East 33rd Street Rezoning

Environmental Assessment Statement

CEQR No. 17DCP203M

Prepared for:
33rd Street Acquisition LLC

Prepared by:
Philip Habib & Associates

December 21, 2017

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

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

Part I: GENERAL INFORMATION

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

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

2. *Project Name* East 33rd Street Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
17DCP203M	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
170380 ZMM, N 170381 ZRM	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY			NAME OF APPLICANT		
New York City Department of City Planning			33rd Street Acquisition LLC		
NAME OF LEAD AGENCY CONTACT PERSON			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON		
Robert Dobruskin, AICP, Director, Environmental Review and Assessment Division			Deirdre A. Carson, Greenberg Traurig LLP		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 200 Park Avenue		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10166
TELEPHONE 212.720.3423	EMAIL rdobrus@planning.nyc.gov		TELEPHONE 212.801.6855	EMAIL carsond@gtlaw.com	

5. *Project Description*

The applicant, 33rd Street Acquisition LLC, is seeking a zoning map amendment and a zoning text amendment from the New York City Planning Commission (CPC) (the "proposed action") to facilitate the development of a mixed-use building at 339-345 East 33rd Street in the Kips Bay neighborhood of Manhattan Community District (CD) 6. The zoning would change from R8A to C1-9A. A text amendment to the New York City Zoning Resolution (ZR) Appendix F is also being requested to map the rezoning area as a Mandatory Inclusionary Housing (MIH) area. The proposed development site comprises approximately 10,822-square-feet (sf) over five lots (Block 939, Lots 23, 24, 25, 26 and 27) bounded by East 33rd Street to the south, Second Avenue to the west, East 34th Street to the north, and First Avenue to the east.The development site is currently occupied by five 4-story residential buildings with a total of 53 DUs and one 1,244 gsf medical office. Upon approval of the proposed action, the buildings on Lots 24-27 would be fully vacated and demolished in order to facilitate the construction of the proposed new building. The proposed development would consist of approximately 142,550 gross square feet (gsf), including approximately 131,807-gsf of residential uses (155 dwelling units) and 10,743 gsf of local retail uses. The proposed development would be 23-stories in height (230 feet). The proposed 142,550-gsf building also includes the incorporation of 16,453 sf of development rights from an adjacent tax lot (Block 939, Lot 23). Lot 23 is not under the control of the applicant and as a result of the proposed action, it will be merged into the development site's zoning lot but will remain under separate ownership. There is an existing four-story residential building on Lot 23 that will remain in the future with the proposed action. The proposed development would also include 25.8% of affordable housing floor area, consistent with the Mandatory Inclusionary Housing (MIH) requirements (approximately 40 affordable dwelling units).

While the applicant intends to develop the mixed-use project described above, because the proposed action would result in additional development potential generated by additional lots within the rezoning area (Lots 20-22), a reasonable worst case development scenario (RWCDS) for a larger mixed-use development on the applicant's site, which would cantilever over Lot 23 to maximize FAR and bulk, will be considered for conservative analysis purposes. For RWCDS purposes, it is assumed that 26,168 sf of development rights would be transferred from Lots 20-22 to the development site. As with Lot 23, it is assumed that Lots 20-22 would be merged into the development site's zoning lot

but will remain under separate ownership. Under this RWCDS, the proposed mixed-use building would include 158,509 gsf (142,778 zsf) of residential uses and 10,743 gsf (6,429 zsf) of local retail uses (total of 169,252 gsf). The RWCDS development would result in 186 DUs of which 47 to 56 DUs would be affordable. The RWCDS development being analyzed would have a height of 230 feet. The net increment for analysis would be 146 DUs and 10,743 gsf of commercial uses (local retail).

Project Location

BOROUGH Manhattan	COMMUNITY DISTRICT(S) 6	STREET ADDRESS 331-347 East 33rd Street
TAX BLOCK(S) AND LOT(S) Block 939, Lots 20, 21, 22, 23, 24, 25, 26, 27; p/o Lot 28		ZIP CODE 10016

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS East 33rd Street, First Avenue, East 34th Street, Second Avenue

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R8A | ZONING SECTIONAL MAP NUMBER 8d

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

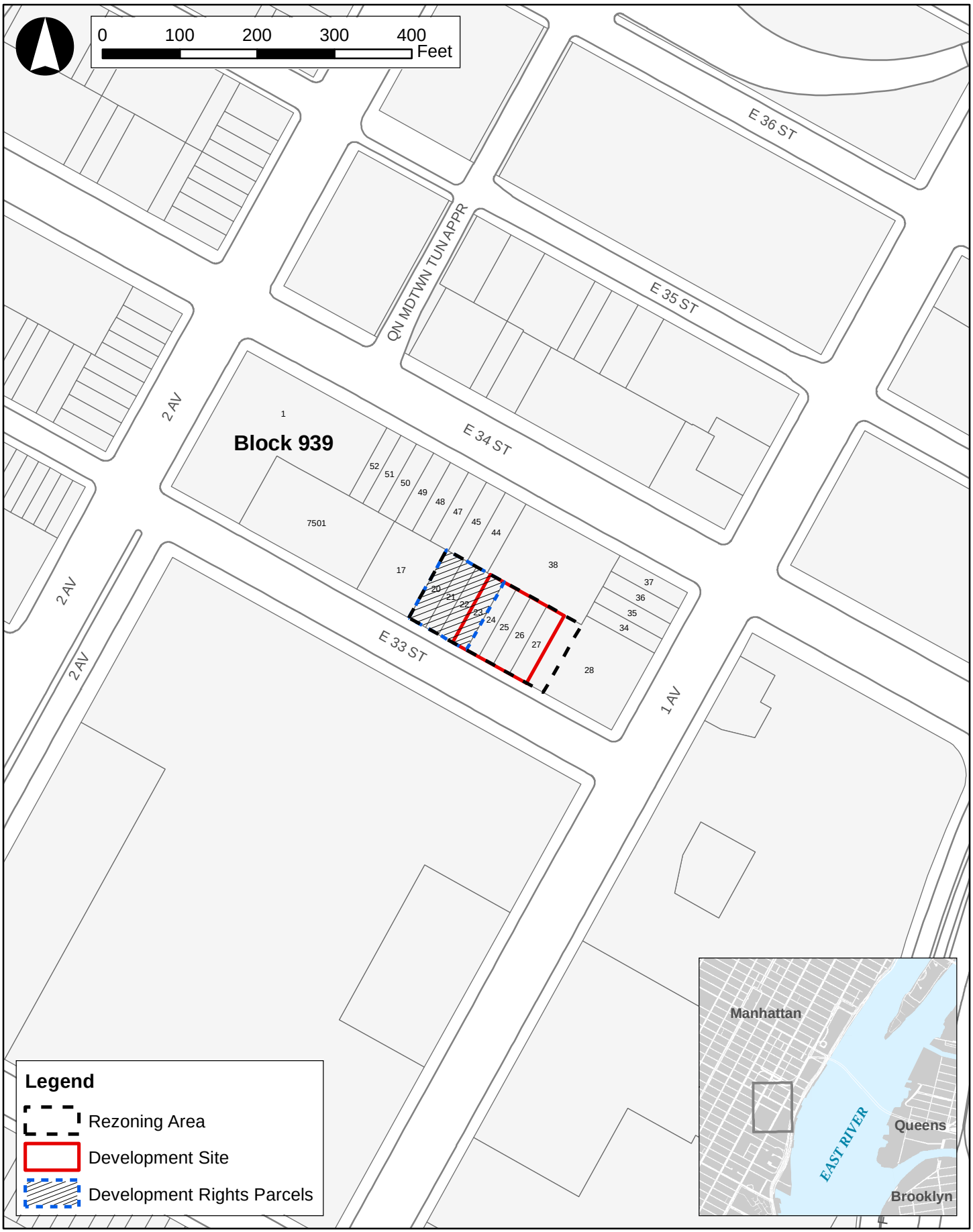
Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 19,751 (rezoning area); 10,822 (development site)
Waterbody area (sq. ft) and type: N/A
Roads, buildings, and other paved surfaces (sq. ft.): 19,751 (rezoning area); 10,822 (development site)
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): 169,252

Figure 1
Project Location





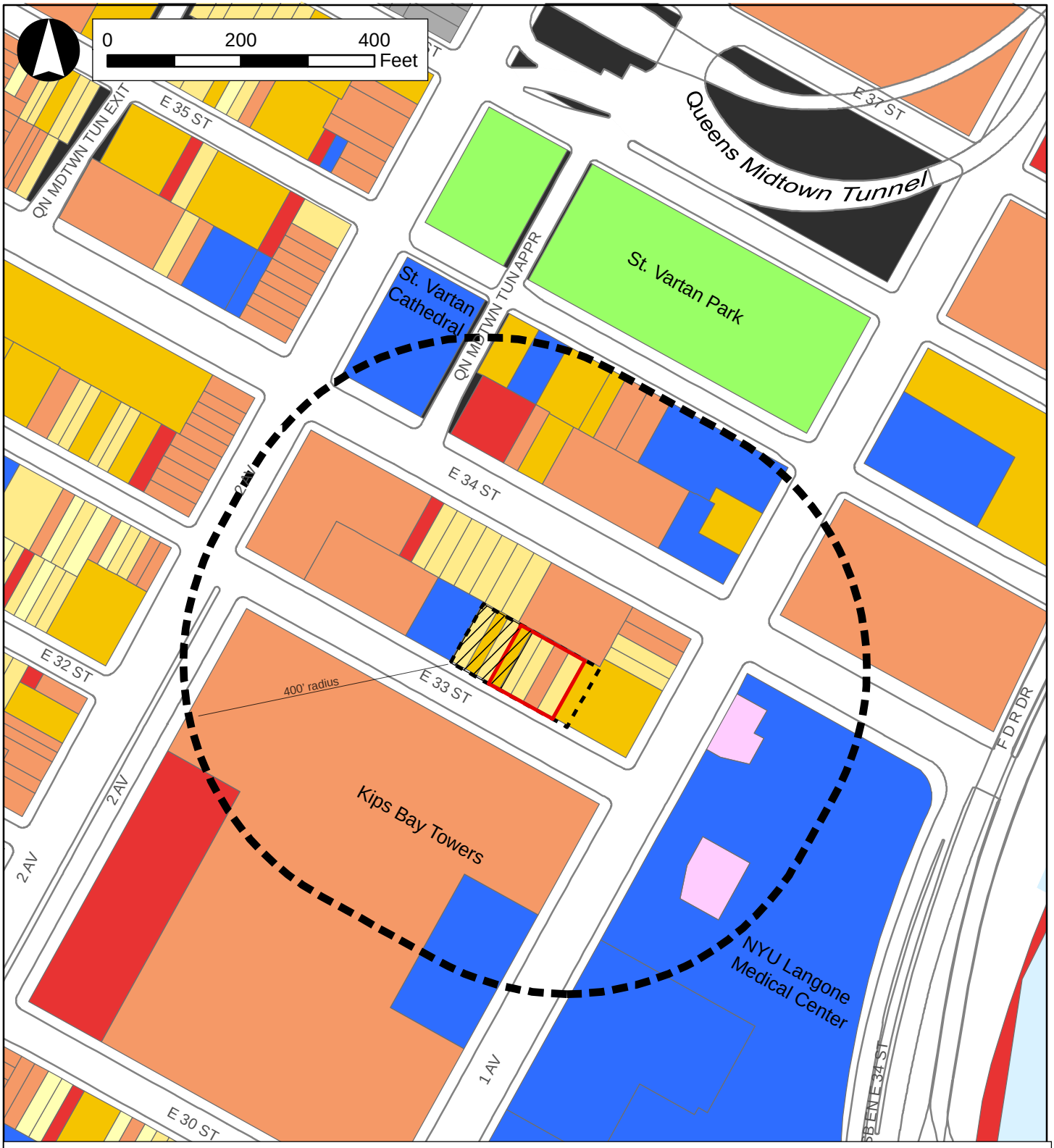
East 33rd Street Rezoning EAS

Figure 2
Tax Map



Proposed Rezoning Area

Figure 4
Land Use



NUMBER OF BUILDINGS: 1
GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 169,252
HEIGHT OF EACH BUILDING (ft.): 230 feet
NUMBER OF STORIES OF EACH BUILDING: 23

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: 8,887 sf
The total square feet not owned or controlled by the applicant: 10,864 sf

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: 8,887 sq. ft. (width x length) VOLUME OF DISTURBANCE: TBD cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 8,887 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.)	158,509	10,743	N/A	N/A
Type (*e.g.,* retail, office, school)	186 units	Local Retail	N/A	N/A

Does the proposed project increase the population of residents and/or on-site workers? ☒ YES ☐ NO
If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 243 (net) NUMBER OF ADDITIONAL WORKERS: 32
Provide a brief explanation of how these numbers were determined: New residents based on avg. HH size of 1.66 in CD 6. Retail employees: 1 employee/1,000 sf of 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): 2020
ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 18 Months
WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☒ YES ☐ NO IF MULTIPLE PHASES, HOW MANY? N/A
BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: All construction would be complete by 2020

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

Part II: TECHNICAL ANALYSIS

INSTRUCTIONS: For each of the analysis categories listed in this section, assess the proposed project's impacts based on the thresholds and criteria presented in the CEQR Technical Manual. Check each box that applies.

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

	YES	NO
1. *LAND USE, ZONING, AND PUBLIC POLICY*: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	☐	☒
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	☒	☐
(c) Is there the potential to affect an applicable public policy?	☐	☒
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach.		
(e) Is the project a large, publicly sponsored project?	☐	☒
o 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?	☒	☐
o If "yes," complete the Consistency Assessment Form.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
o Generate a net increase of 200 or more residential units?	☐	☒
o Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
o Directly displace more than 500 residents?	☐	☒
o Directly displace more than 100 employees?	☐	☒
o Affect conditions in a specific industry?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
o 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		
o **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)	☐	☒
o **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)	☐	☒
o **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)	☐	☒
o **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?	☐	☒
o 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?	☐	☒
o If "yes," would the proposed project generate more than 350 additional residents or 750 additional employees?	☐	☐
(d) If the project in located an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☒	☐

	YES	NO
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☐	☒
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☐	☒
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See Appendix D for NYC Landmarks Preservation Commission Environmental Review Letter		
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?	☐	☒
o 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?	☐	☒
o 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?	☒	☐
o If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: See Attachment G	☒	☐
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	☐	☒

	YES	NO
involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?		
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): 6,625 (net)		
o 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): 18,459,049 net BTUs/year		
(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:		
o 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.*	☐	☐
o 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?	☐	☐
o 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?	☒	☐
o 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	☐	☒

	YES	NO
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☒	☐
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary. As discussed in the EAS, the proposed actions would not result in significant adverse Air Quality, Hazardous Materials, or Noise impacts. Therefore, an assessment of public health is not warranted.		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☒	☐
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary. The proposed project does not have the potential to result in significant adverse impacts to land use, zoning, and public policy, socioeconomic conditions, open space, historic and cultural resources, urban design and visual resources, shadows, transportation, or noise. Nor would the proposed project result in a combination of moderate effects to several elements that cumulatively may affect neighborhood character. Therefore, an assessment of neighborhood character is not warranted.		
19. *CONSTRUCTION*: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
○ Construction activities lasting longer than two years?	☐	☒
○ Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☐	☒
○ Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)?	☒	☐
○ Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☐	☒
○ The operation of several pieces of diesel equipment in a single location at peak construction?	☐	☒
○ Closure of a community facility or disruption in its services?	☐	☒
○ Activities within 400 feet of a historic or cultural resource?	☐	☒
○ Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
○ Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	☐	☒
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in Chapter 22, "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination. Construction on the development site may result in temporary disruptions including noise, dust and traffic associated with the delivery of materials and arrival of workers to the site. These effects, however, would be temporary (lasting approximately 24 months) and are therefore not considered significant.		

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
Deirdre A. Carson, Greenberg Traurig LLP	12/21/2017

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
Director, Environmental Assessment and Review Division	Department of City Planning
NAME	DATE
Robert Dobruskin, AICP	12/22/2017

SIGNATURE

Robert Dobruskin

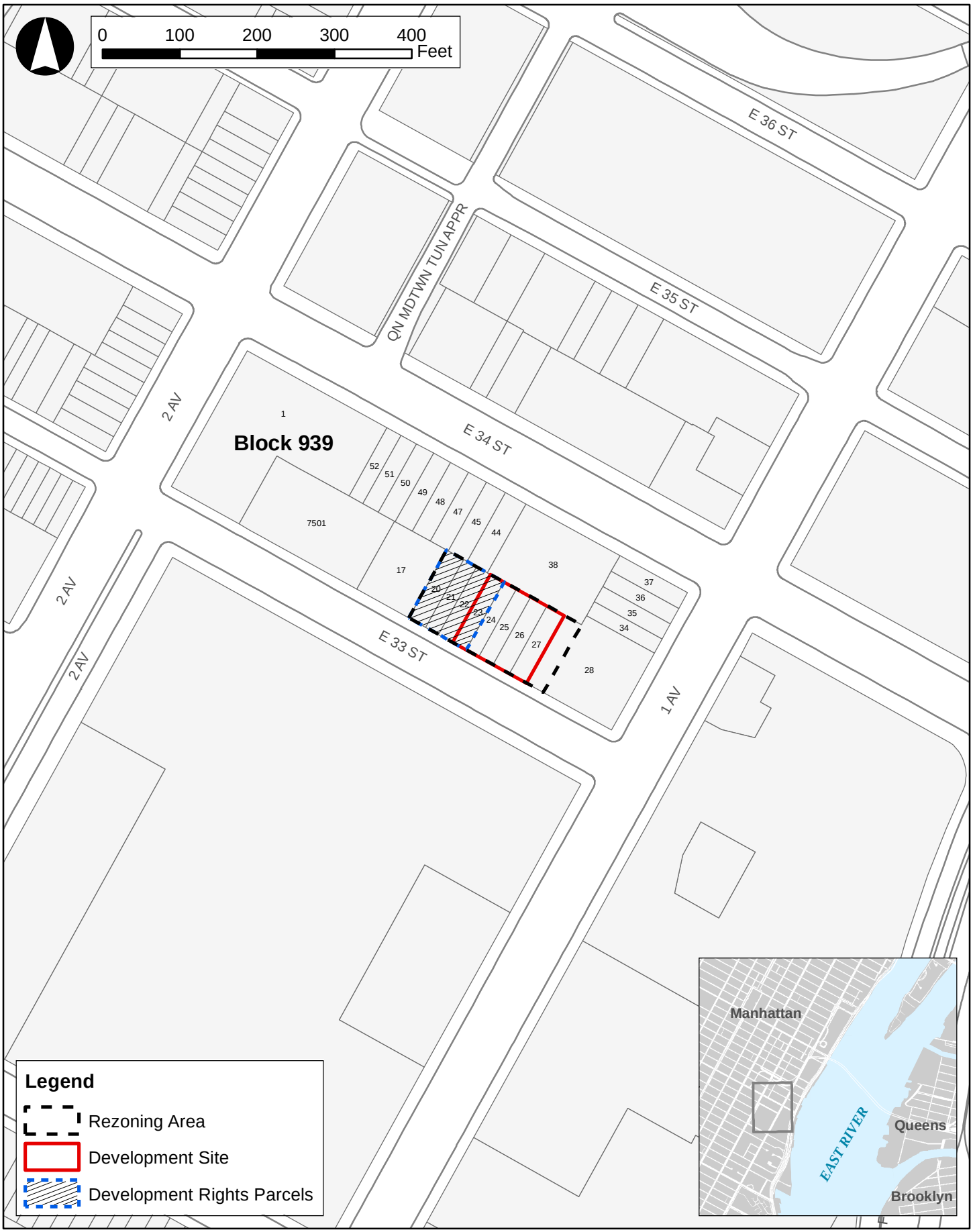
I. INTRODUCTION

33rd Street Acquisition LLC (the "applicant") is seeking two discretionary actions in order to facilitate the redevelopment of 339-345 East 33rd Street (Block 939, Lots 23, 24, 25, 26, and 27) in the in the Kips Bay neighborhood of Manhattan Community District 6 (the "development site") (refer to Figure A-1, "Project Location"). The discretionary actions include: (i) a zoning map amendment to rezone Manhattan Block 939, Lots 20, 21, 22, 23, 24, 25, 26, 27, and a portion of Lot 28 (the "proposed rezoning area") from an R8A residential district to a C1-9A district; and, (ii) a zoning text amendment to Zoning Resolution (ZR) Appendix F to designate the proposed rezoning area as a Mandatory Inclusionary Housing (MIH) Area. Collectively, the zoning map amendment and the zoning text amendment are the "proposed action" for the purposes of the environmental analysis.

The proposed development would consist of approximately 142,550 gross square feet (gsf), including approximately 131,807-gsf of residential uses and 10,743 gsf of local retail uses on Block 939, Lots 24, 25, 26, and 27 (the "projected site"). The proposed development would be 23-stories in height (230 feet). The proposed 142,550-gsf building would also include the incorporation of 16,453 sf of development rights from an adjacent tax lot (Block 939, Lot 23), which is also considered part of the development site. Lot 23 is not under the control of the applicant and as a result of the proposed action, it will be merged into the development site's zoning lot but will remain under separate ownership. There is an existing four-story residential building on Lot 23 that will remain in the future with the proposed action. The affordable housing program as part of the proposed development would be consistent with either MIH Option 1 or 2. Option 1 requires 25% of the residential floor area be designated as affordable housing units for residents with incomes averaging 60 percent of Area Median Income (AMI) (approximately 39 DUs). Option 2 requires 30% of the residential floor area be designated as affordable housing units for residents with incomes averaging 80 percent of AMI (approximately 46 DUs). There would be approximately 155 dwelling units, of which approximately 25.8% or 40 would be affordable housing units and 74.2% or 115 would be market rate. The 40 affordable units would contain floor area equal to at least 25% of the total residential floor area in the building, which would be set aside for affordable housing units for residents whose incomes, in the aggregate, average 60% of Area Median Income, in line with the requirements of MIH, which provides that there can be no more than three income bands and no income band can exceed 130% of Area Median Income (Option 1 – ZR 23-154(d)(3)(i)).

As discussed in detail below under "Analysis Framework and Reasonable Worst-Case Development Scenario (RWCDS)", while the applicant intends to develop the mixed-use project described above, because the proposed action would result in additional development potential generated by Lots 20-22, a RWCDS With-Action scenario for a larger mixed-use development on the applicant's site will be considered for conservative analysis purposes. For RWCDS purposes, it is assumed that 26,168 sf of development rights will be transferred from Lots 20-22 to the development site. Like with Lot 23, it is assumed that Lots 20-22 would be merged into the development site's zoning lot but will remain under separate ownership. Under this RWCDS, the proposed mixed-use building would include 158,509 gsf (142,778 zsf) of residential uses and 10,743 gsf (6,429 zsf) of local retail uses. The RWCDS development would result in 186 DUs. The RWCDS development being analyzed would have a height of 230 feet.

Figure A-1
Project Location



II. EXISTING CONDITIONS

Proposed Development Site

As shown in Figures A-1 and A-2, the proposed development site comprises Lots 23, 24, 25, 26, and 27 on Block 939. The applicant owns Lots 24, 25, and 26 and is in the process of purchasing Lot 27. Lot 23 is considered a development rights parcel and will remain under separate ownership. The development site is approximately 10,822 sf with 110 feet of frontage along the north side of East 33rd Street. The development site is zoned R8A and includes five 4-story residential buildings. A right-of-way for the Long Island Rail Road (LIRR) is located beneath the majority of the development site and the rezoning area. The LIRR right-of-way would not restrict development on any lot proposed to be rezoned.

As shown in Figure A-3, the proposed development site is currently occupied by five 4-story residential buildings that contain a total of 53 DUs and one medical office. The four applicant controlled buildings on Lots 24-27 contain 40 DUs, of which 30 are market rate, 9 units are rent stabilized and 1 unit is rent controlled. Seventeen of the 40 DUs are currently vacant. The medical office is approximately 1,244 sf and is located at 343 East 33rd Street. The five existing buildings on the development site comprise a total of approximately 30,808 gsf for a total built FAR of approximately 2.85. The four existing buildings on the projected site would be fully vacated before construction is proposed to begin and then demolished in order to facilitate the development of the proposed mixed-use building.

Proposed Rezoning Area

The proposed rezoning area (or "project area") comprises approximately 19,751 sf of Manhattan Block 939 (refer to Figure A-1). It consists of 9 privately-owned tax lots—approximately 2,469 sf of Lot 28, and Lots 20, 21, 22, 23, 24, 25, 26 and 27 in their entirety—that would be rezoned from R8A to C1-9A. Lots 24, 25, and 26 are currently owned by the applicant, while Lot 27 is in the process of being acquired by the applicant. The projected site is described in detail above.

The other properties—Lots 20, 21, 22, 23, and p/o Lot 28— are not under the control of the applicant and are privately-owned (see Figure A-2). Lots 20-27 and a portion of Lot 28 are located in the middle of Block 939 and are within a hundred feet of the northwest corner of East 33rd Street and First Avenue. As discussed above, while Lot 23 is considered a development rights parcel, it is not considered part of the projected site as no new construction would occur on this lot.

Lot 20 is a 2,469 square foot rectangular shaped lot with 25 feet of frontage along the north side of East 33rd Street and contains a 5-story 9,200 gsf residential building (FAR of 3.73) with a total of 22 dwelling units. Lots 21 and 22 are rectangular-shaped lots and each have a lot area of approximately 1,975 sf with 20 feet of frontage on the north side of East 33rd Street. Lot 21 is occupied by a 5-story 7,860 gsf residential building that includes 13 DUs and has a built FAR of 3.98 (see Figure A-3a). Lot 22 is occupied by a 5-story 6,858 gsf residential building that includes 12 DUs and has a built FAR of 3.47 (see Figure A-3a). Lot 28 is a 13,770 sf square-shaped lot with 125 feet of frontage along the north side of East 33rd Street and 113 feet along the west side of First Avenue. Lot 23 is an approximately 1,935 sf rectangular lot with 20 feet of frontage along the north side of East 33rd Street. Lot 23 is occupied by one 4-story 7,247 gsf residential building with 13 DUs and has a built FAR of 3.7. Lot 28 is occupied by a 23-story 213,549 gsf residential building that includes 209 DUs, the New York University (NYU) Child Study Center on the first and second

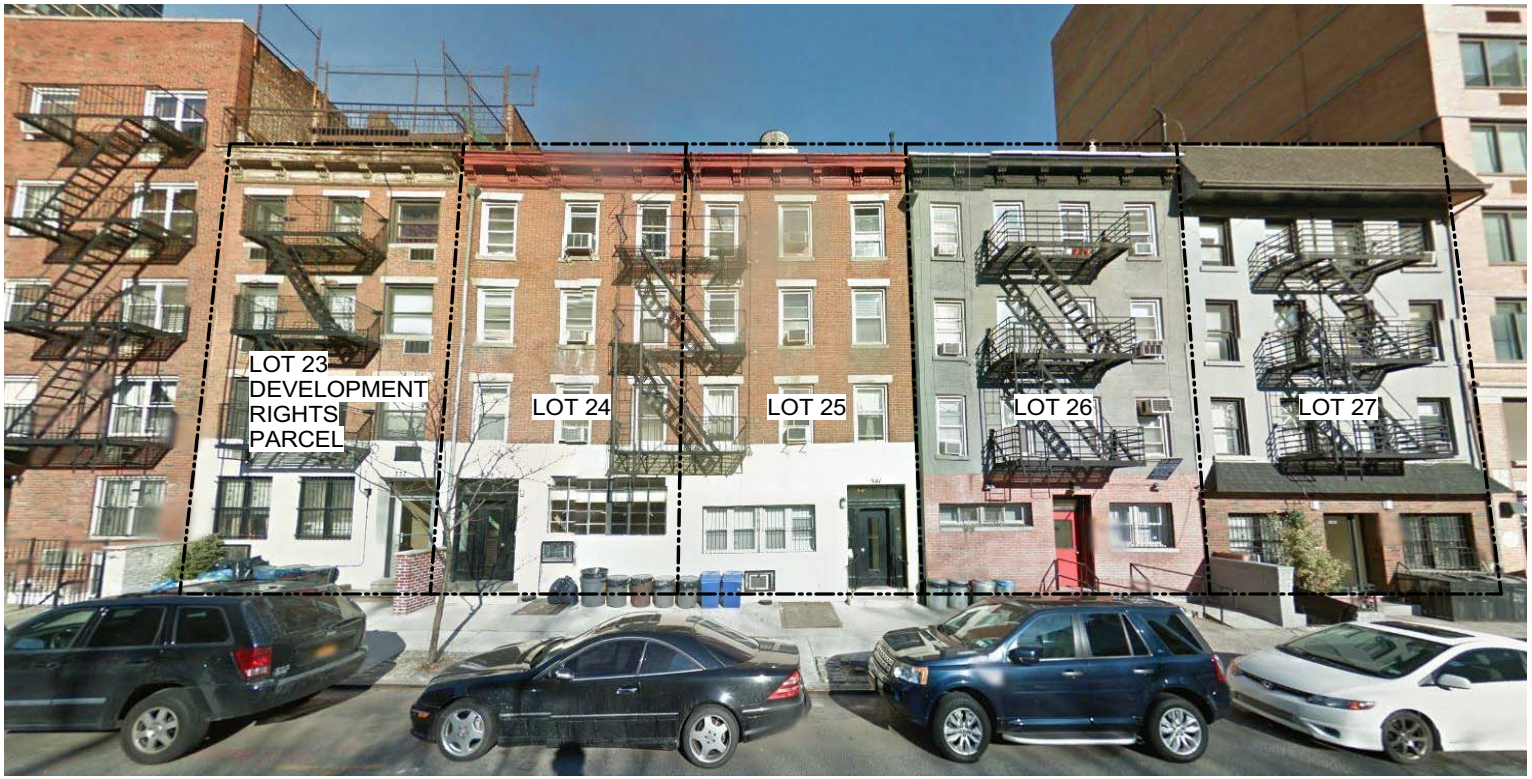

NYC Finance
NYC Digital Tax Map
Effective Date : 12-05-2013 10:13:27
End Date : Current
Manhattan Block: 939
Legend
Streets
Miscellaneous Text
Possession Hooks
Boundary Lines
Lot Face Possession Hooks
Regular
Underwater
Tax Lot Polygon
Condo Number
Tax Block Polygon
Rezoning Area
Development Site
Development Rights Parcels
914
940
936
962
939
2 AVENUE
EAST 34 STREET
EAST 33 STREET
1 AVENUE
CONDO #: 1345
CONDO #: 2156
CONDO #: 40
REUC
Feet
0 5 10 20 30 40



VIEW FROM SOUTH EAST



VIEW FROM SOUTH WEST



FRONT VIEW



View of Lots 20-22 looking north



View of Lot 28 looking north

floors, and a subsurface 45 space parking garage (FAR of 15.51) (see Figure A-3a). The portion of Lot 28 not within the rezoning area (approximately 11,301 sf) is zoned C1-9A.

Surrounding Area and Context

The project area is located in Kips Bay, in the east midtown section of Manhattan. The surrounding area supports a mix of land uses, including multi-family residences, mixed-use buildings, and public facilities and institutional uses (see Figure 4 in "EAS Form"). NYU Langone Medical Center is a predominant land use in the area and occupies a superblock to the east of the rezoning area along the east side of First Avenue between East 34th and East 30th Streets. NYU Langone Medical Center is currently undergoing an extensive renovation project. Kips Bay Towers, located between Second and First Avenues and East 33rd and 30th Streets, consists of two freestanding, narrow, rectangular 21-story concrete apartment buildings with large footprints and no setbacks that are well set back from the street. These buildings are approximately 80 feet wide and 360 feet long and contain 1,118 DUs. Also located on this block are several commercial retail uses as well as a building that is part of NYU Langone Medical Center campus. There are several other large residential developments located within the vicinity of the project site including a 35-story building with 706 DUs located at 606 First Avenue, a 22-story building with 191 DUs located at 225 East 34th Street, a 21-story building with 480 DUs located at 222 East 34th Street, a 16-story building with 205 DUs located at 333 East 34th Street, and a 20-story building with 164 DUs located at 251 East 32nd Street. Located to the north of the rezoning area along Second Avenue between East 34th and East 35th Streets is St. Vartan Armenian Cathedral. St. Vartan's Park, located to the north of the rezoning area, occupies a full block bounded by East 36th Street, East 35th Street, First Avenue, and an entrance ramp to the Queens-Midtown Tunnel.

First Avenue and Second Avenue serve as major north-south thoroughfares in the vicinity of the project area and the side streets carry one-way, cross-town traffic, with the exception of 34th Street, which is two-way. Between First and Third Avenues, the regular street grid is interspersed with the Queens-Midtown Tunnel ramp network; the access and egress ramps are located between East 36th and East 37th Streets with dedicated north-south side streets providing one-way access to the tunnel.

The remainder of the subject block (Block 939) that is not located within the rezoning area contains residential uses, with some buildings containing ground floor retail uses as well. The block's Second Avenue frontage, which is zoned C1-9, includes a 36-story primarily residential building with 355 DUs and ground floor retail and medical office uses. The block's East 34th Street frontage contains seven 5- to 6-story residential buildings; some with ground floor local retail, a 6-story office building, and a 16-story residential building with 200 DUs. The block's First Avenue frontage contains four 4-story residential buildings with ground floor retail. The block's First Avenue frontage also contains the portion of Lot 28 that is not located within the rezoning area. As discussed above, Lot 28 contains a 23-story residential building with 209 DUs and the NYU Child Study Center on the first and second floors. Directly to the west of the rezoning area, along East 33rd Street, Lot 17 contains a 14,816 square foot community facility building – the Chapel of the Sacred Hearts of Mary and Joseph. Also to the west of the rezoning area is a 136,099 gsf, 12-story residential building that includes 129 DUs that was recently constructed.

There are limited transit services in the immediate vicinity of the proposed rezoning area. The M34 Select Bus Service (SBS), the M34A SBS, and M15 SBS are located within the vicinity of the rezoning area. The M34 SBS runs river-to-river along 34th Street from the 34th Street Ferry Terminal on the East River to the Jacob Javits Convention Center on 12th Avenue. The M34A SBS runs from Waterside Plaza to the Port Authority Bus Terminal via 34th Street, 2nd Avenue, 8th Avenue and 9th Avenue. The 1st and 2nd Avenue

- 125th Street SBS Corridor extends between 125th Street in Harlem and South Ferry in Lower Manhattan. The 33rd Street subway station, serving the number 6 Lexington Avenue line, is located approximately 0.3 miles west of the proposed rezoning area. The East 34th Street Ferry Terminal for the East River Ferry is located between East 35th and East 36th Streets, east of the FDR Drive. The East River Ferry provides service between the East 34th Street Ferry Terminal and Pier 11/Wall Street, Brooklyn, and Queens. Vehicles en route to Kips Bay from other parts of the city and Tri-State Area can access the neighborhood via the FDR Drive at East 34th Street.

III. DESCRIPTION OF THE PROPOSED ACTION

The proposed project requires the following discretionary land use actions:

Zoning Map Amendment: The proposed mixed-use development requires a zoning map amendment to rezone Block 939, Lots 20, 21, 22, 23, 24, 25, 26, 27; p/o Lot 28 from the existing R8A residential zoning district to a C1-9A commercial district (R10A equivalent). As shown in Figure A-4, the proposed C1-9A district would be mapped 100 feet west of First Avenue between East 34th and East 33rd Streets, 350 feet east of Second Avenue between East 34th and East 33rd Streets, and extend along the north side of East 33rd Street at a depth of 98.75 feet (to the centerline of the block). Use Groups (UG) currently permitted under the existing zoning include residential (UG 1 and 2) and community facility (UG 3 and 4; which include uses such as libraries, schools, and houses of worship). Commercial uses are not permitted under the existing zoning. With the proposed zoning map amendment, residential (UG 1 and 2, community facility (UG 3 and 4) would continue to be permitted within the project area and commercial uses (UG 5 and 6; which includes local retail and services uses such as grocery stores, dry cleaners, drug stores, and restaurants) would now be permitted as-of-right.

Zoning Text Amendment: The proposed zoning text amendment would amend Appendix F of the Zoning Resolution (ZR) to map a Mandatory Inclusionary Housing (MIH) area on Lots 20, 21, 22, 23, 24, 25, 26, 27, and a p/o Lot 28, an area coterminous with the rezoning area.

MIH areas specify a maximum permitted residential floor area ratio (FAR). The maximum residential FAR permitted in C1-9A zoning districts in a MIH designated area is 12.0.

MIH generally requires that all new residential developments, enlargements, and conversions provide permanently affordable housing set-asides.[1] It includes two primary options that pair set-aside percentages with different affordability levels to reach a range of low and moderate incomes while accounting for the financial feasibility tradeoff inherent between income levels and size of the affordable set-aside. When MIH is applied, the applicant, CPC and City Council choose one or more of the two primary options based on a consideration of area housing conditions, needs and income levels within and near the area covered by the proposed action. The two basic options are: 1) At least 25 percent of the residential floor area shall be provided as housing affordable to households at an average of 60 percent of the Area Median Income index ("AMI"), with no unit targeted at a level exceeding 130 percent of AMI, with 10 percent provided as affordable to households at an average of 40 percent of AMI; or 2) At least 30 percent of the residential floor area shall be provided as housing affordable to households at an average of 80

[1] The affordability requirement in MIH designated areas applies to all residential developments of over 10 DUs or 12,500 zsf; developments between 10 and 25 DUs or between 12,500 and 25,000 zsf also have the option of making a payment into an affordable housing fund in lieu of directly providing affordable housing.



Legend

- 400-Foot Radius
- Development Site
- Zoning District
- Proposed Rezoning
- Special Transit Land Use District
- C2-5 Overlay

East 33rd Street Rezoning EAS

Figure A-4

Existing & Proposed Rezoning

percent of the Income Index ("AMI"), with no unit targeted at a level exceeding 130 percent of AMI. In addition, the City Planning Commission and the City Council may also add one or both of two other options: 1) At least 20 percent of the residential floor area shall be provided as housing affordable to households at an average of 40 percent AMI; or 2) at least 30 percent of the residential floor area shall be provided as housing affordable to households at an average of 115 percent of AMI, with 5 percent required at 70 percent of AMI and 5 percent required at 90 percent AMI.

The requested actions would permit the applicant to construct a 23-story mixed-use building that would contain approximately 131,807 gsf of residential uses (115 market rate DUs and 40 affordable DUs) and approximately 10,743 gsf of retail uses for a total of 142,550 gsf on Block 939, Lots 24, 25, 26, and 27 in the Kips Bay neighborhood of Manhattan CD 6.

IV. PURPOSE AND NEED OF THE PROPOSED ACTION

The applicant believes that the proposed action would be consistent with and would advance the ongoing mixed-use land use trends and address demand for housing at varying income levels and retail space in this area of the City.

The proposed action is required for development of the proposed mixed-use building, which would include 40 affordable housing units. The development site is currently in an R8A district, where commercial use is not permitted and residential FAR is limited to 6.02. Under existing zoning regulations, uses permitted as-of-right on the project site include Use Groups 1-4, which include residential and community facility uses. With the proposed zoning map amendment, commercial uses (Use Groups 5 and 6), which are prohibited by the existing zoning, would be permitted. Residential (Use Groups 1 and 2) and community facility uses (Use Groups 3 and 4) would continue to be permitted under the proposed rezoning. The proposed zoning map amendment to map the entire development site as a C1-9A district would allow for a higher residential FAR, and hence an increase in the amount of residential units, including affordable units, and allow for local retail uses. The proposed C1-9A district allows a commercial FAR of 2.0, a community facility FAR of 10.0, and a residential FAR of 12.0 with the provision of the requisite amount of affordable housing.

The applicant is proposing a C1-9A district because local retail use would be consistent with the adjacent retail corridors along First and Second Avenues, and would service pedestrians on this wide street, which provides direct pedestrian access to the NYU Langone facility from the MTA station to the west. The height of the proposed development, the level of retail use and the number of residential units is consistent with the existing character of the neighborhood and will be consistent with future commercial and residential development in the area. The C1-9A district would match the existing C1-9A district adjoining the development site and encompassing most of the remainder of the block, including the midblock fronting East 34th Street and the block's First Avenue frontage. The proposed building would fully comply with the applicable C1-9A district regulations. By allowing for a greater mix of uses, the proposed zoning district designation would provide ground floor retail for the local community which would enliven the streetscape immediately adjacent to the project site.

The proposed zoning map amendment from an R8A residential district to a C1-9A commercial district, together with the zoning text amendment designating the project area a MIH area, would facilitate the mixed-use development in the applicant's proposal.

V. DESCRIPTION OF THE PROPOSED DEVELOPMENT

The applicant is proposing a mixed-use residential and commercial building on the projected site (Block 939, Lots 24, 25, 25, & 27). As a result of the proposed project, the four existing residential buildings on Lots 24-27 would be demolished. The applicant is currently negotiating and finalizing lease buyouts and relocation options. The applicant intends to seek tax benefits under Section 421-a of the New York State Real Property Tax Law (the Affordable Housing New York Program). The replacement ratio provisions of subsection (i) thereof require that the project must contain at least one affordable housing unit for each dwelling unit that existed on the property on the date that is three years prior to the commencement of construction. Since there are 40 dwelling units, the proposed building will contain 40 affordable units, which is 25.8% of the 155 units proposed, and would satisfy the 25% minimum required affordable residential floor area under MIH. There would be 115 market rate units.

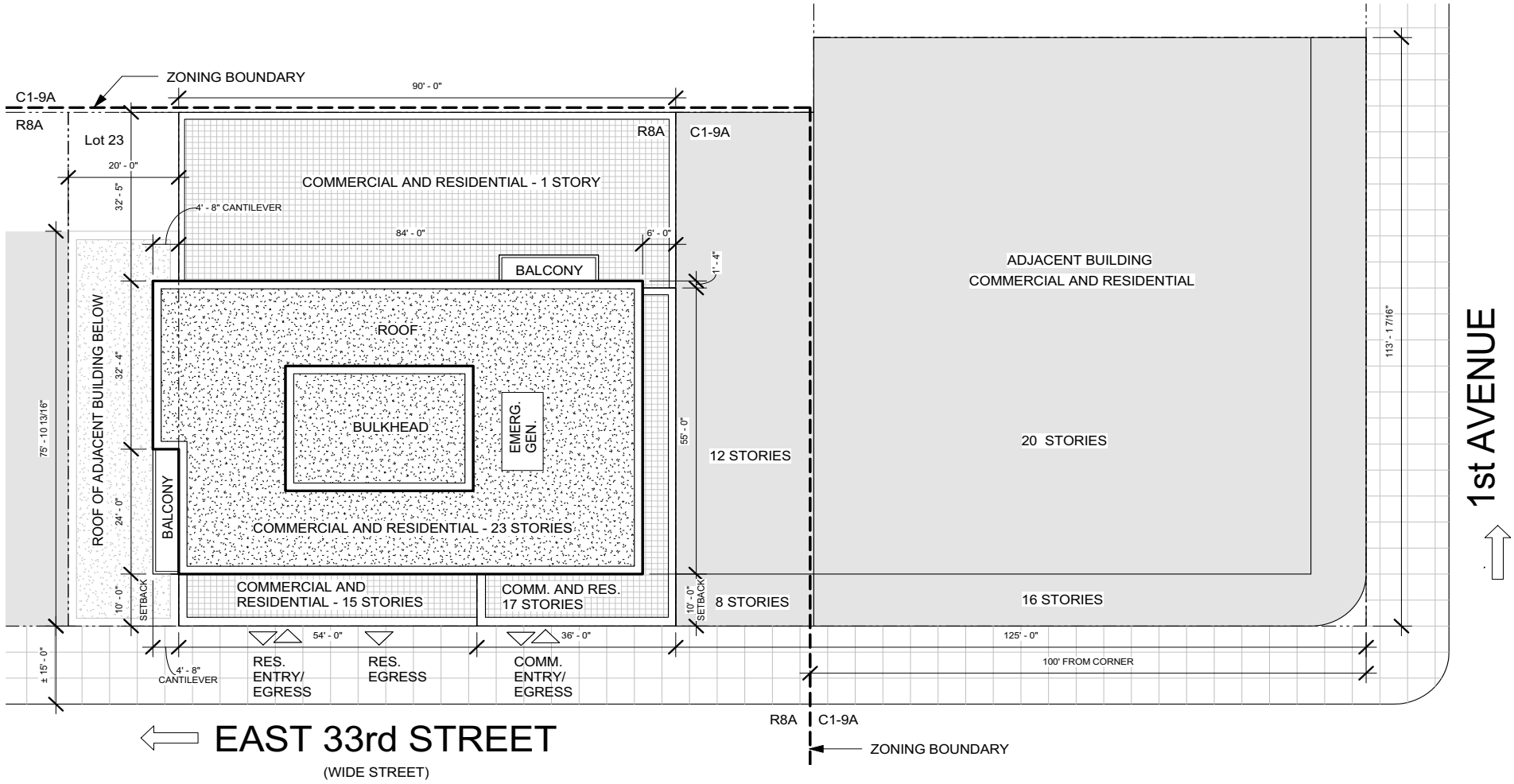
While the residents of the existing 1 rent controlled and 9 rent stabilized units have not asked to be relocated into the proposed building, it is possible that such relocation might occur in a few instances. If such a relocation occurs, these units would be in addition to the approximately 39 units (25% of the residential floor area) required by MIH. If allowed by the Department of Housing Preservation and Development (HPD), one tenant could be relocated into the one additional affordable unit required by the 421-a program's replacement ratio. Otherwise, it is intended that these existing rent controlled and rent stabilized units would be vacated by consensual relocation or pursuant to a buyout prior to the commencement of demolition.

The new building on the projected site will contain approximately 142,550 gsf (123,040 zsf) including 16,453 sf of development rights that will be transferred from an adjacent tax lot (Block 939, Lot 23). Lot 23 is not under the control of the applicant and as a result of the proposed action, it will be merged into the development site's zoning lot but will remain under separate ownership. The existing four-story residential building on Lot 23 will remain in the future with the proposed action. The proposed development would include approximately 131,807 gsf (116,611 zsf) of residential floor area and 10,743 gsf (6,429 zsf) of local retail floor area. The total overall FAR on the zoning lot would be 12.0, the maximum permitted. The proposed project would include a total of 155 DUs with 25.8% floor area dedicated to affordable housing (DUs) pursuant to the proposed MIH requirements.[2] Parking is not required in Community District 6 as it is part of the "Manhattan Core" and no parking would be provided as part of the proposed project.

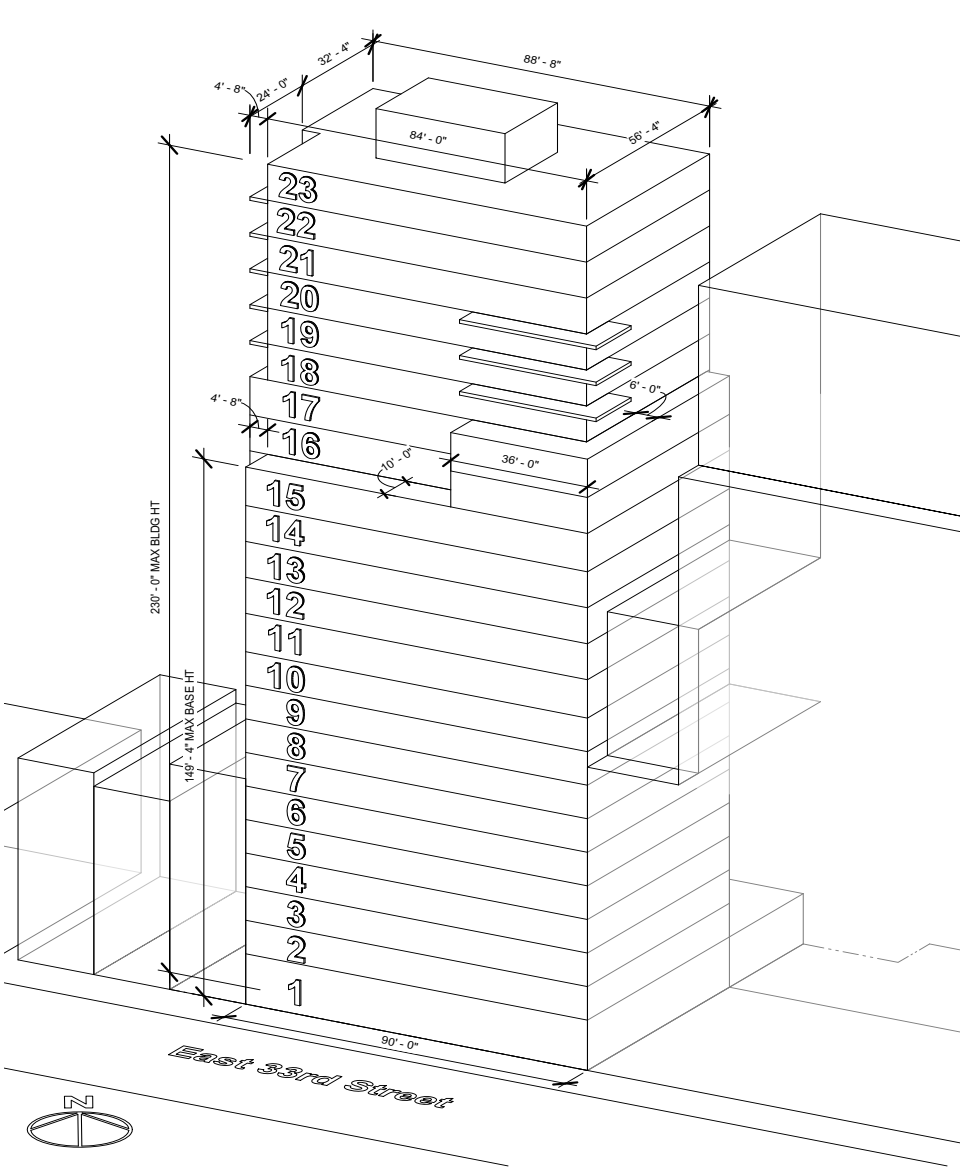
The proposed new development would have a frontage of 90 feet along the north side of East 33rd Street (see Figure A-5). The proposed building would be 23-stories with a height of approximately 230 feet (see Figure A-6). Retail uses would be located on the first floor and cellar level and residential uses would be located on floors 2 through 23.

The development site is located within two flood zones of the East River (see Figure C-5 in Attachment C, "Land Use, Zoning, and Public Policy"). The development site is located within the currently applicable Zone AE12 and Zone Shaded X. The majority of the development site is located within Zone Shaded X; however, approximately 34% of the site is located in Zone AE12, according to the new preliminary Flood Insurance Rate Map (FIRM) released by the Federal Emergency Management Agency (FEMA) in 2015. Thus, the design and construction of the building would comply with New York City Building Code and

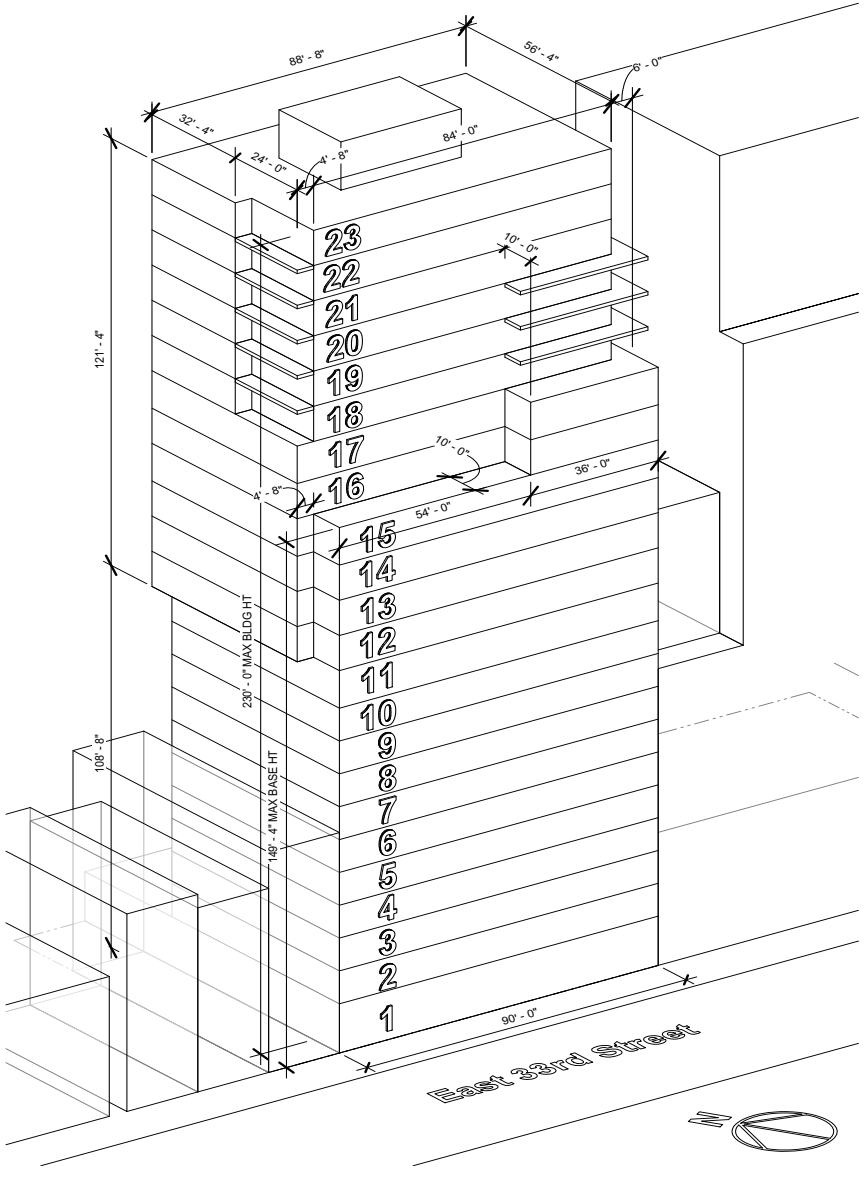
[2] Average dwelling unit size would be approximately 850 sf/DU



Source: GF55 Partners
For Illustriative Purposes Only



1 PROPOSED MASSING DIAGRAM - VIEW FROM SOUTHEAST



2 PROPOSED MASSING DIAGRAM - VIEW FROM SOUTHWEST

Source: GF55 Partners
For Illustriative Purposes Only

East 33rd Street Rezoning EAS

Figure A-6
Applicant's Proposed Development Massing

Zoning Resolution requirements for construction within the 100-year and 500-year floodplains for the applicable building category. The proposed development would be required to meet all applicable New York City Building Code requirements (i.e., Appendix G, which states the design requirements for basement structures), as well as the requirements of the Zoning Resolution.

VI. ANALYSIS FRAMEWORK AND REASONABLE WORST-CASE DEVELOPMENT SCENARIO (RWCDS)

In projecting the amount and location of new development, several factors have been considered in identifying likely development sites. These include known development proposals, past and current development trends, and the development site criteria described below. The first step in establishing the development scenario was to identify those sites where new development could be reasonably expected to occur.

Development sites are typically identified based on the following criteria:

- Lots located in areas where a substantial increase in permitted FAR is proposed;
- Underutilized lots (defined as vacant or lots constructed to less than or equal to half of the proposed FAR under the proposed zoning); and
- Lots located in areas where changes in use would be permitted.

Certain lots (Lots 20-22) that meet these criteria were excluded from the scenario based on the following conditions because they are very unlikely to be redeveloped as a result of the proposed rezoning:

- Multi-unit buildings in separate ownership (Existing individual buildings with six or more residential units are unlikely to be redeveloped because of the required relocation of tenants in rent-stabilized units. Rent stabilization sets maximum rates for annual rent increases and entitles tenants to receive required services from their landlords and have their leases renewed.) Although Lots 20-22 are not considered soft sites based on this criteria, as discussed in detail below, for RWCDS purposes, it is assumed the projected site would utilize development rights from these lots.

The proposed development site currently has a total built FAR of approximately 2.85, which is 47 percent of the maximum residential FAR of 6.02 allowed by the current R8A zoning and 24 percent of the proposed maximum residential FAR of 12.0 allowed by the proposed C1-9A zoning. As detailed in Section I above, the applicant intends to redevelop Lots 24, 25, 26, and 27 on Block 939. In addition, as detailed above, while Lot 23 is considered a development rights parcel and part of the development site, no new development is anticipated to occur on this site in the future with the proposed action. As discussed above, Lots 24-27 of the development site currently contain 10 rent stabilized/controlled dwelling units. As noted above, rent controlled/stabilized sites in separate ownership are not typically considered "soft sites" given the difficulty of tenant relocation requirements; however, because all lots within the development site are or will be under the applicant's control, the development site is not included in this category. As detailed above, the applicant has begun the process of legally vacating the sites. Therefore, the applicant's site (Lots 24-27) is considered a known projected site for environmental analysis purposes. As discussed in detail above, Lots 24-27 would comprise the projected site as these lots would be

redeveloped. The remaining lot within the development site (Lot 23) would not be redeveloped but would be considered a development rights parcel.

In addition to the applicant's development site, the rezoning area also includes four privately-owned tax lots that are not owned or controlled by the applicant (Lots 20, 21, 22, and p/o Lot 28 on Block 939). With the proposed zoning map amendment, Lots 20, 21, and 22 and a portion of Lot 28 would be rezoned from R8A to C1-9A.

As described above, Lot 20 is a 2,469 square foot rectangular shaped lot and contains a 5-story 9,200 gsf residential building (FAR of 3.73) with a total of 22 dwelling units. Lots 21 has a lot area of approximately 1,975 sf and is occupied by a 5-story 7,860 gsf residential building that includes 13 DUs and has a built FAR of 3.98. Lot 22 has a lot area of approximately 1,975 sf and is occupied by a 5-story 6,858 gsf residential building that includes 12 DUS and has a built FAR of 3.47. Combined, the three residential buildings have a built FAR of 3.73. The combined built FARs of these residential buildings would be less than 50 percent of the maximum allowable residential FAR of 12.0 under the proposed C1-9A zoning (31 percent) and the existing buildings currently have more than six units apiece and were constructed in 1910. All three buildings contain rent-controlled and/or rent-stabilized units and would be difficult to legally demolish due to tenant relocation requirements.[3] Further, as these lots are controlled by separate entities, and there are currently no plans for all three lots to be purchased by a single owner, the assemblage, relocation of existing tenants, and development of the site would most likely not occur by the build year of 2020. Therefore, as Lots 20-22 do not meet the criteria for "soft sites," they are not expected to be redeveloped as a result of the proposed rezoning, and are considered neither projected nor potential development sites for RWCDS purposes. However, although these lots would not be considered soft sites, because the proposed FAR for these sites would double as a result of the rezoning, this additional development potential would need to be accounted for under the RWCDS for conservative analysis purposes. Therefore, as discussed in detail below, for RWCDS purposes, these three lots would be considered development rights parcels for the proposed development on Lots 24-27 and no new development is anticipated to occur on these sites in the future with the proposed action.

Lot 28 is a 13,770 sf square-shaped lot that is occupied by a 23-story, 213,549 gsf residential building built in 1998 and includes 209 DUs and community facility uses (FAR of 15.51). The portion of Lot 28 not within the rezoning area (approximately 11,352 sf) is zoned C1-9A. Because this building is built over the permitted FAR and has been constructed relatively recently, Lot 28 does not meet the criteria for a "soft site," and it is not expected to be redeveloped as a result of the proposed rezoning, and is considered neither a projected nor potential development site for RWCDS purposes.

As such, for RWCDS purposes, one projected site has been identified in the project area. The applicant's proposed development site represents the RWCDS for analysis purposes.

The Future Without the Proposed Action (No-Action Condition)

In the future without the proposed action, the project area's existing R8A zoning would remain in place, and activities in zoning UGs 1-4 would be allowed as-of-right with a maximum permitted FAR of 6.02 for residential uses and a maximum permitted FAR of 6.5 for community facility uses.

[3] Source: 2014 New York State Division of Housing and Community Renewal Building Registration File

Proposed Development Site

It is anticipated that the proposed development site would remain in its current condition. In absence of the proposed action, the proposed development site would continue to be occupied by five 4-story residential buildings with 53 DUs and 1,244 sf of community facility use and a total built FAR of 2.85. While the EAS assumes no redevelopment of the development site under the No-Action condition for conservative analysis purposes, a residential building could be built under the existing R8A zoning in the future without the proposed action. A discussion of the development of an as-of-right residential building under an alternative No-Action condition is provided in Appendix A, "R8A No-Action Alternative."

Remainder of the Rezoning Area

Similar to the proposed development site, the remainder of the rezoning area would not be redeveloped without the proposed action. It is anticipated that the residential buildings would remain in their current condition.

The Future With the Proposed Action (With-Action Condition)

With the proposed zoning map change from R8A to C1-9A, residential, commercial (local retail and hotels), and community facility uses would be permitted in the project area (UGs 1-6). The proposed C1-9A zoning district would allow residential uses up to a maximum FAR of 12.0, pursuant to the MIH program, community facilities up to 10.0 FAR, and commercial uses up to 2.0 FAR.

Proposed Development Site (Applicant's Property)

By 2020 under With-Action Scenario conditions, it is expected that the applicant would complete the proposed development described above, which would be facilitated by the proposed action, as previously stated.

While the applicant intends to the develop the mixed-use project described above, because the proposed action would result in additional development potential generated by Lots 20-22, a RWCDS With-Action scenario for a larger mixed-use development on the applicant's site will be considered for conservative analysis purposes. For RWCDS purposes, it is assumed that 26,168 sf of development rights will be transferred from Lots 20-22 to the development site. As with Lot 23, it is assumed that Lots 20-22 would be merged into the development site's zoning lot but will remain under separate ownership. Under this RWCDS, the proposed mixed-use building would include 158,509 gsf (142,778 zsf) of residential uses and 10,743 gsf (6,429 zsf) of local retail uses (see Tables A-1 and A-2 below). The RWCDS development would result in 186 DUs. The RWCDS development being analyzed would have a height of 230 feet (see Figure A-7). As shown in Figure A-7, to maximize the development rights transferred from Lots 20-22, a 20 foot cantilever over the entire area of Lot 23 would be necessary, which would be larger than what is proposed for the applicant's development described above. While Lot 23 will be part of the applicant's zoning lot, because it will remain under separate ownership, an easement would be required to permit the cantilever over Lot 23.

The net increment for analysis would be 146 DUs, 10,743 gsf of commercial uses (local retail), and -1,244 gsf of community facility uses (medical office).

In accordance with the City's MIH policy, under the proposed actions, the applicant will choose either MIH Option 1 or 2, which would require 25 or 30 percent of the residential floor area be designated as

affordable housing units for residents with incomes averaging between 60 and 80 percent of AMI and none of the units exceeding 130 percent of AMI. As Options 1 and 2 require that at least 25 or 30 percent of the residential floor area be reserved for residents with incomes averaging 60 to 80 percent of AMI, some of these MIH units would be affordable to households earning more than 60 to 80 percent of AMI. Therefore, for conservative CEQR analysis purposes, 20 percent of the overall residential floor area (approximately 37 DUs) of the RWCDS is assumed to be set aside for "affordable" residential units, which refers to the amount residential units that would accommodate households earning 60 to 80 percent (or below) of AMI. Therefore, 37 affordable DUs will be analyzed as part of the RWCDS.

As shown in Figure A-7, to maximize the development rights transferred from Lots 20-22, a 20 foot cantilever over the entire area of Lot 23 would be necessary, which would be larger than what is proposed for the applicant's development described above. While Lot 23 will be part of the applicant's zoning lot, because it will remain under separate ownership, an easement would be required to permit the cantilever over Lot 23.

Table A-1: Reasonable Worst Case Development Scenario for Projected Site (Block 939, Lots 24, 25, 26, 27)

	Existing					No-Action				With-Action				Increment			
Site	Lot	Res. GSF	DU	CF GSF	Com. GSF	Res. GSF	DU	CF GSF	Com. GSF	Res. GSF	DU	CF GSF	Com. GSF	Res. GSF	DU	CF GSF	Com. GSF
1	24	3,980	7	0	0	3,980	7	0	0	158,509	186	0	10,743	134,948	146	-1,244	10,743
	25	3,980	7	0	0	3,980	7	0	0								
	26	3,732	9	1,244	0	3,732	9	1,244	0								
	27	10,625	17	0	0	10,625	17	0	0								
	Total	***22,317***	***40***	***1,244***	***0***	***22,317***	***40***	***1,244***	***0***	***158,509***[1]	***186***	***0***	***10,743***	***136,192***	***146***	***-1,244***	***10,743***

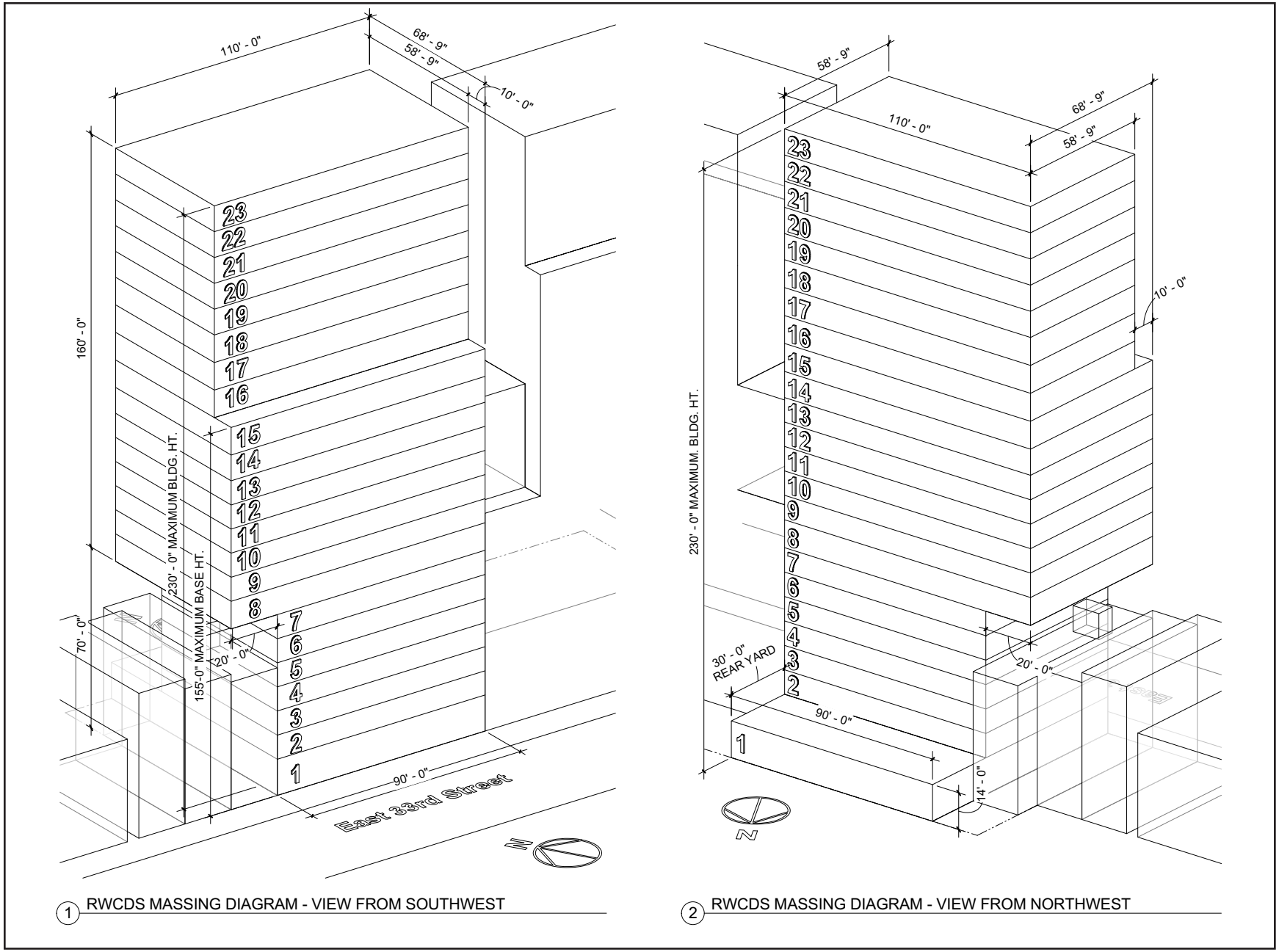
[1] The RWCDS incorporates 16,453 sf of development rights from Lot 23 and 26,168 sf of development rights from Lots 20, 21, 22 on Block 939.

Remainder of the Rezoning Area

In the future With-Action condition, it is assumed that the existing buildings within the rezoning area would remain.

VII. APPROVALS REQUIRED

The proposed zoning map amendment is a discretionary public action subject to both the Uniform Land Use Review Procedure (ULURP), as well as the City Environmental Quality Review (CEQR) and the proposed zoning text amendment is subject to CEQR. ULURP is a process that allows public review of proposed actions at four levels: the Community Board; the Borough President; the City Planning Commission; and if applicable, the City Council. The procedure mandates time limits for each stage to ensure a maximum review period of seven months. Through CEQR, agencies review discretionary actions for the purpose of identifying the effects those actions may have on the environment.



Source: GF55 Partners
For Illustrative Purposes Only

TABLE A-2
Comparison of Existing, No-Action, and With-Action Conditions for the RWCDS on the Projected Site (Block 939, Lots 24, 25, 26, 27)

	Existing Condition		No-Action Condition		With-Action Condition		Increment
LAND USE							
Residential	☒ YES	☐ NO	☒ YES	☐ NO	☒ YES	☐ NO	
If "yes," specify the following:							
Describe type of residential structure	Multi-family		Multi-family		Multi-family		
No. of dwelling units	40		40		186		**+146**
No. of low- to moderate-income units	10		10		37		**+27**
Gross floor area (sf)	22,317 gsf		22,317 gsf		158,509 gsf		**+136,192 gsf**
Commercial	☐ YES	☒ NO	☐ YES	☒ NO	☒ YES	☐ NO	
If "yes," specify the following:							
Type of use					Local Retail		
Gross floor area (sf)					10,743 gsf		**+10,743 gsf**
Manufacturing/Industrial	☐ YES	☒ NO	☐ YES	☒ NO	☐ YES	☒ NO	
If "yes," specify the following:							
Type of use							
Gross floor area (sf)							
Open storage area (sf)							
If any unenclosed activities, specify:							
Community Facility	☒ YES	☐ NO	☒ YES	☐ NO	☐ YES	☒ NO	
If "yes," specify the following:							
Type	Medical Office		Medical Office				
Gross floor area (sf)	1,244		1,244				**-1,244**
Vacant Land	☐ YES	☒ NO	☐ YES	☒ NO	☐ YES	☒ NO	
If "yes," describe:							
Other Land Uses	☐ YES	☒ NO	☐ YES	☒ NO	☐ YES	☒ NO	
If "yes," describe:							
PARKING							
Garages	☐ YES	☒ NO	☐ YES	☒ NO	☐ YES	☒ NO	
If "yes," specify the following:							
No. of public spaces							
No. of accessory spaces							
Lots	☐ YES	☒ NO	☐ YES	☒ NO	☐ YES	☒ NO	
If "yes," specify the following:							
No. of public spaces							
No. of accessory spaces							
ZONING							
Zoning classification	*R8A*		*R8A*		*C1-9A*		**Proposed Zoning Map Change**
Maximum amount of floor area that can be developed	*Residential:* 6.02 x 8,887 = **53,500 zsf** *Community Facility:* 6.5 x 8,887 = **57,765 zsf** *Commercial:* Not Permitted *Manufacturing:* Not Permitted		*Same as Existing Condition.*		*Residential:* 12.0 x 8,887 = **106,644 zsf** *Community Facility:* 10.0 x 8,887 = **88,870 zsf** *Commercial:* 2.0 x 8,887 = **17,774 zsf** *Manufacturing:* Not Permitted		*Residential:* **+53,144 zsf** *Community Facility:* **+31,105 zsf** *Commercial:* **+17,774 zsf**

I. INTRODUCTION

This Environmental Assessment Statement ("EAS") has been prepared in accordance with the guidelines and methodologies presented in the 2014 *City Environmental Quality Review ("CEQR") Technical Manual*. For each technical area, thresholds are defined, which if met or exceeded, require that a detailed technical analysis be undertaken. Using these guidelines, preliminary screening assessments were conducted for the proposed action to determine whether detailed analysis of any technical area may be appropriate. Part II of the EAS Form identifies those technical areas that warrant additional assessment. For those technical areas that warranted a "Yes" answer in Part II of the EAS Form, including Land Use, Zoning, and Public Policy; Open Space; Shadows; Urban Design and Visual Resources; Hazardous Materials; Transportation; Air Quality; and Noise; supplemental screening assessments are provided in this attachment. The remaining technical areas detailed in the 2014 *CEQR Technical Manual* were not deemed to require supplemental screening because they do not trigger initial CEQR thresholds and/or are unlikely to result in significant adverse impacts. These areas screened out from any further assessment include: Community Facilities; Historic and Cultural Resources; Natural Resources; Water and Sewer Infrastructure; Solid Waste and Sanitation Services; Transportation; Energy; Greenhouse Gas Emissions; Public Health, Neighborhood Character; and Construction.

The supplemental screening assessments contained herein identified that detailed analyses are required in the areas of Land Use, Zoning, and Public Policy, Open Space, Shadows, Urban Design and Visual Resources, Hazardous Materials, Air Quality, Noise, and Transportation. These analyses are provided in Attachments C, D, E, F, G, H, I, and J, respectively, and are summarized in this attachment. Table B-1 presents a summary of analysis screening information for the proposed action.

As described in Attachment A, "Project Description," to facilitate the development of a 142,550 gsf mixed-use building, the applicant, 33rd Street Acquisition LLC, is seeking a zoning map amendment to rezone an R8A residential district to a C1-9A district and a zoning text amendment to amend Appendix F of the Zoning Resolution (ZR) to apply the Mandatory Inclusionary Housing (MIH) program to the rezoning area in Manhattan Community District (CD) 6. The proposed action would allow the applicant to redevelop the proposed development site with an approximately 142,550 gross square feet (gsf) development, including approximately 131,807-gsf of residential uses (155 dwelling units of which 40 would be affordable) and 10,743 gsf of local retail uses. The proposed development would be 23-stories in height (230 feet).

