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

3901 9th Avenue Rezoning

3901 9th Avenue
Brooklyn, NY

Prepared for:
39 Group Inc.
156 Bay 14th Street
Brooklyn, NY 11214

Prepared by:
AECOM USA, Inc.
125 Broad Street
New York, NY 10004

CEQR Number: 18DCP107K

AECOM Project No. 60495680

May 4th, 2018

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* 3901 9th Avenue Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
18DCP107K	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
180187 ZRK , 180186 ZMK	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY New York City Department of City Planning			NAME OF APPLICANT 39 Group Inc.		
NAME OF LEAD AGENCY CONTACT PERSON Robert Dobruskin			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Matthew Schommer- Sheldon Lobel, P.C.		
ADDRESS 120 Broadway			ADDRESS 18 E. 41st Street, 5th Floor		
CITY New York	STATE NY	ZIP 10271	CITY New York, NY	STATE NY	ZIP 10007
TELEPHONE (212) 720-3423	EMAIL rdobrus@planning.nyc.gov		TELEPHONE 212-727-2727	EMAIL mschommer@sheldonlobelpc.com	

5. *Project Description*

39 Group Inc. (the "Applicant") proposes a zoning map amendment and a zoning text amendment in the Sunset Park/Borough Park neighborhood within Brooklyn Community District 12. The proposed rezoning area is bounded by 39th Street to the north, a line midway between 39th Street and 40th Street to the south, 9th Avenue to the west, and New Utrecht Avenue to the east. It consists of Block 5583, Lots 6, 12, 13, and portions of Lots 15, 16, 17, and 7501; (the "Project Area" or "Rezoning Area"). The Applicant proposes to map an R7A zoning district with a C2-4 commercial overlay within the Project Area, which is currently zoned M1-2. The proposed rezoning would facilitate the development of Block 5583, Lot 6 (the "Development Site") with a new six-story residential and commercial building with approximately 40 dwelling units.

The proposed text amendment of Zoning Resolution ("ZR") Appendix F: Inclusionary Housing ("IH") Designated Areas and Mandatory Inclusionary Housing ("MIH") Areas for Community District 12, Brooklyn would establish the Project Area as an MIH Area. The Applicant has selected MIH Option 1 for the proposed development, which would result in approximately 10 permanently affordable units at or below 60 percent of the Area Median Income ("AMI"). MIH Option 1 and Option 2 would be mapped within the Project Area.

Project Location

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 12	STREET ADDRESS 3901 9th Avenue
TAX BLOCK(S) AND LOT(S) Applicant site: Block 5583, Lot 6 Rezoning Area: Block 5583, Lots 6, 12, 13, 15, p/o 16, p/o 17, and p/o 7501		ZIP CODE 11232
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS The rezoning area is located on Brooklyn Block 5583, on the eastern side of 9th Avenue between 40th Street and 39th Street,		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-2		ZONING SECTIONAL MAP NUMBER 22C

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

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

☐ CITY MAP AMENDMENT ☐ ZONING CERTIFICATION ☐ CONCESSION

☒ ZONING MAP AMENDMENT ☐ ZONING AUTHORIZATION ☐ UDAAP
☒ ZONING TEXT AMENDMENT ☐ ACQUISITION—REAL PROPERTY ☐ REVOCABLE CONSENT
☐ SITE SELECTION—PUBLIC FACILITY ☐ DISPOSITION—REAL PROPERTY ☐ FRANCHISE
☐ HOUSING PLAN & PROJECT ☒ OTHER, explain:
☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

***Board of Standards and Appeals*:** ☐ YES ☒ NO
☐ VARIANCE (use)
☐ VARIANCE (bulk)
☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

Other City Approvals Subject to CEQR (check all that apply)
☐ LEGISLATION ☐ FUNDING OF CONSTRUCTION, specify:
☐ RULEMAKING ☐ POLICY OR PLAN, specify:
☐ CONSTRUCTION OF PUBLIC FACILITIES ☐ FUNDING OF PROGRAMS, specify:
☐ 384(b)(4) APPROVAL ☐ PERMITS, specify:
☐ OTHER, explain:

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

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

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

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

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

Physical Setting (both developed and undeveloped areas)
Total directly affected area (sq. ft.): Approx 18,236 (rezoning area) Waterbody area (sq. ft) and type: N/A
Roads, buildings, and other paved surfaces (sq. ft.): Approx 18,326 Other, describe (sq. ft.): N/A

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): 90,896
NUMBER OF BUILDINGS: 3
GROSS FLOOR AREA OF EACH BUILDING (sq. ft.):
Projected Site 1: 47,283 (Applicant Lot)
Projected Site 2: 26,665
Projected Site 3: 16,948
HEIGHT OF EACH BUILDING (ft.): Appx. 95 feet
NUMBER OF STORIES OF EACH BUILDING: 6-8

Does the proposed project involve changes in zoning on one or more sites? ☒ YES ☐ NO
If "yes," specify: The total square feet owned or controlled by the applicant: 9,533 (Development site)
The total square feet non-applicant owned area: 8,793

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: 18,326 sq. ft. (width x length) VOLUME OF DISTURBANCE: TBD cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 18326 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.)	72,390 (combined) Site 1- 37,740	18,326 (combined) Site 1- 9,533	0	0

	Site 2- 21,289 Site 3- 13,351	Site 2- 5,376 Site 3- 3,417		
Type (*e.g.,* retail, office, school)	Site 1- 39 units Site 2- 22 units Site 3- 13 units units	Local Retail (UG 6)		

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

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 212 NUMBER OF ADDITIONAL WORKERS: 54

Provide a brief explanation of how these numbers were determined: 3 employees per 1,000 sf of local retail

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): 2021

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 16-20 (per building)

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: ULRUP and Environmental Review: 10 months, Design and Financing: 6 months, Construction: 18 months

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 attach supporting information, if needed) based on guidance in the CEQR Technical Manual to determine whether the potential for significant impacts exists. Please note that a "yes" answer does not mean that an EIS must be prepared—it means that more information may be required for the lead agency to make a determination of significance.
- The lead agency, upon reviewing Part II, may require an applicant to provide additional information to support the Short EAS Form. For example, if a question is answered "no," an agency may request a short explanation for this response.

	YES	NO
1. *LAND USE, ZONING, AND PUBLIC POLICY*: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	☐	☒
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	☒	☐
(c) Is there the potential to affect an applicable public policy?	☐	☒
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach.		
(e) Is the project a large, publicly sponsored project?	☐	☒
○ If "yes," complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?	☐	☒
○ If "yes," complete the Consistency Assessment Form.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
○ Generate a net increase of 200 or more residential units?	☐	☒
○ Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
○ Directly displace more than 500 residents?	☐	☒
○ Directly displace more than 100 employees?	☐	☒
○ Affect conditions in a specific industry?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
○ Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
○ **Child Care Centers:** Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **Libraries:** Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☒
○ **Public Schools:** Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **Health Care Facilities and Fire/Police Protection:** Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the proposed project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
○ If "yes," would the proposed project generate more than 50 additional residents or 125 additional employees?	☐	☐
(c) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
○ If "yes," would the proposed project generate more than 350 additional residents or 750 additional employees?	☐	☒
(d) If the project in located an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☒	☐
5. *SHADOWS*: CEQR Technical Manual Chapter 8		

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

	YES	NO
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): 3,765		
○ 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): 540,750 mBTU		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☒	☐
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☒
○ Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	☐	☒
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway trips per station or line?	☐	☐
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☒	☐
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☐	☒
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☐	☒
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed)	☐	☒
(c) Does the proposed project involve multiple buildings on the project site?	☒	☐
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☐
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☐	☒
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a		

	YES	NO
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. Although no detailed analysis was required in the neighborhood character assessment a brief description of neighborhood character is included in the Supplemental Studies to the EAS report.		
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
Max Meltzer	May, 4, 2018

SIGNATURE 

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	Department of City Planning, acting on behalf of the City Planning Commission
NAME: Olga Abinader	DATE: May 4, 2018
SIGNATURE: Olga Abinader	

NEGATIVE DECLARATION (Use of this form is optional)

Statement of No Significant Effect

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

Reasons Supporting this Determination

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

Hazardous Materials, Air Quality, and Noise
An (E) designation (E-479) for Hazardous Materials, Air Quality and Noise has been incorporated into the proposed actions. Refer to "Determination of Significance Appendix: (E) Designation" for a list of the sites affected by the proposed (E) designation and applicable (E) designation requirements. With these measures in place, the proposed actions would not result in significant adverse impacts to Hazardous Materials, Air Quality or Noise.

Land Use, Zoning and Public Policy
This EAS includes a detailed Land Use, Zoning and Public Policy section, which analyzes the potential significance of the proposed map and text amendments on land use, zoning and public policy in the study area. The proposed actions would rezone the affected area from M1-2 zoning district to an R7A/C2-4 zoning district. The analysis concludes that the proposed actions would not result in significant adverse impacts on Land Use, Zoning or Public Policy.

Open Space
This EAS includes a detailed Open Space section, which analyzes the potential significance of the proposed map and text amendments on open space resources in the study area. The proposed action would potentially add up to approximately 212 residents and approximately 36 employees to the neighborhood. The analysis concludes that the proposed actions would not result in significant adverse impacts on Open Space resources.

Shadows
This EAS includes a detailed Shadows section, which analyzes the potential of the proposed map and text amendments to create significant shadow impacts on Heffernan Triangle, a public plaza controlled by the NYC Department of Parks and Recreation located near the Project Site. The analysis concludes that the proposed actions would not result in significant adverse Shadow impacts.

Urban Design and Visual Resources
This EAS includes a detailed Urban Design and Visual Resources section. This section analyzes whether the proposed actions, which would facilitate a new mixed-use residential and commercial retail building on the Project Site, would have the potential to affect urban design and visual resources in the study area. The analysis concludes that the proposed actions would not result in significant adverse impacts related to Urban Design or Visual Resources.

Transportation
This EAS includes a detailed Transportation section. This section analyzed whether the proposed actions would have the potential to affect transportation networks in the study area. The analysis concludes that the proposed actions would not result in significant adverse impacts related to Transportation.

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

TITLE	LEAD AGENCY
Deputy Director, Environmental Assessment and Review Division	Department of City Planning
NAME	DATE
Olga Abinader	5/4//2018
SIGNATURE	

TITLE Chair, City Planning Commission	
NAME Marisa Lago	DATE 5/7/2018
SIGNATURE	

Project Name: 3901 Ninth Avenue Rezoning
CEQR #: 18DCP107K
SEQRA Classification: Unlisted

Determination of Significance Appendix: (E) Designation (E-479)

To ensure that there would be no significant adverse hazardous materials, air quality or noise impacts associated with the proposed project, an (E) designation (E-479) will be placed on the project sites as follows:

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

Projected Site 1:
Block 5583, Lot 6

Projected Site 2
Block 5583, Lots 12, 13, and 15

Projected Site 3
Block 5583, Lots 16 and 17

Hazardous Materials

Task 1
The applicant submits to OER, for review and approval, a Phase 1A of the site along with a soil and groundwater testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented.

If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of sample sites should be selected to adequately characterize the site, the specific source of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

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

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

An OER-approved construction-related health and safety plan would be implemented during evacuation and construction and activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil and/or groundwater. This plan would be submitted to OER for review and approval prior to implementation.

Project Name: 3901 Ninth Avenue Rezoning
CEQR #: 18DCP107K
SEQRA Classification: Unlisted

Air Quality

Any new development on the above-referenced properties must ensure that the HVAC stack is located at a height at least 98 feet above grade to avoid any potential significant adverse air quality impacts.

Noise

In order to ensure an acceptable interior noise environment, future residential/ commercial uses on the above-referenced properties must provide a closed window condition with minimum attenuation of 31 dB(A) window/wall attenuation on all facades in order to maintain an interior noise level of 45 dB(A). In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.

AECOM

Environment

Prepared for:
39 Group Inc.
156 Bay 14th Street
Brooklyn, NY 11214

Prepared by:
AECOM
125 Broad Street
New York, NY 10004

AECOM No. 60495680

3901 9th Avenue Rezoning

Supplemental Studies to the Environmental Assessment Statement

May 4, 2018

Proposed Development Site:

3901 9th Avenue (Block 5583, Lot 6)
Brooklyn, NY 11232

Prepared for:

39 Group Inc.
156 Bay 14th Street
Brooklyn, NY 11214

Prepared by:

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125 Broad Street
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1.0 PROPOSED ACTION

39 Group Inc. (the "Applicant") proposes a zoning map amendment and a zoning text amendment in the Sunset Park/Borough Park neighborhood within Brooklyn Community District 12. The proposed rezoning area is bounded by 39th Street to the north, a line midway between 39th Street and 40th Street to the south, a line 100 feet west of 9th Avenue to the west, and New Utrecht Avenue to the east. It consists of Block 5583, Lots 6, 12, 13, and portions of Lots 15, 16, 17, and 7501 (the "Project Area" or "rezoning area"). The Applicant proposes to map an R7A zoning district with a C2-4 commercial overlay within the Project Area, which is currently, zoned M1-2. The proposed rezoning would facilitate the development of Block 5583, Lot 6 (the "Development Site") with a new six-story residential and commercial building with approximately 40 dwelling units.

The proposed text amendment of Zoning Resolution ("ZR") Appendix F: Inclusionary Housing ("IH") Designated Areas and Mandatory Inclusionary Housing ("MIH") Areas for Community District 12, Brooklyn would establish the Project Area as an MIH Area. The Applicant has selected MIH Option 1 for the proposed development, which would result in approximately 10 permanently affordable units at or below 60 percent of the Area Median Income ("AMI"). MIH Option 1 and Option 2 would be mapped within the Project Area.

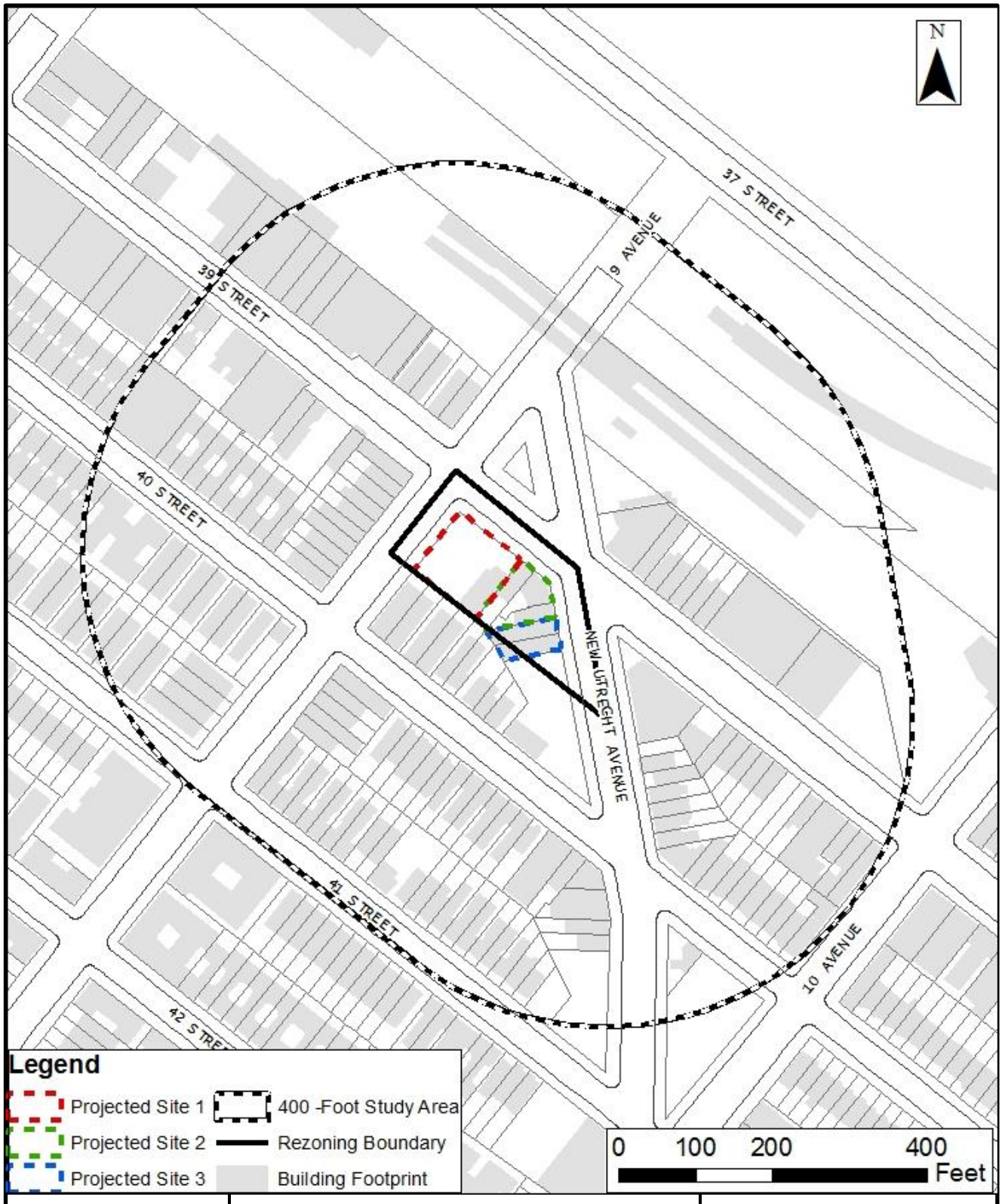
1.1 Project Location

The rezoning area is located in the Sunset Park/Borough Park neighborhood of Brooklyn, Community District 12 (**Figure 1-1**). The proposed development site is located at 3901 9th Avenue on Block 5583, Lot 6. (**Figure 1-2**) The total lot area is approximately 9,533 square feet, and the site is presently occupied by a one-story Use Group 16 automobile sales lot. A key to photographs of the site and surrounding area is shown in **Figure 1-3** with the photographs displayed in **Figure 1-4**.

This EAS studies the potential for individual and cumulative environmental impacts related to the proposed action occurring in a study area of approximately 400 feet around the rezoning area. This study area is generally bound by the midblock point between 37th Street and 38th Street to the north, 10th Avenue to the east, midblock between 8th Avenue and 9th Avenue to the West, and 41st Street to the south.

1.2 Required Approvals

The proposed zoning map amendment is a discretionary public action which is subject to the City Environmental Quality Review (CEQR) as an Unlisted action. Through CEQR, agencies review discretionary actions for the purpose of identifying the effects those actions may have on the environment. The proposed zoning map and text amendment are also discretionary public actions which are subject to public comment under the Uniform Land Use Review Procedure (ULURP). The ULURP process was established to assure adequate opportunity for public review of proposed actions. ULURP dictates that every project be presented at four levels: the Community Board; the Borough President; the City Planning Commission; and, in some cases the City Council. The procedures mandate time limits for each stage to ensure a maximum review period of seven months.



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Environmental Assessment Statement
9th Avenue Rezoning
Sunset Park/Borough Park, Brooklyn, NY

Project Site Location

Figure 1-1



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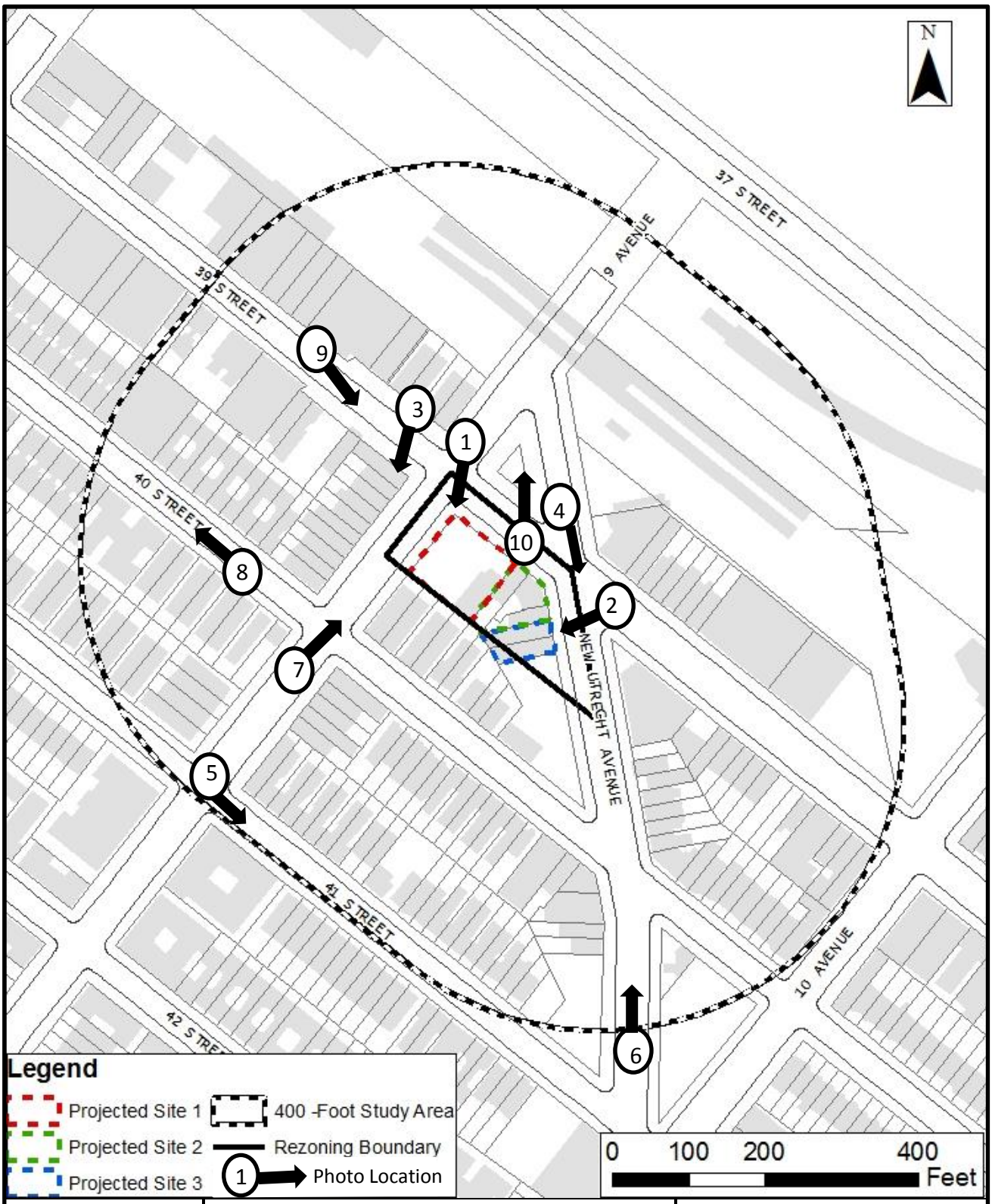
Environmental Assessment Statement
9th Avenue Rezoning
Sunset Park/Borough Park, Brooklyn, NY

Tax Map

Figure 1-2



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Environmental Assessment Statement
9th Avenue Rezoning
Sunset Park/Borough Park, Brooklyn, NY

Photo Location Map

Figure 1-3

Figure 1-4 Photographs of the Site and Surrounding Area

Photos Taken March 29th, 2018

Photograph 1



View of the Projected Development Site 1 at 3901 9th Avenue (Block 5583 Lot 6) looking south

Photograph 2



View of Projected Sites 2 and 3 looking southwest from 39th Street and New Utrecht Avenue.

Photograph 3



View of buildings properties located across from Project Site on 9th Avenue

Photograph 4



View looking south down New Utrecht Avenue from 39th Street towards Projected Site 3

Photograph 5



View of residential uses looking east on 41st Street from 9th Avenue

Photograph 6



Looking north on New Utrecht Avenue towards 40th Street with new development onn the right hand side of the street

Photograph 7



View looking north on 9th Avenue from 40th Street towards Projected Site 1 and 39th Street

Photograph 8



Looking west of 40th Street towards 8th Avenue

Photograph 9



View of Industrial and Manufacturing uses on 41st Street looking east towards 9th Avenue

Photograph 10



View of Heffernan Triangle on 39th Street between 9th Avenue and New Utrecht Avenue

1.3 Analysis Framework (Reasonable Worst Case Development Scenario)

Existing Conditions

In addition to the development on the proposed development site (Block 5583, Lot 6), the proposed rezoning area will include a portion of Brooklyn Block 5583 (Lots 12, 13, 15, p/o 16, p/o 17, and p/o 7501). The existing conditions of each of the lots are as follows:

Block 5583, Lot 6

The proposed development site at 3901 9th Avenue consists of one approximately 9,533 square foot tax lot occupied by a one-story Use Group 16 automobile sales lot. Lot 6 is under the applicant's control, and the General Service use appears to be conforming in use.

Block 5583, Lot 12

Lot 12 (914 39th Street) contains a one-story commercial and office building. The space is occupied by a Use Group 6 restaurant.The building contains approximately 336 square feet of floor area and is developed to 0.18 FAR.

Block 5583, Lot 13

Lot 13 (3902 New Utrecht Avenue) contains a three-story mixed-use residential and commercial building with two Use Group 2 dwelling units, one each on the second and third floors, and commercial use on the ground floor. This building contains approximately 5,400 square feet of floor area and is developed to 3.60 FAR. According to the NYC Rent Guidelines Board, none of these dwelling units appear to be rent stabilized.

Block 5583, Lot 15

Lot 15 (3906 New Utrecht Avenue) contains a three-story mixed-use residential and commercial building with two Use Group 2 dwelling units, one each on the second and third floors, and commercial use on the ground floor. This building contains approximately 3,120 square feet of floor area and is developed to 1.58 FAR. According to the NYC Rent Guidelines Board, none of these dwelling units appear to be rent stabilized.

Block 5583, Lot 16

Lot 16 (3908 New Utrecht Avenue) contains a three-story mixed-use residential and commercial building with two Use Group 2 dwelling units, one each on the second and third floors, and commercial use on the ground floor. This building contains approximately 4,160 square feet of floor area and is developed to 2.38 FAR. According to the NYC Rent Guidelines Board, none of these dwelling units appear to be rent stabilized.

Block 5583, Lot 17

Lot 17 (3910 New Utrecht Avenue) contains a three-story mixed-use residential and commercial building with two Use Group 2 dwelling units, one each on the second and third floors, and commercial use on the ground floor. This building contains approximately 3,120 square feet of floor area and is developed to 1.87 FAR. According to the NYC Rent Guidelines Board, none of these dwelling units appear to be rent stabilized.

Future No-Action Scenario

The proposed development site is located in the Sunset Park/Borough Park neighborhood of Brooklyn, which is densely developed. While vacant lots were observed within the 400 feet of the

proposed rezoning area, all lots included in the proposed action are improved. Therefore, as there are no known development plans on any parcels, it is assumed that these conditions would remain consistent with existing conditions under the No-Action scenario.

Under the No-Action scenario, Block 5583, Lot 6 would remain improved with a one- story, approximately 9,533 square foot Use Group 16 automobile sales and repairs establishment. Block 5583, Lot 12 would be consistent with its existing condition, which is a one-story, approximately 336 square restaurant at 914 39th Street. On a 1,903 square foot lot, this represents a built FAR of approximately 0.18. Lot 13 would remain improved with a three-story mixed residential and commercial building with ground floor commercial and two dwelling units. The building occupies a 1,500 square foot lot and contains a total of approximately 5,400 square feet of gross floor area. This represents a built FAR of 3.6. Lot 15 would remain improved with a three-story mixed residential and commercial building with ground floor commercial and two dwelling units. The building occupies 1,973 square foot lot and has a total of 3,120 square feet of gross floor area The represents a built FAR of 1.6. Lot 16 would remain improved with a three-story mixed residential and commercial building with ground floor commercial and two dwelling units. The building occupies a 1,745 square foot lot and has a total of 4,160 square feet of floor area. This represents a built FAR of 2.4. Lot 17 would remain improved with a three-story mixed residential and commercial building with ground floor commercial and two dwelling units. The building occupies a 1,672 square foot lot and has a total of 3,120 square feet of gross floor area. This represents a built FAR of 1.9.

Future With-Action Scenario

Under the With-Action scenario, the proposed rezoning would amend the zoning map to change the existing M1-2 district to an R7A/C2-4 District, which would facilitate the Applicant's proposed development of a six-story mixed building with approximately 34,319 zoning square feet of residential floor area and 9,533 zoning square feet of commercial floor area at 3901 9th Avenue (Block 5583, Lot 6) in the Sunset Park/Borough Park neighborhood of Brooklyn in Community District 12. In order to present a conservative assessment, the With-Action scenario assumes that the proposed development site (Block 5583, Lot 6) in the rezoning area would be constructed to the maximum allowable floor area in an R7A /C2-4 zoning district, which is 4.6 FAR in an inclusionary housing district (*ZR* §23-154).
In the interest of a conservative analysis, while none of the parcels that comprise a projected development site are under common ownership, it is assumed that the remaining parcels of land would be merged as four different development sites. It is assumed that Block 5583, Lots 12, 13 and 15 would be merged as one projected development site; Block 5583, Lots, 16 and 17 would be merged as one projected development site. Consistent with the analysis for Block 5583, Lot 6, it is assumed that these projected development sites would be constructed to the maximum allowable floor area of 4.6 allowed under allowed under ZQA/MIH regulations for an R7A/C2-4 zoning district, assuming the 25 percent affordable housing option. Given the additional development that is expected to occur on non-applicant owned sites, a build year of 2021 is utilized for purposes of environmental review.

<u>Block 5583, Lot 6 (Projected Development Site 1)</u>

Under the With-Action Scenario, it is assumed that Block 5583, Lot 6 would be developed to the maximum FAR of 4.6, pursuant to ZQA/MIH for a residential building. On a 9,533 square-foot lot, it is assumed that the proposed action would result in approximately 9,533 square feet of Use Group 6 commercial floor area (1.0 FAR) and 37,750 gsf (34,319 zoning square feet) of Use Group 2 residential floor area (3.6 FAR). Estimating 950 square feet per dwelling unit, it is assumed approximately 39 residential units would be constructed on-site. Under the 25 percent MIH option, the proposed rezoning would result in the creation of approximately nine affordable units with incomes averaging 60 percent of the area median income (AMI) in a reasonable worst case development scenario. The building would be built to its maximum height of 95 feet allowed under R7A/C2-4 guidelines.

Block 5583, Lots 12, 13 and 15 (Projected Development Site 2)

Under the With-Action Scenario, it is assumed that Block 5583, Lots 12, 13 and 15 would be merged and developed to the maximum FAR of 4.6, pursuant to ZQA/MIH. On a combined 5,376 square-foot lot, it is assumed that the proposed action would result in approximately 21,289 gsf (19,354 zoning square feet) of residential floor area (FAR 3.6) and 5,376 square-feet of commercial floor area (FAR 1.0). Estimating 950 square feet per dwelling unit, it is assumed approximately 22 residential units would be constructed on-site. Under the 25 percent MIH option, the proposed rezoning would result in the creation of approximately five affordable units with incomes averaging 60 percent of the area median income (AMI). The building would be built to its maximum height of 95 feet allowed under R7A/C2-4 guidelines.

Block 5583, Lots 16 and 17 (Projected Development Site 3)

Under the With-Action Scenario, it is assumed that Block 5583, Lots 16 and 17 would be merged and developed to the maximum FAR of 4.6, pursuant to ZQA/MIH. On a combined 3,417 square foot lot, it is assumed that the proposed action would result in approximately 13,531 gsf (12,301 zoning square feet) of residential floor area (FAR 3.6) and 3,417 square-feet of commercial floor area (FAR 1.0). Estimating 950 square feet per dwelling unit, it is assumed approximately 13 residential units would be constructed on-site. Under the 25 percent MIH option, the proposed rezoning would result in the creation of approximately three affordable units with incomes averaging 60 percent of the area median income (AMI). The building would be built to its maximum height of 95 feet allowed under R7A/C2-4 guidelines.

Other Sites

Sites Where Development is Not Projected in the With-Action Scenario

Block 5583, Lot 7501

Block 5583, Lot 7501 is an approximately 21,409 square foot parcel occupied by five four-story Use Group 2 residential buildings with 20 total dwelling units. The buildings have a total gross floor area of approximately 28,060 square feet and are not under the applicant's control. Lot 7501 is not considered a development site because less than 25 percent of the total lot area lies within the rezoning boundaries. Therefore, this parcel is excluded from consideration as a development site.

Site data for the lots covered by the proposed zoning area are shown in **Table 1**.

Table **1** **Projected Development Under the Proposed Rezoning**

Block	Lot(s)	Lot Area	Existing Zoning	Existing FAR	Proposed Zoning	Projected Res. sf	Projected Comm. sf	Projected FAR	DUs
5583	6	9,533	M1-2	.20	R7A/C2-4	37,750	9,533	4.6	36
5583	12, 13, 15	5,376	M1-2, R6/M1-2	1.65	R7A/C2-4	21,289	5,376	4.6	22
5583	16, 17	3,417	R6/M1-2	2.13	R7A/C2-4	13,531	3,417	4.6	13
Total						***72,570***	***18,356***		***71***

*Assuming 950 square feet per dwelling unit

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
- Open Space
- Shadows
- Historic and Cultural Resources
- Urban Design and Visual Resources
- Hazardous Materials
- Transportation
- Air Quality
- Noise
- Neighborhood Character
- Construction

In the following technical sections, where a preliminary or more detailed assessment was necessary, the discussion is divided into Existing Conditions, the Future No-Action Conditions (the Future Without the Proposed Action), and the Future With-Action Conditions (the Future With the Proposed Action).

2.1 LAND USE, ZONING AND PUBLIC POLICY

The *CEQR Technical Manual* recommends procedures for analysis of land use, zoning and public policy to ascertain the impacts of a project on the surrounding area. Land use, zoning and public policy are described in detail below.

2.1.1 Land Use

The *CEQR Technical Manual* defines land use as the activity that is occurring on the land and within the structures that occupy it. Types of land use can include single- and multi-family residential, commercial (retail and office), community facility/institutional and industrial/manufacturing uses, as well as vacant land and public parks (open recreational space). The *CEQR Technical Manual* recommends that a proposed action be assessed in relation to land use, zoning and public policy. For each of these areas, a determination is made of the potential for a significant adverse impact by the proposed action. If the action does have a potentially significant impact, appropriate analytical steps are taken to evaluate the nature of the impact, possible alternatives and possible mitigation.

Existing Conditions

The *CEQR Technical Manual* recommends a land use; zoning and public policy study area extending 400 feet from the site of the proposed action. This study area is generally bound by the midblock point between 37th Street and 38th Street to the north, 10th Avenue to the east, midblock between 8th Avenue and 9th Avenue to the West, and 41st Street to the south. (**Figure 1-1**)

A field survey was conducted to determine the existing land use patterns and neighborhood characteristics of the study area. Existing land use immediately surrounding the project area includes a wide mix of one and two family buildings, multi-family buildings, mixed-use commercial and residential buildings, industrial/manufacturing, commercial uses, and public facilities and institutions. The commercial uses are comprised of local retail such as grocery stores, beauty salons, barber shops and restaurants. The prevailing built form of the area is a mix of low- to mid-rise non-residential buildings and two to four-story residential buildings. The project area is just south of MTA's 36th-38th Street Yard facility, which primarily functions to store diesel and electrically powered rolling stock. Additionally, approximately 600 feet north of the Project Site is the 478-acre Greenwood Cemetery.

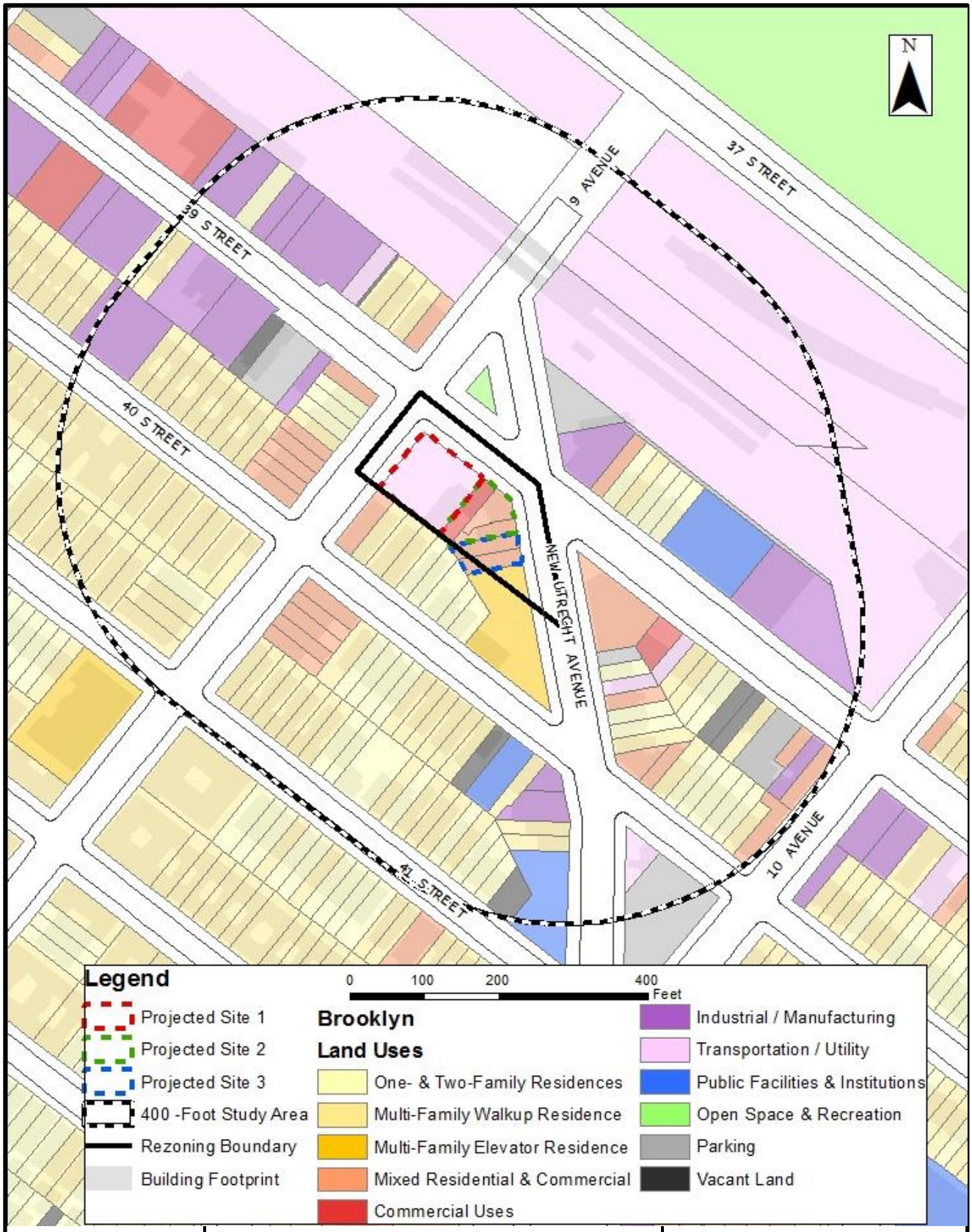
The projected development site controlled by the applicant (Block 5583, Lot 6) is located on the eastern side of 9th Avenue at the intersection of 39th Street and 9th Avenue with 38th Street being one block south. It consists of a one-story Use Group 16 automobile sales lot on an approximtaley 9,533 square foot lot. Directly east of this site, the proposed rezoning area would extend to include Block 5583, Lots 6, 12, 13, 15, parts of lots 16, 17, and 7501. Lot 12 contains a one-story Use Group 6 restaurant ("Julia's).

On Block 5583, Lot 13 contains a three story mixed- use residential and commercial building with two Use Group 2 dwelling units, one each on the second and third floors, and a Use Group 6 deli on the ground floor. Lots 15, 16, and 17 all contain a three story mixed- use residential and commercial building with two Use Group 2 dwelling units, one each on the second and third floors, and commercial office use on the ground floor. Lot 7501 contains a four story condominium residential building with 20 Use Group 2 dwelling units.

The western portion of the study area contains development patterns that are consistent with the rezoning area and adjacent buildings. Block 916, across 9th Avenue from the Project Site, contains a primarily industrial and manufacturing uses including a two-story live poultry mart within the rezoning area, as well a truck garage and a stone and bath tile garage. The Kings Hotel is located at 820 39th Street. Additionally, Block 908 is located on the north side of 39th Street west of 9th Avenue and consists of primarily industrial and manufacturing uses including an auto repair shop and a furniture manufacturing facility. Block 920 in the southwestern portion of the study area primarily contains one- and two -family and multi-family walk up residential buildings.

