Former Parkway Hospital Rezoning

Environmental Assessment Statement





CEQR #: 18DCP021Q

Prepared for:
Auberge Grand Central, LLC

Prepared by:
Environmental Studies Corporation, Inc.

September 21, 2018

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

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

Part I: GENERAL INFORMATION

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

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

2. *Project Name* Former Parkway Hospital Rezoning/70-35 113th Street

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
18DCP021Q	
ULURP REFERENCE NUMBER (if applicable)	**OTHER REFERENCE NUMBER(S) (if applicable)** (*e.g.*, legislative intro, CAPA)
180448ZRQ, 180447ZMQ	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY NYC Department of City Planning Environmental Assessment and Review Division			NAME OF APPLICANT Auberge Grand Central, LLC		
NAME OF LEAD AGENCY CONTACT PERSON Olga Abinader, Acting Director			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Hiram Rothkrug, ESC, Inc.		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 55 Water Mill Road		
CITY New York	STATE NY	ZIP 10271	CITY Great Neck	STATE NY	ZIP 11021
TELEPHONE 212-720-3493	EMAIL oabinad@planning.nyc.gov		TELEPHONE 718-343-0026	EMAIL hrothkrug@environmentalstudiescorp.com	

5. *Project Description*

This application is made on behalf of Auberge Grand Central, LLC, the owner of the development site ("the Applicant"), for a Zoning Map Amendment and Zoning Text Amendment (the "Proposed Actions") affecting two properties located at 70-35 113th Street (Block 2248, Lot 228, the "Development Site")) and 70-01 113th Street (Block 2246, Lot 11) in the Forest Hills section of Queens Community District 6. The Development Site is controlled by the Applicant, while the remaining parcel is not under the Applicant's control. In addition to these two lots, the Proposed Actions would affect a small portion of an adjacent lot at Block 2246, Lot 100 (hereafter, the "Rezoning Area").

The proposal seeks a zoning map amendment, from R1-2A to R7A and R7X, which would allow for (1) the two-story enlargement and change of use of the existing six-story vacant Parkway Hospital building (hereafter, the "Former Hospital") on the Development Site into a community facility-residential building with a mix of affordable dwelling units subject to MIH, Affordable Independent Residences for Seniors (AIRS) and community facility space; and (2) the development of a new fourteen-story market rate residential building (the "Proposed Development"). In total, the Proposed Development would consist of 402,050 gross square feet (gsf) of floor area (5.3 FAR) and 351 dwelling units.

In connection with the proposed zoning map amendment, a text amendment to Appendix F of the Zoning Resolution ("ZR") is required to make the Rezoning Area applicable as a Mandatory Inclusionary Housing Area (MIHA) under Options 1, 2 and 4. The Proposed Development would comply with MIH through a combination of affordable dwelling units and AIRS units averaging 95% AMI through the Workforce Option 4. The Former Hospital would contain 135 dwelling units (68 affordable and 67 AIRS units) which consists of 118,973 gross square feet of floor area or approximately 30% of the proposed residential floor area on the total zoning lot. The new fourteen-story building would consist of 216 dwelling units (market rate). In addition, a 4,034 gsf foot ambulatory medical use (Use Group 4) would be provided within the renovated Former Hospital. 180 total accessory parking spaces would be provided for the entire zoning lot in the cellar level of the new residential building.

Project Location

BOROUGH Queens	COMMUNITY DISTRICT(S) 6	STREET ADDRESS 70-35 113th Street
TAX BLOCK(S) AND LOT(S) Block 2248, Lot 228		ZIP CODE 11375
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS 113th Street and 70th Road		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R1-2A		ZONING SECTIONAL MAP NUMBER 14a

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

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

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION Appenfix F

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

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

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

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

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

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

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

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

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

- ☒ SITE LOCATION MAP
- ☒ TAX MAP
- ☒ ZONING MAP
- ☐ FOR LARGE AREAS OR MULTIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)
- ☒ SANBORN OR OTHER LAND USE MAP
- ☒ 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.): 89,729
Waterbody area (sq. ft) and type:
Roads, buildings, and other paved surfaces (sq. ft.):
Other, describe (sq. ft.):

8. *Physical Dimensions and Scale of Project* (if the project affects multiple sites, provide the total development facilitated by the action)

SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 402,050
NUMBER OF BUILDINGS: 2
GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 118,973 & 283,077
HEIGHT OF EACH BUILDING (ft.): 89' & 140
NUMBER OF STORIES OF EACH BUILDING: 8 & 14

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: 50,035
The total square feet not owned or controlled by the applicant: 39,694

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: n/a sq. ft. (width x length) VOLUME OF DISTURBANCE: 417,768 cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 32,136 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.)	398,016		4,034	
Type (*e.g.,* retail, office, school)	351 (67 AIRS/ 68 MIH) units		Ambulatory Medical	

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

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 723 NUMBER OF ADDITIONAL WORKERS: 5

Provide a brief explanation of how these numbers were determined: 2.19 residents per dwelling unit (Average unit size in Queens CD6/Forest Hills) for market rate units and 1.5 residents per AIRS units (a mix of studio and one bedrooms) ; One worker per 1,000 square feet of community facility space.

Does the proposed project create new open space? ☒ YES ☐ NO If "yes," specify size of project-created open space: 13,034 (for building users only) 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): 2023

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 42

WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☐ YES ☒ NO IF MULTIPLE PHASES, HOW MANY? 2

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Construction would begin in the middle of 2019 with occupation in early 2023 for a period of approximately 42 months.

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

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

Part II: TECHNICAL ANALYSIS

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

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

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

	YES	NO
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☐	☒
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See Section 6.		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
○ If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
○ If "yes," complete the Jamaica Bay Watershed Form, and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☐	☒
(b) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☒	☐
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☒	☐
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☒	☒
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☒	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: 1) two underground storage tanks (UST); (2) aboveground waste oil storage tank on site; (3) signs of staining beneath two generators located in the parking lot; (4) hazardous waste containers present (5) observed motor oil spilled within the boiler room (6) known spills on adjacent properties; (7) asbestos pipe insulation in the existing hospital; and (8) existing lead-based paint in the existing hospital	☐	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than the amounts listed in Table 13-1 in Chapter 13?	☐	☒

	YES	NO
(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): 11,622		
○ 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): 43,513,819		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☐	☒
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☒
○ Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	☐	☒
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway trips per station or line?	☐	☐
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☐	☒
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☐	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☒	☐
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed) See Section 14.	☐	☒
(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?	☐	☒

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

20. *APPLICANT'S CERTIFICATION*

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

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

APPLICANT/REPRESENTATIVE NAME	DATE
Justin Jarboe, ESC, Inc.	9/21/2018

SIGNATURE



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

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

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

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

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

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

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

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

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

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

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

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

TITLE	LEAD AGENCY
Acting Director, Environmental Assessment and Review Division	Department of City Planning, acting on behalf of the City Planning Commission
NAME	DATE
Olga Abinader	9/21/2018

SIGNATURE

Olga Abi

NEGATIVE DECLARATION (Use of this form is optional)

Statement of No Significant Effect

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

Reasons Supporting this Determination

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

Hazardous Materials, Air Quality, and Nosie

1. An (E) designation (E-502) for hazardous materials, air quality, and noise has been incorporated into the proposed actions. Refer to "Determination of Significance Appendix: (E) Designation" for a list of sites affected by the (E) designation and applicable (E) designation requirements. The analyses conducted for hazardous materials, air quality, and nosie conclude that with the (E) Designation requirements in place, the proposed actions would not result in significant adverse impacts to hazardous materials, air quality, or nosie.

Land Use, Zoning and Public Policy

2. The EAS includes a detailed Land Use, Zoning and Public Policy section. The analysis concludes that the proposed rezoning from R1-2A to R7A and R7X would have no significant adverse impacts related to land use, zoning, or public policy. The proposed actions would facilitate an increase in residential density in an area containing primarily residential and community facility uses, while also bringing an existing residential building into compliance, and repurposing an existing vacant hospital building with a mix of affordable residential units and community facility space. As such, the proposed actions would not generate new land uses that would be incompatible with existing land uses within the study area. The analysis concludes that no significant adverse impacts related to Land Use, Zoning and Public Policy would result from the proposed actions.

Shadows

3. The EAS includes a detailed shadows analysis that analyzes the potential effect of the proposed actions on sunlight-sensitive resources. The analysis concludes that incremental shadows would be cast on Willow Lake Playground and Flushing Meadows Corona Park. Both sunlight-sensitive resources would receive full sunlight for no less than seven hours per day during the growing season, and a large majority of the playground is within an area that cannot be shaded by shadows generated by the proposed development. Therefore, it is concluded that no trees, vegetation, or recreational space would be adversely affected by the proposed actions. No other open space, historic, or other sun-light sensitive resources would be affected by shadows from the proposed project. The proposed actions would not result in significant adverse shadows impacts.

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

TITLE	LEAD AGENCY
Acting Director, Environmental Assessment and Review Division	Department of City Planning, acting on behalf of the City Planning Commission
NAME Olga Abinader	DATE 9/21/2018
SIGNATURE Olga Abinader	

TITLE	
Chair, Department of City Planning	
NAME Marisa Lago	DATE 9/24/2018
SIGNATURE	

Determination of Significance Appendix: (E) Designation

Air Quality

To ensure that the proposed actions would not result in significant adverse air quality impacts, an (E) Designation (E-502) will be placed on the following site as described below:

Projected Development Site 1 (Block 2248, Lot 228)

Western portion of Lot 228, "Enlarged Parkway Hospital Building": Any new residential, commercial or community facility development on the above-referenced property must use exclusively natural gas as the type of fuel for space heating, ventilating, air conditioning (HVAC) systems to avoid any potential significant adverse air quality impacts. The building's stack must be located at the building's highest tier, and at a minimum of 92 feet above grade, and at least 92 feet from the western façade at the "Proposed New Market Rate Building" to avoid any significant adverse air quality impact.

Eastern portion of Lot 228, "Proposed New Market Rate Building": Any new residential or commercial development on the above-referenced property must insure that the stack shall be located at the building's highest tier, and at a minimum of 143 feet above grade to avoid any significant adverse air quality impact.

Noise:

To ensure that the proposed actions would not result in significant adverse noise impacts, an (E) Designation (E-502) will be placed on the following site as described below:

Projected Development Site 1 (Block 2248, Lot 228)

In order to ensure an acceptable interior noise environment, future residential/community facility uses must provide a closed-window condition with a minimum of 28 dB(A) window/wall attenuation on all building's facades in order to maintain an interior noise level of 45 dB(A). In order to maintain a closed-window condition, an alternate means of ventilation must be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning or air conditioning sleeves containing air conditioners.

Hazardous Materials:

To ensure that the proposed actions would not result in significant adverse hazardous materials impacts, an (E) Designation (E-502) will be placed on the following sites as described below:

Projected Development Site 1 (Block 2248, Lot 228)

The (E) Designation requirements for hazardous materials are as follows:

Task 1-Sampling Protocol

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

Task 2-Remediation Determination and Protocol

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

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

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

5. PROJECT DESCRIPTION

This application is made on behalf of Auberge Grand Central, LLC, the owner of the development site ("the Applicant"), for a Zoning Map Amendment and Zoning Text Amendment (the "Proposed Actions") affecting two properties located at 70-35 113th Street (Block 2248, Lot 228, the "Development Site") and 70-01 113th Street (Block 2246, Lot 11) in the Forest Hills section of Queens Community District 6. The Development Site is controlled by the Applicant, while the remaining parcel is not under the Applicant's control. In addition to these two lots, the Proposed Actions would affect a portion of an adjacent lot at Block 2246, Lot 100 (hereafter, the "Rezoning Area").

The proposal seeks a zoning map amendment, from R1-2A to R7A and R7X, which would allow for (1) the two-story enlargement and change of use of the existing six-story vacant Parkway Hospital building (hereafter, the "Former Hospital") on the Development Site into a mixed-use building containing residential space (398,016 gsf) and community facility space (4,034 gsf) with a mix of affordable dwelling units subject to MIH, Affordable Independent Residences for Seniors (AIRS) and community facility space; and (2) the development of a new fourteen-story market rate residential building (the "Proposed Development"). In total, the Proposed Development would consist of 351 dwelling units (67 AIRS; 68 affordable) and 402,050 gsf of floor area, including accessory space and a 4,034 gsf ambulatory care facility.

In connection with the proposed zoning map amendment, a text amendment to Appendix F of the Zoning Resolution ("ZR") is required to make the Rezoning Area applicable as a Mandatory Inclusionary Housing (MIH) area. The Proposed Development would comply with MIH through a combination of affordable dwelling units and AIRS units averaging 95% AMI through the Workforce Option (Option 4), in an MIH district mapped as Options 1, 2 and 4. The Former Hospital would contain 135 dwelling units (68 affordable and 67 AIRS units) which consists of 91,942 square feet of floor area or approximately 30% of the proposed residential floor area on the total zoning lot. The new fourteen-story building (283,077 gsf) would consist of 216 dwelling units (market rate). In addition, a 4,034 gsf ambulatory medical use (Use Group 4) would be provided within the renovated Former Hospital. 180 total accessory parking spaces would be provided for the entire zoning lot in the cellar level of the new residential building.

The Applicant would not seek any discretionary financing with HPD or HDC as part of this application.

Background

The Development Site was previously occupied by Parkway Hospital, constructed in 1963 and closed in 2008 due to poor performance. It has subsequently remained vacant and fallen into disrepair. The Development Site was rezoned from R1-2 to R1-2A in 2009, as part of the Cord Meyer-Forest Hills Rezoning (090283 ZMQ), which rezoned 32 blocks

between 108th Street, Grand Central Parkway, 66th Avenue and 72nd Road. The rezoning was initiated in response to increasing out of scale development. The R1-2A contextual district was chosen to more accurately reflect existing development within the surrounding area, despite the number of overbuilt buildings (noted below). No environmental designations (E-designations) were mapped as a result of the rezoning on the Development Site.

(**See Figure 1 – Site Location; Figure 2 – Tax Map; Figure 3 – Land Use Map; Figure 4 – Zoning Map; Figure 5 – Aerial Map)**

Purpose and Need

The Proposed Actions are necessary to facilitate the proposed uses on the Development Site as well as the proposed maximum height and bulk and would serve to legalize the noncomplying status of the buildings inside the Rezoning Area. Currently, the Rezoning Area is in a R1-2A district that permits certain residential uses at 0.5 FAR and community facility uses at 1.0 FAR. Within R1 districts, AIRS uses are not permitted (Use Group 2). The proposed R7A and R7X districts permit all residential and community facility uses (Use Groups 1-4) as well as ambulatory medical uses. The building on Block 2246, Lot 11 is currently developed to 2.37 FAR, which exceeds the maximum permitted FAR of 0.5.

The proposed addition and renovation of the vacant Parkway Hospital is more likely versus the complete demolition of the structure and redevelopment with a new building. This is based on the high cost of demolition for such a large structure and the fact that the building is suitable for renovations and reoccupation with senior housing (AIRS units) as well as the proposed ambulatory medical facility.

The proposed R7A and R7X zoning districts would permit an increased allowable bulk and height consistent with adjacent developments, given the range of towers within close proximity to the Development Site, several of which exceed 100 feet in height. The split district was chosen with the R7A district facing 113th Street to serve as a buffer with a medium-density district that permits a maximum of 9-stories under MIH, and the taller permitted heights of the higher-density R7X zoning district (14-stories), which would be oriented towards the Grand Central Parkway. The R7A district would face the more medium and low-density buildings to the west in Forest Hills, while the R7X district would face the Flushing Meadows-Corona Park and the Grand Central Parkway.

The Proposed Actions would also facilitate the proposed Affordable Independent Residences for Seniors (AIRS), a demonstrated need in Forest Hills, by allowing all community facility uses (Use Groups 1-4). The MIH area would be mapped coterminous with the Rezoning Area under Options 1, 2 and 4. The Workforce Option (Option 4) requires at least 30% of the residential development to be affordable for incomes averaging at 115% AMI and below. The Proposed Development would comply with the Workforce Option with a combination affordable units and AIRS units averaging 95% AMI. The existing Former Hospital would contain 135 dwelling units (68 affordable

units and 67 AIRS units) which consists of 91,942 zoning square feet of floor area or approximately 30% of the proposed residential floor area on the total zoning lot. The proposed AIRS units would be reserved for incomes at 70% and 80% AMI and the proposed affordable dwelling units would be reserved for 115% AMI. The Proposed Action would also resolve the noncomplying status of the building on Block 2246, Lot 11, which is currently developed to 2.37 FAR.

Lastly, the Proposed Development would provide new access to the site from Grand Central Parkway to prevent any new congestion experienced along 113th Street. While the Parkway Hospital was in operation, trips traveled entirely to the Development Site from 113th Street, creating congestion within an already experiencing a high volume of trips associated with the range of community facility and residential properties above Queens Boulevard and west of Grand Central Parkway. By providing a new access point to the Development Site, any additional new trips resulting from the Proposed Development would be concentrated along Grand Central Parkway and Service Road and away from 113th Street.

Build Year

The former Parkway Hospital would be renovated and expanded between May of 2019 and November of 2020 (approximately 18 months) and the new market rate building would be constructed between December of 2020 and finalized in December of 2022 (24 months) for full occupation of both buildings by 2023. Therefore, the Build Year (also referred to as the *Analysis Year)* is assumed as 2023.

Development Sites

The applicant seeks to redevelop its property by renovating an existing vacant hospital building and adding two stories to the structure, in addition to constructing a new fourteen-story building. While an additional parcel would be rezoned (and a small portion of another property), the existing development on these parcels is anticipated to remain in the future, as further detailed below. Therefore, only one site is assumed for development in this Environmental Assessment Statement (EAS).

Development Site	Block	Lot	Address
The Proposed Development	2248	228	70-35 113th Street

Existing Conditions

The Proposed Rezoning Area consists of three properties: 70-35 113th Street (Block 2248, Lot 228; the Development Site), 70-01 113th Street (Block 2246, Lot 11) and 71-25 113th Street (Block 2246, Lot 100). It should be noted that approximately 6% of Lot 100 would be rezoned or approximately 6,329 square feet.

The Rezoning Area consists of approximately 89,729 square feet of lot area and is entirely within an R1-2A zoning district. The Rezoning Area is bound by Grand Central Parkway to the east; 70th Road to the north; 112th Street to the west and 71st Avenue to the south. 112th Street is 60 feet in width, classifying the street as a 'narrow' street. Grand Central Parkway is classified as a 'wide' street with greater than 75 feet in width. 71st Avenue and 70th Road are both designated as a 'narrow' streets.

Lot 11 consists of the eastern half of Block 2246 and contains 27,000 square feet of lot area with 200 feet of frontage along 113th Street and 135 feet of length along both 70th Road and 71st Avenue. The parcel is developed with a six-story legally noncomplying apartment building (63 dwelling units) with approximately 64,000 square feet of floor area (2.37 FAR) that was constructed in 1940. Under the Proposed Actions, this building will be in compliance with the proposed R7A district. The Development Site is discussed in further detail below.

Lot 100 consists of a three-story school (P.S. 196 Grand Central Parkway) that contains 116,150 square feet of lot area and 102,349 square feet of floor area (0.88 FAR). Approximately 6,329 square feet of the lot would be rezoned with approximately 2,477 square feet in the proposed R7A district and approximately 3,852 square feet in the proposed R7X district. The Rezoning Area would consist of the northern 30 feet of the lot measured from the northern lot line moving south. This consists of approximately 6% of the lot.

The Rezoning Area is located entirely within an R1-2A zoning district. The R1-2A zoning district primarily produces single-detached residences and various types of community facility buildings. The R1-2A zoning district permits Use Groups 1, 3 and 4 (residential and community facility uses). The maximum permitted residential FAR is 0.5 while 1.0 FAR is permitted for community facility uses. The maximum permitted height within the district is 35 feet.

The Development Site is within proximity from Flushing Meadows-Corona Park, which is the largest park in Queens at almost two square miles, and contains numerous sports facilities, a zoo and museums. The area of the park within proximity to the Development Site along Grand Central Parkway contains Willow Lake and a number of trails.

The surrounding area is served by public transit with the NYCT E/F trains, with a stop three blocks to the south at 75th Avenue and Queens Boulevard. In terms of buses, the Q64 runs along Jewel Avenue to the north with service between Hillcrest and Forest Hills. Additionally, several short inter-borough bus lines make stops along Queens Boulevard, adjacent to the NYCT E/F station at 75th Avenue.

Future No-Action Scenario

Absent the Proposed Actions, the properties within the Rezoning Area would remain in their current condition.

Block 2246, Lot 11 (70-1 113th Street) is developed with a six-story legally noncomplying apartment building with approximately 64,000 square feet of floor area (2.37 FAR) that was constructed in 1940. This property us unable to increase any floor area based on legal noncomplying status and is expected to remain in the future.

Block 2248, Lot 228 (70-35 113th Street; **The Development Site**) is currently developed with the vacant Parkway Hospital (Use Group 4) which rises to a height of 86 feet and contains 6-stories. The hospital is built to 84,530 square feet or 1.43 FAR which exceeds the maximum permitted FAR for the underlying R1-2A district and is anticipated to remain in the future.

Block 2248, Lot 100 consists of a three-story school (P.S. 196 Grand Central Parkway) that contains 116,150 square feet of lot area and 102,349 square feet of floor area (0.88 FAR). This parcel is anticipated to remain in the future as an active public school.

Future With-Action Scenario

In the future with the Proposed Actions, The Rezoning Area would be amended to reflect new R7A and R7X districts and the Rezoning Area would be made applicable to the Mandatory Inclusionary Housing (MIH) program. The proposed R7A district allows for buildings up to 4.0 FAR (4.6 FAR with MIH) and generally yields 7 to 8-story buildings (9-stories with MIH). The maximum FAR for Affordable Independent Residences for Seniors is 5.01 FAR. Above a base height of 40 to 75 feet, the building must set back to a depth of 10 feet on a wide street, before rising to a maximum of 95 feet or nine-stories with MIH. The proposed R7X district allows for buildings up to 5.0 FAR (6.0 FAR with MIH) and generally yields 12 to 13-story buildings (14-stories with MIH). Above a base height of 60 to 105 feet, the building must set back to a depth of 10 feet on a wide street, before rising to a maximum of 145 feet or 14-stories. For both districts, accessory parking is required for 50% of dwelling units, with the parking requirement for MIH units reduced to 10% since this area is outside the Transit Zone.

In the future with the Proposed Actions, the **Development Site** would be redeveloped with the Proposed Development, which would consist of the following: (1) the two-story enlargement and change of use of the existing Parkway Hospital to an Affordable Independent Residence for Seniors (AIRS); and (2) the development of a new fourteen-story market rate building.

The enlarged Parkway Hospital containing 67 AIRS units and 68 affordable units (pursuant to MIH) would be entirely in the proposed R7A district while the proposed new market rate building (with 216 units) would be in the proposed R7X district. In

total, the Proposed Development would consist of 351 dwelling units and 402,050 gsf of floor area, including accessory space and a 4,034 gsf ambulatory care facility. A total of 180 accessory parking spaces would be provided at the cellar level of the proposed new building.

Block 2246, Lot 11 (70-1 113th Street) would be rezoned as part of the Proposed Actions to R7A. The lot is developed with a six-story apartment building with approximately 64,000 square feet of floor area (2.37 FAR). While the maximum permitted floor area of the property would increase in the future (to 4.6 FAR under MIH) and the noncomplying status on the property would be resolved, the existing building is anticipated to remain, due to the presence of rent stabilized or rent controlled units, according to New York State DHCR records (BRN 401674)[1].

Block 2248, Lot 100 consists of a three-story school (P.S. 196 Grand Central Parkway) that contains 116,150 square feet of lot area and 102,349 square feet of floor area (0.88 FAR). Approximately 6,329 square feet of the lot would be rezoned with approximately 2,477 square feet in the proposed R7A district and approximately 3,852 square feet in the proposed R7X district. The Rezoning Area would consist of the northern 30 feet of the lot measured from the northern lot line moving south. This consists of approximately 6% of the lot. This parcel is anticipated to remain in the future, as only 6% of the lot would be affected and contains an active public school.