As discussed in Attachment A, "Project Description," while the applicant intends to develop the mixed-use project described above, because the proposed action would result in additional development potential generated by Lots 20-22, a reasonable worst-case development scenario (RWCDS) for a larger mixed-use development on the applicant's site will be considered for conservative analysis purposes. For RWCDS purposes, it is assumed that 26,168 sf of development rights will be transferred from Lots 20-22 to the development site. As with Lot 23, it is assumed that Lots 20-22 would be merged into the development site's zoning lot but will remain under separate ownership. Under this RWCDS, the proposed mixed-use building would include 158,509 gsf (142,778 zsf) of residential uses and 10,743 gsf (6,429 zsf) of local retail uses (total of 169,252 gsf). To maximize the development rights transferred from Lots 20-22, a 20 foot cantilever over the entire area of Lot 23 would be necessary, which would be larger than

what is proposed for the applicant's development described above. While Lot 23 will be part of the applicant's zoning lot, because it will remain under separate ownership, an easement would be required to permit the cantilever over Lot 23. The RWCDS development would result in 186 DUs of which up to 56 DUs would be affordable. For CEQR analysis purposes, "affordable" refers to residential units set aside for households earning 80 percent or below of the Area Median Income (AMI). As described in Attachment A, "Project Description," approximately 20 percent of the overall RWCDS residential floor area (approximately 37 DUs) are assumed to be set aside for households earning 80 percent (or below) of AMI. Therefore, 37 affordable DUs will be analyzed as part of the RWCDS. The RWCDS development being analyzed would have a height of 230 feet. The net increment for analysis would be 145 DUs and 10,743 gsf of commercial uses (local retail).

Table B-1: Summary of CEQR Technical Areas Screening

***CEQR* TECHNICAL AREA**	**SCREENED OUT PER EAS FORM**	**SCREENED OUT PER SUPPLEMENTAL SCREENING**	**ANALYSIS REQUIRED**
Land Use, Zoning, & Public Policy			X
Socioeconomic Conditions		X	
Community Facilities and Services	X		
Open Space			X
Shadows			X
Historic & Cultural Resources	X		
Urban Design & Visual Resources			X
Natural Resources	X		
Hazardous Materials			X
Water and Sewer Infrastructure	X		
Solid Waste & Sanitation Services	X		
Energy	X		
Transportation - Traffic & Parking - Transit - Pedestrians	 X X 	 	 X
Air Quality - Mobile Sources - Stationary Sources	 X 	 	 X
Greenhouse Gas Emissions	X		
Noise			X
Public Health	X		
Neighborhood Character	X		
Construction	X		

II. SUPPLEMENTAL SCREENING AND SUMMARY OF DETAILED ANALYSES

Land Use, Zoning, and Public Policy

According to the 2014 *CEQR Technical Manual*, a detailed assessment of land use, zoning and public policy is appropriate if an action would result in a significant change in land use or would substantially affect regulations or policies governing land use. Zoning and public policy analyses are typically performed in conjunction with a land use analysis when an action would change the zoning on the site or result in the loss of a particular use. Land use analyses are required when an action would substantially affect land use regulation.

The proposed action includes a zoning map amendment and a zoning text amendment. A detailed land use, zoning, and public policy assessment is provided in Attachment C, "Land Use, Zoning, and Public Policy." As discussed, no significant adverse land use, zoning, or public policy impacts are expected in the future with the proposed action.

Socioeconomic Conditions

According to the 2014 *CEQR Technical Manual*, a socioeconomic assessment should be conducted if a project may be reasonably expected to create socioeconomic changes within the area affected by the project that would not be expected to occur without the project. The following circumstances would typically require a socioeconomic assessment:

- The project would directly displace residential population to the extent that the socioeconomic character of the neighborhood would be substantially altered. Displacement of less than 500 residents would not typically be expected to alter the socioeconomic character of a neighborhood.

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

- The project would directly displace a business that is unusually important because its products or services are uniquely dependent on its location; that, based on its type or location, is the subject of other regulations or publicly adopted plans aimed at its preservation; or that serves a population uniquely dependent on its services in its present location.

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

If the project is expected to affect conditions within a specific industry, an assessment is appropriate.

The proposed action would not directly displace any employees, any businesses uniquely dependent on its location, nor would it introduce over 200 DUs or 200,000 sf of commercial development. The proposed action is also not expected to affect conditions within a specific industry.

Twenty-three of the 40 units are in the three buildings owned by the applicant, of which 8 are presently occupied, and 17 are in 345 East 33rd Street (Lot 27), which the applicant is seeking to purchase, of which 15 are presently occupied. Of the 40 units, 1 is rent controlled (in 339 East 33rd Street (Lot 24)), and 9 are rent stabilized: 3 in 339 East 33rd Street (Lot 24) and 2 each in 341 East 33rd Street (Lot 25), 343 East 33rd Street (Lot 26), and 345 East 33rd Street (Lot 27), while a total of 30 are market rate. Out of the 40 DUs, 23 units are currently occupied and 17 are vacant. It is assumed that all 40 DUs would be occupied in the future without the proposed action.

The proposed action would directly displace approximately 66 residents on the projected site, which would be less than the threshold described above for conducting a detailed direct residential displacement analysis. However, because the projected site contains 9 rent stabilized DUs and 1 rent controlled DU, a discussion of relocation options is provided in detail below.

As a result of the proposed action, the four existing residential buildings on Lots 24-27 would be demolished. The applicant is currently negotiating and finalizing lease buyouts and relocation options. The applicant intends to seek tax benefits under Section 421-a of the New York State Real Property Tax Law (the Affordable Housing New York Program). The replacement ratio provisions of subsection (i) thereof require that the project must contain at least one affordable housing unit for each dwelling unit that existed on the property on the date that is three years prior to the commencement of construction. Since there are 40 dwelling units, the proposed building will contain 40 affordable units, which is 25.8% of the 155 units proposed, and would satisfy the 25% minimum required affordable residential floor area under MIH. There would be 115 market rate units.

While the residents of the existing 1 rent controlled and 9 rent stabilized DUs have not asked to be relocated into the proposed building, it is possible that such relocation might occur in a few instances. If such a relocation occurs, these units would be in addition to the approximately 39 units (25% of the residential floor area) required by MIH. If allowed by the Department of Housing Preservation and Development (HPD), one tenant could be relocated into the one additional affordable unit required by the 421-a program's replacement ratio. Otherwise, it is intended that these existing rent controlled and rent stabilized units would be vacated by consensual relocation or pursuant to a buyout prior to the commencement of demolition.

Based on the guidelines in the 2014 *CEQR Technical Manual*, the direct displacement of these residents would not result in a significant adverse impact as they do not represent a substantial or significant proportion of the study area population. In addition, as described above, the applicant is taking the appropriate steps to ensure that lease buyout/relocation options are available to the existing tenants.

Open Space

Based on the 2014 *CEQR Technical Manual*, an open space assessment is typically warranted if an action would directly affect an open space, or if it would increase the population by more than 200 residents or 500 workers (these thresholds apply to areas that do not fall in areas that have been designated as "well-served" or "underserved").

The RWCDS for the proposed action would result in 243 new residents (net) and 32 new employees. As the proposed action would result in an increase in residents above the 2014 *CEQR Technical Manual* threshold, a residential open space analysis is provided in Attachment D, "Open Space." As discussed in detail in the attachment, no impacts to open space are anticipated as a result of the proposed action.

Shadows

A shadows assessment considers proposed actions that result in new shadows long enough to reach a sunlight sensitive (except within an hour and a half of sunrise or sunset). For proposed actions resulting in structures less than 50 feet high, a shadow assessment is generally not necessary unless the site is adjacent to a park, historic resource, or important natural feature (if the features that make the structure significant depend on sunlight). According to the 2014 *CEQR Technical Manual*, some open spaces contain facilities that are not sunlight-sensitive, and do not require a shadow analysis including paved areas (such as handball or basketball courts) and areas without vegetation.

As detailed in Attachment A, "Project Description," the proposed new building would have a frontage of 90 feet along the north side of East 33rd Street. The proposed building would be 23-stories with a maximum height of approximately 230-feet. As sunlight sensitive open space resources are located within the vicinity of the proposed development site, a shadows assessment is required and has been provided in Attachment E, "Shadows." As detailed in the attachment, the proposed project would result in limited incremental shadows on one sunlight-sensitive resource: Joseph Slifka Park. These project-generated shadows would be limited in duration and coverage, and would not affect the utilization or enjoyment of this open space resource. Additionally, the vegetation of the open space would continue to receive adequate sunlight throughout the growing season. As discussed in detail in Attachment E, no impacts to any sunlight sensitive resources are anticipated as a result of the proposed action.

Urban Design and Visual Resources

An area's urban components and visual resources together define the look and character of the neighborhood. The urban design characteristics of a neighborhood encompass the various components of buildings and streets in the area. These include building bulk, use and type; building arrangement; block form and street pattern; streetscape elements; street hierarchy; and natural features. An area's visual resources are its unique or important public view corridors, vistas, or natural or built features. For the CEQR analysis purposes, this includes only views from public and publicly-accessible locations and does not include private residences or places of business.

An analysis of urban design and visual resources is appropriate if a proposed project would (a) result in buildings that have substantially different height, bulk, form, setbacks, size, scale, use or arrangement than exists in an area; (b) change block form, demap an active street or map a new street, or affect the street hierarchy, street wall, curb cuts, pedestrian activity or streetscape elements; or (c) would result in above-ground development in an area that includes significant visual resources.

The proposed action includes the rezoning of an R8A residential district to a C1-9A commercial district, which would result in a development that would differ from what is permitted as-of-right, and as such, an analysis of urban design and visual resources is appropriate. This analysis is provided in Attachment F, "Urban Design and Visual Resources." As discussed in detail in Attachment F, no significant adverse impacts to urban design and visual resources are anticipated as a result of the proposed action.

Hazardous Materials

As defined in the 2014 *CEQR Technical Manual*, 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 semivolatile organic compounds, methane, polychlorinated biphenyls and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive, or toxic). According to the 2014 *CEQR Technical Manual*, the potential for significant adverse impacts from hazardous materials can occur when: (a) hazardous materials exist on a site, and (b) an action would increase pathways to their exposure; or (c) an action would introduce new activities or processes using hazardous materials.

As the proposed action would result in the development of a residential building on a site where there is reason to suspect the presence of hazardous materials, an assessment is provided in Attachment G, "Hazardous Materials," to determine potential hazardous materials concerns within the development site. As discussed in detail in Attachment G, no significant adverse impacts to hazardous materials are anticipated as a result of the proposed action.

Air Quality

According to the guidelines provided in the 2014 *CEQR Technical Manual*, air quality analyses are conducted in order to assess the effect of an action on ambient air quality (i.e., the quality of the surrounding air), or effects on the project because of ambient air quality. Air quality can be affected by "mobile sources," pollutants produced by motor vehicles, and by pollutants produced by fixed facilities, i.e., "stationary sources." As per the 2014 *CEQR Technical Manual*, an air quality assessment should be carried out for actions that can result in either significant adverse mobile source or stationary source air quality impacts. Per the EAS Form, further analysis of air quality mobile sources from action-generated vehicle trips has been screened out in accordance with 2014 *CEQR Technical Manual* assessment screening thresholds.

Stationary source impacts could occur with actions that create new stationary sources or pollutants, such as emission stacks for industrial plants, hospitals, or other large institutional uses, or a building's boiler stacks used for heating/hot water, ventilation, and air conditioning ("HVAC") systems, that can affect surrounding uses. Impacts from boiler emissions associated with a development are a function of fuel type, stack height, minimum distance of the stack on the source building to the closest building of similar or greater height, building use, and the square footage size of the source building. In addition, stationary source impacts can occur when new uses are added near existing or planned emissions stacks, or when new structures are added near such stacks and those structures change the dispersion of emissions from the stacks so that they affect surrounding uses.

The proposed development was analyzed for potential stationary source impacts, which is provided in Attachment H, "Air Quality." As discussed in detail in Attachment H, the stationary source air quality

analysis determined that the proposed development site on Block 939, Lots 24, 25, 26, and 27 would require an (E) designation that would specify the location of the boiler stack to be restricted to the highest tier of the proposed building (233 feet above grade). In addition, the results of the major emission source analysis indicate that there would be no exceedances of the *CEQR* significant impact criteria or the applicable national air quality standards at the proposed development site. As discussed in detail in Attachment H, no significant adverse stationary air quality impacts are expected in the future with the proposed action.

Noise

The proposed action would result in residential and commercial uses on the development site. Consistent with the 2014 *CEQR Technical Manual*, existing noise levels should be measured and compared to the Noise Exposure Guidelines for these types of uses presented in Table 19-2 of the Manual. As such, a noise analysis has been prepared and is provided in Attachment I, "Noise." As discussed in detail Attachment I, the noise analysis determined that the development site would require an (E) designation that would specify the required noise attenuation measures for facades of the proposed building. As discussed in detail in Attachment I, no significant adverse noise impacts are anticipated as a result of the proposed action.

The proposed development would not generate sufficient traffic to result in a significant noise impact (i.e., doubling of Noise PCEs). Therefore, consistent with the guidelines of the 2014 *CEQR Technical Manual*, an assessment of mobile noise impacts is not provided in this EAS.

Transportation

The objective of a transportation analysis is to determine whether a proposed action may have a potentially significant adverse impact on traffic operations and mobility, public transportation facilities and services, pedestrian elements and flow, safety of all roadway users (pedestrians, bicyclists, and vehicles), on- and off-street parking or goods movement.

The *CEQR Technical Manual* identifies minimum incremental development densities that potentially require a transportation analysis. Development at less than the development densities shown in Table 16-1 of the *CEQR Technical Manual* generally result in fewer than 50 peak-hour vehicle trips, 200 peak-hour subway/rail or bus transit riders, and 200 peak-hour pedestrian trips, where significant adverse impacts are considered unlikely. In Zone 2 (which includes the rezoning area) the development thresholds include an increment of 200 DUs for residential, 15,000 sf for local retail, and 25,000 sf for community facility. According to the *CEQR Technical Manual*, if an action would result in a mix of land uses, a Level 1 (Project Trip Generation) Screening Assessment should be prepared. In most areas of the city, including the rezoning area, if the proposed action is projected to result in fewer than 50 peak-hour vehicle trips, 200 peak-hour subway/rail or bus transit riders, or 200 peak-hour pedestrian trips, it is unlikely that further analysis would be necessary. If these trip-generation screening thresholds are exceeded, a Level 2 (Project-generated Trip Assignment) Screening Assessment should be prepared to determine if the proposed action would generate or divert 50 peak-hour vehicle trips through any intersection, 200 peak-hour subway trips through a single station, 50 peak-hour bus trips on a single bus route in the peak direction, or 200 peak-hour pedestrian trips through a single pedestrian element. If any of these Level 2 screening thresholds are met or exceeded, detailed analysis for the respective mode is required.

As discussed in Attachment J, "Transportation," the proposed action would exceed the Level 2 screening thresholds for pedestrians, and as such, a detailed analysis of pedestrians is provided in Attachment J. As

discussed in Attachment J, the proposed action would not result in any significant adverse impacts to pedestrian conditions. As further discussed in Attachment J, the proposed action does not warrant a detailed analysis of traffic, parking, or transit.

I. INTRODUCTION

Under 2014 *City Environmental Quality Review* (CEQR) *Technical Manual* guidelines, a land use analysis evaluates the uses and development trends in the area that may be affected by a proposed action, and determines whether that proposed action is compatible with those conditions or may affect them. Similarly, the analysis considers the action's compliance with, and effect on, the area's zoning and other applicable public policies.

The applicant, 33rd Street Acquisition LLC, is seeking a zoning map amendment to rezone an R8A residential district to a C1-9A district and a zoning text amendment to amend Appendix F of the Zoning Resolution (ZR) to apply the Mandatory Inclusionary Housing (MIH) program to the rezoning area in Manhattan Community District (CD) 6 to facilitate the development of a 23-story mixed-use development at 339-345 East 33rd Street in the Kips Bay neighborhood.

As discussed in Attachment A, "Project Description," the proposed development would consist of approximately 142,550 gross square feet (gsf), including approximately 131,807 gsf of residential uses (155 dwelling units) and 10,743 gsf of local retail uses. The proposed development would be 23-stories in height (230 feet). The proposed 142,550 gsf building would also include the incorporation of 16,453 sf of development rights from an adjacent tax lot (Block 939, Lot 23). Lot 23 is not under the control of the applicant and as a result of the proposed action, it will be merged into the development site's zoning lot but will remain under separate ownership. There is an existing four-story residential building on Lot 23 that will remain in the future with the proposed action. The proposed development would also include 25.8% affordable housing floor area, consistent with the Mandatory Inclusionary Housing (MIH) requirements (approximately 40 affordable dwelling units).

As discussed in Attachment A, "Project Description," while the applicant intends to develop the mixed-use project described above, because the proposed action would result in additional development potential generated by Lots 20-22, an alternate reasonable worst-case development scenario (RWCDS) for a larger mixed-use development on the applicant's site will be considered for conservative analysis purposes. For RWCDS purposes, it is assumed that 26,168 sf of development rights will be transferred from Lots 20-22 to the development site. As with Lot 23, it is assumed that Lots 20-22 would be merged into the development site's zoning lot but will remain under separate ownership. To maximize the development rights transferred from Lots 20-22, a 20 foot cantilever over the entire area of Lot 23 would be necessary, which would be larger than what is proposed for the applicant's development described above. While Lot 23 will be part of the applicant's zoning lot, because it will remain under separate ownership, an easement would be required to permit the cantilever over Lot 23.

Under this RWCDS, the proposed mixed-use building would include 158,509 gsf (142,778 zsf) of residential uses and 10,743 gsf (6,429 zsf) of local retail uses (total of 169,252 gsf). The RWCDS development would result in 186 DUs of which up to 56 DUs would be affordable. For CEQR analysis purposes, "affordable" refers to residential units set aside for households earning 80 percent or below of the Area Median Income (AMI). As described in Attachment A, "Project Description," approximately

20 percent of the overall RWCDS residential floor area (approximately 37 DUs) are assumed to be set aside for households earning 80 percent (or below) of AMI. Therefore, 37 affordable DUs will be analyzed as part of the RWCDS. The RWCDS development being analyzed would have a height of 230 feet. The net increment for analysis would be 145 DUs (of which 37 would be affordable) and 10,743 gsf of commercial uses (local retail).

Under CEQR guidelines, a preliminary land use assessment, which includes a basic description of existing and future land uses and zoning, should be provided for all projects that would affect land use or would change the zoning on a site, regardless of the project's anticipated effects. CEQR also requires a detailed assessment of land use conditions if a detailed assessment has been deemed appropriate for other technical areas, or in generic or area-wide zoning map amendments. Therefore, this section includes a detailed analysis that involves a thorough description of existing land uses and zoning within the rezoning area and the broader study area. Following the guidelines of the 2014 *CEQR Technical Manual,* the detailed analysis describes existing and anticipated future conditions to a level necessary to understand the relationship of the proposed action to such conditions, assesses the nature of any changes to these conditions that would be created by the proposed action, and identifies those changes, if any, that could be significant or adverse. The detailed assessment discusses existing and future conditions with and without the proposed action in the 2020 analysis year for a primary study area (coterminous with the rezoning area), and a secondary (400 foot) study area surrounding the rezoning area.

II. PRINCIPAL CONCLUSIONS

No significant adverse impacts on land use, zoning, or public policy, as defined by the guidelines for determining impact significance set forth in the 2014 *CEQR Technical Manual*, are anticipated in the future with the proposed action in the primary or secondary study areas. The proposed action would not directly displace any land uses so as to adversely affect surrounding land uses, nor would it generate land uses that would be incompatible with land uses, zoning, or public policies in the secondary study area. The proposed action would not create land uses or structures that would be incompatible with the underlying zoning, nor would it cause a substantial number of existing structures to become non-conforming. The proposed action would also not result in land uses that conflict with public policies applicable to the primary or secondary study areas.

The proposed action would result in an overall increase in residential and commercial uses within the primary study area, when compared to conditions in the future without the proposed action. The proposed zoning map amendment would allow for a variety of uses at a scale and density that is compatible with the existing zoning designations in the surrounding area. The development site contains four 4-story residential buildings that includes a total of 40 dwelling units and a 1,244 sf medical office. The proposed rezoning would provide opportunities for higher density residential and commercial uses on those underutilized lots while also providing affordable housing.

III. METHODOLOGY

The purpose of this attachment is to examine the effects of the proposed action and determine whether or not it would result in any significant adverse impacts on land use, zoning, or public policy. The analysis methodology is based on the guidelines of the 2014 *CEQR Technical Manual* and examines the proposed action's consistency with land use patterns and development trends, zoning regulations, and other applicable public policies.

According to the 2014 *CEQR Technical Manual*, a detailed assessment of land use, zoning, and public policy may be appropriate when needed to sufficiently inform other technical reviews and determine whether changes in land use could affect conditions analyzed in those technical areas. Therefore, this attachment includes a detailed analysis that involves a thorough description of existing land uses within the directly affected area and the broader study area. Following the guidelines of the 2014 *CEQR Technical Manual*, the detailed analysis describes existing and anticipated future conditions to a level necessary to understand the relationship of the proposed action to such conditions, assesses the nature of any changes on these conditions that would be created by the proposed action, and identifies those changes, if any, that could be significant or adverse.

Existing land uses were identified through review of a combination of sources including field surveys and secondary sources such as the City's Primary Land Use Tax Lot Output (PLUTO™) data files for 2014, and websites such as NYC Open Accessible Space Information System (OASIS, www.oasisnyc.net) and NYCityMap (http://gis.nyc.gov/doitt/nycitymap/). New York City Zoning Maps and the Zoning Resolution of the City of New York were consulted to describe existing zoning districts in the study areas and provided the basis for the zoning evaluation of the future No-Action and future With-Action conditions. Relevant public policy documents, recognized by the New York City Department of City Planning (DCP) and other City agencies, were utilized to describe existing public policies pertaining to the study areas.

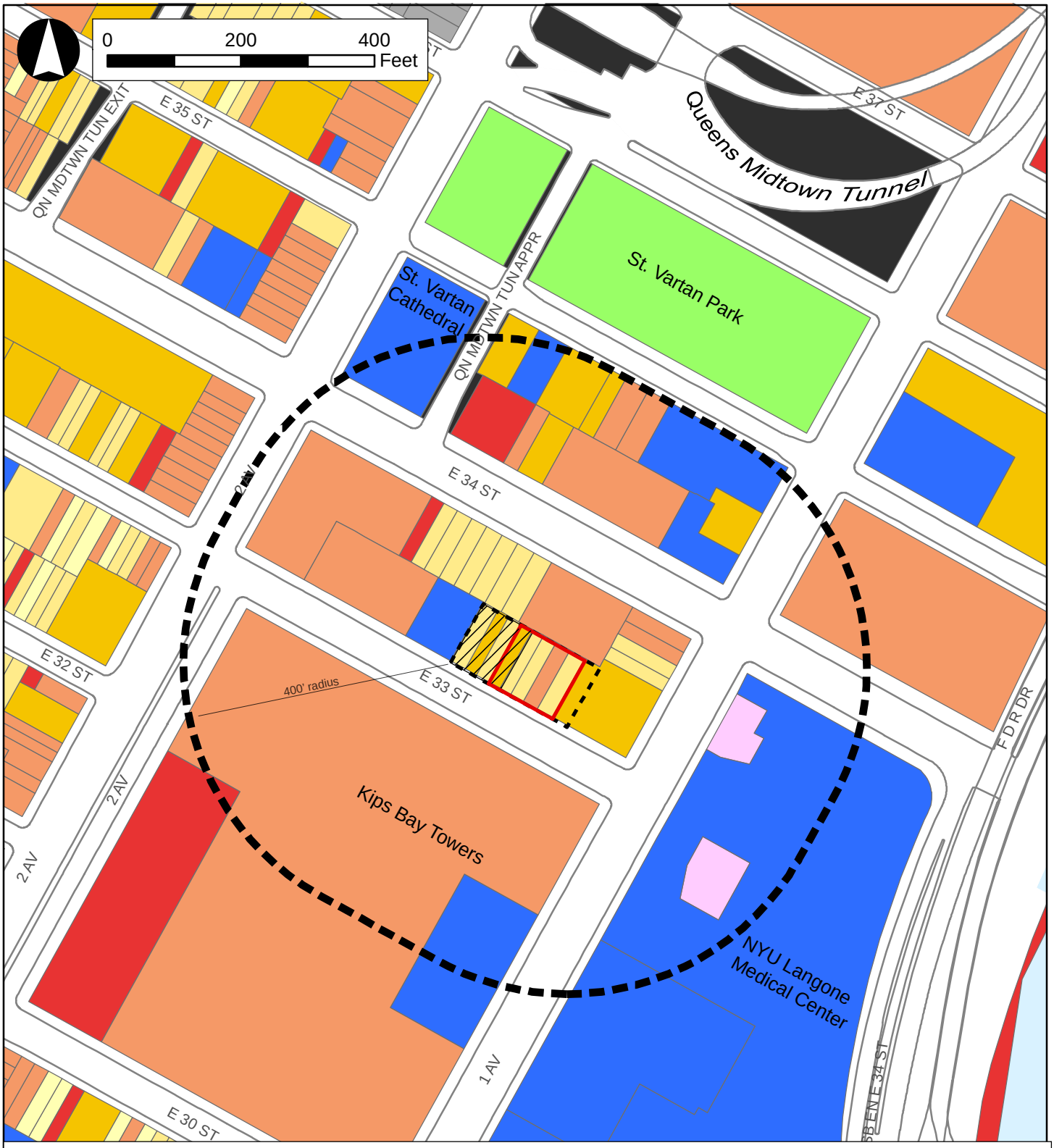
Analysis Year

The analysis year is the proposed action's anticipated completion date of 2020. Therefore the future No-Action condition accounts for land use and development projects, initiatives, and proposals that are expected to be completed by 2020.

Study Area Definition

According to the 2014 *CEQR Technical Manual*, the appropriate study area for land use, zoning, and public policy is related to the type and size of the proposed project, as well as the location and context of the area that could be affected by the project. Study area radii vary according these factors, with suggested study areas ranging from 400 feet for small scale site specific actions to 0.5 miles for large scale, generic, high density actions. In accordance with CEQR guidelines, land use, zoning, and public policy are addressed and analyzed for two geographical areas: (1) the rezoning area (also referred to as the primary study area); and (2) a secondary study area. The secondary study area extends an approximate 400 feet from the boundary of the rezoning area and encompasses areas that have the potential to experience indirect impacts as a result of the proposed action. It is generally bounded by Second Avenue to the west, East 32nd Street to the south, East 35th Street to the north, and First Avenue to the east. Both the primary and secondary study areas have been established in accordance with 2014 *CEQR Technical Manual* guidelines and can be seen in Figure C-1, "Land Use Study Area."

Figure 4
Land Use



IV. PRELIMINARY ASSESSMENT

Land Use and Zoning

A preliminary assessment, which includes a basic description of existing and future land uses and zoning, should be provided for all projects that would affect land use or would change the zoning on a site, regardless of the project's anticipated effects. In addition, under CEQR guidelines, if a detailed assessment is required in the technical analyses of socioeconomic conditions, neighborhood character, traffic and transportation, air quality, noise, infrastructure, or hazardous materials, a detailed land use assessment is appropriate. Furthermore, for some projects, such as generic or area-wide zoning map amendments, more detailed land use and zoning information is necessary to sufficiently inform other technical reviews and determine whether changes in land use could affect conditions analyzed in those technical areas. This EAS provides detailed assessments of open space, air quality, and noise; therefore a detailed assessment of land use and zoning is warranted and is provided in Section V below. As a detailed assessment is warranted for the proposed action, the information that would typically be included in a preliminary assessment (e.g., physical setting, present land use, zoning information, etc.) has been incorporated into the detailed assessment in Section V below. As discussed in the detailed assessment, the proposed action is not expected to adversely affect land use or zoning.

Public Policy

According to the 2014 *CEQR Technical Manual*, a project that would be located within areas governed by public policies controlling land use, or that has the potential to substantially affect land use regulation or policy controlling land use, requires an analysis of public policy. A preliminary assessment of public policy should identify and describe any public policies, including formal plans or published reports, which pertain to the study area. If the proposed action could potentially alter or conflict with identified policies, a detailed assessment should be conducted; otherwise, no further analysis of public policy is necessary.

Besides zoning, other public policies applicable to portions of the primary and secondary study areas are Food Retail Expansion to Support Health (FRESH), the 197-a Plan for the Eastern Section of Community District 6, *Housing New York,* and the Waterfront Revitalization Program (WRP).

The proposed rezoning area and surrounding area are not part of an urban renewal area, nor are there any designed in-place industrial parks within the area. No siting of public facilities is proposed as part of the proposed action, and therefore a Fair Share analysis is not warranted. As discussed in the detailed assessment, the proposed action is not expected to adversely affect any public policies.

V. DETAILED ASSESSMENT

Existing Conditions

Land Use

The land use study area consists of both a primary study area, which is coterminous with the boundaries of the rezoning area, where the land use effects of the proposed action are direct, and a secondary study area consisting of properties within an approximate 400 foot radius of the boundaries of the

rezoning area, Second Avenue to the west, East 32nd Street to the south, East 35th Street to the north, and First Avenue to the east. These study areas and their associated land uses are shown in Figure C-1.

Existing Land Uses in the Primary Study Area

The proposed rezoning area (or "project area") comprises approximately 19,751 sf of Manhattan Block 939. It consists of 9 privately-owned tax lots—approximately 2,469 sf of Lot 28, and Lots 20, 21, 22, 23, 24, 25, 26 and 27 in their entirety—that would be rezoned from R8A to C1-9A. Lots 23-27 are described in further detail under the proposed development site section, below.

The proposed development site comprises Lots 23, 24, 25, 26, and 27 on Block 939. The development site comprises approximately 10,822 sf with 110 feet of frontage along the north side of East 33rd Street, which is a wide street. The development site is zoned R8A and includes five 4-story residential buildings. A right-of-way for the Long Island Rail Road (LIRR) is located beneath the majority of the development site and the rezoning area.

The development site is currently occupied by five 4-story residential buildings that contain a total of 53 DUs and one medical office. The four applicant controlled buildings on Lots 24-27 (the "projected site") contain 40 DUs, of which 30 are market rate, 9 units are rent stabilized and 1 unit is rent controlled. Seventeen of the 40 DUs are currently vacant. The medical office is approximately 1,244 sf and is located at 343 East 33rd Street. These five existing buildings on the development site comprise a total of approximately 30,808 gsf for a total built FAR of approximately 2.85. The four existing buildings on the projected site would be fully vacated before construction is proposed to begin and then demolished in order to facilitate the development of the proposed mixed-use building.

The other properties—Lots 20, 21, 22, 23, and p/o Lot 28— are not under the control of the applicant and are privately-owned. All properties are mid-block, with the exception of Lot 28 which is located on the northwest corner of East 33rd Street and First Avenue. As discussed above, while Lot 23 is considered a development rights parcel, it is not considered part of the projected site as no new construction would occur on this lot. Lot 23 is an approximately 1,935 sf rectangular lot with 20 feet of frontage along the north side of East 33rd Street. Lot 23 is occupied by one 4-story 7,247 gsf residential building with 13 DUs and has a built FAR of 3.7.

For the purposes of presenting a conservative analysis, this EAS assumes that the development site would be developed with a building that maximizes FAR created by Lots 20-23, as noted. Lot 20 is a 2,469 square foot rectangular shaped lot with 25 feet of frontage along the north side of East 33rd Street and contains a 5-story 9,200 gsf residential building (FAR of 3.73) with a total of 22 dwelling units. Lots 21 and 22 are rectangular-shaped lots and each have a lot area of approximately 1,975 sf with 20 feet of frontage on the north side of East 33rd Street. Lot 21 is occupied by a 5-story 7,860 gsf residential building that includes 13 DUs and has a built FAR of 3.98. Lot 22 is occupied by a 5-story 6,858 gsf residential building that includes 12 DUs and has a built FAR of 3.47. Lot 28 is a 13,770 sf square-shaped lot with 125 feet of frontage along the north side of East 33rd Street and 113 feet along the west side of First Avenue. Lot 28 is occupied by a 23-story 213,549 gsf residential building that includes 209 DUs, the New York University (NYU) Child Study Center on the first and second floors, and a subsurface 45 space parking garage (FAR of 15.51). The portion of Lot 28 not within the rezoning area (approximately 11,301 sf) is zoned C1-9A.

As shown in Figure C-1, the lots comprising the rezoning area includes 9 residential buildings with a total of 310 DUs. Table C-1 provides a list of existing uses by lot.

Existing Land Uses in the Secondary Study Area

Table C-2 summarizes the existing generalized land uses within the secondary study area by tax lots and land area. Overall, as reflected in the table and in Figure C-1, the land use secondary study area contains a general mix of uses, with the predominant land uses being residential and mixed-use properties (residential buildings with commercial and/or community facility uses on the lower floors) which collectively occupies 56.1% of the total land area within the study area. The other predominant land use in the study area are public facilities and institutions, which occupies 39.2% of the total land area.

Table C-1: Existing Uses within the Rezoning Area

Block/Lot	Lot Area (sf)	Land Use
939/20	2,469	5-story residential building (22 DUs)
939/21	1,975	5-story residential building (13 DUs)
939/22	1,975	5-story residential building (13 DUs)
939/23	1,935	4-story residential building (13 DUs)
939/24*	1,935	4-story residential building (7 DUs)
939/25*	1,935	4-story residential building (7 DUs)
939/26*	2,469	4-story residential building (9 DUs, 1,244 sf medical office)
939/27*	2,469	4-story residential building (17 DUs)
939/p/o 28	2,469	23-story residential/community facility building (209 DUs)

Development Site is shaded gray
*Projected Site

Table C-2: Land Uses within 400 feet of the Rezoning Area

Land Use	Area sq ft	% of Total Land Area
Residential	*629,085*	*56.1%*
One and Two Family	5,554	0.5%
Multi-Family Walkup	41,220	3.7%
Multi-Family Elevator Buildings	57,726	5.1%
Mixed Residential and Commercial	524,585	46.8%
Commercial and Office	13,380	1.2%
Industrial and Manufacturing	18,084	1.6%
Transportation and Utility	12,628	1.1%
Public Facilities and Institutions	439,168	39.2%
Open Space	0	0.0%
Parking Facilities	0	0.0%
Vacant Land	9,155	0.8%
All Others or No Data	0	0.0%
Total	**1,121,500**	**100%**

The project area is located in Kips Bay, in the east midtown section of Manhattan. The surrounding area supports a mix of land uses, including multi-family residences, mixed-use buildings, and public facilities and institutional uses. NYU Langone Medical Center is a predominant land use in the area and occupies a superblock to the east of the rezoning area along the east side of First Avenue between East 34th and East 30th Streets. Kips Bay Towers, which contains two 21-story residential buildings with 1,118 DUs, occupies the majority of the superblock located directly south of the rezoning area, across East 33rd Street. Also located on this block are several commercial retail uses including a supermarket and a movie theatre as well as a building that is part of NYU Langone Medical Center campus. There are several other large residential developments located within the vicinity of the project site including a 35-story building with 706 DUs located at 606 First Avenue, a 22-story building with 191 DUs located at 225 East 34th Street, a 21-story building with 480 DUs located at 222 East 34th Street, a 16-story building with 205 DUs located at 333 East 34th Street, and a 20-story building with 164 DUs located at 251 East 32nd Street. Located to the north of the rezoning area along Second Avenue between East 34th and East 35th Streets is St. Vartan Armenian Cathedral. St. Vartan Park, located to the north of the rezoning area, occupies a full block bounded by East 36th Street, East 35th Street, First Avenue, and an entrance ramp to the Queens-Midtown Tunnel.

First Avenue and Second Avenue serve as major north-south thoroughfares in the vicinity of the project area and the side streets carry one-way, cross-town traffic, with the exception of 34th Street, which is a two-way, wide street. East 33rd Street is also a wide street. Between First and Third Avenues, the regular street grid is interspersed with the Queens-Midtown Tunnel ramp network; the access and egress ramps are located between East 34th and East 37th Streets with dedicated north-south side streets providing one-way access to the tunnel.

The remainder of the subject block (Block 939) not within the rezoning area contains residential uses, with some buildings containing ground floor retail uses as well. The block's Second Avenue frontage,

which is zoned C1-9, includes a 36-story primarily residential building with 355 DUs and ground floor retail and medical office uses. The block's East 34th Street frontage contains seven 5- to 6-story residential buildings; some with ground floor local retail, a 6-story office building, and a 16-story residential building with 200 DUs. The block's First Avenue frontage contains four 4-story residential buildings with ground floor retail. The block's First Avenue frontage also contains the portion of Lot 28 that is not located within the rezoning area. As discussed above, Lot 28 contains a 23-story residential building with 209 DUs and the NYU Child Study Center on the first and second floors. Directly to the west of the rezoning area, along East 33rd Street, Lot 17 contains a 14,816 square foot community facility building – the Chapel of the Sacred Hearts of Mary and Joseph. Also to the west of the rezoning area is a 136,099 gsf, 12-story residential building that includes 129 DUs.

The M34 Select Bus Service (SBS), the M34A SBS, and M15 SBS are located within the vicinity of the rezoning area. The M34 SBS runs river-to-river along 34th Street from the 34th Street Ferry Terminal on the East River to the Jacob Javits Convention Center on 12th Avenue. The M34A SBS runs from Waterside Plaza to the Port Authority Bus Terminal via 34th Street, 2nd Avenue, 8th Avenue and 9th Avenue. The 1st and 2nd Avenue - 125th Street SBS Corridor extends between 125th Street in Harlem and South Ferry in Lower Manhattan. The 33rd Street subway station, serving the number 6 Lexington Avenue line, is located approximately 0.3 miles west of the proposed rezoning area. The East 34th Street Ferry Terminal for the East River Ferry is located between East 35th and East 36th Streets, east of the FDR Drive. The East River Ferry provides service between the East 34th Street Ferry Terminal and Pier 11/Wall Street, Brooklyn, and Queens. Vehicles en route to Kips Bay from other parts of the city and Tri-State Area can access the neighborhood via the FDR Drive at East 34th Street.

Zoning

The assessment of zoning uses the same study areas used for land use: the primary study area, consisting of the proposed rezoning area; and the secondary study area, an area within roughly a 400 foot radius of the project area boundary.

Existing Zoning in the Primary Study Area

The projected site comprises Block 939, Lots 24, 25, 26, and 27 and are zoned R8A. The remaining lots within the primary study area (Block 939, Lots 20, 21, 22, 23, p/o Lots 28) are also zoned R8A (see Figure C-2).

R8A zoning districts are high-density residential districts that typically produce 10- to 12-story buildings set at or near the lot line. The contextual Quality Housing bulk regulations, which are mandatory in R8A districts, typically result in buildings with high lot coverage (lot coverage is defined as the ratio of the occupied area to the total area of a lot). Limitations on the base height and maximum building height of new buildings ensure compatibility with existing buildings on the street. The FAR in R8A districts is 6.02. Above a base height of 60 to 85 feet, the building must set back to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to its maximum height of 120 feet (up to 145 feet under Zoning for Quality and Affordability (ZQA)). On a wide street, the street wall must extend along the entire width of the zoning lot and at least 70% of the street wall must be within eight feet of the street line.



East 33rd Street Rezoning EAS

Figure C-2

Existing & Proposed Rezoning

The area between a building's street wall and the street line must be planted and the building must have interior amenities pursuant to the Quality Housing Program. Off-street parking is not allowed in front of a building. No parking is required as the development site is located within the Manhattan core.

Existing Zoning in the Secondary Study Area

The secondary study area contains R8, R8B, C1-9A, C1-9, and C1-8A districts (see Figure C-2). Table C-3 lists the zoning classifications of the primary and secondary study areas.

Table C-3: Primary and Secondary Study Area Existing Zoning Districts

District	Definition/General Use	Maximum FAR
R8	R8 districts are high-density residential districts. Apartment buildings in R8 districts can range from mid-rise buildings to much taller buildings set back from the street on large zoning lots. Residential and community facility uses are permitted as of right in R8 districts.	R: 6.02; CF: 6.5
R8B	In R8B medium-density contextual districts residential and community facility uses are permitted as of right.	R: 4.0; CF: 4.0
C1-9A	Commercial district that is predominantly residential in character; R10A equivalent. Use Groups 1-6 are permitted.	R: 10.0 (9.0 under Mandatory Inclusionary Housing;12.0 with Inclusionary Housing Bonus) C: 2.0 CF: 10.0
C1-9	Commercial district that is predominantly residential in character; R10 equivalent. Use Groups 1-6 are permitted.	R: 10.0 (12.0 with Inclusionary Housing Bonus) C: 2.0 CF: 10.0
C1-8A	Commercial district that is predominantly residential in character; R9A equivalent. Use Groups 1-6 are permitted	R: 7.52 C: 2.0 CF: 7.5

Notes: CF: community facility, R: residential, C: commercial, M: manufacturing

Public Policy

Primary Study Area

As discussed above, besides zoning, other public policies applicable to portions of the primary study area are Food Retail Expansion to Support Health (FRESH), the 197-a Plan for the Eastern Section of Community District 6, and the Waterfront Revitalization Program (WRP).

Food Retail Expansion to Support Health (FRESH) Designated Area

The New York City FRESH Program provides zoning incentives and discretionary tax incentives to promote the establishment and retention of neighborhood grocery stores in communities that lack full-line grocery stores. The project site and the secondary study area are located within a FRESH Designated Area with discretionary tax incentives.

The City's FRESH program is open to grocery store operators renovating existing retail space or developers constructing or renovating retail space that will be leased by a full-line grocery store

operator in FRESH-eligible areas. To be eligible for the program, projects must meet the following criteria:

a. Provide a minimum of 6,000 sf of retail space for a general line of food and non-food grocery products intended for home preparation, consumption and utilization;
b. Provide at least 50 percent of a general line of food products intended for home preparation, consumption and utilization;
c. Provide at least 30 percent of retail space for perishable goods that include dairy, fresh produce, fresh meats, poultry, fish and frozen foods; and
d. Provide at least 500 sf of retail space for fresh produce.

Financial incentives are available to eligible grocery store operators and developers to facilitate and encourage FRESH Food Stores in the designated area. These incentives include real estate tax reductions, sales tax exemptions, floor area bonuses, and mortgage recording tax deferrals.

197-a Plan for the Eastern Section of Community District 6

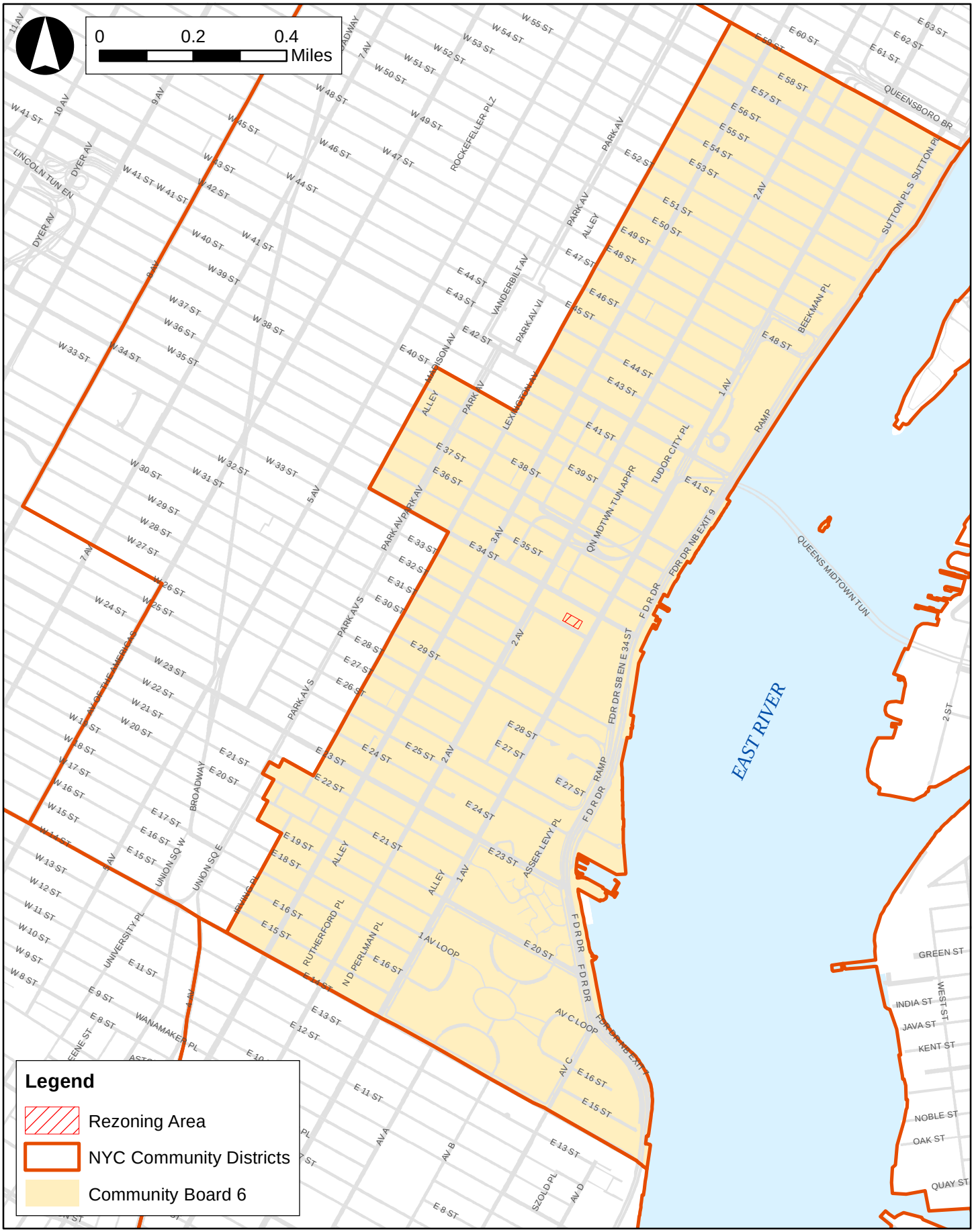
Section 197-a of the New York City Charter authorizes Community Boards and Borough Boards, as well as the Mayor, the CPC, DCP, and any Borough President to sponsor plans for the development, growth, and improvement of the City, its boroughs, and communities. The 197-a Plan for the Eastern Section of Community District 6 was developed by Community District 6 (CD6) and approved by the City Council in March 2008. This plan covers the eastern section of Manhattan Community District 6 (Figure C-3). The plan's stated goals are to increase the amount of useful open space; improve access to the waterfront; complete the East River Esplanade; enhance and reclaim the street network, restore the street grid, and improve transportation systems and access to the waterfront; implement land use policies consistent with historic trends in the area; and preserve significant residential development and individual buildings.

Recommendations in the 197-a plan that pertain to the study area include the following:

- Land use and zoning recommendations designed to promote the mix of residential and commercial uses while maintaining the area's residential character, including:
    - Map contextual zoning districts to maintain neighborhood scale and residential character in appropriate locations. Map tower-on-the-base zoning districts to maintain existing street wall character along avenues and restrict zoning lot mergers where appropriate.
    - Protect existing residential neighborhoods and prevent the Midtown business district from moving east. Carefully evaluate proposals for high-density office development east of the midline between Second and Third Avenues, and discourage such development where inappropriate.
    - Encourage the inclusion of publicly-accessible open spaces where feasible and appropriate as part of large new developments.

- Housing recommendations, including:
    - Maintain and encourage new residential uses on the east side of First Avenue consistent with past C1-9 rezonings in the area including Rivergate, Manhattan Place and Horizon.

Plan for the Eastern Section of Community Board 6



- Encourage the development of permanent affordable housing and discourage the demolition or conversion of affordable housing to market-rate housing.

The RWCDS for the proposed action would result in 158,509 gsf (142,778 zsf) of residential uses and 10,743 gsf (6,429 zsf) of local retail uses. The RWCDS development would result in 186 DUs of which 37 DUs would be affordable. The RWCDS development being analyzed would have a height of 230 feet, which would be similar in scale to the existing surrounding residential buildings. The net increment for analysis would be 146 DUs and 10,743 gsf of commercial uses (local retail). Therefore, the proposed action would be consistent with the 197-a Plan for the Eastern Section of Community District 6 as it would include a mix of residential and commercial uses. The proposed action would result in a C1-9A contextual district which would be consistent with the land use, zoning, and housing recommendations of the 197-a plan. In addition, while the RWCDS for the proposed action would displace 10 rent controlled/stabilized units it would include 37 affordable dwelling units (net increase of 27 affordable units) which would also be consistent with the 197-a plan.

Further, the applicant is currently negotiating and finalizing lease buyouts for some and relocation agreements for others of the existing tenants. The applicant intends to seek tax benefits under Section 421-a of the New York State Real Property Tax Law (the Affordable Housing New York Program). The replacement ratio provisions of subsection (i) thereof require that the project must contain at least one affordable housing unit for each dwelling unit that existed on the property on the date that is three years prior to the commencement of construction.

While the residents of the existing 1 rent controlled and 9 rent stabilized units have not asked to be relocated into the proposed building, it is possible that such relocation might occur in a few instances. If allowed by the Department of Housing Preservation and Development (HPD), one tenant could be relocated into the one additional affordable unit required by the 421-a program's replacement ratio. Otherwise, it is intended that these existing rent controlled and rent stabilized units would be vacated by consensual relocation or pursuant to a buyout prior to the commencement of demolition. *Housing New York*

Housing New York is a five-borough, ten-year strategy to address the City's affordable housing crisis. The plan, which was created through coordination with 13 agencies and with input from over 200 individual stakeholders, outlines more than 50 initiatives to support the City's goal of building or preserving 200,000 units of high-quality affordable housing to meet the needs of more than 500,000 people. The goals of the Housing New York plan are:

- Foster diverse, livable neighborhoods;
- Preserve the affordability and quality of the existing housing stock;
- Build new affordable housing for all New Yorkers;
- Promote homeless, senior, supportive and accessible housing;
- Refine City financing tools and expanding funding sources for affordable housing.

The key initiative of Housing New York is the Mandatory Inclusionary Housing (MIH) program, which would require a share of new housing to be affordable in areas that are rezoned to support new housing production. Under the MIH program, affordable housing is required, not optional, when developers build in a newly rezoned area, whether rezoned as part of a City neighborhood plan or a private rezoning application. As discussed above, the proposed action includes a text amendment to Appendix F of the

New York City Zoning Resolution to map a MIH area consistent with the proposed rezoning area, which would result in a net increase of 25 affordable dwelling units over No-Action conditions. As such, the proposed action would be consistent with this policy.

Local Waterfront Revitalization Program

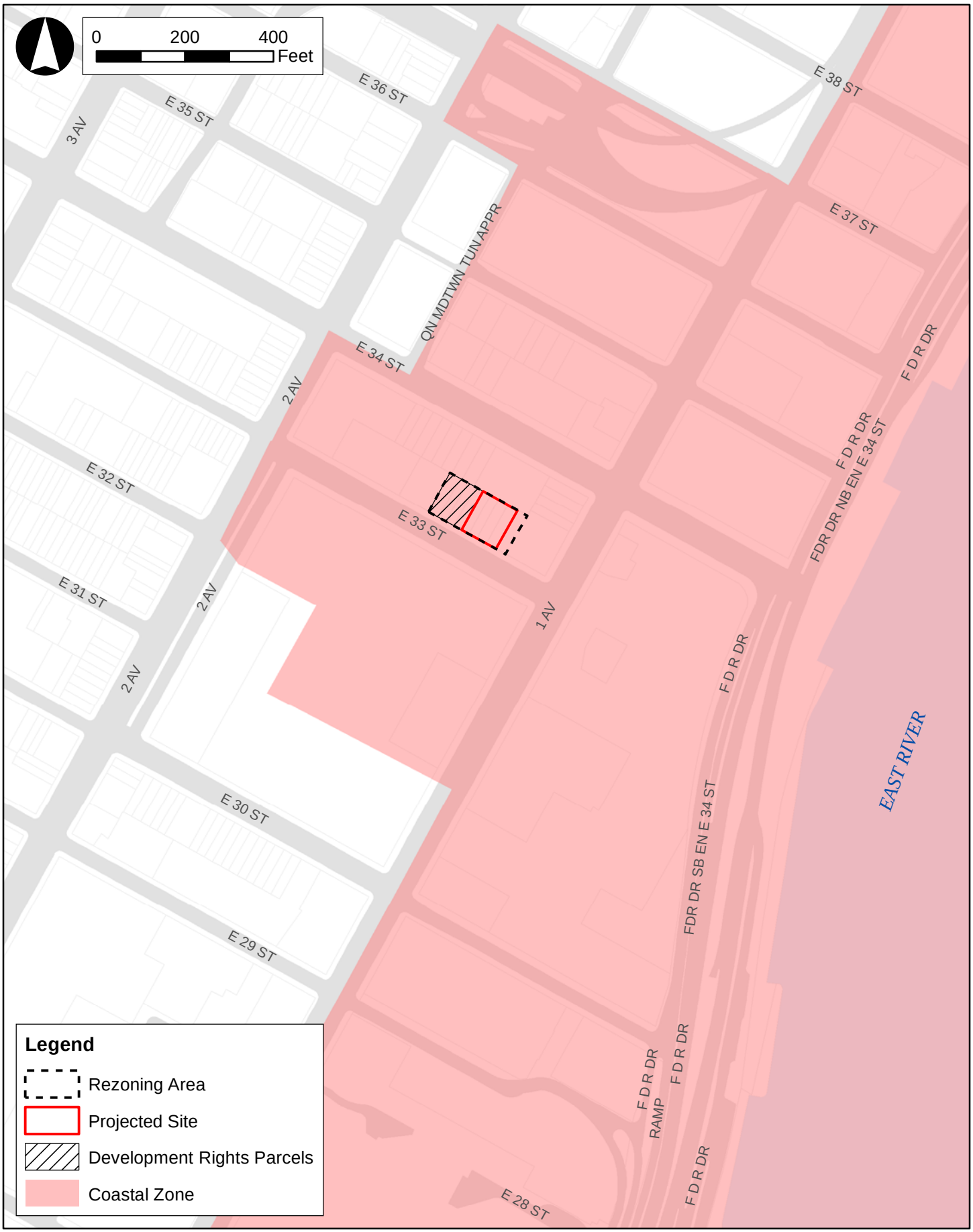
Projects proposed for areas that are located within the designated boundaries of New York City's Coastal Zone must be assessed for their consistency with the City's Waterfront Revitalization Program (WRP). The federal Coastal Zone Management Act (CZMA) of 1972 was enacted to support and protect the distinctive character of the waterfront and to set forth standard policies for reviewing proposed development projects along coastlines. The program responded to City, State, and federal concerns about the deterioration and inappropriate use of the waterfront. In accordance with the CZMA, New York State adopted its own Coastal Management Program (CMP), which provides for local implementation when a municipality adopts a local waterfront revitalization program, as is the case in New York City.

The Waterfront Revitalization Program (WRP) is the City's principal coastal zone management tool. The WRP was originally adopted in 1982 and approved by the New York State Department of State (NYSDOS) for inclusion in the New York State CMP. The WRP encourages coordination among all levels of government to promote sound waterfront planning and requires consideration of the program's goals in making land use decisions. NYSDOS administers CMP at the State level, and DCP administers the WRP in the City. The WRP was revised and approved by the City Council in October 1999. In August 2002, NYSDOS and federal authorities (i.e., the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service) adopted the City's 10 WRP policies for most of the properties located within its boundaries. The 10 WRP policies deal with residential and commercial redevelopment; water-dependent and industrial uses; commercial and recreational boating; coastal ecological systems; water quality; flooding and erosion; solid waste and hazardous substances; public access; scenic resources; and historic and cultural resources. The project site and secondary study area fall within New York City's Coastal Zone Boundary as delineated in the Coastal Zone Boundary maps published by DCP (see Figure C-4).

DCP recently proposed a series of revisions to the WRP in order to proactively advance the long-term goals laid out in Vision 2020: The New York City Comprehensive Waterfront Plan, released in 2011. The proposed changes will promote a range of ecological objectives and strategies, facilitate interagency review of permitting to preserve and enhance maritime infrastructure, and support a thriving, sustainable working waterfront. The City Planning Commission voted on September 11, 2013 to approve the revisions to the WRP. On October 30, 2013, the New York City Council approved the revisions to the WRP as a 197-a plan. On February 3, 2016, the New York Secretary of State approved the revisions to the WRP. In June 2016, the U.S. Department of Commerce concurred with the New York State's decision. The revisions are now in effect for all local, state, and federal discretionary actions.

Additionally, the New York City Panel on Climate Change (NPCC) released a report in 2015 (*Building the Knowledge Base for Climate Resiliency*) outlining New York City-specific climate change projections to help respond to climate change. The NPCC report predicted future City temperatures, precipitations, sea levels, and extreme event frequency through 2100. While the projections will continue to be refined in the future, current projections are useful for present planning purposes and to facilitate decision-making in the present that can reduce existing and near-term risks without impeding the ability to take more informed adaptive actions in the future. Specifically, the NPCC report predicts that mean annual temperatures will increase by 4.1°F to 5.7°F by the 2050s, and by 5.3°F to 8.8°F by the 2080s; total

Figure C-4
Coastal Zone Boundary



annual precipitation will rise four percent to 11 percent by the 2050s and from 5 percent to 13 percent by the 2080s; projections for sea level rise in New York City show an increase between 11 inches and 21 inches by the 2050s, between 18 inches and 39 inches by the 2080s, and between 22 inches and 50 inches by 2100, with a worse case projection of up to six feet by 2100;; and by the 2080s, heat waves and heavy downpours are very likely to become more frequent, more intense, and longer in duration, and coastal flooding is very likely to increase in frequency, extent, and height.

Secondary Study Area

There are currently no public policies that are applicable to the study area other than FRESH, the 197-a Plan for the Eastern Section of Community District 6, and the WRP.

Future Without the Proposed Action (No-Action Condition)

Land Use

Primary Study Area

It is anticipated that the proposed development site would remain in its current condition in the future without the proposed action. In absence of the proposed action, therefore, the proposed development site would continue to be occupied by five 4-story residential buildings with a total of 53 DUs and a 1,244 sf medical office. No other sites within the rezoning area are anticipated to be developed by the build year of 2020.

Secondary Study Area

In the future without the proposed action, the construction of several buildings within the NYU Langone Medical Center campus are anticipated to be completed by the 2020 analysis year (see Table C-4). The NYU Langone Medical Center is currently undergoing a major expansion project on their main campus which is bounded by East 34th Street to the north, East 30th Street to the south, First Avenue to the west, and the FDR Drive to the east. The 830,000 sf Helen L. and Martin S. Kimmel Pavilion, located along First Avenue between East 33rd and East 34th Streets, is currently under construction and will include single bed inpatient rooms. The Hassenfeld Children's Hospital is currently under construction at the southeast corner of East 34th Street and First Avenue and is anticipated to be completed by 2018. The Children's Hospital will be a 160,000 sf state-of-the-art pediatric hospital. In addition, while not within the 400-foot study area radius, the NYU Langone Science Building is currently under construction at East 30th Street and the FDR Drive. The building will be a 365,000 sf state-of-the-art research facility.

Table C-4: No-Actions Projects within the Secondary Study Area

Name	Location	Square Feet	Use	Completion Date
Helen L. and Martin S. Kimmel Pavilion	424 East 34th Street	830,000	Community Facility – Hospital	2018
Hassenfeld Children's Hospital	Southeast corner of E. 34th St. and 1st Avenue	160,000	Community Facility - Hospital	2018
NYU Langone Science Building	435 East 30th Street	365,000	Community Facility – Medical Research Facility	2017

Zoning

No changes to the existing R8A zoning on the development site or R8, R8B, C1-9A, C1-9, and C1-8A districts in the secondary study area are anticipated in the future without the proposed action.

Public Policy

There would be no changes in public policy applicable to the primary or secondary study areas planned in the future without the proposed action.

Future With the Proposed Action (With-Action Condition)

This section describes the land use, zoning, and public policy conditions that would result from the proposed action by 2020 and evaluates the potential for the proposed action to result in significant adverse impacts.

Land Use

Per CEQR methodology, although changes in land use could lead to impacts in other technical areas, significant adverse land use impacts are extraordinarily rare in the absence of an impact in another technical area. Also, according to the 2014 *CEQR Technical Manual*, many land use changes may be significant, but not adverse.

In the future with the proposed action, the development site is expected to be redeveloped with residential and retail uses with a greater amount of development than would occur under 2020 No-Action conditions.

Primary Study Area

With the proposed zoning map change from R8A to C1-9A residential, commercial, and community facility uses would be permitted in the project area. The proposed C1-9A zoning district would allow residential uses up to a maximum FAR of 9.0 (12.0 with Inclusionary Housing Program in a Mandatory Inclusionary Housing Area), community facilities up to 10.0 FAR, and commercial uses up to 2.0 FAR.

By 2020 under With-Action conditions, it is expected that the applicant would complete the proposed development described above, which would be facilitated by the proposed action, as previously stated. While the applicant intends to develop the mixed-use project described above, because the proposed action would result in additional development potential generated by Lots 20-22, a RWCDS for a larger mixed-use development on the applicant's site is considered for conservative analysis purposes. For purposes of providing a conservative analysis, it is assumed that 26,168 sf of development rights will be transferred from Lots 20-22 to the development site. Like with Lot 23, it is assumed that Lots 20-22 would be merged into the development site's zoning lot but will remain under separate ownership. Under this RWCDS, the proposed mixed-use building would include 158,509 gsf (142,778 zsf) of residential uses and 10,743 gsf (6,429 zsf) of local retail uses. The RWCDS development would result in 186 DUs of which 37 DUs would be affordable. The RWCDS development being analyzed would have a height of 230 feet. The retail use would be located on the first floor and cellar level while the residential use would be located on floors 2 through 23. The new building would have a frontage of 90 feet along the north side of East 33rd Street.

The remaining lots within the primary study area (Block 939, Lots 20-23, and p/o Lots 28) would not be redeveloped as a result of the proposed action.

Lot 20 is a 2,469 square foot rectangular shaped lot and contains a 5-story 9,200 gsf residential building (FAR of 3.73) with a total of 22 dwelling units. Lot 21 has a lot area of approximately 1,975 sf and is occupied by a 5-story 7,860 gsf residential building that includes 13 DUs and has a built FAR of 3.98. Lot 22 has a lot area of approximately 1,975 sf and is occupied by a 5-story 6,858 gsf residential building that includes 12 DUS and has a built FAR of 3.47. Combined, the three residential buildings have a built FAR of 3.73. The combined built FARs of these residential buildings would be less than 50 percent of the maximum allowable residential FAR of 12.0 under the proposed C1-9A zoning (31 percent) and the existing buildings currently have more than six units apiece and were constructed in 1910. All three buildings contain rent-controlled and/or rent-stabilized units and would be difficult to legally demolish due to tenant relocation requirements.[1] Further, as these lots are controlled by separate entities, and there are currently no plans for all three lots to be purchased by a single owner, the assemblage, relocation of existing tenants, and development of the site would most likely not occur by the build year of 2020. Therefore, as Lots 20-22 do not meet the criteria for "soft sites," they are not expected to be redeveloped as a result of the proposed rezoning, and are considered neither projected nor potential development sites for RWCDS purposes. However, although these lots would not be considered soft sites, because the proposed FAR for these sites would double as a result of the rezoning, this additional development potential would need to be accounted for under the RWCDS for conservative analysis purposes. Therefore, as discussed in detail above, for RWCDS purposes, these three lots would be considered development rights parcels for the proposed development on Lots 24-27 and no new development is anticipated to occur on these sites in the future with the proposed action.

Lot 28 is a 13,770 sf square-shaped lot that is occupied by a 23-story, 213,549 gsf residential building built in 1998 and includes 209 DUs and community facility uses (FAR of 15.51). The portion of Lot 28 not within the rezoning area (approximately 11,352 sf) is zoned C1-9A. Because this building is built over the permitted FAR and has been constructed relatively recently, Lot 28 does not meet the criteria for a "soft site," and it is not expected to be redeveloped as a result of the proposed rezoning, and is considered neither a projected nor potential development site for RWCDS purposes.

The incremental development that would occur under the RWCDS is shown in Table C-5. As compared to 2020 No-Action conditions on the development site, the 2020 With-Action condition would represent incremental increases of 136,192 gsf of residential uses (146 DUs of which 37 would be affordable DUs), approximately 10,743 gsf of local retail space, and -1,244 gsf of community facility (medical office) uses.

Table C-5: Incremental Project Area Development

Use	No-Action	With-Action	Net Increment
Residential	241,031 gsf (310 DUs)	375,979 gsf (455 DUs)	**+136,192 (146 DUs; 109 market rate and 37 affordable)**
Commercial – Local Retail	0 gsf	10,743 gsf	**+ 10,743 gsf**
Community Facility	27,244 gsf	27,244 gsf	**-1,244**
Public Parking	45 spaces	45 spaces	**None**

[1] Source: 2014 New York State Division of Housing and Community Renewal Building Registration File

Assessment

The proposed action would result in changes to land use within the primary study area by introducing retail uses that would not be permitted in the rezoning area in the future without the proposed action. In addition, residential uses, which would be present in the rezoning area under future conditions with and without the proposed action, would be permitted at a greater density than would be allowed in the No-Action condition. These proposed local uses would be consistent with uses already present in the surrounding area. Notably, in the immediate vicinity of the rezoning area, First and Second Avenues as well as East 34th Street are largely mixed-use corridors lined with a number of residential buildings with ground floor retail.

As discussed above, the projected site contains 40 residential DUs of which 9 are rent stabilized and 1 is rent controlled. Out of the 40 DUs, 23 are currently occupied and 17 are vacant. Under the No-Action condition, it is assumed that all 40 DUs would be reoccupied. Therefore, the proposed action would directly displace approximately 66 residents on the projected site. According the *CEQR Technical Manual*, if the proposed project would directly displace a land use and such a loss would adversely affect surrounding land uses, this may result in a significant adverse impact to socioeconomic conditions. According to the *CEQR Technical Manual,* displacement of less than 500 residents would not typically be expected to alter the socioeconomic character of a neighborhood. Therefore, the proposed action is not anticipated to alter the socioeconomic character of the neighborhood. Further, the proposed action would result in a net increase of 146 DUs of which 37 would be affordable (net increase of 27 affordable DUs). In addition, as described in detail above, the applicant is taking the appropriate steps to ensure that lease buyout/relocation options are available to the existing tenants.

The proposed action would not generate land uses that would be incompatible with surrounding uses, nor would the proposed action displace land uses in such a way as to adversely affect surrounding land uses. Therefore, the proposed action would support land use trends, and no significant adverse land use impacts are expected.

Secondary Study Area

Assessment

The proposed action would not result in significant adverse impacts to land use within the secondary study area. As discussed above, the NYU Langone Medical Center is currently undergoing a major expansion project on their campus which would result in several new buildings by the build year of 2020.

The secondary study area would not undergo any changes as a result of the proposed action. The proposed action would have no direct effect on zoning in the secondary study area. As noted above, the secondary study area is predominantly comprised of residential uses, as well as public facilities/institutional uses and a few commercial uses. Therefore, the proposed action would not introduce any new land uses that would not be compatible with their surroundings, and the proposed action would not represent a significant adverse impact on land use in the secondary study area in accordance with the criteria set forth in the *CEQR Technical Manual.*

Zoning

In the future with the proposed action, the existing zoning in the primary study area (rezoning area) would change. The proposed zoning changes as a result of the proposed action are shown in Figure C-2, described in detail below, and summarized in Table C-5.

Proposed Zoning Map Changes

Assessment

As shown in Figure C-2, the proposed action would result in a zoning map amendment to the primary study area. The existing R8A zoning designation in the rezoning area would be replaced with a C1-9A zoning district, which would allow residential, commercial, and community facility development. The rezoning area is located adjacent to an existing C1-9A zoning district to the north and east and a C1-9 zoning district to the west. Therefore, the proposed action would extend the existing zoning with similar districts onto the project area which would result in similar uses to the existing uses within the study area.

Table C-5: Summary of Proposed Zoning Districts and Regulations

District	Maximum FAR	Maximum Base Height	Maximum Building Height
Proposed C1-9A	Residential: 9.0 (under Mandatory Inclusionary Housing) (12.0 with Inclusionary Housing Program) Community Facility: 10.0 Commercial: up to 2.0	155 feet	230 feet

Public Policy

The proposed action would not introduce any new public policies or alter existing public policies pertaining to the project site or the secondary study area.

Assessment

The proposed action would not conflict with any applicable public policies, including FRESH or the *197-a Plan for the Eastern Section of Community District 6* as the proposed development would provide residential and commercial uses that would be compatible with the existing land uses in the area. Further, the affordable dwelling units under the With-Action Condition would provide the area with a much needed mix of new affordable housing and market rate units and would support the City's efforts to increase the overall amount of affordable housing. Additionally, as discussed above, the development site and secondary study area fall within New York City's coastal zone boundary as delineated in the updated Coastal Zone Boundary maps published by DCP. In accordance with the guidelines of the 2014 *CEQR Technical Manual*, a Consistency Assessment Form (CAF) was prepared for the proposed action as part of the EAS (refer to Appendix B). As indicated in the form, the proposed project was deemed to require further assessment of four WRP policies, which are listed below, followed by a discussion of the

proposed project's consistency with each policy. As noted below, the proposed action does not conflict with any WRP policies.

Policy 1: Support and facilitate commercial and residential redevelopment in areas well-suited to such development.

1.1 Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.

The project area is not located in a designated Special Natural Waterfront Area, Priority Maritime Activity Zone, Recognized Ecological Complex, or a Significant or Sensitive Maritime and Industrial Area. Additionally, the surrounding secondary study area is a densely developed urban environment that supports a variety of land uses with no unique natural features. As such, the project area is appropriate and well-suited for residential and commercial development which would be similar to and compatible with existing and future uses in the mixed-use area surrounding the project area. As such, the proposed action furthers this WRP policy through the development of residential and commercial uses in a coastal zone area well-suited to such development.

1.2 Encourage non-industrial development with uses and design features that enliven the waterfront and attract the public.

As detailed above, the proposed action would facilitate the redevelopment of an underutilized site with residential and commercial uses, enlivening the streetscape around the project site in the vicinity of the East River waterfront.

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

The project site is located in a densely developed urban environment with adequate existing public facilities and infrastructure that can support the proposed residential and commercial uses on the site. The proposed action would facilitate the redevelopment of the development site at a density compatible with the capacity of surrounding roadways, mass transit, and essential community services. As such, the proposed action is consistent with this WRP policy.

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

The proposed project would integrate consideration of the latest projections of climate change and sea level rise in New York City, as published in the *New York City Panel on Climate Change 2015 Report*, which states that sea level rise alone will lead to an increased frequency and intensity of coastal flooding in the City's Coastal Zones. All new construction and substantial improvements within the floodplain are subject to New York City Building Code requirements for flood-resistant construction. These include that all habitable space be located above the design of the flood elevation. See discussion of WRP Policy 6.2 below for detailed discussion.

Policy 6: Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.

6.1 Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the site, the use of the property to be protected, and the surrounding area.

As detailed in the Compliance Statement for WRP Policy 6.2 below, the proposed project would incorporate all necessary flood mitigation measures, and as such, is consistent with this WRP policy.

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

As outlined in *The New York City Waterfront Revitalization Program Climate Change Adaptation Guidance* document, for site-specific actions that include (or would facilitate the development of) new vulnerable, critical, or potentially hazardous features, the detailed methodology approach should be utilized to assess a project or action's consistency with Policy 6.2 of the WRP. The detailed Policy 6.2 methodology assessment is provided below.

STEP 1: IDENTIFY VULNERABILITIES AND CONSEQUENCES

1. *Identify vulnerabilities and consequences.* The goal of this first step is to assess the project's vulnerabilities to future coastal hazards and what potential consequences may be.

As presented in Figure C-5 through C-7, while only a portion of the proposed development site is within the 100-year floodplain (per the 2015 Federal Emergency Management Agency's (FEMA's) preliminary Flood Insurance Rate Map (pFIRM)), based on NPCC projections, the entirety of the proposed development site would be within the 100-year floodplain by the 2020s.

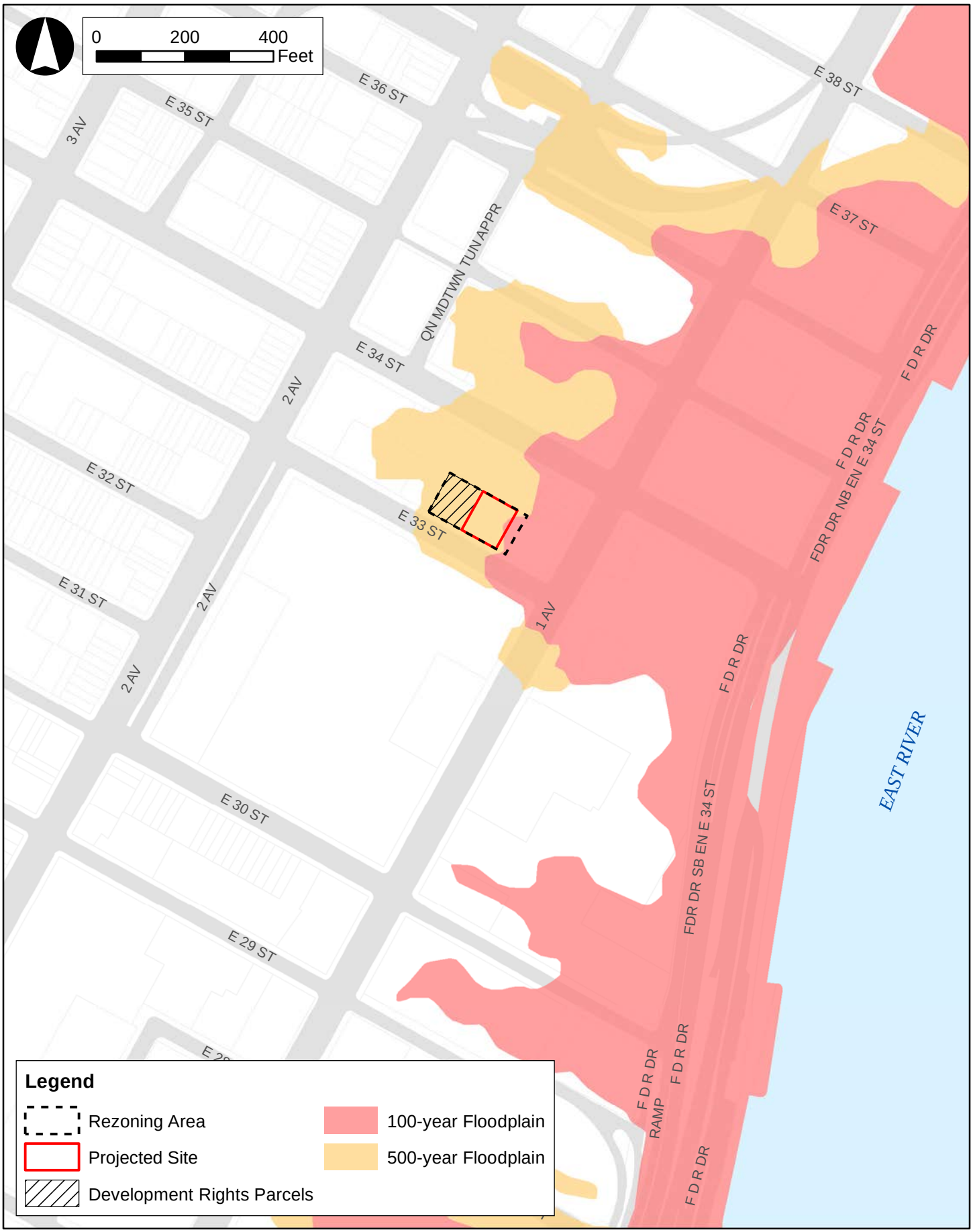
As shown in Figure C-8, the proposed project's ground floor retail and residential lobby could be below the elevation of the one percent annual chance floodplain (i.e., the "100-year floodplain") by the 2050s under high sea level rise projections and by the 2080s under the high-middle and middle sea level rise projections. If it were, there could be damage to property and loss of inventory. As shown in Figures C-8 and C-9, the lowest residential level would remain above the one percent annual floodplain projections. As presented in Figure C-10, no features of the proposed project (besides the cellar) would be below the elevation of the Mean Higher High Water (MHHW) at any point over the project's lifespan.

