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:
31 17 19 1Z LLC
16130 Jewel Avenue
Flushing, NY,11365

Prepared by:
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February 29, 2024

31-17 12th Street Rezoning

Astoria, NY 11692
Block 518, Lots 6, 7, 8, 9, 10, 13, 16, 17, 18, and p/o Lots 5 and 19

Queens
Community District 1

CEQR Reference No: 22DCP098Q

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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* 31-17 12th Street Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
22DCP098Q	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
230022ZMQ, N230023ZRQ	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY New York City Department of City Planning			NAME OF APPLICANT 31 17 19 1Z LLC		
NAME OF LEAD AGENCY CONTACT PERSON Stephanie Shellooe, AICP, Director of Environmental Assessment and Review Division			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Frank Chaney		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 733 Third Avenue		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10017
TELEPHONE 212-720-3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 212-551-1279	EMAIL fchaney@rosenbergestis.com	

5. *Project Description*

The Applicant, 31 17 19 1Z LLC, is requesting approval of two land use actions with regard to Queens Block 518, Lots 6, 7, 8, 9, 10, 13, 16, 17, 18 and p/o Lots 5 and 19 ("Rezoning Area"). The actions requested by th Application are (1) a zoning map amendment to map the aforementioned lots with an R6B zoning designation, which are all currently mapped R5B; and (2) a zoning text amendment to make the Rezoning Area a Mandatory Inclusionary Housing ("MIH") Designated Area by mapping Options 1 and 2 (collectively the "Proposed Actions"). The Proposed Actions would increase the allowable FAR from the current 1.35 to 2.20, and ensure that a portion of the increase in floor area allowed by the Proposed Actions would be affordable.

The Proposed Actions would facilitate the development of a five-story residential building containing 35 dwelling units in 26,500 zoning square feet or 29,209 gross square feet (the "Proposed Building") on the Applicant's Projected Development Site (Block 518, Lot 13). The Proposed Building would include 25-30% of the total dwelling units (9-11 units) as affordable units at an average of 60-80% AMI per MIH Option 1 or 2, respectively. For the purposes of early childhood programs analysis, 20% of units (7 units) would be affordable at or below 80% AMI. The Proposed Building would be developed as a Quality Housing building, with a four-story, 43-foot high street wall at the street line, and a fifth floor set back 15 feet, reaching a total building height of 53 feet. There would be 15 open accessory parking spaces at the rear of the Proposed Building and 18 enclosed bicycle parking spaces in the cellar.

In addition to the Applicant's Proposed Building described above, the EAS analyzes an additional non-Applicant owned Projected Development Site as part of the reasonable worst-case development scenario (RWCDS). The non-Applicant owned Projected Development Site 2 (Block 518, Lots 16, 17, and 18) is assumed to be developed with a new 14,691 gross square foot (13,356 zoning square foot) residential building with 17 dwelling units, 25-30% (5-6 units) of which would be affordable pursuant to MIH Option 1 or 2 at an average of 60-80% AMI, respectively. For the purposes of Early Childhood Programs analysis, 20% of the units (4 units) are assumed to be affordable at or below 80% AMI. The residential building would be a total of 55 feet in height, the maximum height in R6B zoning districts and would have an FAR of 2.2, which is the maximum allowed under R6B zoning district guidelines with MIH. It is assumed that 7 parking

spaces would be provided in the cellar.

As such, the RWCDS for analysis purposes would include a total of 43,900 gross square feet of residential development which would result in 52 dwelling units, 14-17 of which would be affordable at an average of 60-80% AMI pursuant to MIH options 1 or 2, respectively. 20% of the units (10 units) would be affordable at or below 80% AMI for purposes of early childhood programs analysis.

Project Location

BOROUGH Queens	COMMUNITY DISTRICT(S) 1	STREET ADDRESS 31-17 12th Street
TAX BLOCK(S) AND LOT(S) Queens Block 518, Lots 6-10, 13, 16-18, p/o 19, and p/o 5		ZIP CODE 11106
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS 12th Street, 31st Avenue, 31st Drive		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R5B and R6B		ZONING SECTIONAL MAP NUMBER 9a

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

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

- ☐ CITY MAP AMENDMENT
- ☒ ZONING MAP AMENDMENT
- ☒ ZONING TEXT AMENDMENT
- ☐ SITE SELECTION—PUBLIC FACILITY
- ☐ HOUSING PLAN & PROJECT
- ☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

- ☐ ZONING CERTIFICATION
- ☐ ZONING AUTHORIZATION
- ☐ ACQUISITION—REAL PROPERTY
- ☐ DISPOSITION—REAL PROPERTY
- ☐ OTHER, explain:

- ☐ CONCESSION
- ☐ UDAAP
- ☐ REVOCABLE CONSENT
- ☐ FRANCHISE

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

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

***Department of Environmental Protection*:** ☐ YES ☒ NO ☐ Cogeneration Facility ☐ Title V Permit

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

- ☐ LEGISLATION
- ☐ RULEMAKING
- ☐ CONSTRUCTION OF PUBLIC FACILITIES
- ☐ 384(b)(4) APPROVAL
- ☐ OTHER, explain:

- ☐ FUNDING OF CONSTRUCTION, specify:
- ☐ POLICY OR PLAN, specify:
- ☐ FUNDING OF PROGRAMS, specify:
- ☐ PERMITS, specify:

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

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

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

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

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 38,446

Roads, buildings, and other paved surfaces (sq. ft.): 38,446

Waterbody area (sq. ft) and type:

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): 43,900

NUMBER OF BUILDINGS: 2

GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): Projected Development Site 1- 29,209 ; Projected Development Site 2- 14,691

HEIGHT OF EACH BUILDING (ft.): 55 Feet

NUMBER OF STORIES OF EACH BUILDING: 5 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: 12,070

The total square feet not owned or controlled by the applicant: 26,376

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: 12,070 sq. ft. (width x length)

VOLUME OF DISTURBANCE: 120,700 cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 12,070 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.)	43,900			
Type (*e.g.,* retail, office, school)	52 units			

Does the proposed project increase the population of residents and/or on-site workers? ☒ YES ☐ NO

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 100 NUMBER OF ADDITIONAL WORKERS: 0

Provide a brief explanation of how these numbers were determined: Given that the existing 7 dwelling units would remain under the No-Action Condition, the additional residents would be 100 using the average household size of renter-occupied units (2.23) in Queens Community District 1 according to NYCDCP's Population FactFinder using 2020 Decennial Census Data

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:

9. *Analysis Year* CEQR Technical Manual Chapter 2

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

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 14 months

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: The build year accounts for two Projected Development Sites, including phases of environmental review, ULURP, financing, design, construction, and occupancy.

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. See attached		
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		
○ **Early Childhood Programs:** Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **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)	☐	☒
○ **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)	☐	☒
○ **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 project change or eliminate existing open space?	☐	☒
(b) Would the project generate more than 200 additional residents or 500 additional employees?	☐	☒
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☐	☒
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		

	YES	NO
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See Supp Studies		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
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 Protection Plan Project Tracking Form, and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☐	☒
(b) Would the proposed project introduce new activities or processes using hazardous materials and increase the risk of human or environmental exposure?	☐	☒
(c) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(d) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in the Hazardous Materials Appendix (including nonconforming uses)?	☒	☐
(e) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☐	☒
(f) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☐	☒
(g) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(h) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(i) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: See Supp Studies	☐	☐
(j) Based on the Phase I Assessment, is a Phase II Investigation needed?	☒	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than the amounts listed in Table 13-1 in Chapter 13?	☐	☒
(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?	☐	☒

	YES	NO
(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): 2,091 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): 5,562,130 MBtus		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☐	☒
(b) If "yes," conduct the 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, bus trips, or 50 Citywide Ferry Service ferry trips per project peak hour?	☐	☐
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction), 200 subway/rail trips per station or line, or 25 or more Citywide Ferry Service ferry trips on a single route (in one direction), or 50 or more passengers at a Citywide Ferry Service landing?	☐	☐
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☐	☐
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop, or Citywide Ferry Service landing?	☐	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☐	☒
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed) See Supp Studies	☒	☐
(c) Does the proposed project involve multiple buildings on the project site?	☒	☐
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
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 114 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☐	☒
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
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?	☐	☒

	YES	NO
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary.		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☐	☒
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary.		
19. *CONSTRUCTION*: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
○ Construction activities lasting longer than two years?	☐	☒
○ Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☐	☒
○ Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)?	☒	☐
○ Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☐	☒
○ The operation of several pieces of diesel equipment in a single location at peak construction?	☐	☒
○ Closure of a community facility or disruption in its services?	☐	☒
○ Activities within 400 feet of a historic or cultural resource?	☐	☒
○ Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
○ Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	☐	☒
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in Chapter 22, "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination.		

20. *APPLICANT'S CERTIFICATION*

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

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

APPLICANT/REPRESENTATIVE NAME	DATE
Qianyu Xiang, GZA	2/29/2024

SIGNATURE QIANYU XIANG

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

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

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

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

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

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

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

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

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

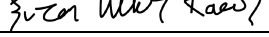
☐ **Conditional Negative Declaration:** A *Conditional Negative Declaration* (CND) may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result.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

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

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

TITLE	LEAD AGENCY
Deputy Director, Environmental Assessment and Review Division	City Planning Commission
NAME	DATE
Evren Ulker-Kacar, AICP	March 1, 2024

SIGNATURE



NEGATIVE DECLARATION

Statement of No Significant Effect

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

Reasons Supporting this Determination

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

Land Use, Zoning, and Public Policy

A detailed analysis of land use, zoning, and public policy is included in the EAS. The Applicant, 31 17 19 1Z LLC, is requesting approval of the proposed actions consisting of a Zoning Map Amendment to rezone Queens Block 518, Lots 6, 7, 8, 9, 10, 13, 16, 17, 18 and part of Lots 5 and 19 (the "Rezoning Area") from an R5B zoning district to an R6B 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 in the Astoria neighborhood of Queens Community District 1 (collectively, the "Proposed Actions"). The Rezoning Area is bound by 12th Street to the east, 31st Avenue to the north, 31st Drive to the south, and midblock between 14th Street and 12th Street to the west. The Proposed Actions would facilitate the development of the applicant-owned Projected Development Site 1 (Block 518, Lot 13) consisting of a 29,209 gross square foot ("GSF"), five-story, 2.2 FAR residential building containing 35 dwelling units ("DUs"), of which 25-30% (9-11 DUs) would be affordable at an average of 60-80% area median income (AMI) pursuant to MIH options 1 or 2, respectively, and 15 surface-level parking spaces. To present a conservative analysis, the EAS also analyzes non-applicant owned Projected Development Site 2 on Block 518, Lots 16, 17, and 18. In total, the proposed actions would facilitate the development of two residential buildings within the rezoning area consisting of 43,900 GSF, 52 dwelling units (of which 25-30% (14-17 DUs) would be affordable at an average of 60-80% AMI pursuant to MIH options 1 or 2), and 22 parking spaces. The Proposed Actions are consistent with the residential land uses within the study area (400ft radius from the Rezoning Area) which includes several multi-family residential buildings throughout. The proposed R6B zoning district would serve as an extension of and be compatible with the R6B district that is directly adjacent to the north of the Rezoning Area. The Proposed Actions would be consistent with the policies set forth in the Waterfront Revitalization Program (WRP #21-003). Overall, the Proposed Actions would be consistent with the study area's existing zoning, residential land use character, and public policies. Therefore, the Proposed Actions would not result in a significant adverse impact to land use, zoning, or public policy.

Shadows

A detailed analysis related to Shadows is included in this EAS. The Proposed Actions would cast incremental shadows on the sunlight-sensitive open space resource of the Astoria Health Playground on March 21, May 6, and June 21 analysis days with durations of 12 minutes, 44 minutes, and 68 minutes, respectively. However, no part of the resource would be in constant shadow, as the shadow would sweep across the playground throughout the day. At no point would any portion of the park be unusable due to the incremental shadows and all plantings would continue to receive direct periods of sunlight during the day. Therefore, there would be no significant adverse impacts to with respect to shadows as a result of the Proposed Actions.

Hazardous Materials and Air Quality

An (E) designation (E-757) related to hazardous materials and air quality 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 and air quality analyses conclude that with the (E) designation in place, the proposed actions would not result in a significant adverse impact related to hazardous materials or air quality.

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 Erin Whitney at ewhitney@planning.nyc.gov.

TITLE	LEAD AGENCY
Deputy Director, Environmental Assessment and Review Division	Department of City Planning on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | 212.720.3493
NAME Evren Ulker-Kacar, AICP	DATE 3/1/2024
SIGNATURE Evren Ulker Kacar	

TITLE	
Chair, City Planning Commission	
NAME Daniel R. Garodnick	DATE 3/4/2024
SIGNATURE	

Project Name: 31-17 12th Street Rezoning
CEQR # 22DCP098Q
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	Queens	Block 518, Lot 13
Projected Development Site 2	Queens	Block 518, Lots 16, 17, and 18

(E) Designation Requirements

To ensure that the proposed actions would not result in significant adverse impacts related to hazardous materials and air quality, an (E) designation (**E-757**) would be established as part of approval of the proposed actions on **Projected Development Sites 1 and 2** as described below:

Development Site	Hazardous Materials	Air Quality
Projected Development Site 1	X	X

Hazardous Materials

The (E) designation requirements applicable to Projected Development Site 1 (Block 518, Lot 13; applicant-owned) & Projected Development Site 2 (Block 518, Lots 16, 17, and 18; non-applicant-owned) for hazardous materials would apply as follows:

Task 1-Sampling Protocol

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

Task 2-Remediation Determination and Protocol

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

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

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

Air Quality

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

Block 518, Lot 13 (Projected Development Site 1):
Any new residential development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the stack is located at the building's highest level or at least 58 feet above grade, and that the stack is located at most 20 feet from the southern lot line facing 31st Drive to avoid any potential significant adverse air quality impacts.

Block 518, Lots 16, 17, and 18 (Projected Development Site 2):
Any new residential development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the stack is located at the building's highest level or at least 58 feet above grade, and that the stack is located at least 37 feet from the southern lot line facing 31st Drive and at least 37 feet from the eastern lot line facing 14th Street to avoid any potential significant adverse air quality impacts.

Figure 1: Site Location Map

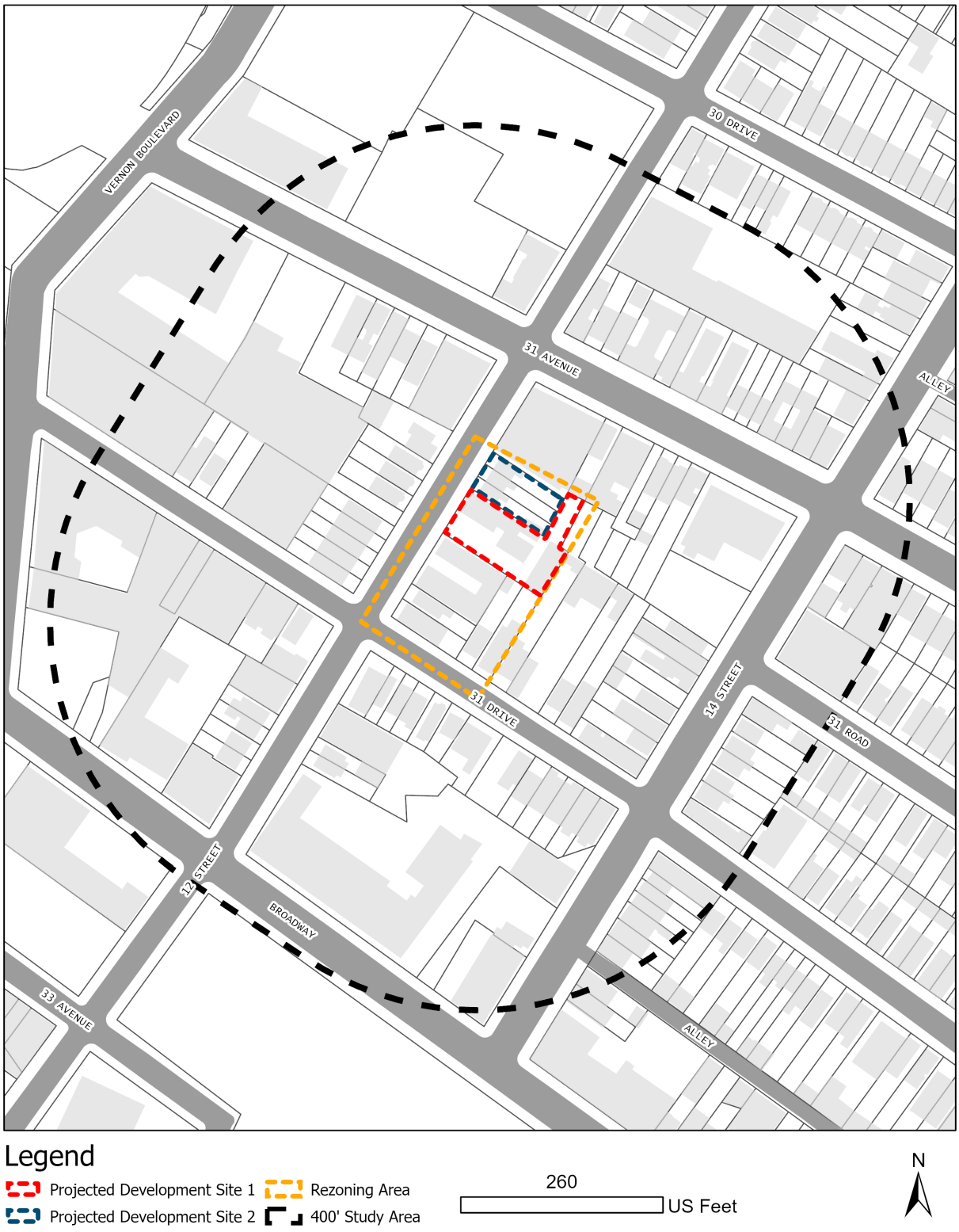


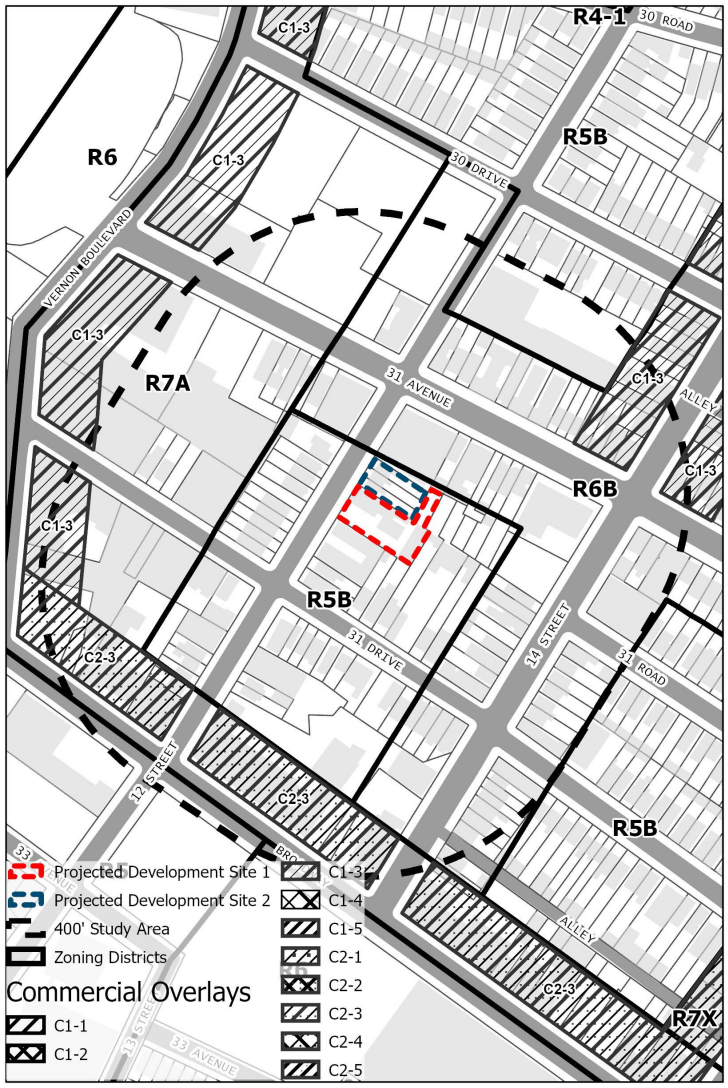
Figure 2: Existing Land Use Map



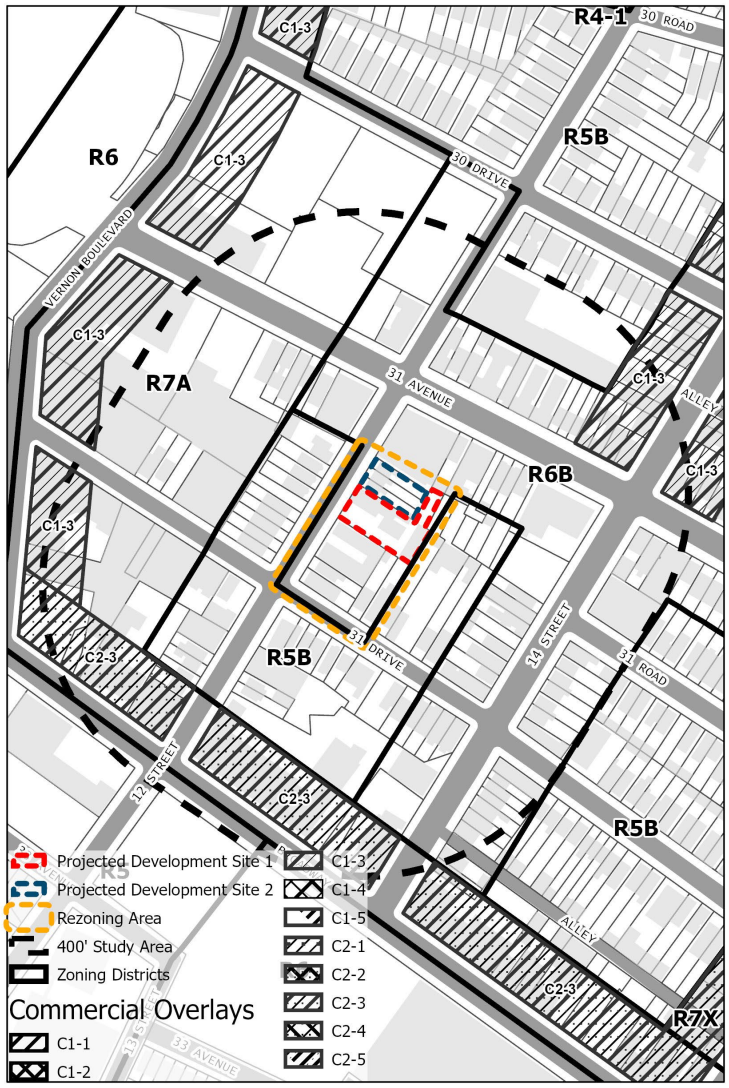
Figure 3: Zoning Map



Figure 4: Zoning Map Change



Existing R5B Zoning District



Proposed R6B Zoning District

d

Figure 5: Tax Map

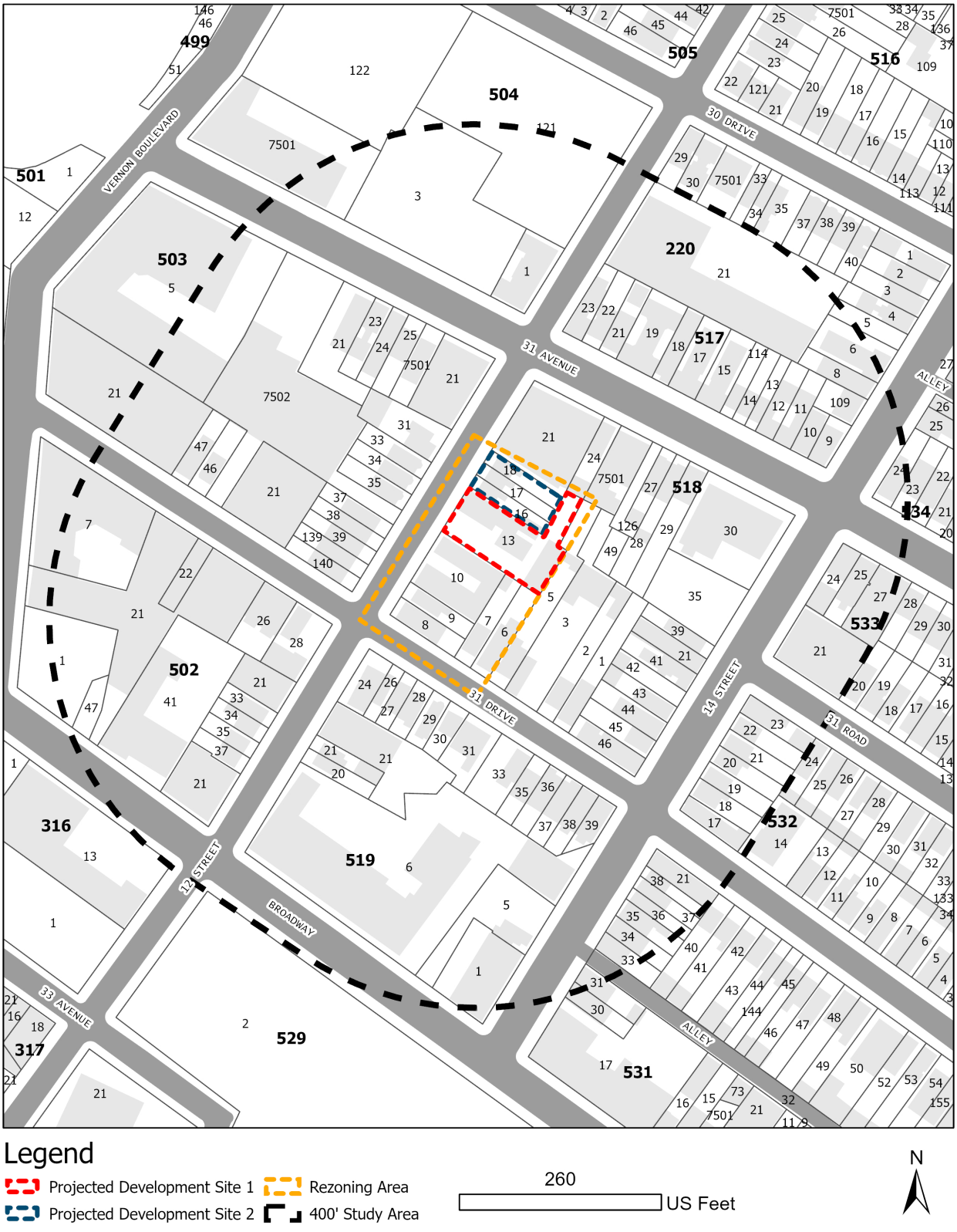


Figure 6-1: Site Photos



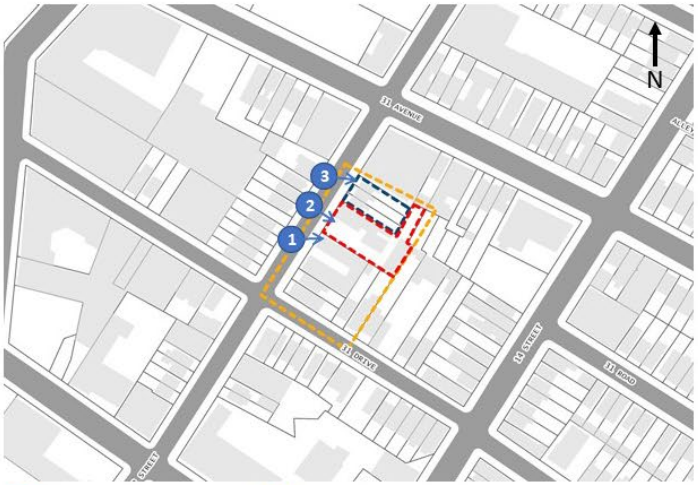
01 View of Projected Development Site 1 looking east from 12th St



02 View of Projected Development Site 1 looking southeast from 12th St



03 View of Projected Development Site 2 looking northeast from 12th St



Photos taken on 7/14/2021

Figure 6-2: Site Photos



04 View of new construction to the northwest of the Rezoning Area on Block 504



05 View of the northern portion of the Study Area looking south from 31st Ave



06 View of Astoria Health Playground on 14th St; one block east of the Rezoning Area



Photos taken on 7/14/2021

Figure 6-3: Site Photos



07 View of southern portion of Study Area from 31st Dr looking west



08 View of the Rezoning Area across 31st Dr



09 View of entirety of the Rezoning Area on 12th St and 31st Dr



Photos taken on 7/14/2021

1.0 PROJECT DESCRIPTION

1.1 Introduction

31 17 19 1Z LLC (the "Applicant") seeks a zoning map amendment to rezone Queens Block 518, Lots 6, 7, 8, 9, 10, 13, 16, 17, 18, and p/o Lots 5 and 19 (the "Rezoning Area") in the Astoria neighborhood within Queens Community District 1, from an R5B zoning district to an R6B zoning district. The proposed zoning map amendment would facilitate the development of a five-story residential building containing 35 dwelling units in 26,500 zoning square feet (zsf) (2.2 floor area ratio (FAR)) or 29,209 gross square feet (gsf) (the "Proposed Building") at 31-17 12th Street (Block 513, Lot 13; "Projected Development Site 1"). The Proposed Building would have nine (25%) to eleven (30%) affordable MIH dwelling units. The Proposed Building would be developed as a Quality Housing building, with a four-story, 43-foot-high street wall at the street line, and a fifth floor set back 15 feet, reaching a total building height of 53 feet. There would be 15 open accessory parking spaces at the rear of the Proposed Building and 18 enclosed bicycle parking spaces in the cellar.

The Applicant also seeks a zoning text amendment to amend Zoning Resolution ("ZR") Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Queens Community District 1, to establish the Rezoning Area as a Mandatory Inclusionary Housing ("MIH") Designated Area. The Applicant proposes mapping MIH Options 1 and 2 over the Rezoning Area to provide maximum flexibility for non-applicant-controlled sites.

The NYC Department of City Planning is proposing a citywide zoning text amendment, the City of Yes for Housing Opportunity "CHO" (CEQR No. 24DCP033Y) to expand opportunities for housing within all zoning districts, and across all 59 of the City's Community Districts. These changes to the City's Zoning Resolution would enable more housing and a wider variety of housing types in every neighborhood, from the lowest-density districts to the highest, to address the housing shortage and high cost of housing in New York City. It is anticipated that this proposed zoning text amendment would be referred into public review in Spring 2024. It has been determined that this project may be affected by the proposals included in the text amendment.

1.2 Background and Site History

The property on Projected Development Site 1, which is the subject of this application, is located at 31-17 12th Street (Block 518, Lot 13) in the Astoria neighborhood of Queens Community District 1. It is in an R5B zoning district that is mapped across portions of four adjacent blocks bounded by 31st Avenue, 14th Street, Broadway, and Vernon Boulevard. In 1961, the Rezoning Area including the Property and almost all west Astoria north of Broadway was zoned R6. In 1989, as part of a broader rezoning of west Astoria (ULURP application C 870850 ZMQ), the Property was rezoned from R6 to R5, "to reflect the existing densities and character of the area," which reduced the allowable residential floor area ratio ("FAR") from 2.43 to 1.25. In 2010, the Rezoning Area was rezoned again as part of an even broader rezoning of Astoria (ULURP application C 100199 ZMQ), by which the R5 district containing the Rezoning Area was located (along with three other R5 districts created by the 1989 rezoning) was changed to R5B, to "more closely correspond to the existing building patterns," slightly increasing the allowable FAR from 1.25 to 1.35 and making the Quality Housing program and bulk regulations mandatory.

1.3 Surrounding Area

The Rezoning Area is in the Astoria neighborhood in Queens within Community District 1. For purposes of this analysis, the Surrounding Area is defined as the area within approximately 400 feet of the Rezoning Area. This is the area that provides the context of the proposed development, and where impacts resulting from new development within the Rezoning Area are likely to be felt.

Land Use

In the surrounding area, the predominant land use is residential with a scattering of institutional and light industrial uses. Residential uses within the R5B District containing the Rezoning Area consist of two- and three-story detached, semi-detached, and attached houses containing one, two and three dwelling units. In the R6B district to the north and east of the Rezoning Area, residential uses consist of a mix of two and three-story detached and semi-detached houses and three and four-story multiple dwellings. In the R5B district to the east of the R6B district, the predominant land use is residential, uniformly consisting of two and three-story detached and semi-detached houses. In the R7A district to the west of the Rezoning Area, residential uses predominantly consist of six-story multiple dwellings and one high-rise apartment building. On both sides of 31st Drive, one-story light industrial buildings are interspersed with six and nine-story apartment buildings

Zoning

The zoning of the surrounding area is generally contextual medium-density residential with commercial overlays mapped along certain of the area's wide streets. The Rezoning Area is in an R5B zoning district that covers a portion of four adjacent blocks centered on the intersection of 12th Street and 31st Drive. To the west and immediate south, the zoning is R7A with a C1-3 commercial overlay along 11th Street to the west and a C2-3 zoning district along Broadway to the south. To the north and east is an R6B zoning district mapped on both sides of 31st Avenue to the north and 14th Street to the east. Beyond these zoning districts, the zoning is primarily R6 to the south and west, and R5B to the north and east.

R5B districts are contextual districts that allow detached, semi-detached, and attached buildings, typically three stories in height, with small front yards. R5B districts allow a maximum permitted street wall height of 30 feet, a maximum building height of 33 feet, a minimum required front yard of 5 feet and a maximum FAR of 1.35.

R6B districts are contextual districts, typically developed with four- and five-story attached houses set back from the street with stoops and small front yards. R6B districts require a minimum street wall height of 30 feet and allows a maximum street wall height of 40 feet. Above the street wall, the building must set back to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to the maximum building height of 50 feet. The maximum FAR is 2.0. In MIH designated areas, the maximum FAR is 2.2, with the

requirement that 25-30% of the maximum allowable floor area be affordable under the Inclusionary Housing Program. The Quality Housing Program is mandatory in R6B districts.

R6 districts are height factor zoning districts that allow a range of building types from small apartment buildings built at or near the street line on smaller lots and, on larger lots, tall "tower in the park" buildings set back from the street. The FAR in R6 districts ranges from 0.78 (for a single-story building) to 2.43 at a typical height of 13 stories. Height factor buildings must be set within a sky exposure plane which begins at a height of 60 feet above the street line and slopes back over the zoning lot at a 2.7:1 ratio on narrow streets and 5.6:1 on wide streets. The Quality Housing Program is optional within the R6 District, with development pursuant to R6B permitted on narrow streets, and R6A on wide streets.

R7A districts are also contextual districts, typically developed with high lot coverage, seven- to nine-story apartment buildings at a maximum FAR of 4.0. Above a base height of 40 to 65 feet (or 75 feet if a qualifying ground floor is provided), the building must set back to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to the maximum building height of 80 feet (or 85 feet with a qualifying ground floor). The Quality Housing Program is mandatory in R7A districts.

1.4 Description of the Rezoning Area

The Rezoning Area includes Queens Block 518, Lots 6, 7, 8, 9, 10, 13, 16, 17, 18, and p/o Lots 5 and 19 in the Astoria neighborhood within Queens Community District 1. The Rezoning Area is currently zoned R5B, a low-density contextual residential district with a maximum permitted FAR of 1.35 for residential uses.

- Block 518, Lot 6 has a lot area of 3,125 square feet and is improved with a 2-story residential building with two dwelling units with a total floor area of approximately 2,064 square feet (0.66 FAR).

- Block 518, Lot 7 has a lot area of 3,125 square feet and is improved with a 2-story residential building with three dwelling units with a total floor area of approximately 2,772 square feet (0.88 FAR).

- Block 518, Lot 8 has a lot area of 2,850 square feet and is improved with a 3-story community facility building (religious institution) with 4,996 square feet of floor area (1.75 FAR).

- Block 518, Lot 9 has a lot area of 2,125 square feet and is improved with a 2-story residential building with two dwelling units with a total floor area of approximately 2,496 square feet (1.17 FAR).

- Block 518, Lot 10 has a lot area of 7,500 square feet and is improved with a 3-story community facility building (educational building) with a total floor area of approximately 4,314 square feet (0.57 FAR).

- Block 518, Lot 13 (Projected Development Site 1, and Applicant controlled) is an approximately 12,070 square foot lot improved with 5 separate buildings on site with both residential and commercial uses totaling 4,314 gross square feet (2 dwelling units).

- Block 518, Lot 16 has a lot area of 2,065 square feet and is improved with a 2-story residential building with two dwelling units with a total floor area of approximately 1,840 square feet (0.89 FAR).

- Block 518, Lot 17 has a lot area of 1,953 square feet and is improved with a 2-story residential building with two dwelling units with a total floor area of approximately 1,840 square feet (0.94 FAR).

- Block 518, Lot 18 has a lot area of 2,053 square feet and is improved with a 2-story residential building with one dwelling unit with a total floor area of approximately 1,172 square feet (0.57 FAR).

- Block 518, Lot 5 has a lot area of 4,850 square feet and is improved with two, 2-story residential buildings with a total of three dwelling units with a total floor area of approximately 2,892 square feet (0.59 FAR).

- Block 518, Lot 19 has a lot area of 11,000 square feet and is improved with a 1-story, 10,600 square foot industrial building (warehouse) with a FAR of 0.96 FAR.

1.5 Description of the Proposed Project

The Applicant proposes to develop Projected Development Site 1 (Block 518, Lot 13) with a five-story residential building containing 35 dwelling units in 26,500 zsf or 29,209 gsf (the "Proposed Building"). The Proposed Building would have nine (25%) to twelve (30%) affordable MIH dwelling units. The Proposed Building would be developed as a Quality Housing building, with a four-story, 43-foot-high street wall at the street line, and a fifth floor set back 15 feet, reaching a total building height of 53 feet. There would be 15 open accessory parking spaces at the rear of the Proposed Building and 18 enclosed bicycle parking spaces in the cellar.

1.6 Action(s) Necessary to Facilitate the Project

The Actions necessary to facilitate the proposal are:

(1) a zoning map amendment to rezone the Rezoning Area on Block 518, Lots 6, 7, 8, 9, 10, 13, 16, 17, 18, and p/o Lots 5 and 19 from an R5B zoning district to an R6B zoning district, and

(2) a zoning text amendment to ZR Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Queens Community District 1, to establish the Proposed Project Area as a Mandatory Inclusionary Housing ("MIH") Designated Area. The Applicant proposes mapping MIH Options 1 and 2 within the Rezoning Area to provide maximum flexibility for non-applicant-controlled sites. Option 1 requires 25% of residential floor area to be set aside for affordable housing units for residents with incomes averaging 60% AMI, with a minimum of 10% of housing to be affordable at 40% AMI. Option 2 requires 30% of residential floor area to be set aside for affordable housing units for residents with incomes averaging 80% AMI.

1.7 Purpose and Need

The Applicant believes the Proposed Actions would allow new development, including the development of much-needed permanently affordable housing, at a bulk and density that is well suited to the Rezoning Area and consistent with land uses in the Surrounding Area.

The Proposed Zoning Map Amendment would increase the allowable FAR from the current 1.35 to 2.20, while the Proposed Zoning Text Amendment would ensure that a substantial portion of the increase in floor area allowed by the Proposed Zoning Map Amendment would be affordable. The Proposed Actions would facilitate the development on Projected Development Site 1 of a 26,548.50 square foot, five-story residential building having 35 dwelling units (the "Proposed Building"). Under MIH Option 1 (25%), the Proposed Building would have 9 affordable dwelling units, and under Option 2 (30%), it would have 11 affordable dwelling units.

Absent the Proposed Actions, the redevelopment of Projected Development Site 1 would be infeasible under current zoning conditions.

1.8 Analysis Framework

The analysis framework would compare the incremental difference between the proposed and potential development under the Proposed Actions (With-Action Condition) and the development, which could occur under the existing zoning (No-Action Condition). This EAS studies the potential for individual and cumulative environmental impacts related to the Proposed Actions occurring in a study area of approximately 400 feet around the rezoning area. This environmental assessment considers the potential effects of the Proposed Actions compared to future conditions without the approvals sought by the project sponsor. This analysis framework is described below:

Reasonable Worst-Case Development Scenario

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

Build Year

Assuming a 12-month environmental review period, an approximately 7-month ULURP process, a design phase and financing phase last about 10 months, and a 14- month construction phase followed by occupancy,

a build year of 2025 for Projected Development Site 1 is appropriate. However, since there is projected development which is expected to occur on non-applicant-owned lots, 2026 will be utilized as the Build Year.

Existing Conditions

Projected Development Site 1 (Queens Block 518, Lot 13) is an irregularly shaped tax lot having 69.52 feet of frontage on the east side of 12th Street and 12,070 square feet of lot area under the control of the Applicant. Projected Development Site 1 is currently occupied by five one-and two-story buildings, containing a total of 5,826 square feet of floor area, 3,910 square feet of which is residential (2 dwelling units) and accessory garage and 1,916 square feet of which is commercial offices. The effective, existing FAR for the Property is 0.48 (combined residential and commercial). The Property currently contains 16 parking spaces, four enclosed and 12 unenclosed.

The other non-Applicant-owned lots in the Rezoning Area are as follows:

- Lot 6 is a 3,125-sf lot that is improved with a 2,064 sf residential building with one dwelling unit;
- Lot 7 is a 3,125-sf lot that is improved with a 2,772 sf residential building with three dwelling units;
- Lot 8 is a 2,850-sf lot that is improved with a 4,996 sf community facility building (religious institution);
- Lot 9 is a 2,125- sf lot that is improved with a 2,496 sf residential building with two dwelling units;
- Lot 10 is a 7,500-sf lot that is improved with a 10,750 sf educational institution;
- Lot 16 is a 2,065-sf lot that is improved with a 1,840 sf residential building with two dwelling units;
- Lot 17 is a 1,953-sf lot that is improved with a 1,840 sf residential building with two dwelling units;
- Lot 18 is a 2,053-sf lot that is improved with a 1,172 sf residential building with one dwelling unit;
- Lot 19 is an 11,000-sf lot that is improved with a 10,600 sf industrial and manufacturing building (approximately 900 sf of this lot is located within the Rezoning Area;
- Lot 5 is an irregularly shaped 4,850-sf lot that is improved with a 2,892 sf residential building with three dwelling units.

Future No-Action Condition

The No-Action Scenario is expected to be a continuation of the existing conditions of the Rezoning Area. There are no known development plans for any of the lots in the Rezoning Area absent the Proposed Actions.

Future With-Action Condition

The Future With-Action condition under a Reasonable Worst-Case Scenario requires identification of the type, location, and extent of development anticipated as a result of the Proposed Actions along with any potential impacts that may arise from that future development. As directed by CEQR, this analysis requires that the Future With-Action Condition considers a scenario that maximizes the permitted FAR allowed under the proposed new zoning. Under the Future With-Action scenario, the Proposed Actions would amend the zoning map to change the Rezoning Area's zoning from R5B to R6B, which would facilitate the Applicant's

proposed development. Additionally, the Rezoning Area would be established as a Mandatory Inclusionary Housing area.

Based on the criteria described above, Block 518, Lot 13 (Projected Development Site 1) and Block 518, Lots 16, 17, and 18 (Projected Development Site 2) have been identified as Projected Development Sites.

Projected Development Site 1 (Block 518, Lot 13; Applicant-owned Site)

In the With-Action Scenario, it is assumed that Lot 13, a 12,070-sf lot, would be developed with a new 29,209 gsf (26,500 zsf) residential building which would be a total of 55 feet in height, the maximum height in R6B zoning districts. The FAR would be 2.2, which is the maximum allowed in an R6B zoning district under MIH. As the Applicant's proposed project would maximize the permitted development potential, it is also considered the With-Action scenario for RWCDS purposes. Assuming an 850 sf/du factor, 34 residential units would be constructed. However, the Applicant is proposing 35 dwelling units. Therefore, for purposes of a conservative assessment, it is assumed that 35 dwelling units would be constructed in the With-Action Scenario, 25-30% (9-11 units) of which would be affordable pursuant to MIH Option 1 or 2 at an average of 60-80% AMI, respectively. For the purposes of Early Childhood Programs analysis, 20% of units (7 units) are assumed to be affordable at or below 80% AMI. There would be 15 open accessory parking spaces at the rear of the Proposed Building and 18 enclosed bicycle parking spaces in the cellar.

Projected Development Site 2 (Block 518, Lots 16,17, and 18; non-Applicant-owned Site)

In the With-Action Scenario, it is assumed that these three lots would be assembled as one 6,071 sf development site due to the common lot ownership of Lots 16 and 18, and the new development potential under the R6B zoning. It is assumed that Projected Development Site 2 would be developed with a new 14,691 gsf (13,356 zsf) residential building with 17 dwelling units, 25-30% (5-6 units) of which would be affordable pursuant to MIH Option 1 or 2 at an average of 60-80% AMI, respectively. For the purposes of Early Childhood Programs analysis, 20% of units (4 units) are assumed to be affordable at or below 80% AMI. The residential building would be a total of 55 feet in height, the maximum height in R6B zoning districts and would have an FAR of 2.2, which is the maximum allowed under R6B zoning district guidelines with MIH. It is assumed that 7 parking spaces would be provided in the cellar.

No development is expected to occur on Block 518, Lots 6, 7, 8, 9, 10, p/o lot 5, p/o lot 19 for reasons discussed below:

- Lot 6 is occupied with a residential building with 2 units. It is built to an FAR of 0.67. The lot is only 3,125 sf and is too small to be considered a Projected Development Site on its own. With no possibility of assemblage with Adjacent lots (no common ownership with adjacent lots and no known plans to sell or develop), it is assumed that this lot would remain in its existing conditions in the With-Action Scenario.

- Lot 7 is occupied with a residential building with 3 units. It is built to an FAR of 0.89. The lot is only 3,125 sf and is too small to be considered a Projected Development Site on its own. With no possibility of assemblage with Adjacent lots (no common ownership with adjacent lots and no known plans to sell or develop), it is assumed that this lot would remain in its existing conditions in the With-Action Scenario.

- Lot 8 is occupied with a religious institution built to an FAR of 1.7. The religious institution is a long-standing use on the site and is currently not built out to its full allowable FAR of 2.0 in the R5B zoning district. It is assumed that no development would be induced by the Proposed Actions on this lot.

- Lot 9 is occupied with a residential building with 2 units. It is built to an FAR of 1.17. The lot is only 2,125 sf and is too small to be considered a Projected Development Site on its own. With no possibility of assemblage with adjacent lots, it is assumed that this lot would remain in its existing conditions in the With-Action Scenario.

- Lot 10 is occupied with a private school currently built to an FAR of 1.43. The school is a long-standing use on the site and is currently not built out to its full allowable FAR of 2.0 in the R5B zoning district. It is assumed that no development would be induced by the Proposed Actions on this lot.

- p/o Lot 5 has less than 10 percent within the Rezoning Area.

- p/o Lot 19 has less than 10 percent within the Rezoning Area.

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

Site Info				Existing Condition								
Site ID	**Block**	**Lot**	**Lot Area (sf)**	**Zoning**	**MF (gsf)**	**Com (gsf)**	**CF (gsf)**	**Res (gsf)**	**Total (gsf)**	**Affordable DUs MIH Option 1**	**Affordable DUs MIH Option 2**	**Total DU**
Projected Development Site 1	518	13	12,070	R5B	0	1,916	0	3910	5,826	-	-	2
Projected Development Site 2	518	16, 17, 18	6,071	R5B	0	0	0	4852	4,852	0	0	5
TOTAL:	**-**	**-**	**18,141**	**-**	**0**	**1,916**	**0**	**8762**	**10,678**	**0**	**0**	**7**
Site Info				**Future No-Action Condition**								
Site ID	**Block**	**Lot**	**Lot Area (sf)**	**Zoning**	**MF (gsf)**	**Com (gsf)**	**CF (gsf)**	**Res (gsf)**	**Total (gsf)**	**Affordable DUs MIH Option 1**	**Affordable DUs MIH Option 2**	**Total DU**
Projected Development Site 1	518	13	12,070	R5B	0	1,916	0	3910	5,826	0	0	2
Projected Development Site 2	518	16, 17, 18	6,071	R5B	0	0	0	4852	4,852	0	0	5
TOTAL:	**-**	**-**	**18,141**	**-**	**0**	**1,916**	**0**	**8762**	**10,678**	**0**	**0**	**7**
Site Info				**Future With-Action Condition**								
Site ID	**Block**	**Lot**	**Lot Area (sf)**	**Zoning**	**MF (gsf)**	**Com (gsf)**	**CF (gsf)**	**Res (gsf)**	**Total (gsf)**	**Affordable DUs MIH Option 1**	**Affordable DUs MIH Option 2**	**Total DU**
Projected Development Site 1	518	13	12,070	R6B	0	0	0	29,209	29,209	9	11	35
Projected Development Site 2	518	16, 17, 18	6,071	R6B	0	0	0	14,691	14,691	5	6	17
TOTAL:	**-**	**-**	**18,141**	**-**	**0**	**0**	**0**	**43,900**	**43,900**	**14**	**17**	**52**

DU = Dwelling Units
Com = Commercial
CF = Community Facility
MF = Manufacturing

Table 1.8-2: RWCDS Analysis Framework – Project Increment

Use	No-Action Condition	With-Action Condition	Incremental Change
Commercial GSF	1,916	0	-1,916
Manufacturing GSF	0	0	0
Community Facility GSF	0	0	0
Residential GSF	8762	43,900	35,138
Total GSF	10,678	43,900	33,222
Residential DUs	7	52	45
Residents[1]	16	116	100
Workers[2]	6	0	-6

1. 2020 Decennial Census Data for Queens Community District 1
2. 1 Employee per 333.3 GSF of Commercial

2.0 ENVIRONMENTAL REVIEW

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

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

- Land Use, Zoning, and Public Policy
- Shadows
- Historic and Cultural Resources
- Urban Design and Visual Resources
- Hazardous Materials
- Air Quality
- Noise
- Neighborhood Character
- Construction

2.1 LAND USE, ZONING, AND PUBLIC POLICY

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

Methodology

Existing land uses were determined by reference to the New York City Zoning and Land Use (Zola) database and PLUTOTM 20v4 shapefiles. These uses were then confirmed through site visits. The evaluation of lots within the 400-foot Study Area was performed with reference to New York City Zoning Maps and the Zoning Resolution of the City of New York and served as the basis for the zoning evaluation of the Future No Action and Future With-Action Conditions. Public Policy research was performed through an evaluation of the New York City Department of City Planning (NYCDCP) and other city agencies programs and documentation.

2.1.1 Land Use

Existing Conditions

Existing land use patterns of city blocks within approximately 400 feet of the Rezoning Area are presented in **Figure 2.1-1**. The CEQR Technical Manual suggests that a land use, zoning, and public policy study area should extend 400 feet from the site of the Proposed Actions ("The Study Area or Surrounding Area"). This Study Area is generally bound by Broadway to the south; 100 feet east of 14th Street to the east; Vernon Blvd. to the west; approximately 110 feet south of 30th Drive to the north. A field survey was conducted to determine the existing land use patterns and neighborhood characteristics of the Study Area.

Within the Study Area around the Rezoning Area, the predominant land use is residential uses with a scattering of institutional and light industrial uses and a scattering of mixed residential and commercial buildings; most of which contain ground floor commercial uses with residential uses on the upper floors.

In the R5B district in which the Rezoning Area is located, the residential uses consist of two- and three-story detached, semi-detached, and attached houses containing one, two and three dwelling units. In the R6B district to the north and east of the Project Rezoning Area, residential uses consist of a mix of two and three-story detached and semi-detached houses and three and four-story multiple dwellings. In the R5B district to the east of the R6B district, the predominant land use is residential, uniformly consisting of two and three-story detached and semi-detached houses. In the R7A district to the west of the Rezoning Area, residential

uses predominantly consist of six-story multiple dwellings and one high-rise apartment building. On both sides of 31st Drive, one-story light industrial buildings are interspersed with six and nine-story apartment buildings.

There are three community facility uses within the Study Area are all located on Block 518. These uses include a house worship, a nonpublic educational institution, and the NYC Dept. of Health Astoria Health Center located at 12-36 31st Avenue.

There is also one open space within the Study Area and it too is located on the same Block as the Rezoning Area. Astoria Health Playground, operated by the New York City Department of Parks and Recreation is a 0.21 acre playground on 14th Street in Astoria. Amenities at this open space include benches, a jungle gym, playground equipment, and a half-court basketball court.

Figure 2.1-1: Area to be Rezoned Overlaid with Existing Land Use Map



Analysis

Future No-Action Condition

The Rezoning Area is in the Astoria neighborhood in Queens. In this case, the No-Action Scenario is a continuation of existing conditions of the Rezoning Area. There are no known development plans for any of the Lots in the Rezoning Area absent the Proposed Actions.

