9 - 70.0	63.7 - 69.9	56.7 - 66.4
R48	120 3 AVENUE WYCKOFF GARDENS A	45	56.6 - 65.6	60.9 - 69.8	64.7 - 70.1	59.3 - 66.3

Table 14-14 Interior Construction Sound Levels

Receptor	Location	Interior Sound Level Limit (dBA, L_{10})	Demolition (dBA, L_{10})	Excavation/ Foundation (dBA, L_{10})	Super-structure (dBA, L_{10})	Interior Fitout (dBA, L_{10})
R49	120 3 AVENUE WYCKOFF GARDENS B	45	59.6 - 63.3	59.7 - 64.0	59.9 - 64.0	59.9 - 63.5
R50	120 3 AVENUE WYCKOFF GARDENS B	45	53.9 - 62.2	55.4 - 63.5	55.5 - 63.6	54.5 - 62.5
R51	120 3 AVENUE WYCKOFF GARDENS B	45	53.5 - 61.7	53.3 - 62.8	54.8 - 63.1	53.5 - 61.7
R52	120 3 AVENUE WYCKOFF GARDENS B	45	52.9 - 59.1	52.8 - 60.0	54.1 - 60.9	52.9 - 59.0
R53	120 3 AVENUE WYCKOFF GARDENS C	45	53.8 - 57.3	54.6 - 59.3	55.9 - 60.2	54.3 - 58.3
R54	120 3 AVENUE WYCKOFF GARDENS C	45	54.6 - 60.1	56.3 - 62.6	57.6 - 63.0	55.8 - 61.0
R55	120 3 AVENUE WYCKOFF GARDENS C	45	55.1 - 61.1	55.7 - 63.4	57.5 - 63.8	53.4 - 61.1
R56	120 3 AVENUE WYCKOFF GARDENS C	45	54.7 - 61.1	54.9 - 62.6	56.8 - 62.8	54.7 - 61.2
R57A	258 WYCKOFF STREET	45	56.6 - 61.0	56.4 - 61.6	58.8 - 62.7	55.7 - 58.7
R57B	258 WYCKOFF STREET	45	56.5 - 61.0	56.5 - 61.8	60.0 - 63.5	55.7 - 58.6
R58	256 WYCKOFF STREET	45	55.2 - 58.5	54.7 - 59.3	57.6 - 61.2	54.5 - 56.9
R59	254 WYCKOFF STREET	45	56.5 - 59.3	56.0 - 60.6	58.4 - 62.3	55.7 - 58.3
R60	252 WYCKOFF STREET	45	55.2 - 58.1	55.2 - 59.7	57.3 - 61.3	54.5 - 58.6
R61	176 NEVINS STREET	45	55.5 - 58.8	56.5 - 60.6	59.7 - 62.7	56.7 - 58.8
R62	178 NEVINS STREET	45	53.5 - 55.3	54.1 - 56.7	55.9 - 59.8	55.1 - 56.2
R63	180 NEVINS STREET	45	53.6 - 55.1	54.0 - 56.4	56.7 - 59.5	55.0 - 56.1
R64	182 NEVINS STREET	45	53.0 - 55.2	53.8 - 56.2	57.0 - 59.4	54.9 - 56.1

Source: VHB, 2022.

Table 14-15 identifies which receptors would exceed ambient conditions by 15 dBA or more for at least 12 consecutive months or by 20 dBA or more for at least 3 consecutive months and whether both exterior and interior construction noise impact thresholds would be exceeded during No-Action and With-Action conditions in order to determine whether new additional significant adverse impacts would be caused by the Proposed Actions. Construction noise levels would exceed the exterior and interior thresholds at 13 building facades for both the With-Action and No-Action conditions.

Table 14-15 Construction Noise Impacts

Receptor	Location	Exceeds Exterior Increase over Ambient and Interior Thresholds		New Noise Impact
		No-Action	With-Action	
R1	243 BERGEN STREET	No	No	No
R2A	245 BERGEN STREET	No	No	No
R2B	245 BERGEN STREET	No	No	No
R3	139 NEVINS STREET	No	No	No
R4	141 NEVINS STREET	No	No	No
R5	143 NEVINS STREET	No	No	No
R6	253 BERGEN STREET	No	No	No