Coastal storms could bring high winds in addition to the flood hazards described above. However, the development site is not within a Coastal A or V zone.

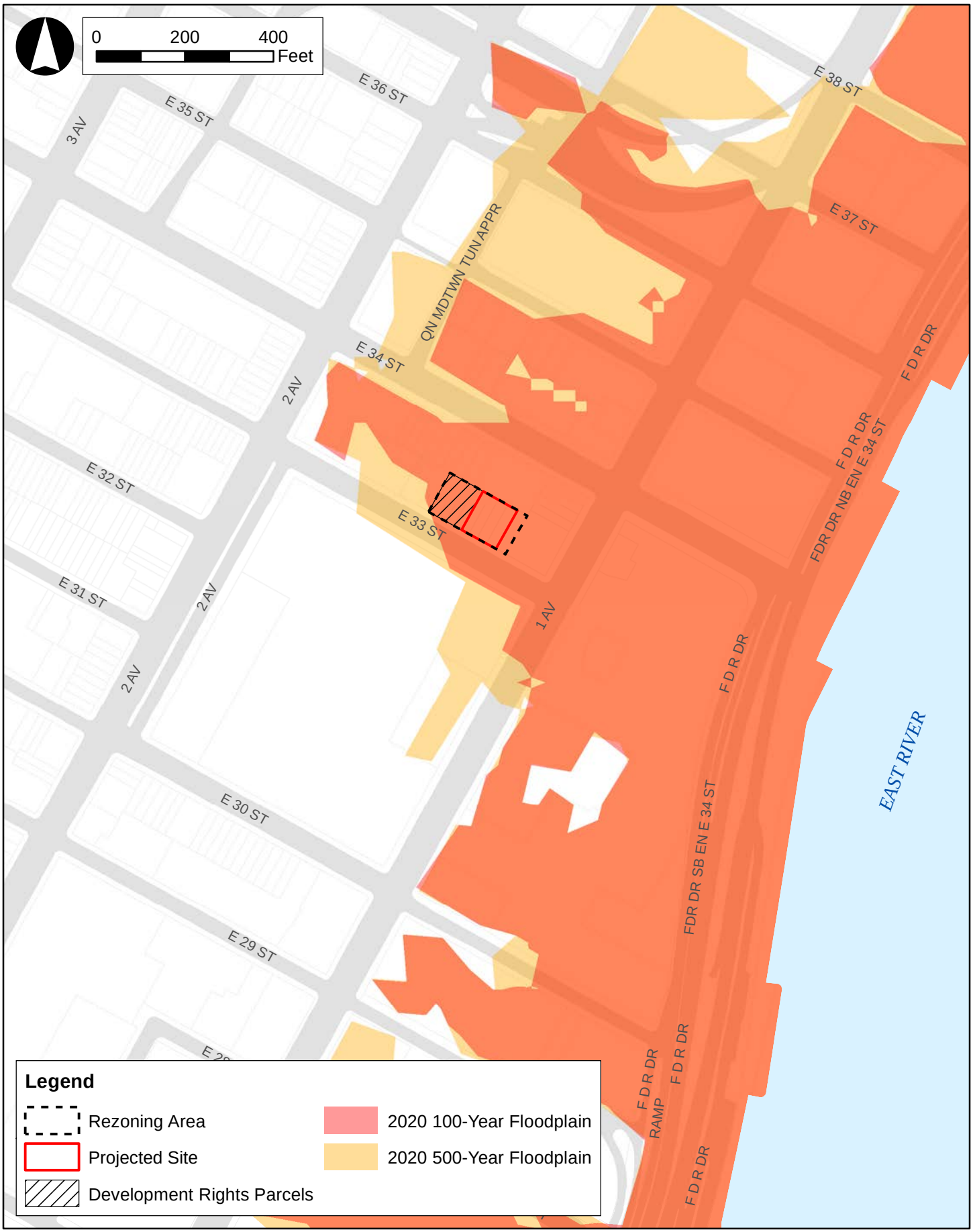
STEP 2: IDENTIFY ADAPTIVE STRATEGIES

The proposed project would be designed to meet New York City Building Code standards for flood resistant construction standards, including dry floodproofed walls, flood barriers at building openings, and a foundation system designed to resist hydrostatic pressure. As a result, the building would be floodproofed up to the elevation of the current one percent annual chance floodplain plus one foot of freeboard (+13 NAVD 88). If the elevation of the floodplain increases beyond that by the 2050s or 2080s, additional protection could be provided through temporary barriers or subsequent retrofits to extend

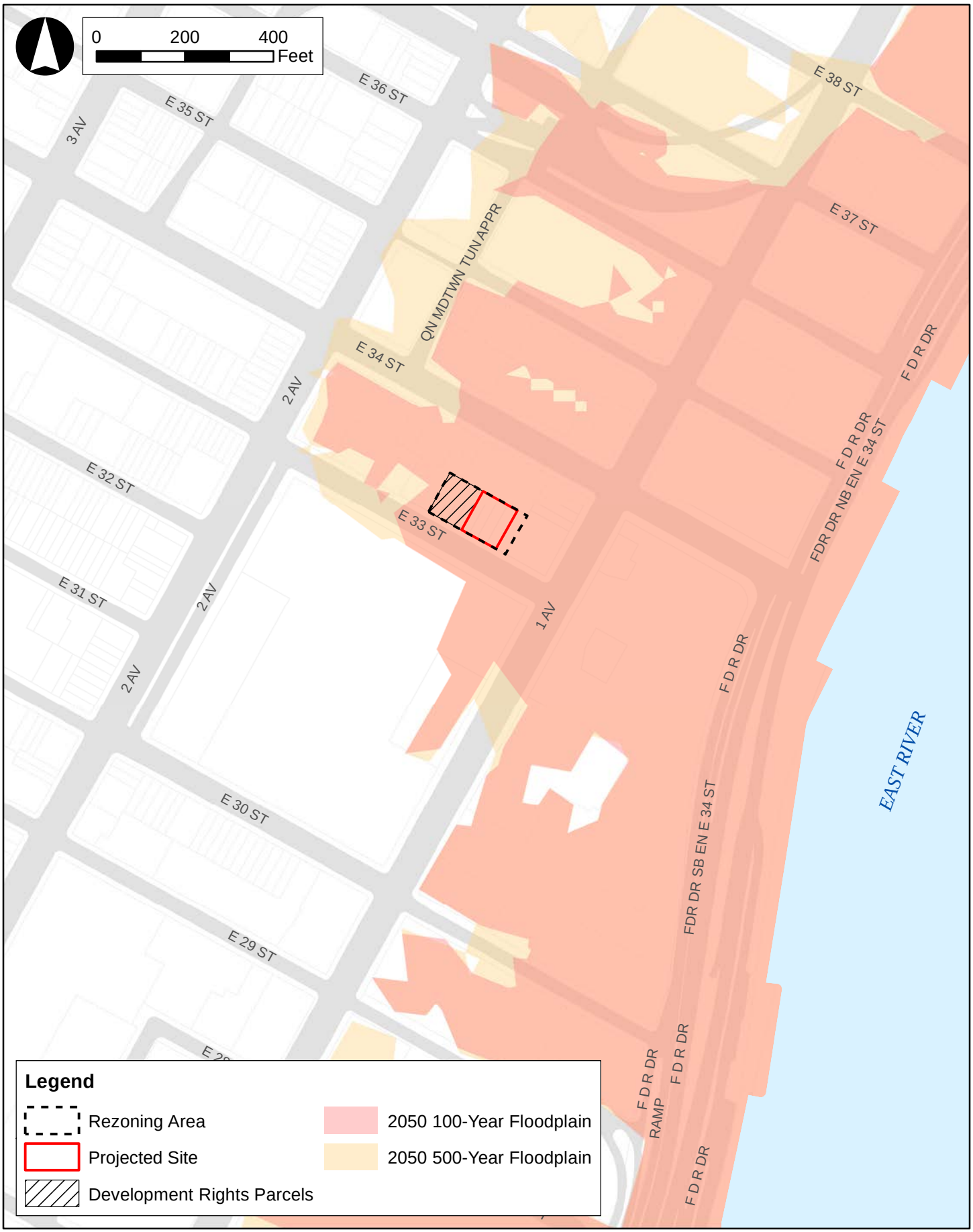
Figure C-5
FEMA Flood Hazard Zone

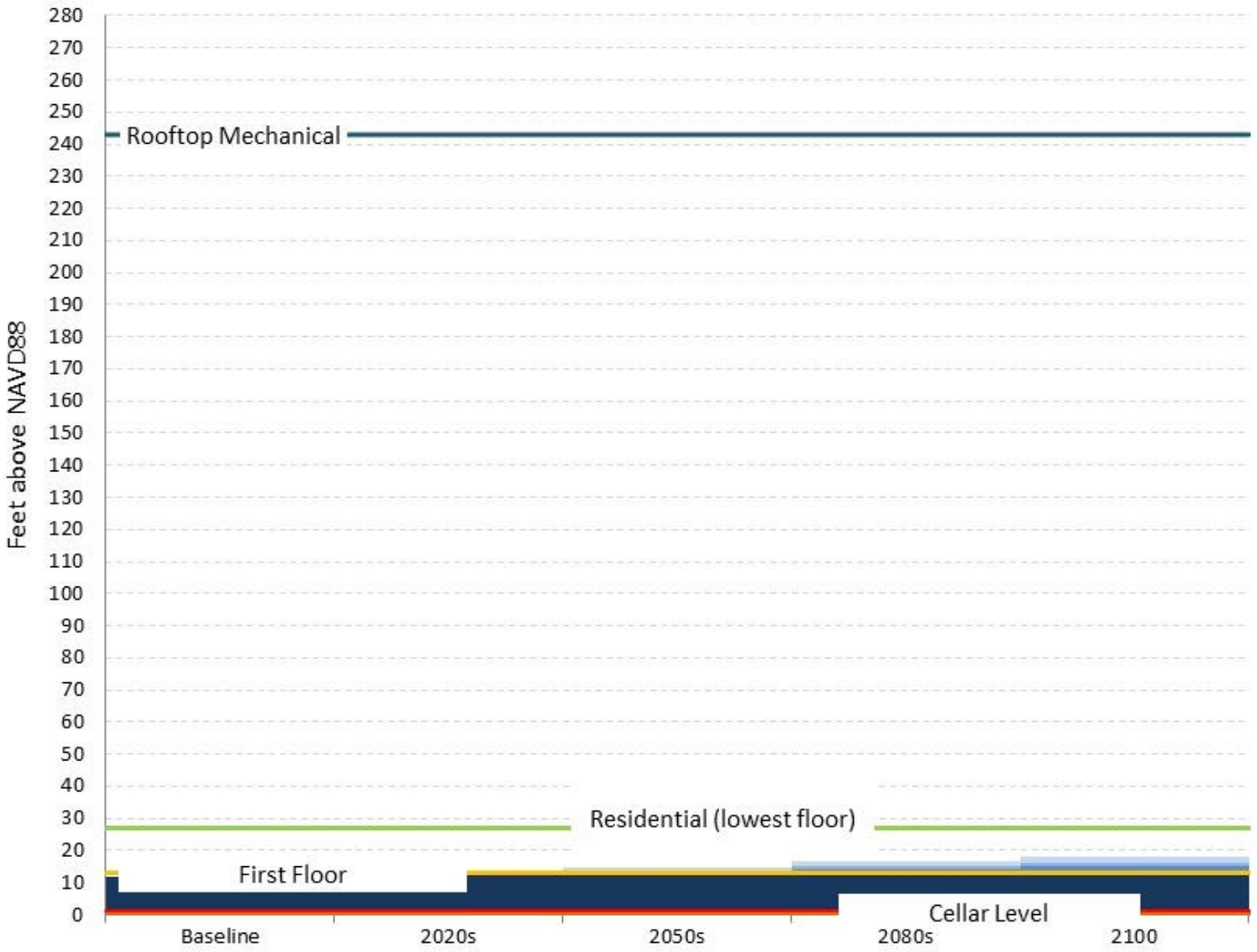


NPCC Floodplain 2020 Projection Map



NPCC Floodplain 2050 Projection Map

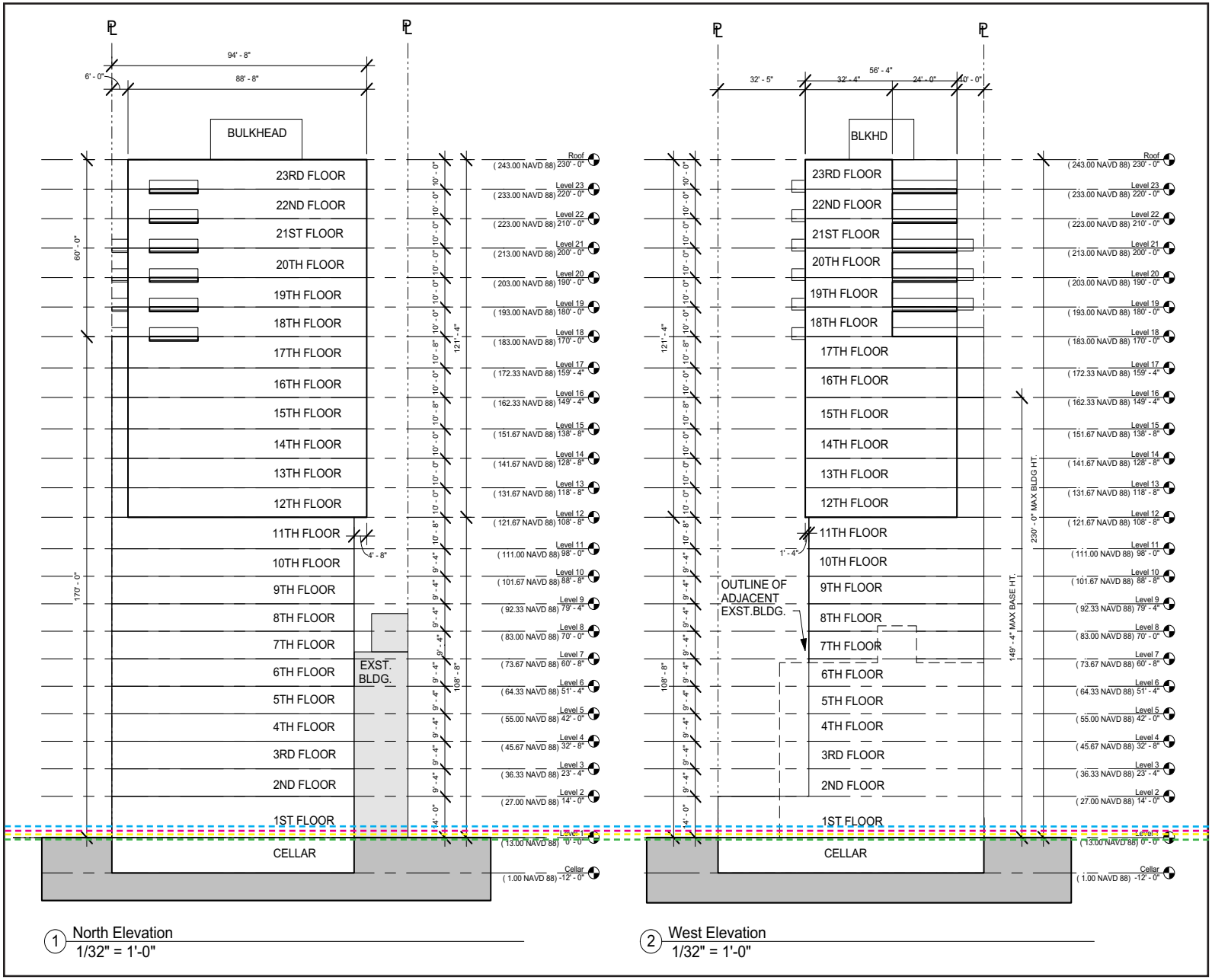


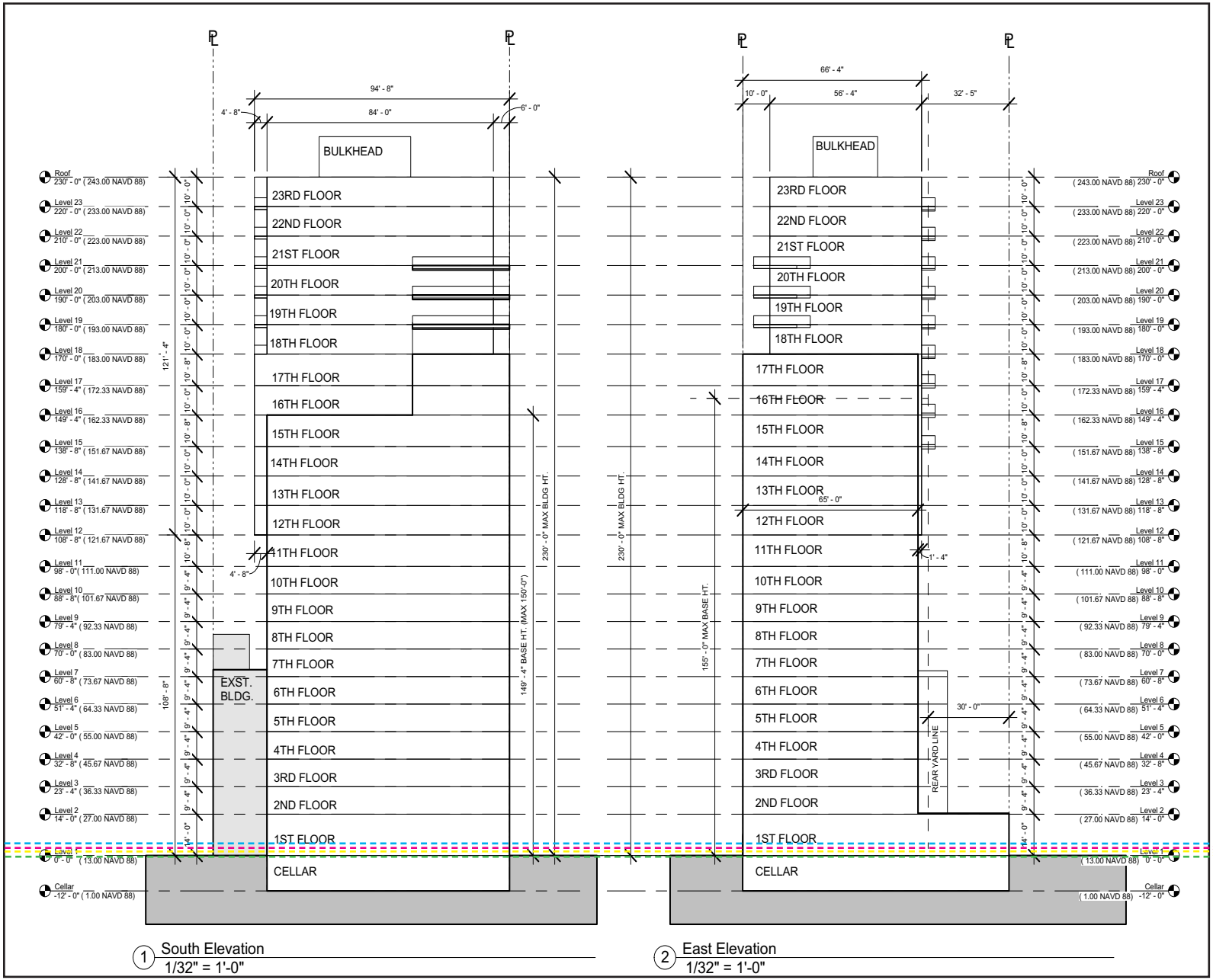


East 33rd Street Rezoning EAS

Figure C-8

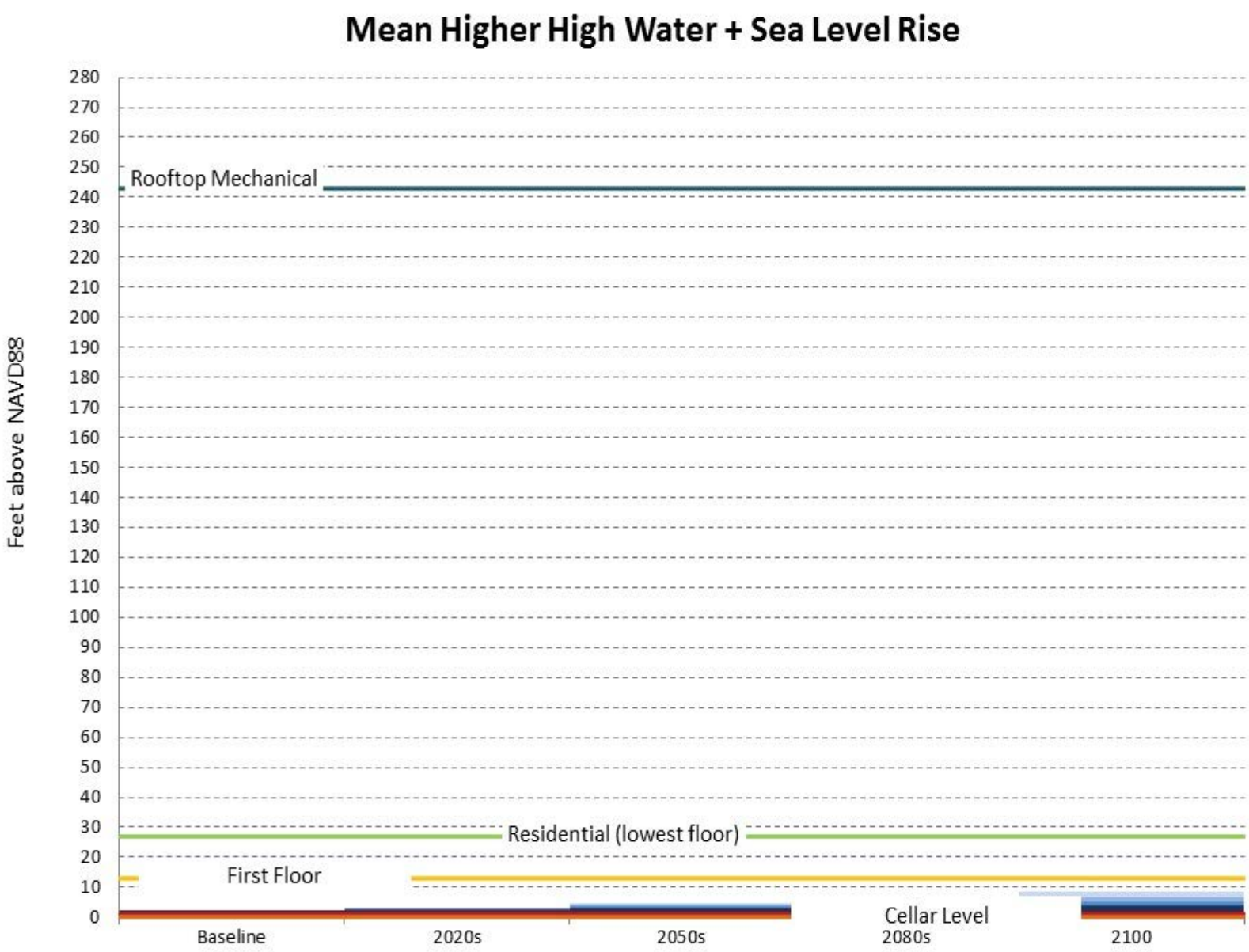
1% Flood Elevation + Sea Level Rise


94' - 8"
6' - 0"
88' - 8"
BULKHEAD
23RD FLOOR
22ND FLOOR
21ST FLOOR
20TH FLOOR
19TH FLOOR
18TH FLOOR
17TH FLOOR
16TH FLOOR
15TH FLOOR
14TH FLOOR
13TH FLOOR
12TH FLOOR
11TH FLOOR
10TH FLOOR
9TH FLOOR
8TH FLOOR
7TH FLOOR
6TH FLOOR
5TH FLOOR
4TH FLOOR
3RD FLOOR
2ND FLOOR
1ST FLOOR
CELLAR
EXST. BLDG.
4' - 8"
60' - 0"
170' - 0"
121' - 4"
108' - 8"
Roof (243.00 NAVD 88) 230' - 0"
Level 23 (233.00 NAVD 88) 220' - 0"
Level 22 (223.00 NAVD 88) 210' - 0"
Level 21 (213.00 NAVD 88) 200' - 0"
Level 20 (203.00 NAVD 88) 190' - 0"
Level 19 (193.00 NAVD 88) 180' - 0"
Level 18 (183.00 NAVD 88) 170' - 0"
Level 17 (172.33 NAVD 88) 159' - 4"
Level 16 (162.33 NAVD 88) 149' - 4"
Level 15 (151.67 NAVD 88) 138' - 8"
Level 14 (141.67 NAVD 88) 128' - 8"
Level 13 (131.67 NAVD 88) 118' - 8"
Level 12 (121.67 NAVD 88) 108' - 8"
Level 11 (111.00 NAVD 88) 98' - 0"
Level 10 (101.67 NAVD 88) 88' - 8"
Level 9 (92.33 NAVD 88) 79' - 4"
Level 8 (83.00 NAVD 88) 70' - 0"
Level 7 (73.67 NAVD 88) 60' - 8"
Level 6 (64.33 NAVD 88) 51' - 4"
Level 5 (55.00 NAVD 88) 42' - 0"
Level 4 (45.67 NAVD 88) 32' - 8"
Level 3 (36.33 NAVD 88) 23' - 4"
Level 2 (27.00 NAVD 88) 14' - 0"
Level 1 (13.00 NAVD 88) 0' - 0"
Cellar (1.00 NAVD 88) -12' - 0"
1 North Elevation
1/32" = 1'-0"
32' - 5"
56' - 4"
32' - 4"
24' - 0"
10' - 0"
BLKHD
OUTLINE OF ADJACENT EXST.BLDG.
1' - 4"
149' - 4" MAX BASE HT.
230' - 0" MAX BLDG HT.
2100 (18.25)
2080s (16.83)
2020s (12.83)
2 West Elevation
1/32" = 1'-0"



1 South Elevation
1/32" = 1'-0"

2 East Elevation
1/32" = 1'-0"


Mean Higher High Water + Sea Level Rise
Feet above NAVD88
280
270
260
250
240
230
220
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Rooftop Mechanical
Residential (lowest floor)
First Floor
Cellar Level
Baseline
2020s
2050s
2080s
2100

dry floodpoofed materials to higher elevations. The proposed project would be required to meet New York City Building Code standards for wind loading.

The proposed project would not make flooding on adjacent sites worse, nor would it conflict with other plans for flood protection on adjacent sites.

STEP 3: ASSESS POLICY CONSISTENCY

The proposed action advance Policy 6.2. All new vulnerable, critical, or potentially hazardous features would be protected through flood damage reduction elements or future adaptive actions.

VI. CONCLUSIONS

No significant adverse impacts on land use, zoning, or public policy, as defined by the guidelines for determining impact significance set forth in the 2014 *CEQR Technical Manual*, are anticipated in the future with the proposed action in the primary or secondary study areas. The proposed action would not directly displace any land uses so as to adversely affect surrounding land uses, nor would it generate land uses that would be incompatible with land uses, zoning, or public policies in the secondary study area. The proposed action would not create land uses or structures that would be incompatible with the underlying zoning, nor would it cause a substantial number of existing structures to become non-conforming. The proposed action would also not result in land uses that conflict with public policies applicable to the primary or secondary study areas.

The proposed action would result in an overall increase in residential and commercial uses within the primary study area, when compared to conditions in the future without the proposed action. The proposed zoning map amendment would allow for a variety of uses at a scale and density that is compatible with the existing zoning designations in the surrounding area. The proposed rezoning would provide opportunities for residential (including affordable dwelling units) and commercial development. Per the WRP Consistency Assessment, this chapter concludes that the proposed action would support the applicable policies of the recently revised WRP.

I. INTRODUCTION

An open space assessment may be necessary if a proposed action could potentially have a direct or indirect effect on open space resources in the project area. A direct effect would "physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value." An indirect effect may occur when the population generated by a proposed development would be sufficient to noticeably diminish the ability of an area's open space to serve the existing or future population. According to the guidelines established in the 2014 *CEQR Technical Manual,* if a project site is located in an area considered neither well-served nor underserved by open space, an analysis of indirect effects on open space is warranted if a proposed action would add more than 200 residents and/or 500 employees. The project area is located in an area considered to be neither well-served nor underserved by open space.

The reasonable worst-case development scenario (RWCDS) for the proposed action would result in the development of 146 incremental (186 total) residential units and the addition of approximately 243 new residents to the area.[1]

Although the proposed project would not have a direct effect on existing open space resources in the area, it is expected to introduce approximately 243 new residents, exceeding the 2014 *CEQR Technical Manual* threshold for open space analysis. A quantitative assessment was conducted to determine whether the proposed action would significantly reduce the amount of open space available for the area's residential population. As the proposed project would not result in 500 or more workers, the analysis of open space will focus exclusively on the open space needs of the study area residential population.

II. PRINCIPAL CONCLUSIONS

According to the 2014 *CEQR Technical Manual*, a proposed action may result in a significant adverse impact on open space resources if (a) there would be direct displacement/alteration of existing open space within the study area that has a significant adverse effect on existing users; or (b) it would reduce the open space ratio and consequently overburden existing facilities or further exacerbate deficiency in open space. The 2014 *CEQR Technical Manual* also states that "if the area exhibits a low open space ratio indicating a shortfall of open space, even a small decrease in the ratio as a result of the action may cause an adverse effect." A 5 percent or greater decrease in the open space ratio is considered to be "substantial", and a decrease of less than 1 percent is generally considered to be insignificant unless open space resources are extremely limited. The open space study area analyzed in this attachment is located in an area that is not considered underserved or well-served by open space as defined in the 2014 *CEQR Technical Manual Appendix: Open Space Maps*.

In New York City, local open space ratios vary widely, and the median ratio at the Citywide Community District level is 1.5 acres of open space per 1,000 residents. Typically, for the assessment of indirect effects, citywide local norms have been calculated for comparison and analysis. As a planning goal, a ratio of 2.5

[1] Based on 1.66 persons/household in Manhattan CD 6 (2010 Census).

acres per 1,000 residents represents an area well-served by open spaces, and is consequently used as an optimal benchmark for residential populations in large-scale plans and proposals. Ideally, this would comprise 0.50 acres of passive space and 2.0 acres of active open space per 1,000 residents.

According to the *CEQR Technical Manual*, a preliminary open space assessment may be useful when the open space assessment can be targeted to a particular user group, or if it is not clear whether a full, detailed open space analysis is necessary. If the preliminary open space assessment concludes that the open space ratio would increase or remain substantially the same in the With-Action condition compared to the existing condition, no further analysis of open space is needed (unless direct, qualitative changes to an open space may occur because of the project). Decreases in the open space ratio would generally warrant a more detailed analysis under the following conditions:

- If the decrease in the open space ratio approaches or exceeds 5 percent, it is generally considered to be a substantial change warranting more detailed analysis.
  - The closer the ratio is to 2.5 acres per 1,000 residents, or when the open space in the area exceeds this ratio, a greater percentage of change (more than 5 percent) may be tolerated.
- If the study area exhibits a low open space ratio (e.g., below the citywide average of 1.5 acres per 1,000 residents or 0.15 acres of passive space per 1,000 nonresidential users), indicating a shortfall.

As discussed in detail below, the preliminary open space assessment shows that the proposed action would decrease the open space ratio by 0.34 percent in the study area, which would be well below the CEQR threshold of 5 percent for a detailed analysis. In addition, as noted above, the proposed action would not result in any direct displacement or alteration of existing public spaces in the study area. Therefore, the proposed action would not result in a significant adverse open space impact.

In addition, as noted above, the proposed action would not result in any direct displacement or alteration of existing public spaces in the study area. Therefore, the proposed action would not result in a significant adverse open space impact.

III. OPEN SPACE STUDY AREA AND METHODOLOGY

The analysis of open space resources has been conducted in accordance with the guidelines established in the 2014 *CEQR Technical Manual*. Using 2014 CEQR methodology, the adequacy of open space in the study area is assessed quantitatively using a ratio of usable open space acreage to the study area population, referred to as the open space ratio. In addition, qualitative factors are considered in making an assessment of the proposed action's effects on open space resources.

In accordance with the guidelines established in the 2014 *CEQR Technical Manual,* the open space study area is generally defined by a reasonable walking distance that users would travel to reach local open space and recreational resources. That distance is typically a half-mile radius for residential projects.

Open Space Study Area

Pursuant to 2014 CEQR guidelines, the residential open space study area includes all census tracts that have at least 50 percent of their area located within half-mile of the proposed rezoning area and all open spaces within it that are publicly accessible. As described above, residents typically walk up to a half-mile

for recreational spaces. While there are some additional nearby public open spaces located outside the study area boundary that likely are utilized by some study area residents, for conservative analysis purposes, only those open spaces in the study area and used in the quantitative analysis. These nearby open spaces located beyond the study area boundary were not included in the quantitative analysis but were described qualitatively.

As shown in Figure D-1, the open space study area includes the following eight Manhattan census tracts: 62, 66, 70, 72, 78, 80, 86.01, and 88.

Analysis Framework

Direct Effects Analysis

According to the 2014 *CEQR Technical Manual*, a proposed action would have a direct effect on an open space if it causes the physical loss of public open space because of encroachment onto the space or displacement of the space; changes the use of an open space so that it no longer serves the same user population; limits public access to an open space; or causes increased noise or air pollutant emissions, odors, or shadows that would affect its usefulness, whether on a permanent or temporary basis. As there are no publicly-accessible open spaces within the project site, the proposed action would not have any direct effect and no further analysis is warranted. In addition, as discussed in detail in Attachment E, "Shadows," the proposed project would not result in any significant adverse shadows impacts to open space resources within the study area.

Indirect Effects Analysis

Indirect effects occur to an area's open spaces when a proposed action would add enough population, either workers or residents, to noticeably diminish the ability of an area's open space to serve the existing or future population. The 2014 *CEQR Technical Manual* methodology suggests conducting an initial quantitative assessment to determine whether more detailed analyses are appropriate.

With an inventory of available open space resources and potential users, the adequacy of open space in the study area can be assessed both quantitatively and qualitatively. The quantitative approach computes the ratio of open space acreage to the population in the study area and compares this ratio with certain guidelines. The qualitative assessment examines other factors that can affect conclusions about adequacy, including proximity to additional resources beyond the study area, the availability of private recreational facilities, and the demographic characteristics of the area's population. Specifically, the analysis in this attachment includes:

- Characteristics of the open space users: residents. To determine the number of residents in the study area, 2010-2014 5-year ACS census data have been compiled for census tracts comprising the open space study area along with population projections of large residential developments completed since the 2010-2014 5-year ACS census data. In addition, a 0.25 percent per year (2014-2017) background growth rate is applied to the 2014 population to account for general increases in population and smaller developments not identified individually.
- An inventory of all publicly accessible passive and active recreational facilities in the open space study area.
- An assessment of the quantitative ratio of open space in the study area by computing the ratio of open space acreage to the population in the study area and comparing this open space ratio with

certain guidelines. The New York Department of City Planning (NYCDCP) generally recommends a comparison to the median ratio for community districts in New York City, which is 1.5 acres of open space per 1,000 residents.

- An evaluation of qualitative factors affecting open space use.
- A final determination of the adequacy of open space in the open space study area.

IV. PRELIMINARY ASSESSMENT

According to the 2014 *CEQR Technical Manual*, an initial quantitative open space assessment may be useful to determine if a detailed open space analysis is necessary, or whether the open space assessment can be targeted to a particular user group. This initial assessment calculates an open space ratio by relating the existing residential population to the total open space in the study area. It then compares that ratio with the open space ratio in the future with the proposed action. If there is a decrease in the open space ratio that would approach or exceed 5 percent, a detailed analysis is warranted.

Pursuant to the guidelines of the 2014 *CEQR Technical Manual,* a preliminary open space assessment was conducted which provides a comparison of the total existing open space ratios and in the future with the proposed action.

Existing Conditions

Demographic Characteristics of the Study Area

To determine the residential population served by existing open space resources, 2010-2014 5-year ACS census data were compiled for the census tracts comprising the half-mile study area and updated to 20176. With an inventory of available open space resources and the number of potential users, open space ratios were calculated and compared with existing citywide averages and planning goals set forth by NYC DCP. Table D-1 shows the 2010-2014 5-year ACS census total population figures for each census tract in the study area, as well as for the study area as a whole. As shown in Table D-1 below, the census data indicate that the study area had a total residential population of approximately 53,563 people in 2014. Factoring in a yearly background growth factor of approximately 0.25 percent, the residential population of the study area totals approximately 54,100 people in 2017.

Table D-1: 2017 Existing Study Area Population

Census Tract	Residential Population
62	4,559
66	11,490
70	7,977
72	7,500
78	7,640
80	4,921
86.01	2,729
88	6,747
Residential Total in 2014 *Source: U.S. Census*	53,563
Background Growth (0.25% year growth since 2014)	537
Residential Total in 2017	**54,100**

Inventory of Publicly-Accessible Open Space

According to the 2014 *CEQR Technical Manual*, open space may be public or private and may be used for active or passive recreational purposes. Pursuant to the 2014 *CEQR Technical Manual*, public open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts under 2014 CEQR guidelines, whereas private open space is not accessible to the general public on a regular basis, and is therefore only considered qualitatively. Field surveys and secondary sources were used to determine the number, availability and condition of publicly accessible open space resources in the residential study area.

An open space is determined to be active or passive by the uses which the design of the space allows. Active open space is the part of a facility used for active play such as sports or exercise and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf courses, lawns and paved areas for active recreation. Passive open space is used for sitting, strolling, and relaxation, and typically contains benches, walkways and picnicking areas. However, some passive spaces can be used for both passive and active recreation; such as a green lawn or riverfront walkway, which can also be used for ball playing, jogging or rollerblading.

Within the defined study area, all publicly-accessible open spaces were inventoried and identified by their location, size, owner, type, equipment, and hours of operation. The information used for this analysis was gathered from the New York City Department of Parks and Recreation's (DPR) website; and from the New York City Oasis database and other secondary sources of information including previous CEQR environmental reviews. Figure D-1 maps their location in the study area.

As shown in Figure D-1, publicly-accessible open space and recreational resources within the half-mile study area are included in the quantitative analysis. These resources comprise a total of approximately 15.98 acres, with approximately 8.28 acres of passive open space and 7.7 acres of active open space (refer to Table D-2). The closest public open spaces to the project site are St. Vartan Park, Vincent F. Albano Jr. Playground, and Bellevue South Park (F, G, and H in Figure D-1), all of which are located within approximately four blocks of the project site. There is also a substantial number privately owned public spaces within the study area that provide approximately 4.59 acres of passive open space.

Figure D-1

Open Space Study Area & Resources



Table D-2: Inventory of Existing Study Area Public Open Spaces

Map No.	Name	Address/ Location	Owner	Features	Hours of Access	Total Acres	Active #	Active %	Passive #	Passive %	Condition/ Utilization	NYC DPR Inspection
Public-Accessible Open Space within the Half-Mile Study Area (included in quantitative analysis)												
A	Tudor City Greens	E 42nd St. between 1st Ave. & 2nd Ave.	Tudor City Greens Inc.	Benches, landscaping, trees, walking paths	24/7	0.45	0.00	0%	0.45	100%	Good/ Moderate	N/A
B	Tudor Grove Playground	E 42nd St. between 1st Ave. & 2nd Ave.	DPR	Benches, Playground, Trees	Dawn to Dusk	0.19	0.15	80%	0.04	20%	Good/ Moderate	Acceptable
C	Mary O'Connor Playground	East 42nd St. between 1st Ave. & 2nd Ave.	DPR	Benches, Fitness Equipment, Playground, Trees	Dawn to Dusk	0.23	0.18	80%	0.05	20%	Good/ Moderate	Acceptable
D	Ralph Bunche Park	1st Ave. between E 42nd St. & E 43rd St.	DPR	Artwork, trees, walking paths	24/7	0.42	0.00	0%	0.42	100%	Poor/Low	Acceptable
E1	Trygve Lie Plaza	1st Ave. between E 41st St. & E 42nd St.	DPR	Benches, walking paths	24/7	0.10	0.00	0%	0.10	100%	Poor/Low	Acceptable
E2	Robert Moses Playground	1st Ave. between E 41st St. & E 42nd St.	DPR	Basketball and handball courts, bathrooms, dog park, playgrounds, roller hockey rink	Dawn to Dusk	1.09	0.82	75%	0.27	25%	Fair/ Moderate	Acceptable
F	St. Vartan Park	1st Ave. & 2nd Ave. between E 35th St. & E 36th St.	DPR	Baseball and football fields, basketball and handball courts, bathrooms, benches, playgrounds	Dawn to Dusk	2.76	2.48	90%	0.28	10%	Good/High	Unacceptable
G	Vincent F. Albano Playground	2nd Ave. between E 29th St. & E 30th St.	DPR	Handball courts, playgrounds	Dawn to Dusk	0.35	0.32	90%	0.03	10%	Good/High	Acceptable
H	Bellevue South Park	2nd Ave. between E 26th St. to E 28th St.	DPR	Basketball courts, fitness equipment, playgrounds	Dawn to Dusk	1.59	1.19	75%	0.40	25%	Good/High	Acceptable
I	Asser Levy Playground	FDR Dr. between E 23rd St. & E 25th St.	DPR	Basketball and handball courts, bathrooms, fitness equipment, football fields, indoor and outdoor pools, playgrounds, recreation center, running tracks	Dawn to Dusk	2.44	2.07	85%	0.37	15%	Fair/ Moderate	Acceptable
J	East River Esplanade	FDR Dr. between E 36th St. & E 38th St.	DPR	Benches, fitness equipment	24/7	0.62	0.31	50%	0.31	50%	Poor/High	Unacceptable
K	East 34th Street Ferry Landing	East of FDR Drive between E. 36th St. & E. 35th St.	DOT	Benches	7am-9pm	0.52	0.0	0%	0.52	100%	Excellent/ Moderate	N/A
L	Corinthian Plaza	1st Ave. between E. 37th St. & E. 38th St.	The Corinthian Condominium	Benches, trees, plantings	24/7	0.22	0.0	0%	0.22	100%	Good/High	N/A

M	Manhattan Place Plaza	1st Ave. between E. 37th St. & E. 36th St.	Anthony Paul Giorgio	Benches, trees, plantings, fountain, reflecting pool	24/7	0.23	0.0	0%	0.23	100%	Good/Low	N/A
N	Joseph Slifka Park	1st Ave. between E. 34th St. & E. 35th St.	UDR Rivergate	Playground, benches, trees, plantings	24/7	0.28	0.11	40%	0.17	60%	Poor/Low	N/A
O	East River Greenway	East of FDR Drive between E.34th St. & E. 35th St.	DPR	Benches, jogging/walking path	24/7	0.35	0.07	20%	0.28	80%	Good/ Moderate	N/A
P	330 E. 34th Street	2nd Ave. between E. 33rd St. & E. 34th St.	HKAL 34th St LP	Seating	24/7	0.24	0.00	0%	0.24	100%	Good/ Moderate	N/A
Q	Vanderbilt	E. 40th St. between 2nd Ave. & 3rd Ave.	Condominium	Benches, landscaping	24/7	0.20	0.00	0%	0.20	100%	Good/Light	N/A
R	Highpoint	E. 40th St. between 2nd Ave. & 3rd Ave.	Condominium	Benches, trees, landscaping	24/7	0.15	0.00	0%	0.15	100%	Excellent/ Moderate	N/A
S	Grand Central Plaza	3rd Ave. between E. 40th St. & E. 41st St.	622 Building Company	Plaza, arcade, landscaping, seating	24/7	0.34	0.00	0%	0.34	100%	Excellent/ Moderate	N/A
T	Helmsley Hotel	E. 41st St. between 2nd Ave. & 3rd Ave.	HHR 42nd St. Associates	Benches, plants	24/7	0.07	0.00	0%	0.07	100%	Good/Light	N/A
U	International Plaza	North east corner of E. 43rd St. at 2nd Ave.	Condominium	Benches, plants	24/7	0.08	0.00	0%	0.08	100%	Excellent/ Light	N/A
V	Ford Foundation Atrium	E. 42nd St. between 1st Ave. & 2nd Ave.	Ford Foundation	Indoor atrium, plantings, water features, seating	10am-4pm (weekdays)	0.33	0.00	0%	0.33	100%	Excellent	N/A
W	Hunter College Plaza	E. 25th St. between 1st Ave & 2nd Ave.	Hunter College	Trees, seating, fountain, tables	24/7	0.6	0.00	0%	0.6	100%	Good/ Moderate	N/A
X	Bellevue Courtyard	1st Ave. between E. 27th St. & E. 26th St.	NYU	Benches, fountain, trees	24/7	0.99	0.00	0%	0.99	100%	Poor/ Moderate	N/A
Y	Phipps Houses	E. 27th St. between 2nd Ave. & 3rd Ave.	Henry Phipps Plaza Association	Benches, paved pedestrian street	24/7	0.36	0.00	0%	0.36	100%	Poor/Light	N/A
Z	Parc East Tower Apartments	E. 26th St. between 2nd Ave. & 3rd Ave.	Wards Construction Co.	Water feature, stepped seating, trees	24/7	0.30	0.00	0%	0.30	100%	Good/ Moderate	N/A
AA	3 Park Avenue	Park Ave. between E. 33rd St. & E. 34th St.	3 Park Ave Building Co.	Sculpture, benches, stairs, planters	24/7	0.13	0.00	0%	0.13	100%	Good/ Moderate	N/A
AB	200 E. 32nd Street	Southeast corner of 3rd Ave. at E. 32nd St.	Condominium	Benches, plantings	24/7	0.13	0.00	0%	0.13	100%	Excellent/ Heavy	N/A

AC	Dumont Plaza	E. 34th St. between Lexington Ave. & Third Ave.	Denihan Co.	Seating, planting, water feature	24/7	0.08	0.00	0%	0.08	100%	Excellent/ Heavy	N/A
AD	Windsor Court	Northwest corner of E. 31st St. & 3rd Ave.	MHP Land Associates	Trees, seating	24/7	0.14	0.00	0%	0.14	100%	Good/ Moderate	N/A
					TOTAL	**15.98**	**7.70**	**48%**	**8.28**	**52%**		
Additional Open Space within the Half-Mile Study Area (not included in quantitative analysis)												
1	Kips Bay Towers Grounds	1st Ave. to 2nd Ave. between E 30th St. & E 33rd St.	Kips Bay Towers	Basketball court, benches, gardens, lawns, playgrounds, walking paths		3.0	0.3	10	2.7	90%	Poor/Low	N/A
					TOTAL	**3.0**	**0.3**	**10**	**2.7**	**90%**		

Study Area Open Space Resources

Some of the larger open space resources included in the quantitative analysis are described briefly below.

Asser Levy Playground

Asser Levy Playground is a City-owned park located along FDR Drive between East 23rd Street and East 25th Street (I in Figure D-1). The recently renovated (2015) park functions as a year-round recreational complex, as it is made up of the Asser Levy Playground, the Asser Levy Pool, and the Asser Levy Recreation Center. At 2.44 acres, it is the second largest open space within the study area and it offers a large variety of recreational uses. Outdoor recreational uses include basketball and handball courts, fitness equipment, football fields, an outdoor swimming pool, playgrounds, and running tracks. The Asser Levy Recreation Center contains an indoor swimming pool, a fitness room, a multipurpose recreational room with billiards and table tennis tables, as well as locker rooms and bathrooms.

Bellevue South Park

The 1.59-acre Bellevue South Park is located adjacent to the Bellevue Hospital, within the interior courtyard between Second Avenue and Mount Carmel Place, between East 26th Street and East 28th Street (H in Figure D-1). It mainly serves hospital employees and patients, as well as residents from the nearby apartment complexes that surround it. It offers both active and passive recreation uses, including basketball courts, fitness equipment, and playgrounds, as well as benches and other seating areas surrounded by trees.

St. Vartan Park

St. Vartan Park is a City-owned park located along First Avenue and Second Avenue, between East 35th Street and East 36th Street (F in Figure D-1). The park occupies Block 941, Lots 1 and 11, measures 2.76 acres and is the largest open space in the study area. It is mostly used for active recreational uses. Its active features include baseball and football fields, basketball and handball courts, and playgrounds; passive uses include benches as well as bathrooms.

The remaining 27 open space resources in the study area generally include smaller playgrounds and public plazas, which combined, total 9.19 acres of publicly accessible open space.

Quantitative Analysis of Open Space Adequacy

The following analysis of the adequacy of open space resources within the study area takes into consideration the ratios of active, passive, and total open space resources per 1,000 residents.

As 1.5 acres of total open space per 1,000 residents is the median community district ratio in New York City, it generally represents adequate open space conditions and is used as the CEQR standard for this project. As an optimal planning goal, the City tries to achieve an overall residential open space ratio (OSR) of 2.5 acres per 1,000 population (80 percent active and 20 percent passive) for large-scale plans and proposals. However, this goal is often not feasible for many areas of the city (especially higher density areas), but serves as a benchmark that represents an area that is well served by open spaces.

In calculating the open space ratio per 1,000-user population for the study area, all of the resources listed in quantitative portion of Table D-2 were included. Table D-3 below shows that with an existing 2017 study area residential population of approximately 54,100 people, the existing total open space ratio in the study area is approximately 0.295 acres of open space per 1,000 residents. The study area has 0.153 acres of passive open space per 1,000 residents, and 0.142 acres of active open space per 1,000 residents.

Table D-3: Analysis of Adequacy of Open Space Resources in the Study Area under 2017 Existing Conditions

Study Area	2017 Existing Conditions
Residential Population	**54,100**
Passive Open Space Acreage	8.28
Active Open Space Acreage	7.7
Total Open Space Acreage	15.98
Open Space Ratios	
Passive	0.153
Active	0.142
Total	**0.295**

Based on the previously mentioned DCP guidelines, the half-mile study area is located within an area that is considered neither well-served nor underserved by open space, but the study area exhibits a low open space ratio, compared to the city-wide median ratio of 1.5 acres per 1,000 persons and the planning goal of 2.5 acres per 1,000 persons (0.5 acres of passive space and 2.0 acres of active space).

Quantitative Analysis of Open Space Adequacy

Although the open space study area demonstrates a low open space ratio, there are a number of mitigating factors that improve the overall availability of open space in the study area. Most notably, the Kips Bay Towers Grounds offer 3 acres of private open space to the estimated 4,000 residents of the Kips Bay Towers apartment complex.

Future With the Proposed Action

Project Site and Study Area Population

According to the 2014 *CEQR Technical Manual*, for a preliminary assessment, the population expected with the proposed action should be added to the existing population within the study area to determine the open space ratio in the future with the proposed action. The RWCDS for the proposed action would result in 146 incremental (186 total) dwelling units which would introduce approximately 243 new residents to the study area in the future with the proposed action. As a result, the total study area population in the 2020 With-Action condition would be 54,343.

Open Space Resources

The proposed project would not result in the creation of any publicly accessible open space resources in the future with the proposed action.

With-Action Open Space Ratio

The total open space ratio in the future with the proposed action would be 0.294 acres per 1,000 residents, this represents a decrease of 0.001 acres of open space per 1,000 residents (a -0.34 percent change) over Existing conditions (see Table D-5). The active open space ratio in the future with the proposed action would be 0.142 acres per 1,000 residents, which would not change from the existing active open space ratio. The passive open space ratio would be 0.152 acres per 1,000 residents in the future with the proposed action, which represents a decrease of 0.001 acres of passive open space per 1,000 residents (a -0.65 percent change). In the future with the proposed action, the open space ratio remains below the recommended planning goal of 2.5 acres of open space per 1,000 residents and the city-wide median of 1.5 acres of open space per resident.

Table D-5: 2020 Future with the Proposed Action: Open Space Ratios Summary

		Open Space Acreage			Open Space Ratio per 1,000 people		
Study Area Residential Population		**Total**	**Active**	**Passive**	**Total**	**Active**	**Passive**
Existing (2017)	54,100	15.98	7.70	8.28	0.295	0.142	0.153
With-Action	54,343	15.98	7.70	8.28	0.294	0.142	0.152
% Change Existing to With-Action	+ 0.45%	0.0%	0.0%	0.0%	-0.34%	-0.0%	-0.65%
DCP OPEN SPACE GUIDELINE					2.5	2.0	0.5

Assessment

The preliminary open space analysis shows that the proposed action would decrease the overall open space ratio by 0.34 percent in the study area, which would be well below the CEQR impact threshold of 1 percent. As discussed above, if the preliminary open space assessment concludes that the open space ratio would increase or remain substantially the same in the With-Action condition compared to the existing condition, no further analysis of open space is needed. Because the development site is not located in an area underserved by open space and the open space ratio in the study area would remain substantially the same as a result of the proposed project, no further analysis of open space is necessary. Additionally, as noted above, the proposed action would not result in any direct displacement or alteration of existing public spaces in the study area. Therefore, the proposed action would not result in a significant adverse open space impact.

I. INTRODUCTION

According to the 2014 *CEQR Technical Manual*, an adverse shadows impact occurs when an incremental shadow from a proposed project falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight exposure, thereby significantly altering the public's use of the resource, or threatens the viability of vegetation or other natural resources. Pursuant to CEQR guidelines, 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. Sunlight-sensitive resources can include publicly accessible open spaces, architectural resources, natural resources, and Greenstreets. In general, shadows on city streets, sidewalks, buildings, or project-generated open spaces are not considered significant under CEQR. In addition, shadows occurring within an hour and a half of sunrise or sunset generally are not considered significant under CEQR.

According to 2014 *CEQR Technical Manual* guidelines, a shadows assessment is required only if a proposed project would result in structures (or additions to existing structures) of 50 feet or more and/or be located adjacent to, or across the street from, a sunlight-sensitive resource. As described in Attachment A, "Project Description," the reasonable worst case development scenario (RWCDS) for the proposed actions is the development of a 169,252 gross square foot mixed-use development in the Kips Bay neighborhood of Manhattan (see Figure E-1). The proposed development would be 23-stories in height (230 feet). Therefore, a detailed shadows analysis was prepared to determine the potential for the proposed new structure to result in significant adverse impacts on sunlight-sensitive resources.

II. PRINCIPAL CONCLUSIONS

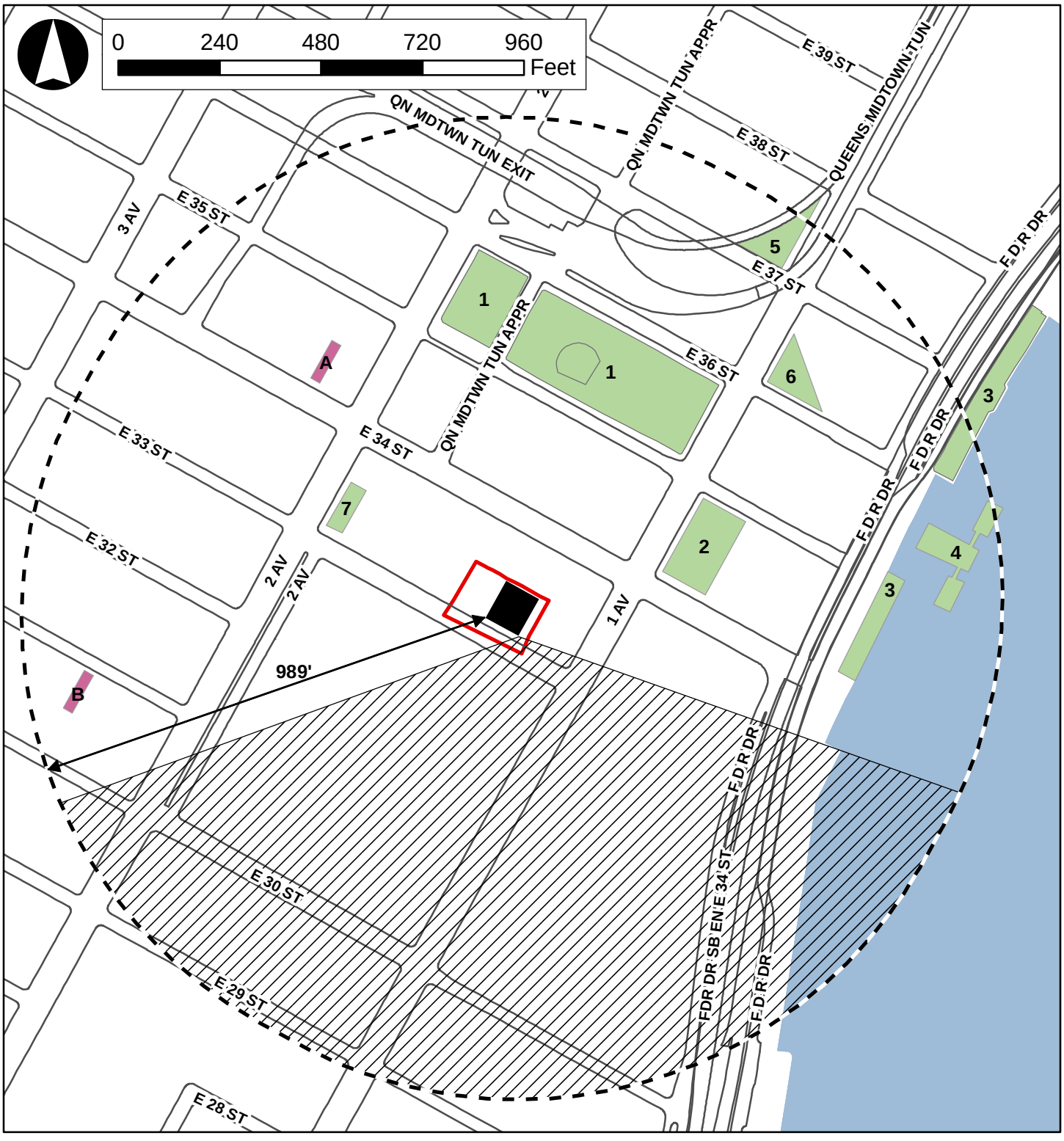
The proposed project would result in limited incremental shadows on one sunlight-sensitive resource: Joseph Slifka Park. As detailed below, project-generated shadows would be limited in duration (1 hour and 32 minutes on March 21/September 21 and 14 minutes on May 6/August 6) and coverage on the resource, and would not affect the utilization or enjoyment of the park. Additionally, vegetation would continue to receive adequate direct sunlight throughout the growing season. As such, the proposed project would not result in significant adverse shadows impacts.

III. METHODOLOGY

According to the 2014 *CEQR Technical Manual*, the longest shadow a structure will cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height. For projects resulting in structures less than 50 feet tall, a shadow assessment is generally not necessary, unless the site is adjacent to a park, sunlight-sensitive historic resource, or important natural feature.

First, a preliminary screening assessment must be conducted to ascertain whether shadows resulting from a project could reach any sunlight-sensitive resource at any time of year. The 2014 *CEQR Technical Manual*

Longest Shadow Study Area Tier 1 and Tier 2 Shadow Analysis



Legend

- Projected Site
- Proposed Rezoning Area
- 1 Open Space (Keyed to Table E-1)
- Tier 1: Longest shadow study area boundary
- Tier 2: Area to south that could never be shaded
- A Historic Resource

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

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

- *Features of historic architectural resources that depend on sunlight for their enjoyment by the public.* Only the sunlight-sensitive features are considered, as opposed to the entire architectural resource. Sunlight-sensitive features include the following: design elements that are part of a recognized architectural style that depends on the contrast between light and dark (e.g., deep recesses or voids, such as open galleries, arcades, recessed balconies, deep window reveals, and prominent rustication); elaborate, highly carved ornamentation; stained glass windows; exterior building materials and color that depend on direct sunlight for visual character (e.g., the polychromy [multicolored] features found on Victorian Gothic Revival or Art Deco facades); historic landscapes, such as scenic landmarks, including vegetation recognized as an historic feature of the landscape; and structural features for which the effect of direct sunlight is described as playing a significant role in the structure's importance as a historic landmark.

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

The preliminary screening assessment consists of three tiers of analysis. The first tier determines a simple radius around the project site representing the longest shadow that could be cast by a proposed project. If there are sunlight-sensitive resources within the radius, the analysis proceeds to the second tier, which reduces the area that could be affected by project-generated shadows by accounting for a specific range of angles that can never receive shade in New York City due to the path of the sun in the northern hemisphere. If the second tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a third tier of screening analysis further refines the area that could be reached by new shadows by looking at specific representative days of the year and determining the maximum extent of shadow over the course of each representative day.

If the third tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a detailed shadow analysis is required to determine the extent and duration of the incremental shadow resulting from the project. In accordance with the 2014 *CEQR Technical Manual*, shadows on sunlight-sensitive resources of concern were modeled for four representative days of the year. For the New York City area, the months of interest for an open space resource encompass the growing season

(i.e., March through October) and one month between November and February representing a cold-weather month (usually December). Representative days for the growing season are generally the March 21 vernal equinox (or the September 21 autumnal equinox, which is approximately the same), the June 21 summer solstice, and a spring or summer day halfway between the summer solstice and equinoxes, such as May 6 or August 6 (which are approximately the same). For the cold-weather months, the December 21 winter solstice is included to demonstrate conditions when open space users rely most heavily on available sunlight warmth. As these months and days are representative of the full range of possible shadows, they are also used for assessing shadows on sunlight-sensitive historic and natural resources. The 2014 *CEQR Technical Manual* defines the temporal limits of a shadow analysis period to fall from 1.5 hours after sunrise to 1.5 hours before sunset.

The detailed analysis provides the data needed to assess the shadow impacts. The effects of the new shadows on the sunlight-sensitive resources are described, and their degree of significance is considered. The result of the analysis and assessment are documented with graphics, a table of incremental shadow durations, and narrative text. As described in the 2014 *CEQR Technical Manual*, an incremental shadow is generally not considered significant when its duration is no longer than 10 minutes at any time of year and the resource continues to receive substantial direct sunlight. A significant shadow impact generally occurs when an incremental shadow of 10 minutes or longer falls on a sunlight-sensitive resource and results in one of the following:

- *Vegetation:* a substantial reduction in sunlight available to sunlight-sensitive features of the resource to less than the minimum time necessary for its survival (when there would be sufficient sunlight in the future without the proposed project) or a reduction in direct sunlight exposure where the sensitive feature of the resource is already subject to substandard sunlight (i.e., less than the minimum time necessary for its survival).

- *Historic and cultural resources:* a substantial reduction in sunlight available for the enjoyment or appreciation of the sunlight-sensitive features of an historic or cultural resource.

- *Open space utilization:* a substantial reduction in the usability of open space as a result of increased shadow, including information regarding anticipated new users and the open space's utilization rates throughout the affected time periods.

- *For any sunlight-sensitive feature of a resource:* complete elimination of all direct sunlight on the sunlight-sensitive feature of the resource, when the complete elimination results in substantial effects on the survival, enjoyment, or, in the case of open space or natural resources, the use of the resource.

In general, a significant adverse shadows impact occurs when the incremental shadows added by a proposed project fall on a sunlight-sensitive resource and substantially reduce or completely eliminate direct sunlight exposure, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other natural resources.

III. PRELIMINARY SCREENING

Tier 1 Screening Assessment

According to the 2014 *CEQR Technical Manual*, the longest shadow that a structure will cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height. The maximum height of the proposed new structure on the project site (approximately 230-feet tall) was used to determine the longest shadow study area (Tier 1 Assessment). Within this longest shadow study area (an approximate 989-foot radius surrounding the proposed new structure) there are a number of open space sunlight-sensitive resources (refer to Figure E-1). As such, further screening was warranted in order to determine whether any of these sunlight-sensitive resources could be affected by project-generated shadows.

There are two historic resources within the shadow study area radius located at 243 East 34th Street and 240 East 31st Street (No. A & B, respectively, on Figure E-1).

The Civic Club, located at 243 East 34th Street, is a designated New York City Landmark Preservation Commission (LPC) historic landmark and also listed on the State and National Registers (S/NR). The club, formerly housed in this four-story Beaux-Arts style building, was founded by Frederick Goddard, a wealthy New York social reformer, to improve the quality of life of residents east of Park Avenue between 42nd and 34th Streets. The building is now occupied by Estonia House, which sponsors activities for Estonian-Americans in New York City. While this historic resource is located within the shadow study area radius, it does not contain any sunlight sensitive features such as stained-glass (see Figure E-2 and Appendix E for LPC Designation Report), and therefore, would not be considered a sunlight-sensitive resource and further assessment is not warranted.

The Church of the Good Shepard, located at 240 East 31st Street, is eligible for listing on the S/NR. The church was constructed in 1902 by Henry Vaughn. There are two large-stained-glass windows; one dating from the original construction and the other installed in the 1980s. The next-door rectory occupies the top three stories of a classic 1860's brownstone townhouse. As this eligible historic feature contains stained glass windows which are considered sunlight sensitive resources, further assessment is warranted (see Figure E-2).

Tier 2 Screening Assessment

Due to the path of the sun 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. The purpose of the Tier 2 screening is to determine whether the potentially sunlight-sensitive resources identified in the Tier 1 screening are located within portions of the longest shadows study area that cannot receive shade from the proposed new structure.

Figure E-1 provides a base map illustrating the results of the Tier 2 screening assessment (i.e., the portion of the longest shadow study area lying within -108 degrees from the true north and +108 degrees from true north as measured from southernmost portion of the project site). A total of seven open space resources were identified as sunlight-sensitive resources that warranted further assessment. A list of these resources is provided below in Table E-1. For details on the size and characteristics on the open space resources listed below, please see Table D-2 in Attachment D, "Open Space."



The Civic Club (Estonian House) located at 243 East 34th Street



The Church of the Good Shepard located at 240 East 31st Street

Table E-1
Sunlight-Sensitive Resources Warranting Further Analysis Based on Tier 1 and 2 Screening

No.	*Open Space Resources*
1	St. Vartan Park
2	Joseph Slifka Park
3	East River Esplanade
4	East 34th Street Pier
5	Corinthian POPS
6	Manhattan Place POPS
7	300 East 34th Street POPS
	Historic Resources
B	Church of the Good Shepard

Tier 3 Screening Assessment

According to the 2014 *CEQR Technical Manual*, a Tier 3 screening assessment should be performed to determine if, in the absence of intervening buildings, shadows resulting from a proposed project can reach a sunlight-sensitive resource, thereby warranting a detailed shadows analysis. The Tier 3 screening assessment is used to determine if shadows resulting from a proposed project can reach a sunlight-sensitive resource at any time between 1.5 hours after sunrise and 1.5 hours before sunset on representative analysis dates.

As project-generated shadows could reach nearby sunlight-sensitive resources, a Tier 3 assessment was performed using three dimensional (3D) computer mapping software. The 3D model was used to calculate and display project-generated shadows on individual representative analysis dates. The model contained 3D representations of the elements in the base map used in the preceding assessments and a 3D model of the proposed project. At this stage of the assessment, surrounding buildings and structures within the study area were not included in the model so that it may be determined whether project-generated shadows would reach any sunlight-sensitive resources.

Figure E-3 illustrates the range of project-generated shadows that could occur in the absence of existing buildings on the four representative analysis days. The Tier 3 analysis shows that, in the absence of intervening buildings, St. Vartan Park and Joseph Slifka Park could potentially receive project-generated shadows. Therefore, a detailed shadow analysis is required to determine the extent and duration of project-generated incremental shadows on these two sunlight-sensitive resources.

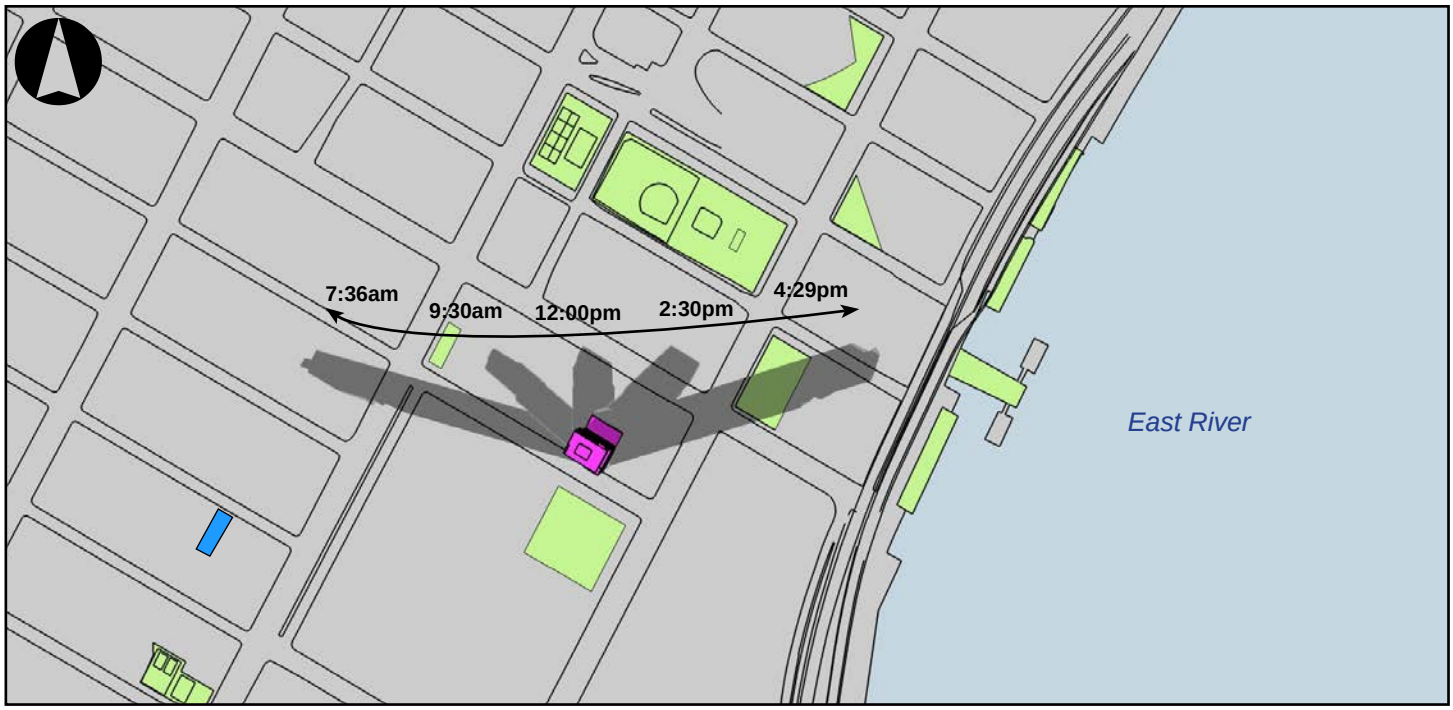
IV. DETAILED ANALYSIS OF SHADOWS IMPACTS

Resources of Concern

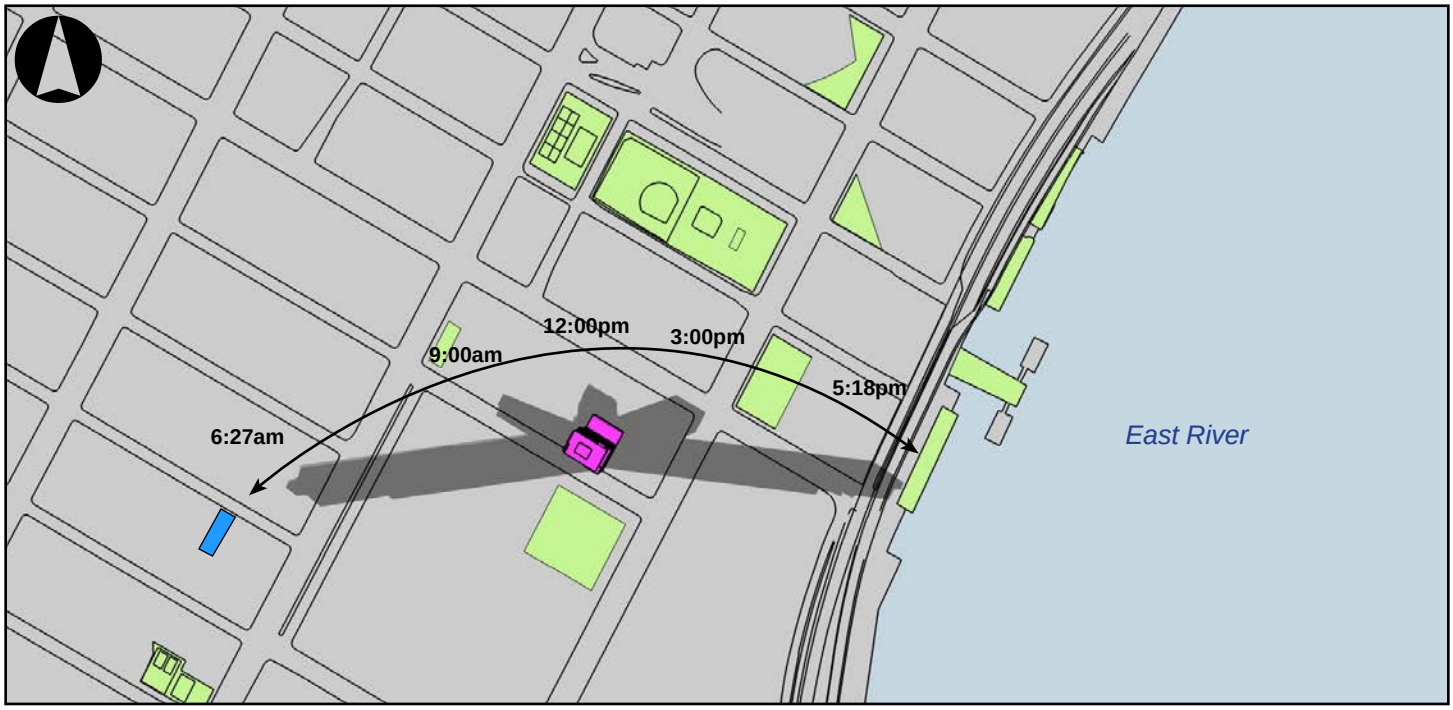
St. Vartan Park

St. Vartan Park is a New York City Department of Parks and Recreation (DPR)-owned park located along First Avenue and Second Avenue, between East 35th Street and East 36th Street. It is mostly used for active recreational uses. Its active features include baseball and football fields, basketball and handball courts, and playgrounds; passive uses include benches as well as bathrooms.

