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ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) AND SUPPLEMENTAL STUDIES TO THE EAS

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

Prepared for:
Bayride Realty LLC

Prepared by:
Equity Environmental Engineering
500 International Drive, Suite 150
Mount Olive, NJ 07828

August 27, 2020

5th Avenue Rezoning

Bay Ridge, Brooklyn NY
Block 6087, Lots 17, 19, 21, 23, 26 through 34, and 129
Brooklyn Community District 10

5th Avenue
Brooklyn, New York 11209

CEQR Reference No: 19DCP128K
ULURP Reference No:
190447 ZMK; 190448 ZRK

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

FOR UNLISTED ACTIONS ONLY • *Please fill out and submit to the appropriate agency* (see instructions)

Part I: GENERAL INFORMATION

1. *Does the Action Exceed Any Type I Threshold in 6 NYCRR Part 617.4 or 43 RCNY §6-15(A) (Executive Order 91 of 1977, as amended)?* ☐ YES ☒ NO

If "yes," **STOP** and **complete the FULL EAS FORM**.

2. *Project Name* 9114 5th Avenue Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency) 19DCP128K	BSA REFERENCE NUMBER (if applicable)
ULURP REFERENCE NUMBER (if applicable) 190447 ZMK; 190448 ZRK	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY New York City Department of City Planning			NAME OF APPLICANT BayRide Realty LLC		
NAME OF LEAD AGENCY CONTACT PERSON Olga Abinader, Acting Director			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Kevin Williams, Equity Environmental Engineering LLC		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 500 International Drive, Suite 150		
CITY New York	STATE NY	ZIP 10271	CITY Mount Olive	STATE NJ	ZIP 07828
TELEPHONE 212-720-3493	EMAIL oabinad@planning.nyc.gov		TELEPHONE 973-527-7451x301	EMAIL kevin.williams@equityenvironmental.com	

5. *Project Description*

The applicant, BayRide Realty LLC, proposes a zoning map amendment to rezone 9108 – 9128 5th Avenue and 405 – 419 92nd Street, Block 6087, Lots 23, 26, 27, 28, 29, 129, 30, 31, 32, 33, 34, and p/o 1, in the Bay Ridge neighborhood of Brooklyn Community District 10, from a C8-2 zoning district to an R7A/C2-4 zoning district. The proposed zoning map amendment will facilitate the development of 9114 5th Avenue (Block 6087, Lots 23 and 31) with a new 9-story plus cellar mixed-use building with approximately 50 dwelling units and first-floor commercial use.

The Applicant also proposed a Zoning Text Amendment to establish the Proposed Project Area as a Mandatory Inclusionary Housing Designated Area. The Applicant proposes mapping Options 1 and 2 to provide maximum flexibility.

Project Location

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 10	STREET ADDRESS 9114 5th Avenue
TAX BLOCK(S) AND LOT(S) Block 6087, Lots 23, 26, 27, 28, 29, 129, 30, 31, 32, 33, 34, and p/o 1.		ZIP CODE 11209

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS The Project Area is bound by 91st Street to the north, 5th Avenue to the east, 92nd Street to the south, and 4th Avenue to the west.

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY C8-2/Special Bay Ridge District	ZONING SECTIONAL MAP NUMBER 22b

6. *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

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

☐ VARIANCE (use)
☐ VARIANCE (bulk)
☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

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

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

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

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

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

7. *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.): 24,957 within affected area; 9,855 on Project Site
Waterbody area (sq. ft) and type:
Roads, buildings, and other paved surfaces (sq. ft.):
Other, describe (sq. ft.):

8. *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): 48,485
NUMBER OF BUILDINGS: 1 building
GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 48,485
HEIGHT OF EACH BUILDING (ft.): the Applicant's proposed project will be 95' tall. This EAS considers a future With-Action scenario that varies from the applicant's intended project
NUMBER OF STORIES OF EACH BUILDING: 9 stories

Does the proposed project involve changes in zoning on one or more sites? ☒ YES ☐ NO
If "yes," specify: The total square feet owned or controlled by the applicant: 9,855
The total square feet not owned or controlled by the applicant: 15,102

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 permanent and temporary disturbance (if known):
AREA OF TEMPORARY DISTURBANCE: 9,855 sq. ft. (width x length)
VOLUME OF DISTURBANCE: 1,089,544 cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 9,855 sq. ft. (width x length)

Description of Proposed Uses (please complete the following information as appropriate)

	Residential	***Commercial***	***Community Facility***	***Industrial/Manufacturing***
Size (in gross sq. ft.)	38,813	9,672		
Type (*e.g.,* retail, office, school)	50 units	retail		

Does the proposed project increase the population of residents and/or on-site workers? ☒ YES ☐ NO
If "yes," please specify:
NUMBER OF ADDITIONAL RESIDENTS: 137
NUMBER OF ADDITIONAL WORKERS: -5 workers
Provide a brief explanation of how these numbers were determined: Residents: 67 additional dwelling units x 2.04 residents per unit

(ACS data for CD 10); Workers: 1 per approximately 650 SF of use

Does the proposed project create new open space? ☐ YES ☒ NO If "yes," specify size of project-created open space: sq. ft.

Has a No-Action scenario been defined for this project that differs from the existing condition? ☒ YES ☐ NO

If "yes," see Chapter 2, "Establishing the Analysis Framework" and describe briefly: The Applicant has filed plans with the DOB to develop a 20,498 GSF, 70' tall hotel. 61 rooms averaging 325 SF would be provided and parking requirements would be waived as they fall under the threshold of 15.

9. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2022

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 18

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Assuming the environmental approval process and ULURP process of 18 months plus an additional 18 months construction schedule for the Project Site. Construction is expected to last less than 24 months, with no construction overlap. Therefore, no construction lasting longer than two years is expected to occur.

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

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

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 Short 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.		
(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 200 or more residential units?	☐	☒
○ Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
○ Directly displace more than 500 residents?	☐	☒
○ Directly displace more than 100 employees?	☐	☒
○ Affect conditions in a specific industry?	☐	☒
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, hospitals and other health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
○ **Child Care Centers:** 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)	☐	☒
○ **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)	☐	☒
○ **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)	☐	☒
○ **Health Care Facilities and Fire/Police Protection:** Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the proposed project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☒	☐
○ If "yes," would the proposed project generate more than 50 additional residents or 125 additional employees?	☒	☐
(c) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
○ If "yes," would the proposed project generate more than 350 additional residents or 750 additional employees?	☐	☐
(d) If the project in located an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☐	☒

	YES	NO
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?	☒	☐
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 technical analysis. No architectural or archaeological resources were identified, and the proposed project would not have the potential to affect any architectural or archaeological resources.		
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?	☐	☒
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 proposed 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 Form, and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☐	☒
(b) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☐	☒
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☐	☒
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☒	☐
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: No RECs were identified. The Phase I recommended no further investigation. See attached technical analysis section and Phase I included as an appendix.	☐	☒
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 the amounts listed in Table 13-1 in Chapter 13?	☐	☒

	YES	NO
(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
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): 1,934 = (137 residents X 17 pounds per week) + (-5 employees X 79 pounds per week)		
○ 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?	☐	☒
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): 4,998,704 = (216.3 commercial X -8,275) + (126.7 large residential X 53,580)		
(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 screening analyses, attach appropriate 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 or bus trips per project peak hour?	☐	☐
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway trips per station or line?	☐	☐
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☐	☐
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☐	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☐	☒
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed) see attached	☒	☐
(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?	☐	☒
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) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☐
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☐	☒
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐

	YES	NO
(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?	☐	☒
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. The proposed project does not have the potential for a significant adverse impact in the technical areas above as noted in the attached Supplemental Analyses. In addition, the project would not result in the combination of moderate adverse impacts in the technical areas to have the potential to significantly affect public health. Therefore, an assessment of public health is not warranted.		
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 Section 2.9		
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.

Construction of Projected Development Site 1 is expected to take less than 24 months, and would commence subsequent to approvals expected by December 2019. The site is vacant, does not require demolition, and funding is already secured. There would be no overlapping construction, and no construction lasting longer than 24 months. Therefore, a preliminary assessment of construction impacts is not required. The anticipated build year is 2022.

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	DATE
Robert Greene	8/27/2020

SIGNATURE Robert Greene

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 Deputy Director, Environmental Assessment and Review Division	LEAD AGENCY Department of City Planning on behalf of the City Planning Commission
NAME Stephanie Shellooe	DATE August 28, 2020
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, and determined that no significant adverse impacts would occur. A significant adverse impact would occur if a proposed action would generate a land use incompatible with the surrounding area. The proposed actions are a Zoning Map Amendment to rezone the project area (Brooklyn Block 6087, Lots 23, 26, 27, 28, 29, 30, 31, 32, 33, 34, 129, and p/o 1) from a C8-2 zoning district to an R7A/C2-4 zoning district and a Zoning Text Amendment to establish a Mandatory Inclusionary Housing (MIH) area with MIH Options 1 and 2 coterminous with the rezoning area within the Special Bay Ridge District in the Bay Ridge neighborhood of Brooklyn Community District 10. The project area is the southeastern portion of Block 6087 with frontage on 5th Avenue and 92nd Street, three blocks north of the MTA R-Train station at 95th Street. The proposed actions would facilitate the development of a nine-story mixed-use building on Block 6087, Lots 23 and 31, containing approximately 50 dwelling units and ground floor commercial space. As such, the proposed actions would not introduce a new land use, nor affect the existing mixed-use character of the area, nor affect public policy, which represent the thresholds of impact significance in the CEQR Technical Manual (TM). The analysis concludes that no significant adverse impacts related to Land Use, Zoning, and Public Policy would result from the proposed actions.

Open Space

A preliminary assessment of the effects of the proposed actions related to open space is included in the EAS. According to the 2014 CEQR Technical manual, a significant adverse open space impact may occur if a proposed action would reduce the open space ratio by more than five percent in areas that are currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents. In areas with higher open space ratios, closer to 2.5 acres per 1,000 residents, a greater percentage of change (more than five percent) may be tolerated. There are 72.19 acres of open space resources in the Study Area—62.79 active and 9.40 passive. As a result of the proposed actions, the total residential study area open space ratio would decrease by 0.5-percent to 2.08 acres per 1,000 residents. Therefore, the proposed actions would not result in a significant adverse impact related to open space.

Hazardous Materials, Air Quality, and Noise

An (E) designation (E-577) 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 significant adverse impacts related to hazardous materials, air quality, and 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 Anthony Grande at 718-780-8271.

TITLE Deputy Director, Environmental Assessment and Review Division	LEAD AGENCY Department of City Planning on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | 212.720.3493
NAME Stephanie Shellooe	DATE August 28, 2020
SIGNATURE	
TITLE Chair, City Planning Commission	
NAME Marisa Lago	DATE August 31, 2020
SIGNATURE	

Project Name: 9114 5th Avenue Rezoning
CEQR # 19DCP128K
SEQRA Classification: Unlisted

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	Brooklyn	Block 6087, Lots 23 and 31
Projected Development Site 2	Brooklyn	Block 6087, Lots 32, 33, and 34
Potential Development Site 1	Brooklyn	Block 6087, Lots 26, 27, 28, 29, 30, and 129

(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-577**) would be established as part of approval of the proposed actions on **Projected Development Site 1, Projected Development Site 2, and Potential Development Site 1** as described below:

Development Site	Hazardous Materials	Air Quality	Noise
Projected Development Site 1		X	X
Projected Development Site 2	X	X	X
Potential Development Site 1	X	X	X

Hazardous Materials

The (E) designation requirements applicable to **Projected Development Site 2, and Potential 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 1 ESA for the Project Site along with a soil, soil gas and groundwater 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 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 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 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. An OER-approved construction-related health and safety plan would be implemented during evacuation 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. All demolition or rehabilitation would be conducted in accordance with

applicable requirements for disturbance, handling and disposal of suspect lead-paint and asbestos-containing materials. In addition to the requirements for lead-based paint and asbestos, requirements (including those of NYSDEC) should petroleum tanks and/or spills be identified and for off-site disposal of soil/fill would need to be followed.

Air Quality

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

Projected Development Site 1: *Any new residential or commercial development on the above-referenced property must ensure that the heating, ventilating, air conditioning (HVAC), and hot water system(s) stack is located at the building's highest level, and at a minimum of 98 feet above the grade to avoid any potential significant adverse air quality impacts.*

Projected Development Site 2: *Any new residential or commercial development on the above-referenced property must ensure that the heating, ventilating, air conditioning (HVAC), and hot water system(s) stack is located at the building's highest level, and at a minimum of 98 feet above the grade to avoid any potential significant adverse air quality impacts.*

Potential Development Site 1: *Any new residential or commercial development on the above-referenced property must ensure that the heating, ventilating, air conditioning (HVAC), and hot water system(s) stack is located at the building's highest level, and at a minimum of 98 feet above the grade to avoid any potential significant adverse air quality impacts.*

Noise

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

Projected Development Site 1: *To ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on all facades facing 92nd Street and all facades facing 4th Avenue and the facades facing 5th Avenue within 98 feet of 92nd Street to maintain an interior noise level not greater than 45 dBA for residential uses and not greater than 50 dBA for commercial uses as illustrated in the EAS. 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.*

Projected Development Site 2: *To ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the facades facing 92nd Street and the facades facing 4th Avenue and the facades facing 91st Street and 28 dBA of attenuation on the facades facing 5th Avenue to maintain an interior noise level not greater than 45 dBA for residential uses and not greater than 50 dBA for commercial uses as illustrated in the EAS. 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.*

Potential Development Site 1: *To ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the facades facing 92nd Street and the facades facing 5th Avenue and 28 dBA of attenuation on the facades facing 4th Avenue to maintain an interior noise level not greater than 45 dBA for residential uses and not greater than 50 dBA for commercial uses as illustrated in the EAS. 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.*

Figure 1: Project Location Map

Figure 2: Zoning Sectional Map

Figure 3: Zoning Change Map

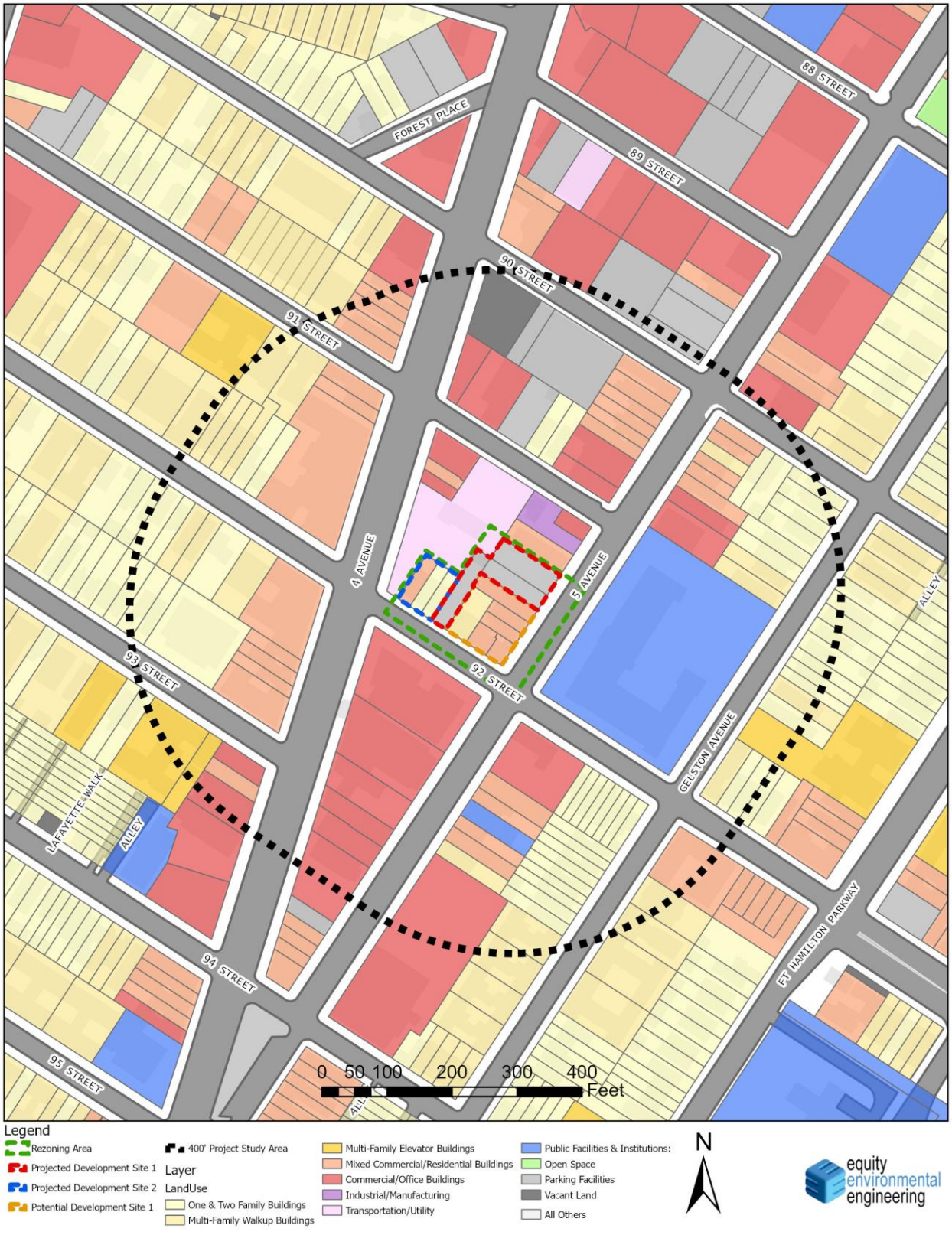
Current Zoning **Proposed Zoning**

Area being rezoned is outlined with dotted line

Changing a C8/2/SBRD district to a R7A/C2-4 district

Figure 4: Tax Map

Figure 5: Land Use Map



1. View of the Development Site facing northwest from 5th Avenue.

2. View of 5th Avenue facing southwest (Development Site at right).

3. View of the Development Site facing west from 5th Avenue.

4. View of the Development Site facing northwest from 5th Avenue.

5. View of the Project Area facing west from 5th Avenue.

6. View of the Project Area facing northwest from 5th Avenue.

7. View of 92nd Street facing northwest from 5th Avenue (Project Area at right).

8. View of the Project Area facing north from the intersection of 5th Avenue and 92nd Street.

9. View of 5th Avenue facing northeast from 92nd Street (Project Area at left).

10. View of the Project Area facing northeast from 92nd Street.

11. View of the Development Site facing northeast from 92nd Street.

12. View of the Project Area facing east from 92nd Street.

13. View of the Project Area facing north from 92nd Street.

14. View of the Project Area facing northeast from 92nd Street.

15. View of the Project Area facing northeast from 92nd Street.

16. View of the Project Area and Development Site facing east from 92nd Street.

17. View of 92nd Street facing southeast from 4th Avenue (Project Area at left).

18. View of the sidewalk along the north side of 92nd Street facing southeast (Project Area at left).

19. View of the intersection of 4th Avenue and 92nd Street facing west from the Project Area.

20. View of the sidewalk along the north side of 92nd Street facing southeast (Development Site at left).

21. View of the south side of 92nd Street facing west from the Development Site.

22. View of the sidewalk along the north side of 92nd Street facing northwest (Development Site at right).

23. View of the south side of 92nd Street facing southwest from the Project Area.

24. View of the sidewalk along the north side of 92nd Street facing northwest from 5th Avenue (Project Area at right).

25. View of the intersection of 5th Avenue and 92nd Street facing south from the Project Area.

26. View of the sidewalk along the west side of 5th Avenue facing northeast from 92nd Street (Project Area at left).

27. View of the sidewalk along the west side of 5th Avenue facing northeast (Development Site at left).

28. View of the east side of 5th Avenue facing south from the Development Site.

29. View of the sidewalk along the west side of 5th Avenue facing southwest (Development Site at right).

30. View of the east side of 5th Avenue facing east from the Development Site.

1.0 PROPOSED ACTION

1.1 Introduction

"The Applicant," Bayride Realty LLC, is seeking a Zoning Map Amendment in order to facilitate the redevelopment of 3 lots in the Bay Ridge neighborhood of Brooklyn, Community District 10, within the Special Bay Ridge District. The Applicant seeks to rezone Block 6087, Lots 23, 26, 27, 28, 29, 129, 30, 31, 32, 33, 34, and p/o 1 from C8-2 to an R7A/C2-4 zoning district (the Proposed Action). In its entirety, the proposed rezoning area would total 32,920 square feet (SF), of which 9,855 SF is applicant-owned.

The proposed R7A zoning district permits residential development with a FAR of up to 4.0 or 4.6 with Inclusionary Housing Designated area bonus. A rezoning is a discretionary action subject to the Uniform Land Use Review Procedure (ULURP) and City Environmental Quality Review (CEQR). It is expected that this project will be classified as an "Unlisted Action" under CEQR and will require preparation of an Environmental Assessment Statement (EAS), with DCP serving as the lead agency.

1.2 Background

The Affected Area (see **Figure 1**) is located at the southern portion of the Bay Ridge neighborhood, within the Special Bay Ridge District (Zoning Resolution 114-00), effective November 2, 1978, and substantially modified March 23, 2005 (ULURP 050134azmk). Originally zoned C8-1 in 1961, the March 2005 modification (Special Bay Ridge District Rezoning) rezoned the Affected Area to C8-2.

Special Bay Ridge District

The Special Bay Ridge Special District was designed to: (a) preserve the existing scale and character of the residential and commercial community, (b) encourage design of residential, commercial, and community facility development which is in character with the neighborhood and surrounding community; and (c) promote the most desirable land use in the area and to conserve the value of land and buildings. The SBRD provides special bulk regulations relating to maximum FAR, and height and setback regulations. These regulations apply to C8-2 zoning districts and lower residential districts, including R4A, R4-1, R4B and R5B zoning districts. Special rooftop regulations (permitted obstructions) apply to buildings in R6A, R6B, R7A, R7B, C4-2A, and C8-2 zoning districts.

Special Bay Ridge District Rezoning

In 2005, DCP, in response to the replacement of single-family homes on large lots being replaced with multi-family residences, rezoned the SBRD. DCP had four goals for the rezoning:

- Preserve neighborhood scale and character by rezoning to lower density and contextual districts and further fine-tuning those districts to reflect the context of midblocks with a detached character, those with both detached and semi-detached building types, and the blocks lined predominantly with limestone rowhouses;
- Reinforce several of the avenues as corridors for mid-rise mixed retail and residential buildings by mapping appropriate moderate-density contextual zoning districts;
- Preserve the central commercial district through contextual rezoning and increase permitted density in the auto district to provide for the expansion of commercial and

community facility uses; and
- Retain the SBRD and a limited number of its protective regulations to work in concert with the contextual districts.

Within the SBRD, the Affected Area is part of the subarea known as the Auto District (formerly Area E), which comprises Fourth and Fifth Avenues, 89th through 95th Streets. The 2005 rezoning changed the zoning district from C8-1 to C8-2 to increase permitted commercial FAR from 1.0 to 2.0. The SBRD was also amended to impose a height limit of 70 feet for all uses and limit community facility FAR to 3.0. Parking requirements were also reduced from one space per 300 sf to one per 400 sf. The intent of the SBRD modifications and rezoning of the Auto District was to allow for medical office development and for expansion of auto-related and other permitted commercial uses.

1.3 Description of Surrounding Area

The Affected Area (Block 6087, Lots 23, 26, 27, 28, 29, 129, 30, 31, 32, 33, 34, and p/o 1) is located in the Bay Ridge neighborhood of Brooklyn, Community District 10. Existing land uses within 400' of the Affected Area primarily consist of commercial and office buildings, mixed use residential/commercial, multi-family residential, institutional, and several parking facilities. Land use along the avenues is predominantly commercial and office buildings, and is part of the SBRD subarea Auto District. Several lots along 90th Street, to the north of the Affected Area, are parking facilities. Multi-family residential buildings are midblocks along the east-west numbered streets, with denser mixed-use commercial/residential buildings on the corner lots. A gas station abuts the Affected Area within Block 6087, and a 90,000 sf school is directly across 5th Avenue.

The Affected Area is within a C8-2 zoning district that extends north and south along 4th and 5th Avenue. Zoning to the east of the Affected Area is R5B with a C2-3 overlay along 5th Avenue. To the west, zoning alternates between R5B and R4-1, and also includes a C2-3 overlay along 4th Avenue. A higher density, contextual commercial district, zoned C4-2A, is to the north, and runs along 4th Avenue and 86th Street. South of the Affected Area the C8-2 zoning district changes over to an R6A with C1-3 commercial overlays.

4th Avenue, to the west of the Affected Area, is a north-south collector road with two moving lanes in each direction and curbside parking. Bounding the Affected Area to the east, 5th Avenue is a two-way, north-south road with one moving lane in each direction and curbside parking. 91st Street bounds the Affected Area to the north, and is a one-way, west to east road with curbside parking and a single moving lane. The Affected Area is bounded to the south by 92nd Street, which is an east-west road with one moving lane in each direction and no curbside parking.

The area is well-served by transit. The 95th Street subway stop servicing the R line is located two blocks south of the Proposed Project Area. The B63 bus stop (Bay Ridge to Cobble Hill) travels along 5th Avenue and the northbound stop is located directly across the street from the Proposed Development Site. B8 (Dyker Heights to East Flatbush) travels along 4th Avenue and is located within the Proposed Project Area. The S53 (Port Richmond – Bay Ridge) and S93 (College of Staten Island – Bay Ridge) also stop within the Proposed Project Area on 4th Avenue.