Future With-Action Condition

Based on the criteria described in Section 1.8 above, Block 518, Lot 13 (Projected Development Site 1) and Block 518, Lots 16, 17, and 18 have been identified as Projected Development Sites in the Future With-Action Scenario.

Projected Development Site 1 (Block 518, Lot 13; Applicant-owned Site)

In the With-Action Scenario, it is assumed that Lot 13, a 12,070-sf lot, would be developed with a new 29,209 gsf (26,500 zsf) residential building which would be a total of 55 feet in height, the maximum height in R6B zoning districts. The FAR would be 2.2 which is the maximum allowed in an R6B zoning district with MIX. Assuming an 850 sf/du factor, 34 residential units would be constructed. However, the Applicant is proposing 35 dwelling units. Therefore, for purposes of a conservative assessment, it is assumed that 35 dwelling units would be constructed in the With-Action Scenario, 25-30% (9-11 units) of which would be affordable pursuant to MIH Option 1 or 2 at an average of 60-80% AMI, respectively. For the purposes of Early Childhood Programs analysis, 20% of units (7 units) are assumed to be affordable at or below 80% AMI. There would be 15 open accessory parking spaces at the rear of the Proposed Building and 18 enclosed bicycle parking spaces in the cellar.

Projected Development Site 2 (Block 518, Lots 16,17, and 18; non-Applicant-owned Site)

In the With-Action Scenario, it is assumed that these three lots would be assembled as one 6,071 sf development site due to the common lot ownership of Lots 16 and 18, and the new development potential under the R6B zoning. It is assumed that Projected Development Site 2 would be developed with a new 14,691 gsf (13,356 zsf) residential building with 17 dwelling units, 25-30% (5-6 units) of which would be affordable pursuant to MIH Option 1 or 2 at an average of 60-80% AMI, respectively. For the purposes of Early Childhood Programs analysis, 20% of units (4 units) are assumed to be affordable at or below 80% AMI. The residential building would be a total of 55 feet in height, the maximum height in R6B zoning districts and would have an FAR of 2.2, which is the maximum allowed under R6B zoning district guidelines with MIH. It is assumed that 7 parking spaces would be provided in the cellar.

No development is expected to occur on Block 518, Lots 6, 7, 8, 9, 10, p/o 5, and p/o 19.

Conclusion

Based on the analysis above, the Proposed Actions would allow for the redevelopment of the Projected Development Sites with residential uses that are similar to the surrounding area, including similar uses with both similar height and bulk as the Projected Development Sites, and therefore, the Proposed Actions would not generate a land use that would be incompatible with surrounding uses. Though the uses on Projected Development Site 1 would change from mixed commercial and residential uses in the No-Action Condition to residential uses only in the With-Action Condition, the change would be consistent with several multi-family residential buildings throughout the study area. There would be no significant adverse impacts on Land Use as a result of the Proposed Actions, and further analysis is not required.

2.1.2 Zoning

The New York City Zoning Resolution dictates the use, density, and bulk of developments within New York City. Additionally, the Zoning Resolution provides required and permitted accessory parking regulations. 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.

In 1961, the Rezoning Area was zoned R6. In 1989, as part of a broader rezoning of west Astoria (ULURP application C 870850 ZMQ), the Property was rezoned from R6 to R5, "to reflect the existing densities and character of the area," which reduced the allowable FAR from 2.43 to 1.25. In 2010, the property was rezoned again as part of an even broader rezoning of Astoria (ULURP application C 100199 ZMQ), by which the R5 district containing the Rezoning Area (along with three other R5 districts created by the 1989 rezoning) was changed to R5B, to "more closely correspond to the existing building patterns," slightly increasing the allowable FAR from 1.25 to 1.35.

Existing Conditions

The Rezoning Area is currently zoned R5B. Zoning designations within and around the Rezoning Area are depicted in **Figure 2.1-2**, while **Table 2.1-2** summarizes use, floor area and parking requirements for these zoning districts. The area within a 400-foot radius of the Rezoning Area is zoned R5B, R6B, R7A, and R6, with both C1-3 and C2-3 commercial overlays along Broadway, Vernon Blvd., and 14th Street.

The zoning of the Study Area is generally medium density, contextual and height-factor residential with commercial overlays mapped along certain of the area's wide streets. The Rezoning Area is in an R5B zoning district that covers a portion of four adjacent blocks at the intersection of 12th Street and 31st Drive. To the west and immediate south, the zoning is R7A with a C1-3 commercial overlay along 11th Street to the west and a C2-3 zoning district along Broadway to the south. To the north and east is an R6B zoning district mapped on both sides of 31st Avenue to the north and 14th Street to the east. Beyond these zoning districts, the zoning is primarily R6 to the south and west, and R5B to the north and east.

R5B

R5B districts are contextual districts that allow detached, semi-detached, and attached buildings, typically three stories in height, with small front yards. R5B districts allow a maximum permitted street wall height of 30 feet, a maximum building height of 33 feet, a minimum required front yard of 5 feet and a maximum FAR of 1.35.

R6B

R6B districts are contextual districts, typically developed with four- and five-story attached houses set back from the street with stoops and small front yards. R6B districts require a minimum street wall height of 30 feet and allows a maximum street wall height of 40 feet. Above the street wall, the building must set back to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to the maximum building height of 50 feet. The maximum FAR is 2.0. In MIH designated areas, the maximum FAR is 2.2, with the requirement that 25-30% of the maximum allowable floor area be affordable under the Inclusionary Housing Program. The Quality Housing Program is mandatory in R6B districts.

R6

R6 districts are height factor zoning districts that allow a range of building types from small apartment buildings built at or near the street line on smaller lots and, on larger lots, tall "tower in the park" buildings set back from the street. The FAR in R6 districts ranges from 0.78 (for a single-story building) to 2.43 at a typical height of 13 stories. Height factor buildings must be set within a sky exposure plane which begins at a height of 60 feet above the street line and slopes back over the zoning lot at a 2.7:1 ratio on narrow streets and 5.6:1 on wide streets. The R6 District allows Contextual development pursuant to R6B on narrow streets and R6A on wide streets.

R7A

R7A districts are also contextual districts, typically developed with high lot coverage, seven- to nine-story apartment buildings at a maximum FAR of 4.0. Above a base height of 40 to 65 feet (or 75 feet if a qualifying ground floor is provided), the building must set back to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to the maximum building height of 80 feet (or 85 feet with a qualifying ground floor). The Quality Housing Program is mandatory in R7A districts.

C1-3/ C2-3 Commercial Overlay

C1-1 through C1-5 and C2-1 through C2-5 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 R1 through R5 districts, the maximum commercial

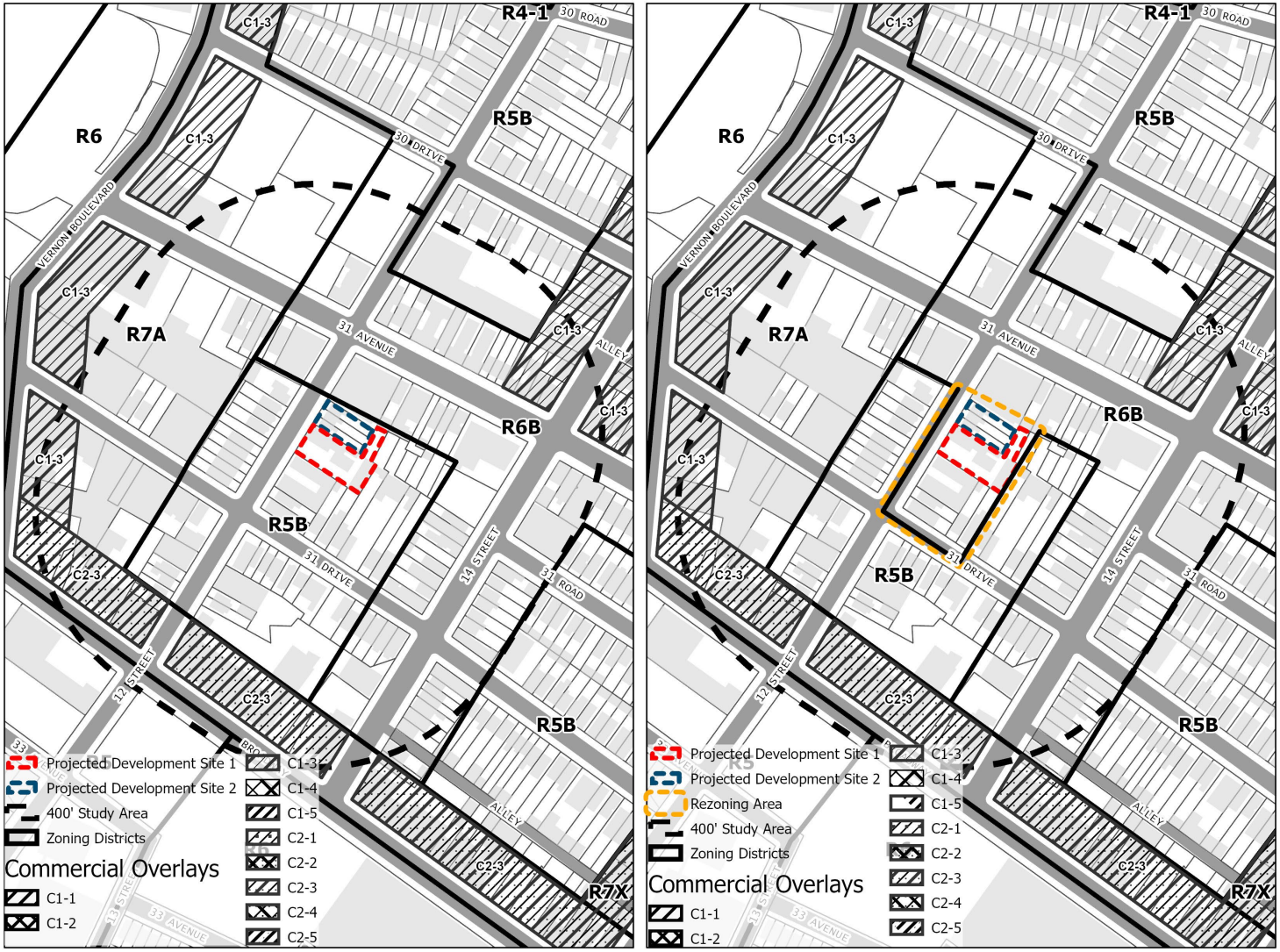
floor area ratio (FAR) is 1.0; when mapped in R6 through R10 districts, the maximum commercial FAR is 2.0. Commercial buildings are subject to commercial bulk rules. Overlay districts differ from other commercial districts in that residential bulk is governed by the residence district within which the overlay is mapped. All other commercial districts that permit residential use are assigned a specific residential district equivalent. Unless otherwise indicated on the zoning maps, the depth of overlay districts ranges from 100 to 200 feet.

Table 2.1-2: Summary of Zoning Regulations

Zoning District	Type and Use Group (UG)	Floor Area Ratio (FAR)	Parking (Required Spaces)
R5	Residential UGs 1-4	1.25 FAR – Residential 2.0 FAR – Community Facility	85% of dwelling units
R5B	Residential UGs 1-4	1.35 FAR – Residential 2.0 FAR – Community Facility	66% of dwelling units
R6	Residential UGs 1-4	3.0 FAR – Residential 4.8 FAR – Community Facility	70% of dwelling units
R6B	Residential UGs 1-4	2.2 FAR – Residential 2.0 FAR – Community Facility	50% of dwelling units
R7A	Residential UGs 1-4	4.6 FAR – Residential 4.0 FAR – Community Facility	50% of dwelling units
C1-3/ C2-3	Commercial Overlay UGs 1-6	1.0 FAR in R1 to R5 zoning district 2.0 FAR in R6-R10 zoning district	Depends on Use

Source: Zoning Handbook, New York City Department of City Planning

Figure 2.1-2: Zoning of the Project Area and Study Area



Existing R5B Zoning District | Proposed R6B Zoning District

nalysis

Future No-Action Condition

In the future without the Proposed Actions, zoning changes are not expected to occur in the Rezoning Area or in the surrounding study area. No authorizations, certifications or other approvals would be sought from the CPC relating to the Rezoning Area. Because the Applicant would not pursue the proposed project without the proposed zoning map amendment, it is assumed that the No-Action Scenario would remain consistent with existing conditions.

No rezoning actions are presently being contemplated by the Department of City Planning (DCP), nor have any BSA variance applications been identified for the study area by the projected build year of 2026.

Future With-Action Condition

The proposed zoning map amendment would change the existing R5B district to an R6B district over Lots 6, 7, 8, 9, 10, 13, 16, 17, 18, and p/o Lots 5 and 19, and establish the Rezoning Area as a Mandatory Inclusionary Housing (MIH) Area. The Proposed Actions would not have a significant impact on the extent of conformity with the current zoning in the surrounding area and it would not adversely affect the viability of conforming uses on nearby properties. It would extend an established R6B district to include the Rezoning Area and would not create any zoning conflicts. The Proposed Actions would not introduce new height or bulk maximums that don't already exist within 400 feet of the Rezoning Area and would not introduce new uses that aren't already found within the Study Area. Therefore, significant adverse impacts to zoning are not anticipated and further zoning analysis is not warranted. **Figure 2.1-2** shows the With-Action Zoning Change Map.

Conclusion

The Proposed Actions would induce developments consistent with the nearby medium-density zoning districts, which permit a mix of residential, commercial, and community facility uses. The Rezoning Area is surrounded by residential zoning districts (R5, R5B, R6, R6B, and R7A) and commercial zoning overlays (C1-3 and C2-3), which is appropriate for a medium density of residential uses. The Proposed Actions would not adversely affect surrounding land uses, nor would it be incompatible with those land uses. Therefore, no significant adverse impacts would occur related to zoning, and further analysis is not required.

Figure 2.1-2: Zoning of the Rezoning Area and Zoning Change Maps



2.1.3 Public Policy

The Rezoning Area is not part of, or subject to, an Urban Renewal Plan (URP), adopted community 197-a Plan, Solid Waste Management Plan, Business Improvement District (BID), Industrial Business Zone (IBZ), or the New York City Landmarks Law.

The Rezoning Area is not located within the boundaries of a New York City Department of Housing Preservation and Development Urban Renewal Zone or Area, an Economic Development Corporation Industrial Business Zone, or former In-Place Industrial Park. Nor is the Rezoning Area subject to an adopted community-based 197-a Plan. However, the Rezoning Area is located within the New York City's Coastal Management Zone (CMZ), and thus the Proposed Actions are subject to an assessment for consistency with the City's Local Waterfront Revitalization Program (LWRP).

New York City Coastal Zone

The Rezoning Area is located within the boundaries of the New York City Coastal Zone and is subject to CEQR discretionary review procedures; therefore, the Proposed Actions must be reviewed and assessed for consistency with the policies set forth in the New York City Waterfront Revitalization Program (WRP). The WRP establishes the City's policies for waterfront planning, preservation, and development projects to ensure consistency over the long term. The goal of the program is to maximize the benefits derived from economic development, environmental conservation and public use of the waterfront while minimizing any potential conflicts among these objectives. The WRP Consistency Assessment Form (CAF) was completed and is provided in **Appendix B**. The CAF assists the Applicant in identifying the relevant WRP policies and certifying that the project is consistent with the WRP.

The Proposed Actions would place one new 5-story residential structure on Block 518, Lot 13 (Projected Development Site 1), which is located within a 0.2% annual chance floodplain "Shaded X Zone" as per 2015 FEMA Preliminary Flood Insurance Rate Maps (PFIRM) and the 2007 effective Flood Insurance Rate Maps (FIRM).

The Proposed Actions would also introduce the development of a 5-story residential building on Lots 16, 17, and 18 (Projected Development Site 2), which are non-Applicant-owned. However, Projected Development Site 2 does not fall within a current floodplain.

Shaded X Zone delineates areas that have a 0.2% probability of flooding every year (also known as the "500-year floodplain"), outside the regulatory 1% annual chance flood (also known as the "100-year floodplain") but within the limits of the 0.2% annual chance flood level. Shaded X Zones are also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile. Properties in Shaded X Zone are considered to be at moderate risk of flooding under the National Flood Insurance Program

(NFIP). There are no current NYC Building Code or FEMA flood insurance purchase requirements for buildings in the Shaded X Zone.

The WRP CAF was completed to determine the consistency of the Proposed Project with the Waterfront Revitalization Program's (WRP's) ten policies.

Based on the information provided in the CAF, a detailed methodology and policy response is provided below, which includes the Proposed Actions' consistency with the applicable WRP Policies (Policy 1 and 6) and Sub-Policies (Policy 1.1, 1.3, 1.5, and 6.2).

Waterfront Revitalization Program

In accordance with the guidelines of the *2021 CEQR Technical Manual*, a preliminary evaluation of the Proposed Actions' compliance with the new WRP policies was undertaken. Actions located within the City's Coastal Zone generally require submission of the WRP Consistency Assessment Form (CAF). This form is intended to assist an applicant in certifying that a proposed project is consistent with the WRP. The completed CAF and accompanying information are used by City and State agencies to review the applicant's certification of consistency. A copy of the completed CAF has been attached to this document (see Appendix B).

The City's WRP is comprised of 10 principal policies designed to maximize the benefits derived from economic development, environmental preservation, and public use of the waterfront, while minimizing the conflicts among those objectives. A proposed action may be deemed consistent with the WRP when it would not substantially hinder and, where possible, would promote one or more of the ten WRP policies dealing with: (1) residential and commercial development; (2) water-dependent and industrial uses; (3) commercial and recreation boating; (4) coastal ecological systems; (5) water quality; (6) flooding and erosion; (7) solid waste and hazardous substances; (8) public access; (9) scenic resources; and (10) historical and cultural resources.

As stated above, the WRP Consistency Assessment Form (CAF) was completed to determine the consistency of the Proposed Actions with the Waterfront Revitalization Program's (WRP's) ten policies. Based on the information provided in the CAF, a detailed methodology and policy response is provided below, which includes the Proposed Actions' consistency with the applicable WRP Policies (Policy 1 and 6) and Sub-Policies (Policy 1.1, 1.3, 1.5, and 6.2).

Policy 1: Support and Facilitate Commercial and Residential Development in Areas Well-Suited to Such Development

Sub-Policy 1.1: Encourage commercial and residential development in appropriate coastal zone areas.

Criteria that should be considered to determine areas appropriate for reuse through public and private actions include: compatibility with the continued functioning of the designated Special Natural Waterfront Areas, the Arthur Kill Ecologically Sensitive Maritime and Industrial Area, or Significant Maritime and Industrial Areas, where applicable; the absence of unique or significant natural features or, if present, the potential for compatible development; the presence of substantial vacant or underused land; proximity to existing residential or commercial uses; the potential for strengthening upland residential or commercial areas and for opening up the waterfront to the public; transportation access; the maritime and industrial jobs potentially displaced or created; and the new opportunities created by redevelopment. Public actions— such as property disposition, urban renewal plans, and infrastructure provision—should facilitate redevelopment of underused property to promote housing and economic development and enhance the city's tax base, subject to consideration of Policy 2, where applicable.

The Proposed Actions are consistent with this policy. The Proposed Actions would allow redevelopment of an underutilized site in close proximity to established and newly emerging residential, commercial and retail areas that is well served by public transit, local commercial services, and open space and community facilities.

Sub-Policy 1.3 Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.

Encourage development at a density compatible with the capacity of surrounding roadways, mass transit, and essential community services such as public schools. Lack of adequate local infrastructure need not preclude development, but it may suggest the need to upgrade or expand inadequate or deteriorated local infrastructure.

The Proposed Actions are consistent with this policy. The Proposed Actions would allow redevelopment of an underutilized site for residential use in close proximity to high-capacity roadways, mass transit infrastructure, and would integrate the site into the surrounding residential and commercial area.

Sub-Policy 1.5 Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development pursuant to WRP Policy 6.2.

Residential, commercial, and other non-industrial projects that comply with Article 6 Chapter 2 of the New York City Zoning Resolution satisfy the consistency requirements for Policy 1.2. If the project is not subject to the Zoning Resolution, the standards of Article 6 Chapter 2 of the Zoning Resolution should be used as

guidelines for development and the inclusion of open space, visual access, upland connections, and water-related uses.

Projected Development Site 1 falls within a 0.2% annual chance floodplain. Therefore, the proposed project is not required to incorporate building-scale flood resiliency measures into the building design pursuant to the New York City Building Code Appendix G Flood Resistant Construction Standards. While Projected Development Site 1 does not currently fall within the 1% annual chance floodplain, a small portion of the site would be within 1% annual chance floodplain by the 2020s (see **Figure 2.1-6** below). As discussed below under Policy 6.2, the Applicant has incorporated building scale flood resiliency measures into the proposed building design. Therefore, the Proposed Action is consistent with Policy 1.5.

Policy 6: Minimize Loss of Life, Structures, Infrastructure, and Natural Resources Caused by Flooding and Erosion, And Increase Resilience to Future Conditions Created by Climate Change.

Policy 6.2: Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms) into the planning and design of projects in the city's Coastal Zone.

The following assessment was prepared in accordance with *The New York City Waterfront Revitalization Program: Climate Change Adaptation Guidance Document for Policy 6.2*[1]. The three basic steps to assessing an action's consistency with Policy 6.2 of the Waterfront Revitalization Program include identifying vulnerabilities and consequences, identifying adaptive strategies, and assessing policy consistency.

As indicated in **Figure 2.1-3** through **Figure 2.1-5**, Projected Development Site 1 is located within the 2007 FIRMs 2015 PFIRMs 0.2% annual chance floodplain (500-year flood zone).

Figures 2.1-6 through **Figure 2.1-13** reference the New York City Panel on Climate Change (NPPC) future high tides and floodplain projections through the 2100s. As shown below in **Figure 2.1-6** and **Figure 2.1-9**, Projected Development Site 1 is anticipated to fall within the future 1% annual chance floodplain by the 2020s. As a result, the design and construction of the building would comply with New York City Building Code requirements for construction within the 100-year floodplain for the applicable building category.

[1] https://www1.nyc.gov/assets/planning/download/pdf/planning-level/waterfront/wrp/revisions-2017/policy-62-guidance-document-nov2018.pdf

Figure 2.1-3: 2007 FIRM vs. 2015 PFIRM

Comparison of Flood Hazard

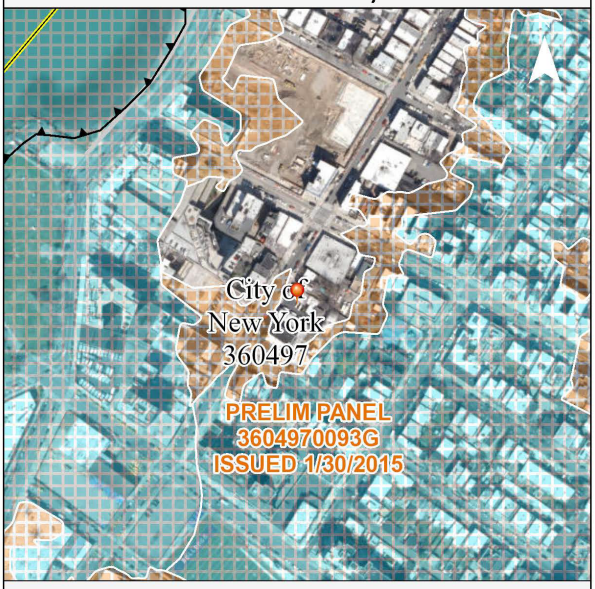
Effective & Preliminary Flood Hazards

FEMA

Effective



Preliminary



Effective	
POI Longitude/Latitude	-73.9337, 40.7683
Effective FIRM Panel	3604970093F
Effective Date	9/5/2007
Flood Zone	X
Static BFE*	Not Available
Flood Depth	Not Available
Vertical Datum	Not Available

Preliminary	
POI Longitude/Latitude	-73.9337, 40.7683
Preliminary FIRM Panel	3604970093G
Preliminary Issue Date	1/30/2015
Flood Zone	X
Estimated Static BFE*	Not Available
Estimated Flood Depth	Not Available
Vertical Datum	Not Available

* A **Base Flood Elevation** is the expected elevation of flood water during the 1% annual chance storm event. Structures below the estimated water surface elevation may experience flooding during a base flood event.

Hazard Level	**Flood Hazard Zone**
High Flood Hazard	**AE, A, AH, AO, VE and V Zones.** Properties in these flood zones have a 1% chance of flooding each year. This represents a 26% chance of flooding over the life of a 30-year mortgage.
Moderate Flood Hazard	**Shaded Zone X.** Properties in the moderate flood risk areas also have a chance of flooding from storm events that have a less than 1% chance of occuring each year. Moderate flood risk indicates an area that may be provided flood risk reduction due to a flood control system or an area that is prone to flooding during a 0.2% annual chance storm event. These areas may have been indicated as areas of shallow flooding by your community.
	Unshaded Zone X. Properties on higher ground and away from local flooding sources have a reduced flood risk when compared to the Moderate and High Flood Risk categories. Structures in these areas may be affected by larger storm events, in excess of the 0.2% annual chance storm event.
Low Flood Hazard	**Insurance Note:** High Risk Areas are called 'Special Flood Hazard Areas' and flood insurance is mandatory for federally backed mortgage holders. Properties in Moderate and Low Flood Risk areas may purchase flood insurance at a lower-cost rate, known as Preferred Risk Policies. See your local insurance agent or visit https://www.fema.gov/national-flood-insurance-program for more information.

Disclaimer: This report is for informational purposes only and is not authorized for official use. The positional accuracy may be compromised in some areas. Please contact your local floodplain administrator for more information or go to msc.fema.gov to view an official copy of the Flood Insurance Rate Maps.

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Figure 2.1-4: 2007 FIRMs



Figure 2.1-5: 2015 PFIRMs

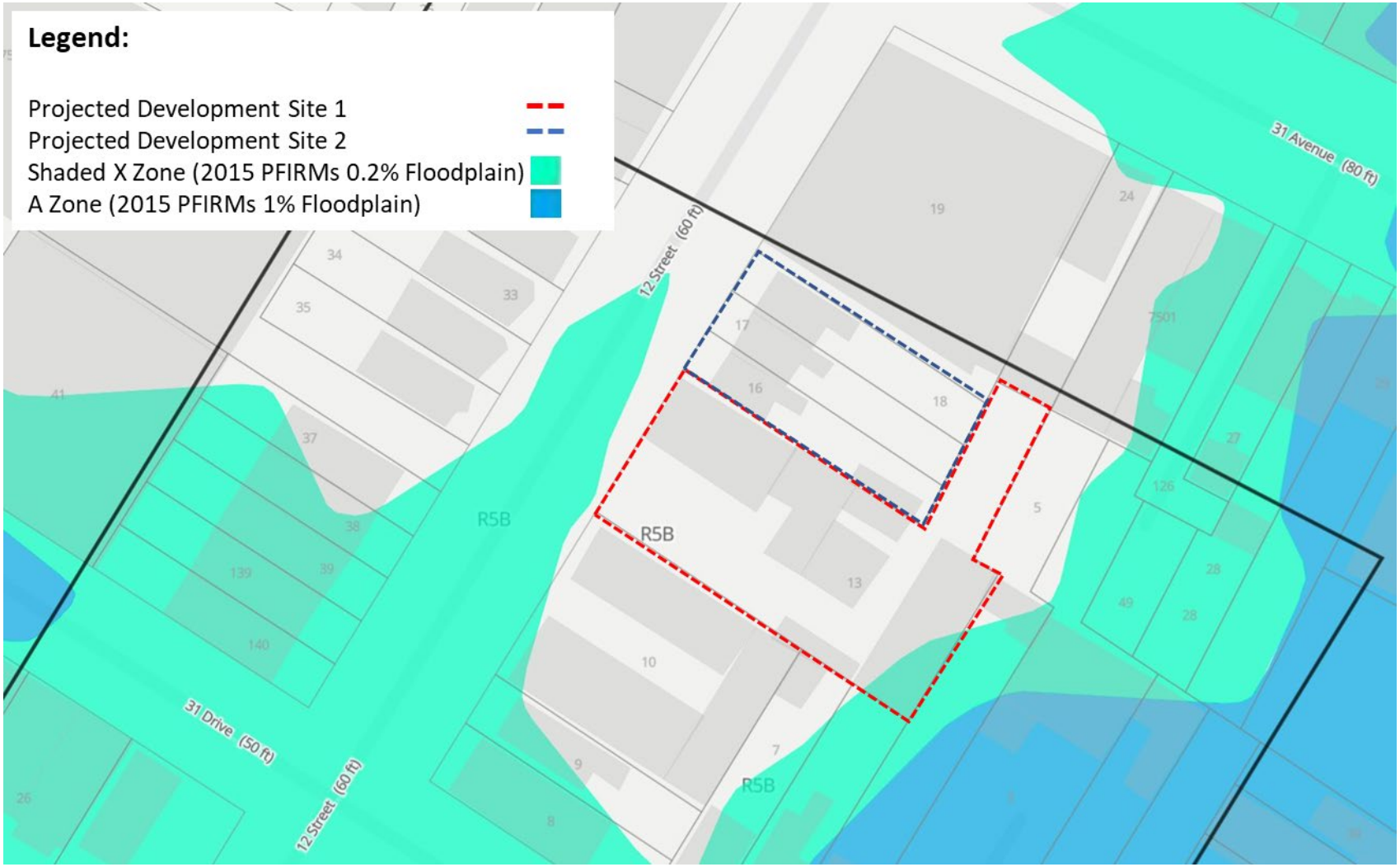


Figure 2.1-6: Future 2020's Flood Projections

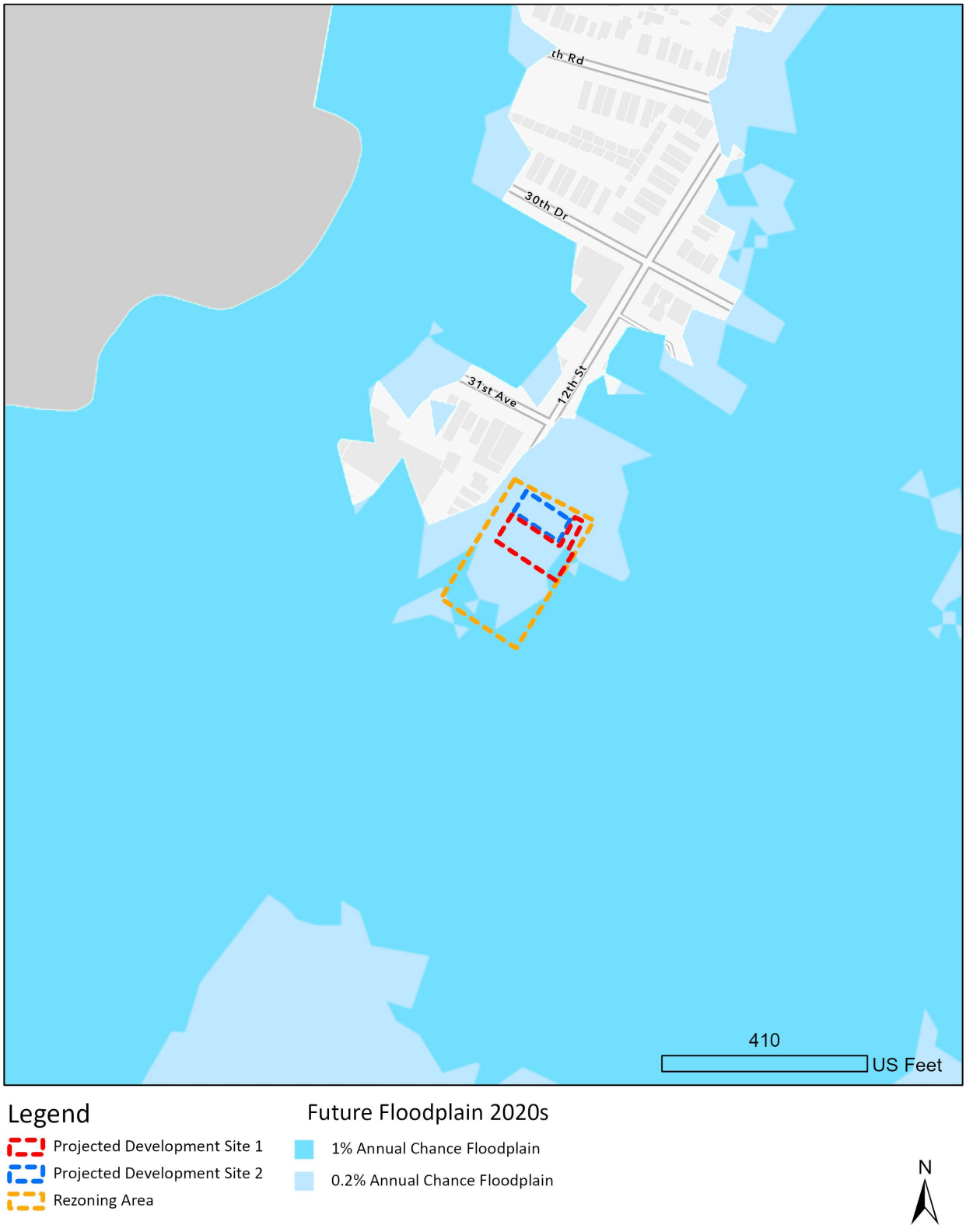


Figure 2.1-7: Future 2020's High Tide

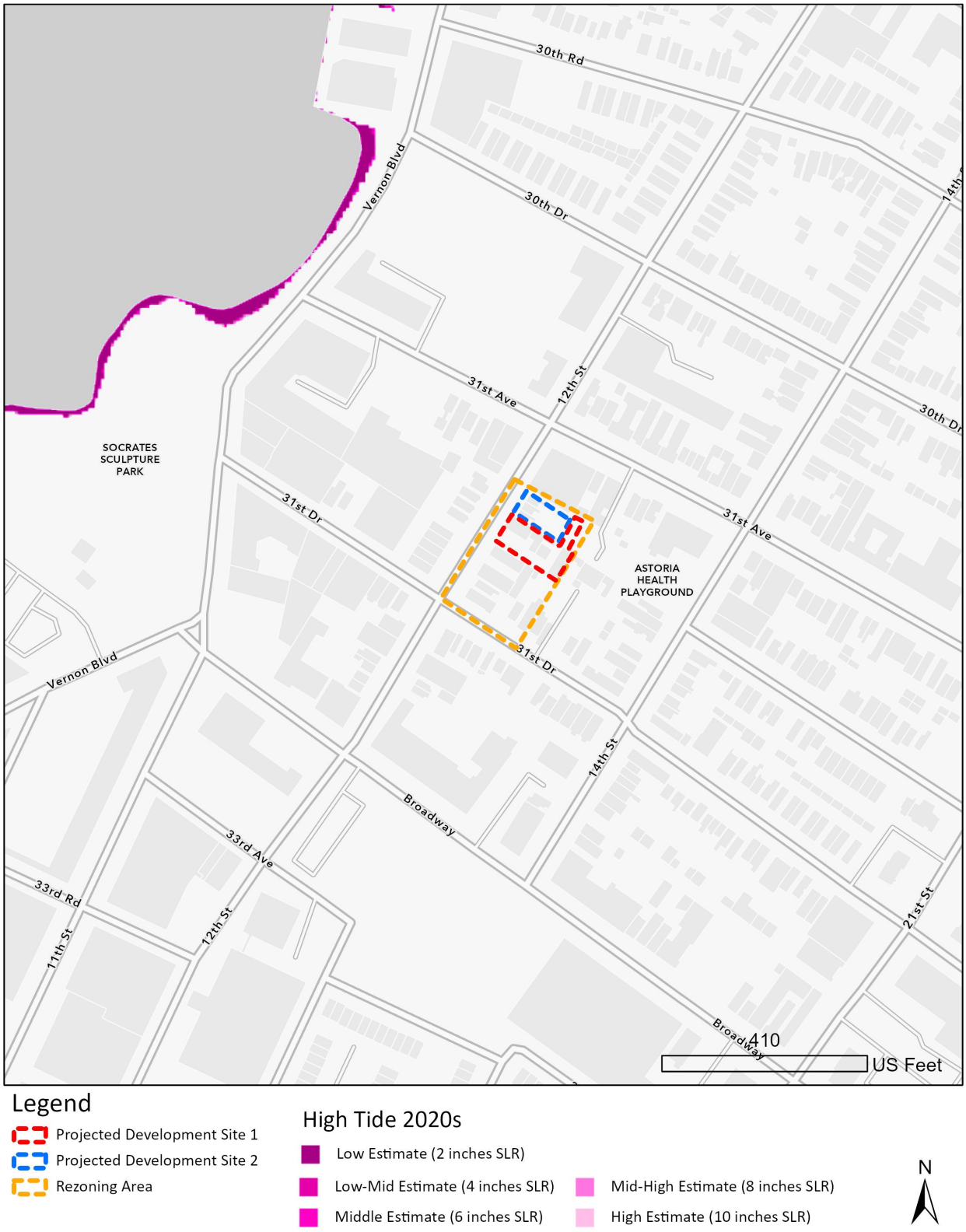


Figure 2.1-8: Future 2050's Flood Projections

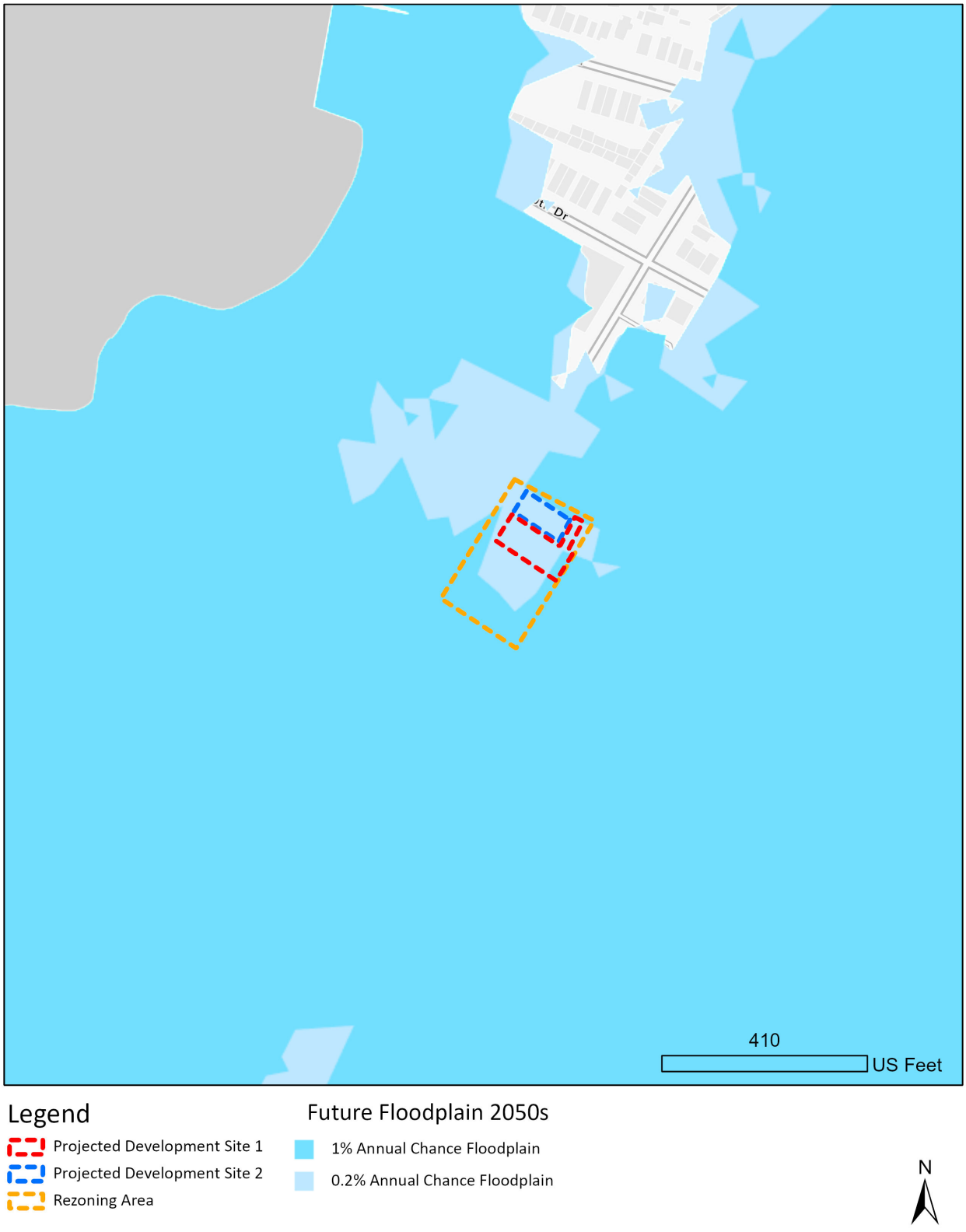


Figure 2.1-9: Future 2050's High Tide

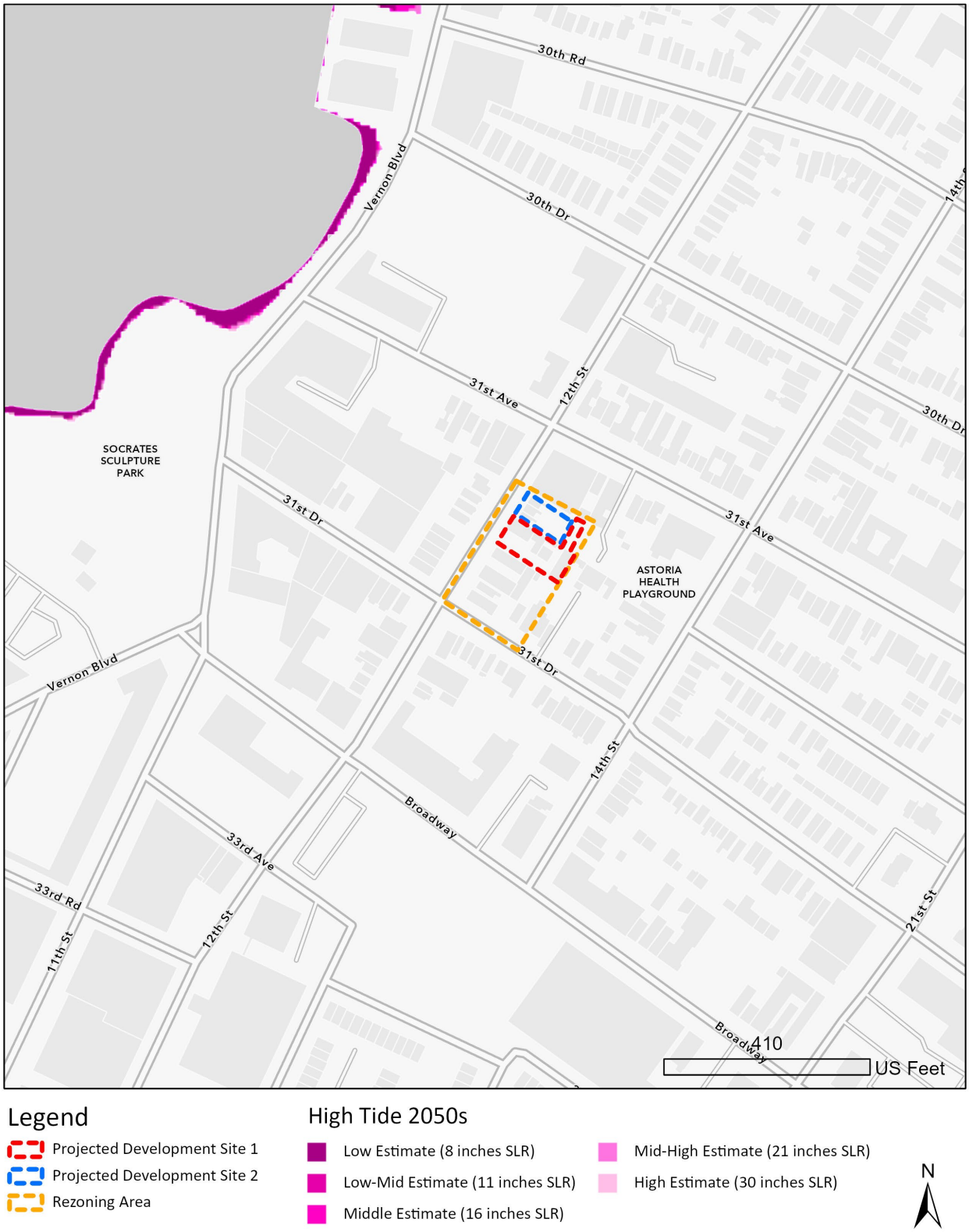


Figure 2.1-10: Future 2080's Flood Projections

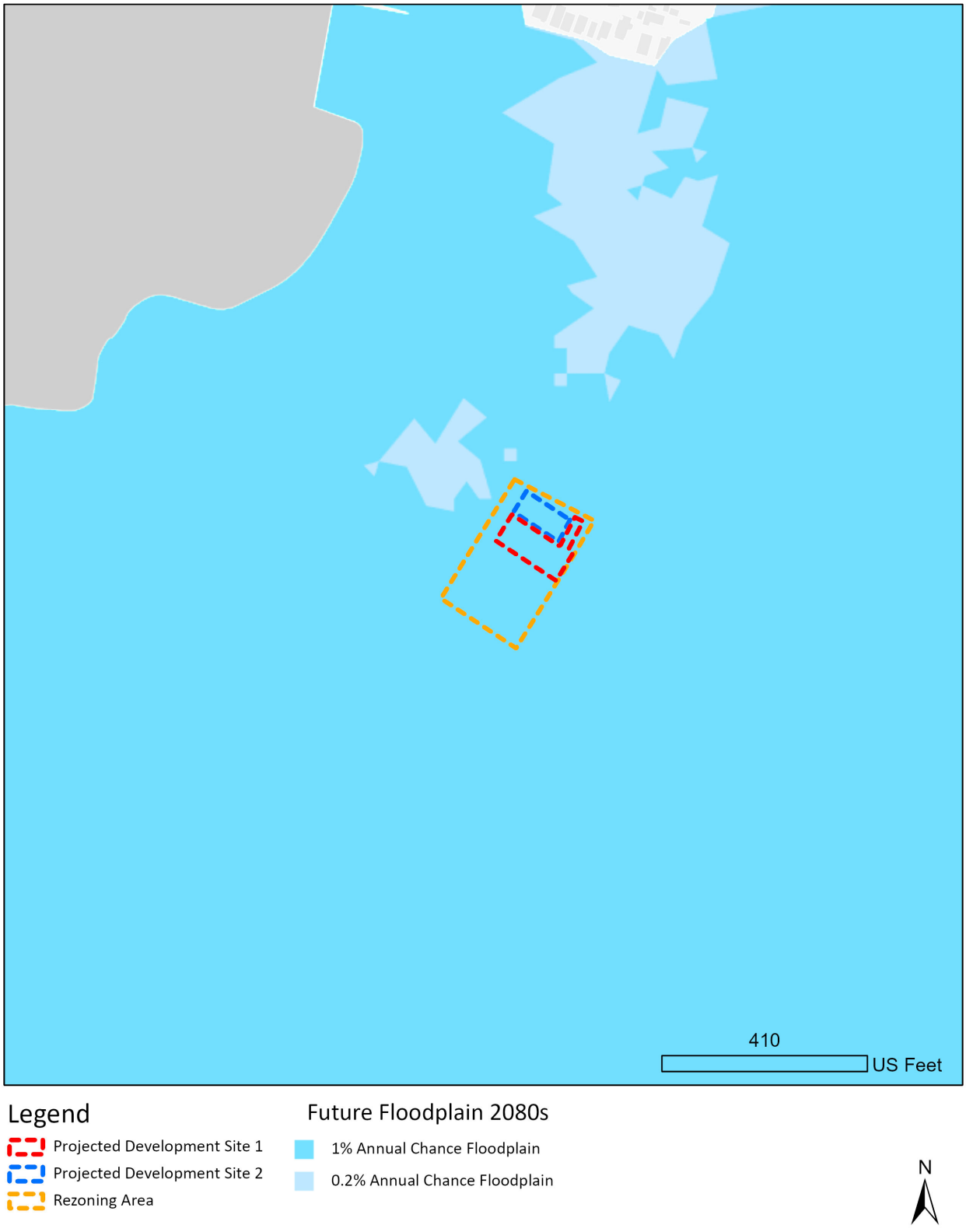


Figure 2.1-11: Future 2080's High Tide

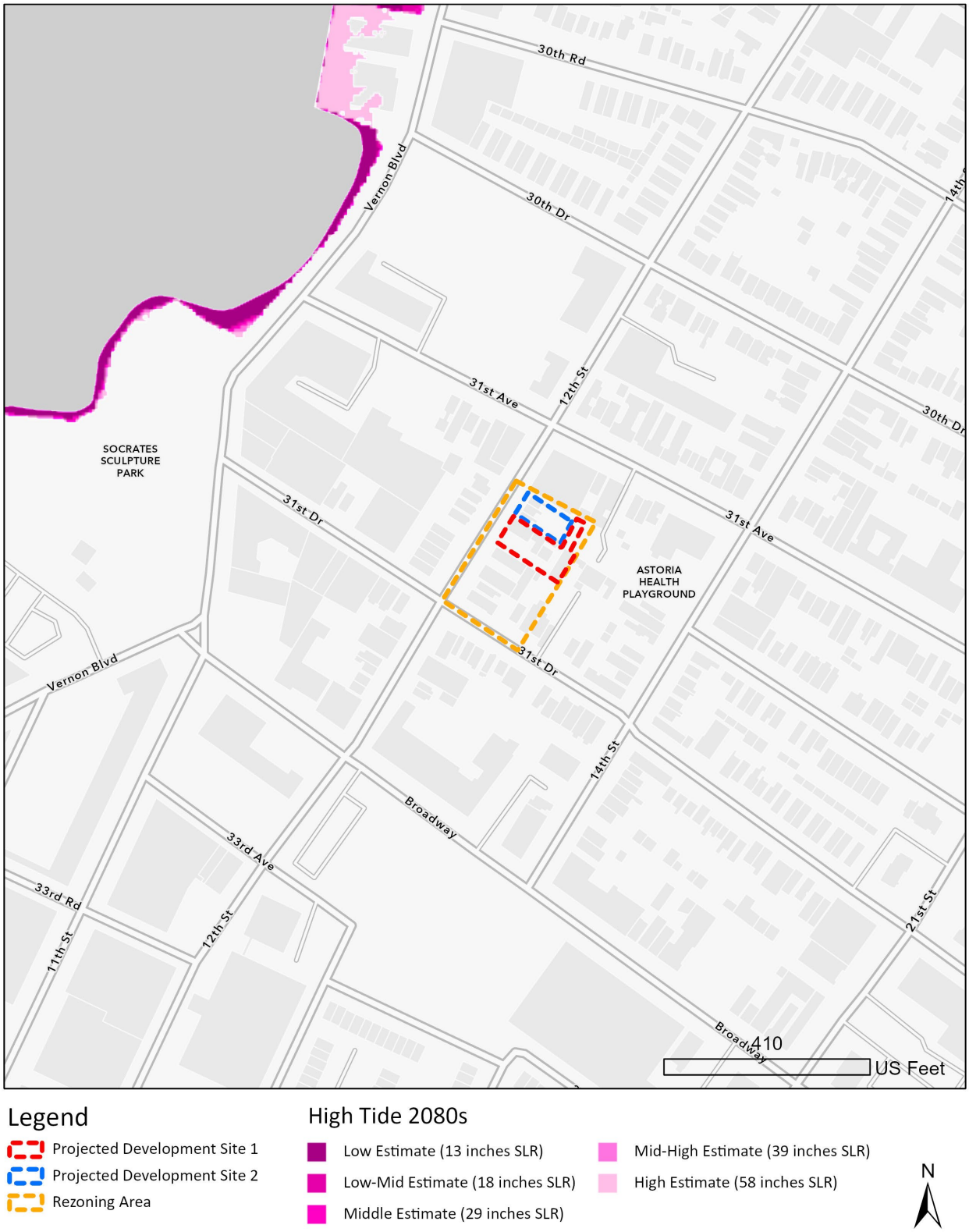


Figure 2.1-12: Future 2100's Flood Projections

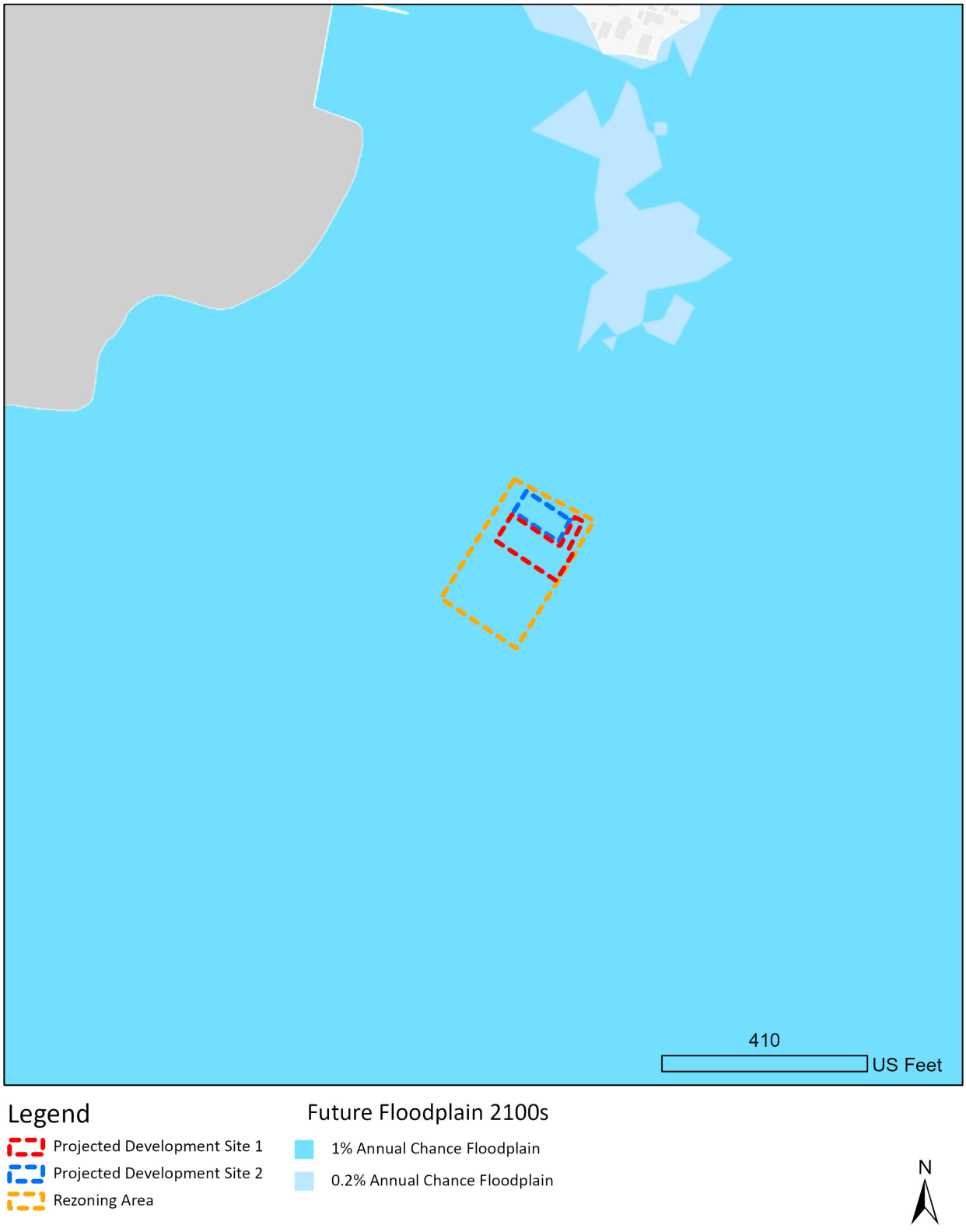
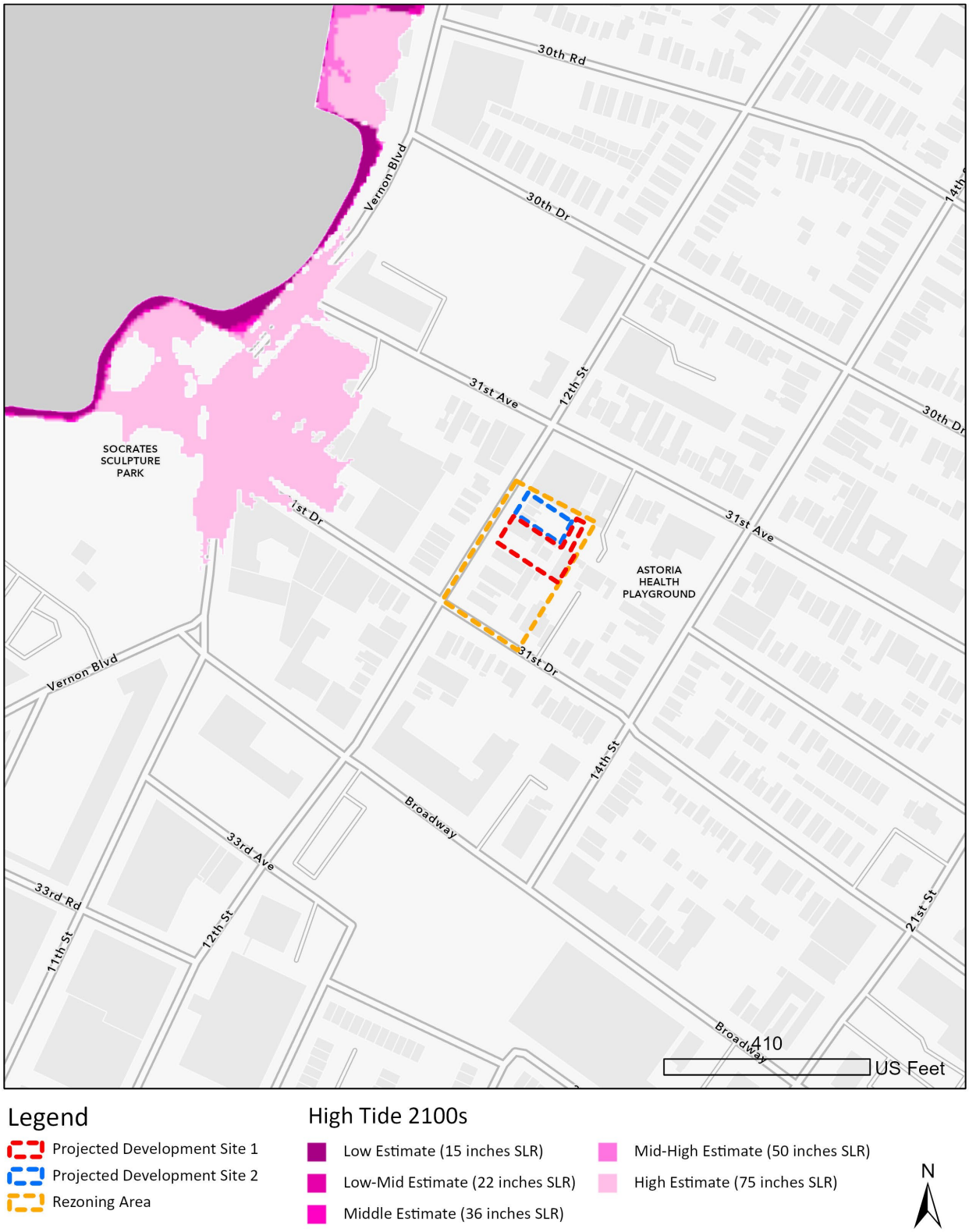


Figure 2.1-13: Future 2100's High Tide



Sub-Policy 6.2 Detailed Methodology

1. Identify Vulnerabilities and Consequences

a) Assess the Project Area's exposure to current and future flood risk

Projected Development Site 1 is currently located within a 0.2% chance annual floodplain pursuant to the 2007s FIRM and 2015 PFIRMs and is anticipated to fall within the future 1% annual chance floodplain by the 2020s. The information in the following subsections is based on the results of the completed flood evaluation worksheet, which is provided in **Appendix B**, as well as the New York City Panel on Climate Change (NPCC) future floodplain projections through the 2100s.