The eastern portion of the study area contains primarily two to four-story residential buildings with some local retail uses along the 9th Avenue, the southern side of 39th Street and New Utrecht Avenue. There are also two private schools in the western eastern portion of the study area, at 945 39th Street and 4014 New Utrecht Avenue. Several vacant lots exist in this portion of the study area including 39th Street.

The general mix of land use observed in the study area generally reflects the distribution of land use observed throughout Brooklyn CD 12, which is summarized in **Table 2.** The most prominent land use within Brooklyn CD 12 is one and two family residences, followed by multi-family residences, and public facilities and institutions and mixed residential and commercial uses.



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Land Use Map

Figure 2.1-1

Table 2 2014 Land Use Distribution- Brooklyn Community District 12

LAND USES	PERCENT OF TOTAL
Residential Uses	
1-2 Family	41.2
Multi-Family	27.6
Mixed Residential/Commercial	6.8
Subtotal of Residential Uses	*75.6*
Non-Residential Uses	
Commercial/Office	4.4
Industrial	2.5
Transportation/Utility	2.1
Institutions	6.9
Open Space/Recreation	5.6
Parking Facilities	1.2
Vacant Land	1.5
Miscellaneous	0.2
Subtotal of Non-Residential Uses	*24.4*
TOTAL	**100.0**

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

Future No-Action Scenario

The proposed development site is located in the Sunset Park/Borough Park neighborhood of Brooklyn, which is densely developed. While vacant lots were observed within the 400 feet of the proposed rezoning area, all lots included in the proposed action are improved. Therefore, as there are no known development plans on any parcels, it is assumed that these conditions would remain consistent with existing conditions under the No-Action scenario.

Future With-Action Scenario

Under the With-Action scenario, the proposed rezoning would amend the zoning map to change the existing M1-2 district to an R7A/C2-4 district on a portion of Block 5583, in Sunset Park/Borough Park, Community Board 12, Brooklyn. This action would facilitate the construction of the six-story mixed-use development at 3901 9th Avenue (Block 5583, Lot 6.This action would also bring these residential uses into compliance with the Use Group provisions of the Zoning Resolution.

Under the With-Action Scenario, it is assumed that Block 5583, Lot 6 would be built out to the maximum allowable FAR in an R7A district of 4.6 with the MIH bonus. On a 9,533 SF lot, we can assume that Lot 6 would be built out to approximately 47,283 gsf. We can also assume that the other Projected Development Sites (Sites 2- 3) in the rezoing area would also be built out to the maximum allowable FAR of 4.6. Additionally, the mapping of C2-4 commercial overlay over the rezoning area is assumed to induce a ground-floor commercial use over the proposed development site (Lot 6) and Projected Development Sites (Sites 2-3) as well. The C2-4 allows typical retail uses including, neighborhood grocery stores, restaurants and beauty parlors.

Recent years have seen additional commercial and residential development in proximity to the rezoning area and non-conforming residential uses exist within 400 feet of the rezoning area and within the rezoning area

itself. The proposed action would reinforce this trend towards more active mixed-use neighborhood, which is heavily represented on all sides of the rezoning area. Furthermore, the proposed land uses (residential and commercial) are compatible with the residential uses to the south of the Project Site and the commercial uses along 9th Avenue and 39th Street. Therefore, the proposed action is not expected to have any adverse impacts on surrounding land uses.

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.

Existing Conditions

Zoning designations within and around the study area are depicted in **Figure 2.2-1**, while **Table 3** summarizes use, floor area and parking requirements for the zoning districts in the study area.

The rezoning area is in a mapped M1-2 zoning district. There is a mapped R6 zoning district located to the south of the Project Site within the 400-foot study area. There is also a C2-3 commercial overlay located southeast of the Project Site within the R6 zoning district. The R6 district is general mapped from the midblock point of 39th Street and 40th Street to the north, Fort Hamilton Parkway to the east, 8th Avenue to the west and 60th Street to the south. The C2-3 overlay is mapped on Block 5583, along 40th Street to the south, New Utrecht Avenue to the east, 9th Avenue to the west, and the midblock point between 39th Street and 40th Street to the north. The proposed project area is also within an area designated for the FRESH Program (zoning and discretionary tax incentives area).

The rezoning area is located in an M1-2 zoning district while the 400-foot study area is located within the M1-2 zoning district and the adjacent R6 zoning district to the south. M1-2 districts are a light-performance and low-density manufacturing zoning district in which Use Groups 4 to 14, 16 and 17 are allowed. M1-2 zoning districts typically include light industrial uses, such as woodworking shops, repair shops, and wholesale service and storage facilities. Nearly all industrial uses are allowed in M1 districts. Offices, hotels and most retail uses are also permitted. Certain community facilities, such as hospitals, are allowed in M1 districts only by *special permit*, but houses of worship are allowed *as-of-right*. Residential uses are not permitted *as –of-right* in any manufacturing district. M1-2 zoning districts have a maximum FAR of 2.0. Parking requirements vary within an M1-2 district vary based on the type of use sand size of an establishment. The entire rezoning area and the northern portion of the study area is mapped within an M1-2 zoning district.

The southern portion of the project area, along 40th and 41st Streets is mapped within an R6 zoning district. R6 zoning districts are widely mapped in built-up, medium-density areas. The character of R6 districts can range from neighborhoods with a diverse mix of building types and heights to large -scale “tower in the park” developments. The maximum FAR in R6 districts ranges from .78 for a single-story building to 2.43 for taller buildings. Parking requirements in R6 zoning districts dictate that parking must be required for 70 percent of dwelling units. However, if the zoning lot is less than 10,000 square feet, parking must be provided for only 50 percent of the dwelling units.

As an incentive for developers to choose the Quality Housing option outside the Manhattan Core, greater floor area ratio, and therefore, more apartments, is permitted for buildings on or within 100 feet of a wide street than would be permitted under height factor regulations. Under this option, the maximum allowable FAR in an R6 district is 3.0. A small portion of the study area along 40th Street is zoned R6 with a C2-3 commercial overlay. Found extensively, in throughout the city’s lower and medium-density area, the overlay district allows a wide range of uses that serve local retail needs. Typical retail uses include neighborhood grocery stores, restaurants, and beauty parlors. When mapped in an R6 district, the maximum commercial FAR is 2.0.

Future No-Action Scenario

In the future without the proposed action, zoning changes are not expected to occur on the Project Site or within the surrounding study area. Because the Applicant may not construct any new residential square footage on the Project Site without the proposed zoning map amendment, it is assumed that the Future No-Action Scenario would remain consistent with existing conditions. Therefore if zoning map amendment to rezone a portion of Brooklyn Blocks 5583 from the existing M1-2 district to an R7A/C2-4 district is not granted, the existing conditions would continue in the future no-action scenario.

Table 3 Summary of Zoning Regulations

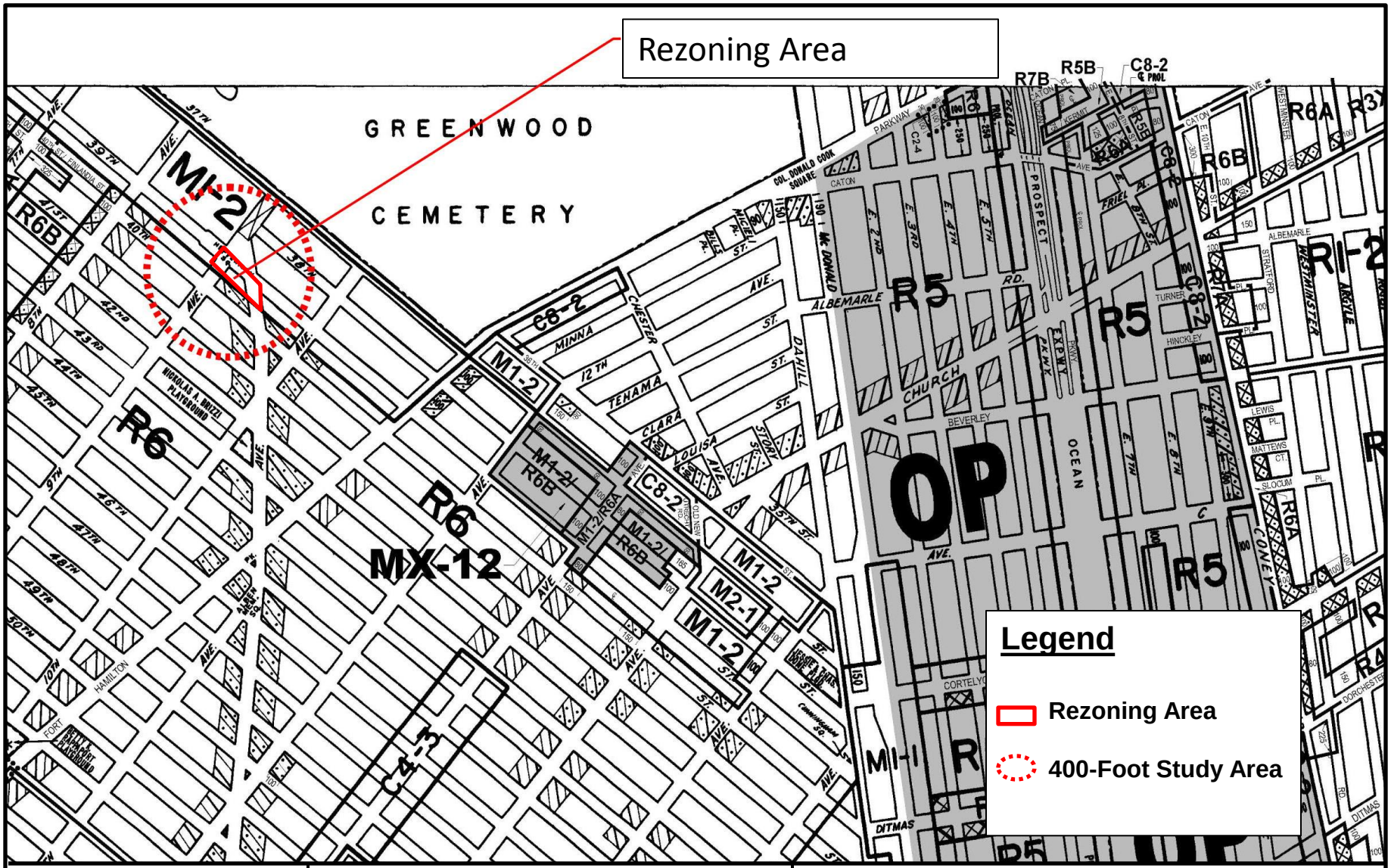
Zoning District	Type and Use Group (UG)	Floor Area Ratio (FAR)	Parking (Required Spaces)
M1-2	Light Manufacturing UGs 4-14, 16, 17	2.0 FAR – Manufacturing 2.0 FAR – Commercial 4.8 FAR – Community Facility	Varies by Use
R6	Residential UGs 1-4	0.78– 3.0 FAR for Residential 4.8 FAR for Community Facility	70 percent of dwelling units, (50 percent if lot is 10,00 sf or less; waived if five or fewer required) ;50 percent of units under MIH/ZQA option
C2-3	Commercial Overlay (Local Service) UGs 1-9, and 14	2.0 FAR for Commercial	Generally Not Required
R7A*	Residential UGs 1-4	4.0-4.6 FAR for Residential 4.0 FAR for Community Facility	50 percent of dwelling units (waived if 5 or fewer spaces required) ; 30 percent if zoning lot is 10,000 sf or less
C2-4*	Commercial Overlay (Local Service) UGs 1-9 & 14	2.0 FAR – Commercial	Generally Not Required

Source: Zoning Handbook, New York City Department of City Planning, January 2006.
**Proposed Zoning Districts*

Future With-Action Scenario

The proposed action would change the existing M1-2 district to an R7A/C2-4 district over Brooklyn Blocks 5583, Lots 6, 12, 13, 15, parts of Lots 16, 17, 7501. Absent the proposed action, the applicant would be unable to construct the proposed six-story residential building under the existing floor area and lot coverage requirements of an M1-2 district. These zoning districts would conform to the general zoning in the study area. A number of C2-3 overlays exist within the study area. South of the Project Site, the R6 zoning district allows for a maximum FAR of 4.8, which is similar to that of the proposed R7A zoning district.

The proposed action would therefore 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. Significant adverse impacts to zoning are not anticipated and further zoning analysis is not warranted.



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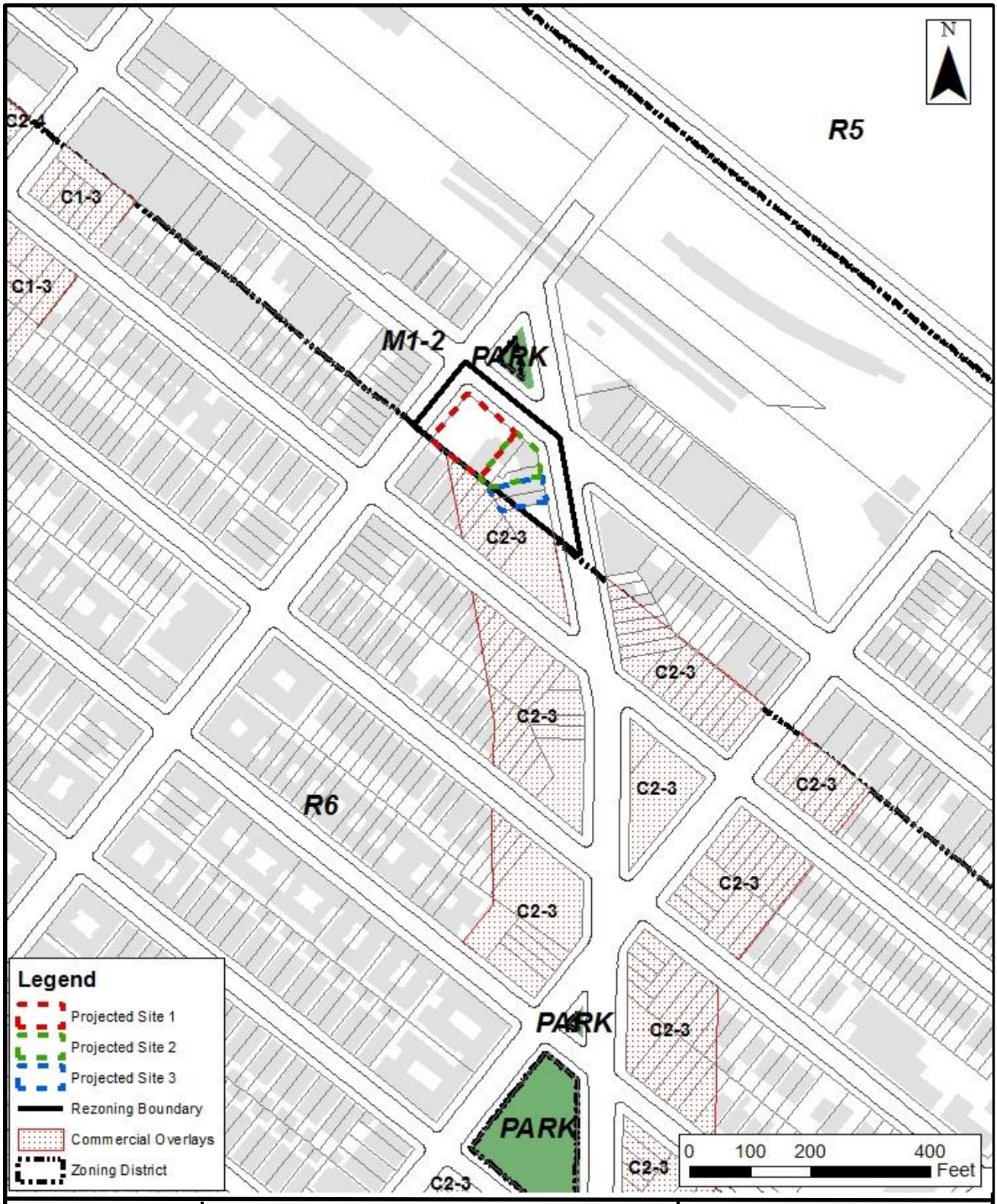
Zoning Map

Figure 2.1-2



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Detailed Zoning

Figure 2.1-2a

2.1.3 Public Policy

The Project Site is not part of, or subject to, an Urban Renewal Plan (URP), adopted community 197-a Plan, Solid Waste Management Plan, Business Improvement District (BID), Industrial Business Zone (IBZ), or the New York City Landmarks Law. The proposed action is also not a large publically sponsored project, and as such, consistency with the City's *PlaNYC 2030* for sustainability is not warranted. In addition, the rezoning area is not located in the Coastal Management Zone; therefore a consistency review is not warranted.

Waterfront Revitalization Program

The rezoning area is not located within New York City's designated coastal zone and, as such, is not subject to review for its consistency with the City's Waterfront Revitalization Program (WRP).

2.2 OPEN SPACE

Open space is defined as publicly or privately owned land that is publicly accessible and operates, functions, or is available for leisure, play, or sport, or set aside for the protection and/or enhancement of the natural environment. According to the *CEQR Technical Manual*, an analysis of open space is conducted to determine whether or not a proposed project would have a direct impact resulting from the elimination or alteration of open space and/or indirect impacts resulting from overtaxing available open space. An open space analysis focuses on officially designated existing or planned public open space. An open space assessment may be necessary if a project potentially has a direct or indirect effect on open space.

For the majority of new projects in New York City located in areas that are neither "underserved" or "well-served" area for open space, an open space assessment is generally conducted if the proposed project would generate more than 200 residents or 500 employees. The projected development site is located in such an area that is neither "underserved" nor "well served" for open space. The proposed action would potentially add up to approximately 212 residents in 66 additional units (based on an average of 3.13 persons per unit[1]), as well as approximately thirty six employees[2] to the neighborhood who would work in the buildings and local stores. As the number of new residents anticipated as a result of the proposed actions is above the CEQR preliminary screening threshold level, a preliminary analysis of open space impacts due to new residents is warranted.

2.2.1 Preliminary Open Space Assessment

The open space study area includes all U.S. Census Tracts that have 50 percent or more of the tract within a half-mile radius of the Project Site, as shown in **Figure 7.** These consist of the following Census Tracts, as shown in **Table 4**. The Project Site is located within Brooklyn Census Tracts, 110, and 112, and the half-mile study area lies within Brooklyn Community Districts 12 and 7.

Existing Conditions

According to 2010 U.S. Census population data that was compiled by the New York City Department of City Planning, there are a total of 42,492 residents in the study area, as shown in **Table 4**, per the 2010 U.S. Census. Assuming a standard background growth rate of 0.5 percent per year, the 2016 population is estimated to be approximately 44,026 residents. The study area contains a total of 16.03 acres of publicly accessible open space (both active and passive), with the size of existing open space resources within this study area identified in **Table 5** and shown in **Figure 8**.

In accordance, with CEQR methodology, the assessment of open space resources in the study area focuses on the calculated open space ratio (OSR), or the ratio of the acres of open space per 1,000 persons. The existing OSR in the study area is approximately 0.362 acres per 1,000 residents, below the City's target OSR of 1.50 acres per 1,000 residents.

[1] Based on the average household size for Brooklyn Community District 12
[2] Based on a standard average of 0.04 employees per dwelling unit of residential use (superintendents, doormen, handymen, porters, etc.) and 3 employees per 1,000 sf of local retail floor area

Table 4 Census Tracts and Population in the Study Area

Census Tract Number	Population (2010 Census)	Population (2016 Projected)
222	4,693	4,812
224	5,486	5,625
226	2,516	2,580
88	3,207	3,288
90	2,994	3,070
92	5,388	5,524
94	5,805	5,952
110	2,441	2,503
112	6,436	6,599
114	3,976	4,076
Total	**42,942**	**44,026**

Source: New York City Department of City Planning.
Notes: Shaded row indicates census tract of the Project Site.

Table 5 Open Space Resources in the Study Area

Key No.	Open Space Resource	Location	Size (acres)
1	Heffernan Triangle	New Utrecht Avenue, 9th Avenue, 39th Street	0.1
2	Sunset Park	7th Avenue and 44th Street	16

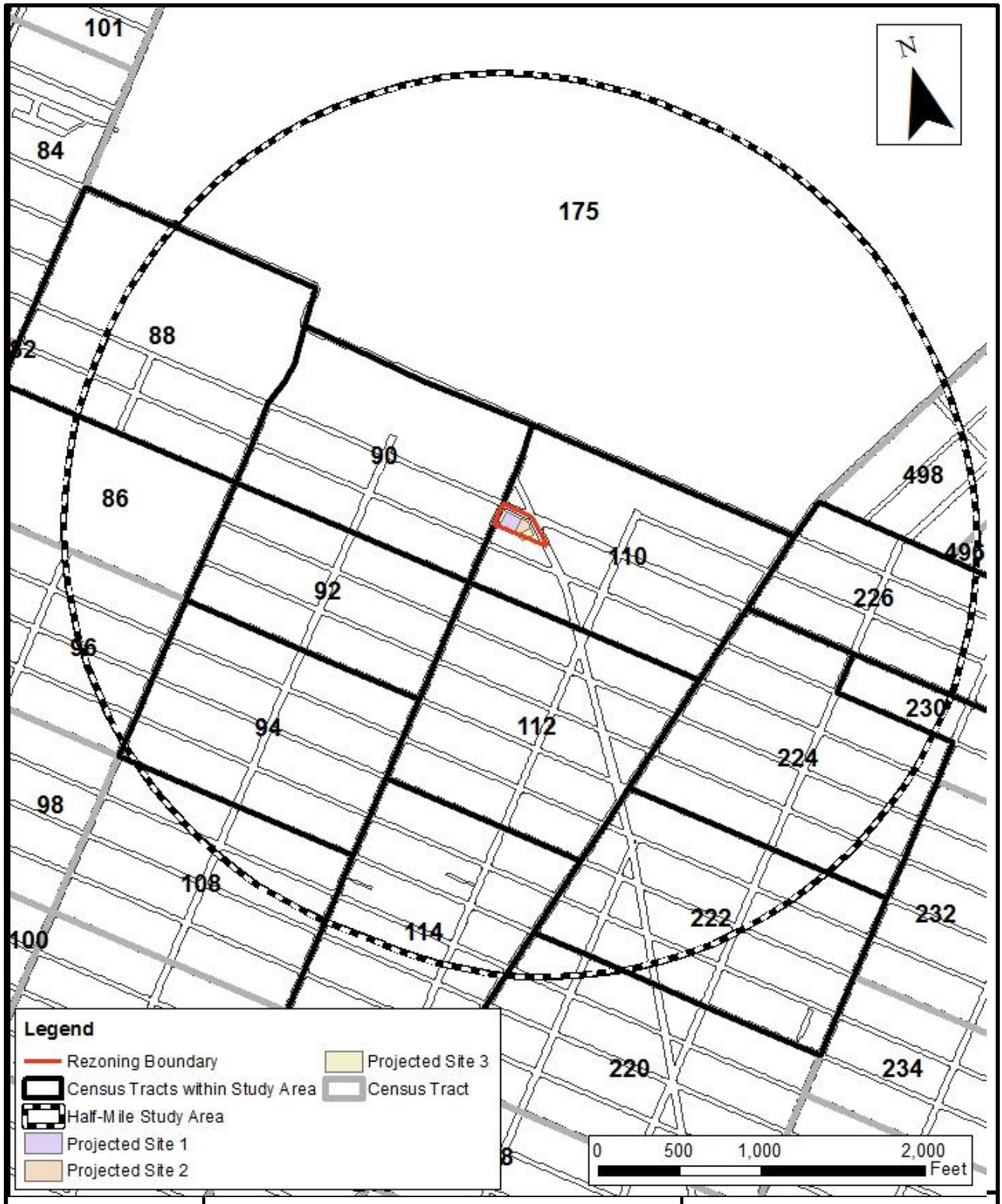
Source: Community District Profiles, NYC Department of City Planning; American Fact Finder.

Future No-Action Conditions

In the future without the proposed actions, the Project Site is not expected to undergo any changes or development. By 2021, it is expected that the population in the surrounding area would continue to grow by approximately 0.5 percent a year, representing a standard background growth rate. Thus the approximately 44,026 residents in the study area under 2016 conditions would grow to approximately 45,138 residents by 2021 under the Future No-Action Condition. Therefore, the existing OSR of .362 acres of open space per 1,000 residents calculated for the open space study area is expected to be reduced to approximately .355 acres of open space per 1,000 residents under the Future No-Action Condition, assuming that no additional open space resources are added to the area, as expected.

Future With-Action Conditions

Preliminary screening procedures from the *CEQR Technical Manual* indicate that impacts may occur if a project reduces the OSR by more than five percent. In areas that are lacking in open space resources, a reduction as small as one percent may be considered significant. Under the Future With-Action Condition, there would be an increase of up to 212 new residents in the rezoning area, thereby increasing the study area population from approximately 44,026 residents under the Future No-Action Condition to 44,238 residents under the Future With-Action Condition. The resulting OSR would decrease from .355 acres per 1,000 residents under the Future No-Action Condition to .352 acres of open space per 1,000 persons under the Future With-Action Condition, a decrease of approximately 0.03 percent. The reduction in OSR related to the proposed actions would be significantly less than one percent. Therefore, no significant adverse impacts to open space resources as a result of the proposed actions are expected and no further analysis is warranted.



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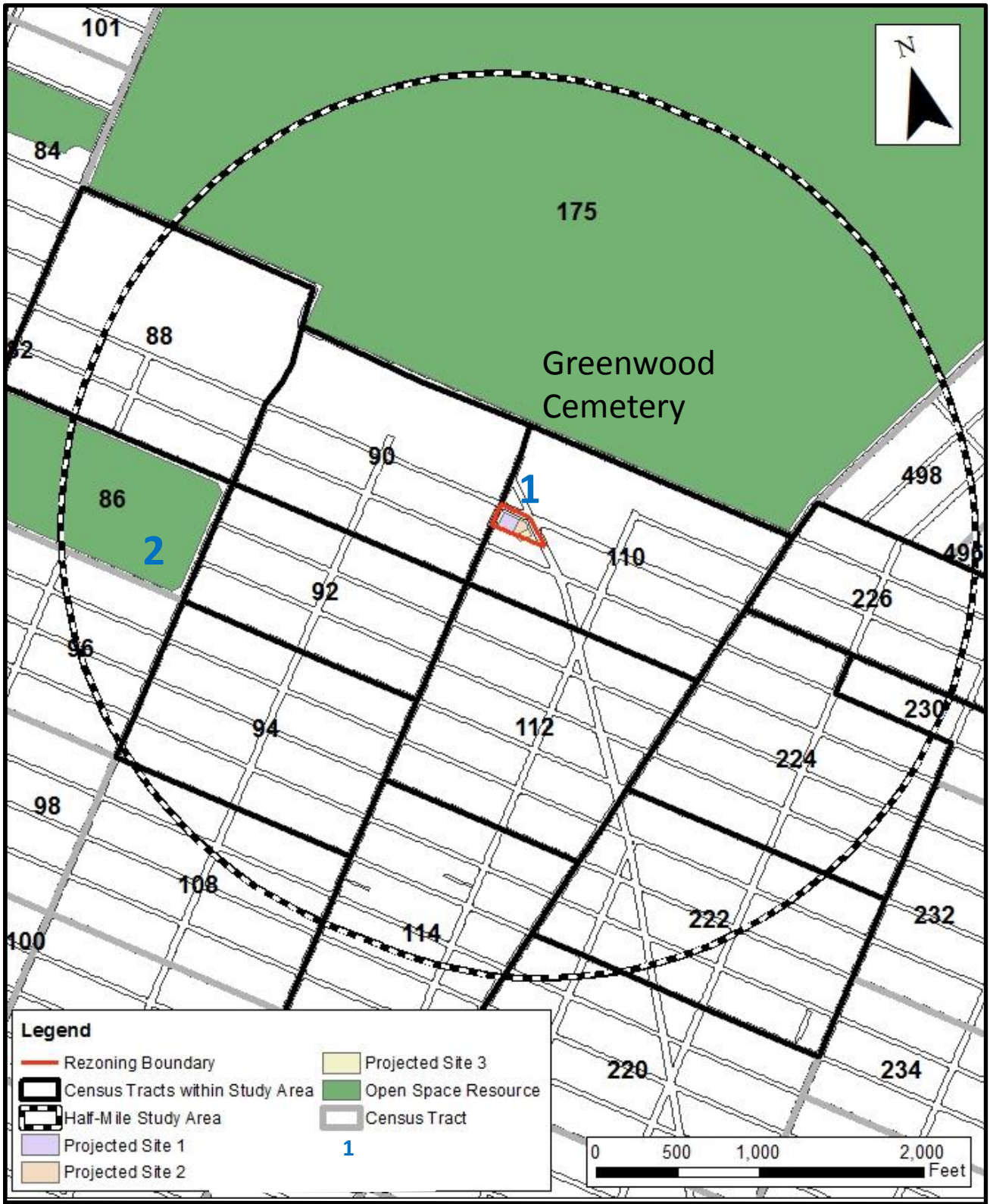
Open Space Study Area

Figure 2.2-1



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Open Space Resources

Figure 2.2-2

2.3 SHADOWS

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

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 more towards the south than shadows during 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 required only if the project would either result in: (a) new structures (or additions to existing structures including the addition of rooftop mechanical equipment) of 50 feet or more; or, (b) be located adjacent to, or across the street from, a sunlight-sensitive resource. However, a project located adjacent to or across the street from a sunlight-sensitive open space resource (which is not a designated New York City Landmark or listed on the State/National Registers of Historic Places, or eligible for these programs) may not require a detailed shadow assessment if the project's height increase is ten feet or less.

The sunlight-sensitive resources of concern are those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity, including public open space, architectural resources and natural resources. In general, shadows on city streets and sidewalks or on other buildings are not considered significant. Some open spaces also contain facilities that are not sensitive to sunlight. These are usually paved such as handball or basketball courts, 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 proposed actions involve the construction of a new approximately 80-foot tall, six-story plus cellar building. The site is located near Heffernan Triangle, which is a public plaza controlled by the NYC Department of Parks and Recreation across 39th Street from the Project Site. Therefore, further shadow screening assessments were performed to determine if the proposed actions could result in an increase in shadows falling on any nearby sun-sensitive resources.

2.3.1 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 is generally required 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 noted in the *CEQR Technical Manual*,

the screening assessment and subsequent shadow assessment were performed for the proposed eight-story structure.

Tier 1 and 2 Screening Assessments

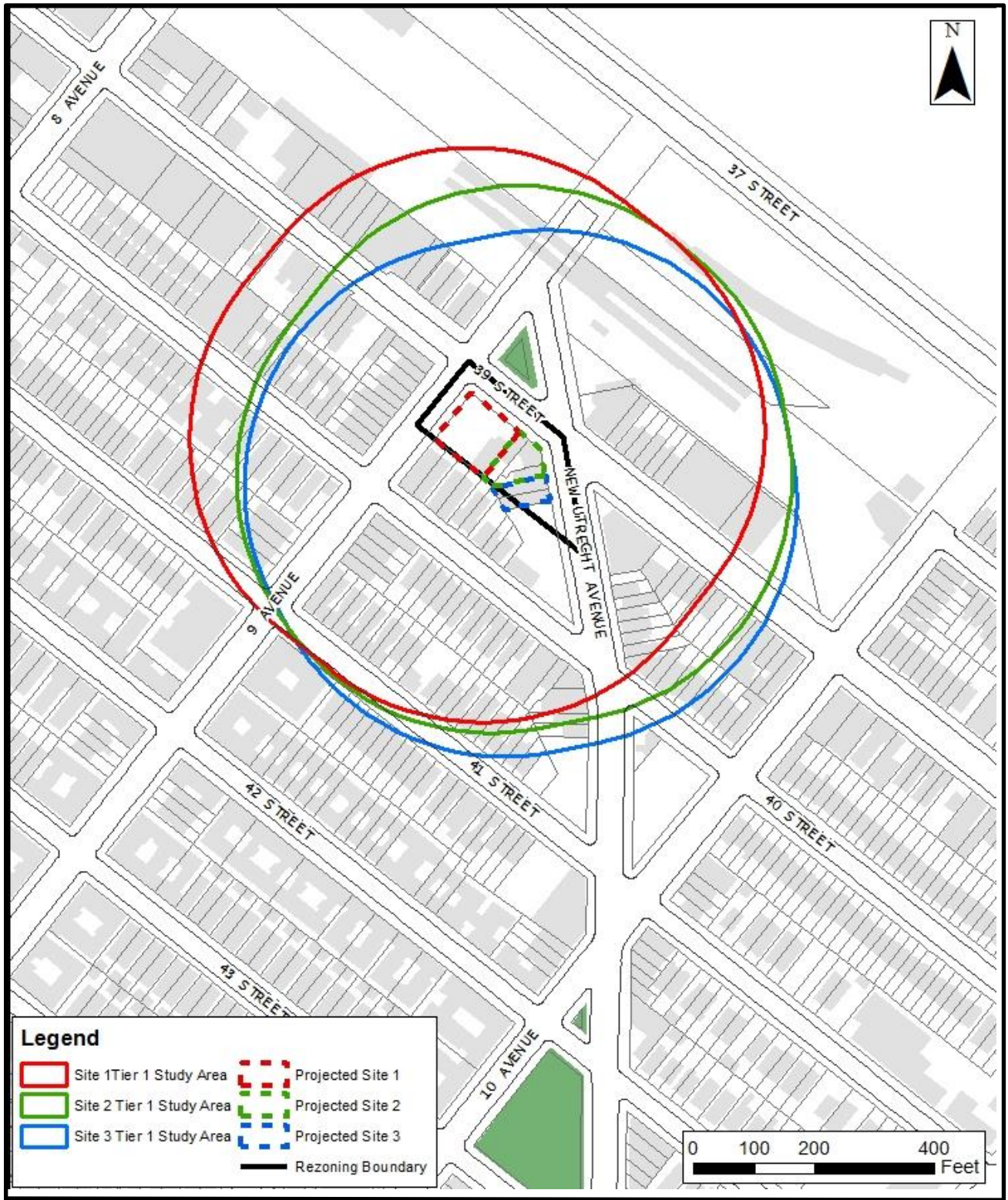
The first step in the preliminary shadow screening assessment is a Tier 1 Screening Assessment. A base map is developed that illustrates the proposed site location in relationship to any sunlight-sensitive resources. The longest shadow study area is then determined, which encompasses the site of the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

A shadow radius of 4.3 times the maximum height (95 feet) of the proposed eight-story building (plus bulkhead) was performed, resulting in shadow radius of approximately 408 feet. As shown in **2.3-1**, the results of the Tier 1 screening assessment show that only Heffernan Triangle is situated within the Tier 1 maximum shadow analysis area. No other open space or cultural and historic resources are located within the potential shadow radius.

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 the 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 the proposed project. The *CEQR Technical Manual* further notes that if a sunlight-sensitive feature on an architectural resource is located on a facade that faces directly away from a proposed Project Site (i.e. when an architectural resource is west of the proposed Project Site and the sun-sensitive feature is on the west facade of that structure), no further shadows assessment is needed for that particular resource, because no shadows from a proposed project could fall on that sunlight-sensitive face.

As also shown in **Figure 2.3-1a**, the results of the Tier 2 screening assessment show that no sunlight-sensitive resources are located within the Tier 2 study area. Therefore, based on the results of the Tier 1 and 2 screening assessment, a Tier 3 screening assessment is required for the sole identified sunlight-sensitive open space resource (Heffernan Triangle).



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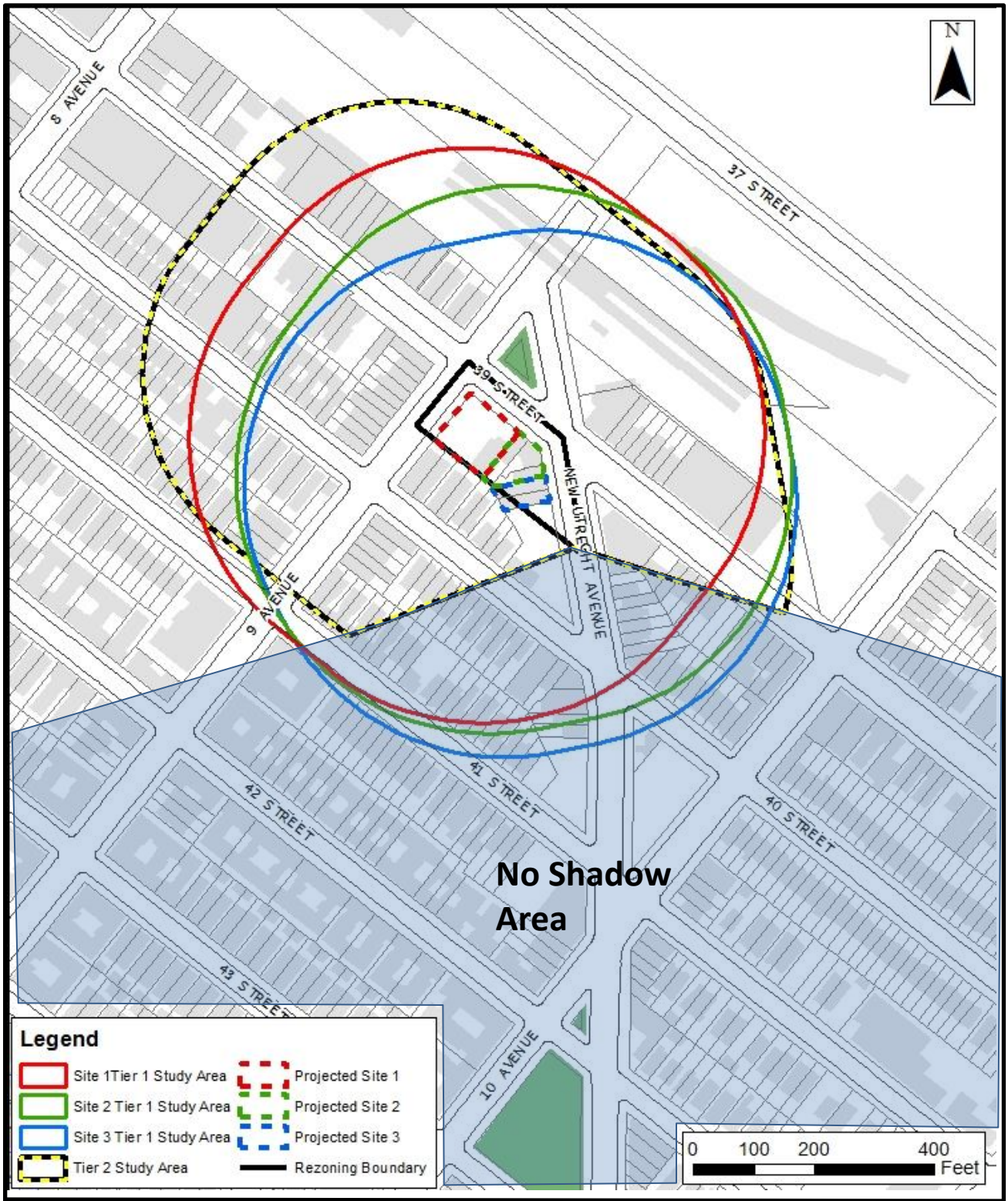
Tier 1 Shadow Analysis

Figure 2.3-1



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Tier 2 Shadow Analysis

Figure 2.3-1a

Tier 3 Screening Assessment

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

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

The results of the Tier 3 screening are shown in **Figures 2.3a** through **2.3d**. The results of the Tier 3 screening demonstrate that shadows have the potential to be cast into Heffernan Triangle on the March, May, June, and December analysis days. Therefore, a detailed shadow analysis is warranted for the analysis dates of March 21st, May 6th, June 21st, and December 21st.