Tier 3 Shadows Analysis



March 21 / September 21

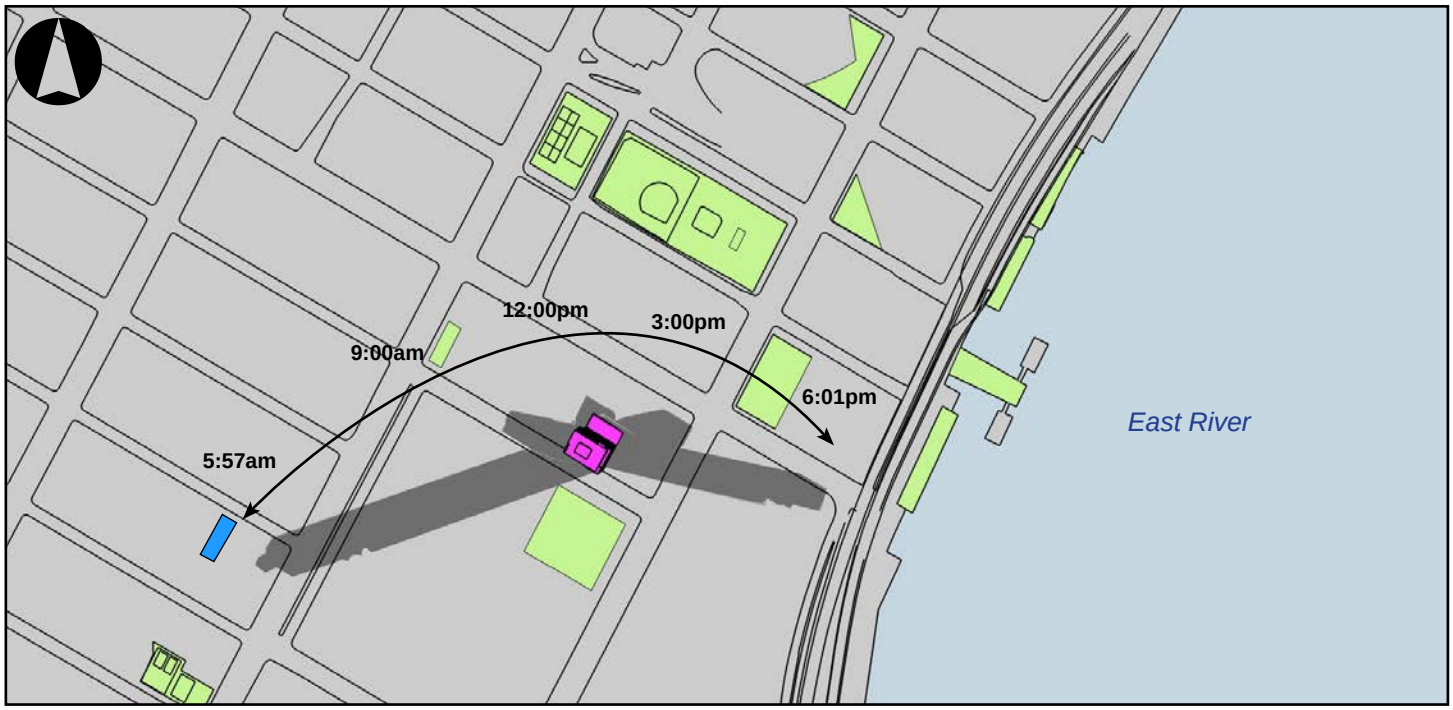


May 6 / August 6

Open Space **Project Site** **Incremental Shadow**

Historic Resource

Tier 3 Shadows Analysis



June 21



December 21

Open Space **Project Site** **Incremental Shadow**

Historic Resource

Joseph Slifka Park

Joseph Slifka Park is located at the Rivergate residential building (east side of First Avenue between East 34th and East 35th Streets). Joseph Slifka Park is privately owned and maintained by the developer, UDR Rivergate, and is one of the rare public plazas with active recreation facilities that include play equipment, as well as passive amenities such as lawns, seatwalls and benches, landscaping, and brick pathways.

Shadows Analysis

Per CEQR guidelines, shadows analyses were performed for the four sunlight-sensitive resources identified above on four representative days of the year: March 21/September 21, the equinoxes; May 6, the midpoint between the summer solstice and the equinox (and equivalent to August 6); June 21, the summer solstice and the longest day of the year; and December 21, the winter solstice and shortest day of the year. These four representative days indicate the range of potential shadows over the course of the year. CEQR guidelines define the temporal limits of a shadow analysis period to fall from 1.5 hours after sunrise to 1.5 hours before sunset. As discussed above, the results of the detailed shadows analysis show the incremental difference in shadows between the No-Action and With-Action scenarios. Table E-2 below summarizes the entry and exit times and total duration of project-generated incremental shadows on sunlight-sensitive resources.

As shown in Table E-2, the proposed new structure would increase shadow coverage on Joseph Slifka Park on the March 21/September 21 and May 6/August 6 analysis days. The detailed analysis determined, that due to existing intervening buildings, no project-generated shadows would reach St. Vartan Park on any of the four analysis days.

Figures E-4 and E-5 show the extent of project-generated incremental shadows on Joseph Slifka Park. As shadows are in constant motion, these figures illustrate the extent of incremental shadows at particular moments in time, highlighted in red.

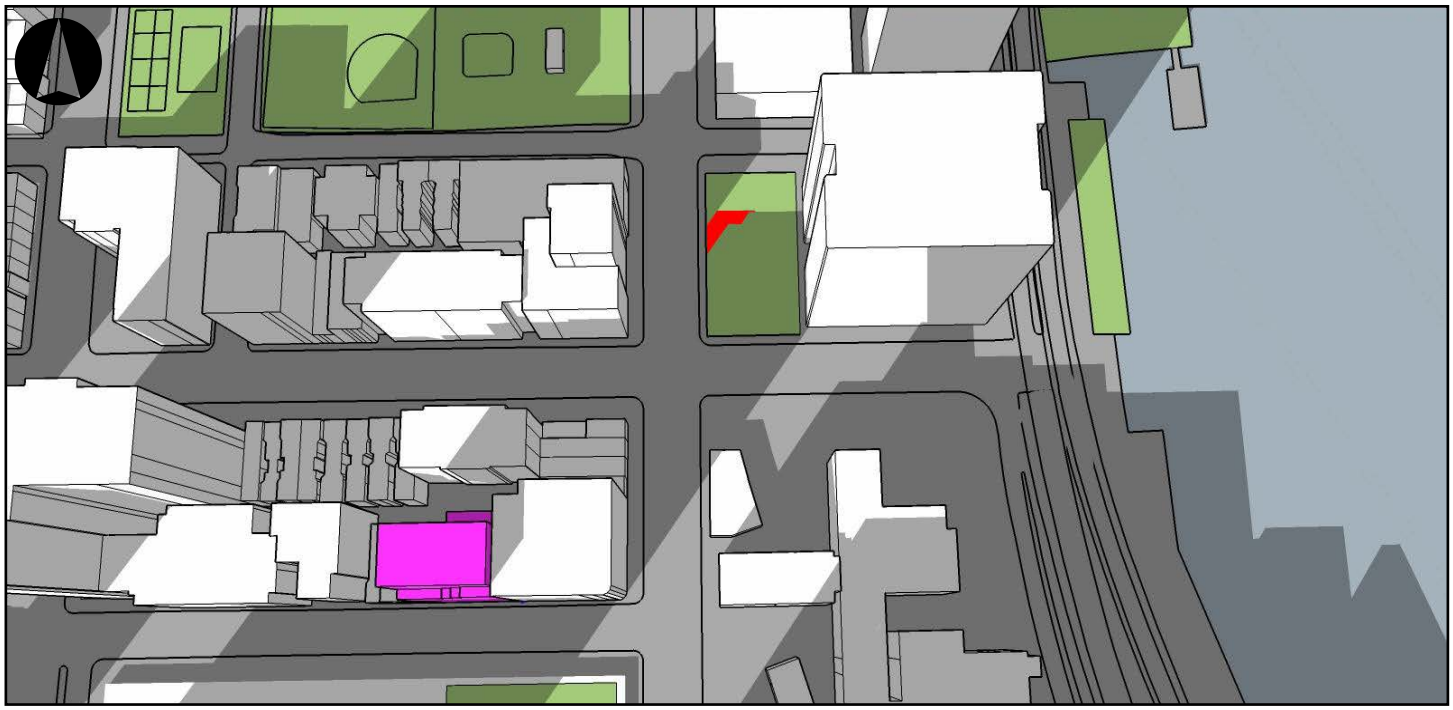
It should be noted that, per the 2014 *CEQR Technical Manual*, all times reported herein are Eastern Standard Time and do not reflect adjustments for daylight savings time that is in effect from mid-March to early November. As such, the times reported in this analysis for March 21/September 21, May 6/August 6, and June 21 need to have one hour added to reflect the Eastern Daylight Savings Time.

Table E-2
Duration of Incremental Shadows on Sunlight-Sensitive Resources

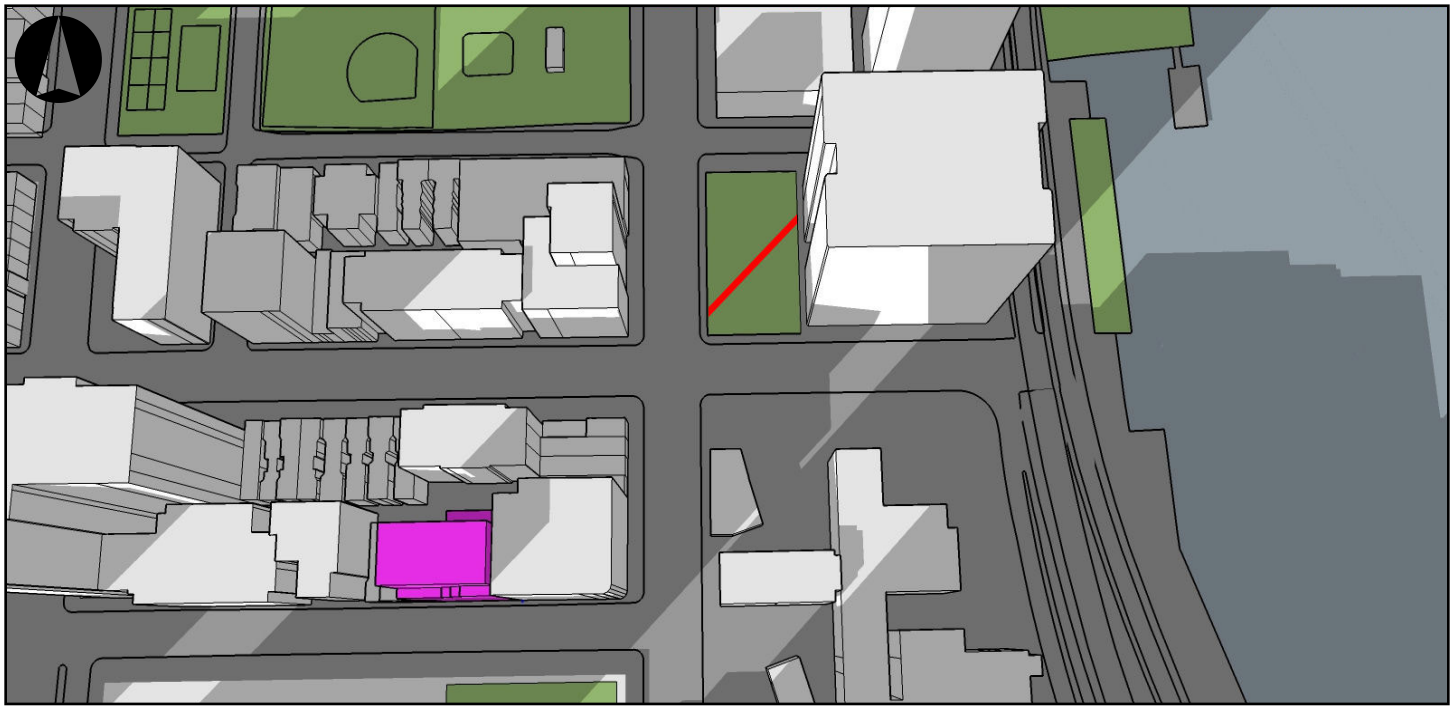
	Analysis Day	March 21/Sept. 21	May 6/August 6	June 21	December 21
		7:36 AM - 4:29 PM	6:27 AM - 5:18 PM	5:57 AM - 6:01 PM	8:51 AM - 2:53 PM
Joseph Slifka Park	Shadow Enter-Exit Time	3:26 PM - 4:58 PM	4:31 PM - 4:45 PM		
	Incremental Shadow Duration	***1 hour and 32 minutes***	***14 minutes***		

Note: All times are Eastern Standard Time; Daylight Savings Time was not accounted for per 2014 *CEQR Technical Manual* guidelines.
Table indicates the entry and exit times and total duration of incremental shadows for each sunlight-sensitive resource.

Figure E-4
Joseph Slifka Park
Incremental Shadows on March 21/September 21



3:45 PM

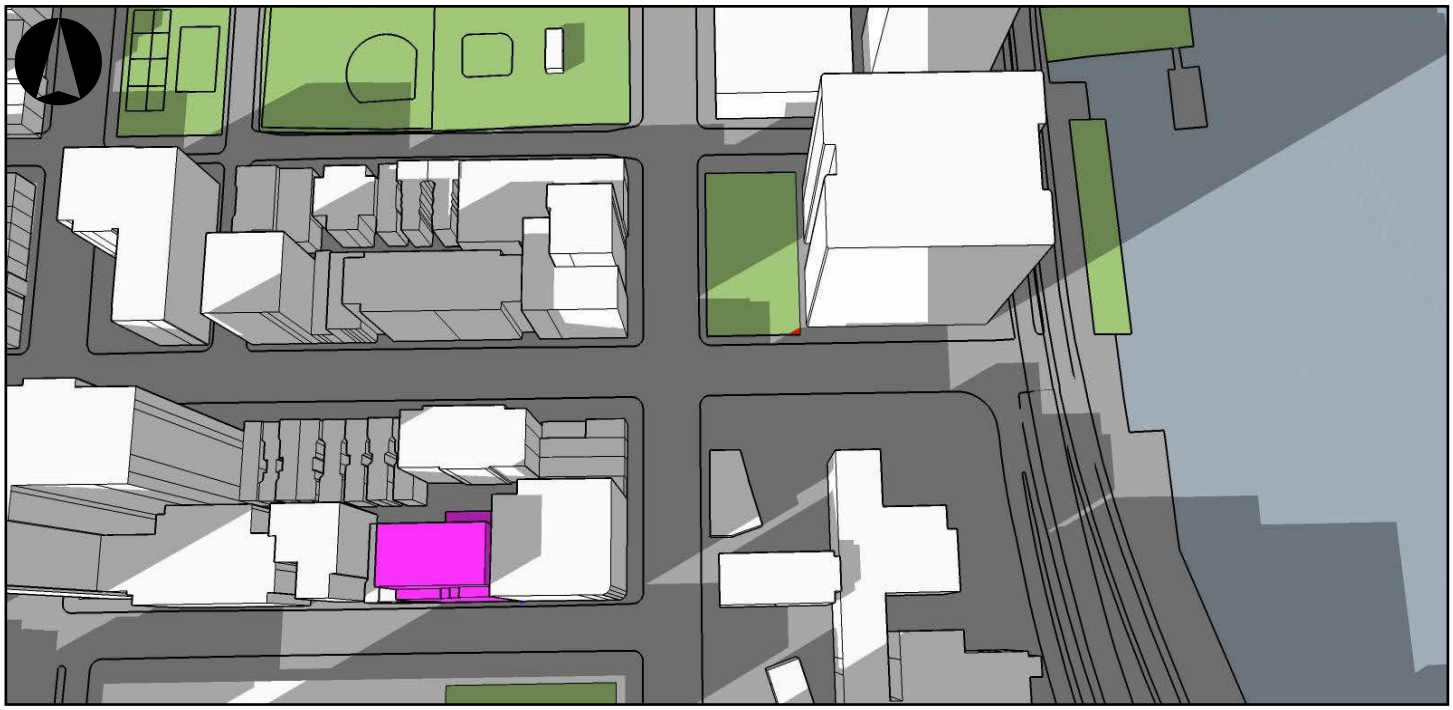


4:30 PM

Open Space **Project Site** **Incremental Shadow**

Figure E-5

Joseph Slifka Park
Incremental Shadows on May 6/August 6



4:40 PM

Open Space **Project Site** **Incremental Shadow**

March 21/September 21

On March 21/September 21 the time period for shadows analysis begins at 7:36 AM and continues until 4:29 PM. March is considered the beginning of the growing season in New York City, and September 21, which has the same shadow patterns as March 21, is also within the growing season.

The proposed project would cast incremental shadows on Joseph Slifka Park beginning at 3:26 PM and continuing until 4:58 PM, for a duration of 1 hour and 32 minutes. Before 3:26 PM the park would not experience any incremental shadow coverage. As shown in Figure E-4, at 3:45 PM portions of the park would still receive direct sunlight and incremental shadows would be limited to small western and northern portions of the open space. However, by 4:06 PM incremental shadows would eliminate all direct sunlight that the park would receive in the absence of the proposed project and would be completely cast in shade for a duration of 52 minutes until the end of the analysis day at 4:58 PM (refer to Figure E-4).

May 6/August 6

On May 6/August 6 the time period for shadows analysis begins at 6:27 AM and continues until 5:18 PM. On the midpoint between the equinoxes and the solstices, incremental shadows would reach Joseph Slifka Park. No incremental shadows would be experienced at St. Vartan Park.

The proposed project would cast incremental shadows on Joseph Slifka Park beginning at 4:31 PM and continuing until 4:45 PM, for a duration of 14 minutes. Before 4:31 PM the park would not experience any incremental shadow coverage. As indicated in Figure E-5, incremental shadows would be limited to a hardly discernable southeastern corner of the open space.

Assessment

A shadows impact occurs when incremental shadows from a proposed structure fall on a sunlight-sensitive resource or feature and reduces direct sunlight exposure. Determining whether or not this impact is significant depends on the extent and duration of the incremental shadows and the specific context in which the impact occurs.

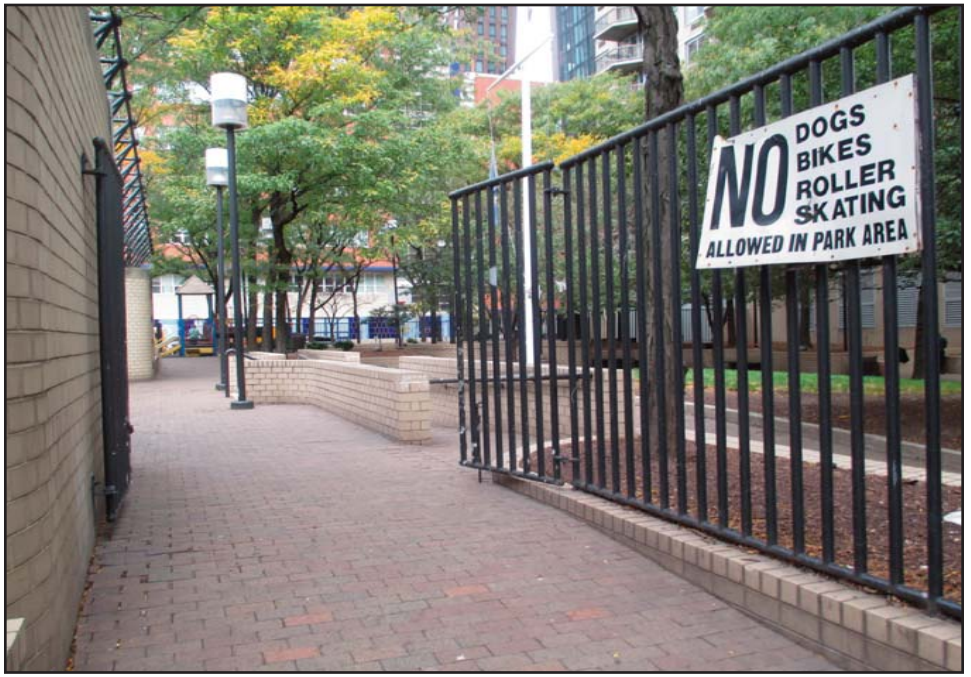
For open spaces, the uses and features of the space indicate its sensitivity to shadows. Shadows occurring during the cold-weather months of interest generally do not affect the growing season of outdoor vegetation; however, their effects on other uses and activities should be assessed. Therefore, this sensitivity is assessed for both (1) warm-weather-dependent features or vegetation that could be affected by a loss of sunlight during the growing season; and (2) features, such as benches, that could be affected by a loss of winter sunlight. Where lawns are actively used, the turf requires extensive sunlight. Vegetation requiring direct sunlight includes the tree canopy, flowering plants and plots in community gardens. Generally, four to six hours a day of sunlight, particularly in the growing season, is often a minimum requirement. Consequently, the assessment of an open space's sensitivity to increased shadow focuses on identifying the existing conditions of its facilities, plantings, and uses, and the sunlight requirements for each.

Joseph Slifka Park

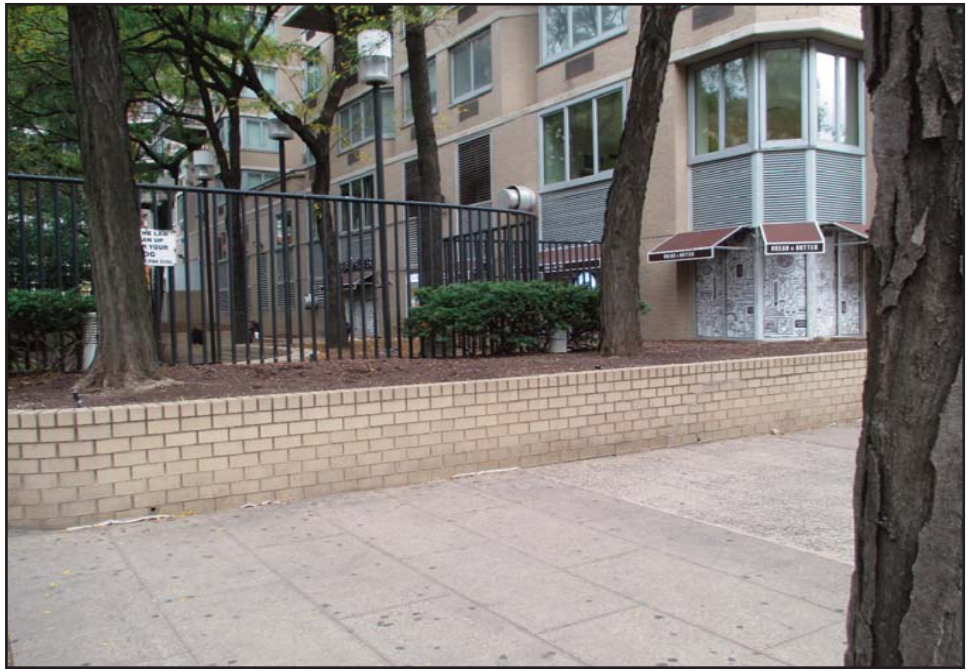
The proposed new building would cast limited incremental shadows on Joseph Slifka Park on two of the four representative analysis days. Incremental shadow duration would range from 1 hour and 32 minutes on March 21 to 14 minutes on May 6. Shadow coverage would generally be limited to small portions of the park during the late afternoon (see Figures E-4 and E-5). . As shown in Figure E-4, at 3:45 PM the majority of the park would receive direct sunlight and incremental shadows would be limited to small western and northern portions of the open space. The portion of the park cast in shadow at approximately 3:45PM on the March 21 analysis day includes trees, paved areas, and a small area of the playground (see Photo 1 in Figure E-6). The small sliver of incremental shadow cast on this open space at approximately 4:30PM on the March 21 analysis day (shortly before the shadows completely exits at 4:58PM) would cover small portions of trees, paved areas, a small grassy area, and sitting areas (see Photo 2 in Figure E-6). The incremental shadows cast on this open space resource on the May 6 analysis day would only last for approximately 14 minutes in the late afternoon (4:31PM to 4:45PM) and be limited to a very small portion in the southwest corner (see Figure E-5). This area of the park contains a planter (see Photo 3 in Figure E-6). As the park would continue to receive direct sunlight throughout the morning and early afternoon periods, incremental shadows are not expected to have a significant effect on the utilization or enjoyment of this open space resource. Furthermore, as the park would continue to receive adequate sunlight during the growing season (at least the four to six hour minimum specified in the 2014 *CEQR Technical Manual*), trees and plantings within the park would not be affected. Therefore, the effects of shadow coverage on both users and vegetation would be essentially the same with or without the proposed project, and no significant adverse shadow impacts on Joseph Slifka Park are anticipated.



1. Joseph Slifka Park looking southeast



2. Joseph Slifka Park looking north



3. Joseph Slifka Park looking northeast



4. Joseph Slifka Park looking northeast

I. INTRODUCTION

The 2014 *City Environmental Quality Review* (CEQR) *Technical Manual* states that the urban design components and visual resources determine the "look" of a neighborhood—its physical appearance, including the street pattern, the size and shape of buildings, their arrangement on blocks, streetscape features, natural resources, and noteworthy views that may give an area a distinctive character. Pursuant to CEQR methodology, actions that would allow a project to potentially obstruct view corridors, compete with icons in the skyline, or make substantial alterations to the streetscape of a neighborhood by noticeably changing the scale of buildings may warrant a detailed urban design and visual resources analysis. Since the proposed action would facilitate the construction of buildings that would be notably different in bulk, type, and use from the urban design of the project site and the surrounding area, a detailed urban design and visual resources analysis was prepared.

The proposed zoning map change would replace the existing R8A zoning district within the proposed rezoning area with a C1-9A zoning district. As such, the proposed action is analyzed for potential urban design and visual resources impacts.

In the future with the proposed action, the visual appearance on the development site would be enhanced and thus the pedestrian experience of the project site would change somewhat; however, this change would not meet the 2014 *CEQR Technical Manual* threshold for a significant adverse urban design impact in that it would not alter the arrangement, appearance, or functionality of the development site such that the alteration would negatively affect a pedestrian's experience of the area. In addition, although the new building on the development site would be taller than the existing structures on the site, and would therefore be more prominent in views along adjacent streets, it would not obstruct or eliminate any public views or affect any existing view corridors or views to visual resources in the study area. As such, the proposed project would not result in any significant adverse impacts to visual resources.

This attachment considers the potential for the proposed action to affect the urban design characteristics and visual resources of the project area and the study area. As described in Attachment A, "Project Description," the rezoning area encompasses Block 939, Lots 20, 21, 22, 23, 24, 25, 26, 27, and a portion of Lot 28 in the Kips Bay neighborhood of Manhattan Community District (CD) 6. The technical analysis presented below follows the guidelines of the 2014 *CEQR Technical Manual* and addresses each of the above-listed characteristics for existing conditions, the future without the proposed action (the No-Action condition), and the future with the proposed action (the With-Action condition) for a 2020 Build Year.

II. PRINCIPAL CONCLUSIONS

Urban Design

The proposed zoning map change would replace the existing R8A zoning district within the proposed rezoning area with a C1-9A zoning district. Development facilitated by the proposed action would not result in significant adverse impacts on urban design as defined by the guidelines for determining impact significance set forth in the 2014 *CEQR Technical Manual*. In the future with the proposed action, the visual appearance on the development site would be enhanced and thus the pedestrian experience of the project site would change somewhat; however, this change would not meet the 2014 *CEQR Technical Manual* threshold for a significant adverse urban design impact in that it would not alter the arrangement, appearance, or functionality of the development site such that the alteration would negatively affect a pedestrian's experience of the area.

Visual Resources

Although the new building on the development site would be taller than the existing structures on the site, and would therefore be more prominent in views along adjacent streets, it would not obstruct or eliminate any public views or affect any existing view corridors or views to visual resources in the study area. As such, the proposed project would not result in any significant adverse impacts to visual resources.

III. METHODOLOGY

In accordance with the *CEQR Technical Manual,* this analysis considers the effects of the proposed project on the following elements that collectively form an area's urban design:

- *Street Pattern and Streetscape*—the arrangement and orientation of streets define location, flow of activity, and street views and create blocks on which buildings and open spaces are arranged. Other elements including sidewalks, plantings, street lights, curb cuts, and street furniture also contribute to an area's streetscape.
- *Buildings*—building size, shape, pedestrian and vehicular entrances, lot coverage and orientation to the street are important urban design components that define the appearance of the built environment.
- *Open Space*—open space includes public and private areas that do not include structures, including parks and other landscaped areas, cemeteries, and parking lots.
- *Natural features*—natural features include vegetation and geologic and aquatic features that are natural to the area.
- *View Corridors and Visual Resources*—visual resources include significant natural or built features, including important view corridors, public parks, landmark structures or districts, or otherwise distinct buildings.
- *Wind* – Channelized wind pressure from between tall buildings and downwashed wind pressure from parallel tall buildings may cause winds that may jeopardize pedestrian safety.

In general, an assessment of urban design is needed when a project may have effects on one or more of the elements that contribute to the pedestrian experience, described above. As the proposed action and subsequent development on the project site could result in physical changes to the project site beyond the bulk and form currently permitted as-of-right, it has the potential to result in development that could alter the arrangement, appearance, and functionality of the built environment and, therefore, change the experience of a pedestrian in the project area. The following urban design analysis follows the guidelines of the 2014 *CEQR Technical Manual.*

Per criteria of Section 230 of the 2014 *CEQR Technical Manual*, a wind condition analysis is not warranted for the proposed action. The proposed rezoning area is not located in a high wind location, such as directly along the waterfront, nor is it in a location where wind conditions from the waterfront are not attenuated by buildings or natural features. The rezoning area is located more than a 1/4-mile from the waterfront, to the west of NYU Langone Medical Center. The proposed action is expected to result in the construction of a 23-story building. The proposed development would be at a scale appropriate for the area, which conforms to the existing built context.

Study Area

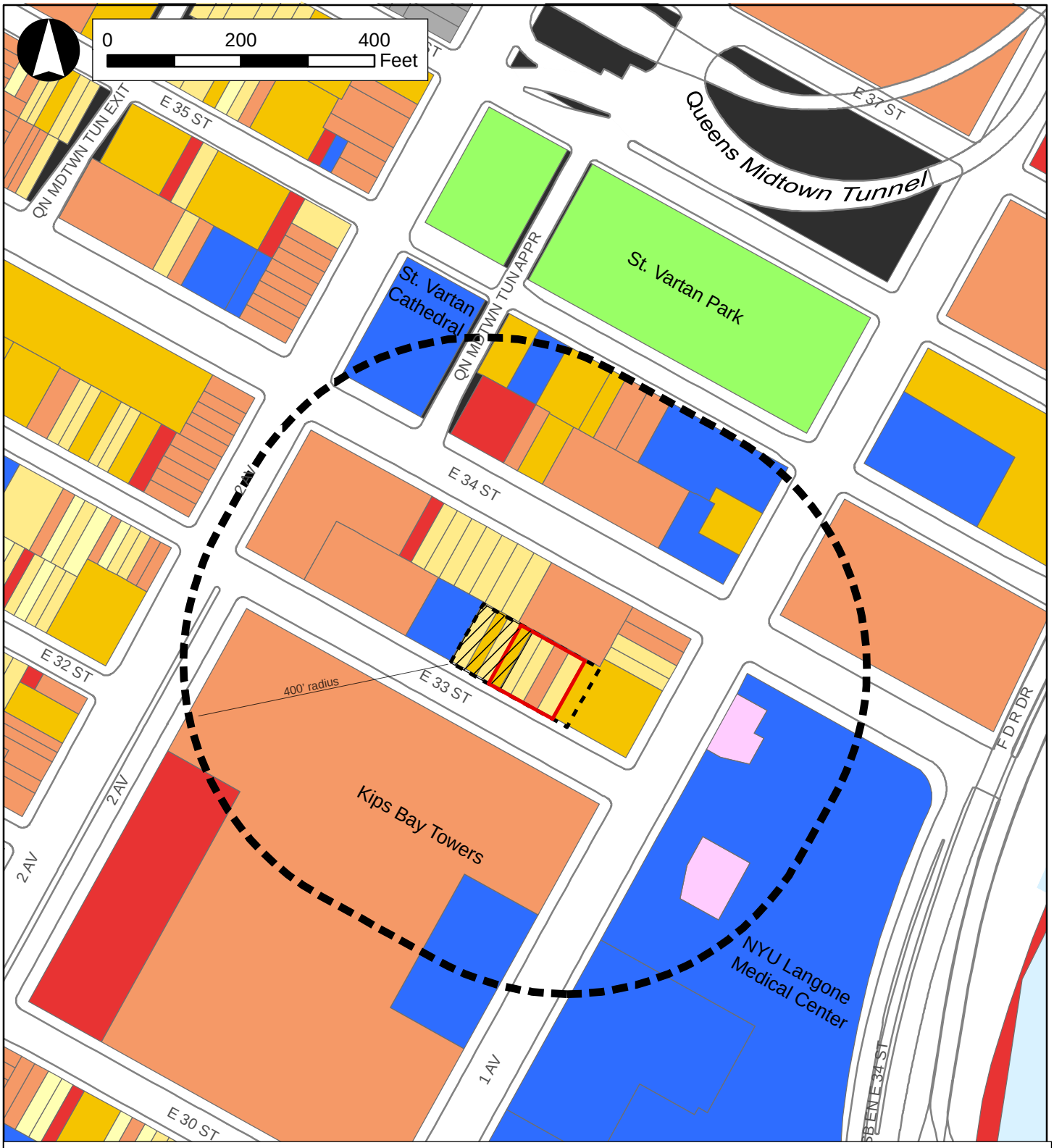
The urban design study area consists of both a primary study area, which is coterminous with the boundaries of the rezoning area, where the urban design effects of the proposed action are direct, and a secondary study area (refer to Figures F-1 and F-2, "Primary and Secondary Study Areas"). For the purpose of this assessment, the primary study area consists of the proposed rezoning area. The secondary study area extends an approximate 400-feet from the boundary of the rezoning area and encompasses areas that have the potential to experience indirect impacts as a result of the proposed action. It is generally bounded by Second Avenue to the west, East 32nd Street to the south, East 35th Street to the north, and First Avenue to the east. Both the primary and secondary study areas have been established in accordance with 2014 *CEQR Technical Manual* guidelines.

The analysis of urban design and visual resources is based on field visits, photography, and computer imaging of the project site and surrounding study area.

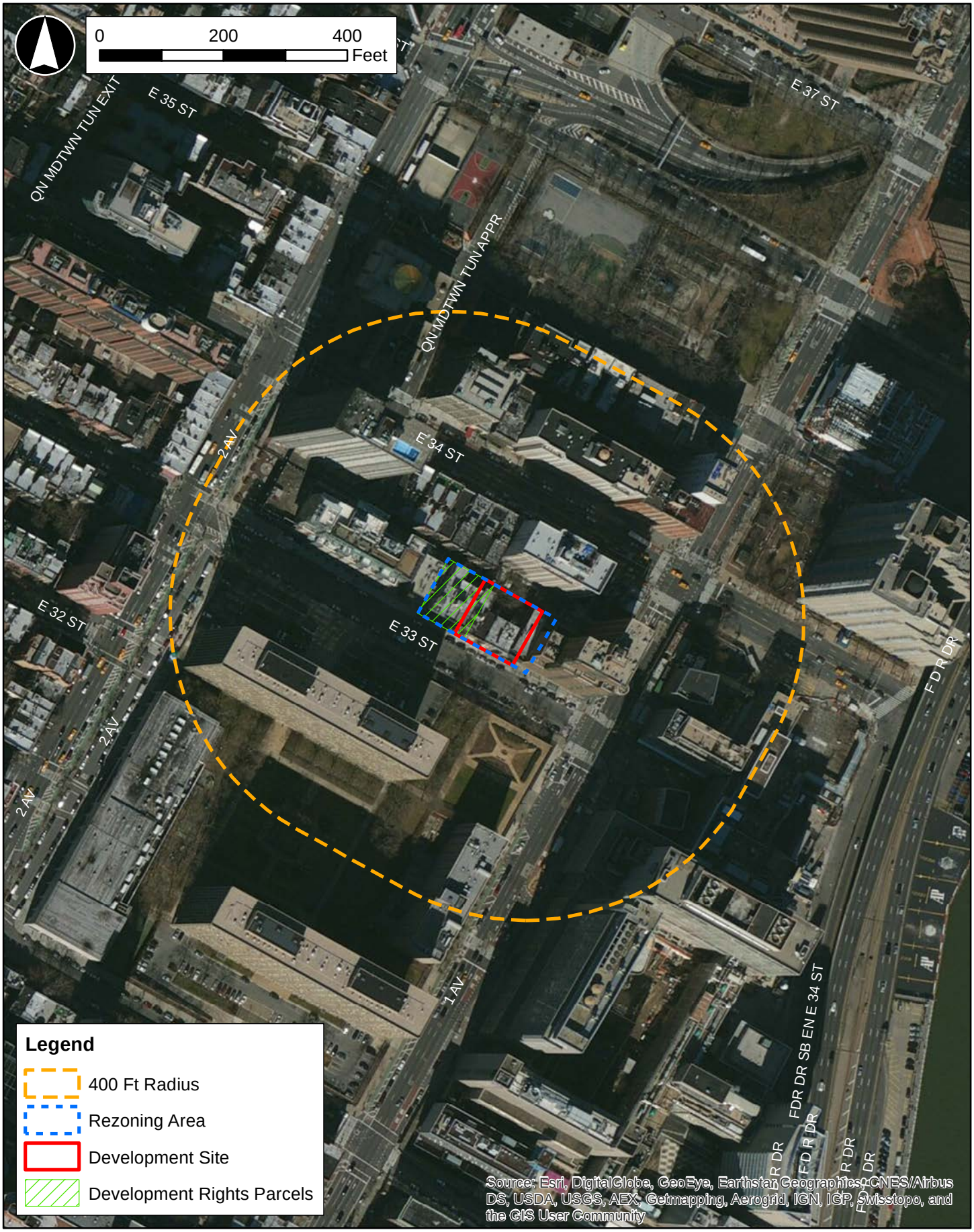
IV. PRELIMINARY ASSESSMENT

Pursuant to CEQR, a preliminary assessment of urban design is appropriate when there is the potential for a pedestrian to observe from the street level a physical alteration beyond that allowed by existing zoning. CEQR further stipulates a detailed analysis is warranted for projects that would result in substantial alterations to the streetscape of the neighborhood by noticeably changing the scale of buildings. According to the 2014 *CEQR Technical Manual*, detailed analyses are generally appropriate for area-wide rezonings that include an increase in permitted floor area or changes in height and setback requirements. The increased scale, both in terms of bulk and height on the development site would be a notable change from the pedestrian's perspective to the appearance and character of the development site compared to the No-Action condition. The visual appearance would be enhanced and thus the pedestrian experience of the development site would change somewhat; however, this change would not meet the 2014 *CEQR Technical Manual* threshold for a significant adverse urban design impact in that it would not alter the arrangement, appearance, or functionality of the development site such that the alteration would negatively affect a pedestrian's experience of the area. As such, it would not result

Figure 4
Land Use



Urban Design Study Area Aerial View



in a substantial alteration to the streetscape of the neighborhood, and therefore, a preliminary analysis of urban design has been conducted and is provided below.

Existing Conditions

Primary Study Area (Rezoning Area)

The primary study area comprises approximately 19,751 sf of Manhattan Block 939. It consists of 9 privately-owned tax lots—approximately 2,469 sf of Lot 28 and Lots 20, 21, 22, 23, 24, 25, 26 and 27 in their entirety—that would be rezoned from R8A to C1-9A. Lots 24-27, which are owned or to be acquired by the applicant, and Lot 23 which is the development rights parcel, are described in further detail under the proposed development site section, below.

As shown Table F-1 below, the lots comprising the rezoning area includes 9 residential buildings with a total of 311 DUs. There is one existing curb cut on East 33rd Street for the parking garage located within the building on Lot 28.

Table F-1: Existing Uses within the Primary Study Area

Block/Lot	Lot Area (sf)	Building Area (sf)	FAR	Land Use
939/20	2,469	9,200	3.73	5-story residential building (22 DUs)
939/21	1,975	7,860	3.98	5-story residential building (13 DUs)
939/22	1,975	6,858	3.47	5-story residential building (13 DUs)
939/23*	1,935	7,247	3.67	4-story residential building (13 DUs)
939/24*	1,935	3,980	2.02	4-story residential building (7 DUs)
939/25*	1,935	3,980	2.02	4-story residential building (7 DUs)
939/26*	2,469	4,976	2.02	4-story residential building (9 DUs)
939/27*	2,469	10,625	4.3	4-story residential building (18 DUs)
939/p/o 28	2,469	38,438	15.51	23-story residential/community facility building (209 DUs)

* Development Site

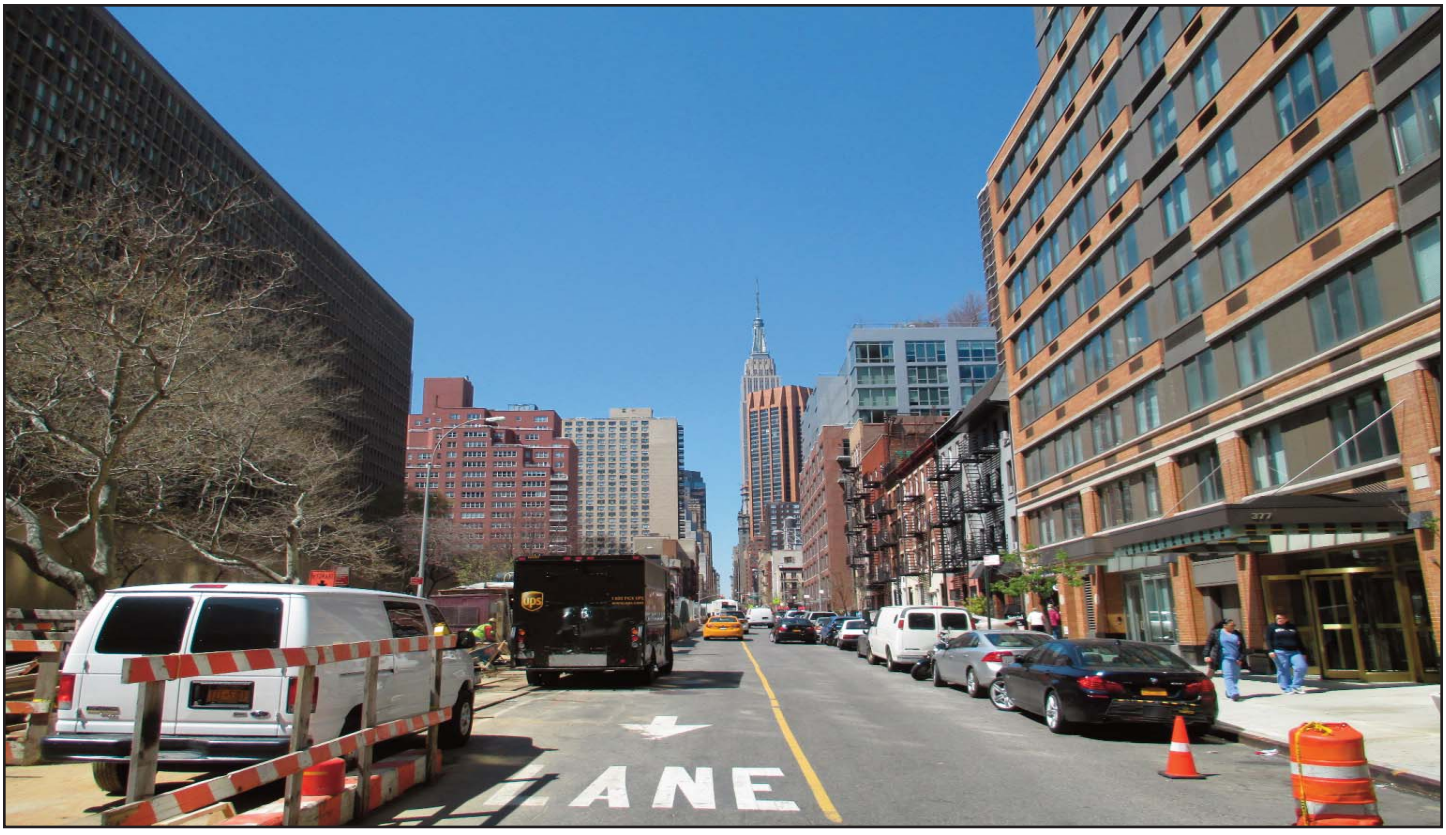
Urban Design

Street Pattern and Streetscape

Under existing conditions, pedestrian and vehicular flow around the rezoning area is light. There is a typical street grid pattern in the immediate vicinity of the rezoning area. A portion of East 33rd Street is a wide street. Streetscape elements are minimal and are limited, standard street signs, muni meters, cobra head lampposts, and fire hydrants (see Figure F-3). There are two street trees within the rezoning area. There is a Citi Bike station located along the north side of East 33rd Street. Directly south of the rezoning area, across East 33rd Street, a black wrought iron fence and concrete wall run the entire length of the block, with a break midblock for the entrance to the residential development's parking area. Kips Bay Towers, located between Second and First Avenues and East 33rd and 30th Streets, and consists of two freestanding, narrow, rectangular 21-story concrete apartment buildings with large footprints and



1. View looking east along East 33rd Street between First and Second Avenues



2. View looking west along East 33rd Street between First and Second Avenues

no setbacks that are well set back from the street. As shown in Figure F-3, construction staging for the NYU Langone Medical Center expansion is currently located across the street from the rezoning area, along the south side of East 33rd Street. The only view of a visual resource in the primary study area along an extended corridor is that of the Empire State Building; looking west from East 33rd Street (see Photo 1 in Figure F-3 and location on Figure F-4).

Buildings

As shown in Figure F-5, the proposed development site is currently occupied by five 4-story residential buildings that contain a total of 53 DUs and a 1,244 gsf medical office. The five existing buildings comprise a total of approximately 30,808 gsf for a total built FAR of approximately 2.85. The development site comprises approximately 10,822 sf with 110 feet of frontage along the north side of East 33rd Street.

The other properties—Lots 20, 21, 22, and p/o Lot 28— are not under the control of the applicant and are privately-owned. All properties are mid-block, with the exception of Lot 28 which is located on the northwest corner of East 33rd Street and First Avenue.

Lot 20 is a 2,469 square foot rectangular shaped lot with 25 feet of frontage along the north side of East 33rd Street and contains a 5-story 9,200 gsf residential building (FAR of 3.73) with a total of 22 dwelling units. Lots 21 and 22 are rectangular-shaped lots and each have a lot area of approximately 1,975 sf with 20 feet of frontage on the north side of East 33rd Street. Lot 21 is occupied by a 5-story 7,860 gsf residential building that includes 13 DUs and has a built FAR of 3.98 (see Figure F-6). Lot 22 is occupied by a 5-story 6,858 gsf residential building that includes 12 DUs and has a built FAR of 3.47 (see Figure F-6). Lot 28 is a 13,770 sf square-shaped lot with 125 feet of frontage along the north side of East 33rd Street and 113 feet along the west side of First Avenue. Lot 28 is occupied by a 23-story 213,549 gsf residential building that includes 209 DUs, the New York University (NYU) Child Study Center on the first and second floors, and a subsurface 45 space parking garage (FAR of 15.51) (see Figure F-6). The portion of Lot 28 not within the rezoning area (approximately 11,352 sf) is zoned C1-9A.

Natural Features and Open Space

There are no natural features or open space located within the proposed rezoning area.

View Corridors and Visual Resources

The only view of a visual resource in the primary study area along an extended corridor is that of the Empire State Building; looking west from East 33rd Street (see Photo 1 in Figure F-3 and location on Figure F-4). As shown in Figure F-3, along East 33rd Street there is an obstructed view of the upper most stories of the Empire State Building, the most prominent structure on the skyline.

Visual Resources Location Map

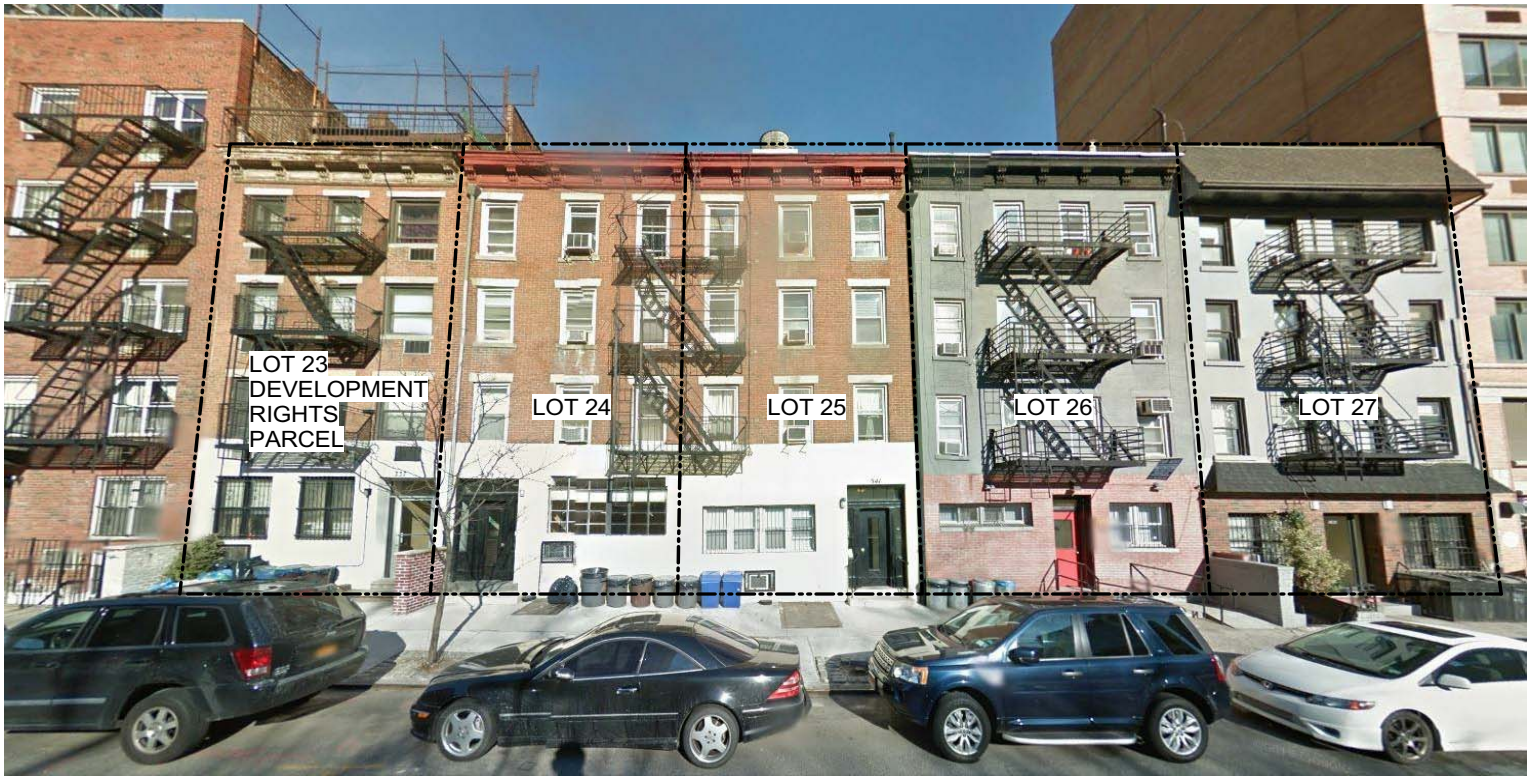




3. View of development site looking north west



4. View of development site looking north east



5. View of development site looking north



21. View of development site looking east



22. View of development site looking northeast



23. View of development site looking east



24. View of development site looking northeast



25. View of development site looking west



26. View of development site looking northwest



6. View of Lots 7501 (6) and 17 looking north west



7. View of Lots 20-22 looking north



8. View of Lot 28 looking north

Secondary Study Area

Urban Design

Street Pattern and Streetscape

The street pattern in the study area is mostly composed of rectilinear blocks with a street grid system, with wide avenues running north-south and narrow cross streets running east-west, with the exception of 34th Street. There are interruptions in the street grid pattern by several superblocks (NYU Langone Medical Center and Kips Bay Towers) and also by the Queens Midtown Tunnel ramp network. First and Second Avenues are the primary thoroughfare within the secondary study area, and East 34th Street serves as a link for two-way, cross-town travel. First Avenue provides four lanes for one-way northbound vehicular traffic. The right travel lane in the northbound direction is dedicated as a bus-only lane on weekdays from 7:00am to 7:00pm. Second Avenue provides three lanes for one-way southbound vehicular traffic. The right travel lane in the southbound direction is designated as a bus-only lane on weekdays from 7:00am to 7:00pm. Between East 33rd Street and East 30th Street, Second Avenue has an additional buffered travel lane for southbound vehicular traffic. A median with street trees separates the singular travel lane along Second Avenue between East 33rd and East 30th Streets. East 34th Street, which runs east-west, has two eastbound travel lanes and two westbound travel lanes within the study area. The right travel lane in the westbound direction is designated as a bus-only lane on weekdays from 7:00am to 7:00pm. There is an entrance to the Queens Midtown Tunnel located on the north side of East 34th Street between First and Second Avenues (see Figure F-7). First and Second Avenues as well as East 34th Street are important pedestrian corridors, particularly in the vicinity of storefront retail and bus stops in the study area. Streetscape features within the secondary study area include bus stop signs, benches, and shelters, Muni Meters, Select Bus Service ticket machines, mail boxes, fire hydrants, cobra head lampposts, newsstands, payphones, street trees, and bicycle racks.

Buildings

Table C-2 in Attachment C, "Land Use, Zoning, and Public Policy," summarizes the existing generalized land uses within the land use study area by tax lots and land area. Overall, as reflected in the table and in Figure C-1, the secondary study area supports a mix of land uses, including multi-family residences, mixed-use buildings, and public facilities and institutional uses. NYU Langone Medical Center is a predominant land use in the area and occupies a superblock to the east of the rezoning area along the east side of First Avenue between East 34th and East 30th Streets (see Figure F-7). Kips Bay Towers, located between Second and First Avenues and East 33rd and 30th Streets, and consists of two freestanding, narrow, rectangular 21-story concrete apartment buildings with large footprints and no setbacks that are well set back from the street (see Figure F-8). These buildings are approximately 80 feet wide and 360 feet long and contain 1,118 DUs. Also located on this block are several commercial retail uses as well as a building that is part of NYU Langone Medical Center campus. There are several other large residential developments located within the vicinity of the project site including a 35-story building with 706 DUs located at 606 First Avenue, a 22-story building with 191 DUs located at 225 East 34th Street, a 21-story building with 480 DUs located at 222 East 34th Street, a 16-story building with 205 DUs located at 333 East 34th Street, and a 20-story building with 164 DUs located at 251 East 32nd Street (see Figure F-8). There are also several four-story residential buildings with ground floor retail that line portions of First and Second Avenues within the secondary study area (see Figure F-9). Located to the north of the rezoning area along Second Avenue between East 34th and East 35th Streets is the St. Vartan Armenian Cathedral complex (see Figure F-9). It consists of a group of attached, modern stone buildings



9. View looking east from East 34th Street and First Avenue



10. View of Queens Midtown Tunnel Entrance looking north from East 34th Street



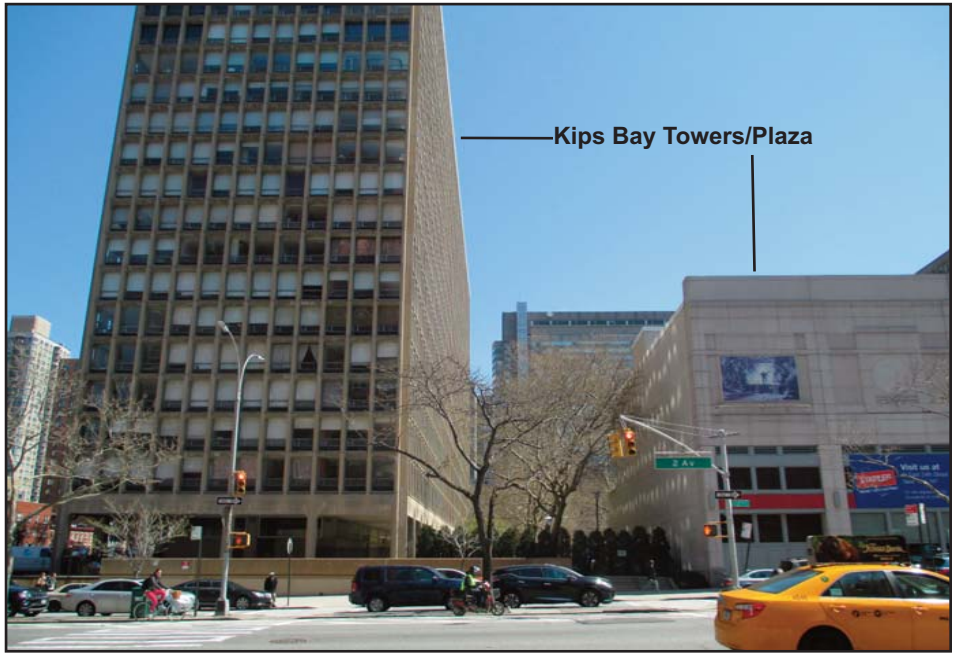
11. View of NYU Langone Medical Center looking south from East 33rd Street and First Avenue



12. View of NYU Langone Medical Center looking south from East 35th Street and First Avenue



13. View looking east from East 33rd Street and Second Avenue



14. View of Kips Bay Plaza looking east from East 32nd Street and Second Avenue

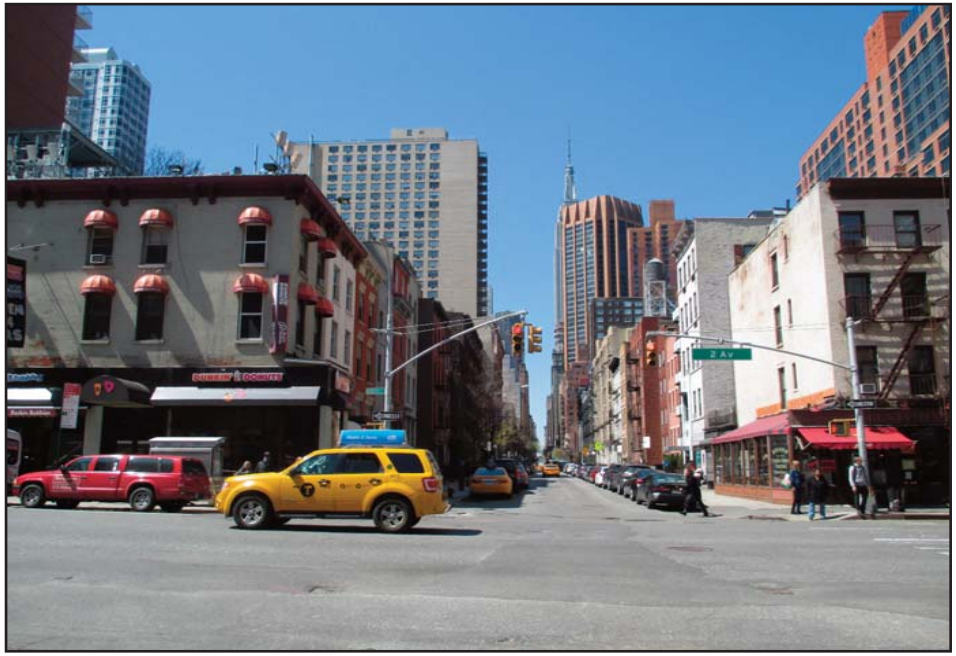


15. View looking west from East 34th Street and First Avenue


16. View looking north from East 33rd Street and First Avenue



17. View looking east from East 32nd Street between Second and Third Avenues



18. View looking west from East 33rd Street and Second Avenue

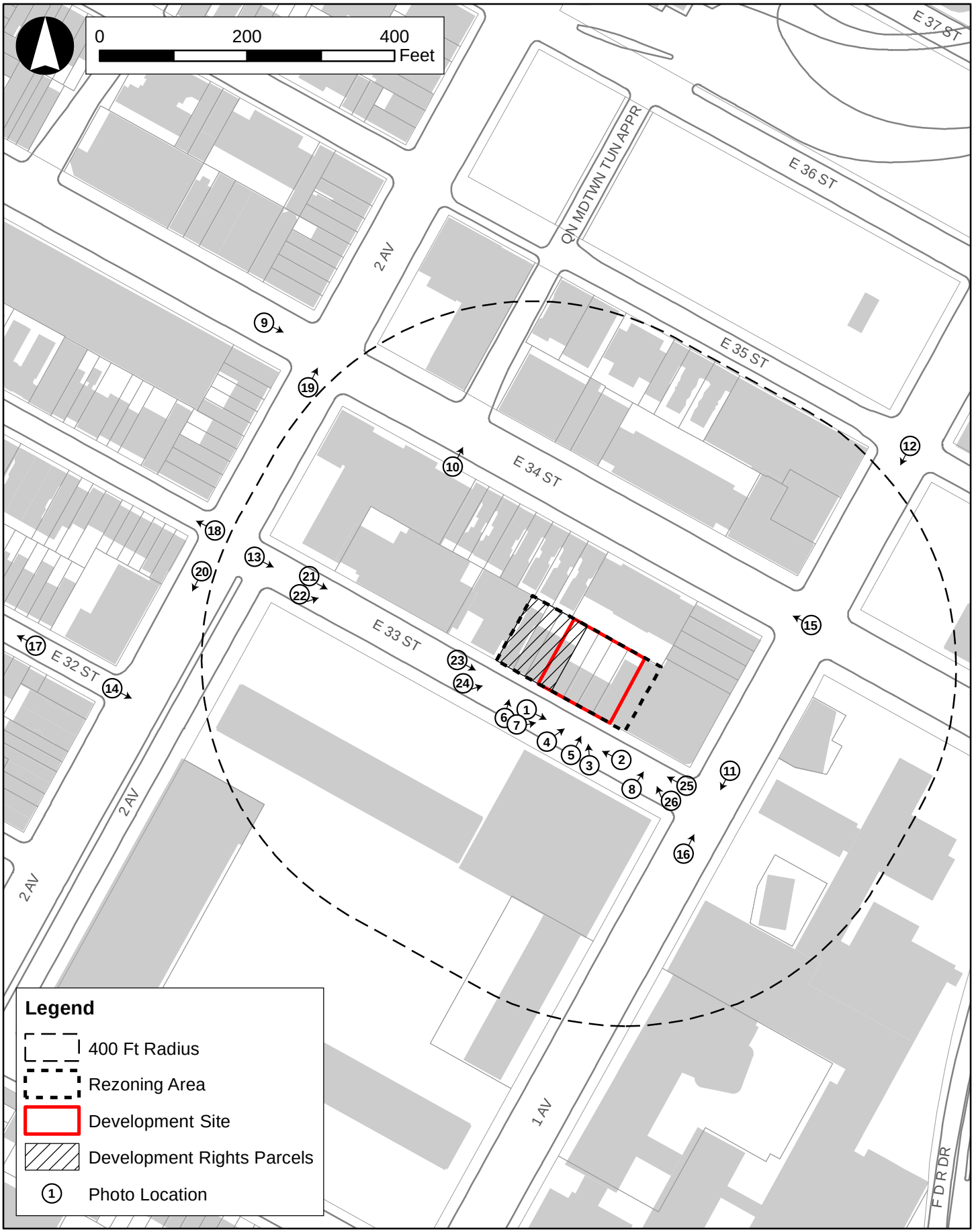


19. View looking north from East 34th Street and Second Avenue



20. View looking south from East 33rd Street and Second Avenue

Figure F-10
Photo Key Map



on the full block created by East 34th Street, East 35th Street, Second Avenue, and the Queens-Midtown Tunnel approach. The main cathedral building is designed as a stylized, modern interpretation of a medieval Armenian church. Buildings in the study area range in heights from 2- to 36-stories (see Figure F-11).

Natural Features and Open Space

There are no natural features or open space located within the secondary study area. However, while outside the study area, St. Vartan Park, located to the north of the rezoning area, occupies a full block bounded by East 36th Street, East 35th Street, First Avenue, and an entrance ramp to the Queens-Midtown Tunnel. St. Vartan Park includes sloping landscaped lawns, large mature trees, and a small brick comfort house.

View Corridors and Visual Resources

Views of the Empire State Building are available from east-west view corridors within the study area.

Future without the Proposed Action (No-Action Condition)

Primary Study Area (Rezoning Area)

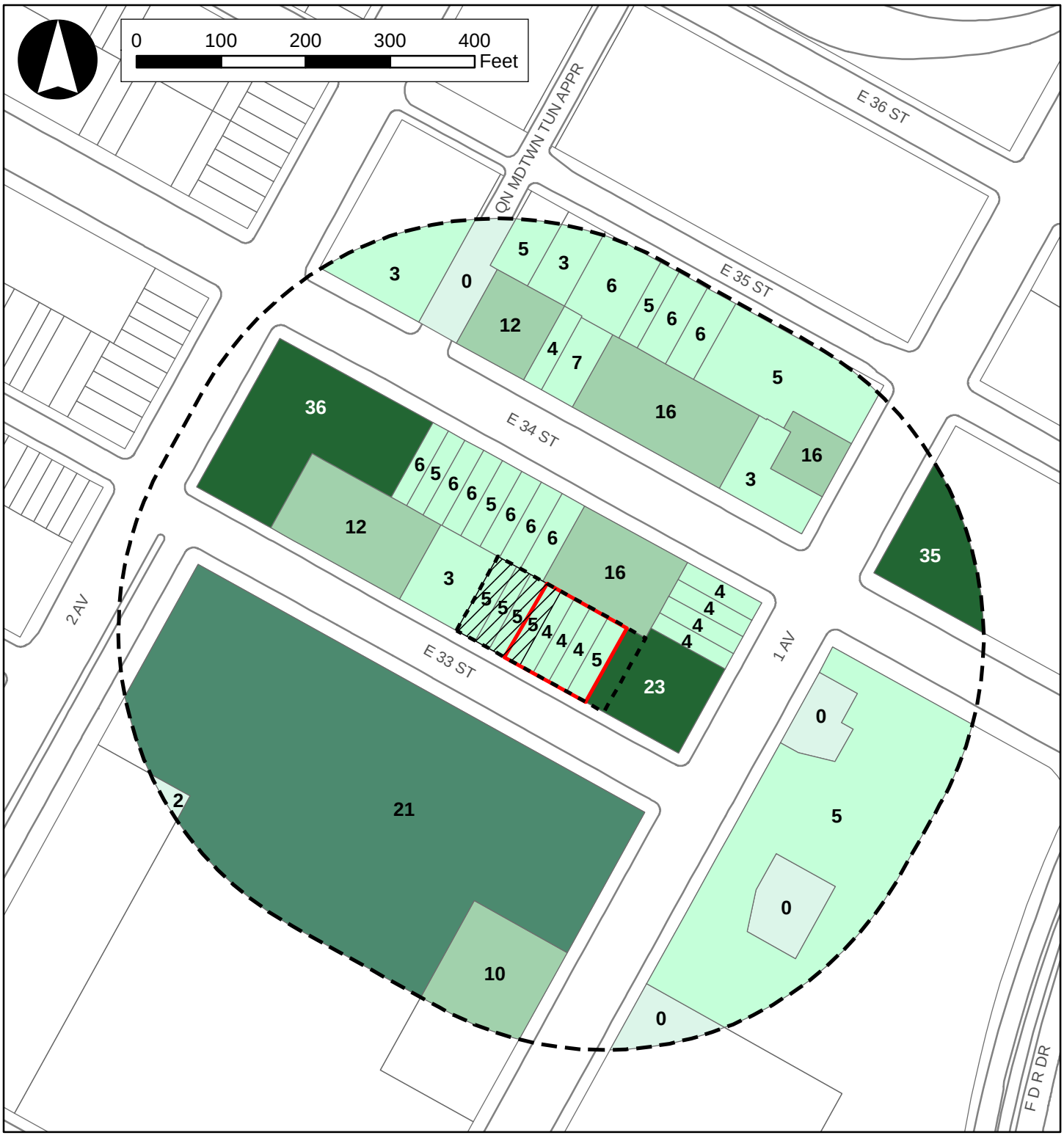
It is anticipated that the proposed development site would remain in its current condition in the future without the proposed action. In absence of the proposed action, therefore, the proposed development site would continue to be occupied by four 4-story residential buildings with a total of 40 DUs and a 1,244 gsf medical office No other sites within the rezoning area are anticipated to be developed by the build year of 2020.

Secondary Study Area

In the future without the proposed action, the construction of several buildings within the NYU Langone Medical Center campus are anticipated to be completed by the 2020 analysis year. The NYU Langone Medical Center is currently undergoing a major expansion project on their main campus which is bounded by East 34th Street to the north, East 30th Street to the south, First Avenue to the west, and the FDR Drive to the east. The 830,000 square foot Helen L. and Martin S. Kimmel Pavillion, located along First Avenue between East 33rd and East 34th Streets which would include single bed inpatient rooms, is currently under construction and is anticipated to be completed by 2018. The Hassenfeld Children's Hospital is currently under construction at the southeast corner of East 34th Street and First Avenue and is anticipated to be completed by 2017. The Children's Hospital will be a 160,000 square foot state-of-the-art pediatric hospital. In addition, while not within the 400-foot study area radius, the NYU Langone Science Building is currently under construction at East 30th Street and the FDR Drive. The building will be a 365,000 square foot state-of-the-art research facility.

Located just outside of the study area, the American Copper Building residential development is currently under construction (see Photo 16 in Figure F-8). Located along First Avenue between East 34th and East 35th Streets, the building will consist of one 40-story tower and one 49-story tower that will be connected by a 3-story skybridge suspended 300 feet above the ground. The building will contain 761 DUs.

Figure F-11
Existing Building Heights in Study Area



Legend

- 400 Ft Radius
- Rezoning Area
- Projected Site
- Development Rights Parcels

Number of Floors

1	0-2 Floors
5	3-7 Floors
12	8-16 Floors
20	17-22 Floors
30	23-36 Floors

Future with the Proposed Action (With-Action Condition)

This section describes the effects of the proposed action on the urban design and visual resource conditions in the area by 2020 and evaluates the potential for the proposed action to result in significant adverse impacts.

Primary Study Area (Rezoning Area)

Urban Design

Street Pattern and Streetscape

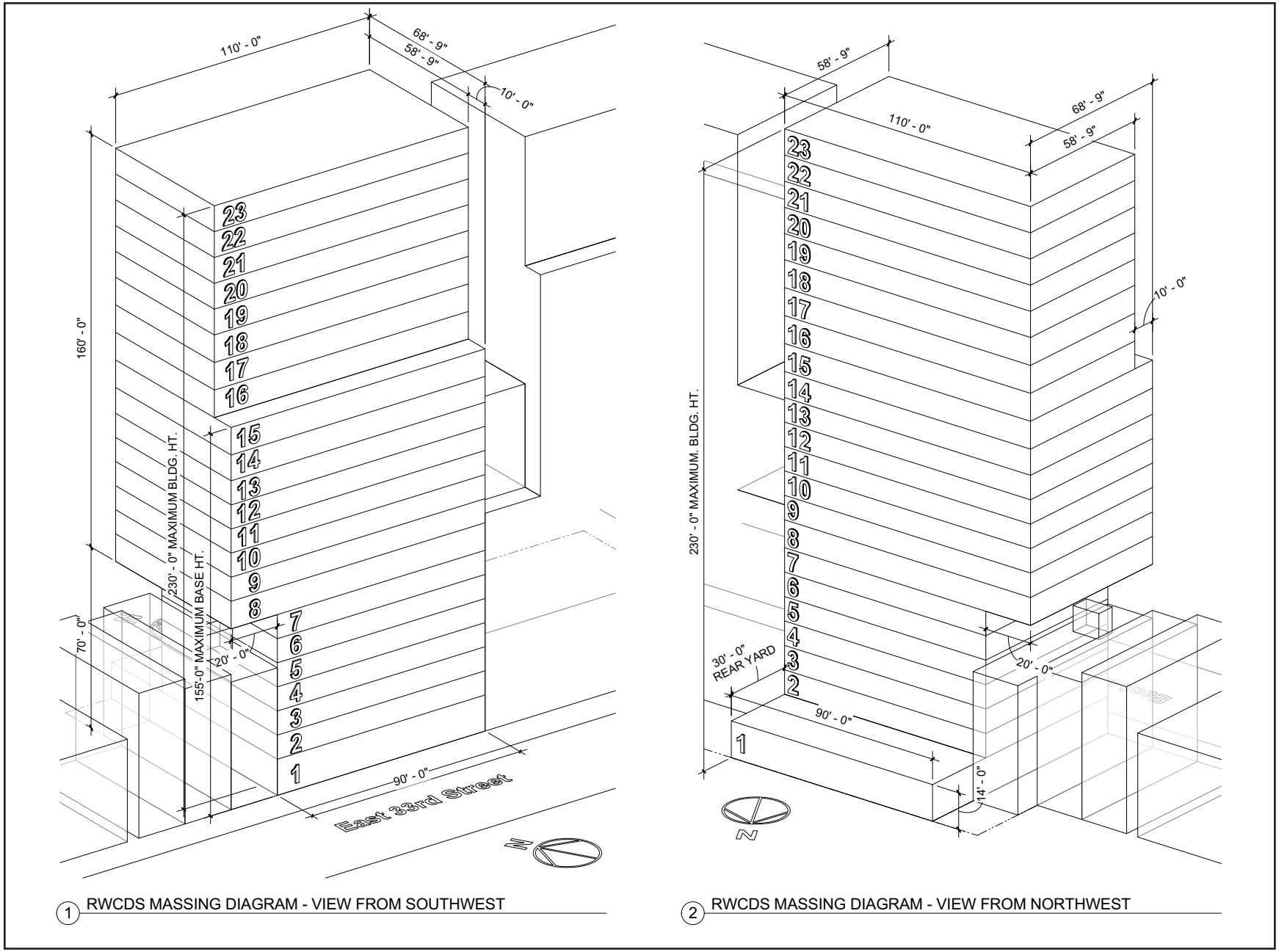
The proposed action would not result in changes to the streetscape or the arrangement or orientation of streets within this analysis area (see Figures F-13 to F-15). The additional street activity generated by the proposed project would serve as a connection between the retail activities found to the north, east, and west and would enhance and enliven the streetscape at the projected site.