The cellar level is located approximately 9'-7" below the ground elevation or 4.42 feet (NAVD88 Datum). The Project Site's first floor level is located approximately 14 feet in elevation (NAVD88 Datum). The cellar level and the first floor level would only contain vulnerable features of the Subject Building, including bicycle storage, two elevator pits, and a trash compactor room at the cellar level and two elevator vestibules and residential dwelling units on the first floor level. All mechanical spaces, considered as critical features of the Subject Building, would be located on the roof of the building at an elevation of 67 feet (NAVD88 Datum). As a result, the mechanicals are not considered vulnerable as they would be located on the roof and above future flood projections through 2100s.

Regulatory floodplains are defined by the elevation of the base flood (BFE) in relation to the elevation of the ground. According to datum (NAVD88) obtained from the National Oceanic and Atmospheric Administration (NOAA) website for the nearest NOAA station – Horns Hook Station (Station ID 8518668) – the mean of the higher high-water height (MHHW) is 2.87 feet (adjusted). Based on the 2015 PFIRMs, the BFE of the nearest 1% flood height for the nearest AE zone is 11 feet.

Based on the results of the calculations completed in the flood evaluation worksheet using site-specific data, **Figure 2.1-14** shows the results of the MHHW and Sea Level Rise (SLR) projections and **Figure 2.1-15** shows the results of the 1% Flood Elevation and SLR projections on Projected Development Site 1.

Figure 2.1-14: Mean Higher High Water + SLR Projections

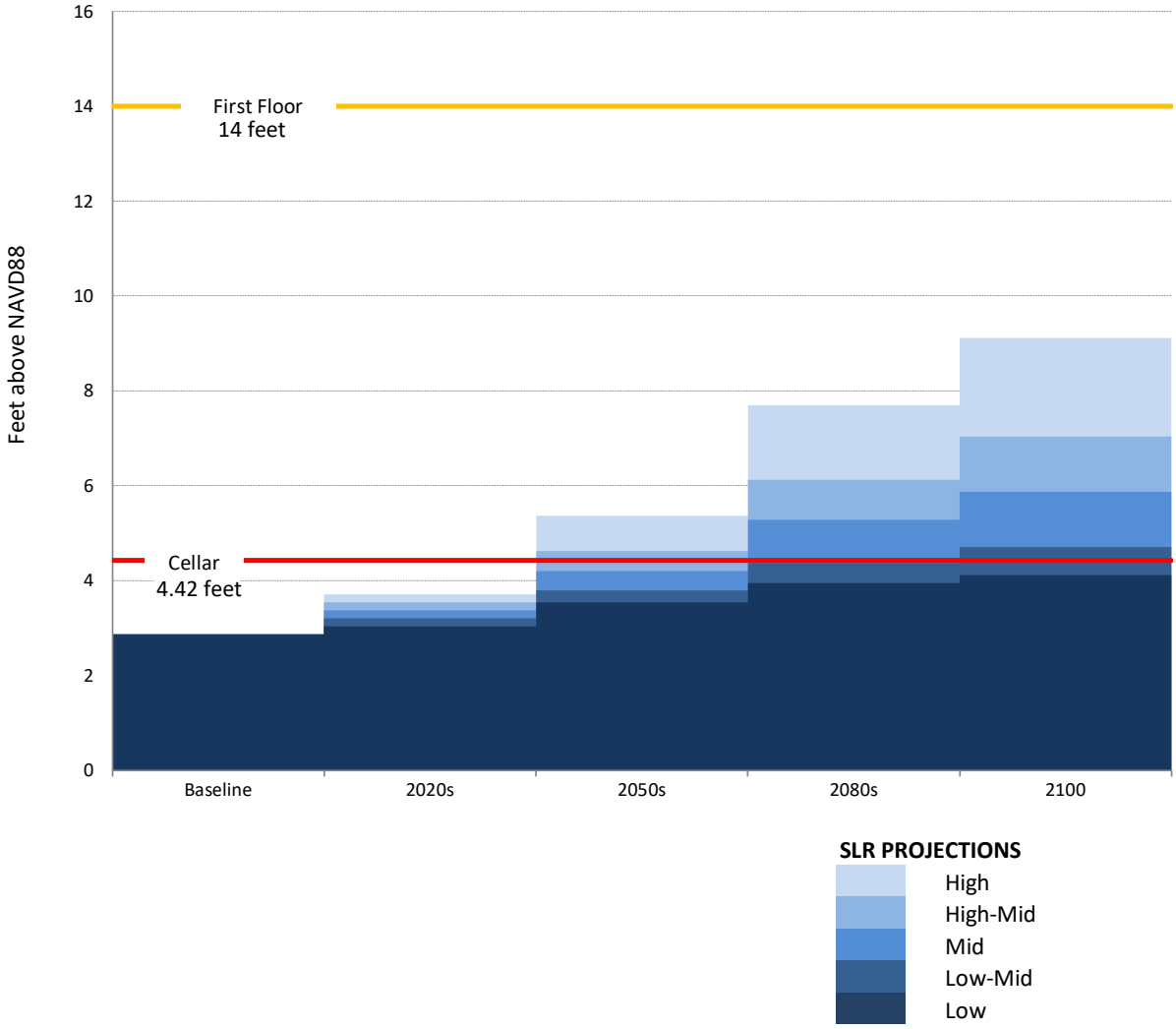
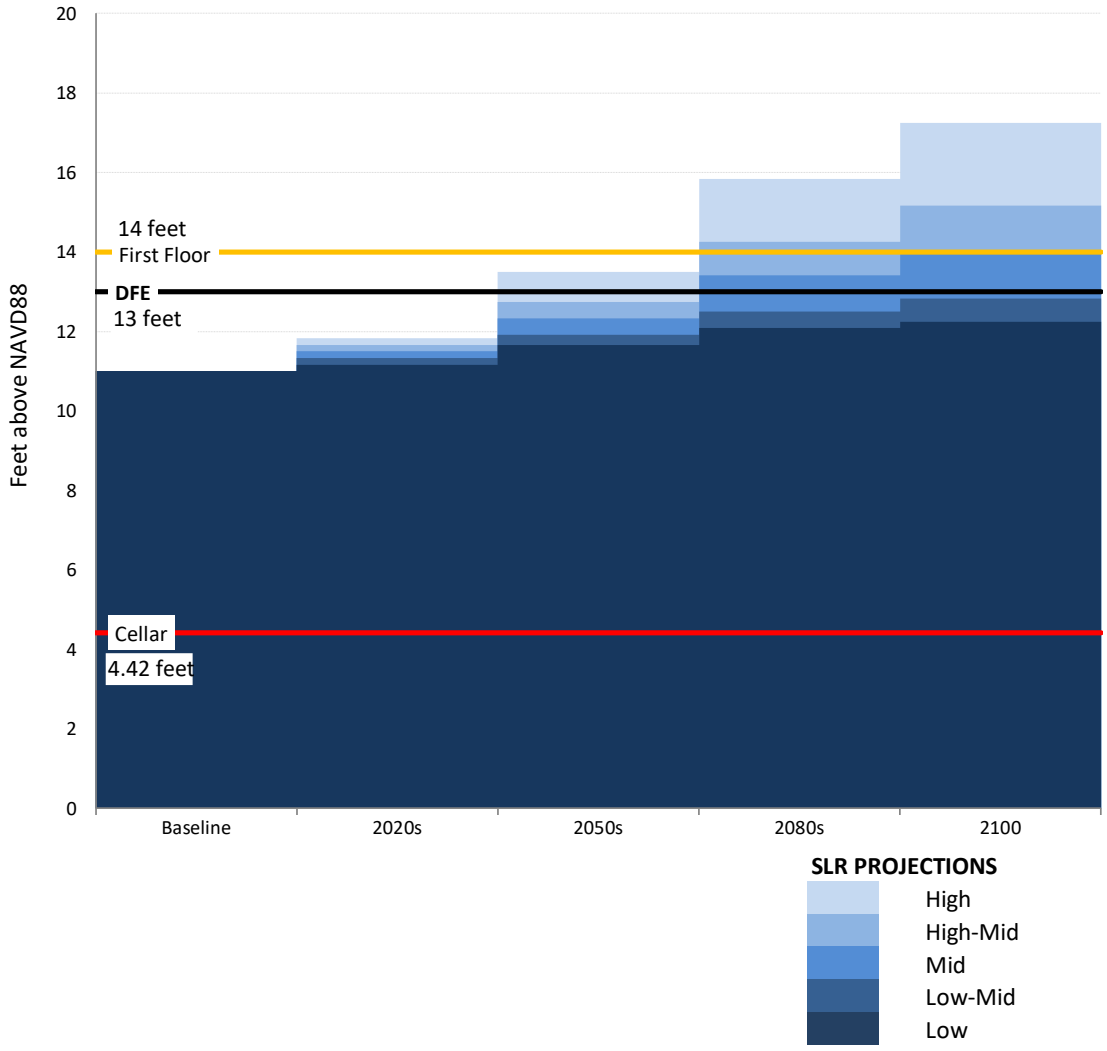


Figure 2.1-15: 1% Flood Elevation + SLR Projections



As indicated in **Figure 2.1-15** above, currently and in the future, the Proposed Development's cellar level falls within the 1% annual chance floodplain under low SLR projections. The first-floor level is expected to fall within the 1% annual chance floodplain by the 2080s under high-mid SLR projections, and by the 2100s under mid SLR projections.

As shown in **Figure 2.1-14**, the Proposed Development's cellar level is anticipated to fall within future high tides by the 2050s under high-mid SLR projections, and by the 2080s under low-mid SLR projections. However, based on the NPCC future floodplain projections, as shown in **Figure 2.1-6** through **Figure 2.1-13**, Projected Development Site 1 would not fall within the future high tides through the 2100s. Thus, the cellar and first floor are not projected to be below the MHHW under any SLR projections through the 2100s.

b) Identify any Project Features that may be located below the elevation of the 1% floodplain over the lifespan of the project under any SLR scenario:

Currently and in the future, the Proposed Development's cellar level falls within the 1% annual chance floodplain under low SLR projections. The first-floor level is expected to fall within the 1% annual chance floodplain by the 2080s under high-mid SLR projections, and by the 2100s under mid SLR projections.

The cellar includes bicycle storage, two elevator pits, and a trash compactor room. The first floor level includes two elevator vestibules and residential dwelling units. Potential consequences of the first floor space being located within the 1% annual chance floodplain include flood damage to property, building structure, loss of inventory, or potentially increased flood insurance costs. If these areas were to fall below the elevation of the current 1% annual chance floodplain, future flooding could result in a loss of building services, damage to property, loss of inventory, or potentially increased flood insurance costs. However, the New York City Panel on Climate Change (NPCC) recommends that these projections not be used to judge site-specific risks and they are subject to change.

c) ***Identify any vulnerable, critical, or potentially hazardous features that may be located below the elevation of Mean Higher High Water over the lifespan of the project under any sea level rise scenario.***

As discussed above, based on the NPCC future floodplain projections, the Proposed Development's cellar and first-floor levels would not be impacted by the MHHW under any SLR projections.

d) Identify if the project or action would facilitate the development of any vulnerable, critical, or potentially hazardous features, as defined under "Key Terms" below, within areas exposed to flooding from Mean Higher High Water or 1% Annual Chance Flood by the 2050s under the 90th percentile of sea level rise projections:

Vulnerable, Critical or Potentially Hazardous Features Pursuant to Policy 6.2 guidance[2]:

- ***Vulnerable Features if damaged have the potential to incur significant damage if flooded.***

  These include any form of enclosed space within a building, including residential, commercial, industrial, or community facility land uses; enclosed parking structures; storage areas; enclosed recreational facilities; and bulkheads, revetments, piers, platforms, and other in-water infrastructure elements.

- ***Critical Features if damaged, would have severe impacts on the project and its ability to function.***

[2] http://www1.nyc.gov/assets/planning/download/pdf/applicants/wrp/revisions-2017/policy-62-guidance-document.pdf

The project features that if damaged would have severe impacts on the project and its ability to function as designed. Examples include electrical utilities, building heating and cooling systems, telephone and data connection and distribution rooms, and other supporting and related building technology and utility spaces.

- ***Potentially Hazardous Features, if damaged or made insecure by flooding, could potentially adversely affect the health and safety of the public and the environment.***

  Examples include hazardous materials, including highly volatile, flammable, explosive, toxic, or water-reactive materials; and materials that have the potential to become waterborne in the event of a flood and would be dangerous to the health and safety of the public and the environment, such as the storage of construction materials, demolition debris, and aggregate materials.

As discussed above, the cellar level falls within the 1% annual chance floodplain under low SLR projections, currently and in the future. The first floor level would not fall within the 1% annual chance floodplain under 90th percentile SLR projections by the 2050s, but would fall within the 1% annal chance floodplain by the 2080s under high-mid SLR projections. **Figure 2.1-16** below shows the illustrative proposed building elevation under 90th Percentile SLR projections:

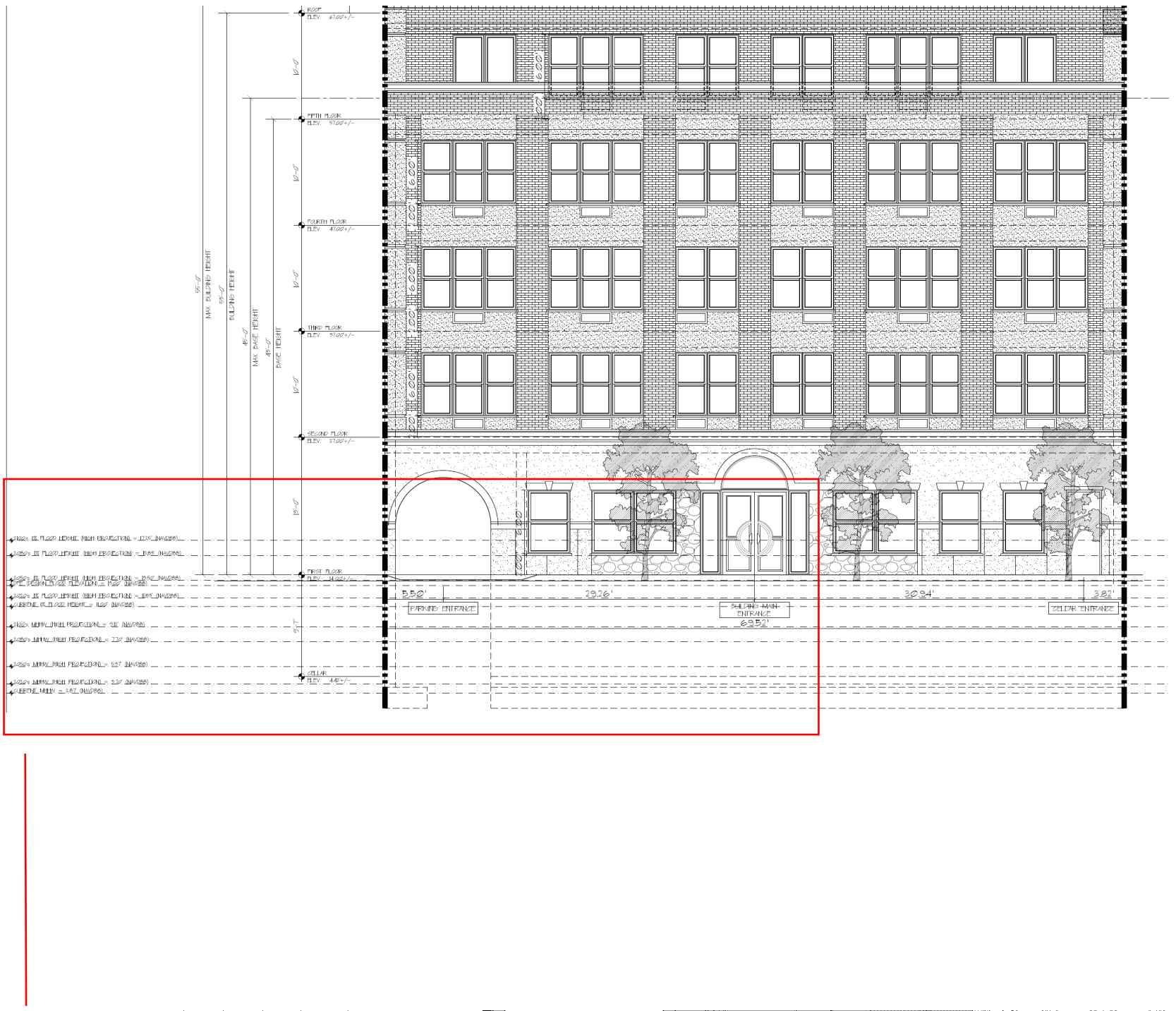
The Following are Vulnerable and Critical Project Features:

Cellar Level: The cellar level would contain bicycle parking, a trash room, and two elevator pits. The vulnerable building features within the cellar level would include the walls flooring, and electrical. The cellar level would not introduce any hazardous features, materials, or substances that if made insecure, would result in a threat to public health or the environment. The elevators would be considered the only critical building feature located within the cellar level. However, as discussed below, flood resiliency measures would be incorporated into the building design to protect the cellar level's vulnerable and critical building features.

First Floor Level: The first floor level would contain a residential lobby, residential dwelling units and two elevators. The vulnerable building features within the first floor level would include the walls, flooring, and electrical. The first floor level would not introduce any hazardous features, materials, or substances that if made insecure, would result in a threat to public health or the environment. The elevator would be considered a critical building feature, which if damaged, would have impact on the project and its ability to function as designed. However, as discussed below, flood resiliency measures would be incorporated into the building design to protect the first floor level's vulnerable and critical building features.

Roof: All mechanical space, considered as critical features of the building, would be located on the roof of the building at an elevation of 67 feet (NAVD88 Datum), which if damaged, would have impacts on the project and its ability to function as designed. While the mechanicals are considered critical, they are not vulnerable as they would not be impacted by any potential flooding in the future given their high elevation.

Figure 2.1-16: Illustrative Proposed Building Elevation with SLR Projections



2. Identify Adaptive Strategies

The goal of Step 2 under WRP Policy 6.2 is to assess how the vulnerabilities and consequences identified in Step 1 are addressed through the project's design and planning. Assess how applicable codes and regulations, planned flood damage reduction elements and adaptive measures, or likely future infrastructure investments (beyond the scope of the proposed project), would or would not reduce potential flood damage for any proposed vulnerable, critical, or potentially hazardous features.

Because Projected Development Site 1 is susceptible to the impacts of sea level rise and future flood events, it is recommended that building scale resiliency measures and flood mitigation strategies be considered. Pursuant to *Policy 6.2: Climate Change Adaptation Guidance*, consideration of climate change projections for coastal flooding and sea level rise should be incorporated into the design and planning of projects. The Proposed Project should identify potential vulnerabilities to and consequences of sea level rise and coastal flooding over its lifespan and identify and incorporate design techniques to address these risks.

Recommendations

Though not required, the Proposed Development should employ floodproofing construction measures to protect the vulnerable and critical building features. Based on the flood projections above, measures should be considered to increase building-scale resilience to future flood conditions.

a) Flood Damage Reduction Elements/Controls:

The following flood protection measures would be incorporated into the Proposed Building Design:

- No mechanical equipment to be located in cellar level.
- Bottom of the mechanical equipment of first floor (i.e, electrical water heaters) to be located at min elevation 17.25' (NAVD88) to meet 2100s 1% flood height heigh projection.
- Electrical heating and cooling split units to be located on the roof.
- The cellar level would be dry flood-proofed and cellar walls and flooring to be constructed of concrete or CMU, or other water-resistant building materials without drywall or water-permeable facings.
- Flood sensors shall be located 6 inches above the cellar level.
- All cellar-level outlets shall be elevated to 2 feet above the cellar level.
- In case of flooding, sensors to cut off power to cellar-level outlets to prevent elevators from cellar travel.
- Elevator pits shall incorporate elastomeric waterproofing membrane on walls and floors.
- Elevator pits shall include sump pumps, reinforced shafts, and flood alarms.
- Elevator controls to be located on rooftop in elevator machine room.
- All heating and cooling systems shall be located on the roof.

These building scale resiliency measures would help prevent damage to vulnerable and critical building features and reduce the susceptibility of water damage from a future flood event or inundation. With the provision of the above, the building features would not be considered vulnerable or critical.

b) Flood Protection of Adjacent Sites:

The Proposed Project would not increase stormwater runoff and would not introduce any hazardous features that would impact the health, safety, or welfare of surrounding residents in the event of a flood. Therefore, the Proposed Actions would not affect the flood protection of adjacent sites.

3. Assess Policy Consistency

Pursuant to Policy 6.2 Guidance:

A project or action would advance the policy when:

- *No new vulnerable, critical, or potentially hazardous features would be located within area flooded by current or future high tide, or current or future 1% annual chance flood, over the project's lifespan, or*
- *All new vulnerable, critical, or potentially hazardous features would be protected through flood damage reduction elements or future adaptive measures within the timeframe that they would be needed.*

A project or action would hinder the policy when:

- *Vulnerable, critical, or potentially hazardous features would be introduced in areas that will be flooded by high tide during the project's lifespan and adaptive measures are not feasible.*
- *Industrial development would not be protected from 2050s high tides or the current 1% annual chance flood.*
- *Critical infrastructure would not be protected to the elevation of the 1% annual chance storm over its lifespan.*
- *Shoreline structures would not function as intended with increases in sea levels projected over their lifespan.*

New Developments under the Proposed Actions are advised to incorporate flood proofing to protect the cellar and first-floor building levels from future flood events. The Applicant would employ the above-listed building scale resiliency measures based on the future flood projections related to the 1% annual chance flood elevation. These building-scale resiliency measures would minimize the potential damage to site-specific vulnerable or critical features. Therefore, the Proposed Actions are consistent with Policy 6.2 of the

Waterfront Revitalization Program and would not jeopardize the intent of the WRP (WRP #21-003).

Conclusion

The development that is projected as a result of the Proposed Actions would not create a land use conflict, nor would it conflict with public policies and plans for the site or surrounding area. The Proposed Actions would also not result in significant material changes to existing regulations or policy. Therefore, no significant adverse impacts would occur related to public policies, and no further analysis is warranted.

2.2 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.

Shadows also vary according to 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. However, a project located adjacent to or across the street from a sunlight-sensitive open space resource (which is not a designated New York City Landmark or listed on the State/National Registers of Historic Places, or eligible for these programs) may not require a detailed shadow assessment if the project's height increase is ten feet or less.

As noted above, 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 integrity. 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. The potential impact

of the shadows cast from new development on potentially sensitive resources, such as those described above will be evaluated in the following section.

2.2.1 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 in order 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 Projected Development Sites to determine whether they fall within the range of maximum possible shadow cast on potential sunlight-sensitive resources as described above. In order to determine this, a map was prepared by placing NYC Department of Parks Resources as well as Selected Facilities and Program Sites provided on NYC.gov Department of City Planning GIS portal, as well as a list of park and public spaces provided from NYC.gov DOITT GIS and Mapping Portal, as well as a screen of SHPO and NYC Landmark Listed Properties. It was determined that only one community resource, the Astoria Health Playground, could potentially be impacted by a shadow cast from one of the development sites.

Tier 1 and Tier 2 Screening Assessment

The first step in the preliminary shadow screening assessment is a Tier 1 Screening Assessment. A base map is developed that illustrates the proposed site location in relation to any sunlight-sensitive resources. The longest shadow study area is then determined, which encompasses the site of the proposed project and a perimeter around the site's boundary with a radius equal to the longest shadow that could be cast by the proposed structure, which is 4.3 times the height of the structure that occurs on December 21st, the winter solstice. To determine the longest shadow length, the maximum height of a potential structure (including any rooftop mechanical equipment) is multiplied by the factor of 4.3.

Shadow radii equal to 4.3 times the maximum building heights that could be developed on Projected Development Sites 1 and 2 (55 each respectively) were calculated. The resulting shadow radii of approximately 236.5 feet for Projected Development Sites 1 and 2 were then used to delineate the Tier 1 maximum shadow analysis area. As shown in **Figure 2.2-1**, the Tier 1 screening assessment results show that the Almeda Playground is situated within the Tier 1 maximum shadow analysis area.

The *CEQR Technical Manual* states that if any portion of a sunlight-sensitive resource lies within the longest shadow study area, a Tier 2 screening assessment should be performed. Because of the path that the sun travels across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City, this area lies between -108 and +108 degrees from true north.

For a Tier 2 screening assessment, sunlight-sensitive resources within the triangular area that cannot be shaded by a proposed project site, starting from the southernmost portion of the site covering the area between -108° degrees from true north and +108 degrees from true north, are screened out. The complementing portion to the north within the longest shadow study area is the area that can be shaded by a proposed project.

As also shown in **Figure 2.2-2**, the results of the Tier 2 screening assessment indicate that the entirety of Astoria Health Playground is situated within the Tier 2 area, and as such, would still have the potential to be covered by shadows from the Proposed Actions. Consequently, a Tier 3 assessment is warranted.

Tier 3 Screening Assessment

A Tier 3 screening assessment is used to determine if shadows resulting from the Proposed Actions can reach a sunlight-sensitive resource. In order to determine whether the sun-sensitive features of the nearby open space resources would potentially be affected by shadows cast from the proposed building, three-dimensional models were created surrounding the Tier 3 identified resources of concern.

The *CEQR Technical Manual* states that for the New York City area, the months of interest for an open space resource encompass the growing season (March through October) and one month between November and February (usually December) representing a cold-weather month.

Representative days for the growing season are generally the vernal equinox (or the autumnal equinox, which is approximately the same), the summer solstice, and a spring or summer day halfway between the summer solstice and equinox. For the cold-weather months, the winter solstice is usually included to demonstrate conditions during cold-weather when people who do use open spaces rely most heavily on available sunlight for warmth. As representative of the full range of possible shadows, these months and days are used for assessing shadows on historic or sunlight-sensitive resources.

Assessments of the incremental shadows cast during four representative dates were made in accordance with the *CEQR Technical Manual* guidance to encompass the growing season and December, representing a cold-weather month (and the longest shadow of the year), with the following dates: March 21/ September 21; May 6/ August 6; June 21; and December 21. On these dates, shadows occurring within one and one-half hour of sunrise or sunset generally are not considered significant, and thus were not included in the screening assessment.

The results of the Tier 3 screening, shown in **Figures 2.2-3a through 2.2-3d**, indicate that shadows have the potential to reach the Astoria Health Playground on three of the four analysis dates (March, May, and June periods). Therefore, detailed shadow analyses were undertaken.

Figure 2.2-1: Tier 1 Shadow Study

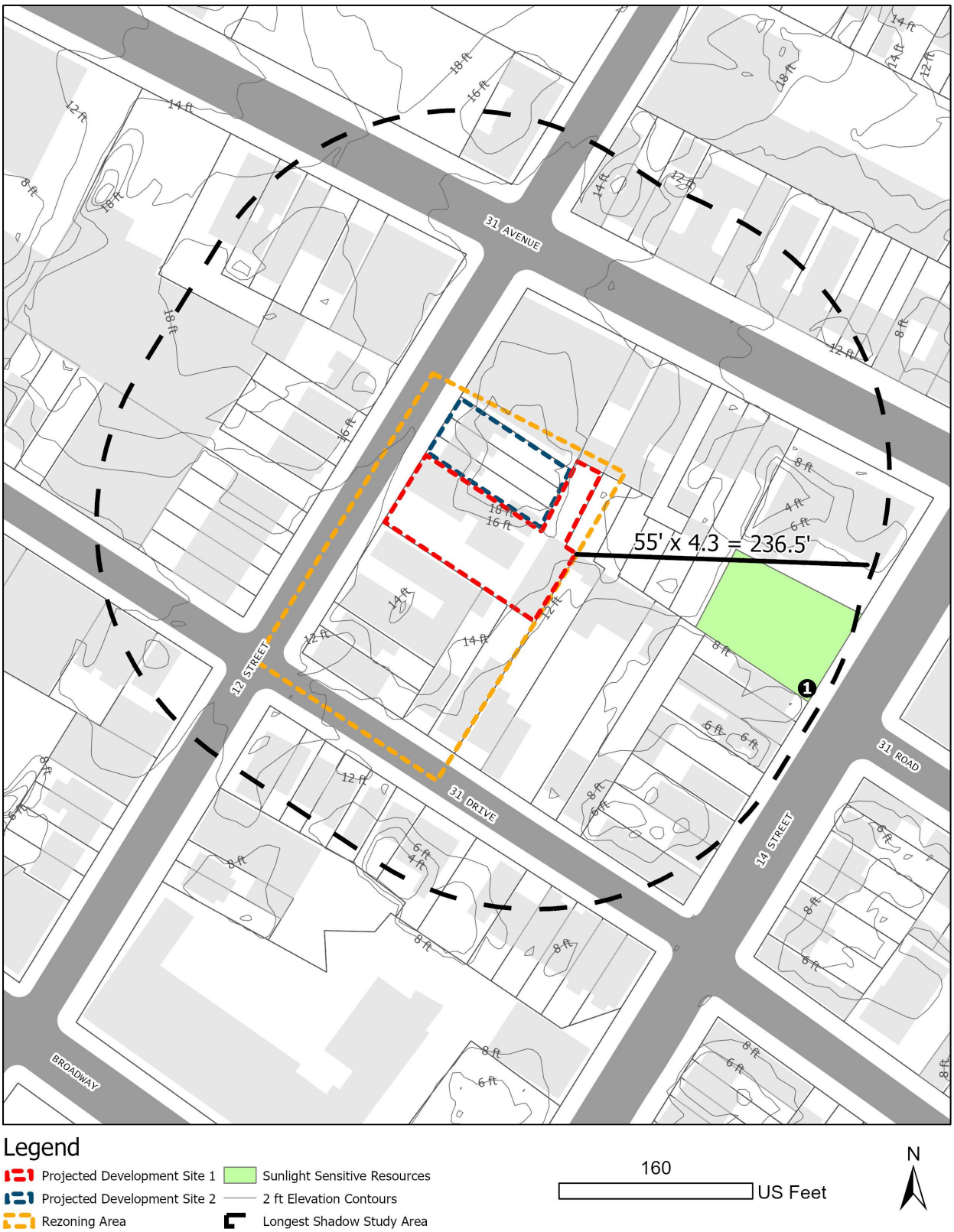


Figure 2.2-2: Tier 2 Shadow Study

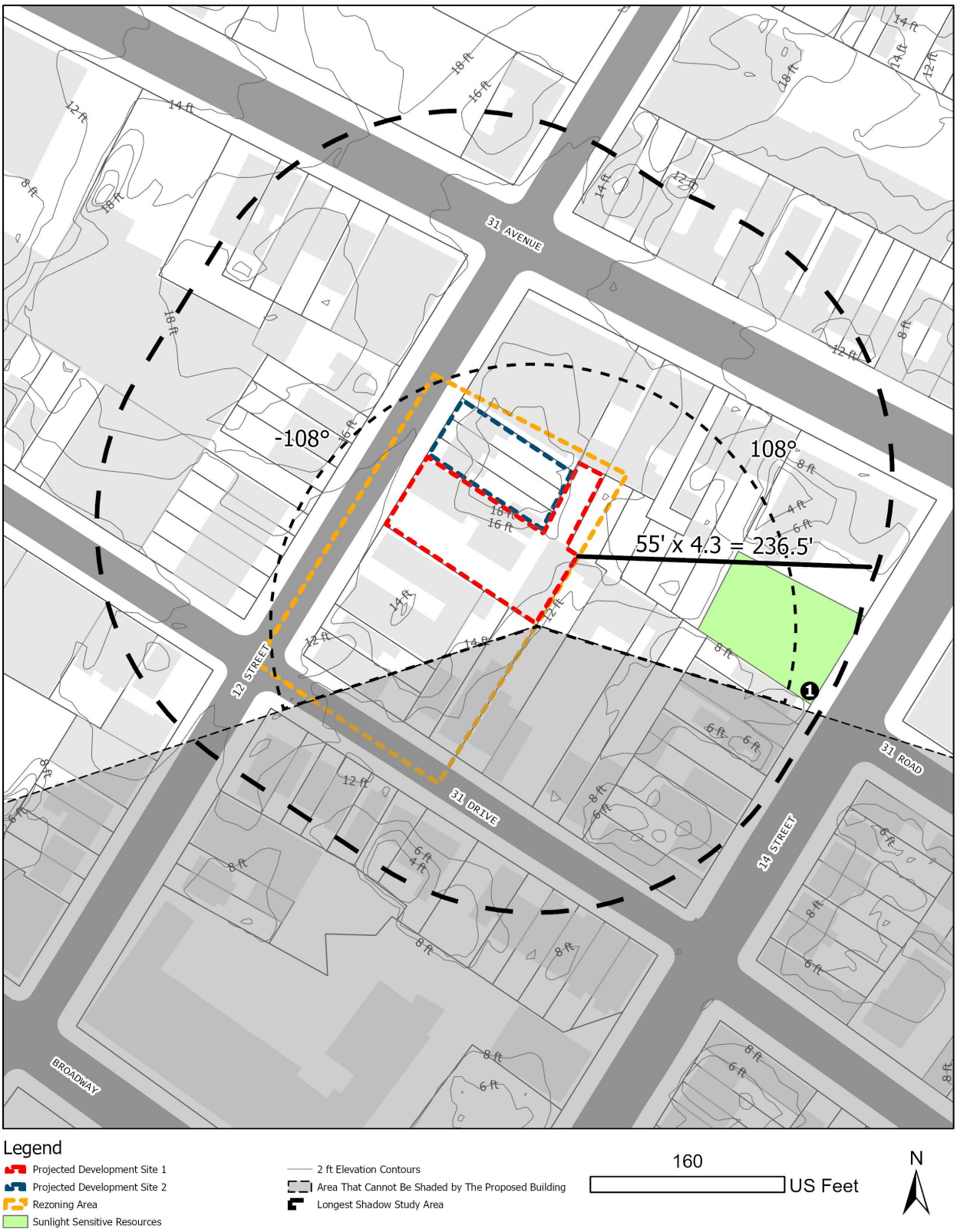


Figure 2.2-3a: Tier 3 Shadows Analysis – March



Figure 2.2-3b: Tier 3 Shadows Analysis – May

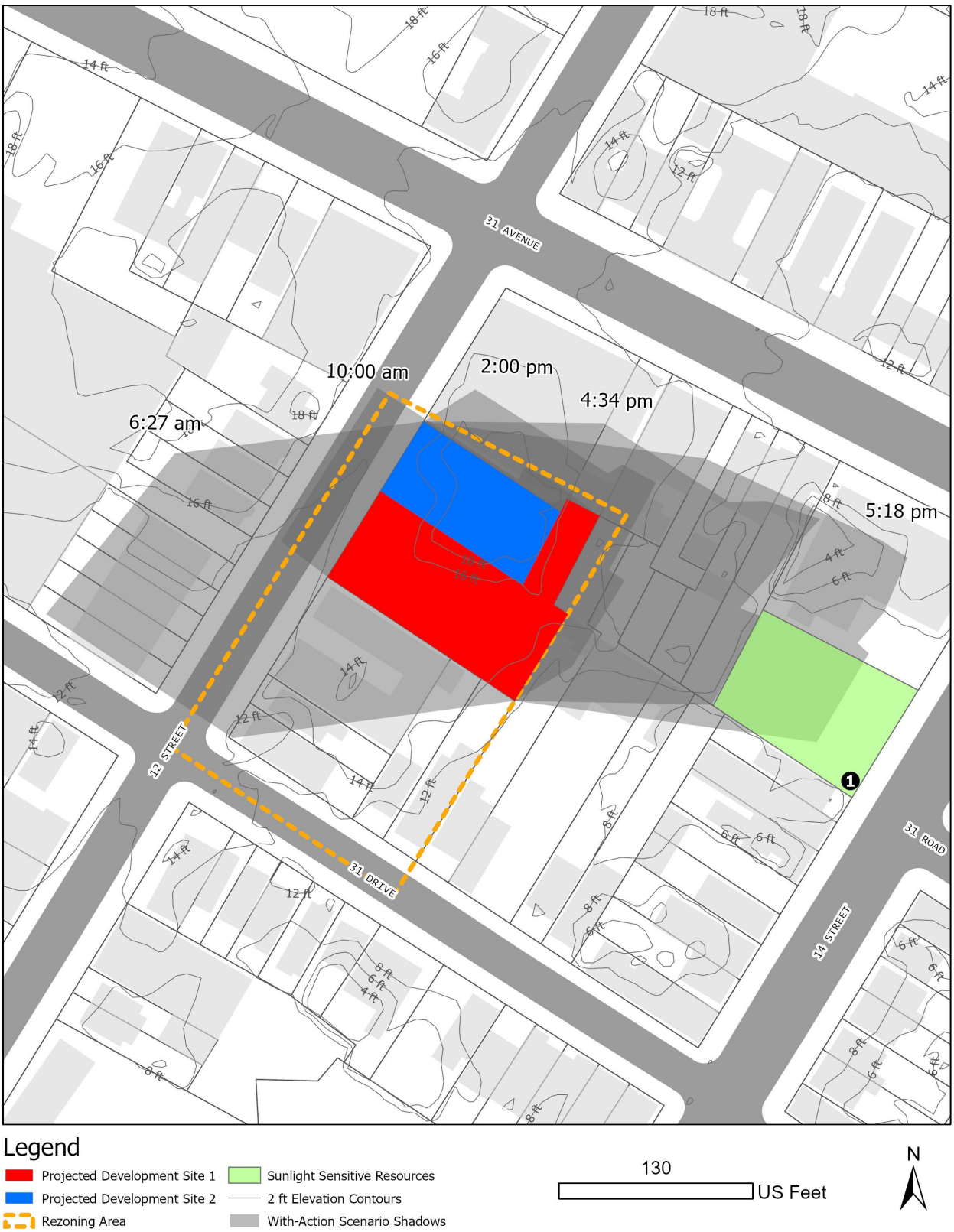


Figure 2.2-3c: Tier 3 Shadows Analysis – June

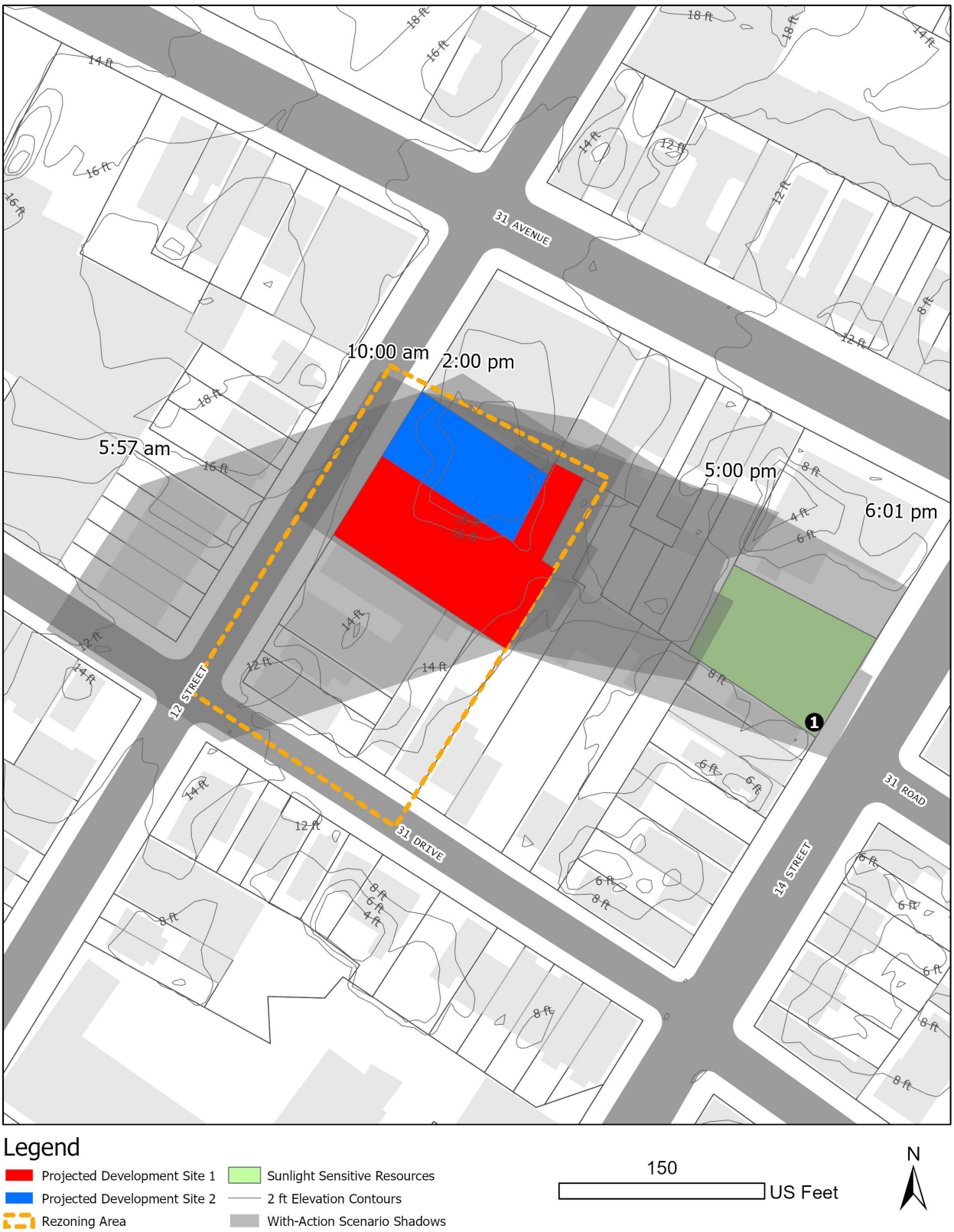
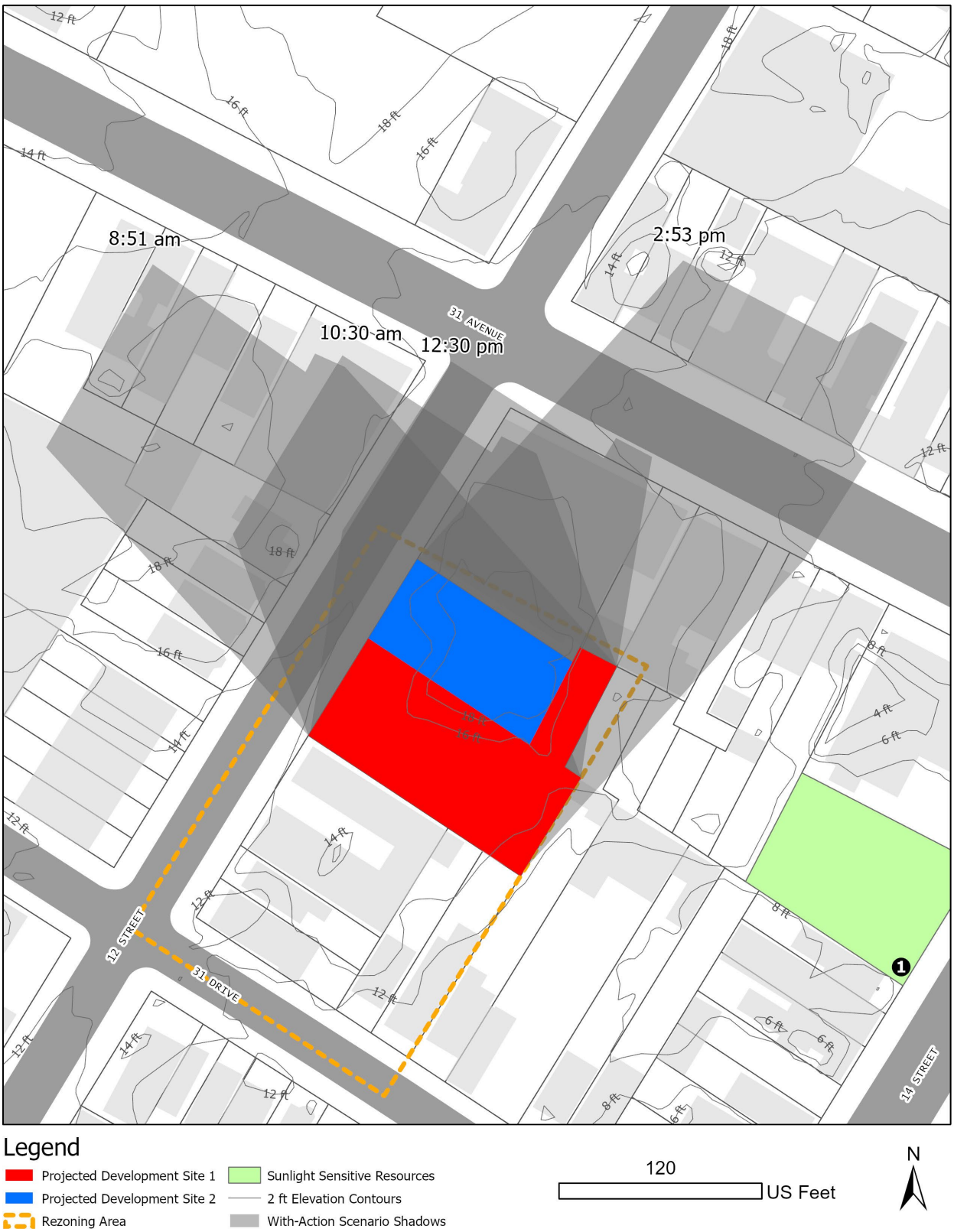


Figure 2.2-3d: Tier 3 Shadows Analysis - December



2.2.2 Detailed Shadow Analysis

The *CEQR Technical Manual* states that a detailed shadow analysis is warranted when the screening analysis does not rule out the possibility that project-generated shadows would reach any sunlight-sensitive resources. The purpose of the detailed analysis is to determine the extent and duration of new incremental shadows that fall on a sunlight-sensitive resource as a result of the Proposed Actions. To evaluate the extent and duration of a new shadow that would be added to a sunlight-sensitive resource as a result of the Proposed Actions, shadows from the site that would exist under the Future No-Action Condition were defined. In the future without the Proposed Actions, the existing building, vacant areas, and surface parking lot would remain on the site and shadow conditions would not change, as no new structures would be built on the site. As such, existing shadow conditions would remain the same under the Future No-Action Condition.