1.4 Description of Affected Area

The Affected Area, shown in **Figure 1** and summarized in **Table 1.4.1** below, is located in the Bay Ridge neighborhood of Brooklyn Community District 10, which falls within the SBRD, as mentioned above. The C8-2 zoning district allows medium density retail/commercial development at 2.0 FAR and community facility development at 3.0 FAR. The underlying SBRD modifications limit the maximum building height to 70 feet. The Affected Area, entirely within Block 6087, is as follows:

- 9114 5th Avenue (Lot 23) is owned by the applicant and is an open parking lot.
- 9118 5th Avenue (Lot 26) is improved with a 3-story, approximately 4,432 square foot mixed-use building with an attorney's office on the ground floor and residences on the upper floors.
- 9122 5th Avenue (Lot 27) is improved with a 3-story, approximately 3,000 square foot mixed-use building with a tire shop on the ground floor and residences on the upper floors.
- 9126 5th Avenue (Lot 28) is improved with a 3-story, approximately 3,000 square foot mixed-use building with ground floor retail and residences on the upper floors.
- 9128 5th Avenue (Lot 29) is improved with a 3-story, approximately 3,096 square foot mixed-use building with a ground floor eating and drinking establishment and residential units on the upper floors.
- 419 92nd Street (Lot 129) is improved with a 3-story, approximately 2,776 square foot mixed-use with a ground floor laundromat and residential uses on the upper floors.
- 415 92nd Street (Lot 30) is improved with a 3-story, approximately 3,978 square foot, 3-story multi-family residential building.
- 411 92nd Street (Lot 31), is owned by the applicant and is an open used cars lot.
- 409 92nd Street (Lot 32) is improved with a 2-story, approximately 1,760 square foot residential building.
- 407 92nd Street (Lot 33) is improved with a 2-story, approximately 1,760 square foot, residential building.
- 405 92nd Street (Lot 34) is improved with a 2-story, approximately 2,240 square foot, mixed-use building with ground floor commercial use and residential use on the second floor.
- 9114 4th Avenue (p/o Lot 1) is a small portion of an existing gas station.

Table 1.4.1: Affected Area Existing Conditions

B&L	Address	Current Owner	Lot SF	Floor Area	# of Buildings	# of Floors	DU	Existing FAR	Existing Use
6087, 23	9114 5 Avenue	Benson Drywall INC	6,550	0	0	0	0	0.00	Parking
6087, 26	9118 5 Avenue	GPG & Sons LLC	2,235	4,432	1	3	2	1.98	First floor office/residential
6087, 27	9122 5 Avenue	Michalakos, Frances	1,308	3,000	1	3	2	2.29	First floor office/residential
6087, 28	9126 5 Avenue	Abdalla Awad M	1,308	3,000	1	3	2	2.29	First floor office/residential
6087, 30	415 92 Street	Myftarago, Aleksander	2,578	3,978	1	3	6	1.54	MF residential
6087, 31	411 92 Street	Benson Drywall INC	3,305	330	0	0	0	0.10	Commercial
6087, 32	409 92 Street	Kallipi Theodorakis	1,500	1,760	1	2	2	1.17	Residential
6087, 33	407 92 Street	Dol Ferrentino-Mazza	1,500	1,760	1	2	2	1.17	Residential
6087, 34	405 92 Street	Carina Property LLC	1,525	2,240	1	2	1	1.47	First floor commercial/residential
6087, 129	419 92 Street	Harry Phillippou	1,296	2,776	1	3	2	2.14	First floor office/residential
6087, 29	9128 5 Avenue	H & R 5th Ave, LLC	1,052	3,096	1	3	2	2.94	First floor office/residential
6087, 1	9111 4th Avenue	Elaine M. Juliano	22,316	2,108	1	1	0	0.09	Gas Station

*Applicant-owned sites in gray

1.5 Description of the Development Site

The Proposed Development Site consists of 9114 5th Avenue (Block 6087, Lot 23) and 411 92nd Street (Block 6087, Lot 31). The proposed Development Site has approximately 27 feet of frontage along 92nd street and approximately 65 feet of frontage along 5th Avenue. Lot 23 is currently vacant. Lot 31 is used as an open used car sales lot.

1.6 Description of Proposed Development

The proposed rezoning will facilitate the development of a new 9-story plus cellar, mixed use commercial and residential building with approximately 48,485 GSF (45,238 ZSF) of zoning floor area and an FAR of 4.59 at the Proposed Development Site. The Proposed Development will consist of 9,672 GSF (9,300 ZSF) of commercial space, and 38,813 GSF (35,938 ZSF) of residential floor area with a total of 50 dwelling units on floors two through nine. The Proposed Development will rise to a total height of 95 feet. The commercial space will be accessed along 92nd Street while the residential units will be accessed along 5th Avenue. No parking will be provided on site, as parking is waived pursuant to ZR § 36-341.

1.7 Action(s) Necessary to Facilitate the Project

The Affected Area is mapped with a C8-2 zoning district that does not permit residential development. The existing zoning district is medium density, allowing 2.0 commercial FAR and 3.0 community facility FAR along with a high parking requirement. Additionally, the SBRD limits the height of community facilities to preserve the low- to mid-rise character on the midblocks.

There are two actions necessary to facilitate construction of the Proposed Development:

1. A Zoning Map Amendment to rezone the Affected Area from a C8-2 zoning district to an R7A/C2-4 zoning district.
2. A Zoning Text Amendment to establish the rezoning area as a Mandatory Inclusionary Housing Area. Both Options 1 and 2 will be mapped for maximum flexibility.

1.8 Purpose and Need

The existing C8-2 zoning district permits heavy commercial uses and manufacturing uses. Residential uses are prohibited. R7A zoning districts are contextual residential zoning districts which mandate compliance with Quality Housing regulations and typically produce high lot coverage apartment buildings with a maximum permitted FAR of 4.6 with inclusionary housing. C2-4 zoning districts are commercial overlay districts mapped within residential districts. When mapped in R6 through R10 districts, the maximum commercial FAR is 2.0.

The proposed zoning map amendment will expand and render conforming the existing residential buildings within the Proposed Project Area. As currently occupied, the Proposed Project Area is a mix of non-conforming residential uses and substantially underused commercial property. The proposed zoning map amendment would bring all existing non-conforming residential uses located within the Proposed Project Area into conformance. Currently, the only conforming use within the Proposed Project Area is the Proposed Development Site and p/o Lot 1, a gas station. It is The Applicant's belief that the proposed rezoning would help reknit the urban fabric in the area and better integrate it within the

predominantly residential portions of the Bay Ridge neighborhood surrounding the C8-2 zoning district.

The proposed R7A zoning district is reflective of the built land use within the Surrounding Area. Directly across 5th Avenue from the Proposed Project Area at 9021 5th Avenue (Block 6088, Lot 1) is an approximately 89,838 square foot, 4-story (70' tall) school building. Across 92nd Street at 9201 4th Avenue (Block 6102, Lot 22), is an approximately 79,173 square foot, 7-story (72' tall) commercial building. Across 4th Avenue are numerous 6-story mixed commercial and residential buildings each approximately 68' feet in height.

Furthermore, new affordable housing is needed in Brooklyn Community District 10 where nearly forty percent of the households are rent burdened. According to the U.S. Census Bureau, American Community Survey 2012-206 Five Year Estimates for Public Use Microdata Samples, 38.9% of households spent more than 35% of their income on rent. According to the Furman Center's State of New York City's Housing and Neighborhoods in 2016, median month rent in Community District 10 has risen from $1,120 in 2000 to $1,470 ($2000 asking price) in 2016. Additionally, the median sales price per unit almost doubled from $244,600 in 2000 to $563,960 in 2017. Id.

Additionally, the C2-4 commercial overlay will permit a wide range of retail and service uses to serve the larger residential community, and is also consistent with the character of the Surrounding Area as there are C2 commercial overlay districts mapped along the block fronts on 4th and 5th Avenues. The proposed rezoning will allow for a more active use of the Proposed Development Site and will create a residential anchor for the community with supporting retail in an area that is within a 10-minute walking distance of the 95th Street R train stop.

1.9 Analysis Framework

This EAS studies the potential for individual and cumulative environmental impacts related to the Proposed Action by comparing the No-Action Scenario to the With-Action Scenario as described below.

Reasonable Worst-Case Development Scenario

The Applicant's Proposed Development is not the worst-case development scenario, and so a more conservative development scenario was created for analysis purposes. The Reasonable Worst-Case Development Scenario (RWCDS) assumes a build year of 2022. The 2022 build year assumes the receipt of approvals by late-2020 and a total construction duration of 18 months for the Applicant site. The framework for analysis considers the difference between the future absent the Proposed Action (Future No-Action Scenario) and the future with the Proposed Action (Future With-Action Scenario) in the 2022 build year.

Future No-Action Scenario

In the future No-Action Scenario the C8-2 zoning district would remain in place. In this scenario all lots except for The Applicant-Owned lots (23 and 31) would be significantly built out and would not be anticipated to develop.

Projected Development Site 1
The Applicant's lots would be assembled and developed with a 20,498 GSF (19,710 ZSF; 2.00 FAR) 6-story, 70-foot-tall hotel.

Projected Development Site 2
Absent the Proposed Action, Projected Development Site 2 would not be expected to develop and would remain in its existing condition. Lots 32-34 would not assemble.

Potential Development Site 1
Lots 26-30 and 129 would not assemble absent the Proposed Action. The currently existing buildings on each lot would remain as they are.

Other Affected Lots
The 800 SF portion of Lot 1 included in the rezoning would remain as it is absent the Proposed Action. The existing gas station on-site would continue operations.

Future With-Action Scenario

The full projected With-Action Scenario is shown below in Table 1.9-1 and Table 1.9-2.

Projected Development Site 1
The Applicant-owned lots 23 and 31 would assemble to create a 9,855 SF lot. A 48,485 GSF (45,238 ZSF) 9-story, 95-foot-tall building would be constructed. 38,813 GSF (35,938 ZSF) of residential floor area would be located on floors 2-9, and 50 dwelling units would be provided (up to 10 MIH units). The ground floor would have 9,672 GSF (9,300 ZSF) of commercial use, and a 9,300 GSF cellar would be used for utilities and commercial storage. The 30% market rate and 15% quality housing parking requirement would result in 14 required parking spaces, which is below the threshold of 15. 9,000 SF of commercial space would require 9 parking spaces, which is below the threshold of 40. No parking will be required for the projected building.

Projected Development Site 2
Lots 32, 33, and 34 would assemble to form a 4,525 SF lot. A 9-story, 95-foot-tall, 22,363 GSF (20,815 ZSF) mixed-used building would be constructed. The ground floor would be commercial use, with 3,059 GSF (2,941 ZSF) of floor area. Residential uses would be located on floors 2-9, with 19,304 GSF (17,874 ZSF) of floor area. 22 dwelling units would be provided, of which 4 would be set aside for MIH. No parking would be required as the commercial and residential uses would be below the thresholds.

In addition to the Projected Development Sites, 6 lots within the rezoning area have the potential, but are not likely, to develop.

Potential Development Site 1
Lots 26-30 and 129 could assemble to form a 9,777 SF lot. A 9-story, 95-foot-tall, 48,318 GSF (44,974 ZSF) mixed-use building could be constructed. The ground floor would be commercial use, with 6,609 GSF (6,355 ZSF) of floor area. Residential uses would be located on floors 2-9, with 41,709 GSF (38,619 ZSF) of floor area. 48 dwelling units would be provided, of which 10 would be set aside for MIH. No parking would be required as the commercial and residential uses would be below the thresholds.

Other Affected Lot

An approximately 800 SF portion of Lot 1 is included in proposed rezoning, which is well under the threshold for redevelopment according to the CEQR Technical Manual. The lot has been significantly underbuilt since at least 1964 and has been operating as a gas station and auto repair since 1998. Redevelopment is not expected to occur as a result of the Proposed Action.

Table 1.9-1: Analysis Framework

Site Info					No-Action Conditions						With-Action Conditions						
	Tax Block	Tax Lot	Lot Area SF	Zoning	Res. SF	Com. SF	CF SF	Vacant SF	DU	Zoning	Res. SF	Com. SF	CF SF	DU	Afford. DU	Parking	Build. Height
Projected Development Site 1	6087	23	6,550	C8-2		19710				C8-2	35,938	9,300		50	10		95'
	6087	31	3,305	C8-2						C8-2							
Projected Development Site 2	6087	32	1,500	C8-2	1619				2	C8-2	17,874	2,941		22	4		95'
	6087	33	1,500	C8-2	1619				2	C8-2							
	6087	34	1,525	C8-2	936	488			1	C8-2							
Total			**14,380**		**4,174**	**20,198**			**5**		**53,812**	**12,241**		**72**	**14**		

Table 1.9-2: Incremental Analysis Table

	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	Six 3-story multi-family, two 2-story two-family, and one single family/commercial building	Six 3-story multi-family, two 2-story two-family, and one single family/commercial building	Six 3-story multi-family, and two 9-story multi-family building	Two 9-story multi-family buildings
No. of dwelling units	21	21	88	67
No. of low- to moderate-income units	0	0	14	14
Gross floor area (sq. ft.)	18,881	18,881	72,461	53,580
Commercial	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	
If "yes," specify the following:				
Describe type (retail, office, other)	1 office, 4 retail, and 2 restaurants	1 office, 3 retail, 2 restaurants, 1 hotel	5 retail, and 2 restaurants	+2 retail; -1 hotel, -1 office
Gross floor area (sq. ft.)	6,446	26944	18669	-8275
Manufacturing/Industrial	No	No	No	
If "yes," specify the following:				
Type of Use	N/A	N/A	N/A	
Gross floor area (sq. ft.)	N/A	N/A	N/A	
Open storage area (sq. ft.)	N/A	N/A	N/A	
If any enclosed activities, specify:	N/A	N/A	N/A	
Community Facility	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If "yes," specify the following:				
Type of Use	N/A	N/A	N/A	
Gross floor area (sq. ft.)	N/A	N/A	N/A	
Vacant Land	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
If "yes", describe:	3 vacant lots used for parking or car sales	No	No	
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):	N/A	N/A	N/A	
Other Land Uses	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If "yes," describe:	N/A	N/A	N/A	
Parking				
Garages	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If "yes," specify the following:				
No. of public spaces	N/A	N/A	N/A	
No. of accessory spaces	N/A	N/A	N/A	
Operating hours	N/A	N/A	N/A	

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Attended or non-attended	N/A	N/A	N/A	
Lots	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If "yes," specify the following:				
No. of public spaces	N/A	N/A	N/A	
No. of accessory spaces	N/A	N/A	N/A	
Operating hours	N/A	N/A	N/A	
Other (includes street parking)	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If "yes," describe:	N/A	N/A	N/A	
Population				
Residents	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	
If "yes," specify number:	42	42	179	137
Briefly explain how the number of residents was calculated:	ACS 2.04 per unit x Dwelling Units			
Businesses	☑ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
If "yes," specify the following:				
No. and type	1 law office; 1 tire shop; 2 restaurants; 1 laundromat; 1 spa; 1 car sales	1 law office; 1 tire shop; 2 restaurants; 1 laundromat; 1 spa; 1 hotel	1 tire shop; 3 restaurants; 1 laundromat; 2 auto stores	+1 restaurant; +2 auto store
No. and type of workers by business	**23 total** 3 law office; 3 tire shop; 10 restaurants; 1 laundromat; 4 spa; 2 car sales	**33 total** 3 law office; 3 tire shop; 10 restaurants; 1 laundromat; 4 spa; 12 hotel	**28 total** 3 law office; 3 tire shop; 15 restaurants; 1 laundromat; 6 auto store	-5 workers
No. and type of non-residents who are not workers	660	2600	1800	-800
Briefly explain how the number of businesses was calculated:	Businesses: based on existing uses and projecting 1 business per approximately 2,000 SF; 100 patrons per 1,000 SF			
Other (students, visitors, concert-goers, *etc*.)	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If any, specify type and number:	N/A	N/A	N/A	
Briefly explain how the number was calculated:				
Zoning				
Zoning classification	C8-2	C8-2	R7A/C2-4	
Maximum amount of floor area that can be developed	2.00	2.00	4.60	2.60
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Mixed use; commercial; community facilities buildings	Mixed use; commercial; community facilities buildings	Mixed use; commercial; community facilities buildings	

2.0 ENVIRONMENTAL REVIEW

2.1 Land Use, Zoning, and Public Policy

The *CEQR Technical Manual* recommends procedures for analysis of land use, zoning and public policy to ascertain the impacts of a project on the surrounding area. Land use, zoning and public policy are described in detail below. This section considers existing conditions, development trends, and zoning and other public policies in relation to the Projected Development Site and the surrounding area as well as the larger area in which the proposed actions may have an effect. Because the proposed action would permit development of uses (residential) that are not permitted as of right under the Projected Development Site's existing C8-2 zoning, a preliminary assessment of Land Use, Zoning, and Public Policy is provided.

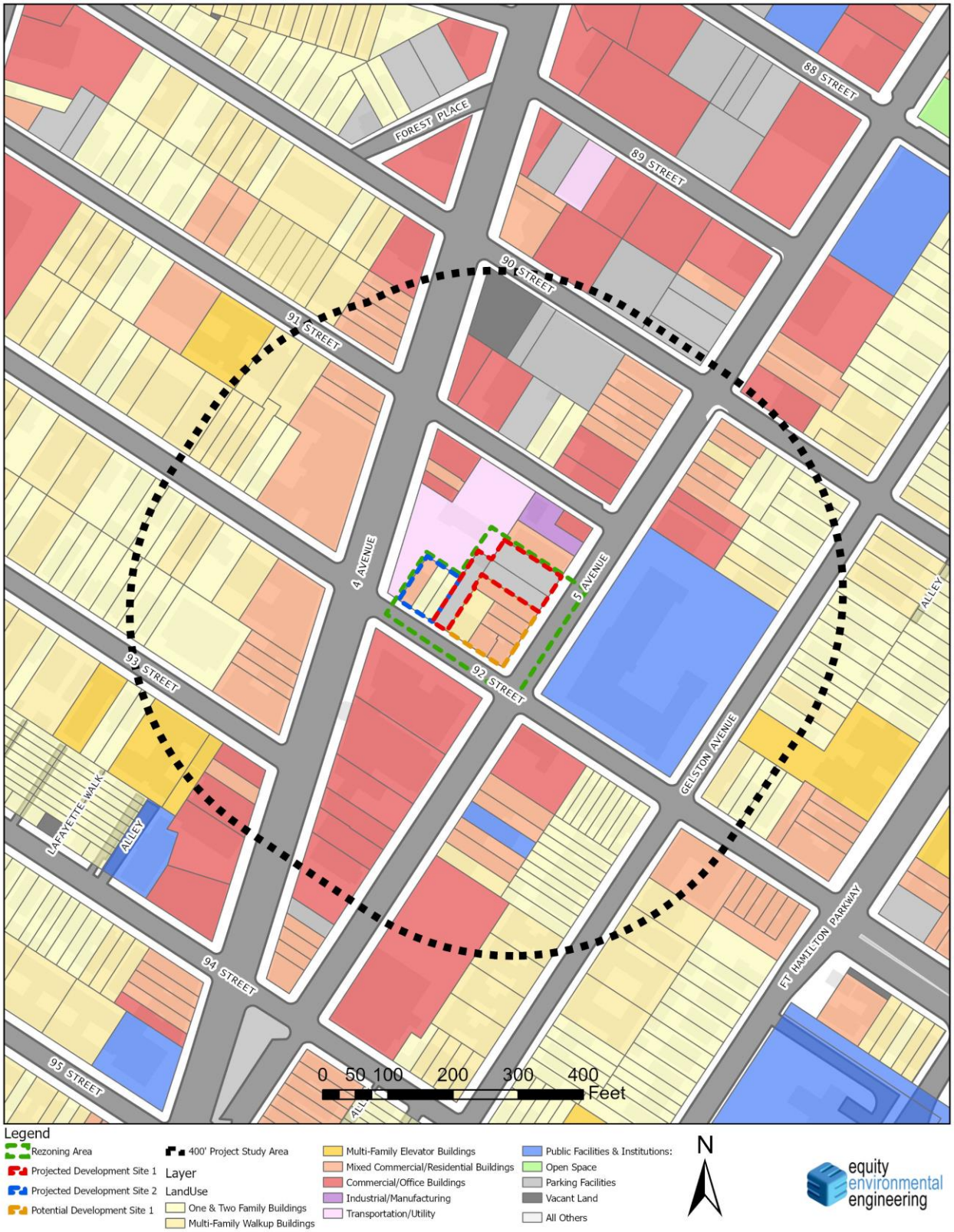
Methodology

Existing land uses were determined by reference to the New York City Zoning and Land Use (Zola) database and PLUTOTM 16v2 shapefiles. These uses were then confirmed through site visits. The evaluation of lots within the 400-foot Study Area were performed with reference to New York City Zoning Maps and the Zoning Resolution of the City of New York and served as the basis for the zoning evaluation of the Future No Action and Future With-Action Conditions. Public Policy research was performed through an evaluation of New York City Department of City Planning (NYCDCP) and other city agencies programs and documentation.

2.1.1 Land Use

The *CEQR Technical Manual* suggests that, generally, a land use, zoning and public policy study area should extend 400 feet from the site of the proposed action. Existing land use patterns of city blocks within approximately 400 feet of the Project Site are presented in **Figure 2.1-1.**

Figure 2.1-1: Land Use



Existing Conditions

Affected Area
The Affected Area is located within Block 6087 and is comprised of 12 lots within the Bay Ridge Neighborhood of Brooklyn Community District 10. A detailed description of the Affected Area and its land use can be found in **Section 1.4, Description of Affected Area.**

Projected Development Site 1
Lots 23 and 31, comprising 9,855 SF are unimproved lots used for vehicular parking and used car sales, respectively.

Projected Development Site 2
Lots 32, 33, and 34 comprise 4,525 SF and are improved with 2-story commercial/residential buildings.

Potential Development Site 1
Lots 26-30 and 129 are a combined 9,777 SF and are all improved with 3-story buildings and include commercial uses with the exception of Lot 30, which is entirely residential.

Study Area
Existing land uses within 400' of the Affected Area primarily consist of commercial and office buildings, mixed use residential/commercial, multi-family residential, institutional, and several parking facilities. Land use along the avenues is predominantly commercial and office buildings, and is part of the SBRD subarea Auto District. Several lots along 90th Street, to the north of the Affected Area, are parking facilities. Multi-family residential buildings are midblocks along the east-west numbered streets, with denser mixed-use commercial/residential buildings on the corner lots. A gas station abuts the Affected Area within Block 6087, and a 90,000 SF school is directly across 5th Avenue.

There are no active construction projects within 400' of the Affected Area according to the NYC Active Major Construction Map. The closest construction project is approximately 1,000 feet to the south of the Affected Area at 401 95th Street, and will be a 7-story, 22 dwelling unit structure.

Table 2.1-1: Land Use Distribution for Brooklyn Community District 10

LAND USES	PERCENT OF TOTAL
Residential Uses	
1-2 Family	33.06
Multi-Family	12.71
Mixed Residential/Commercial	5.04
Subtotal of Residential Uses	*50.81*
Non-Residential Uses	
Commercial / Office	2.44
Industrial	.31
Transportation/Utility	1.19
Institutions	14.11
Open Space/Recreation	29.94
Parking Facilities	.93
Vacant Land	.25
Miscellaneous	0.03
Subtotal of Non-Residential Uses	*49.19*
TOTAL	**100.0**

Source: *Community District Profiles, New York City Department of City Planning.*
Note: Percentages may not add up to 100.0 percent due to rounding.

Analysis

Future No-Action Scenario

Study Area
Existing land use patterns are expected generally to continue in the surrounding area in the future without the proposed action. There are no known major land use changes anticipated in the foreseeable future within the land use study area. Any new residential development in surrounding areas would be governed by the zoning districts established by the Bay Ridge Rezoning, adopted by the City Council in March 2005.

Affected Area
Under the Project Site's existing C8-2 zoning, development of commercial uses up to 2.0 FAR would be permitted in the future without the proposed action. For most uses, one (1) parking space is required for every 400 sf of development is required. It is expected that only Projected Development Site 1 would develop in the future in the absence of the Proposed Action. All other lots within the proposed rezoning are expected to remain in the future no-action scenario.

Projected Development Site 1
The Applicant's lots would assemble and develop with a 20,498 GSF (19,710 ZSF), 6-story, 70' hotel. 61 rooms at an average size of 325 SF would be provided. At this scale no parking would be required as it is under the threshold of 15.

Future With-Action Scenario

Study Area
Land use and development patterns in the surrounding area are anticipated to remain unchanged in the future with the proposed action. Any new residential development in the surrounding area would be subject to existing zoning regulations.

Projected Development Site 1
A 48,485 GSF (45,238 ZSF), 9-story building would be constructed. 50 total dwelling units, 10 of which would be set aside for MIH, would be provided. 9,672 GSF (9,300 ZSF) of ground floor commercial space would be provided along with a 9,300 GSF cellar for utilities and commercial storage.

Projected Development Site 2
A 22,363 GSF (20,815 ZSF), 9-story building would be constructed. 22 total dwelling units, 4 of which would be set aside for MIH, would be provided. There would be 3,059 GSF (2,941 ZSF) of ground floor commercial space.

Other Affected Lots
Lots 26, 27, 28, 29, 30, and 129 make up Potential Site 1, but an analysis of Potential Development Sites is not included in Land Use, Zoning, and Public Policy. In the future with the Proposed Action these sites, along with the 800 SF fragment of Lot 1, are considered not likely to redevelop.

Assessment

The Proposed Rezoning would result in the development of the Affected Area with two mixed-use residential buildings with ground floor commercial uses. The development resulting from the Proposed Action would be consistent with existing land use character within the Study Area. The Proposed Development's ground floor commercial space would help activate the 92nd Street and 5th Avenue frontages. The provision of higher density affordable housing near mass transit further contributes to the mission and purpose of integrated housing with transportation and jobs, thus encouraging live-work communities and transit-oriented development. No other changes to land use within the Affected Area or parcels adjacent to the Affected Area or within the 400-foot Study Area are expected as a result of the action. Therefore, the Proposed Project would not result in any significant adverse impacts to land use.

2.1.2 Zoning

The *New York City Zoning Resolution* dictates the use, density, and bulk of developments within New York City. The City has three basic zoning district classifications—Residential (R), commercial (C), and manufacturing (M). These classifications are further divided into low-, medium-, and high-density districts.

Zoning designations within and around the project study area are depicted in **Figure 2,** while **Table 2.1-2** summarizes use, floor area, and parking requirements for the zoning districts in the study area.

Existing Conditions

Affected Area

The Affected Area is located in a C8-2 zoning district. The existing C8-2 zoning district permits a maximum commercial FAR of 2.0 and a maximum community facility FAR of 4.8. For C8-2 zones, maximum permitted building height is governed by the sky exposure plane, with a vertical distance of 2.7 and a horizontal distance to 1. An initial setback of 20 feet is required on a narrow street, and the maximum height of the front wall or other portion of the building must be 60 feet or four stories, whichever is less.