2.3.2 Detailed Shadow Analyses

The *CEQR Technical Manual* states that a detailed shadow analysis is warranted when the screening analyses does not rule out the possibility that project-generated shadows would reach any sunlight-sensitive resources. The detailed shadow analysis establishes a baseline condition (the Future No-Action Condition) that is compared to the future condition resulting from the proposed project (the Future With-Action Condition), to illustrate the shadows cast by existing or future buildings and distinguish the additional (incremental) shadow cast by a project.

To evaluate the extent and duration of the 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 project, the Project Site would remain vacant and unimproved, 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.

Under the Future With-Action Condition, the proposed building would cast shadows onto the adjacent park from the proposed eight-story building. All of the shadows cast from the proposed building are considered net new incremental shadows, as no shadows would cast under the Future No-Action Condition.

The results of the detailed shadow analyses on the identified resource of concern are noted in **Table 6** and illustrated in **Figures 2.3-2a** and **2.3-2j**, showing net incremental shadows durations and enter and exit times within Heffernan Triangle. For the identified resource, the table details the times when net new incremental shadows enter and exit the open space, as well as the duration of net new incremental shadows during each analysis date. Results are further described below.

On the December 21st study date, net new incremental shadows would enter the western section of the park at around 9:55 a.m., which is the beginning of the analysis period, and exit the park at the end of the study period at 2:53 p.m., lasting for approximately four hours and fifty-eight minutes. On December 21st, the maximum amount of coverage of the park would be approximately 1,300 square feet (approximately 0.03 acres).

On the March 21st study date, net new incremental shadows would enter the southwestern section of the park around 12:30 p.m. and exit the park at approximately 4:29 p.m., lasting for approximately three hours and 59 minutes. During this time, portion of the resource would receive net new shadows. On March 21st, the maximum amount of coverage of the park would be approximately 1,200 square feet (approximately than 0.028 acres).

On the May 6th study date, net new incremental shadows would enter the southern section of the park around 2:20 p.m. and exit the park at approximately 3:55 p.m., lasting for approximately one hour and thirty-five minutes. During this time, only a small section of the western and southern portion of the resource would receive net new shadows. On May 6h, the maximum amount of coverage of the park would be approximately 400 square feet (less than 0.02 acres).

On the June 21st study date, net new incremental shadows would enter the western section of the park around 3:50 p.m. and exit the park at approximately 4:40 p.m., lasting for approximately 50 minutes. During this time, a section of the southern portion of the resource would receive net new shadows. On June 21st, the maximum amount of coverage of the park would be approximately 600 square feet (less than 0.02 acres).

Table 6 Detailed Shadow Analysis Table

Resource **Time Frame Window**	**December 21** **8:51 a.m. – 2:53 p.m.**	**March 21 / September 21** **7:36 a.m. – 4:29 p.m.**	**May 6 / August 6** **6:27 a.m. – 5:18 p.m.**	**June 21** **5:57 p.m. – 6:01 p.m.**
Heffernan Triangle				
Net Shadows Enter – Exit Times	9:55 a.m. – 2:53 p.m.	12:30 p.m.-4:29 p.m.	2:20 p.m. – 3:55 p.m.	3:50 p.m.-4:40 p.m.
Net Incremental Shadow Duration	4 hours, 58 minutes	3 hour, 59 minutes	1 hour, 35 minutes	50 minutes

Note: Daylight Saving Time not used/not applied (per CEQR)

Summary of 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 spaces 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 stated in the *CEQR Technical Manual*, in order to determine impact significance, an incremental shadow is generally not considered significant when its duration is no longer than 10 minutes at any time of year and the resource continues to receive substantial direct sunlight. A significant shadow impact generally has the potential to occur when an incremental shadow of 10 minutes or longer falls on a sunlight sensitive resource and, for open space utilization, a substantial reduction in the usability of open space as a result of increased shadow. For any sunlight-sensitive feature of a resource, complete elimination of all direct sunlight on the sunlight-sensitive feature of the resource, when the complete elimination results in substantial effects on the survival, enjoyment, or, in the case of open space or natural resources, the use of the resource, could result in a significant shadow impact.

As shown above in **Table 6**, shadows from the proposed building would be cast on Heffernan Triangle during the entirety of the analysis period on December 21st, the afternoon periods on March 21st and September 21st, the later afternoon period on May 6th and August 6th, and the later afternoon and early evening on June 21st. Heffernan Triangle, which is approximately 0.1 acres, is mostly paved and contains passive open space elements such as perimeter benches that provide seating. The park vegetation consists of a limited number of trees and shrubs and grass. This variety of vegetation does not appear to be species that would be adversely affected by the partial loss in sunlight associated with the proposed project. Trees surround the Heffernan triangle and in essence, provide a “canopy” like effect for the seating areas, making it difficult for sunlight to reach the resource.

As indicated in the detailed shadow analysis above, incremental shadows are projected to be cast on Heffernan Triangle for four hours and 58 minutes during the December analysis period, and three hours and 59 minutes during the March analysis period, one hour and 35 minutes during the May analysis period, and 50 minutes during the June analysis period. On December 21st, the shadow would cover the entirety of the resource at 1:00 pm. However, as the shadow “sweeps” from west to east, neither the seating area nor the vegetation would be covered by the proposed building shadow for more than half of the analysis day.

During the May analyses period, the resource would not receive any new incremental shadows until the afternoon and as the day passes, the resource would have no more than 500 square feet at any given time of new incremental shadows. This new shadow would be on the southern portion of the park, where there are not benches for seating or any shrubs or bushes. Furthermore, much the same holds true for the June analysis period, where new incremental shadows would hit the resource until the later afternoon period and would exit the park by 3:55 p.m. This new shadow would be on the southern portion of the park, where there are not benches for seating or any shrubs or bushes.

Southeastern Portion of Heffernan Triangle

The southeastern portion of Heffernan Triangle is the portion of the open space resources that would be most affected by the projected shadows during both the Spring and Autumnal solstices, as well as the May 6th analysis date. Most of the sunlight sensitive elements, such as benches are tress are not located in this portion of the open space. Most of the benches are located on the northern and western portions of the open space, with only two benches being located on the southern portion of Heffernan Triangle. Furthermore, most of the trees within the open space are concentrated along the northern and western portions of the open space as well.

Use of Heffernan Triangle

Heffernan Triangle is a very small open space, coming in at 0.1 acres. The triangle is directly adjacent to both a bus stop and the 9th Avenue stop on the D train. The area in and of itself is very transient. Based on two site visits and observation, most of the people sitting on the benches were on lunch breaks from nearby local businesses or waiting for the bus (area is transient in nature).

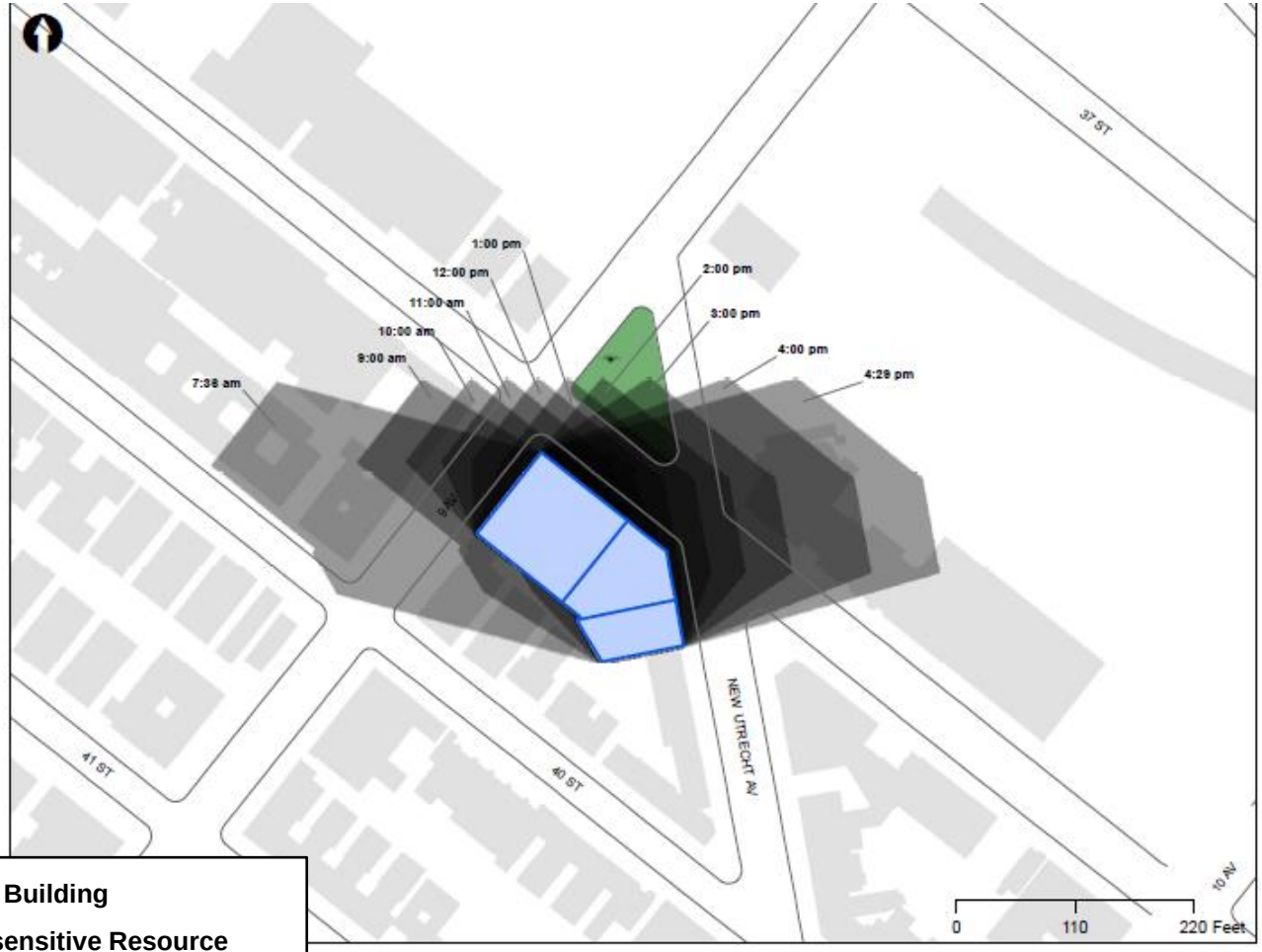
December 21st Shadow Analysis

The December 21st analysis period is the analysis period in which the open space would be affected by incremental shadows for the longest duration with the most potential shadow coverage. The potential shadows would begin to cast a shadow on the open space starting from the western portion of the park moving in a sweepingly eastern direction starting at just before 10am. By 11am, approximately 25 percent of the open space, mostly the southwestern portion, would be covered by incremental shadow from the projected development. By noon, approximately 75 percent of the open space would be covered by incremental shadow from the projected development, with only the very northern portion of the open space not being covered by incremental shadow. By 1pm, the entirety of the open space, (0.1 acres) would be covered by potential shadows from the projected development and would remain so until 253pm when the analysis period ends and the shadow begins to wane off the open space. **(Figures 2.3-2j-2.3-2n)**

Further Analysis

During the March analysis period, the open space would experience at the most approximately 25 percent coverage due to incremental shadows from projected development. Most of which is concreted in the southwestern portion of the open space which does not contain trees nor benches. During the May analysis period, the open space would experience at the most approximately 20 percent coverage due to incremental shadows from projected development. Again, most of which is concreted in the southwestern portion of the open space which does not contain trees nor benches. The same pattern holds true for the June analysis period, where only about 5 percent of the open space would receive any incremental shadow, again with most of it being located in the southwestern portion of the open space.

Given the above statements, the proposed building would not result in a substantial reduction in the usability of this open space secondary to project-induced shadow, nor would it deprive vegetation of all sunlight that is needed to grow or result in a substantial reduction in sunlight available to users less than the minimum time necessary for its survival. Therefore, significant adverse impacts are not expected from incremental shadows as a result of the proposed actions, and further shadow analyses are not warranted.



Proposed Building

Sunlight-sensitive Resource

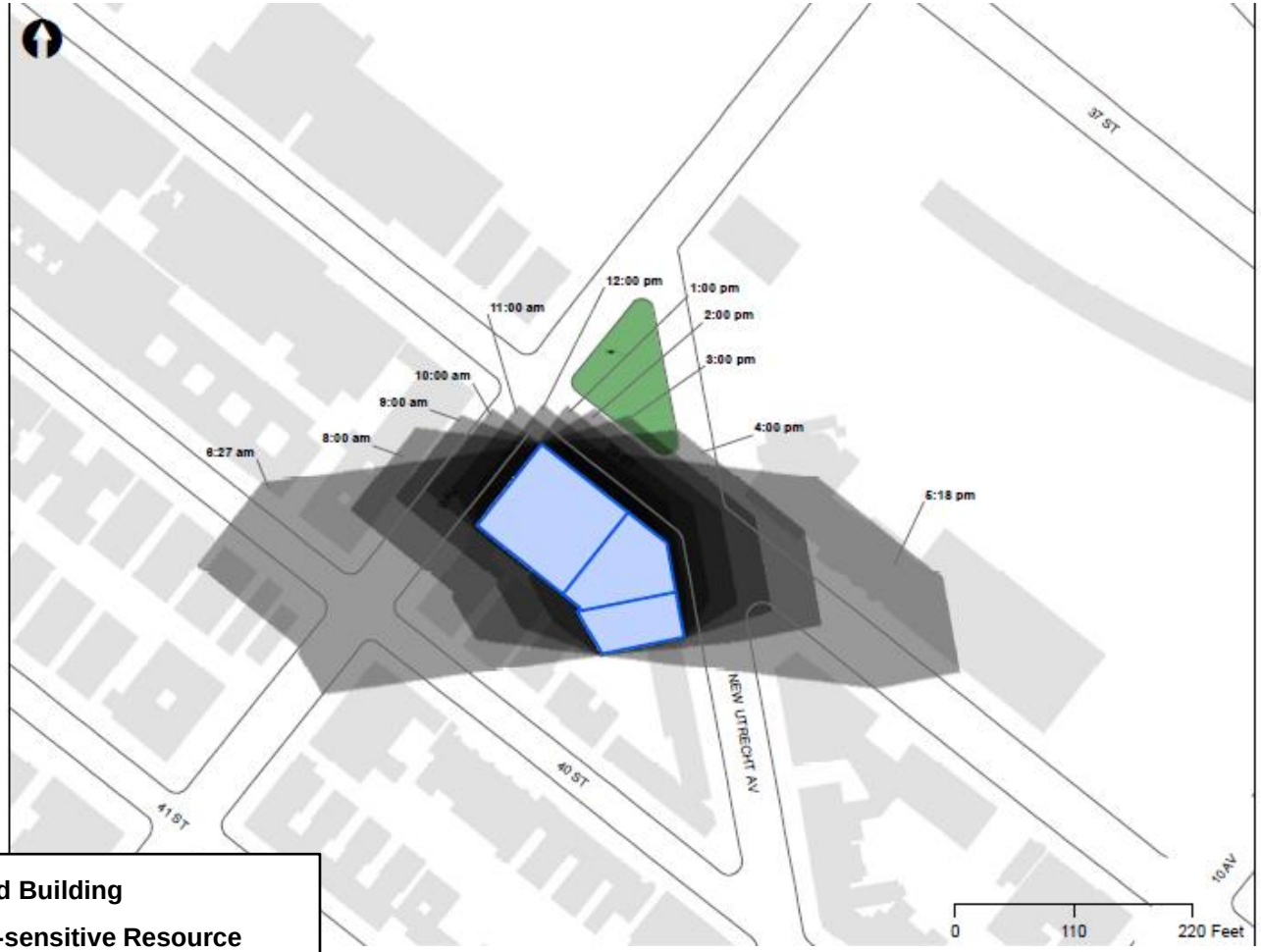
Shadow from Proposed Building

AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Tier 3 Shadow Analysis March 21st

Figure 2.3a



Proposed Building

Sunlight-sensitive Resource

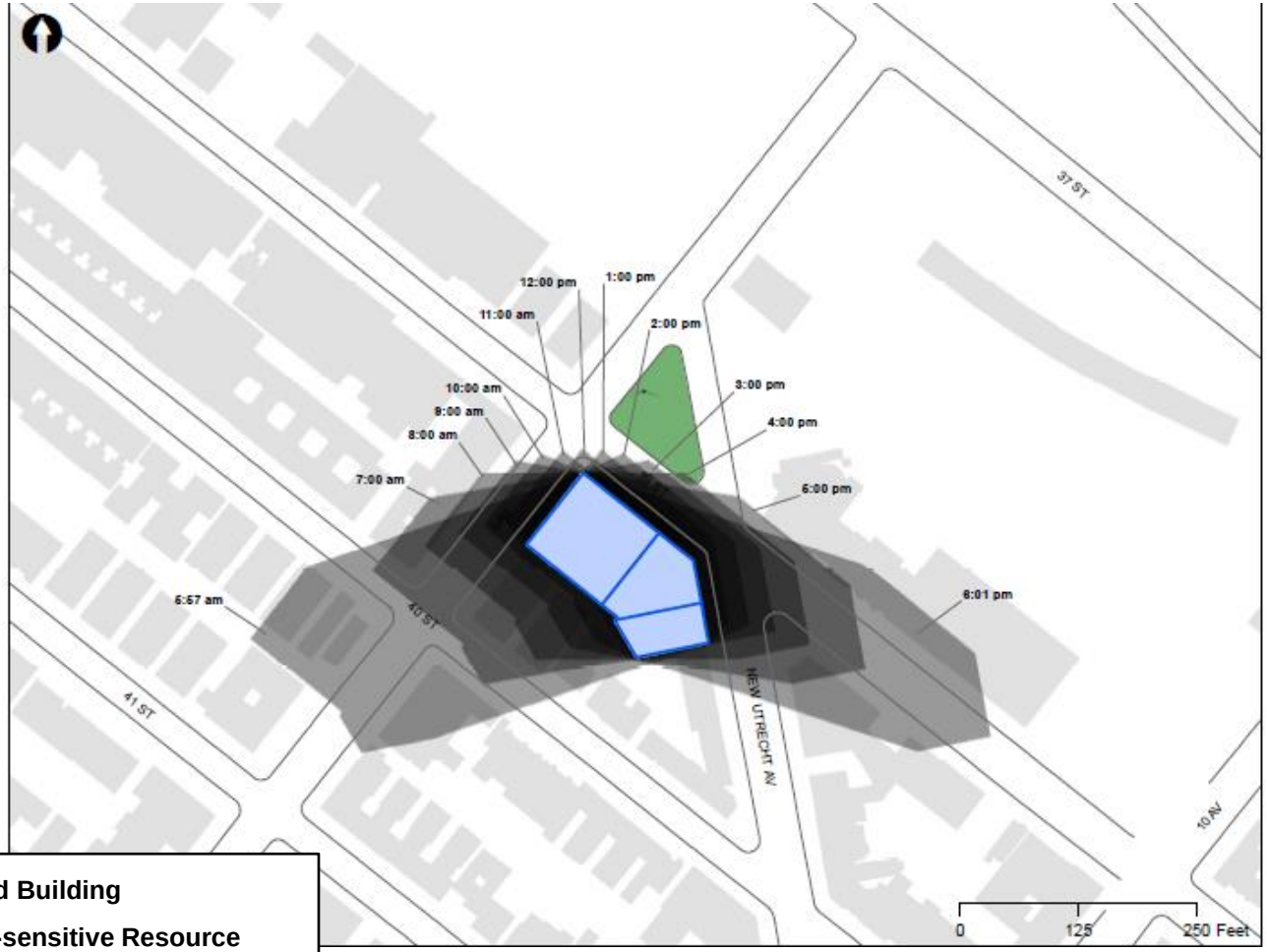
Shadow from Proposed Building

AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Tier 3 Shadow Analysis May 6th

Figure 2.3b



Proposed Building

Sunlight-sensitive Resource

Shadow from Proposed Building

AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Tier 3 Shadow Analysis
June 21st

Figure 2.3c



Proposed Building

Sunlight-sensitive Resource

Shadow from Proposed Building

AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Tier 3 Shadow Analysis December 21st

Figure 2.3d



Proposed Building

Sunlight-sensitive Resource

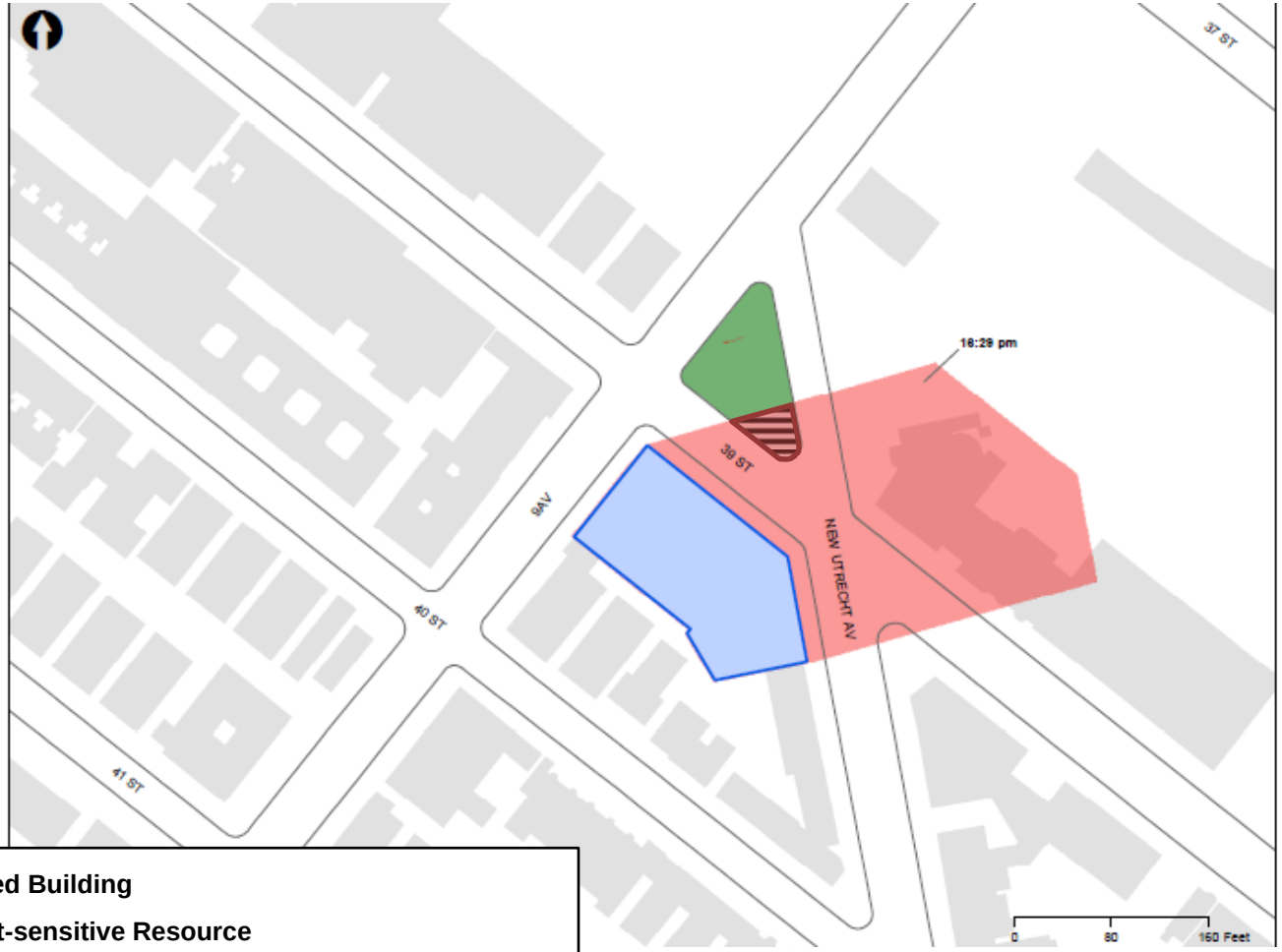
Incremental Shadow on Sunlight-sensitive Resource

AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Detailed Shadow Analysis
March 21st, 12:30 P.M.

Figure 2.3-2a



Proposed Building

Sunlight-sensitive Resource

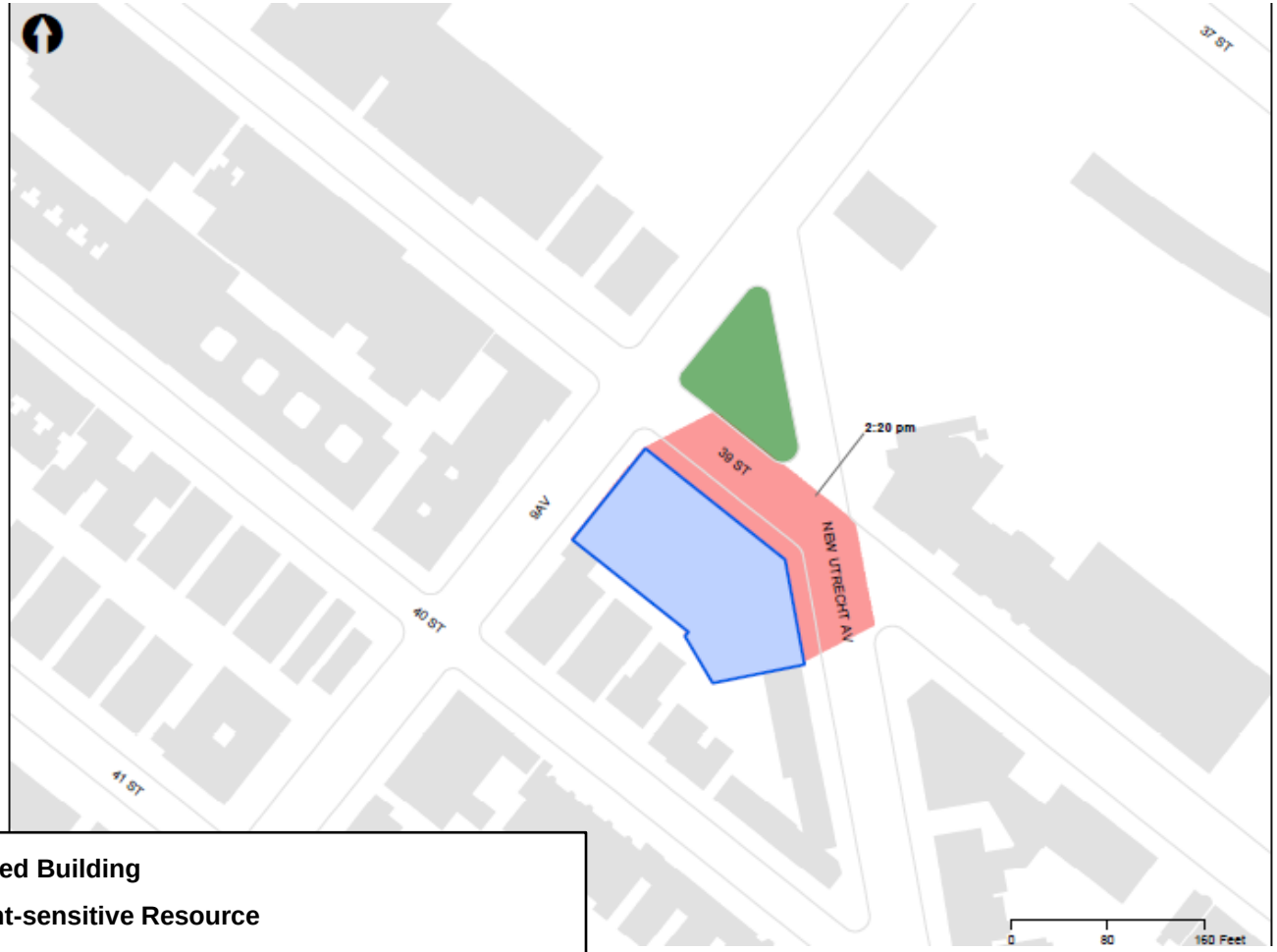
Incremental Shadow on Sunlight-sensitive Resource

AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Detailed Shadow Analysis
March 21st, 4:29 P.M.

Figure 2.3-2b

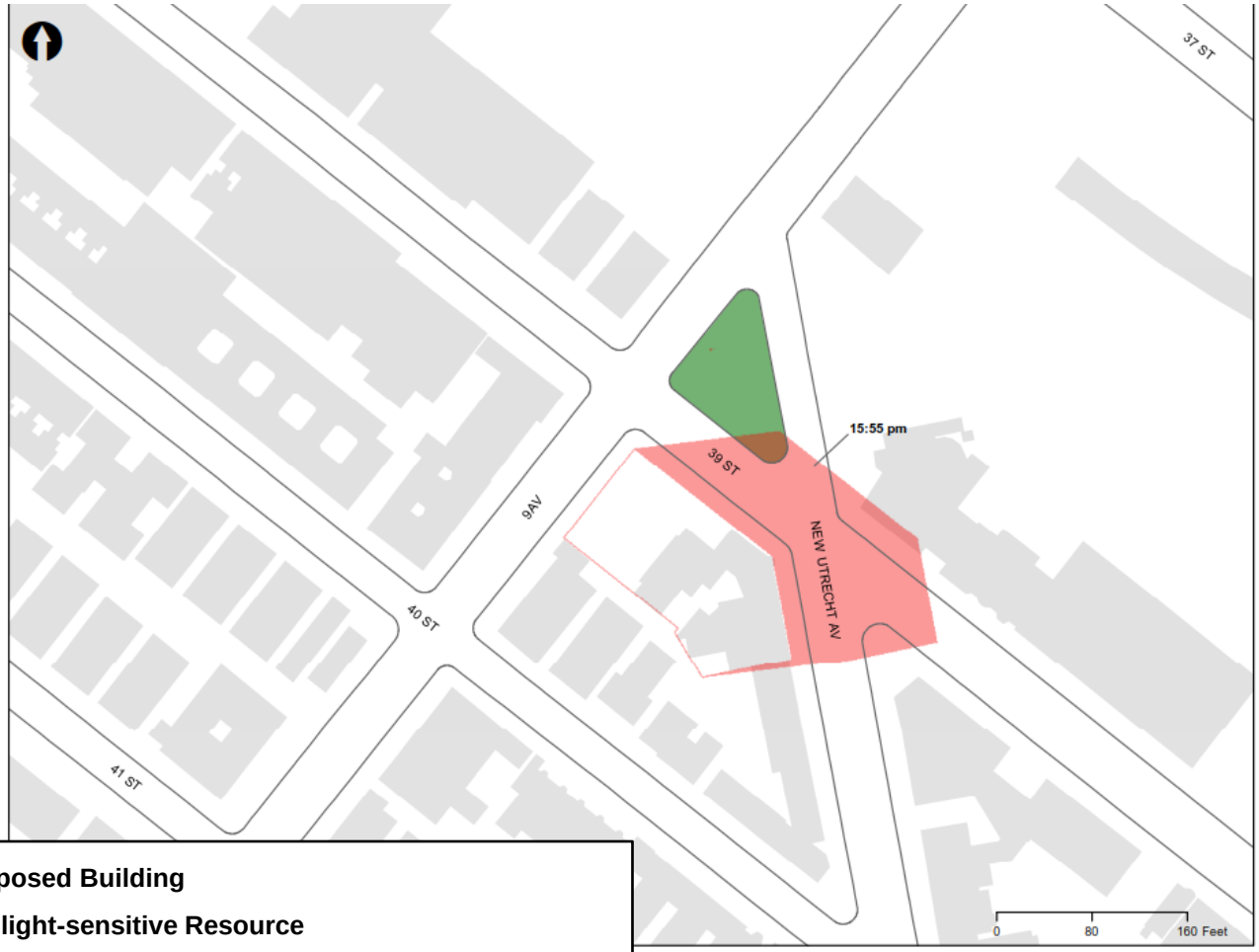


AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Detailed Shadow Analysis
May 6th , 2:20 P.M.

Figure 2.3-2c



Proposed Building

Sunlight-sensitive Resource

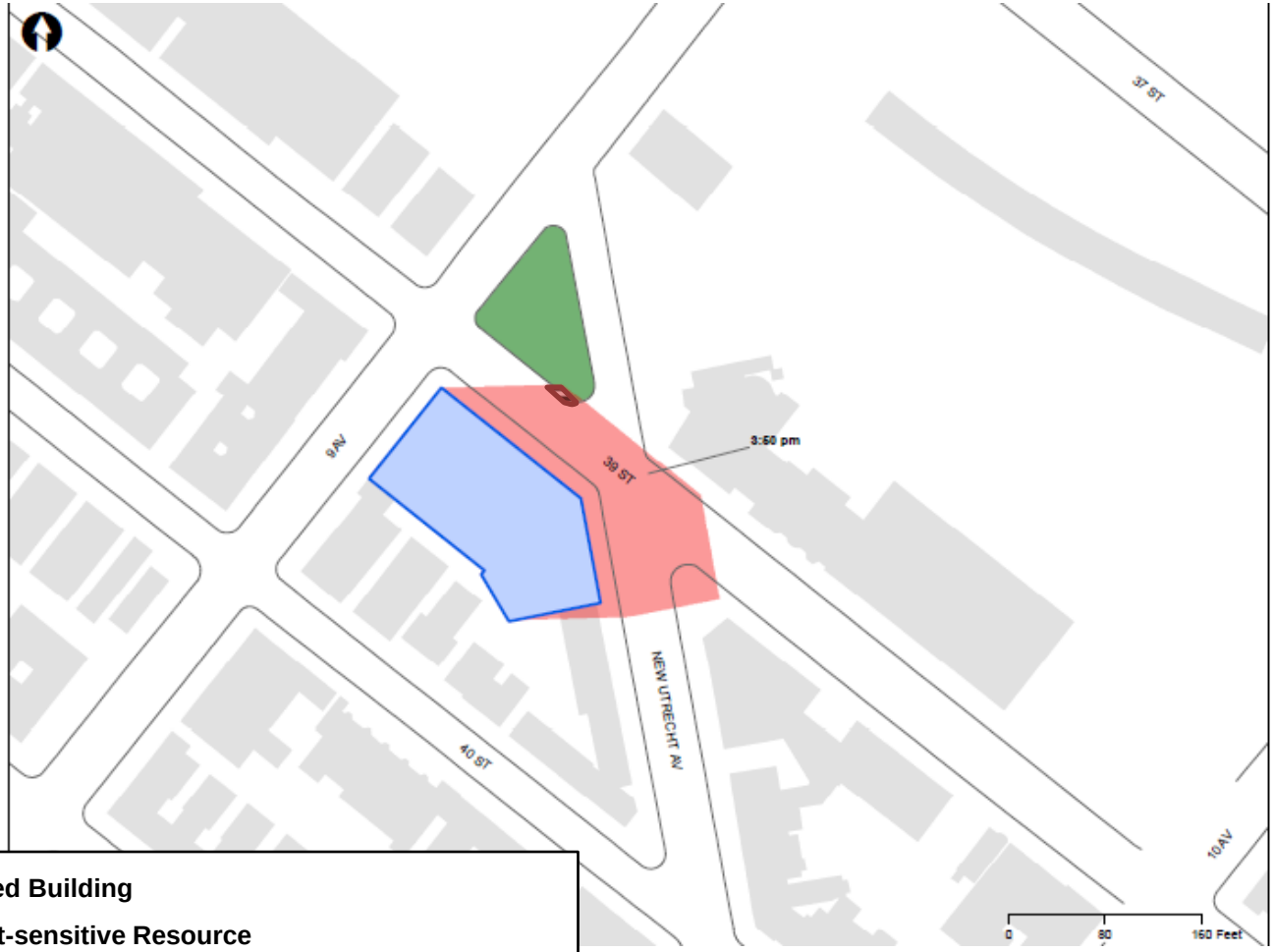
Incremental Shadow on Sunlight-sensitive Resource

AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Detailed Shadow Analysis
May 6th, 3:55 P.M.

Figure 2.3-2d



Proposed Building

Sunlight-sensitive Resource

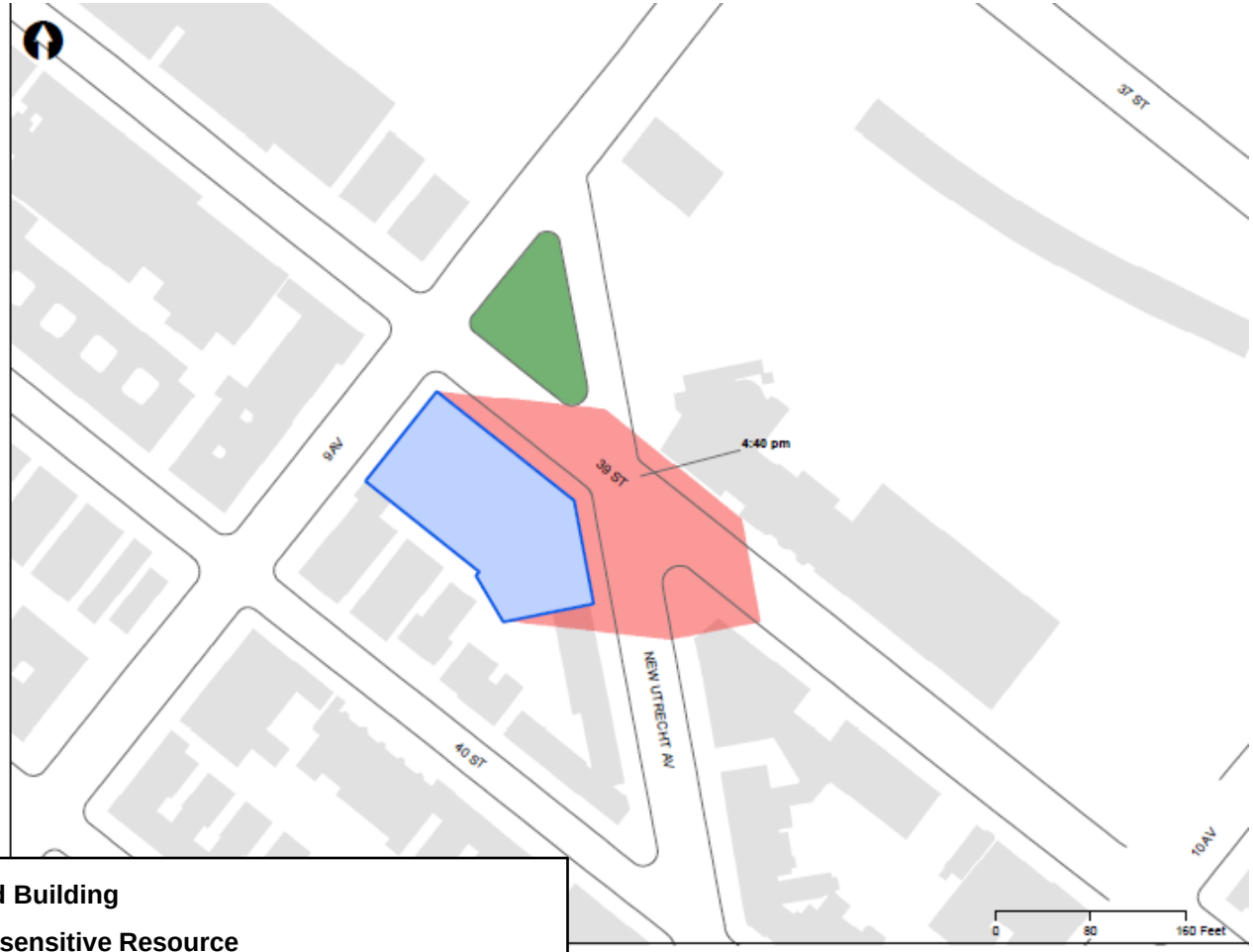
Incremental Shadow on Sunlight-sensitive Resource

AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Detailed Shadow Analysis
June 21st, 3:50 PM

Figure 2.3-2e



Proposed Building

Sunlight-sensitive Resource

Incremental Shadow on Sunlight-sensitive Resource

AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Detailed Shadow Analysis
June 21st, 4:40 P.M.