The detailed shadow assessment considers those shadows occurring between 1.5 hours after sunrise and 1.5 hours before sunset. Shadows occurring earlier and later are long, move fast, and generally blend with shadows from existing structures. At times outside the timeframe window of analysis, the sun is located near the horizon and the sun's rays reach the Earth at close to tangential angles diminishing the amount of energy delivered by the sun's rays and producing shadows that grow in length exponentially until the sun reaches the horizon and sets. Because of these conditions, the shadows occurring between 1.5 hours before sunset and 1.5 hours after sunrise are not considered significant under CEQR, and their assessment is not required.

The results of the detailed shadow analyses are noted in **Table 2.3-1**. The table presents the times when net new incremental shadows enter Astoria Health Playground, as well as the duration of the shadow to the end of the required time frame during each analysis date. **Figures 2.2-4a to 2.2-4d** highlight how much of the shadow cast on the park is incremental shadow.

Table 2.3-1: Detailed Shadow Analysis Summary

Analysis Day	21-Dec	March 21 / September 21	May 6 / August 6	21-Jun
Timeframe Window	8:51 a.m. - 2:53 p.m.	7:36 a.m. - 4:29 p.m.	6:27 a.m. - 5:18 p.m.	5:57 a.m. - 6:01 p.m.
Sunlight Sensitive Resource 1	Astoria Health Playground			
Shadow enter - exit times	-	4:17 pm - 4:29 pm	4:34 pm - 5:18 pm	4:53 pm - 6:01 pm
Incremental Shadow Duration	-	12 Minutes	44 Minutes	1 Hour 8 Minutes
Note: Daylight savings time not used				

During the December 21st analysis timeframe, no project generated shadows would be cast on Astoria Health Playground.

During the March 21st analysis timeframe, the project-generated shadow would enter the park at 4:17pm and remain in the park through the duration of the timeframe window, which ends at 4:29pm. There would be a total of 12 minutes of incremental shadow duration resulting from the Proposed Actions. The shadow cast on the park at 4:29pm represents the maximum extend of the project-generated shadow on the park, after which the shadow recedes from the resource and is no longer significant.

On May 6th, the project-generated shadow would enter the park at 4:34 p.m. and remain in the park through the duration of the timeframe window, which ends at 5:18 p.m., a duration of 44 minutes. The shadow cast on the park at 5:18 p.m. represents the maximum extent of the project-generated shadow on the park, after which shadows are no longer significant.

On June 21st, the project-generated shadow would enter the park at 4:53 p.m. and remain in the park through the duration of the timeframe window, which ends at 6:01 p.m., a duration of 68 minutes. The shadow cast on the park at 6:01p.m. represents the maximum extent of the project-generated shadow on the park, after which shadows are no longer significant.

Figure 2.2-4a: Detailed Shadow Analysis- March-4:29 PM

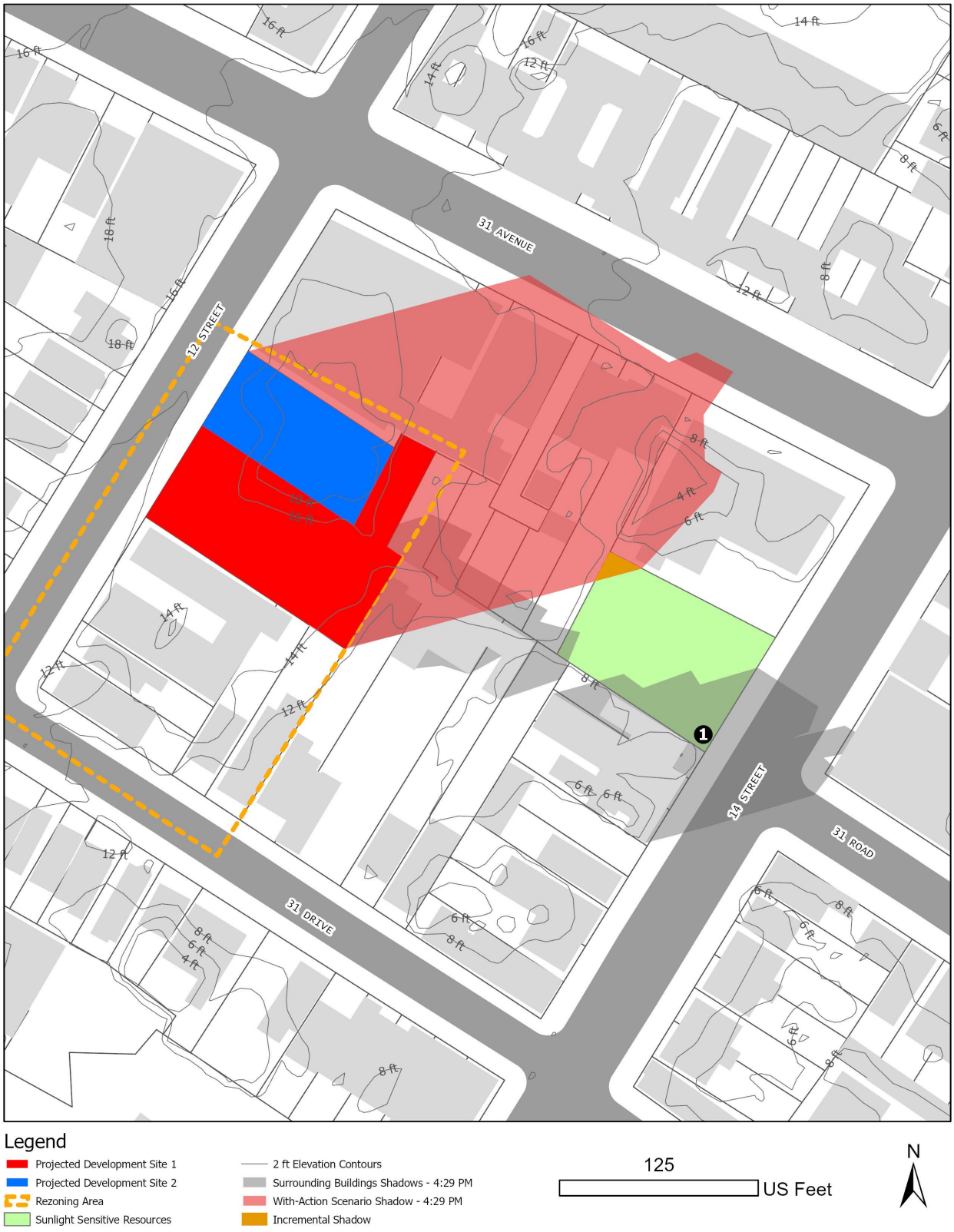


Figure 2.2-4b: Detailed Shadow Analysis- May- 5:18 PM

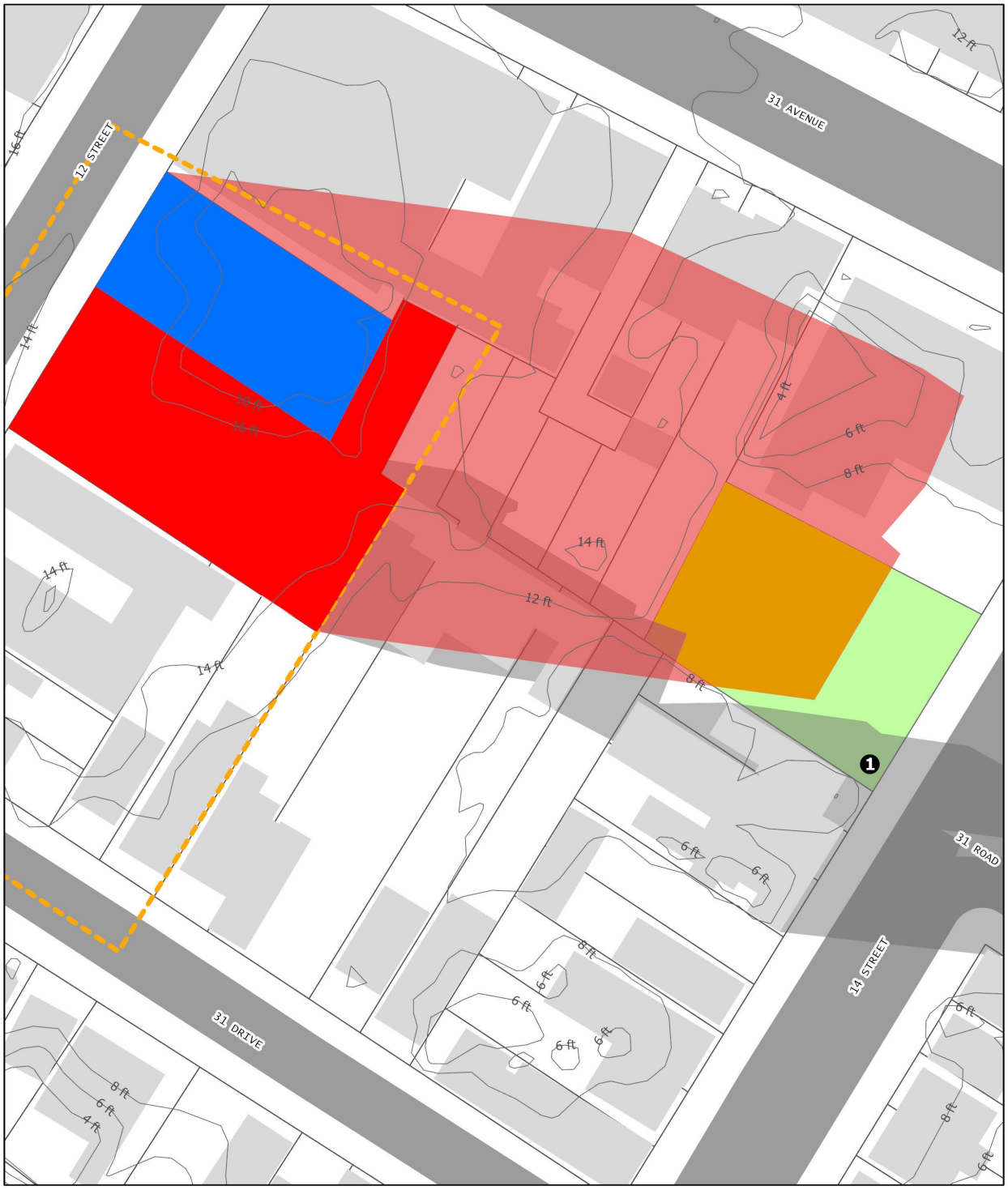


Figure 2.2-4c: Detailed Shadow Analysis- June – 5:00 PM

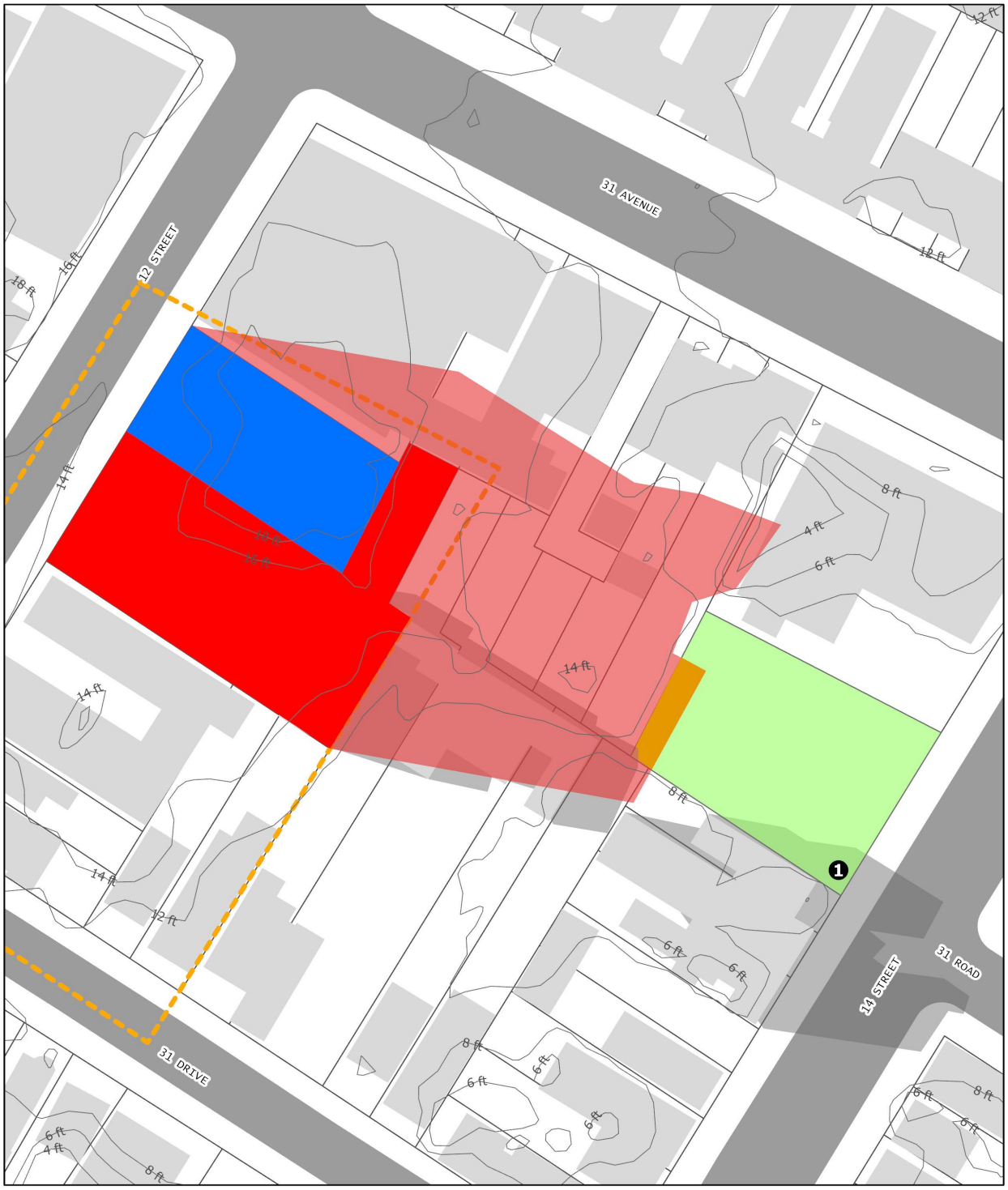
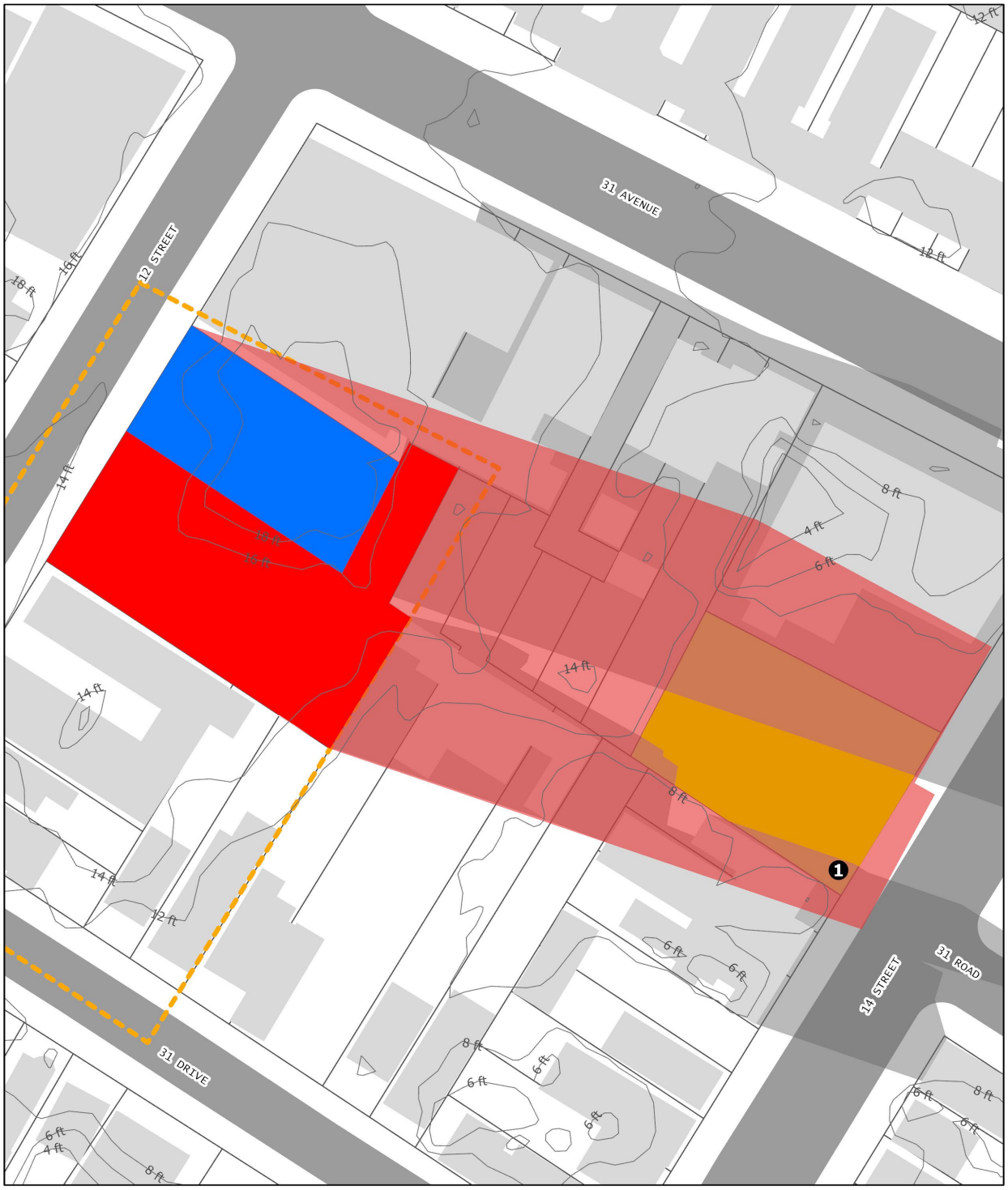


Figure 2.2-4d: Detailed Shadow Analysis- June- 6:01 PM



Conclusions

The *CEQR Technical Manual* states that the determination of significance of shadow on a sunlight-sensitive resource is based on: (1) the information resulting from the detailed shadow analysis describing the extent and duration of incremental shadows; and (2) an analysis of the resource's sensitivity to reduced sunlight. The goal of the assessment is to determine whether the effects of incremental shadows on a sunlight-sensitive resource are significant under CEQR. A shadow impact occurs when the incremental shadow from a proposed project falls on a sunlight-sensitive resource or feature and reduces its direct sunlight exposure. Determining whether this impact is significant or not, under CEQR, depends on the extent and duration of the incremental shadow and the specific context in which the impact occurs.

For open space and natural resources, the uses and features of a resource is an indicator of its sensitivity to shadows. Shadows occurring during the cold-weather months of interest generally do not affect the growing season of outdoor vegetation; however, effects on other uses and activities should be assessed. This sensitivity is assessed for warm-weather-dependent features (such as wading pools and sand boxes) or vegetation that could be affected by a loss of sunlight during the growing season, and for features (such as benches) that could be affected by a loss of winter sunlight. Vegetation requiring direct sunlight includes the tree canopy, flowering plants, and plots in community gardens. Generally, four to six hours a day of sunlight, particularly in the growing season, is often a minimum requirement. Where the incremental shadows from the project fall on sunlight-sensitive features or uses, the analysis assesses the loss of sunlight relative to sunlight that would be available without the project.

As discussed above, the Proposed Actions would cast incremental shadows on the Astoria Health Playground on March 21, May 6, and June 21, with durations of 12 minutes, 44 minutes, and 68 minutes to the end of the analysis window respectively. However, no part of the playground would be in constant shadow, as the shadow would sweep across the playground during the day. As no point would any portion of the park be unusable due to additional shadows and all plantings would still receive direct periods of sunlight during the day. As a result, the impact on the playground from project-generated shadows would not be significant and further analysis is not required.

2.3 HISTORIC AND CULTURAL RESOURCES

An assessment of historic and cultural resources is usually necessary for projects that are near 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.

2.3.1 Architectural Resources

According to *CEQR Technical Manual* guidelines, impacts on historic resources are considered on those sites affected by the Proposed Actions and in the area surrounding identified development sites. The historic resources study area is therefore defined as the Rezoning Area plus a 400-foot radius around the Rezoning Area.

The LPC was contacted for their initial review of the project's potential to impact nearby historic or architectural resources, and by letter dated May 18th, 2021 indicated that the LPC designated and S/NR listed Sohmer Piano Co. located At 11-02 31st Avenue and S/NR eligible Department Of Health City of New York located At 12-36 31st Avenue are within the study area:

Therefore, an analysis on the potential impacts of the Proposed Actions on the identified architectural resources is warranted.

Existing Condition

The LPC identified the following architectural resources within the study area:

- Sohmer Piano Co., 11-02 31st Avenue (LPC Designated and S/NR Listed): One of the most prominent structures along the Queens side of the East River in Long Island City, the Sohmer & Co. Piano Factory Building is distinguished by its monumental scale and prominent mansard-roofed clock tower. The original part of the building, which included the clock tower, was constructed around 1886 as the piano factory for Sohmer & Co. It was designed by the architectural firm Berger & Baylies, which produced plans for commercial and residential buildings throughout New York City, including several warehouses and store-and-loft buildings in the Tribeca Historic Districts. The Sohmer factory,

designed in the German Romanesque Revival Style, is constructed of brick with segmentally arched windows with brick lintels. The first, second, and fifth stories are surmounted by band courses. The factory was expanded to the south in c.1906-07. This new wing, which fronts on Vernon Boulevard, is attributed to architect Franklin Baylies and was designed to the match the earlier section.

- Department Of Health City of New York, 12-36 31st Avenue (S/NR Eligible): The three-story limestone and brick structure, built in 1936, is an outstanding example of Renaissance Revival civic architecture. It also played a role in the history of health and hospitals in New York City. The New York City Department of Health building at the southeast corner of 31st Avenue and 14th Street was completed in 1936. Construction began in the spring of 1935 and at that time, the building was lauded as "the first of its kind in Queens," featuring office space for the department's administration as well as clinical facilities for neighborhood children with a focus on diagnosing and treating tuberculosis, an exhibit area and a small park.

Future No-Action Condition

Without the Proposed Actions, the existing conditions would remain within the Rezoning Area and within the properties identified as LPC designated, S/NR listed, and S/NR eligible. In the No-Action Condition, the architectural resources within the study area would remain unchanged.

Future With-Action Condition

The potential for significant adverse impacts on historic resources under Future With-Action Condition was assessed to determine (a) whether there would be a physical change to any designated resource or its setting, and (b) if so, is the change likely to diminish the qualities of the resource that make it important (including non-physical changes such as context or visual prominence).

In the With-Action Scenario, it is assumed that Projected Development Site 1 (Block 518, Lot 13), a 12,070-sf lot, would be developed with a new 29,209 gsf (26,500 zsf) residential building which would be a total of 55 feet in height, the maximum height in R6B zoning districts. The FAR would be 2.2 which is the maximum allowed in an R6B zoning district with MIX. Assuming an 850 sf/du factor, 34 residential units would be constructed. However, the Applicant is proposing 35 dwelling units. Therefore, for purposes of a conservative assessment, it is assumed that 35 dwelling units would be constructed in the With-Action Scenario, 25-30% (9-11 units) of which would be affordable pursuant to MIH Option 1 or 2 at an average of 60-80% AMI, respectively. For the purposes of Early Childhood Programs analysis, 20% of units (7 units) are assumed to be affordable at or below 80% AMI. There would be 15 open accessory parking spaces at the rear of the Proposed Building and 18 enclosed bicycle parking spaces in the cellar.

In the With-Action Scenario, it is assumed that Projected Development Site 2 (Block 518, Lots 16,17, and 18) would assemble the three lots as one 6,071 sf development site due to the common lot ownership of Lots 16 and 18, and the new development potential under the R6B zoning. It is assumed that Projected Development

Site 2 would be developed with a new 14,691 gsf (13,356 zsf) residential building with 17 dwelling units, 25-30% (5-6 units) of which would be affordable pursuant to MIH Option 1 or 2 at an average of 60-80% AMI, respectively. For the purposes of Early Childhood Programs analysis, 20% of units (4 units) are assumed to be affordable at or below 80% AMI. The residential building would be a total of 55 feet in height, the maximum height in R6B zoning districts and would have an FAR of 2.2, which is the maximum allowed under R6B zoning district guidelines with MIH. It is assumed that 7 parking spaces would be provided in the cellar.

Direct impacts

In the future, with the Proposed Actions, it is expected that the existing architectural resources within the Study Area would be the same as the existing conditions. There are no existing architectural resources within the Rezoning Area (See **Appendix C** for LPC letter dated May 18th, 2021) and LPC concluded that there are no concerns related to the historic resources and shadows upon review of the EAS (See **Appendix C** for LPC letter dated February 28th, 2024). As such, no direct impacts on architectural resources would occur.

Construction impacts

If a project's construction activities are located within 400 feet of a historic or cultural resource, potential hazards should be assessed, such as whether certain character-defining elements of a structure, including but not limited to rooftops or stained-glass windows, could be impacted by falling objects from an adjacent construction site. If the project is located within 90 feet of a New York City Landmark, a National Register-listed property, or within a New York City Historic District, the potential for physical disturbance should be disclosed and the project is required to comply with the New York City Department of Buildings (DOB) Technical Policy and Procedure Notice (TPPN) #10/88. TPPN #10/88 supplements the standard building protections afforded by Building Code C26-112.4 by requiring a monitoring program to reduce the likelihood of construction damage to adjacent New York City Landmarks and National Register-listed properties (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures may be changed. If the project is not located within 90 feet of a historic or cultural resource that is NYC-landmark eligible, eligible for the State and National Register of Historic Places, or within an eligible New York City Historic District, then no special protections apply. Therefore, the potential for physical disturbance and adverse impacts to those historic and cultural resources should be disclosed. The LPC designated and S/NR Listed resource at 11-02 31st Avenue is greater than 90 feet away from Projected Development Sites 1 and 2 and the construction timeline would be short-term lasting under two years. The S/NR eligible resource at 12-36 31st Avenue is located greater than 90 feet away from Projected Development Sites 1 and 2 and the construction timeline would be short-term lasting under two years.

Accordingly, the Proposed Actions would not introduce adverse construction-related impacts to architectural resources within the Study Area from ground-borne construction period vibrations, falling debris, and/or collapse. Therefore, significant adverse impacts to these resources are not expected because of the Proposed Actions, and further analysis is not warranted.

Indirect impacts

The Proposed Actions would not result in any visual and contextual impacts to the known historic resources within the study area, as the new building that would be developed under the Proposed Actions would be consistent with urban design features of the surrounding area. The Proposed Actions would facilitate a residential development in an area characterized by residential uses, which would not introduce any incompatible visual, audible, or atmospheric elements to the settings of the identified historic resources.

Publicly accessible views of the identified historic architectural resources would not be blocked, because the new development would occur on existing blocks and lots. In addition, none of the identified historic resources feature sunlight-sensitive physical characteristics based on the *CEQR Technical Manual*:

- The buildings do not contain design elements that are part of a recognized architectural style that depends on the contrast between light and dark design elements.
- The buildings are not distinguished by elaborate, highly carved ornamentation.
- The buildings do not have stained glass windows.
- The buildings do not contain exterior materials and color that depend on direct sunlight for visual character.
- The buildings do not include a historic landscape, such as scenic landmarks including vegetation recognized as a historic feature of the landscape.
- The buildings do not include features where the effect of direct sunlight is described as playing a significant role in the structure's significance as an historic landmark.

As such, no sunlight sensitive historic resources would be affected by incremental shadows as a result of the Proposed Actions.

The Proposed Actions would also not pose any changes to the setting or context of historic resources. Since the architectural resources are located within 400 feet from the Rezoning Area, the construction activity happening at the Projected Development Sites may induce some temporary changes to the environment surrounding the architectural resources. However, the construction activity is expected to last for approximately 14 months. As such, no significant indirect impacts on architectural resources would occur as a result of the Proposed Actions.

2.3.2 Archaeological Resources

Unlike the architectural evaluation of a study area that extends beyond the footprint of a project's block and lot lines, the analysis of potential and/or projected impacts to archaeological resources is controlled by the actual footprint of the limits of soil disturbance. Archeological resources are physical remains, usually subsurface, of the prehistoric and historic periods such as burials, foundations, artifacts, wells, and privies. The *CEQR Technical Manual* recommends 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 existing Rezoning Area has been previously disturbed and no areas of cultural or archaeological significance have been attached to this area. Further, utilizing the NYS Office of Parks, Recreation and Historic Preservation's "Cultural Resource Information System" (CRIS) mapper, the Rezoning Area does not fall within an archaeologically sensitive area. LPC was contacted for their opinion on the potential impacts of any architectural resources in the area. A response was received on May 18th, 2021, indicating no properties within the Rezoning Area had any archaeological significance.

Conclusion

According to the *CEQR Technical Manual*, significant adverse impacts to historic and cultural resources could potentially result if a proposed action affects those characteristics that make a resource eligible for LPC designation or S/NR listing. Based on the above analysis, the Proposed Actions would not result significant adverse impacts to architectural resources. In addition, no archaeological significance is associated with the Projected Development Sites. Accordingly, no further analysis is warranted.

2.4 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 *2021 CEQR Technical Manual*, an assessment of Urban Design may be warranted when a Proposed Action may affect one or more of the elements that contribute to the pedestrian experience of an area, specifically the arrangement, appearance, and functionality of the built environment.

Methodology

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

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

The following preliminary analysis also considers the effects of the Proposed Actions on an area's visual resources, or those important public view corridors, vistas, natural or built features. Visual resources can include waterfront views, public parks, landmark structures or districts, or natural features, such as rivers or geological formations. Based on *CEQR Technical Manual* guidelines, the study area for urban design is the area where the project may influence land use patterns and the built environment. The urban design study area consists of both a primary study area (where urban design defects of the Proposed Actions are direct) and a secondary study area. For the purpose of this assessment, the primary study area is the Rezoning Area. As with the analysis of land use, zoning, and public policy, the second study area for the urban design assessment is defined as the area within approximately 400 feet of the Rezoning Area (see **Figure 2.4-1**) Due to the size of this rezoning, this assessment also considers the context, access, and relationship with the broader "neighborhood unit" in which the study area sits.

2.4.1 Preliminary Analysis

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 Rezoning Area). 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 affect elements of urban design significantly and adversely, which would warrant the need for a detailed urban design and visual resources assessment.

Existing Conditions

The study area is in the Astoria neighborhood of Queens. Ground-level photographs of the Projected Development Sites, Rezoning Area and the immediate surrounding area are provided in previously presented **Figure 6-1** to **Figure 6-3.**

As noted in **Section 2.1-1**, the predominant land use is residential uses with a scattering of institutional and light industrial uses and a scattering of mixed residential and commercial buildings; most of which contain ground floor commercial uses with residential uses on the upper floors. Most buildings within the study area are arranged regular (parallel) with respect to their lot placement. Residential buildings are both attached and detached throughout the Study Area.

There are few streetscape elements within the Study Area. Along 14th street, to the east of the Rezoning Area, there is a small children's playground with playground equipment, a sprinkler, and a basketball court. Northwest of the Rezoning Area, in the northwest portion of the Study Area, at the intersection of 12th Street and 31st Avenue, there is new mixed use residential and commercial construction going on Block 504. The streets are otherwise comprised of basic streetscapes lined with sidewalks, scattered street lighting and little in the way of visual interest such as greenery. No other notable streetscape elements are located within the Study Area.

Future No-Action Condition

The Rezoning Area is in the Astoria neighborhood in Queens. In this case, the No-Action Scenario is assumed to be the same as the existing conditions of the Rezoning Area. There are not any known development plans for any of the Lots in the Rezoning Area absent the Proposed Actions. **Figure 2.4-2** and **Figure 2.4-4** highlight the Future No-Action Scenario for the two Projected Development Sites. **Figure 2.4-1** provides a photo key for the urban design figures.

Future With-Action Condition

According to the *CEQR Technical Manual*, if a preliminary assessment determines that changes to the pedestrian environment are sufficiently significant to require greater explanation and further study, then a

detailed urban design and visual resources analysis is appropriate. Detailed analyses are generally appropriate for all area-wide rezoning applications that include an increase in permitted floor area or changes in height and setback requirements, general large-scale developments, or projects that would result in substantial changes to the built environment of a historic district, or components of a historic building that contribute to the resource's historic significance. Conditions that merit consideration for further analysis of visual resources include when the project partially or totally blocks a view corridor or a natural or built rare or defining visual resource. Further conditions that merit consideration are when the project changes urban design features so that the context of a natural or built visual resource is altered, such as if a project alters the street grid so that the approach to the resource changes, or if a project changes the scale of surrounding buildings so that the context changes. **Figure 2.4-3** and **Figure 2.4-5** highlight the Future With-Action Scenario for the two Projected Development Sites.

Projected Development Site 1 (Block 518, Lot 13; Applicant-owned Site)

In the With-Action Scenario, it is assumed that Lot 13, a 12,070-sf lot, would be developed with a new 29,209 gsf (26,500 zsf) residential building which would be a total of 55 feet in height, the maximum height in R6B zoning districts. The FAR would be 2.2 which would be allowed in an R6B zoning district. Assuming an 850 sf/du factor, 34 residential units would be constructed. However, the Applicant is proposing 35 dwelling units. Therefore, for purposes of a conservative assessment, it is assumed that 35 dwelling units would be constructed in the With-Action Scenario. There would be 15 open accessory parking spaces at the rear of the Proposed Building and 18 enclosed bicycle parking spaces in the cellar.

Projected Development Site 2 (Block 518, Lots 16,17, and 18; non-Applicant-owned Site)

In the With-Action Scenario, it is assumed that these three lots would be assembled as one 6,071 sf development site due to the common lot ownership of Lots 16 and 18, and the new development potential under the R6B zoning. It is assumed that Projected Development Site 2 would be developed with a new 14,691 gsf (13,356 zsf) residential building with 17 dwelling units. The residential building would be a total of 55 feet in height, the maximum height in R6B zoning districts and would have an FAR of 2.2, which is allowed under R6B zoning district guidelines. It is assumed that 7 parking spaces would be provided in the cellar.

No development is expected to occur on Block 518- Lots 6, 7, 8, 9, 10, p/o lot 5, p/o Lot 19 within the Rezoning Area as previously discussed in Section 1.8.

Conclusion

Compared to the future without the Proposed Actions, in the future with the Proposed Actions, the visual appearance and thus the pedestrian experience of the Projected Development Sites would change slightly by facilitating an increase in bulk and height on Projected Development Sites 1 and 2 and a change in use from mixed commercial and residential uses to residential use only on Projected Development Site 1; however, this change would not meet the *CEQR Technical Manual* threshold for a significant adverse urban design impact in that it would not alter the arrangement, appearance, or functionality of the Projected

Development Sites such that the alteration would negatively affect a pedestrian's experience of the study area. The proposed R6B zoning district would be consistent with the R6B district located directly to the north and east of the Rezoning Area, which includes several 4-story residential buildings similar in height and bulk compared to the With-Action Projected Development Sites and the residential uses along 12th Street and 31st Drive within the study area. The development on of the Projected Development Sites would not block any significant visual resources from pedestrian vantage points. As such, these changes would not be significantly adverse, as no view of significant visual resources would be obstructed. Therefore, the Proposed Actions would not have any significant adverse impacts on visual resources.

Overall, the Proposed Actions would not result in any negative effects on the urban design characteristics of the Study Area and therefore would result in no significant adverse urban design and visual resource impacts.

Figure 2.4-1: Urban Design Photo Key



Figure 2.4-2: Future No-Action Location 1



Figure 2.4-3: Future With-Action Location 1



Figure 2.4-4: Future No-Action Location 2



Figure 2.4-5: Future With-Action Location 2



2.5 HAZARDOUS MATERIALS

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

Methodology

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). According to 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.

The hazardous materials assessment begins with a Phase I Environmental Site Assessment (ESA), which is a qualitative evaluation of the environmental conditions present at a site, based on a review of available information, site observations, and interviews. Pursuant to the *2021 CEQR Technical Manual*, the Phase I ESA is conducted in accordance with the standards established by the current ASTM Phase I ESA Standard and includes research and field observations to determine whether the site may contain contamination from either past or present activities on the site or as a result of activities on adjacent or nearby properties.

The purpose of the Phase I ESA was to investigate and identify Recognized Environmental Conditions (RECs), including historical RECs (HRECs), controlled RECs (CRECs), and de minimis conditions (DMCs). A REC is defined by the ASTM standard as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." The term includes hazardous substances or petroleum products even under conditions in compliance with laws. HRECs are a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. CRECs are a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. DMCs are those situations that do not present a material risk of harm to public health or the environment and generally would not be subject to enforcement action if brought to the attention of the regulating authority.

If a potential REC is identified during this assessment, then building any subsurface investigations are usually conducted as part of a Phase II ESA to confirm the presence and extent of the contamination.

The assessment is based on a review of existing conditions, reported pre-existing conditions, and observed operations at the subject property and adjacent properties. A copy of the Phase I ESA is provided in **Appendix D.** The Phase I ESA results are summarized below.

Analysis

The Phase I ESA was performed at the one parcel comprising Projected Development Site 1, located 31-17 12th Street (Queens Block 518, Lot 13). The Phase I ESA identified two RECs that revealed environmental areas of concern:

- One REC is in relation to an oil leak from the boiler located in the basement of the residential building on the Subject Property. The boiler leaks into a hole with exposed soil beneath the building slab. The REC has been attempted to be controlled with the use of Speedy Dry or equivalent. It is Equity's opinion that the speedy Dry is not a sufficient control for the number two oil leak therefore, this condition is still considered a REC.

- A second REC was also observed in the basement of the residential building on the Subject Property and is in relation to a leak of number two heating oil from the piping connection into one of two above ground storage tanks (ASTs). The leaking oil tank connection sits on top of exposed soil and is considered a REC.

Based on the above-described activities, no controlled RECs (CRECs), or historical RECs (HRECs) were identified in connection with the subject property. No, De Minimis Conditions were identified as a result of this assessment.

Vapor Encroachment Conditions

A Vapor Encroachment Screening in accordance with ASTM International E2600-15 was performed by Equity. The EDR Vapor Encroachment database identified multiple VECs with 1/10 of a mile to the Subject Property related to a historic auto garage on the Subject Property, a ten-gallon spill of an unknown petroleum product on the Subject Property, a historic drycleaner 94 feet from the Subject Property, and a spill of kerosene and number two heating oil from a dewatering facility at Astoria Gas Turbines. Based on these findings, a vapor encroachment condition cannot be ruled out. Details on the VECs can be found in the Phase I ESA.

<u>Data Gaps</u>

Equity identified one data gap in relation to the first floor of the residential building. The first floor was inaccessible due to the presence of a tenant during the investigation. According to Ms. Penta the tenant occupying the first floor did not allow access. No visual or olfactory signs of environmental impacts were observed in relation to the first floor of the residential building therefore, Equity does not believe this data gap

would affect its ability to identify Recognized Environmental Concerns (RECs) associated with the Subject Property.

Conclusion

Equity's review of available information and observations of the subject and surrounding properties indicates that no CRECs, HRECs, or De Minimis conditions were identified as a result of this assessment however, two RECs were identified and a potential VEC issue cannot be ruled out.

A Phase II ESA cannot be completed on the applicant-owned Projected Development Site 1 due to the presence of existing buildings, which are occupied by active residential use. Therefore, to preclude the potential for significant adverse impacts, an (E) Designation for hazardous materials would be placed on the applicant-owned Projected Development Site 1, as well as the non-applicant owned Projected Development Site 2. An (E) Designation on the Projected Development Sites would assure that testing and mitigation will be performed, as necessary, before any future development and/or soil disturbance. Further hazardous materials assessments would be coordinated through the Mayor's Office of Environmental Remediation (OER). With this (E) Designation in place, no significant adverse impacts related to hazardous materials would occur, and no further analysis is warranted.

The text of the (E) designation would be as follows:

E-Designation (E-757)

Projected Development Site 1 (Block 518, Lot 13; applicant-owned) & Projected Development Site 2 (Block 518, Lots 16,17, and 18; non-applicant-owned)

Task 1-Sampling Protocol

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

Task 2-Remediation Determination and Protocol

A written report with findings and a summary of the data must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination

is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

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

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

2.6 AIR QUALITY

This section examines the potential for air quality impacts from the Proposed Actions. According to the CEQR Technical Manual, air quality impacts can be characterized as either direct or indirect impacts. Direct impacts result from emissions generated by stationary sources, such as stack emissions from on-site fuel burned for boilers and heating, ventilation, and air conditioning (HVAC) systems. Indirect effects are caused by off-site emissions associated with a project, such as emissions from on-road motor vehicles ("mobile sources") traveling to and from a project site. An assessment of traffic associated with the proposed project was conducted to determine if the Proposed Actions would have potential air quality mobile sources concerns.

2.6.1 Pollutants of Concern

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

Criteria Pollutants

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

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

Nitrogen Oxides (NO_2) emissions are formed when combustion temperatures are extremely high, such as in engines, where atmospheric nitrogen gas may combine with oxygen gas to generate various oxides of nitrogen. Of these, nitric oxide (NO) and nitrogen dioxide (NO_2) are the most significant air pollutants. This group of pollutants is generally referred to as nitrogen oxides or NO_X. Nitric oxide is relatively harmless to humans but quickly converts to NO_2. Nitrogen dioxide has been found to be a lung irritant and can lead to respiratory illnesses. Nitrogen oxides, along with VOCs, are also precursors to ozone formation.

Sulfur Dioxide (SO_2) emissions are the main components of the "oxides of sulfur," a group of highly reactive gases from fossil fuel combustion at power plants, other industrial facilities, industrial processes, and burning of high sulfur containing fuels by locomotives, large ships, and non-road equipment. High concentrations of SO_2 will lead to formation of other sulfur oxides. By reducing the SO_2 emissions, other forms of sulfur oxides are also expected to

decrease. When oxides of sulfur react with other compounds in the atmosphere, small particles that can affect the lungs can be formed. This can lead to respiratory disease and aggravate existing heart disease.

Non-criteria Pollutants

In addition to the criteria pollutants discussed above, non-criteria pollutants may be of concern. Non-criteria pollutants are emitted by a wide range of man-made and naturally occurring sources. These pollutants are sometimes referred to as hazardous air pollutants (HAP) and when emitted from mobile sources, as Mobile Source Air Toxics (MSATs). Emissions of non-criteria pollutants from industrial sources are regulated by the United States Environmental Protection Agency (USEPA).

Federal ambient air quality standards do not exist for non-criteria pollutants; however, the New York State Department of Environmental Conservation (NYSDEC) has issued standards for certain non-criteria compounds, including beryllium, gaseous fluorides, and hydrogen sulfide. NYSDEC has also developed guidance document DAR-1 (February 2021). DAR-1 contains a compilation of annual and short term (1-hour) guideline concentrations for these compounds. The NYSDEC guidance thresholds represent ambient levels that are considered safe for public exposure. EPA has also developed guidelines for assessing exposure to non-criteria pollutants. These exposure guidelines are used in health risk assessments to determine the potential effects to the public.

2.6.2 Impact Criteria

The predicted concentrations of pollutants of concern associated with a proposed project are compared with either the National Ambient Air Quality Standards (NAAQS) for criteria air pollutants or ambient guideline concentrations for non-criteria pollutants. In general, if a project would cause the standards for any pollutant to be exceeded, it would likely result in a significant adverse air quality impact. In addition, for CO from mobile sources and for $PM_{2.5}$, the *de minimis* criteria are also used to determine the significance of impacts.

National Ambient Air Quality Standards

The Clean Air Act (CAA) requires the USEPA to set standards on the pollutants that are considered harmful to public health and the environment. The NAAQS were implemented as a result of the CAA, amended in 1990. The NAAQS applies to six principal ("criteria") pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter 10 (PM_{10}), particulate matter 2.5 ($PM_{2.5}$), sulfur dioxide (SO_2), and ozone.

Non-criteria Pollutant Thresholds

Non-criteria, or toxic, air pollutants include a multitude of pollutants of ranging toxicity. No federal ambient air quality standards have been promulgated for toxic air pollutants. However, USEPA and NYSDEC have issued guidelines that establish acceptable ambient levels for these pollutants based on human exposure.

The NYSDEC DAR-1 guidance document presents guideline concentrations in micrograms per cubic meter ($\mu g/m^3$) for the one-hour and annual average time periods for various air toxic compounds.

In order to evaluate impacts of non-carcinogenic toxic air emissions, USEPA developed a methodology called the "Hazard Index Approach."

The acute hazard index is determined by summing hazard quotients from individual chemicals and hazard index approach is only applicable to chronic hazard quotients. For chronic non-carcinogenic effects, the hazard index is calculated as the sum of chronic hazard quotients of all chemicals. For acute exposure, USEPA recommends summing acute hazard quotients from individual chemicals if they have similar effects.

DAR-1 states that the maximum concentration of all air contaminants must be less than a Hazard Index of 2 for non-carcinogen non-criteria air contaminants. If the combined ratio of pollutant concentration divided by its respective exposure threshold for each of the toxic pollutants is found to be less than 2.0, no significant adverse air quality impacts are predicted to occur due to these pollutant releases.

Table 2.6-1: National and New York State Ambient Air Quality Standards

Pollutant	Averaging Time	Standards
Carbon Monoxide (CO)	1-hour	35 ppm (40,000 µg/m^3)
	8-hour	9 ppm (10,000 µg/m^3)
Nitrogen Dioxide (NO_2)	1-hour	100 ppb (188 µg/m^3)
	annual	53 ppb (100 µg/m^3)
Ozone	8-hour	0.075 ppm
Particular Matter (PM_{10})	24-hour	150 µg/m^3
Particular Matter ($PM_{2.5}$)	24-hour	35 µg/m^3
	annual	12 µg/m^3
Sulfur Dioxide (SO_2)	1-hour	75 ppb (196 µg/m^3)
	3-hour	0.5 ppm (1,300 µg/m^3)

In addition, as per DAR-1, the acceptable residual risk management range for process emission source's and/or emission point's must be less than 10-in-a-million cancer risk for those non-criteria air contaminants identified as carcinogens. Using these factors, the potential cancer risk associated with each carcinogenic pollutant, as well as the total cancer risk of the releases of all the carcinogenic toxic pollutants combined, can be estimated. If the total incremental cancer risk of all the carcinogenic toxic pollutants combined is less than 10-in-one million, no significant adverse air quality impacts are predicted to occur due to these pollutant releases.

Carbon Monoxide (CO) *De Minimis* Criteria

New York City has developed de minimis criteria to assess the significance of the increase in CO concentrations that would result from the impact of proposed projects or actions on mobile sources, as set forth in the *2021 CEQR Technical Manual*. These criteria set the minimum change in CO concentration that defines a significant environmental impact. Significant increases of CO concentrations in New York City are defined as: (i) an increase of 0.5 ppm or more in the maximum eight-hour average CO concentration at a location where the predicted No-Action eight-hour concentration is equal to or between 8.0 and 9.0 ppm; or (ii) an increase of more than half the

difference between baseline (i.e., No-Action) concentrations and the eight-hour standard, when No-Action concentrations are below 8.0 ppm.

Particulate Matter ($PM_{2.5}$) *De Minimis* Criteria

New York City uses de minimis criteria to determine the potential for significant adverse $PM_{2.5}$ impacts under CEQR. The *de minimis* criteria are as follows:

- Predicted increase of more than half the difference between the background concentration and the 24-hour standard;
- Annual average $PM_{2.5}$ concentration increments which are predicted to be greater than 0.1 $\mu g/m^3$ at ground level in a neighborhood; or
- Annual average $PM_{2.5}$ concentration increments which are predicted to be greater than 0.3 $\mu g/m^3$ at a discrete receptor location (elevated or ground level).

Mobile Sources

Project-Generated Traffic Screening Analysis

Screening analyses for the Projected Development's peak hour auto traffic and peak hour heavy-duty diesel vehicle (HDDVs) traffic were conducted. Per the *CEQR Technical Manual*, a detailed analysis for carbon monoxide (CO) is required if the generated peak hour auto traffic or diversion of existing peak hour traffic would result in an increment of 170 auto trips (in this area of the city). A detailed analysis for particles with an aerodynamic diameter of less than or equal to 2.5 micrometers ($PM_{2.5}$) is required if the generated peak hour HDDVs traffic or its equivalent in vehicular emissions, depending on the type of road, would be met or exceeded.

The Proposed Actions do not trigger any thresholds with regard to transportation, according to Table 16-1 in the *CEQR Technical Manual*. Therefore, it is believed that the number of incremental vehicular trips from the Proposed Actions would be lower than the *CEQR Technical Manual* CO screening threshold of 170 vehicles per hour and the PM screening threshold of 12 HDDV per hour. Therefore, further assessment is not warranted.

Stationary Sources

According to the *CEQR Technical Manual* guidelines, air quality analyses of stationary sources may be warranted if a project would (i) create new stationary sources of pollutants – such as emission stacks of industrial plants, hospitals, other large institutional uses, or even a building's boilers – that may affect surrounding uses; (ii) introduce certain new uses near existing or planned emissions stacks that may affect the use, or (iii) introduce structures near such stacks so that changes in the dispersion of emissions from the stacks may affect surrounding uses.

HVAC Systems Analysis

As described in Section 220 and Section 321 in Chapter 17 of the *CEQR Technical Manual*, for single building projects that would use fossil fuels (i.e., fuel oil or natural gas) for HVAC systems, a preliminary stationary source screening analysis is typically warranted to evaluate the potential for impacts on existing buildings from HVAC systems emissions for the proposed project. The *CEQR Technical Manual* provides screening nomographs based on fuel type, stack height, minimum distance from the source to the nearest receptor buildings with similar or greater heights, and floor area of development resulting from the proposed project. There are three different curves representing three different stack heights (30 feet, 100 feet and 165 feet) on the figures, and the number closest to but not higher than the proposed stack height should be selected. The screening methodology determines the minimum required distance from the source to the nearest receptor of similar or greater height, beyond which the action would not have a significant adverse impact. Based on the development size, if the distance from the development site to the nearest building of similar or greater height is less than the minimum required distance determined, there is the potential for a significant air quality impact from the project's boilers, and further analysis needs to be conducted using the USEPA's AERSCREEN and/or AERMOD model.

Dispersion Modeling

Potential impacts were evaluated using the EPA AERMOD dispersion model. AERMOD is a state-of-the-art dispersion model, applicable to rural and urban areas, flat and complex terrain, surface and elevated releases, and multiple sources (including point, area, and volume sources). AERMOD is a steady-state plume model that incorporates current concepts about flow and dispersion in complex terrain, including updated treatments of the boundary layer theory, understanding of turbulence and dispersion, and includes handling of terrain interactions. The AERMOD model calculates pollutant concentrations from one or more points (e.g., exhaust stacks) based on hourly meteorological data, and has the capability to calculate pollutant concentrations at locations where the plume from the exhaust stack is affected by the aerodynamic wakes and eddies (downwash) produced by nearby structures. The analysis of potential impacts from exhaust stacks was performed assuming stack tip downwash, urban dispersion and surface roughness length, with and without building downwash, and elimination of calms. The AERMOD model also incorporates the algorithms from the PRIME model, which is designed to predict impacts in the "cavity region" (i.e., the area around a structure which under certain conditions may affect an exhaust plume, causing a portion of the plume to become entrained in a recirculation region). The Building Profile Input Program (BPIP) program for the PRIME model (BPIPRM) was used to determine the projected building dimensions modeling with the building downwash algorithm enabled. The modeling of downwash from sources accounts for all obstructions within a radius equal to five obstruction heights of the stack.

Methodology Utilized for Estimating NO_2 Concentrations

The 1-hour NO_2 NAAQS was promulgated in the United States in February 2010. The 1-hour standard is based on a percentile rank from the annual distribution of daily maximum 1-hour values, averaged across the number of years processed. The 1-hour NO_2 modeled design value is based on the 98th percentile, or 8th highest, of the daily maximum 1-hour values across the year. For typical multi-year modeling analysis based

on 5 years of National Weather Service (NWS) meteorological data, the modeled design value is the 5-year average of the 8th highest values for NO_2.