Zoning Study Area

Zoning within the study area is mapped with medium-density contextual (R4-1, R5B, R6A, and R6B) residential districts to the east of 5th avenue and to the west of 4th Avenue. Commercial overlays (C2-3) are mapped along 4th and 5th Avenues, and in between 4th and 5th is a General Service District (C8-2).

The study area is also within the Special Bay Ridge District (effective 11/2/78, and modified 3/23/05). The Special Bay Ridge District (BR) maintains the neighborhood's existing scale in conjunction with contextual and lower-density zoning districts. Within the Special Bay Ridge District, a large portion of the study area is within the sub district known as the Auto District. The BR was amended in 2005 to impose a height limit of 70 feet for all uses and limit community facility FAR to 3.0. Parking requirements were also reduced from one space per 300 sf to one per 400 sf. The intent of the BR modifications and rezoning of the Auto District was to allow for medical office development and for expansion of auto-related and other permitted commercial uses.

Table 2.1-2: Summary of Existing Zoning Regulations

Zoning District	Type and Use Group (UG)	Floor Area Ratio (FAR)	Parking (Required Spaces)
C8-2	Commercial UGs 4-14, 16	2.0 Commercial 4.8 Community Facility*	1 per 400 SF
R4-1	Contextual Residential UGs 1-4	.9 Residential (with attic allowance) 2.0 Community Facility	1 per dwelling unit
R5B	Contextual Residential UGs 1-4	1.35 Residential 2.0 Community Facility	66% of dwelling units
R6A	Contextual Residential UGs 1-4	3.0 Residential 3.0 Community Facility	50% of dwelling units
R6B	Contextual Residential UGs 1-4	2.0 Residential 2.0 Community Facility	50% of dwelling units
C2-3 overlay	Commercial UGs 1-9, 14	2.0 FAR Commercial within R6-R10	1 per 400 SF

Source: Zoning Handbook, New York City Department of City Planning, June 2018
*3.0 FAR max within BR district

Existing zoning districts in the surrounding area include:

C8-2

A C8-2 district is located between 4th and 5th Avenues. C8 districts, bridging commercial and manufacturing uses, provide for automotive and other heavy commercial services

that often require large amounts of land. Typical uses are automobile showrooms and repair shops, warehouses, gas stations and car washes—although all commercial uses (except large, open amusements) as well as certain community facilities are permitted in C8 districts. C8 districts are mapped mainly along major traffic arteries.

R4-1

An R4-1 zoning district is located to the west of the Affected Area, across 4th Avenue. The R4-1 zoning designation allows a residential FAR of 0.75, with an attic allowance of up to 20% for inclusion of space under the pitched roof (0.9 FAR) common in these districts. R4-1 districts allow a maximum perimeter wall height of 25 feet and a max building height of 35 feet. Rear yard depth must be a minimum of 30 feet and front yard depth must be a minimum of 10 feet. Zero lot line buildings require only one side yard, at least 8 feet wide and a minimum of 8 feet is required between buildings on adjacent zoning lots. Lot coverage is governed by yard requirements. One parking space is required per dwelling unit. Community Facilities (Use Groups 3 and 4) are permitted in R4-1 zones with a maximum FAR of 2.0.

R5B

There are R5B districts mapped northwest, southwest, and east of the Affected Area. Although an R5B contextual district permits detached and semi-detached buildings, it is primarily a three-story rowhouse district typical of such neighborhoods as Windsor Terrace and Bay Ridge in Brooklyn. The traditional quality of R5B districts is reflected in the district's height and setback, front yard and curb cuts regulations that maintain the character of the neighborhood.

The floor area ratio (FAR) of 1.35 typically produces a building with a maximum street wall height of 30 feet, above which the building slopes or is set back to a maximum height of 33 feet. The front yard must be at least five feet deep and it must be at least as deep as one adjacent front yard and no deeper than the other, but it need not exceed a depth of 20 feet. Attached rowhouses do not require side yards but there must be at least eight feet between the end buildings in a row and buildings on adjacent zoning lots. Curb cuts are prohibited on zoning lot frontages less than 40 feet. Where off-street parking is required, on-site spaces must be provided for two-thirds of the dwelling units although parking can be waived when only one space is required.

R6A

There is an R6A district mapped immediately west of the Affected Area, running north and south along 4th Avenue. R6A is a contextual residential district where the Quality Housing bulk regulations are mandatory. These regulations produce high lot coverage, six- or seven-story apartment buildings set at or near the street line. The floor area ratio (FAR) in R6A districts is 3.0 (3.6 with inclusionary Housing designated area bonus). Above a maximum base height of 60 feet, the building must set back by at least 10 feet on a wide street and 15 feet on a narrow street before rising to its maximum height of 70 feet. To preserve the traditional streetscape, the street wall of a new building can be no closer to the street line than any building within 150 feet on the same block, but need not be farther than 15 feet. The area between a building's street wall and the street line must be planted. R6A buildings must have interior amenities for the residents pursuant to the Quality Housing Program Off-street parking, which is not allowed in front of a building, is

required for 50% of a building's dwelling units, or can be waived if five or fewer spaces are required. A lot coverage of 80% is permitted for corner lots and 65% for interior or through lots.

R6B

There is an R6B district mapped immediately east of the Affected Area, running north and south along 5th Avenue. The R6B zoning district permits residential uses with a maximum FAR of 2.0, a minimum streetwall height of 30 feet, a maximum streetwall height of 40 feet, and a maximum building height of 50 feet. R6B districts require off-street parking for 50 percent of the dwelling units in a building, with an exemption from parking for income-restricted units within the Transit Zone and a prohibition on curb cuts on zoning lots that are less than 40 feet in width. The Quality Housing program is mandatory for residential developments.

C2-3 Commercial Overlay

C2-3 districts are commercial overlays mapped within residence districts. Mapped along streets that serve local retail needs, they are found extensively throughout the city's lower- and medium-density areas and occasionally in higher-density districts.

Typical retail uses include neighborhood grocery stores, restaurants and beauty parlors. C2 districts permit a slightly wider range of uses, such as 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.

When commercial overlays are mapped in R6 through R10 districts, the maximum commercial FAR is 2.0. Commercial buildings are subject to commercial bulk rules.

Analysis

Future No-Action Condition

Zoning Study Area
In the future without the Proposed Action, no zoning changes are anticipated within the study area. There are no pending zoning map amendments or other large projects in the study area, and conditions are expected to remain.

Affected Area
No changes to zoning are expected in the future without the Proposed Action. The rezoning area would remain mapped as a C8-2 district.

Future With-Action Condition

Zoning Study Area
No changes to the study area are expected in the future with the Proposed Action.

Affected Area – R7A/C2-4 and Zoning Text Amendment
The proposed R7A/C2-4 zoning district permits a residential FAR of 4.6 (with Inclusionary Housing Program), community facility FAR of 4.0, and a commercial FAR of 2.0 and a maximum building height of 95 feet (with Inclusionary Housing Program and a qualifying ground floor).

Buildings must be set back above the maximum base height of 60 feet (or 6 stories, whichever is less) to a depth of 15 feet (on a wide street). Parking is required for 50 percent of market rate dwelling units and 15 percent of MIH units within the Transit Zone.

The proposed zoning district would introduce UGs 1-3 (all residential uses and UG 3 community facilities uses such as libraries, long-term care facilities, or schools), which are not permitted under the existing C8-2 zone.

Additionally, UGs 10-13 and 16 would no longer be permitted under R7A/C2-4 zoning regulations. These types of uses include large retail establishments such as department stores, custom manufacturing establishments, large entertainment facilities, open amusement establishments, and automotive and other necessary semi-industrial uses.

The proposed Zoning Text Amendment would establish an MIH area coterminous with the rezoning area through ZR Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Community District 10, Brooklyn.

The proposed text amendment would require The Applicant to develop in accordance with the MIH program. Future qualifying development of all sites within the Affected Area would also be required to adhere to the requirements of the MIH program. Pursuant to the MIH program, a percentage of the new dwelling units in the proposed development must be affordable units, resulting in an affordable housing set-aside for either 25 percent of the residential floor area at an average of 60 percent of the Average Median Income (AMI) (Option 1) or 30 percent of the residential floor area at an average of 80 percent AMI (Option 2). For purposes of environmental review and per NYC DCP guidance, it is assumed that 20% of the dwelling units would be affordable at 80% AMI. The proposed affordable housing set asides ensure that the development within the Affected Area would address the need for housing to serve a broad range of the City's diverse incomes.

Conclusion

The proposed action would establish a medium-density, contextual, mixed use residential district that would mandate provision of a substantial amount of affordable housing. This new development would be consistent with land use in surrounding areas zoned with medium-density contextual zoning districts (R4-1, R5B, R6A, R6B) and with commercial overlay districts mapped along 4th and 5th Avenues. The proposed action would extend these residential areas and allow redevelopment of underutilized land for new market rate and affordable housing in an area that is well served by transit as well as local commercial and community facility services. The development resulting from the proposed action would not result in significant adverse impacts; therefore, no further analysis is required.

2.1.3 Public Policy

The project site is not part of, or subject to, an Urban Renewal Plan (URP), adopted community 197-a Plan, Solid Waste Management Plan, Coastal Zone Boundary, Business Improvement District (BID), Industrial Business Zone (IBZ), or the New York City Landmarks Law. The proposed action is also not a large publicly sponsored project, and as such, consistency with the City's PlaNYC 2030 for sustainability is not warranted. The project area is also not located within a transit zone or a FRESH Zone.

Conclusion

There are no applicable public policies within the Affected Area, and no public policies that would be affected as a result of the Proposed Action. Therefore, the Proposed Action would not pose a potential significant adverse effect to public policy.

2.2 Open Space

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

Pursuant to Chapter 7, Section 100 of the 2014 CEQR Technical Manual, Open Space Resources are defined as active and/or passive, and may include, but is not limited to, the following:

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

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

Methodology

According to the guidelines of the City's CEQR Technical Manual for analysis of residential development, census tracts with at least half of their geographic area within a one-half mile radius of the development site should comprise the open space study area. Using current population figures, an open space ratio is calculated for both the future no-action and future action scenarios, expressed as the amount of open space acreage per 1,000 user population. Typically, a comparison is made to the median open space ratio, which is 1.50 acres per 1,000 residents, and the city's planning goal of 2.50 acres per 1,000 residents. A reduction in the open space ratio increment of more than 5 percent over future no-action conditions generally warrants a more detailed analysis, unless the open space ratio is below the citywide average, in which case even a small reduction could be considered significant.

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

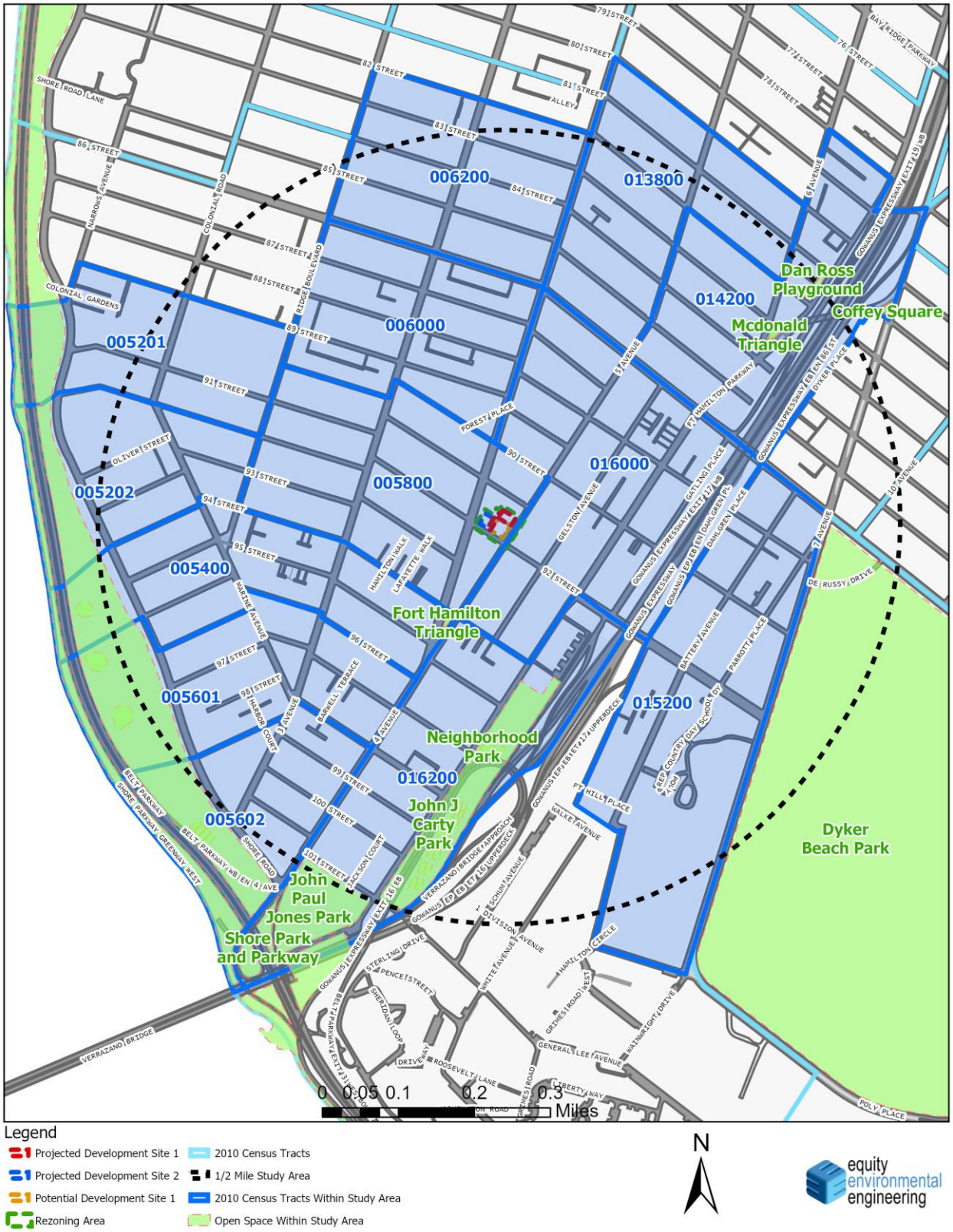
Preliminary Open Space Assessment

The Proposed Action would result in the total Projected Development of 70,848 GSF of development, including 58,117 GSF of residential floor area and 12,731 GSF of commercial floor area. The Proposed Action is projected to result in the increment of development of 67 dwelling units within the Affected Area. Assuming an average occupancy of 2.04 persons based on the average household size within Brooklyn CD 10, population introduced as a result of the Proposed Action would be approximately 137 residents. In addition, the Proposed Action, when compared to the future absence of the Proposed Actions, would result in a net decrease of 5 workers within the area. The residential population is above the relevant threshold size requiring assessment of open space utilization and availability. The Affected Area is within an area that is identified as underserved by open spaces, and therefore the threshold for assessment of the potential for indirect impacts is 50 new residents or 125 additional employees. Therefore, an assessment of indirect effects on public open space resources is warranted.

Study Area Definition

In accordance with the guidelines established in the City's 2014 CEQR Technical Manual, the open space study area is defined to analyze both the nearby open spaces and the population using those open space resources. It is generally defined by a reasonable walking distance that users would travel to reach local open spaces and recreational areas. Pursuant to the 2014 CEQR Technical Manual, the open space study area ("The Study Area") includes all U.S. Census Tracts that have 50 percent or more of their area within a half-mile radius of the Affected Area, as shown in **Figure 2.2-1** below, consisting of the following Census Tracts shown in **Table 2.2-1** below. Using these criteria, the census tracts that have 50% or more of their area within the ½ mile study area are 6200, 13800, 14200, 16000, 15200, 16200, 5602, 5601, 5400, 5202, 5201, 5800, and 6000.

Figure 2.2-1: Open Space Study Area Census Tracts



Study Area Population

Secondary sources were used to determine the residential and non-residential populations served by the existing open space resources in the Study Area. Total residential population for the Study Area was established using data from the 2014-2018 American Community Survey (ACS) Census for New York City developed by the DCP's Population Division.

As of 2018, the Study Area had a residential population of 34,445 persons as shown below in **Table 2.2-1.**

Table 2.2-1: Study Area Population 2018

Census Tract	Population
52.01	1,666
52.02	2,299
54	3,177
56.01	2,462
56.02	1,606
58*	3,092
60	3,054
62	2,700
138	3,083
142	2,755
152	2,382
160	3,965
162	2,204
Total	**34,445**

Source: 2018 ACS
*Census Tract of the Affected Area

Existing Condition

As shown above, according to the 2018 American Community Survey the existing population within the Study Area is 34,445.

Future No-Action Condition

In the future without the Proposed Action, the only development expected to take place within the Affected Area is the construction of a commercial hotel. Within the Study Area, there are five anticipated developments that are filed with DOB or have DOB permits, which are not completed projects with a certificate of occupancy. In total, the five developments will add 40 dwelling units to the area. No other major projects contributing residential development were identified for Study Area. With the potential addition of the 40 dwelling units mentioned above, and factoring in 2.04 residents per dwelling units per ACS data for Brooklyn CD 10, a possible 82 new residents may be added to the Study Area by the build year of 2022. Adding the 82 new residents from other proposed projects within the Study Area, the No-Action 2022 population would be 34,527.

Future With-Action Condition

The Study Area With-Action population is the product of the No-Action population of 34,527 plus the With-Action population of 137 residents (67 additional dwelling units projected under the RWCDS times 2.04 residents per dwelling unit) for a Study Area population of 34,664.

Open Space Resources

There are 6 open space resources within the Study Area identified in **Table 2.2-2**. There are 72.19 acres of open space resources in the Study Area—62.79 active and 9.40 passive. The location of these resources within the Study Area is shown in **Figure 2.2-1.**

Table 2.2-2: Open Space Resources

Name	Address	Ownership	Acreage	% Active	% Passive	Total Active	Total Passive	Features[1]
Shore Park and Parkway	4 Ave., Shore Rd., Belt Pkwy., Verrazano Bridge	NYC Parks	58.00	90	10	52.20	5.80	BF; BC; Ba; DA; HC; Pg; SS; TC
Dan Ross Playground	7 Ave. bet. 81 St. and 82 St.	NYC Parks	0.26	90	10	0.23	0.03	Pg
John Paul Jones Park	101 St., Shore Pkwy. Bet. 4 ave. and Ft. Hamilton Pkwy.	NYC Parks	5.32	50	50	2.66	2.66	DA
Fort Hamilton Triangle	5 Ave., 4 Ave., 94 St.	NYC Parks	0.02	0	100	0.00	0.02	Be
John J Carty Park	Ft. Hamilton Pkwy. Bet. 94 St. and 101 St.	NYC Parks	8.56	90	10	7.70	0.86	BC; Ba; HC; ML; Pg; RC; TC
Tom McDonald Triangle	Fort Hamilton Pkwy.	NYC Parks	0.03	0	100	0.00	0.03	Be
Total			**72.19**			**62.79**	**9.40**	

[1] BF = Baseball Fields; BC = Basketball Courts; Ba = Bathrooms; DA = Dog-friendly Areas; HC = Handball Courts; Pg = Playgrounds; SS= Spray Showers; TC = Tennis Courts; Be = Benches; ML = Media Labs; RC = Recreation Centers

Analysis

Existing Condition
The Study Area has 72.19 acres of open space and an existing residential population of 34,445. The open space ratio (OSR) under existing conditions is 2.10 acres per thousand residents.

Future No-Action Condition
In the future without the Proposed Action, the population for the Study Area in the 2022 build year is forecasted to be 34,527 and is projected to be served by the same 72.19 acres of open space as in the existing condition. With this population, the OSR would be 2.09 acres per thousand residents.

Future With-Action Condition

The Proposed Action population would be 34,664 residents in the 2022 build year as noted above. Factoring the same 72.19 acres of open space as in the No-Action Condition, the OSR as a result of the Proposed Action would be 2.08 acres per thousand residents.

Table 2.2-3: OSR Within Study Area

Existing		Future No-Action		Future With-Action	
Population	OSR	Population	OSR	Population	OSR
34,445	2.10	34,527	2.09	34,664	2.08

Conclusion

Under the Existing, No-Action, and With-Action Conditions, the OSR in the area would be well above 1.5 acres per thousand residents, which is the citywide average. By CEQR Technical Manual methodology, the closer the ratio is to 2.5 acres per thousand residents a greater percentage of change in OSR (greater than 5%) may be tolerated as a result of the Proposed Action. The Proposed Action would result in a decrease of 0.5% in the OSR compared with the No-Action scenario for the Study Area, which is well below the 5% threshold. There would be no significant adverse impacts to open space as a result of the Proposed Action.

2.3 Shadows

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

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

The CEQR Technical Manual states that a shadow assessment considers projects that result in new shadows long enough to reach a sunlight-sensitive resource. Therefore, a shadow assessment is warranted only if the project would either result in: (a) new structures (or additions to existing structures including the addition of rooftop mechanical equipment) of 50 feet or more; or, (b) be located adjacent to, or across the street from, a sunlight-sensitive resource.
The sunlight-sensitive resources of concern are those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity, including public open space, architectural resources and natural resources. In general, shadows on city streets and sidewalks or on other buildings are not considered significant. Some open spaces also contain facilities that are not sensitive to sunlight. These are usually paved such as handball or basketball courts, contain no seating areas and no vegetation, no unusual or historic plantings, or contain only unusual or historic plantings that are shade tolerant. These types of facilities do not need to be analyzed for shadow impacts. Additionally, it is generally not necessary to assess resources located to the south of projected development sites, as shadows cast by the action-generated development would not be cast in the direction of these resources. Furthermore, shadows occurring within one and one-half hour of sunrise or sunset generally are not considered significant in accordance with the CEQR Technical Manual.

Methodology

This preliminary analysis of shadows follows the guidelines set forth in the 2014 CEQR Technical Manual for a preliminary assessment (Section 310). According to the 2014 CEQR Technical Manual, a preliminary shadow assessment includes the development of a base map showing the site location in relationship to any sunlight-sensitive resources as per guidelines

provided in the 2014 CEQR Technical Manual. Following these guidelines, the longest shadow study area is determined, and a Tier 1 screening assessment is conducted to determine if any sunlight- sensitive resources fall within the study area. If no resources are identified, no further analysis would be required. If sunlight-sensitive resources lay within the longest shadow study area, the next tier of screening assessment should be conducted. This preliminary assessment includes a basic description of the proposed project that would be facilitated by the Proposed Action in order to determine whether a more detailed assessment would be appropriate.

Analysis

Under the Future With-Action Condition, Projected Development Sites 1 and 2, along with Potential Development Site 1, would each be developed with a 95-foot-tall building (plus an additional 10 feet for mechanical bulkheads) in the proximity of sunlight sensitive resources. Accordingly, a preliminary assessment of shadows is warranted.

Preliminary Shadow Screening Assessment

The shadow assessment begins with a preliminary screening assessment to ascertain whether a project's shadow may reach any sunlight-sensitive resources at any time of the year. If the screening assessment does not eliminate this possibility, a detailed shadow analysis may be warranted to determine the extent and duration of the net incremental shadow resulting from the project. The effects of shadows on a sunlight-sensitive resource are site-specific; therefore, as directed in the CEQR Technical Manual, the screening assessment was performed for the relevant Projected and Potential Development Sites to determine whether or not they fall within the range of maximum possible shadow cast on potential sunlight sensitive resources as described above. To determine this, a Tier 1 Screening Assessment was performed in accordance with the CEQR Technical Manual. A base map is developed that illustrates the proposed site location in relationship to any sunlight-sensitive resources. The longest shadow study area is then determined, which encompasses the site of the proposed project(s) and a perimeter around the site's boundary with a radius equal to the longest shadow that could be cast by the proposed structure, which is 4.3 times the height of the structure that occurs on December 21st, the winter solstice. A map as shown in Figure 2.2-1 was prepared placing NYC Department of Parks Resources Selected Facilities and Program Sites provided on NYC.gov Department of City Planning GIS portal, a list of park and public spaces provided from NYC.gov DOITT- GIS and Mapping Portal, and a screen of SHPO and NYC Landmark Listed Properties. After this a buffer map was prepared to display the maximum possible shadow of 451.5 feet, which could be cast from each Projected or Potential Development Site in the proposed rezoning area. This shadow cast was derived by multiplying the height of 105 feet (the maximum possible height under the proposed R7A/C2-3 rezoning with MIH bonus plus a 10-foot bulkhead) by 4.3 (the CEQR Technical Manual multiplier representing the maximum shadow cast from any object as being 4.3 times its height). The potentially impacted area of shadow from each projected and potential site was then compared to those resources identified above to see if any fell within the shadow cast area.

As shown in **Figure 2.3-1**, there are no sunlight-sensitive resources that fall within the 451.5-foot maximum shadow.

Figure 2.3-1: Tier 1 Shadow Assessment

Conclusion

As discussed above, the Tier I analysis showed no sunlight sensitive resources within the maximum shadow cast area. Therefore, no impacts are foreseeable, and no further analysis is necessary.

2.4 Historic and Cultural Resources

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

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

2.4.1 Architectural Resources

Per CEQR Technical Manual guidelines, impacts on historic resources are considered on those sites affected by the proposed action and in the area surrounding identified development sites. The historic resources study area is therefore defined as the project site plus an approximately 400-foot radius around the proposed action area.

To determine whether the projected development has the potential to affect nearby off-site historic or architectural resources, the study area was screened for historic and architectural resources. No architectural resources were found in the project area that were considered historic or significant.

The LPC was contacted for their initial review of the project's potential to impact nearby historic and cultural resources, and by letter dated December 13, 2018, indicated that the Study Area does not contain any sites of buildings of known architectural or archeological significance (see Appendix A).

2.4.2 Cultural and Archaeological Resources

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

The proposed action would result in new in-ground construction on the Projected Development Site and the Potential Development Sites. As noted, the LPC was contacted for their initial review of the project's potential to impact nearby historic and cultural resources, and a response was received on December 13, 2018, (see Appendix A). The LPC has indicated that no cultural resource, architectural or archaeological significance is associated with the Study Area.

Therefore, significant adverse impacts to archaeological resources are not expected because of the proposed action, and further analysis is not warranted.