The Existing Parkway Hospital Building

The existing but vacant Parkway Hospital would receive a two (2) story enlargement, for a total of eight (8) stories. It would contain 94,584 square feet of floor area (118,973 gsf) and rise to a height of 89 feet (measured from the base plane at 113th Street). The ground floor would contain ambulatory medical space and residential lobby space. The residential lobby would be made accessible via the existing curb cuts and driveway along 113th Street

The building would contain a mix of 67 AIRS units and 68 affordable dwelling units, pursuant to MIH. The dwelling units would consist of a mix of studio apartments and one-bedroom units in 91,942 square feet of floor area or approximately 30% of the proposed residential floor area on the total zoning lot. The dwelling units would range in size between 370 gsf and 775 gsf and would average approximately 515 gsf.

The zoning floor area of the AIRS and affordable units are 91,942 sf (including corridors, lobbies, stairs, janitor closets, elevators, storage spaces) and 118,973 in gsf with a number of programmatic elements below grade, pursuant to Quality Housing regulations. As these elements are primarily below grade and do not allow for the construction of windows, therefore no additional dwelling units would be permitted in this area. The units themselves would account for 63,675 gsf with an average dwelling unit size of

[1] http://www.nycrgb.org/downloads/resources/sta_bldngs/2014QueensBldgs.pdf

approximately 515 gsf. The proposed AIRS units would be reserved for incomes at 70% and 80% AMI and the proposed affordable dwelling units would be reserved for 115% AMI. The sub-cellar also contains a 6,811.8 gsf recreation area with laundry facility, bicycle storage and tenant storage. The cellar contains a 2,799.7 gsf residential storage area, a 2,322.7 gsf storage area, a 468.7 gsf electrical room and 873.5 gsf mechanical room. The remaining space on the cellar and sub-cellar will contain AIRS units.

As noted above, a portion of the ground floor of the former Parkway Hospital would be occupied by an ambulatory medical facility (Use Group 4) containing 4,034 gsf. The ambulatory medical facility would be made accessible by a separate entrance from 113th Street.

Proposed New Market Rate Building

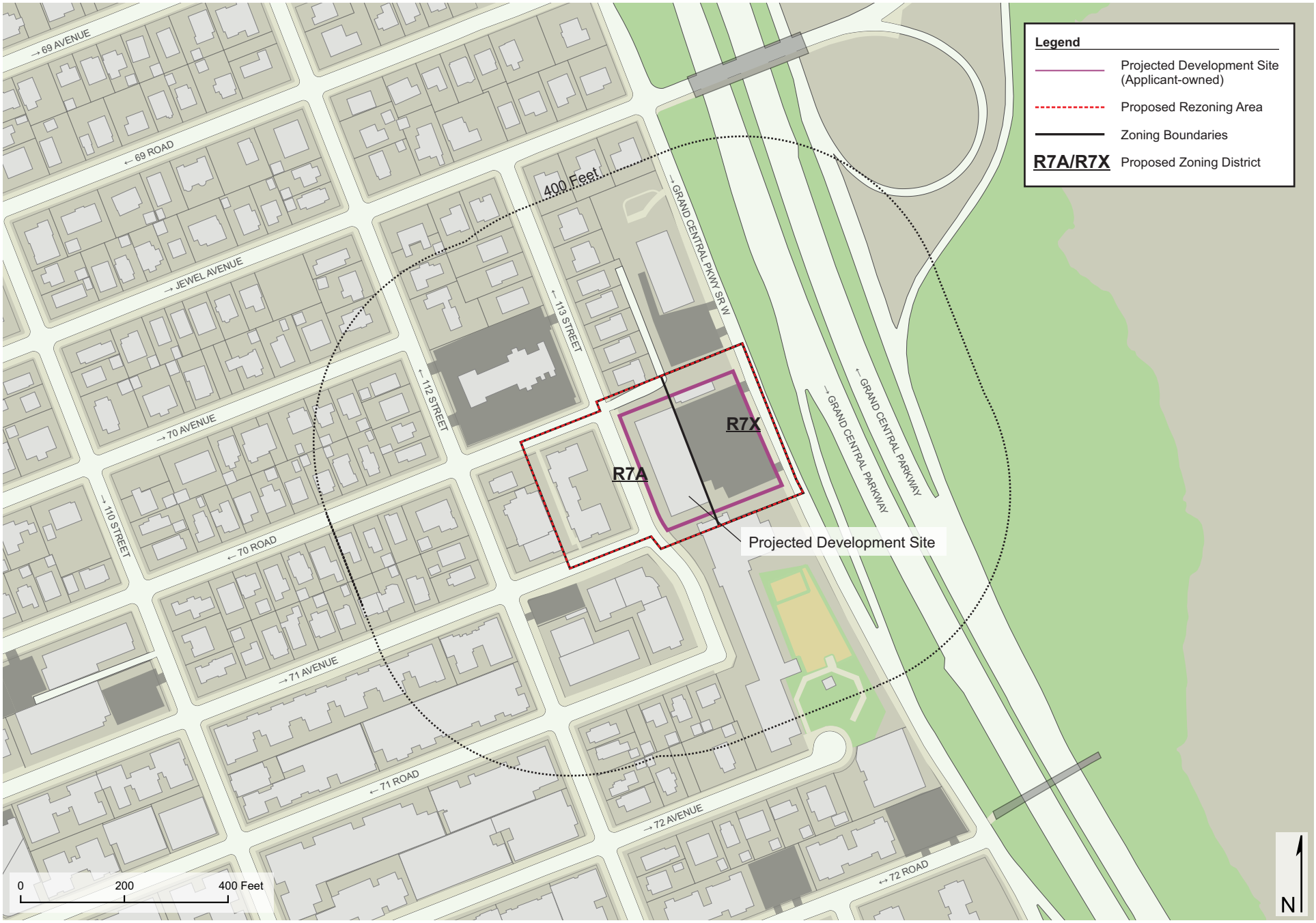
The new fourteen-story market rate building would be constructed on the remaining eastern portion of the Development Site and would consist of 216 market rate residential units. The building would rise to a height of 140 feet (after a 10-foot setback) with 283,077 gsf of floor area (206,715 zsf). The dwelling units would consist of a mix of studio, one- and two-bedroom apartments with an average dwelling unit size of approximately 955 gsf. The building would be accessible from the Grand Central Service Road with three new curb cuts. Two of the curb cuts would be reserved for a drop-off and pick-up driveway and the third curb cut would access a ramp leading to accessory parking in the cellar. The cellar area would contain attended parking, a fitness center and mechanical/storage areas, as required under Quality Housing regulations.

See attached illustrative site plans of the Proposed Development in *Attachment A*

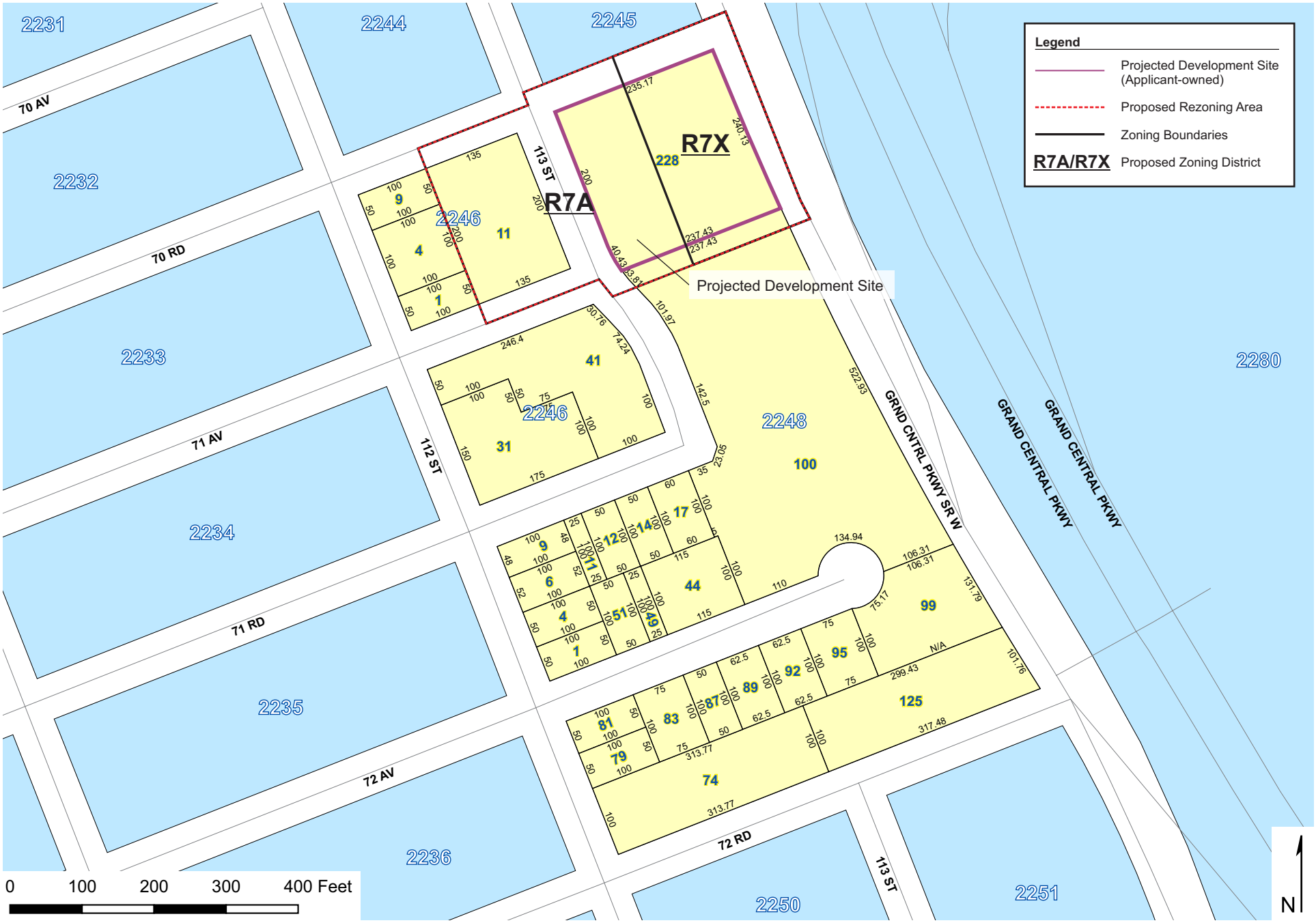
DESCRIPTION OF EXISTING, NO-ACTION AND WITH-ACTION CONDITIONS

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
LAND USE				
Residential	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type of residential structures			Apartment buildings with market rate and AIRS units.	
No. of dwelling units			351 (67 AIRS)	+351 (67 AIRS)
No. of low- to moderate-income units			68	+68
Gross floor area (sq. ft.)			398,016	+398,016
Commercial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Describe type (retail, office, other)				
Gross floor area (sq. ft.)				
Manufacturing/Industrial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use				
Gross floor area (sq. ft.)				
Open storage area (sq. ft.)				
If any unenclosed activities, specify:				
Community Facility	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Type	Vacant Hospital (UG-4)	Vacant Hospital (UG-4)	Ambulatory Medical	
Gross floor area (sq. ft.)	84,530	84,530	4,034	+4,034
Vacant Land	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
Other Land Uses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
Garages	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces			180	+180
Lots	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces				
ZONING				
Zoning classification	R1-2A	R1-2A	R7A/R7X (MIH)	
Maximum amount of floor area that can be developed	0.50 – Residential 1.0 – Community Facility	0.50 – Residential 1.0 – Community Facility	4.6/6.0 Residential (MIH)	
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Residential, Community Facility	Residential, Community Facility	Residential, Community Facility	

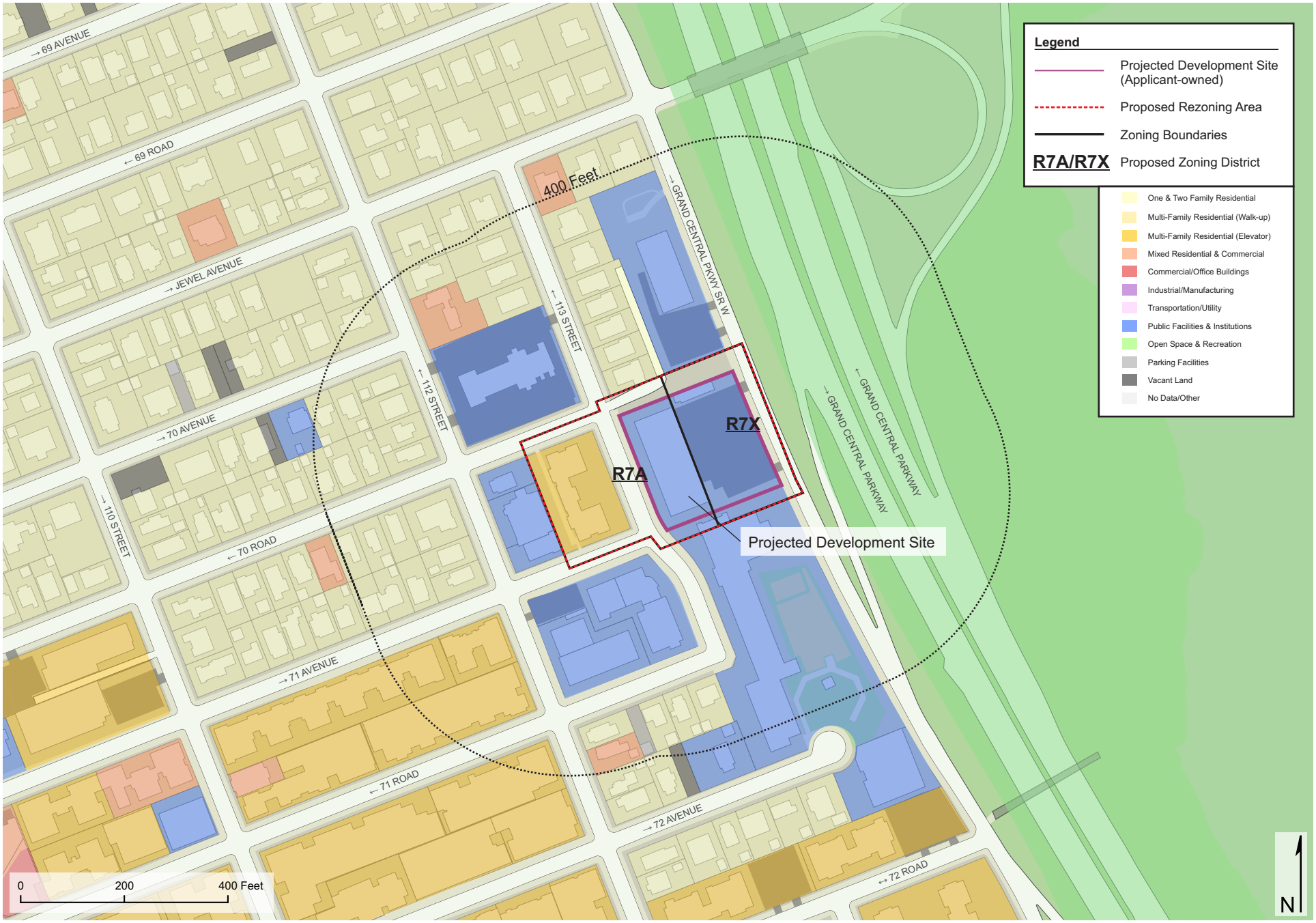
Figure 1 - Site Location



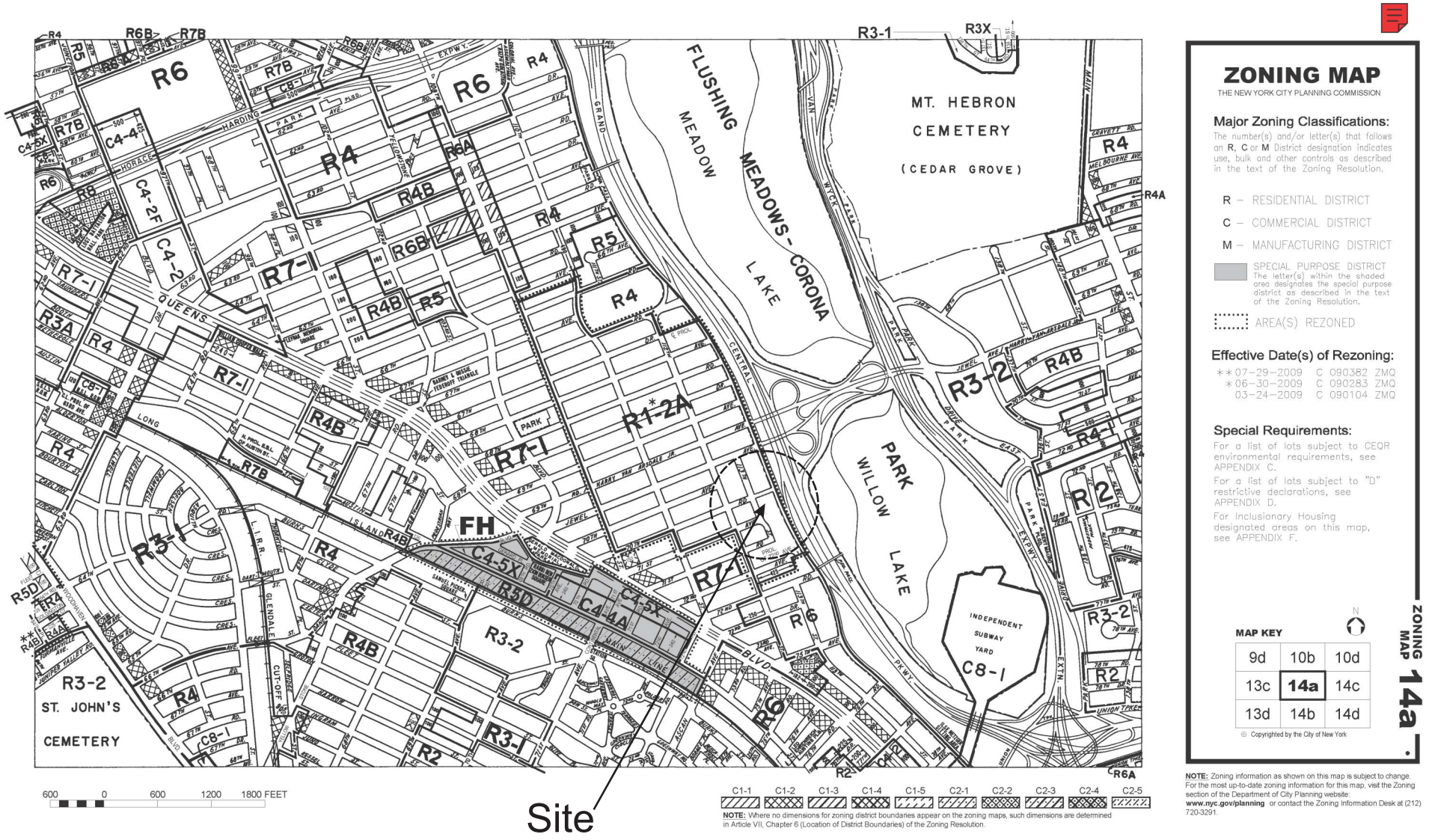
Data Source: MapPLUTO 2016v1, NYC DOF Digital Tax Map 03-16 downloaded from https://nycopendata.socrata.com



Data Source: MapPLUTO 2016v1, NYC DOF Digital Tax Map 03-16 downloaded from https://nycopendata.socrata.com



Data Source: MapPLUTO 2016v1, NYC DOF Digital Tax Map 03-16 downloaded from https://nycopendata.socrata.com


ZONING MAP
THE NEW YORK CITY PLANNING COMMISSION
Major Zoning Classifications:
The number(s) and/or letter(s) that follows an R, C or M District designation indicates use, bulk and other controls as described in the text of the Zoning Resolution.
R – RESIDENTIAL DISTRICT
C – COMMERCIAL DISTRICT
M – MANUFACTURING DISTRICT
SPECIAL PURPOSE DISTRICT
The letter(s) within the shaded area designates the special purpose district as described in the text of the Zoning Resolution.
AREA(S) REZONED
Effective Date(s) of Rezoning:
**07-29-2009 C 090382 ZMQ
*06-30-2009 C 090283 ZMQ
03-24-2009 C 090104 ZMQ
Special Requirements:
For a list of lots subject to CEQR environmental requirements, see APPENDIX C.
For a list of lots subject to "D" restrictive declarations, see APPENDIX D.
For Inclusionary Housing designated areas on this map, see APPENDIX F.
MAP KEY
9d 10b 10d
13c 14a 14c
13d 14b 14d
ZONING MAP 14a
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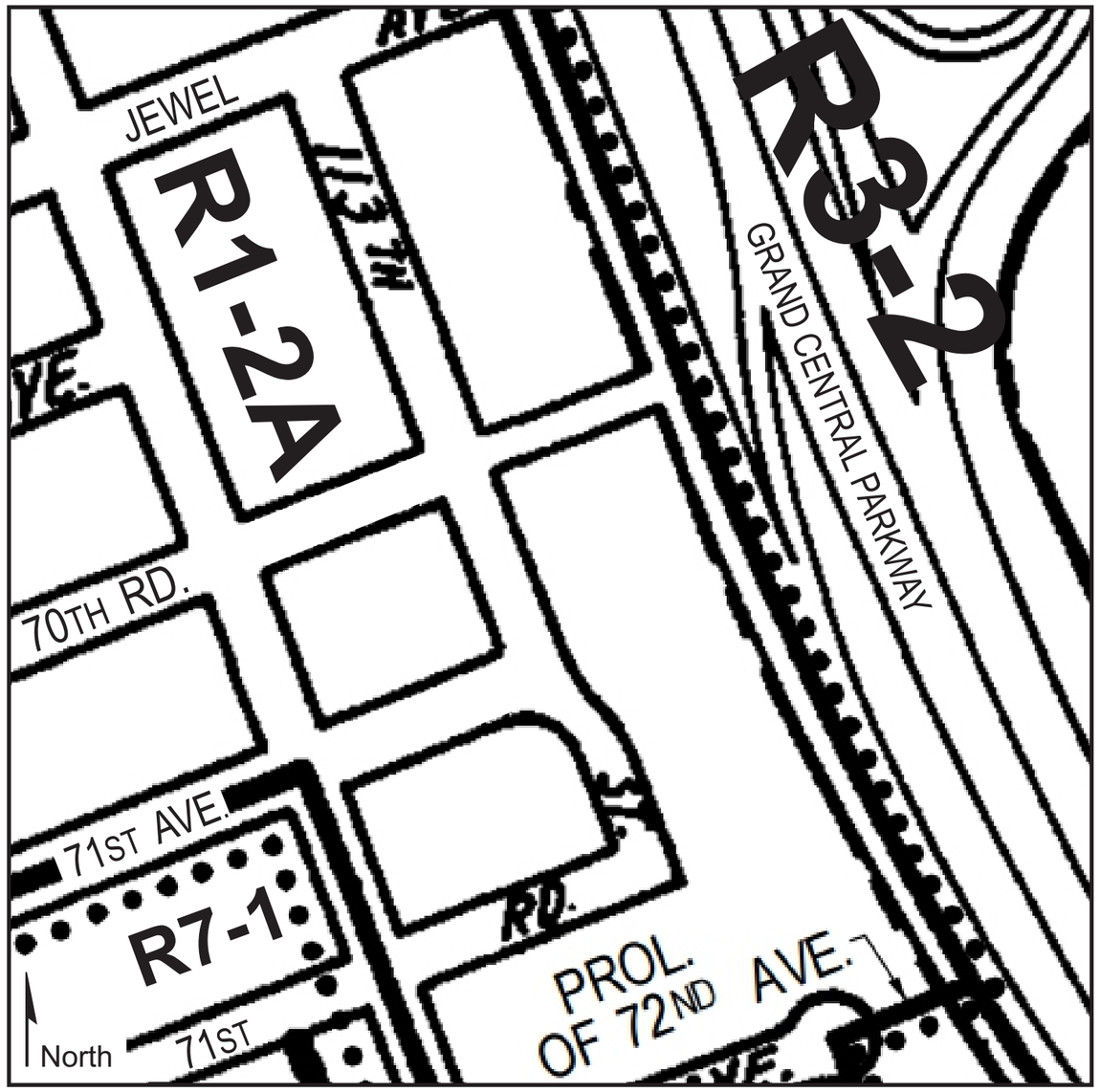
NOTE: Zoning information as shown on this map is subject to change. For the most up-to-date zoning information for this map, visit the Zoning section of the Department of City Planning website: www.nyc.gov/planning or contact the Zoning Information Desk at (212) 720-3291.
FLUSHING MEADOWS-CORONA LAKE
MT. HEBRON CEMETERY
(CEDAR GROVE)
WILLOW LAKE PARK
INDEPENDENT SUBWAY YARD
ST. JOHN'S CEMETERY
FH
Site
600 0 600 1200 1800 FEET
C1-1 C1-2 C1-3 C1-4 C1-5 C2-1 C2-2 C2-3 C2-4 C2-5
NOTE: Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined in Article VII, Chapter 6 (Location of District Boundaries) of the Zoning Resolution.