Table 14-15 Construction Noise Impacts

Receptor	Location	Exceeds Exterior Increase over Ambient and Interior Thresholds		New Noise Impact
		No-Action	With-Action	
R7	255 BERGEN STREET	No	No	No
R8	259 BERGEN STREET	Yes	Yes	No
R9	265 BERGEN STREET	No	No	No
R10	88 3 AVENUE	No	No	No
R11A	96 3 AVENUE	No	No	No
R11B	96 3 AVENUE	No	No	No
R12A	93 3 AVENUE	No	No	No
R12B	93 3 AVENUE	No	No	No
R13	305 BERGEN STREET	No	No	No
R14A	101 3 AVENUE	No	No	No
R14B	101 3 AVENUE	No	No	No
R15A	300 BERGEN STREET	No	No	No
R15B	300 BERGEN STREET	No	No	No
R16	262 BERGEN STREET	Yes	Yes	No
R17	260 BERGEN STREET	Yes	Yes	No
R18	258 BERGEN STREET	No	No	No
R19	256 BERGEN STREET	No	No	No
R20	254 BERGEN STREET	No	No	No
R21	156 NEVINS STREET	No	No	No
R22	158 NEVINS STREET	No	No	No
R23	158A NEVINS STREET	No	No	No
R24	160 NEVINS STREET	No	No	No
R25	162 NEVINS STREET	No	No	No
R26	164 NEVINS STREET	No	No	No
R27A	259 WYCKOFF STREET	Yes	Yes	No
R27B	259 WYCKOFF STREET	Yes	Yes	No
R28	275 WYCKOFF STREET	Yes	Yes	No
R29	275A WYCKOFF STREET	Yes	Yes	No
R30	277 WYCKOFF STREET	Yes	Yes	No
R31	279 WYCKOFF STREET	Yes	Yes	No
R32	281 WYCKOFF STREET	Yes	Yes	No
R33	283 WYCKOFF STREET	Yes	Yes	No
R34	283 1/2 WYCKOFF STREET	Yes	Yes	No
R35	285 WYCKOFF STREET	Yes	Yes	No
R36	287 WYCKOFF STREET	No	No	No
R37	289 WYCKOFF STREET	No	No	No
R38A	118 3 AVENUE	No	No	No
R38B	118 3 AVENUE	No	No	No
R39	103 3 AVENUE	No	No	No
R40	105 3 AVENUE	No	No	No
R41	107 3 AVENUE	No	No	No
R42A	109 3 AVENUE	No	No	No
R42B	109 3 AVENUE	No	No	No
R43A	8 ST MARKS PLACE	No	No	No
R43B	8 ST MARKS PLACE	No	No	No
R44	127 3 AVENUE	No	No	No
R45A	280 WYCKOFF STREET	No	No	No
R45	120 3 AVENUE WYCKOFF GARDENS A	No	No	No
R46	120 3 AVENUE WYCKOFF GARDENS A	No	No	No

Table 14-15 Construction Noise Impacts

Receptor	Location	Exceeds Exterior Increase over Ambient and Interior Thresholds		New Noise Impact
		No-Action	With-Action	
R47	120 3 AVENUE WYCKOFF GARDENS A	No	No	No
R48	120 3 AVENUE WYCKOFF GARDENS A	No	No	No
R49	120 3 AVENUE WYCKOFF GARDENS B	No	No	No
R50	120 3 AVENUE WYCKOFF GARDENS B	No	No	No
R51	120 3 AVENUE WYCKOFF GARDENS B	No	No	No
R52	120 3 AVENUE WYCKOFF GARDENS B	No	No	No
R53	120 3 AVENUE WYCKOFF GARDENS C	No	No	No
R54	120 3 AVENUE WYCKOFF GARDENS C	No	No	No
R55	120 3 AVENUE WYCKOFF GARDENS C	No	No	No
R56	120 3 AVENUE WYCKOFF GARDENS C	No	No	No
R57A	258 WYCKOFF STREET	No	No	No
R57B	258 WYCKOFF STREET	No	No	No
R58	256 WYCKOFF STREET	No	No	No
R59	254 WYCKOFF STREET	No	No	No
R60	252 WYCKOFF STREET	No	No	No
R61	176 NEVINS STREET	No	No	No
R62	178 NEVINS STREET	No	No	No
R63	180 NEVINS STREET	No	No	No
R64	182 NEVINS STREET	No	No	No

Source: VHB, 2022.

Since construction noise impacts would be the same for the With-Action and the No-Action conditions, and as both the With-Action and No-Action conditions would result in construction noise impacts at the same receptors, there would not be any new significant adverse impacts caused by the Proposed Actions.

Overall, construction of the Proposed Project would not involve any unusual or exceptional construction activities or practices for mid-rise type buildings in New York City. As noted above, demolition, foundation/excavation, superstructure, and interior fit out work would occur over 36 months, beginning in the first quarter of 2023.

With the adherence to existing construction noise regulations and the implementation of Construction Noise Mitigation Plan as required by the NYC Noise Code, as well as other additional noise control measures beyond the minimum required by code, the construction noise analyses demonstrated that the Proposed Project would not result in new additional significant adverse construction noise impact due to the Proposed Actions.