Figure 2.3-2f

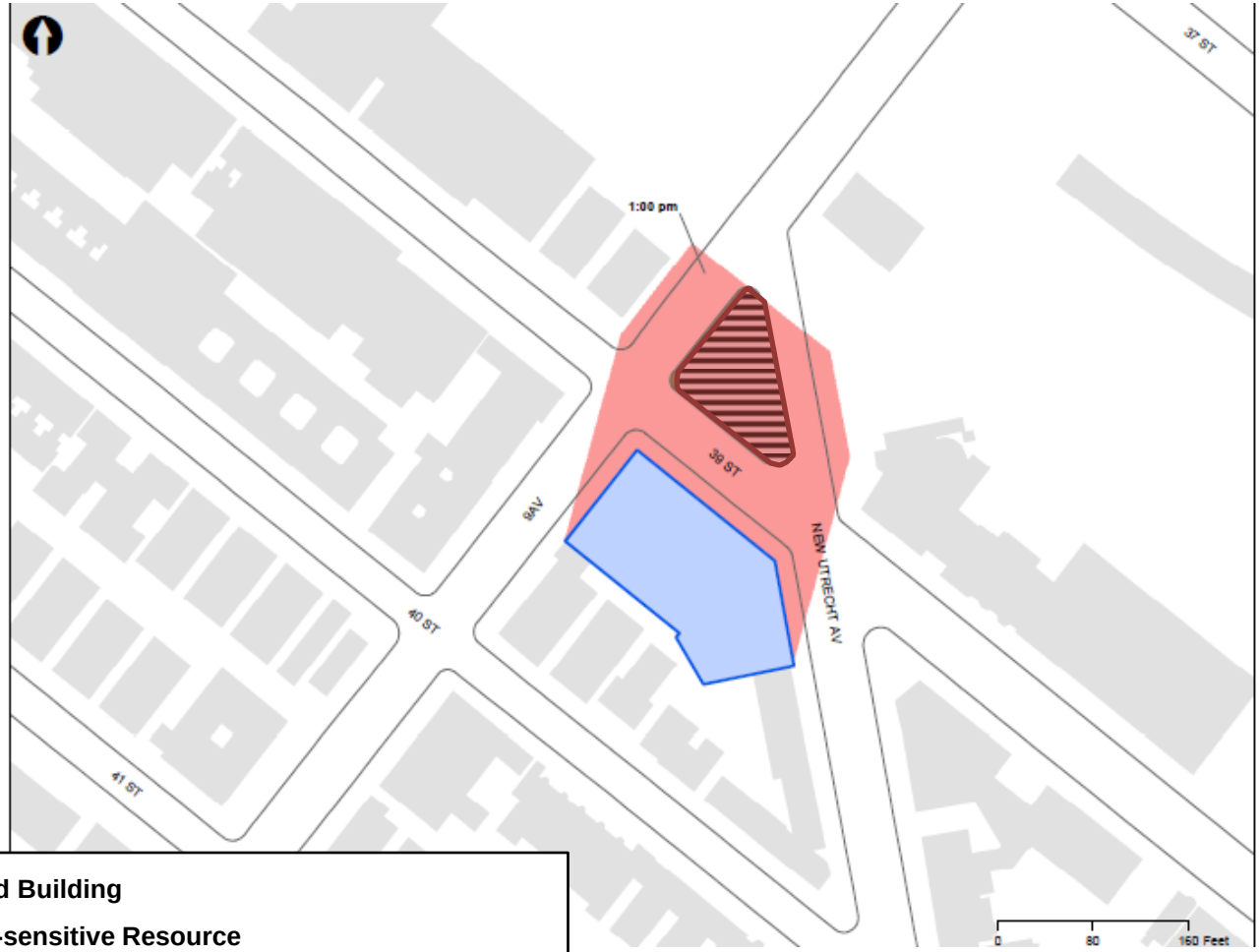


AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Detailed Shadow Analysis December 21st, 9:55 A.M.

Figure 2.3-2g



Proposed Building

Sunlight-sensitive Resource

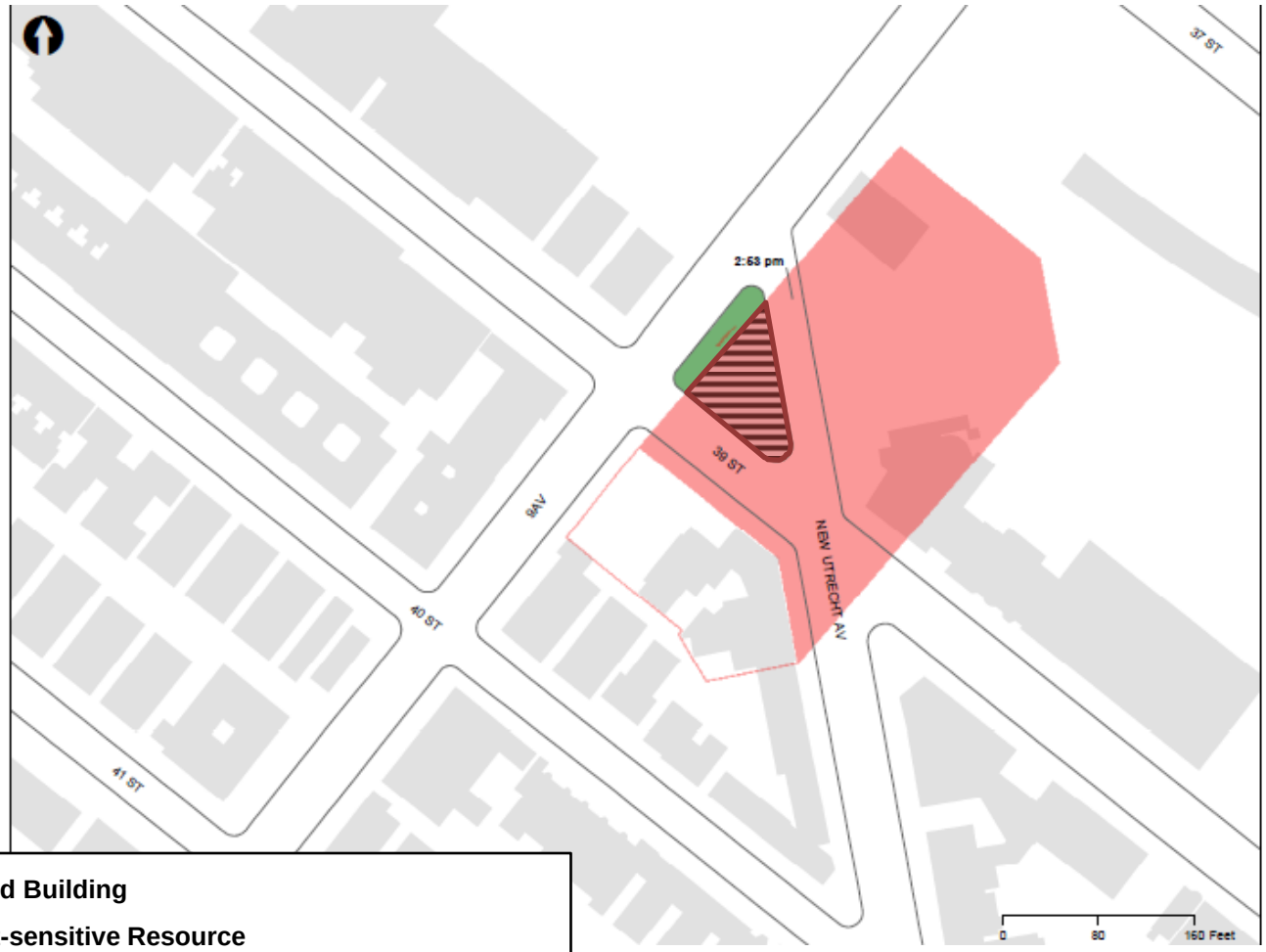
Incremental Shadow on Sunlight-sensitive Resource

AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Detailed Shadow Analysis December 21st, 1:00 P.M.

Figure 2.3-2h



Proposed Building

Sunlight-sensitive Resource

Incremental Shadow on Sunlight-sensitive Resource

AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Detailed Shadow Analysis December 21st, 2:53 P.M.

Figure 2.3-2i

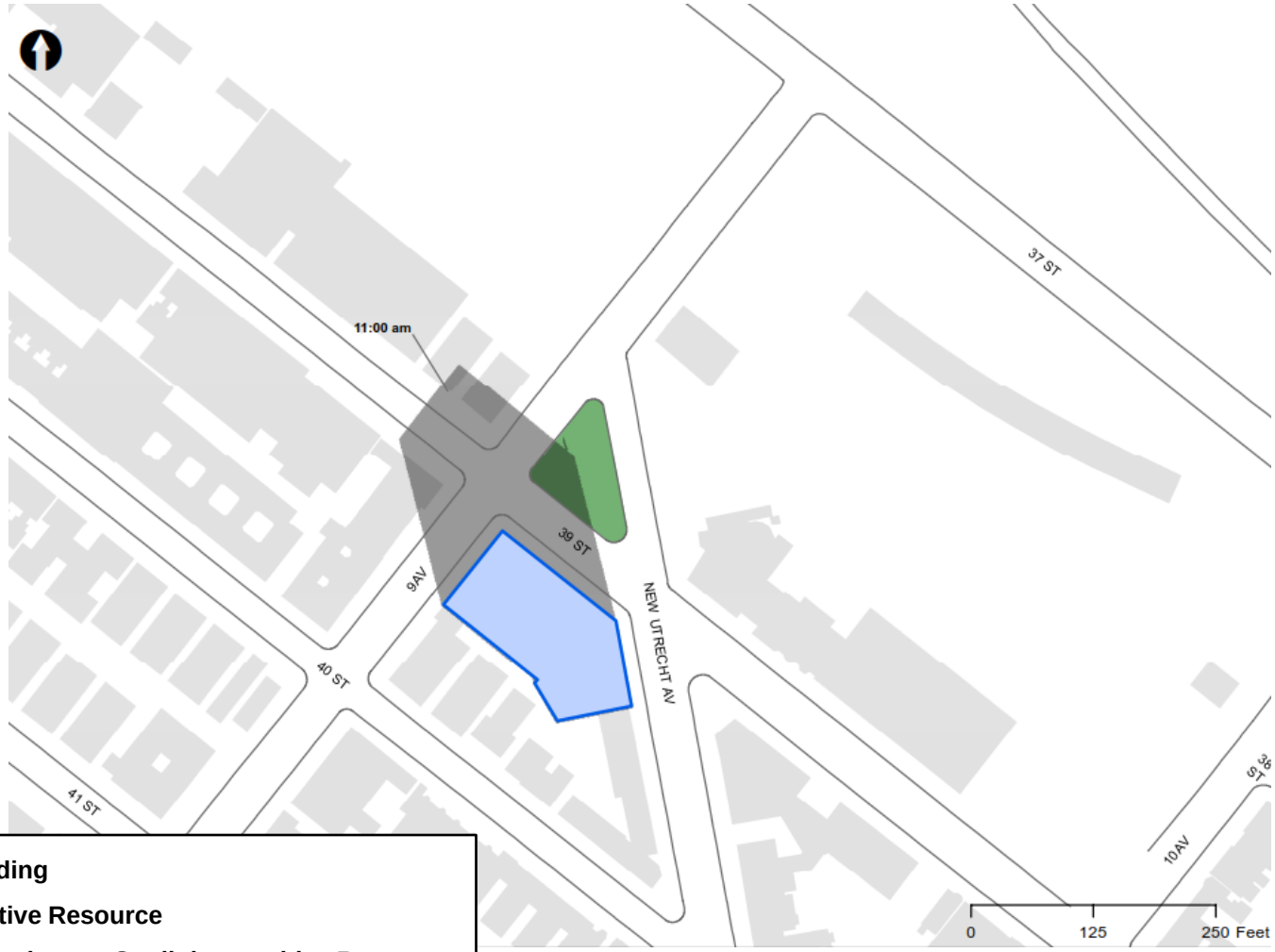


AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Detailed Shadow Analysis December 21st, 10:00 A.M.

Figure 2.3-2j

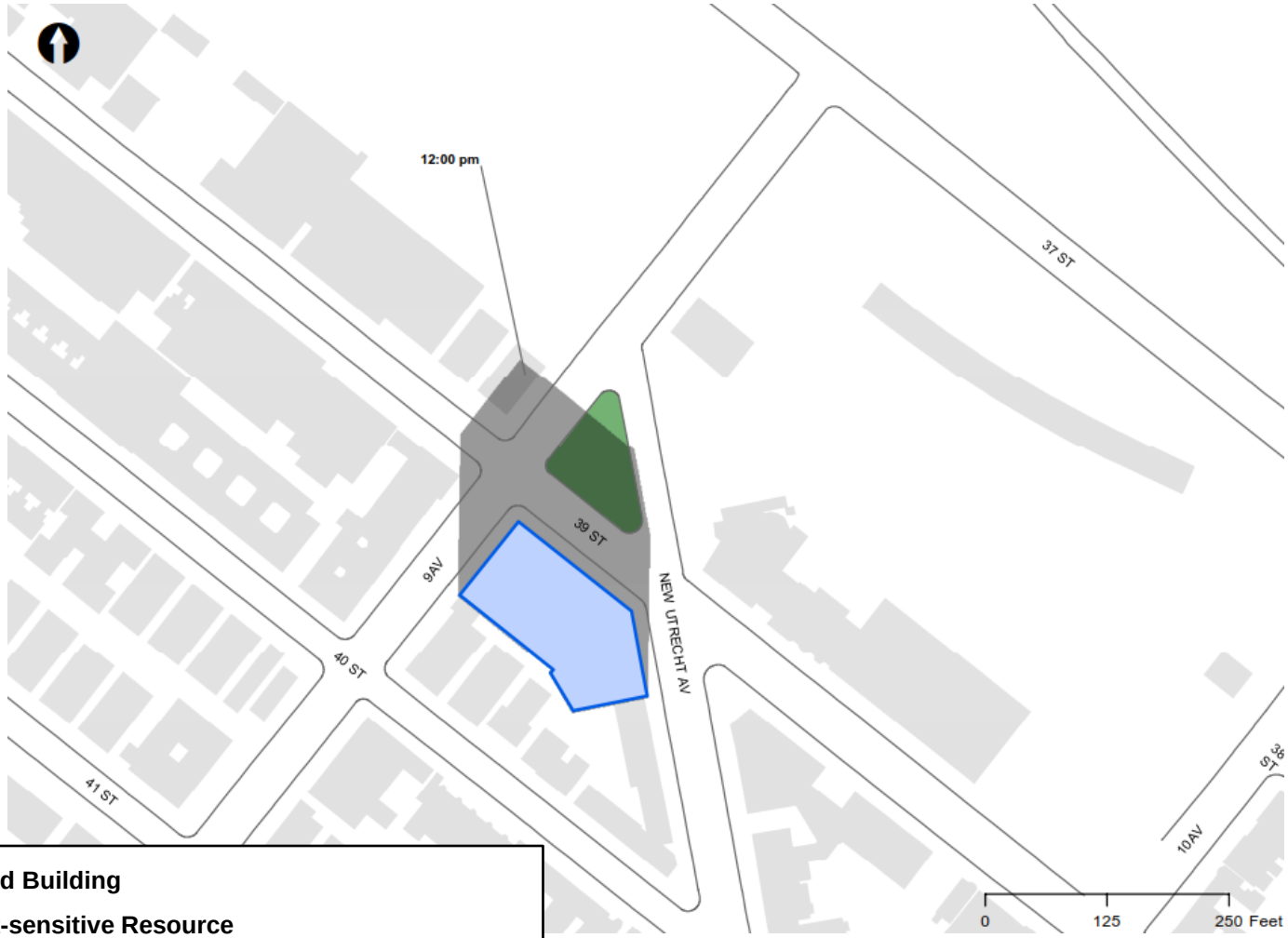


AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Detailed Shadow Analysis
December 21st, 11:00 A.M.

Figure 2.3-2k

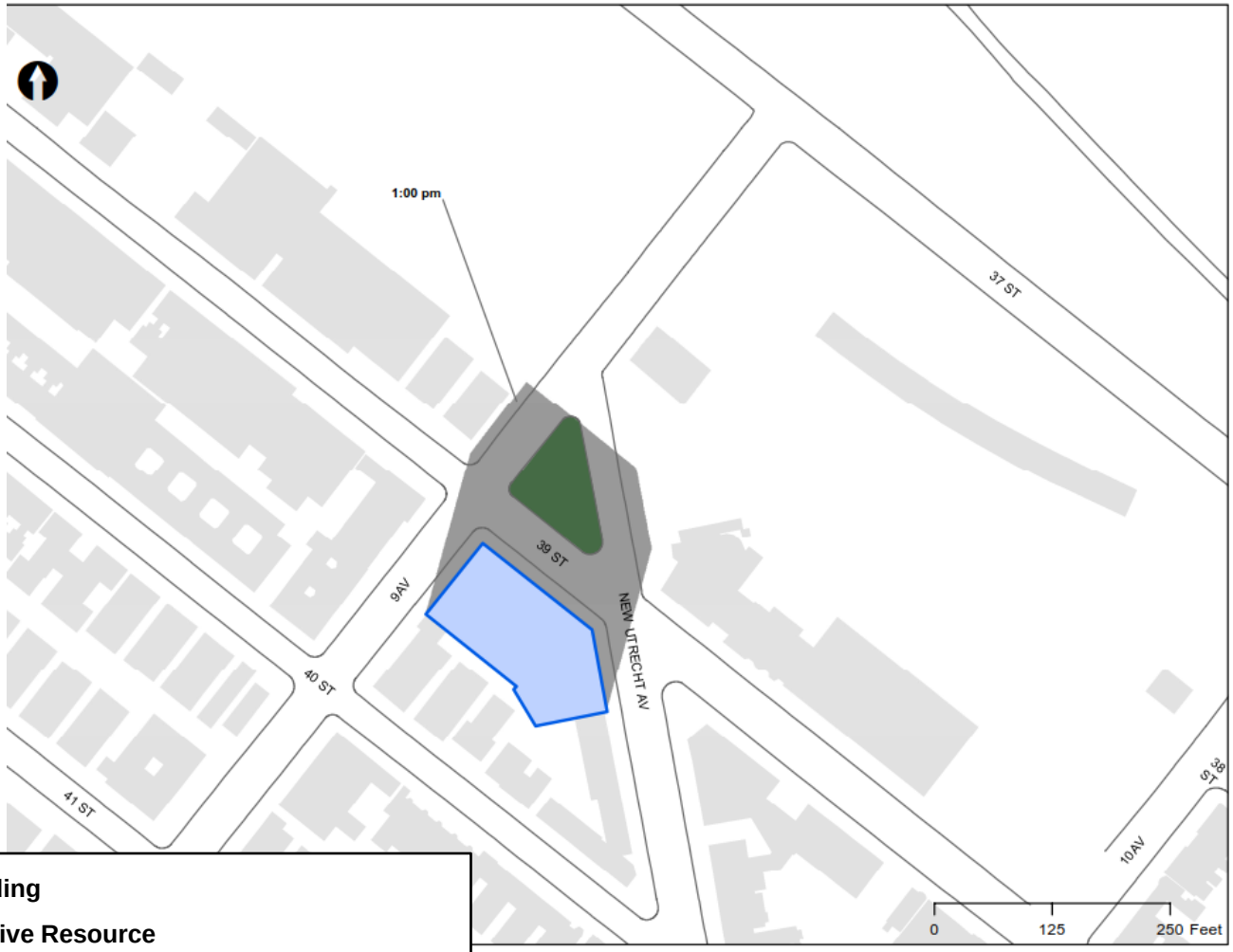


AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Detailed Shadow Analysis December 21st, 12:00 P.M.

Figure 2.3-2l

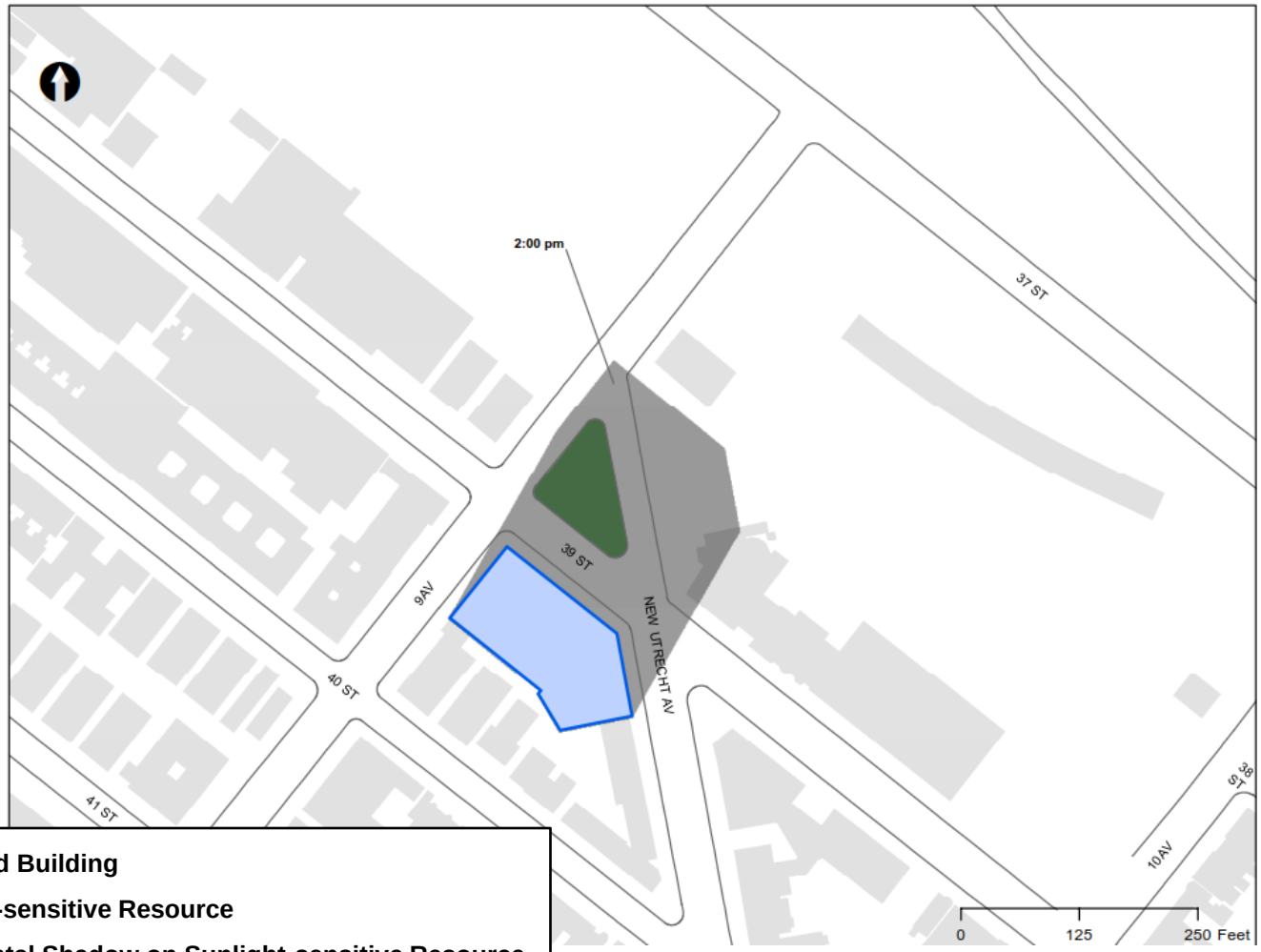


AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Detailed Shadow Analysis
December 21st, 1:00 P.M.

Figure 2.3-2m



AECOM

Environmental Assessment Statement
9th Avenue Rezoning
Brooklyn, NY

Detailed Shadow Analysis December 21st, 2:00 P.M.

Figure 2.3-2n

2.4 HISTORIC AND CULTURAL RESOURCES

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

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.

Architectural Resources

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

The projected development site is not a designated local or S/NR historic resource or property, nor is the site part of any designated historic district. The LPC was contacted for their initial review of the project’s potential to impact nearby historic and cultural resources, and a response was received on July 15, 2016, indicating that no sites within the rezoning area have any architectural significance (see **Appendix B**).

In order to determine whether the projected development has the potential to affect nearby off-site historic or architectural resources, the study area was screened for historic and architectural resources. No historic or architectural resources were identified within the 400-foot study area. Therefore, no significant adverse impacts on historic or architectural resources are expected as a result of the proposed action, and further assessment is not warranted.

Cultural and Archaeological Resources

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

All lots in the study area are presently improved with structures occupying a portions or the entirety of their respective lots. As noted, the LPC was contacted for their initial review of the project’s potential to impact nearby historic and cultural resources, and a response was received on July 15, 2016 (see **Appendix B**). The LPC has indicated that no cultural resource, architectural or archaeological significance is associated with the proposed development site or projected development sites. Therefore, significant adverse impacts to archaeological resources are not expected as a result of the proposed action, and further analysis is not warranted.

2.5 URBAN DESIGN AND VISUAL RESOURCES

According to the *CEQR Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. Elements that play an important role in the pedestrian's experience include streets, buildings, visual resources, open space, and natural features, as well as wind as it relates to channelization and downwash pressure from tall buildings.

The *CEQR Technical Manual* notes an urban design assessment considers whether and how a project may change the experience of a pedestrian in the project area. The assessment focuses on the components of a proposed project that may have the potential to alter the arrangement, appearance, and functionality of the built environment. In general, an assessment of urban design is needed when the project may have effects on one or more of the elements that contribute to the pedestrian experience (e.g., streets, buildings, visual resources, open space, natural features, wind, etc.). An urban design analysis is not warranted if a proposed project would be constructed within existing zoning envelopes, and would not result in physical changes beyond the bulk and form permitted "as-of-right" with the zoning district.

As the proposed actions would result in the construction of a new building that is not allowed "as-of-right" under the existing zoning, a preliminary analysis was conducted.

2.5.1 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 Project Site). The purpose of the preliminary assessment is to determine whether any physical changes proposed by a project may raise the potential to significantly and adversely affect elements of urban design, which would warrant the need for a detailed urban design and visual resources assessment.

Existing Conditions

A photographic key map is provided in the previously presented **Figure 1-3**; with ground-level photographs of the projected development site and the immediate surrounding area provided in the previously presented **Figure 1-4**.

The architecture throughout the study area is eclectic, with no unity of form to tie the built form together visually. The area is characterized by a mix of one- and two-family residential, multi-family residential, commercial, industrial/manufacturing, and isolated public facility and institutional uses. The norther portion of the study area features a large MTA New York City Transit repair shop. Several vacant lots also exist within the study area. The commercial uses are comprised of bodegas, delis, auto repair shops, a hotel and other local retail. The prevailing built form in the area is a mix of low- to mid-rise residential and small apartment buildings. There are also some mixed commercial and residential buildings with ground floor commercial and two to three stories of residential uses above the ground floor. Most buildings within the study area are arranged regular (parallel) with respect to their lot placement The MTA's 36th-38th Street Yards acts as a barrier of sorts between the study area and Greenwood Cemetery to the north.

There are few streetscape elements present within the study area and little in the way of visual interest. Most of the streets contain street trees, which are generally located at irregular intervals. Heffernan Triangle, a small triangular plaza with tress, and benches, is formed at the intersection of 9th Avenue, 39th Street, and New Utrecht Avenue. No other notable streetscape elements (e.g. benches) are located within the study area.

The street hierarchy of the study area includes several different functional classifications. 39th Street is classified as a Principal Arterial Other roadway. New Utrecht Avenue is classified s a Minor Arterial roadway. In the northern portion of the study area, north of 39th Street, 9th Avenue is classfiied as a Minor Arterial roadway as wel, but is classified as a local road south of 39th Street. All other roadways in the study area are classified as local roads.

Future No-Action Scenario

Under the Future No-Action Condition, significant changes to the study area are not expected by the analysis year of 2021. It is anticipated that while tenants within area buildings may change, the overall use of these buildings would remain the same, and any physical changes would comply with applicable zoning regulations. No significant changes to the area's urban character are anticipated.

Future With-Action Scenario

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 an 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.

The proposed development site at 3901 9th Avenue consists of one approximately 9,533 square foot lot occupied by a one-story Use Group 16 automobile sales lot. Under the Future With-Action scenario, the proposed actions would amend the zoning map to change the existing M1-2 and M1-2/R6 district to an R7A/C2-4 district. It is assumed that the proposed development site would be developed to the maximum FAR of 4.6 and a height of 95 feet. It is also assumed that Projected Site 2 (Lots 12, 13, and 15) and Projected Site 3 (Lots 16 and 17) would also be developed to the maximum FAR of 4.6 and a height of 95 feet.

While the proposed building would change views of the site as witnessed by pedestrians on New Utrecht Avenue, 9th Avenue, 39th Street, and other roadways, significant adverse impacts to urban design and visual resources would not occur. The proposed actions would not result in any conditions that would merit further detailed assessment of urban design and visual resources. While no other eighty-foot buildings are located within the project area, several other mid-rise buildings are found in the study area and surrounding area as well. The proposed actions would also not block any view corridors or views to/from any natural areas with rare or defining features, as the proposed building is contained to the subject site. Therefore, the proposed actions are not expected to result in any significant adverse urban design or visual resource related impacts. **Figures 2.5-1 to 2.5-4** highlight the No-Action Scenario and the future With-Action Scenario of the Applicant-owned site and Projected Sites 2 and 3.



Figure 2.5-1 No-Action Scenario- View 1



Figure 2.5-2 With-Action Scenario- View 1



Figure 2.5-3 No-Action Scenario- View 2



Figure 2.5-4 With-Action Scenario- View 2



Figure 2.5-5 No-Action Scenario- View 3



Figure 2.5-6 With-Action Scenario- View 3

2.6 HAZARDOUS MATERIALS

A hazardous material is any substance that poses a threat to human health or the environment. Substances that can be of concern include, but are not limited to, heavy metals, volatile and semi-volatile organic compounds (VOCs and SVOCs), methane, polychlorinated biphenyls (PCBs), and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive, or toxic). 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 Project Site is currently partially improved. Additionally, due to site's location in a manufacturing zoning district, further review of the Project Site's potential for contamination was conducted to determine the presence of on-site hazardous materials.

2.6.1 Summary of Phase I ESA

In December 2016, CDSP Inc. and Seacliff Environmental, Inc. performed a Phase 1 Environmental Site Assessment at the proposed development site (full report located in Appendices of this Supplemental Report to the EAS- **Appendix C**). The purpose of the ESA is to identify the presence of Recognized Environmental Conditions (RECs) that may be associated with the subject property, as defined by American Society of Testing Engineers (ASTM) E-1527-05. The Phase I ESA was conducted in general accordance with the scope and limitations of the ASTM International Standard E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process and the "due diligence" regulations of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Section 9601 (35)(b) of the Superfund Amendments and Reauthorization Act. The site is currently in use as an automobile sales lot and is partially improved. According to Property Shark, a car sales/rental facility/repair shop has been occupying the space since 1930s and 1940s. This listed tenant listed would not be considered a historical recognized environmental condition (HREC).

Based on the December 15, 2016 inspection and database review, CDSP and SEACLIFF have determined that there are no Recognized Environmental Conditions (RECs) with regard to 3901 Ninth Avenue in Brooklyn. Recognized Environmental Conditions are those conditions which could adversely affect the environmental integrity of the property. It should be noted that CDSP and SEACLIFF could not access the building.

A service station and auto repair shop occupied the site starting in the 1940's. The service station was closed in 1985 and gasoline tanks were removed from the site in 1987. Contaminated soil was excavated from the former tank areas, the site soil and groundwater sampled, and the NYSDEC spill file was closed in 2003. Any future major renovation or construction should include a soil vapor intrusion investigation.

2.6.2 Conclusions

To preclude the potential for significant adverse impacts, an (E) Designation would be provided for all lots included in all projected and potential development sites, including the applicant site (Block 5583, Lot 6), Projected Site 2 (Block 5583, Lots 12, 13, and 15), and Projected Site 3 (Block 5583, Lots 16-17). E-479 has been assigned to this project. The text of the (E) designation for would be as follows:

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

sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2-Remediation Determination and Protocol

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

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

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

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

2.7 TRANSPORTATION

According to the March 2014 *CEQR Technical Manual*, interrelationships between the key technical areas of the transportation system – traffic, transit, pedestrians, and parking – should be taken into account in any assessment, and the individual technical areas should be separately assessed to determine whether a project has the potential to adversely and significantly affect a specific area of the transportation system. The *CEQR Technical Manual* states that if an analysis is warranted, a preliminary trip generation assessment should be prepared to determine whether a quantified analysis of any technical areas of the transportation system is necessary. Except in unusual circumstances, a further quantified analysis would typically not be needed for a technical area if the proposed development would result in fewer than the following increments:

- 50 peak hour vehicle trips;
- 200 peak hour subway/rail or bus transit riders; or
- 200 peak hour pedestrian trips.

The *CEQR Technical Manual* also states that if the threshold for traffic is surpassed, a parking assessment may also be warranted. This chapter assesses the potential for project-generated vehicle, transit, and pedestrian trips to affect the local transportation network in the vicinity of the proposed development at 3901 9th Avenue, as well as an assessment of transportation safety in the study area.

In order to determine the number of trips generated by the proposed Action, trip generation estimates were prepared for each of the land uses proposed as part of the zoning amendment, namely residential, and local retail uses. Under the proposed Action, there would be an incremental increase of approximately 67 new dwelling units, approximately 12,723 square feet of new local retail space, and a loss of 1,962 gsf of transportation use on Block 5583 (**Table 7**).

Table 7- Development under the Proposed Action Scenario

Block	No-Action		With-Action		Increments	
	DUs	Local Retail	DUs	Local Retail	DUs	Local Retail
Sites 1, 2, 3	8	5,603	75	18,326	67	12,723
					0	0
TOTALS =	**8**	**5,603**	**75**	**18,326**	**67**	**12,723**

Tables 7a shows the estimated person-trips, for the proposed Action during the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours, as well as the associated transportation planning assumptions.

Table 7a
Estimated Peak Hour Person-Trip Generation Characteristics
9th Avenue Brooklyn Rezoning
Future With-Action Condition

Sites 1, 2, 3

Land Use	Size	Weekday Daily Person-Trip Rate	Saturday Daily Person-Trip Rate	Temporal Distribution (%)				Estimated Person-Trips			
				Weekday AM	Weekday MD	Weekday PM	Saturday MD	Weekday AM	Weekday MD	Weekday PM	Saturday MD
Residential	67 units	8.075 trips per DU	9.6 trips per DU	10.0%	5.0%	11.0%	8.0%	54	27	60	51
Local Retail	12,723 SF	205 trips per 1,000 sq. ft.	240 trips per 1,000 sq. ft.	3.0%	19.0%	10.0%	10.0%	78	496	261	305
Church	SF	19.18 per 1,000 sf	21.83 per 1,000 sf	7.9%	4.0%	7.2%	15.8%	0	0	0	0
Medical	SF	127 per 1,000 sf	127 per 1,000 sf	4.0%	11.0%	12.0%	11.0%	0	0	0	0
							TOTAL PERSON-TRIPS =	**132**	**523**	**320**	**357**

Residential trip rates and temporal distributions based on Residential (3 or more floors) from *CEQR Technical Manual* (Table 16-2).
Local Retail trip rates and temporal distributions based on Local Retail from *CEQR Technical Manual* (Table 16-2) based on East New York Rezoning EIS

Totals
Residential = 67 units
Local Retail = 12,723 SF

2.7.1 Traffic

This section examines potential future traffic conditions associated with the proposed project. In most areas of the city, including the area of Brooklyn where the site is located, if a proposed project is projected to result in 50 or more peak hour vehicular trip ends (a Level 1 screening assessment), there is the potential for traffic impacts and a detailed traffic assessment is recommended by the *CEQR Technical Manual*. As shown in **Table 7b**, the proposed project is projected to generate approximately 11 vehicle trips during the weekday AM peak hour, 25 vehicle trips during the weekday midday peak hour, 19 trips during the weekday PM peak hour, and 20 trips during a typical Saturday midday peak hour. Because the numbers of vehicle trips during the weekday AM, weekday PM, and Saturday midday peak hours do not exceed the 50 vehicle-trips/peak hour threshold for a detailed analysis in the *CEQR Technical Manual*, no detailed traffic analysis is provided for these three time periods. No traffic analysis is required for this time period because no single intersection is projected to experience an increase of 50 or more vehicle trips (based on a Level 2 screening assessment).

Table 7b shows that the Proposed Action is estimated to generate vehicle trips as follows:

Weekday AM	11 total vehicular trips	(3 inbound and 8 outbound)
Weekday Midday	25 total vehicular trips	(12 inbound and 13 outbound)
Weekday PM	19 total vehicular trips	(11 inbound and 8 outbound)
Saturday Midday	20 total vehicular trips	(10 inbound and 10 outbound)

2.7.2 Transit

The Project Site is accessible to public transit. Two New York City Transit (NYCT) bus lines are routed near the Project Site: the B35 along 39th Street and the B70 along 8th Avenue (one block west of the Project Site). The nearest bus stops for the B35 are located just east of 9th Avenue on the north and south sides of 39th Street, for service in the westbound and eastbound directions, respectively. The nearest bus stops for the B70 are located on the north side of 39th Street, just west of 8th Avenue, for service in the westbound direction, and on the west side of 8th Avenue, south of 40th Street for service in the southbound direction. It was assumed that all bus riders would use the B35 route in the vicinity of the site and, if needed, would transfer to the B70 route at 8th Avenue.

The closest subway station to the planned development site is the 9th Avenue station on the “D” line. An entrance to the 9th Avenue station is located on the east side of 9th Avenue, north of its intersection with New Utrecht Avenue, north of the Project Site.

The preliminary screening threshold provided in the *CEQR Technical Manual*—where potential impacts may occur and further assessments may be warranted—is 200 transit trips for either subway or public bus riders in a given peak hour. Any number of transit trips below this screening threshold would generally not warrant a detailed transit analysis. The project is not expected to exceed the 200 trip threshold and as such, no analysis is warranted.

Table 7b
Estimated Peak Hour Vehicle-Trip Generation Characteristics
9th Avenue Brooklyn Rezoning
Future With-Action Condition

Sites 1, 2, 3

Land Use	Size	Truck Trip Rate Weekday	Truck Trip Rate Saturday	AM	Midday	PM	Saturday	In	Out	Estimated Person-Trips				Estimated Mode Split (AM, PM)							Estimated Mode Split (MD, SAT)						
										Weekday AM	Weekday MD	Weekday PM	Saturday MD	Auto	Taxi	Sub-way	Rail-road	Bus	Walk	Total	Auto	Taxi	Sub-way	Rail-road	Bus	Walk	Total
Residential	67	0.06	0.02	12%	9%	2%	9%	50%	50%	54	27	60	51	16.0%	0.4%	50.8%	1.1%	11.6%	20.1%	100.0%	16.0%	0.4%	50.8%	1.1%	11.6%	20.1%	100.0%
Local Retail	12,723	0.35	0.04	8%	11%	2%	11%	50%	50%	78	496	261	305	2.0%	3.0%	5.0%	0.0%	20.0%	70.0%	100.0%	2.0%	3.0%	5.0%	0.0%	20.0%	70.0%	100.0%
Linked-Trip / Pass-by Trip																											
Net New Trips =																											
Church	0	0.32	0.01	10%	11%	2%	11%	50%	50%	0	0	0	0	5.0%	1.0%	3.0%	0.0%	6.0%	85.0%	100.0%	5.0%	1.0%	3.0%	0.0%	6.0%	85.0%	100.0%
Medical	0	0.29	0.29	8%	4%	7%	16%	50%	50%	0	0	0	0	30.0%	2.0%	33.0%	0.0%	18.0%	17.0%	100.0%	30.0%	2.0%	33.0%	0.0%	18.0%	17.0%	100.0%
TOTAL =										**132**	**523**	**320**	**357**														

Land Use	Estimated Truck-Trips												Estimated Car-Trips												Estimated Vehicle-Trips											
	Weekday AM			Weekday MD			Weekday PM			Saturday MD			Weekday AM			Weekday MD			Weekday PM			Saturday MD			Weekday AM			Weekday MD			Weekday PM			Saturday MD		
	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	0	0	0	0	0	0	0	0	0	0	0	0	8	2	6	4	2	2	8	6	3	7	4	4	8	2	6	4	2	2	9	6	3	7	4	4
Local Retail	0	0	0	0	0	0	0	0	0	0	0	0	4	2	2	27	14	14	14	7	7	17	8	8	5	2	2	28	14	14	14	7	7	17	8	8
Linked-Trip / Pass-by Trip													*-1*	*-1*	*-1*	*-7*	*-3*	*-3*	*-4*	*-2*	*-2*	*-4*	*-2*	*-2*	*-1*	*-1*	*-1*	*-7*	*-3*	*-3*	*-4*	*-2*	*-2*	*-4*	*-2*	*-2*
Net New Trips =													3	2	2	20	10	10	11	5	5	13	6	6	3	2	2	20	10	10	11	5	5	13	6	6
Church	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Medical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL =	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**3**	**8**	**24**	**12**	**12**	**19**	**11**	**8**	**20**	**10**	**10**	**11**	**3**	**8**	**25**	**12**	**12**	**19**	**11**	**8**	**20**	**10**	**10**

2.7.3 Pedestrians

The March 2014 *CEQR Technical Manual* indicates that a detailed pedestrian analysis be performed for projects that are likely to generate 200 or more incremental pedestrian trips during any peak hour on any one pedestrian element (i.e., a crosswalk, street corner, or sidewalk). As shown in **Table 7c**, the proposed project is projected to generate more than 200 combined new pedestrian trips (i.e., the combined total of subway, bus, and walk trips) during the weekday midday peak hours (406 trips), weekday PM (251 trips), and Saturday Midday hours (279 trips) and would not generate more than 200 combined new pedestrian trips during the Weekday AM hours (119 trips).