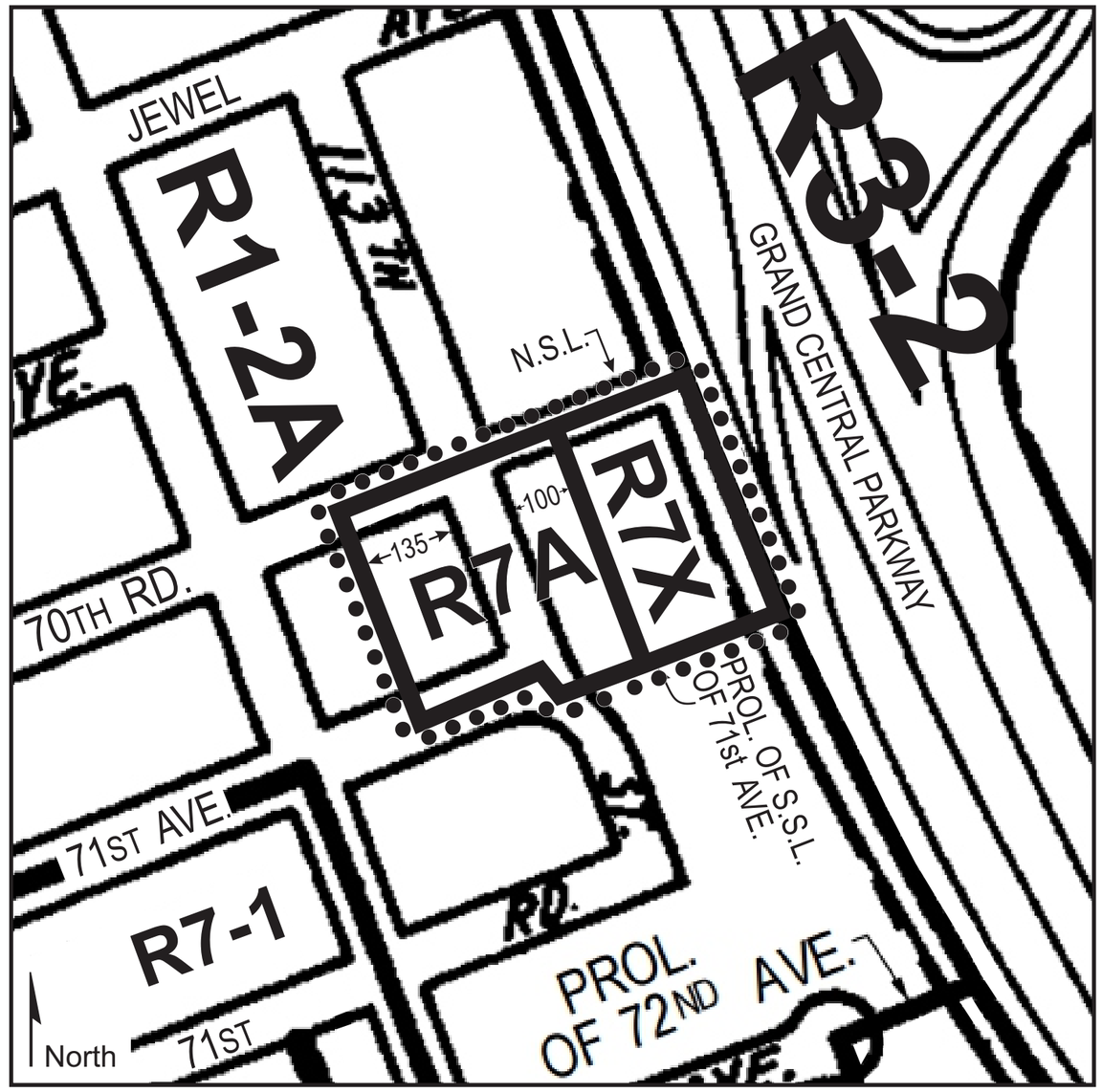


Data Source: MapPLUTO 2016v1, NYC DOF Digital Tax Map 03-16 downloaded from https://nycopendata.socrata.com

Figure 6 - Zoning Change Map



Current Zoning Map (14a)



Proposed Zoning Map (14a) - Area being rezoned is outlined with dotted lines

Rezoning from R1-2A to R7A
Rezoning from R1-2A to R7X

C1-1 C1-2 C1-3 C1-4 C1-5 C2-1 C2-2 C2-3 C2-4 C2-5

NOTE: Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined in Article VII, Chapter 6 (Location of District Boundaries) of the Zoning Resolution.

FORMER PARKWAY HOSPITAL REZONING

INTRODUCTION

Based on the analysis and the screens contained in the Environmental Assessment Statement Short Form, the analysis areas that require further explanation include land use, zoning, and public policy (and WRP); socioeconomics; community facilities; open space, shadows; historic and cultural resources; urban design and visual resources; natural resources; hazardous materials; water and sewer infrastructure; transportation; air quality; noise; neighborhood character; and construction as further detailed below. The subject heading numbers below correlate with the relevant chapters of the CEQR Technical Manual

4. LAND USE, ZONING AND PUBLIC POLICY

I. INTRODUCTION

The analysis of land use, zoning and public policy characterizes the existing conditions of the Development Sites and the surrounding study area; anticipates and evaluates those changes in land use, zoning and public policy that are expected to occur independently of the proposed project; and identifies and addresses any potential impacts related to land use, zoning and public policy resulting from the project. Various sources have been used to prepare a comprehensive analysis of land use, zoning and public policy characteristics of the area, including field surveys, studies of the neighborhood, census data, and land use and zoning maps.

Land Use Study Area

In order to assess the potential for project related impacts, the land use study area has been defined as the area located within a 400-foot radius of the site, which is an area within which the proposed project has the potential to affect land use or land use trends. The 400-foot radius study area is bounded by an area with Jewel Avenue to the north; 72nd Avenue to the south; 110th Street to the west; and Grand Central Parkway to the east (See **Figure 1 –** Site Location).

II. Land Use

Site Description (Existing Conditions)

The Rezoning Area is located in the Forest Hills neighborhood of Community District 6 in Queens. The Rezoning Area consists of three tax and zoning lots on two separate blocks: 70-35 113th Street or Block 2248, Lot 228, also known as the Development Site and 70-01 113th Street or Block 2246, Lot 11). The Rezoning Area consists of 83,400 square feet of lot area and is entirely within an R1-2A zoning district.

Lot 11 consists of the eastern half of Block 2246 and contains 27,000 square feet of lot area with 200 feet of frontage along 113th Street and 135 feet of length along both 70th Road and 71st Avenue. The parcel is developed with a six-story legally noncomplying apartment building with approximately 64,000 square feet of floor area (2.37 FAR) that was constructed in 1940.

Block 2248, Lot 228 (The Development Site) is currently developed with the vacant Parkway Hospital (Use Group 4), which is legally nonconforming and noncomplying building. The building rises to a height of 86 feet and contains 6-stories. The hospital is built to 84,530 square feet or 1.43 FAR which exceeds the maximum permitted height and FAR for the underlying R1-2A district.

Lot 100 consists of a three-story school (P.S. 196 Grand Central Parkway) that contains 116,150 square feet of lot area and 102,349 square feet of floor area (0.88 FAR). Approximately 6,329 square feet of the lot would be rezoned with approximately 2,477 square feet in the proposed R7A district and approximately 3,852 square feet in the proposed R7X district. The Rezoning Area would consist of the northern 30 feet of the lot measured from the northern lot line moving south. This consists of approximately 6% of the lot.

The Development Site contains frontage along three streets: 113th Street, 70th Road (mapped but unbuilt) and the Grand Central Parkway service road. 113th Street is 60 feet in width, classifying the street as a 'narrow' street. Grand Central Parkway service road is classified as a 'narrow' street with 60 feet in width. 70th Road runs through a portion of the Development Site and is a mapped but unbuilt City Street that intersects with 113th Street, qualifying portions of the Development Site as a corner lot. 70th Road is designated as a 'narrow' street with approximately 40 feet in width.

Surrounding Area

The Rezoning Area is located between 113th Street and the Grand Central Service Road to the Grand Central Parkway, with Flushing Corona Meadows opposite the parkway to the east. The surrounding area to the south and west towards Queens Boulevard predominantly consists of multi-family apartment buildings and institutional uses

(community facility use), including places of worship, a nursing home, several schools as well as the former Parkway Hospital. The area to the north of the Development Site predominantly consists of single-family detached homes between 110th Street and the Grand Central Parkway Service Road.

Despite the underlying low-density R1-2A zoning district, most of the residential buildings to the south and west towards Queens Boulevard predate the 1961 zoning resolution and consist of multi-family apartment buildings. The majority of these buildings rise to six-stories in height with increasing heights and density moving towards Queens Boulevard, where a few buildings rise to over 100 feet in height (reflected by the underlying R7-1 zoning district).

As noted above, the Rezoning Area is located within close distance to several notable community facility institutions. These include the Fairview Nursing Care Center (Block 2245, Lot 45; north and immediately adjacent to Development Site); Atria Supporting Housing of Forest Hills at 112-50 72nd Avenue (Block 2248, Lot 99); the First Presbyterian Church of Forest Hills at 70-35 112nd Street (block 2246, Lots 1, 4 & 9); Iglesia Ni Cristo at 70-11 112th Street (Block 2244, Lot 30); The Reform Temple of Forest Hills at 71-11 112th Street (Block 2246, Lot 31); Touro College at 71-02 113th Street (Block 2246, Lot 41); and P.S. 196 at 71-25 113th Street (block 2248, Lot 100). The heights of these buildings range from 34 feet (PS 196) to over 100 feet (Atria Forest Hills).

The Rezoning Area is immediately across from Flushing Meadows-Corona Park, which is the largest park in Queens at almost two square miles, and contains numerous sports facilities, a zoo and museums. The area of the park within proximity to the Development Site along Grand Central Parkway contains Willow Lake and a number of trails.

The surrounding area is served by public transit with the NYCT E/F trains, with a stop three blocks to the south at 75th Avenue and Queens Boulevard. In terms of buses, the Q64 runs along Jewel Avenue to the north with service between Hillcrest and Forest Hills. Additionally, several short inter-borough bus lines make stops along Queens Boulevard, adjacent to the NYCT E/F station at 75th Avenue.

Future No-Action (No-Build) Scenario

In the future and absent the Proposed Actions, no land use changes would be made to the Development Site and the Rezoning Area would continue to remain in its existing condition.

Block 2246, Lot 11 (70-1 113th Street) is developed with a six-story legally noncomplying apartment building with approximately 64,000 square feet of floor area (2.37 FAR) that was constructed in 1940. This property us unable to increase any floor area based on legal noncomplying status and is expected to remain in the future.

Block 2248, Lot 228 (70-35 113th Street; **The Development Site**) is currently developed with the vacant Parkway Hospital (Use Group 4) which rises to a height of 86 feet and contains

6-stories. The hospital is built to 84,530 square feet or 1.43 FAR which exceeds the maximum permitted FAR for the underlying R1-2A district and is anticipated to remain in the future.

Block 2248, Lot 100 consists of a three-story school (P.S. 196 Grand Central Parkway) that contains 116,150 square feet of lot area and 102,349 square feet of floor area (0.88 FAR). This parcel is anticipated to remain in the future as an active public school.

No new development is anticipated within the land use study area by the project build year of 2023. The surrounding land uses within this area are also anticipated are expected to remain unchanged by the Projected Build Year of 2023. The study area currently contains residential, commercial and community facility uses. These uses are all anticipated to remain in the future. Any vacant lots are anticipated to remain vacant.

Future With-Action (Build) Scenario

In the future with the proposed action, the **Development Site** would be redeveloped with the Proposed Development, which would consist of the following:

(1) the two-story enlargement and change of use of the existing Parkway Hospital (Use Group 4) to a building containing a mix of Affordable Independent Residence for Seniors (AIRS – Use Group 2) and affordable residential units pursuant to MIH, along with a smaller ambulatory medical facility (Use Group 4); and_(2) the development of a new fourteen-story (market rate) residential building.

The enlarged Parkway Hospital would contain 68 affordable and 67 AIRS units and would be entirely in the proposed R7A district, while the proposed new market rate building (with 216 units) would be in the proposed R7X district. In total, the Proposed Development would consist of 351 dwelling units and 402,050 gsf of floor area, including accessory space and a 4,034 gsf ambulatory medical facility. A total of 180 accessory parking spaces would be provided in the cellar level of the proposed new building.

The Remaining Rezoning Area

Block 2246, Lot 11 (70-1 113th Street) would be rezoned as part of the Proposed Actions to R7A. The lot is developed with a six-story apartment building with approximately 64,000 square feet of floor area (2.37 FAR). While the maximum permitted floor area of the property would increase in the future (to 4.6 FAR under MIH) and the noncomplying status on the property would be resolved, the existing building is anticipated to remain, due to the presence of rent stabilized or rent controlled units, according to New York State DHCR records (BRN 401674)[2].

Block 2248, Lot 100 consists of a three-story school (P.S. 196 Grand Central Parkway) that contains 116,150 square feet of lot area and 102,349 square feet of floor area (0.88 FAR).

[2] http://www.nycrgb.org/downloads/resources/sta_bldngs/2014QueensBldgs.pdf

Approximately 6,329 square feet of the lot would be rezoned with approximately 2,477 square feet in the proposed R7A district and approximately 3,852 square feet in the proposed R7X district. The Rezoning Area would consist of the northern 30 feet of the lot measured from the northern lot line moving south. This consists of approximately 6% of the lot. This parcel is anticipated to remain in the future, as only 6% of the lot would be affected and contains an active public school.

Conclusion

The Proposed Actions are not anticipated to result in land uses that are significantly different from surrounding uses. As noted above, the study area predominantly contains residential and community facility buildings and in the future will be developed with residential space (market rate, affordable and AIRS units), as well as community facility space (an ambulatory medical center - Use Group 4). While AIRS (Use Group 2) and certain community facility uses are not permitted within the underlying R1-2A zoning district, these uses are commonly found within close proximity and would therefore not be a departure from adjacent uses and not be incompatible with the land uses in the surrounding area.

No potentially significant adverse impacts related to land use are expected to occur as a result of the Proposed Actions. Therefore, further analysis of land use is not warranted.

III. Zoning

Existing Conditions

The Rezoning Area consists of two adjacent properties and portions of an additional property: 70-35 113th Street (Block 2248, Lot 228 (the Development Site), 70-01 113th Street (Block 2246, Lot 11) and 71-25 113th Street (Block 2246, Lot 100).
The Rezoning Area consists of approximately 89,729 square feet of lot area and is entirely within an R1-2A zoning district.

Lot 11 consists of the eastern half of Block 2246 and contains 27,000 square feet of lot area with 200 feet of frontage along 113th Street and 135 feet of length along both 70th Road and 71st Avenue. The parcel is developed with a six-story legally noncomplying apartment building with approximately 64,000 square feet of floor area (2.37 FAR) that was constructed in 1940.

Block 2248, Lot 228 (The Development Site) is currently developed with the vacant Parkway Hospital (Use Group 4), which is legally nonconforming and noncomplying building. The building rises to a height of 86 feet and contains 6-stories. The hospital is built to 84,530 square feet or 1.43 FAR which exceeds the maximum permitted height and FAR for the underlying R1-2A district.

Lot 100 consists of a three-story public school (P.S. 196 Grand Central Parkway) that contains 116,150 square feet of lot area and 102,349 square feet of floor area (0.88 FAR).

The Rezoning Area is located in an R1-2A zoning district and is adjacent to Flushing Meadows-Corona Park. It has vehicular access from 113th Street and the Grand Central Parkway Service Road. As noted above, the R1-2A zoning district primarily produces single-detached residences and various types of community facility buildings. The R1-2A zoning district permits Use Groups 1, 3 and 4 (residential and community facility uses). The maximum permitted residential FAR is 0.5 while 1.0 FAR is permitted for community facility uses. The maximum permitted height within the district is 35 feet after a maximum base height of 25 feet. In these districts minimum lot widths of 60 feet are required with a minimum size of 5,700 square feet. A front yard of 20 feet is required, along with a 30-foot rear yard. Two side yards are required, each with a minimum of 8 feet. One parking space is required per dwelling unit for residential uses. It should be noted that Affordable independent residences for seniors are not permitted within R1-2A districts.

The Rezoning Area is not within boundaries of the Food Retail Expansion to Support Health (FRESH) program or an Inclusionary Housing (IH) area.

Future No-Action (No-Build) Scenario

In the future and absent the action, development within the Rezoning Area would continue to be governed by the provisions of the existing R1-2A zoning district. The Rezoning Area is anticipated to remain in the future without the Proposed Actions.

Block 2246, Lot 11 (70-1 113th Street) is developed with a six-story legally noncomplying apartment building with approximately 64,000 square feet of floor area (2.37 FAR) that was constructed in 1940. This property is unable to increase any floor area based on legal noncomplying status and is expected to remain in the future.

Block 2248, Lot 228 (70-35 113th Street; **The Development Site**) is currently developed with the vacant Parkway Hospital (Use Group 4) which rises to a height of 86 feet and contains 6-stories. The hospital is built to 84,530 square feet or 1.43 FAR which exceeds the maximum permitted FAR for the underlying R1-2A district and is anticipated to remain in the future.

Block 2248, Lot 100 consists of a three-story school (P.S. 196 Grand Central Parkway) that contains 116,150 square feet of lot area and 102,349 square feet of floor area (0.88 FAR). This parcel is anticipated to remain in the future as an active public school.

No changes are anticipated to the zoning districts and zoning regulations relating to the Development Site or Rezoning Area or the surrounding study area by the project build year of 2023.

Future With-Action (Build) Scenario

In the future with the Proposed Actions, the Rezoning Area would be mapped with new R7A and R7X districts and the Rezoning Area would be made applicable as a Mandatory Inclusionary Housing Area (MIH) area under Options 1, 2 and 4 (Workforce).

The proposed R7A district would be mapped along the western portion of the Rezoning Area and encompass all of Block 2246, Lot 11 and contain a depth of 135 feet from the lot line of 113th Street. The R7X district would measure 145 feet moving west from the Grand Central Parkway Service Road. R7A district would also contain a segment of Lot 228, measured at 100 feet in depth from the lot line of 113th Street. The remaining lot area of Lot 228 would be rezoned to R7X or approximately 135 feet from the R7A district. In addition to portions of Lot 228, portions of Lot 100 would be rezoned. This consists of the northern 30 feet of the lot measured moving south of the lot line or approximately 6% of the lot.

The Proposed Actions would also include a Zoning Text Amendment to Appendix F of the Zoning Resolution to make the entire Rezoning Area applicable to the Mandatory Inclusionary Housing Area (MIH) area, which requires the residential portion of the proposed dwelling units as affordable pursuant ZR Section 123-154. The MIH area would be mapped coterminous with the Rezoning Area under Options 1, 2 and 4 (Workforce), which requires at least 30% of the residential development to be affordable for incomes averaging below 115% AMI.

The proposed R7A district allows for buildings up to 4.0 FAR (4.6 FAR with MIH) and generally yields 7 to 8-story buildings (9-stories with MIH). The maximum FAR for Affordable Independent Residences for Seniors (AIRS) is 5.01 FAR. Maximum lot coverage is 65% for interior and through lots and 100% on corner lots. Above a base height of 40 to 75 feet, the building must set back to a depth of 10 feet on a wide street, before rising to a maximum of 95 feet or nine-stories with MIH. The proposed R7X district allows for buildings up to 5.0 FAR (6.0 FAR with MIH) and generally yields 12 to 13-story buildings (14-stories with MIH). Above a base height of 60 to 105 feet, the building must set back to a depth of 10 feet on a wide street, before rising to a maximum of 145 feet or 14-stories. Maximum lot coverage is 70% for interior and through lots and 100% on corner lots.

The Proposed Actions would facilitate the renovation and expansion the existing Parkway Hospital building with affordable units pursuant to MIH and AIRS units (Use Group 2), as well as the construction of a new fourteen-story residential building.

In total, the Proposed Development would consist of 351 dwelling units and 402,050 gsf of floor area, including accessory space and a 4,034 gsf ambulatory medical facility. A total of 180 accessory parking spaces would be provided between the cellar level of the proposed new building.

The Existing Parkway Hospital Building
The existing but vacant Parkway Hospital would receive a two (2) story enlargement, for a total of eight (8) stories. It would contain 91,942 square feet of floor area (3.81 FAR) and rise to a maximum height of 89 feet with a base height of approximately 67 feet. The ground floor would contain an ambulatory medical use (Use Group 4) in 4,034 square feet of space

and a residential lobby area. The ambulatory medical facility would be made accessible by a separate entrance from 113th Street that would lead to the interior of the Development Site with a bulb-shaped drop-off area. The residential lobby would be made accessible via the existing curb cuts and driveway along 113th Street. The Former Hospital would contain 67 AIRS units and 68 affordable dwelling units. The dwelling units would consist of a mix of studio apartments and one-bedroom units in 91,942 square feet of floor area or approximately 30% of the proposed residential floor area on the total zoning lot. The dwelling units would consist of a mix of studio apartments and one-bedroom units and would range in size between 370 gsf and 775 gsf and would average approximately 515 gsf.

The zoning floor area of the Parkway Hospital would consist of 91,942 sf (including corridors, lobbies, stairs, janitor closets, elevators, storage spaces) and 118,973 in gsf with a number of programmatic elements below grade, pursuant to Quality Housing regulations. As these elements are primarily below grade and do not allow for the construction of windows, therefore no additional dwelling units would be permitted in this area. The units themselves would account for 63,675 gsf with an average dwelling unit size of approximately 515 gsf. The sub-cellar also contains a 6,811.8 gsf recreation area with laundry facility, bicycle storage and tenant storage. The cellar contains a 2,799.7 gsf residential storage area, a 2,322.7 gsf storage area, a 468.7 gsf electrical room and 873.5 gsf mechanical room.

As noted above, a portion of the ground floor of the former Parkway Hospital would be reoccupied by an ambulatory medical facility (Use Group 4) containing 4,034 gsf. The ambulatory medical facility would be made accessible by a separate entrance from 113th Street.

Proposed New Market Rate Building

The new fourteen-story market rate residential building would be constructed on the remaining eastern portion of the Development Site and would consist of 216 market rate residential units. The building would rise to a height of 140 feet (after a 10-foot setback) with 283,077 gsf of floor area (206,715 zsf). The dwelling units would consist of a mix of studio, one- and two-bedroom apartments. The building would be accessible from the Grand Central Service Road with three new curb cuts. Two of the curb cuts would be reserved for a drop-off and pick-up driveway and the third curb cut would access a ramp leading to accessory parking in the cellar. The cellar area would contain attended parking, a fitness center and mechanical/storage areas, as required under Quality Housing regulations.

The Proposed Development would comply with the Workforce Option (Option 4) with a combination affordable units and AIRS units averaging 95% AMI. The existing Former Hospital would contain 135 dwelling units (68 affordable units and 67 AIRS units) which consists of 91,942 square feet of floor area or approximately 30% of the proposed residential floor area on the total zoning lot. The proposed AIRS units would be reserved for incomes at 70% and 80% AMI and the proposed affordable dwelling units would be reserved for 115% AMI.