Appendix A: Historic and Cultural Resources

Landmarks Preservation Commission

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

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

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / LA-CEQR-K
Project: 280_BERGEN_STREET
Date Received: 1/13/2021

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

Properties with no Architectural significance:

1) 153 NEVINS STREET, BBL: 3003880001
2) 256 BERGEN STREET, BBL: 3003880008
3) 258 BERGEN STREET, BBL: 3003880009
4) 260 BERGEN STREET, BBL: 3003880011
5) 262 BERGEN STREET, BBL: 3003880012
6) 268 BERGEN STREET, BBL: 3003880019
7) 300 BERGEN STREET, BBL: 3003880031
8) 3 AVENUE, BBL: 3003880034
9) 110 3 AVENUE, BBL: 3003880035
10) 112 3 AVENUE, BBL: 3003880036
11) 114 3 AVENUE, BBL: 3003880037
12) 118 3 AVENUE, BBL: 3003880038
13) 289 WYCKOFF STREET, BBL: 3003880041
14) 287 WYCKOFF STREET, BBL: 3003880042
15) WYCKOFF STREET, BBL: 3003880051
16) 267 WYCKOFF STREET, BBL: 3003880052
17) 259 WYCKOFF STREET, BBL: 3003880058

In the radius:

LPC DESIGNATED BOERUM HILL HISTORIC DISTRICT AND BOERUM HILL HISTORIC DISTRICT EXTENSION WITHIN RADIUS. S/NR LISTED BOERUM HILL HISTORIC DISTRICT AND S/NR ELIGIBLE P.S. 38, 450 PACIFIC STREET; FORMER BROOKLYN PRINTING PLANT, NEW YORK TIMES, 500 PACIFIC STREET, AND S/NR ELIGIBLE BOERUM HILL EXPANSION WITHIN RADIUS. S/NR ELIGIBLE BROOKLYN HIGH SCHOOL OF THE ARTS, 327-347 DEAN STREET ADJACENT TO RADIUS.

Comments:

LPC review of archaeological sensitivity models and historic maps indicates that there is potential for the recovery of remains from 19th Century occupation on the following bbl:

3003880001
3003880034
3003880035
3003880036
3003880037

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

3003880058

Accordingly, the Commission recommends that an archaeological documentary study be performed for this site to clarify these initial findings and provide the threshold for the next level of review, if such review is necessary (see CEQR Technical Manual 2020).

No archeological concerns for the following bbl:

3003880008
3003880009
3003880011
3003880012
3003880019
3003880031
3003880038
3003880041
3003880042
3003880051
3003880052

Gina Santucci 1/25/2021

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 35371_FSO_DNP_01152021.docx

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

ARCHAEOLOGY REVIEW

Project number: LA-CEQR-K (DEPARTMENT OF CITY PLANNING)
Project: 280_BERGEN_STREET
Date Received: 5/05/2021

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

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

Properties with no Architectural or Archaeological significance:

Comments: The LPC is in receipt of the, "Archaeological Documentary Study (Phase IA) 280 Bergen Street Project, Brooklyn, Kings County, New York," prepared by VHB and dated April 2021. The LPC concurs that that the project area has the potential to contain potentially archaeologically significant archaeological resources and that, therefore, archaeological testing should be completed to further assess this potential and that this work should adhere to the Guidelines for Archaeological Work in NYC. However, the LPC notes that the report does not include conveyance records because the records are currently unavailable. This research must be incorporated into the next phase of work should any archaeological resources be found during testing. Finally, please submit a bound copy of the report to LPC for our archives.



5/14/2021

SIGNATURE DATE
Amanda Sutphin, Director of Archaeology

File Name: 35371_FSO_ALS_05142021.docx

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 / 22DCP149K
Project: 280_BERGEN_STREET
Date Received: 5/10/2022

Comments: The LPC is in receipt of the EAS dated 3/12/22. The document is acceptable for architectural resources.

Regarding archaeology, LPC notes the archaeological documentary study that was completed by VHB found that Block 388 Lots, 1, 34, 35, 36, and 37 are archaeologically sensitive and should be archaeologically tested to further assess this potential which LPC concurred with on 5/14/22. The EAS noted that those lots are owned by HPD and determined that given that:

> This disposition action would require review under CEQR and the New York City Uniform Land Use Review Procedure (ULURP). As further investigation would be undertaken as part of that environmental review, any further study or data recovery would be a condition of that review. PDF page 134

And so, therefore, there are no further archaeological concerns with the current action. The LPC concurs.

Gina Santucci

5/24/2022

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 35371_FSO_ALS_05242022.docx