2.5 Urban Design and Visual Resources

According to the CEQR Technical Manual, urban design is the totality of components that may affect a pedestrian's experience of public space. Elements that play an important role in the pedestrian's experience include streets, buildings, visual resources, open space, and natural features, as well as wind as it relates to channelization and downwash pressure from tall buildings. Pursuant to the 2014 CEQR Technical Manual, an assessment of Urban Design may be warranted when a Proposed Action may affect one or more of the elements that contribute to the pedestrian experience of an area, specifically the arrangement, appearance, and functionality of the built environment. As stated in the CEQR Technical Manual, the Study Area for urban design is the area where the project may influence land use patterns and the built environment, and is generally consistent with the Study Area used for the land use analysis (i.e., 400 feet around the project sites). For visual resources, existing publicly accessible view corridors within the Study Area should be identified. The purpose of the preliminary assessment is to determine whether any physical changes proposed by a project may raise the potential to significantly and adversely affect elements of urban design, which would warrant the need for a detailed urban design and visual resources assessment.

Within the Study Area there are no existing publicly accessible view corridors and no potential visual resources. Therefore, there would be no significant adverse effects to visual resources as a result of the Proposed Actions.

Existing Conditions

The Project Area consists of 12 lots located on Block 6087. One lot is used for parking, one is being utilized for used car sales, six lots are improved with mixed use commercial and residential, three lots are improved with residential buildings, and one lot is an operating gas station. The Project Area has frontage along 4th Avenue, 5th Avenue, and along 92nd Street.

Within the Study Area, land use is predominantly commercial and office buildings along the avenues; multi-family residential midblocks along east-west numbered streets; and denser mixed-use commercial and residential buildings on corner lots. Built form along the avenues ranges from 2 to 6 stories in height with a variety of building facades, ground floor commercial uses that feature pedestrian accessible storefronts, and scattered tree plantings along the sidewalks. 5th Avenue also features a large school, big box retail, and a variety of auto shops. Midblock built form ranges from 2 to 4 stories and predominantly brick facades, with residential buildings featuring stoops, driveways, and garages, which range from semi-detached, townhome style, to multifamily buildings.

The street grid is regular, with streets that are narrower east to west which feed into wider north to south collector roads. 90th, 91st, and 93rd Streets are all one-way roads with a single moving lane of traffic and curbside parking. 92nd Street, bounding the Affected Area to the south, is a two-way road with 1 moving lane of traffic in each direction before changing to a one-way road beyond 4th Avenue to the west. 4th Avenue is a north-south Principal Arterial roadway with 2 moving lanes of traffic in each direction and curbside parking. 5th Avenue is a north-south minor arterial roadway with 1 moving lane in each direction and curbside parking. The intersection of 4th and 5th Avenues is larger than typical, and creates oddly shaped blocks running south of 86th Street until the intersection.

Figure 2.5-1 below shows an aerial view of the Affected Area and the Study Area (400' buffer around the Affected Area).

Figure 2.5-1: Aerial Map

Existing Conditions Photos

View of the Development Site facing northwest from 5th Avenue.

View of 5th Avenue facing southwest (Development Site at right).

View of the Project Area facing west from 5th Avenue.

View of 92nd Street facing northwest from
5th Avenue (Project Area at right).

View of 5th Avenue facing northeast from 92nd Street (Project Area at left).

View of the Project Area facing north from 92nd Street.

View of the intersection of 5th Avenue and 92nd Street facing south from the Project Area.

View of the sidewalk along the west side of 5th Avenue facing southwest (Development Site at right).

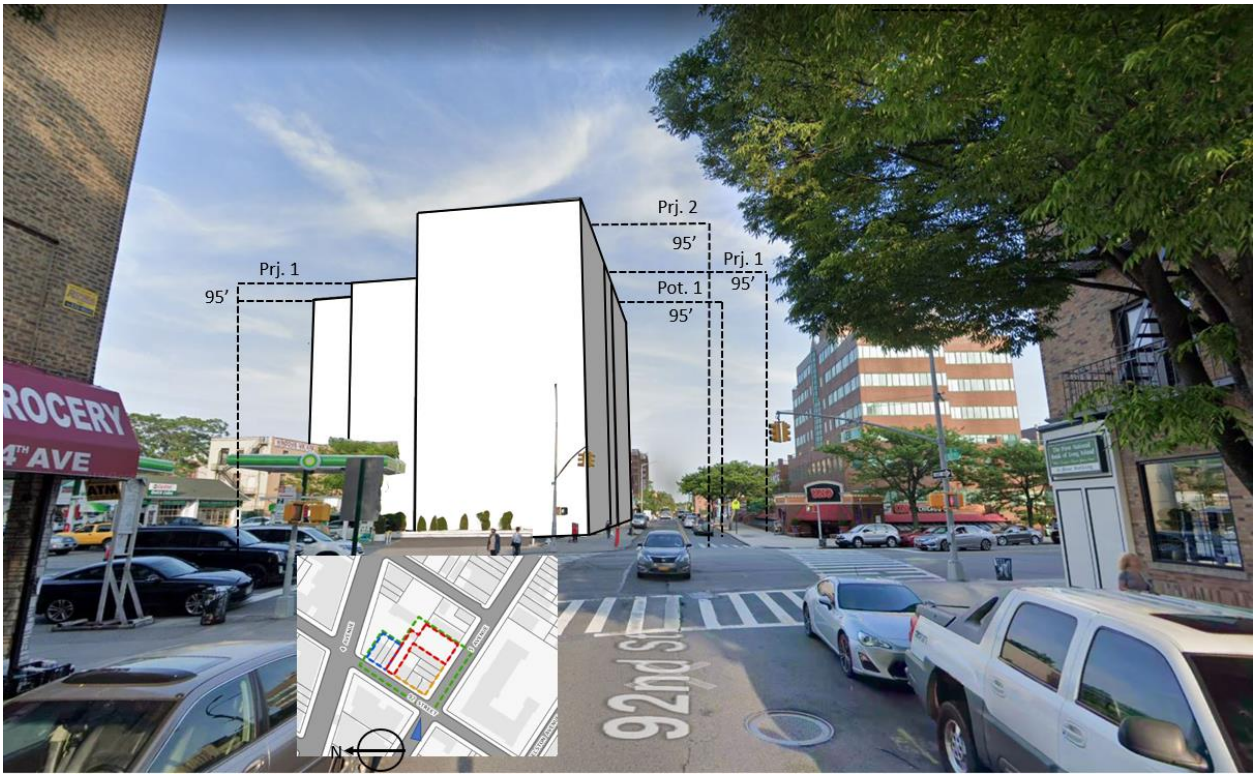
The following figures show the reasonable worst-case development (as described in **Section 1.9**) building massings and compares these massings to existing conditions. The massing figures below portray the reasonable worst-case development scenario allowed by the proposed rezoning action (95 feet in height).

Figure 2.5-2: No-Action Facing North Along 5th Avenue

Figure 2.5-3: With-Action Facing North Along 5th Avenue

Figure 2.5-4: No-Action Facing West Along 92nd Street

Figure 2.5-5: With-Action Facing West Along 92nd Street



Analysis

Future No-Action Conditions

Under no action conditions, it is expected that lots 23 and 31 would develop with a 20,498 GSF, 6-story, 70' tall hotel. No other changes are expected within the Affected Area or the Study Area. There are no active construction projects within the Study Area and no known projects pending approval.

Future With-Action Conditions

Projected Development Site 1 (Lots 23 and 31), Projected Development Site 2 (Lots 32, 33, and 34) and Potential Development Site 1 (Lots 26, 27, 28, 29, 30, and 129) could be developed with buildings of up to nine stories and 95 feet in height. It is expected that Projected Development Site 1 would be developed at an FAR of 4.59 to maximize available bulk and floor area and would include 38,813 GSF of residential and 9,672 GSF of commercial floor area and 50 total dwelling units. Projected Development Site 2 would be developed at 4.60 FAR and floor area would include 3,059 GSF of ground floor commercial use and 19,304 GSF of residential use with 22 dwelling units. Potential Development Site 1 would maximize bulk at 4.60 FAR, with 6,609 GSF of ground floor commercial use, 41,709 GSF of residential use, and 48 dwelling units.

As shown in **Figures 2.5-2** through **Figure 2.5-9**, the Projected and Potential Developments effectuated by the Proposed Action would be at a scale similar to surrounding uses and would be an extension of the bulk and density typical of development along the avenues.

Conclusion

The proposed rezoning would assist in reinforcing and complementing the relationship between development along the avenues and higher density mixed use development within the Affected Area. The Proposed Action would facilitate the development of lots that are vacant and underutilized. The development induced by the Proposed Action would increase the level of activity along 4th Avenue, 5th Avenue, and 92nd Street.

The development facilitated by the Proposed Action would not adversely impact any of the constituent urban design elements or impact the overall character of the neighborhood. Therefore, the Proposed Action would not introduce density or land uses to the area that would result in any significant adverse impact to the constituent elements of Urban Design.

2.6 Hazardous Materials

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 (VOCs and SVOCs), methane, polychlorinated biphenyls (PCBs), and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive, or toxic). Per the CEQR Technical Manual, the potential for significant impacts from hazardous materials can occur when: a) hazardous materials exist on a site; and b) action would increase pathways to their exposure; or c) an action would introduce new activities or processes using hazardous materials.

Pursuant to CEQR Technical Manual methodology, actions that would result in ground disturbance in an area where current or past uses on or near the site raise the potential for the presence of hazardous materials should be assessed for hazardous materials. Accordingly, a Phase I Environmental Site Assessments (Phase I) was conducted for the subject site (see **Appendix C)**.

Summary of Phase I ESA

Vektor Consultants was retained by The Applicant to conduct a Phase I of the property located at 411 92nd Street, 9114 & 9116 5th Avenue, Brooklyn, New York in accordance with the American Society for Testing and Materials (ASTM) Standard E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The ASTM Standard constitutes all appropriate inquiry into previous ownership and uses of the property consistent with good commercial or customary practice. The ASTM Standard also satisfies requirements of the United States Environmental Protection Agency (EPA All Appropriate Inquiry Standard, 40 CFR Part 312, which is required to qualify for certain landowner liability protections under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

The purpose of the Phase I ESA was to evaluate the current and historical conditions of the subject property in an effort to identify recognized environmental conditions (RECs) in connection with the subject property. A recognized environmental condition is defined by ASTM as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to release to the environment; under conditions indicative of a release to the environment; or conditions that pose a material threat of a future release to the environment. Recognized Environmental Conditions (RECs) are defined as the presence or likely presence of any hazardous substances or petroleum products under conditions that indicate an existing release, past release, or a material threat of a release into structures on the property or into the ground, groundwater or surface waters of the property. De minimis RECs are those that do not present a threat to health or the environment, and would not be the subject of an enforcement action by a government agency. All RECs, excluding de minimus RECs were considered in the Phase I.

The identification of RECs in connection with the subject property may impose an environmental liability on owners or operators of the site, reduce the value of the site, or restrict the use or marketability of the site, and therefore, further investigation may be warranted to evaluate the scope and extent of potential environmental liabilities. No RECs were identified in association with the Affected Area. Additionally, no historical RECs (HRECs), controlled RECs (CRECs),

vapor encroachment conditions (VECs) or other environmental issues were identified, as defined by the standards set forth for a Phase I ESA in the aforementioned ASTM document.

Vektor Consultants noted that site reconnaissance was partially obstructed due to parked cars and snow cover at the time of the site visit. However, they note that based on the use of the subject property for parking for long years, and prior residential use, the limitation is not expected to change the findings of the assessment. Additionally, Freedom of Information Act (FOIA) requests were sent to NYSDEC, NYCDEP, and FDNY for information pertaining to spills, storage of hazardous substances, and underground storage tanks. The agencies did not respond to Vektor's search request as of the date of the Phase I report.

Phase I ESA Findings

The Amoco located at 9111 4th Avenue, a portion of which is included in the rezoning, was identified on the NY LTANKS and NY Spills databases. The facility was included in the NY LTANKS database due to a tank test failure. The case was closed on February 10, 2003 by the NYSDEC upon completion of remediation activities under a joint spill case. The joint spill case was included as part of the NY Spills database due to reported fumes in the basements of three businesses in the vicinity of the facility. Further investigations ensued and, in May 2011, the NYSDEC closed the spill case based on a May 2010 report by Roux Associates Inc. that indicated monitoring wells were dry, PID readings diminished with depth, the soil formation as tight silty sand, and the depth to regional groundwater as approximately 90 feet below grade surface. The Amoco facility is not considered to represent an environmental concern to the subject properties.

Phase I Recommendations

Vektor Consultants concluded that the Phase I did not reveal any RECs, HRECs, CRECs, or VECs in connection with the subject property. Vektor Consultants stated that as a result of the Phase I no further action is recommended at this time.

NYC DEP Review

By letter dated March 21, 2019, NYC DEP responded to the submission of the Phase I ESA described above. In their letter NYC DEP requested that, prior to the start of any fieldwork, a Phase II ESA, Investigative Protocol/Work Plan, and an Investigative Health and Safety Plan are necessary to adequately identify and characterize the surface and subsurface soils of The Applicant's property.

NYC DEP went on to recommend that, based on prior on-site and surrounding area land uses which could result in environmental contamination, an (E) designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for Projected Development Site 2 and Potential Development Site 1 (sites not under the control or ownership of The Applicant).

Phase II Workplan and Health and Safety Plan (HASP)

A Phase II workplan and a HASP were submitted to NYC DEP in April of 2019. By letter dated May 15, 2019, DEP responded stating that the work plan and HASP were acceptable as long as comments contained in the letter was incorporated into the HASP. The NYC DEP response and comments can be found in **Appendix C.**

Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP)

A RAP and CHASP were submitted to NYC DEP in November 2019 for review and approval. By letter dated December 18, 2019, NYC DEP responded with comments to be incorporated into the RAP and CHASP documents. NYC DEP stated that they found the RAP and CHASP for the proposed project acceptable as long as these comments were incorporated, and that at the completion of the project a Professional Engineer certified Remedial Closure Report should be submitted to NYC DEP for review and approval. The NYC DEP response and comments can be found in **Appendix C.**

E-Designation

The projected and potential development would involve excavation for the foundation of the buildings. Although this could increase pathways for human exposure, impacts would be avoided by performing the following:

- An (E) Designation for hazardous materials would be placed on the sites (Block 6087, Lots 26, 27, 28, 29, 30, 32, 33, 34, and 129) to ensure requirements pertaining hazardous materials are addressed during future development, which would impose pre- and post-construction requirements overseen by the New York City Office of Environmental Remediation (OER).
- A Remedial Investigation (RI would be conducted for the proposed development site that included the collection of soil, groundwater, and soil vapor samples with laboratory analysis for a full suite of analytical parameters Prior to such testing, an RI Work Plan and Health and Safety Plan (HASP) for the investigation would be submitted to OER for review and approval.
- Based on the results of the RI, a Remedial Action Work Plan (RAWP) and associated Construction Health and Safety Plan (CHASP) would be prepared for implementation during the subsurface disturbance associated with the Proposed Project. The RAWP and CHASP would address requirements for items such as: petroleum tank removal, dust control, and contingency measures should unforeseen petroleum tanks or soil contamination be encountered. The RAWP would also include any necessary requirements for vapor controls should the RI reveal the potential for soil vapor intrusion. The RAWP and CHASP would be subject to OER approval and, following construction, occupancy permits could only be issued once OER received documentation that the RAWP and CHASP were properly implemented.
- Applicable regulatory requirements would be followed at the development site and the projected and potential development sites with oversight from OER, e.g., properly disposing of any excess soil; reporting to New York State Department of Environmental Conservation
- (NYSDEC) any signs of a petroleum spill (removing and registering encountered tanks); and following applicable DEP requirements should dewatering be required.

- Demolition would be conducted in compliance with applicable regulatory requirements, e.g., for ACM, LBP, etc.

The (E) Designation program is administered by OER. Approval of a hazardous materials remedy by OER is required prior to the granting of building permits by the Department of Buildings. The text of the (E) Designation for hazardous materials is as follows:

- Task 1

The applicant submits to OER, for review and approval, a Phase 1 ESA for the Project Site along with a soil, soil gas and groundwater 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 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 sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

- Task 2

A written report with findings and a summary of the data must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER. If remediation is indicated from the test results, a proposed remediation plan must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER. The applicant should then provide proper documentation that the work has been satisfactorily completed. An OER-approved construction-related health and safety plan would be implemented during evacuation 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. All demolition or rehabilitation would be conducted in accordance with applicable requirements for disturbance, handling and disposal of suspect lead-paint and asbestos-containing materials. In addition to the requirements for lead-based paint and asbestos, requirements (including those of NYSDEC) should petroleum tanks and/or spills be identified and for off-site disposal of soil/fill would need to be followed.

Conclusion

An E-Designation has been placed on Projected Development Site 2 and Potential Development Site 1. With incorporation of NYC DEP's comments in the letter dated December 18, 2019, the RAP and CHASP will be implemented for the proposed project on Projected Development Site 1. With these measures in place there would be no impacts on Hazardous Materials as a result of the Proposed Actions, and further analysis is not required.

2.7 Air Quality

Ambient air quality describes pollutant levels in the surrounding environment to which the public has access. To assess potential health hazards due to ambient air quality, the impact of air pollutants emitted by motor vehicles (mobile source) and by fixed facilities (stationary source) are analyzed, where the effects of both the proposed project on ambient air quality and the ambient air quality effect on the proposed project are considered. The analysis frame work, as mandated by the State Environmental Review Act, follows the *New York City Environmental Quality Review 2014 Technical Manual*. The potential air quality impacts of the following emissions are estimated following the procedures and methodologies prescribed in the *CEQR Technical Manual*:

- Vehicular emission resulting from increased vehicular traffic and/or changes to traffic pattern.
- Vehicular emission associated with off-street parking facilities.
- Vehicular emission generated at an atypical (*e.g.*, not at-grade) roadway.
- Emission from the burning of fossil fuels in the heating, ventilation and air conditioning (HVAC) equipment of the proposed developments.
- Air toxics emission released from industrial or manufacturing facilities.
- Stationary source emission of facilities that require Prevention of Significant Deterioration permits (Title V), and facilities which require a state facility permit.
- Facilities' malodorous emissions to unreasonably interfere with the proposed project's occupant's comfortable enjoyment of life or their property.

Project Description

The Project Area

The Proposed Project Area is located in the Bay Ridge neighborhood within Brooklyn Community District 10 and consists of Block 6087, Lots 23, 26, 27, 28, 29, 129, 30, 31, 32, 33, 34, and p/o 1. The Project Area is bound by 91st Street to the north, 5th Avenue to the east, 92nd Street to the south, and 4th Avenue to the west. 4th Avenue is a north-south principal arterial road with 2 lanes of moving traffic in each direction. It is a wide street at 100 feet. 5th Avenue and 92nd Street are both minor arterials with one moving lane in each direction. 91st Street is a one-way road, with one lane going west to east. The project Build Year is 2022.

Existing Conditions

Lot 31 is currently in use as an open car sales lot, and has been since 1997 according to DOB records. Prior to that, Lot 31 was improved with a 3-story multi-family building as early as 1939.

Lot 23 is used for vehicle parking. Effective 8/2/2018, former Lot 25 merged with Lot 23 to create the current 6,550 SF lot. According to DOB records, Lots 23 and 25 were improved with a single building in 1904 that was demolished in 1991.

Lots 32, 33, and 34 (Projected Development Site 2) are a combined 4,525 SF, are built with 2-story commercial/residential buildings at 1.17-1.47 FAR, and are not under common ownership. These lots are considered likely to redevelop and are there for a Projected Development Site.

The Lot 1 fragment (~800 SF) is well under the threshold for redevelopment, and the portion included in the rezoning is not enough to induce development. The lot has been significantly underbuilt since at least 1964 and has been in operation as a gas station and auto repair since 1998.

Lots 26, 27, 28, 30, 129, and 29 (Potential Development Site 2) are a combined 9,777 SF and are built between 1.54 and 2.94 FAR. All of the buildings on these lots are 3 stories in height, and, with the exception of Lot 30, include between 916 GSF and 2,000 GSF of commercial space. Each building includes between 1,860 GSF and 3,978 GSF of residential floor area, and all buildings contain 2 residential units except for Lot 30, which has 6. Because of the small lot sizes, tenanted rental units, neighborhood trends, lack of common ownership, and small increment of development, there is little to no incentive to redevelop. Therefore, development on these lots is considered potential and not likely.

Future No-Action and With-Action Conditions

Per the *CEQR Technical Manual*, a project's effects on air quality are determined by comparing predictions made for the future no-action and the future with-action conditions. The existing condition does not serve as a baseline for determining if a proposed project would have a significant impact but is typically included in the analysis for informational purposes.

The No-Action Scenario would be the assemblage and development of The Applicant's lots (23 and 31) with a 20,498 GSF (19,710 ZSF) 6-story, 70-foot tall hotel. 61 rooms averaging 325 SF would be provided. At this scale 5 parking spaces would be required, but would be waived since they are under the threshold of 15.

Existing conditions are expected to remain for all other lots in the rezoning area.

Projected Development Site 1 (Block 6087, Lots 23 and 31) would consist of the construction of a new 9-story mixed use building. The building would rise to a height of 95 feet. The building would contain 48,485 gsf of floor area, of which 38,813 gsf are residential floor area and 9,672 gsf are commercial floor area. No new accessory parking spaces would be provided.

Projected Development Site 2 (Block 6087, Lots 32, 33, and 34) would facilitate a mixed-use, predominantly residential, nine-story building. The building would rise to a height of 95 feet. The building would contain 22,363 gsf of floor area, of which 19,304 gsf are residential floor area and 3,0592 gsf are commercial floor area. No new accessory parking spaces would be provided.

Potential Development Site 1 (Block 6087, Lots 26, 27, 28, 30 129, and 29) would facilitate a mixed-use, predominantly residential, nine-story building. The building would rise to a height of 95 feet. The building would contain 48,318 gsf of floor area, of which 41,709 gsf are residential floor area and 6,609 gsf are commercial floor area. No new accessory parking spaces would be provided.

The predicted differences between the future with-action and the future no-action conditions are the development of an additional 53,580 gsf residential space and -8,275 (reduction) gsf of commercial space. No new off-street parking spaces would be required.

Air Pollutants and Applicable Standards and Guidelines

Criteria Pollutants

The EPA has identified six pollutants, known as criteria pollutants which are of concern nationwide, and established threshold concentrations for these pollutants based upon their adverse effects on human health. As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for the criteria pollutants by EPA, and New York State has adopted the NAAQS as the State ambient air quality standards.

In addition to the NAAQS, the *CEQR Technical Manual* requires that projects subject to CEQR apply a $PM_{2.5}$ and 8-hour CO averaging time significant impact criteria (based on concentration increments). These criteria are called *de minimis* and they are more stringent than the NAAQS and the state standards, as the criteria set a maximum increase of pollutant concentration that is below the national standard. If the estimated impacts of a proposed project are less than the *de minimis* criteria, the impacts are not considered to be significant. $PM_{2.5}$ significant impact concentrations are evaluated as follows:

- Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard; or
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.1 $\mu g/m^3$ 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 for mobile sources, at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations); or
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.3 $\mu g/m^3$ at any receptor location for stationary sources.

Per the *CEQR Technical Manual*, CO significant impact concentration is:

- An increase of 0.5 parts per million (ppm) or more in the maximum 8-hour average CO concentration at a location where the predicted No-Action 8-hour concentration is equal to 8 ppm or between 8 ppm and 9 ppm; or
- An increase of more than half the difference between baseline (i.e., No-Action) concentrations and the 8-hour standard, when No-Action concentrations are below 8 ppm.

Determination of significant impact criteria is evaluated by adding the background concentrations at the nearest NYSDEC monitoring station to the concentrations of criteria pollutants in the ambient air of the existing and planned land uses. Table 17-1 shows the background concentrations at the nearest NYSDEC monitoring station and the NAAQS.

Table 2.7-1: The NAAQS and Background Concentrations at the Nearest NYSDEC Monitoring Stations

Pollutant	Averaging Period	National and State Standards	Background Concentration	Monitoring Station
NO_2	1-Hour concentration	188 µg/m^3	112.2 µg/m^3	Queens College
	Annual arithmetic mean	100 µg/m^3	32.4 µg/m^3	
SO_2	1-Hour concentration	196 µg/m^3	18.1 µg/m^3	Queens College
	Annual arithmetic mean	80 µg/m^3	2.0 µg/m^3	
$PM_{2.5}$	24-Hour concentration	35 µg/m^3	19.4 µg/m^3	JHS 45
	Average of 3 consecutive annual means	12 µg/m^3	7.9 µg/m^3	
PM_{10}	24-hour concentration	150 µg/m^3	35 µg/m^3	
CO	1-hour	35 ppm (40,000 µg/m^3)	1.78 ppm (2,034 µg/m^3)	Queens College
	8-hour	9 ppm (10,000 µg/m^3)	0.90 ppm (1,000 µg/m^3)	

The concentrations increments calculated in accordance with the NYC Guidelines, *de minimis*, for CO and $PM_{2.5}$ are presented below:

- 24-hour $PM_{2.5}$ 7.80 µg/m^3
- Annual $PM_{2.5}$ 0.3 µg/m^3 (for stationary source)
- CO 8-hour 4.05 ppm (4,500 µg/m^3)

NO_2 NAAQS

Nitrogen oxide (NO_x) emissions from gas combustion consist predominantly of nitric oxide (NO) at the source. The NO_x in these emissions are then gradually converted to NO_2, which is the pollutant of concern, in the atmosphere (in the presence of ozone and sunlight as these emissions travel downwind of a source).

The 1-hour NO_2 NAAQS standard of 0.100 ppm (188 ug/m^3) is the 3-year average of the 98th percentile (8th Highest) of daily maximum 1-hour average concentrations in a year. For determining compliance with this standard, the EPA has developed a modeling approach for estimating 1-hour NO_2 concentrations that is comprised of 3 tiers: Tier 1, the most conservative approach, assumes a full (100%) conversion of NO_x to NO_2; Tier 2 applies a conservative ambient NOx/NO_2 ratio of 80% to the NO_x estimated concentrations; and Tier 3, which is the most precise approach, employs AERMOD's PVMRM module. The PVMRM accounts for the chemical transformation of NO emitted from the stack to NO_2 within the source plume using hourly ozone background concentrations. When Tier 3 is utilized, AERMOD generates 8th highest daily maximum 1-hour NO_2 concentrations or total 1-hour NO_2 concentrations if hourly NO_2 background concentrations are added within the model.