Nitrogen oxide (NOx) emissions from combustion consist predominantly of nitric oxide (NO) at the source. The NOx in these emissions is then gradually converted to NO_2. For determining compliance with the 1-hour standard, the EPA has developed a three-tiered modeling approach: a) Tier 1, the most conservative approach, assumes a full (100%) conversion of NOx to NO_2. b) Tier 2 is the Ambient Ratio Method 2 (ARM2) which assumes ambient equilibrium between NO and NO_2. ARM2 adjusts the modeled NOx concentrations based on an empirical relationship between ambient NOx and ambient NO_2 concentrations. c) Tier 3, which is the most precise approach, accounts for the chemical transformation of NO emitted from the stack to NO_2 within the source plume using hourly ozone background concentrations.

The 1-hour NO_2 concentration impact from the proposed project's stationary combustion sources were estimated using AERMOD model's Tier 2 updated Ambient Ratio Method, referred as "ARM2" or Tier 3 plum volume molar ratio method (PVMRM). These methods are accepted by the EPA, and are considered appropriate and conservative. The methodology used to determine the compliance of total 1-hour NO_2 concentrations from the proposed sources with the 1-hour NO_2 NAAQS was based on adding the monitored background to modeled concentrations, as follows: hourly modeled concentrations from proposed sources were first added to the seasonal hourly background monitored concentrations; then the highest combined daily 1-hour NO_2 concentration was determined at each receptor location and the 98th percentile daily 1-hour maximum concentration for each modeled year was calculated within the AERMOD model; finally the 98th percentile concentrations were averaged over the latest five years.

Meteorological Data

The meteorological data set consisted of five consecutive years of meteorological data: surface data collected at LaGuardia Airport (2015–2019), and concurrent upper air data collected at Brookhaven, NY. The meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevation over the five-year period. These data were processed using the EPA AERMET program to develop data in a format that can be readily processed by the AERMOD model. The land uses around the site where meteorological surface data were available were classified using categories defined in digital United States Geological Survey (USGS) maps to determine surface parameters used by the AERMET program.

Receptor Placement

A comprehensive receptor network (i.e., locations with continuous public access) was developed for the modeling analyses. Discrete receptors (i.e., locations at which concentrations are calculated) were modeled along the proposed buildings' façades to represent potentially sensitive locations such as operable windows and intake vents. For each of the proposed buildings, receptors were conservatively placed on the façades of the maximum development envelope. Rows of receptors at spaced intervals on the modeled buildings were analyzed at multiple elevations.

Industrial Source

As described in Section 220 and Section 321 in Chapter 17 of the *CEQR Technical Manual*, Projects that would result in new uses (particularly schools, hospitals, parks, and residences) within 400 feet of manufacturing or processing facilities may result in potentially significant adverse impacts related to stationary sources, and therefore require stationary source analysis. The Eagle Woodworking and Construction, Inc. facility is located within 400 feet of the proposed project. Pollutants' emission rates and other parameters were obtained from the New York City Department of Environmental Protection permits registered to the facility. The *CEQR Technical Manual* Industrial Source Screen methodology was used to predict pollutants' maximum short-term(s) and annual average concentrations.

Existing Conditions

The total concentrations experienced at receptors include background concentrations from existing surrounding emission sources. Background concentrations are ambient pollution levels associated with existing stationary, mobile, and other area emission sources. The NYSDEC maintains an air quality monitoring network and produces annual air quality reports that include monitoring data for CO, NO_2, PM_{10}, $PM_{2.5}$, and SO_2. The air quality monitoring network includes 50 sites across the state using continuous and/or manual instrumentation. The monitoring sites are a mix of federally-mandated and supplemental monitoring networks. To develop background levels, pollutant concentrations from monitoring sites located closest to the project area were obtained from New York State Ambient Air Quality Report for 2019. **Table 2.6-2** summarizes the background concentrations for each of the pollutants.

Table 2.6-2: 2019 Background Concentration

Pollutant	Averaging Time	Monitoring Station	Background Concentration
Carbon Monoxide (CO)	1-hour	CCNY	1.87 ppm
	8-hour	CCNY	1.30 ppm
Nitrogen Dioxide (NO_2)	1-hour	IS 52	110.5 µg/m^3
	annual	IS 52	31.8 µg/m^3
Particulate Matter (PM_{10})	24-hour	IS 52	33 µg/m^3
Particulate Matter ($PM_{2.5}$)	24-hour	JHS 45	18.3 µg/m^3
	annual	JHS 45	7.5 µg/m^3
Sulfur Dioxide (SO_2)	1-hour	IS 52	14.57 µg/m^3
	Annual	IS 52	1.07 µg/m^3

2.6.3 Stationary Source Analysis

HVAC Systems

The heating/hot water, ventilation, and air conditioning (HVAC) systems analysis considers the potential for emissions from the HVAC system(s) of a proposed action to result in development that significantly impacts

existing land uses (project-on-existing), and the potential of a proposed project to significantly impact each other (project-on-project). Based on the *CEQR Technical Manual*, a preliminary screening assessment is to be conducted as a first step to predict whether the potential impacts of the heat and hot water system(s) 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.

The Proposed Actions would facilitate the development of two 55-foot-tall buildings on a single block located in Queens Community District (CD) 1. Projected Development Site 1 (Block 518, Lot 13) Reasonable Worst-Case Development Scenario (RWCDS) would facilitate a 55-foot-tall residential development, containing a 29,209 gsf building. Projected Development Site 2 (Block 518, Lots 16, 17, and 18) RWCDS would facilitate a 55-foot-tall residential development, containing a 14,691 gsf building.

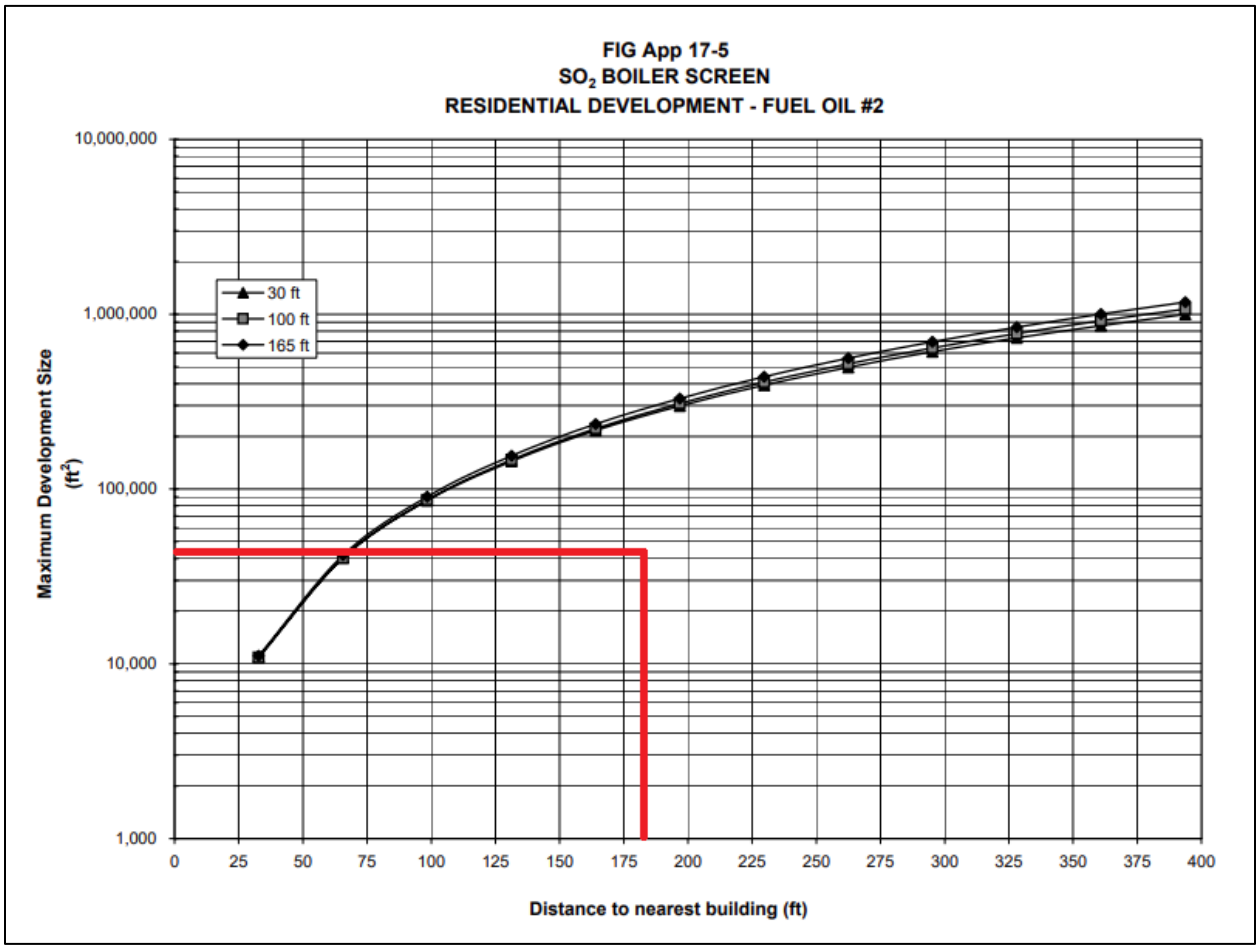
Screening Assessment

The potential for the heat and hot water system(s) to have a significant adverse impact on nearby receptors depends on the type of fuel that would be used by the HVAC system, the height of the stack venting the emissions, the distance to the nearest building of similar or greater height, and the building's use and the square footage of the development that would be served by the system, both of which effect the amount of fossil fuel consumed. The *CEQR Technical Manual* screening assessment is based on these factors. A detailed analysis is required if the screening assessment failed.

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 No. 2 fuel oil. As such, the CEQR nomographs depicted in Figure 17-5 of the *CEQR Technical Manual Appendices* was used for the screening assessment. This stationary source screen is a generic screen for oil No. 2 fueled boiler serving a residential building, where the CEQR nomograph depicts the size of the development versus the distance below which the potential impact can occur and provides a conservative estimate of the threshold distance. In addition, screening assessment 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. The following screening assessments were conducted:

- Project-on-Existing (Projected Development Sites 1 and 2 on existing land uses): Based on the methodology above, Projected Development Sites 1 and 2 Reasonable Worst Case Development Scenarios (RWCDSs) were combined and analyzed as a 55-foot-tall residential building, containing 43,900 gsf (Projected Development Sites 1 and 2 combined gsf). For the screening assessment purpose, it is assumed that fuel oil #2 would be the type of fuel used in the building's HVAC system. A distance of 180 feet was applied, which is the distance between Projected Development Sites 1 and 2 and the 220-foot-tall tower portion of the residential building located at 11-24 31st Avenue (Block 503, Lot 7502). **Figure 2.6-1** (using Figure 17-3 of the *CEQR Technical Manual Appendices)* shows the cumulative project-on-existing screening assessment nomograph.

Figure 2.6-1: Project-on-Existing - HVAC Screen Fuel Oil #2 Nomograph



As seen in the screening analysis (see **Figure 2.6-1**), using the nomograph provided in the *CEQR Technical Manual*, the Proposed Project (Projected Development Sites 1 and 2 combined) on the closest existing building with a similar or taller building height would fall below the curve for fuel oil No. 2. As such, the Proposed Actions passes the HVAC screening assessment on existing land uses.

- Project-on-Project: As Projected Development Site 1 abuts Projected Development Site 2 (less than 30 feet, which is the minimum distance applicable to HVAC systems screening analysis), the screening analysis is not applicable. Therefore, a detailed analysis is required for the project-on-project scenario.

Detailed Analysis

A stationary source modeling was conducted to evaluate the potential impacts associated with the boilers stacks emissions. Lakes Environmental MPI executable was used in the analysis. The MPI executable takes advantage of computers with multiple processors, reducing run-time significantly. Lakes Environmental has adjusted the US EPA AERMOD source code and recompiled the model to parallelize the processing of receptors. The MPI executable used in the analysis modified the EPA's AERMOD executable model version 21112. The AERMOD model incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple

and complex terrain. The model was run with the regulatory default option and for both with and without downwash effect options, where the Building Profile Input Program (BPIP) was run with the downwash effect enabled. All analyses were conducted using five consecutive years of meteorological data (2015-2019), obtained from the NYSDEC. Surface data used in the analysis is from LaGuardia Airport, upper air data is from Brookhaven station, New York. According to NYSDEC, the meteorological data was processed using the latest versions of AERMINUTE, AERSURFACE and AERMET. The meteorological data provided hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the 5-year period. The population in Queens County, obtained from the U.S. Census Bureau 2019, was specified to account for the effects of increased surface heating from an urban area on pollutant dispersion under stable atmospheric conditions.

Natural gas would be the type of fuel used in the Projected Development Sites' heating and hot water systems. The pollutant of concern for natural gas-fueled boilers is NO_2 and $PM_{2.5}$. The boilers' energy intensities were calculated based on the developments RWCDSs and energy consumption rate, obtained from the *CEQR Technical Manual Appendices*, corresponding to residential use in the buildings. Emissions were calculated based on emission factors obtained from the EPA's AP-42 manual for external combustion sources.[1] All fuel was assumed to be consumed during the 100-day (or 2,400 hour) heating season, based on the *CEQR Technical Manual*. **Table 2.6-3** shows the boilers' energy intensities and pollutants emission rates.

Table 2.6-3: RWCDS HVAC Systems Short-term and Annual Emission Rates

Site ID	Development Site RWCDS Floor Area (gsf)	Boiler's Energy Intensity (MMBtu); Type of Fuel	Pollutant	Short-term Emission Rate (g/s)	Annual Emission Rate (g/s)
Projected Development Site 1	29,209	0.73; Natural gas low-NOx	NO_2	4.53E-03	1.24E-03
			$PM_{2.5}$	6.89E-04	1.89E-04
Projected Development Site 2	14,691	0.37; Natural gas low-NOx	NO_2	2.28E-03	6.25E-04
			$PM_{2.5}$	3.47E-04	9.49E-05

The *CEQR Technical Manual* default stack's diameter and exhausts exit velocity were applied to both Projected Development Sites 1 and 2 stacks. The stacks' exit temperatures were assumed to be 426°K, which is appropriate for boilers, based on values obtained from the New York City Department of Environmental Protection (DEP) "CA Permit" database. The boilers stacks were placed 3 feet above the

[1] EPA. *Compilation of Air Pollutant Emission Factors AP-42 Fifth Edition, Vol. 1:* Chapter 1: External Combustion Sources, https://www3.epa.gov/ttn/chief/ap42/ch01/final/c01s04.pdf. July 1998.

roofline and as close as possible to the receiving building, and a stack(s) set back distance(s) was specified if impact was predicted.

The developments were modeled as buildings that cover their entire lot(s) area(s) (the wall façade located on the outer lot lines) and rise to their RWCDS heights. Buildings in the surrounding area were accounted for in the downwash effect on plums dispersions (BPIP). These included the under-construction developments on Block 504, Lots 3, 121, and 122. Receptors on the receiving building were placed on all wall façade from the ground floor to the roof-top height in spaced intervals.

The U.S. Geological Service (USGS) National Elevation Dataset (NED) 1/3 arc-second resolution (GeoTIFF dataset), the terrain data set recommended by the EPA for use in the United States for regulatory purposes, was used to process buildings base elevations. The base elevations of receptors and stacks were set to their buildings' base elevations. Roof heights of buildings in the area were obtained from the NYC Building Footprint database[1], the New York City Department of Building (DOB) zoning diagrams for buildings that are under construction, or certificate of occupancies for buildings with relatively high bulkheads.

Generic emission of one gram per second and 1st highest concentration was used to model $PM_{2.5}$ and annual NO_2 concentrations. The 1-hour NO_2 concentrations were modeled with the 8th highest concentration (the NAAQS design value), and a Tier 2 (ARM 2) or Tier 3 plume volume molar ratio method (PVMRM). The national default NO_2 to NOx minimum/maximum ratios of 0.5 and 0.9, respectively, were used in the Tier 2 approach. For the Tier 3 approach, 2015-2019 ozone and 2017-2019 NO_2 hourly background concentrations were obtained from the nearest NYSDEC monitoring station(s).[2] The NO_2 hourly background concentrations were halved to correct a known bug as "the US EPA has reported a bug in which Background Concentrations (input via the Source Pathway) are inadvertently doubled when modeling NO_2 with the PVMRM. The advised workaround is to input background values which are 50% of the actual background concentrations," according to Lakes Environmental, Inc. The NYSDEC DAR-10 guidance was used to fill ozone incomplete data. The highest concentrations of the previous and subsequent hour concentrations were used to fill in single missing hour concentrations, and other ozone missing 1-hour concentrations were filled in with corresponding (exact day and hour) data from the Queens College monitoring station. Additional missing data was filled on a monthly basis with each month hour of the day maximum ozone concentration. The national default NO_2 to NOx in-stack and equilibrium ratios of 0.5 and 0.9, respectively, were used in the Tier 3 approach.

Each pollutant averaging time was modeled twice; with building wake effect enabled/disabled. The predicted concentrations are the highest concentration of these. NO_2 modeled (increment) concentrations were added to the background concentration (in the Tier 3 approach, background concentration is added within AERMOD). $PM_{2.5}$ modeled concentrations were evaluated with the *de minimis* design values for stationary sources. The HVAC dispersions analysis results are shown in **Table 2.6-4**.

[1] City of New York, nyc-geo-metadata (May 03, 2016); https://data.cityofnewyork.us/Housing-Development/Building-Footprints/nqwf-w8eh
[2] Data sets were obtained from the NYSDEC Division of Air Resources (NO_2 data set from the NYSDEC obtained through the NYC Department of City Planning).

Table 2.6-4: HVAC Dispersion Analysis Results

Pollutant and Averaging Time	Modeled (Increment) 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
Concentration at Projected Development Site 1					
1-hour NO_2	73.1	110.5	184	188	NAAQS
Annual NO_2	0.77	31.8	33	100	NAAQS
24-hour $PM_{2.5}$	3.08	18.3	3.1	8.35	*de minimis*
Annual $PM_{2.5}$	0.12	7.5	0.12	0.3	*de minimis*
Concentration at Projected Development Site 2					
1-hour NO_2	181.17		181	188	NAAQS
Annual NO_2	0.89	31.8	33	100	NAAQS
24-hour $PM_{2.5}$	5.28	18.3	5.3	8.35	*de minimis*
Annual $PM_{2.5}$	0.14	7.5	0.14	0.3	*de minimis*

The concentrations shown in **Table 2.6-4** were predicted with certain restrictions to ensure that no significant adverse air quality impact(s) would occur. The restrictions for the Proposed Actions are specified in the Air Quality E-Designations that would be placed on the Development Site(s). The E-Designation language related to the heating and hot water systems is as follows:

(E) Designation (E-757)

Block 518, Lot 13 (Projected Development Site 1): Any new residential development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the stack is located at the building's highest level or at least 58 feet above grade, and that the stack is located at most 20 feet from the southern lot line facing 31st Drive to avoid any potential significant adverse air quality impacts.

Block 518, Lots 16, 17, and 18 (Projected Development Site 2): Any new residential development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the stack is located at the building's highest level or at least 58 feet above grade, and that the stack is located at least 37 feet from the southern lot line facing 31st Drive and at least 37 feet from the eastern lot line facing 14th Street to avoid any potential significant adverse air quality impacts.

Conclusion

Under the Proposed Actions, an E-Designation (E-757) is proposed to avoid adverse air quality impacts on existing land uses with respect to heating systems sources. Therefore, no significant adverse impacts would occur as a result of the Proposed Actions.

Industrial Sources Analysis

A field survey and a review of MapPluto GIS data were undertaken in order to identify potential manufacturing and processing facilities located within the 400-foot air toxics study area. Searches of the New York City Department of Environmental Protection's (DEP) CATS online permitting database were conducted to determine whether any active industrial permits exist within the 400-foot Study Area. Four active or expired permits were found. For the two expired permits that were found, a site visit on July 14th, 2021 indicated that the facilities were not operational. An air dispersion analysis was conducted for the two active permits.

Additionally, the Proposed Actions would not result in new sensitive uses being introduced within 400 feet of manufacturing or processing facilities. Lists of all New York State Department of Environmental Conservation (NYSDEC) Title V Facility Permits and NYSDEC State Facility Air permits, including facility addresses, were obtained from New York State Open Data (https://data.ny.gov/). The facility addresses were then geocoded in GIS to see if any permitted facilities are located within the 1,000-foot major source study area. No major emission sources were identified within 1,000 feet of the project site. Accordingly, the Proposed Actions do not require further evaluation with respect to major stationary sources.

Eagle Woodworking and Construction, Inc. – Detailed Analysis

The Eagle Woodworking and Construction, Inc. facility has two active DEP air permit applications. PA020102 is for a woodworking machine, operating 8 hour per day, 200 day per year. Finewood dust, which is particulate, was analyzed as $PM_{2.5}$. PA024569 is for a spray booth operating 8 our per day, 200 day per year. The contaminants listed in the DEP permits are specific chemicals and particulates (New York Identification Number NY075-00-0). Each chemical was analyzed with the SGC/AGC guideline concentration. Particulate emission was analyzed as $PM_{2.5}$ with the *de minimis* and the SGC/AGC. The maximum 1-hour and annual emission rates of the chemicals emitted by the processing activities at the facility, along with their CAS numbers, are presented in **Table 2.6-5**.

Table 2.6-5: Contaminants Emission Rates from the Eagle Woodworking and Construction, Inc. Facility – DEP Permits PA024569 and PA020102

Contaminant Name	CAS No.	1-Hour	Annual
		lb/hr	lb/yr
PA024569			
Isopropanol	67-63-0	0.18	228
Methanol (1)	67-56-1	0.03	24
Acetone	67-64-1	0.45	720
Methyl Ethyl Ketone	78-93-3	0.59	944
Methyl Isobutyl Ketone (1)	108-10-1	0.64	1024
Butyl Cellosolve	111-76-2	0.09	144
Di-2-Ethylhexylphthalate (1)	117-81-7	0.13	208
N-Butyl Acetate	123-86-4	0.27	432
Xylene (1)	1330-20-7	0.22	176
PM	NY075-00-0	0.02	32
PA020102			
PM	NY075-00-0	0.001	1.6

Note:
1. Methanol, Methyl Isobutyl Ketone, Di-2-Ethylhexylphthalate, and Xylene are Hazardous Air Pollutant (HAP)

The Eagle Woodworking and Construction, Inc. facility is located at 11-34 31st Drive (Block 502, Lot 23), and approximately 230 feet from Projected Development Site 1. The *CEQR Technical Manual* Industrial Source Screen methodology was used to predict pollutants' maximum short-term(s) and annual average concentrations. This methodology can be used to predict a pollutant concentration emitted from a single source at various distances (from 30 to 400 feet). A distance of 210 feet from the source was used to predict particulate concentration emitted from the woodworking equipment (PA020102). The spray booth stack is located approximately 55 feet from the facility wall façades facing 31st Drive and 12th Street, based on the site plans included in the DEP permit PA024569, and approximately 310 feet from Projected Development Site 1. A distance of 300 feet from the source was used to predict pollutant concentrations emitted from the spray booth stack. **Table 2.6-6** shows the pollutants concentrations evaluated with the SGC/AGC standards.

Table 2.6-6: Eagle Woodworking and Construction, Inc. - Pollutants Concentrations and the SGC/AGC Standards (CEQR Industrial Source Screen Dispersion Analysis Result)

Contaminant	CAS No.	1-Hour	SGC	Annual	AGC
		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
Isopropanol	67-63-0	32.9	98000.0	0.2	7000.0
Methanol (1)	67-56-1	5.5	33000.0	0.026	4000.0
Acetone	67-64-1	82.2	180000.0	0.8	30000.0
Methyl Ethyl Ketone	78-93-3	107.8	13000.0	1.0	5000.0
Methyl Isobutyl Ketone (1)	108-10-1	117.0	31000.0	1.1	3000.0
Butyl Cellosolve	111-76-2	16.4	4700.0	0.2	1600.0
Di-2-Ethylhexylphthalate (1)	117-81-7	23.8	---	0.2	0.4
N-Butyl Acetate	123-86-4	49.3	71300.0	0.5	565.0
Xylene (1)	1330-20-7	40.2	22000.0	0.2	100.0

Note:
1. Methanol, Methyl Isobutyl Ketone, Di-2-Ethylhexylphthalate, and Xylene are Hazardous Air Pollutant (HAP).

As seen in **Table 2.6-6**, the pollutant concentrations are within the SGC/AGC design values. In addition, the cumulative potential for significant impact was evaluated with the inhalation risk (for carcinogen pollutants) or the hazardous index. The inhalation risk for the HAP is 0.54 (less than 1), and the hazardous index is 0.004 (less than 1) for the non-carcinogenic pollutants.

$PM_{2.5}$ concentration was evaluated with the *de minimis*. **Table 2.6-7** shows the $PM_{2.5}$ 24-hour and annual predicted concentrations.

Table 2.6-7: Eagle Woodworking and Construction, Inc. – $PM_{2.5}$ Concentration Evaluated With the *de minimis* (CEQR Industrial Source Screen Dispersion Analysis Result)

Contaminant	24-Hour Increment Concentration (µg/m³)	*de minimis* (µg/m³)
24-Hour $PM_{2.5}$	0.50	8.35
Annual $PM_{2.5}$	0.04	0.3

As seen in **Table 2.6-7**, the $PM_{2.5}$ predicted concentration is within the *de minimis*. Therefore, no adverse air quality impact is predicted at project-generated buildings due to existing nearby industrial sources within the study area.

Conclusion

The air quality analysis demonstrates that the potential pollutant concentrations and/or concentration increment from mobile sources emissions associated with the Proposed Actions would not exceed the NAAQS or the City's *de minimis* thresholds, as the project would not generate enough vehicle trips to cause air quality impacts.

As for the HVAC stationary source emissions, with the adoption of the above (E) Designation text for the projected buildings associated with the Proposed Actions, the Project would not exceed the NAAQS and the City's *de minimis* criteria. While industrial source permits were found within 400-foot radius, the facilities did not appear to be operational, and no large or major sources were found within a 1000-foot radius of the Project Area, therefore, no significant adverse impacts from industrial sources would occur on the proposed residential buildings.

Therefore, there no significant adverse air quality impacts would occur as a result of the Proposed Actions.

2.7 NOISE

Equity Environmental Engineering, LLC (Equity) conducted Noise Monitoring in support of the Proposed Actions. Vehicular traffic is the predominant source of noise in the area. Therefore, the Proposed Actions warrant an assessment of the potential for adverse effects on project occupants from ambient noise. The Projected Development Sites are on a block bounded by 31st Avenue to the north, 14th Street to the east, 31st Drive to the south, and 12th Street to the West.

31st Avenue is a two-way east-west bound street with one moving lane in each direction and curbside parking. 14th Street is a two-way north-south bound street with one moving lane in each direction and curbside parking. 31st Drive is a one-way eastbound street with curbside parking. 12th Street is a one-way northbound street with curbside parking. Local intersections are controlled by stop signs and traffic signals.

The Proposed Actions would allow noise-sensitive residential development. The predominant noise source in the Rezoning Area is vehicular traffic on surrounding streets. The mobile source screening analysis addresses potential noise impacts associated with vehicular traffic generated by the Proposed Actions. According to the *CEQR Technical Manual*, if existing passenger car equivalent (PCE) values are increased by 100 percent or more due to the Proposed Actions, a detailed analysis is generally performed. Vehicular traffic studies are not warranted, as the Proposed Actions are not expected to generate over 50 vehicle trips through any local intersection during peak periods and a mobile source analysis is not required. Furthermore. The Projected Development Site would not create a signification stationary noise generator.

An assessment of the potential for adverse effects on project occupants from ambient noise is warranted. Therefore, this noise assessment is limited to an assessment of ambient noise that could adversely affect occupants of the development.

Framework of Noise Analysis

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

Because the human ear can detect such a wide range of sound pressures, sound pressure is converted to sound pressure level (SPL), which is measured in units called decibels (dB). The decibel is a relative measure of the sound pressure with respect to a standardized reference quantity. Because the dB scale is logarithmic, a relative increase of 10 dB represents a sound pressure that is 10 times higher. However, humans do not perceive a 10-dB increase as 10 times louder. Instead, they perceive it as twice as loud.

Sound is often measured and described in terms of its overall energy, taking all frequencies into account. However, the human hearing process is not the same at all frequencies. Humans are less sensitive to low

frequencies (less than 250 Hz) than mid-frequencies (500 Hz to 1,000 Hz) and are most sensitive to frequencies in the 1,000- to 5,000-Hz range. Therefore, noise measurements are often adjusted, or weighted, as a function of frequency to account for human perception and sensitivities. The most common frequency weightings used are the A- and C-weightings. These weight scales were developed to allow sound level meters, which use filter networks to approximate the characteristic of the human hearing mechanism, to simulate the frequency sensitivity of human hearing. The A-weighting is the most used for environmental measurements, and sound levels measured using this weighting are denoted as dBA. The letter "A" indicates that the sound has been filtered to reduce the strength of very low and very high frequency sounds, much as the human ear does. C-weighting gives nearly equal emphasis to sounds of most frequencies. Mid-range frequencies approximate the actual (unweighted) sound level, while the very low and very high frequency bands are significantly affected by C-weighting.

Table 2.7-1: 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: 2021 CEQR Technical Manual	

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_{max} is the highest SPL measured during a given period of time. It is useful in evaluating Leqs for time periods that have an especially wide range of noise levels.

- $L_{eq(24)}$ 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.

Noise Standards and Guidelines

In 1983, the New York City Department of Environmental Protection (NYCDEP) adopted the City Environmental Quality Review (CEQR) noise exposure guidelines for exterior noise levels. As shown in **Table 2.7-3** below, noise standards classify noise exposure into four categories based on noise level limits and land use, for vehicular traffic, rail, and aircraft noise sources: Acceptable, Marginally Acceptable, Marginally Unacceptable and Clearly Unacceptable. **Table 2.7-2** defines attenuation requirements for buildings based on exterior noise exposure levels. Recommended noise attenuation values for buildings are designed to maintain interior noise levels of 45 dBA (*L_{10} or Ldn, depending on the source*) or below.

Table 2.7-2: Noise Exposure Guidelines for Use in City Environmental Impact Review

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

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

Notes:

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

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

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

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

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

Table 2.7-3: Attenuation Values to Achieve Acceptable Interior Noise Levels

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

Note:

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

Measurement Location and Equipment

Because the predominant noise sources in the area of the proposed project consist of vehicular traffic noise monitoring was conducted during peak weekday vehicular travel periods (AM, Midday, PM) on a typical midweek day. Pursuant to CEQR Technical Manual Methodology, measurements were conducted for 20-minute periods during each of the peak periods at each monitoring location at the Rezoning Area: Location One (1) was on the 31st Drive frontage of the Rezoning Area; Location Two (2) was on the 12th Street frontage of the Rezoning Area; The noise monitoring locations are shown in **Figures 2.7-1 to 2.7-3.**

Noise monitoring was conducted using a using Type 1 Casella CEL-633 sound level meter with windscreen. The monitor was placed on a tripod at a height of approximately four feet above the ground, away from any other noise-reflective surfaces. The monitor was calibrated prior to and following each monitoring session. Periods of peak vehicular traffic around the Project Area constitute a worst-case condition for noise. Noise meter calibration certification and backup data are provided in **Appendix E**.

Figure 2.7-1: Noise Monitoring Locations



Figure 2.7-2: Location 1 – 31st Drive



Figure 2.7-3: Location 2 – 12th Street



Measurement Conditions

Monitoring was conducted during typical midweek conditions, on Tuesday, May 4, 2021. Wind speeds were mild during monitoring. Traffic volumes and vehicle classification were documented during the noise monitoring.

Existing Conditions

The predominant source of noise at the site is vehicular traffic.

Table 2.7-4: Noise (dB) Levels at Location 1

Tuesday, May, 4, 2021			
Time	**8:25 am – 8:45 am**	**12:28 pm – 12:48 pm**	**4:53 pm – 5:13 pm**
L_{max}	70.6	76.3	66.6
L_{10}	58.5	60.0	59.5
L_{eq}	56.9	57.7	57.0
L_{50}	56.0	56.0	56.5
L_{90}	54.5	53.5	53.5
L_{min}	52.8	51.9	48.4

Note: **Bold** denotes L_{10} or L_{eq} noise level exceedances, according to Table 19-2 of the CEQR Technical Manual

Table 2.7-5: Noise (dB) Levels at Location 2

Tuesday, May, 4, 2021			
Time	**8:01 am – 8:21 am**	**12:01 pm – 12:22 pm**	**4:30 pm – 4:50 pm**
L_{max}	79.6	74.8	84.6
L_{10}	66.5	66.5	65.0
L_{eq}	63.6	63.1	62.9
L_{50}	60.5	61.0	59.5
L_{90}	56.5	57.5	56.5
L_{min}	51.9	54.2	52.9

Note: **Bold** denotes L_{10} or L_{eq} noise level exceedances, according to Table 19-2 of the CEQR Technical Manual

Tables 2.7-6 through **Table 2.7-7** contain the traffic volumes and vehicle classifications for the morning, noon, and evening monitoring sessions.

Table 2.7-6: Traffic Volumes and Vehicle Classifications – Location 1

	8:25 am – 8:45 am	12:28 pm – 12:48 pm	4:53 pm – 5:13 pm
Car	2	2	3
SUV	1	0	4
Medium Truck	0	0	0
Heavy Truck	0	0	0
Bus	0	0	0
Train	0	0	0

Table 2.7-7: Traffic Volumes and Vehicle Classifications – Location 2

	8:01 am – 8:21 am	12:01 pm – 12:22 pm	4:30 pm – 4:50 pm
Car	11	13	7
SUV	12	17	14
Medium Truck	1	1	2
Heavy Truck	0	0	0
Bus	1	0	0
Train	0	0	0

The *2021 CEQR Technical Manual* Table 19-2 contains noise exposure guidelines. For a residential use such as would occur under the Proposed Actions, an L_{10} of between 65 and 70 dB(A) is identified as marginally acceptable general external exposure. An L_{10} of between 70 and 80 dB(A) is identified as marginally unacceptable general external exposure. The highest recorded L_{10} at Location 1 was 60.0 dB(A) during the midday period. The highest recorded L_{10} at Location 2 was 66.5 dB(A) during the AM and midday periods.

It is assumed that the building mechanical systems (i.e., HVAC systems) would be designed to meet all applicable noise regulations (i.e., Subchapter 5, §24-227 of the New York City Noise Control Code, the New York City Department of Buildings Code) and to avoid producing levels that would result in any significant increase in ambient noise levels. Therefore, the Proposed Actions would not result in any significant adverse noise impacts related to building mechanical equipment.

Conclusion

The highest recorded L_{10} at all noise monitoring locations was below the marginally unacceptable range. Therefore, no window-wall attenuation is required at the Projected Development Sites and there would be no significant adverse impacts related to noise.

2.8 NEIGHBORHOOD CHARACTER

Neighborhood character, as defined in the *CEQR Technical Manual,* is considered to be an amalgam of the various elements that give a neighborhood its distinct personality. These elements include land use, socioeconomic conditions, historic and cultural resources, urban design and visual resources, transportation, noise, and open space, as well as any other physical or social characteristics that help to define a community. Not all these elements affect neighborhood character in all cases; a neighborhood usually draws its distinctive character from a few defining features.

According to the *CEQR Technical Manual,* if a project has the potential to result in any significant adverse impacts on any of the above technical areas, a preliminary assessment of neighborhood character may be appropriate. A significant impact identified in one of these technical areas is not automatically equivalent to a significant impact on neighborhood character; rather, it serves as an indication that neighborhood character should be examined.

In addition, depending on the project, a combination of moderate changes in several of these technical areas may potentially have a significant effect on neighborhood character. As stated in the *CEQR Technical Manual*, a "moderate" effect is generally defined as an effect considered reasonably close to the significant adverse impact threshold for a particular technical analysis area. When considered together, elements may have the potential to significantly affect neighborhood character. Moderate effects on several elements may affect defining features of a neighborhood and, in turn, a pedestrian's overall experience. If it is determined that two or more categories may have potential 'moderate effects' on the environment, CEQR states that an assessment should be conducted to determine if the proposed project results in a combination of moderate effects to several elements that cumulatively may affect neighborhood character. If a project would result in only slight effects in several analysis categories, then further analysis is generally not needed.

This chapter reviews the defining features of the neighborhood and examines the Proposed Actions' potential to affect the neighborhood character of the surrounding study area. The study area is generally coterminous with the study area used for the land use and zoning analysis in Chapter 2.1. The impact analysis of neighborhood character that follows below focuses on changes to the technical areas listed above that exceeded CEQR preliminary screening thresholds that were assessed in this EAS Short Form.

The assessment begins with a review of existing conditions and the neighborhood of the Study Area. The information is drawn from the preceding sections of this EAS but is presented in a more integrated way. While the other sections present all relevant details about aspects of the environmental setting, the discussion for neighborhood character focuses on a limited number of important features that give the neighborhood its own sense of place and that distinguish them from other parts of the city. A concise discussion of the changes anticipated by the analysis year under the Future No-Action Condition is then included. A brief overview of the Proposed Project is then presented, along with an analysis of whether any anticipated significant adverse impacts and moderate adverse effects, regarding the relevant technical CEQR assessment categories for neighborhood character, would adversely affect any of the defining features.

2.8.1 Existing Conditions

Land Use, Zoning and Public Policy

Existing land use patterns of city blocks within approximately 400 feet of the Rezoning Area are presented in **Figure 2.1-1**. The CEQR Technical Manual suggests that a land use, zoning, and public policy study area should extend 400 feet from the site of the Proposed Actions. This Study Area is generally bound by Broadway to the south; 100 feet east of 14th Street to the east; Vernon Blvd. to the west; approximately 110 feet south of 30th Drive to the north. A field survey was conducted to determine the existing land use patterns and neighborhood characteristics of the Study Area.

Within Study Area around the Rezoning Area, the predominant land use is residential uses with a scattering of institutional and light industrial uses and a scattering of mixed residential and commercial buildings; most of which contain ground floor commercial uses with residential uses on the upper floors.

In the R5B district in which the Rezoning Area is located, the residential uses consist of two- and three-story detached, semi-detached, and attached houses containing one, two and three dwelling units. In the R6B district to the north and east of the Project Area, residential uses consist of a mix of two and three-story detached and semi-detached houses and three and four-story multiple dwellings. In the R5B district to the east of the R6B district, the predominant land use is residential, uniformly consisting of two and three-story detached and semi-detached houses. In the R7A district to the west of the Project Area, residential uses predominantly consist of six-story multiple dwellings and one high-rise apartment building. On both sides of 31st Drive, one-story light industrial buildings are interspersed with six and nine-story apartment buildings.

There are three community facility uses within the Study Area all located on Block 518. These uses include, a house worship, a nonpublic educational institution, and the NYC Dept. of Health Astoria Health Center located at 12-36 31st Avenue.

The Rezoning Area is currently zoned R5B. Zoning designations within and around the Rezoning Area are depicted in **Figure 2.1-2**, while **Table 2.1-2** summarizes use, floor area and parking requirements for these zoning districts. The area within a 400-foot radius of the Rezoning Area is zoned R5B, R6B, R7A, and R6, with both C1-3 and C2-3 commercial overlays along Broadway, Vernon Blvd., and 14th Street.

The zoning of the Study Area is generally medium-density residential with commercial overlays mapped along certain portions of the area's wide streets. The Property is in an R5B zoning district that covers a portion of four adjacent blocks at the intersection of 12th Street and 31st Drive. To the west and immediate south, the zoning is R7A with a C1-3 commercial overlay along 11th Street to the west and a C2-3 zoning district along Broadway to the south. To the north and east is an R6B zoning district mapped on both sides of 31st Avenue to the north and 14th Street to the east. Beyond these zoning districts, the zoning is primarily R6 to the south and west, and R5B to the north and east.

R5B districts are contextual districts that allow detached, semi-detached, and attached buildings, typically three stories in height, with small front yards. R5B districts allow a maximum permitted street wall height of

30 feet, a maximum building height of 33 feet, a minimum required front yard of 5 feet and a maximum FAR of 1.35.

The Rezoning Area is not located within the boundaries of a New York City Department of Housing Preservation and Development Urban Renewal Zone or Area, an Economic Development Corporation Industrial Business Zone, or former In-Place Industrial Park. Nor is the Proposed Actions subject to an adopted community-based 197-a Plan. The Rezoning Area is located within the New York City's Coastal Management Zone.

Urban Design and Visual Resources

The predominant land use is residential uses with a scattering of institutional and light industrial uses and a scattering of mixed residential and commercial buildings; most of which contain ground floor commercial uses with residential uses above. Most buildings within the study area are arranged regular (parallel) with respect to their lot placement. Residential buildings are both attached and detached throughout the Study Area.

There are few streetscape elements within the Study Area. Along 14th street, to the east of Rezoning Area, there is a small children's playground with playground equipment, a sprinkler, and a basketball court. Northwest of the Rezoning Area, in the northwest portion of the Study Area, at the intersection of 12th Street and 31st Avenue, there is new mixed use residential and commercial construction going on Block 504. The streets are otherwise comprised of basic streetscapes lined with sidewalks, scattered street lighting and little in the way of visual interest such as greenery.

2.8.2 Future No-Action Conditions

Under the Future No-Action Condition, the Proposed Actions would not occur, and it is expected that the existing uses within the area would remain in their current form. Significant changes to the study area are not expected by the final analysis year. Under the Future No-Action Condition, it is expected that while tenants within surrounding area buildings may change, the overall use of these buildings within the study area would remain the same, and any physical changes to buildings in the study area would comply with designated zoning regulations and other surrounding districts.

2.8.3 Future With-Action Conditions

The elements that comprise of neighborhood character are reviewed individually below, with a following supporting and cumulative conclusion at the end of this chapter.

Land Use, Zoning, and Public Policy

According to the *CEQR Technical Manual*, development resulting from a Proposed Action could alter neighborhood character if it introduces new land uses, conflicts with land use policy or other public plans for the area, changes land use character, or generates significant land use impacts.

Projected Development Site 1 (Block 518, Lot 13; Applicant-owned Site)

In the With-Action Scenario, it is assumed that Lot 13, a 12,070-sf lot, would be developed with a new 29,209 gsf (26,500 zsf) residential building which would be a total of 55 feet in height, the maximum height in R6B zoning districts. The FAR would be 2.2 which would be allowed in an R6B zoning district. Assuming an 850 sf/du factor, 34 residential units would be constructed. However, the Applicant is proposing 35 dwelling units. Therefore, for purposes of a conservative assessment, it is assumed that 35 dwelling units would be constructed in the With-Action Scenario, of which 7 of these units would be classified as affordable. There would be 15 open accessory parking spaces at the rear of the Proposed Building and 18 enclosed bicycle parking spaces in the cellar.

Projected Development Site 2 (Block 518, Lots 16,17, and 18; non-Applicant-owned Site)

In the With-Action Scenario, it is assumed that these three lots would be assembled as one 6,071 sf development site due to the common lot ownership of Lots 16 and 18, and the new development potential under the R6B zoning. It is assumed that Projected Development Site 2 would be developed with a new 14,691 gsf (13,356 zsf) residential building with 17 dwelling units, of which 3 would be classified as affordable. The residential building would be a total of 55 feet in height, the maximum height in R6B zoning districts and would have an FAR of 2.2, which is allowed under R6B zoning district guidelines. It is assumed that 7 parking spaces would be provided in the cellar.

The Applicant believes that the Proposed Actions would allow for the productive redevelopment of the Rezoning with land uses that are similar to the surrounding area, including similar uses with both similar height and bulk as the projected Development Site, and therefore, the Proposed Actions would not generate a land use that would be incompatible with surrounding uses. There would be no significant adverse impacts to Land Use as a result of the Proposed Actions, and further analysis is not required.

The proposed zoning map amendment would change the existing R5B district to an R6B district over Lots 6, 7, 8, 9, 10, 13, 16, 17, 18, and p/o Lots 5 and 19. Absent the Proposed Actions, the Applicant would be unable to construct the proposed development under the existing floor area and lot coverage requirements of an R5B district. The Proposed Actions would not have a significant impact on the extent of conformity with the current zoning in the surrounding area and it would not adversely affect the viability of conforming uses on nearby properties. The Proposed Actions would not introduce new height or bulk maximums that don't already exist within 400 feet of the Rezoning Area and would introduce new uses that aren't already found within the Study Area. Therefore, significant adverse impacts to zoning are not anticipated and further zoning analysis is not warranted. **Figure 4** shows the With-Action Zoning Change Map.

The proposed project is consistent with the goals and policies of the City's Local Waterfront Revitalization Program.

Recent years have seen some commercial, residential and community facility development in proximity to the Rezoning Area. The Proposed Actions would reinforce this trend toward a more active residential mixed-use

neighborhood and would also provide badly needed senior housing to the area. Therefore, the Proposed Actions would not have any adverse impacts on surrounding land uses.

Shadows

For open space and natural resources, the uses and features of a resource is an indicator of its sensitivity to shadows. Shadows occurring during the cold-weather months of interest generally do not affect the growing season of outdoor vegetation; however, effects on other uses and activities should be assessed. This sensitivity is assessed for warm-weather-dependent features (such as wading pools and sand boxes) or vegetation that could be affected by a loss of sunlight during the growing season, and for features (such as benches) that could be affected by a loss of winter sunlight. Vegetation requiring direct sunlight includes the tree canopy, flowering plants, and plots in community gardens. Generally, four to six hours a day of sunlight, particularly in the growing season, is often a minimum requirement. Where the incremental shadows from the project fall on sunlight-sensitive features or uses, the analysis assesses the loss of sunlight relative to sunlight that would be available without the project.

As discussed above, the Proposed Actions would cast incremental shadows on the Astoria Health Playground on March 21, May 6, and June 21, with durations of 12 minutes, 44 minutes, and 68 minutes to the end of the analysis window respectively. However, no part of the playground would be in constant shadow, as the shadow would sweep across the playground during the day. As no point would any portion of the park be unusable due to additional shadows and all plantings would still receive direct periods of sunlight during the day. As a result, no significant adverse shadow impacts would occur as a result of the Proposed Actions.

Historic and Cultural Resources

Though the LPC review identified several architectural resources within a 400-foot radius of the Rezoning Area, no potential impacts associated with the Proposed Actions on the identified historic resources would occur. The Proposed Actions would not result in any types of visual and contextual impacts to the known historic resources within the 400-foot radius or introduce any incompatible visual, audible, or atmospheric elements to the settings of historic resources. The Projected Development Sites do not contain historic architectural resources and is not adjacent to or within 90 feet of any identified historic architectural resources. As a result, no direct impacts or indirect construction-related effects via ground-borne construction activities are anticipated. Only temporary changes related to the construction activity to the existing environment surrounding the architectural resources is expected for a limited construction period of 14 months. After the completion of the construction, the environment of the architectural resources would be the same as the existing condition. Therefore, significant adverse impacts to architectural resources would not occur as a result of the Proposed Actions, and further analysis is not warranted.

Urban Design and Visual Resources

As the Proposed Actions would not diminish or disturb the existing aesthetic continuity, pedestrian features of the community or neighborhood, the development facilitated by the Proposed Actions would not negatively affect the pedestrian experience. In addition, as the Proposed Actions would not block any view corridors or views to/from any natural areas with rare or defining features, nor would the Proposed Actions impact an historical or culturally sensitive community features, the Proposed Actions would not result in any significant adverse urban design or visual resource related impacts. Furthermore, the Proposed Actions would not introduce a new height or bulk that isn't already allowed as-of-right within the Study Area as well. Additionally, the proposed development under the Future With-Action Scenario would not block or hinder any bay or beach/ocean views.

Conclusion

Of the relevant technical areas specified in the *CEQR Technical Manual* that comprise neighborhood character, the Proposed Actions would not cause significant adverse impacts regarding land use, zoning, and public policy; shadows; historic and cultural resources; urban design and visual resources; or noise. There would be no moderate effects on one or more of the technical areas related to neighborhood character and therefore there would be no potential for the Proposed Actions to result in a combination of moderate effects related to neighborhood character. Therefore, as the Proposed Actions would not have a significant adverse neighborhood character impact and would not result in a significant adverse impact on a defining feature of the neighborhood, further analysis is not necessary.

2.9 CONSTRUCTION

Construction, although temporary, can result in disruptive and noticeable effects on a Rezoning Area. A determination of the significance of construction and the need for mitigation is based on the duration and magnitude of these effects. Construction is typically of greatest importance when it could affect traffic conditions, archaeological resources, and the integrity of historic resources, community noise patterns and air quality conditions. All analyses were undertaken in accordance with the guidelines contained in the *CEQR Technical Manual*.

The Proposed Actions involve a rezoning in the Astoria section of Queens. On the site controlled by the Applicant, construction is expected to last up to approximately 14 months.

While construction would take place over a 14-month period, there would not be any significant adverse impacts as a result of the Proposed Actions. The following is a brief discussion of the effects associated with the construction-related activities on traffic, air quality, noise, historical resources, and hazardous materials resulting from the construction on two Projected Development Sites.

Effect of Construction on Traffic

The Proposed Actions would result in new development on the projected development site, which would replace existing uses on the site. During construction, vehicle trips from workers traveling to and from the construction site would be generated, and from the movement of materials and equipment.

The infrastructure of New York City is comprised of physical systems that support the population, including water supply, wastewater, sanitation, energy, roadways, bridges, tunnels, and public transportation. This section covers only the effect of the Proposed Actions on traffic operations. Given typical construction hours of 7:00 AM to 4:00 PM, worker trips would be concentrated in off-peak hours typically before both the AM and PM peak commuter periods. Truck movements typically would be spread throughout the day on weekdays and would generally occur between the hours of 7:00 AM and 4:30 PM. Traffic generated by construction workers traveling to and from their work sites and construction truck traffic would not represent a substantial increment during the area's peak travel periods.

Construction activities may result in short-term disruption of both traffic and pedestrian movements at the development sites. This would occur primarily due to the temporary loss of curbside lanes from the staging of equipment and the movement of materials to and from the site. Additionally, construction would at times result in the temporary closing of sidewalks adjacent to the site. These conditions would not lead to significant adverse effects on traffic and transportation conditions.

Effect of Construction on Air Quality

Possible impacts on local air quality during construction induced by the Proposed Actions include fugitive dust (particulate) emission from land clearing operation and demolition as well as mobile source emissions (hydrocarbons, nitrogen oxide, and carbon monoxide) generated by construction equipment and vehicles.

Fugitive dust emissions from land clearing operations can occur from excavation, hauling, dumping, spreading, grading, compaction, wind erosion, and traffic over unpaved areas. Actual quantities of emissions depend on the extent and nature of the clearing operations, the type of equipment employed, the physical characteristics of the underlying soil, the speed at which construction vehicles are operated, and the type of fugitive dust control methods employed. Much of the fugitive dust generated by construction activities should be of a short-term duration and relatively contained within a proposed site, not significantly impacting nearby buildings or residents. All appropriate fugitive dust control measures – including watering of exposed areas and dust covers for trucks – would be employed during construction of the development sites. Therefore, the fugitive source emissions generated by the Proposed Actions would not be significant.

Mobile source emissions may result from the operation of construction equipment, trucks delivering materials and removing debris, workers' private vehicles, or occasional disruptions in traffic near the construction site. As the number of construction-related vehicle trips generated by the Proposed Actions would be relatively small and the emissions from such vehicles as well as construction equipment would occur over a four-year period and be dispersed throughout the Rezoning Area, the mobile source emissions generated by the Proposed Actions would not be significant. Overall, the Proposed Actions would not result in significant adverse air quality impacts.

Effect of Construction on Noise

Noise and vibration from construction equipment operation and noise from construction workers' vehicles and delivery vehicles traveling to and from the construction sites can affect community noise levels. The level of impact of these noise sources depends on the noise characteristics of the equipment and activities involved the construction schedule, and the location of potentially sensitive noise receptors.

Noise and vibration levels at a given location are dependent on the kind and number of pieces of construction equipment being operated, as well as the distance of the location from the construction site and the types of structures, if any, between the location and the noise source. Noise levels caused by construction activities can vary widely, depending on the phase of construction (e.g., demolition, land clearing and excavation, foundation, erection of structure, construction of exterior walls) and the specific task being undertaken.

Construction noise associated with the Proposed Actions are expected to be similar to noise generated by other residential construction projects in the city. Increased noise level caused by construction activities can be expected to be more significant during early excavation phases of construction and would be of relatively

short duration. Increases in noise levels caused by delivery trucks and other construction vehicles would not be significant.