The Remaining Rezoning Area

Block 2246, Lot 11 (70-1 113th Street) would be rezoned as part of the Proposed Actions to R7A. The lot is developed with a six-story apartment building with approximately 64,000 square feet of floor area (2.37 FAR). While the maximum permitted floor area of the property would increase in the future (to 4.6 FAR under MIH) and the noncomplying status on the property would be resolved, the existing building is anticipated to remain, due to the presence of rent stabilized or rent controlled units, according to New York State DHCR records (BRN 401674)[3].

Block 2248, Lot 100 consists of a three-story school (P.S. 196 Grand Central Parkway) that contains 116,150 square feet of lot area and 102,349 square feet of floor area (0.88 FAR). Approximately 6,329 square feet of the lot would be rezoned with approximately 2,477 square feet in the proposed R7A district and approximately 3,852 square feet in the proposed R7X district. The Rezoning Area would consist of the northern 30 feet of the lot measured from the northern lot line moving south. This consists of approximately 6% of the lot. This parcel is anticipated to remain in the future, as only 6% of the lot would be affected and contains an active public school.

Conclusion

No significant impacts to zoning patterns in the area would be expected. The proposed R7A and R7X zoning districts would serve to allow an increase in the maximum permitted bulk that would be consistent with adjacent developments, given the range of community facility and residential towers within close proximity to the Development Site, several of which exceed 100 feet in height. The Proposed Actions would also permit the proposed Affordable Independent Residences for Seniors (AIRS) use, which is not currently permitted in the underlying R1-2A zoning district (Use Group 2) and is a demonstrated need in this community.

In addition to the newly permitted the proposed AIRS use, the Proposed Action would facilitate at least 68 affordable dwelling units pursuant to MIH, a demonstrated citywide need.

The Proposed Action would also resolve the noncomplying status of the building on Block 2246, Lot 11, which is currently developed to 2.37 FAR and would bring the Rezoning Area into greater compliance with zoning.

[3] http://www.nycrgb.org/downloads/resources/sta_bldngs/2014QueensBldgs.pdf

Furthermore, the Proposed Actions would also allow the Applicant to occupy and renovate the Parkway Hospital, which closed in 2008 and contributed to a lack of medical facilities in the surrounding area. The Proposed Development would provide a new ambulatory medical facility (Use Group 4). Without the Proposed Actions, it is anticipated the Development Site and former Parkway Hospital would remain otherwise vacant.

The proposed zoning text amendment would make the Rezoning Area a Mandatory Inclusionary Housing designated area in which MIH Options 1, 2 and 4 would be applicable. The Workforce option requires at least 30% of the residential development to be affordable for incomes averaging below 115% AMI. Utilization of Option 4 will allow a needed increase in residential FAR pursuant to ZR 23-154 to 4.6 in R7A (from 4.0 FAR) and 5.6 in R7X (from 5.0 FAR). It would also increase the maximum permitted height to 90 and 145 feet, respectively.

Therefore, the Propose Actions will not have a significant impact on the extent of conformity with the current zoning in the surrounding area, and it would not adversely affect the viability of conforming uses on nearby properties.

Potentially significant adverse impacts related to zoning are not expected to occur as a result of the Proposed Actions, and further assessment of zoning is not warranted.

IV. Public Policy

Existing Conditions

The Rezoning Area is within the Forest Hills section of Queens Community District 6. As noted above, the project are predominantly includes residential and community facility uses. *Housing New York: A Five-Borough, Ten-Year Plan* is the current plan under Mayor Bill De Blasio to build or preserve 200,000 units of affordable housing in New York City within ten years of the start of his mayoralty.

The Rezoning Area is not located in a FRESH Program Area. At this time, The Rezoning Area is not located within an inclusionary housing (IH) or a Mandatory Inclusionary Housing Area (MIH) area. The Rezoning Area is not located within the City's Coastal Zone Boundary with the boundaries of the coastal zone present across the Grand Central Parkway and encompassing Flushing Meadows Corona Park. Since the Coastal Zone does not encompass the Rezoning Area or Development Site, it is therefore not subject to the New York City Waterfront Revitalization Program (WRP).

No other public policies relate to the Development Sites/Rezoning Area or to the surrounding 400-foot radius study area. The Development Sites/Rezoning Area and the 400-foot radius area are not located within a Historic District and do not contain any designated historic resources and are therefore not subject to any historic regulations. The Rezoning Area is not located within a Federal Empowerment Zone, or is covered by any

197-a Community Development Plans, and is not located within a critical environmental area, a significant coastal fish and wildlife habitat, a wildlife refuge, or a special natural waterfront area.

Future No-Action (No-Build) Scenario

No new public policy initiatives or changes to existing initiatives are anticipated to affect the Rezoning Area or to the 400-foot study area surrounding the Rezoning Area by the project build year of 2023.

Future With-Action (Build) Scenario

The Proposed Actions would also include a Zoning Text Amendment to Appendix F of the Zoning Resolution to make the entire Rezoning Area applicable as a Mandatory Inclusionary Housing (MIH) area, which requires the residential portion of the proposed dwelling units as affordable pursuant to ZR-154. The MIH district would be mapped coterminous with the Rezoning Area under Options 1, 2 and 4 (Workforce), which requires at least 30% of the residential development to be affordable for incomes averaging below 115% AMI. The Proposed Development would comply with the Workforce Option with a combination affordable units and AIRS units averaging 95% AMI. The existing Former Hospital would contain 135 dwelling units (68 affordable units and 67 AIRS units) which consists of 91,942 square feet of floor area or approximately 30% of the proposed residential floor area on the total zoning lot. The proposed AIRS units would be reserved for incomes at 70% and 80% AMI and the proposed affordable dwelling units would be reserved for 115% AMI.

Accordingly, Development Site is located in an area suitable for new housing development, as it is currently zoned for residential use, and would contribute to Mayor Bill De Blasio's goal of building or preserving 200,000 units of affordable housing in New York City within ten years of the start of his mayoralty. The Proposed Actions would provide affordable senior housing for families within the Rezoning Area, which contains a mix of residential and community facility buildings. The new development would comply with the proposed R7A and R7X district zoning regulations, as well as MIH. As noted within the land use analysis above, the proposed uses would be compatible with the existing land uses within a 400-foot radius of the Rezoning Area.

The Proposed Actions are required in order to allow the Proposed Development to be developed on the Development Site. The Proposed Development would meet The City's public policy goals as explained above related to the provision of affordable housing.

No adverse impact to public policies would occur as a result of the Proposed Actions.

Conclusion

The Proposed Actions would facilitate an appropriate level of development within the Rezoning Area, would be a positive addition to the surrounding neighborhood, and would serve to further the goals of the existing public policies for the area as discussed above.

No potentially significant adverse impacts related to public policy are anticipated to occur as a result of the Proposed Actions, and further assessment of public policy is not warranted.

No significant adverse impacts related to land use, zoning, and public policy are anticipated to occur as a result of the action. The action is not expected to result in any of the conditions that warrant the need for further assessment of land use, zoning, or public policy.

5. SOCIOECONOMIC CONDITIONS

The Proposed Actions consist of a zoning map amendment from R-12A to R7A and R7X; as well as and a zoning text amendment to make the Rezoning Area applicable to the Mandatory Inclusionary Housing (MIH) Program under Options 1, 2 and 4 (Workforce)The intent of the proposed rezoning is primarily to allow for the development of an underutilized tax block to renovate and enlarge a pre-existing vacant hospital building into new housing to contain 67 affordable independent residences for seniors (AIRS), 68 affordable dwelling units pursuant to MIH, as well as facilitate the construction of a new fourteen-story market rate building to contain 216 dwelling units on the remainder of the property. It would also contain a 4,036 gsf community facility space to be utilized as an ambulatory medical facility for the local community and 180 accessory parking spaces to serve residents.

Under the worst development scenario (RWCDS), the Proposed Actions are anticipated to result in 402,050 gross square feet (gsf) including 298,657 gsf of residential space (351 dwelling units) and 4,034 gsf of community facility space (ambulatory medical facility, Use Group 4). The required zoning text amendment to make the area applicable to MIH under Option 4 (workforce) requires at least 30% of the residential development to be affordable for incomes averaging below 115% AMI.

The Proposed Actions and resulting development would not result in the direct loss of 500 residents but would add approximately 298,657 square feet of residential space. The With-Action RWCDS would also result in approximately 4,034 square feet of community facility use. Since no commercial uses are proposed and none exist at this time on the Development Site, this will result in less than the *CEQR Technical Manual* threshold of 200,000 square foot for consideration of indirect business displacement. Furthermore, the Proposed Action would not directly displace 100 employees, as the Development Site and Rezoning Area contain no active commercial uses. Therefore, no further analysis is required for direct residential, direct business or indirect business displacement.

As indicated on Part II of the EAS Form, the Proposed Action is anticipated to generate a net increase of 351 residential units, as compared to the No Build condition. This would exceed the 200-unit threshold established for further assessment of potential indirect residential displacement. Therefore, the following provides a preliminary assessment of the potential for the Proposed Action to result in any significant adverse impacts related to indirect residential displacement.

Indirect Residential Displacement

As indicated in the *CEQR Technical Manual,* "the objective of the indirect residential displacement analysis is to determine whether the proposed project may either introduce a trend or accelerate a trend of changing socioeconomic conditions that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change." The risk of indirect residential displacement is typically associated with rising rents caused by new higher -income housing that may contribute to increased area housing costs to an extent that could potentially force lower-income

residents out of the neighborhood. The potential for impact is generally limited to households in unprotected, private rental units.

The With-Action RWCDS includes the development of 351 dwelling units of housing. No new residential development is anticipated to occur under the No-Action RWCDS. Therefore, the Proposed Action would result in the development of a net increase of 351 dwelling units. Based on data from the Department of City Planning, the average household size is 2.19 persons per dwelling unit in Queens Community District 6[4] and the proposed AIRS units would consist of a mix of studio and one-bedroom apartments, representing an average dwelling unit size of 1.5 persons per dwelling unit.

The development of 351 dwelling units (including 67 AIRS units) would therefore be expected to generate approximately 723 new residents in the Rezoning Area.

Table 5-1: ½ Mile Study Area Population

Census Tract	**Total Population (2015)**
737	1,748
739	5,442
757.01	5,053
757.02	4,565
769.01	4,172
Study Area Total (2015)	20,980
2015-2023 Increase	854
No-Action Population	**21,834**
With-Action Population	**22,557**

No-Action Scenario

Currently, the ½ mile area surrounding the Rezoning Area contains 20,980 residents (See Table 5-1), according to 2015 Census data[5]. In order to account for background growth to the 2023 Analysis Year, a conservative annual growth rate of 0.5% per year was applied to the 2015 population of the ½-mile study area. This growth factor would result in the addition of 854 new residents added to the study area by the analysis year. Therefore, as projected to 2023, the base population is projected to be 21,834 residents. No new residential development would occur in the Rezoning Area under the future No-Action scenario. Therefore, the socioeconomic conditions study area would have a No-Action population of 21,834 persons in 2023.

[4] Department of City Planning & NYC Census Fact Finder, Queens Community District 6
[5] ACS Demographic and Housing Estimates (2011-2015 American Community Survey 5-Year Estimates); US Census Bureau.

Figure 5-1: Socioeconomics Study Area



With-Action Scenario

In the future with the Proposed Actions, the development of 351 dwelling units (including 67 AIRS units) is assumed to generate approximately 723 new residents in the Rezoning Area, which would result in a With-Action population of 22,557 or an increase of approximately 3.3%.

Conclusion

Section 322.1 of Chapter 5 of the *CEQR Technical Manual* indicates that if the Proposed Action is expected to result in a study area population increase of less than 5%, further analysis is not warranted to assess the potential for indirect residential displacement and the proposed increase in population is not expected to affect real estate market conditions.

Additionally, it should be noted that 68 of the total 351 dwelling units would be made permanently affordable, pursuant to MIH and 67 dwelling units would be reserved for seniors and would not be expected to affect real estate conditions, as these units are reserved for seniors with limited incomes at 70% and 80% AMI. Therefore, the Proposed Actions would not result in potential impacts related to socioeconomic character and further assessment is not required.

6. COMMUNITY FACILITIES AND SERVICES

Introduction

The community facilities and services considered under CEQR are public schools, public or publicly subsidized day care centers, public libraries, hospitals and other health care facilities, and police and fire protection services. Under the guidelines set forth in the *CEQR Technical Manual,* a detailed analysis is required only if a proposed action would displace or otherwise directly affect an existing community facility or if it would place significant new demands on facilities or services. Most of the demand for community facility services is generated by the introduction of new residents in an area.

Direct Effects

The Proposed Actions would not physically displace or affect any existing community facilities and would therefore have no direct impact on any community facilities or services. Therefore, further assessment of direct impacts is not warranted.

Indirect Effects

The *CEQR Technical Manual* provides a set of thresholds to use in determining whether detailed studies of potentially significant adverse indirect impacts related to community facilities and services are warranted.

Under the worst development scenario (RWCDS), the Proposed Actions are anticipated to result in 402,050 gross square feet (gsf) including 298,657 gsf of residential space (351 dwelling units, 67 of which would be AIRS units and 68 which would be affordable under MIH) and 4,034 gsf of community facility space (ambulatory medical facility, Use Group 4). The required zoning text amendment to make the area applicable to MIH under Option 4 (workforce) would require at least 30% of the residential development to be affordable for incomes averaging below 115% AMI.

The Proposed Development would comply with the Workforce Option with a combination affordable units and AIRS units averaging 95% AMI. The existing Former Hospital would contain 68 affordable units and 67 AIRS units, which consists of 91,942 square feet of floor area or approximately 30% of the proposed residential floor area on the total zoning lot. The proposed AIRS units would be reserved for incomes at 70% and 80% AMI and the proposed affordable dwelling units would be reserved for 115% AMI.

Based on *CEQR Technical Manual* criteria (Table 6-1), the development of 284 dwelling units[6] would exceed the minimum number of 124 dwelling units for conducting a detailed analysis of impacts to public elementary and middle schools in the Borough of Queens. Also under the criteria in Table 6-1, the development of 68 affordable dwelling units would not exceed the minimum number of 139 dwelling units for conducting a detailed analysis

[6] This number was calculated by excluding AIRS units, which are not anticipated to result in new public elementary or middle school students.

of impacts to publicly funded childcare. An assessment of the project's potential impacts on these facilities is described below.

Public Schools

The *CEQR Technical Manual* states that, in general, if a project would introduce more than 50 school-age children (elementary and intermediate grades), significant impacts on public schools may occur and further analysis of schools may be appropriate. The RWCDS under the Proposed Actions include the development of 284 applicable dwelling units.

Based on the factors contained in Table 6-1a, the 284 new dwelling units resulting from the Proposed Actions would be anticipated to generate a total of 115 public school students including 80 elementary school and 35 middle school pupils. The 284 dwelling units would be anticipated to generate a total of 40 public high school students, which would fall below the threshold of concern of 150 high school level pupils. A detailed analysis of public elementary and intermediate schools is provided below.

Publicly Funded Childcare Centers

Analyses of impacts to day care facilities are generally conducted for projects that produce substantial numbers of subsidized, low- to moderate-income family housing units which may generate a significant number of children who would be eligible for subsidized child care at publicly financed day care centers. The threshold number requiring further analysis would be the generation of 20 eligible children. The Proposed Actions would result in the development of 68 income-restricted units pursuant to MIH. This would consist of dwelling units reserved for incomes at 115% AMI. In order to be eligible for subsidized child care, families must meet financial and social eligibility criteria established by the NYC Administration for Children's Services (ACS). In general, children in families that have incomes at or below 200 percent Federal Poverty Level (FPL), depending on family size, are financially eligible, although in some cases eligibility can go up to 275 percent FPL. Since the Proposed Actions are anticipated to result in market rate dwelling units and income-restricted dwelling units at 115% AMI, which is above the area median income, none of these dwelling units are anticipated to result in children who would be eligible for subsidized child care at publicly financed day care centers.

Therefore, the RWCDS assumed for the Proposed Actions would not include any children under 6 eligible for public child care based on the Queens multipliers in Table 6-1b of the *CEQR Technical Manual*. Furthermore, considering a more conservative RWCDS that assumes an alternative MIH requirement of 30% of the proposed 351 dwelling units as affordable to incomes below 80% AMI, that scenario would generate 15 children under the age of 6 who would be eligible for public child care, which is still less than the threshold of 20 eligible children for a detailed analysis. Based on the *CEQR Technical Manual*, the Proposed Actions would have no adverse impacts on publically funded childcare centers (and Head Start) and further analysis is not warranted.

Other Community Facilities

The development of 351 dwelling units of housing on the project site would not be anticipated to exceed the thresholds of concern for any other community facilities and services. Based on the *CEQR Technical Manual*, the Proposed Actions would have no adverse impacts to libraries, health care facilities, or fire and police protection.

Public Schools

Existing Conditions

Primary Study Area (Sub-district Analysis)

The Rezoning Area is located in Queens Community School District (CSD) 28, Sub-district 2. CSD 28, Sub-district 2 is therefore considered to be the primary study area for the analysis of elementary and intermediate schools. Within CSD 28, Sub-district 2, there are 27 public schools that serve elementary intermediate levels. Of those 27 schools, there are 3 combined schools with elementary and intermediate grades and 6 combined schools with intermediate and high school. **Figure 6-1**, Public Elementary and Intermediate Schools Within CSD 28, Sub-district 2, illustrates the locations of these public schools.

Table 6-1 provides a listing of the elementary and intermediate schools within CSD 28, Sub-district 2. The table identifies the schools by school number/name, address, and grades served, and includes the latest available enrollment and school capacity numbers. Elementary school capacity numbers are less than actual building capacities as they assume a class size reduction for Kindergarten through the third grades of 20 children per class, 28 children for grades 4-8; and 30 children for grades 9-12 ("target capacity").

Table 6-1 indicates that the elementary schools within CSD 28, Sub-district 2 are generally over capacity and have a total collective utilization rate of 122% with enrollments ranging from 44% to 188% of target capacity at individual school buildings. The elementary schools within CSD 28, Sub-district 2 have a total enrollment of 11,272 students relative to a target capacity of 9,251 seats resulting in a deficit of 2,021 available seats for this district.

Table 6-1 indicates that the intermediate level schools in CSD 28, Sub-district 2 are generally at capacity with a collective utilization rate of 102% with rates ranging from 50% to 160% of target capacity at individual middle school buildings. The intermediate level schools in CSD 28, Sub-district 2 have a total enrollment of 5,962 students relative to a target capacity of 5,852 seats resulting in resulting in a deficit of 110 available seats for this district. It should be noted that the Alternative Learning Center has been included in 2016 data and includes 29 available seats and no enrollment.

Since the NYC Department of Education (DOE) is actively engaged in an ongoing process of repurposing underutilized school space, either for its own programs or for Charter Schools, a school building that is significantly underutilized in the existing condition may be programmed to include a new school organization in the near future. In this case, the available capacity may be radically altered within a few months of when the assessment is made. In the February 23, 2017 Under-Utilized Space Memorandum, P.S. / I.S. 314 was

Figure 6-1: Public Elementary and Intermediate Schools Within CSD 28, Sub-district 2



identified as being underutilized by more than 300 seats in the 2017-2018 school year. However, building usage plans are not yet in scale for the future, according to the February memo. Furthermore, CSD 28, Sub-district 2 was not identified as having any underutilized facilities between 150 and 299 seats. Therefore, the utilization numbers will not be modified for analysis purposes.

Table 6-1

CSD 28, Sub-district 2 (Primary Study Area) - Existing Enrollment, Capacity and Utilization 2016-2017 School Year

#	School Number (Bldg ID)	Address	Grades	School Enrollment	Target Capacity	Available Seats	% Utilized
ELEMENTARY SCHOOLS*							
1	P.S. 117	85-15 143RD STREET	PK-5, SE	1051	1021	-30	103%
2	P.S. 139	93-06 63 DRIVE	PK-5, SE	773	657	-164	118%
3	P.S. 144	93-02 69 AVENUE	PK-5, SE	895	569	-326	157%
4	P.S. 174	65-10 DIETERLE CRESCENT	PK-5, SE	674	555	-119	121%
5	P.S. 175	64-35 102 STREET	PK-5, SE	786	643	-143	122%
6	P.S. 196	71-25 113TH STREET	PK-5, SE	959	711	-248	135%
7	P.S. 973 / 196 Annex	112-15 71 ROAD	PK-5, SE	115	78	-37	147%
8	P.S. 206	61-21 97TH PLACE	PK-5, SE	602	469	-133	128%
9	P.S. 220	62-10 108 STREET	PK-5, SE	707	539	-168	131%
10	P.S. 303	108-55 69TH AVENUE	PK-3	208	112	-96	186%
11	P.S. 54	86-02 127 STREET	PK-5, SE	577	307	-270	188%
12	P.S. 82	88-02 144 STREET	PK-5, SE	546	456	-90	120%
13	P.S. 86	87-41 PARSONS BLVD	PK-5, SE	1016	800	-216	127%
14	P.S. 314 / Queens School for Leadership & Excellence	88-08 164TH STREET	PK, 0K, SE	196	443	247	44%
15	P.S.182 & Annex	153-27 88TH AVENUE	PK-5, SE	796	720	-76	111%
16	P.S.101 / School in the Garden	2 RUSSELL PLACE	PK-6, SE	644	410	-234	157%
17	P.S. 99 & Annex	82-37 KEW GARDENS ROAD	PK-6, SE	727	761	34	96%
	Subtotal			***11,272***	***9,251***	***-2,021***	***122%***

INTERMEDIATE SCHOOLS							
16	P.S.101 / School in the Garden	2 RUSSELL PLACE	PK-6, SE	24	15	-9	160%
17	I.S. 99 & Annex	82-37 KEW GARDENS ROAD	PK-6, SE	83	87	4	95%
18	I.S. 217	85-05 144 STREET	6-8, SE	1644	1656	12	99%
19	J.H.S. 190	68-17 AUSTIN STREET	6-8, SE	1036	1059	23	98%
20	M.S. 358	88-08 164TH STREET	6-7, SE	262	255	-7	50%
21	J.H.S. 157	63-55 102ND STREET	6-9, SE	1525	1375	-150	111%
22	Q470 / Queens Collegiate School / Jamaica HS	167-01 GOTHIC DRIVE	6-12, SE	247	274	27	90%
23	I.S. /H.S. 167	91-30 METROPOLITAN AVENUE	6-12, SE	380	363	-17	105%
24	Q659 Queens Gateway	160-20 GOETHALS AVENUE	6-12, SE	277	252	-25	110%
25	Q680 Young Women's Leadership	150-91 87 ROAD	6-12, SE	238	213	-25	112%
26	Q310 Queens Collegiate School	167-01 GOTHIC DRIVE	6-12, SE	247	274	27	90%
27	Q987 Alternative Learning Center	90-40 150 STREET	6-8, SE	0	29	29	0%
	Subtotal			***5,962***	***5,852***	***-110***	***102%***

Source: 2015-2016 Enrollment, Capacity and Utilization Report, NYC Department of Education. Target Capacity assumes maximum classroom capacity of 20 children per class for grades K-3; 28 children for grades 4-8; and 30 children for grades 9-12.

Includes combined schools but only includes the relevant grades for elementary and intermediate schools in enrollment numbers

There are no charter schools within CSD 28, Sub-district 2. Per *CEQR Technical Manual* guidelines, charter school enrollments are not included in DOE enrollment projections.

Future No-Action Scenario

This section presents an analysis of public school enrollments (including Pre-Kindergarten enrollments) and capacities for the Project Build Year of 2023 without the Proposed Actions. The analysis includes the primary study area of CSD 28, Sub-district 2 and is derived from NYC Department of Education (DOE) enrollment projections.

In the future and absent the actions, it is assumed that no new residential development would occur on the Development Site by the analysis year of 2023. However, based on the NYC School Construction Authority's (SCA) "Projected New Housing Starts" (aka Housing Pipeline) projections, additional student enrollments would occur in CSD 28, Sub-district 2 under the No-Action condition by the analysis year of 2023 as presented in Table 6-2 below.

As outlined in the *CEQR Technical Manual*, No-Action school capacity changes considered in a community facilities analysis include information on proposed and adopted "Significant Changes in School Utilization" and the DOE's Five Year Capital Plan.