This With-Action Scenario has three projected development sites. Projected Site 1 (Lot 6) has frontage on both 9th Avenue and 39th Street. Projected Site 2 (Lots 12, 13, and 1) has frontage on 39th Street, while Projected Site 3 (Lots 16 and 17) has frontage on New Utrecht Avenue. With three Projected Sites having frontage on three separate streets, it makes it highly unlikely that any one pedestrian element would be significantly impacted in the With-Action Scenario, and it is highly unlikely that any one pedestrian element would see an incremental increase of 200 or more pedestrians during any of the peak hour periods.

When assigning pedestrians travelling to the respective projected development sites, if it was assumed that pedestrians would only travel to the Project Sites from the east and from the west (on 39th Street), a breakdown of that assignment scenario would like the following:

East/West Assignments on 39th Street

Weekday AM	119 Total	(60 from the west, 50 from the east)
Weekday Midday	406 Total	(203 from the west, 203 from the east)
Weekday PM	251 Total	(125 from the west, 126 from the east)
Saturday Midday	279 Total	(140 from the west, 139 from the east)

When assigned to the sidewalk network, levels of service are expected to operate at acceptable LOS levels during all peak hours. Since this estimated trip generation exceeds the threshold by only a handful of pedestrians, and given the typical daily variation in pedestrian volumes of approximately up to ten percent, no further analysis regarding pedestrians was deemed necessary.

Additionally, it is very likely that pedestrians will access the Project Sites from New Utrecht Avenue, 9th Avenue and 39th Street, further indicating that it is highly unlikely that the 200 trip threshold for any one pedestrian element would be exceeded in the With-Action Scenario. As such, no impacts with regards to pedestrians are anticipated and no further analysis is required.

Table 7c
Estimated Peak Hour Person-Trip Generation Increments: Transit and Pedestrians
9th Avenue Brooklyn Rezoning
Future With-Action Condition

Sites 1, 2, 3

Land Use	Estimated Person-Trips				Mode Split (AM, PM)			Mode Split (MD, SAT)			Weekday AM								
	Weekday AM	Weekday MD	Weekday PM	Saturday MD	Sub-way	Bus	Walk	Sub-way	Bus	Walk	Subway			Bus			Walk		
											Total	In	Out	Total	In	Out	Total	In	Out
Residential	54	27	60	51	50.8%	11.6%	20.1%	50.8%	11.6%	20.1%	27	5	22	6	1	5	11	2	9
Local Retail	78	496	261	305	5.0%	20.0%	70.0%	5.0%	20.0%	70.0%	4	2	2	16	8	8	55	27	27
Linked-Trip / Pass-by Trip Reduction (25%)=											*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net New Trips =											4	2	2	16	8	8	55	27	27
Church	0	0	0	0	3.0%	6.0%	85.0%	3.0%	6.0%	85.0%	0	0	0	0	0	0	0	0	0
Medical	0	0	0	0	20.0%	15.0%	60.0%	20.0%	15.0%	60.0%	0	0	0	0	0	0	0	0	0
TOTAL =	**132**	**523**	**320**	**357**	**TOTAL NET NEW PERSON-TRIPS =**						**31**	**7**	**24**	**22**	**9**	**13**	**66**	**30**	**36**

Land Use	Weekday Midday									Weekday PM								
	Subway			Bus			Walk			Subway			Bus			Walk		
	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	14	7	7	3	2	2	5	3	3	30	20	11	7	4	2	12	8	4
Local Retail	25	12	12	99	50	50	347	173	173	13	7	7	52	26	26	183	91	91
Linked-Trip / Pass-by Trip Reduction (25%)=	*0*	*0*	*0*	*0*	*0*	*0*	*-87*	*-43*	*-43*	*0*	*0*	*0*	*0*	*0*	*0*	*-46*	*-23*	*-23*
Net New Trips =	25	12	12	99	50	50	260	130	130	13	7	7	52	26	26	137	68	68
Church	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Medical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL =	**39**	**19**	**19**	**102**	**51**	**51**	**266**	**133**	**133**	**43**	**26**	**17**	**59**	**31**	**28**	**149**	**76**	**73**

Land Use	Saturday Midday								
	Subway			Bus			Walk		
	Total	In	Out	Total	In	Out	Total	In	Out
Residential	26	13	13	6	3	3	10	5	5
Local Retail	15	8	8	61	31	31	214	107	107
Linked-Trip / Pass-by Trip Reduction (25%)=	*0*	*0*	*0*	*0*	*0*	*0*	*-53*	*-27*	*-27*
Net New Trips =	15	8	8	61	31	31	160	80	80
Church	0	0	0	0	0	0	0	0	0
Medical	0	0	0	0	0	0	0	0	0
TOTAL =	**41**	**21**	**21**	**67**	**34**	**34**	**171**	**85**	**85**

Total AM Ped Trips = 119

Total Midday Ped Trips = 406

Total PM Ped Trips = 251

Total SAT Ped Trips = 279

2.7.4 Parking

According to the *CEQR Technical Manual*, projects that do not trigger the need for a detailed traffic study generally do not need a detailed parking analysis. Therefore, a detailed assessment of parking conditions was not conducted as part of this project.

2.7.5 Transportation Safety

The intersection of 39th Street/9th Avenue was screened to determine if it qualifies as a "high crash" location. The *CEQR Technical Manual* defines a "high crash location" as a location with 48 or more total reportable and non-reportable crashes—or five or more pedestrian/bicyclist injury crashes—in any 12-month period of the most recent three-year period for which data is available. Crash data compiled by the NYCDOT for the most recent available three-year period (i.e., 2012 to 2014) was reviewed to identify the crash history at this intersection. The data is summarized in **Table 7d** and shows the total crashes at the 39th Street/9th Avenue intersection by year, as well as the numbers of pedestrian and bicycle crashes by year.

Table 7d: Summary of NYCDOT Crash Data from 2012 through 2014

Intersection	Pedestrian Injury Crashes			Bicycle Injury Crashes			Total Pedestrian/ Bicycle Injury Crashes			Total Crashes (Reportable + Non-Reportable)		
	2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014
39th Street / 9th Avenue	1	1	0	1	0	0	2	1	0	4	2	1

Source: New York City Department of Transportation (2012-2014).

As shown in **Table 7d**, the NYCDOT data indicates that there were a total of seven crashes between 2012 and 2014 (inclusive). There was one pedestrian crash and one bicycle crash in 2012, and one pedestrian crash in 2013. There were no pedestrian or bicycle crashes in 2014. There were also no fatal crashes at the intersection. These numbers of crashes are below the *CEQR* thresholds for a "high-crash location." Therefore, the 39th Street/9th Avenue intersection does not qualify as a "high-crash location" as defined in the *CEQR Technical Manual*.

2.8 AIR QUALITY

When assessing the potential for air quality significant impacts, the *CEQR Technical Manual* seeks to determine a proposed action's effect on ambient air quality, or the quality of the surrounding air. Ambient air can be affected by motor vehicles, referred to as "mobile sources," or by fixed facilities, referred to as "stationary sources." This can occur during operation and/or construction of a project being proposed. The pollutants of most concern are carbon monoxide, lead, nitrogen dioxide, ozone, relatively coarse inhalable particulates (PM_{10}), fine particulate matter ($PM_{2.5}$), and sulfur dioxide.

The *CEQR Technical Manual* generally recommends an assessment of the potential impact of mobile sources on air quality when an action increases traffic or causes a redistribution of traffic flows, creates any other mobile sources of pollutants (such as diesel train usage), or adds new uses near mobile sources (e.g., roadways, parking lots, garages). The *CEQR Technical Manual* generally recommends assessments when new stationary sources of pollutants are created, when a new use might be affected by existing stationary sources, or when stationary sources are added near existing sources and the combined dispersion of emissions would impact surrounding areas.

2.8.1 Mobile Sources

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

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

The proposed actions would not result in any of the above thresholds being crossed and would not require further mobile source assessment. The proposed project would not result in the placement of new operable windows within 200 feet of any atypical vehicular source of pollutants, nor would it result in the creation of a fully or partially covered roadway, generate over 170 or more net new increment auto trips or notable heavy-duty diesel vehicle traffic, place new sensitive uses adjacent to parking facilities, result in other mobile sources of pollution, or substantially increase vehicle miles traveled. Therefore, further mobile source assessment is not warranted.

PM2.5 Screen

The maximum increase of traffic volume is 25 total vehicle trips, which would not exceed CEQR thresholds required for mobile source PM2.5 analysis.

2.8.2 Stationary Sources

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

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

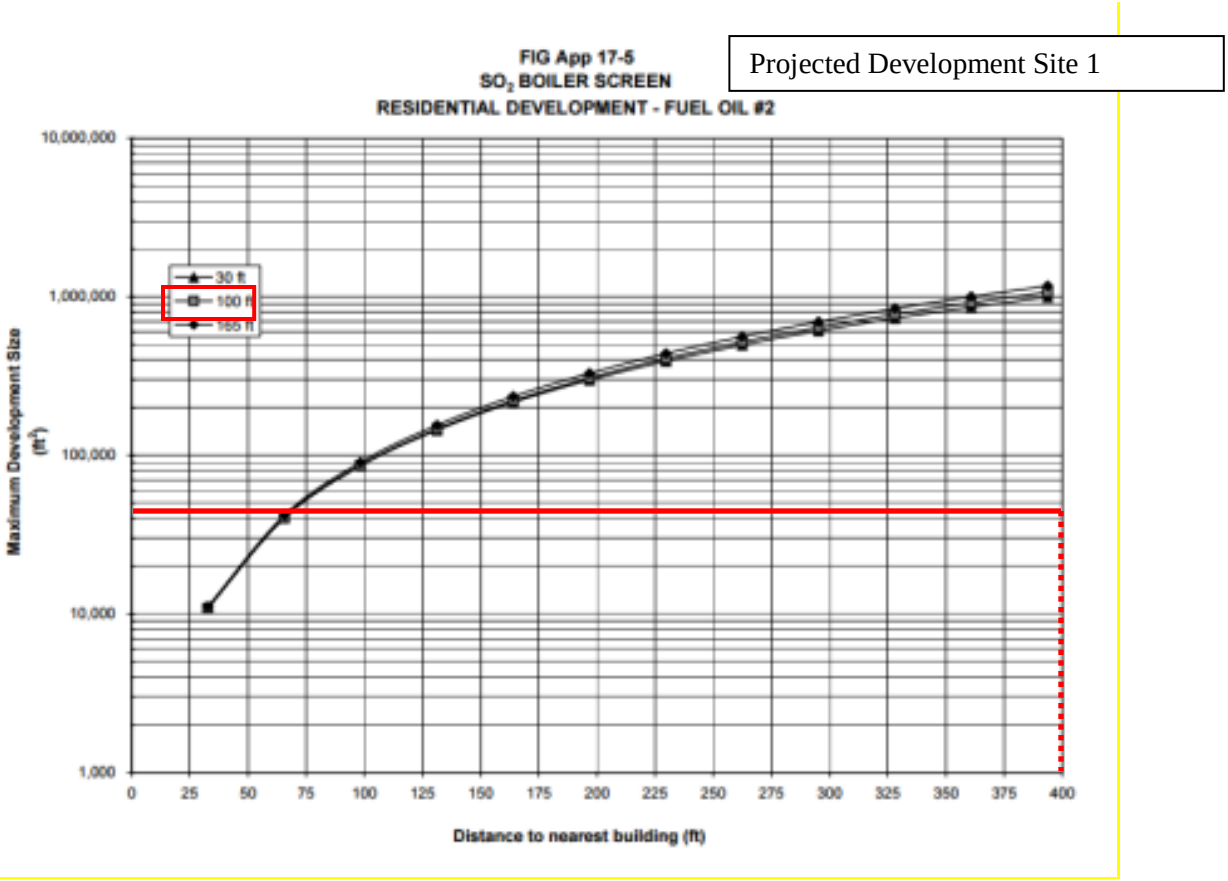
- New sensitive uses created within 400 feet of manufacturing or processing facilities.
- New uses created within 400 feet of a stack associated with commercial, institutional, or residential developments (and the height of the new structures would be similar to or greater than the height of the emission stack).
- Potentially significant odors are created.
- New uses near an odor-producing facility are created.
- "Non-point" sources that could result in fugitive dust are created.
- New uses near non-point sources are created.
- A generic or programmatic action is introduced that would change or create a stationary source or that would expose new populations to such a stationary source.

Although the Project Site is located in an existing manufacturing district, the proposed actions would not result in any of the above thresholds being exceeded. However, the character of the study area is a mix of commercial and residential uses and industrial and manufacturing uses. These manufacturing uses generally are located to the west of the Project Site on 39th Street. However, upon visual inspection, one of these facilities within 400 feet of the Project Site appears to contain any active emissions stacks or contain any uses that would negatively affect the new sensitive receptors on the Project Site. This facility (bay Collision) is an auto body shop with an active permit to operate a spray booth and is located at 969 39th Street (Block 5582, Lot 45).

2.8.2a HVAC

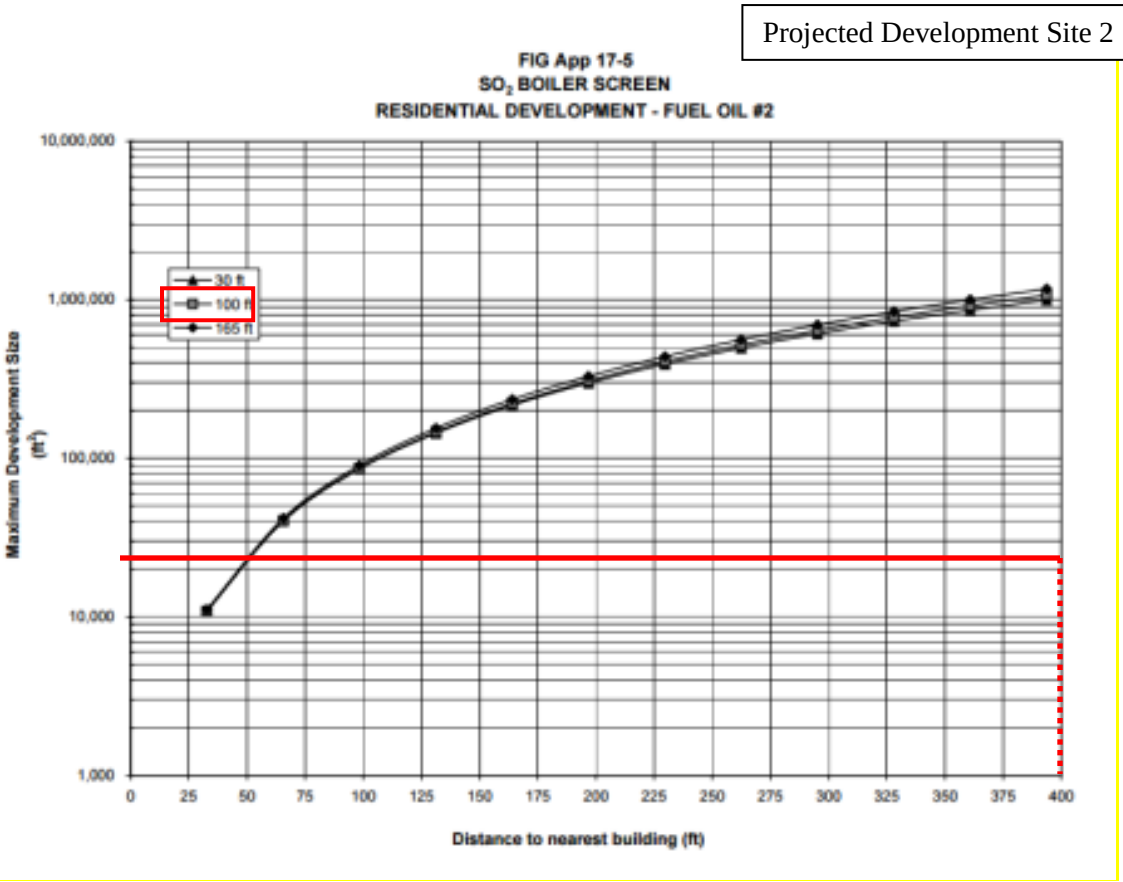
The Project Site stack height and development size was plotted on the graph for residential developments provided in the air quality appendices in the *CEQR Technical Manual*, as shown in **Figures 2.8-1 to 2.8-3.** This graph indicates the minimum distance between the Project Site and buildings of a similar or greater height in order to avoid a potential air quality impact. The six-story building is proposed to be located on the south side of 39th Street and 9th Avenue. Stack height for the emissions vent were estimated as three feet higher than the proposed building height, utilizing the 100 foot curve. For a building of approximately this size, the emissions vents should be at least 50 feet away from the nearest building of equal or greater height. The nearest sensitive-receptor building of equal or greater height is the 6-story, approximately 71,288 sf apartment building located at 4114 9th Avenue, approximately 400 feet south of the proposed Project Site. As such, the operation of the subject building is not expected to result in any stationary source air quality impacts. For this reason, no further analysis is required.

Figure 2.8-1 Air Quality Screening Graph (Block 5583, Lot 6)



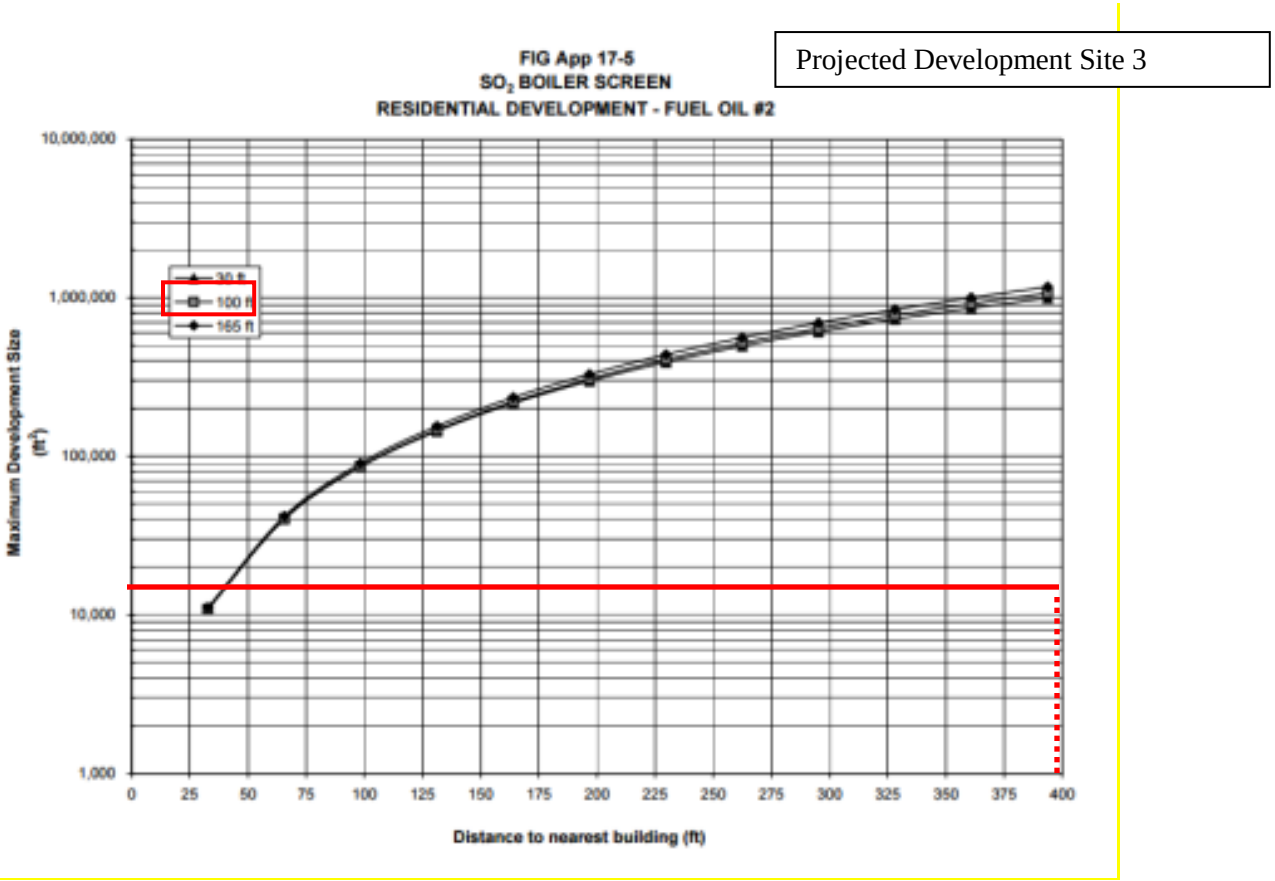
A review of the surrounding area indicates that the nearest building occupied with sensitive receptors and with operable windows (taller or similar height as the than the proposed six-story, 43,851 gsf subject building) is the six-story multi-family residential building located at 1441 9th Avenue, directly south projected development site. The emission stack on the roof of this site is located approximately 400 feet south of the proposed six-story building. This distance is well beyond the minimum distance of 50 feet needed to avoid the potential for a significant adverse air quality impact related to its boiler emissions, and therefore the impact from this projected development site does not warrant further analyses.

Figure 2.8-2 Air Quality Screening Graph (Block 5583, Lot 12, 13, and 15)



A review of the surrounding area indicates that there are no sensitive receptors (with or without operable windows) taller than the 95-foot (Max. Building height in R7A zoning district) subject buildings located within the minimum distance of 50 feet needed to avoid the potential for a significant adverse air quality impact. Therefore the impact from the projected development sites does not warrant further analyses.

Figure 2.8-3 Air Quality Screening Graph (Block 5583, Lot 16 and 17)



A review of the surrounding area indicates that there are no sensitive receptors (with or without operable windows) taller than the 95-foot (Max. Building height in R7A zoning district) subject buildings located within the minimum distance of 50 feet needed to avoid the potential for a significant adverse air quality impact. Therefore the impact from the projected development sites does not warrant further analyses.

2.8.3 Project on Project Analysis

The applicant proposes a zoning map amendment and a zoning text amendment in the Sunset Park/Borough Park neighborhood within Brooklyn Community District 12. The proposed rezoning area is bounded by 39th Street to the north, a line midway between 39th Street and 40th Street to the south, a line 100 feet west of 9th Avenue to the west, and New Utrecht Avenue to the east. It consists of Block 5583, Lots 6, 12, 13, and portions of Lots 15, 16, 17, and 7501 (the "Project Area" or "rezoning area"). The Applicant proposes to map an R7A zoning district with a C2-4 commercial overlay within the Project Area, which is currently, zoned M1-2. The Reasonable Worst Case Development scenario (RWCDs) as summarized in **Table 8** with each projected site boundary depicted in **Figure 2.8-4** has been submitted to and approved by New York City Department of City Planning (NYCDCP).

The air quality assessment was conducted to evaluate:

a. Potential impacts from the Proposed HVAC system of Projected Site 1, 2, and 3 on existing site;
b. Potential impacts from the proposed HVAC system of Projected Site 1 on Projected Site 2 and 3;
c. Potential impacts from the proposed HVAC system of Projected Site 2 on Projected Site 1 and 3;
d. Potential impacts from the proposed HVAC system of Projected Site 3 on Projected Site 1 and 2;
e. Cumulative impacts from the proposed HVAC system of Projected Site 2 and 3 on Projected Site 1;
f. Cumulative impacts from the proposed HVAC system of Projected Site 1 and 3 on Projected Site 2;
g. Cumulative impacts from the proposed HVAC system of Projected Site 1 and 2 on Projected Site 3.



Figure 2.8-4 9th Avenue Rezoning Sites

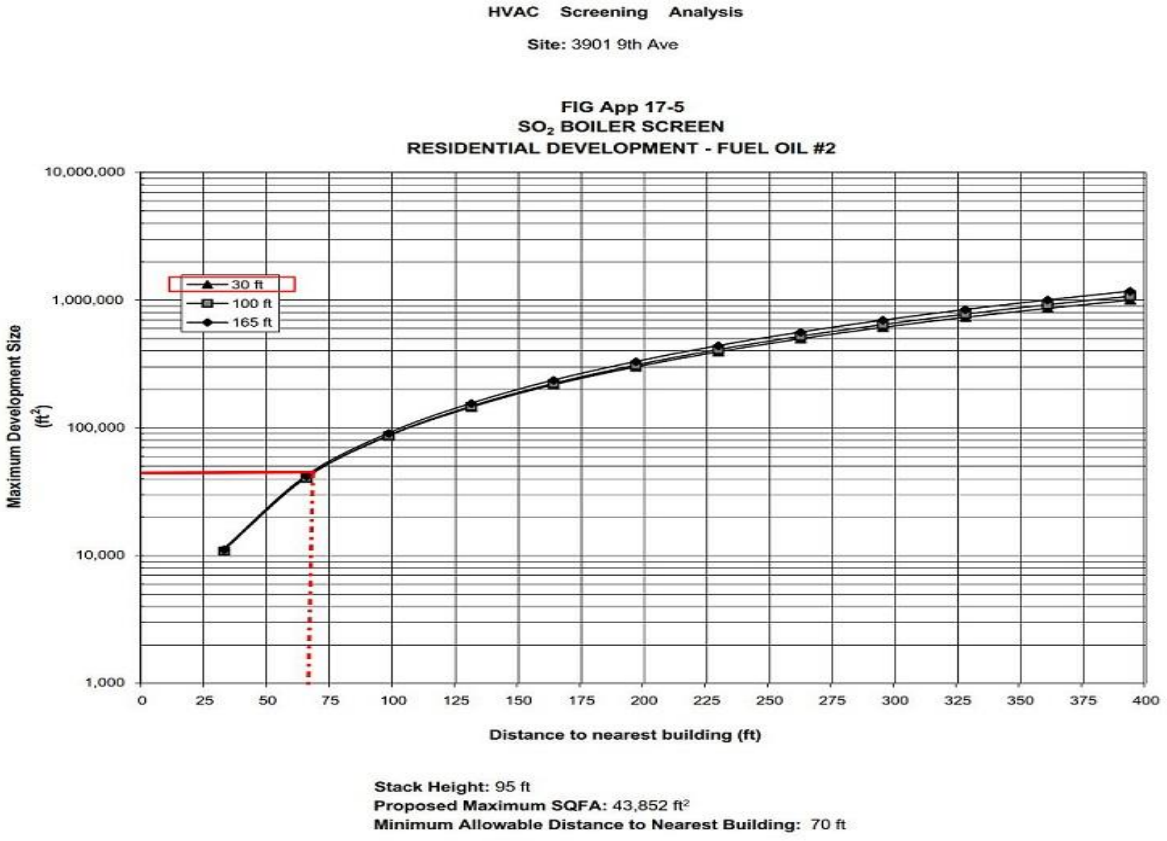
Table 8 Reasonable Worst Case Development Scenario (RWCDs)

Site No.	Block	Lot	Lot Area (sq. ft.)	Proposed Zoning	Max Allowable (sq. ft.)	Max Allowable Height (ft.)
Projected Site 1	5583	6	9,533	R7A/C2-4	47,283	95
Projected Site 2	5583	12, 13, 15	5,376	R7A/C2-4	26,665	95
Projected Site 3	5583	16, 17	3,417	R7A/C2-4	16,948	95

2.8.3-a Methodologies and Assumptions

Potential impacts from HVAC boiler emissions are a function of fuel type, stack height, distance from the source to the nearest receptor (building), and size of floor area in square feet (sq. ft.) of a proposed development. Floor area is considered an indicator of boiler fuel usage rate. The preliminary screening analysis for heat and hot water systems has been established based on New York City Environmental Quality Review (CEQR) Technical Manuel Figure 17-5, which defines the screening size of proposed development that is correlated to the distance to the nearest building of a height similar to or greater than the stack height of the proposed building(s). Figure 17-5 predicts the threshold of development size below which a project is unlikely to have a significant impact. This methodology is only appropriate for single building or source.

Figure 2.8-5 HVAC Screening



As shown in **Figure 2.8-5,** the projected site would not cause any potential adverse air quality impact to any building with the similar height or above locates at 70 feet away or beyond. Based on the site visit and Google Map elevation, there is no existing building with the height of 95 feet or above located within the 70-foot radius of either projected site. Therefore, there would be no potential significant adverse air quality impact from the Projected Sites 1, 2, or 3 on existing residential buildings.

Since Projected Sites 1, 2, and 3 would be adjacent to each other, the screening analysis would not be applicable. A refined dispersion modeling analysis approach was implemented using USEPA's AERMOD model in association with most recent five years of meteorological data to predict applicable pollutant concentrations from the proposed HVAC systems within the rezoning area.

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 from the building on Project Sites) 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 analyses of potential impacts from exhaust stacks were made assuming stack tip downwash, urban dispersion and surface roughness length, and elimination of calms. AERMOD can be run with and without building downwash (the downwash option accounts for the effects on plume dispersion created by the structure the stack is located on, and other nearby structures).

For the refined analysis performed, the exhaust stacks for HVAC systems were assumed to be located at the edge of the development massing closest to the receptor, unless the source and receptor were immediately adjacent to each other. Since the two Projected Sites were immediately adjacent to each other, the stack was assumed to be located at an initial distance of 10 feet from the nearest receptor.

The refined dispersion modeling analysis was performed for criteria pollutants of $PM_{2.5}$, PM_{10}, NO_2 and SO_2 for which the National Ambient Air Quality Standards (NAAQS) have been established, with emission rates for both #2 fuel oil and natural gas. If a source could not be in compliance with the NAAQS or $PM_{2.5}$ *de minimis* criteria established in the *CEQR Technical Manuel*, the stack would then be set back in 5-foot increments until the source met the respective criteria.

The meteorological data set used with AERMOD consists of the latest available five consecutive years (2012-2016) of meteorological data: surface data collected at LaGuardia Airport and concurrent upper air data collected at Brookhaven, Suffolk County, New York. The meteorological data set includes wind speeds, wind directions, ambient temperatures, and mixing height data for every hour of a year over five years.

An estimate of the emissions from the HVAC systems was made based on the proposed development size, type of fuel used and type of construction with below fuel consumptions rates applicable for residential developments: 60.3 ft^3/ft^2-year and 0.43 gal/ft^2-year for natural gas and fuel oil, respectively. Short-term fuel consumption rates were based on peak hourly fuel consumption estimates for each HVAC system relevant to individual projected site.

However, it may not be reasonable to assume the stack(s) to be at the edge of the building roof. The Building Code of the City of New York regulates the placement of chimneys and vents and of buildings relative to nearby chimneys and vents and the implication of the Building Code should be considered when determining the reasonable worst-case location(s) for modeling, when the exact locations of the proposed stack(s) are not available. Therefore, 10 feet away from the lot line was assumed to be the location of the proposed stack.

HVAC emission factors for each fuel type were obtained from the EPA *Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume I: Stationary Point and Area Sources*.

The AERMOD model was used to predict impacts of SO_2, NO_2, PM_{10}, and $PM_{2.5}$ emissions over the averaging time corresponding to the NAAQS (**Table 9**). In addition to the NAAQS, the d*e minimis* thresholds for $PM_{2.5}$ applicable to the NYC development projects (**Table 9**) were also used to determine potential $PM_{2.5}$ impact significance as below:

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

Based on the NAAQS and $PM_{2.5}$ *de minimis* thresholds, the Not-to-Exceed criteria, as shown in **Table 2**, were further established by subtracting background concentrations collected at Queens College 2 Station from the NAAQS for relevant pollutants. When exceedances of the Not-to-Exceed criteria were predicted, a further analysis or mitigation measures would be warranted to ensure the project compliance of both NAAQS and $PM_{2.5}$ *de minimis* thresholds.

Table 9 Impact Significance Thresholds

Pollutant	Averaging Time	NAAQS	Background Concentration	unit	*De Minimis*	Not-to-Exceed Criteria (ug/m3)
NO_2	1 year	**53**	17.5	ppb		100*
	1 hour	**100**	60.2	ppb		188*
SO_2	1 hour	**75**	9.5	ppb		171.5
PM_{10}	24 hours	**150**	48	ug/m3		102.0
$PM_{2.5}$	1 year	**15**	--	ug/m3	**0.3**	0.3
	24 hours	**35**	16.7	ug/m3	**9.1**	9.1

* Including background concentration.
Source: New York State Department of Environmental Conservation Ambient Air Monitoring Networks Region 2 Queens College 2 (http://www.dec.ny.gov/docs/air_pdf/2016airqualrpt.pdf)

Impacts concentrations would first be predicted using AERMOD assuming that all HVAC systems are powered by the #2 fuel oil. If exceedances of the Not-to-Exceed criteria were predicted under the #2 fuel oil option, a further modeling analysis under the natural gas option would be warranted .

2.8-3b AERMOD Modeling Result

Table 10 summarizes the AERMOD-predicted potential air quality impacts under the #2 fuel oil option from Projected Site 1 on Projected Site 2 and 3. No exceedances of the Not-to-Exceed criteria were predicted from the operation of Projected Site 1, resulting in no significant adverse air quality impacts.

Table 10 Predicted Impact Concentrations from Projected Site 1 on Projected Site 2 and 3

Pollutants	Averaging Time	Not-to-Exceed Criteria (ug/m^3)	Modeling Result (ug/m3)
NO_2	1 year	100.0	76.5
	1 hour	188.0	146.0
SO_2	1 hour	171.5	0.7
PM_{10}	24 hours	102	3.19
$PM_{2.5}$	1 year	0.3	0.13
	24 hours	9.1	3.19

Table 11 summarizes the AERMOD-predicted potential air quality impacts under the #2 fuel oil option from Projected Site 2 on Projected Site 1and 3. No exceedances of the Not-to-Exceed criteria were predicted from the operation of Projected Site 2, resulting in no significant adverse air quality impacts.

Table 11 Predicted Impact Concentrations from Projected Site 2 on Projected Site 1 and 3

Pollutants	Averaging Time	Not-to-Exceed Criteria (ug/m^3)	Modeling Result (ug/m3)
NO_2	1 year	100.0	76.5
	1 hour	188.0	140.1
SO_2	1 hour	171.5	0.6
PM_{10}	24 hours	102	3.18
$PM_{2.5}$	1 year	0.3	0.15
	24 hours	9.1	3.18

Table 12 summarizes the AERMOD-predicted potential air quality impacts under the #2 fuel oil option from Projected Site 3 on Projected Site 1and 2. No exceedances of the Not-to-Exceed criteria were predicted from the operation of Projected Site 3, resulting in no significant adverse air quality impacts.

Table 12 Predicted Impact Concentrations from Projected Site 3 on Projected Site 1 and 2

Pollutants	Averaging Time	Not-to-Exceed Criteria (ug/m^3)	Modeling Result (ug/m3)
NO_2	1 year	100.0	76.4
	1 hour	188.0	132.9
SO_2	1 hour	171.5	0.5
PM_{10}	24 hours	102	2.82
$PM_{2.5}$	1 year	0.3	0.12
	24 hours	9.1	2.82

Table 13 summarizes the AERMOD-predicted potential cumulative air quality impacts under the #2 fuel oil option from Projected Site 2 and 3 on Projected Site 1. No exceedances of the Not-to-Exceed criteria were predicted from the operation of Projected Site 2 and 3, resulting in no significant adverse cumulative air quality impacts.

Table 13 Predicted Cumulative Impact Concentrations from Projected Site 2 and 3 on Projected Site 1

Pollutants	Averaging Time	Not-to-Exceed Criteria (ug/m^3)	Modeling Result (ug/m3)
NO_2	1 year	100.0	76.9
	1 hour	188.0	152.3
SO_2	1 hour	171.5	0.9
PM_{10}	24 hours	102	4.04
$PM_{2.5}$	1 year	0.3	0.21
	24 hours	9.1	4.04

Table 14 summarizes the AERMOD-predicted potential cumulative air quality impacts under the #2 fuel oil option from Projected Site 1 and 3 on Projected Site 2. No exceedances of the Not-to-Exceed criteria were predicted from the operation of Projected Site 1 and 3, resulting in no significant adverse cumulative air quality impacts.

Table 14 Predicted Cumulative Impact Concentrations from Projected Site 1 and 3 on Projected Site 2

Pollutants	Averaging Time	Not-to-Exceed Criteria (ug/m^3)	Modeling Result (ug/m3)
NO_2	1 year	100.0	76.7
	1 hour	188.0	140.8
SO_2	1 hour	171.5	0.7
PM_{10}	24 hours	102	3.27
$PM_{2.5}$	1 year	0.3	0.17
	24 hours	9.1	3.27

Table 15 summarizes the AERMOD-predicted potential cumulative air quality impacts under the #2 fuel oil option from Projected Site 1 and 2 on Projected Site 3. No exceedances of the Not-to-Exceed criteria were predicted from the operation of Projected Site 1 and 2, resulting in no significant adverse cumulative air quality impacts.

Table 15 Predicted Cumulative Impact Concentrations from Projected Site 1 and 2 on Projected Site 3

Pollutants	Averaging Time	Not-to-Exceed Criteria (ug/m^3)	Modeling Result (ug/m3)
NO_2	1 year	100.0	76.7
	1 hour	188.0	147.7
SO_2	1 hour	171.5	0.6
PM_{10}	24 hours	102	3.38
$PM_{2.5}$	1 year	0.3	0.17
	24 hours	9.1	3.38

2.8-3c Conclusion

Based on the above modeling results and comparisons to the applicable Not-to-Exceed criteria, it was found that, under the #2 fuel oil option, no significant project–on-project significant adverse air quality impacts would occur. Therefore no further analysis or mitigation measures are warranted.
To preclude the potential for significant adverse impacts, an (E) Designation would be provided for all lots included in all projected development sites, including the applicant site (Block 5583, Lot 6), Projected Site 2 (Block 5583, Lots 12, 13, and 15), and Projected Site 3 (Block 5583, Lots 16-17). E-479 has been assigned to this project. The text of the (E) designation for would be as follows:

Projected Site 1 (Block 5583, Lot 6)

Any new development on the above-referenced property must ensure that the HVAC stack is located at a height at least 98 feet above grade to avoid any potential significant adverse air quality impacts.

Projected Site 2 (Block 5583, Lots 12, 13, and 15)

Any new development on the above-referenced property must ensure that the HVAC stack is located at a height at least 98 feet above grade to avoid any potential significant adverse air quality impacts.

Projected Site 3 (Block 5583, Lots 16 and 17)

Any new development on the above-referenced property must ensure that the HVAC stack is located at a height at least 98 feet above grade to avoid any potential significant adverse air quality impacts.

2.8-4 Air Toxics

The applicant is proposing a zoning map amendment and a zoning text amendment in the Sunset Park/Borough Park neighborhood within Brooklyn Community District 12. The rezoning area consists of Block 5583, Lots 6, 12, 13, and portions of Lots 15, 16, 17, and 7501. The applicant proposes to map an R7A zoning district with a C2-4 commercial overlay within the rezoning area which is currently zoned M1-2. The Reasonable Worst Case Development Scenario (RWCDS) as summarized in **Table 16** with each projected site boundary depicted in **Figure 2.8-6** has been submitted to and approved by New York City Department of City Planning (NYCDCP).