Construction noise is regulated by the New York City Noise Control Code and by Environmental Protection Agency noise emission standards for construction equipment. These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards; that, except under exceptional circumstances, construction activities be limited to weekdays between the hours of 7:00 AM and 6:00 PM; and that construction material be handled and transported in such a manner as not to create unnecessary noise. In addition, whenever possible, appropriate low noise emission level equipment and operational procedures can be utilized to minimize noise and its effect on adjacent uses.

Thus, while there may be short periods of time when noise is greater than the Noise Control Code, these regulations would be followed in such a matter that no significant adverse noise impacts would occur as a result of the Proposed Actions.

Effect of Construction on Historic Resources

If a project's construction activities are located within 400 feet of a historic or cultural resource, potential hazards should be assessed, such as whether certain character-defining elements of a structure, including but not limited to rooftops or stained-glass windows, could be impacted by falling objects from an adjacent construction site. If the project is located within 90 feet of a New York City Landmark, a National Register-listed property, or within a New York City Historic District, the potential for physical disturbance should be disclosed and the project is required to comply with the New York City Department of Buildings (DOB) Technical Policy and Procedure Notice (TPPN) #10/88. TPPN #10/88 supplements the standard building protections afforded by Building Code C26-112.4 by requiring a monitoring program to reduce the likelihood of construction damage to adjacent New York City Landmarks and National Register-listed properties (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures may be changed. If the project is not located within 90 feet of a historic or cultural resource that is NYC-landmark eligible, eligible for the State and National Register of Historic Places, or within an eligible New York City Historic District, then no special protections apply. Therefore, the potential for physical disturbance and adverse impacts to those historic and cultural resources should be disclosed. The LPC designated and S/NR Listed resource at 11-02 31st Avenue is greater than 90 feet away from Projected Development Sites 1 and 2 and the construction timeline would be short-term lasting under two years. The S/NR eligible resource at 12-36 31st Avenue is located greater than 90 feet away from Projected Development Sites 1 and 2 and the construction timeline would be short-term lasting under two years. In addition, per the agency correspondence letter received on February 28, 2024, LPC concluded that there are no concerns related to the historic resources upon review of the EAS (See **Appendix C**).

Accordingly, the Proposed Actions would not introduce adverse construction-related impacts to architectural resources within the Study Area from ground-borne construction period vibrations, falling debris, and/or

collapse. Therefore, significant adverse impacts to these resources would not occur as a result of the Proposed Actions, and further analysis is not warranted.

Effect of Construction on Hazardous Materials

The Proposed Actions would result in new development in the area. As such, a hazardous materials assessment was undertaken, as presented Section 2.6 of this EAS. As discussed in the section, all contaminants and contaminated materials are expected to be removed in accordance with environmental regulations resulting in no significant adverse impacts.

Conclusion

Based on the above qualitative construction analysis, and detailed analysis in the preceding technical sections, construction-related activities would not have any significant adverse impacts on traffic, air quality, noise, historic resources, or hazardous materials conditions as a result of the Proposed Actions.

Appendix A: Illustrative Architectural Plans

APPLICANT'S STAMP AND SEAL CORRESPONDS TO THE INFORMATION REGARDING THE DEVELOPMENT SITE, ZONING LOT, AND RELATED CURB CUTS. INFORMATION REGARDING THE SURROUNDING PROPERTIES IS FOR ILLUSTRATIVE PURPOSES ONLY.

N

69.14'

68.00'

11.67'

25.00'

PLANTING

PLANTING

FORMER TAX LOT LINES

65.60'

LINE OF 30'-0" REQUIRED REAR YARD SETBACK

6.48' REAR YARD

21'-6"

VAN ACCESSIBLE

CAR ACCESSIBLE

ACCESS ISLE

EV CHARGERS (TYP)

PLANTING

1 STORY FACTORY/INDUSTRIAL

2 STORY RESIDENTIAL

2 STORY RESIDENTIAL

2 STORY (48'+/- HIGH) RESIDENTIAL

AREAWAY @ 1ST FL.

113.22'

10.00'

59.31' FIRST FLOOR

69.31' SECOND THRU FIFTH FLOORS

ROOFTOP RECREATION SPACE

STAIR & ELEVATOR BULKHEAD

SOLAR PANELS

SOLAR PANELS

85.00' FIRST THRU FOURTH FLOORS

70.00' FIFTH FLOOR

5 STORY (53' HIGH) 35 FAMILY BUILDING

69.48' FIFTH FLOOR

150.00'

1 STORY COMMERCIAL

1 STORY (17+/- HIGH) COMMERCIAL

1 STORY COMMERCIAL

3 STORY RESIDENTIAL & COMMERCIAL

2 STORY RESIDENTIAL

3 STORY RESIDENTIAL & COMMERCIAL

4 STORY (43' HIGH)

15.00' SETBACK

10.00'

69.52' SECOND THRU FOURTH FLOORS

59.52' FIRST FLOOR

155.33'

69.52'

124.99'

31st AVENUE 80' WIDE

31st DRIVE 50' WIDE

2'-9" 5'-0" 1'-6" 12'-0" CURB CUT 12'-5" 20'-0" 20'-0" 5'-1" 5'-0" ± ADJACENT CURB CUT

12th STREET

60' WIDE (NARROW STREET)

DIRECTION OF TRAFFIC

1 STORY COMMERCIAL

1 STORY COMMERCIAL

2 STORY RESIDENTIAL

2 STORY RESIDENTIAL

2 STORY RESIDENTIAL

2 STORY RESIDENTIAL

2 STORY RESIDENTIAL

2 STORY RESIDENTIAL

2 STORY RESIDENTIAL

2 STORY RESIDENTIAL

0 5 10 20

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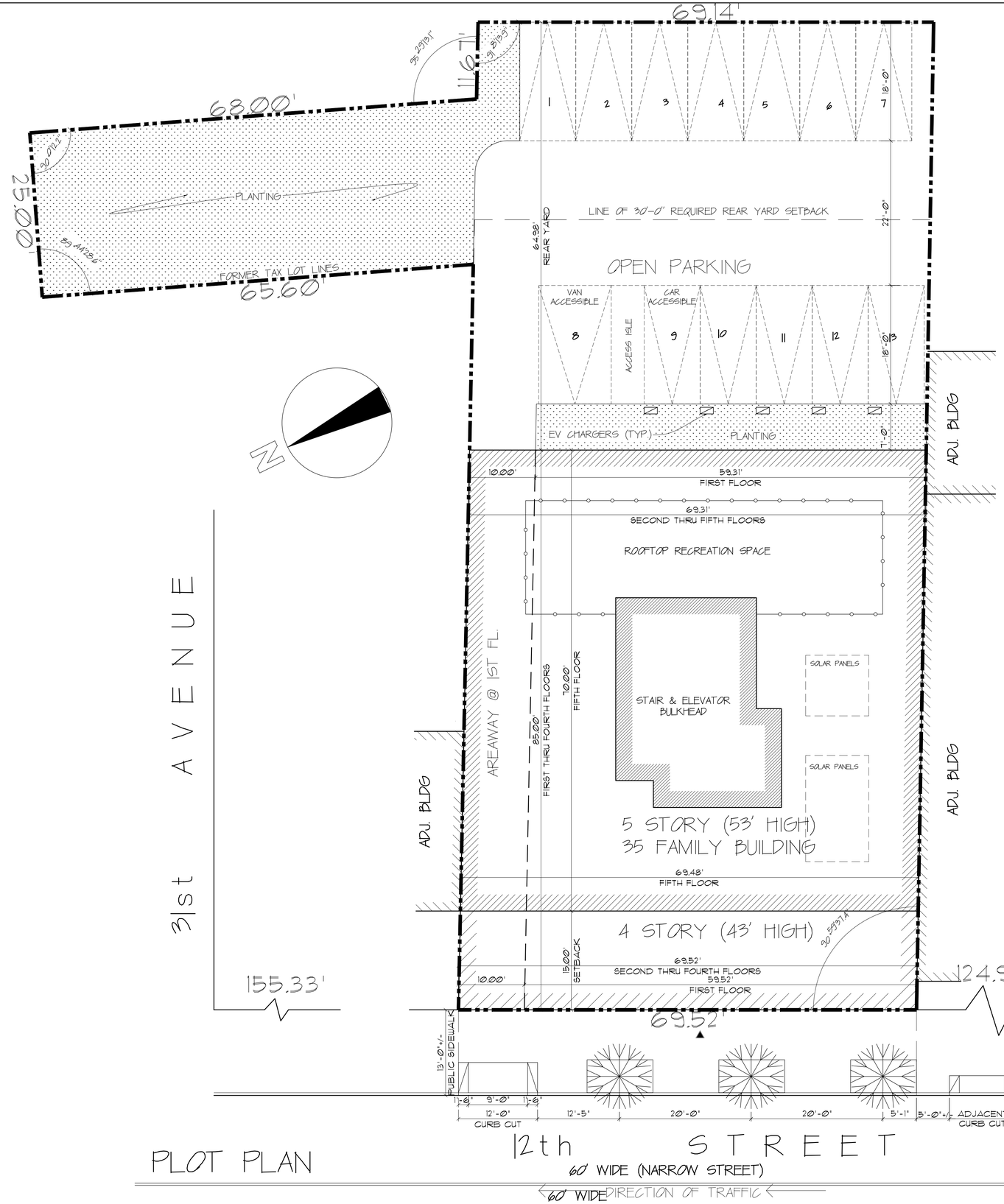
PROJECT:
31-17 12 STREET
BLOCK: 518 LOT: 13
DRAWING TITLE:
SITE PLAN

PROJECT: 24-062 DATE: SEP '20
DRAWN BY: YIANNI G. CKD BY: GOL

REGISTERED ARCHITECT GINO O. LONGO No. 024104 STATE OF NEW YORK

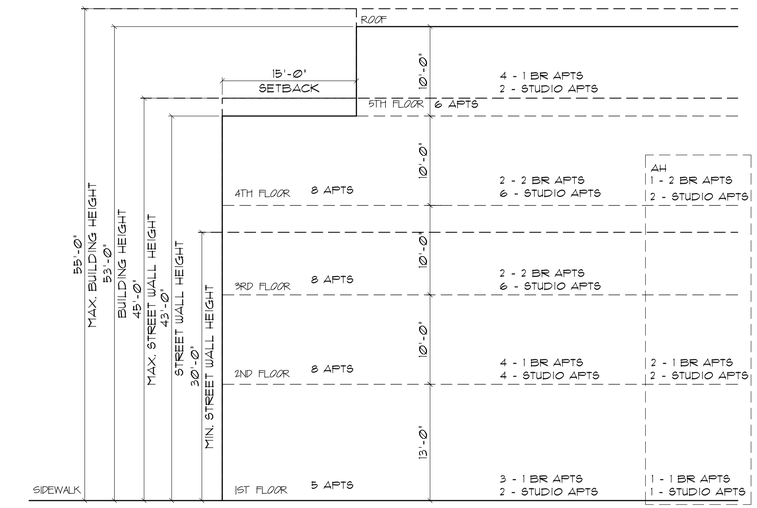
A -001.00

APPLICANT'S STAMP AND SEAL CORRESPONDS TO THE INFORMATION REGARDING THE DEVELOPMENT SITE, ZONING LOT, AND RELATED CURB CUTS. INFORMATION REGARDING THE SURROUNDING PROPERTIES IS FOR ILLUSTRATIVE PURPOSES ONLY.



PLOT PLAN

SCALE 1/8" = 1'-0"



ZR23-96(b) - DISTRIBUTION OF AFFORDABLE HOUSING ON NOT LESS THAN 65% OF STORIES
5 x 0.65 = 3.25 = 3 STORIES MIN.

TOTAL: 4 - 2 BR APTS
11 - 1 BR APTS
20 - STUDIO APTS
35 - APTS

TOTAL AH: 1 - 2 BR APTS
3 - 1 BR APTS
5 - STUDIO APTS
9 - APTS

SKY EXPOSURE/ SETBACK DIAGRAM

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PROJECT:
31-17 12 STREET

BLOCK: 518 LOT: 13

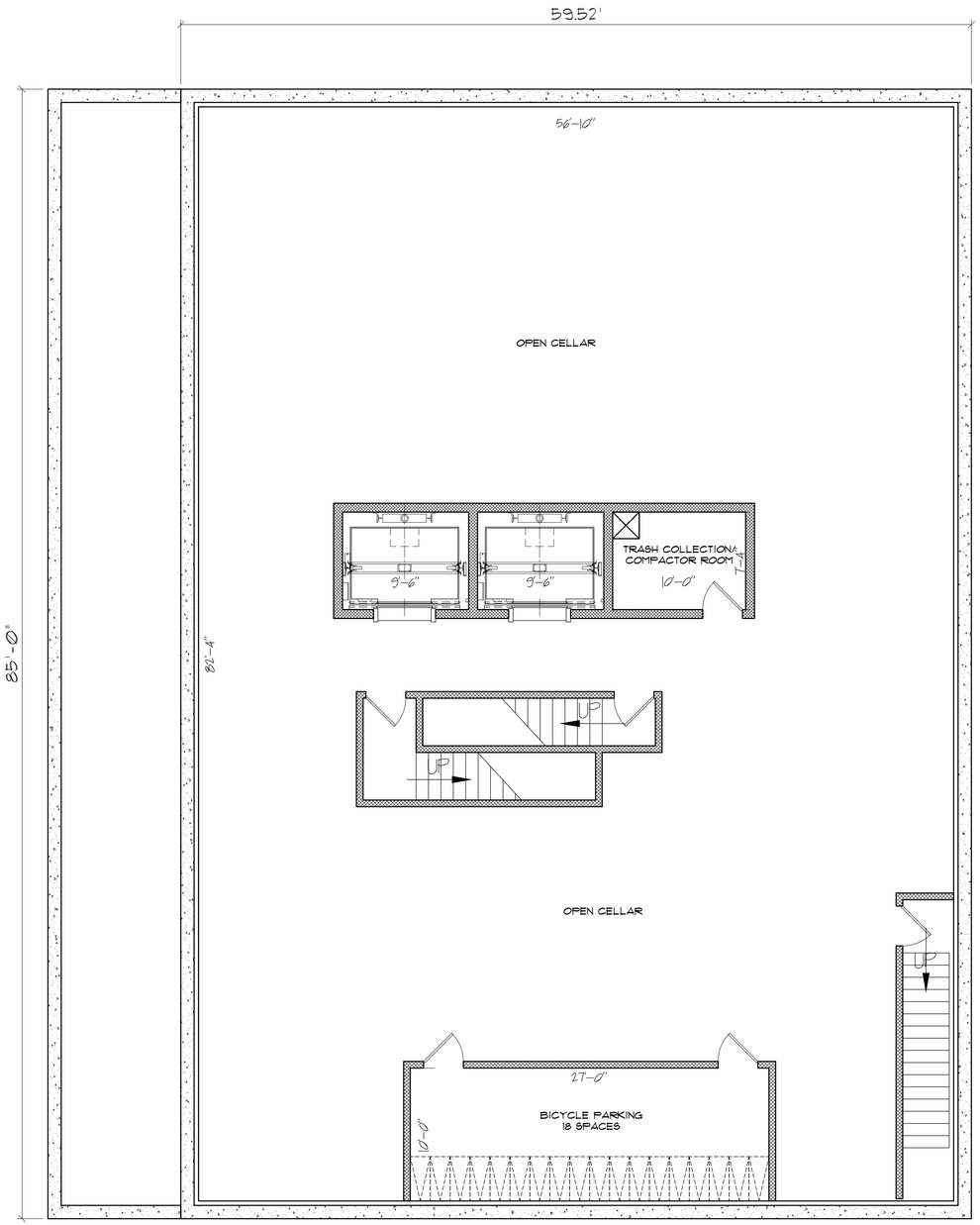
DRAWING TITLE:
PLOT PLAN
SKY EXPOSURE DIAGRAM

PROJECT: 24-062 DATE: SEP '20
DRAWN BY: YIANNI G CKD BY: GOL

REGISTERED ARCHITECT GINO O. LONGO No. 024104 STATE OF NEW YORK

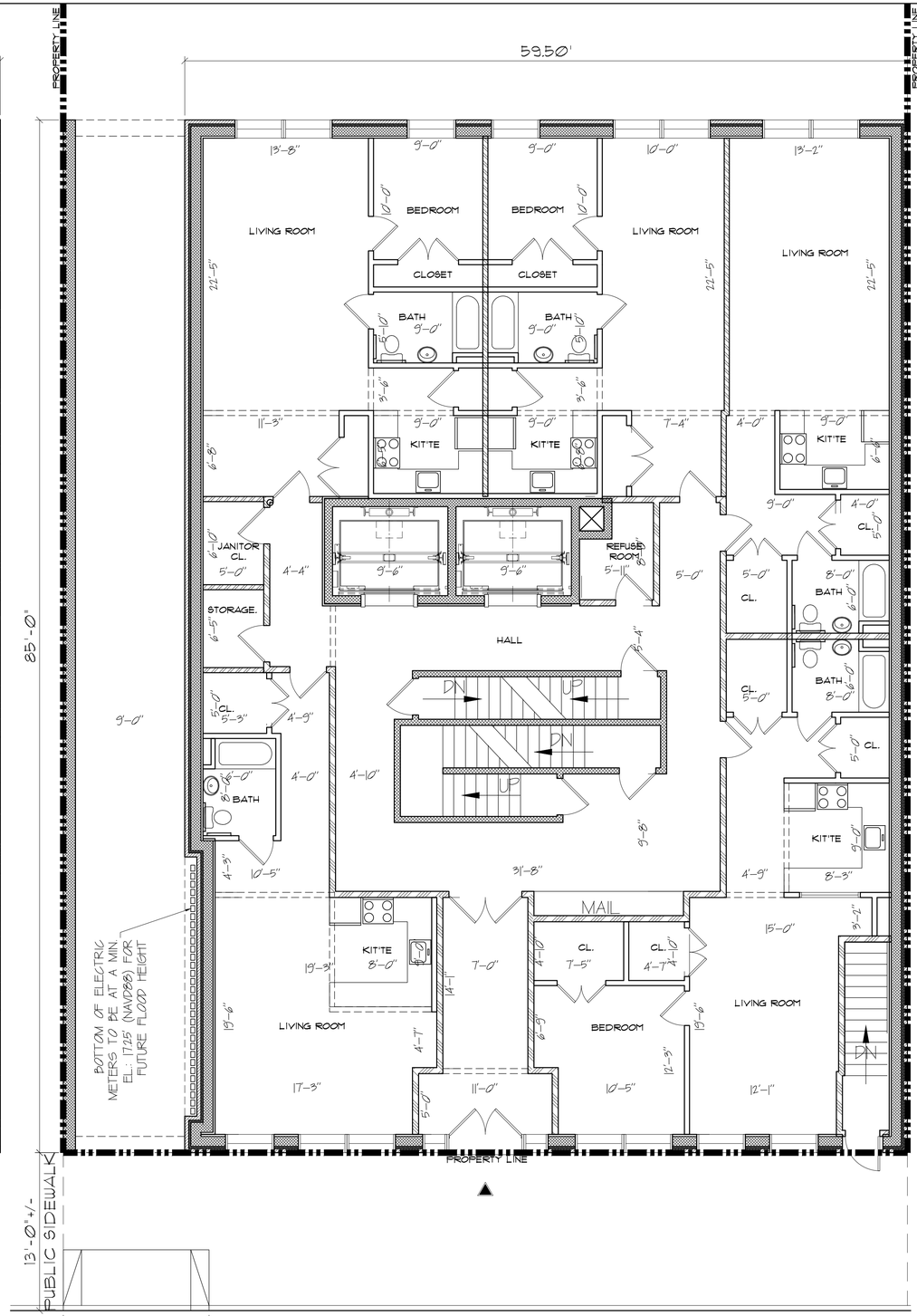
A -002.00

PAGE 02 OF 09



CELLAR FLOOR

SCALE: 3/16" = 1'-0"



1st / GROUND FLOOR

SCALE: 3/16" = 1'-0"

N

APPLICANT'S STAMP AND SEAL CORRESPONDS TO THE INFORMATION REGARDING THE DEVELOPMENT SITE, ZONING LOT, AND RELATED CURB CUTS. INFORMATION REGARDING THE SURROUNDING PROPERTIES IS FOR ILLUSTRATIVE PURPOSES ONLY.

LEGEND

- BUILDING MAIN ENTRANCE
- PROPERTY LINE
- CONCRETE FOUNDATION WALL
- BRICK & BLOCK CAVITY EXTERIOR WALL
- 2 HR FIRE RATED METAL STUD PARTITION
- NON RATED PARTITION

NOTE:
-NO GAS IN BUILDING.
-NO MECHANICAL EQUIPMENT TO BE LOCATED IN CELLAR.
-BOTTOM OF MECHANICAL EQUIPMENT ON FIRST FLOOR (IE. ELECTRICAL WATER HEATERS) TO BE LOCATED AT A MIN. EL. 17.25' TO MEET 2100s 1% FLOOD HEIGHT HIGH PROJECTION.
-ELECTRICAL HEATING AND COOLING SPLIT UNITS LOCATED ON ROOF.
-CELLAR WALLS AND FLOORING TO BE CONSTRUCTED OF CONCRETE OR CMU, OR OTHER WATER-RESISTANT BUILDING MATERIALS, WITHOUT DRYWALL OR WATER-PERMEABLE FACINGS.
-FLOOD SENSORS SHALL BE LOCATED 6 INCHES ABOVE CELLAR LEVEL.
-ALL CELLAR LEVEL OUTLETS SHALL BE ELEVATED TO 2 FEET ABOVE CELLAR LEVEL.
-IN CASE OF FLOODING, SENSORS TO CUT OFF POWER TO CELLAR LEVEL OUTLETS AND PREVENT ELEVATOR(S) FROM CELLAR TRAVEL.
-ELEVATOR PITS SHALL INCORPORATE ELASTOMERIC WATERPROOFING MEMBRANE ON WALLS AND FLOORS.
-ELEVATOR PITS SHALL INCLUDE SUMP PUMPS, REINFORCED SHAFTS AND FLOOD ALARMS.
-ELEVATOR CONTROLS ARE LOCATED ON ROOFTOP IN ELEVATOR MACHINE ROOM.
-ALL HEATING AND COOLING SYSTEMS SHALL BE LOCATED ON THE ROOF.

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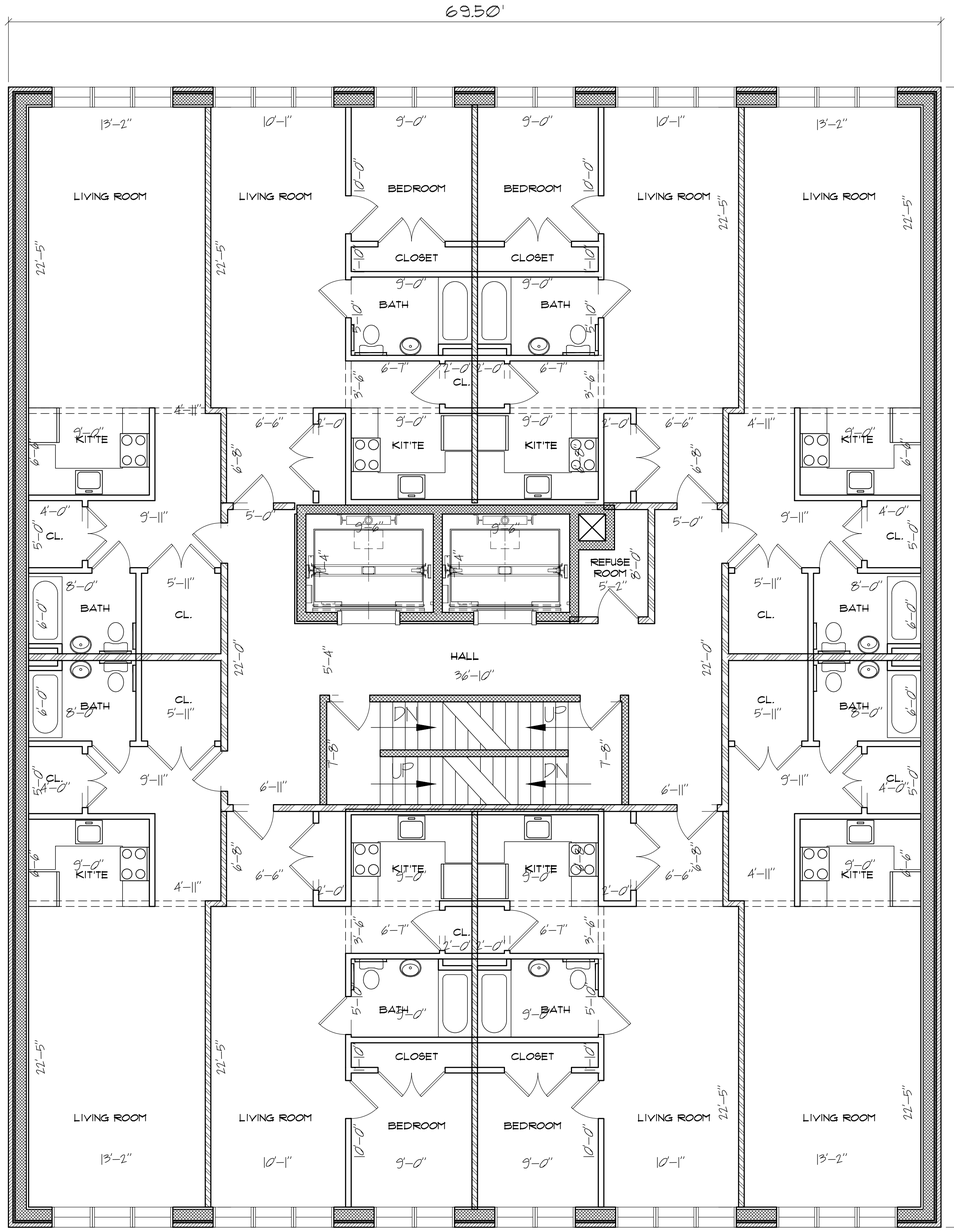
PHONE: (718) 445-5663 FAX: (718) 445-7506
EMAIL: LONGOAIA@AOL.COM

PROJECT:	
31-17 12 STREET	
BLOCK: 518	LOT: 13
DRAWING TITLE:	
CELLAR & FIRST FLOOR PLANS	
PROJECT: 24-062	DATE: SEP '20
DRAWN BY: YIANNI G	CKD BY: GOL

REGISTERED ARCHITECT GINO O. LONGO No. 024104 STATE OF NEW YORK

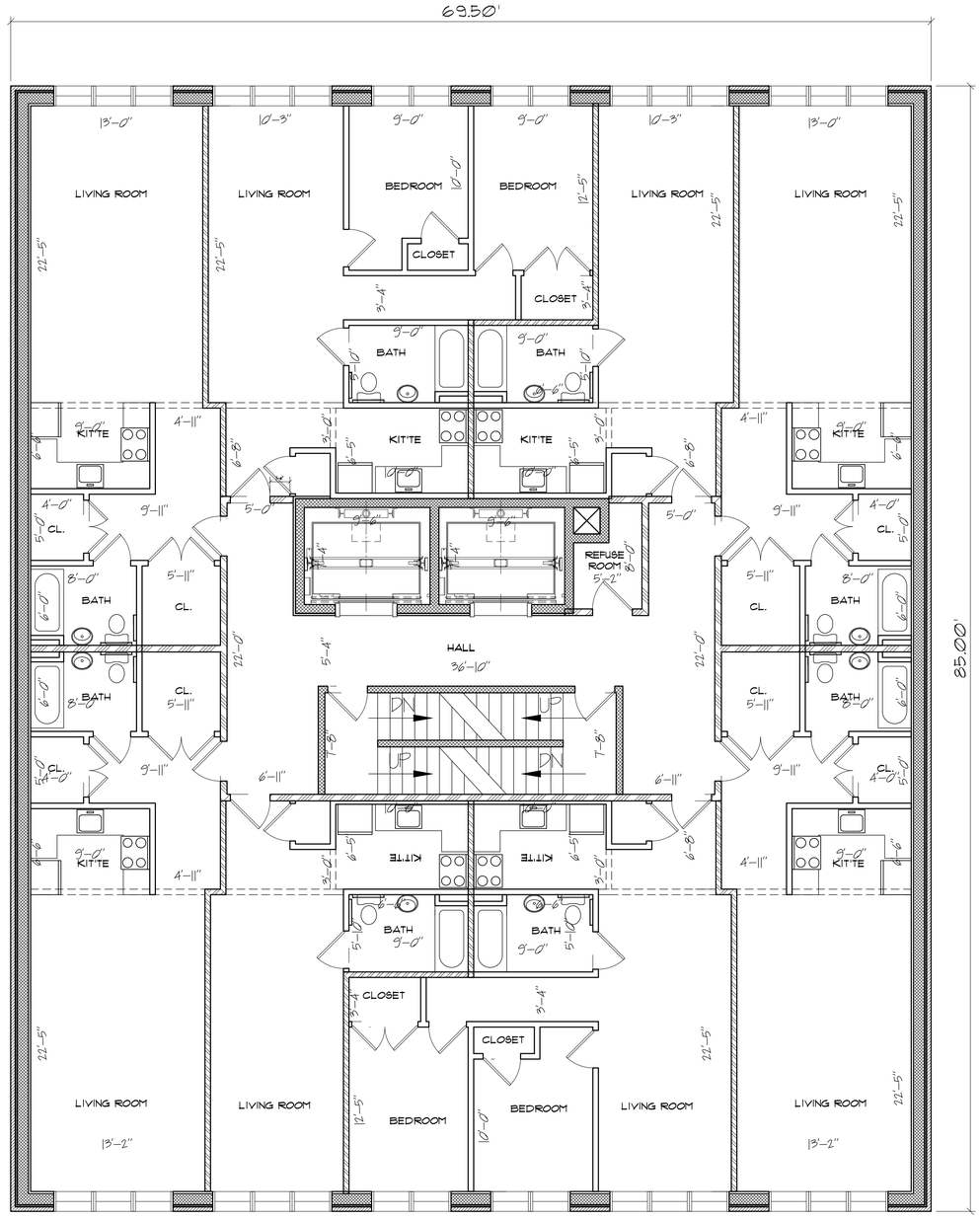
A -101.00

APPLICANT'S STAMP AND SEAL CORRESPONDS TO THE INFORMATION REGARDING THE DEVELOPMENT SITE, ZONING LOT, AND RELATED CURB CUTS. INFORMATION REGARDING THE SURROUNDING PROPERTIES IS FOR ILLUSTRATIVE PURPOSES ONLY.



2nd FLOOR

SCALE: 3/16" = 1'-0"



3rd & 4th FLOOR

SCALE: 3/16" = 1'-0"

N

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EMAIL: LONGOAIA@AOL.COM

PROJECT:	31-17 12 STREET
BLOCK: 518	LOT: 13
DRAWING TITLE:	SECOND THROUGH FOURTH FLOOR PLANS
PROJECT: 24-062	DATE: SEP '20
DRAWN BY: YIANNI G	CKD BY: GOL

REGISTERED ARCHITECT GINO O. LONGO No. 024104 STATE OF NEW YORK

A -102.00

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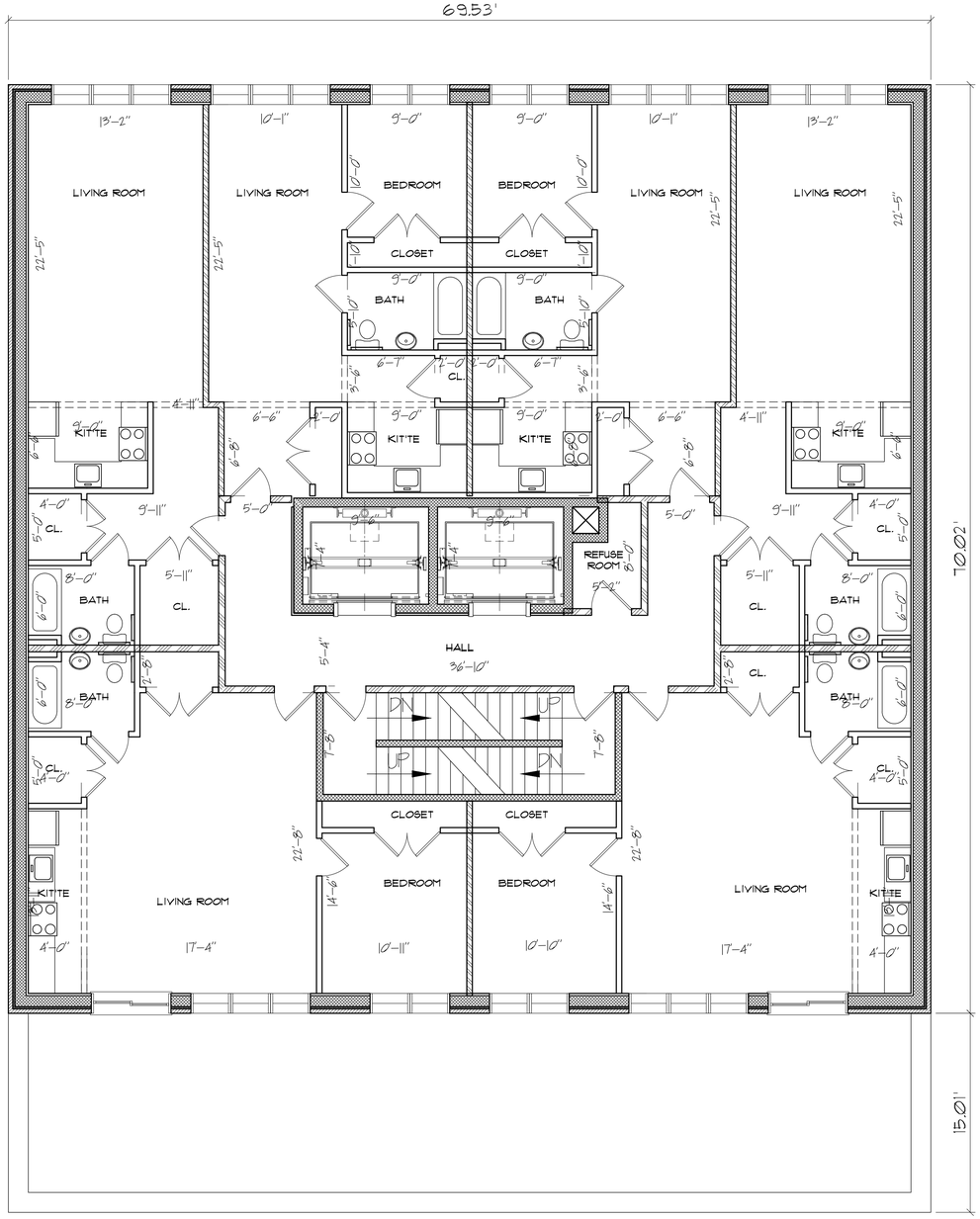

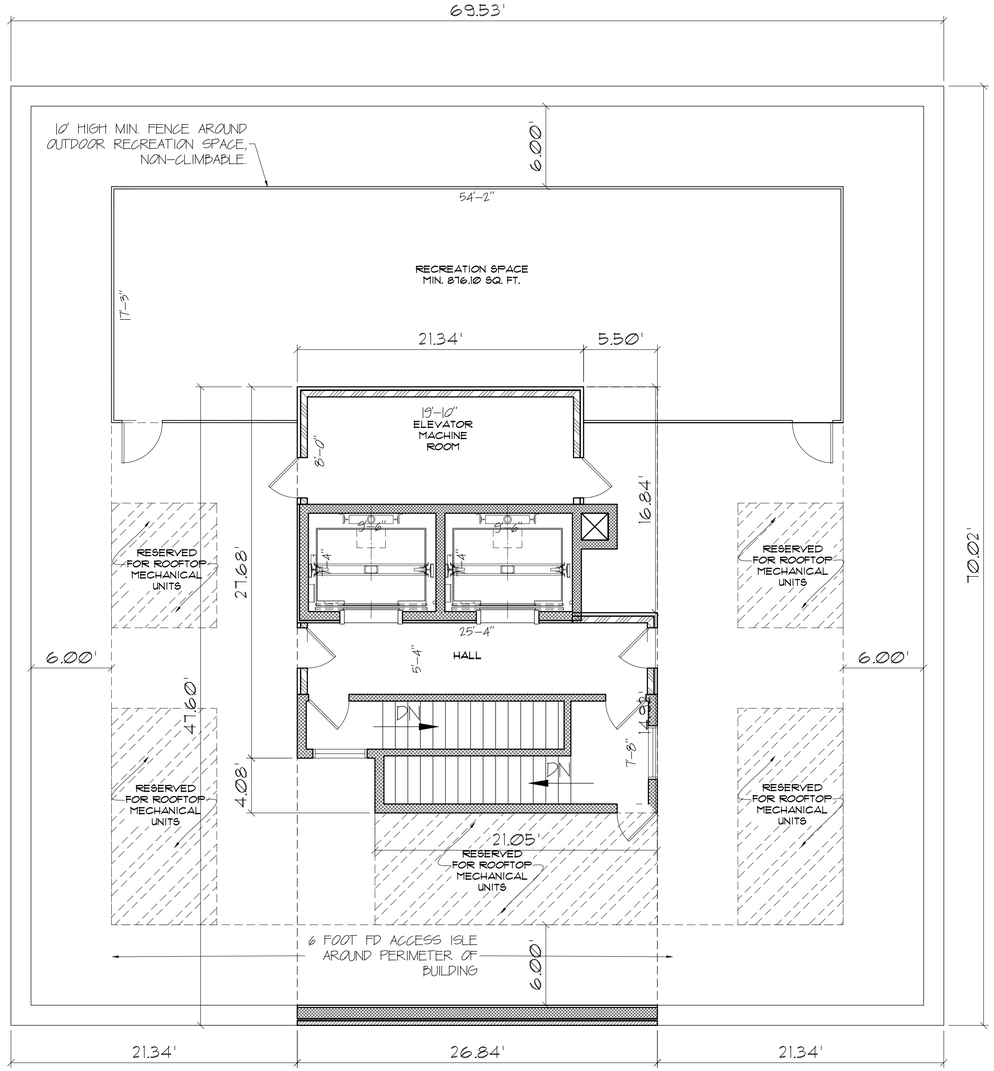

5th FLOOR

SCALE: 3/16" = 1'-0"

ROOF

SCALE: 3/16" = 1'-0"

BULKHEAD AREA CALCULATION FOR EXCLUSION FROM BUILDING HEIGHT AS PER BC5043

ROOF AREA: 69.53 x 70.02 = 4868.49 SQ. FT.
MAX ROOFTOP STRUCTURE AREA: 4868.49 x 0.3333 = 1622.67 SQ. FT.

ACTUAL ROOFTOP STRUCTURE AREA:

STAIR & ELEVATOR BULKHEAD & CANOPY FOR SOLAR PANELS: 26.84 x 47.60 = 1277.58 SQ. FT.

1277.58 < 1622.67 = OK. AS PER BC5043

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EMAIL: LONGOAIA@AOL.COM

PROJECT:	31-17 12 STREET
BLOCK: 518	LOT: 13
DRAWING TITLE:	5TH FLOOR & ROOF PLAN
PROJECT: 24-062	DATE: SEP '20
DRAWN BY: YIANNI G	CKD BY: GOL

REGISTERED ARCHITECT GINO O. LONGO No. 024104 STATE OF NEW YORK

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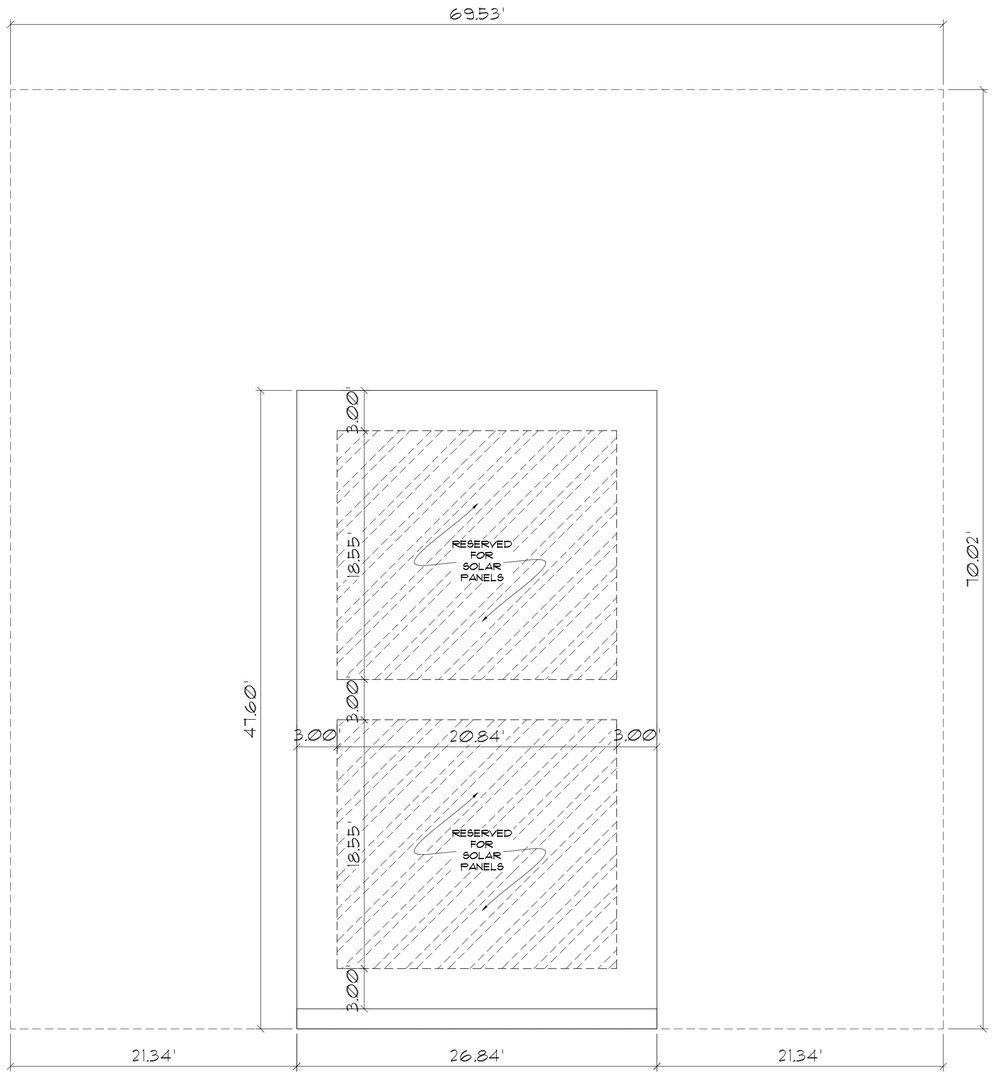

BULKHEAD ROOF

SCALE: 3/16" = 1'-0"

N

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EMAIL: LONGOAIA@AOL.COM

PROJECT:
31-17 12 STREET
BLOCK: 518 LOT: 13
DRAWING TITLE:
SECOND THROUGH FIFTH FLOOR PLANS

PROJECT: 24-062 DATE: SEP '20
DRAWN BY: YIANNI G CKD BY: GOL

REGISTERED ARCHITECT GINO O. LONGO No. 024104 STATE OF NEW YORK

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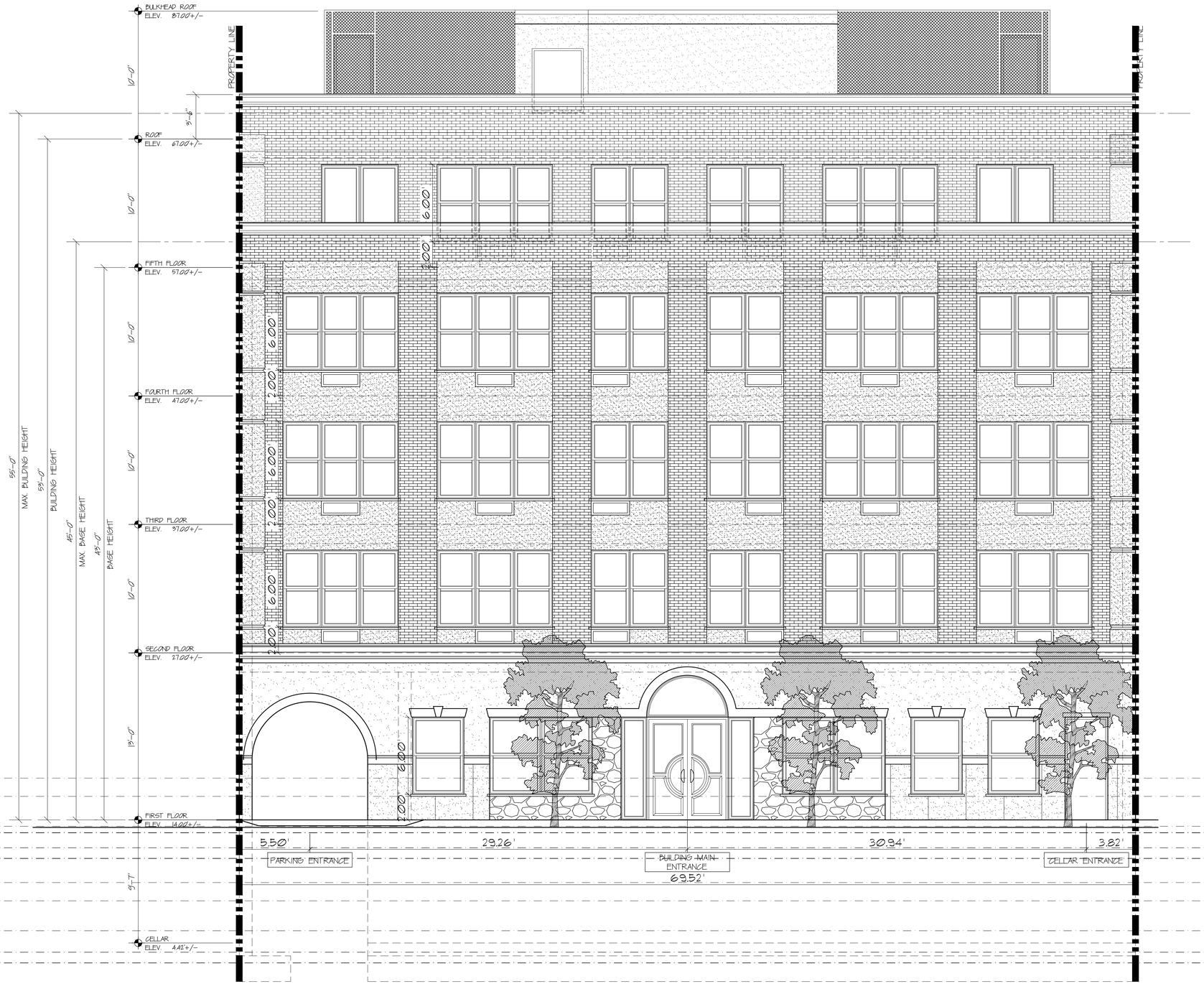
AS PER FEMA FLOOD HAZARD DATA, PROPERTY IS LOCATED IN FLOOD ZONE 'X' WITH A BFE AS N/A ESTIMATED GROUND ELEVATION 14 – 15ft (NAVD88).



FRONT ELEVATION / FLOOD ELEVATION DIAGRAM

0 2' 4' 8'

SCALE: 1/4" = 1'-0"

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PROJECT:
31-17 12 STREET
BLOCK: 518 LOT: 13
DRAWING TITLE:
FRONT ELEVATION
ELEVATION SHEET

PROJECT: 24-062	DATE: SEP '20
DRAWN BY: YIANNI G	CKD BY: GOL

REGISTERED ARCHITECT GINO O. LONGO No. 024104 STATE OF NEW YORK

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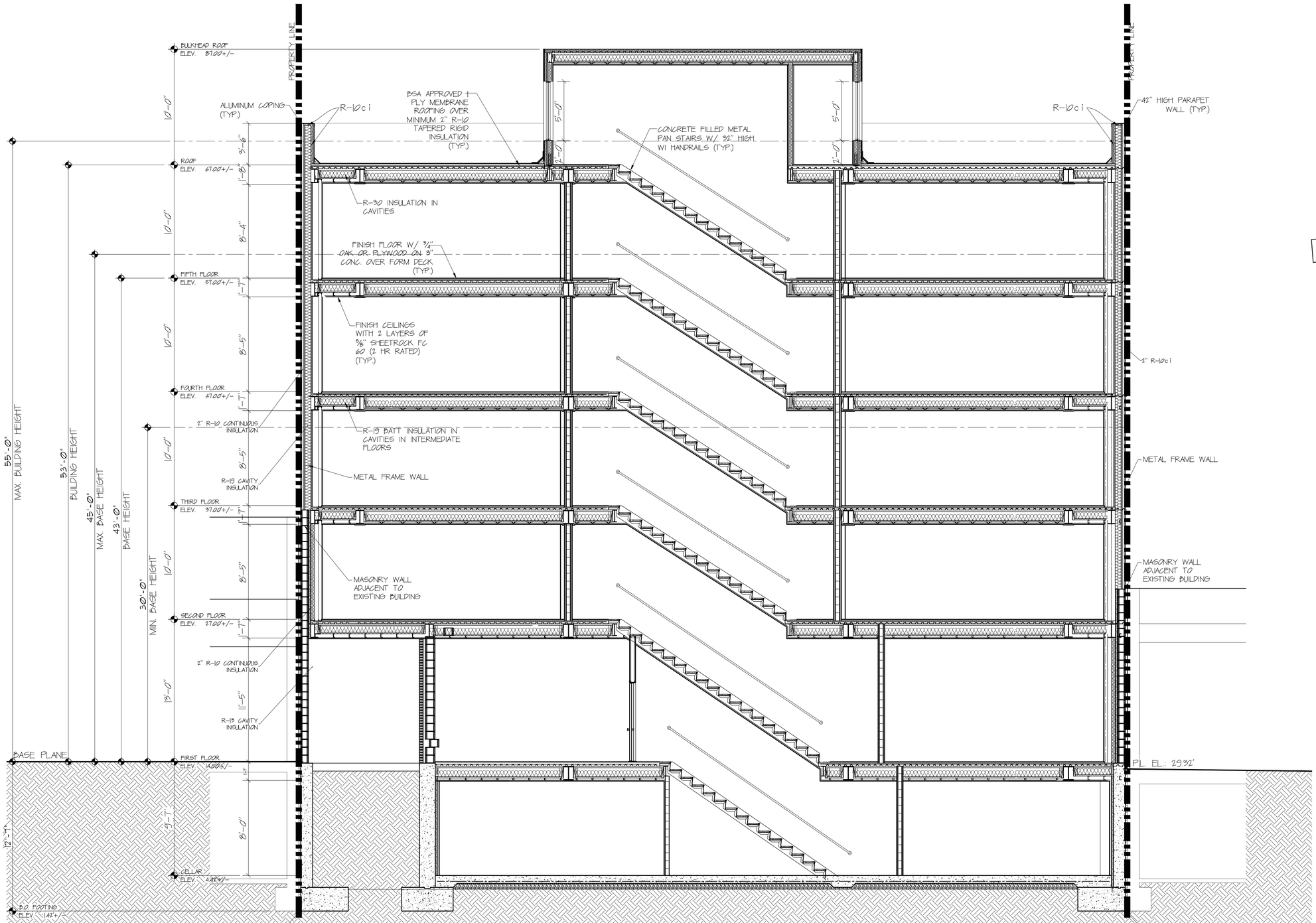
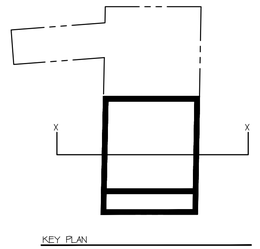
INFORMATION OUTSIDE OF THE BOUNDARIES OF THE ZONING LOT IS FOR ILLUSTRATIVE PURPOSES ONLY. THE ARCHITECT BEARS NO RESPONSIBILITY FOR INEXACT INFORMATION ON SURROUNDING PROPERTIES.





KEY PLAN

NOTE:
-NO MECHANICAL EQUIPMENT TO BE LOCATED IN CELLAR.
-CELLAR WALLS AND FLOORING TO BE CONSTRUCTED OF CONCRETE OR CMU, OR OTHER WATER-RESISTANT BUILDING MATERIALS, WITHOUT DRYWALL OR WATER-PERMEABLE FACINGS.
-ALL CELLAR LEVEL OUTLETS SHALL BE ELEVATED TO 2 FEET ABOVE CELLAR LEVEL.
-FLOOD SENSORS SHALL BE LOCATED 6 INCHES ABOVE CELLAR LEVEL.
-IN CASE OF FLOODING, SENSORS TO PREVENT ELEVATOR(S) FROM CELLAR TRAVEL.
-ELEVATOR PITS SHALL INCORPORATE ELASTOMERIC WATERPROOFING MEMBRANE ON WALLS AND FLOORS.
-ELEVATOR PITS SHALL INCLUDE SUMP PUMPS, REINFORCED SHAFTS AND FLOOD ALARMS.