DOE's Proposed FY 2015-2019 Five Year Capital Plan released in February 2017 proposes two additions for CSD 28. It identified a need for 3,162 seats in January 2016 and in November 2016 identified a funded need for 1,920 seats with all of those seats budgeted in the 2015-2019 plan and scheduled for construction in the following plan. The capital plan includes four capacity additions to existing schools that are budgeted and scheduled, as further outlined in Table 6-2

Table 6-2
Budgeted School Projects: 2015-2019 Five Year Capital Plan

School	Project #	Forecasted Seats	Construction Start	Estimated Completion
P.S. 303	DSF0000798208	484	Jan. 2017	Sept 2019
P.S. 144	DSF0000798209	590	July 2019	Sept 2019
P.S. 196	DSF0000843834	250	July 2018	June 2022
P.S. 206	DSF0000888762	392	June 2019	June 2022

At the time of this application, construction has commenced on P.S. 303 and P.S. 144, with an estimated completion date of 2019, which is prior to the analysis year of 2023. While P.S. 196 and P.S. 206 are budgeted to add an additional 642 elementary seats through additions prior to the analysis year of 2023, the capital projects have not begun construction and according to the *CEQR Technical Manual,* should not be considered. Therefore, the capacity in the future no-action scenario will be adjusted to account for an additional 1,074 seats for elementary schools.

Table 6-3 indicates that there would be no excess seating capacity within both the elementary and the intermediate schools within CSD 28, Sub-district 2 in 2023 without the proposed project. This is due to existing enrollment, the capacity of existing facilities and projected enrollment growth.

Table 6-3
Estimated Public School Enrollment, Capacity, and Utilization Year 2023
Future Without the Proposed Actions (No-Action)

School Level	2023 Projected Enrollment (w/Pre-K)	Students Generated by Development Without Actions	Total Projected Enrollment	Program Capacity	Seats Available	Program Utilization (%)
Elementary/K-5 Schools						
Sub-district 2	13,750	781	14,531	10,325	-4,206	140.74%
Intermediate/Secondary 6-8 Schools						
Sub-district 2	6,496	203	6,699	5,852	-847	114.47%

Source: DOE Enrollment Projections (Projected 2015-2024)
*Includes 1,074 additional seats per the 2015-2019 Five Year Capital Plan

Sub-district Projections[7]

P.S.	63.47%	13,750 pupils (of 21,664 estimated pupils)
I.S.	80.95%	6,496 pupils (of 8,025 estimated pupils)

Future With-Action Scenario

As stated above, applying the household multipliers for Queens from Table 6-1a of the *CEQR Technical Manual* to a RWCDS of 284 dwelling units, would result in the anticipated generation of approximately 115 public elementary and middle school children. Approximately 80 of these children would be elementary school students and the remaining 35 would be intermediate school enrollments. The Proposed Actions would not include any new schools or additional capacity in the district.

Table 6-4 presents the anticipated student enrollments that would be generated by the Proposed Actions and the effect of these enrollments on the available capacity of the schools within Sub-district 2. The projected increase of 80 elementary and 35 middle school students resulting from the Proposed Actions in 2023 would have a minimal impact upon the collective utilization rates of the schools in Sub-district 2.

With the addition of these new enrollments, both the elementary and middle schools in Sub-district 2 would remain above capacity. Based on *CEQR Technical Manual* criteria and

[7] *Percentages for Sub-district 2 of the Projected Enrollment in Community School District (CSD) 28*

as further explained below, it is not anticipated that the elementary school and middle school students that would be generated by the Proposed Actions would result in a significant impact on the elementary and intermediate schools in the area.

Table 6-4
Estimated Public School Enrollment, Capacity, and Utilization Year 2023
Future With the Proposed Actions (With-Action)

School Level	2023 No-Build Projected Enrollment (w/Pre-K)	Students Generated by Develop (With Action)	Total Projected Enroll	Program Capacity	Seats Avail	Program Utilization With-Action (%)	No-Action Program Utiliz (%)	Difference between Scenarios
Elementary/K-5 Schools								
Sub-district 2	14,531	80	14,611	10,325	-4,286	141.51%	140.74%	0.77%
Intermediate/Secondary 6-8 Schools								
Sub-district 2	6,699	35	6,734	5,852	-882	115.07%	114.47%	0.60%

According to the *CEQR Technical Manual*, a significant impact on schools may occur if the following two conditions are met. A significant impact may occur if the project results in a collective utilization rate of the elementary and/or intermediate schools in the Sub-district study area that is equal to or greater than 100 percent in the With-Action Condition, and if the project results in an increase of five percent or more in the collective utilization rate between the No-Action and With-Action conditions.

With the Proposed Actions, the elementary schools in Sub-district 2 would continue to be above capacity at 141% collective utilization and the intermediate schools would also continue to be above capacity at 115% collective utilization. The difference between the No-Action and With-Action utilization rate within Sub-district 2 of the elementary schools would be less than 1% while that of the middle schools would also be less than 1%. This small increase is due to a number of factors, including the large projected enrollment for Sub-district 2 in the No-Action scenario, as well as the relatively small increase in students associated with the Proposed Actions (less than 100 students). Therefore, the Proposed Actions would not be expected to result in a significant adverse impact on elementary or intermediate schools. No further analysis of the Proposed Actions on public schools is therefore required.

Conclusion

The Proposed Action would not physically displace or alter a community facility or cause a change that could affect the service delivery of a community facility. In addition, the development resulting from the Proposed Action would not create a demand that would either over utilize or not be met by existing or proposed services or facilities. Development under the Proposed Actions would not adversely affect public schools, hospitals and other health care facilities, public libraries, publicly subsidized child care centers (Head Start), and police and fire protection services. Therefore, the Proposed Actions would have no potentially significant adverse impacts related to community facilities and services and further assessment is not warranted.

7. OPEN SPACE

Introduction

For the purpose of CEQR, open space is defined as publicly or privately-owned land that is publicly accessible and has been designated for leisure, play, or sport; or land that is set aside for the protection and/or enhancement of the natural environment. Under CEQR, an open space analysis is conducted to determine whether or not a Proposed Action would have either a direct impact resulting from the elimination or alteration of open space or an indirect impact resulting from overtaxing the use of open space. The analyses focus only on officially designated existing or planned public open space. Open space may be public or private and may include active and/or passive areas. 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 with benches, walkways, and picnicking areas. Certain spaces such as lawns can be used for both active and passive recreation.

Open space analyses may be necessary when an action would potentially have a direct or indirect effect on open space. A direct impact would physically change, diminish or eliminate an open space or reduce its utilization or aesthetic value. An indirect impact could result from an action introducing a substantial new user population that would create or exacerbate an overutilization of open space resources.

METHODOLOGY

DIRECT EFFECTS

There are no open space resources on the Development Site but the Development Site is adjacent to a portion of Flushing Meadows-Corona Park. Absent the Proposed Action, the Development Sites would remain in their current condition. The Proposed Actions would result in the renovation and expansion of an existing building and the development of a new fourteen-story building. There would be an incremental increase in building height between the No-Action and the With-Action scenarios. However, the increase in building height would not cause significant adverse shadows on any nearby open space resource (such as Flushing Meadows-Corona Park), as discussed in the Shadows analysis in Chapter 8 of this EAS. Therefore, no direct shadows impacts would be anticipated.

INDIRECT EFFECTS

Introduction

On the basis of *CEQR Technical Manual* criteria, the proposed development could potentially result in indirect effects to open space resources within the project study area and must be further assessed to determine whether significant indirect effects would be expected to occur. For the subject Development Site, the *CEQR Technical*

Manual requires that an open space assessment be conducted if that project would generate more than 350 additional residentials or 750 additional employees, as Queens Community District #6 is "well-served" in open space.

Absent the Proposed Action, the Development Site and Rezoning Area would remain in their existing condition. The With-Action RWCDS includes the development of 351 dwelling units of housing. No new residential development is anticipated to occur under the No-Action RWCDS. Therefore, the Proposed Action would result in the development of a net increase of 351 dwelling units. Based on data from the Department of City Planning, the average household size is 2.19 persons per dwelling unit in Queens Community District #6[8] and the proposed AIRS units would consist of a mix of studio and one-bedroom apartments, representing an average dwelling unit size of 1.5 persons per dwelling unit. The development of 351 dwelling units (including 67 AIRS units) would therefore be expected to generate approximately 723 new residents or greater than 350 additional residents.

For projects that might result in indirect effects on open space, the CEQR Technical Manual suggests that a preliminary assessment can be useful in clarifying the degree to which an action would affect open space and the need for further analysis. If the preliminary assessment indicates the need for further analysis, then a detailed analysis of indirect open space effects is performed. For this project, a preliminary assessment indicated the need for further analysis and a detailed analysis was performed for indirect open space effects from the proposed 723 new residents with an approximate 3.3% population increase. In addition, existing open space ratios are relatively low and further analysis is warranted.

STUDY AREA

This analysis of potential open space impacts was conducted based on the methodology of the CEQR Technical Manual. According to CEQR guidelines, the first step in assessing potential open space impacts is to establish study areas appropriate for the new population(s) to be added as a result of the proposed project. Study areas are generally defined by a reasonable travel distance a person would walk to reach a neighborhood open space. Workers (or non-residents) typically use passive open spaces within an approximately 10-minute walking distance (about ¼-mile). Residents are more likely to travel farther to reach parks and recreational facilities. They are assumed to walk about 20 minutes (about a ½-mile distance) to reach both passive and active neighborhood open spaces. The proposed project would result in an increase of 351 dwelling units is expected to generate approximately 723 residents based on the average household size of 2.19 residents per dwelling units based on the average unit size in Brooklyn Community District #5 and Queens Community District #6.

As the proposed project would add a substantial new residential population, a quantitative open space assessment is necessary to examine the change in residential population in the study area relative to total, active, and passive publicly accessible open space in the area

[8] Department of City Planning & NYC Census Fact Finder, Queens Community District 6

and to determine whether the increase in population would significantly impact the adequacy of open space resources in the study area. Since the proposed project is expected to result in new, largely residential development; therefore, a study area was established to assess the proposed project's potential open space effects on residential users based on the methodology in the CEQR Technical Manual.

The proposed project would not introduce a significant number of new employees associated with the retail uses, community facility space, and residential building maintenance in approximately 4,000 square feet (not to exceed an assumption of 10 employees or one employee per 400 square feet of space) and is not anticipated that it would result in a total of 750 or more workers. Therefore, an assessment of the adequacy of open space for the nonresidential (worker) population was not required.

As recommended in the CEQR Technical Manual, the open space study area comprises all census tracts that have at least 50 percent of their area located within a ½-mile of the project site, as shown in Figure 6-1. The study area extends approximately from 68th Avenue in the north, Queens Boulevard in the west, Jackie Robinson Parkway/Union Turnpike to the south and the Grand Central Parkway to the east. All publicly accessible open spaces, as well as all residents within census tracts that fall at least 50 percent within the ½-mile perimeter, were included in the study area.

INVENTORY OF OPEN SPACE RESOURCES

Publicly accessible open spaces and recreational facilities within the study area were inventoried to determine their size, character, utilization, amenities, and condition. Open spaces that are not accessible to the general public or that do not offer usable recreational areas, such as spaces where seating is unavailable, were generally excluded from the survey. The information used for this analysis was gathered through a field survey conducted on May 30th, 2017 on a clear day, as well as data from the New York City Department of Parks and Recreation (DPR), as well as from New York City DoITT GIS data. At each open space, active and passive recreational spaces were noted. Active open space acreage is used for activities such as jogging, field sports, and children's active play. Such open space features include basketball courts, baseball fields, and play equipment. Passive open space usage includes activities such as strolling, reading, sunbathing, and people-watching. Some spaces, such as lawns and public esplanades, can be considered both active and passive recreation areas since they can be used for passive activities such as sitting or strolling and active uses, such as jogging or Frisbee. Based on the methodology in the CEQR Technical Manual, the use level at each facility was determined based on observations of the amount of space or equipment determined to be in use. Open spaces with less than 25 percent of space or equipment in use were categorized as low usage; those with 25 to 75 percent utilization were classified as moderate usage; and those with over 75 percent utilization were considered heavily used. In addition to the open spaces located within the study area, open spaces falling outside the study area were considered qualitatively. These spaces provide additional open space resources and are likely to be visited by the study area's residential user populations.

ADEQUACY OF OPEN SPACE RESOURCES - COMPARISON TO GUIDELINES

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—the open space ratio. The open space ratio provides a measure of open space available per 1,000 residents or workers in the study area.

As noted above, the adequacy of open space in the study area can be quantitatively assessed using a ratio of usable open space acreage to the study area population—referred to as the open space ratio. To assess the adequacy of open space resources, open space ratios are compared with planning goals set by the NYC Department of City Planning (DCP). Although these open space ratios are not meant to determine whether a proposed project might have a significant adverse impact on open space resources, they are helpful guidelines in understanding the extent to which user populations are served by open space resources. The following guidelines are used in this type of analysis:

- For non-residential populations, 0.15 acres of passive open space per 1,000 non-residents is typically considered adequate.
- For residential populations, DCP attempts to achieve a ratio of 2.5 acres per 1,000 residents for large-scale proposals. Ideally, this would consist of 0.50 acres of passive space and 2.0 acres of active open space per 1,000 residents.

However, as noted above, these goals are often not feasible for many areas of the city and they do not constitute an impact threshold. Rather, it is a benchmark that represents how well an area is served by its open space. In addition, this analysis compares to the city's median community district open space ratio of 1.5 acres per 1,000 residents.

IMPACT ASSESSMENT

Impact assessment is both quantitative and qualitative. The quantitative assessment considers how a project would change the open space ratios in the study area. The CEQR Technical Manual indicates that a significant adverse impact may result if a project would reduce the open space ratio by more than 5 percent in areas that are currently below the city's median community district open space ratio of 1.5 acres per 1,000 residents, or where there would be a direct displacement/alteration of existing open space within the study area that has a significant adverse effect on existing users. In areas that are extremely lacking in open space, a reduction as small as 1 percent may be considered significant, depending on the area of the city. Furthermore, in areas that are well served by open space, a greater change in the open space ratio may be tolerated. The qualitative assessment supplements the quantitative assessment and considers nearby destination resources, the connectivity of open space, the effects of new open space provided by the project, the comparison of projected open space ratios with established city guidelines, and open spaces created by the proposed project not available to the general public. It is recognized

that DCP goals are not feasible for many areas of the city, and they are not considered impact thresholds on their own. Rather, these are benchmarks indicating how well an area is served by open space.

EXISTING CONDITIONS

Study Area Population

The study area population was estimated utilizing information from the 2015 U. S. Census ACS Data (2011-2015)[9] for the census tracts located fully or at least 50 percent within the ½ mile study area. As shown in Table 7-1, in 2015 the study area contained a total of 20,980 residents within the five relevant census tracts in Queens.

Table 7-1 Study Area Population (1/2-mile radius)

Census Tract	**Total Population (2015)**
737	1,748
739	5,442
757.01	5,053
757.02	4,565
769.01	4,172
Study Area Total (2015)	20,980
2015-2023 Increase	854
No-Action Population	**21,834**
With-Action Population	**22,557**

Table 7-2 summarizes the age distribution of the study area population. As shown, adults between the ages of 15-44 years represented the largest proportion of the study area's population. The 65-and-over age group accounted for approximately 18 percent of the study area population, with children 14 and younger making up 16%.

Table 7-2: Study Area Age Characteristics

SELECTED AGE CATEGORIES	Study Area
0 to 4 years	8%
5 to 9 years	4%
10 to 14 years	4%
15 to 44 years	39%
45 to 64 years	27%
65 years and over	18%

[9] DP05, ACS Demographic and Housing Data, American Community Survey 2011-2015

Given the range of age groups present in the study area population, the study area has need for various kinds of active and passive recreation facilities, including those with amenities that can be used by children and adults. Within a given area, the age distribution of a population affects the way open spaces are used and the need for various types of recreational facilities. Typically, children 4 years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children ages 5 through 9 typically use traditional playgrounds, as well as grassy and hard-surfaced open spaces, which are important for such activities as ball playing, running, and skipping rope. Children ages 10 through 14 use playground equipment, court spaces, little league fields, and ball fields. Teenagers' and young adults' needs tend toward court game facilities such as basketball and field sports. Adults between the ages of 18 and 44 continue to use court game facilities and fields for sports, along with more individualized recreation such as rollerblading, biking, and jogging that require bike paths, promenades, and vehicle-free roadways. Adults also gather with families for picnicking, ad hoc active sports such as Frisbee, and recreational activities in which all ages can participate. Senior citizens engage in active recreation such as handball, tennis, gardening, and swimming, as well as recreational activities that require passive facilities.

STUDY AREA OPEN SPACES

Within the census tracts that are fully or at least 50 percent within this area, there are only two publicly accessible facilities. **(See Figure 7-1, Open Space Facilities and Census Tracts and Table 7-3, Inventory of Open Space Resources)** The two publicly owned and accessible facilities managed by the Department of Parks and Recreation (DPR) provide a total of 2.44 acres of open space resources, all of which are generally located within the ½ mile radius project study area. It should be noted that at least three additional open space resources are located within the ½ mile radius project study area but since the underlying census districts fall more than 50 percent outside this area, are not included for a preliminary assessment. This includes Flushing Meadows-Corona Park, which is adjacent the Development Site (across Grand Central Parkway) but is within an abnormally sized census tract (383.02) that extends well outside the study area.

Figure 7-1: Open Space Facilities & Study Area



Table 7-3: Inventory of Open Space Resources

Map Key	Open Space Resource Name	Location	Total Size (Acres)	Features	Active Acres	Passive Acres	Condition	Utilization
1	Willow Lake Playground	72nd Avenue b/w 112th Street and Grand Central Parkway	1.28	Basketball Courts, Handball Courts, Playgrounds	0.96	0.32	Good	Low
2	Ehrenreich-Austin Playground	Austin Street b/w 76th Ave and 76th Drive	1.16	Basketball Courts, Handball Courts, Playgrounds	0.87	0.29	Good	Moderate
TOTAL			**2.44**		**1.83**	**0.61**		

Willow Lake Playground is located on 72nd Avenue between 112th Street and the Grand Central Parkway. The facility has basketball courts, a handball court and playgrounds. The facility consists of 1.28 acres in space with a majority of the facility (70%) counting towards active space (0.96 acres) and the remaining space (0.32 acres) for passive space, such as sitting on benches. A field visit on an afternoon in May of 2018 indicated low utilization, with no active users.

Ehrenreich-Austin Playground is located on Austin Street between 76th Avenue and 76th Drive. The facility has basketball courts, a handball court, playgrounds and a concession area. The facility consists of 1.16 acres in space with a majority of the facility (70%) counting towards active space (0.87 acres) and the remaining space (0.29 acres) for passive space, such as sitting on benches. A field visit on an afternoon in May of 2018 indicated moderate utilization, with some users utilizing the court space and benches.

Additional Open Space Resources

Several public parks and open spaces are located a short distance from the Proposed Development but outside the census tract boundaries and, as a result, are not included in the quantitative analyses. However, these public parks and open spaces also serve as a resource to the area's residential (and worker) population and should be considered qualitatively.

Flushing Corona Meadows is located immediately adjacent the Development Site across Grand Central Parkway. While the resource is within ½ mile radius of the Project Area but is outside the open space study area (i.e., it is located in a census tract that includes a residential population and that is not at least 50 percent within ½ mile of the Project Area). Flushing Corona Meadows is the largest open space resource in Queens with over 900

acres. It is the location of this park that classifies Queens Community District #6 as a 'well-served' area for open space. The park contains active spaces with areas for baseball, soccer, tennis and cricket, as well as six playgrounds. Passive space consists of the open areas and the Flushing Bay Promenade. In particular, the southern segment of the park, which is adjacent the Rezoning Area, contains meadow lake and willow lake, which contain nature reserves and would qualify as passive open space.

ADEQUACY OF OPEN SPACE RESOURCES

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

With a total of 2.44 acres of publicly accessible open space (of which 1.83 are for active use and 0.61 are for passive use) and a total residential population of 20,980, the study area has a total open space ratio of 0.11 acres per 1,000 residents (see Table 7-4: Open Space Ratios). This is less than DCP's planning guideline of 2.5 acres of open space per 1,000 residents and is also below the citywide average of 1.5 acres of open space per 1,000 residents.

The area's residential active open space ratio is 0.08 acres per 1,000 residents, which is below DCP's planning guideline of 2.0 acres per 1,000 residents. The study area's current residential passive open space ratio is 0.03 acres of passive open space per 1,000 residents, which is less than DCP's goal of 0.5 acres per 1,000 residents.

Table 7-4: Open Space Ratios (Existing Condition)

	Existing Conditions	DCP Guideline
Publicly Accessible Open Space (Acreage)	2.44	-
Study Area Population	20,980	-
Open Space Ratio (Acres/1,000 Residents)	0.11	2.5
Active Open Space Ratio (Acres/1,000 Residents)	0.08	2
Passive Open Space Ratio (Acres/1,000 Residents)	0.03	0.5

THE FUTURE WITHOUT THE PROPOSED PROJECT

The assessment of the future without the proposed project (the No Build condition) examines conditions that are expected to occur in the study area by the 2023 build year, absent the proposed project. The capacity of open space resources to serve future populations in the study area is examined using quantitative and qualitative factors.

Table 7-5: Open Space Ratios (No Action Condition)

	Existing Conditions	Future No-Action	DCP Guideline
Publicly Accessible Open Space (Acreage)	2.44	2.44	-
Study Area Population	20,980	21,834	-
Open Space Ratio (Acres/1,000 Residents or 2.44)	0.11	0.11	2.5
Active Open Space Ratio (Acres/1,000 Residents or 1.83)	0.08	0.08	2
Passive Open Space Ratio (Acres/1,000 Residents or 0.61)	0.03	0.03	0.5

Currently, the ½ mile area surrounding the Rezoning Area contains 20,980 residents (See Table 7-1), according to 2015 Census data. In order to account for background growth to the 2023 project analysis year, a conservative annual growth rate of 0.5% per year was applied to the 2015 population of the ½-mile study area. This growth factor would result in the addition of 854 additional residents. Therefore, as projected to 2023, the base population is projected to be 21,834 residents. No new residential development would occur in the Rezoning Area under the Future No-Action Scenario.

No new publicly accessible open space and recreational resources are planned to be added to the study area by 2020 in the future without the Proposed Actions. Therefore, in 2023 with the Proposed Actions, the project study area would contain to contain approximately 2.44 acres of open space resources, the same as under the Existing Condition, and an open space ratio of 0.11 acres per 1,000 residents (based on 2.44 acres of open space and a projected study area population of 26,639 persons) compared to the radio of 0.11 acres in the study area under the Existing Conditions. The active and passive open space ratios would not be statistically altered due to the relatively small population change. Like the Existing Condition, the radios would continue to be below the DCP guidelines of 2.5 acres of open space, as well as the guideline of 2 acres of active open space and 0.5 acres of passive open space per 1,000 residents.

THE FUTURE WITH THE PROPOSED PROJECT

The assessment of the future with the proposed project (the With-Action Scenario) examines conditions that are expected to occur in the study area by the 2023 build year, with the proposed project. The capacity of open space resources to serve future populations in the study area is examined using quantitative and qualitative factors.

Table 7-6: Open Space Ratios (With Action Condition)

	Future No-Action	Future With-Action	DCP Guideline	Percent Change
Publicly Accessible Open Space	2.44	2.44	-	
Study Area Population	21,834	22,557	-	
Open Space Ratio (Acres/1,000 Residents or 2.44)	0.111	0.108	2.5	-2.7
Active Open Space Ratio (Acres/1,000 Residents or 1.83)	0.083	0.081	2	-2.4
Passive Open Space Ratio (Acres/1,000 Residents or 0.61)	0.027	0.027	0.5	+/- 0

In the future with the Proposed Actions, based on the addition of 723 residents, there would be 0.108 acres per 1,000 residents (based on 2.44 acres of open space and a projected With-Action study area population of 22,557 persons) compared with the ratio of 0.111 acres in the study area under the Future No-Action scenario. This represents a decrease of approximately 0.003 acres/1,000 residents or 2.7 percent in the open space ratio. Therefore, the study area's open space ratio would continue to be well below the City's planning guideline goal of 2.5 acres per 1,000 residents and would continue to not meet DCP's open space planning goal of 2.5 acres per 1,000 residents.