The air quality assessment was conducted to evaluate potential impacts from the existing industrial sources on three projected sites.

Table 16 Reasonable Worst Case Development Scenario (RWCDS)

Site No.	Block	Lot	Lot Area (sq ft)	Proposed Zoning	Max Allowable (sq ft)	Max Allowable Height (ft)
Projected Site 1	5583	6	9,533	R7A/C2-4	47,283	95
Projected Site 2	5583	12, 13, 15	5,376	R7A/C2-4	26,665	95
Projected Site 3	5583	16, 17	3,417	R7A/C2-4	16,948	95

Methodologies and Assumptions

Pollutants emitted from the exhaust vents of existing permitted industrial facilities were examined to identify potential adverse impacts on future residents of the proposed development sites. All industrial air pollutant emission sources within 400 feet of the projected sites were considered in the air quality impact analyses.

In accordance with the CEQR guidance, a search of the NYCDEP CAT database was conducted and two industrial facilities with totally three air permits within 400 feet of the proposed development were identified as below:

- PW002017: CNG Cabinet Ltd. on 848 39th Street (Block 916, Lot 121);

- PB018013: Bay Collision, on 969 39th Street (Block 5582, Lot 45);
- PA034584: Bay Ready Mix Supplies Inc., on 969 9th Street (Block 5582, Lot 45).

Emission rates from this facility are summarized in **Table 17**. The emitting source physical parameters obtained from the permit are summarized in **Table 18**.

Maximum potential pollutant concentrations at sensitive receptors on all three projected sites from the facility were predicted with a refined modeling analysis using the EPA/AMS AERMOD dispersion model (EPA Version 16216). The AERMOD model calculates pollutant concentrations from one or more points (e.g., exhaust stacks) based on emission rates, source parameters, hourly meteorological data, stack tip downwash, urban dispersion and surface roughness length, and elimination of calms. The five-year meteorological data set consists of: surface data collected at LaGuardia Airport (2012–2016) and concurrent upper air data collected at Brookhaven, Suffolk County, New York.

Discrete receptors (i.e., locations at which concentrations were calculated) were placed on front and rear façades where windows would be installed on each floor for all three project sites.

Figure 2.8-6 3901 9th Avenue Rezoning Projected Sites and Industrial Sources



Table 17 Emission Rates Obtained from DEP Permit

No.	Block	Lot	Permit No.	Pollutant	CAS number	Hourly Emission (lbs/hr)	Short-term Emission Rate (g/s)	Annual Emission (lbs/yr)	Annual Emission Rate (g/s)	Removal Rate
1	916	121	PW002017	Particles	NY079-00-0	0.16	2.02E-04	230.4	3.31E-05	0.99
2	5582	45	PB018013	Particles	NY079-00-0	0.07	1.76E-03	97.6	2.81E-04	0.8
				Solvent	NY998-00-0	3.1	3.91E-01	4650	6.69E-02	/
3	5582	45	PA034584	Particles	NY075-00-0	18	2.27E-03	34560	4.97E-04	0.999

Table 18 Parameters of the Emission Source

No.	Permit No.	Stack Height (ft)	Stack Diameter (in)	Exit Temperature (°F)	Exhaust Flow Rate (acfm)
1	PW002017	26	14	70	5,000
2	PB018013	27	33	140	13,500
3	PA034584	56	8	70	1,800*2

The pollutant listed in the permit as particulates are conservatively considered as $PM_{2.5}$ in this modeling analysis. The predicted worst-case concentrations were compared with the criteria corresponding to the National Ambient Air Quality Standards (NAAQS) (**Table 19**). In addition to the NAAQS, the *de minimis* thresholds for $PM_{2.5}$ applicable to the New York City development projects (**Table 19**) were also used to determine potential $PM_{2.5}$ impact significance as below:

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

Table 19 PM2.5 Impact Significance Thresholds

Pollutant	Averaging Time	NAAQS	Background Concentration[1]	De Minimis	Not-to-Exceed Criteria ($\mu g/m^3$)
$PM_{2.5}$	1 year	**15**	7.1	**0.3**	0.3
	24-hour	**35**	16.7	**9.1**	9.1

Source: [1] New York State Ambient Air Quality Report for 2016, Station PS314. (https://www.dec.ny.gov/docs/air_pdf/2016airqualreport.pdf)

A typical composition of Solvent emission (**Table 20**) from auto spray paint booths (Solow Air Quality Report, 07DCP029Q) was used to determine whether the toxic air pollutants emitted from the auto spray paint booth at Bay Collision have the potential significant impact on the proposed development.

Table 20 Typical Composition of VOC Emissions from Auto Spray Paint Booths

Chemical Name	CAS #	Rust-Oleum Primer	Sherwin William Paints		Composition used in this analysis
			Twilight Blue	Black Sunfire	
		Weight % Less Than	% by Weight	% by Weight	% by Weight
1,2,4-Trimethylbenzene	00067-64-1				
Acetone*	64742-89-8	10	42	43	43
Aliphatic Hydrocarbon	64742-94-5	10			10
Aromatic Petroleum distillates	00106-97-8	5			5
Butane	00064-17-5		10	11	11
Ethanol	00763-69-9		1	2	2
Ethyl 3-Ethoxyproprioanate	00100-41-4		9	9	9
Ethylbenzene	00078-93-3	5			5
Methyl Ethyl Ketone	00123-86-4		8	7	8
N-Butyl Acetate	00074-98-6	5			5
Propane	08052-41-3		10	11	11
Stoddard Solvents	00108-88-3	10			10
Toluene	01330-20-7	10	9	8	10
Xylene	00067-64-1	10			10

In order to evaluate short-term and annual impacts of the non-carcinogenic toxic air pollutants, the NYSDEC has established short-term ambient guideline concentrations (SGCs) and ambient annual-average-based guideline concentrations (AGCs) for exposure limits. These are maximum allowable 1-hour and annual guideline concentrations, respectively, that are considered acceptable concentrations

below which there should be no adverse effects on the health of the general public. DAR-1 SGC and AGC values (as shown in **Table 21**) were applied to all VOC-based compounds

Table 21 SGC and AGC

Pollutants	CAS Number	SGC (µg/m3)	AGC (µg /m3)
Acetone	00067-64-1	180,000	30,000
Aliphatic Hydrocarbon	64742-89-8	-	3,200
Aromatic Petroleum distillates	64742-94-5	-	100
Butane	00106-97-8	238,000	-
Ethanol	00064-17-5	-	45,000
Ethyl 3-Ethoxyproprioanate	00763-69-9	140	64
Ethylbenzene	00100-41-4	-	1,000
Methyl Ethyl Ketone	00078-93-3	13,000	5,000
N-Butyl Acetate	00123-86-4	95,000	17,000
Propane	00074-98-6	-	43,000
Stoddard Solvents	08052-41-3	-	900
Toluene	00108-88-3	37,000	5,000
Xylene	01330-20-7	22,000	100

Assessment Results

Table 22 presents the AERMOD-predicted $PM_{2.5}$ daily and annual impact from existing industrial sources on the proposed residential building. No exceedances of Not-to-exceed criteria were predicted. Therefore, there would be no significant impact of $PM_{2.5}$ from the existing industrial sources.

Table 22 AERMOD-predicted PM2.5 Concentrations from Existing Industrial Source

Pollutant	Averaging Time	Not-to-Exceed Criteria (µg/m^3)	Modelled Result (µg/m^3)
$PM_{2.5}$	1 year	0.3	0.00
	24-hour	9.1	0.03

Table 23 and **Table 24** present the max estimated hourly and annual concentration of the pollutant analyzed, and then be compared with applicable SGC and AGC value.

Table 23 Max Estimated Hourly Concentration

Pollutants	CAS Number	Max Estimated Hourly Concentration ($\mu g/m^3$)	AGC ($\mu g/m^3$)	Pass / Fail
Acetone	00067-64-1	107.1	180,000	Pass
Aliphatic Hydrocarbon	64742-89-8	24.9	--	N.A.
Aromatic Petroleum distillates	64742-94-5	12.5	--	N.A.
Butane	00106-97-8	27.4	238,000	Pass
Ethanol	00064-17-5	5.0	--	N.A.
Ethyl 3-Ethoxyproprioanate	00763-69-9	22.4	140	Pass
Ethylbenzene	00100-41-4	12.5	--	N.A.
Methyl Ethyl Ketone	00078-93-3	19.9	13,000	Pass
N-Butyl Acetate	00123-86-4	12.5	95,000	Pass
Propane	00074-98-6	27.4	--	N.A.
Stoddard Solvents	08052-41-3	24.9	--	N.A.
Toluene	00108-88-3	24.9	37,000	Pass
Xylene	01330-20-7	24.9	22,000	Pass

Table 24 Max Estimated Annual Concentration

Pollutants	CAS Number	Max Estimated Annual Concentration ($\mu g/m^3$)	AGC ($\mu g/m^3$)	Pass / Fail
Acetone	00067-64-1	0.3	30000	Pass
Aliphatic Hydrocarbon	64742-89-8	0.1	3200	Pass
Aromatic Petroleum distillates	64742-94-5	0.0	100	Pass
Butane	00106-97-8	0.1	/	N.A.
Ethanol	00064-17-5	0.0	45000	Pass
Ethyl 3-Ethoxyproprioanate	00763-69-9	0.1	64	Pass
Ethylbenzene	00100-41-4	0.0	1000	Pass
Methyl Ethyl Ketone	00078-93-3	0.1	5000	Pass
N-Butyl Acetate	00123-86-4	0.0	17000	Pass
Propane	00074-98-6	0.1	43000	Pass
Stoddard Solvents	08052-41-3	0.1	900	Pass
Toluene	00108-88-3	0.1	5000	Pass
Xylene	01330-20-7	0.1	100	Pass

Odor

An existing poultry establishment was found to be located at 874 39th Street (Block 916, Lot 34) during the site visit. The facility would be subject to the provisions of State law prohibiting the emission of odors that could adversely affect proposed development within the affected area. Specifically, odor emissions are regulated by the State under 6 NYCRR 211.1, which states:

> "No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others."

Given the poultry establishment has been located immediately adjacent to a deli shop and several residential units for a long time, it is very unlikely to have adverse air quality impacts associated with odors. In addition, the provisions of NYCRR 211.1 would ensure that the existing poultry establishment would be adversely affect proposed development with rezoning area.

CONCLUSIONS

Based on the results predicted under the worst-case scenario, potential impacts from the identified existing industrial source would not be significant.

2.9 NOISE

Noise is defined as any unwanted sound, and sound is defined as any air pressure variation that the human ear can detect. Human beings can detect a large range of sound pressures ranging from 20 to 20 million micropascals, but only these 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.

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

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

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

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

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

2.9.1 Mobile Sources

Mobile noise sources are those which move in relation to receptors. The mobile source screening analysis addresses potential noise impacts associated with vehicular traffic generated by the proposed action. According to the *CEQR Technical Manual*, if existing passenger car equivalent (PCE) values are increased by 100 percent or more due to a proposed action, a detailed analysis is generally performed. In the future with the proposed rezoning, a total of twelve parcels are projected to be in the rezoning area. This would result in the increment of approximately 12,723 square feet of commercial floor area, and the increment of approximately 67 dwelling units, which would be displaced by commercial expansion. The creation of the commercial and residential space that would result from this action is not expected to cause vehicular traffic (and thus PCE values) to double at any local intersections. The proposed action is not anticipated to generate enough vehicular traffic to double traffic levels on adjacent streets during any peak hour due to the relatively moderate to high numbers of vehicles in the immediate area. As such, the proposed action is unlikely to warrant a mobile source analysis and significant mobile source related impacts are not expected. The rezoning area contains a variety of transit options, including the 9th Avenue "D" subway station one block north, and multiple MTA bus lines operating on both 8th Avenue and on 39th Street.

2.9.2 Stationary Sources

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

high ambient noise levels resulting from stationary sources, such as unenclosed manufacturing activities or other loud uses. Machinery, mechanical equipment, heating, ventilating and air-conditioning units, loudspeakers, new loading docks, and other noise associated with building structures may also be considered in a stationary source noise analysis. Impacts may occur when a stationary noise source is near a sensitive receptor, and is unenclosed.

However, the subject site is located near 9th Avenue, which is a heavily-trafficked thoroughfare, as well as the elevated "D" subway train. Therefore, the proposed action would involve the placement of new sensitive receptors near a potentially significant noise source.

Measurement Equipment and Location

Because the predominant noise sources in the area of the proposed project are vehicular traffic, noise monitoring was conducted during peak vehicular travel periods, 8:00-10:00 am, 12:00-2:00 pm, and 5:00-7:00 pm for locations affected by vehicular traffic.

A Type 2 Larson Davis LxT sound meter with wind shield was used to conduct the noise monitoring. The meter was placed on a tripod at a height of approximately five feet above the ground, away from any other surfaces. The meter was calibrated prior to and following each monitoring session.

Noise measurements were conducted on the sidewalk at the following intersections (Figure 1):

Location 1: the intersection of 39th Street and New Utrecht Ave (Figure M1);

Location 2: the intersection of 39th Street and 9st Avenue (Figure M2).



Figure 2.9-1 Noise Monitoring Locations

Measurement Conditions

Measurements were conducted during typical midweek conditions, on Tuesday, Jun 21st, 2016.

The weather was dry and wind speeds were moderate throughout the day. Traffic volumes and vehicle classification were documented during the noise monitoring. Results are demonstrated in **Tables 25a and 25b** below.

Results

Table 25a: Noise Levels at different measurement period at Location 1

Jun 21st, 2016 Tuesday			
	8:36-8:58 am	12:00-12:22 pm	4:59-5:21 pm
L_{eq}	70.2	73.5	69.0
L_{max}	90.0	99.3	88.2
L_5	75.9	77.1	75.0
L_{10}	**72.5**	**73.3**	**72.4**
$L_{33.3}$	66.8	65.5	66.3
L_{50}	64.5	62.6	63.5
$L_{66.6}$	62.0	59.5	61.2
L_{90}	58.7	55.9	57.5
L_{min}	53.8	52.1	52.5

Table 25b: Noise Levels at different measurement period at Location 2

Jun 21st, 2016 Tuesday			
	8:59-9:21 am	12:31-12:53 pm	5:23-5:45 pm
L_{eq}	72.6	72.3	69.1
L_{max}	95.8	90.5	91.5
L_5	78.1	78.7	74.7
L_{10}	**74.4**	**75.0**	**71.5**
$L_{33.3}$	67.3	68.1	66.6
L_{50}	65.4	65.2	64.7
$L_{66.6}$	63.5	62.7	63.0
L_{90}	58.6	59.1	60.0
L_{min}	54.0	54.0	56.1

Discussion

The D train 9th Ave Station is approximately 250 ft. north of the Project Sites. And there is a 90-degree curve of the track locates about 550 ft. east of the rezoning area. However, the train noise does not contribute a lot for the total noise level, maybe because the curve is too close to the station, train running at a very low speed when coming in and out the station.

The major noise source in this area is vehicular noise. 39th St is one of the major streets in this area. (39th Street is a two-way street, and the next two-way street is 60th Street.) A lot of buses and trucks run on 39th Street.

The 2014 CEQR Technical Manual Table 19-2 contains noise exposure guidelines. For a proposed residential use, a L_{10} of between 70 and 80 dB(A) is identified as a marginally unacceptable general external exposure. The highest recorded L_{10} at Location 1 was 73.3 during the 12:00-12:22 pm period. According to the 2014 CEQR Technical Manuel, window-wall attenuation of 31 db(A) is required. The highest recorded L_{10} at Location 2 was 75.0 during the 12:31-12:53 am period. According to the 2014 CEQR Technical Manuel, window-wall attenuation of 31 db(A) is required. Therefore, 31 dB(A) windows-wall attenuation is required for all Projected Sites.

Conclusion

While the Project Site is located in an existing manufacturing district with non-conforming mixed residential and commercial uses, no unenclosed stationary noise sources of concern were observed during field inspection. As the rezoning area is not subject to high ambient noise levels from any nearby uses, no stationary source noise impacts from surrounding uses are anticipated.

To preclude the potential for significant adverse impacts related to noise, an (E) designation would be incorporated into the rezoning proposal for Block 5583, Lots 6, 12, 13, and portions of Lots 15, 16, 17, and 7501. E-479 has been assigned to this project. The text for the (E) designation is as follows:

Projected Site 1 (Block 5583, Lot 6)
In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed window condition with minimum attenuation of 31 dB(A) window/wall attenuation on all facades in order to maintain an interior noise level of 45 dB(A). In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.

Projected Site 2 (Block 5583, Lots 12, 13, and 15)
In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed window condition with minimum attenuation of 31 dB(A) window/wall attenuation on all facades in order to maintain an interior noise level of 45 dB(A). In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.

Projected Site 3 (Block 5583, Lots 16 and 17)
In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed window condition with minimum attenuation of 31 dB(A) window/wall attenuation on all facades in order to maintain an interior noise level of 45 dB(A). In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.

With these (E) designations in place, no significant adverse noise impacts related to noise are expected, and no further analysis is warranted.

2.10 PUBLIC HEALTH

This chapter assesses the Recommended Actions' effect on public health. As defined by the *City Environmental Quality Review* (CEQR) *Technical Manual*, public health is the organized effort of society to protect and improve the health and well-being of the population through monitoring; assessment and surveillance; health promotion; prevention of disease, injury, disorder, disability, and premature death; and reducing inequalities in health status. The goal of CEQR with respect to public health is to determine whether adverse impacts on human health may occur as a result of a proposed project and, if so, to identify measures to mitigate such effects.

The *CEQR Technical Manual* states that a public health assessment is not necessary for most projects. Where no significant adverse unmitigated impacts are found in other CEQR analysis areas—such as air quality, water quality, hazardous materials, or noise—no public health analysis is warranted. If, however,

an unmitigated adverse impact is identified in any of these other CEQR analysis areas, the lead agency may determine that a public health assessment is warranted for that specific technical area.

As described in the relevant analyses of this document, the Recommended Actions would not result in an unmitigated significant adverse impact in any of the technical areas related to public health. Therefore, the Recommended Actions would not have the potential for significant adverse impacts related to public health, and no further analysis is warranted.

2.11 NEIGHBORHOOD CHARACTER

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

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, there are elements that 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 result 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 action's 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 particular aspects of the environmental setting, the discussion for neighborhood character focuses on a limited number of important features that gives 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 2021 analysis year under the Future No-Action Condition is then included. A brief overview of the Proposed Action 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.

2.11.1 Existing Conditions

Land Use, Zoning and Public Policy

Land uses throughout the study area vary greatly, and include a mix of residential and commercial uses with industrial and manufacturing uses, transportation/utility uses, and public facilities and institutions as well. The residential uses consist of one and two family and multifamily walk up residences on 9th Avenue and 40th Street and surrounding streets including 41st Street between 9th Avenue and New Utrecht Avenue. Mixed residential and commercial uses are found on 9th Avenue as well as on New Utrecht Avenue between 40th Street and 39th Street. Additionally, one multi-family elevator building is located within the study area and is located at the northwest corner of New Utrecht Avenue and 40th Street.
Industrial and Manufacturing uses are also found throughout the study area, including the north and south sides of 39th Street, where they are clustered. Public Facilities and Institutions are located throughout the study area as well, including a cultural center on 40th Street and a private school on 39th Street.

The rezoning area is located on the southern side of 39th Street between New Utrecht Avenue and f 9th Avenue in the Sunset Park/Borough Park neighborhood of Brooklyn, which generally consists of residential and mixed- residential and commercial buildings, transportation/utility uses, and industrial and manufacturing uses. Directly west of the rezoning area is a parking facility for Marathon Energy vehicles and trucks. Directly east of the Project Site on New Utrecht Avenue is a mix of multifamily walk-up buildings and mixed residential and commercial buildings whose style is consistent with neighborhood character. Additionally, the majority of the eastern portion of the study area consists of Industrial and manufacturing uses on 39th Street and one-& two-family residences on 40th Street.

The northern and southern portions of the study area contain land use patterns consistent with the Project Site and adjacent buildings. The northern section of the study area, north of 39th Street consists predominantly of the MTA's 36th-38th Street Yards. Additional land uses in the area include a varied mix of industrial/manufacturing uses on 39th Street, as well as commercial uses, one- &-two family residential buildings. The lone open space in the study area, Heffernan Triangle, is located in the northern portion of the study area, located on 39th Street right across from the proposed Project Site. The southern portion of the study area is predominantly comprised of multifamily walk-up buildings and mixed residential and commercial buildings. The southeast corner of the study area along New Utrecht Avenue between 40th Street and 41st Street includes public facility and institutional uses as well as industrial and manufacturing uses including a private school and a cultural center, as well as printing store.

The rezoning area is located within an existing M1-2 District. The predominant zoning districts within 400 feet are M1-2, R6, and R6 with a C2-3 commercial overlay. M1 zoning districts range from the Garment District in Manhattan and Port Morris in the Bronx with multistory lofts, to parts of Red Hook or College Point with one- or two-story warehouses characterized by loading bays. M1 districts are often buffers between M2 or M3 districts and adjacent residential or commercial districts. M1 districts typically include light industrial uses, such as woodworking shops, repair shops, and wholesale service and storage facilities. Nearly all industrial uses are allowed in M1 districts if they meet the stringent M1 performance standards. Offices, hotels and most retail uses are also permitted. Certain community facilities, such as hospitals, are allowed in M1 districts only by special permit, but houses of worship are allowed as-of-right. M1-2 zoning districts have a maximum allowable FAR of 2.0 and parking and loading requirements vary by use. R6 zoning districts are widely mapped in built-up, medium-density residential areas. Commercial uses are not allowed in R6 districts. The character of R6 districts can range from neighborhoods with a diverse mix of building types and heights to large-scale "tower in the park" developments. FAR's is R6 districts can range from 0.78 to 2.43 and parking is required for 70% of all dwelling units. Building height is governed by sky exposure plane.

As in commercial overlays districts, typical retail uses include grocery stores, dry cleaners, drug stores, restaurants and local clothing stores that cater to the daily needs of the immediate neighborhood. In mixed-use buildings, commercial uses are limited to one or two floors and must always be located below the residential use. C2-4 districts have a maximum commercial FAR of 2.0.

Urban Design and Visual Resources

The architecture throughout the study area is eclectic, with no true unity or identity of form to tie the built form together visually. As noted in **Section 2.5** The area is characterized by a mix of one- and two-family residential, multi-family residential, commercial, industrial/manufacturing, and isolated public facility and institutional uses. The norther portion of the study area features a large MTA New York City Transit repair shop. The commercial uses are comprised of bodegas, delis, auto repair shops, a hotel and other local retail. The prevailing built form in the area is a mix of low- to mid-rise residential and small apartment buildings. There are also some mixed commercial and residential buildings with ground floor commercial and two to three stories of residential uses above the ground floor. There are also some mixed commercial and residential buildings with ground floor commercial and two to three stories of residential uses above the ground floor. Most buildings within the study area are arranged regular (parallel) with respect to their lot placement The MTA's 36th-38th Street Yards acts as a barrier of sorts between the study area and Greenwood Cemetery to the north.

There are few streetscape elements present within the study area and little in the way of visual interest. Most of the streets contain street trees, which are generally located at irregular intervals; however no other notable streetscape elements (e.g. benches) are located outside of public parks within the study area.

Transportation

The street hierarchy of the study area includes several different functional classifications. 39th Street is classified as a Principal Arterial Other roadway. New Utrecht Avenue is classified s a Minor Arterial roadway. In the northern portion of the study area, north of 39th Street, 9th Avenue is classfiied as a Minor Arterial roadway as wel, but is classified as a local road south of 39th Street. All other roadways in the study area are classified as local roads.

2.11.2 Future No-Action Scenario

In the Future No-Action Scenario, it is expected that the existing uses within the rezoning area would remain in their current form.

Significant changes to the study area are not expected by the analysis year of 2021. In the Future No-Action Scenario, it is expected that while tenants within surrounding area buildings may change, the overall use of these buildings would remain the same, and any physical changes would comply with designated zoning regulations and other surrounding districts.

2.11.3 Future With-Action Scenario

The elements that comprise neighborhood character are reviewed individually below, with a following supporting and cumulative conclusion.

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.

In the Future With-Action scenario, the proposed rezoning would amend the zoning map to change the existing M1-2 and M1-2/R6 district to an R7A/C2-4. On the proposed development site (Block 5583, Lot 6) this action would facilitate a reasonable worst-case development scenario with approximately 9,533 squre feet of commericla use and 34,319 square feeet of residential use for a total of 43,852 developed square feet. We can also assume that the other Projected Development Sites (Sites 2- 3) in the rezoing area would also be built out to the maximum allowable FAR of 4.6. Additionally, the mapping of C2-4 commercial overlay over the rezoning area is assumed to induce a ground-floor commercial use over the

proposed development site (Lot 6) and Projected Development Sites (Sites 2-3) as well. The C2-4 allows typical retail uses including, neighborhood grocery stores, restaurants and beauty parlors.
Furthermore, the proposed land uses (residential and commercial) are compatible with the residential uses to the south of the Project Site and the commercial uses along 9th Avenue and 39th Street. Therefore, the proposed action is not expected to have any adverse impacts on surrounding land uses.

The proposed action would change the existing M1-2 district to an R7A/C2-4 district over Brooklyn Blocks 5583, Lots 6, 12, 13, 15, parts of Lots 16, 17, 7501. Absent the proposed action, the applicant would be unable to construct the proposed six-story residential building under the existing floor area and lot coverage requirements of an M1-2 district. These zoning districts would conform to the general zoning in the study area. A number of C2-3 overlays exist within the study area. South of the Project Site, the R6 zoning district allows for a maximum FAR of 4.8, which is similar to that of the proposed R7A zoning district. The proposed action would therefore 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. Significant adverse impacts to zoning are not anticipated and further zoning analysis is not warranted.

Open Space

Preliminary screening procedures from the *CEQR Technical Manual* indicate that impacts may occur if a project reduces the OSR by more than five percent. In areas that are lacking in open space resources, a reduction as small as one percent may be considered significant. Under the Future With-Action Condition, there would be an increase of up to 212 new residents in the rezoning area, thereby increasing the study area population from approximately 44,026 residents under the Future No-Action Condition to 44,238 residents under the Future With-Action Condition. The resulting OSR would decrease from .355 acres per 1,000 residents under the Future No-Action Condition to .352 acres of open space per 1,000 persons under the Future With-Action Condition, a decrease of approximately 0.03 percent. The reduction in OSR related to the proposed actions would be significantly less than one percent. Therefore, no significant adverse impacts to open space resources as a result of the proposed actions are expected and no further analysis is warranted.

Historic and Cultural Resources

According to CEQR, when an action results in substantial direct changes to a historic or cultural resource or substantial changes to public views of a resource, or when a historic or cultural resource analysis identifies a significant impact in this category, there is a potential to affect neighborhood character.

The Project Site is not a designated local LPC or S/NR historic resource or property, nor is the site part of any designated historic district. The LPC was contacted for their initial review of the project's potential to impact nearby historic and cultural resources, and a response was received on July 15th, 2016, indicating that the projected development site has no architectural or archaeological significance. Therefore, significant adverse impacts to these resources are not expected as a result of the proposed action and further analysis is not warranted.

Urban Design and Visual Resources

According to the *CEQR Technical Manual*, in developed areas, urban design changes have the potential to affect neighborhood character by introducing substantially different building bulk, form, size, scale, or arrangement. Urban design changes may also affect block forms, street patterns, or street hierarchies, as well as streetscape elements such as street walls, landscaping, curb cuts, and loading docks. Visual resource changes could affect neighborhood character if they directly alter key visual features such as unique and important public view corridors and vistas, or block public visual access to such features.

The proposed action would not diminish or disturb the existing aesthetic continuity, pedestrian features of the community or neighborhood, and as the proposed action would not block any view corridors or views to/from any natural areas with rare or defining features, nor would the proposed action impact

an historical or culturally sensitive community features, the proposed action is not expected to result in any significant adverse urban design. Visual resource changes would also not occur, as the proposed action would not directly alter any key visual features, such as unique and important public view corridors and vistas, or block public visual access to such features.

Shadows

According to CEQR, when shadows from a proposed project fall on a sunlight-sensitive resource and substantially reduce or completely eliminate direct sunlight exposure such that the public's use of the resource is significantly altered or the viability of vegetation or other resources is threatened, there is a potential to affect neighborhood character. The proposed project was demonstrated cast new net incremental shadows on an open space resource adjacent to the Project Site (Heffernan Triangle). However, it is not expected to have any significant adverse impacts on the open space when it comes to use or impacts to vegetation in the resource. Therefore, the proposed action would not lead to any significant adverse shadow impacts

Transportation

According to CEQR, changes in traffic and pedestrian conditions can affect neighborhood character in a number of ways. For traffic to have an effect on neighborhood character, it must be a contributing element to the character of the neighborhood (either by its absence or its presence), and it must change substantially as a result of the action. According to the *CEQR Technical Manual*, such substantial traffic changes can include: changes in level of service (LOS) to C or below; change in traffic patterns; change in roadway classifications; change in vehicle mixes, substantial increase in traffic volumes on residential streets; or significant traffic impacts, as identified in the technical traffic analysis. Regarding pedestrians, when a proposed project would result in substantially different pedestrian activity and circulation, it has the potential to affect neighborhood character.

The proposed action would not lead to an increase of 50 or more vehicle trips at any one intersection in the vicinity of the proposed development sites. Therefore, the proposed action would not lead to any significant adverse traffic impacts. Additionally, the proposed action would not lead to an increase of 200 or more transit trips. Therefore, the proposed action would not lead to any significant adverse subway or bus impacts.

Noise

According to the *CEQR Technical Manual*, for an action to affect neighborhood character with respect to noise, it would need to result in a significant adverse noise impact and a change in acceptability categories.

The proposed action would not result in a change of acceptability categories, as it would not introduce any notable mobile or stationary sources or noise, and as such, the proposed action would not affect neighborhood character with respect to noise.

Conclusions

Of the relevant technical areas specified in the *CEQR Technical Manual* that comprise neighborhood character, the proposed action would not cause significant adverse impacts with regard to any of them. Moderate adverse effects that would potentially impact such a defining feature, either singly or in combination, have also not been identified for more than one technical area. Therefore, as the proposed action would not have a significant adverse neighborhood character impact and would not result in a significant adverse impact to a defining feature of the neighborhood, further analysis is not necessary.

2.12 CONSTRUCTION

Construction, although temporary, can result in disruptive and noticeable effects on a proposed action 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, 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 action involves a rezoning in the Sunset Park/Borough Park neighborhood of Brooklyn. In addition to the site controlled by the applicant, there are four projected development sites in the rezoning area. While the duration of construction on the applicant's site is expected to last approximately 20 months, the remaining projected development sites are anticipated to be developed in the three years following the adoption of the proposed rezoning.

As construction induced by the proposed action would be gradual, taking place over a four-year period, potential impacts would be minimal and, as discussed below, not expected to have any significant adverse impacts. The following is a brief discussion of the effects associated with construction related activities on traffic, air quality, noise, historical resources and hazardous materials resulting from the construction of the projected development sites.

Effect of Construction on Traffic

The proposed action would result in new development, over a three-year period, on up to three development sites. These developments would replace existing uses on the each site. During construction, the sites would generate trips from workers traveling to and from the construction sites, and from the movement of materials and equipment.

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 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 result in the temporary closing of sidewalks adjacent to the site at times. These conditions would not lead to significant adverse effects on traffic and transportation condition***s.***

Effect of Construction on Air Quality

Possible impacts on local air quality during construction induced by the proposed action 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 would 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 action 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 action 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 proposed rezoning area, the mobile source emissions generated by the proposed action would not be significant. Overall, the proposed action would not have the potential to 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 action is 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 the 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 be expected to result from the proposed action.

Effect of Construction on Historic Resources

In order to determine whether the projected development has the potential to affect nearby off-site historic or architectural resources, the study area was screened for historic and architectural resources. No historic or architectural resources were identified within the 400-foot study area. Therefore, adverse construction-related impacts are not expected to any historic resource in the vicinity of the rezoning area.

Conclusion

Construction-related activities are not expected to have any significant adverse impacts on traffic, air quality, noise, historic resources, or hazardous materials conditions as a result of the proposed action.

APPENDICES

APPENDIX A – SITE PLAN AND ZONING ANALYSIS

Site Data	
Block(s)	5583
Lot(s)	6
Street Address(es)	3901 9TH AVENUE
Existing Zoning	M1-2
Community District	312
Zoning Section Map No.	22C
Zoning Lot Area	9525 SQ. FT

List of Required Actions

ZR Section	Permitted/Required	Existing to Remain	Proposed	Total	Compliance/Notes
ZR 23-952	FAR 4.6	NA	FAR 4.59	43805.63 SQ. FT.	INCLUSIONARY HOUSING
ZR 23-952	RESIDENTIAL FAR 4.6	NA	FAR 3.69	35140.05 SQ. FT.	
ZR 35-40	COMMERCIAL FAR 1 AT 1ST FLOOR	NA	FAR .90	8665.58 SQ. FT.	
ZR 23-145	80% RESIDENTIAL LOT COVERAGE	NA	76%	7262.5 SQ. FT.	
ZR 23-20	DENSITY REGULATION RESIDENTIAL FAR/680	NA	4.6X9525/680 = 64	37 DWELLING UNITS	
ZR 23-632	MAX BUILDING BASE HEIGHT	NA	85 FT	85 FT	
ZR 23-45	FRONT YARD	NA	NOT REQUIRED		
ZR 23-462	SIDE YARD	NA	NOT REQUIRED		
ZR 23-47	REAR YARD	NA	NOT REQUIRED	50 FT & 45.25 FT	
ZR 25-241	PROVIDE 30% PARKING FOR RESIDENTIAL	NA	11 PARKING	WAVIED	10000 SQ. FT AND LESS
ZR 36-21	1 PARKING FOR EVERY 1000 SQ. FT. IN COMMERCIAL AREA	NA	8665.58 SQ. FT. / 1000	8.6 PARKING	LESS THAN 40 SPACES. PARKING REQUIRMENT WAVIED AS PER ZR 36-232(a)

Zoning Analysis

Borough:
Block:
Lot:
Address:

Primary firm

Applicant name

Drawing Notes

Sign & Seal

Last Revised Date

Drawing Sheet Number

LOCATION

3901 9TH AVENUE, BROOKLYN
ZONING: R7A OVERLAY C2-4
BLOCK: 5583 LOT: 6
ZONING MAP: 22C USE GROUP 2 & 6
LOT SIZE: 100.0' X 95.25' = 9525 SQ. FT.

ZONING CALCULATIONS

FLOOR AREA REGULATION

FOR QUALITY HOUSING PROGRAM. (ZR 35-011)
WITH INCLUSIONRY HOUSING (23-952)
FOR MAXIMUM FAR FOR R7A AT WIDE STREET (80')
OUTSIDE OF MANHATTAN CORE

LOT AREA: 100.0' X 95.25' = 9525 SQ. FT.

MAX. FLOOR AREA FOR RESIDENTIAL AT R7A WITH QUALITY HOUSING (ZR 23-145):
9525 X 4.6 = 43815 S.F
PROPOSED S.F. FOR RESIDENTIAL USE: 859.42 + 34280.63 = 35140.05 S.F.

COMMERCIAL FAR FOR R7A OVERLAY C2-4 = 2.0
MAX. FLOOR AREA FOR COMMERCIAL AT R7A: 9525 X 2.0 = 19050 S.F
PERMITTED FAR FOR COMMERCIAL USE = 1.0 X 9525 =9525 S.F.
PROPOSED S.F. FOR COMMERCIAL USE = 8665.58 S.F.

PROPOSED FLOOR AREA

1ST FLOOR: 100' X 95.25' = 9525 S.F.

1ST FLOOR RESIDENTIAL AREA
31.83' X 21.66' = 689.43 S.F.
6.0' X 28.33' = 169.98 S.F.

TOTAL 1ST FLOOR RESIDENTIAL AREA = 859.42 S.F.

1ST FLOOR COMMERCIAL FLOOR AREA:
9525 - 859.42 = 8665.58 S.F.

TOTAL 1ST FLOOR COMMERCIAL AREA = 8665.58 S.F.

RESIDENTIAL FLOOR AREA:
2ND FLOOR: (100.0' X 50.0') + (50.0' X 45.25') = 7262.5 S.F.
3RD FLOOR: (100.0' X 50.0') + (50.0' X 45.25') = 7262.5 S.F.
4TH FLOOR: (100.0' X 50.0') + (50.0' X 45.25') = 7262.5 S.F.
5TH FLOOR: (100.0' X 50.0') + (50.0' X 45.25') = 7262.5 S.F.
6TH FLOOR: (88.92' X 39.0') + (39.0' X 45.25') = 5230.63 S.F.

TOTAL PROPOSED 2ND - 6TH RESIDENTIAL FLOOR AREA: 34280.63 S.F.

TOTAL PROPOSED FLOOR AREA:
8665.58 + 859.42 + 34280.63 = 43805.63 S.F.

MAX. FLOOR AREA FOR SUCH MIXED USES BUILDING
AT R7A/C2-4: 9525 X 4.6 = 43815 S.F
43805.63/9525 = 4.59 < 4.6

HEIGHT & SET BACK REGULATIONS

(ZR 23-632)
-MINIMUM BUILDING BASE HEIGHT OF 60 FEET ABOVE CURB LEVEL
-MAXIMUM BUILDING BASE HEIGHT OF 85 FEET ABOVE CURB LEVEL
-MAXIMUM BUILDING HEIGHT OF 100 FEET ABOVE CURB LEVEL

-10'-0" SET BACK REQUIRED ABOVE MAXIMUM BASE HEIGHT

PROPOSED BUILDING HEIGHT: 85'-0"

YARD REQUIREMENTS

(A) FRONT YARD (ZR 23-45)
NONE REQUIRED

(B) SIDE YARD (ZR 23-462)
NONE PROVIDED

(3) REAR YARD (ZR 23-47)
NOT REQUIRED WITHIN 100' OF CORNER
50.0' & 45.25' PROVIDED

PARKING REGULATIONS

RESIDENTIAL PARKING REGULATION (ZR 25-241) (ZR 36-341)
FOR ZONING LOTS OF 10,000 SQUARE FEET OR LESS, THE NUMBER OF REQUIRED ACCESSORY OFF STREET PARKING TO APPLY REDUCED REQUIREMENT FOR SMALL ZONING LOTS IN ZONING R7A IS 30% OF PARKING SPACE REQUIRED AS PERCENT OF TOTAL DWELLING UNITS

30% OF 37 DWELLING UNIT = 11 PARKING SPACES

(ZR 25-261) FOR DEVELOPMENT IN R7A DISTRICT, THE MAXIMUM NUMBER OF ACCESSORY OFF STREET PARKING SPACES FOR WHICH REQUIREMENT ARE WAIVED ARE 15 PARKING SPACES

PARKING REGULATION FOR COMMERCIAL AREA (ZR 36-21)
1ST FLOOR COMMERCIAL AREA = 8665.58 SQ. FT.

ONE PARKING PARKING SPACE PER 1000 SQ. FT.
TOTAL PARKING SPACE FOR COMMERCIAL AREA = 8665.58/1000 = 8.66 PARKING SPACE
LESS THAN 40 PARKING SPACES. PARKING REGULATION TO BE WAIVED
ACCORDING TO ZR 36-232(a)

LOT COVERAGE REGULATIONS (ZR 23-145):

- FOR RESIDENTIAL FOOT PRINT:
80% MAX OF CONER LOT (ZR 23-145)
LOT COVERAGE : 7262.5 S.F./9525 S.F. =76% < 80% (OK)

DENSITY REGULATIONS

THE MAXIMUM RESIDENTIAL FLOOR AREA RATIO SHALL BE 4.6 IN AN R7A DISTRICT IN A WIDE STREET.
ALLOWABLE NUMBER OF DWELLING UNITS:
4.6 x 9525 S.F. / 680 = 64 D.U.
PROPOSED NUMBER OF DWELLING UNITS: 37 UNITS

CD DESIGN INC.
22 RUTGERS ST. N.Y. 10002
TEL:212-226-7261 FAX:212-431 0074

THE ENGINEER SHALL NOT HAVE CONTROL OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, DEVIATIONS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS OR ANY OTHER PERSON PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ALWAYS USE DIMENSIONS AS SHOWN. DRAWINGS ARE NOT TO BE SCALED.