BUILDING SECTION X-X

0 2' 4' 8'

SCALE: 1/4" = 1'-0"

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PROJECT:
31-17 12 STREET
BLOCK: 518 LOT: 13
DRAWING TITLE:
BUILDING SECTION X-X

PROJECT: 24-062	DATE: SEP '20
DRAWN BY: YIANNI G	CKD BY: GOL

REGISTERED ARCHITECT GINO O. LONGO No. 024104 STATE OF NEW YORK

A -301.00

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PROPERTY LINE

64.98' (N.T.S.)
REAR YARD

BULKHEAD ROOF
ELEV. 57.00+/-

ROOF
ELEV. 47.00+/-

FIFTH FLOOR
ELEV. 37.00+/-

FOURTH FLOOR
ELEV. 27.00+/-

THIRD FLOOR
ELEV. 17.00+/-

SECOND FLOOR
ELEV. 7.00+/-

FIRST FLOOR
ELEV. 0.00+/-

CELLAR
ELEV. -4.46+/-

B.P. FOOTING
ELEV. -14.46+/-

10'-0"
3'-6"
1'-8"
10'-0"
8'-4"
1'-7"
10'-0"
8'-5"
1'-7"
10'-0"
8'-5"
1'-7"
10'-0"
8'-5"
1'-7"
13'-0"
11'-5"
8'-7"
12'-7"
8'-3"
5'-0"

55'-0" MAX. BUILDING HEIGHT
53'-0" BUILDING HEIGHT
45'-0" MAX. BASE HEIGHT
43'-0" BASE HEIGHT
30'-0" MIN. BASE HEIGHT

BASE PLANE

R-10ci
R-13 CAVITY
R-30 BATT INSULATION IN CAVITIES IN ROOF & FLOOR UNDER BOILER ROOM
BSA APPROVED 1 PLY MEMBRANE ROOFING OVER MINIMUM 2" R-10 TAPERED RIGID INSULATION.
ALUMINUM COPING (TYP.)
15.00' SETBACK
FINISH CEILINGS WITH 2 LAYERS OF 5/8" SHEETROCK FC 60 (2 HR RATED) (TYP.)
R-19 BATT INSULATION IN CAVITIES IN INTERMEDIATE FLOORS
FINISH FLOOR W/ 3/4" OAK OR PLYWOOD ON 3" CONC. OVER FORM DECK (TYP.)
CONCRETE FILLED METAL PAN STAIRS W/ 32" HIGH W/ HANDRAILS (TYP.)

NOTE:
-NO MECHANICAL EQUIPMENT TO BE LOCATED IN CELLAR.
-CELLAR WALLS AND FLOORING TO BE CONSTRUCTED OF CONCRETE OR CMU, OR OTHER WATER-RESISTANT BUILDING MATERIALS, WITHOUT DRYWALL OR WATER-PERMEABLE FACINGS.
-ALL CELLAR LEVEL OUTLETS SHALL BE ELEVATED TO 2 FEET ABOVE CELLAR LEVEL.
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-ELEVATOR PITS SHALL INCORPORATE ELASTOMERIC WATERPROOFING MEMBRANE ON WALLS AND FLOORS.
-ELEVATOR PITS SHALL INCLUDE SUMP PUMPS, REINFORCED SHAFTS AND FLOOD ALARMS.

PROPERTY LINE

KEY PLAN

FRONT

BUILDING SECTION Y-Y

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

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PHONE: (718) 445-5663 FAX: (718) 445-7506
EMAIL: LONGOAIA@AOL.COM

PROJECT:
31-17 12 STREET
BLOCK: 518 LOT: 13
DRAWING TITLE:
BUILDING SECTION Y-Y

PROJECT: 24-062	DATE: SEP. '20
DRAWN BY: YIANNI G	CKD BY: GOL

REGISTERED ARCHITECT GINO O. LONGO No. 024104 STATE OF NEW YORK

A -302.00

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Appendix B: WRP CAF and Flood Evaluation Worksheet

FOR INTERNAL USE ONLY	WRP No. _____
Date Received: _____	DOS No. _____

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

Proposed actions that are subject to CEQR, ULURP or other local, state or federal discretionary review procedures, and that are within New York City's Coastal Zone, must be reviewed and assessed for their consistency with the *New York City Waterfront Revitalization Program (WRP)* which has been approved as part of the State's Coastal Management Program.

This form is intended to assist an applicant in certifying that the proposed activity is consistent with the WRP. It should be completed when the local, state, or federal application is prepared. The completed form and accompanying information will be used by the New York State Department of State, the New York City Department of City Planning, or other city or state agencies in their review of the applicant's certification of consistency.

A. APPLICANT INFORMATION

Name of Applicant: 31 17 19 1Z LLC

Name of Applicant Representative: Equity Environmental Engineering a Division of GZA

Address: 500 International Dr. Suite 150, Mount Olive NJ 07828

Telephone: 201-757-3561 Email: amber.kartalyan@gza.com

Project site owner (if different than above): _____

B. PROPOSED ACTIVITY

If more space is needed, include as an attachment.

1. Brief description of activity

The Applicant, 31 17 19 1Z LLC, is seeking the approval of a zoning map amendment and a zoning text amendment to facilitate the development of 31-17 12th Street (Block 518, Lot 13), 31-15 12th Street (Block 518, Lot 16), 31-13 12th Street (Block 518, Lot 17), and 31-11 12th Street (Block 518, Lot 18).

The zoning map amendment would rezone Queens Block 518, Lots 6-10, 13, 16-18, p/o 5, and p/o 19 from an R5B zoning district to an R6B zoning district. The zoning text amendment would affect Zoning Resolution Appendix F by modifying Queens CD 1 Map with MIHA.

2. Purpose of activity

The Proposed Project would demolish the existing massing on 31-17 12th Street (Block 518, Lot 13) and construct a new 5-story, 53-foot-tall residential building to help induce the redevelopment of an underutilized lot within a rapidly developing district in a growing neighborhood of Queens as well as to provide permanently affordable housing units in align with the needs of city's affordable housing provision goals.

C. PROJECT LOCATION

Borough: Queens Tax Block/Lot(s): Block 518, Lots 6-10, 13, 16-18, p/o 5, and p/o 19

Street Address: 31-17 12th Street

Name of water body (if located on the waterfront): _____

D. REQUIRED ACTIONS OR APPROVALS

Check all that apply.

City Actions/Approvals/Funding

City Planning Commission ☑ Yes ☐ No

- ☐ City Map Amendment
- ☑ Zoning Map Amendment
- ☑ Zoning Text Amendment
- ☐ Site Selection – Public Facility
- ☐ Housing Plan & Project
- ☐ Special Permit
  (if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____
- ☐ Zoning Certification
- ☐ Zoning Authorizations
- ☐ Acquisition – Real Property
- ☐ Disposition – Real Property
- ☐ Other, explain: _____
- ☐ Concession
- ☐ UDAAP
- ☐ Revocable Consent
- ☐ Franchise

Board of Standards and Appeals ☐ Yes ☑ No

- ☐ Variance (use)
- ☐ Variance (bulk)
- ☐ Special Permit
  (if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____

Other City Approvals

- ☐ Legislation
- ☐ Rulemaking
- ☐ Construction of Public Facilities
- ☐ 384 (b) (4) Approval
- ☐ Other, explain: _____
- ☐ Funding for Construction, specify: _____
- ☐ Policy or Plan, specify: _____
- ☐ Funding of Program, specify: _____
- ☐ Permits, specify: _____

State Actions/Approvals/Funding

- ☐ State permit or license, specify Agency: _____ Permit type and number: _____
- ☐ Funding for Construction, specify: _____
- ☐ Funding of a Program, specify: _____
- ☐ Other, explain: _____

Federal Actions/Approvals/Funding

- ☐ Federal permit or license, specify Agency: _____ Permit type and number: _____
- ☐ Funding for Construction, specify: _____
- ☐ Funding of a Program, specify: _____
- ☐ Other, explain: _____

Is this being reviewed in conjunction with a Joint Application for Permits? ☐ Yes ☑ No

E. LOCATION QUESTIONS

1. Does the project require a waterfront site? ☐ Yes ☑ No
2. Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land under water or coastal waters? ☐ Yes ☑ No
3. Is the project located on publicly owned land or receiving public assistance? ☐ Yes ☑ No
4. Is the project located within a FEMA 1% annual chance floodplain? *(6.2)* ☐ Yes ☑ No
5. Is the project located within a FEMA 0.2% annual chance floodplain? *(6.2)* ☑ Yes ☐ No
6. Is the project located adjacent to or within a special area designation? *See Maps – Part III of the NYC WRP. If so, check appropriate boxes below and evaluate policies noted in parentheses as part of WRP Policy Assessment (Section F).* ☐ Yes ☑ No

   ☐ Significant Maritime and Industrial Area (SMIA) (*2.1*)
   ☐ Special Natural Waterfront Area (SNWA) (*4.1*)
   ☐ Priority Maritime Activity Zone (PMAZ) (*3.5*)
   ☐ Recognized Ecological Complex (REC) (*4.4*)
   ☐ West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA) (*2.2, 4.2*)

F. WRP POLICY ASSESSMENT

Review the project or action for consistency with the WRP policies. For each policy, check Promote, Hinder *or* Not Applicable (N/A). *For more information about consistency review process and determination, see* ***Part I*** *of the NYC Waterfront Revitalization Program. When assessing each policy, review the full policy language, including all sub-policies, contained within* ***Part II*** *of the WRP. The relevance of each applicable policy may vary depending upon the project type and where it is located (i.e. if it is located within one of the special area designations).*

For those policies checked Promote *or* Hinder, *provide a written statement on a separate page that assesses the effects of the proposed activity on the relevant policies or standards. If the project or action promotes a policy, explain how the action would be consistent with the goals of the policy. If it hinders a policy, consideration should be given toward any practical means of altering or modifying the project to eliminate the hindrance. Policies that would be advanced by the project should be balanced against those that would be hindered by the project. If reasonable modifications to eliminate the hindrance are not possible, consideration should be given as to whether the hindrance is of such a degree as to be substantial, and if so, those adverse effects should be mitigated to the extent practicable.*

		Promote	Hinder	N/A
1	**Support and facilitate commercial and residential redevelopment in areas well-suited to such development.**	☑	☐	☐
1.1	Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.	☑	☐	☐
1.2	Encourage non-industrial development with uses and design features that enliven the waterfront and attract the public.	☐	☐	☑
1.3	Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.	☑	☐	☐
1.4	In areas adjacent to SMIAs, ensure new residential development maximizes compatibility with existing adjacent maritime and industrial uses.	☐	☐	☑
1.5	Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.	☑	☐	☐

		Promote	Hinder	N/A
2	**Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.**	☐	☐	☑
2.1	Promote water-dependent and industrial uses in Significant Maritime and Industrial Areas.	☐	☐	☑
2.2	Encourage a compatible relationship between working waterfront uses, upland development and natural resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☑
2.3	Encourage working waterfront uses at appropriate sites outside the Significant Maritime and Industrial Areas or Ecologically Sensitive Maritime Industrial Area.	☐	☐	☑
2.4	Provide infrastructure improvements necessary to support working waterfront uses.	☐	☐	☑
2.5	Incorporate consideration of climate change and sea level rise into the planning and design of waterfront industrial development and infrastructure, pursuant to WRP Policy 6.2.	☐	☐	☑
3	**Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation.**	☐	☐	☑
3.1.	Support and encourage in-water recreational activities in suitable locations.	☐	☐	☑
3.2	Support and encourage recreational, educational and commercial boating in New York City's maritime centers.	☐	☐	☑
3.3	Minimize conflicts between recreational boating and commercial ship operations.	☐	☐	☑
3.4	Minimize impact of commercial and recreational boating activities on the aquatic environment and surrounding land and water uses.	☐	☐	☑
3.5	In Priority Marine Activity Zones, support the ongoing maintenance of maritime infrastructure for water-dependent uses.	☐	☐	☑
4	**Protect and restore the quality and function of ecological systems within the New York City coastal area.**	☐	☐	☑
4.1	Protect and restore the ecological quality and component habitats and resources within the Special Natural Waterfront Areas.	☐	☐	☑
4.2	Protect and restore the ecological quality and component habitats and resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☑
4.3	Protect designated Significant Coastal Fish and Wildlife Habitats.	☐	☐	☑
4.4	Identify, remediate and restore ecological functions within Recognized Ecological Complexes.	☐	☐	☑
4.5	Protect and restore tidal and freshwater wetlands.	☐	☐	☑
4.6	In addition to wetlands, seek opportunities to create a mosaic of habitats with high ecological value and function that provide environmental and societal benefits. Restoration should strive to incorporate multiple habitat characteristics to achieve the greatest ecological benefit at a single location.	☐	☐	☑
4.7	Protect vulnerable plant, fish and wildlife species, and rare ecological communities. Design and develop land and water uses to maximize their integration or compatibility with the identified ecological community.	☐	☐	☑
4.8	Maintain and protect living aquatic resources.	☐	☐	☑

		Promote	Hinder	N/A
5	**Protect and improve water quality in the New York City coastal area.**	☐	☐	☑
5.1	Manage direct or indirect discharges to waterbodies.	☐	☐	☑
5.2	Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution.	☐	☐	☑
5.3	Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.	☐	☐	☑
5.4	Protect the quality and quantity of groundwater, streams, and the sources of water for wetlands.	☐	☐	☑
5.5	Protect and improve water quality through cost-effective grey-infrastructure and in-water ecological strategies.	☐	☐	☑
6	**Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.**	☑	☐	☐
6.1	Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the site, the use of the property to be protected, and the surrounding area.	☐	☐	☑
6.2	Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in *New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms*) into the planning and design of projects in the city's Coastal Zone.	☑	☐	☐
6.3	Direct public funding for flood prevention or erosion control measures to those locations where the investment will yield significant public benefit.	☐	☐	☑
6.4	Protect and preserve non-renewable sources of sand for beach nourishment.	☐	☐	☑
7	**Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to the environment and public health and safety.**	☐	☐	☑
7.1	Manage solid waste material, hazardous wastes, toxic pollutants, substances hazardous to the environment, and the unenclosed storage of industrial materials to protect public health, control pollution and prevent degradation of coastal ecosystems.	☐	☐	☑
7.2	Prevent and remediate discharge of petroleum products.	☐	☐	☑
7.3	Transport solid waste and hazardous materials and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.	☐	☐	☑
8	**Provide public access to, from, and along New York City's coastal waters.**	☐	☐	☑
8.1	Preserve, protect, maintain, and enhance physical, visual and recreational access to the waterfront.	☐	☐	☑
8.2	Incorporate public access into new public and private development where compatible with proposed land use and coastal location.	☐	☐	☑
8.3	Provide visual access to the waterfront where physically practical.	☐	☐	☑
8.4	Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations.	☐	☐	☑

		Promote	Hinder	N/A
8.5	Preserve the public interest in and use of lands and waters held in public trust by the State and City.	☐	☐	☑
8.6	Design waterfront public spaces to encourage the waterfront's identity and encourage stewardship.	☐	☐	☑
9	**Protect scenic resources that contribute to the visual quality of the New York City coastal area.**	☐	☐	☑
9.1	Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.	☐	☐	☑
9.2	Protect and enhance scenic values associated with natural resources.	☐	☐	☑
10	**Protect, preserve, and enhance resources significant to the historical, archaeological, architectural, and cultural legacy of the New York City coastal area.**	☐	☐	☑
10.1	Retain and preserve historic resources, and enhance resources significant to the coastal culture of New York City.	☐	☐	☑
10.2	Protect and preserve archaeological resources and artifacts.	☐	☐	☑

G. CERTIFICATION

The applicant or agent must certify that the proposed activity is consistent with New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program, and will be conducted in a manner consistent with such program."

Applicant/Agent's Name: Equity Environmental Engineering a Division of GZA

Address: 500 International Dr. Suite 150, Mount Olive NJ 07828

Telephone: 201-757-3561 Email: amber.kartalyan@gza.com

Applicant/Agent's Signature: _____

Date: 3/30/2023

Submission Requirements

For all actions requiring City Planning Commission approval, materials should be submitted to the Department of City Planning.

For local actions not requiring City Planning Commission review, the applicant or agent shall submit materials to the Lead Agency responsible for environmental review. A copy should also be sent to the Department of City Planning.

For State actions or funding, the Lead Agency responsible for environmental review should transmit its WRP consistency assessment to the Department of City Planning.

For Federal direct actions, funding, or permits applications, including Joint Applicants for Permits, the applicant or agent shall also submit a copy of this completed form along with his/her application to the NYS Department of State Office of Planning and Development and other relevant state and federal agencies. A copy of the application should be provided to the NYC Department of City Planning.

The Department of City Planning is also available for consultation and advisement regarding WRP consistency procedural matters.

New York City Department of City Planning
Waterfront and Open Space Division
120 Broadway, 31st Floor
New York, New York 10271
212-720-3696
wrp@planning.nyc.gov
www.nyc.gov/wrp

New York State Department of State
Office of Planning and Development
Suite 1010
One Commerce Place, 99 Washington Avenue
Albany, New York 12231-0001
518-474-6000
www.dos.ny.gov/opd/programs/consistency

Applicant Checklist

- ☐ Copy of original signed NYC Consistency Assessment Form
- ☐ Attachment with consistency assessment statements for all relevant policies
- ☐ For Joint Applications for Permits, one (1) copy of the complete application package
- ☐ Environmental Review documents
- ☐ Drawings (plans, sections, elevations), surveys, photographs, maps, or other information or materials which would support the certification of consistency and are not included in other documents submitted. All drawings should be clearly labeled and at a scale that is legible.
- ☐ Policy 6.2 Flood Elevation worksheet, if applicable. For guidance on applicability, refer to the WRP Policy 6.2 Guidance document available at www.nyc.gov/wrp

NYC Waterfront Revitalization Program - Policy 6.2 Flood Elevation Workhsheet

COMPLETE INSTRUCTIONS ON HOW TO USE THIS WORKSHEET ARE PROVIDED IN THE "CLIMATE CHANGE ADAPTATION GUIDANCE" DOCUMENT AVAILABLE AT www.nyc.gov/wrp

Enter information about the project and site in highlighted cells in Tabs 1-3. Tab 4, "Summary Charts" contains primary results. Tab 5, "0.2%+SLR" produces charts to be used for critical infrastructure or facilities. Tab 6, "Calculations" contains background computations. Appendix A contains tide elevations for station across the city to be used for the elevation of MHHW if a site survey is not available. Non-highlighted cells have been locked.

Background Information	
Project Name	31-17 12th Street Rezoning
Location	31-17 12th Street Astoria, Queens, NY 11106
Type(s)	■ Residential, Commercial, ▫ Parkland, Open Space, and ▫ Tidal Wetland Restoration ▫ Critical Infrastructure or ▫ Industrial Uses ▫ Over-water Structures ▫ Shoreline Structures ▫ Transportation ▫ Wastewater ▫ Coastal Protection
Description	The Applicant seeks a zoning map amendment to rezone Queens Block 518, Lots 6, 7, 8, 9, 10, 13, 16, 17, 18, and p/o Lots 5 and 19 (the "Rezoning Area") in the Astoria neighborhood within Queens Community District 1, from an R5B zoning district to an R6B zoning district. The proposed zoning map amendment would facilitate the development of a five-story residential building containing 35 dwelling units in 26,550 square feet of floor area at 31-17 12th Street (Block 513, Lot 13). There would be 15 open accessory parking spaces at the rear of the Proposed Building.
Planned Completion Date	2026
Expected Project Lifespan	100 Years

The New York City Waterfront Revitalization Program Climate Change Adaptation Guidance document was developed by the NYC Department of City Planning. It is a guidance document only and is not intended to serve as a substitute for actual regulations. The City disclaims any liability for errors that may be contained herein and shall not be responsible for any damages, consequential or actual, arising out of or in connection with the use of this information. The City reserves the right to update or correct information in this guidance document at any time and without notice.

For technical assistance on using this worksheet, email wrp@planning.nyc.gov, using the message subject "Policy 6.2 Worksheet."

Last update: Sept. 7, 2018

Establish current tidal and flood heights.

	FT (NAVD88)	Feet	Datum	Source
MHHW	2.87	**2.87**	**NAVD88**	*Horns Hook Station - Adjusted*
1% flood height	11.00	**11.00**	**NAVD88**	*Nearest 1% Flood Zone*
Design flood elevation	13.00	**13.00**	**NAVD88**	*BFE + 2*
As relevant:				
0.2% flood height	-->			

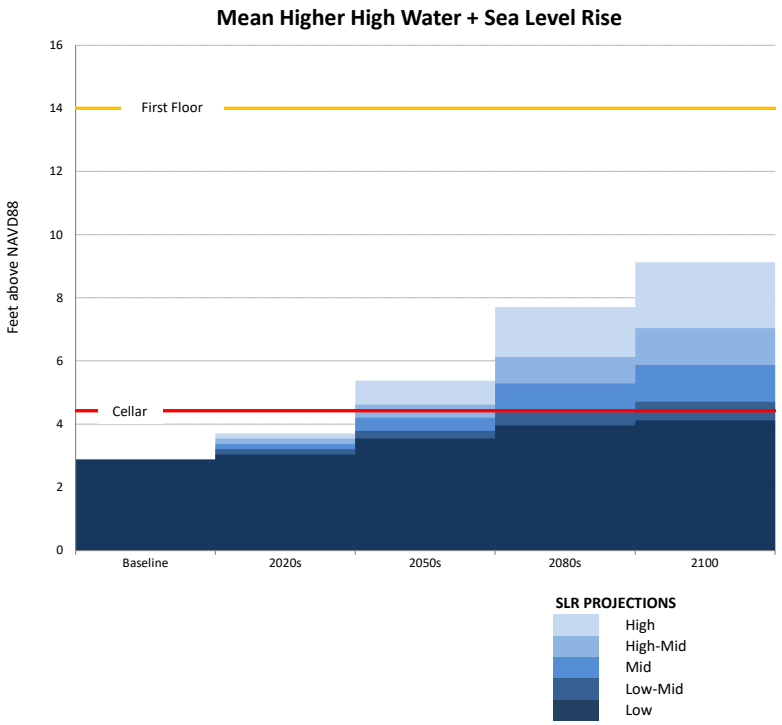
Data will be converted based on the following datums:

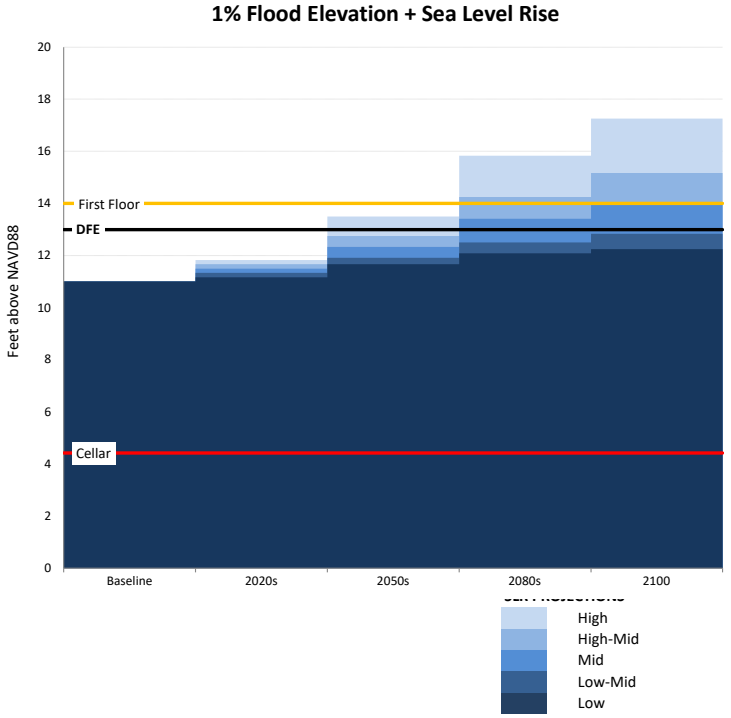
Datum	FT (NAVD88)
NAVD88	*0.00*
NGVD29	*-1.10*
Manhattan Datum	*1.65*
Bronx Datum	*1.51*
Brooklyn Datum (Sewer)	*0.61*
Brooklyn Datum (Highway)	*1.45*
Queens Datum	*1.63*
Richmond Datum	*2.09*

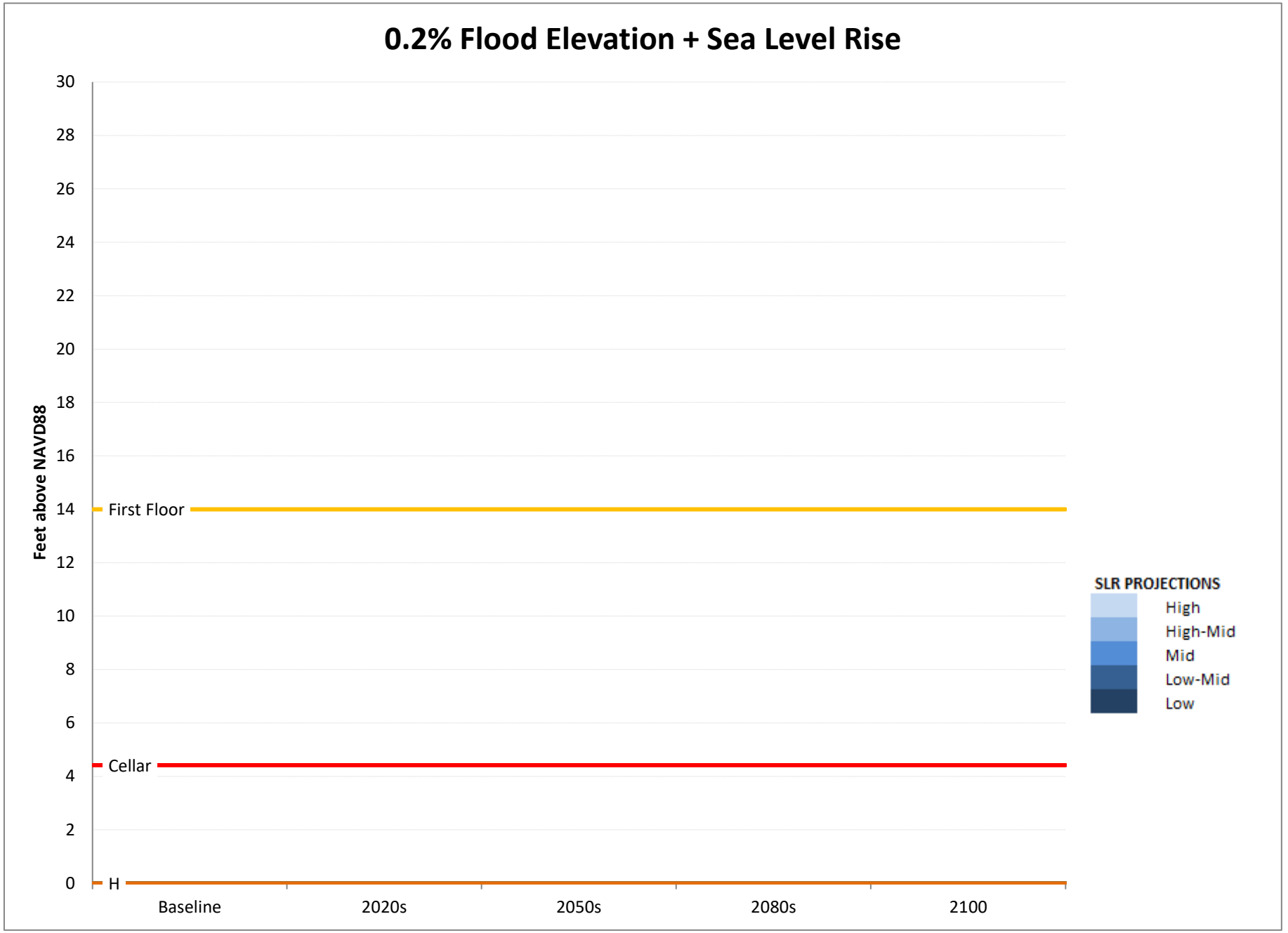
Describe key physical features of the project.

Feature *(enter name)*	Feature Category	Lifespan	Elevation	Units	Datum	Ft	Ft Above NAVD88	Ft Above MHHW	Ft Above 0.2% flood height
Cellar	■ Vulnerable ▫ Critical ▫ Potentially Hazardous ▫ Other	100	4.4	Feet	NAVD88	*4.4*	*4.4*	*1.6*	*#VALUE!*
Trash compactor room and bicycle parking									
First Floor	▫ Vulnerable ▪ Critical ▫ Potentially Hazardous ▫ Other	100	14.0	Feet	NAVD88	*14.0*	*14.0*	*11.1*	*#VALUE!*
Residential lobby and dwelling units									
Roof	▫ Vulnerable ▫ Critical ▫ Potentially Hazardous ▫ Other	100	67.0	Feet	NAVD88	*67.0*	*67.0*	*64.1*	*#VALUE!*
Mechanical									
D	▫ Vulnerable ▫ Critical ▫ Potentially Hazardous ▫ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
E	▫ Vulnerable ▫ Critical ▫ Potentially Hazardous ▫ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
F	▫ Vulnerable ▫ Critical ▫ Potentially Hazardous ▫ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
G	▫ Vulnerable ▫ Critical ▫ Potentially Hazardous ▫ Other			Feet	NAVD88				
Description of Planned Uses and Materials									
H	▫ Vulnerable ▫ Critical ▪ Potentially Hazardous ▫ Other			Feet	NAVD88				
Description of Planned Uses and Materials									

Assess project vulnerability over a range of sea level rise projections.






0.2% Flood Elevation + Sea Level Rise
Feet above NAVD88
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
First Floor
Cellar
H
Baseline
2020s
2050s
2080s
2100
SLR PROJECTIONS
High
High-Mid
Mid
Low-Mid
Low

	SLR (ft)					
	Low	**Low-Mid**	**Mid**	**High-Mid**	**High**	
Baseline	0.00	0.00	0.00	0.00	0.00	**2014**
2020s	0.17	0.33	0.50	0.67	0.83	**2020s**
2050s	0.67	0.92	1.33	1.75	2.50	**2050s**
2080s	1.08	1.50	2.42	3.25	4.83	**2080s**
2100	1.25	1.83	3.00	4.17	6.25	**2100**

	MHHW+SLR (ft above NAVD88)				
	Low	**Low-Mid**	**Mid**	**High-Mid**	**High**
Baseline	2.87	2.87	2.87	2.87	2.87
2020s	3.04	3.20	3.37	3.54	3.70
2050s	3.54	3.79	4.20	4.62	5.37
2080s	3.95	4.37	5.29	6.12	7.70
2100	4.12	4.70	5.87	7.04	9.12

	1%+SLR (ft above NAVD88)				
	Low	**Low-Mid**	**Mid**	**High-Mid**	**High**
Baseline	11.00	11.00	11.00	11.00	11.00
2020s	11.17	11.33	11.50	11.67	11.83
2050s	11.67	11.92	12.33	12.75	13.50
2080s	12.08	12.50	13.42	14.25	15.83
2100	12.25	12.83	14.00	15.17	17.25

	0.2%+SLR (ft above NAVD88)				
	Low	**Low-Mid**	**Mid**	**High-Mid**	**High**
Baseline	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
2020s	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
2050s	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
2080s	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
2100	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!

	0	1
Cellar	4	4.42
First Floor	14	14
Roof	67	67
D	0	0
E	0	0
F	0	0
G	0	0
H	0	0
DFE	13.00	13.00

SLR (in)				
Low	**Low-Mid**	**Mid**	**High-Mid**	**High**
0	0	0	0	0
2	4	6	8	10
8	11	16	21	30
13	18	29	39	58
15	22	36	50	75

NOAA Tide Station Data

(to be used only when a site survey is unavailable)

Station ID	*Station Name*	*Source MHHW (Feet, NAVD88)**	*Adjusted MHHW (Feet, NAVD88)**
8518687	Queensboro Bridge	2.27	2.60
8530095	Alpine	2.11	2.44
8516614	Glen Cove	3.72	4.05
8516990	Willets Point	3.72	4.05
8518639	Port Morris	3.33	3.66
8518699	Williamsburg Bridge	2.14	2.47
8518750	The Battery	2.28	2.61
8531680	Sandy Hook	2.41	2.74
8518490	New Rochelle	3.71	4.04
8531545	Keyport	2.66	2.99
8516891	Norton Point	2.08	2.41
8517201	North Channel	2.72	3.05
8517137	Beach Channel	2.10	2.43
8517756	Kingsborough	2.13	2.46
8519436	Great Kills	2.22	2.55
8531142	Port Reading	2.82	3.15
8519483	Bergen Point	2.56	2.89
8519050	USCG	2.28	2.61
8518902	Dyckman St	2.01	2.34
8517251	Worlds Fair Marina	3.59	3.92
8518668	Horns Hook	2.54	2.87
8518643	Randalls Island	2.60	2.93
8518526	Throggs Neck	3.68	4.01

* MHHW values include an addition 0.33 feet to account for changes in sea level since the 1983-20(

Source
NOAA Tides and Currents
NOAA Tides and Currents
NOAA Tides and Currents
NOAA Tides and Currents
NOAA Tides and Currents
NOAA Tides and Currents
NOAA Tides and Currents
NOAA Tides and Currents
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NOAA VDATUM
NOAA Tides and Currents

)1 tidal epoch.




Alpine
8530095
New
Rochelle
8518490
Dyckman St
8518902
Glen Cove
8516614
Randalls
Island
8518643
Port
Morris
8518639
Throggs
Neck
8518526
Willets
Point
8516990
Worlds Fair
Marina
8517251
Queensboro
Bridge
8518687
Horns Hook
8518668
Williamsburg
Bridge
8518699
The Battery
8518750
North
Channel
8507201
Norton
Point
8516891
CG
9050
Beach
Channel
8517137
Kingsborough
8517756
Sandy Hook
8531680

Appendix C: City Agency Correspondence

Landmarks Preservation Commission

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

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

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / LA-CEQR-Q
Project: 31-17 12 STREET
Date Received: 5/13/2021

Properties with no Architectural or Archaeological significance:

1) 12-17 31 DRIVE, BBL: 4005180005
2) 12-15 31 DRIVE, BBL: 4005180006
3) 12-11 31 DRIVE, BBL: 4005180007
4) 31-33 12 STREET, BBL: 4005180008
5) 31-31 12 STREET, BBL: 4005180009
6) 31-29 12 STREET, BBL: 4005180010
7) 31-17 12 STREET, BBL: 4005180013
8) 31-15 12 STREET, BBL: 4005180016
9) 31-13 12 STREET, BBL: 4005180017
10) 31-11 12 STREET, BBL: 4005180018
11) 12-04 31 AVENUE, BBL: 4005180019

LPC DESIGNATED AND S/NR LISTED SOHMER PIANO CO., 11-02 31 AVENUE AND S/NR ELIGIBLE DEPARTMENT OF HEALTH CITY OF NEW YORK, 12-36 31 AVENUE WITHIN RADIUS.

Gina Santucci 5/18/2021

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 35626_FSO_DNP_05182021.docx

Landmarks Preservation Commission

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

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

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / 22DCP098Q
Project: 31-17 12 STREET
Date Received: 2/27/2024

Properties with no Architectural or Archaeological significance:

1) 12-17 31 DRIVE, BBL: 4005180005
2) 12-15 31 DRIVE, BBL: 4005180006
3) 12-11 31 DRIVE, BBL: 4005180007
4) 31-33 12 STREET, BBL: 4005180008
5) 31-31 12 STREET, BBL: 4005180009
6) 31-29 12 STREET, BBL: 4005180010
7) 31-17 12 STREET, BBL: 4005180013
8) 31-15 12 STREET, BBL: 4005180016
9) 31-13 12 STREET, BBL: 4005180017
10) 31-11 12 STREET, BBL: 4005180018
11) 12-04 31 AVENUE, BBL: 4005180019

Comments:

The LPC is in receipt of the EAS, Historic Resources and Shadows Chapter. There are no additional concerns.

Gina Santucci 2/28/2024

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 35626_FSO_GS_02282024.docx

Appendix D: Phase I ESA

PHASE I ENVIRONMENTAL SITE ASSESSMENT



31-17 12th Street
Queens, New York 11106

May 2021

Prepared for:

Silviana Penta
31 17 19 1Z LLC
16-130 Jewel Avenue, Apt 4H
Flushing, NY 11365

Prepared by:

EQUITY ENVIRONMENTAL ENGINEERING, LLC

500 International Drive, Suite 150
Mount Olive, New Jersey 07828
(973) 527-7451

PHASE I ENVIRONMENTAL SITE ASSESSMENT

31-17 12th Street
Queens, New York 11106

May 2021

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31-17 12th Street
Queens, New York 11106

May 2021

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

31-17 12th Street
Queens, New York 11106

May 2021

EXECUTIVE SUMMARY

Equity Environmental Engineering, LLC (Equity) was retained by 31 17 19 1Z LLC. to conduct a Phase I Environmental Site Assessment (Phase I) to identify Recognized Environmental Conditions (RECs) associated with current and prior site use at the property identified as 31-17 12th Street, Queens, New York 11106. Equity conducted the assessment in accordance with the requirements of ASTM International Standard E1527-13, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" and good professional practices.

Site Overview

The Subject Property is as follows:

Property Designation	31-17 12th Street
Property Address	31-17 12th Street, Queens, New York 11106
Parcel ID	Block 518 / Lot 13
Parcel Size	12,070 Square Feet
Number of Buildings	Three (3)
Number of Stories	Exquisite Glass and Stone - one story, Residential building - Two stories, Studio - one story
Finished Area (SF)	4,314 square feet
Date Constructed	1910
Construction Type	Exquisite Glass and Stone – brick and mortar, Residential building – concrete foundation with wood framing and vinyl siding, Studio – brick and mortar
Property Usage	Storage yard
Inspection Date	May 4, 2021
Weather Conditions	60°F, Cloudy
Site Contact/Title	Silviana Penta / Property Owner
Site Contact Phone	646-377-7085

Definitions

The ASTM International Phase I Standard defines environmental conditions as follows:

- ***Recognized Environmental Conditions (RECs)***

  The term "Recognized Environmental Condition" means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

- ***Controlled Recognized Environmental Conditions (CRECs)***

  The term "Controlled Recognized Environmental Condition" is a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

- ***Historical Recognized Environmental Conditions (HRECs)***

  The term "Historical Recognized Environmental Condition" is a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls, such as property use restrictions or activity and use limitations (AULs, which include both institutional controls and engineering controls).

- ***Vapor Encroachment Conditions (VECs)***

  The term "Vapor Encroachment Condition" is a condition where the presence or likely presence of chemicals of concern vapors in the subsurface of the target property caused by the release of vapors from contaminated soil and/or groundwater either on or near the target property.

- ***De Minimis Conditions***

  The term "De Minimis Condition" is a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

- ***Data Gaps***

  The term "Data Gap" is a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. Data gaps may result from incompleteness in any of the activities required by this practice, including, but not limited to site reconnaissance (for example, an inability to conduct the site visit), and interviews (for example, an inability to interview the key site manager, regulatory officials, etc.).

- ***Non-Scope Considerations***

  Consideration of business environmental risk issues some of which are identified in Section 13 and Appendix XI of ASTM International E1528-14e1 (e.g., asbestos, ecological resources, mold, radon, wetlands, regulatory compliance et. Al.).

Findings

The following environmental conditions were identified:

A. Recognized Environmental Conditions (RECs)

Two RECs were identified as a result of this assessment. 1. One REC is in relation to an oil leak from the boiler located in the basement of the residential building on the Subject Property. The boiler leaks into a hole with exposed soil beneath the building slab. The REC has been attempted to be controlled with the use if Speedy Dry or equivalent. It is Equity's opinion that the speedy Dry is not a sufficient control for the number two oil leak therefore, this condition is still considered a REC. 2. A second REC was also observed in the basement of the residential building on the Subject Property and is in relation to a leak of number two heating oil from the piping connection into one of two above ground storage tanks (ASTs). The leaking oil tank connection sits on top of exposed soil and is considered a REC.

B. Controlled Recognized Environmental Conditions (CRECs)

No Controlled RECs were identified as a result of this assessment.

C. Historical Recognized Environmental Conditions (HRECs)

No Historic RECs were identified as a result of this assessment.

D. Vapor Encroachment Conditions (VECs)

A Vapor Encroachment Screening in accordance with ASTM International E2600-15 was performed by Equity. The EDR Vapor Encroachment database identified multiple VECs with 1/10 of a mile to the Subject Property related to a historic auto garage on the Subject Property, a ten gallon spill of an unknow petroleum product on the Subject Property, a historic drycleaner 94 feet from the Subject Property, and a spill of kerosene and number two heating oil from a dewatering facility at Astoria Gas Turbines. Based on these findings,

a vapor encroachment condition cannot be ruled out. Details on the VECs can be found in Appendix C.

E. De Minimis Conditions

No, De Minimis Conditions were identified as a result of this assessment.

F. Data Gaps

Equity identified one data gap in relation to the first floor of the residential building. The first floor was inaccessible due to the presence of a tenant during the investigation. According to Ms. Penta the tenant occupying the first floor did not allow access. No visual or olfactory signs of environmental impacts were observed in relation to the first floor of the residential building therefore, Equity does not believe this data gap would affect its ability to identify Recognized Environmental Concerns (RECs) associated with the Subject Property.

Conclusions

Equity's review of available information and observations of the subject and surrounding properties indicates that no CRECs, HRECs, or De Minimis conditions were identified as a result of this assessment however, two RECs were identified and a potential VEC issue cannot be ruled out.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

31-17 12th Street
Queens, New York 11106

I. INTRODUCTION

A. Purpose

Equity Environmental Engineering, LLC (Equity) was contracted by 31 17 19 1Z LLC. to perform a Phase I Environmental Site Assessment of the referenced property in accordance with the ASTM International Standard E1527-13, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The ASTM International Standard satisfies the requirements of the United States Environmental Protection Agency's (USEPA) 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 ASTM International Standard constitutes "all appropriate inquiry into previous ownership and uses of the property consistent with good commercial or customary practice". The investigation was conducted to identify Recognized Environmental Conditions (RECs), which are identified as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

It is Equity's understanding that the Phase I is being conducted to provide environmental support services as part of 31 17 19 1Z LLC's due diligence process for the rezoning of 31-17 12th Street (Block 518, Lot 13) to an R6B zoning district from its current R5B district. An area coterminous with the rezoning area would also be mapped as a Mandatory Inclusionary Housing (MIH) Area.

B. Scope-of-Services

The Phase I consisted of the following components:

1. review of environmental and historical records
2. site reconnaissance
3. interviews
4. report preparation

The environmental assessment is non-invasive and does not include any testing or sampling of materials, such as soil, water, air or building materials. The environmental assessment included a non-invasive (no sampling) evaluation of the potential for asbestos-containing materials, lead-based paint, and lead in drinking water.

C. Significant Assumptions, Limitations and Exceptions

Unless noted, Equity assumes that the information obtained through the records review, site inspection, and interviews is correct. Equity does not warrant the accuracy of this information or warrant that any RECs that were not identified through the Phase I process do not exist on the property. RECs do not include De Minimis conditions that do not present a threat to human health or the environment, and that would not be subject to an enforcement action by government agencies.

D. Special Terms and Conditions

No Special Terms or Conditions apply to this project.

E. Reliance

This report is for the use and benefit of 31 17 19 1Z LLC. and any of their respective affiliates, agents and advisors.

II. SITE DESCRIPTION

A. Location and Description

The Subject Property is identified as 31-17 12th Street in Queens, New York 11106. Title to the property is vested in 31 17 19 1Z LLC. The Subject Property is identified as Block 518 /Lot 13 on the New York City Tax Map. The Subject Property is an irregular shaped lot on 12th Street. The Subject Property is located in the Astoria neighborhood of Queens, New York.

A USGS Site Location Map and Site Boundary Map are included as Figures 1 and 2 and can be found in Appendix A.

B. Site and Vicinity Characteristics

The Subject Property is located in an R5B zoning district surrounded by primarily residential, commercial, public facilities, and industrial properties. 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.

C. Current Use of the Property

The Subject Property is currently developed with a one-story glass and stone etching facility, a two-story, two family residential home, a one-story photography studio, an asphalt parking area, and a vacant, partially vegetated area where a food truck is parked. The total area for the lot is 12,071 square feet.

D. Description of Structures, Improvements and Utilities

Three buildings exist on the Subject Property. Exquisite Glass and Stone is one-story and is constructed of brick and mortar. The Residential building is two stories and is constructed of a concrete foundation with wood framing and vinyl siding. The Studio is one-story and is constructed of brick and mortar. A small, partially, vegetated area is used to store a food truck and is approximately 1,000 square feet. Garbage and empty five-gallon paint containers are stored along the perimeter of the vacant area.

Utilities at the property include the following:

1. Electricity

Electricity is provided by Consolidated Edison (Con Ed). No emergency generators were observed on the Subject Property.

2. Water

Potable water is supplied by the City of New York. No groundwater drinking wells were reported or identified as a result of this assessment.

3. Sewers

Sanitary wastewater is discharged to the City of New York sewer system.

4. Heat

The building is heated by an oil-fired boiler.

E. Current Uses of Adjoining Properties

The following sites adjoin the parcel:

- North – Residential, industrial (Tower Cleaners)
- East – Residential, commercial (Fresco's Cantina Bar and Restaurant)
- South – Residential and public facilities and institutions (Ideal Islamic School)
- West – Residential

III. USER-PROVIDED INFORMATION

The ASTM International Standard defines the "User" as the person on whose behalf the Phase I is being conducted. The ASTM International Standard requires the User to provide site information for the Phase I. Equity was not provided with the following information.

- Liens (i.e., legal, deed notice) or Activity and Use Limitations (i.e., engineering controls, etc.) were identified.

- Specialized knowledge or commonly known information regarding current or historical hazardous material use on the Subject Property or adjoining properties, which would be considered a REC, were identified.

- There were no indications that the fair market value of the property was reduced due to environmental concerns.

IV. RECORDS REVIEW

A. Standard Environmental Record Sources

EDR was contracted by Equity to prepare an environmental database survey for the subject site and surrounding areas. A copy of the EDR report, which summarizes the environmental concerns presented by nearby sites, is attached as Appendix C. The listing of a site on any of these databases is, in itself, not indicative of an existing environmental concern. Distance, geology, and groundwater flow gradient are the factors that determine the importance of a listed site to the soil and groundwater quality on the Subject Property. Equity has relied on distance from the listed site and topographical gradient to judge whether that site has the potential to affect the Subject Property.

According to the EDR environmental database search, the TP (Target Property) was identified on the EDR Historic Auto and NY Spills databases. The EDR Historic Auto database is in relation to a previous auto garage that existed on the Subject property. The NY Spills database is in relation to a tank overfill and five (5) gallon leak of number two heating oil and ten (10) gallons of unknown petroleum that was found on the ground. The five (5) gallon spill has been closed. Further information regarding the ten (10) gallon spill is not available. The surrounding properties were identified in the federal and state databases within a one-mile search radius of the Subject Property and are identified as follow:

Database	Target Property	0-1/8 Mile	1/8 – 1/4 Mile	1/4 – 1/2 Mile	1/2 – 1 Mile
SEMS	0	1	0	0	-
CORRACTS	0	0	0	0	1
RCRA-LQG	0	0	2	-	-
RCRA-SQG	0	2	4	-	-
RCRA-VSQG	0	2	1	-	-
NY CBS UST	0	2	-	-	-
NY CBS AST	0	2	-	-	-
NY ENG CONTROLS	0	1	0	1	-
NY INST CONTROLS	0	1	0	1	-
RCRA-NonGen/NLR	0	5	26	-	-
NY CBS	0	1	1	-	-
EDR Historic Auto	1	1	-	-	-
NY Spills	2	16	-	-	-
NY DRYCLEANERS	0	1	0	-	-
NY Manifest	0	11	28	-	-

Database	Target Property	0-1/8 Mile	1/8 – 1/4 Mile	1/4 – 1/2 Mile	1/2 – 1 Mile
PA MANIFEST	0	0	1	-	-
NJ Manifest	0	1	1	-	-
NY AST	0	10	10	-	-
NY UST	0	8	10	-	-
NY E Designation	0	13	-	-	-
NY L Tanks	0	4	5	36	-
NY VCP	0	0	0	1	-
US BROWNFIELDS	0	1	0	0	-
NY Brownfields	0	3	0	3	-
NY SHWS	0	0	0	0	10

Additional information regarding each of the individual properties identified in the databases listed above is provided in Appendix C.

B. Orphans Summary

The EDR Orphan Summary lists fifty-seven properties that were included in certain federal or state environmental databases but were reported by EDR to be unmapped due to insufficient address information. The listing of orphan sites within the database search was reviewed, cross-referencing available address information with facility names. Upon review, it was determined that no orphan sites appear to be associated with the Subject or adjoining properties. Additional information regarding the EDR Orphan Summary Report can be found in Appendix C.

C. City Environmental Quality Review "E" Designation

A copy of the EDR report, includes City Planning Commission approved amendments to the New York City Zoning Map. This may include environmental designations of certain tax lots that have physical or historical evidence of uses related to hazardous materials. The "E" designations shown on the zoning maps function as indicators of the environmental review that must be conducted when the lots are developed in accordance with the regulations of the rezoned district. The City Planning Commission's rezoning actions, including environmental designations, were made effective upon the City Council's approval of the Zoning Map Amendment. Based upon a review of the NYCDEP "E" Designation database May 7, 2021, the Subject Property was not identified.

D. Physical Setting Source

The Subject Property is located in Queens, New York and surrounded by residential, public facilities, commercial, and industrial properties. The ground surface at the site is predominantly level. Ground cover consists primarily of a concrete sidewalk, an asphalt parking area, a slightly vegetated vacant lot, and three buildings. The Subject Property is accessed from the north west via 12th Street. The vacant lot is accessed from the north east via 31st Avenue. Based on a review of the 2013 USGS Central Park, 7.5-minute topographic

map for the area, groundwater is inferred to flow to the west toward the East River approximately 750 feet from the Subject Property.

Based on the soil survey maps published by the USDA Soil Conservation Service (1994) and information provided in the EDR Report, the subsurface soils expected at the site include Urban Land, which is variable in texture and does not qualify as hydric soil. Urban land soils are those which have lost original characteristics due to human activity (construction, development, demolition, debris, etc.). The geologic age identification of the rock at the Subject Property is of the Mesozoic Era, Cretaceous System, Upper Cretaceous Series, (Code uK). No settling ponds, lagoons, surface impoundments, wetlands or natural catch basins were observed on the Subject Property during this investigation.

E. Historical Use Information on the Property

The historical sources reviewed indicate that the Subject Property was developed as early as 1898 as depicted in the historic aerial photographs and Sanborn Fire Insurance Maps. Copies of digital Sanborn Fire Insurance Maps are provided in Appendix D. Copies of historic aerial photographs are provided in Appendix E.

1. Sanborn Fire Insurance Maps

Equity reviewed a total of twenty-four digital Sanborn Fire Insurance Maps provided by EDR, Inc. ranging from 1898 to 2006. Copies are provided in Appendix D. The following is a summary of the review of these maps.

Year	Subject Property	Surrounding Area
1898	The Subject Property is developed with three structures.	The surrounding area is developed primarily with residential units, a bakery, and unmarked lots.
1915	The Subject Property is developed with a residential unit.	The surrounding area is developed primarily with residential units, a store front, and American Synthite Manufacturing Co., Laboratory.
1936	The Subject Property is developed with a residential unit, a storage building, and a waterproofing company.	The surrounding area is developed primarily with residential units, a woodworking facility, store fronts, and an auto repair facility.
1948	The Subject Property is developed with a residential unit, a storage building, and a waterproofing company.	The surrounding area is developed primarily with residential units, a woodworking facility, store fronts, New York Department of Health, a shipping facility, and an auto repair facility.

Year	Subject Property	Surrounding Area
1950	The Subject Property is developed with a residential unit, an automobile storage building, and a waterproofing company.	The surrounding area is developed primarily with residential units, a woodworking facility, store fronts, New York Department of Health, a shipping facility, and a furniture manufacturer.
1967	The Subject Property is developed with a residential unit, an automobile storage building, and a machine shop.	The surrounding area is developed primarily with residential units, a woodworking facility, store fronts, New York Department of Health, a shipping facility, an iron works facility, and truck parking sales and service.
1977, 1979, 1981, 1985, 1986	The Subject Property is developed with a residential unit, an automobile storage building, and a machine shop.	The surrounding area is developed primarily with residential units, a woodworking facility, store fronts, New York Department of Health, a shipping facility, an iron works facility, truck parking, and a plastic products manufacturer.
1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1999, 2001, 2002, 2003, 2004, 2005, 2006	The Subject Property is developed with a residential unit, an automobile repair garage, and a machine shop.	The surrounding area is developed primarily with residential units, a woodworking facility, store fronts, New York Department of Health, an iron works facility, various unmarked manufacturing facilities, an auto repair facility, and truck parking.