Per the *CEQR Technical Manual*, a Tier 1 approach is initially applied, followed by a Tier 2 application of NOx/NO_2 ratio of 80% to the NOx modeled concentration to determine whether

violation of the NAAQS is likely to occur. A less conservative Tier 3 approach is then applied if exceedances of the 1-hour NO_2 NAAQS were estimated.

Non-Criteria Pollutants

In addition, the NYSDEC has established guidelines for maximum allowable concentration of "noncriteria pollutants," which are potentially toxic or carcinogenic pollutants. The maximum allowable guidelines set a maximum 1-hour and annual averaging time concentrations and are published in the DAR-1 AGC/SGC Table, where AGC/SGC refers to Annual and Short-term Guideline Concentrations. The most recent DAR-1 guidelines were created on August 10, 2016. NYSDEC also regulates pollutants that produce discomfort due to odors, where significant discomfort is evaluated on quantity, characteristic, or duration.

Mobile Source Analysis

Introduction

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

Mobile Source Screen

Project-Generated Traffic

Per the *CEQR Technical Manual*, localized increases in CO and $PM_{2.5}$ levels may result from increased vehicular traffic volumes and changed traffic patterns in the study area as a consequence of the proposed project. For this area of the City, the threshold volume for a detailed analysis of CO concentration, using MOVES2014 and CAL3QHC or AERMOD, is an increment of 170 vehicles. $PM_{2.5}$ threshold criterion is an increment of applies heavy-duty diesel vehicles (HDDVs) screen.

Considering the with-action development would not generate enough new traffic to warrant traffic Level I screening analysis, and the 4th Avenue, 5th Avenue, and 92nd Street are principle arterial and minor arterial respectively, there would not be expected significant adverse air quality impact from mobile sources. Therefore, no intersection detailed air quality analysis was required, and no significant adverse mobile source air quality impacts are expected at intersections affected by the proposed project.

Parking Garage

Based on CEQR guidelines, the maximum capacity of a parking garage is evaluated against a threshold criterion to predict whether the potential impacts associated with mobile source emissions are significant. The threshold criteria level, per CEQR guidelines, is 85 new off-street parking spaces. If the threshold is met or exceeded, a detailed analysis is warranted.

The proposed project would result in a net increase of 0 new off-street parking spaces. Therefore, no detailed air quality analysis is required, and no significant adverse mobile source air quality impacts are expected from vehicular emission generated at the proposed project's off-street parking space.

Atypical Roadway

According to *CEQR Technical Manual*, projects that would result in new sensitive uses within 200 feet of an atypical roadways may result in significant adverse mobile source air quality impacts. These impacts are estimated at sensitive receptors located at air intakes, operable windows, and terraces of the receiving building.

The Project Area is located approximately 1,000 feet west of the Gowanus Expressway. Therefore, no detailed analysis was required, and no significant adverse mobile source air quality impacts are expected from emissions associated with vehicular activity traveling on an atypical roadway.

Project HVAC Systems Analysis

Introduction

Per the *CEQR Technical Manual*, the HVAC analysis considers the potential for emissions from the HVAC system of the proposed project to significantly impact existing land uses (project-on-existing), and the potential of the proposed project to significantly impact each other (project-on-project). Based on CEQR guidelines, a preliminary screening analysis is to be conducted as a first step to predict whether the potential impacts of the heat and hot water system boiler emissions can be significant. The screening analysis determines the threshold of development size below which the action would not have a significant impact. This CEQR screening procedure is applicable to buildings that are not less than 30 feet from the nearest building of similar or greater height. Otherwise, a detailed dispersion analysis is required.

Screening Analysis

Per the *CEQR Technical Manual,* the potential for stationary source emissions from heat and hot water systems to have a significant adverse impact on nearby receptors depends on the type of fuel that would be used, the building's residential or non-residential use, the square footage of the development that would be served by the system, the height of the building served by the HVAC system and the distance to the nearest building whose height is at least as great as the building served by the HVAC system. The *CEQR Technical Manual* provides a screening analysis based on these factors, which was utilized to determine the potential for significant impacts from the projected buildings' HVAC systems.

As the proposed developments are clustered together, the CEQR screening analysis is not applicable for the project-on-project screening scenario (screening analysis is applicable for distance greater than 30 feet). Therefore, dispersion modeling analyses were conducted for the project-on-project analysis.

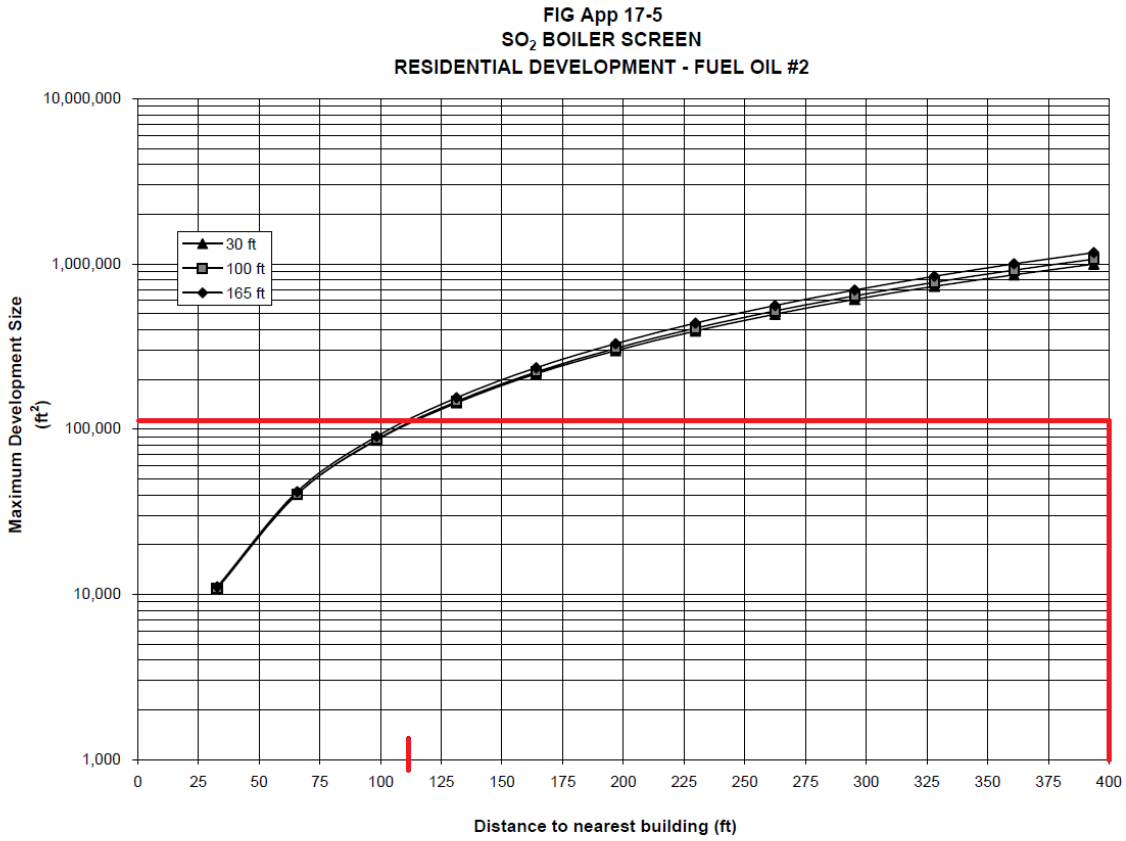
Screening analysis is only applicable to a single smokestack. However, for purpose of a cumulative analysis, emissions from multiple stacks could be combined in a single stack situated as close as possible to a receiving building. As such, project-on-project detailed analyses were conducted. The project-on-existing screening analysis considered was:

- The cumulative impact of the proposed project on existing land uses, assuming residential occupancy, building height of 95 feet, and 119,166 gsf of floor area. Fuel oil #2 would be the type of fuel used in the buildings' HVAC systems.

Per the *CEQR Technical Manual*, the CEQR nomograph depicted on Figure 17-5 of the *CEQR Technical Manual Appendices* was used. This stationary source screen is a generic screen that considers the type of fuel used and the residential or nonresidential use of the building. According to 15 RCNY 2-15, no new boiler or burner installations may use No. 6 or No. 4 fuel oils. Therefore, the highest-emitting fuel that could be used is a No. 2 fuel oil. The CEQR

nomograph depict the size of the development versus distance below which the potential impact can occur and provides a conservative estimate of the threshold distance. In addition, and per *CEQR Technical Manual*, the distance to nearest building of similar or greater height was assumed to be 400 feet if the actual distance is greater. Figures 2.7-1 show the screening analysis nomograph.

Figure 2.7-1: The Proposed Project Cumulative Impact Minimum Distance - HVAC Screen Nomograph



The screening analysis Figure 2.7-1 nomograph shows that a detailed analysis would be required for any existing land uses that is 95 feet or taller and at a distance of less than 112 feet from the proposed project. A review of existing land uses in the surrounding area shows that the nearest building of similar or greater height is the 101 feet tall building, located at 371 89 Street (Block 6062, Lot 141), which is 830 feet north of the Project Area.

Table 2.7-2 shows the screening analyses framework and results, where “Use AERMOD” indicate that a detailed analysis using AERMOD dispersion analysis is required.

Table 2.7-2: Screening Analysis Results

Source Building Site ID	Heated Area (sq. ft.)	Screen Distance (ft.)	Receiving Building (Site ID or Block/Lot)	Receiving Building Distance (ft.)	Pass/ Fail
Project-on-Project					
Projected Development Site 1	48,485	N.A. (<30 ft.)	Projected Development Site 2	0	Use AERMOD
			Potential Development Site 1	0	Use AERMOD
Projected Development Site 2	22,363	N.A. (<30 ft.)	Projected Development Site 1	0	Use AERMOD
			Potential Development Site 1	27	Use AERMOD
Potential Development Site 1	48,318	N.A. (<30 ft.)	Projected Development Site 1	0	Use AERMOD
			Projected Development Site 2	27	Use AERMOD
Project-on-Existing and/or Planned Land Uses					
Development Sites (Cumulative)	119,166	112	371 89 Street (Block 6062, Lot 141)	830	Pass

Detailed Analysis

Three dispersion modeling analyses were conducted to estimate the impacts from the buildings' stacks emissions. Each modeling scenario was the cumulative impact of two anticipated for development buildings on the remaining building. These analyses were conducted using the latest version of EPA's AERMOD dispersion model. In accordance with CEQR guidance, these analyses were conducted assuming stack tip downwash, urban dispersion surface roughness length of 1.0 meter, elimination of calms, and with and without downwash effect on plume dispersion. Flat terrain was specified for all models.

Greater emissions would result from HVAC systems fueled by oil #2 than from natural gas fueled boilers. Therefore, the boilers were assumed to be fueled by oil #2 for the analysis purpose. Per the *CEQR Technical Manual*, the pollutants of concerns for oil #2 fueled boilers are NO_2, SO_2 and $PM_{2.5}$. The boilers' energy intensities were calculated from the annual fuel usage, the developments' gross floor areas, and the assumption that the developments' fuel usage would resemble that of residential buildings. Pertinent values were obtained from the *CEQR Technical Manual Appendix* for residential buildings, and the assumption that all fuel would be consumed during the 100-day (or 2,400 hour) heating season. Per the guidance from the Department of City Planning for similar project, SO_2 emission was assumed to be 30 ppm. Table 2.7-3 shows the calculated emission rates, both short-term and annual.

Table 2.7-3: Estimated Short-term and Annual Emission Rates of Each Building

Site ID	Fuel	Pollutant	Averaging Time	Emission Rate (g/s)
Projected Development Site 1	Fuel Oil #2	NO_2	1-hour	2.21E-02
			Annual	6.06E-03
		$PM_{2.5}$	24-hour	2.36E-03
			Annual	6.46E-04
		SO_2	1-hour	**2.36E-04**
			Annual	**6.46E-05**
Projected Development Site 2	Fuel Oil #2	NO_2	1-hour	1.02E-02
			Annual	2.80E-03
		$PM_{2.5}$	24-hour	1.09E-03
			Annual	2.98E-04
		SO_2	1-hour	**1.09E-04**
			Annual	**2.98E-05**
Potential Development Site 1	Fuel Oil #2	NO_2	1-hour	2.21E-02
			Annual	6.04E-03
		$PM_{2.5}$	24-hour	2.35E-03
			Annual	6.44E-04
		SO_2	1-hour	**2.35E-04**
			Annual	**6.44E-05**

The diameters of the stacks were estimated based on values obtained from the New York City Department of Environmental Protection (DEP) "CA Permit" database for the corresponding boiler size (i.e., rated heat input or million Btu per hour). The stacks exit temperatures were assumed to be 300°F (423°K), which is appropriate for boilers. The stacks exit velocities of Projected Development Site 1 and Potential Development Site 1 were estimated based on values from the DEP “CA Permit.” The stack exit velocity of Projected Development Site 2 was calculated according to the EPA Method 19. This stack exit velocity was adjusted to exit temperature of 423 K. The New York City Building Code (Building Code) requires that a rooftop stack should be at least 10 feet away from the edge of the roof and at least 3 feet higher than the roofline. These parameters were specified in the AERMOD models.

Stacks of source buildings were situated as close as possible to the receiving building. Because the meteorology parameters are factors for the model’s output, two stacks locations were assumed for the Projected Development Site 1 impact on the Potential Development Site 1. One option was a stack located west of the Potential Development Site 1; the other option had the stack located north of the Potential Development Site 1. The maximum concentration of these stack locations’ options was used to determine the results.

The buildings were modeled as if they have the same footprint as the lots and rise to their maximum height. Numerus buildings in the surrounding area were input into the models to

account for the downwash effect on plum dispersions. These buildings footprint geo metadata were obtained from the NYC Open Data Building Footprints shapefile[2].

Receptors on the receiving building were placed all around the receiving building envelope, at 10 feet increments and at all floor levels. Ground floor receptors were placed at a height of 6 feet above grade; top floor receptors were place 3 feet below the roof line; 2nd floor receptors were placed at 21 feet high (assuming 15 feet high ground floor); and, floors above the 2nd floor were assumed to be 10 feet high, thus receptors were placed 6 feet above each of these floor levels.

All analyses were run with generic emission rates of 1 gram per second for the 1-hour, 24-hour, and annual averaging times, and maximum output concentrations. The results were multiplied by the calculated emission rates. The independent results of each building impact concentration on another building, for each pollutant and downwash effect scenario, were cumulatively added.

The NO_2 1-hour with downwash effect on plum dispersion of the Projected Development Sites 1 and 2 impact on the Potential Development Site 1 utilized a Tier 2 approach, applying an ambient NOx/NO_2 ratio of 80% to the NO_x estimated concentrations.

All analyses were conducted using the latest five consecutive years of meteorological data (2013-2017). Surface data was obtained from LGA Airport and upper air data from Brookhaven station, New York. These meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the 5-year period. Meteorological data were combined to develop a 5-year set of meteorological conditions, which was used for the AERMOD modeling runs and Anemometer height of 9.4 meters was specified per Lakes Environmental Software Inc.

Results of Dispersion Analyses

Both NO_2 and SO_2 modeled concentrations were added to the background concentrations. A NO_2 1-hour Tier 2 approached followed if exceedance of the NAAQS was predicted. The reported concentrations are the maximum predicted concentrations of the building wake effects abled/disabled scenarios. The $PM_{2.5}$ 24-hour and annual averaging times modeled concentrations were compared with the NYC Guidelines threshold criterions. Result of the HVAC dispersion NO_2, $PM_{2.5}$, and SO_2 analyses are shown in Table 2.7-4.

[2] https://data.cityofnewyork.us/Housing-Development/Building-Footprints/nqwf-w8eh/data.

Table 2.7-4: The Proposed Project HVAC Dispersion Analysis Results

Pollutant and Averaging Time	Modeled Concentration ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Evaluated Concentration ($\mu g/m^3$)	Threshold Concentration ($\mu g/m^3$)	Threshold Standard
Cumulative Impact on Projected Development Site 1					
1-hour NO_2	72.0	112.2	**184**	**188**	NAAQS
Annual NO_2	0.94	32.3	**33.3**	**100**	NAAQS
24-hour $PM_{2.5}$	2.76	N.A.	**2.76**	**7.80**	*de*
Annual $PM_{2.5}$	0.10	N.A.	**0.1**	**0.3**	*de*
1-hour SO_2	0.76	18.1	**19**	**196**	NAAQS
Annual SO_2	0.01	2.0	**2.0**	**80**	NAAQS
Cumulative Impact on Projected Development Site 2					
1-hour NO_2	58.4	112.2	**171**	**188**	NAAQS
Annual NO_2	0.79	32.4	**33.2**	**100**	NAAQS
24-hour $PM_{2.5}$	1.98	N.A.	**1.98**	**7.80**	*de*
Annual $PM_{2.5}$	0.08	N.A.	**0.1**	**0.3**	*de*
1-hour SO_2	0.62	18.1	**19**	**196**	NAAQS
Annual SO_2	0.01	2.0	**2.0**	**80**	NAAQS
Cumulative Impact on Potential Development Site 1					
1-hour NO_2	61.7(1)	112.2	**173**	**188**	NAAQS
Annual NO_2	1.08	32.4	**33.5**	**100**	NAAQS
24-hour $PM_{2.5}$	2.10	N.A.	**2.10**	**7.80**	*de*
Annual $PM_{2.5}$	0.11	N.A.	**0.1**	**0.3**	*de*
1-hour SO_2	0.81	18.1	**19**	**196**	NAAQS
Annual SO_2	0.01	2.0	**2.0**	**80**	NAAQS

1. Concentration predicted with a Tier 2 approach. However, the Tier 1 result of 188.1 rounded to the nearest integer would show no exceedance of the NAAQS.

As seen in Table 2.7-4, the NO_2 and SO_2 predicted concentrations are less than the NAAQS and the $PM_{2.5}$ concentrations are less than the *de minimis*. Therefore, with (E) Designations in place, the emissions of either proposed development would not significantly impact the other proposed development.

(E) Designation

Block 6087, Lots 23, 31 (Projected Development Site 1): Any new residential or commercial development on the above-referenced property must ensure that the heating, ventilating, air conditioning (HVAC), and hot water system(s) stack is located at the building's highest level, and at a minimum of 98 feet above the grade to avoid any potential significant adverse air quality impacts.

Block 6087, Lots 32, 33, 34 (Projected Development Site 2): Any new residential or commercial development on the above-referenced property must ensure that the heating, ventilating, air conditioning (HVAC), and hot water system(s) stack is located at the building's highest level, and at a minimum of 98 feet above the grade to avoid any potential significant adverse air quality impacts.

Block 6087, Lots 26, 27, 28, 29, 30, 129 (Potential Development Site 1): Any new residential or commercial development on the above-referenced property must ensure that the heating, ventilating, air conditioning (HVAC), and hot water system(s) stack is located at the building's highest level, and at a minimum of 98 feet above the grade to avoid any potential significant adverse air quality impacts.

Industrial Source

Introduction

Per the *CEQR Technical Manual*, projects that would introduce new uses near industrial sources may result in potentially significant adverse air quality impacts. The study area considers industrial sources within 400 feet of the proposed project. Industrial sources are categorized as the operation of manufacturing or processing facilities, or medical, chemical, or research labs. These facilities are likely to have New York City Department of Environmental Protection (DEP) processing permits. The analysis first determines if there are any existing industrial sources located in the study area. An air dispersion analysis is then performed for any existing industrial source that is in the study area. Otherwise no analysis is required.

As provided in the backup files for this project, there are a few car dealerships and medical offices in the surrounding area. Five facilities were identified in the DEP online Clean Air Tracking System (CATS) as possible air toxic emitters. From these five facilities, the Dentz Unlimited Automotive Center, an auto body shop, located at 412 90th Street (Block 6082, Lot 6), was closed and a car dealership operates from the facility. The facility located at 9201 4th Avenue (Block 6108, Lot 22) has two DEP permits for emergency generators, which are exempt. The DEP permit registered to a dry-cleaning facility, located at 9227 4th Avenue (Block 6108, Lot 15), was cancelled and a car dealership operates from the facility. The two other facilities were determined to be currently active. A formal request to review these permit applications was submitted to the DEP, and the permit applications were reviewed. The permits specified the types of operations, pollutants' emission rates, and stacks' parameters. The active facilities and their emission rates are shown in Table 2.7-5.

Table 2.7-5: DEP Permits of Active Facilities in the Study Area – Contaminants and Emission Rates

Permit ID	Pollutant	CAS No.	Emission	
			Hourly	Annual
			lb/hr	lb/year
Bay Ridge Volvo American 419 90th Street (Block 6066, Lot 37)				
PA079389	Oxides of Nitrogen	NY210-00-0	0.01	16
	Carbon Monoxide	630-08-0	0.1	160
PA079489	Oxides of Nitrogen	NY210-00-0	0.01	16
	Carbon Monoxide	630-08-0	0.1	160
Shurway Auto Center 416 90th Street (Block 6082, Lot 14)				
PA104488	Solids	NY075-00-0	0.003	3.75
	Toluene	108-88-3	0.135	149
	Isoprpyl Alcohol	67-63-0	0.035	39
	Xylene	1330-20-7	0.118	130
PA104588	Solids	NY075-00-0	0.003	3.75
	Toluene	108-88-3	0.135	149
	Isoprpyl Alcohol	67-63-0	0.035	39
	Xylene	1330-20-7	0.118	130
PA104688	Solids	NY075-00-0	0.003	3.75
	Toluene	108-88-3	0.135	149
	Isoprpyl Alcohol	67-63-0	0.035	39
	Xylene	1330-20-7	0.118	130
PA104988	Toluene	108-88-3	0.016	35
	Isoprpyl Alcohol	67-63-0	0.014	31
	Xylene	1330-20-7	0.007	15
	Acetone	67-64-1	0.016	35
	VMP Naptha	64742-89-8	0.009	20
	N-Butyl Alcohol	71-36-3	0.005	11

No other likely toxic air emitter was identified in the 400 feet study area. The two facilities, the Bay Ridge Volvo American and the Shurway Auto Center, are discussed here:

Bay Ridge Volvo American (PA079389, PA079489)

The Bay Ridge Volvo American DEP processing permit applications are for stations of tailpipe exhaust systems in auto service areas. Permit PA079389 is associated with 8 stations; PA079489 is associated with 10 stations. The facility operates 8 hours per day, 200 day per year. The facility is located on the north side of 90th Street, at 419 90th Street (Block 6066, Lot 37). The distance between the facility ant the Projected Development Site 1 (the nearest development) is 386 feet. The stack associated with PA079389 (Emission Point 1) is located 10 feet above the roof, 25 feet above grade. The stack inside diameter is 12-in and its volumetric flow rate is 700 cubic foot per minute (C.F.M). The stack associated with PA079489 (Emission Point 2) is located 3 feet above the roof, 25 feet above grade. The stack inside diameter is 9-in and its volumetric flow rate is 700 C.F.M. Among pollutants listed in the permits of the Bay Ridge Volvo American is oxides of nitrogen (New York identification number NY210-00-0.) This

identification number refers to nitrogen oxide (NO) and nitrogen dioxide (NO_2) combined. For analysis purpose and as a conservative measure, each oxide of nitrogen was analyzed as 100% NO or 100% NO_2.

Shurway Auto Center (PA104488, PA104588, PA104688, PA104988)

Shurway Auto Center is an auto body facility. The facility is located at 416 90th Street (Block 6082, Lot 14). The distance between the facility and Projected Development Site 1 (the nearest development) is 236 feet. The activity associated with PA104488 is for a spray booth operation; PA104588 and PA104688 are for preparation stations; and, PA104988 is for a paint mixing room. The stacks are located along the eastern wall of the facility. Table 2.7-6 shows the activity rates and stacks' parameters associated with the permit applications.

Table 2.7-6: Shurway Auto Center - Activity Rates and Stacks' Parameters Associated with the Permit Applications

Permit ID	Hr/day	Day/yr	Stack Dimension	Height Above Roof (ft^2)	Height Above Grade	Flow Rate (C.F.M)
PA104488	4	275	36x36	18	32	13,700
PA104588	3	275	59x20	4	18	11,000
PA104488	3	275	36x36	4	18	11,000
PA104488	8	275	8 in	4	18	1,185

Among pollutants listed in the permits of Shurway Auto Center is solids (New York identification number NY075-00-0.) NY075-00-0 refers to particulate matter $PM_{2.5}$ and PM_{10} combined. In accordance with DEP guidelines, emissions of solids are analyzed as PM_{10} and $PM_{2.5}$. The particle size distribution was obtained from the EPA AP-42, *Appendix B1, Page B.1-12, Particle Size Distribution Data and Sized Emission Factors for Selected Sources, Table 4.2.2.8 Automobile and Light-Duty Track Surface Coating Operations, Automobile Spray Booths*. The particulates short-term emission of each facility (each permit application) was adjusted to the average 24-hour emission rate by using the number of hours per day each facility is active.

Emission Rates

Emission rates of all pollutants under all permits were directly obtained from the permit applications for the facilities (as shown in Table 2.7-5). For simplicity, pollutants emitted from the same facility were grouped together. As previously mentioned, particulates emissions were adjusted to the 24-hour average emission rate, and oxides of nitrogen NY210-00-0 represented as NO or NO_2. Table 2.7-7 shows the pollutants emission rates cumulatively added.

Table 2.7-7: DEP Pollutants Emitted from Each Facility – Contaminants and Emission Rates

Permit ID	Pollutant	CAS No.	Emission		
			Hourly	Daily	Annual
			lb/hr	lb/hr	lb/year
Bay Ridge Volvo American 419 90th Street (Block 6066, Lot 37)					
Sum of (PA079389, PA079489)	Nitrogen Oxide (NO)	10102-43-9	0.02		32
	Nitrogen Dioxide	10102-44-0	0.02		32
	Carbon Monoxide	630-08-0	0.20		320
Shurway Auto Center 416 90th Street (Block 6082, Lot 14)					
Sum of (PA104488, PA104588, PA104688, PA104988)	PM_{10}	NY075-00-0	2.57E-03	3.58E-04(1)	3.22
	$PM_{2.5}$	NY075-00-0	4.20E-03	5.84E-04(1)	5.25
	Toluene	108-88-3	0.421		482
	Isoprpyl Alcohol	67-63-0	0.119		148
	Xylene	1330-20-7	0.361		405
	Acetone	67-64-1	0.016		35
	VMP Naptha	64742-89-8	0.009		20
	N-Butyl Alcohol	71-36-3	0.005		11

1. Emission rate average of 24-hour.

CEQR Screening Analysis

For estimating potential impacts from industrial emission sources of toxic air pollutants, *CEQR Technical Manual* recommends using a screening procedure as a first step in an analysis. The procedure is the "Industrial Source Screen" in the *CEQR Technical Manual*. This procedure is based on a generic emission rate of 1 gram per second of a pollutant from a point source. This approach, which can be used to estimate maximum short-term and annual average concentration values at various distances (from 30 to 400 feet) from an emission source, was utilized to assess the potential impacts.