THESE PLANS ARE IN INSTRUMENT OF SERVICE AND THE PROPERTY OF THE ENGINEER, INFRINGEMENT WILL BE PROSECUTED.

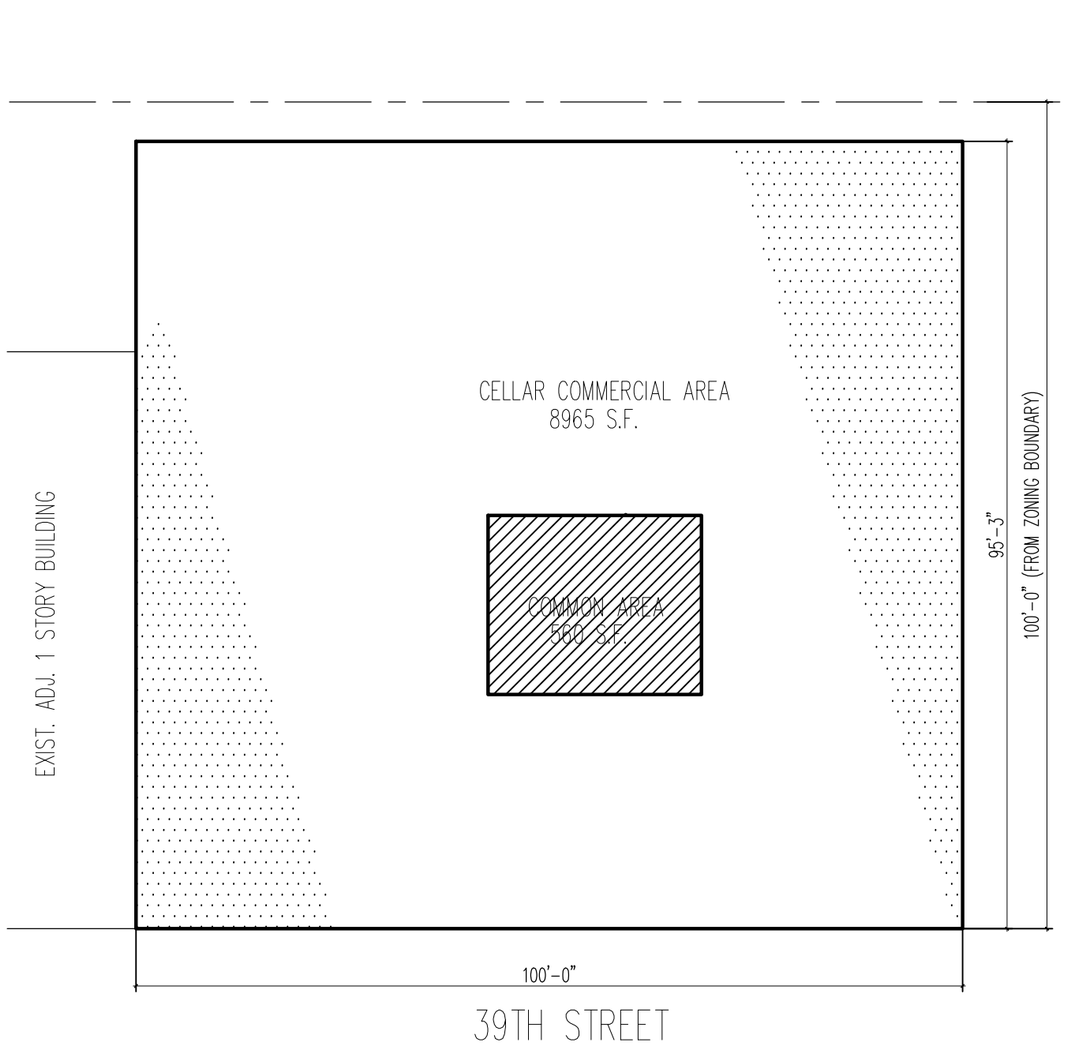
CONTRACTOR SHALL VERIFY ALL FIELD CONDITION AND BE RESPONSIBLE FOR FIELD FIT AND QUANTITY OF WORK. NO ALLOWANCES SHALL BE MADE IN BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLECT ON THE PART.

ISSUED FOR:	DATE:

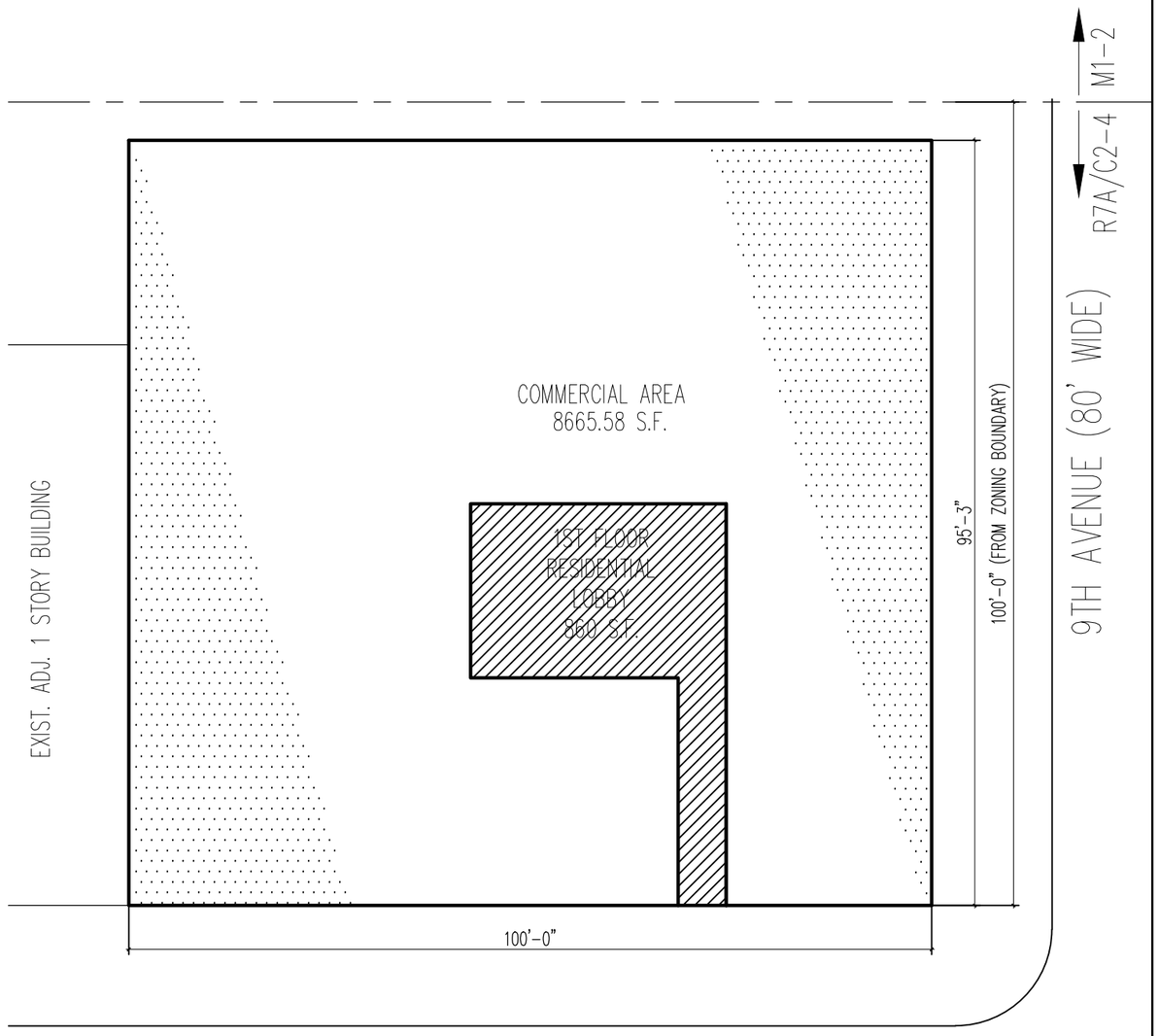
DRAWN BY: D
CHECK BY: SW
DATE: 02/01/16

PROJECT LOCATION:
3901 9TH AVENUE
BROOKLYN, NY 11232

DWG NO.:
Z001.00



CELLAR



1st FLOOR

NOTE: INFORMATION OUTSIDE OF THE BOUNDARIES OF THE ZONING LOT IS FOR ILLUSTRATIVE PURPOSES ONLY, AND MAY NOT BE EXACT. THE ARCHITECT BEARS NO RESPONSIBILITY FOR INEXACT INFORMATION ON SURROUNDING PROPERTIES

0 5 10 20 30

LEGEND

COMMERCIAL AREA
RESIDENTIAL AREA
COMMON AREA

STEPHEN WILDER. R.A.
CD DESIGN INC.
22 RUTGERS ST. N.Y. 10002
TEL: 212-226-7261 FAX: 212-431-0074

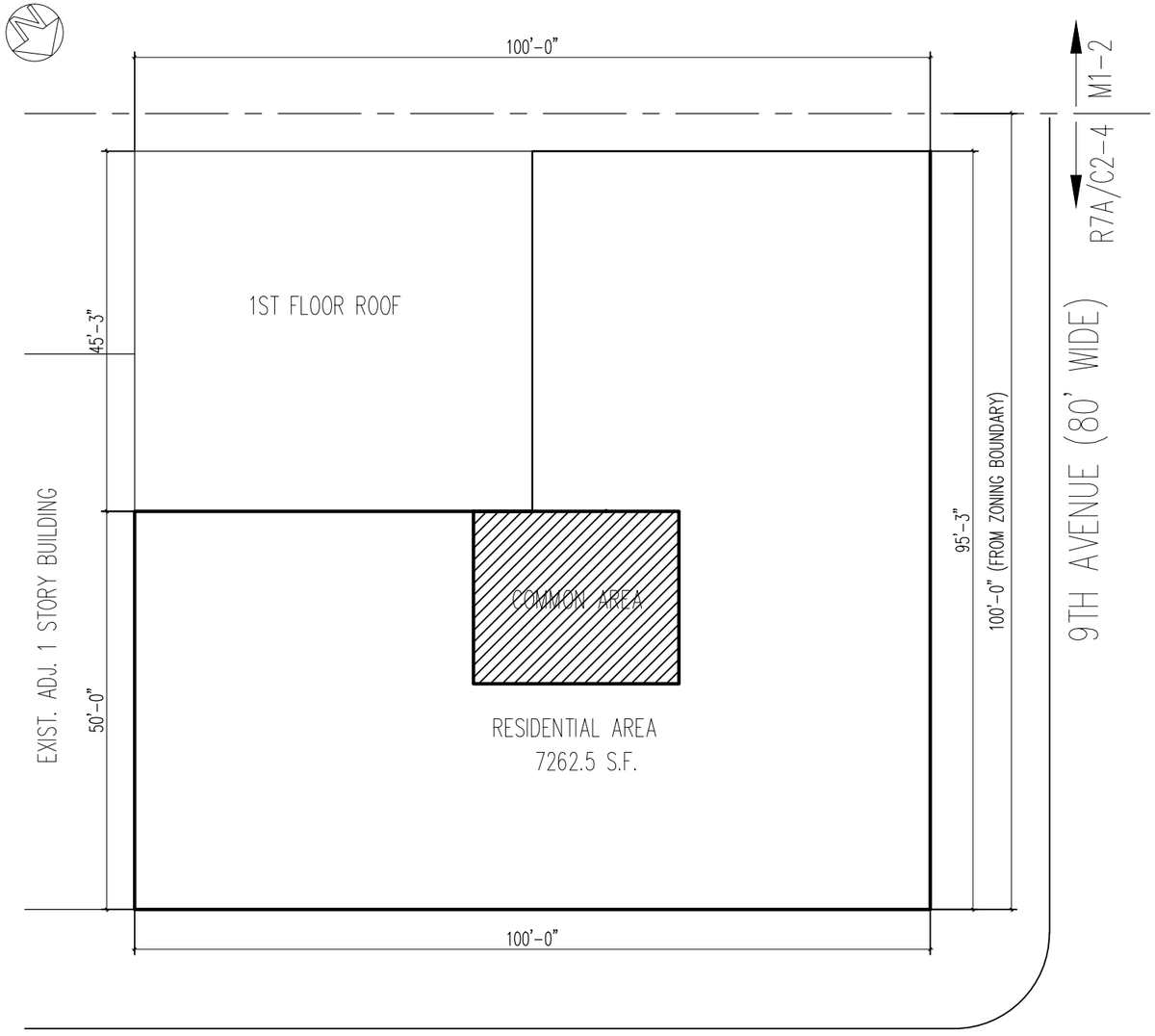
ZONING: R7A OVERLAY C2-3
BLOCK: 5583 LOT: 6
ZONING MAP: 22C
LOT SIZE: 100.0' X 95.25' = 9525 SQ. FT.

ISSUED FOR:	DATE:

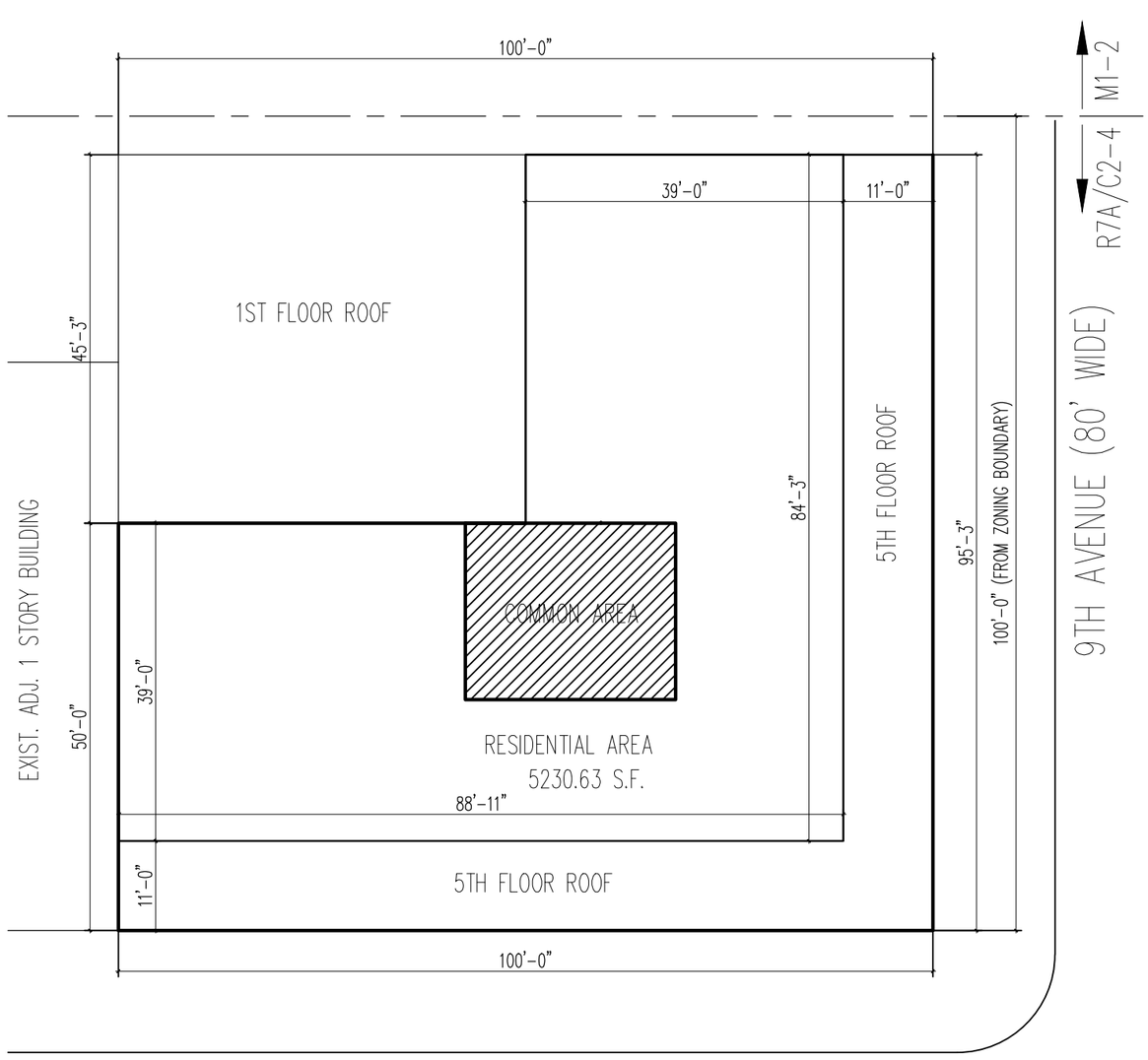
DRAWN BY: D
CHECK BY: SW
DATE: 02/01/16

PROJECT LOCATION:
3901 9TH AVENUE
BROOKLYN, NY 11232

DWG NO.:
Z100.00



TYP. 2nd THRU 5th FLOOR



6TH FLOOR

NOTE: INFORMATION OUTSIDE OF THE BOUNDARIES OF THE ZONING LOT IS FOR ILLUSTRATIVE PURPOSES ONLY, AND MAY NOT BE EXACT. THE ARCHITECT BEARS NO RESPONSIBILITY FOR INEXACT INFORMATION ON SURROUNDING PROPERTIES



LEGEND

COMMERCIAL AREA

RESIDENTIAL AREA

COMMON AREA

STEPHEN WILDER. R.A.
CD DESIGN INC.
22 RUTGERS ST. N.Y. 10002
TEL: 212-226-7261 FAX: 212-431-0074

ZONING: R7A OVERLAY C2-3
BLOCK: 5583 LOT: 6
ZONING MAP: 22C
LOT SIZE: 100.0' X 95.25' = 9525 SQ. FT.

ISSUED FOR:	DATE:

DRAWN BY: D
CHECK BY: SW
DATE: 02/01/16

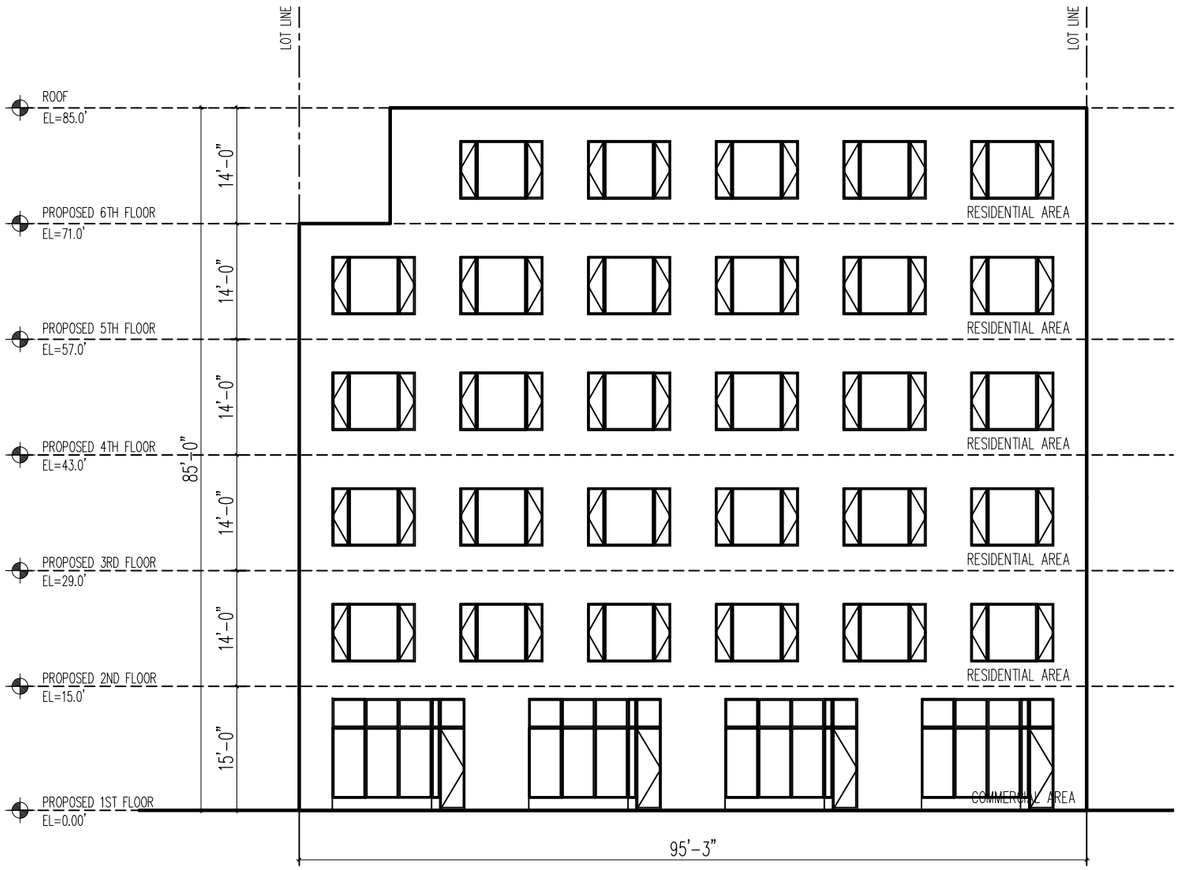
PROJECT LOCATION:
3901 9TH AVENUE
BROOKLYN, NY 11232

DWG NO.:
Z101.00



39TH STREET

NORTH ELEVATION



9TH AVENUE

WEST ELEVATION

NOTE: INFORMATION OUTSIDE OF THE BOUNDARIES OF THE ZONING LOT IS FOR ILLUSTRATIVE PURPOSES ONLY, AND MAY NOT BE EXACT. THE ARCHITECT BEARS NO RESPONSIBILITY FOR INEXACT INFORMATION ON SURROUNDING PROPERTIES

0 5 10 20 30

STEPHEN WILDER. R.A.
CD DESIGN INC.
22 RUTGERS ST. N.Y. 10002
TEL: 212-226-7261 FAX: 212-431-0074

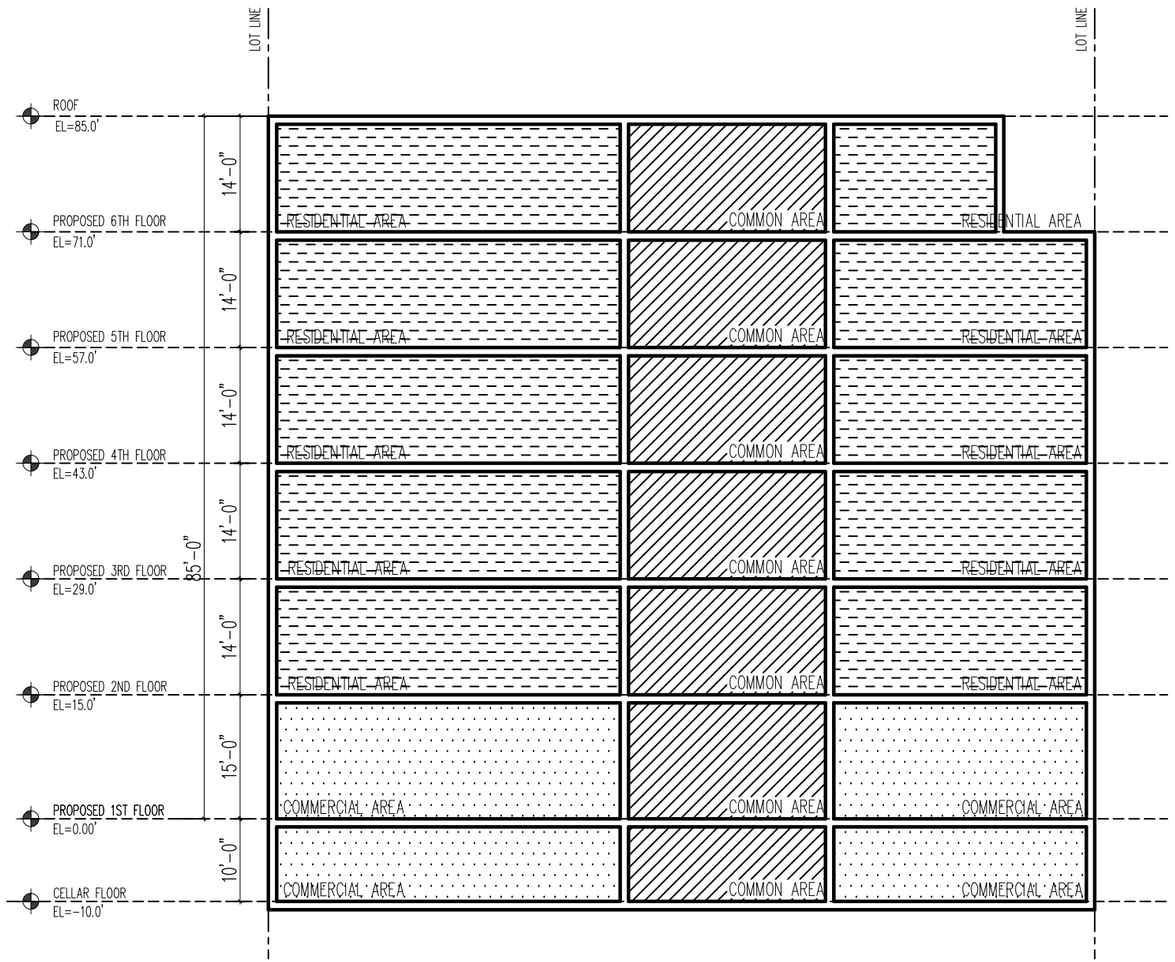
ZONING: R7A OVERLAY C2-3
BLOCK: 5583 LOT: 6
ZONING MAP: 22C
LOT SIZE: 100.0' X 95.25' = 9525 SQ. FT.

ISSUED FOR:	DATE:

DRAWN BY: D
CHECK BY: SW
DATE: 02/01/16

PROJECT LOCATION:
3901 9TH AVENUE
BROOKLYN, NY 11232

DWG NO.:
Z102.00



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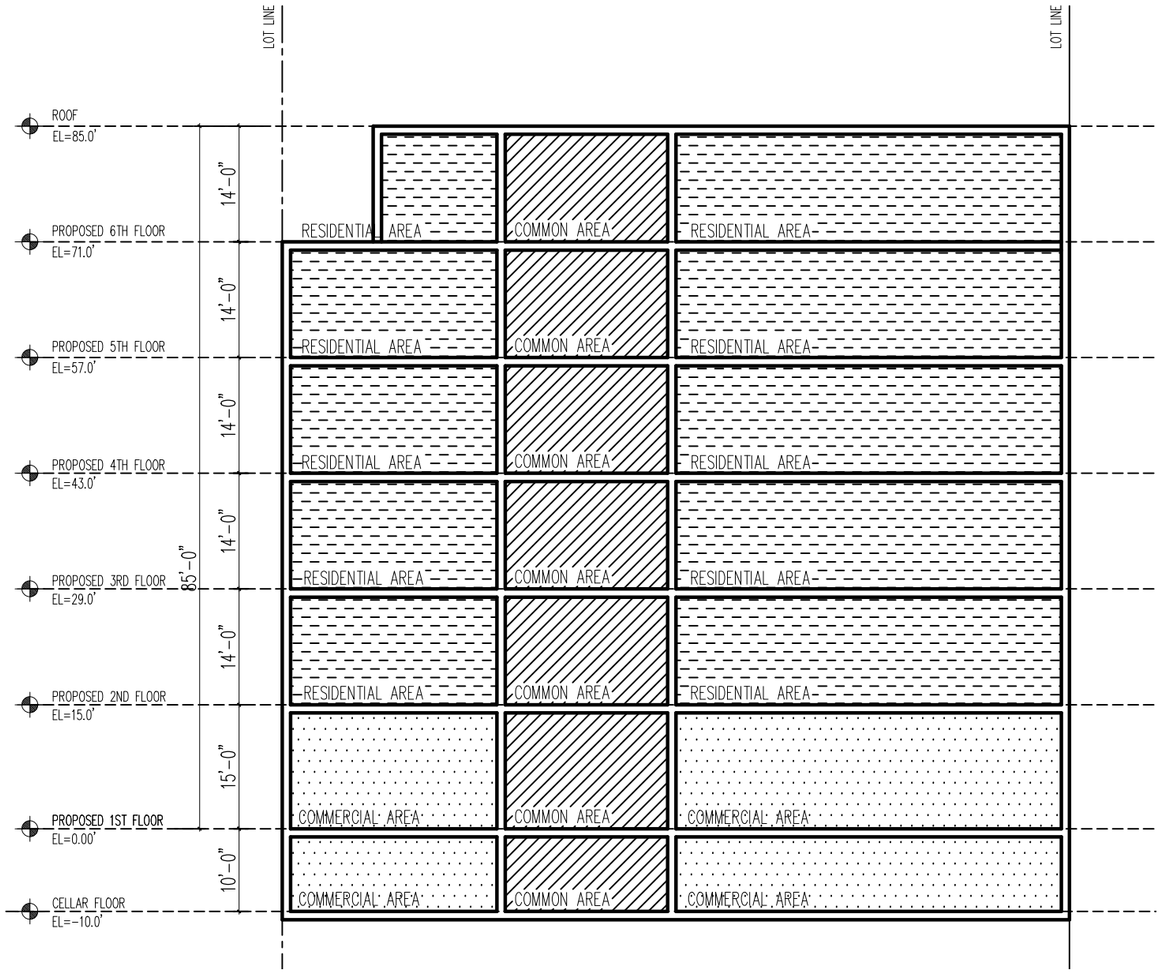

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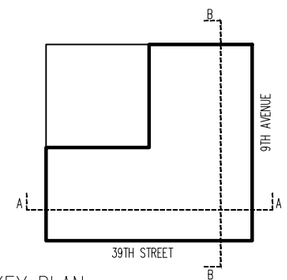


KEY PLAN

LEGEND

COMMERCIAL AREA

RESIDENTIAL AREA

COMMON AREA

0 5 10 20 30

NOTE: INFORMATION OUTSIDE OF THE BOUNDARIES OF THE ZONING LOT IS FOR ILLUSTRATIVE PURPOSES ONLY, AND MAY NOT BE EXACT. THE ARCHITECT BEARS NO RESPONSIBILITY FOR INEXACT INFORMATION ON SURROUNDING PROPERTIES

STEPHEN WILDER. R.A.
CD DESIGN INC.
22 RUTGERS ST. N.Y. 10002
TEL: 212-226-7261 FAX: 212-431-0074

ZONING: R7A OVERLAY C2-3
BLOCK: 5583 LOT: 6
ZONING MAP: 22C
LOT SIZE: 100.0' X 95.25' = 9525 SQ. FT.

ISSUED FOR:	DATE:

DRAWN BY: D
CHECK BY: SW
DATE: 02/01/16

PROJECT LOCATION:
3901 9TH AVENUE
BROOKLYN, NY 11232

DWG NO.:
Z103.00

APPENDIX B – NYCLPC CORRESPONDENCE

Landmarks Preservation Commission

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

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

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / LA-CEQR-K
Project: 3901 9TH AVENUE REZONING
Date received: 7/5/2016

Properties with no Architectural or Archaeological significance:

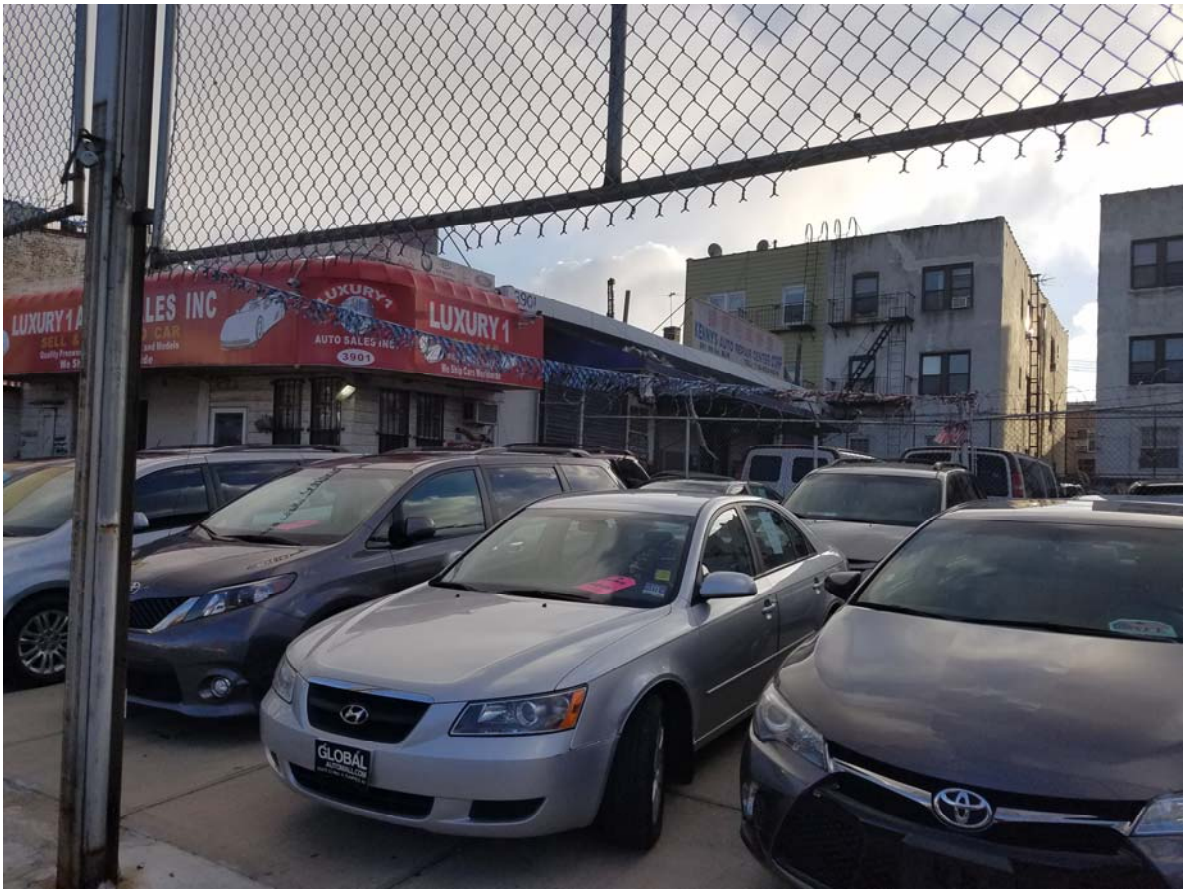
1) ADDRESS: 3901 9 Avenue, BBL: 3055830006
2) ADDRESS: 914 39 Street, BBL: 3055830012
3) ADDRESS: 3902 New Utrecht Avenue, BBL: 3055830013
4) ADDRESS: 3906 New Utrecht Avenue, BBL: 3055830015
5) ADDRESS: 3908 New Utrecht Avenue, BBL: 3055830016
6) ADDRESS: 3910 New Utrecht Avenue, BBL: 3055830017
7) ADDRESS: 929 40 Street, BBL: 3055837501
8) ADDRESS: 874 39 Avenue, BBL: 3009160034
9) ADDRESS: 3902 9 Avenue, BBL: 3009160035
10) ADDRESS: 3904 9 Avenue, BBL: 3009160036
11) ADDRESS: 3906 9 Avenue, BBL: 3009160037
12) ADDRESS: 3910 9 Avenue, BBL: 3009160038
13) ADDRESS: 3912 9 Avenue, BBL: 3009160138

Gina Santucci 7/15/2016

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 31614_FSO_DNP_07132016.doc

APPENDIX C – PHASE I ESA



3901 Ninth Avenue
Brooklyn, New York

Phase I
ENVIRONMENTAL SITE ASSESSMENT

December 2016

CDSP Inc. and Seacliff Environmental, Inc.

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FIGURE

No.	Description
1	Location Map

APPENDICES

Attachment A – Representative photos from site inspection

Attachment B – Database report and miscellaneous environmental information

Attachment C – Qualifications of the QEP

EXECUTIVE SUMMARY

Based on the December 15, 2016 inspection and database review, CDSP and SEACLIFF have determined that there are no Recognized Environmental Conditions (RECs) with regard to 3901 Ninth Avenue in Brooklyn. Recognized Environmental Conditions are those conditions which could adversely affect the environmental integrity of the property. It should be noted that we could not access the building.

A service station and auto repair shop occupied the site starting in the 1940's. The service station was closed in 1985 and gasoline tanks were removed in 1987. Contaminated soil was excavated from the former tank areas, the site soil and groundwater sampled, and the NYSDEC spill file was closed in 2003. Any future major renovation or construction should include a soil vapor intrusion investigation.

1.0 INTRODUCTION

1.1 Objectives

CDSP, Inc. and Seacliff Environmental, Inc. were retained to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 3901 Ninth Avenue, Kings County, New York. The subject property (or site) is identified by the New York City Department of Buildings (NYCDOB) as Block 5583 Lot 6. The site is a corner lot located on the southeast corner of Ninth Avenue and 39 Street.

The purpose for conducting this Phase I ESA was to determine if recognized environmental conditions were present at the subject site. The work was conducted in accordance with the American Society for Testing and Materials (ASTM) Standard E1527-05 (Standard Practices for Environmental Site Assessment: Phase I Environmental Site Assessment Process).

1.2 Methodology

The assessment consisted of a visual inspection of the site and surrounding areas, interviews, a review of historical information, and a review of pertinent local, state, federal and facility records. Mr. Daniel Yarom of CDSP inspected the site on December 15, 2016. His photographs are provided in Attachment A.

Environmental Data Resources (EDR), of Shelton, Connecticut, provided the following: a computerized database search of environmental compliance records of sites within an ASTM standard radius of the property. The EDR report contains EDR Radius Maps with GeoCheck, EDR historical research reports, a scanned digital USGS 7.5- minute topographic map, and historical Sanborn maps.

Seacliff reviewed the environmental database report compiled by EDR as a part of the assessment. The purpose of the review was to identify reported listings for the subject property or other properties in the site vicinity. Databases reviewed included federal and state lists of known or suspected contaminated sites, lists of known handlers or generators of hazardous waste, lists of

known waste disposal facilities, and lists of aboveground and underground storage tanks (ASTs and USTs). Seacliff's review of the database report has been incorporated into this report.

1.3 Limitations

The conclusions presented in this report are professional opinions based on the data described in this report. These opinions have been arrived at in accordance with currently accepted engineering and hydrogeologic standards and practices applicable to this location, and are subject to the following inherent limitations:

1. The data presented in this report are from visual inspections, examination of records in the public domain, and interviews with individuals having information about the site. The passage of time, manifestation of latent conditions, or occurrence of future events may require further exploration of the site, analysis of data, and re-evaluation of the findings, observations, and conclusions presented in this report.

2. The data reported and the findings, observations, and conclusions expressed are limited by the scope of work. The scope of work was defined by the request of the client.

4 No warranty or guarantee, whether expressed or implied, is made with respect to the data reported, findings, observations, or conclusions. These are based solely upon site conditions in existence at the time of the investigation, and other information obtained and reviewed by CDSP and Seacliff.

5 This Phase I ESA report presents professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, or regulations, or policies of federal, state, or local government agencies. CDSP and Seacliff do not assume liability for financial or other losses or subsequent damage caused by or related to any use of this document.

5. The conclusions presented in this report are professional opinions based on data described in this report. They are intended only for the purpose, site location, and project indicated. This report is not a definitive study of contamination at the site and should not be interpreted as such. An evaluation of subsurface soil and groundwater conditions was not performed as part of this investigation. As at any site, the actual condition of the groundwater and sub-surface soil cannot be determined without further investigation.

6. This report is based, in part, on information supplied to CDSP and Seacliff by third-party sources. While efforts have been made to substantiate this third-party information, CDSP and Seacliff cannot attest to the completeness or accuracy of information provided by others.

7. This report was prepared for the exclusive use of our client. CDSP and Seacliff assume no liability for use of this report by any person or entity other than the client for which it was prepared.

2.0 SITE OVERVIEW

2.1 Location

The subject property is Block 5583 Lot 6 in Sunset Park, Kings County, New York. The primary NYCDOB site address is 3901-3911 Ninth Avenue with a secondary address of 902-910 39th Street. The site is located east of Upper New York Bay (New York Harbor) and west of Ocean Parkway. Figure 1 shows the site location and layout.