Buildings

While the applicant intends to develop the mixed-use project described in Attachment A, "Project Description", because the proposed action would result in additional development potential generated by Lots 20-22, an alternate RWCDS for a larger mixed-use development on the applicant's site will be considered for conservative analysis purposes. For RWCDS purposes, it is assumed that 26,168 sf of development rights will be transferred from Lots 20-22 to the development site. As with Lot 23, it is assumed that Lots 20-22 would be merged into the development site's zoning lot but will remain under separate ownership. Under this RWCDS, the proposed mixed-use building would include 158,509 gsf (142,778 zsf) of residential uses and 10,743 gsf (6,429 zsf) of local retail uses. The RWCDS development would result in 186 DUs of which 37 DUs would be affordable. The RWCDS development being analyzed would have a height of 230 feet (see Figure F-12).

As shown in Figure F-12, to maximize the development rights transferred from Lots 20-22, a 20 foot cantilever over the entire area of Lot 23 is assumed. While Lot 23 will be part of the applicant's zoning lot, because it will remain under separate ownership, an easement would be required to permit the cantilever over Lot 23. In addition, the 20 foot cantilever, while would be possible under the Department of Buildings regulations, would need to be reviewed by a structural engineer to ensure that it would be structurally feasible.

The proposed 230-foot tall building would be designed to enhance the mixed-use character of the surrounding area, which contains residential, commercial, and institutional uses. Within the primary study area, there is a range of existing building types and heights (see Figure F-11). Within the primary study area, directly to the east of the development site is a 23-story residential building and directly to the west are several low-rise residential buildings. The remainder of the subject blocks contains buildings ranging in heights from 4- to 36-stories. There are several other large residential developments located within the vicinity of the projected site including a 35-story building with 706 DUs located at 606 First Avenue, a 22-story building with 191 DUs located at 225 East 34th Street, a 21-story building with 480 DUs located at 222 East 34th Street, a 16-story building with 205 DUs located at 333 East 34th Street, and a 20-story building with 164 DUs located at 251 East 32nd Street. Therefore, the proposed building would be consistent with surrounding neighborhood urban design character in relation to building height.



Source: GF55 Partners
For Illustrative Purposes Only



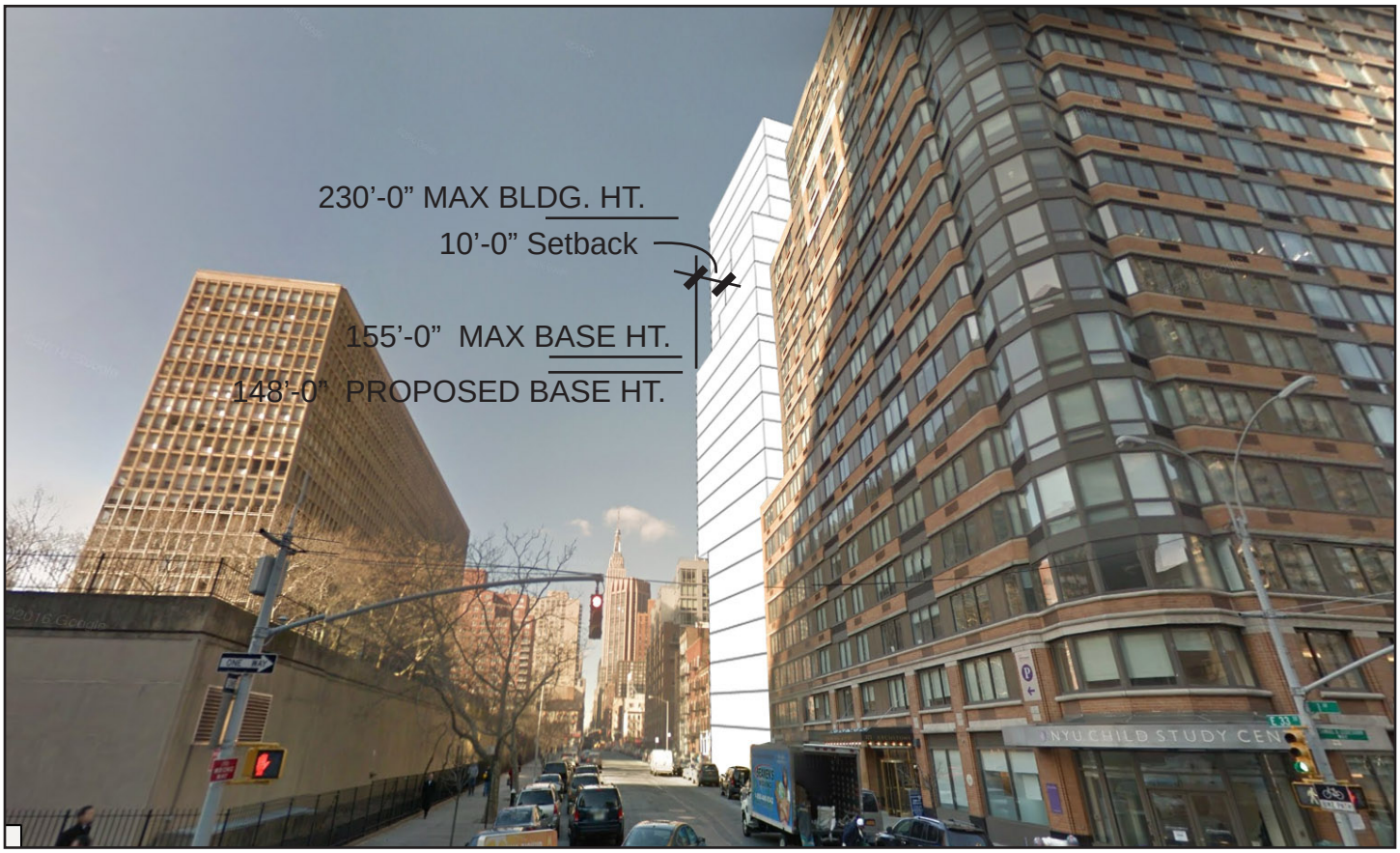
No-Action view of the project site looking east along East 33rd Street



With-Action view of the project site looking east along East 33rd Street

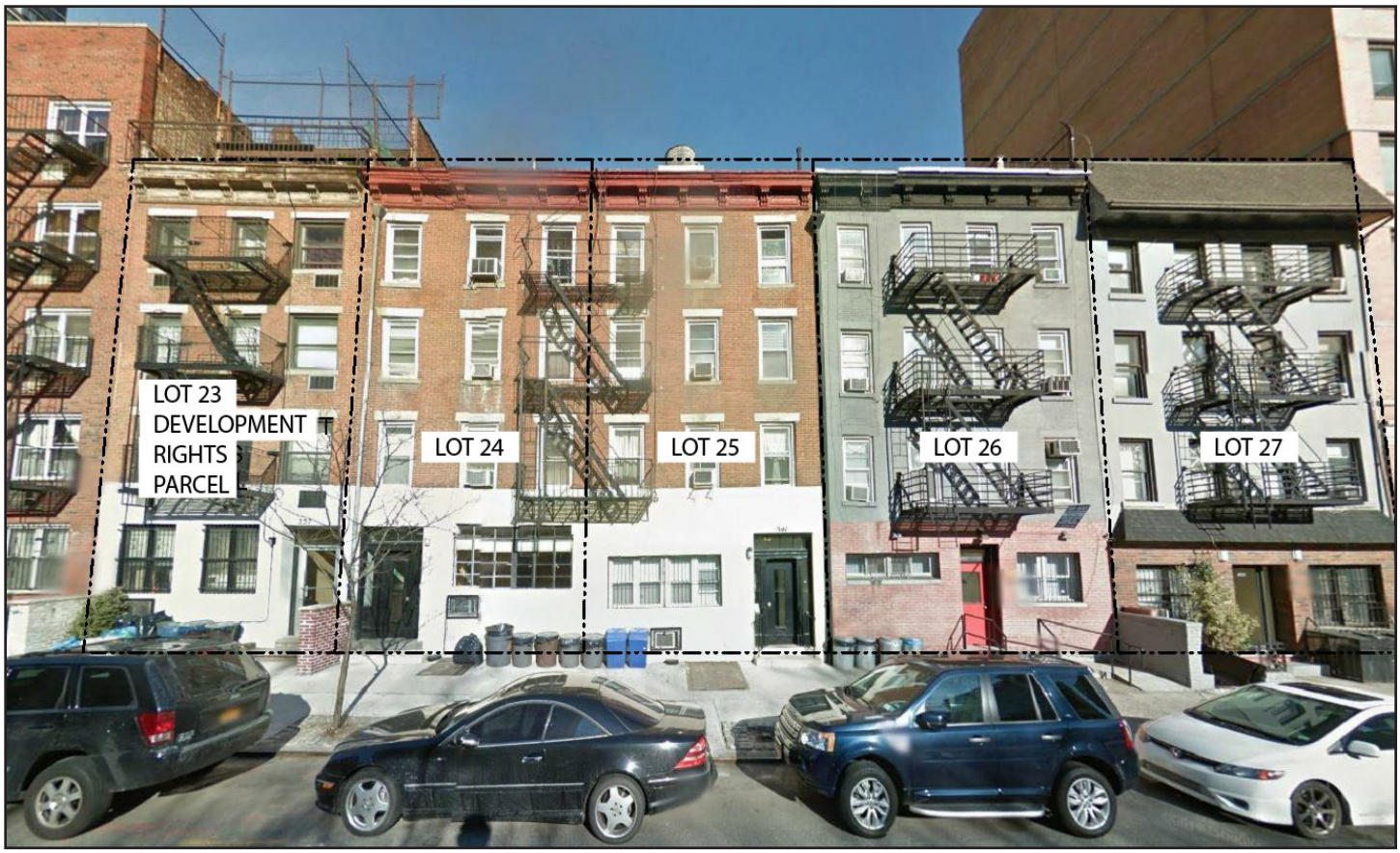


No-Action view of the project site looking west along East 33rd Street



With-Action view of the project site looking west along East 33rd Street

No-Action and With-Action Conditions



No-Action view of the project site looking north along East 33rd Street



With-Action view of the project site looking north along East 33rd Street

Natural Features and Open Space

As discussed above, there are no natural features or open space located within the proposed rezoning area.

Visual Resources and View Corridors

The only view of a visual resource in the primary study area along an extended corridor is that of the Empire State Building; looking west from East 33rd Street (see Figure F-3). As shown in Figure F-3, along East 33rd Street there is an obstructed view of the upper most stories of the Empire State Building, the most prominent structure on the skyline.

As discussed in detail above, under the RWCDS, the proposed mixed-use building would include 158,509 gsf (142,778 zsf) of residential uses and 10,743 gsf (6,429 zsf) of local retail uses. The RWCDS development would result in 186 DUs of which 37 DUs would be affordable. The RWCDS development being analyzed would have a height of 230 feet. The RWCDS development would have an FAR of 8.26 (including entire RWCDS zoning lot – Block 939, Lots 20-27). As shown in Figure F-14, the RWCDS development would not block views of this visual resource.

Assessment

As shown in Figures F-13-F-15, the proposed action would change the urban design character of the primary study area. With the maximum height of the proposed building being 230 feet tall and 142,550 gsf in size, the height and bulk of the proposed building would be substantially taller than the four 4-story buildings currently on the development site and the one 4-story building that will remain. The increased scale, both in terms of bulk and height would be a notable change from the pedestrian's perspective to the appearance and character of the development site compared to the No-Action condition.

Compared to the future without the proposed action, in the future with the proposed action, the visual appearance the pedestrian experience of the project site would change as the proposed 23-story building would replace four 4-story buildings; however, this change would not meet the 2014 *CEQR Technical Manual* threshold for a significant adverse urban design impact in that it would not alter the arrangement, appearance, or functionality of the development site such that the alteration would negatively affect a pedestrian's experience of the area. In addition, as shown in Figure F-14, the pedestrian views of the Empire State Building would not be obstructed by the RWCDS development.

Secondary Study Area

Urban Design

Street Pattern and Streetscape

The proposed development is expected to be consistent with the street pattern and streetscape found throughout the secondary study area.

Buildings

The proposed action would not have significant adverse impacts on this urban design characteristic of the study area. The proposed residential and commercial retail uses would be in keeping with the

mixed-use character of the study area. The proposed buildings would be similar in bulk to, or smaller than, many of the large residential, office, and institutional buildings found throughout the study area. In addition, there would be no change to building arrangement, bulk, use or type in the secondary study area as a result of the proposed action.

Natural Features and Open Space

There are no natural features or open space located within the secondary study area.

Visual Resources and View Corridors

Views of the Empire State Building are available from east-west view corridors within the study area, however, the proposed project would not block views of this visual resource from the secondary study area. As such, the proposed action would not have any significant adverse impacts on visual resources in the secondary study area.

Assessment

In conclusion, the proposed action would not alter zoning designations within the secondary study area, nor affect the current mix of zoning districts and established development pattern that characterizes the neighborhood surrounding the rezoning area. The proposed action would not alter any street pattern or block formation or otherwise result in physical changes to the streets in the secondary study area; nor would the proposed action have any effect on significant built or natural features contributing to the urban design of the secondary study area. The pedestrian experience along secondary study area streetscapes in the vicinity of the rezoning area would not be affected by the proposed action.

Further, the proposed action would result in no substantial change to any visual resource, nor would the proposed action result in any substantial change to view corridors identified within the study area. Therefore, the proposed action would not result in any significant adverse impacts to urban design and visual resources.



No-Action Condition (Existing)

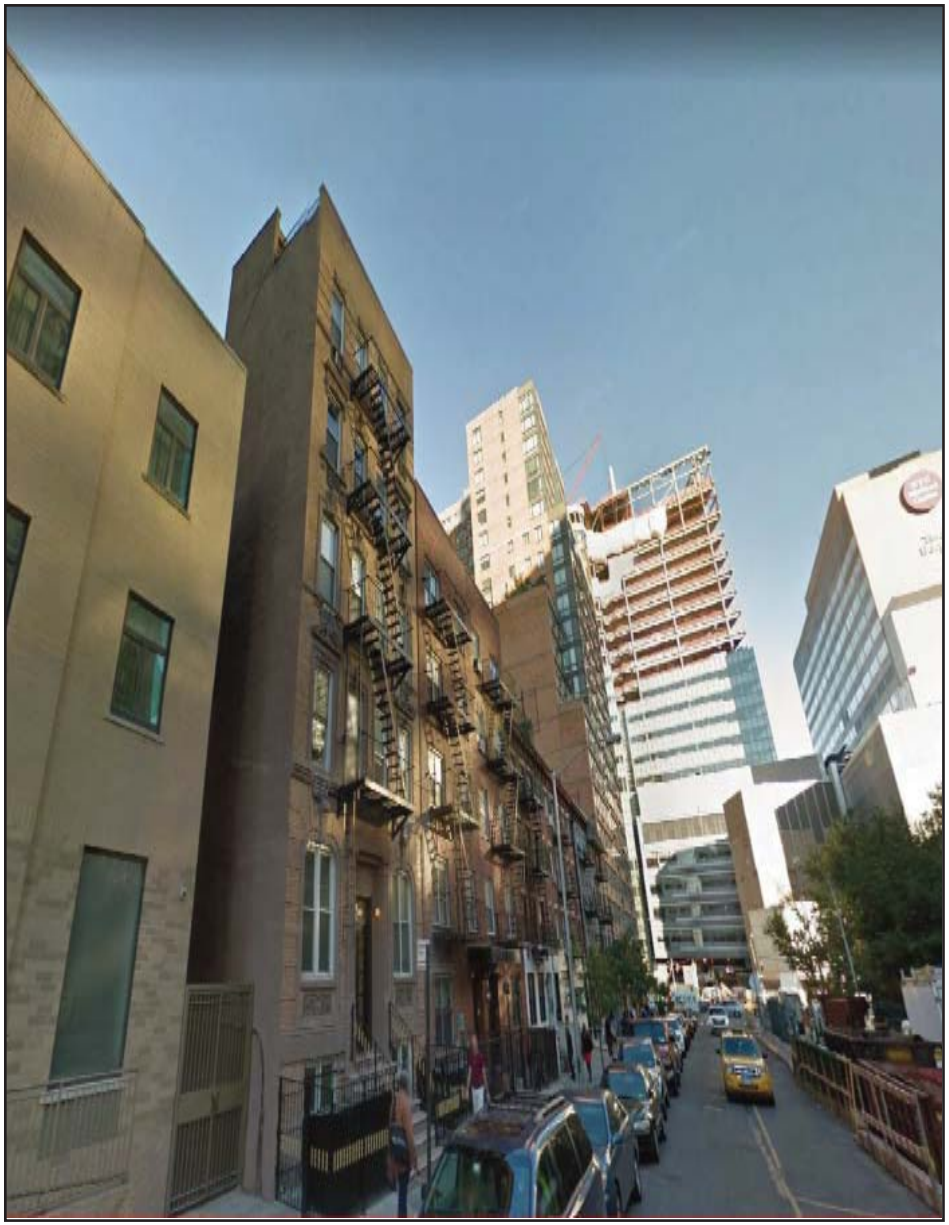


With-Action Permissible Building Envelope

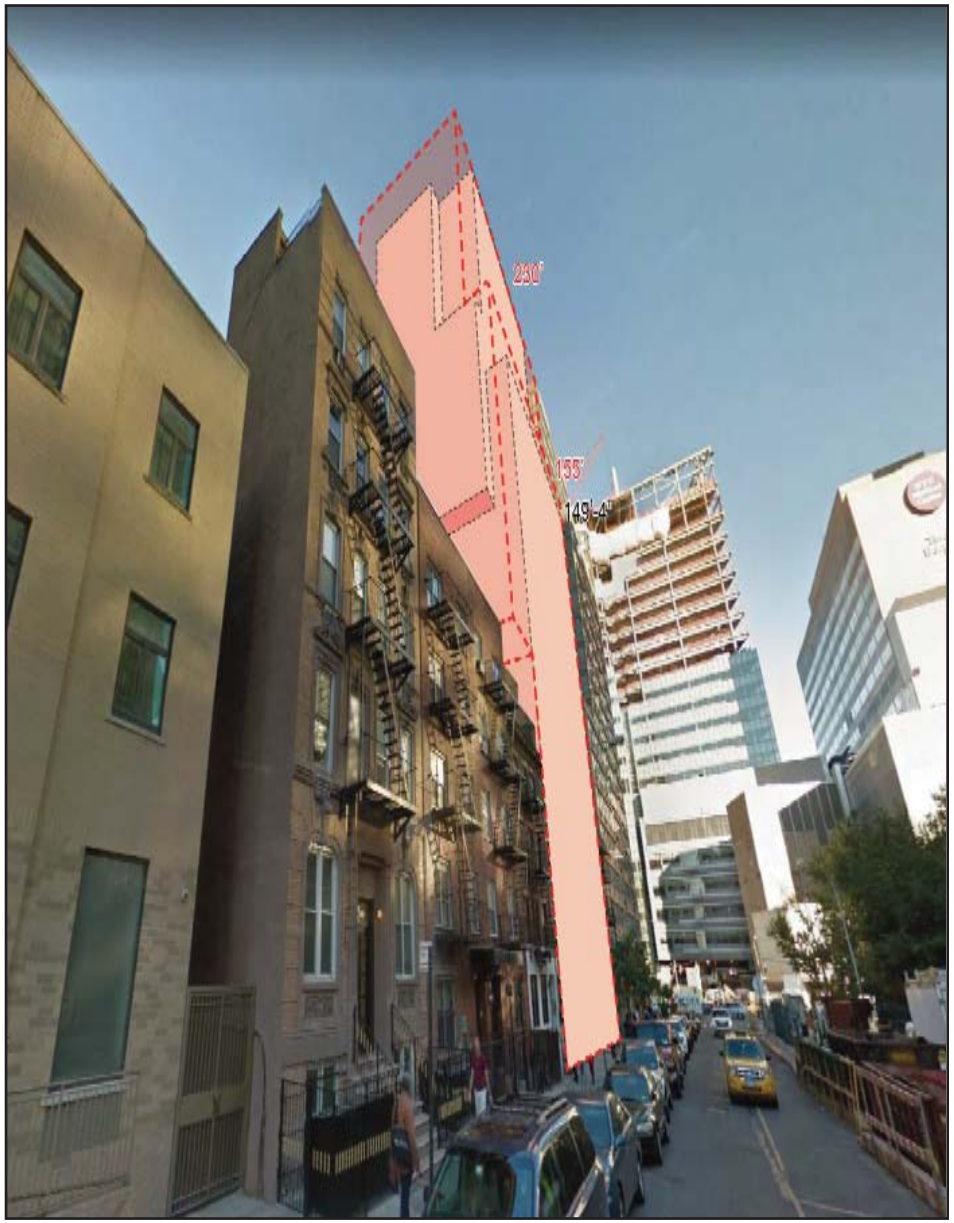
Proposed Building Envelope*

* The proposed building envelope represents the Applicant's proposed development, not the RWCDS development which can be seen in Figures F-12 through F-15.

Figure F-16
No-Action and Proposed Scenario Streetscape Renderings
View looking west on East 33rd Street



No-Action Condition (Existing)



With-Action Permissible Building Envelope

Proposed Building Envelope*

* The proposed building envelope represents the Applicant's proposed development, not the RWCDS development which can be seen in Figures F-12 through F-15.

Figure F-17
No-Action and Proposed Scenario Streetscape Renderings
View looking east on East 33rd Street

I. INTRODUCTION

As defined in the 2014 *CEQR Technical Manual*, 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 semivolatile organic compounds, methane, polychlorinated biphenyls and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive, or toxic). According to the 2014 *CEQR Technical Manual*, the potential for significant adverse impacts from hazardous materials can occur when: (a) hazardous materials exist on a site, and (b) an action would increase pathways to their exposure; or (c) an action would introduce new activities or processes using hazardous materials.

A Phase I Environmental Site Assessment (ESA) was conducted for the applicant's projected site. This assessment was undertaken to determine whether additional investigations are necessary and whether an (E) designation should be placed on the projected site (Block 939, Lots 24, 25, 26, 27) under the proposed action to avoid the potential for impacts pertaining to hazardous materials.

II. PRINCIPAL CONCLUSIONS

The hazardous materials assessment identified that projected site has some associated concern regarding environmental conditions. As a result, the proposed zoning map actions may include an (E) designation for the projected site. Therefore the proposed action is not expected to result in significant adverse impacts for hazardous materials.

With the requirements of the (E) designation on the projected site, it is expected that there would be no impact from the potential presence of contaminated materials. The implementation of the preventative and remedial measures outlined below would reduce or avoid the potential that significant adverse hazardous materials impacts would result from potential construction in the rezoning area resulting from the proposed action. Following such construction, there would be no potential for significant adverse impacts.

III. METHODOLOGY

As per Chapter 24 of Title 15 of the Rules of the City of New York, reviews of the regulatory database and/or Sanborn maps and city directories were used to determine past uses of the property and enable an assessment of whether the projected site should receive an (E) designation.

Chapter 24 of Title 15 of the Rules of the City of New York specifies the process for determining if an (E) designation should be placed on a specific site. Section 24-04 describes the preliminary screening process, which includes reviewing historical documentation for past or current uses that may have affected or be

affecting a projected or potential development site or an adjacent site. Appendix A of the Hazardous Materials Appendix 5 (Chapter 24 of Title 15 of the Rules of the City of New York) provides a list of types of facilities, activities or conditions which would lead to a site receiving an (E) designation.

A Phase I ESA was conducted for the projected site using the following parameters:

- *Historical Land Use* – The land use history was evaluated using available historical Sanborn fire insurance maps. Sanborn Maps from the years 1890 through 2005 were obtained and reviewed for the projected site, as well as the adjacent and surrounding areas.

- *Regulatory Agency List Review* – A review of the federal and state hazardous materials databases, maintained by the United States Environmental Protection Agency (US EPA) and New York State Department of Environmental Conservation (NYSDEC), respectively, was performed. This review identified the sites where storage, handling, emission, and /or spill cleanup of hazardous or toxic materials have been performed in order to determine whether they may have impacted the projected site.

IV. EXISTING CONDITIONS

A Phase I ESA was prepared for the projected site by Hydro Tech Environmental, Corp. in March 2016. The Phase I ESA identified several recognized environmental conditions (REC) based on the historic usage of the surrounding properties, the presence of lead paint and mold, and the susceptive presence of fuel storage tank (see Appendix C for Phase I ESA Conclusions and Recommendations). Based on the RECs disclosed in the Phase I ESA, more work is required to determine the nature and extent of the contamination so that the potential for significant adverse impacts can be fully disclosed and mitigation developed, as appropriate. A Phase II ESA (described in Section 330) should be performed to determine the nature and extent of any contamination.

V. THE FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION CONDITION)

In the future without the proposed action, the projected site would not be rezoned and an (E) designation would not be assigned to the affected lots. The existing residential buildings would remain on the projected site.

VI. THE FUTURE WITH THE PROPOSED ACTION (WITH-ACTION CONDTION)

In the future with the proposed action, the rezoning would convert the area to a C1-9A commercial zoning district. The assessment above established that the projected site has some potential of hazardous material contamination. The New York City Department of Environmental Protection (DEP) is currently reviewing the Phase I ESA to determine whether further investigation will be required. DEP has reviewed the Phase I ESA and has determined that further investigation is required (see Appendix C for DEP review letter). Therefore, the proposed actions would include assigning a hazardous materials (E) designation on Lots 24, 25, 26, and 27 on Block 939. The (E) designation that would be assigned to these lots would require that further investigation be performed to determine the presence and nature of contaminants

of concern and the proper remedial and/or health and safety measures that would be employed during construction.

DEP (or the New York City Office of Environmental Remediation (OER)) will be notified at least one week prior to the start of investigative activities on the project site. Such obligations will be made binding through the Restrictive Declaration tied to the applicant's projected site (which will outline the timing for all obligations).

In addition, by assigning an (E) designation on the projected site (where there is a known or suspect environmental concern), the potential for an adverse impact to human health and the environment resulting from the proposed action would be reduced or avoided. The (E) designation provides the impetus to identify and address environmental conditions so that significant adverse impacts during site development would be reduced, with OER providing the regulatory oversight of the environmental investigation and remediation during the process. Building permits are not issued by the New York City Department of Buildings (DOB) without prior OER approval of the investigation and/or remediation pursuant to the provisions of Section 11-15 of the New York City Zoning Resolution (Environmental Requirements).

The text of the hazardous materials (E) designation (E-458) for the projected site (Block 939, Lots 24, 25, 26, and 27) would be as follows:

Task 1: Sampling Protocol

> **Prior to construction, the applicant must submit to the New York City Mayor's Office of Environmental Remediation (OER), for review and approval, a Phase II Investigation protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented.**
>
> **No sampling should begin until written approval of a protocol is received by OER. The number and location of sample sites should be selected to adequately characterize the site, the specific source of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of the sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.**

Task 2: Remediation Determination and Protocol

> **A written report with findings and a summary of the data must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.**
>
> **If remediation is indicated for the test results, a proposed remedial action plan (RAP) must be submitted by 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 (CHASP) would be implemented during excavation and construction 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.

With these measures in place, the proposed action would not result in any significant adverse impacts related to hazardous materials.

I. INTRODUCTION

As described in Attachment A, "Project Description," the reasonable worst-case development scenario (RWCDS) for the proposed action is the development of a 169,252 gsf mixed-use, primarily residential building. The proposed development would be 23-stories in height (230 feet).

The site, as currently zoned, allows for sensitive land uses (residences). As such, in accordance with the 2014 *City Environmental Quality Review Technical Manual (CEQR Technical Manual)*, no air toxics analysis is required. In addition, the number of vehicular trips projected to be generated by the project is below the amount that is considered significant by the *CEQR Technical Manual*, and no mobile source analysis is warranted.

However, a review of existing land uses using NYC Oasis interactive mapping application and Google imaging software indicate that there are several existing buildings as tall as or taller than the proposed development located within 400 feet of the development site. As such, in accordance with *CEQR Technical Manual* guidance, a screening analysis of the potential impacts of the heating, ventilation and air conditioning (HVAC) system emissions of the proposed development on these existing uses is warranted.

In addition, a land use review using the New York City Open Accessible Space Information System interactive mapping software (NYC OASIS) and Google aerial images identified one potentially significant existing combustion emission source located less than 400 feet from the proposed development site -- the NYU Langone Medical Center (NYULMC) at 550 First Avenue. Using the NYSDEC Title V and Air State Facility permit database and the "Search DEC Permit Applications Data" application, it was determined that this facility has a New York State facility permit. As such, it is defined (in accordance with *CEQR*) as a large combustion emission source. As the emissions from this facility could potentially impact the proposed development, an analysis was conducted to estimate whether the potential impact of these emissions would be significant. The potential air quality impacts of the HVAC system emissions of the proposed development on existing land uses as well as the potential impacts of the emissions from the NYULMC on the proposed development were estimated following the procedures and methodologies prescribed in the 2014 *CEQR Technical Manual*.

II. PRINCIPAL CONCLUSIONS

As mentioned above, in accordance with 2014 *CEQR Technical Manual* guidance, a screening analysis of the potential impacts of the HVAC system emissions of the proposed development on existing land uses as well as the potential impacts of the NYULMC emissions on the proposed development are warranted. As discussed in detail below, the air quality analyses concluded that the proposed action would not result in significant adverse air quality impacts from its HVAC emissions on the existing land uses or be significantly impacted by the NYULMC emissions.

III. RELEVANT AIR POLLUTANTS

The Environmental Protection Agency (EPA) has identified several pollutants, which are known as criteria pollutants, as being of concern nationwide. As the proposed site would be heated by natural gas, the two criteria pollutants associated with natural gas combustion – nitrogen dioxide (NO_2) and particulate matter smaller than 2.5 microns ($PM_{2.5}$) – were considered for HVAC analysis. For the major source analysis, which considered emissions from both natural gas and fuel oil combustion, sulfur dioxide (SO_2) and particulate matter smaller than 10 micron (PM_{10}) were also considered.

Applicable Air Quality Standards and Significant Impact Criteria

As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for the criteria pollutants by EPA. The NAAQS are concentrations set for each of the criteria pollutants in order to protect public health and the nation's welfare, and New York has adopted the NAAQS as the State ambient air quality standards. This analysis addressed compliance of the potential impacts with the NAAQS.

In addition to the NAAQS, the 2014 *CEQR Technical Manual* requires that projects subject to *CEQR* apply a $PM_{2.5}$ significant impact criteria (based on concentration increments) developed by the New York City Department of Environmental Protection (NYCDEP) to determine whether potential adverse $PM_{2.5}$ impacts would be significant. If the estimated impacts of a proposed project are less than these increments, the impacts are not considered to be significant. This analysis addressed compliance of the potential impacts with the 24-hour and annual $PM_{2.5}$ *CEQR* significant incremental impact criteria.

The current standards and *CEQR* significant impact criteria that were applied to this analysis, together with their health-related averaging periods, are provided in Table H-1.

TABLE H-1
APPLICABLE NATIONAL AMBIENT AIR QUALITY STANDARDS AND CEQR THRESHOLD VALUES

Pollutant	Averaging Period	NAAQS	CEQR
NO_2	1 Hour	0.10 ppm (188 µg/m^3)	--
	Annual	.053 ppm (100 µg/m^3)	--
$PM_{2.5}$	24 Hour	35 µg/m^3	6.3
	Annual	12 µg/m^3	0.3
PM_{10}	24 Hour	150 µg/m^3	--
SO_2	1 Hour	0.75 ppb (196 µg/m^3)	--

NO_2 NAAQS

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

The 1-hour NO_2 NAAQS standard of 0.100 ppm (188 ug/m^3) is the 3-year average of the 98th percentile of daily maximum 1-hour average concentrations in a year. For determining compliance with this standard,

the EPA has developed a modeling approach for estimating 1-hour NO_2 concentrations that is comprised of 3 tiers: Tier 1, the most conservative approach, assumes a full (100%) conversion of NOx to NO_2; Tier 2 applies a conservative ambient NOx/NO_2 ratio of 80% to the NOx estimated concentrations; and Tier 3, which is the most precise approach, employs AERMOD's Plume Volume Molar Ratio Method (PVMRM) module which accounts for the chemical transformation of NO emitted from the stack to NO_2 within the source plume using hourly ozone background concentrations.

Based on New York City Department of City Planning (NYCDCP) guidance, Tier 1, as the most conservative approach, should initially be applied as a preliminary screening tool to determine whether violations of the NAAQS is likely to occur. If exceedances of the 1-hour NO_2 NAAQS were estimated, the less conservative Tier 3 approach should be applied.

The annual NO_2 standard is 0.053 parts per million (ppm or 100 ug/m^3). In order to conservatively estimate annual NO_2 impacts, a NO_2 to NOx ratio of 0.75 percent, which is recommended by the NYCDEP for an annual NO_2 analysis, was applied.

$PM_{2.5}$ CEQR Significant Impact Criteria

2014 *CEQR Technical Manual* guidance includes the following criteria for evaluating significant adverse $PM_{2.5}$ incremental impacts:

> *Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour $PM_{2.5}$ background concentration and the 24-hour standard.*

The 24-hour $PM_{2.5}$ background concentration of 23.7 ug/m^3 was obtained from Junior High School 45 monitoring station in Manhattan as the average of the 98th percentile for the latest 3 years of available monitoring data collected by the NYSDEC for 2013-2015. As the applicable background value is 23.7 ug/m^3, half of the difference between the 24-hour $PM_{2.5}$ NAAQS and this background value is 5.6 ug/m^3.

As such, a significant impact criterion of 5.6 ug/m^3 was used for determining whether the potential 24-hour $PM_{2.5}$ impacts of the proposed development are considered to be significant. For annual average adverse $PM_{2.5}$ incremental impact, according to *CEQR* guidance:

> *Predicted annual average $PM_{2.5}$ concentration increments greater than 0.3 ug/m^3 at any receptor location for stationary sources.*

The above 24-hour and annual significant impact criteria were used to evaluate the significance of predicted $PM_{2.5}$ impacts.

IV. HVAC ANALYSIS

CEQR Screening Analysis

Based on *CEQR Technical Manual* guidance, a preliminary screening analysis should be conducted as a first step to predict whether the potential impacts of the HVAC emissions would be significant and therefore require a detailed analysis. However, the *CEQR* screening procedure is only applicable to single sites (buildings) that are more than 30 feet apart from the nearest site (building) of similar or greater height.

Of the three tall buildings located within 400 feet of the development site, one is a 23-story building on Lot 28 of Block 939, which is adjacent to the development site, and two others on Block 939, Lot 1 (604 2nd Avenue) and Block 966 Lot 1 (606 1st Avenue), which are 36- and 35-stories tall, respectively. The 23-

story building located adjacent to the project site has a height of 205 feet which is shorter than the proposed 230-foot tall building.

The total square footage (169,252 gsf) of the RWCDS development as a residential building was conservatively used in the analysis, and the nomograph depicted on Figure 17-7 of the 2014 *CEQR Technical Manual Air Quality Appendix NO_2 Boiler Screen* (Residential Development -- Natural Gas*),* for a corresponding stack height, was applied. This nomograph depicts the size of a development versus the distance below which a potential impact could occur, and provides a threshold distance. As required by *CEQR* screening procedures, the 165-foot curve was applied as the 165 feet curve height is closest to but not higher than the maximum 230-foot height of the proposed development.

If the actual distance between a stack and an affected building is greater than the threshold distance for a building size, then that building passes the screening analysis (and no significant impact is predicted). However, if the actual distance is less than the threshold distance for a building, then there is a potential for a significant impact and further analysis would be required.

The result of the screening analysis (Table H-2) shows that the distance from the proposed development to the 36-story building on Block 939, Lot 1 and to the 35-story building on Block 966, Lot 1 are approximately 230 feet and 300 feet, respectively, which are greater than the threshold distance that was determined (using Figure 17-7) to be approximately 95 feet. Although the 23-story building on Block 939, Lot 28 is less than 95 feet away from the proposed building, because it has a height of 205 feet, it is shorter than the proposed building would be. This indicates that both existing buildings passed the screen and no potential for a significant impact would occur. As such, no further analysis is required for the potential impacts on the existing buildings on Block 939, Lot 1 and Block 966, Lot 1.

Table H-2: Results of the Screening Project-on-Existing Analysis

Site ID	Building Area	Bldg. Height	Nearest Bldg	Distance to Nearest Building	Threshold Distance	CEQR Nomograph Results	
	Gross sq. ft	feet		feet	feet	Pass	Fail
Proposed Building	169,252	230	36-story - Block 939, Lot 1	230	95	Pass	
			35-story - Block 966, Lot 1	300		Pass	
			23-story – Block 939, Lot 28	< 30		Pass	

V. (E) DESIGNATIONS

The screening analysis determined that the projected site on Block 939, Lots 24, 25, 26, and 27 would require an (E) designation that would specify the height of the boiler stack.

An (E) Designation would be required (E-458) to restrict fuel to the exclusive use of natural gas in the HVAC systems of the proposed development, as follows:

Proposed Development (Block 939, Lots 24, 25, 26, and 27)

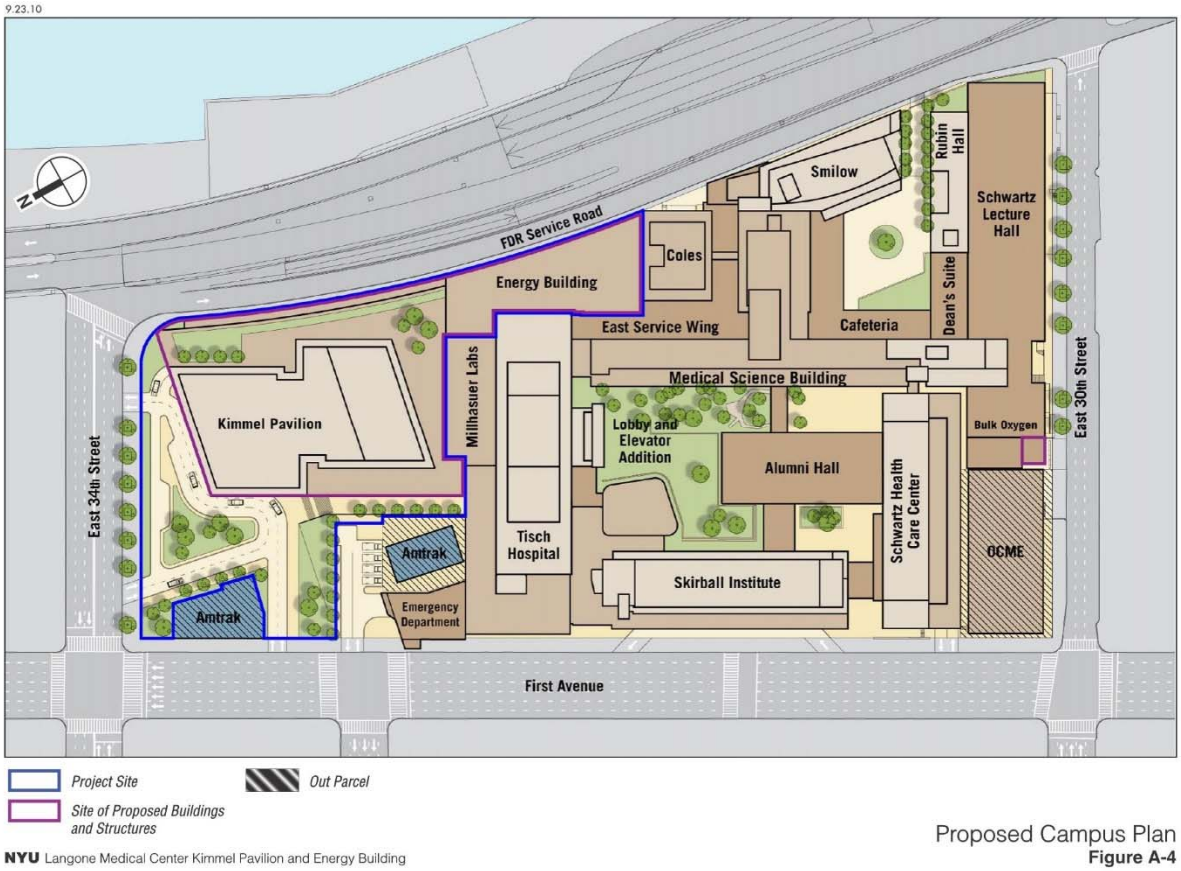
Any new residential/commercial development on the above referenced property ensure that the HVAC stack is located at the highest tier or at least 233 feet above grade to avoid any potential significant adverse air quality impacts.

VI. MAJOR SOURCE ANALYSIS

The NYU Langone Medical Center (NYULMC), which is located along First Avenue between East 30th and 34th Streets, contains a variety of buildings that include the NYU School of Medicine and three hospitals – the Tisch Hospital, the Rusk Institute of Rehabilitation Medicine (Rusk Institute) and the NYU Hospital for Joint Diseases (HJD) (see Figure H-1). Although the development site is located in close proximity to NYULMC medical labs, emissions from an accidental chemical spill were not evaluated as an analysis of chemical spills was conducted in the NYU Langone Medical Center – Science Building EAS (CEQR No. 12-BSA-141M) which concluded that no significant adverse impacts are anticipated. The results of the laboratory chemical spill analysis in the EAS demonstrate that no significant adverse impacts from the exhaust system of the laboratories to be located in the new Science Building, or on other nearby buildings in the surrounding community, would be expected with the project. Further no medical lab vents are identified in the State Permit for NYULMC (see Appendix F). In addition, the closest building of the NUYLMC complex is more than 200 feet away from the proposed development and on roofs of buildings that are taller than the proposed development. As such, the potential impact from laboratory spill emissions is very unlikely to be significant because these impacts usually occur at receptors close to the exhaust vents and at receptors the same height as or taller than the exhaust points. As such, no significant adverse impacts from the exhaust system of the existing laboratories on nearby buildings in the surrounding community, including the development site, would be expected.

Two new buildings are currently under construction on NYULMC's main campus – the Kimmel Pavilion to house hospital functions and an Energy Building to house a combined heat and power (CHP) plant to provide electric service, and emergency generators to support the campus during emergency conditions. The Kimmel Pavilion is located on the north-east corner of the campus (at the intersection of the East 34th Street and FDR Drive). The Energy Building is located along the FDR Drive service road south of the Kimmel Pavilion.

Figure H-1: NYULMC Main Campus Buildings



NYULMC Combustion Equipment

The NYULMC is a large State facility emission source with a state permit effective through June 25, 2024 (NYSDEC Permit Number 2-6206-01492/00002) (see Appendix F for state permit). The permit has been modified three times – in 2014, 2015, and 2016 to include new installations.

Emission sources are located on different buildings within the NYULMC. The most significant emission source is a 10 MW combined heat and power (CHP) plant located within the Energy Building that includes a natural-gas combustion turbine with a maximum heat input rating of 86.15 million Btu per hour (MMBtu/hr) and a gas-fired, steam generating, duct burner rated at 116 MMBtu/hr. The current permit added ultra-low sulfur distillate (ULSD) firing capability to the gas-fired turbine. The CHP is equipped with a heat recovery steam-generator (HRSG) and selective catalytic reduction (SCR) oxidation catalyst, which controls nitrogen oxide (NOx) emissions from the oil-firing scenario. The CHP also includes two duel-fuel back-up boilers, each with capacity of 173.78 MMBtu/hr burning natural gas and 180.7 MMBtu/hr burning ULSD fuel oil. The boilers could operate concurrently with the turbine or independently when the CHP plant is not operating, and fuel oil will be used mainly during winter periods when the gas supply is interrupted.

Another emission source included in the current permit is a gas-fired reciprocating engine, rated at a maximum heat input of 27.375 MMBtu/hr, which is located on the roof of the Kimmel Pavilion (424 East 34th Street). The engine will generate power on a continuous basis and supply electricity to the campus buildings. The heat generated by engine and associated components will be used to provide electric service and heating water for Tisch Hospital, Medical Science Building, Schwarz Health Care Center as well as Kimmel Pavilion and Energy Building. The engine is a 4-stroke lean-burn type that has NOx, CO, and VOC controls, and is a co-generation system firing natural gas.

The facility also has nine (9) emergency generators that are exempt from the permitting requirements as long as the facility demonstrates that each engine operates less than 500 hours a year. However, four of old generators are participating in a non-emergency program: two (2) 1,400 KW non-emergency generators, SGEN1 and SGEN2, are located in the Smilow Building; one (1) 1,250 KW generator, SGEN3, in the Skirball Building, and one 1,000 KW generator, SGEN4, in the Schwartz HCC Building.

The NYULMC is dual-fuel facility, which uses natural gas as a primary fuel and USLD fuel oil #2 (with a maximum sulfur content of 15 ppm). In order to avoid the applicability requirements of a federal Title V permit, the facility must demonstrate that plant-wide NOx emissions would not exceed 24.9 tons/year, which is accomplished by limiting the quantity of each fuel fired at the facility.

Emission Sources

NYULMC emission sources are located on different buildings, and their locations are identified in Universal Mercaptan System (UTM) coordinates. However, the coordinates for all emission sources, as listed in the facility's permit, are expressed in kilometers (not meters) and therefore are shown as being the same - 586.7 km and 4510.7 km. As such, these permitted coordinates could not be used to locate any stack with the precision necessary for a dispersion analysis. In addition, observations of Google aerial photos of the NYULMC campus buildings do not reveal any stand-alone or tall roof-top stacks. If they did, the UTM coordinates for each stack could be determined and compared to those in the current permit and adjusted as necessary. Therefore, stack locations on each designated building were approximated within the lot or space occupied by that building by utilizing each building's footprints of the campus map obtained from the *CEQR* Environmental Assessment Statement (EAS) conducted for the NYU Langone Medical Center Kimmel Pavilion and Energy Building project ("NYULMC EAS" - CEQR No. 11-BSA-029M) (see Figure H-2).

The NYULMC buildings and exhaust points of the Energy, Kimmel, and other buildings within the campus were subject to a comprehensive evaluation in the NYULMC EAS, and configurations were based on actual architectural drawings and a 3-D computer model. According to the NYULMC EAS, the CHP plant and backup boilers are housed in the Energy Building, and exhaust gases ducted though a common stack to the Kimmel Pavilion roof. These gases are then exhausted vertically from the Energy Building and traverse horizontally through the 6th floor mechanical equipment room in the Kimmel Pavilion, and then transitions vertically to a shaft on the roof with the flue terminated approximately 150 feet above roof level. The stack height, as per the NYULMC EAS, would be approximately 522 feet above datum. Figure H-2 shows the tall exhaust stack on the roof of the Kimmel Pavilion.

Figure H-2: Kimmel Pavilion/Energy Building



However, the current State permit for the NYULMC indicates that emissions from the CHP plant and backup boilers exhaust through a stack on the Kimmel Pavilion that is approximately 429 feet tall – not 522 feet tall as provided in the NYULMC EAS. If the Kimmel Pavilion is about 411 feet tall, the stack would rise approximately 18 feet above the roof. The stack diameter, as listed in the NYULMC EAS for the Kimmel Pavilion, is 60 inches while in the permit it is listed as 48 inches. The current permit does not list exit temperatures and velocities but the NYULMC EAS does -- 283.7 deg-F for the CHP (413 deg-K) and 300 deg-F (422 deg-K) for the boilers, and 122.6 feet/sec for the CHP and 66.3 feet/second for the boilers.

Based in this information, exit temperatures from the NYULMC EAS, together with an exhaust stack of 429 feet tall and 40 inches diameter, as listed in the permit for Kimmel Pavilion, were assumed for the dispersion analysis. However, exit velocities were conservatively adjusted to a maximum of 50 meters/second, as required by the AERMOD dispersion model.

The Energy Building, the Kimmel Pavilion, as well as the Smilow, Skirball, and Schwartz HCC buildings house emergency generators. According to the NYULMC EAS, the exhausts ducts from generators are located on the roofs of these buildings, at a minimum height of three feet above the roof. However, based on current permit and building heights (which were determined in the NYULMC EAS), the stacks for

generators would rise higher than 3 feet above the roof level. The exhaust stack for reciprocating engine would be located on Kimmel Pavilion (as per the permit). However, because the stack height listed in the permit is 364 feet, which is lower than the Kimmel Pavilion, it was assumed that exhaust from the engine would be routed to the same common stack on the roof of the Pavilion, which was used for the exhaust of the CHP plant (i.e., 429 feet tall).

It should be noted that two small parcels owned by Amtrak and occupied by its emergency ventilation facilities are located along First Avenue near East 33rd and 34th Streets on the NYULMC campus, approximately 250 feet away from the development site (see Figure H-1 above). Amtrak trains are powered electrically (i.e., no diesel engines operate within the Amtrak train tunnels)[1]. As such, there are no significant sources of emissions from the ventilation systems, which are only for providing and circulating air in the tunnels and for fire emergencies (emergency emissions are not considered in the *CEQR Technical Manual*). Further, the *CEQR Technical Manual* states that potential impacts on proposed developments from major Title V or State Facility combustion sources should be evaluated, which Amtrak emergency ventilation emission sources are not.

EGEN1 and EGEN2 on Smilow Building

The height of the Smilow building (as per the NYULMC EAS) is 270 feet; the stack height for EGEN1 is 328 feet and for EGEN2 288 feet (as per the Permit). As such, the stacks would be 58 feet and 18 feet above the roof of this building, respectively. The stacks are 18 inches in diameter (as per the permit). Stack temperatures are assumed to be approximately 920 deg-F (as per the NYULMC EAS). However, exit velocities used in the NYULMC EAS (404 feet/sec appear to be too high and were reduced to a maximum of 50 m/sec, as required by AERMOD.

EGEN3 on Skirball Building

The height of the Skirball building height (as per the NYULMC EAS) is 317 feet, the stack height is 328 feet (as per the permit). As such, the stack would be 11 feet above the roof. The stack diameter is 18 inches (as per the permit). The stack temperature and exit velocity were assumed to be the same as for EGEN1/EGEN2.

EGEN4 on Schwartz HCC Building

The height of the HCC building (as per the NYULMC EAS) is 214 feet, the stack height for the EGEN4 was assumed to be 3 feet above the roof. The stack diameter is 18 inches (as per the permit). The stack temperature and exit velocity were assumed to be the same as for EGEN1/EGEN2/EGEN3.

Permit Regulated Pollutants

The State Facility permit regulates three (3) pollutants – oxides of nitrogen (CAS #NY210-00-0), sulfur dioxide (CAS# 7446-09-5), and particulates (CAS #NY075-00-0). It should be noted that no medical lab fume hoods are identified in the State Facility permit (see Appendix F).

Dispersion Analysis

A dispersion modeling analysis was conducted to estimate impacts from the NYULMC emissions using the latest version of EPA's AERMOD dispersion model 8.0.0.24 (EPA version 16216r). In accordance with CEQR guidance, this analysis was conducted assuming stack tip downwash, urban dispersion surface roughness length, and elimination of calms. AERMOD's Plume Volume Molar Ratio Method (PVMRM) module was utilized for 1-hour NO_2 analysis -- to account for NOx to NO_2 conversion. Analyses were conducted with

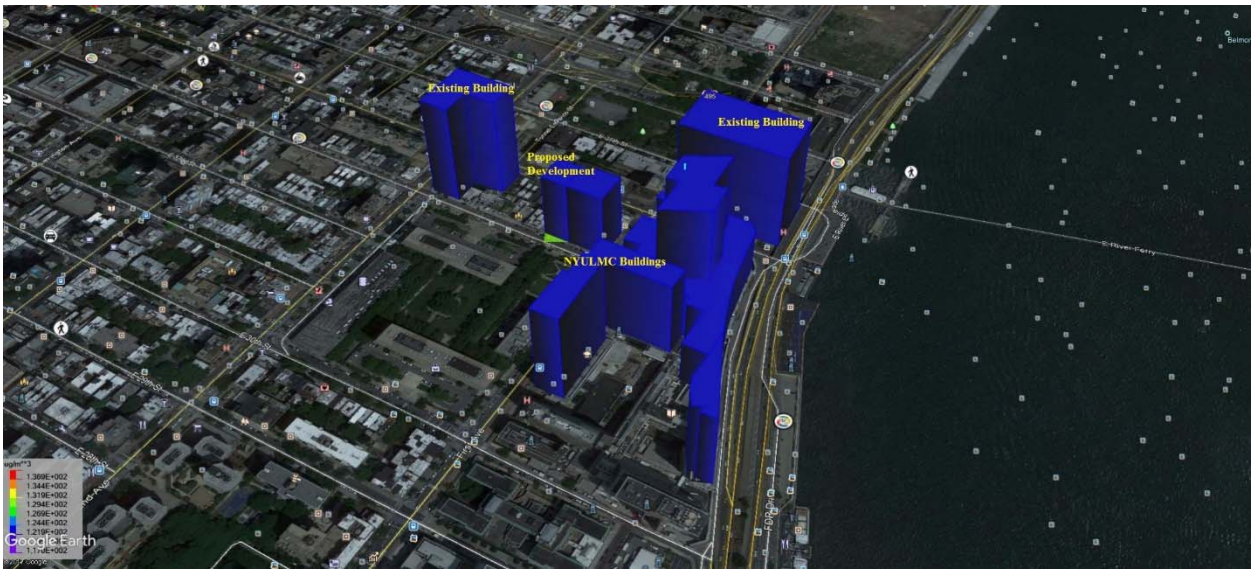
[1] https://en.wikipedia.org/wiki/East_River_Tunnels

and without the effects of wind flow around the proposed building (i.e., with and without downwash) utilizing AERMOD Building Profile Input Program (BPIP) algorithm and both results are reported.

Site Geometry

A digital base map for the AERMOD modeling analysis was developed using the NYCDCP PLUTO shape file for Manhattan together with NYC OASIS mapping software. However, OASIS delineates Lot 7501 on Block 962, where most of the NYULMC buildings of interest are located, as one big lot with no footprints for the Energy Building and Kimmel Pavilion. Therefore, the necessary building footprints and shapes were traced on a shape file by drawing over its lines using the NYULMC EAS campus map, as shown on a 3-D Google Image (Figure H-3).

Figure H-3: NYULMC in Relation to Proposed Development



Meteorological Data

All analyses were conducted using the latest five consecutive years of meteorological data (2012-2016). Surface data was obtained from La Guardia Airport and upper air data was obtained from Brookhaven station, New York. The data were processed by Trinity Consultants, Inc. using the current EPA AERMET and EPA procedures. These meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the 5-year period.

Five years of meteorological data were combined into a single multiyear file to conduct 24-hour $PM_{2.5}$ and 1-hour NO_2 modeling. The $PM_{2.5}$ special procedure which incorporated into AERMOD calculates concentrations at each receptor for each year modeled, averages those concentrations across the number of years of data, and then selects the highest values across all receptors of the 5-year averaged highest values.

Background Concentrations

Because Manhattan monitoring stations do not collect hourly ozone and NO_2 background data, to conduct the 1-hour NO_2 Tier 3 analysis, hourly ozone and NO_2 background concentrations were developed from available monitoring data collected at the Queens College 2 station for the 5 consecutive years (2012-2016), and compiled into AERMOD's required hourly emission (NO_2) and concentration (ozone) data format.

The maximum 1-hour NO_2 background concentration from Queens College 2 monitoring station is 121.3 ug/m^3, which is 3-year average of the 98th percentile of daily maximum 1-hour concentrations, and the annual NO_2 background concentration of 31.3 ug/m^3 is the maximum annual average for 2014 through 2016.

The 1-hour SO_2 background concentration from IS52 monitoring station in Manhattan is 28.0 ug/m^3, which is the 99th percentile of daily maximum 1-hour concentration averaged over the most recent 3 years (2014-2016). The maximum 24-hour PM_{10} background concentration is 37 ug/m^3 and the maximum annual $PM_{2.5}$ background concentration from JHS 45 monitoring station is 8.4 ug/m^3.

Receptor Locations

Receptors were placed around all faces of the proposed building, in 10-foot increments on all floor levels, starting 10 feet above the ground and extending up to 225 feet (the level of the upper windows that were assumed to be approximately 5 feet below roof level). In order to assure that maximum impacts are estimated, approximately 1,000 receptors were considered.

Emission Rates

Emission rates for all regulated pollutants were estimated based on values provided in the Air State Facility permit # 2-6206-01492 and heat input of combustion turbine, boilers, and engines. The emission factors applied were as follows:

- NOx emission factor for operation of turbine on natural gas or on natural gas + burner = 93.7 lb/scf (0.0919 lb/MMBtu);
- NOx emission factor for operation of turbine on ultra-low sulfur fuel (ULSD) = 0.005 lb/gal (3.57E-02 lb/MMBtu);
- NOx emission factor from operation of the back-up boilers on natural gas = 204 lb/mmscf (based on 1,020 Btu/scf heating value of natural gas) or 0.20 lb/MMBtu and on ULSD = 0.028 lb/gal (based on 140,000 Btu/gallon heating value of fuel oil #2) – 0.2 lb/MMBtu;
- NOx from operation of the old engines (Skirball, Smilow, and HCC buildings) on ULSD = 0.409 lb/gallon (based on AP-42 emission factor) – 2.92 lb/MMBtu;
- NOx emission factors from operation of the reciprocating engine on natural gas =316 lb/mmscf – 0.310 lb/MMBtu,
- SO_2 emission factor from operation of the combustion turbine on any type of fuel = 0.060 lb/MMBtu of heat input; and
- PM_{10} emission factor from operation of the combustion turbine = 0.1 lb/MMBtu of heat input.

Emission factors for $PM_{2.5}$, PM_{10}, NOx, and SO_2 for combustion turbines, boilers, and engines for both type of fuels that were not available from the permit were obtained from the EPA AP-42, as follows:

Natural Gas

- $PM_{2.5}$ – combined emission factor for natural gas from combustion turbine is 6.6E-03 lb/MMBtu) which includes 7.2E-03 lb/MMBtu emission factor for condensable particles and 4.3E-03 lb/MMBtu for filterable particles (AP-42, Table 3.1-2a);
- $PM_{2.5}$ – combined emission factor for natural gas from boilers firing natural gas is 7.6E-03 lb/MMBtu) which includes condensable and filterable particles (AP-42, Table 1.4-2);

Fuel Oil (ULSD)

- $PM_{2.5}$ – combined emission factor for firing ULSD fuel in combustion turbine is 1.2E-02 lb/MMBtu) which includes 4.7E-03 lb/MMBtu emission factor for condensable particles and 1.9E-03

lb/MMBtu for filterable particles (AP-42, Table 3.1-2a);

- $PM_{2.5}$ – combined emission factor for fuel oil firing in boilers is 1.52E-02 lb/MMBtu) (2.13 lb/10^3 gal) which includes 9.2E-03 lb/MMBtu (1.3 lb/10^3 gal) emission factor for condensable particles less than 1 micron in diameter (Condensable Particulate Matter for Fuel Oil Combustion, AP-42, Table 1.3-2) and 5.9E-03 lb/MMBtu (0.83 lb/10^3 gal) for particles with size of 2.5 microns from "Cumulative Particle Size Distribution and Size-Specific Emission Factors for Uncontrolled Commercial Boilers Burning Residual or Distillate Oil, AP-42, Table 1.3-7);
- PM_{10} emission factor for boilers firing distillate fuel oil ULSD is 2 lb/10^3 gallon or 1.4E-03 lb/MMBtu which include only filterable particles (Table 1.3-1);
- SO_2 - emission factor for firing ULSD fuel in boilers is 1.52E-02 lb/MMBtu (0.213 lb/10^3 gal) (estimated from equation SO_2=142S where S = sulfur content in fuel oil (0.0015%), "Criteria Pollutant Emission Factors for Fuel Oil Combustion AP-42, Table 1.3-1";
- $PM_{2.5}$/PM10 emission factors for diesel-fueled industrial engines is 0.31 lb/MMBtu (AP-42. Table 3.3-1);
- NOx emission factors for diesel-fueled industrial engines is 4.41 lb/MMBtu (AP-42 Table 3.3-1); and
- SO_2 emission factors for diesel-fueled industrial engines is 0.29 lb/MMBtu (AP-42 Table 3.3-1).

Estimated short-term and annual emission rates for all pollutants are provided in Tables H-3 and H-4 for natural gas and fuel oil combustion, respectively.

Reasonable Worst-Case Scenarios

The CHP plant can operate on a continuous basis at a maximum net output of 10 MW. However, due to nature of electricity generation, the facility likely operates on a non-continuous basis -- at varying loads. If the combustion turbine would operate at partial load, the CHP plant would not fire the duct burner and emission rates from the turbine would be lower than under 100% load. On the other hand, according to permit, the co-generating reciprocation engine will work continuously on daily basis to provide electricity. However, in order to conservatively estimate potential worst-case short-term impacts, short-term emission rates for natural gas were estimated assuming 100% load of all units and the simultaneous operation of the combustion turbine and reciprocating engine.

The worst-case annual scenario with fuel oil assumes that combustion turbine would operate continuously daily only during three cold months, for 100 days a year while backup boilers would operate for a maximum of 576 hours a year (as per the NYULMC EAS).

Four existing generators that would participate in the non-emergency program would be located on Smilow (2), Skirball, and HCC buildings. All have their own stacks and fire only diesel fuel. The generators were analyzed only on a short-term basis for $PM_{2.5}$ and PM_{10}. The 1-hour NO_2 and 1-hour SO_2 concentrations from generators were not estimated since the NAAQS for these pollutants are based on a statistical-based number of exceedances above specific concentration threshold and therefore, are not likely applicable for sources that operate a limited amount of time.

Table H-3:
Estimated Pollutant Emission Rates with Natural Gas Under Permit #2-6206-01492

Pollutant Emission Factors	Number of Units	Heat Input @ 100% Load	Combined Short-term Emission Rates		Combined Annual Emission Rates	
lb/MMBtu		MMBtu/hr	lb/hr	g/sec	lb/year	g/sec
Natural Gas			**PM_{10} Emission Rates**			
Combustion Turbine						
1.00E-01	1	202.15	2.02E+01	2.55E+00	177,083	2.55E+00
Backup Boilers						
1.90E-03	2	173.78	6.60E-01	8.32E-02	66	9.50E-04
Reciprocating Engine						
7.71E-05	1	27.395	2.11E-03	2.66E-04	19	2.66E-04
Total for Combustion Turbine+Boilers+Reciprocating Engine				2.63E+00		2.55E+00
Natural Gas			**$PM_{2.5}$ Emission Rates**			
Combustion Turbine						
6.60E-03	1	202.15	1.33E+00	1.68E-01	11,688	1.68E-01
Backup Boilers						
7.60E-03	2	173.78	2.64E+00	3.33E-01	264	3.80E-03
Reciprocating Engine						
9.99E-03	1	27.395	2.74E-01	3.45E-02	2,397	3.45E-02
Total for Combustion Turbine+Boilers+Reciprocating Engine				5.35E-01		2.06E-01
Natural Gas			**NOx Emission Rates**			
Combustion Turbine						
9.19E-02	1	202.15	1.86E+01	2.34E+00	**Annual NOx Limit 49,800 lb/year**	
Backup Boilers						
2.00E-01	2	173.78	6.95E+01	8.76E+00		
Reciprocating Engine						
3.10E-01	1	27.395	8.49E+00	1.07E+00		
Total for Combustion Turbine+Boilers+Reciprocating Engine				1.22E+01	49,800	7.16E-01
Natural Gas			**SO_2 Emission Rates**			
Combustion Turbine						
6.00E-02	1	202.15	1.21E+01	1.53E+00	106,250	1.53E+00
Backup Boilers						
6.00E-02	2	173.78	2.09E+01	2.63E+00	2,085	3.00E-02
Reciprocating Engine						
5.88E-04	1	27.395	1.61E-02	2.03E-03	141	2.03E-03
Total for Combustion Turbine+Boilers+Reciprocating Engine				4.16E+00		1.56E+00

Table H-4:
Estimated Pollutant Emission Rates with Fuel Oil ULSD Under Permit #2-6206-01492

Pollutant Emission Factors	Number of Units	Heat Input @100% Load	Combined Peak Short-term Emission Rate		Combined Annual Emission Rate	
lb/MMBtu		MMBtu/hr	lb/hr	g/sec	lb/year	g/sec
Fuel Oil ULSD			**PM_{10} Emission Rates**			
Combustion Turbine						
1.00E-01	1	202.15	2.02E+01	2.55E+00	2,022	2.91E-02
Backup Boilers						
1.40E-03	2	173.78	4.87E-01	6.13E-02	280	4.03E-03
Total for Combustion Turbine+Boilers				2.61E+00		3.31E-02
Fuel ULSD						
EGEN1						
3.10E-01	1	4.77	1.48E+00	1.86E-01	739	1.06E-02
EGEN2						
3.10E-01	1	4.77	1.48E+00	1.86E-01	739	1.06E-02
EGEN3						
3.10E-01	1	4.26	1.32E+00	1.66E-01	660	9.50E-03
EGEN4						
3.10E-01	1	3.41	1.06E+00	1.33E-01	529	7.60E-03
Fuel Oil ULSD			**$PM_{2.5}$ Emission Rates**			
Combustion Turbine						
1.20E-02	1	202.15	2.43E+00	3.06E-01	243	3.49E-03
Backup Boilers						
1.50E-03	2	173.78	5.21E-01	6.57E-02	300	4.32E-03
Total for Combustion Turbine+Boilers				3.71E-01		7.81E-03
Fuel ULSD						
EGEN1						
3.10E-01	1	4.77	1.48E+00	1.86E-01	739	1.06E-02
EGEN2						
3.10E-01	1	4.77	1.48E+00	1.86E-01	739	1.06E-02
EGEN3						
3.10E-01	1	4.26	1.32E+00	1.66E-01	660	9.50E-03
EGEN4						
3.10E-01	1	3.41	1.06E+00	1.33E-01	529	7.60E-03
Fuel Oil ULSD			**NOx Emission Rates**			
Combustion Turbine						
3.57E-02	1	202.15	7.22E+00	9.10E-01	**Annual NOx Limit 49,800 lb/year**	
Backup Boilers						
2.00E-01	2	173.78	6.95E+01	8.76E+00		

Total for Combustion Turbine+Boilers				9.67E+00	49,800	7.16E-01
Fuel ULSD						
EGEN1						
4.41E+00	1	4.77	2.10E+01	2.65E+00	10,518	1.51E-01
EGEN2						
4.41E+00	1	4.77	2.10E+01	2.65E+00	10,518	1.51E-01
EGEN3						
4.41E+00	1	4.26	1.88E+01	2.37E+00	9,393	1.35E-01
EGEN4						
4.41E+00	1	3.41	1.50E+01	1.89E+00	7,519	1.08E-01
Fuel Oil ULSD			**SO_2 Emission Rates**			
Combustion Turbine						
6.00E-02	1	202.15	1.21E+01	1.53E+00	1,213	1.74E-02
Backup Boilers						
1.52E-02	2	173.78	5.28E+00	6.66E-01	3,043	4.38E-02
Total for Combustion Turbine+Boilers				2.19E+00		6.12E-02
Fuel Oil ULSD						
2.90E-01	1	4.77	1.38E+00	1.74E-01	692	9.95E-03
EGEN2						
2.90E-01	1	4.77	1.38E+00	1.74E-01	692	9.95E-03
EGEN3						
2.90E-01	1	4.26	1.24E+00	1.56E-01	618	8.88E-03
EGEN4						
2.90E-01	1	3.41	9.89E-01	1.25E-01	494	7.11E-03

Modeling parameters used in the dispersion analysis are provided in Table H-5.

Table H-5:
Modeling Parameters for Analysis

Model	AERMOD (EPA Version 16216r)
Source Type	Point Source
Number of emission points (stacks) considered	Five
Surface Characteristic	Urban Area Option
Urban Surface Roughness Length	1
Downwash effect	BPIP Program
Meteorological Data	Preprocessed by the AERMET meteorological preprocessor program by Trinity Consultants, Inc. Yearly meteorological data for 2012-2016 concatenated into single multiyear file for $PM_{2.5}$ modeling, as EPA recommended
Surface Meteorological Data	LaGuardia 2012-2016
Profile Meteorological Data	Brookhaven Station 2012-2016
Pollutant Background Concentrations	Manhattan and Queens College 2 monitoring stations data for 2012-2016
$PM_{2.5}$ Analysis	Special procedure incorporated into AERMOD where model calculates concentration at each receptor for each year modeled, averages those concentrations across the number of years of data, and then selects the highest across all receptors of the 5-year averaged highest values

Results

Potential impacts of the $PM_{2.5}$, $PM_{10,}$ NO_2, and $SO_{2,}$ emissions from NYULMC on the proposed development were estimated and compared with the 24-hour/annual $PM_{2.5}$ *CEQR* significant impact criteria as well as the 1-hour/annual NO_2, the 1-hour SO_2, and the 24-hour PM_{10} NAAQS.

The result of the dispersion analysis is that all impacts under both scenarios (i.e., with natural gas and ULSD oil) are less than both the applicable standards and the *CEQR* significant threshold values. This is likely due to the difference between plume height from taller NUYLMC buildings and the receptors (windows) on the shorter proposed development. This height differential reduced potential impacts -- both with or without downwash. The maximum estimated potential 24-hour $PM_{2.5}$ impacts with natural gas with and without downwash are 3.97 ug/m^3 and 1.2 ug/m^3, respectively, which are less than the 6.3 ug/m^3 *CEQR* significant impact criteria. However, the maximum estimated 1-hour NO_2 impact exceeds the NAAQS under the conservative Tier 1 approach and a Tier 3 analysis was conducted.

The downwash effects from the NYULMC's tall and complex buildings play a role in the maximum estimated concentrations causing elevated downwash concentration. With downwash, the highest impact occurs near ground level (10 feet) while without downwash maximum impact occurs at the upper window level (i.e., 225 feet) of the proposed development.

$PM_{2.5}$

The results of the $PM_{2.5}$ analysis with ULSD fuel oil are somewhat higher than with natural gas. The maximum 24-hour impact is 3.97 ug/m^3 with oil and 3.16 ug/m^3 with natural gas -- with downwash. Without downwash, the 24-hour results for both types of fuels are smaller – 1.2 ug/m^3 with oil and less than 0.05 ug/m^3 with natural gas. The maximum annual average impact is 0.18 ug/m^3 with oil and less than 0.1 ug/m^3 with natural gas -- with downwash.

These values are less than the *CEQR* significant impact criteria of 6.3 ug/m^3 and 0.3 ug/m^3, respectively. Therefore, PM_{25} emissions from the NYULMC facility would not cause a significant air quality impact on the proposed development.

1-Hour NO_2

The Tier 1 NO_2 analysis was not sufficient to demonstrate compliance with the 1-hour NO_2 NAAQS, and a Tier3 analysis with PVMRM module was therefore conducted. With Tier 3, NO_2 background concentrations are added internally to the modeled concentration, and the resulting total 1-hour NO_2 concentration is compared to the 1-hour NO_2 NAAQS. The result of the 1-hour NO_2 Tier3 analysis is that the 1-hour NO_2 8th highest daily 1-hour concentration is 139.8 ug/m^3 with downwash and 126.4 ug/m3 without downwash. The total average annual NO_2 total concentration is 31.4 ug/m^3 (with a maximum impact of 0.12 ug/m^3 and background value of 31.3 ug/m^3).

Both the maximum 1-hour and annual NO_2 concentrations are less than the 1-hour and annual NO_2 NAAQS of 188 ug/m^3 and 100 ug/m^3, respectively. Therefore, 1-hour and annual NO_2 emissions from the NYULMC would not cause a significant air quality impact on the proposed development.

1-hour SO_2

The results of the 1-hour SO_2 analysis is that the maximum 1-hour SO_2 impact is estimated to be 47.5 ug/m^3 and the total 4th highest daily 1-hour SO_2 average concentration, including background, is estimated to be 72.2 ug/m^3, which is less than the 1-hour SO_2 NAAQS of 196 ug/m^3. Therefore, 1-hour SO_2 emissions from the NYULMC would not cause a significant air quality impact on the proposed development.

24-hour PM_{10}

The result of the 24-hour PM_{10} analysis is that the maximum 24-hour PM_{10} impact is 15.5 ug/m^3. The maximum total 24-hour PM_{10} concentration, including background value of 44 ug/m^3, is estimated to be 59.5 ug/m^3, which is less than the 24-hour PM_{10} NAAQS of 150 ug/m^3. Therefore, the 24-hour PM_{10} emissions from the NYULMC would not cause a significant air quality impact on the proposed development.

A summary of the results for all averaging time periods, with and without downwash effect, are presented in Table H-6. As the results show no exceedances of the *CEQR* significant impact criteria for $PM_{2.5}$ or the respective NAAQS for all pollutants emitted from NYULMC emission sources on the proposed development, no significant potential impacts are predicted.

Table H-6:

Summary of Results of the NYULMC Air State Facility Permit Emissions Analysis

Pollutant	Modeled Concentration [(1)]	Background Conc.	Total Conc.	Evaluation Criteria
	ug/m³	ug/m³	ug/m³	ug/m³
$PM_{2.5}$				
24-hr $PM_{2.5}$	3.97/1.2		3.97	6.3 (*CEQR Criteria)*
Annual $PM_{2.5}$	0.18/<0.1		0.05	0.3 (*CEQR Criteria*)
1-hr NO_2	139.8 [(2)]/126.4[(3)]		139.8	188 (NAQQS)
Annual NO_2	0.12/<0.1	31.3	31.4	100 (NAAQS
1-hr SO_2	47.5/2.4	24.7	72.2	196 (NAQQS)
24-hr PM_{10}	15.5/0.25	44	59.5	150 (NAQQS)

Notes:

[(1)] Modeled concentrations with/without downwash effects.

[(2)] Results with Tier3 analysis

[(3)] Results with Tier 1 analysis

I. INTRODUCTION

The applicant, 33rd Street Acquisition LLC, is seeking a zoning map amendment to rezone an R8A residential district to a C1-9A commercial district, and a zoning text amendment to amend Appendix F of the Zoning Resolution (ZR) to apply the Mandatory Inclusionary Housing (MIH) program to the rezoning area in Manhattan Community District (CD) 6, to facilitate the development of a 23-story mixed-use development at 339-345 East 33rd Street in the Kips Bay neighborhood of CD 6 (Block 939, 24, 25, 26, and 27).