The shortest distances from each facility to the developments were assumed to be the distances between the lots. The estimated distance from the Bay Ridge Volvo American to the developments was measured at 386 feet. The estimated distance from the Shurway Auto Center to the developments was measured at 236 feet. The analysis assumed distances of less than or equal to the tabulated *CEQR Technical Manual* Table 17-3 distances from a source. The pre-tabulated concentrations are displayed in Table 2.7-8.

Table 2.7-8: **CEQR Technical Manual *Table 17-3 Industrial Source Screen Pre-Tabulated Concentrations***

Facility Name	Distance from Source (ft) Actual (CEQR)	1-Hour ($\mu g/m^3$)	8-Hour ($\mu g/m^3$)	24-Hour ($\mu g/m^3$)	Annual ($\mu g/m^3$)
Bay Ridge Volvo American	386/ 365	1,528	857	434	62
Shurway Auto Center	236/ 235	2,657	1,720	924	131

All values obtained from Table 17-3 of the *CEQR Technical Manual* for an emission rate of 1 gram per second were multiplied by the pollutants' actual emission rates to estimate the impact concentrations.

To evaluate if there are any potential impacts, NO_2, 1-hour CO, and PM_{10} predicted concentrations were compared with the NAAQS; 8-hour CO and $PM_{2.5}$ with the de minimis; and, all other pollutants with the SGC/AGC guidelines. Background concentrations were added to the modeled concentrations of pollutants evaluated with the NAAQS.

Screening Analysis Results

As previously mentioned, impact concentrations of the criteria pollutants were evaluated with the NAAQS and NYC Guidelines (NYC Guidelines where applicable) threshold standards. Table 2.7-9 shows the results of the criteria pollutants.

Table 2.7-9: Criteria Pollutants – CEQR Dispersion Analysis Results

Criteria Pollutant	Threshold Standard	Predicted Concentration ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Total Concentration ($\mu g/m^3$)	Threshold Criteria ($\mu g/m^3$)
PM_{10} 24-Hour	NAAQS	0.07	35	**35**	**150**
$PM_{2.5}$ 24-Hour	*de minimis*	0.04	*de minimis*	**0.04**	**7.80**
$PM_{2.5}$ Annual	*de minimis*	0.006	*de minimis*	**0.01**	**0.3**
NO_2 1-hour	NAAQS	3.85	112.2	**116**	**188**
NO_2 Annual	NAAQS	0.03	32.4	**32.4**	**100**
CO 1-hour	NAAQS	39	2034	**2073**	**40000**
CO 8-hour	*de minimis*	22	*de minimis*	**22**	**4500**

As displayed in Table 2.7-9, the $PM_{2.5}$ and 8-hour CO predicted concentrations do not exceed the *de minimis* threshold criterions, and all other pollutants' predicted concentrations with the background concentrations added are less than the NAAQS.

In addition, PM_{10} has an SGC/AGC guidelines of 380 $\mu g/m^3$ and 45 $\mu g/m^3$. The 1-hour and annual predicted concentrations of PM_{10} are 1.4 $\mu g/m^3$ and 0.01 $\mu g/m^3$, respectively. These concentrations do not exceed the State SGC/AGC guidelines.

The other pollutants predicted concentrations were compared with the NYSDEC SGC/AGC guidelines. The air dispersion results of the non-criteria pollutants are displayed in Table 2.7-10.

Table 2.7-10: Non- Criteria Pollutants – CEQR Dispersion Analysis Results

Contaminant Name	CAS No.	1-Hour µg/m³	SGC µg/m³	1-hour Ratio	Annual µg/m³	AGC µg/m³	Annual Ratio
Nitrogen Oxide	10102-43-9	3.9	N.A. (1)	N.A. (1)	0.03	74.0	0.00039
Toluene	108-88-3	141.07	37000.0	0.0038	0.91	5000.0	0.00018
Isoprpyl Alcohol	67-63-0	39.87	98000.0	0.0004	0.28	7000.0	0.00004
Xylene	1330-20-7	120.96	**22000.0**	0.0007	0.76	100.0	0.00003
Acetone	67-64-1	5.36	180000.0	0.0004	0.07	30000.0	0.00001
VMP Naptha	64742-89-8	3.02	0.0	N.A. (1)	0.04	3200.0	0.00001
N-Butyl Alcohol	71-36-3	1.68	0.0	N.A. (1)	0.02	1500.0	0.00001

1. Nitrogen oxide, VMP Naphta, and N-Butyl Alcohol have no assigned SGC values in DAR-1. Therefore, 1-hour ratio is not applicable.

As seen in Table 17-10, the predicted 1-hour and annual concentrations are less than the SGA/AGC guideline criterions and the concentrations-to-guideline ratios are less than 1.

Conclusion of Air Toxics Analysis

The result of the toxic analysis is that emissions from the existing industrial sources of the toxic air pollutants currently operating in the study area would not cause exceedances of the SGCs, AGCs, and applicable NAAQS and NYC Guidelines. Therefore, no significant adverse air quality impacts are predicted to the proposed developments.

Major and Large Sources

As outlined in the *CEQR Technical Manual*, projects that would introduce new uses near major sources, large sources, and odor producing facilities may result in potentially significant adverse air quality impacts. The study area considers major sources, large sources, and odor producing facilities within 1,000 feet of the Project Area. Major emission sources are identified as those sources located at Title V facilities that require Prevention of Significant Deterioration permits; large emission sources are identified as sources located at facilities which require a State facility permit. Solid waste or medical waste incinerators, asphalt and concrete plants, power generating plants, large boilers of large public facilities for example, and large industrial facilities are typical type of sources requiring these permits. Odor producing facilities are operations that have the potential to cause discomfort, such as: solid waste management facilities, water pollution control plants (i.e., sewage treatment plants), and incinerators.

No existing large combustion sources, such as power plants, cogeneration facilities, etc., located within 1,000 feet of the Project Area were identified. The nearest Air State facility is the V A Medical Center, located at 800 Poly Place and more than 3,000 feet south-east of the Project Area. In addition, no odor producing facility was identified within 1,000 feet of the Project Area. As such, no analysis was warranted.

Conclusion

The air quality analyses addressed mobile sources, stationary HVAC systems, air toxics, and major sources. The results of the analyses are summarized below.

- Emissions from project-related vehicle trips would not cause significant adverse air quality impacts to receptors at the local or neighborhood scale;

- Emission from the parking garage(s) would not cause significant adverse air quality impacts to receptors at the local scale;
- No significant adverse air quality impacts are anticipated to the proposed project from industrial sources;
- As no existing large or major sources are located within 1,000 feet of the Project Area, emissions from these types of existing stationary sources would not cause a significant adverse air quality impacts to the proposed project.
- No significant adverse air quality impacts are anticipated to the proposed project from odor producing facilities; and,
- No significant adverse air quality impacts are predicted to receptors at the local scale with the stacks of the heating, ventilating, air conditioning (HVAC) and hot water system(s) located at least 98 feet above grade.

2.8 Noise

Equity Environmental Engineering, LLC (Equity) conducted Noise Monitoring to support a proposed Zoning Map Amendment and Zoning Text Amendment to Zoning Resolution ("ZR") Appendix F: Inclusionary Housing Designated Areas for Community District 10, Brooklyn to establish the area proposed for rezoning as a Mandatory Inclusionary Housing ("MIH"). The proposed redevelopment of the currently vacant lots would not create a significant noise generator. Additionally, project-generated traffic would not double vehicular traffic on nearby roadways, and therefore would not result in a perceptible increase in vehicular noise. This noise assessment is limited to an assessment of ambient noise that could adversely affect occupants of the development.

The purpose of the noise assessment under CEQR is to determine: (1) if new noise receptors that would be introduced by the proposed actions would be in an acceptable ambient sound level environment; and (2) if the proposed actions would significantly increase sound levels from mobile and stationary sources at existing noise receptors adjacent to the proposed development including residential, commercial, and institutional land uses.

According to the 2014 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 generated by the proposed action and stationary sources include rooftop equipment such as emergency generators, cooling towers, and other mechanical equipment.

Methodology

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

In terms of hearing, humans are less sensitive to low frequencies (<250 Hz) than mid-frequencies (500-1,000 Hz). Humans are most sensitive to frequencies in the 1,000 to 5,000 Hz range. Since ambient noise contains many different frequencies all mixed together, measures of human response to noise assign more weight to frequencies in this range. This is known as the A- weighted sound level.

Noise is measured in sound pressure level (SPL), which is converted to a decibel scale. The decibel is a relative measure of the sound level pressure with respect to a standardized reference quantity. Decibels on the A-weighted scale are termed "dB(A)." The A-weighted scale is used for evaluating the effects of noise in the environment because it most closely approximates the response of the human ear. On this scale, the threshold of discomfort is 120 dB(A), and the threshold of pain is about 140 dB(A). **Table 2.8-1** shows the range of noise levels for a variety of indoor and outdoor noise levels.

Because the scale is logarithmic, a relative increase of 10 decibels represents a sound pressure level that is 10 times higher. However, humans do not perceive a 10 dB(A) increase as 10 times louder; they perceive it as twice as loud. The following are typical human perceptions of dB(A) relative to changes in noise level:

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

The *CEQR Technical Manual* recommends an analysis of two principal types of noise sources: mobile sources; and stationary sources. Both types of noise sources are examined in the following sections.

Mobile Sources

Mobile noise sources are those which move in relation to receptors. The mobile source screening analysis addresses potential noise impacts associated with vehicular traffic generated by the Proposed Actions.

Per the *CEQR Technical Manual*, if existing passenger car equivalent (PCE) values are increased by 100 percent or more due to a Proposed Actions, a detailed analysis is generally performed. No significant adverse mobile source noise impacts due to vehicular traffic are anticipated because of the Proposed Actions as It does not increase existing passenger equivalent values by more than 100 percent.

As discussed in the *CEQR Technical Manual*, if the proposed project is located in areas with high ambient noise levels, which typically include those near heavily-traveled thoroughfares, airports, exposed rail, or other loud activities, further noise analysis may be warranted. Accordingly, ambient noise levels were measured at the proposed development site to provide an assessment of the potential for ambient noise to have a significant adverse effect on future residents of the proposed development.

The *CEQR Technical Manual* provides noise exposure guidelines in terms of L_{eq} and L_{10} for the maximum amount of allowable noise under existing regulations. L_{eq} is the continuous equivalent sound level. The sound energy from the fluctuating sound pressure levels is averaged over time to create a single number to describe the mean energy or intensity level. High noise levels during a measurement period will have greater effect on the L_{eq} than low noise levels. The L_{eq} has an advantage over other descriptors because L_{eq} values from different noise sources can be added and subtracted to determine cumulative noise levels. In comparison, L_{10} is the SPL exceeded 10 percent of the time. Similar descriptors include the L_{50}, L_{01}, and L_{90} values.

Stationary Sources

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

associated with building structures may also be considered in a stationary source noise analysis. Impacts may occur when a stationary noise source is near a sensitive receptor, and is unenclosed. No unenclosed specific stationary noise sources of concern were observed during field inspection. As the project site is not subject to high ambient noise levels from any nearby stationary source, no stationary source noise impacts from surrounding uses are anticipated. Additionally, as the proposed project would not introduce a new stationary noise source, no significant adverse stationary source impacts are anticipated because of the Proposed Action, and no further analysis is warranted.

In 1983, the New York City Department of Environmental Protection (NYCDEP) adopted the City Environmental Protection Order-City Environmental Quality Review (CEPO-CEQR) noise standards at the exterior façade to achieve interior noise levels of 45 dB(A) or below. CEPO-CEQR Noise Standards classify noise exposure into four categories: Acceptable, Marginally Acceptable, Marginally Unacceptable and Clearly Unacceptable. As noted in the *CEQR Technical Manual*, these standards are the basis for classifying noise exposure into the following categories based on the L_{10} measured directly outside the projected development site:

Table 2.8-1 Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				**Clearly**
Noise Level with Proposed Project	70 < L10 ≤ 73	73 < L10 ≤ 76	76 < L10 ≤ 78	78 < L10 ≤ 80	80 < L10
Attenuation[1]	(I) 28 dB(A)	(II) 31 dB(A)	(III) 33 dB(A)	(IV) 35 dB(A)	36 + (L10 – 80)[2] dB(A)

Source: *CEQR Technical Manual*

Notes: [1] The above composite window-wall attenuation values are for residential dwellings. Commercial and office spaces/meeting rooms would be 5 dB(A) less in each category. All the above categories require a closed window situation and hence an alternate means of ventilation.

[2] Required attenuation values increase by 1 dB(A) increments for L10 values greater than 80 dBA.

Table 2.8-2: Noise Levels of Common Sources

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

Notes: A change in 3dB(A) is a just noticeable change in SPL. A change in 10 dB(A) Is perceived as a doubling or halving in SPL.

Source: 2014 CEQR Technical Manual

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

The following is typical of human response to relative changes in noise level:
- 3-dBA change is the threshold of change detectable by the human ear;
- 5-dBA change is readily noticeable; and
- 10-dBA change is perceived as a doubling or halving of the noise level.

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

- L_{eq} is the continuous equivalent sound level. The sound energy from the fluctuating SPLs is averaged over time to create a single number to describe the mean energy, or intensity, level. High noise levels during a measurement period will have a greater effect on the L_{eq} than low noise levels. L_{eq} has an advantage over other descriptors because L_{eq} values from various noise sources can be added and subtracted to determine cumulative noise levels.
- $L_{eq\ (24)}$ is the continuous equivalent sound level over a 24-hour time period.

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

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

Measurement Location and Equipment

Because the predominant noise source in the area of the proposed project is vehicular traffic, noise monitoring was conducted during peak vehicular travel periods, 7:30-9:00 am, 12:00 pm-1:30 pm, and 4:30-6:00 pm. Pursuant to CEQR Technical Manual methodology, readings were taken on the northern end of the block along 91st Street, on the eastern end of the block along 5th Avenue, on the southern end of the block along 92nd Street, approximately 20' off the intersection of 4th Avenue and 92nd Street, and at the corner of 92nd Street and 5th Avenue for 20-minute intervals. Noise monitoring was conducted using a Type 1 Casella CEL633C1 sound meter, with wind screen. The monitor was placed on a tripod at a height of approximately three feet above the ground, away from any other surfaces. The monitor was calibrated prior to and following each monitoring session. Vehicular traffic proximate to Projected Development Site 2 constitutes a worst-case condition for noise at the site.

Figure 2.8-1 Noise Monitoring Location

Figure 2.8-2: Location 1 Facing 92nd Street (20 Minute)

Figure 2.8-3: Location 2 Facing 5th Avenue (20 Minute)

Figure 2.8-4: Location 3 Facing 91st Street (20 Minute)

Figure 2.8-5: Location 3 Intersection of 4th Avenue and 92nd Street (20 Minute)

Figure 2.8-6: Location 3 Intersection of 92nd Street and 5th Avenue (20 Minute)

Measurement Conditions

Monitoring was conducted during typical midweek conditions, on Thursday, September 13, 2018 and Thursday, January 16th, 2020. The weather was dry and wind speeds were low throughout the day. Neighboring properties were not a significant source of ambient noise. Traffic volumes and vehicle classification were documented during the noise monitoring. The sound meter was calibrated before and after each monitoring session.

Existing Conditions

Based on the noise measurements taken at the Affected Area, the predominant source of noise is private vehicular traffic. The volume of traffic, and its corresponding level of noise, is moderate on the 92nd Street and 5th Avenue frontages. **Table 2.8-3** through **Table 2.8-7** contains the results for the noise measurements taken at Locations 1 through 3. **Table 2.8-8** through **Table 2.8-12** contains the traffic volumes and vehicle classifications for each noise monitoring location.

Table 2.8-3: Noise (dB) Levels at 92nd Street Frontage (Location 1)

	Thursday, September 13, 2018		
	7:45 – 8:05 am	12:00 – 12:20 pm	4:30 – 4:50 pm
L_{max}	90.7	90.4	98.5
L_{10}	71.0	70.0	**72.5**
L_{eq}	69.0	68.5	71.1
L_{50}	64.0	63.0	67.0
L_{90}	59.0	58.5	62.5
L_{min}	55.7	55.5	59.1

Table 2.8-4: Noise (dB) Levels at 5th Avenue Frontage (Location 2)

	Thursday, September 13, 2018		
	8:07 – 8:27 am	12:22 – 12:42 pm	4:52 – 5:12 pm
L_{max}	91.0	84.5	88.5
L_{10}	67.5	67.5	**69.5**
L_{eq}	66.5	64.5	66.2
L_{50}	62.0	60.5	62.5
L_{90}	59.0	57.0	58.0
L_{min}	56.7	55.0	54.7

Table 2.8-5: Noise (dB) Levels at 91st Street Frontage (Location 3)

	Thursday, September 13, 2018		
	8:29 – 8:49 am	12:44 - 1:04 pm	5:14 – 5:34 pm
L_{max}	83.3	81.9	89.1
L_{10}	**63.5**	62.5	**63.5**
L_{eq}	61.7	62.1	63.9
L_{50}	58.5	57.5	58.0

L_{90}	56.0	56.0	55.5
L_{min}	53.9	54.0	53.9

Table 2.8-6: Noise (dB) Levels at Intersection of 4th Avenue and 92nd Street (Location 4)

	Thursday, January 16th, 2019		
	7:30 – 7:50 am	12:00 – 12:20 pm	4:30 – 4:50 pm
L_{max}	93.6	81.2	96.5
L_{10}	**73.0**	**71.0**	**70.5**
L_{eq}	**72.1**	67.4	**71.2**
L_{50}	63.0	64.5	65.5
L_{90}	59.0	60.0	61.5
L_{min}	48.3	55.0	48.8

Table 2.8-7: Noise (dB) Levels at Intersection of 92nd Street and 5th Avenue (Location 5)

	Thursday, January 16th, 2019		
	7:51 – 8:11 am	12:21 – 12:41 pm	4:51 – 5:11 pm
L_{max}	85.3	87.5	93.5
L_{10}	**71.0**	**73.0**	69.5
L_{eq}	68.2	69.5	68.7
L_{50}	63.5	66.5	64.5
L_{90}	60.5	59.0	60.5
L_{min}	57.5	47.3	48.5

Table 2.8-8: Traffic Volumes and Vehicle Classifications 92nd Street (Location 1)

	Morning	Midday	Evening
Car/ Taxi	50	63	90
Van/ Light Truck/SUV	99	92	89
Heavy Truck	4	6	6
Bus	11	3	9
Motorcycle	0	0	0

Table 2.8-9: Traffic Volumes and Vehicle Classifications 5th Avenue (Location 2)

	Morning	Midday	Evening
Car/ Taxi	48	43	39
Van/ Light Truck/SUV	83	58	80
Heavy Truck	5	7	5
Bus	9	3	5
Motorcycle	0	0	2

Table 2.8-10: Traffic Volumes and Vehicle Classifications at 91st Street (Location 3)

	Morning	Midday	Evening
Car/ Taxi	7	10	18
Van/ Light Truck/SUV	16	10	25
Heavy Truck	1	0	0
Bus	0	0	0
Motorcycle	0	0	0

Table 2.8-11: Traffic Volumes and Vehicle Classifications 92nd Street (Location 4)

	Morning	Midday	Evening
Car/ Taxi	48	34	43
Van/ Light Truck/SUV	61	52	46
Heavy Truck	0	0	0
Bus	6	1	4
Motorcycle	0	0	0

Table 2.8-12: Traffic Volumes and Vehicle Classifications Intersection of 92nd Street and 5th Avenue (Location 5)

	Morning	Midday	Evening
Car/ Taxi	57	37	37
Van/ Light Truck/SUV	55	45	50
Heavy Truck	1	0	0
Bus	5	1	3
Motorcycle	0	0	0

The 2014 *CEQR Technical Manual* Table 19-2 contains noise exposure guidelines. For a residential use such as would occur under the Proposed Action, an L_{10} of between 65 and 70 dB(A) is identified as marginally acceptable general external exposure. The highest recorded L_{10} at the 92nd Street frontage was 72.5 dB(A) during the evening period, the highest recorded L_{10} at the 5th Avenue frontage was 69.5 dB(A) during the evening period, the highest recorded L_{10} at the 91st Street frontage was 63.5 dB(A) during the evening period, the highest recorded L_{10} at the intersection if 4th Avenue and 92nd Street frontage was 73.0 dB(A) during the morning period, and the highest recorded L_{10} at the intersection of 92nd Street and 5th Avenue was 73.0 dB(A) during the midday period.

Based on the noise readings above the attenuation would be as follows:

Projected Development Site 1: a minimum of 28 dBA window/wall attenuation on all facades facing 92nd Street and all facades facing 4th Avenue and the façades facing 5th Avenue within 98 feet of 92nd Street No other composite window-wall noise attenuation would be required.

Projected Development Site 2: a minimum of 31 dBA window/wall attenuation on the facades facing 92nd Street and the facades facing 4th Avenue and the facades facing 91st Street and 28 dBA of attenuation on the facades facing 5th Avenue.

Potential Development Site 1: a minimum of 31 dBA window/wall attenuation on the facades facing 92nd Street and the facades facing 5th Avenue and 28 dBA of attenuation on the facades facing 4th Avenue.

The noise attenuation requirement of each façade is shown in **Figure 2.8-7** below.

Figure 2.8-7 Façade Noise Attenuation Requirement on Development Site and Potential Development Site

(E) Designation

To preclude the potential for significant adverse impacts related to noise, an (E) designation would be incorporated into the rezoning proposal for Projected Development Site 1 and 2 as well as Potential Development Site 1. The text for the (E) designation is as follows:

> **Block 6087, Lots 23 and 31 (Projected Development Site 1):** To ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on all facades facing 92nd Street and all facades facing 4th Avenue and the façades facing 5th Avenue within 98 feet of 92nd Street to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial uses as illustrated in the EAS. 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 6087, Lots 32, 33, and 34 (Projected Development Site 2):** To ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the facades facing 92nd Street and the facades facing 4th Avenue and the facades facing 91st Street and 28 dBA of attenuation on the facades facing 5th Avenue to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial uses as illustrated in the EAS. 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 6087, Lots 26, 27, 28, 29, 30, and 129 (Potential Development Site 1):** To ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the facades facing 92nd Street and the facades facing 5th Avenue and 28 dBA of attenuation on the facades facing 4th Avenue to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial uses as illustrated in the EAS. 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 (E) designation in place, no significant adverse noise impacts related to noise are expected, and no further analysis is warranted.

2.9 Neighborhood Character

According to the 2014 CEQR Technical Manual, in a neighborhood character assessment under CEQR, one considers how elements of the environment combine to create the context and feeling of a neighborhood and how a project may affect that context and feeling. An assessment of neighborhood character is generally needed when a proposed project has the potential to result in significant adverse impacts in any technical area presented below, or when the project may have moderate effects on several of the elements that define a neighborhood's character.

A Neighborhood Character assessment is appropriate when a project has the potential to result in any significant impacts in the following areas:

A. Land Use, Zoning, and Public Policy;

B. Socioeconomic Conditions;

C. Open Space;

D. Historic and Cultural Resources;

E. Urban Design and Visual Resources;

F. Shadows;

G. Transportation; or

H. Noise.

Based on the analyses conducted previously, the proposed action, including placement of an 'E' designation for air quality and noise, would not result in significant impacts to any of the constituent elements of neighborhood character. Additionally, there would be no combination of moderate effects to several elements that cumulatively may affect neighborhood character. Therefore, no further analysis is warranted and no impacts related to neighborhood character are anticipated.

2.10 Construction

According to the 2014 *CEQR Technical Manual*, construction activities, although temporary in nature, can sometimes result in significant adverse impacts. 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.

The following considerations are used to determine whether further analysis of a project's construction activities is needed for any technical area.

Transportation
A transportation analysis of construction activities is predicated upon the duration, intensity, complexity, and/or location of construction activity. Analysis of the effects of construction activities on transportation is often not required, as many projects do not generate enough construction traffic to warrant such analysis. An analysis should consider a number of factors before determining whether a preliminary assessment of the effect of construction on transportation is needed. These factors include whether the construction would be located in a Central Business District or along an arterial or major thoroughfare, whether any closures or narrowing of moving or parking lanes or pedestrian facilities would be located in an area with high pedestrian activity or near sensitive land uses such as schools, hospitals, or parks, and whether the project would involve construction on multiple development sites in the same geographic area such that there is the potential for several construction timelines to overlap, and last for more than two years overall.

The proposed development would not affect major traffic routes. There would be no construction activity within a Central Business District or on an arterial or major thoroughfare. The proposed development would occur in an area that experiences moderate pedestrian activity and does contain a sensitive land use in P.S./I.S. 104 – The Fort Hamilton School. While multiple development sites have been identified, cumulative development on these sites is not expected to overlap and last for more than two years overall and there would be no narrowing or moving of parking lanes or pedestrian facilities.

Air Quality and Noise
According to the CEQR Technical Manual, an assessment of air quality and noise for construction activities is likely not warranted if the project's construction activities:

- Are considered short-term (less than two years);
- Are not located near sensitive receptors; and
- Do not involve construction of multiple buildings where there is a potential for on-site receptors on buildings to be completed before the final build-out.

The proposed action would not result in construction activities lasting longer than two years and would not result in construction near sensitive receptors. Build out and occupancy of development sites is expected to occur in such a way that occupancy of on-site receptors would not occur prior to final build out of a site.

Historic and Cultural Resources

The area does not possess architectural or archaeological resources. Therefore, construction activity does not have the potential for adverse impacts.

Hazardous Materials
As discussed elsewhere in this document, a Phase I ESA, Phase II RIWP, and HASP have been prepared for the Project Site and are under review by the Department of Environmental Protection. If the potential for site contamination is identified, further investigation and remediation would be provided to ensure that construction and occupancy of action-induced development does not result in significant adverse impacts related to hazardous materials.