2. <u>USGS Topographic Maps</u>

Equity reviewed a total of nine (9) historical Topographic Maps provided by EDR, Inc. ranging from 1897 to 2013. No discernable information could be obtained from these maps. Copies are provided in Appendix E.

3. <u>Historic Aerial Photographs</u>

Equity reviewed a total of fifteen (15) aerial photographs spanning from 1924 to 2017. Historical aerial photographs indicate the Subject Property depicted in the 1991 to 2017 aerial photographs are consistent with the current shape and size of the Subject Property. All historical aerial photographs correlate with the digital Sanborn

Fire Insurance Maps provided by EDR, Inc. for coinciding years. Copies are provided in Appendix F.

4. City Directory

Equity reviewed local city directory listings provided by EDR, Inc. from 1922 to 2017 for the subject and surrounding properties. Listings for 31-17 12th Street consisted of Residential listings in 1934, 1976, 2000, 2004, and 2009; Obelisk Water Proofing Co. in 1939; Penta Machine Shop and residential listings in 1967, 1970, 1983, and 1991; Pit Stop Auto Repair Inc. and residential listings in 1994; J 3 & R Auto Repair and residential listings in 2005; Paper Mache Monkey and residential listings in 2014; and Paper Mache Monkey, Exquisite Glass, and residential listings in 2017. No other listings were provided for the Subject Property. The surrounding area is characterized primarily by residential listings. The City Directory report is included in Appendix G.

5. Regulatory File Review

Equity reviewed title information for the Subject Property contained in the New York City Zola database. Title to the property is vested in 31 17 19 1Z LLC. The Subject Property is identified as Block 518/Lot 13.

According to the New York City Department of Buildings (DOB) website, twenty-six complaints, six violations, and ten actions have been identified at 31-17 12th Street. The complaints are in relation to an illegal basement, illegal commercial business in a residential zone, sprinkler systems, and building permits. The violations are in relation to the residence being altered for occupancy of more than the legal approved number of families and construction. The actions are in relation to alterations, a building notice, a new building, and certification of occupancy.

Equity submitted a Freedom of Information Law (FOIL) request to the New York City Department of Environmental Protection (NYCDEP) on May 3, 2021. A response was unavailable prior to the completion of this report. In the event records of environmental concern are identified this report will be amended and stakeholders will be notified.

Regulatory records are included in Appendix H.

6. Prior Environmental Assessments and Reports

Equity was not provided with any prior environmental assessments or reports.

F. Historical Use Information on Adjoining Properties

The following information summarizes the historical use of properties adjoining the site based on a review of the Sanborn Fire Insurance Maps and Historic Aerial Photographs.

- North – Residential, industrial (Tower Cleaners)
- East – Residential, commercial (Fresco's Cantina Bar and Restaurant)
- South – Residential and public facilities and institutions (Ideal Islamic School)
- West – Residential

V. SITE RECONNAISSANCE

A. Methodology and Limiting Conditions

John Vrabel, Project Scientist of Equity Environmental, conducted the Phase I site inspection on May 4, 2021. A site representative, Ms. Silviana Penta, who is the Property Owner lead the walkthrough of the Subject Property. The first floor was inaccessible due to the presence of a tenant during the investigation. According to Ms. Penta the tenant occupying the first floor did not allow access. Other limiting conditions such as weather were not encountered during the completion of this assessment

B. On-Site Operations/Manufacturing

Three buildings exist on the Subject Property. A commercial business named Exquisite Glass and Stone exists on the north western corner of the Subject Property and is one-story. Exquisite glass and stone conduct decorative sand blasting and etching of glass, mirror, and stone products. A Residential building exists in the center of the Subject Property and is two-stories. The residential building is a two-family home with a basement and a small attached storage shed. A commercial studio exists on the south eastern portion of the Subject Property and is one-story. The studio is used for professional photography. A small, partially, vegetated, area exists on the north eastern portion of the Subject Property and is used to store a food truck and is approximately 1,000 square feet. Debris, garbage, and empty five-gallon paint containers are stored along the perimeter of the vacant area.

Access was provided inside all existing buildings on the Subject Property with the exception of the first floor of the residential building. Photographs of the Subject Property are provided in Appendix B.

C. Chemical and Petroleum Use and Storage (USTs, ASTs, and Containers)

Various latex paints, heavy duty degreaser, sheetrock compound, vinyl floor dressing, household cleaning products, metal patina solution, multiple two and a half gallon and five-gallon gasoline containers, propane, calcium chloride ice melting pellets, grease stain remover, lubricating oils, power steering fluid, WD-40, PB Blaster, and caulking were observed throughout thew Subject Property. No staining or leaking was observed in relation to the above-mentioned products. Two ASTs were observed in the basement of the residential building on the Subject Property. A minor leak of number two heating oil was observed near the piping connection into one of the two ASTs. The leaking oil tank

connection sits on top of exposed soil and is considered a REC. One AST was observed in the photography studio. The AST is enclosed in concrete. No USTs were found during site reconnaissance.

D. Solid and Hazardous Waste

Garbage, debris, and empty five-gallon paint containers were observed in the vacant lot on the north eastern portion of the Subject Property. A garbage bin and loose bags of garbage were also observed in the asphalt parking area in front of the studio building on the Subject Property. No hazardous waste was observed during the investigation. The solid waste generated onsite is disposed of via the New York City Department of Sanitation.

E. Releases or Spills

Two releases were identified as a result of this assessment. One release is in relation to an oil leak from the boiler located in the basement of the residential building on the Subject Property. The boiler leaks into a hole with exposed soil beneath the building slab. Speedy Dry or equivalent has been placed underneath the leak as a preventative measure however, this condition is still considered a REC. A second release was also observed in the basement of the residential building on the Subject Property and is relation to a leak of number two heating oil from the piping connection into one of two above ground storage tanks (ASTs). The leaking oil tank connection sits on top of exposed soil and is considered a REC. Ms. Penta was not aware of any past releases or spills at the Subject Property.

F. Groundwater Wells

No potable, production, irrigation, or monitoring wells were observed or determined through the assessment.

G. Surface Water, Stormwater Drainage and Wastewater Discharge

Four storm water drains were observed in the asphalt parking area and a drain underneath the sidewalk on 12th Street on the Subject Property. They are assumed to discharge into the municipal sewer system. One storm water drain was observed at the bottom of the stairs to the basement of the residential building on the Subject Property and is assumed to discharge into the municipal sewer system. Roof gutters were observed on the photography studio and residential building and are assumed to discharge into the municipal sewer system.

H. Wetlands

Equity reviewed National Wetland Inventory maps included as a layer within the EDR Radius Map Report. No wetlands were identified within the Subject Property. The report is provided in Appendix C.

I. Polychlorinated Biphenyls (PCBs)

No equipment likely to contain PCBs were observed during the site reconnaissance.

J. Drains and Sumps

Two drains were observed inside the basement of the residential building on the Subject Property and are assumed to discharge into the municipal sewer system. No sumps were observed in the interior of any buildings on the Subject Property. One shallow pit approximately two feet wide by two feet long and 1 foot deep was observed in the asphalt parking area at the top of the stairs entering the basement of the residential building. The pit was filled with dirt and debris. It is unknown what the pit is used for.

K. Vapor Migration/Encroachment

A Vapor Encroachment Screening in accordance with ASTM International E2600-15 was performed by Equity. The EDR Vapor Encroachment database identified multiple VECs with 1/10 of a mile to the Subject Property related to a historic auto garage on the Subject Property, a ten-gallon spill of an unknow petroleum product on the Subject Property, a historic drycleaner 94 feet from the Subject Property, and a spill of kerosene and number two heating oil from a dewatering facility at Astoria Gas Turbines. Based on these findings, a vapor encroachment condition cannot be ruled out. Details on the VECs can be found in Appendix C.

L. Other Environmental Considerations

Asbestos Containing Materials

The EPA banned several types of asbestos in the late 1970s, but its use continued in some building applications through the 1980s. Asbestos was not observed on the Subject Property.

Drinking-Water

There is no potable water supplied on the Subject Property. A drinking water assessment was not performed as part of this study.

Lead-Based Paint

In 1978, EPA banned the manufacture and use of lead-based paint and lead-based paint products therefore, given the age of the buildings the use of lead-based paint is highly unlikely .

M. Off-Site Concerns

There were no offsite concerns.

VI. INTERVIEWS

As part of the Phase I of the property, Equity interviewed Ms. Silviana Penta who is the Property Owner during the site reconnaissance. Ms. Penta was not aware of any previous environmental or maintenance issues related to the Subject Property.

VII. RECOGNIZED ENVIRONMENTAL CONDITIONS (RECs)

Equity completed the Phase I of the Subject Property in accordance with the scope and limitations of ASTM International Practice 1527-13. Any exceptions to, or deletions from, this practice are noted in appropriate sections of this report. RECs are defined as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. Controlled Recognized Environmental Condition is a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Historical RECs are RECs previously remediated to current unrestricted residential use applicable regulatory standards. De Minimis conditions are those that do not present a threat to human health or the environment and would not be the subject of an enforcement action by a government agency. Data Gaps are a lack of or inability to obtain information required by the practice that affects the ability of the environmental professional to identify RECs despite good faith efforts to gather the information.

A. Recognized Environmental Conditions (RECs)

Two RECs were identified as a result of this assessment. 1. One REC is in relation to an oil leak from the boiler located in the basement of the residential building on the Subject Property. The boiler leaks into a hole with exposed soil beneath the building slab. The REC has been attempted to be controlled with the use if Speedy Dry or equivalent. It is Equity's opinion that the speedy Dry is not a sufficient control for the number two oil leak therefore, this condition is still considered a REC. 2. A second REC was also observed in the basement of the residential building on the Subject Property and is in relation to a leak of number two heating oil from the piping connection into one of two above ground storage tanks (ASTs). The leaking oil tank connection sits on top of exposed soil and is considered a REC.

B. Controlled Recognized Environmental Conditions (CRECs)

No Controlled RECs were identified as a result of this assessment.

C. Historical Recognized Environmental Conditions (HRECs)

No Historic RECs were identified as a result of this assessment.

D. Vapor Encroachment Concerns (VECs)

A Vapor Encroachment Screening in accordance with ASTM International E2600-15 was performed by Equity. The EDR Vapor Encroachment database identified multiple VECs with 1/10 of a mile to the Subject Property related to a historic auto garage on the Subject Property, a ten-gallon spill of an unknow petroleum product on the Subject Property, a historic drycleaner 94 feet from the Subject Property, and a spill of kerosene and number

two heating oil from a dewatering facility at Astoria Gas Turbines. Based on these findings, a vapor encroachment condition cannot be ruled out. Details on the VECs can be found in Appendix C.

E. De Minimis Conditions

No, De Minimis Conditions were identified as a result of this assessment.

F. Data Gaps

Equity identified one data gap in relation to the first floor of the residential building. The first floor was inaccessible due to the presence of a tenant during the investigation. According to Ms. Penta the tenant occupying the first floor did not allow access. No visual or olfactory signs of environmental impacts were observed on the first floor of the residential building therefore, Equity does not believe this data gap would affect its ability to identify Recognized Environmental Concerns (RECs) associated with the Subject Property.

Conclusions

Equity's review of available information and observations of the subject and surrounding properties indicates that no CRECs, HRECs, or De Minimis conditions were identified as a result of this assessment however, two RECs were identified and a potential VEC issue cannot be ruled out.

IX. DEVIATIONS

Equity did not deviate from the scope of service outlined in Section I of this report.

X. REFERENCES

The following references were used in the preparation of this report:

1. EDR Environmental Databases
2. Sanborn Fire Insurance Maps
3. Aerial Photographs
4. City Directory
5. Historical Topographic Maps
6. City Databases
7. New York City Department of Buildings Website
8. New York City Zola Database

XI. SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONALS

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional, as defined in the USEPA All Appropriate Inquiry Standard, 40 CFR, Part 312.10. We have the specific qualifications based on education, training, and experiences to assess a property of the nature, history, and setting of the Subject Property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR, Part 312.

Assessor:



John Vrabel
Project Scientist

Environmental Professional:



Robert Jackson
Managing Director

XII. QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Qualifications of the Environmental Professionals are provided in Appendix J.

Appendix E: Noise Back Up

Noise Job Field Sheet

Name of Project: 12th Street Rezoning - 2021028

Project Address: 31- 17 12th Street Queens, New York

Date(s) of Field Work: 5/4/21

Personnel: John Vrabel

Project Specific Scope of Work:

2 x 20-minute locations AM, Midday, PM
Phase I
Site Contact -

Maximum Billable Hours for the Day: 15

I. Start of Noise Monitoring Day

Departure Time: 6:00 Arrival Time: 7 45

Weather Conditions (temp, wind speed, precipitation): cloudy, wind 4 mph, dry

Meter Type: Cell Meter Serial #: 4278006 Meter Location: 1 + 2
Meter Type: _____ Meter Serial #: _____ Meter Location: _____
Meter Type: _____ Meter Serial #: _____ Meter Location: _____
*If more locations are needed for a project use a second Field Sheet

Calibrator Serial #: 1090599 Meters used on: 4278006
Calibrator Serial #: _____ Meters used on: _____
Calibrator Serial #: _____ Meters used on: _____
Were Photos Taken of Each Location? Y / N *Discuss specific photo instructions w/ Project Manager

**On a separate sheet of paper (field book) make a sketch of the noise meter locations and the distances to nearest wall, fence, building, or other solid surfaces.*

II. Morning Session 7:30 AM – 9:00 AM

Before Measurement:

Meter Serial #: 4278006 Time: 7:59 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: " Time: 8:22 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

Meter Serial #: 4278006 Time: 8:22 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: " Time: 3:45 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

*If more locations are needed for a project use a second Field Sheet

Location #	Start Time	End Time
2	8:01	8:21
1	8:25	8:45

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
2	11	12	1	0	1	—
1	2	1	2	0	0	—

*If more locations are needed for a project use a second Field Sheet

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):

Please place noise meters in their respective cases between sessions to avoid damage.

III. Midday Session 12:00 PM – 1:30 PM

Before Measurement:

Meter Serial #: 4278056 Time: 12:02 Calibration Passed at 114 dB? Y / N
Meter Serial #: " Time: 12:22 Calibration Passed at 114 dB? Y / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

Meter Serial #: 4278056 Time: 12:22 Calibration Passed at 114 dB? Y / N
Meter Serial #: " Time: 12:48 Calibration Passed at 114 dB? Y / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N
*If more locations are needed for a project use a second Field Sheet

Location #	Start Time	End Time
2	12:01	12:21
1	12:28	12:48

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
2	13	17	1	0	0	—
1	2	0	0	0	0	—

*If more locations are needed for a project use a second Field Sheet

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):

_____

_____

_____

**Please place noise meters in their respective cases between sessions to avoid damage.*

IV. Evening Session 4:30 PM – 6:00 PM

Before Measurement:

Meter Serial #: 4278006 Time: 16:30 Calibration Passed at 114 dB? Y / N
Meter Serial #: " " Time: 16:52 Calibration Passed at 114 dB? Y / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

Meter Serial #: "4278006" Time: 16:50 Calibration Passed at 114 dB? Y / N
Meter Serial #: " " Time: 17:13 Calibration Passed at 114 dB? Y / N
Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N
*If more locations are needed for a project use a second Field Sheet

Location #	Start Time	End Time
2	16:30	16:50
1	16:53	17:13

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
2	7	14	2	0	0	—
1	3	4	0	0	0	—

*If more locations are needed for a project use a second Field Sheet

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):

_____

_____

_____

**Please place noise meters in their respective cases between sessions to avoid damage.*

V. End of Noise Monitoring Day

- Please return all noise meters to their cases.
- Do not return dead batteries to the cases, throw them out.
- Did you take photos? (Y) N
- Did you complete the site sketch? Y (N) Same as figure locations
- If a meter(s) was rented, please scan in calibration documents.

Anything of note/concern for the day: stone cutting across from location 2 during the morning, mid-day, and evening sessions, noise levels were mild but constant for majority of monitoring periods.

Departure Time: 17:30 Arrival Time: 19:00

Total Time to Be Billed: 15



egend

Projected Development Site 1

Rezoning Area

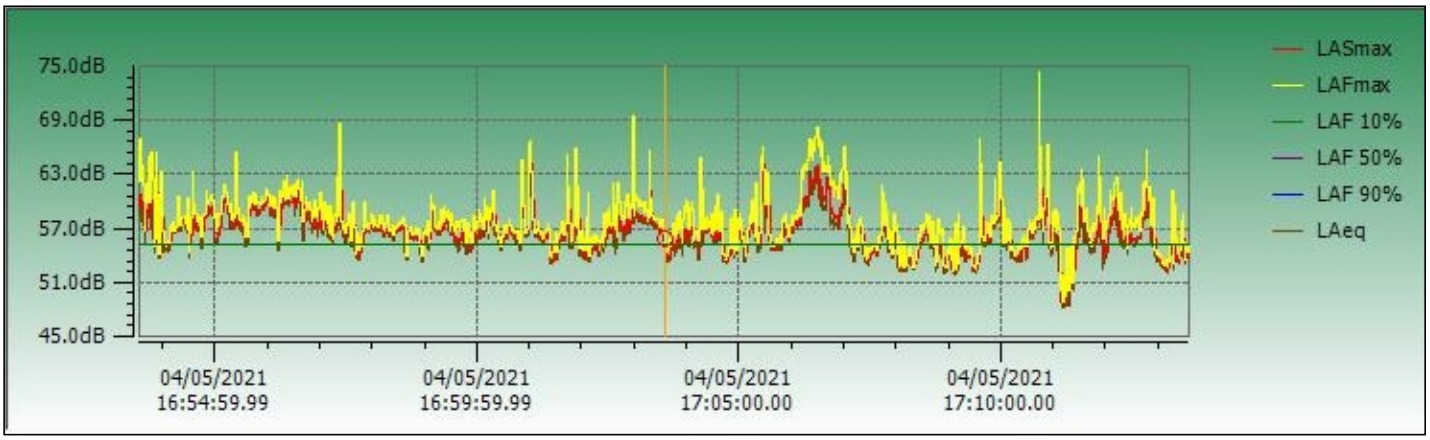
Noise Monitoring Locations

100

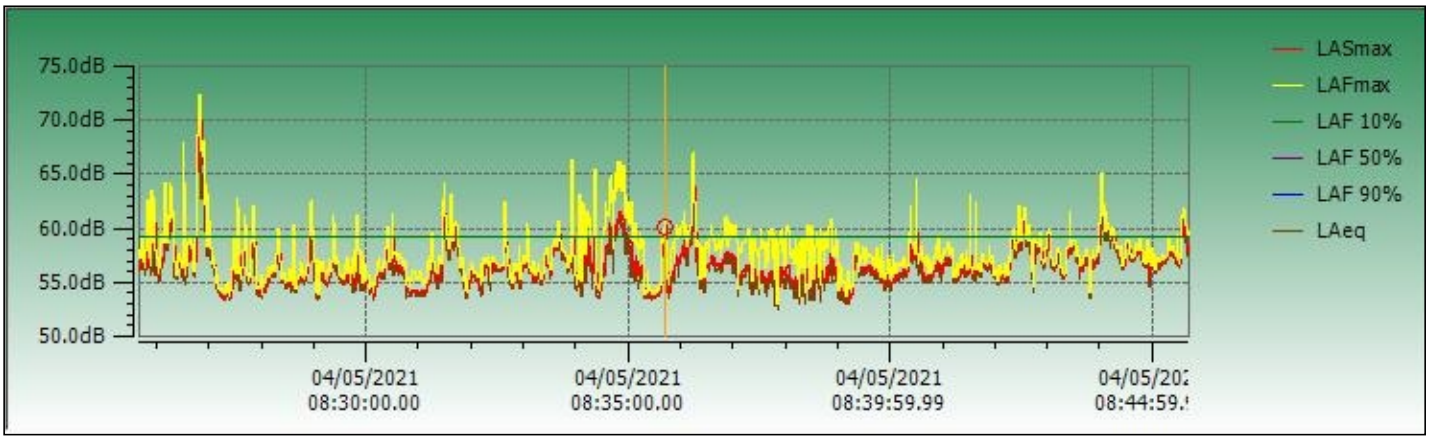
US Feet

N

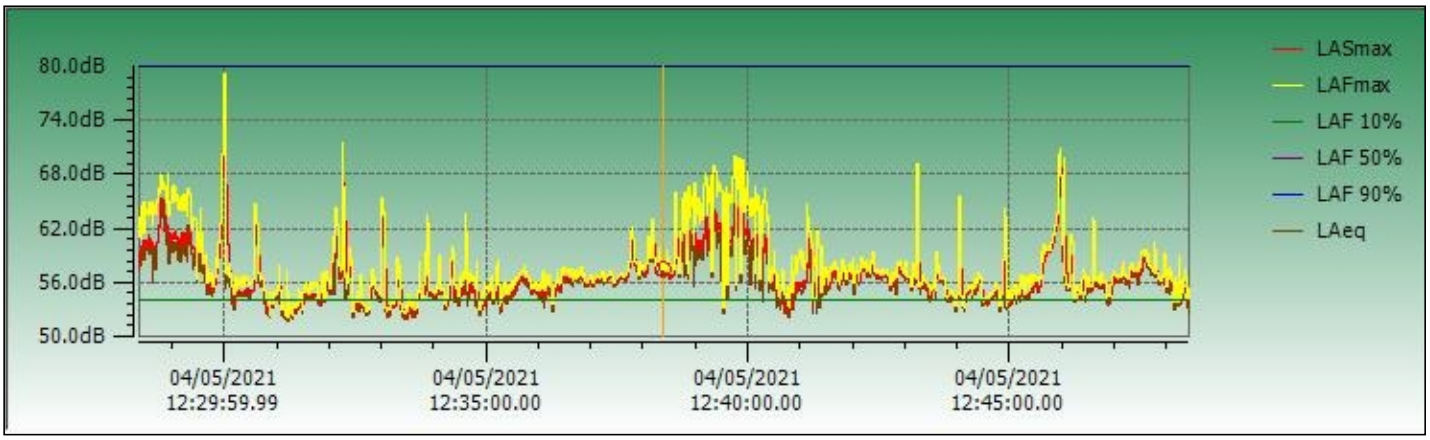
Instrument Model	**CEL-633C**			
Serial Number	4278006	LAS 10%	59.5 dB	Result
LASmax	66.6 dB	LAS 50%	56.5 dB	
LASmin	48.4 dB	LAS 90%	53.5 dB	
Start Date & Time	5/4/2021 4:53:33 PM	Calibration (Before) Date	5/4/2021 4:53:06 PM	
Duration	00:20:02 HH:MM:SS	Calibration (After) Date	5/4/2021 5:13:46 PM	
LAeq	57 dB	Calibration Drift	1.2 dB	
End Date & Time	5/4/2021 5:13:35 PM	Battery Low	No	
Notes				



Instrument Model	**CEL-633C**			
Serial Number	4278006	LAS 10%	58.5 dB	Result
LASmax	70.6 dB	LAS 50%	56 dB	
LASmin	52.8 dB	LAS 90%	54.5 dB	
Start Date & Time	5/4/2021 8:25:40 AM	Calibration (Before) Date	5/4/2021 8:22:25 AM	
Duration	00:20:02 HH:MM:SS	Calibration (After) Date	5/4/2021 8:46:07 AM	
LAeq	56.9 dB	Calibration Drift	0.0 dB	
End Date & Time	5/4/2021 8:45:42 AM	Battery Low	No	
Notes				



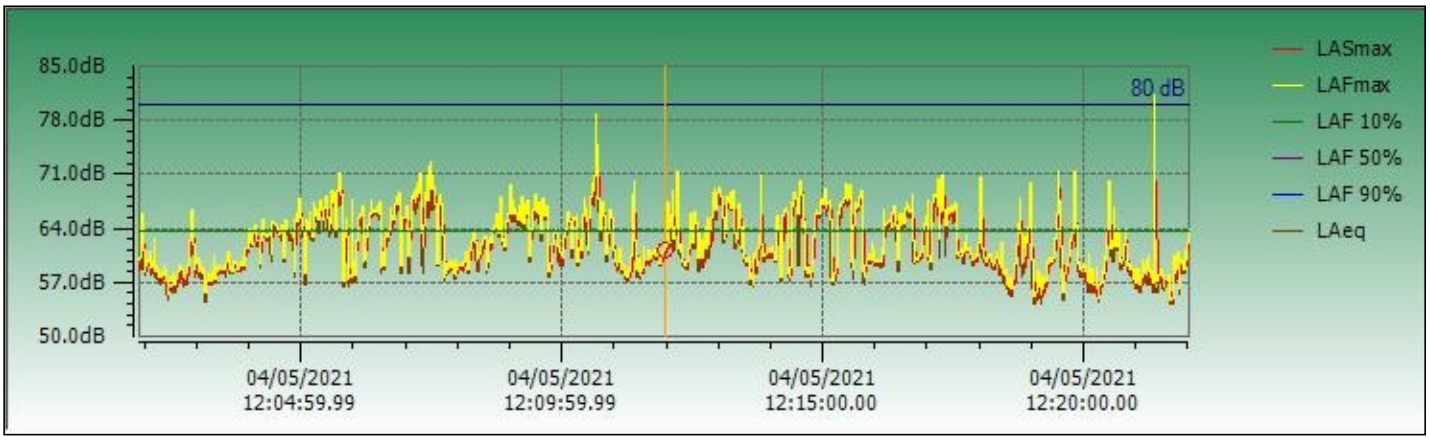
Instrument Model	CEL-633C			
Serial Number	4278006	LAS 10%	60 dB	Result
LASmax	76.3 dB	LAS 50%	56 dB	
LASmin	51.9 dB	LAS 90%	53.5 dB	
Start Date & Time	5/4/2021 12:28:22 PM	Calibration (Before) Date	5/4/2021 12:22:26 PM	
Duration	00:20:03 HH:MM:SS	Calibration (After) Date	5/4/2021 12:48:47 PM	
LAeq	57.7 dB	Calibration Drift	0.4 dB	
End Date & Time	5/4/2021 12:48:25 PM	Battery Low	No	
Notes				



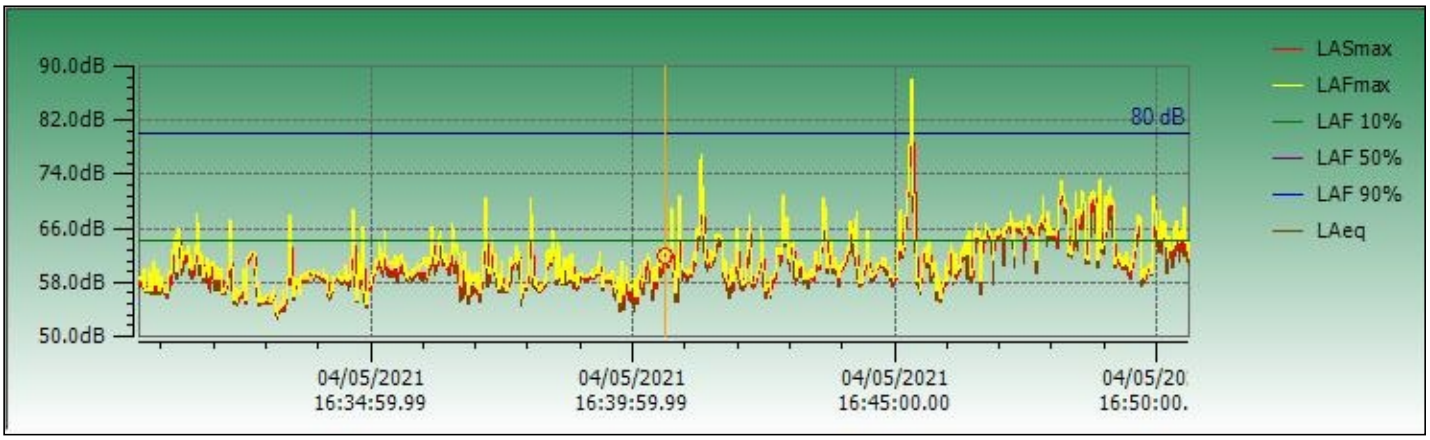
Casella CEL Ltd.

Report On CEL-63X

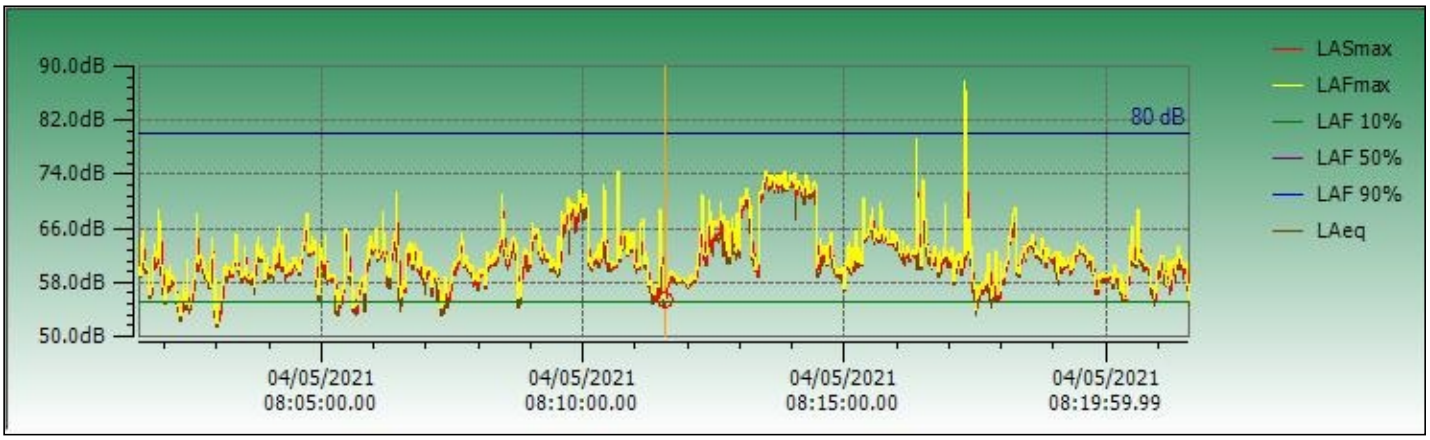
Instrument Model	**CEL-633C**			
Serial Number	4278006	LAS 10%	66.5 dB	Result
LASmax	74.8 dB	LAS 50%	61 dB	
LASmin	54.2 dB	LAS 90%	57.5 dB	
Start Date & Time	5/4/2021 12:01:54 PM	Calibration (Before) Date	5/4/2021 12:00:38 PM	
Duration	00:20:07 HH:MM:SS	Calibration (After) Date	5/4/2021 12:22:19 PM	
LAeq	63.1 dB	Calibration Drift	-0.1 dB	
End Date & Time	5/4/2021 12:22:01 PM	Battery Low	No	
Notes				



Instrument Model	CEL-633C			
Serial Number	4278006	LAS 10%	65 dB	Result
LASmax	84.6 dB	LAS 50%	59.5 dB	
LASmin	52.9 dB	LAS 90%	56.5 dB	
Start Date & Time	5/4/2021 4:30:35 PM	Calibration (Before) Date	5/4/2021 4:30:10 PM	
Duration	00:20:02 HH:MM:SS	Calibration (After) Date	5/4/2021 4:50:49 PM	
LAeq	62.9 dB	Calibration Drift	-0.1 dB	
End Date & Time	5/4/2021 4:50:37 PM	Battery Low	No	
Notes				



Instrument Model	CEL-633C			
Serial Number	4278006	LAS 10%	66.5 dB	Result
LASmax	79.6 dB	LAS 50%	60.5 dB	
LASmin	51.9 dB	LAS 90%	56.5 dB	
Start Date & Time	5/4/2021 8:01:31 AM	Calibration (Before) Date	5/4/2021 7:59:41 AM	
Duration	00:20:04 HH:MM:SS	Calibration (After) Date	5/4/2021 8:22:08 AM	
LAeq	63.6 dB	Calibration Drift	0.1 dB	
End Date & Time	5/4/2021 8:21:35 AM	Battery Low	No	
Notes				



Appendix F: Technical Memorandum

TECHNICAL MEMORANDUM
31-17 12th Street Rezoning
CEQR No. 22DCP098Q

February 29, 2024

I. INTRODUCTION

The New York City Department of City Planning is proposing a citywide zoning text amendment, the City of Yes for Housing Opportunity ("CHO") (CEQR No. 24DCP033Y) to expand opportunities for housing within all zoning districts, and across all 59 of the City's Community Districts. These changes to the City's Zoning Resolution would enable more housing and a wider variety of housing types in every neighborhood, from the lowest-density districts to the highest, to address the housing shortage and high cost of housing in New York City. It is anticipated that this proposed zoning text amendment would be referred into public review in Spring 2024. This project may be affected by the proposals included in the text amendment, and in order to present a conservative environmental analysis, this Technical Memorandum examines whether the analysis conclusion of the EAS proposed would be altered by CHO.

The Applicant, 31 17 19 1Z LLC, is seeking the approval of a zoning map amendment from an R5B to an R6B zoning district, and a zoning text amendment to Appendix F of the Zoning Resolution (ZR) to map a Mandatory Inclusionary Housing (MIH) area (the "Proposed Actions"). The Proposed Actions would affect Queens Block 518, Lots 6, 7, 8, 9, 10, 13, 16, 17, 18 and p/o Lots 5 and 19 ("Rezoning Area"), in the Astoria neighborhood of Queens, Community District 1.

The Proposed Actions would facilitate the development of a new 29,209 gross square foot (gsf) residential building on Projected Development Site 1, located at 31-17 12th Street (Block 518, Lot 13). The residential building would contain 35 dwelling units, 25-30% (9-11 units) of which would be affordable at an average of 60-80% AMI pursuant to MIH Option 1 or 2, respectively. The building would be 55-feet in height. There would be 15 open accessory parking spaces at the rear of the Proposed Building and 18 enclosed bicycle parking spaces in the cellar.

In addition to the Applicant's Proposed Building described above, the EAS analyzes an additional non-Applicant owned Projected Development Site as part of the reasonable worst-case development scenario (RWCDS). Projected Development Site 2 (Block 518, Lots 16, 17, and 18) is assumed to be developed with a new 14,691 gross square foot (13,356 zoning square foot) residential building with 17 dwelling units, 25-30% (5-6 units) of which would be affordable at an average of 60-80% AMI pursuant to MIH Option 1 or 2, respectively. The residential building would be a total of 55 feet in height. It is assumed that 7 parking spaces would be provided in the cellar.

As such, the RWCDS for analysis purposes would include a total of 43,900 gross square feet of residential development which would result in 52 dwelling units, 14-17 units of which would be affordable at an average of 60-80% AMI pursuant to MIH Options 1 or 2, respectively. 10 units would be affordable at or below 80% AMI for purposes of early childhood programs analysis.

II. DESCRIPTION OF CITY OF YES FOR HOUSING OPPORTUNITY

The proposed Housing Opportunity text amendment seeks to enable more housing and wider variety of housing types in all neighborhoods citywide, from the lowest-density districts to the highest, to address the housing shortage and high cost of housing in New York City. The proposed text amendment comprises

project components in four broad categories: Medium- and High-Density proposals in R6-R10 districts and equivalents; Low-Density proposals in R1-R5 districts and equivalents; Parking proposals, which span the full range of districts and densities; and assorted other changes in line with project goals. In general, these changes will apply in underlying zoning districts, Special Districts, and other geographies that modify underlying zoning, with limited adjustments to reflect planning goals in specific areas.

To create more housing and more types of housing, the proposed text amendment includes components that fall into four major proposal areas—1: Medium- and High-Density Districts, 2: Low-Density Districts, 3: Parking, and 4: Other Initiatives that are miscellaneous, citywide in nature, and align with overall project goals. Because the Proposed Actions would result in an R6B district, it would fall into the medium- and high-density district category.

Medium- and high-density districts (R6 through R10) are typically mapped in areas where transit access, job access, infrastructure, and other factors make such densities appropriate. Housing in these areas generally consists of multifamily housing that includes income-restricted affordable housing, rent-regulated housing, and market-rate housing that ranges from modest and relatively inexpensive to some of the most expensive housing in the world. The proposed text amendment would increase housing opportunities in these areas by increasing affordable and supportive floor area ratios (FARs) in all medium- and high-density districts; expanding eligibility for the City's adaptive reuse regulations to a broader range of buildings, such as struggling office districts; enabling small and shared apartment models to take pressure off family-sized units; and simplifying infill regulations for campuses and other zoning lots with existing buildings. Where necessary, the proposed text amendment would also adjust building envelopes to ensure that typical sites can accommodate the additional floor area provided for affordable and supportive housing. This incremental increase in capacity would only be available for affordable and supportive housing.

As discussed in detail in the City of Yes for Housing Opportunity Draft Scope of Work, CHO's proposed Universal Affordability Preference ("UAP") would increase the maximum allowable FAR for this project's proposed zoning district from 2.2 in R6B districts to 2.4 (pursuant to Mandatory Inclusionary Housing). In addition, CHO would change the maximum height analyzed for the proposed R6B district from 55 feet to 65 feet, which would permit a 10-foot increase. [1]

III. ANALYSIS FRAMEWORK

Pursuant to the RWCDS analyzed in the EAS for the Proposed Actions, no significant adverse impacts were identified. The RWCDS analyzed in the EAS consists of the Projected Development Site 1, a 55-foot-tall, approximately 29,209 gsf residential building and Projected Development Site 2, a 55-foot tall, 14,691 gsf residential building. Both Projected Development Sites would maximize the available FAR. As shown in **Table 1**, under the proposed zoning text amendment, the maximum permitted FAR for residential uses in the proposed R6B district would increase from 2.2 to 2.4. The maximum building height in the proposed R6B district would increase from 55 feet to 65 feet.

Table 1. Comparison of Existing, Proposed, and Potential Zoning

	EXISTING	PROPOSED	POTENTIAL CHO ZONING TEXT AMENDMENT
	R5B	R6B	R6B
Use Groups	1-4	1-4	1-4
Maximum FAR	1.35 Residential 2.0 Community Facility	2.2 Residential 2.0 Community Facility	2.4 Residential 2.0 Community Facility

[1] *City of Yes for Housing Opportunity Draft Scope of Work (CEQR No. 24DCP033Y).* September 29, 2023.

Maximum Building Height	33	55 feet	65 feet

As shown in **Table 2**, under the proposed zoning text amendment, the With-Action condition would consist of Projected Development Sites 1 and 2 and would include a total of approximately 47,892 gsf of residential uses (56 DUs), 25-30% (14-17 units) of which would be affordable at an average of 60-80% AMI pursuant to MIH Options 1 or 2, respectively. 20% of the units (11 units) would be affordable at or below 80% AMI for purposes of early childhood programs analysis. The building heights for the Projected Development Sites would increase to 65 feet. Compared to the currently proposed development program analyzed in the EAS, the proposed zoning text amendment would result in an additional 3,992 gsf of residential uses (4 DUs) and 10-foot maximum building height.

Table 2. Comparison of the Permitted Floor Area and Maximum Building Height

	ANALYZED IN THE WITH ACTION CONDITION	PROPOSED CHO ZONING TEXT AMENDMENT MODIFICATIONS	NET DIFFERENCE
Residential gsf	43,900	47,892	**+3,992**
Residential DUs	52	56	**+4**
Building Height	55 feet	65 feet	**+10 feet**

This Technical Memorandum provides a preliminary assessment of the effects of CHO on the Proposed Actions and details how CHO would affect the analysis and conclusions presented in the EAS. CHO's proposed Universal Affordability Preference ("UAP") would increase the allowable developable floor area by 0.2 FAR, or 3,682 zsf (3,992 gsf). CHO would also change the maximum height analyzed in the EAS for the proposed R6B district from 55 feet to 65 feet. No parking spaces would be required because CHO proposes to eliminate parking requirements for new residential developments.

The introduction of four additional dwelling units to 56 total units would not exceed the thresholds requiring analysis within the *CEQR Technical Manual* for Socioeconomic Conditions, Community Facilities, Open Space, Water and Sewer Infrastructure, Solid Waste and Sanitation Services, Energy, Transportation or Construction. The conclusions presented in the EAS would not change and no further analysis related to these impact categories is necessary. Changes facilitated by CHO including the introduction of 0.2 FAR additional building bulk to 2.4 total FAR and an additional 10 feet of maximum building height for a total of 65 feet similarly would not substantially alter the site-specific characteristics of the Rezoning Area and would not exceed the threshold in the *CEQR Technical Manual* requiring analysis for Natural Resources, Greenhouse Gas Emissions, or Public Health. The conclusions presented in the EAS would not change and no further analysis related to these impact categories is warranted. The proposed (E) designations for Hazardous Materials and Air Quality would remain the same as presented within the EAS to avoid significant adverse impacts to these technical areas. Therefore, the potential changes to the With-Action Condition facilitated by CHO would not alter the conclusions of the EAS related to Hazardous Materials and Air Quality, and no further analysis is warranted.

The assessment in Section IV below reflects every technical area that was analyzed in the EAS to determine if significant adverse impacts would happen as a result of the proposed CHO zoning text amendment.

IV. ASSESSMENT OF POTENTIAL IMPACTS

The RWCDS under CHO was assessed for each technical area that was included in the EAS. As outlined in the EAS, no significant adverse impacts would occur in any technical areas as a result of the Proposed Actions.

Land Use, Zoning, and Public Policy

Compared to With-Action Condition analyzed within the EAS, the potential changes facilitated by CHO would allow for the development of two Projected Development Sites with an additional 3,682 zsf (3,992 gsf), approximately four additional residential dwelling units, and 10 additional feet of maximum building height.

The changes that would be facilitated by CHO would not require new analysis nor change the conclusion of the Land Use, Zoning, and Public Policy section analyzed within the EAS. The changes facilitated by CHO would continue to allow for the redevelopment of the Projected Development Sites with residential uses that are similar to the surrounding area, including similar uses with both similar height and bulk as the Projected Development Sites. The proposed R6B district would be compatible with medium-density residential zoning districts (R5, R5B, R6, R6B, and R7A) and commercial zoning overlays (C1-3 and C2-3) found within 400 feet of the Rezoning Area. The addition of four residential dwelling units facilitated by CHO's Universal Affordability Preference would be supportive of the City's housing goals as identified in Housing New York 2.0 and Housing Our Neighbors: A Blueprint for Housing and Homelessness. The incorporation of changes facilitated by CHO would not result in a significant adverse impact to Land Use, Zoning, and Public Policy and no further analysis is warranted.

Shadows

With the proposed zoning text amendment, the maximum building height could be 65-feet (75-feet with assumed bulkhead), increasing the maximum shadow radius from the 236.5 feet analyzed in the EAS to approximately 322.5 feet. A detailed shadows assessment provided in the Shadows section of the EAS showed that shadows cast by the proposed development would not result in significant adverse impacts to Astoria Health Playground. The additional 10 feet of maximum building height, as potentially enabled by CHO, plus the assumed 10-foot bulkhead would result in the expansion of this analysis area to 322.5 feet. Therefore, a detailed analysis of how the increase in height would affect shadows on Astoria Health Playground is warranted and provided below. No additional sunlight sensitive resources would be affected as a result of the proposed text amendment.

Detailed Shadows Analysis

The results of the detailed shadow analyses are noted in **Table 3**. The table presents the times when net new incremental shadows enter Astoria Health Playground, as well as the duration of the shadow to the end of the required time frame during each analysis date. **Figure 1** to **Figure 4** highlight how much of the shadow cast on the park is incremental shadow.

Table 3. Detailed Shadow Analysis Summary

With-Action Condition Analyzed in EAS				
Analysis Day	21-Dec	March 21 / September 21	May 6 / August 6	21-Jun
Timeframe Window	8:51 a.m. - 2:53 p.m.	7:36 a.m. - 4:29 p.m.	6:27 a.m. - 5:18 p.m.	5:57 a.m. - 6:01 p.m.
Sunlight Sensitive Resource 1	Astoria Health Playground			
Shadow enter - exit times	-	4:17 pm - 4:29 pm	4:34 pm - 5:18 pm	4:53 pm - 6:01 pm
Incremental Shadow Duration	-	12 Minutes	44 Minutes	1 Hour 8 Minutes
With-Action Condition Under Proposed CHO Text Amendment				
Analysis Day	21-Dec	March 21 / September 21	May 6 / August 6	21-Jun
Timeframe Window	8:51 a.m. - 2:53 p.m.	7:36 a.m. - 4:29 p.m.	6:27 a.m. - 5:18 p.m.	5:57 a.m. - 6:01 p.m.
Sunlight Sensitive Resource 1	Astoria Health Playground			
Shadow enter - exit times	-	4:15 pm - 4:29 pm	4:10 pm - 5:18 pm	4:25 pm - 6:01 pm
Incremental Shadow Duration	-	14 Minutes	68 Minutes	1 Hour 36 Minutes
Difference	-	+2 Minutes	+24 Minutes	+28 Minutes

Note: Daylight savings time not used

During the December 21st analysis timeframe, like the With-Action condition analyzed in the EAS, no project generated shadows would be cast on Astoria Health Playground as a result of the proposed CHO text amendment.

Under the With-Action Condition with the proposed CHO text amendment, during the March 21st analysis timeframe, the project-generated shadow would enter the park at 4:15pm and remain in the park through the duration of the timeframe window, which ends at 4:29pm. There would be a total of 14 minutes of incremental shadow duration resulting from the With-Action Condition under the proposed CHO text amendment. As shown in **Table 3**, this would be an increase of 2 minutes as compared to the With-Action Condition analyzed in the EAS. The shadow cast on the park at 4:29 p.m. represents the maximum extend of the project-generated shadow on the park, after which the shadow recedes from the resource and is no longer substantial.

Under the With-Action Condition with the proposed CHO text amendment, on May 6th, the project-generated shadow would have a duration of 68 minutes, entering the park at 4:10 p.m. and remaining in the park through the duration of the timeframe window, which ends at 5:18 p.m. As shown in **Table 3**, this would be an increase of 24 minutes as compared to the With-Action Condition analyzed in the EAS. The shadow cast on the park at 5:18 p.m. represents the maximum extent of the project-generated shadow on the park, after which shadows are no longer substantial.

Under the With-Action Condition with the proposed CHO text amendment, on June 21st, the project-generated shadow would have a duration of 1 hour and 36 minutes, entering the park at 4:25 p.m. and

remaining in the park through the duration of the timeframe window, which ends at 6:01 p.m. As shown in **Table 3**, this would be an increase of 28 minutes as compared to the With-Action Condition analyzed in the EAS. The shadow cast on the park at 6:01 p.m. represents the maximum extent of the project-generated shadow on the park, after which shadows are no longer substantial.

Conclusion

As discussed above, no additional sunlight sensitive resources were identified within the expanded 322.5-foot radius. The With-Action Condition under the proposed CHO text amendment would cast incremental shadows on the Astoria Health Playground on March 21, May 6, and June 21, with durations of 14 minutes, 68 minutes, and 1 hour and 36 minutes to the end of the analysis window respectively. However, similar to the With-Action Condition analyzed in the EAS, no part of the playground would be in constant shadow, as the shadow would sweep across the playground during the day. At no point would any portion of the park be unusable due to additional shadows and all plantings would still receive direct periods of sunlight during the day. Therefore, the additional height enabled by CHO would not result in significant adverse impacts related to Shadows and no further analysis is warranted.

Figure 1: Detailed Shadow Analysis- March-4:29 PM



Figure 2: Detailed Shadow Analysis- May- 5:18 PM



Figure 3: Detailed Shadow Analysis- June – 5:00 PM



Figure 4: Detailed Shadow Analysis- June- 6:01 PM



Historic and Cultural Resources

Compared to the With-Action Condition analyzed within the EAS, the potential changes facilitated by CHO would allow for the development of two residential Projected Development Sites with an additional 3,682 zsf (3,992 gsf), approximately four additional residential dwelling units, and 10 additional feet of maximum building height. As is analyzed within the EAS, the residential developments facilitated under CHO would not result in any significant indirect or contextual adverse impacts to the two architectural resources identified within the 400-foot Study Area, because the increase in bulk and height would result in a negligible change in building appearance related to the resource's setting. Though two architectural resources are located within 400 feet from the Rezoning Area, the construction activity at the Projected Development Sites would be greater than 90 feet away from the architectural resources and would be temporary, lasting for approximately 14 months, of which the major exterior construction would last no more than 12 months. Thus, the construction timeline would not change under CHO, and therefore construction activities would not induce substantial changes to the environment surrounding the architectural resources. In addition, no properties within the Rezoning Area have any archaeological or architectural significance, and therefore there would not be any direct impacts on historic and cultural resources. The potential changes enabled by CHO would not alter the conclusion of the EAS, as the changes would not result in significant adverse impacts related to historic and cultural resources. As such, no further analysis is warranted.

Urban Design and Visual Resources

The urban design and visual resources assessment provided in the EAS analyzed the 55-foot-tall buildings on the Projected Development Sites and concluded that the Proposed Actions would not result in significant adverse impacts on urban design and visual resources. The proposed CHO zoning text amendment would allow for an additional 0.20 FAR for inclusionary housing in R6B districts. In addition, the proposed CHO zoning text amendment would also allow an additional 10 feet of maximum height from 55 feet to 65 feet.

The additional height and bulk facilitated by CHO would result in a negligible change in building appearance that would not result in a negative pedestrian experience. The additional building height would not obstruct any important visual resources. The potential change in building height facilitated by CHO would not result in any significant adverse impacts to urban design and visual resources and therefore no further analysis is warranted.

Noise

Compared to the With-Action Condition analyzed within the EAS, the potential changes facilitated by CHO would allow for the development of two residential Projected Development Sites with an additional 3,682 zsf (3,992 gsf), approximately four additional residential dwelling units, and 10 additional feet of maximum building height. The potential changes facilitated by CHO would not affect the With-Action Condition noise projections presented in the EAS. Noise levels would continue to be below the level requiring additional window and wall attenuation to maintain interior noise levels of 45 dB(A) or lower. Therefore, the conclusions of the EAS are not affected by potential changes facilitated by CHO, as the changes would not result in significant adverse impacts related to noise. As such, no further analysis is required.

Neighborhood Character

Compared to the With-Action Condition analyzed within the EAS, the potential changes facilitated by CHO would allow for the development of two residential Projected Development Sites with an additional 3,682 zsf (3,992 gsf), approximately four additional residential dwelling units, and 10 additional feet of maximum building height. With potential changes facilitated by CHO, of the relevant technical areas specified in the *CEQR Technical Manual* that comprise neighborhood character, the Proposed Actions under CHO would not cause significant adverse impacts regarding land use, zoning, and public policy; shadows; historic and cultural resources; urban design and visual resources; or noise. There would be no moderate effects on one or more of the technical areas related to neighborhood character and therefore there would be no potential for the Proposed Actions to result in a combination of moderate effects related to neighborhood character. Therefore, the conclusions of the EAS are not affected by potential changes facilitated by CHO, as the changes

would not result in significant adverse impacts related to neighborhood character. As such, no further analysis is required.

Construction

Compared to the With-Action Condition analyzed within the EAS, the potential changes facilitated by CHO would allow for the development of two residential Projected Development Sites with an additional 3,682 zsf (3,992 gsf) of residential uses, approximately four additional residential dwelling units, and 10 additional feet of maximum building height. The potential changes facilitated by CHO would not affect the With-Action Condition construction schedule projections presented in the EAS. Therefore, the conclusions of the EAS are not affected by potential changes facilitated by CHO as the changes would not result in significant adverse impacts related to construction. As such, no further analysis is required.

Summary Conclusion

This technical memorandum assesses how the City of Yes for Housing Opportunity proposal would potentially alter the analysis of the Proposed Actions and conclusions presented in the corresponding Environmental Assessment Statement for the. The City of Yes for Housing Opportunity proposal as presented in the Draft Scope of Work would change the allowable FAR for this project's proposed zoning district from 2.2 in R6B (pursuant to Mandatory Inclusionary Housing) to 2.4 (pursuant to CHO's proposed Universal Affordability Preference). CHO's proposed Universal Affordability Preference ("UAP") would increase the allowable developable floor area by 0.2 FAR, or 3,682 zsf (3,992 gsf). CHO would change the maximum height analyzed in the EAS for the proposed R6B district from 55 feet to 65 feet. No parking spaces would be required because CHO proposes to eliminate parking requirements for new residential developments.

This technical memorandum concludes that the potential changes facilitated by CHO would not exceed thresholds nor create conditions that require new analysis, nor would the proposed changes affect the conclusions presented within the EAS.