This attachment assesses the potential for the proposed action to result in significant adverse noise impacts. Based on CEQR transportation analysis thresholds, it was determined that the proposed project would generate fewer than 50 peak hour vehicle trips at any intersection, and therefore, a traffic analysis was not conducted and no significant adverse traffic impacts are anticipated. However, in accordance with the guidelines established in the 2014 *CEQR Technical Manual*, a noise analysis was performed to identify the potential noise impacts to the proposed project from the existing noise environment (traffic noise) and identify the required level of attenuation to achieve an acceptable interior noise level of 45 dBA. This attachment does not include an analysis of mechanical equipment because such mechanical equipment would be designed to meet all applicable noise regulations and, therefore, would not result in adverse noise impacts. In addition, based on a field survey of land uses in the area, it was determined that no stationary noise sources contribute significantly to noise levels in the area, and a stationary noise source analysis is not necessary.

II. PRINCIPAL CONCLUSIONS

Noise from the increased traffic volumes generated by the proposed project would not cause significant adverse noise impacts as the relative increases in noise levels would fall below the applicable 2014 *CEQR Technical Manual* significant adverse impact threshold (3.0 dBA).

Based on the maximum predicted With-Action noise levels, the southern façade of the proposed building (East 33rd Street) would require 31 dBA of window/wall attenuation in order to maintain interior noise levels of 45 dBA or lower for the proposed building's residential uses and 26 dBA of window/wall attenuation in order to maintain interior noise levels of 50 dBA or lower for the proposed project's commercial uses, per 2014 *CEQR Technical Manual* guidelines. The western façade would require 31 dBA of window/wall attenuation on the upper stories (floors 5 to 23) in order to maintain interior noise levels of 45 dBA or lower for the proposed building's residential uses. The northern and eastern façades of the proposed project would not require any window/wall attenuation beyond standard modern construction practices in order to maintain interior noise levels of 45 dBA and 50 dBA or lower along these façades for the proposed building's residential and commercial uses, respectively.

III. NOISE FUNDAMENTALS

Quantitative information on the effects of airborne noise on people is well documented. If sufficiently loud, noise may adversely affect people in several ways. For example, noise may interfere with human activities such as sleep, speech communication, and tasks requiring concentration or coordination. It may also cause annoyance, hearing damage, and other physiological problems. Although it is possible to study these effects on people on an average or statistical basis, it must be remembered that all the stated effects of noise on people vary greatly with the individual. Several noise scales and rating methods are used to quantify the effects of noise on people. These scales and methods consider factors such as loudness, duration, time of occurrence, and changes in noise level with time.

"A"-Weighted Sound Levels (dBA)

Noise is typically measured in units called decibels (dB), which are 10 times the logarithm of the ratio of the sound pressure squared to a standard reference pressure squared. Because loudness is important in the assessment of the effects of noise on people, the dependence of loudness on frequency must be taken into account in the noise scale used in environmental assessments. Frequency is the rate at which sound pressures fluctuate in a cycle over a given quantity of time and is measured in Hertz (Hz), where one Hz equals one cycle per second. Frequency defines sound in terms of pitch components. In the measurement system, one of the simplified scales that accounts for the dependence of perceived loudness on frequency is the use of a weighting network (known as A-weighting) that simulates the response of the human ear. For most noise assessments, the A-weighted sound pressure level in units of dBA is used due to its widespread recognition and its close correlation to perception. In this analysis, all measured noise levels are reported in dBA or A-weighted decibels. Common noise levels in dBA are shown in Table I-1.

Table I-1: Common Noise Levels

Sound Source	(dBA)
Air Raid Siren at 50 feet	120
Maximum Levels at Rock Concerts (Rear Seats)	110
On Platform by Passing Subway Train	100
On Sidewalk by Passing Heavy Truck or Bus	90
On Sidewalk by Typical Highway	80
On Sidewalk by Passing Automobiles with Mufflers	70
Typical Urban Area	60-70
Typical Suburban Area	50-60
Quiet Suburban Area at Night	40-50
Typical Rural Area at Night	30-40
Soft Whisper at 5 meters	30
Isolated Broadcast Studio	20
Audiometric (Hearing Testing) Booth	10
Threshold of Hearing	0

Note: A 10 dBA increase appears to double the loudness and a 10 dBA decrease appears to halve the apparent loudness.
Sources: *CEQR Technical Manual*/Cowan; James P., *Handbook of Environmental Acoustics,* Van Nostrand Reinhold, New York, 1994. Egan, M. David, *Architectural Acoustics,* McGraw-Hill Book Company, 1988.

Community Response to Changes in Noise Levels

Table I-2 shows the average ability of an individual to perceive changes in noise. Generally, changes in noise levels less than three dBA are barely perceptible to most listeners. However, as illustrated in Table I-2, five dBA changes are readily noticeable. 10 dBA changes are normally perceived as doublings (or halvings) of noise levels. These guidelines permit direct estimations of an individual's probable perception of changes in noise levels.

Table I-2: Average Ability to Perceive Changes in Noise Levels

Change (dBA)	Human Perception of Sound
2-3	Barely perceptible
5	Readily noticeable
10	A doubling or halving of the loudness of sound
20	A dramatic change
40	Difference between a faintly audible sound and a very loud sound

Source: Bolt Beranek and Neuman, Inc., *Fundamentals and Abatement of Highway Traffic Noise* (Report No. PB-222-703). Prepared for the Federal Highway Administration (FHA), June 1973.

Noise Descriptors Used in Impact Assessment

Because the sound pressure level unit (dBA) describes a noise level at just one moment and very few noises are constant, other ways of describing noise over extended periods of time have been developed. One way of describing fluctuating sound is to describe the fluctuating noise heard over a specific time period as if it had been a steady, unchanging sound. For this condition, a descriptor called the "equivalent sound level" (L_{eq}) can be computed. L_{eq} is the constant sound level that, in a given situation and time period (e.g., 1 hour [denoted by $L_{eq(1)}$] or 24 hours [denoted as $L_{eq(24)}$]), conveys the same sound energy as the actual time-varying sound. Statistical sound level descriptors such as L_1, L_{10}, L_{50}, L_{90}, and L_x are sometimes used to indicate noise levels that are exceeded 1, 10, 50, 90 and x percent of the time, respectively. Discrete event peak levels are given as L_1 levels. L_{eq} is used in the prediction of future noise levels by adding the contributions from new sources of noise (i.e., increases in traffic volumes) to the existing levels and in relating annoyance to increases in noise levels.

The relationship between L_{eq} and levels of exceedance is worth noting. Because L_{eq} is defined in energy rather than straight numerical terms, it is not simply related to the levels of exceedance. If the noise fluctuates very little, L_{eq} will approximate L_{50} or the median level. If the noise fluctuates broadly, the L_{eq} will be approximately equal to the L_{10} value. If extreme fluctuations are present, the L_{eq} will exceed L_{90} or the background level by 10 or more decibels. Thus the relationship between L_{eq} and the levels of exceedance will depend on the character of the noise. In community noise measurements it has been observed that the L_{eq} is generally between L_{10} and L_{50}. The relationship between L_{eq} and exceedance levels has been used in this analysis to characterize the noise sources and to determine the nature and extent of their impact at all receptor locations.

For the purposes of this analysis, the maximum one-hour equivalent sound level ($L_{eq(1)}$) has been selected as the noise descriptor to be used in the noise impact evaluation. $L_{eq(1)}$ is the noise descriptor used in the 2014 *CEQR Technical Manual* for noise impact evaluation and is used to provide an indication of highest expected sound levels; $L_{10(1)}$ is the noise descriptor used in the 2014 *CEQR Technical Manual* for building attenuation. Hourly statistical noise levels (particularly L_{10} and L_{eq} levels) were used to characterize the relevant noise sources and their relative importance at each receptor location.

Applicable Noise Codes and Impact Criteria

New York City Noise Code

The New York City Noise Control Code, as amended in December 2005, contains prohibitions regarding unreasonable noise and specific noise standards, including plainly audible criteria for specific noise sources. In addition, the amended code specifies that no sound source operating in connection with any commercial or business enterprise may exceed the decibel levels in the designated octave bands at specified receiving properties.

CEQR Technical Manual Noise Exposure Guidelines

The New York City Department of Environmental Protection (DEP) has set exterior noise exposure guidelines, keyed to noise levels experienced at the building line (or, for exterior spaces, the property line). These guidelines are shown in Table I-3 below. Noise exposure is classified into four categories: acceptable, marginally acceptable, marginally unacceptable, and clearly unacceptable.

Table I-3: Noise Exposure Guidelines for Use in City Environmental Impact Review

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

Notes:

(i) In addition, any new activity shall not increase the ambient noise level by 3 dBA or more;

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

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

[3] One may use the Federal Aviation Administration- (FAA-) approved L_{dn} contours supplied by the Port Authority, or the noise contours may be computed from the federally approved Integrated Noise Model (INM) Computer Model using flight data supplied by the Port Authority of New York and New Jersey.

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

Source: DEP (adopted policy 1983).

The guidelines shown are based on maintaining an interior noise level for the worst-case hour L_{10} of less than or equal to 45 dBA. Attenuation requirements are shown in Table I-4.

Table I-4: Required Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Noise level with Proposed Action	$70<L_{10}\leq73$	$73<L_{10}\leq76$	$76<L_{10}\leq78$	$78<L_{10}\leq80$	$80<L_{10}$
Attenuation[A]	(I) 28 dBA	(II) 31 dBA	(III) 33 dBA	(IV) 35 dBA	$36 + (L_{10} - 80)$[B] dBA

Notes:
[A] The above composite window-wall attenuation values are for residential dwellings. Commercial office spaces and meeting rooms would be 5 dBA less in each category. All the above categories require a closed window situation and hence an alternate means of ventilation.
[B] Required attenuation values increase by 1 dBA increments for L_{10} values greater than 80 dBA.
Sources: DEP; *CEQR Technical Manual*

IV. NOISE PREDICTION METHODOLOGY

Future noise levels resulting from traffic were calculated with a proportional modeling technique used as a screening tool to estimate changes in noise levels. The proportional modeling technique is an analysis methodology recommended for analysis purposes in the 2014 *CEQR Technical Manual*. The noise analysis examined the weekday AM, midday, and PM peak hours.

Proportional Modeling

Proportional modeling was used to determine No-Action and With-Action noise levels along the project site's East 33rd Street frontage, as discussed in more detail below. Proportional modeling is one of the techniques recommended in the 2014 *CEQR Technical Manual* for mobile source analysis.

Using this technique, the prediction of future noise levels (where traffic is the dominant noise source) is based on a calculation using measured existing noise levels and predicted changes in traffic volumes to determine No-Action and With-Action noise levels. Vehicular traffic volumes (counted during the noise recording), are converted into Passenger Car Equivalent (PCE) values, for which one medium-duty truck (having a gross weight between 9,900 and 26,400 pounds) is assumed to generate the noise equivalent of thirteen cars, one heavy-duty truck (having a gross weight of more than 26,400 pounds) is assumed to generate the noise equivalent of 47 cars, and one bus (vehicles designed to carry more than nine passengers) is assumed to generate the noise equivalent of eighteen cars. Future noise levels are calculated using the following equation:

$$FNA\ NL = 10 \log (NA\ PCE / E\ PCE) + E\ NL$$

where:

FNA NL = Future No-Action Noise Level
NA PCE = No-Action PCEs
E PCE = Existing PCEs
E NL = Existing Noise Level

Sound levels are measured in decibels and therefore increase logarithmically with sound source strength. In this case, the sound source is traffic volumes measured in PCEs. For example, assume that

traffic is the dominant noise source at a particular location. If the existing traffic volume on a street is 100 PCEs and if the future traffic volumes were increased by 50 PCEs to a total of 150 PCEs, the noise level would increase by 1.8 dBA. Similarly, if the future traffic were increased by 100 PCEs, or doubled to a total of 200 PCEs, the noise level would increase by 3.0 dBA.

To calculate the No-Action and With-Action PCE values, an annual background growth rate of 0.25 percent for the proposed project's analysis year of 2020 was added to the PCE noise values based on counted vehicles.[1] A travel demand forecast was calculated to predict vehicles generated by the proposed project in the in the With-Action condition.

V. EXISTING NOISE LEVELS

Selection of Noise Receptor Locations

The proposed development site comprises Lots 23, 24, 25, 26, and 27 on Block 939. The development site comprises approximately 10,822 sf with 110 feet of frontage along the north side of East 33rd Street, which is a wide street. The development site is zoned R8A and includes five 4-story residential buildings. A right-of-way for the Long Island Rail Road (LIRR) is located beneath the majority of the development site and the rezoning area.

The development site is currently occupied by five 4-story residential buildings that contain a total of 53 DUs and one medical office. The four applicant controlled buildings on Lots 24-27 (the "projected site") contain 40 DUs, of which 30 are market rate, 9 units are rent stabilized and 1 unit is rent controlled. Seventeen of the 40 DUs are currently vacant. The medical office is approximately 1,244 sf and is located at 343 East 33rd Street. The development site is bordered by the 16-story mixed-used residential building at 340 East 34th Street (Block 939, Lot 38) on the north, the 23-story residential building at 347 East 33rd Street (Block 939, Lot 28) on the east, and the 5-story residential building at 335 East 33rd Street (Block 939, Lot 22) on the west.

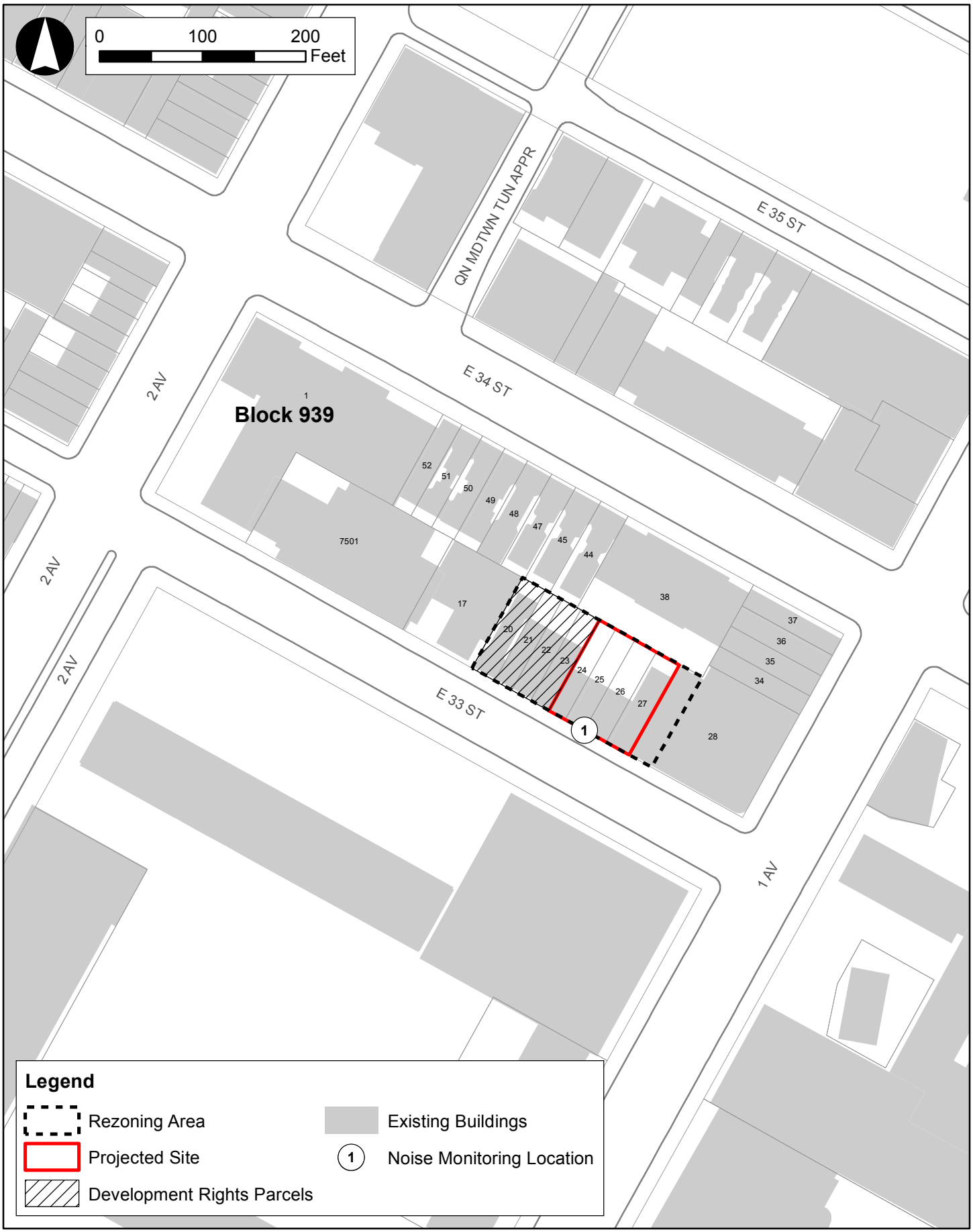
As vehicle noise is the main contributor to the existing noise levels in the surrounding area, noise monitoring was conducted at one location: the approximate mid-point of the project site's East 33rd Street frontage (receptor location 1), near the lot line shared by Lots 25 and 26. As the northern, eastern, and western façades of the project site are completely obstructed from East 33rd Street and East 34th Street by the surrounding buildings, no noise monitoring was conducted at any other locations. The noise monitoring location is presented in Figure I-1.

Noise Monitoring

Noise monitoring was carried out on Wednesday, April 15th, 2016. The weather was partly cloudy with temperatures in the high-50s. 20-minute spot measurements of existing noise levels were performed at receptor location 1 for three noise analysis time periods: weekday AM peak hour (8 AM to 9 AM); weekday midday peak hour (12 PM to 1 PM); and weekday PM peak hour (5 PM to 6 PM) to establish existing noise levels. For the purpose of this analysis, during the noise recordings, vehicles were also counted and classified.

[1] Calculations according to Table 16-4 of the 2014 *CEQR Technical Manual.*

Figure I-1
Noise Monitoring Location



Equipment Used During Noise Monitoring

The instrumentation used for the measurements was a Brüel & Kjær Type 4189 half-inch microphone connected to a Brüel & Kjær Model 2250 Type 1 (as defined by ANSI) sound level meter. This assembly was mounted at a height of five feet above the ground surface on a tripod and at least six feet away from any sound-reflecting surfaces to avoid major interference with the source sound level that was being measured. The meter was calibrated before and after readings with a Brüel & Kjær Type 4231 sound-level calibrator using the appropriate adaptor. The data were digitally recorded by the sound level meter and displayed at the end of the measurement period in units of dBA. Measured quantities included L_{eq}, L_1, L_{10}, L_{50}, and L_{90}. A windscreen was used during all sound measurements except for calibration. Only traffic-related noise was measured; noise from other sources (e.g., emergency sirens, aircraft flyovers, etc.) was excluded from the measured noise levels. Weather conditions were noted to ensure a true reading as follows: wind speed under 12 mph; relative humidity under 90 percent; and temperature above 14°F and below 122°F (pursuant to ANSI Standard S1.13-2005).

Existing Noise Levels at Noise Monitoring Locations

Noise monitoring results are shown in Table I-6. As indicated in the table, existing L_{eq} noise levels at receptor location 1 range from 66.4 dBA to 72.9 dBA in the three weekday peak hours, with the highest monitored noise levels during the AM peak hour. In terms of CEQR noise exposure categories, the existing L_{10} noise levels at receptor location 1 (75.4 dBA) are in the "Marginally Unacceptable (II)" category.

Table I-6: 2016 Existing Noise Levels at Monitoring Location (in dBA)

Receptor	Measurement Location	Time	L_{eq}	L_{max}	L_{min}	L_1	L_{10}	L_{50}	L_{90}	CEQR Noise Exposure Category
1	Midpoint of Project Site frontage along East 33rd Street	AM	72.9	92.6	61.9	83.2	**75.4**	69.4	64.7	Marginally Unacceptable (I)
		MD	72.0	100.1	59.4	84.2	73.2	64.0	61.5	
		PM	66.4	96.5	57.0	76.4	68.3	62.5	59.8	

Notes: Highest L_{10} value at the receptor location indicated in **bold.**

VI. FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION CONDITION)

As outlined in Attachment A, "Project Description," in the No-Action condition, the project site would remain as under existing conditions – developed with four 4-story residential buildings. Future No-Action noise levels at receptor location 1 were calculated using the noise prediction methodology described above in Section IV.

Table I-7 compares the future No-Action and existing noise levels at the receptors. As indicated in Table I-7, noise levels receptor location 1 are expected to increase 0.03 dBA in the No-Action condition as a result of general background growth in the area, and therefore, future No-Action noise levels at receptor location 1 would remain in the "Marginally Unacceptable (II)" CEQR noise exposure category.

Table I-7: 2020 Future No-Action Noise Levels at Receptor Locations (in dBA)

Receptor	Measurement Location	Time	Existing L_{eq}	No-Action L_{eq}	Change in L_{eq} from Existing Conditions	No-Action L_{10}	CEQR Noise Exposure Category
1	Midpoint of Project Site frontage along East 33rd Street	AM	72.9	72.91	0.03	**75.4**	Marginally Unacceptable (II)
		MD	72.0[a]	72.00	0.03	73.2	
		PM	66.4	66.46	0.03	68.4	

Notes: Highest L_{10} value at each receptor location indicated in **bold.**
[a] Rounded up from 71.97.

VII. FUTURE WITH THE PROPOSED ACTION (WITH-ACTION CONDITION)

As discussed in Attachment A, "Project Description," the proposed development would consist of approximately 142,550 gross square feet (gsf), including approximately 131,807 gsf of residential uses (155 dwelling units) and 10,743 gsf of local retail uses. The proposed development would be 23-stories in height (230 feet). The proposed 142,550 gsf building would also include the incorporation of 16,453 sf of development rights from an adjacent tax lot (Block 939, Lot 23). Lot 23 is not under the control of the applicant and as a result of the proposed actions, it will be merged into the development site's zoning lot but will remain under separate ownership. There is an existing four-story residential building on Lot 23 that will remain in the future with the proposed actions. The proposed development would also include 25% to 30% affordable housing floor area, consistent with the Mandatory Inclusionary Housing (MIH) requirements (approximately 39 to 46 affordable dwelling units).

As discussed in Attachment A, "Project Description," while the applicant intends on developing the mixed-use project described above, because the proposed action would result in additional development potential generated by Lots 20-22, an alternate reasonable worst-case development scenario (RWCDS) for a larger mixed-use development on the applicant's site will be considered for conservative analysis purposes. For RWCDS purposes, it is assumed that 26,168 sf of development rights will be transferred from Lots 20-22 to the development site. Like with Lot 23, it is assumed that Lots 20-22 would be merged into the development site's zoning lot but will remain under separate ownership. Under this RWCDS, the proposed mixed-use building would include 158,509 gsf (142,778 zsf) of residential uses and 10,743 gsf (6,429 zsf) of local retail uses. The RWCDS development would result in 186 DUs of which 47 to 56 DUs would be affordable. The RWCDS development being analyzed would have a height of 230 feet, same as the applicant's proposed project. Future With-Action noise levels at receptor location 1 were calculated using the noise prediction methodology described above and a travel demand forecast calculated for the proposed development.[2] In the future With-Action condition, receptor location 1 would experience an incremental increase of 19 PCEs in the AM peak hour, an incremental increase of 24 PCEs in the midday peak hour, and an incremental increase of 17 PCEs in the PM peak hour over the No-Action condition.

As shown in Table I-8, in the future with the proposed action the maximum projected L_{10} noise level at receptor location 1 would be 75.5 dBA and, therefore, would fall in the "Marginally Unacceptable (II)" CEQR noise exposure category.

[2] The travel demand forecast was calculated based upon the number of dwelling units for the proposed development, the square footage of the proposed commercial space, and the "Means of Transportation" breakdown of the development site's census tract (Manhattan 70), found in the 2010-14 Five-Year American Community Survey.

Table I-8: 2020 Future With-Action Noise Levels at Receptor Locations (in dBA)

Receptor	Measurement Location	Time	No-Action L_{eq}	With-Action L_{eq}	Change in L_{eq} from Existing Conditions	With-Action L_{10}	CEQR Noise Exposure Category
1	Midpoint of Project Site frontage along East 33rd Street	AM	**75.4**	73.0	0.1	75.5	Marginally Unacceptable (II)
		MD	73.2	72.2	0.2	73.4	
		PM	68.3	66.6	0.2	68.5	

Notes: Highest L_{10} value at each receptor location indicated in **bold.**

Comparing future With-Action and No-Action conditions, increases in noise levels at the receptor locations range from 0.1 dBA to 0.2 dBA. Changes of this magnitude would be imperceptible to the public and fall below the applicable 2014 *CEQR Technical Manual* significant adverse incremental impact threshold (3.0 dBA). However, as the maximum With-Action L_{10} noise levels at receptor location 1 exceeds 70 dBA and is in the "Marginally Unacceptable (II)" noise exposure category, the southern facade of the proposed development would require window/wall attenuation in order to maintain a maximum interior noise level of 45 dBA or lower for residential uses and 50 dBA or lower for commercial uses, discussed below.

VIII. BUILDING ATTENUATION REQUIREMENTS

As shown earlier in Table I-4, the 2014 *CEQR Technical Manual* has set noise attenuation requirements for buildings based on exterior L_{10} noise levels. Noise attenuation values for buildings are designed to maintain a maximum interior noise level of 45 dBA or lower for residential and community facility uses and 50 dBA or lower for commercial uses, and are determined based on exterior L_{10} noise levels.

As described above and presented in Table I-8, the maximum predicted L_{10} noise level adjacent to the project site is expected to be 75.5 dBA along the project site's southern frontage (East 33rd Street) in the future with the proposed action. Based on these maximum predicted With-Action noise levels, as shown in Table I-9 below, the southern façade of the proposed project, as well as the upper stories (floors 5 to 23) of the western façade, would require 31 dBA of window/wall attenuation in order to maintain interior noise levels of 45 dBA or lower for residential uses. For the proposed project's commercial uses, the southern façade would require 26 dBA of window/wall attenuation in order to maintain interior noise levels of 50 dBA or lower.

As the northern façade of the proposed project is obstructed from East 34th Street by the 15-story residential building at 340 East 34th Street (Block 939, Lot 38) and the eastern façade is completely obstructed from East 33rd Street and First Avenue by the 23-story building at 347 East 33rd Street (Block 939, Lot 28), no special window/wall attenuation measures would be required in addition to standard modern construction practices in order to maintain interior noise levels of 45/50 dBA or lower along the northern and eastern façades for the proposed project's residential/commercial uses.

Likewise, as the lower stories (floors 1 to 4) of the western façade are completely obstructed from East 33rd Street by the existing 4-story (approximately 49 foot) residential building at 337 East 33rd Street (Block 939, Lot 23), no special window/wall attenuation measures for floors 1 to 4 would be required in addition to standard modern construction practices in order to maintain interior noise levels of 45/50 dBA or lower for residential/commercial uses.

Table I-9: 2020 Future With-Action Noise Attenuation Requirements (dBA)

Frontage	Use	
	Residential	Commercial[1]
Northern	N/A	N/A
Southern	31 dBA	26 dBA
Eastern	N/A	N/A
Western (lower)[2]	N/A	N/A
Western (upper)[3]	31 dBA	26 dBA

Notes:
[1] Commercial uses require 5 dBA less attenuation than residential/community facility uses. All of the above categories require a closed window situation and hence an alternate means of ventilation.
[2] Floors 1-4.
[3] Floors 5-23.

(E) Designation

(E) Designations for noise provide notice of the presence of an environmental requirement pertaining to high ambient noise levels on a particular tax lot. If an area is proposed to be rezoned, and the accompanying environmental analysis indicates that development on a property may be adversely affected by noise, then an (E) designation for window/wall attenuation and alternate means of ventilation may be placed on the property by the lead agency in order to address such issues in conjunction with any new development or new use of the property. For new developments, enlargements of existing buildings, or changes in use, the NYC Department of Buildings will not issue a building permit until the environmental requirements of the (E) designation are satisfied. The New York City Office of Environmental Remediation (OER) administers the (E) Designation Environmental Review Program.

To avoid any potential impacts associated with noise on the projected site (Block 939, Lots 24, 25, 26, 27), as part of the proposed action, an (E) designation (E-458) for noise would be recorded against the property.

For Projected Site:
To ensure an acceptable interior noise environment, future residential/commercial development must provide a closed window condition with a minimum of 31 dBA window/wall attenuation on all facades in order to maintain an interior noise level of 45 dBA. 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.

Per the (E) designation requirements, in order to receive a Certificate of Occupancy from the NYC Department of Buildings, the proposed action must comply with these required window/wall attenuation values in order to maintain an interior noise level of 45 dBA. With this institutional control in place, the proposed project would not result in any significant adverse noise impacts and no further analysis is necessary.

I. INTRODUCTION

33rd Street Acquisition LLC (the "applicant") is seeking two discretionary actions in order to facilitate the redevelopment of 339-345 East 33rd Street (Block 939, Lots 23, 24, 25, 26, and 27) in the in the Kips Bay neighborhood of Manhattan Community District 6 (the "development site"). The discretionary actions include: (i) a zoning map amendment to rezone Manhattan Block 939, Lots 20, 21, 22, 23, 24, 25, 26, 27, and a portion of Lot 28 (the "proposed rezoning area") from an R8A residential district to a C1-9A district; and, (ii) a zoning text amendment to Zoning Resolution (ZR) Appendix F to designate the proposed rezoning area as a Mandatory Inclusionary Housing (MIH) Area. Collectively, the zoning map amendment and the zoning text amendment are the "proposed action" for the purposes of the environmental analysis.

The proposed development would consist of approximately 142,550 gross square feet (gsf), including approximately 131,807-gsf of residential uses and 10,743 gsf of local retail uses on Block 939, Lots 24, 25, 26, and 27 (the "projected site"). The proposed development would be 23-stories in height (230 feet). The proposed 142,550-gsf building would also include the incorporation of 16,453 sf of development rights from an adjacent tax lot (Block 939, Lot 23), which is also considered part of the development site. Lot 23 is not under the control of the applicant and as a result of the proposed action, it will be merged into the development site's zoning lot but will remain under separate ownership. There is an existing four-story residential building on Lot 23 that will remain in the future with the proposed action.

As discussed in detail in Attachment A, "Project Description," while the applicant intends to develop the mixed-use project described above, because the proposed action would result in additional development potential generated by Lots 20-22, a reasonable worst-case development scenario (RWCDS) With-Action scenario for a larger mixed-use development on the applicant's site will be considered for conservative analysis purposes. For RWCDS purposes, it is assumed that 26,168 sf of development rights will be transferred from Lots 20-22 to the development site. Like with Lot 23, it is assumed that Lots 20-22 would be merged into the development site's zoning lot but will remain under separate ownership. Under this RWCDS, the proposed mixed-use building would include 158,509 gsf (142,778 zsf) of residential uses and 10,743 gsf (6,429 zsf) of local retail uses. The RWCDS development would result in 186 DUs.

The projected site is expected to be completed and occupied by 2020. In the absence of the proposed action (the "No-Action condition"), it is anticipated that that the proposed development site would remain in its current condition. In absence of the proposed action, the proposed development site would continue to be occupied by five 4-story residential buildings with 53 DUs and 1,244 sf of community facility use. The incremental development on the projected site forms the basis of the transportation impact analysis.

This attachment presents the findings from the analysis of traffic, parking, transit, and pedestrian conditions for the proposed RWCDS development described above.

II. PRINCIPAL CONCLUSIONS

The proposed action would generate additional vehicular, transit, and pedestrian trips in the surrounding area. As incremental project-generated vehicle, subway and bus trips would not exceed *City Environmental Quality Review* (CEQR) *Technical Manual* analysis thresholds, a detailed analysis of traffic, parking, subway and bus operating conditions is not provided in this EAS. Because the incremental increase in pedestrian trips would exceed the CEQR threshold, a detailed analysis of operating conditions is provided for a total of two pedestrian elements (one sidewalk and one corner area) along the East 33rd Street corridor in proximity to the projected site.

The proposed action is not expected to result in significant adverse impacts on the analyzed pedestrian elements. As such, the proposed action would not result in any significant adverse impacts on traffic operations and mobility, public transportation facilities and services, pedestrian elements and flow, or parking.

III. PRELIMINARY ANALYSIS METHODOLOGY

The *CEQR Technical Manual* identifies minimum incremental development densities that potentially require a transportation analysis. Development at less than the development densities shown in Table 16-1 of the *CEQR Technical Manual* generally result in fewer than 50 peak-hour vehicle trips, 200 peak-hour subway/rail or bus transit riders, and 200 peak-hour pedestrian trips, where significant adverse impacts are considered unlikely. In Zone 2 (which includes the rezoning area) the development thresholds include an increment of 200 DUs for residential, 15,000 sf for local retail, and 25,000 sf for community facility. According to the *CEQR Technical Manual*, if an action would result in a mix of land uses, a Level 1 (Project Trip Generation) Screening Assessment should be prepared. In most areas of the city, including the rezoning area, if the proposed action is projected to result in fewer than 50 peak-hour vehicle trips, 200 peak-hour subway/rail or bus transit riders, or 200 peak-hour pedestrian trips, it is unlikely that further analysis would be necessary. If these trip-generation screening thresholds are exceeded, a Level 2 (Project-generated Trip Assignment) Screening Assessment should be prepared to determine if the proposed action would generate or divert 50 peak-hour vehicle trips through any intersection, 200 peak-hour subway trips through a single station, 50 peak-hour bus trips on a single bus route in the peak direction, or 200 peak-hour pedestrian trips through a single pedestrian element. If any of these Level 2 screening thresholds are met or exceeded, detailed analysis for the respective mode is required.

IV. LEVEL I SCREENING ASSESSMENT

As the proposed action would result in a mix of land uses, a Level 1 Screening Assessment was prepared. The transportation planning factors used to forecast travel demand for the land uses are summarized in Table J-2. The trip generation rates, temporal distributions, modal splits, vehicle occupancies, and truck trip factor of each land use were primarily based on those cited in the *CEQR Technical Manual*, 2011-2015 five-year American Community Survey (ACS) journey-to-work data, and recently completed environmental reviews. Factors are shown for the weekday AM, midday, and PM, and Saturday midday peak periods. It should be noted that the trip generation rates for the medical office use that would be eliminated under the Proposed Actions were conservatively based on the *East Harlem Rezoning FEIS*, which assumed comparatively lower trip generation rates than other recently completed environmental reviews.

Table J-3 presents the person and vehicle trips, respectively, expected to be generated by the RWCDS. As presented in Table J-3, the proposed project would generate approximately 160, 366, 288, and 304 person trips in the weekday AM, midday, and PM, and Saturday midday peak hours, respectively. As shown in the table, the proposed action would not generate more than 50 peak-hour vehicle trips and would not generate more than 200 peak-hour subway/rail or bus transit riders; therefore, no additional analysis of vehicle and transit trips is warranted.

The RWCDS would generate a net 92, 262, 190, and 203 walk-only trips in the weekday AM, midday, and PM, and Saturday midday peak hours, respectively (refer to Table J-3). Accounting for walk trips en route to and from subway stations and bus stops, pedestrian trips associated with the RWCDS are expected to total 152, 356, 278, and 292 in the weekday AM, midday, PM and Saturday midday peak hours, respectively. As the number of incremental peak hour trips would exceed the *CEQR Technical Manual* analysis thresholds for pedestrians during the weekday midday and PM, and Saturday midday peak hours, Level 2 screening assessments were undertaken to identify specific locations and time periods that may require additional detailed pedestrian analyses.

V. LEVEL II SCREENING ASSESSMENT

Project-generated pedestrian trips (including walk-only trips, and trips to/from transit) would exceed the CEQR Level 1 trip generation threshold during the weekday midday and PM, and Saturday midday peak hours. As such, Level 2 pedestrian trip assignments were prepared for these three peak hours, which are provided in Figure J-1. While the RWCDS is not expected to generate 200 or more pedestrian trips at any one pedestrian element during the weekday PM and Saturday midday peak hour, incremental pedestrian volumes during the weekday midday peak hour are expected to exceed 200 at one corner area (the northeast corner of Second Avenue and East 33rd Street) and one sidewalk location (the north side of East 33rd Street Avenue between First and Second Avenues), as shown in Figure J-1. As the potential for significant adverse pedestrian impacts at these two pedestrian elements could not be ruled out based on the Level 2 screening assessment, a detailed pedestrian analysis is warranted and is provided below.

VI. TRANSPORTATION ANALYSES METHODOLOGIES

Pedestrians

Analysis Methodology

Peak 15-minute pedestrian flow conditions during the weekday midday peak hour are analyzed using the *2000 Highway Capacity Manual* methodology and procedures outlined in the *CEQR Technical Manual.* Using this methodology, the congestion level of pedestrian facilities is determined by considering pedestrian volume, measuring the sidewalk or crosswalk width, determining the available pedestrian capacity, and developing a ratio of volume flows to capacity conditions. The resulting ratio is then compared to level of service (LOS) standards for pedestrian flow, which define a qualitative relationship at a certain pedestrian traffic concentration level. The evaluation of street crosswalks and corners is more complicated, as these spaces cannot be treated as corridors due to the time incurred waiting for traffic lights. To effectively evaluate these facilities, a "time-space" analysis methodology is employed, which takes into consideration the traffic light cycle at intersections.



East 33rd Rezoning EAS

Figure J-1

MD/PM/SAT Pedestrian Trip Assignment

Table J-2: Transportation Planning Factors

Land Use:	**Local Retail**	**Residential**	**Medical Office**	
Size/Units:	10,743 gsf	146 DU	-1,244 gsf	
Trip Generation:	(1)	(1)	(2)	
			Staff	Visitors
Weekday	205	8.075	10.0	33.6
Saturday	240	9.6	4.3	14.5
	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf
Temporal Distribution:	(1)	(1)	(2)	
AM	3.0%	10.0%	24.0%	6.0%
MD	19.0%	5.0%	17.0%	9.0%
PM	10.0%	11.0%	24.0%	5.0%
SatMD	10.0%	8.0%	17.0%	9.0%
	(2)	(3)	(4)	(2)
Modal Splits:	All Periods	All Periods	AM/PM /SAT	MD
Auto	2.5%	3.9%	15.3%	2.0%	25.0%
Taxi	0.5%	3.3%	1.0%	1.0%	25.0%
Subway	16.5%	35.2%	59.3%	7.0%	29.0%
Bus	4.0%	11.7%	14.2%	7.0%	11.0%
Walk/Other	76.5%	45.9%	10.2%	83.0%	10.0%
	100.0%	100.0%	100.0%	100%	100%
	(2)	(2)	(2)	
In/Out Splits:	In Out	In Out	In Out	In Out
AM	50% 50.0%	16.0% 84.0%	100.0% 0.0%	90.0% 10.0%
MD	50% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%
PM	50% 50.0%	67.0% 33.0%	0.0% 100.0%	30.0% 70.0%
Sat MD	50% 50.0%	53.0% 47.0%	50.0% 50.0%	50.0% 50.0%
Vehicle Occupancy:	(2)	(3)	(4)	(2)
Auto	2.00	1.32	1.15	1.65
Taxi	2.00	1.32	1.15	1.20
Truck Trip Generation:	(1)	(1)	(2)	
	0.35	0.06	0.40	
	0.04	0.02	0.00	
	per 1,000 sf	per 1,000 sf	per 1,000 sf	
	(1)	(1)	(2)	
AM	8.0%	12.0%	9.7%	
MD	11.0%	9.0%	7.8%	
PM	2.0%	2.0%	5.1%	
Sat MD	11.0%	9.0%	0.0%	
	In Out	In Out	In Out	
All Periods	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	

Notes :

(1) Based on the 2014 *City Environmental Quality Review (CEQR) Technical Manual.*

(2) Based on the *East Harlem Rezoning FEIS, 2017*.

(3) Based on American Community Survey 2012-2016 data on Means of Transportation for Manhattan tracts 62, 66, 70, 72, 78, 86.01

(4) Based on AASHTO CTPP 2006 - 2010 Reverse Journey to Work 5-Year data for Manhattan tracts 62, 66, 70, 72, 78, 86.01

Table J-3: Travel Demand Forecast

With-Action vs. No-Action Net Increment											
Land Use:		**Local Retail**		**Residential**		**Medical Office**				**Total**	
Size/Units:		**10,743 gsf**		**146 DU**		**-1,244 gsf**					
						Staff		Visitors			
Peak Hour Trips:		(1)									
	AM	50		118		-4		-4		**160**	
	MD	314		60		-4		-4		**366**	
	PM	166		130		-4		-4		**288**	
	Sat MD	194		114		-2		-2		**304**	
Person Trips:											
		In	Out	In	Out	In	Out	In	Out	**In**	**Out**
AM	**Auto**	1	1	1	4	-1	0	-1	0	**0**	**5**
	Taxi	0	0	1	3	0	0	-1	0	**0**	**3**
	Subway	4	4	6	35	-2	0	-1	0	**7**	**39**
	Bus	1	1	2	12	-1	0	-1	0	**1**	**13**
	Walk/Other	19	19	9	45	0	0	0	0	**28**	**64**
	Total	25	25	19	99	-4	0	-4	0	**36**	**124**
		In	Out	In	Out	In	Out	In	Out	**In**	**Out**
MD	**Auto**	4	4	1	1	0	0	-1	-1	**4**	**4**
	Taxi	1	1	1	1	0	0	-1	-1	**1**	**1**
	Subway	26	26	11	11	0	0	0	0	**37**	**37**
	Bus	6	6	4	4	0	0	0	0	**10**	**10**
	Walk/Other	120	120	13	13	-2	-2	0	0	**131**	**131**
	Total	157	157	30	30	-2	-2	-2	-2	**183**	**183**
		In	Out	In	Out	In	Out	In	Out	**In**	**Out**
PM	**Auto**	2	2	3	2	0	-1	0	-1	**5**	**2**
	Taxi	0	0	3	1	0	0	0	-1	**3**	**0**
	Subway	14	14	31	13	0	-2	0	-1	**45**	**24**
	Bus	3	3	10	5	0	-1	0	-1	**13**	**6**
	Walk/Other	64	64	41	21	0	0	0	0	**105**	**85**
	Total	83	83	88	42	0	-4	0	-4	**171**	**117**
		In	Out	In	Out	In	Out	In	Out	**In**	**Out**
Sat MD	**Auto**	2	2	2	2	0	0	0	0	**4**	**4**
	Taxi	0	0	2	2	0	0	0	0	**2**	**2**
	Subway	16	16	21	19	-1	-1	0	0	**36**	**34**
	Bus	4	4	7	6	0	0	-1	-1	**10**	**9**
	Walk/Other	75	75	28	25	0	0	0	0	**103**	**100**
	Total	97	97	60	54	-1	-1	-1	-1	**155**	**149**
Vehicle Trips :											
		In	Out	In	Out	In	Out	In	Out	**In**	**Out**
AM	**Auto (Total)**	1	1	1	3	-1	0	-1	0	**0**	**4**
	Taxi	0	0	1	2	0	0	-1	0	**0**	**2**
	Taxi Balanced	0	0	3	3	0	0	-1	-1	**2**	**2**
	Truck	0	0	1	1	0	0	0	0	**1**	**1**
	Total	1	1	5	7	-1	0	-2	-1	**3**	**7**
		In	Out	In	Out	In	Out	In	Out	**In**	**Out**
MD	**Auto (Total)**	2	2	1	1	0	0	-1	-1	**2**	**2**
	Taxi	1	1	1	1	0	0	-1	-1	**1**	**1**
	Taxi Balanced	2	2	2	2	0	0	-2	-2	**2**	**2**
	Truck	0	0	0	0	0	0	0	0	**0**	**0**
	Total	4	4	3	3	0	0	-3	-3	**4**	**4**
		In	Out	In	Out	In	Out	In	Out	**In**	**Out**
PM	**Auto (Total)**	1	1	2	2	0	-1	0	-1	**3**	**1**
	Taxi	0	0	2	1	0	0	0	-1	**2**	**0**
	Taxi Balanced	0	0	3	3	0	0	-1	-1	**2**	**2**
	Truck	0	0	0	0	0	0	0	0	**0**	**0**
	Total	1	1	5	5	0	-1	-1	-2	**5**	**3**
		In	Out	In	Out	In	Out	In	Out	**In**	**Out**
Sat MD	**Auto (Total)**	1	1	2	2	0	0	0	0	**3**	**3**
	Taxi	0	0	2	2	0	0	0	0	**2**	**2**
	Taxi Balanced	0	0	4	4	0	0	0	0	**4**	**4**
	Truck	0	0	0	0	0	0	0	0	**0**	**0**
	Total	1	1	6	6	0	0	0	0	**7**	**7**

	Incremental Vehicle Trips:			**Incremental Subway Trips:**			**Incremental Bus Trips:**			**Incremental walk Trips:**			**Total Incremental Ped. Trip**		
	In	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
AM	**3**	**7**	**10**	**7**	**39**	**46**	**1**	**13**	**14**	**28**	**64**	**92**	**36**	**116**	**152**
MD	**4**	**4**	**8**	**37**	**37**	**74**	**10**	**10**	**20**	**131**	**131**	**262**	**178**	**178**	**356**
PM	**5**	**3**	**8**	**45**	**24**	**69**	**13**	**6**	**19**	**105**	**85**	**190**	**163**	**115**	**278**
Sat MD	**7**	**7**	**14**	**36**	**34**	**70**	**10**	9	**19**	**103**	**100**	**203**	**149**	**143**	**292**

Notes: (1) - 25% link -trip credit applied to Local retail use.

LOS standards are based on the average area available per pedestrian during the analysis period, typically expressed as a 15-minute peak period. LOS grades from A to F are assigned, with LOS A representative of free flow conditions without pedestrian conflicts and LOS F depicting significant capacity limitations and inconvenience. Table J-4 defines the LOS criteria for pedestrian crosswalk/corner area and sidewalk conditions, as based on the *Highway Capacity Manual* methodology.

The analysis of sidewalk conditions includes a "platoon" factor in the calculation of pedestrian flow to more accurately estimate the dynamics of walking. "Platooning" is the tendency of pedestrians to move in bunched groups, or "platoons," once they cross a street where cross traffic required them to wait. Platooning generally results in an LOS poorer than that determined for average flow rates.

Table J-4: Pedestrian Crosswalk/Corner Area and Sidewalk Levels of Service Descriptions

LOS	Crosswalk/Corner	Crosswalk/Corner Area Criteria (sf/ped)	Non-Platoon Sidewalk Criteria (sf/ped)	Platoon Sidewalk Criteria (sf/ped)
A	Unrestricted	> 60	> 60	> 530
B	Slightly Restricted	> 40 to 60	> 40 to 60	> 90 to 530
C	Restricted, but Fluid	> 24 to 40	> 24 to 40	> 40 to 90
D	Restricted, Necessary to Continuously Alter Walking Stride and Direction	> 15 to 24	> 15 to 24	> 23 to 40
E	Severely Restricted	> 8 to 15	> 8 to 15	> 11 to 23
F	Forward Progress Only by Shuffling; No Reverse Movement Possible	≤ 8	≤ 8	≤ 11

Source: *CEQR Technical Manual*
Notes:
Based on average conditions for 15 minutes
Sf/ped – square feet of area per pedestrian

Significant Impact Criteria

Sidewalks

The *CEQR Technical Manual* impact criteria for a CBD location are used to identify significant adverse impacts due to the Proposed Actions. These criteria define a significant adverse sidewalk impact to have occurred under platoon conditions if the average pedestrian space under the No-Action condition is greater than 39.2 square feet/pedestrian (sf/ped), and the average pedestrian space under the With-Action condition is 31.5 sf/ped or less (mid-LOS D or worse). If the average pedestrian space under the With-Action condition is greater than 31.5 sf/ped (mid-LOS D or better), the impact should not be considered significant. If the No-Action pedestrian space is between 6.4 and 39.2 sf/ped, a reduction in pedestrian space under the With-Action condition should be considered significant based on Table J-5, which shows a sliding-scale that identifies what decrease in pedestrian space is considered a significant impact for a given pedestrian space value in the No-Action condition. If the reduction in pedestrian space is less than the value in Table J-5, the impact is not considered significant. If the average pedestrian space under the No-Action condition is less than 6.4 sf/ped, then a reduction in pedestrian space greater than or equal to 0.3 sf/ped, under the With-Action condition, should be considered significant.

Corner Areas and Crosswalks

For CBD areas, *CEQR Technical Manual* criteria define a significant adverse corner area or crosswalk impact to have occurred if the average pedestrian space under the No-Action condition is greater than

21.5 sf/ped and, under the With-Action condition, the average pedestrian space decreases to 19.5 sf/ped or less (mid-LOS D or worse). If the pedestrian space under the With-Action condition is greater than 19.5 sf/ped (mid-LOS C or better), the impact should not be considered significant. If the average pedestrian space under the No-Action condition is between 5.1 and 21.5 sf/ped, a decrease in pedestrian space under the With- Action condition should be considered significant based on Table J-6 which shows a sliding-scale that identifies what decrease in pedestrian space is considered a significant impact for a given amount of pedestrian space in the No-Action condition. If the decrease in pedestrian space is less than the value in Table J-6, the impact is not considered significant. If the average pedestrian space under the No-Action condition is less than 5.1 sf/ped, then a decrease in pedestrian space greater than or equal to 0.2 sf/ped should be considered significant.

Table J-5
Significant Impact Criteria for Sidewalks with Platooned Flow in a CBD Location

No-Action Condition Pedestrian Flow (sf/ped)			With-Action Condition Pedestrian Flow Increment to be Considered a Significant Impact (sf/ped)
> 39.2			With-Action Condition < 31.5
38.7	to	39.2	Reduction ≥ 3.8
37.8	to	38.6	Reduction ≥ 3.7
36.8	to	37.7	Reduction ≥ 3.6
35.9	to	36.7	Reduction ≥ 3.5
34.9	to	35.8	Reduction ≥ 3.4
34.0	to	34.8	Reduction ≥ 3.3
33.0	to	33.9	Reduction ≥ 3.2
32.1	to	32.9	Reduction ≥ 3.1
31.1	to	32.0	Reduction ≥ 3.0
30.2	to	31.0	Reduction ≥ 2.9
29.2	to	30.1	Reduction ≥ 2.8
28.3	to	29.1	Reduction ≥ 2.7
27.3	to	28.2	Reduction ≥ 2.6
26.4	to	27.2	Reduction ≥ 2.5
25.4	to	26.3	Reduction ≥ 2.4
24.5	to	25.3	Reduction ≥ 2.3
23.5	to	24.4	Reduction ≥ 2.2
22.6	to	23.4	Reduction ≥ 2.1
21.6	to	22.5	Reduction ≥ 2.0
20.7	to	21.5	Reduction ≥ 1.9
19.7	to	20.6	Reduction ≥ 1.8
18.8	to	19.6	Reduction ≥ 1.7
17.8	to	18.7	Reduction ≥ 1.6
16.9	to	17.7	Reduction ≥ 1.5
15.9	to	16.8	Reduction ≥ 1.4
15.0	to	15.8	Reduction ≥ 1.3
14.0	to	14.9	Reduction ≥ 1.2
13.1	to	13.9	Reduction ≥ 1.1
12.1	to	13.0	Reduction ≥ 1.0
11.2	to	12.0	Reduction ≥ 0.9
10.2	to	11.1	Reduction ≥ 0.8
9.3	to	10.1	Reduction ≥ 0.7
8.3	to	9.2	Reduction ≥ 0.6
7.4	to	8.2	Reduction ≥ 0.5
6.4	to	7.3	Reduction ≥ 0.4
<6.4			Reduction ≥ 0.3

Source: *CEQR Technical Manual*

Table J-6
Significant Impact Criteria for Corners and Crosswalks in a CBD Location

No-Action Condition Pedestrian Space (sf/ped)			With-Action Condition Pedestrian Space Reduction to be Considered a Significant Impact (sf/ped)
> 21.5			With Action Condition < 19.5
21.3	to	22.1	Reduction ≥ 2.1
20.4	to	21.2	Reduction ≥ 2.0
19.5	to	20.3	Reduction ≥ 1.9
18.6	to	19.4	Reduction ≥ 1.8
17.7	to	18.5	Reduction ≥ 1.7
16.8	to	17.6	Reduction ≥ 1.6
15.9	to	16.7	Reduction ≥ 1.5
15	to	15.8	Reduction ≥ 1.4
14.1	to	14.9	Reduction ≥ 1.3
13.2	to	14	Reduction ≥ 1.2
12.3	to	13.1	Reduction ≥ 1.1
11.4	to	12.2	Reduction ≥ 1.0
10.5	to	11.3	Reduction ≥ 0.9
9.6	to	10.4	Reduction ≥ 0.8
8.7	to	9.5	Reduction ≥ 0.7
7.8	to	8.6	Reduction ≥ 0.6
6.9	to	7.7	Reduction ≥ 0.5
6	to	6.8	Reduction ≥ 0.4
5.1	to	5.9	Reduction ≥ 0.3
< 5.1			Reduction ≥ 0.2

Source: *CEQR Technical Manual*

VII. DETAILED PEDESTRIAN ANALYSIS

Existing Conditions

As discussed above, project-generated pedestrian trips at one corner area (the northeast corner of Second Avenue and East 33rd Street) and one sidewalk location (the north side of East 33rd Street Avenue between First and Second Avenues) are expected to exceed the 200-trip CEQR analysis threshold during the weekday midday hour and were therefore selected for analysis. Existing peak 15-minute pedestrian flow volumes were collected by PHA on September 28, 2017 during the weekday midday along analyzed sidewalk and corner areas that would experience peak hour project generated pedestrian volumes of 200 or greater as per the Level 2 Screening analysis. Existing peak hour volumes, average pedestrian space, and LOS at these pedestrian elements are presented in Tables J-7 and J-8. As indicated in the tables, all analyzed pedestrian elements are currently operating at LOS B or better in the analyzed weekday midday peak hour.

Table J-7
Existing Sidewalk Conditions during Weekday Midday Peak Hour

Location	Total Width (ft.)	Effective Width (ft.)	Peak Hour Volume	Average Pedestrian Space (ft^2/ped)	Platoon-Adjusted Level of Service
E. 33rd Street between First and Second Avenues (North)	12.9	3.4	327	153.7	B

Table J-8
Existing Corner Area Conditions during Weekday Midday

Location	Average Pedestrian Space (ft^2/ped)	Level of Service
E. 33rd Street and Second Avenue (NE)	329.1	A

Future without the Proposed Action

Estimates of 2020 No-Action peak hour pedestrian volumes on the analyzed pedestrian elements were developed by applying the annual background growth rates recommended in the *CERQ Technical Manual* to existing volumes. An annual compounded growth rate of 0.25 percent was applied for years 2017 (when pedestrian data were collected) through 2020. In addition, it is expected that pedestrian volumes along East 33rd Street will increase with the completion of the NYU Kimmel Pavilion on the east side of First Avenue between East 33rd and East 34th Streets, which is currently under construction and anticipated to be completed by the end of 2017. This increase is accounted for in the analysis of future conditions on the analyzed pedestrian elements.

Tables J-9 and J-10 show the forecasted No-Action peak hour pedestrian volumes, average pedestrian space, and LOS at the analyzed locations during the weekday midday peak hour. As shown in the tables, all analyzed pedestrian facilities are projected to continue to operate at LOS C or better in the weekday midday under No-Action conditions.

Table J-9
No-Action Sidewalk Conditions during Weekday Midday

Location	Total Width (ft.)	Effective Width (ft.)	Peak Hour Volume	Average Pedestrian Space (ft^2/ped)	Platoon-Adjusted Level of Service
E. 33rd Street between First and Second Avenues (North)	12.9	3.4	794	62.6	C

Table J-10
No-Action Corner Area Conditions during Weekday Midday

Location	Average Pedestrian Space (ft^2/ped)	Level of Service
E. 33rd Street and Second Avenue (NE)	200.5	A

Future with the Proposed Action

As discussed previously, the RWCDS for the proposed action would result in the development of 146 incremental residential units and approximately 10,743 gsf of retail, and net decrease of 1,244 gsf of medical office space as compared to the future without the proposed action. The proposed action would generate new pedestrian demand on the analyzed sidewalk and other pedestrian elements by 2020. This new demand would include trips made solely by walking, as well as pedestrian trips en route from public transit facilities.

Pedestrian trips generated by the RWCDS (including walk-only, and trips to/from transit) were assigned to the projected site. The assignment of project increment pedestrian trips generated by the RWCDS during the weekday midday peak hour was shown earlier in Figure J-1. The resulting peak hour incremental pedestrian volumes were added to the projected No-Action volumes to generate With-Action pedestrian volumes on the analyzed sidewalk and corner area.

Tables J-11 and J-12 show the forecasted With-Action peak hour pedestrian volumes, average pedestrian space, and LOS at the analyzed locations during the weekday midday peak hour. As shown in the tables, all analyzed pedestrian facilities are projected to continue operate at LOS C or better in the analyzed weekday midday peak hour under With-Action conditions. Therefore, per *CEQR Technical Manual* criteria, the proposed action would not result in significant adverse pedestrian impacts.

Table J-11
With-Action Sidewalk Conditions during Weekday Midday

Location	Total Width (ft.)	Effective Width (ft.)	Project Increment	Peak Hour Volume	Average Pedestrian Space (ft^2/ped)	Platoon-Adjusted Level of Service
E. 33rd Street between First and Second Avenues (North)	12.9	3.4	240	1,034	47.6	C

Table J-12
With-Action Corner Area Conditions during Weekday Midday

Location	Average Pedestrian Space (ft^2/ped)	Level of Service
E. 33rd Street and Second Avenue (NE)	165.5	A

APPENDIX A

R8A NO-ACTION ALTERNATIVE

I. INTRODUCTION

The R8A No-Action Alternative assumes that in the absence of the proposed action, the projected site (Block 939, Lots 24-27) would be redeveloped with an as-of-right residential building pursuant to the existing R8A zoning regulations. Conditions under this alternative differ from the "Future without the Proposed Action (No-Action condition)" described in the EAS, as the EAS assumes existing uses on the projected site as the No-Action condition for conservative analysis purposes.

Under the R8A No-Action Alternative, it is anticipated that Lots 24, 25, 26, and 27 on Block 939 would be developed with a new residential building pursuant to the existing R8A zoning regulations. As with the proposed action, it assumed that existing development rights from Lot 23 would be transferred to the proposed R8A building (approximately 4,643 sf). The existing zoning permits a maximum 6.02 floor area ratio (FAR) for residential uses and 6.5 FAR for community facility uses. In R8A zoning districts, above a base height of 60 to 85 feet, a building must set back to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to a maximum height of 120 feet. This could permit the as-of-right development of a 12-story, 120-foot tall building with approximately 61,000 gsf (58,100 zsf) and no affordable housing. The building would include approximately 72 market-rate DUs which would result in approximately 120 additional residents in the area. No parking is required as the development site is located within the Manhattan Core.

It is assumed that the remaining lots within the rezoning area (Block 939, Lots 20, 21, 22, p/o Lot 28) would not be developed under the R8A No-Action Alternative.

II. R8A NO-ACTION ALTERNATIVE

The effects of the R8A No-Action Alternative on the technical areas analyzed in the EAS in comparison to those of the proposed action are provided below.

Land Use, Zoning, and Public Policy

Under the R8A No-Action Alternative, it is expected that the projected site would be redeveloped with a residential building that would include 72 market-rate DUs. Unlike the proposed action, the R8A No-Action Alternative would not result in any commercial development.

Like the proposed action, the R8A No-Action Alternative would not result in any significant adverse impacts to land use, zoning, or public policy. Development on the projected site would be consistent with existing uses and is not expected to significantly affect the mix of land uses in the area. However, under the R8A No-Action Alternative, fewer residential units would be constructed, with no new affordable housing developed under this alternative.

The proposed action would result in an overall increase in residential and commercial uses within the primary study area, when compared to conditions under the R8A No-Action Alternative. The proposed zoning map amendment would allow for a variety of uses at a scale and density that is compatible with the existing zoning designations in the surrounding area. The proposed rezoning would provide opportunities for residential (including affordable dwelling units) and commercial development. The benefits expected to result from the proposed action–including providing opportunities for affordable housing development by increasing residential density and establishing Mandatory Inclusionary Housing and promoting local retail uses – would not be realized under the R8A No-Action Alternative.

Socioeconomic Conditions

The R8A No-Action Alternative would result in less residential and no commercial development than would otherwise occur as with the implementation of the proposed action. Like with the proposed action, the R8A No-Action Alternative would result in the displacement of 40 existing DUs, of which 9 are rent stabilized and 1 is rent controlled. As 10 of the existing DUs are rent stabilized/controlled, the redevelopment of the projected site under the R8A No-Action Alternative would require that the applicant present a plan to the New York State Homes and Community Renewal (NYSHCR) to demolish the existing buildings. No affordable housing would be developed under the R8A No-Action Alternative.

The anticipated socioeconomic benefits of the proposed action, including promoting the development of permanently affordable housing and facilitating mixed-income communities by requiring affordable units to be included in the proposed development, would not be realized under the R8A No-Action Alternative. Through providing affordable housing and increasing the supply of housing, it is anticipated that the proposed action would provide for a more diverse demographic composition within the area, which is not expected to occur under the R8A No-Action Alternative.

Further, as discussed in detail in the EAS, the applicant is currently negotiating and finalizing lease buyouts and relocation options. The applicant intends to seek tax benefits under Section 421-a of the New York State Real Property Tax Law (the Affordable Housing New York Program). The replacement ratio provisions of subsection (i) thereof require that the project must contain at least one affordable housing unit for each dwelling unit that existed on the property on the date that is three years prior to the commencement of construction. Since there are 40 dwelling units, the proposed building will contain 40 affordable units, which is 25.8% of the 155 units proposed, and would satisfy the 25% minimum required affordable residential floor area under MIH. There would be 115 market rate units.

While the residents of the existing 1 rent controlled and 9 rent stabilized DUs have not asked to be relocated into the proposed building, it is possible that such relocation might occur in a few instances. If such a relocation occurs, these units would be in addition to the approximately 39 units (25% of the residential floor area) required by MIH. If allowed by the Department of Housing Preservation and Development (HPD), one tenant could be relocated into the one additional affordable unit required by the 421-a program's replacement ratio. Otherwise, it is intended that these existing rent controlled and rent stabilized units would be vacated by consensual relocation or pursuant to a buyout prior to the commencement of demolition.

Open Space

Similar to the proposed action, the R8A No-Action Alternative would not have any direct impacts on any open space resources.

Based on the 2014 *CEQR Technical Manual*, an open space assessment is typically warranted if an action would directly affect an open space, or if it would increase the population by more than 200 residents or 500 workers (these thresholds apply to areas that do not fall in areas that have been designated as "well-served" or "underserved").

The R8A No-Action Alternative would result in 120 residents, which would not exceed the threshold for a detailed analysis. As the R8A No-Action Alternative would introduce fewer residents than the proposed action, the open space ratios for the residential study area under the R8A No-Action Alternative would generally be slightly higher than those under the proposed action. However, as with the proposed action, the open space ratios would be below the *CEQR Technical Manual* open space guidelines for open space adequacy and citywide planning goals.

Shadows

Similar to the proposed action, the R8A No-Action Alternative would result in new shadows. The building proposed under the R8A No-Action Alternative would have a height of 120 feet which would result in a maximum shadow radius of 516 feet. Unlike the proposed action, the R8A No-Action Alternative would not result in incremental shadows on any sunlight sensitive resource due to the presence of existing taller intervening buildings.

Therefore, similar to the proposed action, no publicly accessible open spaces or sunlight sensitive historic resources would be significantly affected by shadows under the R8A No-Action Alternative.

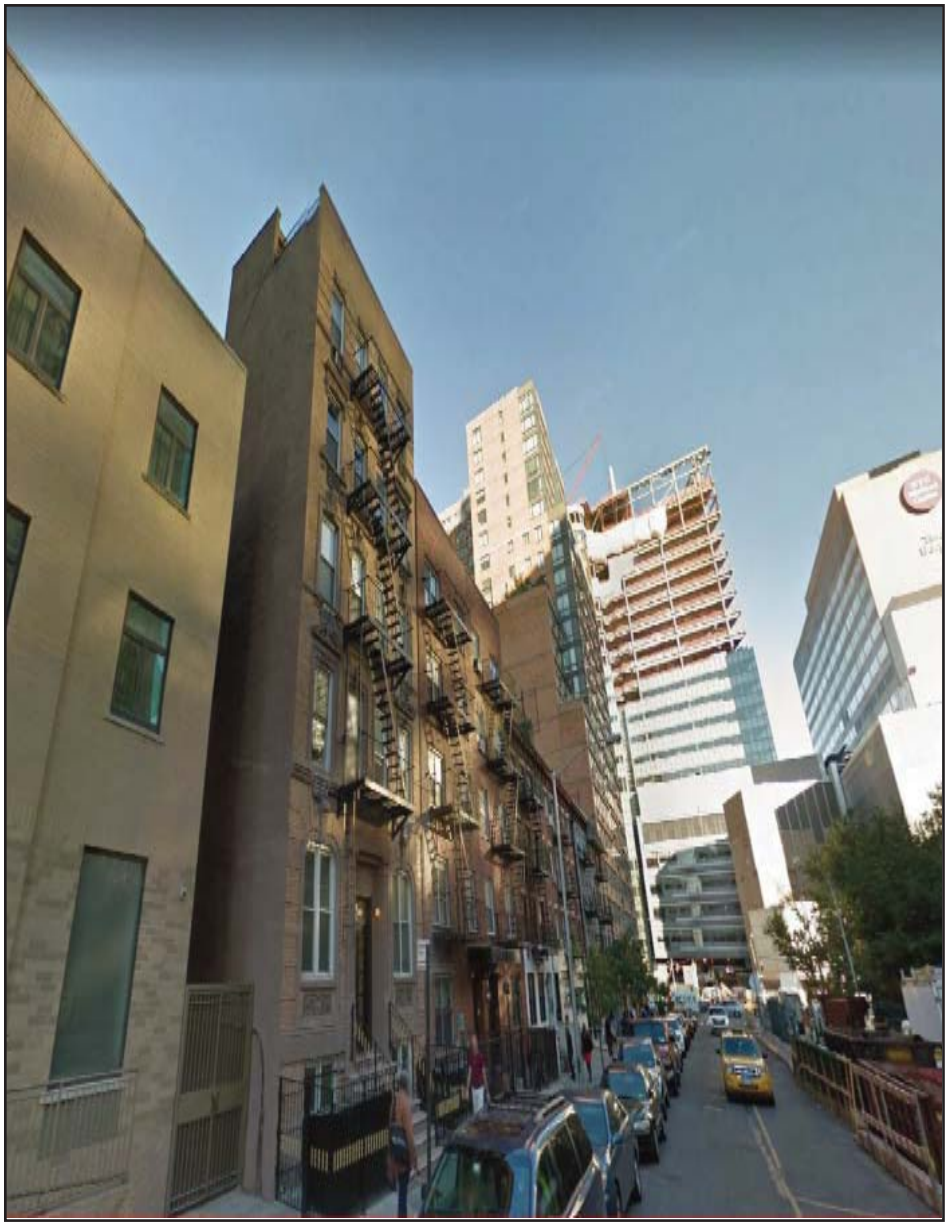
Urban Design and Visual Resources

Like the proposed action, the R8A No-Action Alternative would not have significant adverse impacts on urban design, view corridors, and visual resources.

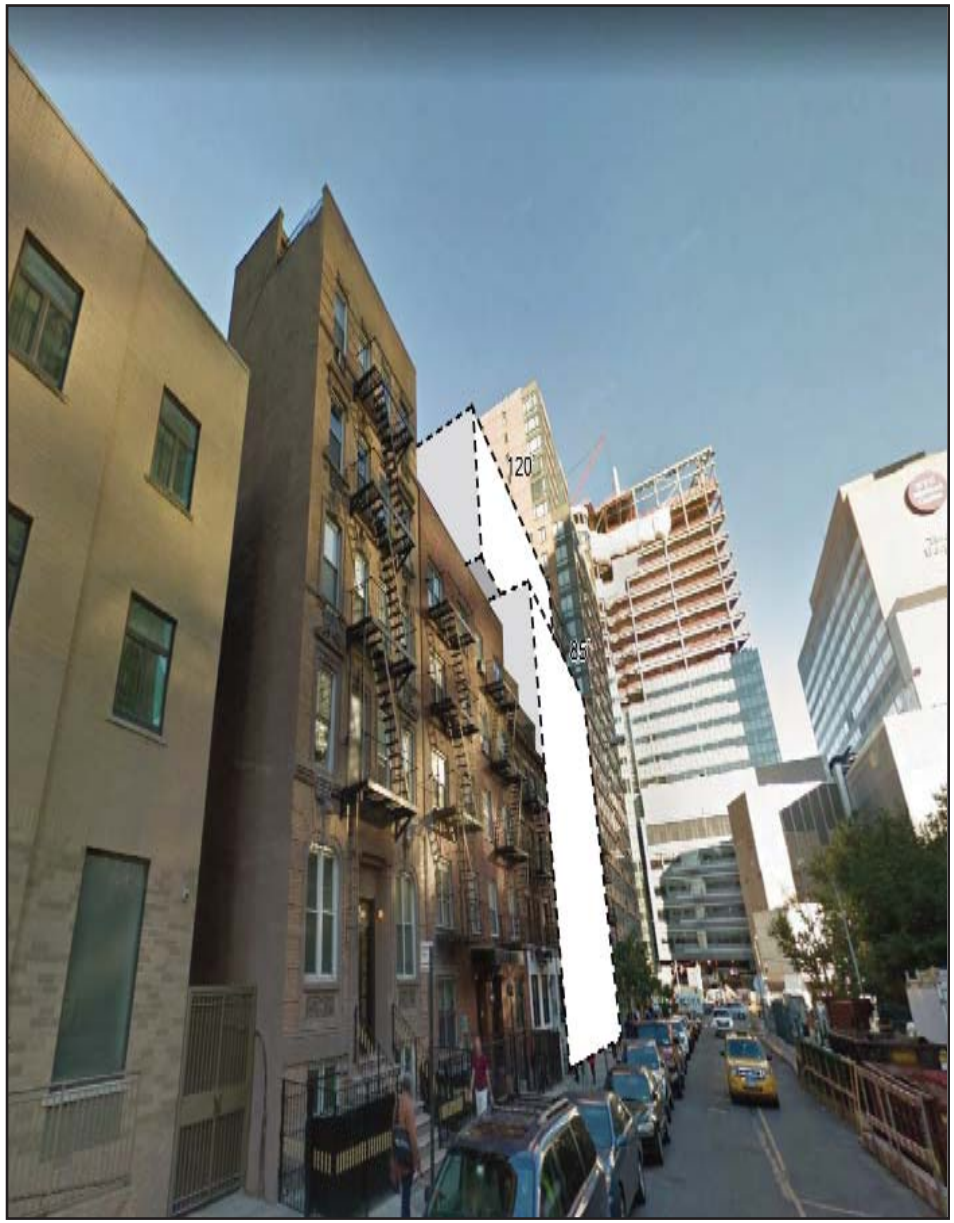
As a 12-story building could be developed under the R8A No-Action Alternative, the changes to urban design and streetscapes likely will be perceptible to pedestrians at the projected site (see Figures 1 and 2). The proposed residential building would be similar to existing uses and building typologies in the study area. Further, the height of the R8A No-Action building would be similar to existing buildings in the area. Therefore, the R8A No-Action building would not be expected to represent substantial changes to the established development context of the proposed action. The overall urban design of the study area, including building types, bulk, and height would not be directly changed by the expected R8A No-Action development.

The R8A No-Action development would not represent a substantial change to the established development of the neighborhood context surrounding the proposed rezoning area. The overall urban design of the secondary study area, including building types, bulk, and height, as well as the conditions of properties that will not be directly changed by the expected R8A No-Action development, and character of streetscapes throughout the secondary study area in the future under the R8A No-Action Alternative, generally will resemble existing conditions.

Further, the inventory of existing visual resources is expected to remain the same in the future under the R8A No-Action Alternative; the proposed R8A No-Action development would not alter the visual



Existing Condition



R8A No-Action Building Envelope

East 33rd Street Rezoning EAS

Figure 1
Existing and R8A No-Action Streetscape Renderings
View looking east on East 33rd Street



Existing Condition



R8A No-Action Building Envelope

Figure 2
Existing and R8A No-Action Streetscape Renderings
View looking west on East 33rd Street

resources or otherwise affect view corridors, and it is expected that these visual resources, generally, would resemble their existing conditions.

Therefore, as would be the case with the proposed action, the R8A No-Action Alternative, likewise, would result in no substantial change to, or significant adverse impacts to, urban design and visual resources in the rezoning area and its vicinity.

Hazardous Materials

The R8A No-Action Alternative, like the proposed action, would involve building construction. However, construction of a new building under the current zoning may occur without regulatory oversight such that environmental conditions of the projected site are not addressed, and residual contamination could be encountered by construction workers or the general public without their knowledge. It is assumed that all construction and required removal or handling of hazardous materials would be conducted in accordance with applicable state and federal requirements, thereby minimizing the potential for exposure.

However, development under the proposed action would be conducted in accordance with the testing and remediation requirements required pursuant to the (E) designation that would be placed on the projected site under the proposed action. As such, the R8A No-Action Alternative would involve soil disturbance, but potentially the controls on its performance would not be as stringent as under the proposed action.

Transportation

According to the 2014 *CEQR Technical Manual*, a detailed transportation analyses may not be needed for projects that would create low- or low- to moderate-density development in particular sections of the City. If the proposed project would result in development densities less than the levels shown in Table 16-1 of the *CEQR Technical Manual*, further analysis would not be needed. As the R8A No-Action Alternative would result in 72 DUs, it would be under the CEQR threshold of 240 DUs in Zone 1 (Manhattan, 110th Street and south; Downtown Brooklyn) requiring analysis.

As the R8A No-Action Alternative would introduce fewer residents than the proposed action and no commercial retail uses, the number of person trips generated by R8A No-Action development would generally be lower than those under the proposed action. Therefore, as would be the case with the proposed action, the R8A No-Action Alternative would not result in any significant adverse transportation impacts.

Air Quality

While the development of a residential building would occur under the R8A No-Action Alternative, the proposed action would result in a larger mixed-use building and therefore the emissions from heat and hot water systems associated with the proposed action would be greater than the emissions from heat and hot water systems in the R8A No-Action Alternative. However, unlike the proposed action, the R8A No-Action building would not have an environmental assessment of air quality exposure as conducted for the proposed action, and thus, such development would not be subject to any air quality (E) designations. Specifically, it would not have the restrictions specified for the control of emissions for

fossil fuel-fired heating, ventilation, and air conditioning (HVAC) systems, which would be designed to ensure that there would be no significant adverse air quality impacts at nearby receptor locations.