Natural Resources
The proposed action would result in redevelopment within a fully urbanized area that does not provide habitat for any rare or endangered plant or animal species. Construction activities would not have the potential for adverse impacts to natural resources.

Open Space, Socioeconomic Conditions, Community Facilities, Land Use And Public Policy, Neighborhood Character, And Infrastructure
According to the CEQR Technical Manual, a preliminary construction assessment is generally not needed for these technical areas unless the following are true:

- The construction activities are considered “long-term” (more than 2 years); or
- Short-term construction activities would directly affect a technical area, such as impeding the operation of a community facility (e.g., result in the closing of a community health clinic for a period of a month(s)).

Since none of these situations would occur, the proposed action does not have the potential for significant adverse impacts related to construction activity.

Appendix A: Agency Correspondence

NYC 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: FIFTH AVENUE REZONING
Date received: 11/29/2018

Properties with no Architectural or Archaeological significance:

1) ADDRESS: 9114 5th Avenue, BBL: 3060870023
2) ADDRESS: 411 92nd Street, BBL: 3060870031
3) ADDRESS: 409 92nd Street, BBL: 3060870032
4) ADDRESS: 407 92nd Street, BBL: 3060870033
5) ADDRESS: 405 92nd Street, BBL: 3060870034
6) ADDRESS: 9114 4th Avenue, BBL: 3060870001
7) ADDRESS: 415 92nd Street, BBL: 3060870030
8) ADDRESS: 9118 5th Avenue, BBL: 3060870026
9) ADDRESS: 9122 5th Avenue, BBL: 3060870027
10) ADDRESS: 9126 5th Avenue, BBL: 3060870028
11) ADDRESS: 419 92nd Street, BBL: 3060870129
12) ADDRESS: 9128 5th Avenue, BBL: 3060870029

In the radius: Firehouse 242, which appears S/NR eligible.

Gina Santucci 12/13/2018

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 33843_FSO_DNP_12032018.doc

Appendix B: Architectural Drawings

ZONING ANALYSIS

ADDRESS:	9114 5TH AVENUE & 413 92ND STREET, BROOKLYN, NY 11209			
BLOCK: 6087	LOT: 23,25,31	ZONING MAP: 22b	COMM. BOARD: 310	

EXISTING ZONING DISTRICT:	C8-2 & SPECIAL BAY RIDGE DISTRICT
PROPOSED ZONING DISTRICT:	R7A / C2-4 & MANDATORY INCLUSIONARY HOUSING AREA & SPECIAL BAY RIDGE DISTRICT
LOT AREA (S.F.):	9,851.7
	(PER ARCHITECTURAL SURVEY DONE BY ROGUSKI LAND SURVEYING P.C. DATED 02-06-2018)

TABLE I

ZR SECTION	ITEM		PERMITTED / REQUIRED	REMARK	PROPOSED	COMPLIANT?
ZR 32-00	USE GROUP		1~9, 14		2 & 6	Y
ZR 23-154(d)(b)	FAR & FA	RESIDENTIAL	4.60	MIH	3.65	Y
			45,317.8		35,938.0	Y
ZR 33-121		COMMERCIAL	2.00		0.94	Y
			19,703.4		9,300.0	Y
ZR 35-31		TOTAL	4.6		4.59	Y
			45,317.8		45,238.0	Y
ZR 23-153	LOT COVERAGE	RESIDENTIAL	0.65		0.46	Y
			6,403.6		4,530.0	Y
N/A		COMMERCIAL	N/A		N/A	N/A
ZR 35-40 / 23-22	DENSITY (# OF DWELLING UNITS)		(MAX ZFA - COM. ZFA) / 680		50	Y
			(45,317.8 - 9,800) / 680 = 52 D.U.			
ZR 35-51	YARD	FRONT YARD	NONE		NONE	Y
ZR 35-52		SIDE YARD	NONE OR 8'		NONE	Y
ZR 23-47		REAR YARD	30'	RESIDENTIAL	30'-3 3/8"	Y
ZR 33-26			20'	COMMERCIAL / COMM. FAC.	1-STY & 13' ABOVE CURB	Y
ZR 33-23(b)(3)		PERMIT. OBSTRUCTION	1-STY (EXCLUDING BSMT.) & 23' ABOVE CURB			
ZR 35-654 ZR 23-664(b)	HEIGHT & SETBACK	BASE/WALL HEIGHT	40' ~ 75'		75'	Y
		BUILDING HEIGHT	90'	NON-QGL.	95'	Y
			95'	QUALIFYING GROUND FL.		
		# OF STORIES	9		9	Y
ZR 35-652 ZR 23-662(c)		SETBACK	10' (WIDE STREET)	5TH AVENUE	10' W/ DORMER	Y
			15' (NARROW STREET)	92ND STREET	N/A	N/A
ZR 35-651(a)(1)(3)(4)	STREET WALL LOCATION		- AT LEAST 70% OF THE AGGREGATE WIDTH OF STREET WALLS SHALL BE LOCATED WITHIN 8' OF THE STREET LINE AND SHALL EXTEND TO AT LEAST THE MINIMUM BASE HEIGHT, OR THE HEIGHT OF THE BUILDING, WHICHEVER IS LESS. - UP TO 30 PERCENT OF THE AGGREGATE WIDTH OF STREET WALLS MAY BE RECESSED BEYOND 8' OF THE STREET LINE, PROVIDED THAT ANY SUCH RECESSES DEEPER THAN 10' ALONG A WIDE STREET OR 15' ALONG A NARROW STREET ARE LOCATED WITHIN AN OUTER COURT; FOR ZONING LOTS BOUNDED BY MORE THAN ONE STREET LINE, THESE STREET WALL LOCATION PROVISIONS SHALL BE MANDATORY ALONG ONLY ONE STREET LINE; AND WHERE ONLY ONE STREET LINE IS COINCIDENT WITH THE BOUNDARY OF A COMMERCIAL DISTRICT MAPPED ALONG AN ENTIRE BLOCK FRONT, THE STREET WALL LOCATION PROVISIONS SHALL APPLY ALONG SUCH COINCIDENT STREET LINE.		STREET WALL 100% ON THE STREET LINE	Y
ZR 36-341	PARKING	RESIDENTIAL	30% OF RESIDENCES	50 X 0.3= 15	WAIVED	Y
ZR 36-361			<= 15 CARS CAN BE WAIVED			
ZR 36-20		COMMERCIAL	1 PER 400 F.A.	RETAIL	WAIVED	Y
ZR 36-232			< 40 CARS CAN BE WAIVED	9800 / 400 = 25		
ZR 36-711	BICYCLE PARKING	RESIDENTIAL	1 PER 2 DWELLING UNITS	50 / 2 = 25	25	Y
			<= 10 D.U. CAN BE WAIVED			
		COMMERCIAL	1 PER 10,000 F.A.	RETAIL	WAIVED	Y
			< = 3 CAN BE WAIVED	9,800 / 10,000 = 1		
ZR 36-62	LOADING BERTH	COMMERCIAL	1ST 25,000 - NONE NEXT 15,000 - 1	RETAIL	NONE	Y

TABLE II - PROPOSED FLOOR AREA DISTRIBUTION

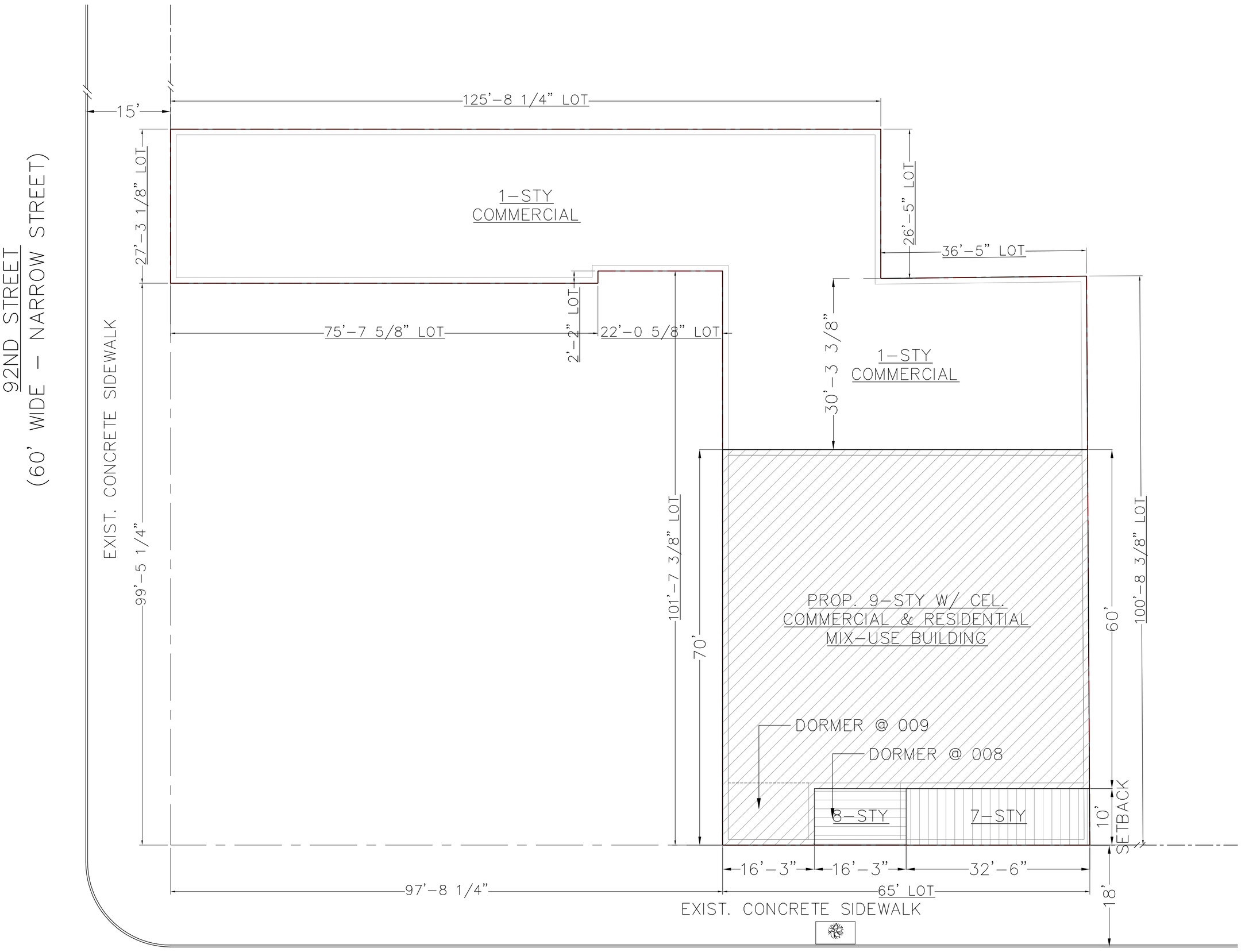
FLOOR	GROSS F.A.	ZONING F.A.		# OF D.U.
		COMM.	RES.	
CEL	9,800.00 S.F.			
1ST	9,800.00 S.F.	9,300.00 S.F.	500.00 S.F.	0
2ND	4,530.00 S.F.		4,530.00 S.F.	7
3RD	4,530.00 S.F.		4,530.00 S.F.	7
4TH	4,530.00 S.F.		4,530.00 S.F.	7
5TH	4,530.00 S.F.		4,530.00 S.F.	7
6TH	4,530.00 S.F.		4,530.00 S.F.	6
7TH	4,530.00 S.F.		4,530.00 S.F.	6
8TH	4,210.00 S.F.		4,210.00 S.F.	5
9TH	4,048.00 S.F.		4,048.00 S.F.	5
TOTAL	45,238 S.F.	9,300 S.F.	35,938 S.F.	50
		45,238 S.F.		

DISCLAIMER: ALL FIGURES ARE PRELIMINARY AND APPROXIMATE. LOT AREAS AND EXISTING FLOOR AREAS ARE SUBJECT TO SURVEY CONFIRMATION. ALL MASSING IS PRELIMINARY AND IS SUBJECT TO REVIEW AND FINAL APPROVAL BY THE NYC DEPARTMENT OF BUILDINGS.

S M TAM ARCHITECT, PLLC
5816 FORT HAMILTON PKWY, BK, NY 11219 / Tel: 718-765-1122

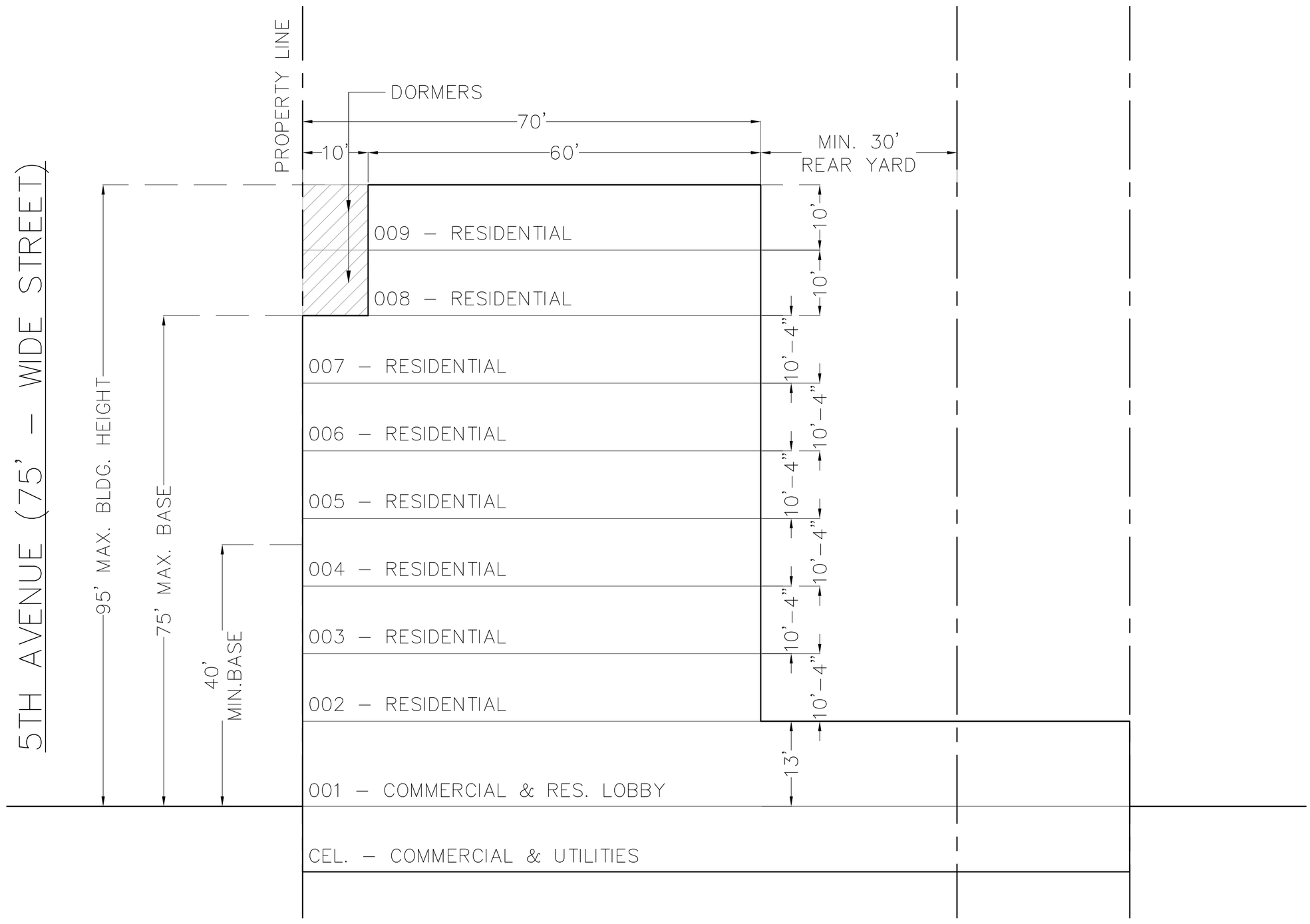
9114 5 AVE, BK, NY | 6-28-2018

PRELIMINARY ZONING STUDY



PLOT PLAN
SCALE: N.T.S.

5TH AVENUE
(75' WIDE-WIDE STREET)



HEIGHT & SETBACK DIAGRAM

DISCLAIMER: ALL FIGURES ARE PRELIMINARY AND APPROXIMATE. LOT AREAS AND EXISTING FLOOR AREAS ARE SUBJECT TO SURVEY CONFIRMATION. ALL MASSING IS PRELIMINARY AND IS SUBJECT TO REVIEW AND FINAL APPROVAL BY THE NYC DEPARTMENT OF BUILDINGS.

S M TAM ARCHITECT, PLLC
5816 FORT HAMILTON PKWY, BK, NY 11219 / Tel: 718-765-1122

9114 5 AVE, BK, NY | 6-28-2018

PRELIMINARY ZONING STUDY

Appendix C: Hazardous Materials

NYC Environmental Protection

Vincent Sapienza, P.E.
Commissioner

Angela Licata
Deputy Commissioner of Sustainability

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
Fax (718) 595-4422
alicata@dep.nyc.gov

March 21, 2019

Alexander McClean
Project Manager
Environmental Assessment and Review Division
New York City Department of City Planning
120 Broadway, 31st Floor
New York, NY 10271

Re: 9114 5th Avenue Rezoning
Block 6087, Lots 23, 26, 27, 28, 29, 129, 30, 31, 32, 33, 34, and part of 1
CEQR # 19DCP128K

Dear Mr. McClean:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the January 2019 Environmental Assessment Statement prepared by Equity Environmental Engineering and the December 2017 Phase I Environmental Site Assessment (Phase I), prepared by Vektor Consultants on behalf of Bayridge Realty LLC (applicant) for the above referenced project. It is our understanding that the applicant is seeking a zoning map amendment from the New York City Department of City Planning (DCP) to rezone Block 6087, Lots 23, 26, 27, 28, 29, 129, 30, 31, 32, 33, 34, and p/o 1, in the Bay Ridge neighborhood of Brooklyn Community District 10, from a C8-2 zoning district to an R7A/C2-4 zoning district. The proposed zoning map amendment will facilitate the development of 9114 5th Avenue (Block 6087, Lots 23 and 31) (Projected Development Site 1) with a new 9-story plus cellar mixed-use building with approximately 50 dwelling units and first-floor commercial use. The applicant is also proposing a zoning text amendment to establish the rezoning area as a Mandatory Inclusionary Housing Area. Under the Reasonable Worst Case Development Scenario, a 9-story mixed-used building would be constructed on Lots 32, 33, and 34 (Projected Development Site 2) and a 9-story mixed-used building would be constructed on Lots 26, 27, 28, 29, 30, and 129 (Potential Development Site 1). Redevelopment of Lot 1 is not expected to occur as a result of the proposed action.

Projected Development Site 1: Block 6087, Lots 23 and 31 (Site under the control or ownership of the applicant):

The December 2017 Phase I report revealed that historical on-site and surrounding land uses consisted of a variety of residential and commercial uses including a gasoline station, auto service station, auto sales, etc. Regulatory databases identified 15 spills, 8 historical auto stations and 6 historical dry cleaners within 1/8 mile; 17 underground storage tank sites and 51 aboveground

storage tank sites within 1/4 mile; and 39 leaking storage tank sites within 1/2 mile of the subject property.

Based upon our review of the submitted documentation, we have the following comments and recommendations to DCP:

Projected Development Site 1: Block 6087, Lots 23 and 31 (Site under the control or ownership of the applicant):

- DCP should inform the applicant that based on the historical on-site and/or surrounding area land uses, a Phase II Environmental Site Assessment (Phase II) is necessary to adequately identify/characterize the surface and subsurface soils of the subject property. A Phase II Investigative Protocol/Work Plan summarizing the proposed drilling, soil, groundwater, and soil vapor sampling activities should be developed in accordance with the *City Environmental Quality Review Technical Manual* and submitted to DEP for review and approval. The Work Plan should include blueprints and/or site plans displaying the current surface grade and sub-grade elevations and a site map depicting the proposed soil, groundwater, and soil vapor sampling locations. Soil and groundwater samples should be collected and analyzed by a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for the presence of volatile organic compounds (VOCs) by United States Environmental Protection Agency (EPA) Method 8260, semi-volatile organic compounds by EPA Method 8270, pesticides by EPA Method 8081, polychlorinated biphenyls by EPA Method 8082, and Target Analyte List metals (filtered and unfiltered for groundwater samples). The soil vapor sampling should be conducted in accordance with NYSDOH's October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York. The soil vapor samples should be collected and analyzed by a NYSDOH ELAP certified laboratory for the presence of VOCs by EPA Method TO-15. An Investigative Health and Safety Plan (HASP) should also be submitted to DEP for review and approval.

- DCP should also instruct the applicant that the Phase II Work Plan and HASP should be submitted to DEP for review and approval prior to the start of any fieldwork.

Projected Development Site 2: Block 6087, Lots 32, 33, and 34; Potential Development Site 1: Block 6087, Lots 26, 27, 28, 29, 30, and 129 (Sites not under the control or ownership of the applicant):

- Based on prior on-site and/or surrounding area land uses which could result in environmental contamination, DEP recommends that an (E) designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for the subject properties. The (E) designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation.

Future correspondence and submittals related to this project should include the following CEQR # **19DCP128K**. If you have any questions, you may contact Scott Davidow at (718) 595-7716.

Sincerely,

Wei Yu
Deputy Director, Hazardous Materials

c: R. Weissbard
S. Davidow
T. Estesen
M. Wimbish
R. Lucas
O. Abinader – DCP
M. Bertini – OER

NYC Environmental Protection

Vincent Sapienza, P.E.
Commissioner

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Deputy Commissioner of Sustainability

59-17 Junction Blvd.
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Tel. (718) 595-4398
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alicata@dep.nyc.gov

December 18, 2019

Alexander McClean
Senior Project Manager
Environmental Assessment and Review Division
New York City Department of City Planning
120 Broadway, 31st Floor
New York, NY 10271

Re: 9114 5th Avenue Rezoning
Block 6087, Lots 23 and 31 (Projected Development Site 1)
CEQR # 19DCP128K

Dear Mr. McClean:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the November 2019 Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP) prepared by Vektor Consultants on behalf of Bayridge Realty LLC (applicant) for the above referenced project. It is our understanding that the applicant is seeking a zoning map amendment from the New York City Department of City Planning (DCP) to rezone Block 6087, Lots 23, 26, 27, 28, 29, 129, 30, 31, 32, 33, 34, and p/o 1, in the Bay Ridge neighborhood of Brooklyn Community District 10, from a C8-2 zoning district to an R7A/C2-4 zoning district. The proposed zoning map amendment will facilitate the development of 9114 5th Avenue (Block 6087, Lots 23 and 31) (Projected Development Site 1) with a new 9-story plus cellar mixed-use building with approximately 50 dwelling units and first-floor commercial use. The applicant is also proposing a zoning text amendment to establish the rezoning area as a Mandatory Inclusionary Housing Area. Under the Reasonable Worst Case Development Scenario, a 9-story mixed-used building would be constructed on Lots 32, 33, and 34 (Projected Development Site 2) and a 9-story mixed-used building would be constructed on Lots 26, 27, 28, 29, 30, and 129 (Potential Development Site 1). Redevelopment of Lot 1 is not expected to occur as a result of the proposed action.

Projected Development Site 1: Block 6087, Lots 23 and 31 (Site under the control or ownership of the applicant)

The November 2019 RAP proposes the excavation, transportation and off-site disposal of soil in accordance with all applicable federal, state and local regulations; removal and closure of underground storage tanks in accordance with all applicable federal, state and local regulations; liquids discharged into the New York City sewer system will receive prior approval by New York City Department of Environmental Protection; stockpiled soil will be covered with appropriately anchored plastic tarps; dust control; air monitoring; import of

materials to be used for backfill and cover; installation of an engineered cover system consisting of a 6-inch reinforced concrete slab; and installation of a vapor barrier system consisting of 20-mil Stego Wrap or equivalent system below the slab throughout the full building area and outside all sub-grade foundation sidewalls. The November 2019 CHASP addresses worker and community health and safety during redevelopment.

Based upon our review of the submitted documentation, we have the following comments and recommendations to DCP:

RAP

- DCP should instruct the applicant that for all areas (if required) which will be landscaped or covered with grass (not capped), a minimum of two (2) feet of DEP approved clean fill/top soil must be imported from an approved facility/source and graded across all landscaped/grass covered areas of the site not capped with concrete/asphalt. The clean fill/top soil must be segregated at the source/facility, have qualified environmental personnel collect representative samples at a frequency of one (1) sample for every 250 cubic yards, analyze the samples for Target Compound List volatile organic compounds by United States Environmental Protection Agency (EPA) Method 8260, semi-volatile organic compounds by EPA Method 8270, pesticides by EPA Method 8081, polychlorinated biphenyls by EPA Method 8082, and Target Analyte List metals by a New York State Department of Health Environmental Laboratory Approval Program certified laboratory, compared to New York State Department of Environmental Conservation (NYSDEC) 6 NYCRR Part 375 Environmental Remediation Programs. Upon completion of the clean fill/top soil investigation activities, the applicant should submit a detailed clean soil report for DEP review and approval prior to importation and placement on-site. The report should include, at a minimum, an executive summary, narrative of the field activities, laboratory data, and comparison of soil analytical results (i.e., NYSDEC 6 NYCRR Part 375 Environmental Remediation Programs).

- DCP should instruct the applicant that the proposed vapor barrier should be used unless an amendment is approved by DEP.

CHASP

- DCP should instruct the applicant to include the names and phone numbers of the Project Manager, Site Supervisor, and Alternate Health and Safety Officer when assigned, prior to the start of soil disturbance/construction activities.

- Lutheran HealthCare Medical Arts Pavilion – NYU Langone and Mercy Medical Care located at 8714 5th Avenue and 273 94th Street, respectively, are not hospitals. Therefore, DCP should instruct the applicant to include a highlighted route (including map) to the nearest hospital.

- DCP should instruct the applicant to include an accident and injury report form.

DEP finds the November 2019 RAP and CHASP for the proposed project acceptable, as long as the aforementioned information is incorporated into the RAP and CHASP. DCP should instruct the applicant that at the completion of the project, a Professional Engineer (P.E.) certified Remedial Closure Report should be submitted for DEP review and approval for the proposed project. The P.E. certified Remedial Closure Report should indicate that all remedial requirements have been properly implemented (i.e., installation of vapor barrier; transportation/disposal manifests for removal and disposal of soil in accordance with New York State Department of Environmental Conservation regulations; and two feet of DEP approved certified clean fill/top soil capping requirement in any landscaped/grass covered areas not capped with concrete/asphalt, etc.).