The active open space ratio would decrease from 0.083 acres to 0.081 acres, while the passive open space ratio would remain statistically unchanged at 0.27. Like the Future No-Action scenario, the radios would continue to be below DCP guidelines of 2.5 acres of open space, as well as the guideline of 2 acres of active open space and 0.5 acres of passive open space per 1000 residents. Table 7-7 shows the calculation of open space ratios for the Existing, Future No-Action and Future With-Action conditions.

Table 7-7: Existing, Future No-Action and Future With-Action Open Space Ratios

	Existing Condition	Future No-Action	Future With-Action
Publicly Accessible Open Space	2.44	2.44	2.44
Study Area Population	20,980	21,834	22,557
Open Space Ratio (Acres/1,000	0.116	0.111	0.108

QUALITATIVE ASSESSMENT

While the open space ratios under the Existing Condition, Future No-Action Scenario and Future With-Action Scenario would continue to be well below DCP guidelines, there would continue to be numerous open space areas located directly adjacent to the Rezoning Area, with Flushing Corona Meadows Park located just outside the open space study area, which contains over 900 acres of open space. As noted above, this park contains with areas for baseball, soccer, tennis and cricket, as well as six playgrounds. Passive space consists of the open areas and the Flushing Bay Promenade. In particular, the southern segment of the park, which is adjacent the Rezoning Area, contains meadow lake and willow lake, which contain nature reserves and would qualify as passive open space and would easily be utilized by residents of the Proposed Development and the overall open space study area. The park is accessible from two points, one a quarter-mile from the Proposed Development and another a half-mile away.

In addition, The Proposed Development would provide active recreational resources for its residents, which would also partially alleviate the any potential increase in demand for active or passive open space as a result of the project. This includes 9,855 space feet of indoor recreation space that is a requirement of Quality Housing developments under R7X and R7A zoning districts. These facilities would generally consist of indoor fitness areas with equipment. Although these facilities would not be publicly accessible, they would potentially offset any active open space demand generated by building residents and would help to alleviate a potential shortfall of active open space created by the Proposed Actions.

IMPACT SIGNIFICANCE

According to the CEQR Technical Manual, the significance of a project's effects on open space is assessed using both qualitative and quantitative factors. These effects are compared with those that would occur in the No-Action condition to determine the effects attributable to the proposed project. According to the CEQR Technical Manual, if the decrease in the open space ratio approaches or exceeds 5 percent, it is generally considered a substantial change. However, the change in the open space ratio should be balanced against how well the greater area is served by open space, as well as any potential recreational amenities or private open space generated by the Proposed Development. If the study area exhibits a low open space ratio, even a small decrease may be quantitatively substantial. Likewise, if the study area exhibits an open space ratio that approaches or exceeds the planning goal of 2.5 acres, a greater percentage of change in the ratio may be acceptable.

INDIRECT EFFECTS

Under the existing and future conditions without or with the proposed project, the total and active and passive open space ratios are below DCP's optimal planning goals. The *CEQR Technical Manual* indicates that a significant adverse impact may result if a project

would reduce the open space ratio by more than 5 percent in areas that are currently below the city's median community district open space ratio of 1.5 acres per 1,000 residents.

As noted above, the Proposed Actions would result in a 2.7 percent decrease in the overall open space ratio and decrease of approximately 2.4 percent in the active open space ratio, with the passive open space ratio overall unchanged. This would be less than 5 percent and no significant adverse impacts are anticipated on area open space resources.

Furthermore, the presence of a large amount of open space resources in close proximity to the Rezoning Area, as well as the recreational space created as a result of the Proposed Development would preclude a significant adverse impact. This would offset any potential impact related to open space created by the Proposed Actions by alleviating any shortfall in the quantitative analysis that is considered significant.

CONCLUSION

The Proposed Actions would not result in a significant adverse impact with respect to open space in the residential study area due the population increase associated with the Proposed Development. In addition, the presence of a high level of resources directly outside the open space study area as well as the provision of private recreational space would preclude a significant adverse impact on open space resources. The provided private recreation space would offset the open space demand generated by building residents and would help to alleviate a potential shortfall of active open space. Therefore, based on CEQR Technical Manual criteria, the proposed project would not result in a significant adverse impact on open space resources and further analysis is not warranted.

8. SHADOWS

Introduction

Under CEQR, a shadow is defined as the circumstance in which a building or other built structure blocks the sun from the land. An adverse shadow impact is considered to occur when the shadow from a proposed project falls upon a publicly accessible open space, a historic landscape, or other historic resource if the features that make the resource significant depend on sunlight, or if the shadow falls on an important natural feature and adversely affects its uses or threatens the survival of important vegetation. An adverse impact would occur only if the shadow would fall on a location that would otherwise be in sunlight; the assessment therefore distinguishes between existing shadows and new shadows resulting from a proposed project. Finally, the determination of whether the impact of new shadows on an open space or a natural or historic resource would be significant is dependent on their extent and duration. In general, shadows on City streets and sidewalks or on other buildings 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 the 2014 CEQR Technical Manual, a shadows assessment is not required unless the project would include a structure at least 50 feet tall or if it would contain shorter structures that might cast substantial new shadows on an adjacent park, historic resource, or an important natural resource. A shadow analysis is required for this project since the RWCDS would result in buildings over 50 feet in height and the Rezoning Area is located a short distance from several open space resources.

The development assumed in the RWCDS consists of the enlargement of an existing six-story structure to contain eight-stories and the development of a new fourteen-story building on the remaining vacant portion of the tax and zoning lot. This would result in a new structure with an incremental height increase over 50 feet, with an adjacent open space resource.

The existing but vacant Parkway Hospital would receive a two (2) story enlargement, for a total of eight (8) stories. It would contain 94,584 square feet of floor area and rise to a height of 89 feet (measured from the base plane at 113th Street). The new fourteen-story market rate building would be constructed on the remaining eastern portion of the Development Site. The building would rise to a height of 140 feet (after a 10-foot setback) with 283,077 gsf of floor area (206,715 zsf). For shadow analysis purposes, it is assumed that the enlarged eight-story structure would have a height above the top floor of 92 feet and a maximum bulkhead height of 109 feet (including a 3-foot parapet wall). For the new fourteen-story building, a height above the top floor of 143 feet is assumed, with a maximum bulkhead height of 160 feet.


Building 1 2
Height above Base* 70' 1" 104' 10"
Height above Top Floor* 92' 143' 10"
Maximum Bulkhead Height 109' 160' 10"
*Heights include a 3' parapet wall
Jewel Avenue
70th Avenue
70th Road
71st Avenue
71st Road
72nd Avenue
72nd Road
110th Street
112th Street
113th Street
Grand Central Parkway Service Road West
Grand Central Parkway
Willow Lake
692'
radius = 4.3 x max. building height
North
Legend
Project Site
Proposed Building Footprint
Roof above Top Floor
Roof above Bulkheads
Longest Shadow Study Area Boundary
Sunlight-Sensitive Open Space Resource
Potentially Affected Open Space Resource

Based on CEQR Technical Manual criteria, the longest shadow that any building would cast during the year (except within an hour and a half of sunrise or sunset which is not deemed to be of concern) is 4.3 times its height. Applying the 4.3 factor to the proposed maximum building heights outlined above would result in a maximum shadow distance of 692 feet.

Preliminary Screening Assessment

Tier 1 Screening Assessment

There are two existing sunlight-sensitive open space resources that is located within the maximum 692-foot shadow distance from the Rezoning Area. There are no sunlight sensitive historic resources located within the maximum shadows radius of the Rezoning Area (see **Figure 8-1**).

The sunlight-sensitive resources are described below:

1. **Willow Lake Playground –** Located to the south of the Development Site between 71st and 72nd Avenues. This resource primarily consists of active space and contains playground and other exercise equipment.

2. **Flushing Meadows Corona Park (Willow Lake Preserve) –** located across from the Development Site along Grand Central Parkway and extends eastward to the Van Wyck Expressway. This portion includes the Willow Lake Preserve, which is inaccessible to the public. A small trail (the Willow Lake Preserve Trail) runs along the southern edge of Willow Lake to the south and is made accessible from 72nd Road and Grand Central Parkway.

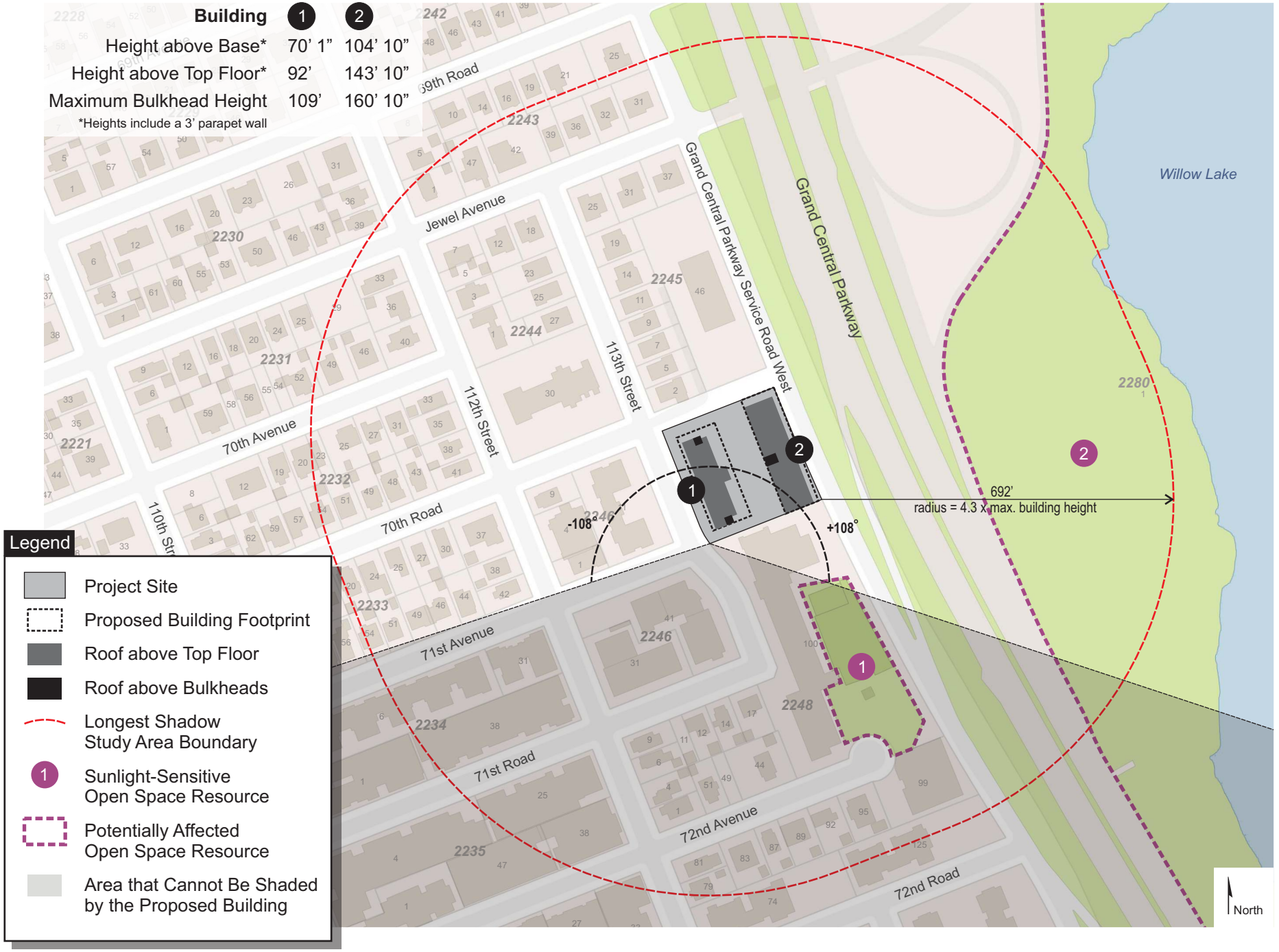
Due to the proximity of the Rezoning Area to these open space resources, potential shadow impacts could occur from the RWCDS and further assessment is required.

Tier 2 Screening Assessment

The attached Tier 2 Screening Assessment figure (see **Figure 8-2**) shows the area south of the Rezoning Area that cannot be shaded by the RWCDS buildings. As illustrated on the figure, a majority of Willow Playground is located within the area that cannot be shaded by the Proposed Development. In addition, portions of Flushing Meadows Corona Park are not within the area that cannot be shaded by shadows generated by the Proposed Development. Therefore a Tier 3 assessment is warranted and provided below.

Tier 3 Screening Assessment

A Tier 3 screening assessment has been performed as portions of Willow Playground and Flushing Meadows Corona Park is within the area that could be shaded by the RWCDS buildings. As shown on the attached Tier 3 Screening Assessment figures, the RWCDS buildings could cast new shadows on Flushing Meadows-Corona Park but not on Willow Playground. The proposed development would cast incremental shadows on Flushing


Building 1 2
Height above Base* 70' 1" 104' 10"
Height above Top Floor* 92' 143' 10"
Maximum Bulkhead Height 109' 160' 10"
*Heights include a 3' parapet wall
Legend
Project Site
Proposed Building Footprint
Roof above Top Floor
Roof above Bulkheads
Longest Shadow Study Area Boundary
Sunlight-Sensitive Open Space Resource
Potentially Affected Open Space Resource
Area that Cannot Be Shaded by the Proposed Building
692'
radius = 4.3 x max. building height
-108°
+108°
Willow Lake
Grand Central Parkway
Grand Central Parkway Service Road West
Jewel Avenue
70th Avenue
70th Road
71st Avenue
71st Road
72nd Avenue
72nd Road
110th Street
112th Street
113th Street
North

Meadows-Corona Park during all of the analysis days (March 21st, May 6th, June 21st, and December 21st).

December 21st
The RWCDS buildings would cast a shadow on a small portion of Willow Lake Preserve near the exit ramp from the Grand Central Parkway during the December 21st analysis day. The shadow is projected to occur from 2:26 pm to approximately 2:53 pm, a period of 26 minutes in the afternoon (See Figure 8-3a).

March 21st
The RWCDS buildings would cast a shadow on an eastern portion of the Willow Lake Preserve during the March 21st analysis day. The shadow is projected to occur from 3:42 pm to approximately 4:29 pm, a period of 47 minutes in the afternoon (See Figure 8-3b).

May 6th
The RWCDS buildings would cast a shadow on an eastern portion of the Willow Lake Preserve during the May 6th analysis day. The shadow is projected to occur from 4:38 pm to approximately 5:18 pm, a period of 40 minutes in the afternoon/evening (See Figure 8-3c).

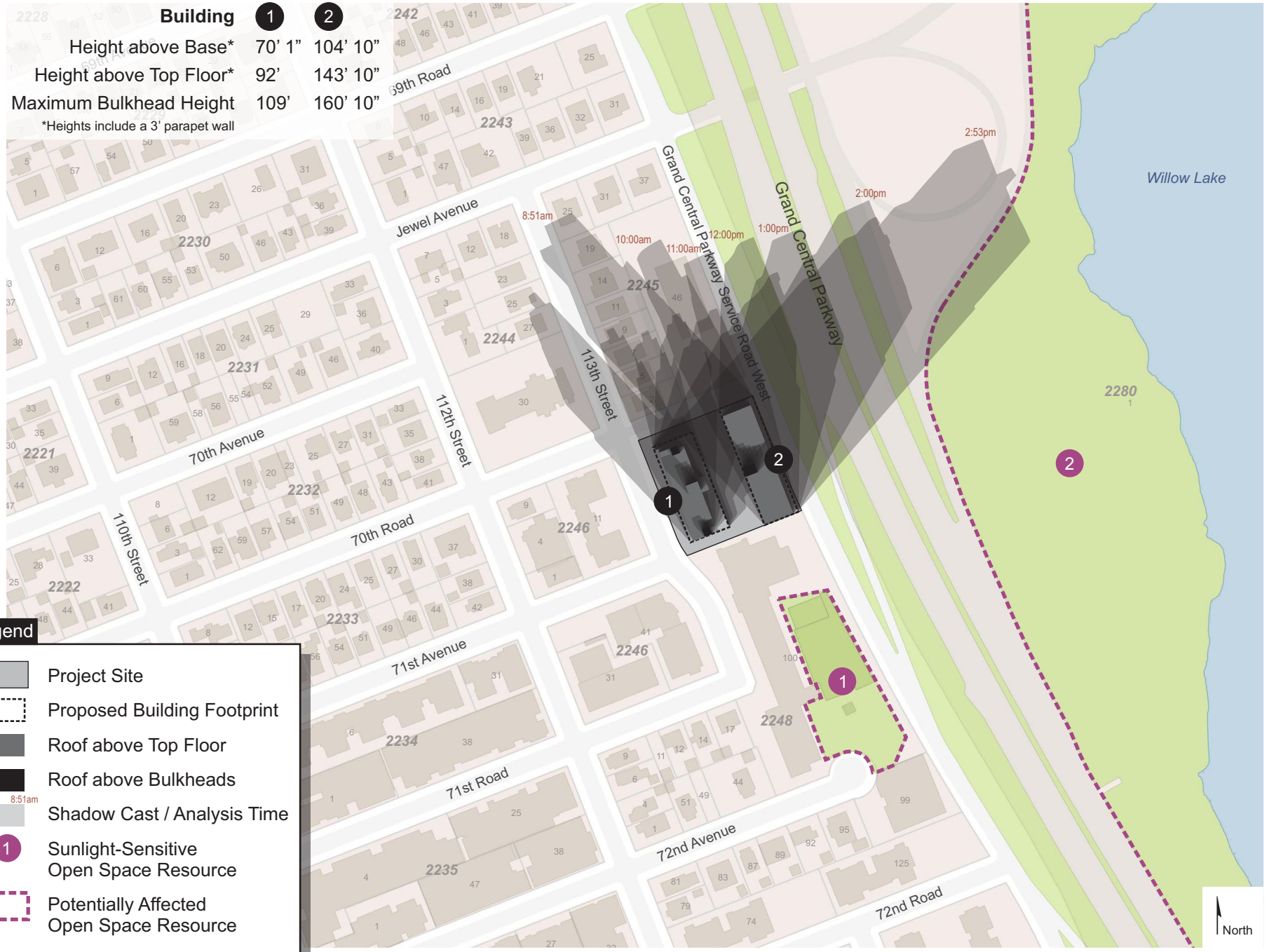
June 21st
The RWCDS buildings would cast a shadow on an eastern portion of the Willow Lake Preserve during the June 21st analysis day. The shadow is projected to occur from 5:16 pm to approximately 6:01 pm, a period of 45 minutes in the evening (See Figure 8-3d).

Summary of RWCDS-generated shadows

The shadows cast on the Willow Lake Preserve as a result of the Proposed Actions can be summarized as a series of afternoon shadows (approaching the evening) for a duration ranging between 40-47 minutes, as well as an early afternoon shadow during December for approximately 26 minutes.

December 21st
Shadows from the RWCDS would affect a slim portion of Willow Lake Preserve on December 21st for a period of 26 minutes in the early afternoon. New shadows would not affect any recreational resources, as the Rezoning Area only contains passive open space and is not accessible to the general public. The affected shadow period would occur for less than a half-hour, with approximately 9 full hours of sunlight before sunset at 4:32 pm (See Figure 8-3e).

New shadows would only a small-vegetated area by the exit ramp from the Grand Central Parkway and would otherwise receive full sunlight from approximately 7:16 am through sunset at 4:32 pm. Due to the small area of vegetation affected by new shadows and the presence of full sunlight on these areas for 9 hours per day, it is concluded that the RWCDS


Building 1 2
Height above Base* 70' 1" 104' 10"
Height above Top Floor* 92' 143' 10"
Maximum Bulkhead Height 109' 160' 10"
*Heights include a 3' parapet wall
Jewel Avenue
69th Road
70th Avenue
70th Road
71st Avenue
71st Road
72nd Avenue
72nd Road
110th Street
112th Street
113th Street
Grand Central Parkway Service Road West
Grand Central Parkway
Willow Lake
8:51am
10:00am
11:00am
12:00pm
1:00pm
2:00pm
2:53pm
2221
2222
2230
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2233
2234
2235
2242
2243
2244
2245
2246
2248
2280
Legend
Project Site
Proposed Building Footprint
Roof above Top Floor
Roof above Bulkheads
8:51am
Shadow Cast / Analysis Time
Sunlight-Sensitive Open Space Resource
Potentially Affected Open Space Resource
North

Building	1	2
Height above Base*	70' 1"	104' 10"
Height above Top Floor*	92'	143' 10"
Maximum Bulkhead Height	109'	160' 10"

*Heights include a 3' parapet wall

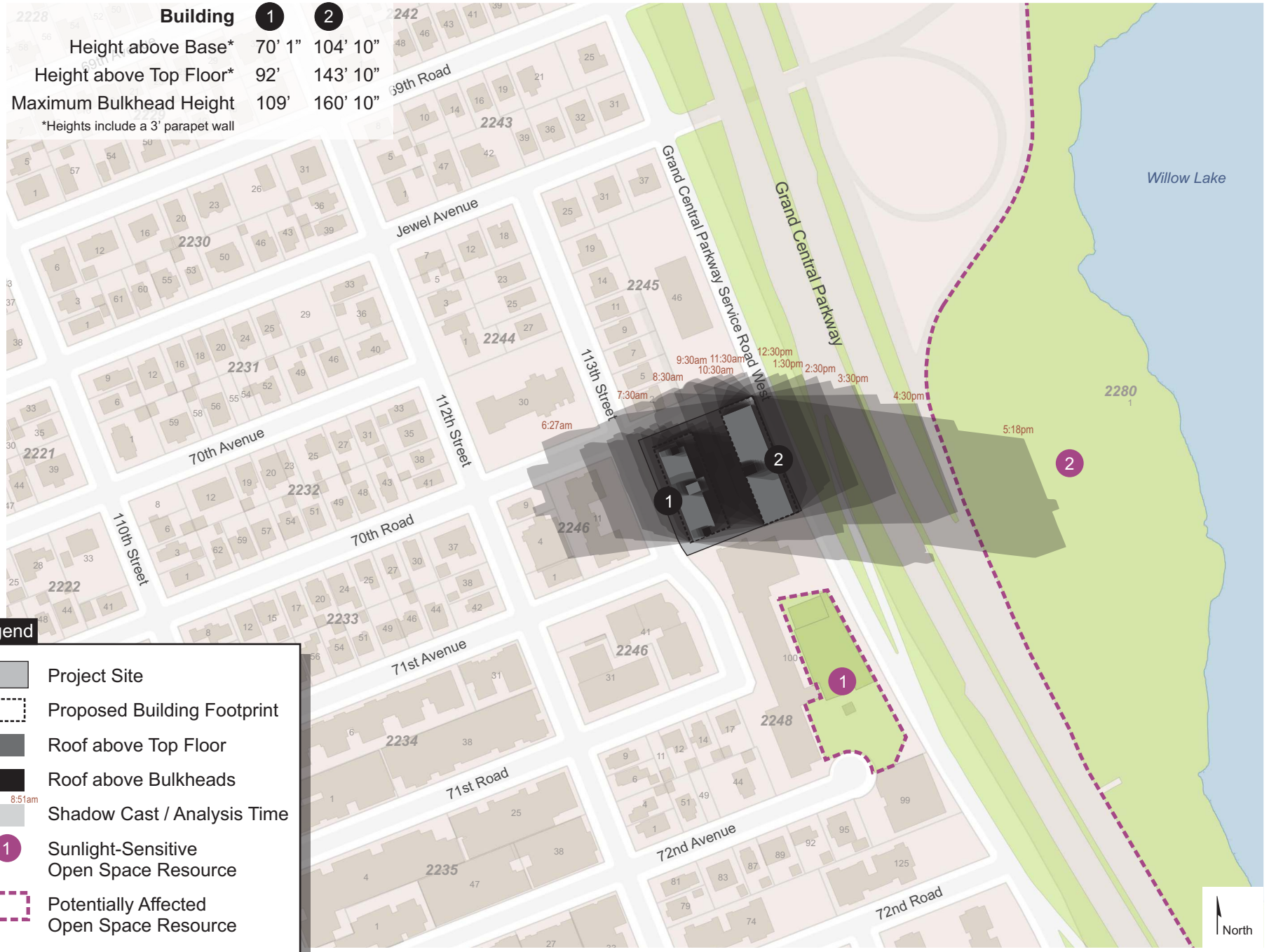


Legend

- Project Site
- Proposed Building Footprint
- Roof above Top Floor
- Roof above Bulkheads
- 8:51am — Shadow Cast / Analysis Time
- 1 — Sunlight-Sensitive Open Space Resource
- Potentially Affected Open Space Resource

Building	1	2
Height above Base*	70’ 1”	104’ 10”
Height above Top Floor*	92’	143’ 10”
Maximum Bulkhead Height	109’	160’ 10”

*Heights include a 3’ parapet wall



Legend

- Project Site
- Proposed Building Footprint
- Roof above Top Floor
- Roof above Bulkheads
- 8:51am — Shadow Cast / Analysis Time
- 1 — Sunlight-Sensitive Open Space Resource
- Potentially Affected Open Space Resource

would not adversely affect trees and other vegetation located in these areas.