Noise

In the R8A No-Action Alternative, traffic volumes would increase in the area due to general background growth. These increases in traffic would in general result in small changes in noise levels but, as outlined in Attachment I, "Noise," the maximum increase in Leq noise levels would be 0.3 dBA in the future with the proposed action. Changes of this magnitude would be barely perceptible. Like the proposed action, the R8A No-Action Alternative would not result in significant adverse impacts. However, unlike the proposed action, the R8A as-of-right development on the projected site would not have an environmental assessment of noise exposure as conducted for the proposed action, and thus, such development would not be subject to any noise (E) designations. Specifically, the projected site would not have the restrictions specified in Attachment I for window-wall attenuation.

III. CONCLUSION

The R8A No-Action Alternative examines future conditions within the projected site, but assumes the absence of the proposed action (i.e., none of the discretionary approvals proposed as part of the proposed action would be adopted). Under the R8A No-Action Alternative, existing zoning would remain in the area affected by the proposed action. Under the R8A No-Action Alternative, it is anticipated that the projected site would be developed with a 12-story, 120-foot tall building with approximately 61,000 gsf (58,100 zsf) and no affordable housing. The building would include approximately 72 market-rate DUs which would result in approximately 120 additional residents in the area by the 2020 Build Year.

Under the R8A No-Action Alternative, there would be no change to zoning and MIH would not apply to the projected site. The substantial amount of affordable housing and commercial retail uses expected under the proposed action would not be provided. In addition, as compared to the proposed action, the benefits associated with improved economic activity and opportunities for high quality, permanent affordable housing would not be realized.

APPENDIX B

WATERFRONT REVITALIZATION PROGRAM

CONSISTENCY ASSESSMENT FORM

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

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

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

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

A. APPLICANT INFORMATION

Name of Applicant: 33rd Street Acquisition LLC

Name of Applicant Representative: Deirdre Carson, Greenberg Traurig LLP

Address: 200 Park Avenue, New York, NY 10166

Telephone: 212.801.6855 Email: carsond@gtlaw.com

Project site owner (if different than above): _____

B. PROPOSED ACTIVITY

If more space is needed, include as an attachment.

1. Brief description of activity

The applicant, 33rd Street Acquisition LLC, is seeking a zoning map amendment to rezone an R8A residential district to a C1-9A commercial district and a zoning text amendment to amend Appendix F of the Zoning Resolution (ZR) to apply the Mandatory Inclusionary Housing (MIH) program to the rezoning area in Manhattan Community District (CD) 6 to facilitate the development of a 23-story mixed-use development at 339-345 East 33rd Street in the Kips Bay neighborhood of CD 6 (see Figure A-1).

The proposed development would consist of approximately 142,550 gross square feet (gsf), including approximately 131,807-gsf of residential uses (155 dwelling units) and 10,743 gsf of local retail uses. The proposed development would be 23-stories in height (230 feet). The proposed 142,550-gsf building would also include the incorporation of 16,453 sf of development rights from an adjacent tax lot (Block 939, Lot 23). Lot 23 is not under the control of the applicant and as a result of the proposed actions, it will be merged into the development site's zoning lot but will remain under separate ownership. There is an existing four-story residential building on Lot 23 that will remain in the future with the proposed actions. The proposed development would also include 25.8% affordable housing floor area, consistent with the Mandatory Inclusionary Housing (MIH) requirements (40 affordable dwelling units).

2. Purpose of activity

The proposed action would improve the condition of the development site and surrounding neighborhood by redeveloping underutilized properties with a new mixed-use building that would compliment existing uses in the area. Overall, the applicant believes that the proposed action would be consistent with and would advance the ongoing land use trends and address demand for housing at varying income levels and retail space in this area of the City.

Under existing zoning regulations, uses permitted as-of-right on the project site include Use Groups 1-4, which include residential and community facility uses. With the proposed zoning map amendment, commercial uses (Use Groups 5 and 6), which are prohibited by the existing zoning, would be permitted. Residential (Use Groups 1 and 2) and community facility uses (Use Groups 3 and 4) would continue to be permitted under the proposed rezoning. By allowing for a greater mix of uses, the proposed zoning district designation would match the mix of uses in the applicant's proposed development for the site.

The proposed zoning map amendment from an R8A residential district to a C1-9A commercial district, together with the zoning text amendment designating the project area a MIH area, would facilitate the mixed-use development in the applicant's proposal.

C. PROJECT LOCATION

Borough: Manhattan Tax Block/Lot(s): Block 939, Lots 20-27, p/o Lots 28 (rezoning area)

Street Address: 331-347 East 33rd Street(rezoning area)

Name of water body (if located on the waterfront): N.A.

D. REQUIRED ACTIONS OR APPROVALS

Check all that apply.

City Actions/Approvals/Funding

City Planning Commission ☑ Yes ☐ No

☐ City Map Amendment	☐ Zoning Certification	☐ Concession
☑ Zoning Map Amendment	☐ Zoning Authorizations	☐ 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: _____

Board of Standards and Appeals ☐ Yes ☑ No

- ☐ Variance (use)
- ☐ Variance (bulk)
- ☐ Special Permit

(if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____

Other City Approvals

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

State Actions/Approvals/Funding

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

Federal Actions/Approvals/Funding

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

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

E. LOCATION QUESTIONS

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

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

F. WRP POLICY ASSESSMENT

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

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

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

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

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

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

G. CERTIFICATION

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

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

Applicant/Agent's Name: Deirdre Carson, Greenberg Traurig LLP

Address: 200 Park Avenue, New York, NY 10166

Telephone: 212.801.6855 Email: carsond@gtlaw.com

Applicant/Agent's Signature: 

Date: 6/8/17

Submission Requirements

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

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

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

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

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

New York City Department of City Planning
Waterfront and Open Space Division
120 Broadway, 31st Floor
New York, New York 10271
212-720-3525
wrp@planning.nyc.gov
www.nyc.gov/wrp

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

Applicant Checklist

- ☐ Copy of original signed NYC Consistency Assessment Form
- ☐ Attachment with consistency assessment statements for all relevant policies
- ☐ For Joint Applications for Permits, one (1) copy of the complete application package
- ☐ Environmental Review documents
- ☐ Drawings (plans, sections, elevations), surveys, photographs, maps, or other information or materials which would support the certification of consistency and are not included in other documents submitted. All drawings should be clearly labeled and at a scale that is legible.

APPENDIX C

HAZARDOUS MATERIALS

PHASE I ENVIRONMENTAL SITE ASSESSMENT (WITHOUT APPENDICES)

&

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION REVIEW LETTER

Hydro Tech Environmental, Corp.

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Phase I Environmental Site Assessment Report

331-337 East 33rd Street
Manhattan, NY



Prepared For:

33rd Street Acquistions, LLC
1477 Prospect Place,
Brooklyn, NY 11213

March 2, 2016

Hydro Tech Job No. 160042

Phase I Environmental Site Assessment Report

331-337 East 33rd Street
Manhattan, NY

March 2, 2016

Hydro Tech Environmental, Corp. appreciates the opportunity to work for 33rd Street Acquisitions, LLC at the property located at 331-337 East 33rd Street, Manhattan, New York.

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

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

Very Truly Yours,

Hydro Tech Environmental, Corp.

X_____
Ruijie Xu
Project Engineer



X_____
Mark E. Robbins, C.P.G., C.E.I.
Principal

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1.0 EXECUTIVE SUMMARY

Hydro Tech Environmental, Corp. (Hydro Tech) has performed a Phase I Environmental Site Assessment (Phase I ESA) at the Subject Property located at 331-337 East 33rd Street, Manhattan, New York. The Phase I ESA was performed to meet or surpass the American Standard of Testing Materials Standard for Phase I Environmental Site Assessments E 1527-13. The purpose of the assessment was to characterize the environmental quality of the Subject Property through the identification of Recognized Environmental Conditions. All work was performed under the supervision of a Hydro Tech Project Manager and under the guidance of a Hydro Tech geologist

The results of the Phase I Environmental Site Assessment are contained in this report. The Phase I Environmental Site Assessment has revealed the following Recognized Environmental Condition(s) at the Subject Property:

- The presence of data gap regarding to the properties at 331-335 East 33rd Street for inspection (2.3)
- The historic and current use of northern adjacent property as dry cleaner (3.3, 5.0)
- The presence of PVECs related to the adjacent dry cleaner (5.0)
- The presence of suspect lead-based peeling paint at the Subject Property (6.0)
- The suspect presence of mold at the Subject Property (5.0, 6.0)

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

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

2.0 INTRODUCTION & SCOPE OF WORK

2.1 Introduction

Hydro Tech Environmental, Corp. (Hydro Tech, the "Preparer") has been retained by 33rd Street Acquisitions, LLC (the "User") to perform a Phase I Environmental Site Assessment at the property located at 331-337 East 33rd Street in Manhattan, New York. The User is the "Potential Buyer" of the adjacent property. The Phase I was prepared for due diligence purposes towards a purchase transaction of the property. The property will hereafter be referred to as the "Subject Property".

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

To this end, Hydro Tech has collected information through a number of sources including, but not limited to: a property and neighborhood inspection by trained environmental personnel, a review of historical and current information collected from various federal, state, county and municipal agencies and personnel interviews with Site representatives. Recommendations are offered where prudent. Firms subcontracted by Hydro Tech and the User may have collected some information used in this report. Some or all of the Assessment has been performed or supervised by environmental professionals as required by 40 CFR Part 310. The procurement of Title and Judicial Records for Environmental Liens and/or Activity and Use Limitations ("AULs") by HTE is beyond the scope of this practice (ASTM E1527-13) and investigation.

2.2 Scope of Work

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

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

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

2.3 Limitations and Exceptions & Data Gaps

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

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

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

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

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

It should be noted that the USEPA has determined in their final ruling (40 C.F.R. Part 312, Standards and Practices for All Appropriate Inquires) of November 1, 2005 that "persons conducting all appropriate inquiries may use the procedures included in the ASTM E1527-13 standard to comply with today's final rule." Therefore, while all appropriate inquiry could be considered satisfied as this ESA was prepared in exceedances(s) of the ASTM E1527-13 standard, persons attempting to utilize this ESA while seeking one of CERCLA's LLPs must note that; a) they will not maintain CERCLA liability protections unless they also comply with all of the continuing obligations established under the statute that are beyond the scope of this practice (ASTM E1527-13) and investigation; and b) in order to qualify for one of the CERCLA LLPs, the person commissioning the Phase I Environmental Site Assessment must have provided site-specific information (if available) to Hydro Tech before the date of this ESA, otherwise a determination could be made that all appropriate inquiry is not complete.

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

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

Data Gap	Significance
Site History – not conducted to time of first development and/or 5 year intervals.	Low – unlikely to alter conclusions due to findings of other resource(s).
No environmental lien provided.	Low – unlikely to alter conclusions due to findings of other resource(s).
No access to 331-335 East 33rd Street and limited access to 337 East 33rd Street	High – Likely to alter conclusions due to findings of other resource(s)
Municipal Records – FOIAs not returned as of date of report.	Unknown – Any FOIA responses that alter the conclusions of the report will be provided upon receipt.

As discussed in Section 5.2, the listing of historic oil burner applications at 331-335 East 33rd Street could be an indicative of the suspect presence of fuel oil storage tanks. As no access was provided to these buildings at the time of this report, no evaluation could be performed to confirm the presence of the storage tanks and

their related potential impact upon the environmental condition. Thus the consequent data gap is considered significant and should be identified as a REC. Due to other historical information obtained over the course of this investigation, Hydro Tech does not consider the remaining data failures/data gaps significant, as they appear unlikely to have affected potential Recognized Environmental Conditions at the Subject Property.

3.0 SUBJECT PROPERTY DESCRIPTION

3.1 Subject Property Vicinity

The Subject Property is located on the north side of East 33rd Street between Second Avenue to the west and First Avenue to the east, in the borough of Manhattan, NY. The borough of Manhattan in situated in the western portion of New York City.

The vicinity of the Subject Property consists of commercial and residential properties. The ground surfaces in the vicinity of the Site consist of asphalt, bare soil and concrete.

3.2 Subject Property Description

The Subject Property is identified as 331-337 East 33rd Street, Manhattan, NY. The Subject Property is approximately 8,394 square feet in total area and consists of four adjacent tax lots. The parcel at 331 East 33rd Street is occupied by a 5-story residential building with full basement and contains 22 apartment units. The parcels at 333 and 335 East 33rd Street are occupied by two 5-story residential buildings with full basements and each building contains 13 residential units. The southeastern portion of the basement at 335 East 33rd Street is occupied by a medical office. No further details can be provided for 331, 333 and 335 East 33rd Street at the time of this report since no access was provided to these buildings during the inspection. The parcel at 337 East 33rd Street is occupied by a 4-story residential building with full basement, encompassing 12 units. A boiler room with an active oil burner is located in the mid-western portion of the basement at 337 East 33rd Street. **Appendix A** provides photographs of the Subject Property.

Access to the Subject Property is via East 33rd Street to the south. The Subject Property is connected to the municipal water, gas and electric services. These services enter the Subject Property from East 33rd Street to the south. The buildings at 331, 333 and 335 East 33rd Street are reportedly heated via natural gas fired boiler. The building at 337 East 33rd Street is heated via a fuel oil fired boiler located in the boiler room.

The topography of the Subject Property and its vicinity is generally level. The elevation of the first floor of the building at 331 East 33rd Street is approximately 4 feet above the street level. **Figure 1** provides a Site Plan.

3.3 Adjacent Land Use

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

Direction	Adjacent Parcel	Surrounding Parcels
North	Three 6-story mixed residential and commercial ("34 Cleaners", "Unique Optique", "Shoe Repair", "Manhattan Rehabilitation Group", "Ceci Nails & Spa" and "Natures Cure Pharmacy"), 15-story residential	Residential
South	21-story residential building	Residential
East	4-story residential building	Residential
West	3-story Chapel of the Sacred Hearts of Jesus and Mary	Residential

The northern adjacent property is identified as an active dry cleaner and likely involved usage of chlorinated solvents. The use of chlorinated solvents at the adjacent property has the potential to adversely impact upon the environmental quality of the Subject Property and its use should be considered a REC. Hydro Tech does not believe that the present uses of the remaining adjacent properties identified above should impact upon the environmental quality of the Subject Property.

3.4 Proximity to Environmentally Sensitive Areas

The results of the Site inspection and an evaluation of the United States Geological Survey (USGS) 7-½ Minute Topographic Map containing the properties indicate following sensitive receptors are present within a 0.125-mile radius of the Subject Property: Pediatric Associates of New York PC, Young Adult Institute, Alexander Gorovets MD, Steven Batash MD, Herbert Gershberg MD, Medical Office Laboratory, Irwin

Sharkey MD, Lower Manhattan Dialysis Center, DRS Mitnick, Solitar and Azar, David Hom MD PLLC, Lab Corp, Joseph Hochman MD, Janine S Kiply MD, Yevgeniya Kaykova Medical PC, Ilona V Brandeis MD, 251 East 33 Associates, Brian L Levy MD, Menard M Gertler MD, Murray Hill Medical Group PC, Roy Geronemus MD PC, Kenneth I Pearlman MD, Dominic Onyema MD, NYU Comprehensive Epilepsy Center, The Neurogenetics Laboratory, New York University Medical Center, Tisch Hospital.

3.5 Environmental Setting

The Subject Property is located in the northeast portion of the Borough of Manhattan, New York. The elevation of the Subject Property is approximately 15 feet above mean sea level (USGS 7.5-Minute Brooklyn, New York Quadrangle, 2013).

The vicinity of the Subject Property is characterized by metamorphosed sequence of bedrock known as the Manhattan Prong of the Hartland Formation.

The Hartland Formation was formed during the late Cambrian to early Ordovician period and consists of undivided pelitic schist with gneiss and amphibolite. The formation is frequently cross cut by transverse and parallel faults. The area is overlain by Pleistocene aged glacial till deposits.

The depth to water in the vicinity of the Subject Property is estimated to be between 10 and 15 feet. The regional groundwater flow direction in the vicinity of the Site is presumed to be toward the East in the direction of East River.

4.0 HISTORICAL USE

4.1 Sanborn Maps

Sanborn Fire Rate Insurance Maps for the Subject Property and its vicinity dated 1890, 1899, 1910, 1929, 1950, 1968, 1980, 1983, 1985, 1987, 1988, 1991 through 1996 and 2001 through 2005 were obtained from EDR and evaluated in order to establish the history of the Site. **Appendix B** provides a copy of the Sanborn Fire Rate Insurance Maps.

Date	Subject Property Shown As	Surrounding area
1890, 1899	Four (4) lots addressed as 331-337 East 33rd Street. The parcel at 331 East 33rd Street is partially developed with a 4-story unknown building in the south and a 2-story commercial building in the north. Each parcel at 333, 335 and 337 East 33rd Street is partially developed with a 4-story unknown building in the south. The reminder of the Subject Property is vacant and undeveloped.	Residential/Commercial
1910	Same addresses as in 1899. The parcel at 331 East 33rd Street is partially developed with a 5-story mixed residential and commercial building. The remaining parcels have the same building layout as in 1899. The building at 333 and 335 East 33rd Street are utilized as dwellings and the building at 337 East 33rd Street is utilized as mixed residential and commercial building.	
1929, 1950	Same addresses, building layout and usage as in 1910 except the building at 331 East 33rd Street is utilized as dwelling only.	
1968	Same addresses, building layout and usage as in 1950 except the parcel at 337 East 33rd Street is developed as a 5-story dwelling.	Residential/Commercial /Religious
1980, 1983, 1985, 1987, 1988, 1991 – 1996, 2001 – 2005	Same addresses, building layout and usage as in 1968 except the parcels at 335 East 33rd Street is partially developed with a 5-story dwelling in the south.	

4.2 City Directory Search

In order to further assess the property's history, available City Directory files were obtained from EDR for review. The City Directories document known occupants of specific properties and sorted by individual addresses. **Appendix C** provides a copy of the City Directory Search. The following provides a listing of all documented usages of the addresses 331 – 337 East 33rd Street:

Date	Use of Subject Property	Surrounding Property Use
1920	**331 East 33rd Street:** Residential, Coyle Patk Lab **333 East 33rd Street:** Sloane Geo Nassau Stamp Co, Sloane Geo University Club **335 East 33rd Street:** Residential, McNally Wm J Lab, Pulver F W Office Supplies Woolworth Bldg **337 East 33rd Street:** Residential, Murphy Edward Lab	Residential/Commercial
1923	**331 East 33rd Street:** Residential, Coyle Patk Lab **333 East 33rd Street:** Sloane Geo Nassau Stamp Co, Sloane Geo University Club **335 East 33rd Street:** Residential, McNally Wm J Lab, Pulver F W Office Supplies Woolworth Bldg **337 East 33rd Street:** Murphy E Lab	
1927	**331 - 335 East 33rd Street:** Residential	

Date	Use of Subject Property	Surrounding Property Use
	337 East 33rd Street: No listing	
1931	**331 East 33rd Street:** Residential **333 – 337 East 33rd Street:** No listing	
1934	**331 and 335 East 33rd Street:** Residential **333 and 337 East 33rd Street:** No listing	
1938, 1942	**331, 333 and 337 East 33rd Street:** No listing **335 East 33rd Street:** Residential	
1947	**331 and 335 East 33rd Street:** Residential **333 and 337East 33rd Street:** No listing	
1950	**331 and 333 East 33rd Street:** Residential **335 East 33rd Street:** Residential, Goldstone Jean Stock **337 East 33rd Street:** No listing	
1956	**331 East 33rd Street:** Residential **333 and 337 East 33rd Street:** No listing **335 East 33rd Street:** Residential, Goldstone Jean Stock	
1958, 1963, 1968	**331 and 333 East 33rd Street:** Residential **335 East 33rd Street:** Residential, Goldstone Jean Stock **337 East 33rd Street:** No listing	
1973	**331 and 333 East 33rd Street:** Residential **335 and 337 East 33rd Street:** No listing	
1978, 1983, 1988	**331 and 333 East 33rd Street:** Residential **335 East 33rd Street:** Residential, Medical Office **337 East 33rd Street:** No listing	
1993	**331, 333 and 337 East 33rd Street:** No listing **335 East 33rd Street:** Medical Office	
1998	**331 and 337 East 33rd Street:** No listing **333 East 33rd Street:** Residetial **335 East 33rd Street:** Medical Office	
2000, 2006	**331, 333 and 337 East 33rd Street:** Residential **335 East 33rd Street:** Residential, Medical Office	
2008	**331, 335 and 337 East 33rd Street:** No listing **333 East 33rd Street:** 333 Records Inc.	
2013	**331, 335 and 337 East 33rd Street:** No listing **333 East 33rd Street:** Residential	

4.3 Previous Studies

Hydro Tech requested copies of any available historical environmental reports associated with the Subject Property. Hydro Tech was not provided with any copies of previous studies or other environmental reports pertaining to the Subject Property.

4.4 Previous Owners

According to the property listing on Property Shark and ACRIS, the following provides a list of historical owners of the Site:

Year	Name Of Previous Owner(s) of 331 East 33rd Street
Prior to 1966	Honig Benjamin; East Side Equities Inc.
1966 – 1968	Honing Benjamin; Nohope Realty Corp.; Alac Corp.
1968 – 1972	Alac Corp.; Demi-Fashions Inc.; 411 East 82 Street Corp.
1972 – 1975	Marguerite Hines; Milton S Rinzler
1975 – 2013	Estate of Milton S. Rinzler; 331 East 33rd LLC

Year	Name Of Previous Owner(s) of 333 East 33rd Street
Prior to 1973	Emily Austin Grogan; 247 Properties Inc.

Year	Name Of Previous Owner(s) of 333 East 33rd Street
1973 – 2008	247 Properties, Inc.; Five on 33rd LLC; Wonderful Wheels LLC
2008 – 2013	Five on 33rd LLC; KBP Funding Corp.

Year	Name Of Previous Owner(s) of 335 East 33rd Street
Prior to 1970	Samon Clemercia; Asmil Assoc. Inc.; Balaban Morris
1970 – 1971	Balabar Morris; 355 Properity, Inc.
1971 – 2008	247 Properties, Inc.; Five on 33rd LLC; Wonderful Wheels LLC
2008 – 2013	Five on 33rd LLC; KBP Funding Corp.

Year	Name Of Previous Owner(s) of 337 East 33rd Street
Prior to 1966	Milton Paul R; Hygal Assoc. Inc.
1966 – 1969	Milton Paul R; Chalif Vitalis L.
1969 – 1972	Vitalis L Chalif
1972 – 1973	Vitalis L Chalif; Prime Property Inc.; Salvatore M De Vivo Inc.
1973 – 1984	Salvatore M. Dec'd Devivo; Noble Holding Corp.; Harvey Berkowitz
1984 – 1988	Noble Holding Corp.; Michael Porges
1988 – 2005	Michael Porges; 337 East 33 LLC

4.5 Historic Aerials

Publically available historical aerial photographs for the Subject Property and its vicinity dated 1954, 1966, 1974, 1980, 1994, 2004, 2006, 2008, 2009 and 2011 through 2013 were reviewed and evaluated**.** The following summary provides a summary of this evaluation.

Date	Subject Property Shown As	Surrounding area
1954	Four buildings located in the southern portion of the Subject Property.	Developed with residential and commercial buildings
1966	Three buildings located in the southwestern portion of the Subject Property and the existing building located in the southeastern portion.	
1974 - 2013	Existing buildings located on property.	

4.6 Historical Use Summary

Based on a review of available information provided and/or obtained for the Subject Property as of the date of this ESA, it appears that the Subject Property was developed prior to 1890 with buildings for commercial and unknown use. The existing 5-story building at 331 East 33rd Street was developed with a mixed residential and commercial use prior to 1910 and then utilized as dwelling till present. The existing 5-story building at 333 East 33rd Street has been developed as a dwelling since 1910 and temporally encompassed office units in between 1920 and 1923. The parcel at 335 East 33rd Street was developed with a 4-story dwelling with office units prior to 1910 and then redeveloped with existing 5-story building for dwelling and medical office prior to 1973. The parcel at 337 East 33rd Street was developed with a 4-story mixed residential and commercial building prior to 1910 and then redeveloped with existing 5-story dwelling prior to 1968. The historic use of the Subject Property consist of residential, commercial and medical office, none of which should adversely impact upon the environmental quality of the Subject Property.

The historic use of the adjacent properties includes commercial, residential and religious, none of which should adversely impact upon the environmental quality of the Subject Property.

5.0 RECORDS REVIEW

5.1 Environmental Databases

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

ASTM Standard Environmental Record Source	Approx. ASTM Minimum Search Distance (MSD)	Number of Mapped Sites within MSD	Number of Orphan Sites
1. NPL (Superfund) *National Priorities List*	1.0 Mile	0	0
2. Delisted NPL Site *Delisted National Priorities List Site*	0.5 Mile	0	0
3. CERCLIS *Comprehensive Environmental Response Compensation & Liability Information System*	0.5 Mile	1	0
4. CERCLIS NFRAP *CERCLIS No Further Remedial Action Planned Site*	0.5 Mile	0	0
5. RCRA-TSD CORRACTS *Resource Conservation & Recovery Treatment/Storage/Disposal Facility Subject to Corrective Action*	1.0 Mile	0	0
6. RCRA-TSD *Resource Conservation & Recovery Treatment/Storage/Disposal Facility (Non-Corrective Action)*	0.5 Mile	0	0
7. RCRA-LG *Resource Conservation & Recovery Large Quantity Generator*	Site & Adjoining	1	0
8. RCRA-SG *Resource Conservation & Recovery Small Quantity Generator*	Site & Adjoining	1	0
9. ERNS *Emergency Response Notification System*	Property Only	0	0
10. Local / State / Tribal UST, PBS *Registered Storage Tanks*	Site & Adjoining	1	0
11. Local / State / Tribal LTANKS *Leaking Underground Storage Tanks*	0.5 Mile	76	0
12. State Spill Incidents *NYSDEC Spill Sites*	0.125 Mile	56	0
13. Local / State / Tribal SWF *Solid Waste Facility / Landfill*	0.5 Mile	0	0
14. Local / State / Tribal CERCLIS *Inactive Hazardous Waste Disposal Site*	0.5 Mile	0	0
16. Inst. / Engineering Controls *Registry of Institutional and/or Engineering Controls*	Property Only	0	0
17. Voluntary Cleanup Program Sites *Local / State / Tribal VCP Sites*	0.5 Mile	3	0
18. Brownfield Sites *Local / State / Tribal Brownfield Sites*	0.5 Mile	3	0
19. Non-ASTM Record Source(s)	Not Applicable	No MSD has been established by ASTM for these sources	

The review and evaluation of the above Federal and State/Tribal/Local Databases indicates that the Subject Property is identified following databases:

- NY Manifest

The parcel at 335 East 33rd Street is identified as Con Edison in the NY Manifest database with EPA ID #NYP004773198. According to the record, this listing is related to 500-pound unknown waste transferred to New Jersey for chemical, physical or biological treatment in April 2015. No further details were provided in the EDR report. The presence of this manifest at the Subject Property should not be considered a REC.

One (1) Comprehensive Environmental Response Compensation & Liability Information System (CERCLIS) site is listed in the database within a ½-mile radius of the Subject Property. This CERCLIS site is located 2,598 feet to the north and crossgradient of the Subject Property. Due to its proximity to the Subject Property and relative location to the groundwater flow direction, this CERCLIS site should not be considered a REC.

One (1) Resource Conservation & Recovery Act – Large Quantity Generator (RCRA-LQG) is listed in the database located in the southern adjacent vicinity. The site is identified as Con Edison – Service at 320 E 33 St and considered as a LQG of waste containing lead in March 2014. The site was also identified as a Conditionally Exempt Small Quantity Generator (CESQG) of unknown waste in September 2013. No violations were found in the EDR report. Due to its current regulatory status, this RCRA-LQG site should not be considered a REC.

One (1) RCRA-CESQG site is listed in the database located in the northern adjacent vicinity. The site is identified as Con Edison Service B at 326 E 34TH St and considered as a CESQG of 500-pound unknown waste in August 2012. No violations were found in the EDR report. Due to its current regulatory status, this RCRA-CESQG site should not be considered a REC.

One (1) Aboveground Storage Tank (AST) site is listed in the database located in the adjacent vicinity of the Subject Property. The AST site is identified as Sacred Heart of Jesus and Mary Church at 325 East 33rd Street and located in the western vicinity. The site is registered under PBS #2-606527 with one (1) 6,000-gallon #6 fuel oil AST that was closed and removed on April 10, 2006. The site is also listed in Historic Underground Storage Tank (UST) database with a 3,500-gallon #1, #2 or #4 fuel oil UST that was closed and removed on unknown date. No violations or related spills are found in the records. Due to its current regulatory status, this AST site should not be considered a REC.

Seventy-six (76) Leaking Storage Tank (LTANK) sites are listed in the database within a ½-mile radius of the Subject Property. One (1) site is located in the adjacent property. The adjacent LTANK site is identified as 325 East 33rd Street and located in the western vicinity. Spill #9210248 was reported on December 4, 1992 when 2-gallon #2 fuel oil was released due to malfunction of the vent alarm. The spill has been cleaned up to the satisfaction of NYSDEC and closed on the same day. Due to its current regulatory status and minor nature of the spill, this LTANK site should not be considered a REC.

Seventy-three (73) sites have been cleaned up to the satisfaction of NYSDEC and considered closed; the remaining two (2) sites are currently active. The active LTANK sites are described below:

- One active site is identified as Bellevue Hospital Ambulance Garage HHC. DDC at 472 1st Avenue, which is located in 1,350 feet to the south-southwest and crossgradient of the Subject Property. Spill #8708217 was reported on October 22, 1987 and related to tank test failure of a 1,100-gallon diesel tank. The spill case was then closed on October 31, 2003 since it is a duplicate listing of active spill #8708180, which was reported on October 21, 1987 due to tank test failure. As of March 2002, one (1) 550-gallon gasoline UST, one (1) 1,100-gallon diesel UST and two (2) 2,500-gallon USTs were closed and removed and 36,000-cubic-yard soil was excavated and disposed properly. The closure of the spill case is currently pending upon further groundwater sampling and monitoring.
- One active site is identified as Unknown Building – TTF at 419 Park Avenue South, which is located 2,390 feet to the west and crossgradient of the Subject Property. Spill #1108615 was reported on October 7, 2011 when unknown amount of #6 fuel oil was released due to tank test failure.

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

Fifty-six (56) NY Spill sites are listed in the database within a 0.125-mile radius of the Subject Property. None of the spill sites are located in the adjacent vicinity. Fifty-five (55) spill sites have been cleaned up to the satisfaction of NYSDEC and considered closed; the remaining one (1) site is currently active. The active spill sites is identified as 34th Street Metroport at 499 East 34th Street, which is located 640 feet to east and crossgradient of the Subject Property. Spill #1010604 was reported on December 9, 2010 when 200-gallon jet fuel was released into 2,200-gallon water due to tank test failure. The closure of the spill case is pending upon the closure and removal of the tank and groundwater sampling after tank excavation. None of the spill sites should impact upon the environmental quality of the Subject Property due to various factors such as their location relative to groundwater flow direction, their current regulatory status, the nature of the spills and/or their proximity to the Subject Property.

Three (3) Voluntary Cleanup Program (VCP) sites are listed in the database within a ½-mile radius of the Subject Property. Both sites are located over 700 feet to the northeast/east-northeast and crossgradient of the Subject Property. Due to their proximity to the Subject Property and relative location to the groundwater flow direction, neither of the VCP sites should be considered a REC.

Three (3) Brownfield sites are listed in the database within a ½-mile radius of the Subject Property. The Brownfield site is located over 600 feet to the northeast/east-northeast and crossgradient of the Subject Property. Due to their proximity to the Subject Property and relative location to the groundwater flow direction, this Brownfield should not be considered a REC.

One (1) Resource Conservation and Recovery Act Non-Generators (RCRA Non-Gen) site is listed in the database and located in the adjacent properties. This RCRA Non-Gen site is identified as Con Edison at 332 E 34TH St Front and located in the northern vicinity. The site was historically identified as a CESQG of 1,000-pound unknown waste in 2013. Due to its current regulatory status, this RCRA Non-Gen site should not be considered a REC.

One (1) EDR Historic Cleaner site is listed in the database and located in the northern adjacent properties. This site is identified as 34 Cleaners at 328 East 34th Street in 2004 and 2010. This cleaner facility is currently active and providing dry cleaning service, which likely involves the usage of chlorinated solvents and might impact upon the environmental quality of the Subject Property. This site has be discussed as a REC in Section 3.3.

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

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

5.2 Municipal Records

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

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

New York City Department of City Planning

A FOIA request was submitted to the New York City Zoning Department. The Tax Map revealed that the Subject Property consists of four (4) lots which is identified as the following:

- Block 939, Lot 20: 331 East 33rd Street, Manhattan, NY
- Block 939, Lot 21: 333 East 33rd Street, Manhattan, NY
- Block 939, Lot 22: 335 East 33rd Street, Manhattan, NY
- Block 939, Lot 23: 337 East 33rd Street, Manhattan, NY

The New York City Zoning Department indicated that Subject Property is zoned for "R8A". The Subject Property is not considered a Landmark. The Subject Property is not listed as an "E" Designation.

New York City Department of Building

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

The NYCDOB file for Lot 20 includes sixteen (16) complaints (1 open), seven (7) DOB violations (5 open), twelve (12) ECB violations (8 open), ten (10) jobs/filings, one (1) ARA/LAA job and twenty-two (22) actions. The open complaint is related to using the residential building as a hotel. The open DOB violations are related to failure to file the annual boiler reports and technical reports, suspended scaffolds in connection without hook, working without permit and work not conforming to approved construction documents. The open ECB violations are related to construction and scaffold safety. The jobs/filings are related to façade restoration, installation of pipe scaffold and heavy duty sidewalk shed field for remedial repairs, interior minor partitions, removal of new gas and plumbing work, renovation of existing apartment. The ARA/LAA job is related to the installation of new gas fired steam boiler. The actions are related to 5 alterations, 3 building notices, 1 construction, 2 Certification of Occupancy (CO), 3 complaints, 1 demolition permit, 2 new building, 1 plumbing repair slip, 2 special report, 1 unsafe building and 1 oil burner application. The oil burner application was filed in 1956 with no further details listed on NYCDOB websites. Heating oil tanks were mostly commonly used in residential dwellings during the time period that the Subject Property was developed (1915 through 1980). No visual evidence of storage tank such as vent pipes or fill port was identified outside the Subject Property. Considering the property is currently utilizing a natural gas fired boiler as indicated by the client, this oil burner application should not be considered a REC.

The NYCDOB website lists following COs for the Lot 20:

- One temporary CO dated May 29, 1973 lists the use of the basement as two (2) apartments, boiler room and storage and the 1st through 5th floor as four (4) apartments on each floor;
- One temporary CO dated December 14, 1973 lists the use of the basement as one (1) apartment, boiler room and storage and the 1st through 5th floor as four (4) apartments on each floor.

The NYCDOB Certificate of Occupancy indicates the classification use for Lot 20 is a "C5-Walk-Up Apartment".

The NYCDOB file for Lot 21 includes eleven (11) complaints (1 open), sixteen (16) DOB violations (2 open), three (3) ECB violations (1 open), five (5) jobs/filings, two (2) ARA/LAA job and sixteen (16) actions. The open complaint is related to subdivided apartment for additional living space. The open DOB violations are related to failure to file the low pressure boiler and elevator. The open ECB violations are related to boiler. The jobs/filings are related to renovation of existing cellar and apartment and legalization of hot water gas heater. The ARA/LAA jobs are related to the repairing gas leak and removal of gas piping. The actions are related to 4 alterations, 2 building notices, 3 Certification of Occupancy (CO), 1 complaint, 1 elevator building notice, 1 elevator, 2 oil burner application, 1 permit and 1 plumbing repair slip. The oil burner application was filed in 1953 and 1956 with no further details listed on NYCDOB websites. Heating oil tanks were mostly commonly used in residential dwellings during the time period that the Subject Property was developed (1915 through 1980). No visual evidence of storage tank such as vent pipes or fill port was identified outside the Subject Property. Considering the property is currently utilizing a natural gas fired boiler as indicated by the client, this oil burner application should not be considered a REC.

The NYCDOB website lists following COs for the Lot 21:

- Temporary COs dated January 20, 1975 and January 29, 1975 list the use of the 1st floor as public hall only and the 2nd through 5th floor as two (2) apartments on each floor;
- One temporary CO dated February 13, 1975 lists the use of the cellar as storage, boiler room and playroom, water room, the 1st and 2nd floor as two (2) apartments on each floor and the 3rd through 5th floor as three (3) apartments on each floor. The heat and hot water are supplied from 335 East 33rd Street.

The NYCDOB Certificate of Occupancy indicates the classification use for Lot 21 is a "D9-Elevator Apt".

The NYCDOB file for Lot 22 includes fifteen (15) complaints (3 open), four (4) DOB violations (3 open), four (4) ECB violations (none open), six (6) jobs/filings, two (2) ARA/LAA job and eighty (80) actions. The open complaints are related to illegal conversion of commercial building/space into dwelling units. The open DOB violations are related to failure to file the annual boiler reports. The jobs/filings are related to renovation of existing apartment and replacing the existing gas boiler. The ARA/LAA jobs are related to the replacing gas boiler and installation of hot water gas heater. The actions are related to 13 alterations, 5 building notices, 2 Certification of Occupancy (CO), 3 complaints, 1 demolition permit, 37 elevator report, 1 electric sign application, 5 unknown, 1 fire escape, 1 oil burner application, 1 new building, 2 plumbing, 2 permit, 1 plumbing repair slip, 1 special report and 3 unsafe building. The oil burner application was filed in 1934 with no further details listed on NYCDOB websites. Heating oil tanks were mostly commonly used in residential dwellings during the time period that the Subject Property was developed (1915 through 1980). No visual evidence of storage tank such as vent pipes or fill port was identified outside the Subject Property. Considering the property is currently utilizing a natural gas fired boiler as indicated by the client, this oil burner application should not be considered a REC.

The NYCDOB website lists following CO for the Lot 22:

- One temporary and one final CO dated March 8, 1973 lists the use of the cellar as boiler and storage room, part of dentist office, 1st floor as part of dentist office and one (1) apartment, 2nd and 3rd floor as two (2) apartments on each floor and 4th and 5th floor as three (3) apartments on each floor.

The NYCDOB Certificate of Occupancy indicates the classification use for Lot 22 is a "C5-Walk-Up Apartment".

The NYCDOB file for Lot 23 includes three (3) complaints (none open), twenty-six (26) DOB violations (6 open), three (3) ECB violations (none open), no jobs/filings and sixteen (16) actions. The open DOB violations are related to boilers, elevator and construction. The actions are related to 4 alterations, 1 building notices, 1 Certification of Occupancy (CO), 1 elevator, 1 fire escape, 2 oil burner application, 2 plumbing, 1 permit, 1 plumbing repair slip and 2 special report. The oil burner application was filed in 1941 and 1988 with no further details listed on NYCDOB websites. Heating oil tanks were mostly commonly used in residential dwellings during the time period that the Subject Property was developed (1915 through 1980). Two (2) 275-gallon #2 fuel oil ASTs and an active fuel oil fired boiler were identified in good condition in the southwestern portion of the basement. No odors or stains were identified in the vicinity. The related vent pipe and fill port were identified outside the southwestern exterior of Subject Property with no odors or stains in the vicinity. The presence of these ASTs should not be considered a REC.

The NYCDOB website lists following CO for the Lot 23:

- One CO dated March 9, 1961 lists the use of the cellar as elevator, machinery and storage, the 1st and 5th floor as one (1) apartment on each floor and the 2nd through 4th floor as three (3) apartments on each floor. The heat and hot water are supplied from 339 East 33rd Street.

The NYCDOB Certificate of Occupancy indicates the classification use for Lot 23 is a "D9-Elevator Apt".

New York City Department of Housing Preservation and Development

A FOIA request was submitted to the New York City Department of Housing Preservation and Development (NYCHPD).

The NYCHPD has following open violations for Lot 20:

- Properly repairing the broken or defective top window glass at east window
- Painting with light colored paint to the satisfaction of this department ceiling at public hall
- Properly secure the loose wash/basin in the bathroom
- Post notice, in form approved by the apartment, stating name and location of the person designated by the owner to have key to the building's heating system in the public hall near the mailbox and at door to boiler room
- File certification of satisfactory installation of smoking detecting service in accordance with HPD rules and regulation
- Post sign on wall of entrance story bearing name , address including apartment number if any, and telephone number of superintendent, janitor or housekeeper
- Remove obstructing bars or unlawful gates from window to fire escape or provide approved type gate
- Properly repair the broken or defective hole in front bottom section of boiler near heating unit cellar rear
- Owner failed to file a valid registration statement with the department as required

The NYCHPD has following open violations for Lot 21:

- Repair the broken or defective plastered surfaces and paint in a uniform color
- Replace the broken or defective weather stripping
- Trace and repair the source and abate the nuisance consisting of mold at closet in the bathroom
- Repair or replace the smoke detector missing in the entire apartment
- Repair or replace the carbon monoxide detecting device missing in the entire apartment
- Restore egress by removing locking device and arrange to open readily the gate in the fence at lot line
- Remove the illegal fastening double cylinder lock installed at door in the entrance

The NYCHPD has no open violations for Lot 22.

The NYCHPD has following open violations for Lot 23:

- Owner failed to file a valid registration statement with the department as required

The listing of an open violation related to mold in apartment at Lot 21 is classified by HPD as "Class B - Hazardous" and should be considered a REC. None of the remaining listing of open violations at the Subject Property should be considered a REC.

New York City Department of Health

A FOIA request was submitted to the New York City Department of Health (NYCDOH). The NYCDOH was contacted via telephone to obtain the status of the FOIA request. As of the date of this report, the NYCDOH has not responded to our initial search request or subsequent follow-up calls. Any information provided by the NYCDOH will be provided as soon as it has been received and evaluated.

New York City Bureau of Fire Prevention

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

New York State Department of Environmental Conservation

AFOIA request was submitted to the New York State Department of Environmental Conservation (NYSDEC). As of the date of this report, the NYSDEC has not responded to our initial search request. Any information provided by the NYSDEC will be provided as soon as it has been received and evaluated. The NYSDEC website was also searched for any records associated with the Subject Property. It indicates that the Subject Property is not identified in the NYSDEC Petroleum Bulk Storage (PBS) database or any of the

NYSDEC remedial programs databases including the Spill Response Program (SRP) database, Brownfield Clean-up Program (BCP) database, State Superfund Program (SSF) database, Environmental Remediation Program (ERP) database and the Voluntary Cleanup Program (VCP) database.

New York City Department of Environmental Protection

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

A search of the NYCDEP website indicates following boiler records for the Subject Property.

One boiler record is listed for lot 20 and is related to a natural gas fired boiler application that expired on August 29, 2002. Another boiler record is also for a natural gas fired boiler application that was submitted on February 15, 2013 and expired on February 20, 2013.

One boiler record is listed for lot 21 and is related to a natural gas fired boiler application that was cancelled on January 1, 1990.

One boiler record is listed for lot 22 and is related to a natural gas fired boiler application that expired on October 18, 2001. Another boiler record is also for a natural gas fired boiler application that was cancelled on February 5, 1985.

One boiler record is listed for lot 23 and is related to a #2 fuel oil fired boiler application that expired on July 31, 2012. This record should be related to the presence of two (2) 275-gallon #2 fuel oil ASTs and an active oil burner at the Subject Property, the presence of which has been discussed and should not be considered a REC.

6.0 SITE RECONNAISSANCE

Ms. Ruijie Xu of Hydro Tech performed the site reconnaissance portion of the Phase I Assessment on February 22, 2016. The weather during the inspection was snowy and approximately 50 degrees Fahrenheit.

No access was provided to buildings at 331 – 335 East 33rd Street and limited access was provided to building at 337 East 33rd Street including the basement and hallway on each floor. The following pertinent information was obtained during the Subject Property Reconnaissance:

1. Industrial Processes

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

2. Suspect Asbestos-Containing Materials

   No visual evidence of suspect asbestos containing material (ACM) was identified at the Subject Property.

3. Suspect Lead-Based Paint

   Visual evidence of peeling paint was identified on the wall of the basement at 337 East 33rd Street. Considering the age of the building, this peeling paint is likely containing lead and should be considered as a REC.

   No other evidence of peeling paint was identified at the Subject Property.

4. Lead in Water

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

5. Drum Storage Areas

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

6. Storage Tanks

   Two (2) 275-gallon #2 fuel oil ASTs and an active fuel oil fired boiler were identified in good condition in the southwestern portion of the basement at 337 East 33rd Street. No odors or stains were identified in the vicinity. The related vent pipe and fill port were identified outside the southwestern exterior of Subject Property with no odors or stains in the vicinity. The presence of these ASTs should not be considered a REC.

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

7. Subsurface Drainage Structures/Drains/Sumps

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

   No evidence of current or former septic/waste water/storm water discharge systems is identified at the Subject Property.

   No floor drains were observed at the Subject Property. No evidence of former floor drains was identified at the Subject Property.

No sumps were observed inside the building at the Subject Property. No evidence of former sumps was identified inside the building at the Subject Property.

8. PCB-Containing Equipment

   One (1) active cable driven elevator was identified in the northwestern portion of the building at 337 East 33rd Street. No stains or odors were identified in the vicinity. Given the fact that the elevator is powered by electricity, the presence of a cable driven elevator should not be considered a REC.

   Other than fluorescent lighting ballasts, no other suspect PCB-containing equipment was identified at the Subject Property.

9. Monitoring / Potable Water Wells

   No potable water wells were observed at the Subject Property.

   No monitoring wells were identified on the adjacent properties.

   No monitoring wells were identified at the Subject Property.

10. Mold

    An HPD open violation is listed for building at 333 East 33rd Street and is related to mold identified at closet in bathroom of Apt #21H. This violation is classified as "Hazardous" by HPD. Since no access was provided to this building at the time of this report, no further details could be provided and evaluated. Thus, the suspect presence of mold should be considered a REC.

    No other visual evidence of mold was identified at the Subject Property.

11. Pits, Ponds, or Lagoons

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

12. Wetlands

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

13. Staining/Stressed Vegetation

    No significant staining was identified at the Subject Property. No stressed vegetation was observed at the Subject Property.

14. Fill / Land Disposal / Solid Waste

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

15. Engineering Controls

    No engineering controls were noted at the Subject Property.

16. Odors/Air Emissions

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

17. Hazardous Substance / Petroleum Containers

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

18. Radon

    USEPA's recommended action level is 4 picoCuries/liter and the average radon gas concentrations predicted in the Manhattan area is 2 picoCuries/liter. Since Manhattan is located in a Low Radon Potential area, radon gas should not be represent a potential environmental concern that would warrant the sampling for radon gas at the Subject Property.

7.0 CLIENT / USER-PROVIDED INFORMATION & INTERVIEWS

7.1 Client / User-Provided Information

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

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

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

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

4. Other than provided in Section 7.2, the client/user reported no commonly known information or information within the local community regarding past use(s) of the property (including the storage and/or release of chemicals, hazardous substances, petroleum products, etc.) that could have affected the environmental integrity of the subject site.

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

6. Hydro Tech Environmental provided the Questionnaire for the client/user to complete. The questionnaire is provided in **Appendix F**.

7.2 Interviews

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

Site Owner and/or Representative

No site owner and/or representative were identified and/or available to be interviewed during the course of this Assessment.

Occupants and/or Operators

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

Past Owners and/or Occupants

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

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

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

8.0 CONCLUSIONS

Hydro Tech has performed a Phase I Environmental Site Assessment at the Subject Property, and has identified the following Recognized Environmental Conditions (RECs):

- The presence of significant data gap regarding to the properties at 331-335 East 33rd Street for inspection (2.3)
- The historic and current use of northern adjacent property as dry cleaner (3.3, 5.0)
- The presence of PVECs related to the adjacent dry cleaner (5.0)
- The suspect presence of heating oil tanks at the Subject Property (5.0)
- The presence of suspect lead-based peeling paint at the Subject Property (6.0)
- The suspect presence of mold at the Subject Property (5.0, 6.0)

9.0 CREDENTIALS & DECLARATION

9.1 Credentials

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

9.2 Environmental Professional Declaration

We declare that to the best of our professional knowledge and belief, we meet the definition of environmental professional as defined in 40 CFR Part 312. We have the specific qualifications based on education, training and experience to access a property of the nature, history and setting of the Subject Property. Only where indicated we have developed and performed the AAIs in conformance with the standards and practices set forth in 40 C.F.R. Part 312.

10.0 REFERENCES

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11.0 EXCLUSIONS & DISCLAIMERS

The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by the Client. No warranty, expressed or implied, is made whatsoever in connection with this report.

In preparing this report, Hydro Tech Environmental, Corp. may have relied on certain information provided by state and local officials and other parties referenced therein, and on information contained in the files of state and/or local agencies available to Hydro Tech Environmental, Corp. at the time of the subject property assessment. Although there may have been some degree of overlap in the information provided by these various sources, Hydro Tech Environmental, Corp. did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this subject property assessment.

No environmental site assessment can wholly eliminate uncertainty regarding the potential for RECs in connection with a Subject Property (ASTM E 1527-13 Section 4.5.1). The intent of an environmental site assessment is to reduce but not eliminate uncertainty regarding the presence of potential RECs within reasonable limits of both time and cost.

Observations were made of the subject property and of structures on the subject property as indicated within the report. Where access to portions of the subject property or to structures on the subject property was unavailable or limited, Hydro Tech Environmental, Corp. renders no opinion as to the presence of non-hazardous or hazardous materials, or to the presence of indirect evidence relating to a non-hazardous or hazardous materials, in that portion of the subject property or structure. In addition, Hydro Tech Environmental, Corp. renders no opinion as to the presence of hazardous materials, or the presence of indirect evidence relating to hazardous materials, where direct observation of the interior walls, floors, or ceiling of a structure on a subject property was obstructed by objects or coverings on or over these surfaces.

Hydro Tech Environmental, Corp. did not perform testing or analyses to determine the presence or concentration of asbestos or lead-based paint at the Subject Property or in the environment of the subject property under the scope of the services performed.

Any water level reading made in test pits, borings, and/or observation wells were made at the times and under the conditions stated in the report. However, it must be noted that fluctuations in the level of groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

Except as noted within the text of the report, no qualitative laboratory testing was performed as part of the subject property assessment. Where an outside laboratory, Hydro Tech Environmental, has conducted such analyses Corp. has relied upon the data provided, and has not conducted an independent evaluation of the reliability of the data.

The conclusions contained in this report are based in part, where noted, upon various types of chemical data and are contingent upon their validity. The data have been reviewed and interpretations were made in the report. As indicated within the report, some of the data may be preliminary "screening" level data, and should be confirmed with quantitative analyses if more specific information is necessary. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, the data should be reviewed, and the conclusions and recommendations presented herein modified accordingly. If in the opinion of the Client/User or any third party claiming reliance on this report, that Hydro Tech was negligent or in breach of contract, such aforementioned parties shall have 6 months from the date of Hydro Tech's visit to make a claim.

This report was prepared solely for the use of the Client/User and is not intended for use by third parties. Unauthorized third parties shall indemnify and hold Hydro Tech harmless against any liability for any loss arising out of, or related to, reliance by any third party on any work performed hereunder, or the contents of this report.

NYC Environmental Protection

Vincent Sapienza, P.E.
Acting Commissioner

Angela Licata
Deputy Commissioner of Sustainability

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
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July 26, 2017

Robert Dobruskin
Director, Environmental Assessment and Review Division
New York City Department of City Planning
120 Broadway 31st Floor
New York, New York 10271

Re: 303-347 East 33rd Street Rezoning
Block 939, Lots 20 to 27, and p/o Lot 28
CEQR # 17DCP203M

Dear Mr. Dobruskin:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the June 2017 Environmental Assessment Statement (EAS) prepared by Philip Habib & Associates and the March 2016 Phase I Environmental Site Assessment Report (Phase I), prepared by Hydro Tech Environmental, Corp., on behalf of 33rd Street Acquisition, LLC., (applicant) for the above referenced project. It is our understanding that the applicant is seeking a zoning map amendment from the New York City Department of City Planning (DCP) to rezone Block 939, Lots 20 to 27 and p/o Lot 28 from an R8A zoning district to a C1-9A zoning district. The applicant is also seeking a zoning text amendment to amend Appendix F of the Zoning Resolution in order to map the project area as a Mandatory Inclusionary Housing Area. The project site is currently improved with nine multi-story residential buildings and is located between 1st Avenue and 2nd Avenue in the Kips Bay neighborhood of Manhattan Community District 6. The proposed actions would facilitate the development of a 23-story, approximately 142,550 gross square feet (gsf) mixed-use building on Lots 24, 25, 26 and 27 and contain approximately 131,807 gsf of residential uses (155 dwelling units) and 10,743 gsf of retail uses. It should be noted that the proposed building also includes the incorporation of 16,453 gsf of development rights from Lot 23. This lot is not under the control of the applicant and as a result of the proposed actions, it will be merged into the development site's zoning lot but will remain under separate ownership. The existing four-story residential building on Lot 23 will remain in the future with the proposed actions. Lots 20, 21, 22, and 28 are not expected to be redeveloped as a result of the proposed rezoning, and are considered neither projected nor potential development sites for reasonable worst case development scenario (RWCDS) purposes. For RWCDS purposes, Lots 20, 21, and 22 would be considered development rights parcels for the proposed development on Lots 24-27 and no new development is anticipated to occur on these sites in the future with the proposed action.

The March 2016 Phase I report revealed that historical on-site and surrounding area land uses consists of residential and commercial uses, including residential buildings, a church, a parking garage, NY Bagels & Café, The Gyro Shop, dry cleaners, Unique Optique optical, a shoe repair store, Ceci Nails & Spa, Natures Cure Pharmacy, NYU Langone Medical Center and Chipotle Mexican Grill.

Regulatory databases such as the New York State Department of Environmental Conservation (NYSDEC) SPILLS, Leaking Storage Tanks (LTANKS), Resource Conservation and Recovery Act Generators, and Petroleum Bulk Storage (PBS) Underground Storage Tanks (USTs) and PBS Aboveground Storage Tanks (ASTs) identified several sites in close proximity to the project site. The SPILLS database reported 56 SPILLS within a 1/8-mile radius of the project site and the LTANKS database reported 76 LTANKS within a 1/2-mile radius of the project site. The PBS USTs and the PBS ASTs databases reported one USTs and one ASTs within a 1/4-mile radius of the project site (an adjacent property). It should be noted that the Phase I report also revealed one active fuel oil fired boiler and two 275-gallon ASTs at the development site. Based on the age of the buildings that currently occupy the proposed development site, asbestos containing materials and lead based paints could be present in the on-site structures. In addition, fluorescent lighting fixtures and electrical equipment may include polychlorinated biphenyl-containing components.

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

Block 939, Lots 24, 25, 26, and 27 (Proposed Development Site)

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

Future correspondence related to this project should include the following CEQR number **17DCP203M**. If you have any questions, you may contact Ms. Cassandra Scantlebury at (718) 595-6756.

Sincerely,

Wei Yu
Acting Deputy Director, Hazardous Materials

cc: R. Weissbard
T. Estesen
C. Scantlebury
M. Wimbish
A. Meunier (DCP)
O. Abinader (DCP)
M. Bertini (OER)

APPENDIX D

NEW YORK CITY LANDMARKS PRESERVATION COMMISSION

ENVRIONMENTAL REVIEW LETTER

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 / 77DCP375M
Project: 303-347 E. 33 ST. REZONING
Date received: 2/8/2017

Properties with no Architectural or Archaeological significance:

1) ADDRESS: 331 EAST 33 STREET, BBL: 1009390020
2) ADDRESS: 333 EAST 33 STREET, BBL: 1009390021
3) ADDRESS: 335 EAST 33 STREET, BBL: 1009390022
4) ADDRESS: 337 EAST 33 STREET, BBL: 1009390023
5) ADDRESS: 339 EAST 33 STREET, BBL: 1009390024
6) ADDRESS: 341 EAST 33 STREET, BBL: 1009390025
7) ADDRESS: 343 EAST 33 STREET, BBL: 1009390026
8) ADDRESS: 345 EAST 33 STREET, BBL: 1009390027
9) ADDRESS: 347 EAST 33 STREET, BBL: 1009390028

Gina Santucci 2/17/2017

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 32145_FSO_DNP_02152017.doc

APPENDIX E

NEW YORK CITY LANDMARKS PRESERVATION COMMISSION DESIGNATION REPORT - CIVIC CLUB (ESTONIAN HOUSE)

Landmarks Preservation Commission
March 28, 1978, Designation List No. 114
LP-0980

CIVIC CLUB (Estonian House), 243 East 34th Street, Borough of Manhattan. Built 1898-99; architect Thomas A. Gray.

Landmark Site: Borough of Manhattan Tax Map Block 915, Lot 26.

On January 10, 1978, the Landmarks Preservation Commission held a public hearing on the proposed designation as a Landmark of the Civic Club (Estonian House) and the proposed designation of the related Landmark Site (Item No. 1). On that date the hearing was continued to March 14, 1978 (Item No. 9). Both hearings were duly advertised in accordance with the provisions of law. One witness spoke in favor of designation at the two hearings. There was one speaker in opposition to the designation.

DESCRIPTION AND ANALYSIS

The elegant building of the Civic Club, now known as Estonian House, was designed in the French Beaux-Arts style by Thomas A. Gray. Erected in 1898-99, the Civic Club building was commissioned by Frederick Norton Goddard (1861-1905), the founder of the club and a leading social reformer in the city.

The son of J. Warren Goddard, a wealthy businessman and owner of a successful drygoods firm, F. N. Goddard joined the family business after graduating from Harvard in 1882. Shortly after his father's death, however, he left the firm and moved to a tenement at 327 East 33rd Street, where he lived with an old and trusted servant. This part of the city was them dominated by the working class. Several factories were near East 33rd Street and along the East River were rail and lumber yards as well as ferry landings. It was Goddard's intention to devote himself to helping the less fortunate in this neighborhood. He soon joined a small group of men, who worked as ferry boatmen, plasterers, and bricklayers, and who formed the nucleus of what was to become "one of the most hope-inspiring organizations in the city."[1] This group met regularly near the house of "Captain" Goddard, as he was known, and eventually formed the Civic Club, the purpose of which was to:

> ...render personal service as well as pecuniary aid to anybody needing it within the district they [the members] regarded as their own, bordered by Fourth Avenue, 42nd Street, the East River and 23rd Street.[2]

Goddard commissioned Brooklyn architect Thomas A. Gray to design the impressive clubhouse at 243 East 34th Street.

Just a few houses away, at 217 East 34th Street, stood the East Side Republican Club, another neighborhood organization launched by Goddard. In 1899 he became the Republican leader in his local district, and during the next five years he made a number of political reforms. Another successful campaign of Goddard was his fight against the form of gambling, known as the "policy game," at the turn of the century. He helped found the Anti-Policy Society, and his greatest triumph was the arrest of Al Adams, the "Policy King," in 1901.

Goddard had married Alice S. Winthrop in 1899 and moved from his tenement on 33rd Street to a more fashionable town house at 36th Street and Lexington Avenue. Despite his deep commitment to social and political reform, Goddard was, nonetheless, a member of several traditional and affluent men's clubs and also owned a country house in Litchfield, Connecticut. It was there that he died of a brain hemorrhage at the age of 44.

The Civic Club building remained in the Goddard family until 1946, when the Estate of Alice Goddard sold the property to the Estonian Educational Society, Inc., which still owns the building today. Founded in 1929, the Estonian Educational Society sponsors a variety of activities for Estonian-Americans in the New York area, including a senior citizen's club, folk dance, and singing groups, gymnastic classes, and courses for young children in the history of Estonia. Now known as Estonian House, or "Eesti Maja" in Estonian, the building houses a number of Estonian organizations, such as the Estonian Relief Committee.

This elegant four-story high limestone and brick building is similar in proportion and detail to many of the opulent Beaux-Arts private residences erected in New York at the turn of the century. The facade is enriched with a variety of decorative features which give the building a luxurious character. The facade of the Civic Club must have impressed and inspired the members of the Club.

The rusticated first story is composed of three round-arched openings; the doorway is at the left, with two windows to the right of it. The entrance with a double door has a round-arched transom, similar to that above each of the windows, and is surmounted by a scrolled keystone, like that above the window to the right. Elaborately crowning the central window of the first story is a handsome cartouche surrounded by foliate ornament.

At the second story, the bowed central window with double French doors has a carved enframement and opens onto a wrought-iron balcony. Centered above this window, the carved inscription, "Civic Club," is set off by shell ornaments. Ionic pilasters with pendants flank the narrower side windows which have sills on small brackets and cornice slabs carried on elongated brackets with pendants. The wall surface at either side of these windows is of gray brick which subtly contrasts with the limestone. Above this story a cornice with egg-and-dart and bead-and-reel moldings follows the curve of the bowed windows and is surmounted by a balustrade. At the third story which is faced with gray brick, the three windows with eared enframements have scrolled keystones and are connected by a band course at impost block level.

The handsome modillioned roof cornice above the third floor is crowned by a stone balustrade. The steeply pitched copper mansard roof rises behind the balustrade and is pierced by three dormer windows. The elaborate limestone central dormer continues the visual emphasis of the central bay of the facade. The large square-headed window of the dormer, with smooth enframement enhanced by a delicate interior molding, is surmounted by a segmental-arched pediment with a broken bed. The tympanum is embellished with a cartouche similar to the one crowning the central window of the ground floor. The dormer is further distinguished by intricately carved volutes flanking its base. To either side are simple bull's-eye windows ornamented with flanking pendants and arcroteria at the apex. The party walls and coping of the roof are finished with molded limestone.

Although the character of the neighborhood has changed greatly since the founding of the Civic Club, its building continues to serve a vital purpose as Estonian House. Moreover, the handsome building adds character and grace to its surroundings and survives as an elegant example of Beaux-Arts Design.

FOOTNOTES

1. New York Times, May 29, 1905, p. 1.
2. New York Times, May 29, 1905. p. 1.

FINDINGS AND DESIGNATION

On the basis of careful consideration of the history, the architecture and other features of this building, the Landmarks Preservation Commission finds that the Civic Club (Estonian House) has a special character, special historical and aesthetic interest and value as part of the development, heritage and cultural characteristics of New York City.

The Commission further finds that, among its important qualities, the Civic Club (Estonian House) is a handsome example of the Beaux-Arts style, that is was designed by architect T.A. Gray for the philanthropist F. Norton Goddard, that it was built to house the organization known as the Civic Club, founded by Goddard to improve the living conditions of the neighborhood residents, and that the building now serves as a center for Estonian cultural and educational activities.

Accordingly, pursuant to the provisions of Chapter 8-A of the Charter of the City of New York and Chapter 8-A of the Administrative Code of the City of New York, the Landmarks Preservation Commission designates as a Landmark the Civic Club (Estonian House), 243 East 34th Street, Borough of Manhattan and designates Tax Map Block 915, Lot 26, Borough of Manhattan, as it Landmark Site.

BIBLIOGRAPHY

Lain & Healy's Directories for Brooklyn, 1895-1900.

New Building Dockets (Department of Buildings, New York).

Property Conveyances (Office of the Register, New York County).

Trow's Directories for New York, 1895-1900.

New York Times, May 29, 1905, p. 1.

Social Register, New York, 1891-1901.

APPENDIX F

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR STATE FACILITY PERMIT FOR NYU LANGONE MEDICAL CENTER

PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 2-6206-01492/00002
Mod 0 Effective Date: 06/26/2014 Expiration Date: 06/25/2024

Mod 1 Effective Date: 07/13/2015 Expiration Date: 06/25/2024

Mod 2 Effective Date: 09/03/2015 Expiration Date: 06/25/2024

Mod 3 Effective Date: 02/11/2016 Expiration Date: 06/25/2024

Permit Issued To:NYU HOSPITALS CENTER
550 FIRST AVE
NEW YORK, NY 10016

Contact: RICHARD COHEN
NYU HOSPITAL OF MEDICINE
545 1ST AVE SC2-122
NEW YORK, NY 10016
(212) 263-5268

Facility: NYU LANGONE MEDICAL CENTER
550 FIRST AVE
NEW YORK, NY 10016

Contact: RICHARD COHEN
NYU HOSPITAL OF MEDICINE
545 1ST AVE SC2-122
NEW YORK, NY 10016
(212) 263-5268

Description:
The Mod 3 is issued to correct the location of the generators SGEN1, SGEN2, SGEN3, SGEN4 participating in non-emergency programs, addition of a gas firing 4601 hp GE Jenbacher JMS 620 GS-NL/F09 generator/engine and adding oil-firing capability to the turbine:

-The following is the corrected information:
Two (2) 1400 kW generators are in Smilow Building (not Energy Building) (SGEN1, SGEN2)
One (1) 1250 kW generator is in Skirball Building (SGEN3)
A 1000 kW generator in HCC Building (SGEN4).

-addition of a new gas firing reciprocating engine (General Electric Jenbacher JMS 620 GS-NL/F09 rated at maximum heat input of 27.375 MMBtu/hr or 4601 hp) on the rooftop of Kimmel Pavilion (424 E 34th Street). The engine will generate power on a continuous basis (24 hrs/day x 7 days/week x 52 weeks/yr) that will be supplied to the campus buildings. The heat generated by the engine and associated components at various stages will be collected by an Ethylene Glycol system that will be used for heating water to be supplied to the buildings. Thus, the engine will work as a cogeneration system. The engine is a 4-stroke lean burn type and fitted with NOx, CO and VOC control systems that meets with the SI RICE NESHAP (40 CFR 60 Subpart JJJJ) requirements (NOx: 1.0 g/bhp-hr, CO: 2.0 g/bhp-hr and VOC: 0.7 g/bhp-hr). The engine will be tested to determine the NOx emission factor that will be utilized for calculating total NOx based on fuel/gas consumed per year. The stack test should demonstrate the emission factor not exceeding 316 lb/mmscf of NOx when firing natural gas.

-the facility is adding oil-firing (ULSD) capability to the turbine (ES 00001), process TOL. The maximum rated heat input on oil for the turbine is 615 gallons per hour (gph). The SCR and oxidation catalyst will also control the NOx emissions from oil firing scenario. The corresponding NOx CEMS (continuous measurement) limit for oil firing (Process TOL) will be 0.005 lbs/gallon (which is well under the Subpart KKKK requirement of 74 ppm). The oil firing capability will be added to the turbine in 2016 but the duct burner will continue to remain a gas-firing unit only. A Particulate Matter (PM) testing will required to be performed within 180 days of adding the oil capability to the turbine as per 6NYCRR 227-1.2. Until then, the turbine will fire gas only (Process 001).

The NYU Langone Medical Center is currently permitted to construct and operate a new 10 MW combined heat and power (CHP) plant, including a natural gas-fired combustion turbine with a maximum heat input rating of 86.15 million British Thermal Units per hour (mm Btu/hr), with additional steam generated by a supplemental gas-fired duct burner rated at 116 mm Btu/hr using a heat recovery steam generator (HRSG) and equipped with selective catalytic reduction (SCR) and an oxidation catalyst. In addition to the CHP plant, the permit also includes installation of two dual-fuel back-up boilers, each with a capacity of approximately 150,000 lb/hr of steam (173.78 mmBtu/hr on natural gas and 180. 7 mmBtu/hr on no. 2 fuel oil). The facility is also permitted to install nine new 2,500 KW emergency generators, which are exempt from permitting per 201-3 in addition to four existing diesel generators. CHP system will be fully operational by summer of 2016. Three of the nine new generators are already in operation.

The facility NOx emissions are capped at 24.9 tons per year.
The facility Greenhouse Gas emissions (as CO2e) are limited to 100,000 tons per year.

Records demonstrating compliance with these caps will be kept in accordance with the permit special conditions.

The facility is subject to the provisions of State Facility requirements specified under 6NYCRR 201-7.

The Air State Facility permit contains a listing of the applicable federal, state, and compliance monitoring requirements for the facility.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator: STEPHEN A WATTS
47-40 21ST ST
LONG ISLAND CITY, NY 11101-5401

Authorized Signature: _____ Date: ___ / ___ / _____

Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the compliance permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in any compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

LIST OF CONDITIONS

DEC GENERAL CONDITIONS
General Provisions
Facility Inspection by the Department
Relationship of this Permit to Other Department Orders and Determinations
Applications for permit renewals, modifications and transfers
Applications for permit renewals, modifications and transfers
Permit modifications, suspensions or revocations by the Department
Facility Level
Submission of application for permit modification or renewal - REGION 2 HEADQUARTERS

DEC GENERAL CONDITIONS
****** General Provisions ******
GENERAL CONDITIONS - Apply to ALL Authorized Permits.

Condition 1: Facility Inspection by the Department
Applicable State Requirement: ECL 19-0305

Item 1.1:
The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

Item 1.2:
The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

Item 1.3:
A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

Condition 2: Relationship of this Permit to Other Department Orders and Determinations
Applicable State Requirement: ECL 3-0301 (2) (m)

Item 2.1:
Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

Condition 3: Applications for permit renewals, modifications and transfers
Applicable State Requirement: 6 NYCRR 621.11

Item 3.1:
The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

Item 3.2:
The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

Item 3.3:
Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

Condition 3-1: Applications for permit renewals, modifications and transfers
Applicable State Requirement: 6 NYCRR 621.11

Item 3-1.1:
The permittee must submit a renewal application at least 180 days before expiration of permits for both Title V and State Facility Permits.

Item 3-1.3:
Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

Condition 4: Permit modifications, suspensions or revocations by the Department
Applicable State Requirement: 6 NYCRR 621.13

Item 4.1:
The Department reserves the right to exercise all available authority to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

a) materially false or inaccurate statements in the permit application or supporting papers;
b) failure by the permittee to comply with any terms or conditions of the permit;
c) exceeding the scope of the project as described in the permit application;
d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

****** Facility Level ******

Condition 5: Submission of application for permit modification or renewal - REGION 2 HEADQUARTERS
Applicable State Requirement: 6 NYCRR 621.6 (a)

Item 5.1:
Submission of applications for permit modification or renewal are to be submitted to:

NYSDEC Regional Permit Administrator
Region 2 Headquarters
Division of Environmental Permits
1 Hunters Point Plaza, 4740 21st Street
Long Island City, NY 11101-5407
(718) 482-4997

Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY PERMIT

IDENTIFICATION INFORMATION

Permit Issued To:NYU HOSPITALS CENTER
550 FIRST AVE
NEW YORK, NY 10016

Facility: NYU LANGONE MEDICAL CENTER
550 FIRST AVE
NEW YORK, NY 10016

Authorized Activity By Standard Industrial Classification Code:
8062 - GENERAL MEDICAL & SURGICAL HOSPITALS

Mod 0 Permit Effective Date: 06/26/2014 Permit Expiration Date: 06/25/2024

Mod 1 Permit Effective Date: 07/13/2015 Permit Expiration Date: 06/25/2024

Mod 2 Permit Effective Date: 09/03/2015 Permit Expiration Date: 06/25/2024

Mod 3 Permit Effective Date: 02/11/2016 Permit Expiration Date: 06/25/2024

LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS
Facility Level

1 6 NYCRR 201-3.2 (a): Exempt Sources - Proof of Eligibility
2 6 NYCRR 201-3.2 (a): Compliance Demonstration
3 6 NYCRR Subpart 201-7: Facility Permissible Emissions
*3-1 6 NYCRR Subpart 201-7: Capping Monitoring Condition
*3-2 6 NYCRR Subpart 201-7: Capping Monitoring Condition
*3-3 6 NYCRR Subpart 201-7: Capping Monitoring Condition
*4 6 NYCRR Subpart 201-7: Capping Monitoring Condition
*5 6 NYCRR Subpart 201-7: Capping Monitoring Condition
*6 6 NYCRR Subpart 201-7: Capping Monitoring Condition
8 6 NYCRR Subpart 202-1: Compliance Demonstration
9 6 NYCRR 211.1: Air pollution prohibited
11 6 NYCRR 225-1.2 (g): Compliance Demonstration
12 6 NYCRR 225-1.2 (h): Compliance Demonstration
13 6 NYCRR 225-1.6 (d): Record Availability
14 6 NYCRR 225-1.6 (f): Compliance Demonstration
15 6 NYCRR 227-1.3 (a): Compliance Demonstration
16 6 NYCRR Subpart 231-13: Compliance Demonstration
17 40CFR 60, NSPS Subpart IIII: Applicability
3-4 40CFR 60, NSPS Subpart KKKK: Compliance and Enforcement
18 40CFR 63, Subpart JJJJJJ: Applicability
19 40CFR 63, Subpart ZZZZ: Engines at Area sources of HAP

Emission Unit Level

EU=U-00001

20 40CFR 60.13(c), NSPS Subpart A: Compliance Demonstration
21 40CFR 60.49b(b), NSPS Subpart Db: Compliance Demonstration

EU=U-00001,Proc=001,ES=00001

22 40CFR 60.4320(a), NSPS Subpart KKKK: Compliance Demonstration
23 40CFR 60.4330, NSPS Subpart KKKK: Compliance Demonstration

EU=U-00001,Proc=002

24 40CFR 60.48b(b), NSPS Subpart Db: Compliance Demonstration

EU=U-00001,Proc=003

25 40CFR 60.48b(b), NSPS Subpart Db: Compliance Demonstration

EU=U-00001,Proc=TOL,ES=00001

3-5 6 NYCRR 227.2 (b) (1): Compliance Demonstration
26 40CFR 60.48b(a), NSPS Subpart Db: Compliance Demonstration

EU=U-00001,EP=00001,Proc=001,ES=00001

27 40CFR 60.4340(b), NSPS Subpart KKKK: Alternative means of demonstrating compliance
28 40CFR 60.4365(a), NSPS Subpart KKKK: Compliance Demonstration

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

29 ECL 19-0301: Contaminant List
30 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
31 6 NYCRR Subpart 201-5: Emission Unit Definition
32 6 NYCRR 201-5.2 (c): Renewal deadlines for state facility permits
1-1 6 NYCRR 201-5.3 (c): Compliance Demonstration
34 6 NYCRR 211.2: Visible Emissions Limited

Emission Unit Level

35 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
36 6 NYCRR Subpart 201-5: Process Definition By Emission Unit
37 6 NYCRR 227-1.4 (a): Compliance Demonstration

NOTE: * preceding the condition number indicates capping.

FEDERALLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS
This section contains terms and conditions which are federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: **Sealing - 6 NYCRR 200.5**

The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation. Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

No person shall operate any air contamination source sealed by the Commissioner in accordance with this section unless a modification has been made which enables such source to comply with all requirements applicable to such modification.

Unless authorized by the Commissioner, no person shall remove or alter any seal affixed to any contamination source in accordance with this section.

Item B: **Acceptable Ambient Air Quality - 6 NYCRR 200.6**

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

Item C: **Maintenance of Equipment - 6 NYCRR 200.7**

Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications,

required to operate such device effectively.