Future correspondence and submittals related to this project should include the following CEQR # **19DCP128K**. If you have any questions, you may contact Scott Davidow, P.G. at (718) 595-7716.

Sincerely,

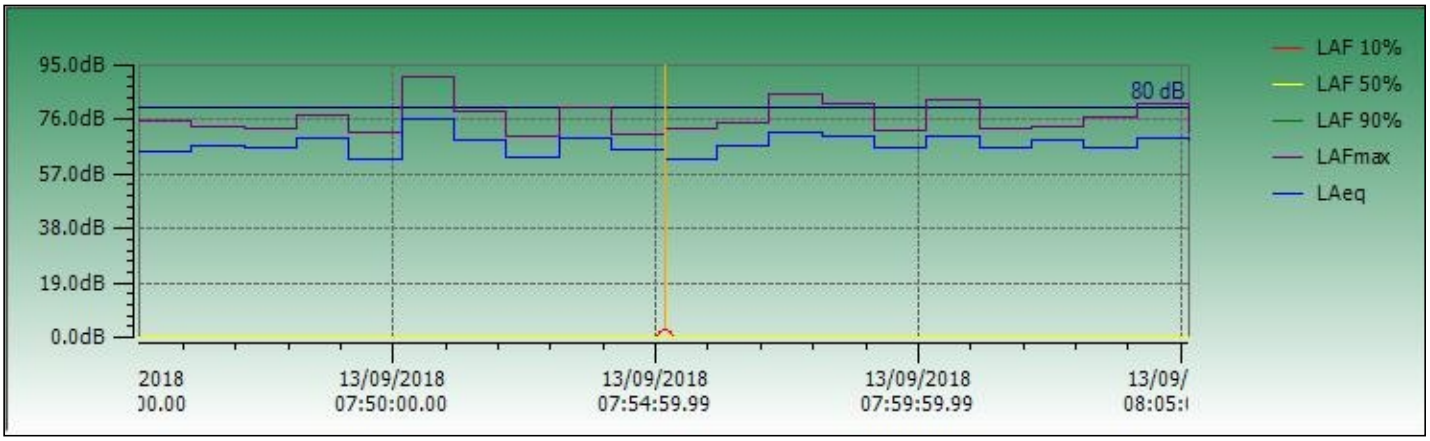
Wei Yu
Deputy Director, Hazardous Materials

c: R. Weissbard
S. Davidow
T. Estesen
M. Wimbish
R. Lucas
O. Abinader – DCP

Appendix D Noise Backup and Calibration Certificates

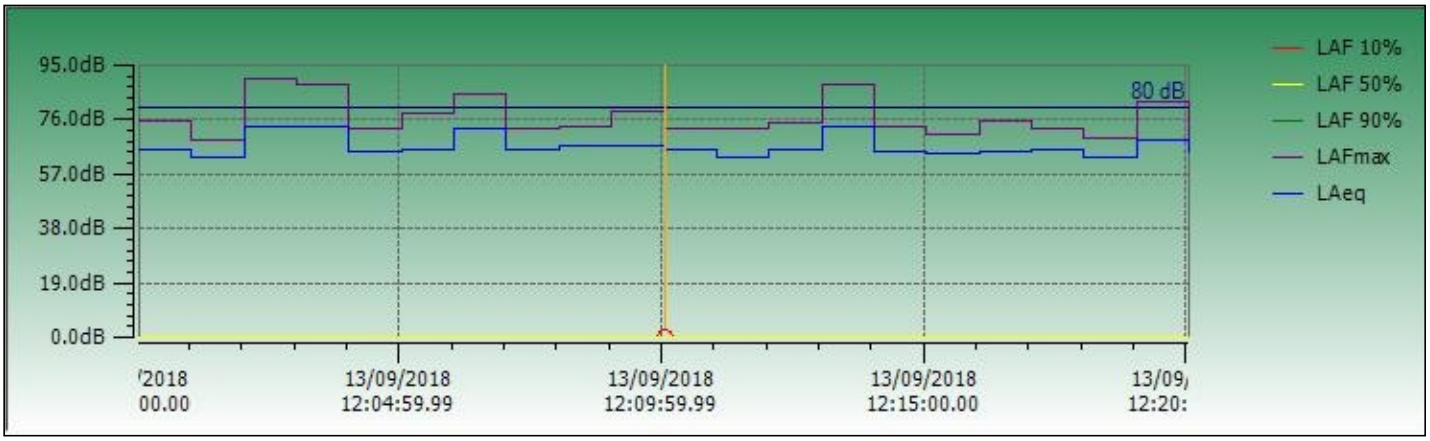
Instrument Model	**CEL-633C**

Serial Number	4278006	LAeq	69 dB
Start Date & Time	9/13/2018 7:45:09 AM	LAFmax	90.7 dB
LAF 10%	71 dB	LAFmin	55.7 dB
LAF 50%	64 dB	End Date & Time	9/13/2018 8:05:12 AM
LAF 90%	59 dB	Duration	00:20:03 HH:MM:SS



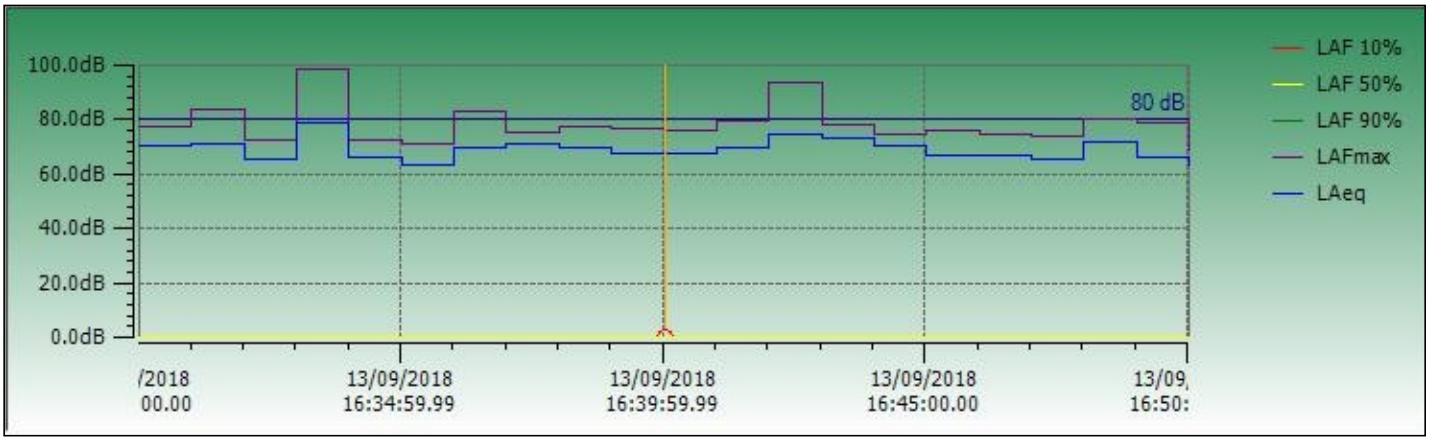
Instrument Model	**CEL-633C**

Serial Number	4278006	LAeq	68.5 dB
Start Date & Time	9/13/2018 12:00:03 PM	LAFmax	90.4 dB
LAF 10%	70 dB	LAFmin	55.5 dB
LAF 50%	63 dB	End Date & Time	9/13/2018 12:20:04 PM
LAF 90%	58.5 dB	Duration	00:20:01 HH:MM:SS



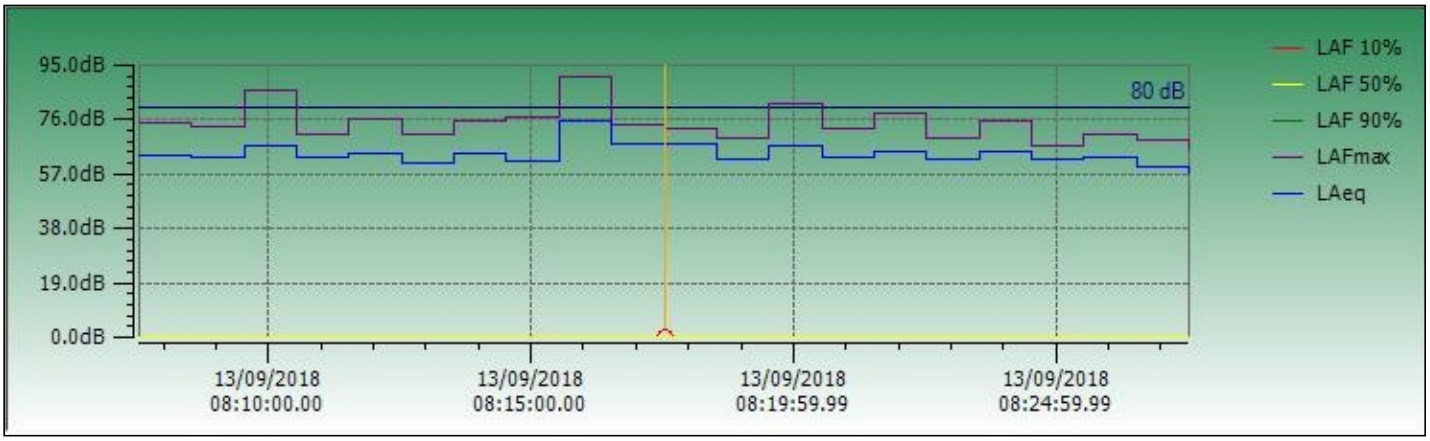
Instrument Model	**CEL-633C**

Serial Number	4278006	LAeq	71.1 dB
Start Date & Time	9/13/2018 4:30:01 PM	LAFmax	98.5 dB
LAF 10%	72.5 dB	LAFmin	59.1 dB
LAF 50%	67 dB	End Date & Time	9/13/2018 4:50:04 PM
LAF 90%	62.5 dB	Duration	00:20:03 HH:MM:SS



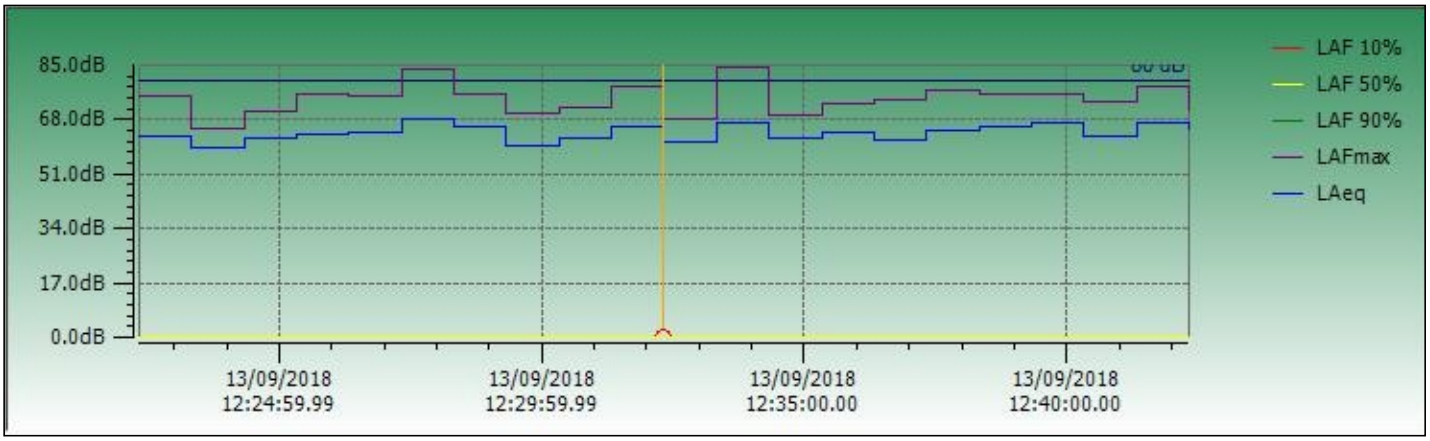
Instrument Model	**CEL-633C**

Serial Number	4278006	LAeq	66.5 dB
Start Date & Time	9/13/2018 8:07:32 AM	LAFmax	91 dB
LAF 10%	67.5 dB	LAFmin	56.7 dB
LAF 50%	62 dB	End Date & Time	9/13/2018 8:27:34 AM
LAF 90%	59 dB	Duration	00:20:02 HH:MM:SS



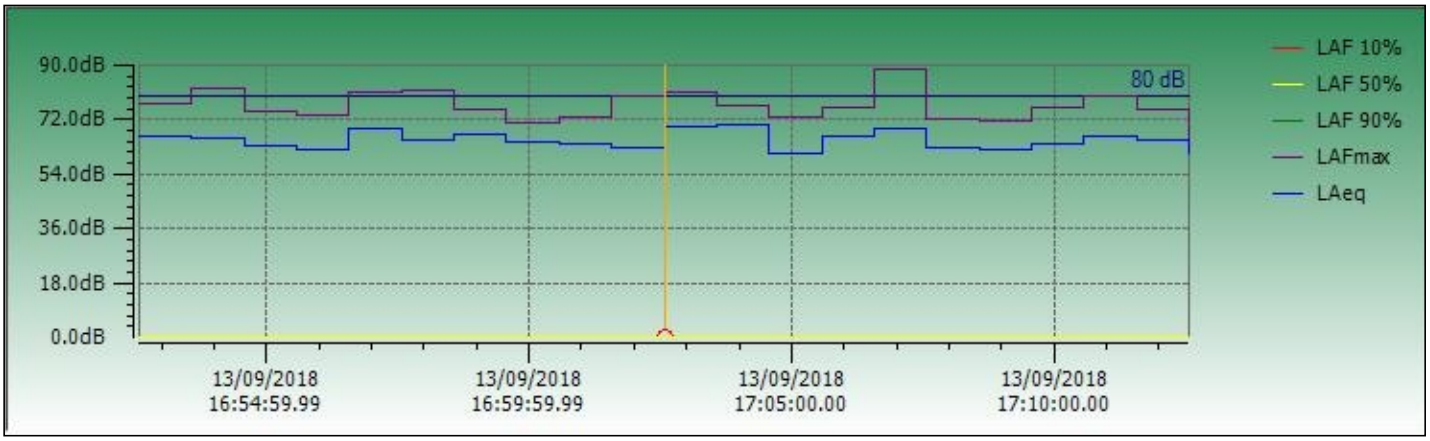
Instrument Model	**CEL-633C**

Serial Number	4278006	LAeq	64.5 dB
Start Date & Time	9/13/2018 12:22:19 PM	LAFmax	84.5 dB
LAF 10%	67.5 dB	LAFmin	55 dB
LAF 50%	60.5 dB	End Date & Time	9/13/2018 12:42:27 PM
LAF 90%	57 dB	Duration	00:20:08 HH:MM:SS



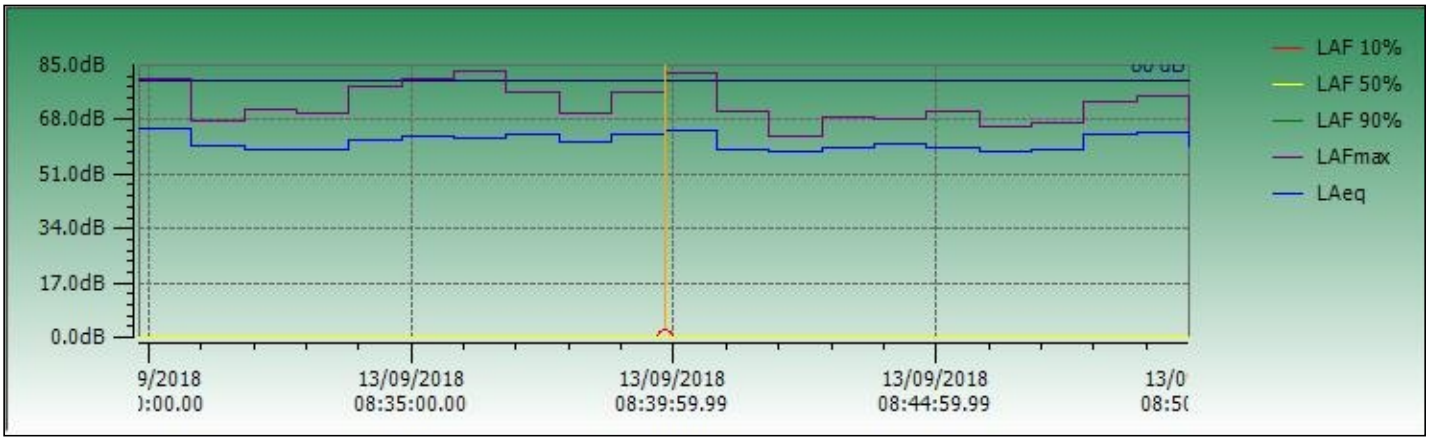
Instrument Model	**CEL-633C**

Serial Number	4278006	LAeq	66.2 dB
Start Date & Time	9/13/2018 4:52:34 PM	LAFmax	88.5 dB
LAF 10%	69.5 dB	LAFmin	54.7 dB
LAF 50%	62.5 dB	End Date & Time	9/13/2018 5:12:37 PM
LAF 90%	58 dB	Duration	00:20:03 HH:MM:SS



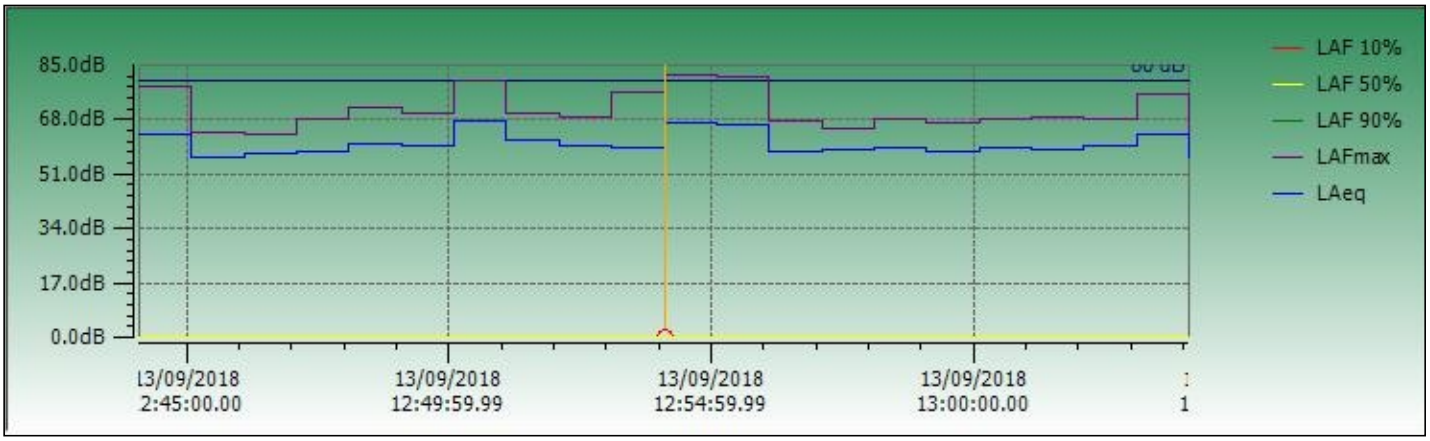
Instrument Model	**CEL-633C**

Serial Number	4278006	LAeq	61.7 dB
Start Date & Time	9/13/2018 8:29:49 AM	LAFmax	83.3 dB
LAF 10%	63.5 dB	LAFmin	53.9 dB
LAF 50%	58.5 dB	End Date & Time	9/13/2018 8:49:54 AM
LAF 90%	56 dB	Duration	00:20:05 HH:MM:SS



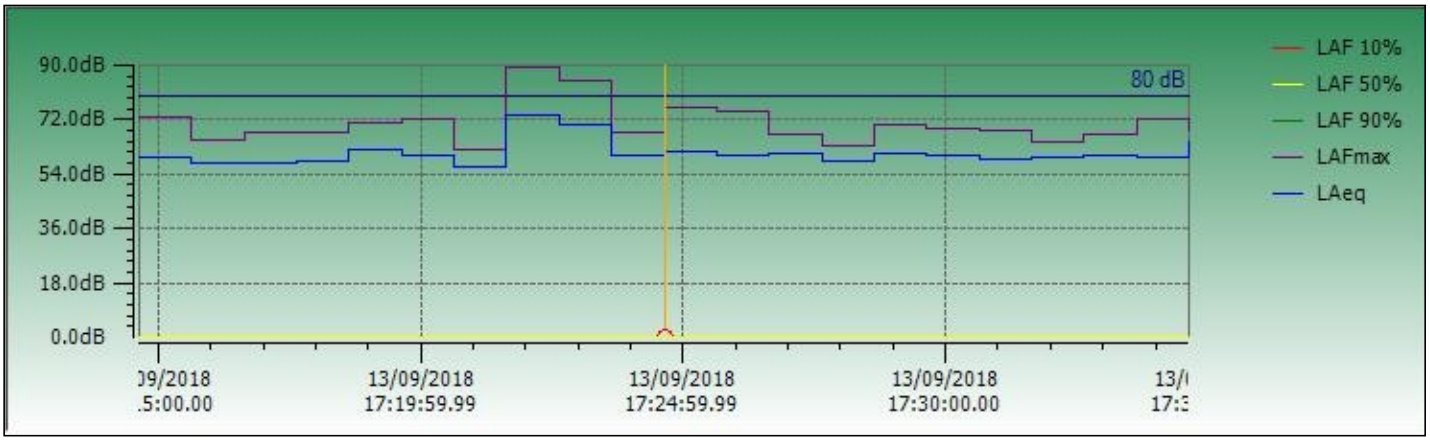
Instrument Model	**CEL-633C**

Serial Number	4278006	LAeq	62.1 dB
Start Date & Time	9/13/2018 12:44:06 PM	LAFmax	81.9 dB
LAF 10%	62.5 dB	LAFmin	54 dB
LAF 50%	57.5 dB	End Date & Time	9/13/2018 1:04:15 PM
LAF 90%	56 dB	Duration	00:20:09 HH:MM:SS



Instrument Model	**CEL-633C**

Serial Number	4278006	LAeq	63.9 dB
Start Date & Time	9/13/2018 5:14:38 PM	LAFmax	89.1 dB
LAF 10%	63.5 dB	LAFmin	53.9 dB
LAF 50%	58 dB	End Date & Time	9/13/2018 5:34:41 PM
LAF 90%	55.5 dB	Duration	00:20:03 HH:MM:SS



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Report On CEL-63X

Instrument Model	**CEL-633C**			
Serial Number	2670911	LAS 10%	71 dB	Result
LASmax	81.2 dB	LAS 50%	64.5 dB	
LASmin	55 dB	LAS 90%	60 dB	
Start Date & Time	1/16/2020 12:00:52 PM	Calibration (Before) Date	1/16/2020 11:58:13 AM	
Duration	00:20:03 HH:MM:SS	Calibration (After) Date	1/16/2020 12:21:11 PM	
LAeq	67.4 dB	Calibration Drift	0.3 dB	
End Date & Time	1/16/2020 12:20:55 PM	Battery Low	No	
Notes				

Instrument Model	**CEL-633C**			
Serial Number	2670911	LAS 10%	73 dB	Result
LASmax	93.6 dB	LAS 50%	63 dB	
LASmin	48.3 dB	LAS 90%	59 dB	
Start Date & Time	1/16/2020 7:30:45 AM	Calibration (Before) Date	1/16/2020 7:29:05 AM	
Duration	00:20:05 HH:MM:SS	Calibration (After) Date	1/16/2020 7:51:16 AM	
LAeq	72.1 dB	Calibration Drift	0.5 dB	
End Date & Time	1/16/2020 7:50:50 AM	Battery Low	No	
Notes				

Instrument Model	**CEL-633C**			
Serial Number	2670911	LAS 10%	70.5 dB	Result
LASmax	96.5 dB	LAS 50%	65.5 dB	
LASmin	48.8 dB	LAS 90%	61.5 dB	
Start Date & Time	1/16/2020 4:30:04 PM	Calibration (Before) Date	1/16/2020 4:28:30 PM	
Duration	00:20:13 HH:MM:SS	Calibration (After) Date	1/16/2020 4:50:35 PM	
LAeq	71.2 dB	Calibration Drift	0.6 dB	
End Date & Time	1/16/2020 4:50:17 PM	Battery Low	No	
Notes				

Casella CEL Ltd.

Report On CEL-63X

Instrument Model	**CEL-633C**			
Serial Number	2670911	LAS 10%	73 dB	Result
LASmax	87.5 dB	LAS 50%	66.5 dB	
LASmin	47.3 dB	LAS 90%	59 dB	
Start Date & Time	1/16/2020 12:21:31 PM	Calibration (Before) Date	1/16/2020 12:21:22 PM	
Duration	00:20:03 HH:MM:SS	Calibration (After) Date	1/16/2020 12:41:49 PM	
LAeq	69.5 dB	Calibration Drift	0.0 dB	
End Date & Time	1/16/2020 12:41:34 PM	Battery Low	No	
Notes				

Instrument Model	**CEL-633C**			
Serial Number	2670911	LAS 10%	71 dB	Result
LASmax	85.3 dB	LAS 50%	63.5 dB	
LASmin	57.5 dB	LAS 90%	60.5 dB	
Start Date & Time	1/16/2020 7:51:45 AM	Calibration (Before) Date	1/16/2020 7:51:29 AM	
Duration	00:20:14 HH:MM:SS	Calibration (After) Date	1/16/2020 8:12:15 AM	
LAeq	68.2 dB	Calibration Drift	0.1 dB	
End Date & Time	1/16/2020 8:11:59 AM	Battery Low	No	
Notes				

Instrument Model	**CEL-633C**			
Serial Number	2670911	LAS 10%	69.5 dB	Result
LASmax	93.5 dB	LAS 50%	64.5 dB	
LASmin	48.5 dB	LAS 90%	60.5 dB	
Start Date & Time	1/16/2020 4:51:01 PM	Calibration (Before) Date	1/16/2020 4:50:55 PM	
Duration	00:20:02 HH:MM:SS	Calibration (After) Date	1/16/2020 5:11:17 PM	
LAeq	68.7 dB	Calibration Drift	0.1 dB	
End Date & Time	1/16/2020 5:11:03 PM	Battery Low	No	
Notes				