2.2 Site Description

The lot size is 9,533 square feet (95.33 feet by 100 feet). This equates to approximately 0.23 acres. The site building was constructed around 1930. There are two commercial tenant spaces but no residential units and no medical offices. At the time of inspection, the commercial spaces had signs as follows: Kenny's Auto Repair Center Corp. and Luxury 1 Used Cars. However, the inside of the spaces could not be accessed.

2.3 Adjoining/Surrounding Properties

The property is located within a predominantly commercial and residential area. Specifically: to the north across 39th Street is Hefferman Triangle (a NYC park); to the south and east are one and three story commercial and residential buildings; and to the west across Ninth Avenue are two and three story commercial and residential buildings.

3.0 HISTORICAL INFORMATION

3.1 Site Ownership

Block 5583, Lot 6 is privately owned by 890 Realty Corp.

3.2 Sanborn Map Review

Environmental Data Resources (EDR) was retained to provide historical information of the subject and adjacent properties (Attachment B). Sanborn Maps from the following years were reviewed: 1905, 1926, 1942, 1951, 1970, 1980, 1992, and 2007.

- The 1905 map shows the site and surrounding area as completely undeveloped.

- The map from 1926 show the subject site as a one story garage with a gasoline tank in the northwest corner. The lots to the north and south are undeveloped. There are residential and commercial buildings to the east and west.

- The maps from 1942 and 1951 show the property occupied by a filling station with a one story garage. The lot to the north is now a park. There are commercial and residential buildings now to the south.

- The maps from 1970 and 1980 show an expanded filling station with a repair shop.

- The maps from 1992 and 2007 show the site as only an auto repair shop.

3.3 Aerial Photograph Review

Seacliff reviewed historical historic aerial photos of the subject and adjacent properties. The 1966, 1975, 1980 and 1985 aerial photos fill in gaps when Sanborn Maps were not available; however, their resolution is limited. All photos do show the subject property as being a filling station and auto repair shop.

3.4 EDR City Directory Abstract

City Directory Abstracts provide detailed directory information for properties at selected intervals (usually 5 years), including the names of occupants. The entries for 3901 Ninth Avenue are as follows and are dominated by auto repair establishments:

2013 KENNYS AUTOMOBILE REPAIR CENTER
QUAZARS AUTOMOBILE SALES INC
2008 A B S AUTO REPAIR
2005 KENNY'S AUTO REPAIR CTR
1992 A & M AUTO REPR INC.
A & S COLLISION & AUTO REPAIR INC.
1985 F & M SVCE STA
1976 F & M SVCE STA
1970 F & M SVCE STA
1965 WAXMAN'S SVCE STA
1960 WAXMAN S SVCE STA
1945 WAXMAN BROS GARAGE
1940 WAXMAN BROS GARAGE
1934 WAXMAN H & SONS INC
HERMAN WAXMAN PRES HARRY WAXMAN
SECTREAS GARAGE
1928 BLISS GARAGE INC

3.5 NYC Department of Buildings –Historical

Certificates of Occupancy (CO) on the NYCDOB web site are summarized as follows:

- May 7, 1969 lists a gasoline filling station with tanks and pumps as well as auto repair, lubricating, car washing, and parking.
- 1923 (?) - lists the site as a parking garage.

3.6 Environmental Reports

CDSP was provided with two excellent Phase I ESA reports:

- May 20, 2014 by Giorgio Engineering International, P.C.
- May 27, 2015 by Permanent Engineering, P.C.

These parties had the advantage of being able to access the building. Also included were the reports documenting the clean-up of an on-site spill as well as soil and groundwater sampling.

Both reports did not indicate the presence Recognized Environmental Conditions (RECs)

4.0 ENVIRONMENTAL SETTING

4.1 Regional Physiographic Conditions

This area of Brooklyn is underlain by unconsolidated glacial sediments overlying crystalline bedrock. The topography of the site and surrounding area was reviewed from the United States Geological Survey 7.5-minute series topographic map for the Brooklyn, New York quadrangle (revised 2013). The subject property has an elevation of approximately 95 feet above mean sea level (the National Geodetic Vertical Datum or NGVD).

4.1.1 Flood Potential

Seacliff reviewed the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) to determine if the subject property is located within the 100-year or 500-year flood zones. The FIRM Panel 360497 showing the property indicates that the entire property is located outside the 100-year and 500-year flood zones. This indicates that there is a minimal risk of flooding at the subject property.

4.1.2 Direction and Distance to Nearest Surface Water

The nearest significant surface water body, Upper New York Bay, is located approximately one mile west and northwest of the property.

4.1.3Wetland Delineation

The New York City Building Department website notation for the subject property states that "the property is not located in an area affected by tidal wetlands, freshwater wetlands, or coastal erosion hazard".

4.2 Regional Geology

The Surficial Geologic map of New York, Lower Hudson Sheet (Cadwell, et al, 1989) shows surficial fill to be underlain by a thin veneer of glacial outwash overlying glacial till. The outwash consists of well-sorted permeable sands. Groundwater is present in this unit. The till had been locally characterized as relatively impermeable, poorly sorted, un-stratified sediment of variable

texture. It has been noted that these soils provide structural support for city streets and the loads that truck and light vehicle traffic exerts on them.

The depth to crystalline bedrock (the Ordovician Hartland Formation) is estimated to be less than 120 feet below land surface based on the maps presented in the United States Geological Survey publication MAP1-2306 (Baskerville, 1994).

4.3 Soil Characteristics

Soils at the site are classified as Urban Land (Ug) as defined by the United States Department of Agriculture. Urban Land is described as areas where at least 85 percent of the land surface is covered with asphalt, concrete, or other impervious building material. These areas are mostly parking lots, shopping centers, industrial parks, or institutional sites. Most areas are nearly level to gently sloping and range in size from three acres to several hundred acres.

4.4 Groundwater Characteristics

The United States Geologic Survey (USGS) Water-Table on Long Island Map, March-April 1997 (Water-Resources Investigation Report 98-4019) indicates that the depth to groundwater in the area of the subject property is approximately 70 feet below grade. The regional groundwater flow direction is to the west and northwest toward Upper New York Bay.

4.5 Radon Risk Evaluation

Radon is a colorless, radioactive; inert gas formed by the decay of radium and may be present in soils and rocks containing granite, shale, phosphate and pitchblende. The EDR report shows the Federal EPA Radon Zone for Kings County is Zone 3-meaning that the indoor average level of radon is less than 2 picocuries per liter (pCi/L).

100 % of the living areas and 88 % of the basements of the 51 total sites tested in Brooklyn were below the Environmental Protection Agency (EPA) radon action level of 4 picocuries per liter (pCi/L), with average indoor levels of 0.750 pCi/L for living areas and 1.370 pCi/L for basements.

5.0 SITE INSPECTION OBSERVATIONS

5.1 Site Observations and Inquiries

Observations made during the site inspection by Daniel Yarom of CDSP are presented below. Representative photographs of the property taken by Mr. Yarom are provided in Attachment A.

5.1.1 Date and Time of Inspection

Mr. Yarom performed the site inspection on December, 15, 2016 beginning at 2:00 P.M. Weather conditions during the inspection were partly sunny and windy with a temperature of approximately 23° Fahrenheit.

5.1.2 Individuals Conducting the Phase I Site Inspection

Mr. Yarom conducted the site inspection under the oversight of a Qualified Environmental Professional (QEP), James M. DeMartinis. Mr. DeMartinis is an experienced professional in the field of environmental compliance, Phase I and II Environmental Site Assessments, and related environmental investigations. His resume' is provided as Attachment C.

5.1.3 Site Representatives Present During the Inspection

No site representatives were present during the inspection.

5.1.4 Inspection Process

The site inspection consisted of an environmental inspection of the areas around the on-site building and finally the outer property boundaries. The building could not be accessed.

5.1.5 Surface Access and Egress

The site is accessed directly from Ninth Avenue and 39th Street.

5.1.6 Variations in Surface Vegetation

The site has limited vegetation and landscaping and there was no evidence of distress or staining.

5.1.7 Water Bodies

No water bodies are located on the subject property.

5.1.8 Railroad Spurs and Electrical Transmission Lines

No railroad spurs are provided to the subject property. No high voltage transmission lines are located on the subject property.

5.2 Water Supplies and Wastewater Disposal

The New York City DEP supplies potable water in the area. Sanitary wastewater is discharged to the public sewer system of New York City.

5.3 Storm Water Disposal

Storm water runoff from the site flows into a series of storm drains along Ninth Avenue and 39th Street connected to the city storm water collection system.

5.4 Aboveground Storage Tanks

There were no aboveground storage tanks observed on the property (outside) at the time of the site visit. The building is heated with gas.

5.5 Underground Storage Tanks (USTs)

There were no underground storage tanks observed on the property (outside) at the time of the site visit.

5.6 Soil Staining/Spills

There was staining of the parking lot slab consistent with historical use of the property for motor vehicle repair but outside housekeeping practices appeared acceptable.

5.7 Hazardous and Non-Hazardous Waste Storage and Disposal

There were no hazardous waste storage and disposal items observed (outside) on the property at the time of the site visit

5.8 Radioactive Materials

No radioactive materials were observed on the property at the time of the site visit.

5.9 Landfills, Dumps, or Direct Burial Activities

There were no landfills, dumps, and/or direct burial activities observed on or around the site, based on inspection observations (a building and pavement covers almost the entire property) and a review of regulatory records.

5.10 Polychlorinated Biphenyls (PCBs)

Light ballasts manufactured before 1978 are known to contain PCBs. The use of PCBs was banned in 1979. All light ballasts manufactured from 1978 to 1998 are required by the EPA to be marked by the manufacturer with the words "No PCBs". Modern electronic ballasts, while not required to have any explicit markings, can be assumed to contain no PCBs. Any questionable ballasts (e.g., appearing old and/or unmarked) must be managed as PCB ballast waste and disposed of in accordance with all applicable Federal, State and Local regulations.

5.11 Air Emissions

There was no evident source of air emissions on the property at the time of the site inspection and no information in the EDR report indicating air permits were ever issued for the property.

5.12 Asbestos

No suspected asbestos containing materials (ACM) were obvious during the site inspection. However, if activities in the building (i.e. renovation or demolition) will disturb any suspected asbestos material, then Seacliff recommends that an asbestos survey be performed to determine if ACM are present prior to the proposed work. If ACM are present, then a New York-licensed contractor must be retained to remove the asbestos in accordance with federal and state regulations.

Thermal insulation, surfacing materials, and vinyl/asphalt floor materials installed before 1981 are presumed to contain asbestos. The Occupational Safety and Health Administration (OSHA) asbestos standards (effective October 1995) require owners of commercial or industrial buildings (constructed before 1981) to: identify potential asbestos hazards; keep records about potential

asbestos hazards; post signs to warn of asbestos hazards; and communicate information about the hazards.

5.13 Lead-Based Paint (LBP)

The building interior could not be accessed. The use of lead paint was banned in 1978. The lead content of the paint is unknown, but since the interior surfaces are not peeling or chipping, the paint does not appear to present a significant hazard to building occupants. The disposal of lead paint waste resulting from renovation or demolition activities may be subject to federal and state regulations.

5.14 Other Observations

In general, outside housekeeping practices were observed to be sanitary. There were no vestiges of the former filling station observed whether it be dispensers, piping, or gasoline tanks.

5.15 Vapor Intrusion Concerns

Based on the history of the subject property and neighboring properties, the risk of vapor encroachment into the site structure is considered to be low. A filling station occupied the site until the late 1980's so volatile organic compounds (VOCs) were stored and dispensed at the subject property. However, any vapors associated with the former filling station would have likely dissipated by now.

The on-site business is/was auto repair which involves automotive fluids including gasoline. The mechanics regularly work with fuel lines and fuel pumps/filters, fuel tanks, fuel injectors and carburetors. Working with gasoline and gasoline engines is an everyday experience in the shop.

It would be extremely difficult to get accurate readings as to what in the indoor air is the possible result of vapor intrusion through the slab of the building. Should the use of the property change and/or renovation occur, then vapor intrusion could be investigated.

6.0 REGULATORY AGENCY REVIEW

6.1 Regulatory Database Search/Review

Environmental Data Resources (EDR) of Shelton, Connecticut provided the following, a computerized database search of environmental compliance records of sites within an ASTM standard radius of the property. A list of the databases searched and the search radius is shown on the summary table below.

Seacliff reviewed the database output and determined the property does appear on several environmental regulatory databases.

6.1.1 Federal Databases

Agency	Listing Name or Database Searched	Abbreviation	Search Distance
USEPA	National Priority List	NPL	1.0 mile
USEPA	Comprehensive Environmental Response, Compensation, and Liability Information System	CERCLIS	0.5 mile
USEPA	Corrective Action Report	CORRACTS	1.0 mile
USEPA	Resource Conservation and Recovery Act Information - Treatment, Storage, and Disposal Facilities	RCRA-TSDF	0.5 mile
USEPA	Resource Conservation and Recovery Act Information – Small/Large Quantity Generators	RCRA-SQG/LQG	0.25 mile
USEPA	Emergency Response Notification System	ERNS	TP
USEPA	Hazardous Materials Information Reporting System	HMIRS	TP
USEPA	Engineering Controls Sites List	US ENG CONTROLS	0.5 mile
USEPA	Sites with Institutional Controls	US INST CONTROL	0.5 mile
USEPA	Department of Defense Sites	DOD	1.0 mile
USEPA	Formerly Used Defense Sites	FUDS	1.0 mile
USEPA	A Listing of Brownfields Sites	US BROWNFIELDS	0.5 mile
USEPA	Superfund (CERCLA) Consent Decrees	CONSENT	1.0 mile
USEPA	Records of Decision	ROD	1.0 mile
USEPA	Uranium Mill Tailings Sites	UMTRA	0.5 mile
USEPA	Open Dump Inventory	ODI	0.5 mile
USEPA	Toxic Chemical Release Inventory System	TRIS	TP
USEPA	Toxic Substances Control Act	TSCA	TP

Agency	Listing Name or Database Searched	Abbreviation	Search Distance
USEPA	FIFRA/TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)	FTTS	TP
USEPA	Section 7 Tracking Systems	SSTS	TP
USEPA	Integrated Compliance Information System	ICIS	TP
USEPA	PCB Activity Database System	PADS	TP
USEPA	Material Licensing Tracking System	MLTS	TP
USEPA	Mines Master Index File	MINES	0.25 mile
USEPA	Facility Index System/Facility Registry System	FINDS	TP
USEPA	RCRA Administrative Action Tracking System	RAATS	TP

* TP = Target Property

The site is not listed on any federal databases nor are there any nearby federally-listed sites that could potentially affect the environmental integrity of the site.

6.1.2 New York State and Local Databases

Agency	Listing Name or Database Searched	Abbreviation	Search Distance
NYSDEC	Hazardous Substance Waste Disposal Site Inventory	HSWDS	0.5 mile
NYSDEC	SHWS Delisted Registry Sites	DEL	1.0 mile
NYSDEC	Solid Waste Facilities/Landfill Sites	SWF/LF	0.5 mile
NYSDEC	Registered Recycling Facility List	SWRCY	0.5 mile
NYSDEC	Registered Waste Tire Storage & Facility List	SWTIRE	0.5 mile
NYSDEC	Spills Information Database	LTANKS	0.5 mile
NYSDEC	Listing of Leaking Storage Tanks	HIST LTANKS	0.5 mile
NYSDEC	Petroleum Bulk Storage (PBS) Database	UST	0.25 mile
NYSDEC	Chemical Bulk Storage Database - Underground/Aboveground Storage Tank	CBS - UST/AST	0.25 mile
NYSDEC	Major Oil Storage Facilities Database - Underground/Aboveground Storage Tank	MOSF UST/AST	0.5 mile
NYSDEC	Historical Petroleum Bulk Storage Database - Underground Storage Tank	HIST UST	0.25 mile
NYSDEC	Historical Petroleum Bulk Storage Database - Aboveground Storage Tank	HIST AST	TP
NYSDEC	Facility and Manifest Data	MANIFEST	0.25 mile
NYSDEC	NYSDEC Spill Database	NY Spills	0.125 mile

Agency	Listing Name or Database Searched	Abbreviation	Search Distance
NYSDEC	NYSDEC Spill Database (Chemical and Petroleum Spill Incidents)	NY Hist Spills	0.125 mile
NYSDEC	Registry of Engineering Controls	ENG CONTROLS	0.5 mile
NYSDEC	Registry of Institutional Controls	INST CONTROL	0.5 mile
NYSDEC	Voluntary Cleanup Agreements	VCP	0.5 mile
NYSDEC	Registered Drycleaners	DRYCLEANERS	0.25 mile
NYSDEC	Brownfields Site List	BROWNFIELDS	0.5 mile
NYSDEC	State Pollutant Discharge Elimination System	SPDES	TP
NYSDEC	Aerometric Information Retrieval System	AIRS	TP

* MANIFEST is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

A review of the New York State Spills list has revealed there was one petroleum spill reported on the subject property.

A service station was located at the site since 1940's. In 1969 Mobil Oil Corporation installed twelve 550-gallon USTs. The service station was then closed in 1985 and all USTs were removed in 1987 (NYSDEC PBS #2-157244).

Due to the presence of contaminated soil discovered during a Phase II ESA investigation in June 2002, NYSDEC spill file #0204517 was opened in July of 2002.

A total of 348 tons of contaminated soil were removed and properly disposed of. Endpoint soil samples required by the NYSDEC to confirm clean up were collected and tested using a NYSDOH-certified laboratory. A 550-gallon underground waste oil storage tank was also removed from the site. The soil endpoint sample results were acceptable and the spill file was closed.

Currently there are no known USTs at the site.

There are other petroleum spills within a half mile of the site. Based on the locations of these sites, the depth to groundwater, and the direction of groundwater flow, there is no reason to assume that any of these sites were or are a significant environmental concern to the subject property.

6.2 Freedom of Information Act (FOIA) Requests

Due to the time constraints presented, no FOIA requests were sent because regulatory agencies can take up to twelve weeks to respond. An electronic search was conducted through the United States Environmental Protection Agency (USEPA), and the New York State Department of Environmental Conservation (NYSDEC) websites and databases. Also a general internet search was conducted for the site address. No additional environmental information was obtained that was any different than what was provided in the EDR environmental database report or on the NYCDOB web sit

7.0 CONCLUSION

Based on the December 15, 2016 inspection and database review, CDSP and SEACLIFF have determined that there are no Recognized Environmental Conditions (RECs) with regard to 3901 Ninth Avenue in Brooklyn. Recognized Environmental Conditions are those conditions which could adversely affect the environmental integrity of the property. It should be noted that we could not access the building.

A service station and auto repair shop occupied the site starting in the 1940's. The service station was closed in 1985 and gasoline tanks were removed from the site in 1987. Contaminated soil was excavated from the former tank areas, the site soil and groundwater sampled, and the NYSDEC spill file was closed in 2003. Any future major renovation or construction should include a soil vapor intrusion investigation.

APPENDIX D – DEP Permits

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard,9th Floor,New York 11373
Records Control (718) 595-3855

Michael Gilsenan
Assistant Commissioner
Environmental Compliance

Emily Lloyd
Commissioner

INDUSTRIAL PROCESS EQUIPMENT APPLICATION

APPLICATION ID:	PA034584
UPDATED DATE:	4/7/2016
REQUEST ID:	145192

PART I: FACILITY INFORMATION

PREMISE INFORMATION
(Location where the process is to take place)

1A. Facility Name (if any)	1B. Facility
BAY READY MIX SUPPLIES INC.	New

1C. Facility Location (House Number and Street Address)	1D. Floor / Suite no. (if any)	1E. Borough	1F. State	1G. Block	1H. Lot	1I. Zip Code	1J. Building Identification Number (BIN)
969 39 STREET		Brooklyn	NY	05582	00045	11219	

1K. Equipment Location:	1L: Is this equipment a replacement for equipment presently certified?	1M: If YES, provide the installation number of the equipment it is replacing:	1N: Is this a legalized source?
			No

1O. Facility Classification: B. INDUSTRIAL

OWNER INFORMATION

2A. Owner's Name:	2B. Owner's Address (House Number and Street Address)	2C. Floor / Suite No. (if any)
BAY READY MIX & SUPPLIES, INC	969 39 STREET	

2D. Borough / CIty	2E. State	2F. Zip Code	2G. Owner's Email Address	2H. Telephone	2I. Fax
BROOKLYN	NY	11219		718-854-7459	

P.E. AND INSTALLER INFORMATION

3A. Name of P.E. or R.A	3B. NYS License Number	3C. P.E. Email Address	3D. Telephone	3E. Fax
3F. Company Name	3G. P.E. Address	3H. City or Borough	3I. State	3J. Zip Code
3K. Name of Installer	3L. NYC Installer License Number	3M. Installer Email Address	3N. Telephone	3O. Fax
MCDONALD KEITH	C273		718 451-0991	
3P. Company Name	3Q. Installer Address	3R. City or Borough	3S. State	3T. Zip Code
HDI - GERLING AMERICA INC. CO.				

FEE EXEMPTION
(If applying for fee exemption, attach Department of Finance document along with this form.)

4A. Is Tax Exempt Property	4B. Agency Name	4C. Fee Waiver	4D. Fee Waiver Reason
No		No	

SUPPLEMENTAL INFORMATION

5A. What type of business is being conducted at this equipment location?	
Construction Aggregate Processing	
5B. What emission sources are present at this facility?	5C. Building Type:
	None

5D. If mixed-use, describe the other types of tenants:

--Select--

STACK PARAMETERS

6A. Emission Point ID:	6B. Ground Elevation (ft):	6C. Height Above Structure (ft):	6D. Stack Height (ft):	6E. Inside Diameter (in):	6F. Exit Velocity (ft/sec):	6G. Exit Flow Rate (ACFM):	6H. Exit Temperature (°F):
	90	3	56	8	85	1800	70

6I. Fan Manufacturer:	6J. Fan Model Number:	6K. Number of Units:	6L. Total ACFM / Unit:
			1800

6M. Fan Diameter (in):	6N. Fan Motor (HP / RPM)	6O. Dimensions of Area Ventilated by Fan:	6P. Are multiple pieces of equipment exhausted to this stack?
	0		

6Q. If Yes, list all pieces of equipment:

EMISSION CONTROL

7A. Does this equipment have an emission control?	7B. Is the control part of the equipment?	7C. Type(s) of pollutant(s) controlled:

7D. Emission Controls(s):	7E. Description of Control Device(s):
Other	

7F. CONTAMINANT		7G. EMISSIONS					
		EMISSION FACTOR		HOURLY	ANNUAL	PERCENT	HOW
NAME	CAS NUMBER	AMT	UNITS	EMISSIONS (lbs/hr)	EMISSIONS (lbs/year)	REMOVAL	DETERMINED
	NY075-00-0			18	3456000	999000	9

7H. Detailed Calculations (Est. max hourly and max annually):

a. Proposed Environmental Rating:	[@ECProposedEnvironmentalRating]

HEATER INFORMATION

If the process is equipped with a heater, please provide the following information.

8A. Is the heater a separate unit?	8B. Input (BTU/hr):	8C. Output (BTU/hr):	8D. Firing Rate (CFH/GPH):

8E. Manufacturer:	8F. Model Number:	8G. Fuel Type:
		None

ADDITIONAL PERMITTED EQUIPMENT IN FACILITY

9A. INSTALLATION NO.	9B. DESCRIPTION	9C. CERTIFICATION OF OPERATION EXPIRATION DATE

PART IV: OTHER INDUSTRIAL PROCESS

Provide the following information for any other type of industrial process or operation

EQUIPMENT INFORMATION

15A. Material Being Processed:	15B. Maximum Hourly Processing Rate:	15C. Annual Amount of Material Processed:

Description of the Equipment:	Manufacturer:	Model Number:	Number of Units:
			2
ACFM per unit:	Year of Installation:	Is there a control unit specific to this equipment?	Is the control unit venting directly into the room?
		None	None
If applicable, list the type of control unit(s) used:	Hours / Day:	Operational Days / Year:	

Part 2.1a DUCT BURNER	
17.2.1A. Is the Duct Burner separate from the Heat Recovery Unit (HRU)?	
17.2.1B. Total Gas Flow to the Duct Burner (Lbs/Hr.)	
17.2.1C. Heat Input (Max Fuel) to the Duct Burner (MMBTU/Hr.)	

Environmental Protection

Vincent Sapienza, P.E.
Acting Commissioner

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Blvd. 9th Floor, Flushing, NY 11373
Records Control (718) 595-3855

Michael Gilsenan
Assistant Commissioner
Environmental Compliance

INDUSTRIAL PROCESS EQUIPMENT APPLICATION

APPLICATION ID:	PB018013
UPDATED DATE:	9/19/2016
REQUEST ID:	191608

PART I: FACILITY INFORMATION

PREMISE INFORMATION
(Location where the process is to take place)

1A. Facility Name (if any)	1B. Facility
BAY COLLISION	New

1C. Facility Location (House Number and Street Address)	1D. Floor / Suite no. (if any)	1E. Borough	1F. State	1G. Block	1H. Lot	1I. Zip Code	1J. Building Identification Number (BIN)
969 39TH STREET		Brooklyn	NY	05582	00045	11219	53329

1K. Equipment Location:	1L: Is this equipment a replacement for equipment presently certified?	1M: If YES, provide the installation number of the equipment it is replacing:	1N: Is this a legalized source?
			No

1O. Facility Classification: A. COMMERCIAL

OWNER INFORMATION

2A. Owner's Name:	2B. Owner's Address (House Number and Street Address)	2C. Floor / Suite No. (if any)
BAY COLLISION	969 39TH STREET	

2D. Borough / CIty	2E. State	2F. Zip Code	2G. Owner's Email Address	2H. Telephone	2I. Fax
BROOKLYN	NY	11219	ARATNAP@aol.com	917 572-8555	

P.E. AND INSTALLER INFORMATION

3A. Name of P.E. or R.A	3B. NYS License Number	3C. P.E. Email Address	3D. Telephone	3E. Fax
DONALD FRIEDLANDER, P.E.	46665		718 698-7545	
3F. Company Name	3G. P.E. Address	3H. City or Borough	3I. State	3J. Zip Code
	1091 WILLOWBROOK ROAD	STATEN ISLAND	NY	
3K. Name of Installer	3L. NYC Installer License Number	3M. Installer Email Address	3N. Telephone	3O. Fax
3P. Company Name	3Q. Installer Address	3R. City or Borough	3S. State	3T. Zip Code

FEE EXEMPTION
(If applying for fee exemption, attach Department of Finance document along with this form.)

4A. Is Tax Exempt Property	4B. Agency Name	4C. Fee Waiver	4D. Fee Waiver Reason
No		No	

SUPPLEMENTAL INFORMATION

5A. What type of business is being conducted at this equipment location?

Autobody Spraybooth

5B. What emission sources are present at this facility?	5C. Building Type:
	None

5D. If mixed-use, describe the other types of tenants:

--Select--

STACK PARAMETERS

6A. Emission Point ID:	6B. Ground Elevation (ft):	6C. Height Above Structure (ft):	6D. Stack Height (ft):	6E. Inside Diameter (in):	6F. Exit Velocity (ft/sec):	6G. Exit Flow Rate (ACFM):	6H. Exit Temperature (°F):
	0	0	0	0	0	0	0

6I. Fan Manufacturer:	6J. Fan Model Number:	6K. Number of Units:	6L. Total ACFM / Unit:
		1	13500

6M. Fan Diameter (in):	6N. Fan Motor (HP / RPM)	6O. Dimensions of Area Ventilated by Fan:	6P. Are multiple pieces of equipment exhausted to this stack?
	0		

6Q. If Yes, list all pieces of equipment:

EMISSION CONTROL

7A. Does this equipment have an emission control?	7B. Is the control part of the equipment?	7C. Type(s) of pollutant(s) controlled:

7D. Emission Controls(s):	7E. Description of Control Device(s):
Other	

7F. CONTAMINANT		7G. EMISSIONS					
		EMISSION FACTOR		HOURLY	ANNUAL	PERCENT	HOW
NAME	CAS NUMBER	AMT	UNITS	EMISSIONS (lbs/hr)	EMISSIONS (lbs/year)	REMOVAL	DETERMINED
	NY079 - 00 - 0			0.07	97.6	80	6

7H. Detailed Calculations (Est. max hourly and max annually):

a. Proposed Environmental Rating:	B

HEATER INFORMATION

If the process is equipped with a heater, please provide the following information.

8A. Is the heater a separate unit?	8B. Input (BTU/hr):	8C. Output (BTU/hr):	8D. Firing Rate (CFH/GPH):

8E. Manufacturer:	8F. Model Number:	8G. Fuel Type:
		None

ADDITIONAL PERMITTED EQUIPMENT IN FACILITY

9A. INSTALLATION NO.	9B. DESCRIPTION	9C. CERTIFICATION OF OPERATION EXPIRATION DATE

PART III: SPRAY BOOTH / SPRAY AREA

Provide the following information only if you are operating a spray booth or spray area at your facility.

EQUIPMENT INFORMATION

12A. Equipment Type:	12B. Manufacturer	12C. Model Number	12D. Date of Installation
			1/1/0001

12E. Type:	12F. Opening Height (ft.)	12G. Opening Width (ft.)

OPERATIONAL INFORMATION

13A. Hours / Day	13B. Days / Year	13C. Waterwash Pump (HP)	13D. Water Flowrate (GPM)
0	0		

13E. Article(s) Sprayed	13F. Method of Application	13G. Gun Cleaning Method

USAGE INFORMATION

14A. Type of Material	14B. Product Name and Product Number	14C. Material VOC (lbs VOC/gal material)	14D. Maximum Hourly Usage (gph)	14E. Annual Usage (gph)



PB018013

NYC Environmental Protection
Carter H. Strickland Jr.
Commissioner

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373
Records Control (718) 595-3855

Michael Gilsenan
Assistant Commissioner
Environmental Compliance

TCO Rev 04/2012

TRIENNIAL CERTIFICATE OF OPERATION

DISPLAY CERTIFICATE ON PREMISES NEAR EQUIPMENT

☒PA ☐PB Application	Date Inspected	Date Issued	Expiration Date	E.P. #	E.R.
0345-84K	03/14/13	03/14/13	01/09/16	2	C

Professional Engineer:

Owner:
BAY READY MIX & SUPPLIES, INC.
969 39th STREET
BROOKLYN, N.Y. 11219

Application for Renewal of this Certificate of Operation must be filed at the Department of Environmental Protection **NO later than ninety (90) days prior to its Expiration Date.**

Premise Information:

Street Address	Name of Premise (if any)
969 39th STREET	-

Floor	Room No.	Borough	Zip Code	BIN	Block	Lot
YARD	-	Brooklyn	11219	-	-	-

The holder of this Certificate is responsible for the use of the equipment in accordance with all applicable requirements and provisions of the New York City Air Pollution Control Code. The Commissioner may suspend or revoke this Certificate for willful or continued violation of the Code. Any purported or attempted transfer of a Certificate of Operation from one location to another or from one piece of equipment to another automatically revokes the Certificate. Section 24-135 NYC Air Pollution Code.

Description of Installation:	Used: Hours / Day:	Days / Year:
CEMENT PLANT	8.0	240

Description of Equipment: (1) CEMENT STORAGE SILO.

Exhaust Equipment: (2) EXHAUST FANS WITH 1800CFM EACH, TOTAL DELIVERY=3600CFM @70F.

Control Equipment: (2) "GRIFFIN" POSITIVE DISPLACEMENT DUST COLLECTORS.

Should significant scientific evidence from a recognized institution should result in a decision by NYSDEC that lower ambient guideline concentrations must be established, it may be necessary to reduce emissions from this source(s) prior to the expiration of this Triennial Certificate of Operation.

Special Conditions / Remarks

DUST BAGS COLLECTOR MUST BE REPLACED ON REGULAR BASIS.

RECERTIFICATION

R. Radhakrishnan

R. Radhakrishnan, P.E.
Director of Engineering / For the Commissioner

FOR GENERAL INFORMATION, QUESTIONS, AND INQUIRIES: Please visit our website at www.nyc.gov/dep or call 311

M.T.-E093

Environmental Protection

Vincent Sapienza, P.E.
Acting Commissioner

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Michael Gilsenan
Assistant Commissioner
Environmental Compliance

INDUSTRIAL PROCESS EQUIPMENT APPLICATION

APPLICATION ID:	PW002017
UPDATED DATE:	4/8/2017
REQUEST ID:	202392

PART I: FACILITY INFORMATION

PREMISE INFORMATION
(Location where the process is to take place)

1A. Facility Name (if any)	1B. Facility
CNG Cabinet Ltd.	Existing

1C. Facility Location (House Number and Street Address)	1D. Floor / Suite no. (if any)	1E. Borough	1F. State	1G. Block	1H. Lot	1I. Zip Code	1J. Building Identification Number (BIN)
848 39th Street	1	Brooklyn	NY	00916	0121	11232	393089

1K. Equipment Location:	1L: Is this equipment a replacement for equipment presently certified?	1M: If YES, provide the installation number of the equipment it is replacing:	1N: Is this a legalized source?
1st Floor	No		Yes

1O. Facility Classification: B. INDUSTRIAL

OWNER INFORMATION

2A. Owner's Name:	2B. Owner's Address (House Number and Street Address)	2C. Floor / Suite No. (if any)
Paul Zhu	848 39th Street	1st Floor

2D. Borough / CIty	2E. State	2F. Zip Code	2G. Owner's Email Address	2H. Telephone	2I. Fax
Brooklyn	NY	11232	bfmincny@gmail.com	347-406-8063	718-431-0060

P.E. AND INSTALLER INFORMATION

3A. Name of P.E. or R.A	3B. NYS License Number	3C. P.E. Email Address	3D. Telephone	3E. Fax
nathan edeson	078591	nedeson@gmail.com	347-394-7962	
3F. Company Name	3G. P.E. Address	3H. City or Borough	3I. State	3J. Zip Code
Nathan Edeson, PE	1480 East 22nd Street	Brooklyn	NY	11210
3K. Name of Installer	3L. NYC Installer License Number	3M. Installer Email Address	3N. Telephone	3O. Fax
N/A				
3P. Company Name	3Q. Installer Address	3R. City or Borough	3S. State	3T. Zip Code
Legalization				

FEE EXEMPTION
(If applying for fee exemption, attach Department of Finance document along with this form.)

4A. Is Tax Exempt Property	4B. Agency Name	4C. Fee Waiver	4D. Fee Waiver Reason
No		No	

SUPPLEMENTAL INFORMATION

5A. What type of business is being conducted at this equipment location?

Wood Working

5B. What emission sources are present at this facility?	5C. Building Type:
Woodworking equipment	Standalone (No Other Occupants)

5D. If mixed-use, describe the other types of tenants:

--Select--

STACK PARAMETERS

6A. Emission Point ID:	6B. Ground Elevation (ft):	6C. Height Above Structure (ft):	6D. Stack Height (ft):	6E. Inside Diameter (in):	6F. Exit Velocity (ft/sec):	6G. Exit Flow Rate (ACFM):	6H. Exit Temperature (°F):
1	30	-10	6	14	77.96	5000	70

6I. Fan Manufacturer:	6J. Fan Model Number:	6K. Number of Units:	6L. Total ACFM / Unit:	6M. Fan Diameter (in):	6N. Fan Motor (HP / RPM)
Integral	Integral	1	5000	14	15

6O. Area of process space (ft2):	6Ob. Height of process space (ft)	6P. Are multiple pieces of equipment exhausted to this stack?
		Yes

6Q. If Yes, list all pieces of equipment: Holzma HPP 200 Panel Saw, Brandt 1440 FC Edge Bender, Conquest Mini 13 Line Boring Machine, Castle TSM 22 Hinge Boring Machine, Canter JDT 75 Dovetail Drawer Machine, Grizzly G0772 Table Saw (or equivalent)

EMISSION CONTROL

7A. Does this equipment have an emission control?	7B. Is the control part of the equipment?	7C. Type(s) of pollutant(s) controlled:
Yes	No	PM

7D. Emission Controls(s):	7E. Description of Control Device(s):
Bag House	Belfab NBMOP 2122 Dust Collector.

7F. CONTAMINANT		7G. EMISSIONS					
		EMISSION FACTOR		HOURLY	ANNUAL	PERCENT	HOW
NAME	CAS NUMBER	AMT	UNITS	EMISSIONS (lbs/hr)	EMISSIONS (lbs/year)	REMOVAL	DETERMINED
Sawdust	NY079-00-0			0.16	230.4	99	Control efficiency

7H. Detailed Calculations (Est. max hourly and max annually):

Dust collector emptied every 4 weeks. Total volume for dust collector: 30 gallons x 6 = 180 gallons x 1.75 lbs/gallon = 1890 lbs/4 weeks/5 days/wk = 15.75 lbs/hr/0.99 = 15.91 lbs/hr emission rate potential x (100-99%) = 0.16 lbs/hr actual emissions.

a. Proposed Environmental Rating:	C

HEATER INFORMATION

If the process is equipped with a heater, please provide the following information.

Q8A. Is there a heater?	8A. Is the heater a separate unit?	8B. Input (BTU/hr):	8C. Output (BTU/hr):
No			

8D. Firing Rate (CFH/GPH):	8E. Manufacturer:	8F. Model Number:	8G. Fuel Type:
			None

ADDITIONAL PERMITTED EQUIPMENT IN FACILITY

9A. INSTALLATION NO.	9B. DESCRIPTION	9C. CERTIFICATION OF OPERATION EXPIRATION DATE

PART IV: OTHER INDUSTRIAL PROCESS

Provide the following information for any other type of industrial process or operation

EQUIPMENT INFORMATION

15A. Material Being Processed:	15B. Maximum Hourly Processing Rate:	15C. Annual Amount of Material Processed:
Saw dust	15.91	22910

Description of the Equipment:	Manufacturer:	Model Number:	Number of Units:
Holzma HPP 200 Panel Saw.	Holzman	HPP 200	1
ACFM per unit:	Year of Installation:	Is there a control unit specific to this equipment?	Is the control unit venting directly into the room?
5000	2016	No	Yes
If applicable, list the type of control unit(s) used:			

Description of the Equipment:	Manufacturer:	Model Number:	Number of Units:
Table Saw.	Grizzly	G0772	1
ACFM per unit:	Year of Installation:	Is there a control unit specific to this equipment?	Is the control unit venting directly into the room?
5000	2016	No	Yes
If applicable, list the type of control unit(s) used:			

Description of the Equipment:	Manufacturer:	Model Number:	Number of Units:
Edge Bander.	Brandt	1440 FC	1
ACFM per unit:	Year of Installation:	Is there a control unit specific to this equipment?	Is the control unit venting directly into the room?
5000	2016	No	Yes
If applicable, list the type of control unit(s) used:			

Description of the Equipment:	Manufacturer:	Model Number:	Number of Units:
Boring Machine.	Conquest	Mini 13 Line	1
ACFM per unit:	Year of Installation:	Is there a control unit specific to this equipment?	Is the control unit venting directly into the room?
5000	2016	No	Yes
If applicable, list the type of control unit(s) used:			

Description of the Equipment:	Manufacturer:	Model Number:	Number of Units:
Boring Machine.	Castle	TSM22	1
ACFM per unit:	Year of Installation:	Is there a control unit specific to this equipment?	Is the control unit venting directly into the room?
5000	2016	No	Yes
If applicable, list the type of control unit(s) used:			

Description of the Equipment:	Manufacturer:	Model Number:	Number of Units:
Dovetail Drawer Machine.	Canter	JDT75	1
ACFM per unit:	Year of Installation:	Is there a control unit specific to this equipment?	Is the control unit venting directly into the room?
5000	2016	No	Yes
If applicable, list the type of control unit(s) used:			

15E. Hours / Day:	15F. Operational Days / Year:
6	240



About AECOM
AECOM (NYSE: ACM) is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental and energy. With approximately 95,000 employees around the world, AECOM is a leader in all of the key markets that it serves. AECOM provides a blend of global reach, local knowledge, innovation, and technical excellence in delivering solutions that enhance and sustain the world's built, natural, and social environments.

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