Based on CEQR Technical Manual criteria, shadows from the RWCDS buildings would not result in significant adverse shadow impacts since the new shadows would affect the source for a relatively short period of time. In addition, due to the relatively small area of vegetation affected by new shadows and the presence of full sunlight on these areas for no less than seven hours per day during the growing season, it is concluded that the RWCDS would not adversely affect trees and other vegetation located in these areas.

March 21st
Shadows from the RWCDS would affect a small portion of Willow Lake Preserve on March 21st for a period of 47 minutes in the afternoon. New shadows would not affect any recreational resources, as the area only contains passive open space and is not accessible to the general public. The affected shadow period would occur for less than an hour, with over 11 full hours of sunlight before sunset at 7:09 pm. It should be noted that the March period is outside of the growing season (See Figure 8-3f).

New shadows would only affect vegetated areas and would otherwise receive full sunlight from approximately 6:58 am through sunset at 7:09 pm. Due to the small area of vegetation affected by new shadows and the presence of full sunlight on these areas for over 11 hours per day, it is concluded that the RWCDS would not adversely affect trees and other vegetation located in these areas.

Based on CEQR Technical Manual criteria, shadows from the RWCDS buildings would not result in significant adverse shadow impacts since the new shadows would affect the source for a relatively short period of time. In addition, due to the relatively small area of vegetation affected by new shadows and the presence of full sunlight on these areas for no less than seven hours per day during the growing season, it is concluded that the RWCDS would not adversely affect trees and other vegetation located in these areas.

May 6th
Shadows from the RWCDS would affect a small portion of Willow Lake Preserve on May 6th for a period of 40 minutes in the afternoon. New shadows would not affect any recreational resources, as the area only contains passive open space and is not accessible to the general public. The affected shadow period would occur for less than an hour, with over 12 full hours of sunlight before sunset at 7:58 pm (See Figure 8-3g).

New shadows would only affect vegetated areas and would otherwise receive full sunlight from approximately 5:48 am through sunset at 7:58 pm. Due to the small area of vegetation affected by new shadows and the presence of full sunlight on these areas for over 12 hours per day, it is concluded that the RWCDS would not adversely affect trees and other vegetation located in these areas.

Based on CEQR Technical Manual criteria, shadows from the RWCDS buildings would not result in significant adverse shadow impacts since the new shadows would affect the source for a relatively short period of time. In addition, due to the relatively small area of

Building	1	2
Height above Base*	70' 1"	104' 10"
Height above Top Floor*	92'	143' 10"
Maximum Bulkhead Height	109'	160' 10"

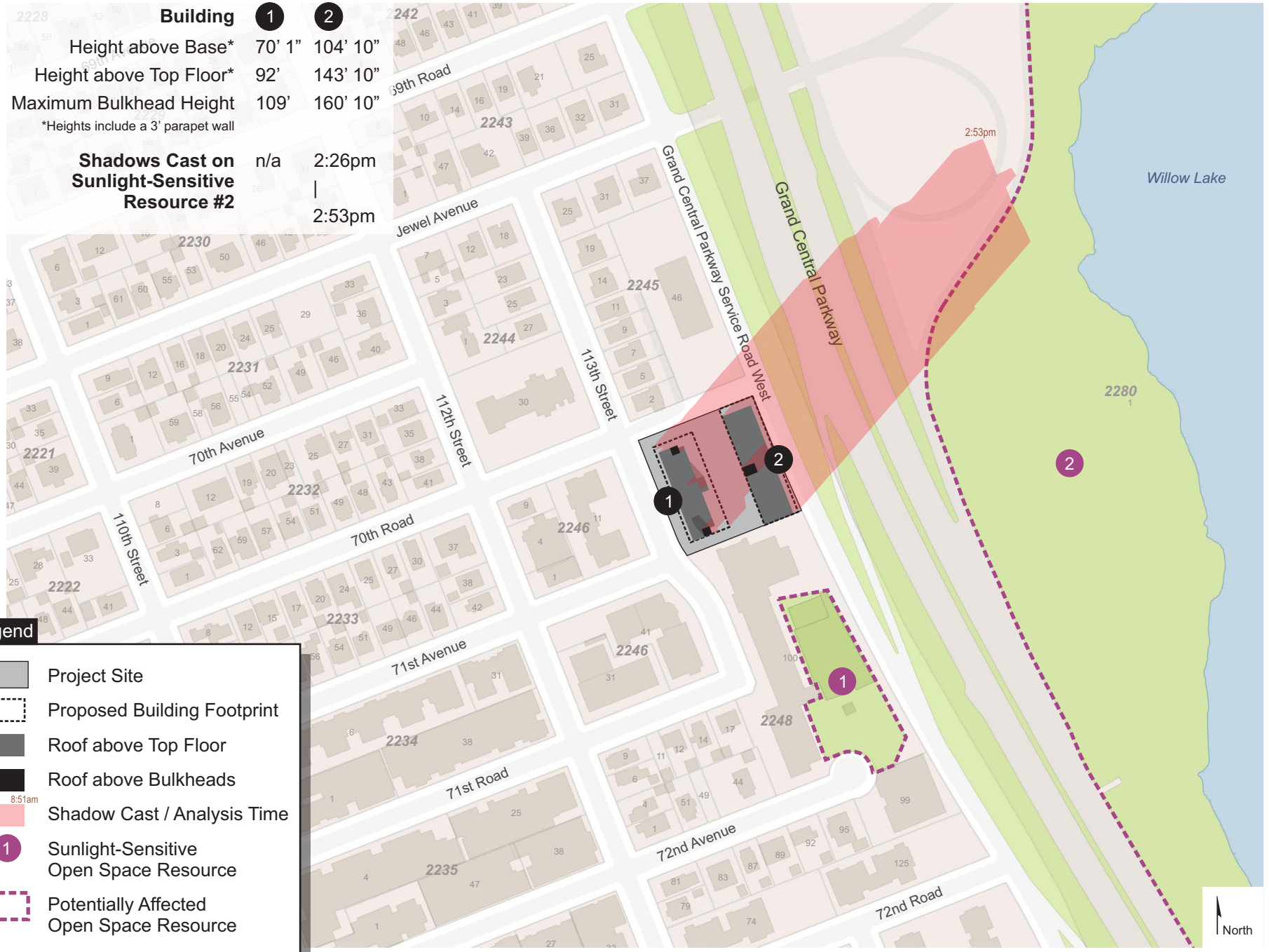
*Heights include a 3' parapet wall



Legend

- Project Site
- Proposed Building Footprint
- Roof above Top Floor
- Roof above Bulkheads
- 8:51am — Shadow Cast / Analysis Time
- 1 — Sunlight-Sensitive Open Space Resource
- Potentially Affected Open Space Resource

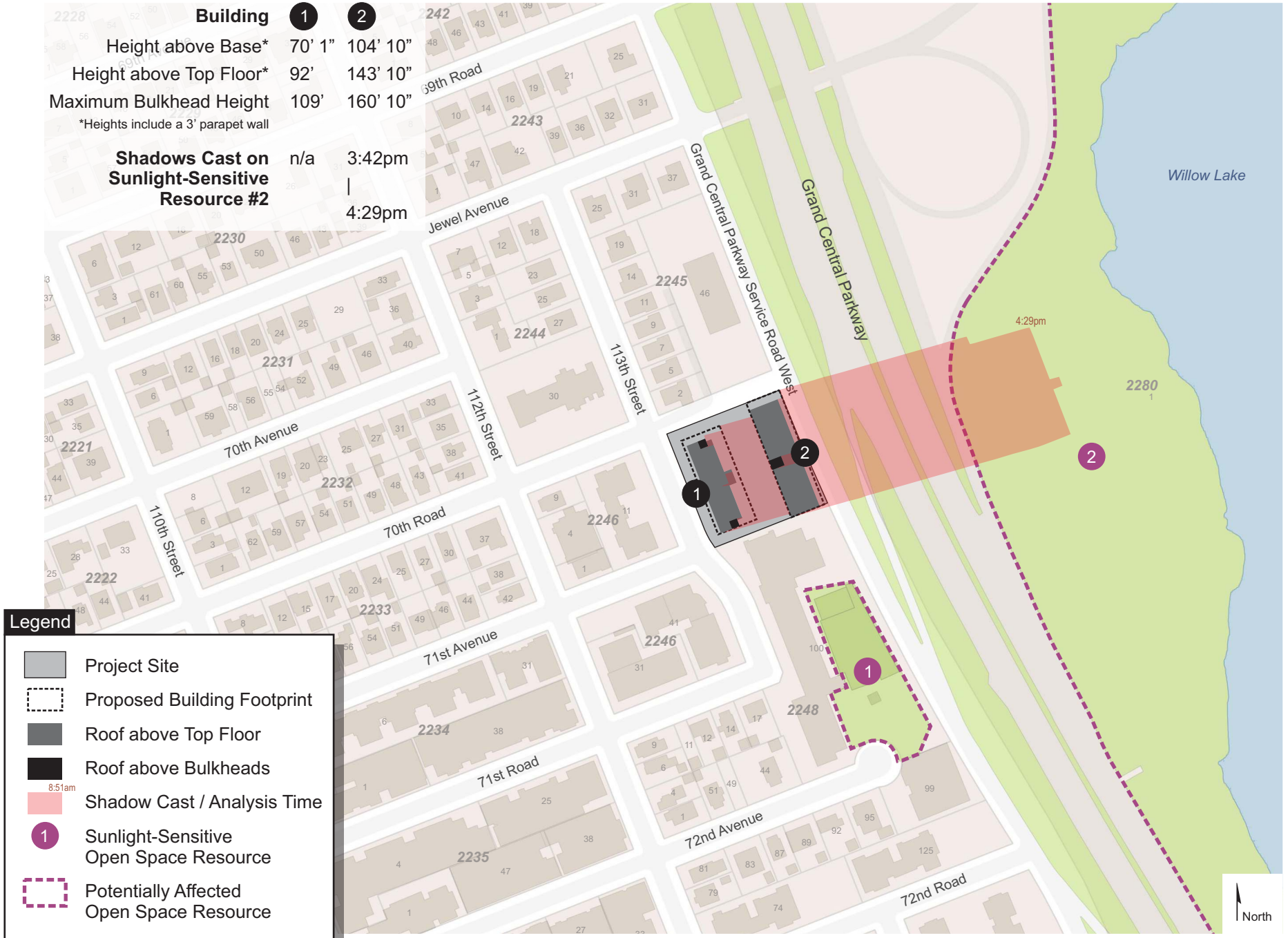
Building	1	2
Height above Base*	70' 1"	104' 10"
Height above Top Floor*	92'	143' 10"
Maximum Bulkhead Height	109'	160' 10"
*Heights include a 3' parapet wall		
Shadows Cast on Sunlight-Sensitive Resource #2	n/a	2:26pm | 2:53pm



Legend

- Project Site
- Proposed Building Footprint
- Roof above Top Floor
- Roof above Bulkheads
- 8:51am Shadow Cast / Analysis Time
- 1 Sunlight-Sensitive Open Space Resource
- Potentially Affected Open Space Resource

Building	1	2
Height above Base*	70' 1"	104' 10"
Height above Top Floor*	92'	143' 10"
Maximum Bulkhead Height	109'	160' 10"
*Heights include a 3' parapet wall		
Shadows Cast on Sunlight-Sensitive Resource #2	n/a	3:42pm | 4:29pm



vegetation affected by new shadows and the presence of full sunlight on these areas for no less than seven hours per day during the growing season, it is concluded that the RWCDS would not adversely affect trees and other vegetation located in these areas.

June 21st
Shadows from the RWCDS would affect a small portion of Willow Lake Preserve on June 21st for a period of 45 minutes in the afternoon. New shadows would not affect any recreational resources, as the area only contains passive open space and is not accessible to the general public. The affected shadow period would occur for less than an hour, with over 12 full hours of sunlight before sunset at 8:31 pm (See Figure 8-3h).

New shadows would only affect vegetated areas and would otherwise receive full sunlight from approximately 5:48 am through sunset at 7:58 pm. Due to the small area of vegetation affected by new shadows and the presence of full sunlight on these areas for over 12 hours per day, it is concluded that the RWCDS would not adversely affect trees and other vegetation located in these areas.

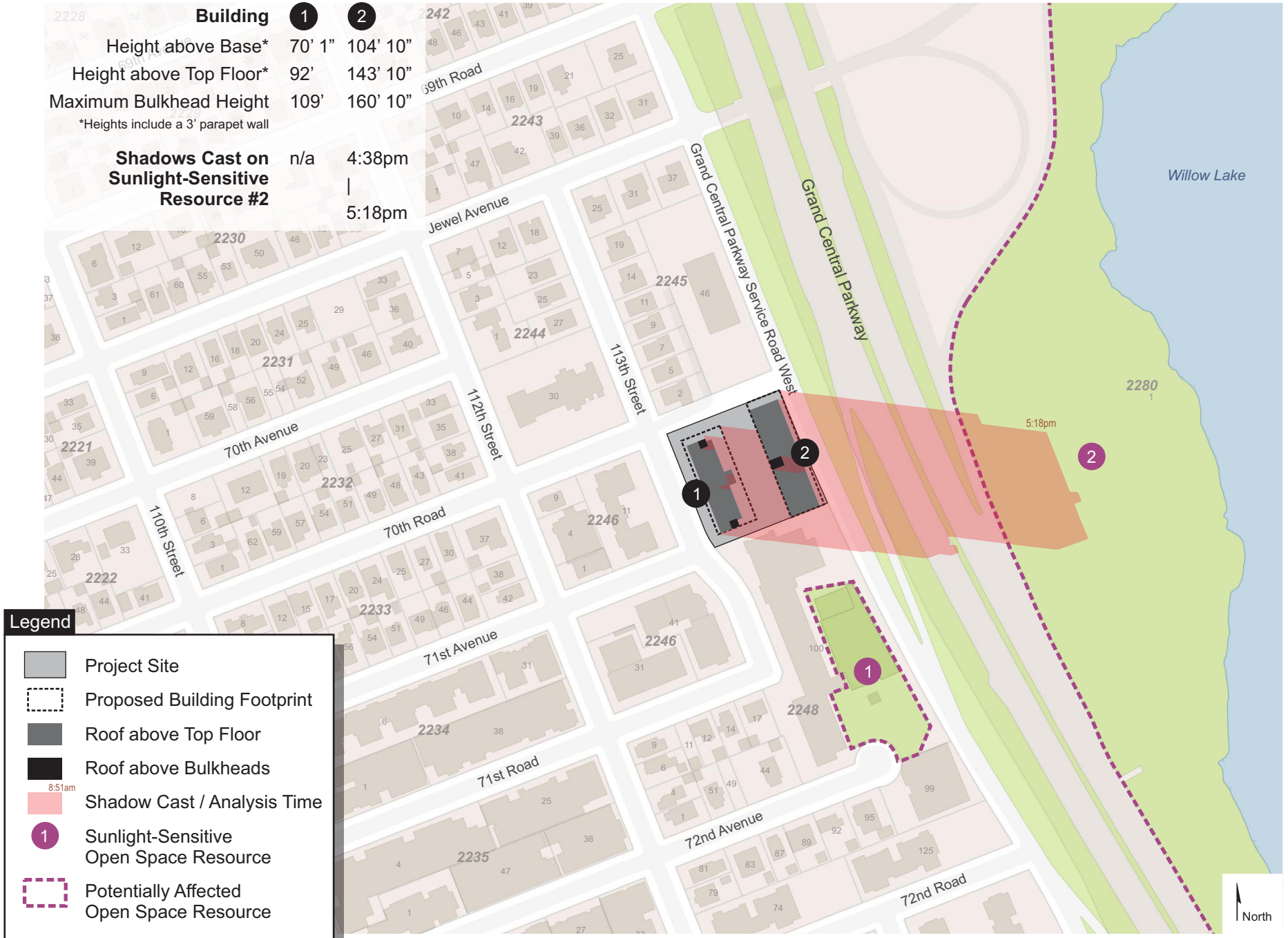
Based on CEQR Technical Manual criteria, shadows from the RWCDS buildings would not result in significant adverse shadow impacts since the new shadows would affect the source for a relatively short period of time. In addition, due to the relatively small area of vegetation affected by new shadows and the presence of full sunlight on these areas for no less than seven hours per day during the growing season, it is concluded that the RWCDS would not adversely affect trees and other vegetation located in these areas.

Conclusion

Based on CEQR Technical Manual criteria, shadows from the RWCDS buildings would not significantly impact Willow Lake Preserve or Flushing Meadow Corona Park. The incremental shadows resulting from the RWCDS would not affect any active open spaces and in an area that is generally not accessible to the public. In addition, due to the relatively small area of vegetation affected by new shadows and the presence of full sunlight on these areas for greater than 9 hours per day for all affected periods and no less than seven hours per day during the growing season, it is concluded that the proposed project would not adversely affect trees and other vegetation located in these areas.

Therefore, the RWCDS would not result in significant adverse shadows impacts on any open space resources, historic resources, or important natural resources and further assessment is not required.

Building	1	2
Height above Base*	70' 1"	104' 10"
Height above Top Floor*	92'	143' 10"
Maximum Bulkhead Height	109'	160' 10"
*Heights include a 3' parapet wall		
Shadows Cast on Sunlight-Sensitive Resource #2	n/a	4:38pm | 5:18pm



Building	1	2
Height above Base*	70' 1"	104' 10"
Height above Top Floor*	92'	143' 10"
Maximum Bulkhead Height	109'	160' 10"
*Heights include a 3' parapet wall		
Shadows Cast on Sunlight-Sensitive Resource #2	n/a	5:16pm | 6:01pm



9. HISTORIC AND CULTURAL RESOURCES

Architecture

The Development Site contains a vacant building formerly utilized as the Parkway Hospital. The remainder of the Development Site contains a paved area formerly utilized as accessory parking. Therefore, there is no potential for impacts related to architectural historic resources, as the Rezoning Area contains a single structure developed in the 1960s. There are no historic architectural resources within 400 feet of the Rezoning Area. In addition, the NYC Landmarks Preservation Commission (LPC) was consulted and in a letter dated July 3, 2018 (see *Attachment B*) was found to have no architectural significance.

Archaeology

As noted below in the Hazardous Materials section, the area below the former Parkway Hospital has been developed with two-sub cellar levels and contains underground storage tanks. The remainder of the Development Site contains gravel and sandy loam underlain by yellow gravel and silt that has not experienced development prior to the 1960s. The NYC Landmarks Preservation Commission (LPC) was consulted and in a letter dated July 3, 2018 (see *Attachment B*) was found to have no archaeological significance.

Conclusion

Based on correspondence with NYC LPC, no significant adverse impacts would occur for architectural or archaeological resources and further assessment is not warranted for historic and cultural resources.

10. URBAN DESIGN AND VISUAL RESOURCES

A preliminary urban design screening assessment for the Proposed Actions is required because the Proposed Development and RWCDS would introduce new buildings that would not be allowed under the existing zoning of the property. As noted in the CEQR Technical Manual:

A preliminary assessment 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, including the following:

1. Projects that permit the modification of yard, height, and setback requirements;

2. Projects that result in an increase in built floor area beyond what would be allowed 'as-of-right' or in the future without the proposed project.

Existing Conditions (and No-Action Scenario)

The Development Site is located entirely within an R1-2A zoning district. The R1-2A zoning district primarily produces single-detached residences and various types of community facility buildings. The R1-2A zoning district permits Use Groups 1, 3 and 4 (residential and community facility uses). The maximum permitted residential FAR is 0.5 while 1.0 FAR is permitted for community facility uses. The maximum permitted height within the district is 35 feet after a maximum base height of 25 feet. In these districts minimum lot widths of 60 feet are required with a minimum size of 5,700 square feet. A front yard of 20 feet is required, along with a 30-foot rear yard. Two side yards are required, each with a minimum of 8 feet. One parking space is required per dwelling unit for residential uses.

With-Action Scenario

The proposed zoning map amendment would change the zoning district of the Rezoning Area from R1-2A to both R7A and R7X under MIH regulations. The proposed R7A district would be mapped along the western portion of the Rezoning Area and encompass all of Block 2246, Lot 11 and contain a depth of 135 feet from the center lot line of 113st Street. The district would also contain a portion of Lot 228, measured at 100 feet in depth from the center lot line of 113st Street. The remaining lot area of Lot 228 would be rezoned to R7X or approximately 135 feet from the R7A district. The length of both of the new districts is 200 feet or the entire length of the subject lots.