Item D: Unpermitted Emission Sources - 6 NYCRR 201-1.2

If an existing emission source was subject to the permitting requirements of 6 NYCRR Part 201 at the time of construction or modification, and the owner and/or operator failed to apply for a permit for such emission source then the following provisions apply:

(a) The owner and/or operator must apply for a permit for such emission source or register the facility in accordance with the provisions of Part 201.

(b) The emission source or facility is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing sources or facilities.

Item E: Emergency Defense - 6 NYCRR 201-1.5

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;

(2) The equipment at the permitted facility causing the emergency was at the time being properly operated;

(3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

Item F: **Recycling and Salvage - 6 NYCRR 201-1.7**

Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of 6 NYCRR.

Item G: **Prohibition of Reintroduction of Collected Contaminants to the Air - 6 NYCRR 201-1.8**

No person shall unnecessarily remove, handle, or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

Item H: **Proof of Eligibility for Sources Defined as Exempt Activities - 6 NYCRR 201-3.2 (a)**

The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item I: **Proof of Eligibility for Sources Defined as Trivial Activities - 6 NYCRR 201-3.3 (a)**

The owner and/or operator of an emission source or unit that is listed as being trivial in 6 NYCRR Part 201 may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item J: **Required Emission Tests - 6 NYCRR 202-1.1**

An acceptable report of measured emissions shall be submitted, as may be required by the Commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation. Failure to submit a report acceptable to the Commissioner within the time stated shall be sufficient reason for the Commissioner to suspend or deny an operating permit. Notification and acceptable procedures are specified in 6 NYCRR Subpart 202-1.

Item K: **Open Fires Prohibitions - 6 NYCRR 215.2**
Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

Item L: **Permit Exclusion - ECL 19-0305**
The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

Item M: **Federally Enforceable Requirements - 40 CFR 70.6 (b)**
All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

FEDERAL APPLICABLE REQUIREMENTS
The following conditions are federally enforceable.

Condition 1: **Exempt Sources - Proof of Eligibility**

Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 201-3.2 (a)

Item 1.1:
The owner or operator of an emission source or activity that is listed as being exempt may be required to certify that it is operated within the specific criteria described in this Subpart. The owner or operator of any such emission source or activity must maintain all records necessary for demonstrating compliance with this Subpart on-site for a period of five years, and make them available to representatives of the department upon request.

Condition 2: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 201-3.2 (a)

Item 2.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 2.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:
AS PROOF OF EXEMPT ELIGIBILITY FOR THE EMERGENCY GENERATORS, THE FACILITY MUST MAINTAIN MONTHLY RECORDS WHICH DEMONSTRATE THAT EACH ENGINE IS OPERATED LESS THAN 500 HOURS PER YEAR, ON A 12-MONTH ROLLING TOTAL BASIS.

Work Practice Type: HOURS PER YEAR OPERATION
Upper Permit Limit: 500.0 hours
Monitoring Frequency: MONTHLY
Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 3: Facility Permissible Emissions
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 3.1:
The sum of emissions from the emission units specified in this permit shall not equal or exceed the following
Potential To Emit (PTE) rate for each regulated contaminant:

CAS No: 0NY210-00-0 (From Mod 3) PTE: 49,800 pounds per year
Name: OXIDES OF NITROGEN

Condition 3-1: Capping Monitoring Condition
Effective between the dates of 02/11/2016 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 3-1.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 201-6

Item 3-1.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 3-1.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 3-1.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 3-1.5:
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 3-1.6:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001
Process: TOL Emission Source: 00001

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 3-1.7:
Compliance Demonstration shall include the following monitoring:

Capping: Yes

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
NOx emission factor of 0.005 lbs/gallon from the operation of turbine (ES 00001) on ultra low sulfur distillate (ULSD) fuel to be verified through the CEMS data.
NOx emission factor of 0.028 lbs/gallon is the NSPS limit under 40CFR 60 Subpart Db.

Manufacturer Name/Model Number: CEM
Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 0.005 pounds per gallon
Reference Test Method: EPA Method
Monitoring Frequency: CONTINUOUS
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 3-2: Capping Monitoring Condition
Effective between the dates of 02/11/2016 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 3-2.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 201-6
6 NYCRR Subpart 231-2

Item 3-2.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 3-2.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 3-2.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 3-2.5:

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 3-2.6:
The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 3-2.7:
Compliance Demonstration shall include the following monitoring:

Capping: Yes
Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE
Monitoring Description:
Plant-wide NOx emissions are being capped at 24.9 tons/year.

The owner or operator shall maintain a record of the quantity of each fuel fired at the facility. Also, the owner or operator shall calculate NOx emissions (based on the fuel quantity) using the following formula:

AxB + CxD + ExF + GxH + IxJ + KxL + MxN + OxP < 49,800 lbs/yr of Oxides of Nitrogen emissions.

Where:
A = 12-month rolling total of natural gas fired (from turbine 00001), in mmscf/yr without duct firing;
B = 93.7 lbs/mmscf - NOx emission factor from operation of turbine on natural gas (lbs/mmscf).
C = 12-month rolling total of natural gas fired (from duct burner 00002), in mmscf/yr with duct firing;
D = 93.7 lbs/mmscf - NOx emission factor from operation of the turbine + duct burner (lbs/mmscf).
E = 12-month rolling total of natural gas fired (from boilers 00005 and 00006) in mmscf/yr;
F = NOx emission factor from the operation of the back-up boilers on natural gas (lbs/mmcf). Emission factor of 204 lb/mmscf is the NSPS limit under 40CFR 60 Subpart Db and is based on 1020 Btu/scf heating value of natural gas. To be verified through the CEMS data;
G = 12-month rolling total of distillate oil fired (from boilers 00005 and 00006) in gals/yr;
H = NOx emission factor from the operation of the back-up boilers on ultra low sulfur fuel oil (lbs/gallon). Based on an emission factor of 0.028 lbs/gallon is the NSPS limit under 40CFR 60 Subpart Db and is based on 140,000 Btu/gallon heating value of #2 fuel oil. To be verified through the CEMS data;

I = 12-month rolling total of distillate oil fired (from new engines and one existing engine) in gals/yr;
J = NOx emission factor of 0.179 lbs/gal from operation of the new engines and the existing engine in the HCC building firing an ultra low sulfur fuel oil HHV of 140,000 Btu/gallon, based on an NSPS emission factor;
K = 12-month rolling total of distillate oil fired (from old engines) in gals/yr;
L = NOx emission factor of 0.409 lbs/gal from operation of the old engines (Skirball and Smilow Buildings) on distillate fuel oil, based on an AP-42 emission factor.
M = 12-month rolling total of natural gas fired (from engine SGGNK) in mmscf/yr;
N = 316 lb/mmscf - NOx emission factor from the operation of the engine SGGNK on natural gas (lbs/mmcf). Emission factor of 316 lb/mmscf is based on 40CFR60 Subpart JJJJ Table 1 requirements of 1.0 g/hp-hr of NOx with the assumption that the heating value of natural gas is 1020 Btu/scf and should be demonstrated through the stack test;
O = 12-month rolling total of ULSD diesel fired (from turbine 00001), in gal/yr
P = 0.005 lbs/gal - NOx emission factor from operation of turbine on ULSD diesel (lbs/gal). To be verified through the CEMS data.

Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 24.9 tons per year
Monitoring Frequency: MONTHLY
Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2017.
Subsequent reports are due every 12 calendar month(s).

Condition 3-3: Capping Monitoring Condition
Effective between the dates of 02/11/2016 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 3-3.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 201-6

Item 3-3.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 3-3.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 3-3.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 3-3.5:
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 3-3.6:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00002
Process: GKP Emission Source: SGGNK

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 3-3.7:
Compliance Demonstration shall include the following monitoring:

Capping: Yes
Monitoring Type: INTERMITTENT EMISSION TESTING
Monitoring Description:
NOx emission factor of 316 lb per mmscf of natural gas firing in engine (em. source SGGNK) should be demonstarted through the stack test.

Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 316 pounds per million cubic feet
Reference Test Method: EPA Method
Monitoring Frequency: SINGLE OCCURRENCE
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 4: Capping Monitoring Condition
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 4.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 231-2

Item 4.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 4.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 4.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 4.5:
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 4.6:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001
Process: 002

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 4.7:
Compliance Demonstration shall include the following monitoring:

Capping: Yes
Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
NOx emission factor of 204 lbs/mmscf from the operation of the back-up boilers on natural gas to be verified through the CEMS data.

NOx emission factor of 204 lb/mmscf is the NSPS limit under 40CFR 60 Subpart Db and is based on 1020 Btu/scf heating value of natural gas.

Manufacturer Name/Model Number: CEM
Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 204 pounds per million cubic feet
Reference Test Method: EPA Method
Monitoring Frequency: CONTINUOUS
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 5: Capping Monitoring Condition
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 5.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 231-2

Item 5.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 5.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 5.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 5.5:
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 5.6:
The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: U-00001
Process: 003

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 5.7:
Compliance Demonstration shall include the following monitoring:

Capping: Yes
Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
NOx emission factor of 0.028 lbs/gallon from the operation of the back-up boilers on ultra low sulfur distillate (ULSD) fuel to be verified through the CEMS data.
NOx emission factor of 0.028 lbs/gallon is the NSPS limit under 40CFR 60 Subpart Db.

Manufacturer Name/Model Number: CEM
Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 0.028 pounds per gallon
Reference Test Method: EPA Method
Monitoring Frequency: CONTINUOUS
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 6: Capping Monitoring Condition
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 6.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 201-6

Item 6.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 6.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any

other state and federal air pollution control requirements, regulations or law.

Item 6.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 6.5:
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 6.6:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001
Process: 001 Emission Source: 00001

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 6.7:
Compliance Demonstration shall include the following monitoring:

Capping: Yes
Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
NOx emission factor of 93.7 lbs/mmscf of natural gas fired in turbine should be demonstrated through the stack test, as per Department approved stack test protocol, for the turbine (00001) with and without the duct burner (00002).
NOx emission factor of 93.7 lb/mmscf is the NSPS limit under 40CFR 60 Subpart KKKK and is based on 1020 Btu/scf heating value of natural gas.

Manufacturer Name/Model Number: CEM
Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 93.7 pounds per million cubic feet
Reference Test Method: EPA Method
Monitoring Frequency: CONTINUOUS
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 8: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 202-1

Item 8.1:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001 Emission Point: 00001

Item 8.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
CEMS requirements.

The owner or operator of an emission source that monitors NOx emissions with a CEMS must submit for department approval a CEMS plan at least 180 days prior to equipment installation.

The owner or operator of an emission source that monitors NOx emissions with a CEMS must submit for department approval a CEMS certification protocol at least 60 days prior to compliance testing. The certification protocol must include the location of and specifications for each instrument or device, as well as procedures for calibration, operation, data evaluation, and data reporting.

The owner or operator of an emission source that monitors NOx emissions with a CEMS must install, calibrate, maintain, and operate a CEMS for measuring NOx at locations approved in the CEMS certification protocol and must record the output of each such system.

Reference Test Method: EPA
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 9: Air pollution prohibited
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 211.1

Item 9.1:
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.

Condition 11: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 225-1.2 (g)

Item 11.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 11.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:

Owners and/or operators of a stationary combustion installation that fires distillate oil other than number two heating oil are limited to the purchase of distillate oil with 0.0015 percent sulfur by weight or less on or after July 1, 2014. Compliance with this limit will be based on vendor certifications.

Data collected pursuant to this Subpart must be tabulated and summarized in a form acceptable to the Department, and must be retained for at least five years. The owner of a Title V facility must furnish to the Department such records and summaries, on a semiannual calendar basis, within 30 days after the end of the semiannual period. All other facility owners or distributors must submit these records and summaries upon request of the Department.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 0.0015 percent by weight
Monitoring Frequency: PER DELIVERY
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 12: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 225-1.2 (h)

Item 12.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 12.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:
Owners and/or operators of a stationary combustion installations that fire distillate oil are limited to the firing of distillate oil with 0.0015 percent sulfur by weight or less on or after July 1, 2016. Compliance with this limit will be based on vendor certifications.

Data collected pursuant to this Subpart must be tabulated and summarized in a form acceptable to the Department, and must be retained for at least five years. The owner of a Title V facility must furnish to the Department such records and summaries, on a semiannual calendar basis, within 30 days after the end of the semiannual period. All other facility owners or distributors must submit these records and summaries upon request of the Department.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 0.0015 percent by weight
Monitoring Frequency: PER DELIVERY
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 13: Record Availability
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 225-1.6 (d)

Item 13.1: Facility owners required to maintain and retain records pursuant to this Subpart must make such records available for inspection by the Department.

Condition 14: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 225-1.6 (f)

Item 14.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 14.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

Facility owners subject to this Subpart must submit a written report of the fuel sulfur content exceeding the applicable sulfur-in-fuel limitation, measured emissions exceeding the applicable sulfur-in-fuel limitation, measured emissions exceeding the applicable equivalent emission rate, and the nature and cause of such exceedances if known, for each calendar quarter, within 30 days after the end of any quarterly period in which an exceedances takes place.

Data collected pursuant to this Subpart must be tabulated and summarized in a form acceptable to the Department, and must be retained for at least five years. The owner of a Title V facility must furnish to the Department such records and summaries, on a semiannual calendar basis, within 30 days after the end of the semiannual period. All other facility owners or distributors must submit these records and summaries upon request of the Department.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 15: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 227-1.3 (a)

Item 15.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 15.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE
Monitoring Description:

No person shall operate a stationary combustion installation which exhibits greater than 20 percent opacity (six minute average), except for one 6 minute period per hour of not more than 27 percent opacity. The Department reserves the right to perform or require the performance of a Method 9 opacity evaluation at any time during facility operation.

The permittee will conduct observations of visible emissions from the emission unit, process, etc. to which

this condition applies at the monitoring frequency stated below while the process is in operation. The permittee will investigate, in a timely manner, any instance where there is cause to believe that visible emissions have the potential to exceed the opacity standard.

The permittee shall investigate the cause, make any necessary corrections, and verify that the excess visible emissions problem has been corrected. If visible emissions with the potential to exceed the standard continue, the permittee will conduct a Method 9 assessment within the next operating day of the sources associated with the potential noncompliance to determine the degree of opacity and will notify the NYSDEC if the Method 9 test indicates that the opacity standard is not met.

Records of visible emissions observations (or any follow-up Method 9 tests), investigations and corrective actions will be kept on-site. Should the Department determine that permittee's record keeping format is inadequate to demonstrate compliance with this condition, it shall provide written notice to the permittee stating the inadequacies, and permittee shall have 90 days to revise its prospective record keeping format in a manner acceptable to the Department.

Parameter Monitored: OPACITY
Upper Permit Limit: 20 percent
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: 6-MINUTE AVERAGE (METHOD 9)
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 16: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 231-13

Item 16.1:
The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 0NY750-00-0 CARBON DIOXIDE EQUIVALENTS

Item 16.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:
Plant-wide Greenhouse Gas emissions (as CO2e) are limited to an annual maximum of 100,000 tons per year rolled

monthly.

Work Practice Type: PROCESS MATERIAL THRUPUT
Process Material: FUEL
Upper Permit Limit: 100000 tons per year
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 17: Applicability
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60, NSPS Subpart IIII

Item 17.1:
Facilities that have stationary compression ignition internal combustion engines must comply with applicable portions of 40 CFR 60 Subpart IIII.

Condition 3-4: Compliance and Enforcement
Effective between the dates of 02/11/2016 and 06/25/2024

Applicable Federal Requirement:40CFR 60, NSPS Subpart KKKK

Item 3-4.1:
The Department has not accepted delegation of 40 CFR Part 60 Subpart KKKK. Any questions concerning compliance and/or enforcement of this regulation should be referred to USEPA Region 2, 290 Broadway, 21st Floor, New York, NY 10007-1866; (212) 637-4080. Should the Department decide to accept delegation of 40 CFR Part 60 Subpart KKKK during the term of this permit, enforcement of this regulation will revert to the Department as of the effective date of delegation.

Condition 18: Applicability
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 63, Subpart JJJJJJ

Item 18.1:
Facilities that are area sources of HAP with industrial, commercial, or institutional boilers must comply with applicable portions of 40 CFR 63 JJJJJJ.

Condition 19: Engines at Area sources of HAP
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 63, Subpart ZZZZ

Item 19.1:
Internal combustion engines, constructed or re-constructed on or after June 12, 2006, that meet the requirements of 40 CFR 60 Subpart IIII or Subpart JJJJ meet the requirements of 40 CFR 63 Subpart ZZZZ.

****** Emission Unit Level ******

Condition 20: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.13(c), NSPS Subpart A

Item 20.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

Item 20.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under §60.11(e)(5), he or she shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of 40CFR 60 before the performance test required under §60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under §60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of 40CFR 60. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.
(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under §60.8 and as described in §60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in 40CFR60.13(c) at least 10 days before the performance test required under §60.8 is conducted.
(2) Except as provided in paragraph 40CFR60.13(c)(1), the owner or operator of an affected facility shall furnish

the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 21: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.49b(b), NSPS Subpart Db

Item 21.1:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001
Process: 002 Emission Source: 00005

Emission Unit: U-00001
Process: 002 Emission Source: 00006

Emission Unit: U-00001
Process: 003 Emission Source: 00005

Emission Unit: U-00001
Process: 003 Emission Source: 00006

Item 21.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
The owner or operator of each affected facility subject to the sulfur dioxide, particulate matter, and/or nitrogen oxides emission limits under 40 CFR Part 60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 22: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.4320(a), NSPS Subpart KKKK

Item 22.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001
Process: 001 Emission Source: 00001

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 22.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING
Monitoring Description:
For a facility with a new turbine firing natural gas and if the combustion turbine heat input at peak load (HHV) is greater than 50 mmBtu/hr and less than or equal to 850 mmBtu/hr, the facility must not exceed the NOx emission standard of 25 ppm at 15% O2.

Compliance with this emission standard shall be determined according to the annual performance tests as specified in §60.4340(a).

Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 25 parts per million by volume (dry, corrected to 15% O2)
Reference Test Method: EPA Method 7E or Met
Monitoring Frequency: ANNUALLY
Averaging Method: 3-HOUR BLOCK AVERAGE
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2015.
Subsequent reports are due every 12 calendar month(s).

Condition 23: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.4330, NSPS Subpart KKKK

Item 23.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001
Process: 001 Emission Source: 00001

Regulated Contaminant(s):
CAS No: 007446-09-5 SULFUR DIOXIDE

Item 23.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING
Monitoring Description:
The emission limit for sulfur dioxide from a stationary combustion turbine is 0.060 lb SO2/MMBtu heat input. If the turbine simultaneously fires multiple fuels, each fuel must meet this requirement.

Parameter Monitored: SULFUR DIOXIDE
Upper Permit Limit: 0.060 pounds per million Btus
Reference Test Method: ASTM D5287
Monitoring Frequency: MONTHLY
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 24: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.48b(b), NSPS Subpart Db

Item 24.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001
Process: 002

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 24.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
The owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system.

Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 204 pounds per million cubic feet
Monitoring Frequency: CONTINUOUS
Averaging Method: 30-DAY ROLLING AVERAGE
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 25: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.48b(b), NSPS Subpart Db

Item 25.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001
Process: 003

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 25.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
The owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system.

Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 0.028 pounds per gallon
Monitoring Frequency: CONTINUOUS
Averaging Method: 30-DAY ROLLING AVERAGE
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 3-5: Compliance Demonstration
Effective between the dates of 02/11/2016 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 227.2 (b) (1)

Item 3-5.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001
Process: TOL Emission Source: 00001

Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 3-5.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING
Monitoring Description:
The two hour average emission of particulates from this stationary combustion installation shall not exceed 0.10 pounds per million Btu of heat input.

At the monitoring frequency stated below the facility shall perform the following:

1) Submit to the Department an acceptable protocol for the testing of particulate emissions in a manner that will determine compliance with the limit cited in this condition.

2) Perform a stack test, based upon the approved test protocol, to determine compliance with the particulate emission limit cited in this condition.

3) Submit an acceptable stack test report that outlines the results obtained from the testing done to meet the requirement of #2 above.

4) Facility shall keep records of all testing done at this stationary combustion installation for a period of 5 years.

Parameter Monitored: PARTICULATES
Upper Permit Limit: 0.10 pounds per million Btus
Reference Test Method: EPA RM 5
Monitoring Frequency: SINGLE OCCURRENCE
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 26: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.48b(a), NSPS Subpart Db

Item 26.1:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001
Process: 002 Emission Source: 00005

Emission Unit: U-00001
Process: 002 Emission Source: 00006

Emission Unit: U-00001
Process: 003 Emission Source: 00005

Emission Unit: U-00001
Process: 003 Emission Source: 00006

Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 26.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE
Monitoring Description:
The owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.

Parameter Monitored: OPACITY
Upper Permit Limit: 20 percent
Monitoring Frequency: CONTINUOUS
Averaging Method: 6 MINUTE AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2014.
Subsequent reports are due every 3 calendar month(s).

Condition 27: Alternative means of demonstrating compliance
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.4340(b), NSPS Subpart KKKK

Item 27.1:
This Condition applies to Emission Unit: U-00001 Emission Point: 00001
Process: 001 Emission Source: 00001

Item 27.2: As an alternate means of demonstrating compliance , the facility may install, calibrate, maintain and operate one of the following continuous monitoring systems:
(1) Continuous emission monitoring as described in 40 CFR 60.4335(b) and 60.4345, or
(2) Continuous parameter monitoring as follows:
(i) For a diffusion flame turbine without add-on selective catalytic reduction (SCR) controls, you must define parameters indicative of the unit's NO_X formation characteristics, and you must monitor these parameters continuously.
(ii) For any lean premix stationary combustion turbine, you must continuously monitor the appropriate parameters to determine whether the unit is operating in low-NO_X mode.
(iii) For any turbine that uses SCR to reduce NO_X emissions, you must continuously monitor appropriate parameters to verify the proper operation of the emission controls.
(iv) For affected units that are also regulated under 40 CFR Part 75, with state approval you can monitor the NO_X emission rate using the methodology in appendix E to 40 CFR Part 75 of this chapter, or the low mass emissions methodology in §75.19, the requirements of this paragraph (b) may be met by performing the parametric monitoring described in section 2.3 of part 75 appendix E or in §75.19(c)(1)(iv)(H).

Condition 28: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.4365(a), NSPS Subpart KKKK

Item 28.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001 Emission Point: 00001
Process: 001 Emission Source: 00001

Regulated Contaminant(s):
CAS No: 007446-09-5 SULFUR DIOXIDE

Item 28.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

The facility may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO2/J (0.060 lb SO2/mmBtu) heat input.

The facility must use the fuel quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the fuel, specifying that:

1) The maximum total sulfur content for oil use is 0.05% by weight (500 ppmw) or less, or
2) The total sulfur content for natural gas use is 20 grains of sulfur or less per 100 standard cubic feet, or
3) Has potential sulfur emissions of less than 26 ng SO2/J (0.060 lb SO2/mmBtu) heat input.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

STATE ONLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS
This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: **Public Access to Recordkeeping for Facilities With State Facility Permits - 6 NYCRR 201-1.10 (a)**
Where facility owners and/or operators keep records pursuant to compliance with the requirements of 6 NYCRR Subpart 201-5.4, and/or the emission capping requirements of 6 NYCRR Subpart 201-7, the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records. Facility owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department.

Item B: **General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5**
Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

STATE ONLY APPLICABLE REQUIREMENTS
The following conditions are state only enforceable.

Condition 29: **Contaminant List**
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable State Requirement:ECL 19-0301

Item 29.1:
Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 007446-09-5
Name: SULFUR DIOXIDE

CAS No: 0NY075-00-0
Name: PARTICULATES

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN

CAS No: 0NY750-00-0
Name: CARBON DIOXIDE EQUIVALENTS

Condition 30: Malfunctions and start-up/shutdown activities
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable State Requirement:6 NYCRR 201-1.4

Item 30.1:
(a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.

(b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, maintenance, or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department.

(c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.

(d) The department may also require the owner or operator to include, in reports described

under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.

(e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

Condition 31: Emission Unit Definition
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 31.1(From Mod 3):
The facility is authorized to perform regulated processes under this permit for:
Emission Unit: U-00001
Emission Unit Description:
This emission unit is comprised of one 10 MW CHP plant, which includes one natural gas-fired (Process 001) turbine (ES 00001) with added capability to fire ultra low sulfur diesel (Process TOL) with a duct firing heat recovery steam generator and a 2.4 MW steam turbine generator.

This emission unit also includes two back-up boilers each rated at 150,000 lbs/hr of steam heat. The boilers would be used in an emergency condition when the CHP plant is not operating and may operate concurrently with the gas turbine to add reliability to the steam system. The boilers will burn natural gas or ultra low sulfur fuel oil. The emission points listed under this emission unit, 00001 and 00002 are the main stack and the emergency stack, which exhaust both the CHP plant and the back-up boilers. Emission point 00002 will be used during construction of the Kimmel Building, during initial start-up and testing of the CHP and back-up boilers, and during purge and start-up of the boilers and turbine. Emission sources listed under this emission unit are 00001 and 00002 for the turbine and the duct-burner respectively, 00003 and 00004 for the SCR and oxidation catalyst controls, and 00005 and 00006 for the two back-up boilers.

Building(s): ENERGY

Item 31.2(From Mod 3):
The facility is authorized to perform regulated processes under this permit for:
Emission Unit: U-00002
Emission Unit Description:
This unit consists of four existing generators that will participate in non-emergency programs. Each generator has

independent stack and fires diesel.
4601 hp gas reciprocating engine (non-emergency) is being added to this unit. The engine will have it own independent stack and will be located on the roof top of Kimmel Pavilion.

Building(s): HCC
KIMMEL
SKIRBALL
SMILLOW

Condition 32: Renewal deadlines for state facility permits
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable State Requirement:6 NYCRR 201-5.2 (c)

Item 32.1:
The owner or operator of a facility having an issued state facility permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

Condition 1-1: Compliance Demonstration
Effective between the dates of 07/13/2015 and 06/25/2024

Applicable State Requirement:6 NYCRR 201-5.3 (c)

Item 1-1.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 1-1.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
Any reports or submissions required by this permit shall be submitted to the Regional Air Pollution Control Engineer (RAPCE) at the following address:

Division of Air Resources
NYS Dept. of Environmental Conservation
Region 2
47-40 21st St.
Long Island City, NY 11101

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 34: Visible Emissions Limited

Effective between the dates of 06/26/2014 and 06/25/2024

Applicable State Requirement:6 NYCRR 211.2

Item 34.1:
Except as permitted by a specific part of this Subchapter and for open fires for which a restricted burning permit has been issued, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

****** Emission Unit Level ******

Condition 35: Emission Point Definition By Emission Unit
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 35.1(From Mod 3):
The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-00002

Emission Point: EGEN1
Height (ft.): 328 Diameter (in.): 18
NYTMN (km.): 4510.7 NYTME (km.): 586.7 Building: SMILLOW

Emission Point: EGEN2
Height (ft.): 288 Diameter (in.): 18
NYTMN (km.): 4510.7 NYTME (km.): 586.7 Building: SMILLOW

Emission Point: EGEN3
Height (ft.): 288 Diameter (in.): 18
NYTMN (km.): 4510.7 NYTME (km.): 586.7 Building: SKIRBALL

Emission Point: EGEN4
Height (ft.): 54 Diameter (in.): 18
NYTMN (km.): 4510.7 NYTME (km.): 586.7 Building: HCC

Emission Point: GGNKP
Height (ft.): 364 Diameter (in.): 26
NYTMN (km.): 4510.7 NYTME (km.): 586.7 Building: KIMMEL

Item 35.2(From Mod 0):
The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-00001

Emission Point: 00001
Height (ft.): 429 Diameter (in.): 48
NYTMN (km.): 4510.7 NYTME (km.): 586.7 Building: KIMMEL

Emission Point: 00002
Height (ft.): 135 Diameter (in.): 44
NYTMN (km.): 4510.7 NYTME (km.): 586.7 Building: ENERGY

Condition 36: Process Definition By Emission Unit
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 36.1(From Mod 3):
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001
Process: TOL Source Classification Code: 2-01-001-01
Process Description: Firing ULSD (ultra low sulfur diesel) in turbine.

Emission Source/Control: 00001 - Combustion
Design Capacity: 10 megawatt

Item 36.2(From Mod 3):
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00002
Process: GEN Source Classification Code: 2-01-001-02
Process Description: Firing diesel fuel in four existing engines.

Emission Source/Control: SGEN1 - Combustion
Design Capacity: 1,400 kilowatts

Emission Source/Control: SGEN2 - Combustion
Design Capacity: 1,400 kilowatts

Emission Source/Control: SGEN3 - Combustion
Design Capacity: 1,250 kilowatts

Emission Source/Control: SGEN4 - Combustion
Design Capacity: 1,000 kilowatts

Item 36.3(From Mod 3):
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00002
Process: GKP Source Classification Code: 2-01-002-02
Process Description: Firing natural gas in engines.

Emission Source/Control: SGGNK - Combustion
Design Capacity: 3,332 kilowatts

Item 36.4(From Mod 0):
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001
Process: 001 Source Classification Code: 2-03-002-03
Process Description: Firing natural gas in the turbine and duct burner.

Emission Source/Control: 00001 - Combustion
Design Capacity: 10 megawatt

Emission Source/Control: 00002 - Combustion
Design Capacity: 116 million Btu per hour

Emission Source/Control: 00003 - Control
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Emission Source/Control: 00004 - Control
Control Type: CATALYTIC OXIDATION

Item 36.5(From Mod 0):
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001
Process: 002 Source Classification Code: 1-03-006-01
Process Description:
Firing natural gas in the back-up boilers. The heat input capacity for each boiler is 173.78 mmBtu/hr on natural gas.

Emission Source/Control: 00005 - Combustion
Design Capacity: 150,000 pound steam per hour

Emission Source/Control: 00006 - Combustion
Design Capacity: 150,000 pound steam per hour

Item 36.6(From Mod 0):
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001
Process: 003 Source Classification Code: 1-03-005-01
Process Description:
Firing #2 fuel oil in boilers. The heat input capacity for each boiler is 180.7 mmBtu/hr on ultra low sulfur oil.

Emission Source/Control: 00005 - Combustion
Design Capacity: 150,000 pound steam per hour

Emission Source/Control: 00006 - Combustion
Design Capacity: 150,000 pound steam per hour

Condition 37: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable State Requirement:6 NYCRR 227-1.4 (a)

Item 37.1:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001
Process: 002 Emission Source: 00005

Emission Unit: U-00001
Process: 002 Emission Source: 00006

Emission Unit: U-00001
Process: 003 Emission Source: 00005

Emission Unit: U-00001
Process: 003 Emission Source: 00006

Item 37.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE
Monitoring Description:
Any person who owns a stationary combustion installation (excluding gas turbines), with a total maximum heat input capacity exceeding 250 million Btu per hour shall install, operate in accordance with manufacturer's instructions, and properly maintain, accurate instruments satisfying the criteria in appendix B of title 40, part 60 of the Code of Federal Regulations, or approved by the commissioner on an individual case basis, for continuously monitoring and recording opacity, and when sulfur dioxide continuous monitoring is required by Part 225 of this Title, for continuously monitoring and recording either the percent oxygen or carbon dioxide in the flue gases from such installations at all times that the combustion installation is in service. Where gas is the only fuel burned, monitoring and recording of opacity is not required.

Parameter Monitored: OPACITY
Upper Permit Limit: 20 percent
Reference Test Method: Apendix B, 40 CFR 60
Monitoring Frequency: CONTINUOUS
Averaging Method: 6 MINUTE AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2014.
Subsequent reports are due every 3 calendar month(s).

PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 2-6206-01492/00002
Mod 0 Effective Date: 06/26/2014 Expiration Date: 06/25/2024

Mod 1 Effective Date: 07/13/2015 Expiration Date: 06/25/2024

Mod 2 Effective Date: 09/03/2015 Expiration Date: 06/25/2024

Mod 3 Effective Date: 02/11/2016 Expiration Date: 06/25/2024

Permit Issued To:NYU HOSPITALS CENTER
550 FIRST AVE
NEW YORK, NY 10016

Contact: RICHARD COHEN
NYU HOSPITAL OF MEDICINE
545 1ST AVE SC2-122
NEW YORK, NY 10016
(212) 263-5268

Facility: NYU LANGONE MEDICAL CENTER
550 FIRST AVE
NEW YORK, NY 10016

Contact: RICHARD COHEN
NYU HOSPITAL OF MEDICINE
545 1ST AVE SC2-122
NEW YORK, NY 10016
(212) 263-5268

Description:
The Mod 3 is issued to correct the location of the generators SGEN1, SGEN2, SGEN3, SGEN4 participating in non-emergency programs, addition of a gas firing 4601 hp GE Jenbacher JMS 620 GS-NL/F09 generator/engine and adding oil-firing capability to the turbine:

-The following is the corrected information:
Two (2) 1400 kW generators are in Smilow Building (not Energy Building) (SGEN1, SGEN2)
One (1) 1250 kW generator is in Skirball Building (SGEN3)
A 1000 kW generator in HCC Building (SGEN4).

-addition of a new gas firing reciprocating engine (General Electric Jenbacher JMS 620 GS-NL/F09 rated at maximum heat input of 27.375 MMBtu/hr or 4601 hp) on the rooftop of Kimmel Pavilion (424 E 34th Street). The engine will generate power on a continuous basis (24 hrs/day x 7 days/week x 52 weeks/yr) that will be supplied to the campus buildings. The heat generated by the engine and associated components at various stages will be collected by an Ethylene Glycol system that will be used for heating water to be supplied to the buildings. Thus, the engine will work as a cogeneration system. The engine is a 4-stroke lean burn type and fitted with NOx, CO and VOC control systems that meets with the SI RICE NESHAP (40 CFR 60 Subpart JJJJ) requirements (NOx: 1.0 g/bhp-hr, CO: 2.0 g/bhp-hr and VOC: 0.7 g/bhp-hr). The engine will be tested to determine the NOx emission factor that will be utilized for calculating total NOx based on fuel/gas consumed per year. The stack test should demonstrate the emission factor not exceeding 316 lb/mmscf of NOx when firing natural gas.

-the facility is adding oil-firing (ULSD) capability to the turbine (ES 00001), process TOL. The maximum rated heat input on oil for the turbine is 615 gallons per hour (gph). The SCR and oxidation catalyst will also control the NOx emissions from oil firing scenario. The corresponding NOx CEMS (continuous measurement) limit for oil firing (Process TOL) will be 0.005 lbs/gallon (which is well under the Subpart KKKK requirement of 74 ppm). The oil firing capability will be added to the turbine in 2016 but the duct burner will continue to remain a gas-firing unit only. A Particulate Matter (PM) testing will required to be performed within 180 days of adding the oil capability to the turbine as per 6NYCRR 227-1.2. Until then, the turbine will fire gas only (Process 001).

The NYU Langone Medical Center is currently permitted to construct and operate a new 10 MW combined heat and power (CHP) plant, including a natural gas-fired combustion turbine with a maximum heat input rating of 86.15 million British Thermal Units per hour (mm Btu/hr), with additional steam generated by a supplemental gas-fired duct burner rated at 116 mm Btu/hr using a heat recovery steam generator (HRSG) and equipped with selective catalytic reduction (SCR) and an oxidation catalyst. In addition to the CHP plant, the permit also includes installation of two dual-fuel back-up boilers, each with a capacity of approximately 150,000 lb/hr of steam (173.78 mmBtu/hr on natural gas and 180. 7 mmBtu/hr on no. 2 fuel oil). The facility is also permitted to install nine new 2,500 KW emergency generators, which are exempt from permitting per 201-3 in addition to four existing diesel generators. CHP system will be fully operational by summer of 2016. Three of the nine new generators are already in operation.

The facility NOx emissions are capped at 24.9 tons per year.
The facility Greenhouse Gas emissions (as CO2e) are limited to 100,000 tons per year.

Records demonstrating compliance with these caps will be kept in accordance with the permit special conditions.

The facility is subject to the provisions of State Facility requirements specified under 6NYCRR 201-7.

The Air State Facility permit contains a listing of the applicable federal, state, and compliance monitoring requirements for the facility.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator: STEPHEN A WATTS
47-40 21ST ST
LONG ISLAND CITY, NY 11101-5401

Authorized Signature: _____ Date: ___ / ___ / _____

Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the compliance permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in any compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

LIST OF CONDITIONS

DEC GENERAL CONDITIONS
General Provisions
Facility Inspection by the Department
Relationship of this Permit to Other Department Orders and Determinations
Applications for permit renewals, modifications and transfers
Applications for permit renewals, modifications and transfers
Permit modifications, suspensions or revocations by the Department
Facility Level
Submission of application for permit modification or renewal - REGION 2 HEADQUARTERS

DEC GENERAL CONDITIONS
****** General Provisions ******
GENERAL CONDITIONS - Apply to ALL Authorized Permits.

Condition 1: Facility Inspection by the Department
Applicable State Requirement: ECL 19-0305

Item 1.1:
The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

Item 1.2:
The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

Item 1.3:
A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

Condition 2: Relationship of this Permit to Other Department Orders and Determinations
Applicable State Requirement: ECL 3-0301 (2) (m)

Item 2.1:
Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

Condition 3: Applications for permit renewals, modifications and transfers
Applicable State Requirement: 6 NYCRR 621.11

Item 3.1:
The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

Item 3.2:
The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

Item 3.3:
Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

Condition 3-1: Applications for permit renewals, modifications and transfers
Applicable State Requirement: 6 NYCRR 621.11

Item 3-1.1:
The permittee must submit a renewal application at least 180 days before expiration of permits for both Title V and State Facility Permits.

Item 3-1.3:
Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

Condition 4: Permit modifications, suspensions or revocations by the Department
Applicable State Requirement: 6 NYCRR 621.13

Item 4.1:
The Department reserves the right to exercise all available authority to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

a) materially false or inaccurate statements in the permit application or supporting papers;
b) failure by the permittee to comply with any terms or conditions of the permit;
c) exceeding the scope of the project as described in the permit application;
d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

****** Facility Level ******

Condition 5: Submission of application for permit modification or renewal - REGION 2 HEADQUARTERS
Applicable State Requirement: 6 NYCRR 621.6 (a)

Item 5.1:
Submission of applications for permit modification or renewal are to be submitted to:

NYSDEC Regional Permit Administrator
Region 2 Headquarters
Division of Environmental Permits
1 Hunters Point Plaza, 4740 21st Street
Long Island City, NY 11101-5407
(718) 482-4997

Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY PERMIT

IDENTIFICATION INFORMATION

Permit Issued To:NYU HOSPITALS CENTER
550 FIRST AVE
NEW YORK, NY 10016

Facility: NYU LANGONE MEDICAL CENTER
550 FIRST AVE
NEW YORK, NY 10016

Authorized Activity By Standard Industrial Classification Code:
8062 - GENERAL MEDICAL & SURGICAL HOSPITALS

Mod 0 Permit Effective Date: 06/26/2014 Permit Expiration Date: 06/25/2024

Mod 1 Permit Effective Date: 07/13/2015 Permit Expiration Date: 06/25/2024

Mod 2 Permit Effective Date: 09/03/2015 Permit Expiration Date: 06/25/2024

Mod 3 Permit Effective Date: 02/11/2016 Permit Expiration Date: 06/25/2024

LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS
Facility Level

1 6 NYCRR 201-3.2 (a): Exempt Sources - Proof of Eligibility
2 6 NYCRR 201-3.2 (a): Compliance Demonstration
3 6 NYCRR Subpart 201-7: Facility Permissible Emissions
*3-1 6 NYCRR Subpart 201-7: Capping Monitoring Condition
*3-2 6 NYCRR Subpart 201-7: Capping Monitoring Condition
*3-3 6 NYCRR Subpart 201-7: Capping Monitoring Condition
*4 6 NYCRR Subpart 201-7: Capping Monitoring Condition
*5 6 NYCRR Subpart 201-7: Capping Monitoring Condition
*6 6 NYCRR Subpart 201-7: Capping Monitoring Condition
8 6 NYCRR Subpart 202-1: Compliance Demonstration
9 6 NYCRR 211.1: Air pollution prohibited
11 6 NYCRR 225-1.2 (g): Compliance Demonstration
12 6 NYCRR 225-1.2 (h): Compliance Demonstration
13 6 NYCRR 225-1.6 (d): Record Availability
14 6 NYCRR 225-1.6 (f): Compliance Demonstration
15 6 NYCRR 227-1.3 (a): Compliance Demonstration
16 6 NYCRR Subpart 231-13: Compliance Demonstration
17 40CFR 60, NSPS Subpart IIII: Applicability
3-4 40CFR 60, NSPS Subpart KKKK: Compliance and Enforcement
18 40CFR 63, Subpart JJJJJJ: Applicability
19 40CFR 63, Subpart ZZZZ: Engines at Area sources of HAP

Emission Unit Level

EU=U-00001

20 40CFR 60.13(c), NSPS Subpart A: Compliance Demonstration
21 40CFR 60.49b(b), NSPS Subpart Db: Compliance Demonstration

EU=U-00001,Proc=001,ES=00001

22 40CFR 60.4320(a), NSPS Subpart KKKK: Compliance Demonstration
23 40CFR 60.4330, NSPS Subpart KKKK: Compliance Demonstration

EU=U-00001,Proc=002

24 40CFR 60.48b(b), NSPS Subpart Db: Compliance Demonstration

EU=U-00001,Proc=003

25 40CFR 60.48b(b), NSPS Subpart Db: Compliance Demonstration

EU=U-00001,Proc=TOL,ES=00001

3-5 6 NYCRR 227.2 (b) (1): Compliance Demonstration
26 40CFR 60.48b(a), NSPS Subpart Db: Compliance Demonstration

EU=U-00001,EP=00001,Proc=001,ES=00001

27 40CFR 60.4340(b), NSPS Subpart KKKK: Alternative means of demonstrating compliance
28 40CFR 60.4365(a), NSPS Subpart KKKK: Compliance Demonstration

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

29 ECL 19-0301: Contaminant List
30 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
31 6 NYCRR Subpart 201-5: Emission Unit Definition
32 6 NYCRR 201-5.2 (c): Renewal deadlines for state facility permits
1-1 6 NYCRR 201-5.3 (c): Compliance Demonstration
34 6 NYCRR 211.2: Visible Emissions Limited

Emission Unit Level

35 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
36 6 NYCRR Subpart 201-5: Process Definition By Emission Unit
37 6 NYCRR 227-1.4 (a): Compliance Demonstration

NOTE: * preceding the condition number indicates capping.

FEDERALLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS
This section contains terms and conditions which are federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: **Sealing - 6 NYCRR 200.5**

The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation. Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

No person shall operate any air contamination source sealed by the Commissioner in accordance with this section unless a modification has been made which enables such source to comply with all requirements applicable to such modification.

Unless authorized by the Commissioner, no person shall remove or alter any seal affixed to any contamination source in accordance with this section.

Item B: **Acceptable Ambient Air Quality - 6 NYCRR 200.6**

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

Item C: **Maintenance of Equipment - 6 NYCRR 200.7**

Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications,

required to operate such device effectively.

Item D: Unpermitted Emission Sources - 6 NYCRR 201-1.2

If an existing emission source was subject to the permitting requirements of 6 NYCRR Part 201 at the time of construction or modification, and the owner and/or operator failed to apply for a permit for such emission source then the following provisions apply:

(a) The owner and/or operator must apply for a permit for such emission source or register the facility in accordance with the provisions of Part 201.

(b) The emission source or facility is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing sources or facilities.

Item E: Emergency Defense - 6 NYCRR 201-1.5

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;

(2) The equipment at the permitted facility causing the emergency was at the time being properly operated;

(3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

Item F: **Recycling and Salvage - 6 NYCRR 201-1.7**

Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of 6 NYCRR.

Item G: **Prohibition of Reintroduction of Collected Contaminants to the Air - 6 NYCRR 201-1.8**

No person shall unnecessarily remove, handle, or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

Item H: **Proof of Eligibility for Sources Defined as Exempt Activities - 6 NYCRR 201-3.2 (a)**

The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item I: **Proof of Eligibility for Sources Defined as Trivial Activities - 6 NYCRR 201-3.3 (a)**

The owner and/or operator of an emission source or unit that is listed as being trivial in 6 NYCRR Part 201 may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item J: **Required Emission Tests - 6 NYCRR 202-1.1**

An acceptable report of measured emissions shall be submitted, as may be required by the Commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation. Failure to submit a report acceptable to the Commissioner within the time stated shall be sufficient reason for the Commissioner to suspend or deny an operating permit. Notification and acceptable procedures are specified in 6 NYCRR Subpart 202-1.

Item K: **Open Fires Prohibitions - 6 NYCRR 215.2**
Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

Item L: **Permit Exclusion - ECL 19-0305**
The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

Item M: **Federally Enforceable Requirements - 40 CFR 70.6 (b)**
All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

FEDERAL APPLICABLE REQUIREMENTS
The following conditions are federally enforceable.

Condition 1: **Exempt Sources - Proof of Eligibility**

Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 201-3.2 (a)

Item 1.1:
The owner or operator of an emission source or activity that is listed as being exempt may be required to certify that it is operated within the specific criteria described in this Subpart. The owner or operator of any such emission source or activity must maintain all records necessary for demonstrating compliance with this Subpart on-site for a period of five years, and make them available to representatives of the department upon request.

Condition 2: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 201-3.2 (a)

Item 2.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 2.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:
AS PROOF OF EXEMPT ELIGIBILITY FOR THE EMERGENCY GENERATORS, THE FACILITY MUST MAINTAIN MONTHLY RECORDS WHICH DEMONSTRATE THAT EACH ENGINE IS OPERATED LESS THAN 500 HOURS PER YEAR, ON A 12-MONTH ROLLING TOTAL BASIS.

Work Practice Type: HOURS PER YEAR OPERATION
Upper Permit Limit: 500.0 hours
Monitoring Frequency: MONTHLY
Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 3: Facility Permissible Emissions
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 3.1:
The sum of emissions from the emission units specified in this permit shall not equal or exceed the following
Potential To Emit (PTE) rate for each regulated contaminant:

CAS No: 0NY210-00-0 (From Mod 3) PTE: 49,800 pounds per year
Name: OXIDES OF NITROGEN

Condition 3-1: Capping Monitoring Condition
Effective between the dates of 02/11/2016 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 3-1.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 201-6

Item 3-1.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 3-1.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 3-1.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 3-1.5:
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 3-1.6:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001
Process: TOL Emission Source: 00001

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 3-1.7:
Compliance Demonstration shall include the following monitoring:

Capping: Yes

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
NOx emission factor of 0.005 lbs/gallon from the operation of turbine (ES 00001) on ultra low sulfur distillate (ULSD) fuel to be verified through the CEMS data.
NOx emission factor of 0.028 lbs/gallon is the NSPS limit under 40CFR 60 Subpart Db.

Manufacturer Name/Model Number: CEM
Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 0.005 pounds per gallon
Reference Test Method: EPA Method
Monitoring Frequency: CONTINUOUS
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 3-2: Capping Monitoring Condition
Effective between the dates of 02/11/2016 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 3-2.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 201-6
6 NYCRR Subpart 231-2

Item 3-2.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 3-2.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 3-2.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 3-2.5:

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 3-2.6:
The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 3-2.7:
Compliance Demonstration shall include the following monitoring:

Capping: Yes
Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE
Monitoring Description:
Plant-wide NOx emissions are being capped at 24.9 tons/year.

The owner or operator shall maintain a record of the quantity of each fuel fired at the facility. Also, the owner or operator shall calculate NOx emissions (based on the fuel quantity) using the following formula:

AxB + CxD + ExF + GxH + IxJ + KxL + MxN + OxP < 49,800 lbs/yr of Oxides of Nitrogen emissions.

Where:
A = 12-month rolling total of natural gas fired (from turbine 00001), in mmscf/yr without duct firing;
B = 93.7 lbs/mmscf - NOx emission factor from operation of turbine on natural gas (lbs/mmscf).
C = 12-month rolling total of natural gas fired (from duct burner 00002), in mmscf/yr with duct firing;
D = 93.7 lbs/mmscf - NOx emission factor from operation of the turbine + duct burner (lbs/mmscf).
E = 12-month rolling total of natural gas fired (from boilers 00005 and 00006) in mmscf/yr;
F = NOx emission factor from the operation of the back-up boilers on natural gas (lbs/mmcf). Emission factor of 204 lb/mmscf is the NSPS limit under 40CFR 60 Subpart Db and is based on 1020 Btu/scf heating value of natural gas. To be verified through the CEMS data;
G = 12-month rolling total of distillate oil fired (from boilers 00005 and 00006) in gals/yr;
H = NOx emission factor from the operation of the back-up boilers on ultra low sulfur fuel oil (lbs/gallon). Based on an emission factor of 0.028 lbs/gallon is the NSPS limit under 40CFR 60 Subpart Db and is based on 140,000 Btu/gallon heating value of #2 fuel oil. To be verified through the CEMS data;

I = 12-month rolling total of distillate oil fired (from new engines and one existing engine) in gals/yr;
J = NOx emission factor of 0.179 lbs/gal from operation of the new engines and the existing engine in the HCC building firing an ultra low sulfur fuel oil HHV of 140,000 Btu/gallon, based on an NSPS emission factor;
K = 12-month rolling total of distillate oil fired (from old engines) in gals/yr;
L = NOx emission factor of 0.409 lbs/gal from operation of the old engines (Skirball and Smilow Buildings) on distillate fuel oil, based on an AP-42 emission factor.
M = 12-month rolling total of natural gas fired (from engine SGGNK) in mmscf/yr;
N = 316 lb/mmscf - NOx emission factor from the operation of the engine SGGNK on natural gas (lbs/mmcf). Emission factor of 316 lb/mmscf is based on 40CFR60 Subpart JJJJ Table 1 requirements of 1.0 g/hp-hr of NOx with the assumption that the heating value of natural gas is 1020 Btu/scf and should be demonstrated through the stack test;
O = 12-month rolling total of ULSD diesel fired (from turbine 00001), in gal/yr
P = 0.005 lbs/gal - NOx emission factor from operation of turbine on ULSD diesel (lbs/gal). To be verified through the CEMS data.

Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 24.9 tons per year
Monitoring Frequency: MONTHLY
Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2017.
Subsequent reports are due every 12 calendar month(s).

Condition 3-3: Capping Monitoring Condition
Effective between the dates of 02/11/2016 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 3-3.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 201-6

Item 3-3.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 3-3.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 3-3.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 3-3.5:
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 3-3.6:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00002
Process: GKP Emission Source: SGGNK

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 3-3.7:
Compliance Demonstration shall include the following monitoring:

Capping: Yes
Monitoring Type: INTERMITTENT EMISSION TESTING
Monitoring Description:
NOx emission factor of 316 lb per mmscf of natural gas firing in engine (em. source SGGNK) should be demonstarted through the stack test.

Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 316 pounds per million cubic feet
Reference Test Method: EPA Method
Monitoring Frequency: SINGLE OCCURRENCE
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 4: Capping Monitoring Condition
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 4.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 231-2

Item 4.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 4.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 4.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 4.5:
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 4.6:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001
Process: 002

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 4.7:
Compliance Demonstration shall include the following monitoring:

Capping: Yes
Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
NOx emission factor of 204 lbs/mmscf from the operation of the back-up boilers on natural gas to be verified through the CEMS data.

NOx emission factor of 204 lb/mmscf is the NSPS limit under 40CFR 60 Subpart Db and is based on 1020 Btu/scf heating value of natural gas.

Manufacturer Name/Model Number: CEM
Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 204 pounds per million cubic feet
Reference Test Method: EPA Method
Monitoring Frequency: CONTINUOUS
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 5: Capping Monitoring Condition
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 5.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 231-2

Item 5.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 5.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 5.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 5.5:
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 5.6:
The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: U-00001
Process: 003

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 5.7:
Compliance Demonstration shall include the following monitoring:

Capping: Yes
Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
NOx emission factor of 0.028 lbs/gallon from the operation of the back-up boilers on ultra low sulfur distillate (ULSD) fuel to be verified through the CEMS data.
NOx emission factor of 0.028 lbs/gallon is the NSPS limit under 40CFR 60 Subpart Db.

Manufacturer Name/Model Number: CEM
Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 0.028 pounds per gallon
Reference Test Method: EPA Method
Monitoring Frequency: CONTINUOUS
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 6: Capping Monitoring Condition
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 6.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR Subpart 201-6

Item 6.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 6.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any

other state and federal air pollution control requirements, regulations or law.

Item 6.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 6.5:
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 6.6:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001
Process: 001 Emission Source: 00001

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 6.7:
Compliance Demonstration shall include the following monitoring:

Capping: Yes
Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
NOx emission factor of 93.7 lbs/mmscf of natural gas fired in turbine should be demonstrated through the stack test, as per Department approved stack test protocol, for the turbine (00001) with and without the duct burner (00002).
NOx emission factor of 93.7 lb/mmscf is the NSPS limit under 40CFR 60 Subpart KKKK and is based on 1020 Btu/scf heating value of natural gas.

Manufacturer Name/Model Number: CEM
Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 93.7 pounds per million cubic feet
Reference Test Method: EPA Method
Monitoring Frequency: CONTINUOUS
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 8: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 202-1

Item 8.1:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001 Emission Point: 00001

Item 8.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
CEMS requirements.

The owner or operator of an emission source that monitors NOx emissions with a CEMS must submit for department approval a CEMS plan at least 180 days prior to equipment installation.

The owner or operator of an emission source that monitors NOx emissions with a CEMS must submit for department approval a CEMS certification protocol at least 60 days prior to compliance testing. The certification protocol must include the location of and specifications for each instrument or device, as well as procedures for calibration, operation, data evaluation, and data reporting.

The owner or operator of an emission source that monitors NOx emissions with a CEMS must install, calibrate, maintain, and operate a CEMS for measuring NOx at locations approved in the CEMS certification protocol and must record the output of each such system.

Reference Test Method: EPA
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 9: Air pollution prohibited
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 211.1

Item 9.1:
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.

Condition 11: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 225-1.2 (g)

Item 11.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 11.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:

Owners and/or operators of a stationary combustion installation that fires distillate oil other than number two heating oil are limited to the purchase of distillate oil with 0.0015 percent sulfur by weight or less on or after July 1, 2014. Compliance with this limit will be based on vendor certifications.

Data collected pursuant to this Subpart must be tabulated and summarized in a form acceptable to the Department, and must be retained for at least five years. The owner of a Title V facility must furnish to the Department such records and summaries, on a semiannual calendar basis, within 30 days after the end of the semiannual period. All other facility owners or distributors must submit these records and summaries upon request of the Department.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 0.0015 percent by weight
Monitoring Frequency: PER DELIVERY
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 12: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 225-1.2 (h)

Item 12.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 12.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:
Owners and/or operators of a stationary combustion installations that fire distillate oil are limited to the firing of distillate oil with 0.0015 percent sulfur by weight or less on or after July 1, 2016. Compliance with this limit will be based on vendor certifications.

Data collected pursuant to this Subpart must be tabulated and summarized in a form acceptable to the Department, and must be retained for at least five years. The owner of a Title V facility must furnish to the Department such records and summaries, on a semiannual calendar basis, within 30 days after the end of the semiannual period. All other facility owners or distributors must submit these records and summaries upon request of the Department.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 0.0015 percent by weight
Monitoring Frequency: PER DELIVERY
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 13: Record Availability
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 225-1.6 (d)

Item 13.1: Facility owners required to maintain and retain records pursuant to this Subpart must make such records available for inspection by the Department.

Condition 14: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 225-1.6 (f)

Item 14.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 14.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

Facility owners subject to this Subpart must submit a written report of the fuel sulfur content exceeding the applicable sulfur-in-fuel limitation, measured emissions exceeding the applicable sulfur-in-fuel limitation, measured emissions exceeding the applicable equivalent emission rate, and the nature and cause of such exceedances if known, for each calendar quarter, within 30 days after the end of any quarterly period in which an exceedances takes place.

Data collected pursuant to this Subpart must be tabulated and summarized in a form acceptable to the Department, and must be retained for at least five years. The owner of a Title V facility must furnish to the Department such records and summaries, on a semiannual calendar basis, within 30 days after the end of the semiannual period. All other facility owners or distributors must submit these records and summaries upon request of the Department.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 15: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 227-1.3 (a)

Item 15.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 15.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE
Monitoring Description:

No person shall operate a stationary combustion installation which exhibits greater than 20 percent opacity (six minute average), except for one 6 minute period per hour of not more than 27 percent opacity. The Department reserves the right to perform or require the performance of a Method 9 opacity evaluation at any time during facility operation.

The permittee will conduct observations of visible emissions from the emission unit, process, etc. to which

this condition applies at the monitoring frequency stated below while the process is in operation. The permittee will investigate, in a timely manner, any instance where there is cause to believe that visible emissions have the potential to exceed the opacity standard.

The permittee shall investigate the cause, make any necessary corrections, and verify that the excess visible emissions problem has been corrected. If visible emissions with the potential to exceed the standard continue, the permittee will conduct a Method 9 assessment within the next operating day of the sources associated with the potential noncompliance to determine the degree of opacity and will notify the NYSDEC if the Method 9 test indicates that the opacity standard is not met.

Records of visible emissions observations (or any follow-up Method 9 tests), investigations and corrective actions will be kept on-site. Should the Department determine that permittee's record keeping format is inadequate to demonstrate compliance with this condition, it shall provide written notice to the permittee stating the inadequacies, and permittee shall have 90 days to revise its prospective record keeping format in a manner acceptable to the Department.

Parameter Monitored: OPACITY
Upper Permit Limit: 20 percent
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: 6-MINUTE AVERAGE (METHOD 9)
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 16: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:6 NYCRR Subpart 231-13

Item 16.1:
The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 0NY750-00-0 CARBON DIOXIDE EQUIVALENTS

Item 16.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:
Plant-wide Greenhouse Gas emissions (as CO2e) are limited to an annual maximum of 100,000 tons per year rolled

monthly.

Work Practice Type: PROCESS MATERIAL THRUPUT
Process Material: FUEL
Upper Permit Limit: 100000 tons per year
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 17: Applicability
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60, NSPS Subpart IIII

Item 17.1:
Facilities that have stationary compression ignition internal combustion engines must comply with applicable portions of 40 CFR 60 Subpart IIII.

Condition 3-4: Compliance and Enforcement
Effective between the dates of 02/11/2016 and 06/25/2024

Applicable Federal Requirement:40CFR 60, NSPS Subpart KKKK

Item 3-4.1:
The Department has not accepted delegation of 40 CFR Part 60 Subpart KKKK. Any questions concerning compliance and/or enforcement of this regulation should be referred to USEPA Region 2, 290 Broadway, 21st Floor, New York, NY 10007-1866; (212) 637-4080. Should the Department decide to accept delegation of 40 CFR Part 60 Subpart KKKK during the term of this permit, enforcement of this regulation will revert to the Department as of the effective date of delegation.

Condition 18: Applicability
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 63, Subpart JJJJJJ

Item 18.1:
Facilities that are area sources of HAP with industrial, commercial, or institutional boilers must comply with applicable portions of 40 CFR 63 JJJJJJ.

Condition 19: Engines at Area sources of HAP
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 63, Subpart ZZZZ

Item 19.1:
Internal combustion engines, constructed or re-constructed on or after June 12, 2006, that meet the requirements of 40 CFR 60 Subpart IIII or Subpart JJJJ meet the requirements of 40 CFR 63 Subpart ZZZZ.

****** Emission Unit Level ******

Condition 20: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.13(c), NSPS Subpart A

Item 20.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

Item 20.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under §60.11(e)(5), he or she shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of 40CFR 60 before the performance test required under §60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under §60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of 40CFR 60. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.
(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under §60.8 and as described in §60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in 40CFR60.13(c) at least 10 days before the performance test required under §60.8 is conducted.
(2) Except as provided in paragraph 40CFR60.13(c)(1), the owner or operator of an affected facility shall furnish

the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 21: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.49b(b), NSPS Subpart Db

Item 21.1:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001
Process: 002 Emission Source: 00005

Emission Unit: U-00001
Process: 002 Emission Source: 00006

Emission Unit: U-00001
Process: 003 Emission Source: 00005

Emission Unit: U-00001
Process: 003 Emission Source: 00006

Item 21.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
The owner or operator of each affected facility subject to the sulfur dioxide, particulate matter, and/or nitrogen oxides emission limits under 40 CFR Part 60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 22: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.4320(a), NSPS Subpart KKKK

Item 22.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001
Process: 001 Emission Source: 00001

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 22.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING
Monitoring Description:
For a facility with a new turbine firing natural gas and if the combustion turbine heat input at peak load (HHV) is greater than 50 mmBtu/hr and less than or equal to 850 mmBtu/hr, the facility must not exceed the NOx emission standard of 25 ppm at 15% O2.

Compliance with this emission standard shall be determined according to the annual performance tests as specified in §60.4340(a).

Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 25 parts per million by volume (dry, corrected to 15% O2)
Reference Test Method: EPA Method 7E or Met
Monitoring Frequency: ANNUALLY
Averaging Method: 3-HOUR BLOCK AVERAGE
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2015.
Subsequent reports are due every 12 calendar month(s).

Condition 23: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.4330, NSPS Subpart KKKK

Item 23.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001
Process: 001 Emission Source: 00001

Regulated Contaminant(s):
CAS No: 007446-09-5 SULFUR DIOXIDE

Item 23.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING
Monitoring Description:
The emission limit for sulfur dioxide from a stationary combustion turbine is 0.060 lb SO2/MMBtu heat input. If the turbine simultaneously fires multiple fuels, each fuel must meet this requirement.

Parameter Monitored: SULFUR DIOXIDE
Upper Permit Limit: 0.060 pounds per million Btus
Reference Test Method: ASTM D5287
Monitoring Frequency: MONTHLY
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 24: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.48b(b), NSPS Subpart Db

Item 24.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001
Process: 002

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 24.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
The owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system.

Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 204 pounds per million cubic feet
Monitoring Frequency: CONTINUOUS
Averaging Method: 30-DAY ROLLING AVERAGE
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 25: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.48b(b), NSPS Subpart Db

Item 25.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001
Process: 003

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 25.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
The owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system.

Parameter Monitored: OXIDES OF NITROGEN
Upper Permit Limit: 0.028 pounds per gallon
Monitoring Frequency: CONTINUOUS
Averaging Method: 30-DAY ROLLING AVERAGE
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 3-5: Compliance Demonstration
Effective between the dates of 02/11/2016 and 06/25/2024

Applicable Federal Requirement:6 NYCRR 227.2 (b) (1)

Item 3-5.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001
Process: TOL Emission Source: 00001

Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 3-5.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING
Monitoring Description:
The two hour average emission of particulates from this stationary combustion installation shall not exceed 0.10 pounds per million Btu of heat input.

At the monitoring frequency stated below the facility shall perform the following:

1) Submit to the Department an acceptable protocol for the testing of particulate emissions in a manner that will determine compliance with the limit cited in this condition.

2) Perform a stack test, based upon the approved test protocol, to determine compliance with the particulate emission limit cited in this condition.

3) Submit an acceptable stack test report that outlines the results obtained from the testing done to meet the requirement of #2 above.

4) Facility shall keep records of all testing done at this stationary combustion installation for a period of 5 years.

Parameter Monitored: PARTICULATES
Upper Permit Limit: 0.10 pounds per million Btus
Reference Test Method: EPA RM 5
Monitoring Frequency: SINGLE OCCURRENCE
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 26: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.48b(a), NSPS Subpart Db

Item 26.1:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001
Process: 002 Emission Source: 00005

Emission Unit: U-00001
Process: 002 Emission Source: 00006

Emission Unit: U-00001
Process: 003 Emission Source: 00005

Emission Unit: U-00001
Process: 003 Emission Source: 00006

Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 26.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE
Monitoring Description:
The owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.

Parameter Monitored: OPACITY
Upper Permit Limit: 20 percent
Monitoring Frequency: CONTINUOUS
Averaging Method: 6 MINUTE AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2014.
Subsequent reports are due every 3 calendar month(s).

Condition 27: Alternative means of demonstrating compliance
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.4340(b), NSPS Subpart KKKK

Item 27.1:
This Condition applies to Emission Unit: U-00001 Emission Point: 00001
Process: 001 Emission Source: 00001

Item 27.2: As an alternate means of demonstrating compliance , the facility may install, calibrate, maintain and operate one of the following continuous monitoring systems:
(1) Continuous emission monitoring as described in 40 CFR 60.4335(b) and 60.4345, or
(2) Continuous parameter monitoring as follows:
(i) For a diffusion flame turbine without add-on selective catalytic reduction (SCR) controls, you must define parameters indicative of the unit's NO_X formation characteristics, and you must monitor these parameters continuously.
(ii) For any lean premix stationary combustion turbine, you must continuously monitor the appropriate parameters to determine whether the unit is operating in low-NO_X mode.
(iii) For any turbine that uses SCR to reduce NO_X emissions, you must continuously monitor appropriate parameters to verify the proper operation of the emission controls.
(iv) For affected units that are also regulated under 40 CFR Part 75, with state approval you can monitor the NO_X emission rate using the methodology in appendix E to 40 CFR Part 75 of this chapter, or the low mass emissions methodology in §75.19, the requirements of this paragraph (b) may be met by performing the parametric monitoring described in section 2.3 of part 75 appendix E or in §75.19(c)(1)(iv)(H).

Condition 28: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable Federal Requirement:40CFR 60.4365(a), NSPS Subpart KKKK

Item 28.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001 Emission Point: 00001
Process: 001 Emission Source: 00001

Regulated Contaminant(s):
CAS No: 007446-09-5 SULFUR DIOXIDE

Item 28.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

The facility may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO2/J (0.060 lb SO2/mmBtu) heat input.

The facility must use the fuel quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the fuel, specifying that:

1) The maximum total sulfur content for oil use is 0.05% by weight (500 ppmw) or less, or
2) The total sulfur content for natural gas use is 20 grains of sulfur or less per 100 standard cubic feet, or
3) Has potential sulfur emissions of less than 26 ng SO2/J (0.060 lb SO2/mmBtu) heat input.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

STATE ONLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS
This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: **Public Access to Recordkeeping for Facilities With State Facility Permits - 6 NYCRR 201-1.10 (a)**
Where facility owners and/or operators keep records pursuant to compliance with the requirements of 6 NYCRR Subpart 201-5.4, and/or the emission capping requirements of 6 NYCRR Subpart 201-7, the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records. Facility owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department.

Item B: **General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5**
Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

STATE ONLY APPLICABLE REQUIREMENTS
The following conditions are state only enforceable.

Condition 29: **Contaminant List**
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable State Requirement:ECL 19-0301

Item 29.1:
Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 007446-09-5
Name: SULFUR DIOXIDE

CAS No: 0NY075-00-0
Name: PARTICULATES

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN

CAS No: 0NY750-00-0
Name: CARBON DIOXIDE EQUIVALENTS

Condition 30: Malfunctions and start-up/shutdown activities
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable State Requirement:6 NYCRR 201-1.4

Item 30.1:
(a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.

(b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, maintenance, or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department.

(c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.

(d) The department may also require the owner or operator to include, in reports described

under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.

(e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

Condition 31: Emission Unit Definition
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 31.1(From Mod 3):
The facility is authorized to perform regulated processes under this permit for:
Emission Unit: U-00001
Emission Unit Description:
This emission unit is comprised of one 10 MW CHP plant, which includes one natural gas-fired (Process 001) turbine (ES 00001) with added capability to fire ultra low sulfur diesel (Process TOL) with a duct firing heat recovery steam generator and a 2.4 MW steam turbine generator.

This emission unit also includes two back-up boilers each rated at 150,000 lbs/hr of steam heat. The boilers would be used in an emergency condition when the CHP plant is not operating and may operate concurrently with the gas turbine to add reliability to the steam system. The boilers will burn natural gas or ultra low sulfur fuel oil. The emission points listed under this emission unit, 00001 and 00002 are the main stack and the emergency stack, which exhaust both the CHP plant and the back-up boilers. Emission point 00002 will be used during construction of the Kimmel Building, during initial start-up and testing of the CHP and back-up boilers, and during purge and start-up of the boilers and turbine. Emission sources listed under this emission unit are 00001 and 00002 for the turbine and the duct-burner respectively, 00003 and 00004 for the SCR and oxidation catalyst controls, and 00005 and 00006 for the two back-up boilers.

Building(s): ENERGY

Item 31.2(From Mod 3):
The facility is authorized to perform regulated processes under this permit for:
Emission Unit: U-00002
Emission Unit Description:
This unit consists of four existing generators that will participate in non-emergency programs. Each generator has

independent stack and fires diesel.
4601 hp gas reciprocating engine (non-emergency) is being added to this unit. The engine will have it own independent stack and will be located on the roof top of Kimmel Pavilion.

Building(s): HCC
KIMMEL
SKIRBALL
SMILLOW

Condition 32: Renewal deadlines for state facility permits
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable State Requirement:6 NYCRR 201-5.2 (c)

Item 32.1:
The owner or operator of a facility having an issued state facility permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

Condition 1-1: Compliance Demonstration
Effective between the dates of 07/13/2015 and 06/25/2024

Applicable State Requirement:6 NYCRR 201-5.3 (c)

Item 1-1.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 1-1.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
Any reports or submissions required by this permit shall be submitted to the Regional Air Pollution Control Engineer (RAPCE) at the following address:

Division of Air Resources
NYS Dept. of Environmental Conservation
Region 2
47-40 21st St.
Long Island City, NY 11101

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 34: Visible Emissions Limited

Effective between the dates of 06/26/2014 and 06/25/2024

Applicable State Requirement:6 NYCRR 211.2

Item 34.1:
Except as permitted by a specific part of this Subchapter and for open fires for which a restricted burning permit has been issued, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

****** Emission Unit Level ******

Condition 35: Emission Point Definition By Emission Unit
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 35.1(From Mod 3):
The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-00002

Emission Point: EGEN1
Height (ft.): 328 Diameter (in.): 18
NYTMN (km.): 4510.7 NYTME (km.): 586.7 Building: SMILLOW

Emission Point: EGEN2
Height (ft.): 288 Diameter (in.): 18
NYTMN (km.): 4510.7 NYTME (km.): 586.7 Building: SMILLOW

Emission Point: EGEN3
Height (ft.): 288 Diameter (in.): 18
NYTMN (km.): 4510.7 NYTME (km.): 586.7 Building: SKIRBALL

Emission Point: EGEN4
Height (ft.): 54 Diameter (in.): 18
NYTMN (km.): 4510.7 NYTME (km.): 586.7 Building: HCC

Emission Point: GGNKP
Height (ft.): 364 Diameter (in.): 26
NYTMN (km.): 4510.7 NYTME (km.): 586.7 Building: KIMMEL

Item 35.2(From Mod 0):
The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-00001

Emission Point: 00001
Height (ft.): 429 Diameter (in.): 48
NYTMN (km.): 4510.7 NYTME (km.): 586.7 Building: KIMMEL

Emission Point: 00002
Height (ft.): 135 Diameter (in.): 44
NYTMN (km.): 4510.7 NYTME (km.): 586.7 Building: ENERGY

Condition 36: Process Definition By Emission Unit
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 36.1(From Mod 3):
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001
Process: TOL Source Classification Code: 2-01-001-01
Process Description: Firing ULSD (ultra low sulfur diesel) in turbine.

Emission Source/Control: 00001 - Combustion
Design Capacity: 10 megawatt

Item 36.2(From Mod 3):
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00002
Process: GEN Source Classification Code: 2-01-001-02
Process Description: Firing diesel fuel in four existing engines.

Emission Source/Control: SGEN1 - Combustion
Design Capacity: 1,400 kilowatts

Emission Source/Control: SGEN2 - Combustion
Design Capacity: 1,400 kilowatts

Emission Source/Control: SGEN3 - Combustion
Design Capacity: 1,250 kilowatts

Emission Source/Control: SGEN4 - Combustion
Design Capacity: 1,000 kilowatts

Item 36.3(From Mod 3):
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00002
Process: GKP Source Classification Code: 2-01-002-02
Process Description: Firing natural gas in engines.

Emission Source/Control: SGGNK - Combustion
Design Capacity: 3,332 kilowatts

Item 36.4(From Mod 0):
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001
Process: 001 Source Classification Code: 2-03-002-03
Process Description: Firing natural gas in the turbine and duct burner.

Emission Source/Control: 00001 - Combustion
Design Capacity: 10 megawatt

Emission Source/Control: 00002 - Combustion
Design Capacity: 116 million Btu per hour

Emission Source/Control: 00003 - Control
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Emission Source/Control: 00004 - Control
Control Type: CATALYTIC OXIDATION

Item 36.5(From Mod 0):
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001
Process: 002 Source Classification Code: 1-03-006-01
Process Description:
Firing natural gas in the back-up boilers. The heat input capacity for each boiler is 173.78 mmBtu/hr on natural gas.

Emission Source/Control: 00005 - Combustion
Design Capacity: 150,000 pound steam per hour

Emission Source/Control: 00006 - Combustion
Design Capacity: 150,000 pound steam per hour

Item 36.6(From Mod 0):
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001
Process: 003 Source Classification Code: 1-03-005-01
Process Description:
Firing #2 fuel oil in boilers. The heat input capacity for each boiler is 180.7 mmBtu/hr on ultra low sulfur oil.

Emission Source/Control: 00005 - Combustion
Design Capacity: 150,000 pound steam per hour

Emission Source/Control: 00006 - Combustion
Design Capacity: 150,000 pound steam per hour

Condition 37: Compliance Demonstration
Effective between the dates of 06/26/2014 and 06/25/2024

Applicable State Requirement:6 NYCRR 227-1.4 (a)

Item 37.1:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001
Process: 002 Emission Source: 00005

Emission Unit: U-00001
Process: 002 Emission Source: 00006

Emission Unit: U-00001
Process: 003 Emission Source: 00005

Emission Unit: U-00001
Process: 003 Emission Source: 00006

Item 37.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE
Monitoring Description:
Any person who owns a stationary combustion installation (excluding gas turbines), with a total maximum heat input capacity exceeding 250 million Btu per hour shall install, operate in accordance with manufacturer's instructions, and properly maintain, accurate instruments satisfying the criteria in appendix B of title 40, part 60 of the Code of Federal Regulations, or approved by the commissioner on an individual case basis, for continuously monitoring and recording opacity, and when sulfur dioxide continuous monitoring is required by Part 225 of this Title, for continuously monitoring and recording either the percent oxygen or carbon dioxide in the flue gases from such installations at all times that the combustion installation is in service. Where gas is the only fuel burned, monitoring and recording of opacity is not required.

Parameter Monitored: OPACITY
Upper Permit Limit: 20 percent
Reference Test Method: Apendix B, 40 CFR 60
Monitoring Frequency: CONTINUOUS
Averaging Method: 6 MINUTE AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2014.
Subsequent reports are due every 3 calendar month(s).