The proposed R7A district allows for buildings up to 4.0 FAR (4.6 FAR with MIH) and generally yields 7 to 8-story buildings (9-stories with MIH). The maximum FAR for Affordable Independent Residences for Seniors (AIRS) is 5.01 FAR. Maximum lot coverage is 65% for interior and through lots and 100% on corner lots. Above a base height of 40 to 75 feet, the building must set back to a depth of 15 feet on a narrow street, before rising to a

Figure 10-1: Zoning Comparison Table

Forner Parkway Hospital Rezoning

	Permitted/Required					
	Existing Zoning (R1-2A)		Proposed Zoning R7A (Under MIH Zoning)		Proposed Zoning R7X (Under MIH Zoning)	
	ZR Section #	R1-2A	ZR Section #	R7A	ZR Section #	R7X
USE GROUPS	22-10	1, 3, 4	22-10 - 22-15	1, 2, 3, 4, 6c	22-10 - 22-15	1, 2, 3, 4, 6c
Residential	23-142	0.5	23-154*	4.6	23-154*	5
Affordable Independent Residences for Seniors	23-144	n/a	23-155	5.01	23-155	6
Community Facility	24-11	1	24-11	4	24-11, 23-153	5
Commercial	n/a	n/a	n/a	n/a	n/a	n/a
Commercial and Community Facility	n/a	n/a	n/a	n/a	n/a	n/a
Manufacturing	n/a	n/a	n/a	n/a	n/a	n/a
YARDS						
Minimum Front Yard	23-45a	20'	n/a	n/a	n/a	n/a
Minimum Side Yard	23-461	8' (2), 20' (Corner)	23-462	None or 8 feet	23-462	None or 8 feet
Minimum Rear Yard	23-47	30'	23-47	30'	23-47	30'
HEIGHT AND SETBACKS						
Minimum Base Height	n/a	n/a	23-662	40'	23-662	60'
Maximum Base Height	23-631b	25'	23-664*	75'	23-664*	105
Maximum Building Height	23-631b	35'	23-664*	95'/9-Stories	23-664*	145'/14-Stories
Maximum Height of Front Wall	23-631b	25'	23-664*	75'	23-664*	105
Sky Exposure Plane	n/a	n/a	n/a	n/a	n/a	n/a
Setbacks from Narrow Streets	n/a	n/a	23-662	15'	23-662	15'
Setbacks from Wide Streets	n/a	n/a	23-662	10'	23-662	10'
OPEN SPACE						
Residential	23-142	70%	n/a	n/a	n/a	n/a
Max. Interior Lot Coverage	23-142	30%	23-153	65%	23-153	70%
Affordable Independent Residences for Seniors	n/a	n/a	n/a	n/a	n/a	n/a
Minimum Open Space Ratio	23-142	70%	n/a	n/a	n/a	n/a
LOT COVERAGE						
Interior/Through Lot	23-142	30%	23-153	65%	23-153	70%
Maximum Lot Coverage	24-11	55%/ 60% (Corner)	23-153	100% (Corner)	23-153	100% (Corner)
DENSITY						
Affordable Dwelling Units	23-22	2,850	23-22	680 sf/DU	23-22	680 sf/DU
PARKING						
Government Assisted Dwelling Units	12-10/25-253	n/a	12-10/25-253	25%	12-10/25-253	25%
Income-Restricted Housing Units	12-10/25-251	n/a	12-10/25-251	15% or None (Transit Zone)	12-10/25-251	15% or None (Transit Zone)
Affordable Independent Residences for Seniors	12-10/25-252	n/a	12-10/25-252	10% or None (Transit Zone)	12-10/25-252	10% or None (Transit Zone)
Residences	25-23	100%	25-23	50%	25-23	50%
Commercial	n/a	n/a	36-21	By Use	36-21	By Use
LOADING						
Commercial	n/a	n/a	36-62	By Use	36-62	By Use
Bicycle Parking (Residential)	25-80	1 per 2 dwelling units	25-80	1 per 2 dwelling units	25-80	1 per 2 dwelling units
Bicycle Parking (Affordable Independent Residences for Seniors)	25-80	1 per 10,000 sf	25-80	1 per 10,000 sf	25-80	1 per 10,000 sf
Bicycle Parking (Commercial)	n/a	n/a	36-70	By Use	36-70	By Use

*When providing affordable housing pursuant to the Inclusionary Housing Program set forth in ZR Section 23-90

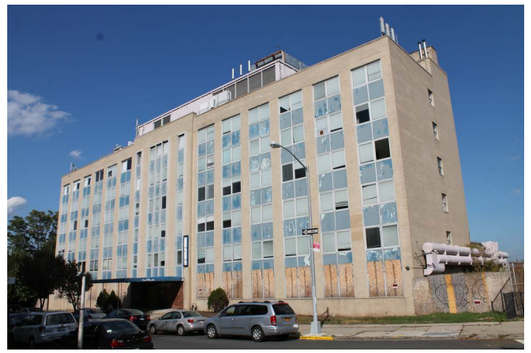
Land Use Categories

- 1 & 2 Family Residential
- Multi-Family Residential (Walkup)
- Multi-Family Residential (Elevator)
- Mixed Residential & Commercial
- Commercial
- Industrial / Manufacturing
- Transportation / Utility
- Public Facilities & Institutions
- Open Space & Recreation
- Parking
- Vacant Land

Fairview Nursing Care Center
Roof Height: 54 Feet



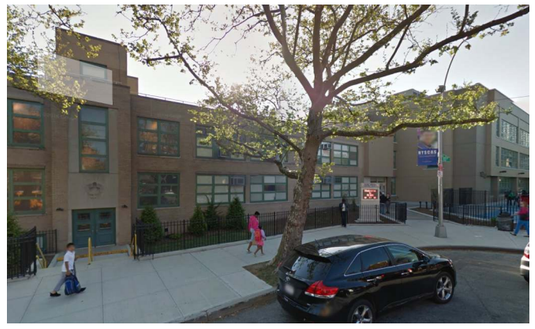
Former Parkway Hospital
Roof Height: 100 Feet



Iglesia Ni Cristo
Roof Height: 47 Feet



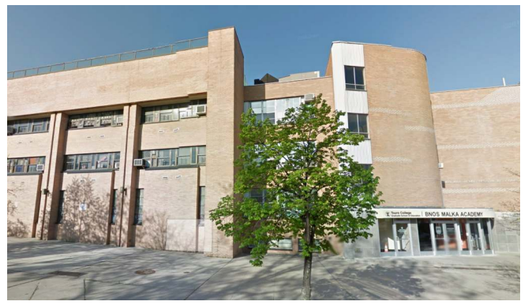
Public School 196
Roof Height: 34 Feet



First Presbyterian Church of Forest Hills
Roof Height: 34 Feet



The Reform Temple of Forest Hills / Touro College
Roof Height: 41 Feet



Atria Forest Hills
Roof Height: 100 Feet

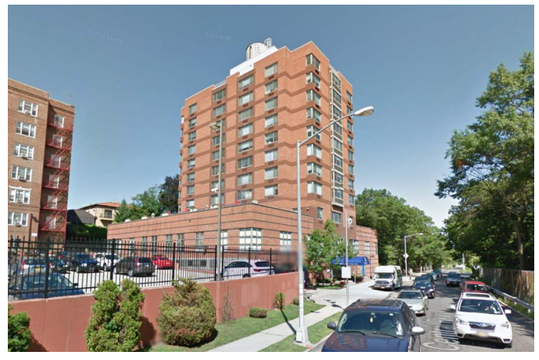


Figure 10-2: Surrounding Residential Buildings

Land Use Categories

- 1 & 2 Family Residential
- Multi-Family Residential (Walkup)
- Multi-Family Residential (Elevator)
- Mixed Residential & Commercial
- Commercial
- Industrial / Manufacturing
- Transportation / Utility
- Public Facilities & Institutions
- Open Space & Recreation
- Parking
- Vacant Land
- * Locations of Tall Residential Buildings

110-20 71st Avenue
Roof Height: 64 Feet



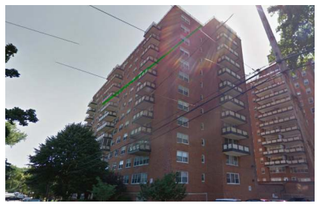
71-40 112th Street
Roof Height: 60 Feet



70-01 113th Street
Roof Height: 68 Feet



108-48 70th Road
Roof Height: 117 Feet



110-56 71st Avenue
Roof Height: 72 Feet



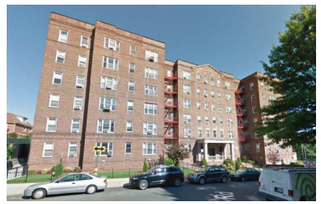
112-15 72nd Road
Roof Height: 65 Feet



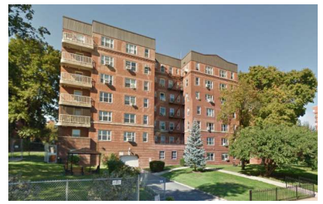
110-45 71st Road
Roof Height: 64 Feet



112-41 72nd Road
Roof Height: 63 Feet



113-14 72nd Road
Roof Height: 67 Feet



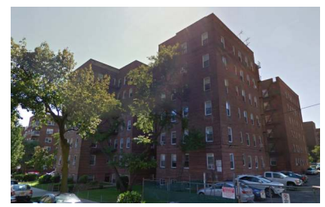
110-50 71st Road
Roof Height: 88 Feet



72-10 112th Street
Roof Height: 57 Feet



72-38 72nd Road
Roof Height: 63 Feet



maximum of 95 feet or nine-stories with MIH. The proposed R7X district allows for buildings up to 5.0 FAR (6.0 FAR with MIH) and generally yields 12 to 13-story buildings (14-stories with MIH). Above a base height of 60 to 105 feet, the building must set back to a depth of 15 feet on a narrow street, before rising to a maximum of 145 feet or 14-stories. Maximum lot coverage is 70% for interior and through lots and 100% on corner lots.

The development assumed in the RWCDS consists of the enlargement of an existing six-story structure and the development of a new fourteen-story building on the remaining vacant portion of the tax and zoning lot. Since development assumed in the RWCDS is anticipated to result in a different built-form at the street level, an assessment of urban design and visual resources is warranted. See **Table 10-1 – Zoning Comparison Table**, for a side-by-side comparison of the varying bulk, use and height regulations between the existing and proposed zoning districts.

Urban Design

The Urban design characteristics of a neighborhood are composed of various components that define the character of the area: building bulk, use, type and arrangement, block form and street pattern, streetscape elements, street hierarchy, and natural features. These components are discussed below.

Building Bulk, Use, Type, and Arrangement

The RWCDS assumes a single development site would be redeveloped, with an existing six-story former hospital building to be enlarged to eight-stories, along with a new fourteen-story residential building on the remaining portion of the lot, which is vacant at this time. The R7A portion of the Development Site would then consist of a building with a maximum height of 95 feet after 15-foot setback along a narrow street. The R7X portion of the Development would then rise to a height of 145 feet after a 15-foot setback.

The Development Site is a rectangular lot containing 58,035 square feet of lot area with approximately 235 feet of frontage along both 113th Street and the Grand Central Parkway service road, and a depth of approximately 240 feet. The site is unequal in grade with street elevations changing between 113th Street and the Grand Central Parkway, which is at a lower grade.

The Development Site contains frontage along three streets: 113th Street, 70th Road (mapped but unbuilt) and the Grand Central Parkway service road. 113th Street is 60 feet in width, classifying the street as a 'narrow' street. The Grand Central Parkway service road is classified as a 'narrow' street 60 feet in width. 70th Road runs through a portion of the Development Site and is a mapped but unbuilt City Street that intersects with 113th Street, qualifying portions of the Development Site as a corner lot. 70th Road is also designated as a 'narrow' street with approximately 40 feet in width.

Despite the underlying R1-2A zoning district, which prohibits buildings from exceeding 35 feet, there are a number of community facility and residential buildings in excess of 40 feet

113th Street facing south (Site at left)



Existing Site and Context

113th Street facing south (Site at left)



Proposed Project

113th Street facing north (Site at right)



Existing Site and Context

113th Street facing north (Site at right)



Proposed Project

(See **Figure 10-1** and **Figure 10-2**). The majority of these buildings rise to six-stories in height with increasing heights and density moving towards Queens Boulevard, where a few buildings rise to over 100 feet in height (reflected by the underlying R7-1 zoning district). These include the Fairview Nursing Care Center (Block 2245, Lot 45; north and immediately adjacent to Development Site); Atria Supporting Housing of Forest Hills at 112-50 72nd Avenue (Block 2248, Lot 99); the First Presbyterian Church of Forest Hills at 70-35 112nd Street (block 2246, Lots 1, 4 & 9); Iglesia Ni Cristo at 70-11 112th Street (Block 2244, Lot 30); The Reform Temple of Forest Hills at 71-11 112th Street (Block 2246, Lot 31); Touro College at 71-02 113th Street (Block 2246, Lot 41); and P.S. 196 at 71-25 113th Street (block 2248, Lot 100). The heights of these buildings range from 34 feet (PS 196) to over 100 feet (Atria Forest Hills).

Under the proposed action and with-action scenario, a building with a height of 95 feet could front 113th Street, while the Grand Central Parkway service road frontage could be developed with a building 145-feet tall (see **Figure 10-3** through **Figure 10-6**). When compared to the number of taller buildings in the surrounding area, the proposed zoning map amendment would result in two buildings consistent with the medium and higher density heights in the immediate area, despite the underlying R1-2A zoning.

Therefore, the Proposed Action would produce a series of buildings that would be similar in height to existing development in the surrounding area, with a more consistent street-wall, with required setbacks that more accurately reflects existing development.

Block Form, Street Pattern, and Street Hierarch

The area generally to the west of the Rezoning Area is comprised of a typical New York street grid pattern, which leads to rectangular shaped blocks of similar size. 113th Street near the Development Site terminates at 71st Road one block to the south. Furthermore, 72nd Avenue terminates before the Grand Central Parkway, with a bulb-like turnaround area. Most of the streets in the 600-foot radius are one-way and generally do not exceed 60 feet in width. As further detailed above and in **Figure 10-1** and **Figure 10-2**, theses blocks contain a range of residential and community buildings, a majority of which exceed one and two-stories.

The area immediately to the east of the Development Site consists of the Grand Central Parkway, a limited-access highway, after which is Flushing Meadows-Corona Park and contains no such street grid. Grand Central Parkway runs north-south at this location and contains access roads and exit-ramps on each side of the roadway, with approximately 145 feet in width.

Streetscape Elements

The area surrounding the Rezoning Area includes street trees, generally at regular intervals except for the Grand Central Parkway service road frontage of the Development Site. There are no NYCT bus shelters in close proximity, with the nearest bus stop approximately 1000 feet to the north. Due to the presence of a public school immediately to the south of the Development Site, the surrounding area contains crosswalks at regular intervals. At the

113th Street facing north (Site at right)



Existing Site and Context

113th Street facing north (Site at right)



Proposed Project

Grand Central Parkway facing north (Site at left)



Existing Site and Context

Grand Central Parkway facing north (Site at left)



Proposed Project

time of this application, the Development Site contains fencing around the perimeter of the property (See **Figure 10-7**).

Natural Features

The only natural feature in close proximity to the Rezoning Area is Flushing Meadows-Corona Park, which is situated at a lower elevation than the 113th Street elevation of the Development Site, 350 feet to the east of the property across Grand Central Parkway. These natural features are not visible from the Development Site due to existing intervening buildings (see **Figure 10-7**).

Assessment

The density and scale of Proposed Development is consistent with existing development in the surrounding area, which contains a mix of low and medium-density buildings with clusters of higher-density between the Rezoning Area and Queens Boulevard. As noted above, there are approximately 20 buildings in this area between Queens Boulevard and the Rezoning Area (including 71-40 112th Street, which is within the Rezoning Area) that exceed 40-60 feet, with several buildings exceeding 100 feet, such as 108-48 0th Road, which rises to a height of 117 feet (see **Figure 10-1** and **Figure 10-2**).

When compared to the Proposed Development (See **Figures 10-3** through **Figure 10-6**) it is evident the proposed zoning map amendment would result in an enlarged building envelope that would be more compatible with existing development in the surrounding area than the underlying R1-2A zoning regulations, which prohibit buildings in excess of 35 feet.

Overall, the Proposed Development would not result in a building with substantially different bulk, size and scale than existing buildings in the area, as taller buildings are present within the immediate blocks between the Proposed Development an Queens boulevard, with numerous towers ranging in height between 4 and 11-stories. In addition, the proposed AIRS and residential use would be consistent with the numerous residential and community facility developments in the surrounding area. The Proposed Development would contribute to a range of residential and community facility towers and lower-rise developments in the area. In addition, the Proposed Development would improve the area's visual quality by developing an underutilized lot from the Grand Central Parkway service road frontage.

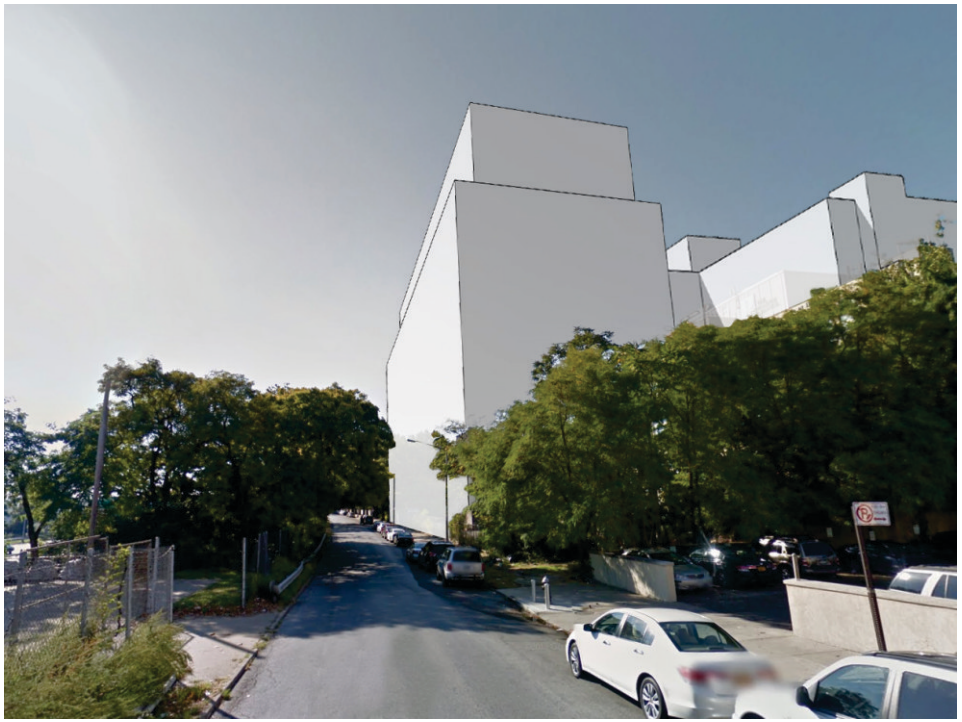
The Proposed Development would be taller than what is permitted as-of-right now but would otherwise comply with the regulations of the proposed R7A and R7X zoning districts. Therefore, no significant adverse impacts to the urban design character of the study area are anticipated as a result of the Proposed Action.

Grand Central Parkway facing south (Site at right)



Existing Site and Context

Grand Central Parkway facing south (Site at right)



Proposed Project



1. View of the Site facing northeast from 113th Street.



2. View of emergency room entrance to the former Parkway Hospital facing northeast from 113th Street.



3. View of the Site facing southeast from 113th Street.



Figure 10-8

Visual Resources

The Proposed Development would be located on a lot that is surrounded by structures on all sides except the eastern façade, which faces Grand Central Parkway and Flushing Meadows-Corona Park. As such, the only natural resource in proximity to the Rezoning Area is not visible from 113th Street under the existing conditions, with the existing former Parkway Hospital's six-stories and any adjacent buildings blocking any possible view of Flushing Meadows-Corona Park, which could potentially be visible from 113th Street, absent any development. In the future with the proposed development any pedestrian user would continue to be unable to view Flushing Meadows-Corona Park (See **Figure 10-3** and **Figure 10-7**) from 113th Street. Furthermore, there are no notable features or buildings in the immediate vicinity of the Rezoning Area. Therefore, based on the criteria in the *CEQR Technical Manual,* the RWCDS and Proposed Development would not block a view corridor or views of a natural or built visual resource. In this context, the RWCDS and Proposed Development would not significantly alter views from any streets. Therefore, no significant impacts related to visual resources are expected.

Conclusion

The Proposed Actions would create additional density and allow a greater maximum height. The location and size of the Rezoning Area is in character with the range of medium- and high-density towers in the surrounding area and would not impact the residential and institutional character of the surrounding area. Furthermore, the Proposed Actions would not affect any natural resources or public view corridors of notable features or buildings in the immediate vicinity of the Rezoning Area. Accordingly, no impacts to the urban design and/or visual resources of the area are expected.

Figure 10-9: Illstrative Rendering (Former Parkway Hospital)



Figure 10-10: Illstrative Rendering (New Market Rate Building)



11. HAZARDOUS MATERIALS

Atlantic Environmental Solutions, Inc, (AESI) has performed a Phase I Environmental Site Assessment (ESA) in January of 2015 for the Development Site located 70-35 113th Street (Block 2248, Lot 227) in the Borough of Queens, New York City, New York. The ESA was prepared in accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Designation E 1527-13).

The Development Site encompasses a large tax lot that is currently vacant but was once operating as the Parkway Hospital. Uses in the immediate area are predominantly residential and institutional with community facility (schools, nursing home) uses present. According to the available Sanborn, aerial, and topographical maps and photographs, the earliest a structure was first observed on the subject property was about 1962. The following summarizes a series of queries and conditions found following a site visit, which are included in the above-referenced Phase I:

- Observation of at least two (2) underground storage tanks (UST) with fill ports and vent pipes located in the parking lot and along the eastern wall of the subject property. AESI found through preliminary research that records of five (5) petroleum bulk storage (PBS) tanks exist on the property, with three (3) registered with the New York State Department of Environmental Conservation (NYSDEC) PBS Program. Additionally, AESI observed a manhole lid and monitoring well within the parking lot of the subject property. It is likely that the tanks are located in this area of the subject property.
- Observation of an aboveground waste oil storage tank in the parking lot of the subject property.
- Observation of signs of staining beneath two generators located in the parking lot of the subject property.
- Observation of several drums and hazardous waste containers located in the ground level, roof mechanical room, boiler room, and sheds in the parking lot of the subject property.
- Observation of motor oil spilled as a result of an overturned 55-gallon drum within the boiler room of the subject property.
- Findings through available databases that an adjacent property at 71-25 113th Street (Public School 196) has at least six (6) spill case numbers assigned Records indicate that at least six spill numbers have been assigned to this property and closed between 1995 and 2008. Due to the distance of this site to the subject property, it is possible that these spills have had an adverse effect on the subject property.
- Presumed asbestos pipe insulation and 9x9 floor tiles were noted during the inspection.
- Materials presumed to contain lead-based paint were identified on the walls within

the subject property.

The Proposed Actions would facilitate the renovation and expansion of the existing vacant hospital to contain a new use, while a vacant portion of the Development Site would be developed with a new fourteen-story residential building, resulting in increased in-ground disturbance on the Site. Based on the above conditions and increased in-ground disturbance resulting from the Proposed Actions, remediation measures are necessary to avoid any potential impacts associated with hazardous materials.

Conclusions
Based on the above conditions and findings, to avoid any potential impacts associated with hazardous materials, the Proposed Actions would include the mapping of an (E) designation (E-502) for hazardous materials on the Development site:

Block 2248, Lot 228

The text of the (E) designation is as follows:

Due to the possible presence of hazardous materials on the aforementioned designated site, there is potential for contamination of the soil and groundwater. To determine if contamination exists and perform the appropriate remediation, the following tasks must be undertaken by the fee owners of the lot restricted by this (E) designation prior to any demolition or disturbance of soil on the lot.

Task 1

The fee owners of the lot restricted by this (E) designation will be required to prepare a scope of work for any soil, gas, or groundwater sampling and testing needed to determine if contamination exists, the extent of the contamination, and to what extent remediation may be required. The scope of work will include all relevant supporting documentation, including site plans and sampling locations. This scope of work will be submitted to the OER for review and approval prior to implementation. It will be reviewed to ensure that an adequate number of samples will be collected and that appropriate parameters are selected for laboratory analysis.

No sampling program may begin until written approval of a work plan and sampling protocol is received from the OER. The number and location of sample sites should be selected to adequately characterize the type and extent of the contamination, and the condition of the remainder of the site. 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 choosing sampling sites and performing sampling will be provided by OER upon request.

Task 2

A written report with findings and a summary of the data must be presented to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such test results, a determination will be provided 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 necessary according to test results, a proposed remediation plan must be submitted to OER for review and approval. The fee owners of the lot restricted by this (E) designation must perform such remediation as determined necessary by OER. After completing the remediation, the fee owners of the lot restricted by this (E) designation should provide proof that the work has been satisfactorily completed.

An OER-approved construction-related health and safety plan 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 the implementation of the above (E) designation, no significant adverse impacts related to hazardous materials would result from the Proposed Actions.

16. TRANSPORTATION

Introduction

In order to evaluate the proposed mixed-use development for transportation, trip generation screening analyses were performed pursuant to the methodologies identified in the *2014 CEQR Technical Manual.* Based on the proposed mixed-use development, it was determined that the proposed action would not result in significant adverse impacts as is summarized below.

The Development Site

The project site is located within the block bounded by Jewel Avenue on the north, 72nd Road on the south, Grand Central Parkway Service Road on the east and 113rd Street on the west in the Forest Hills neighbourhood of Queens, Community District 6.

Proposed Action

The Proposed Development would consist of 351 dwelling units and 402,050 gsf of floor area, including accessory space and a 4,034 gsf ambulatory medical facility. A total of 180 accessory parking spaces (attended) would be provided between the cellar and sub-cellar level of the proposed new building with ingress and egress curb-cut along Southbound Grand Central Parkway Service Road.

No-Action Scenario

Absent the proposed action, the properties within the Rezoning Area would remain in their current condition and no transportation credits were assumed for the no-action scenario.

Increment

The increment between the No-Action and With-Action development scenarios would consist of an increase of 351 dwelling units, a 4,034 gsf ambulatory medical facility, and 180 accessory parking spaces (attended), or the Proposed Development.

Analysis Framework

The environmental assessment for transportation, including traffic, parking, transit, and pedestrian trip analyses, is based on an analysis of the incremental difference between the Future Without and With-Action scenarios as discussed above.

Level-One Screening

According to Table 16-1 of the *2014 CEQR Technical Manual*, the project site is located in Zone 4 where the development of a minimum of 200 dwelling units, 10,000 square feet of local retail space, 15,000 square feet of community facility space, or 60 off-street parking spaces would require a transportation analysis. Based on the combination of uses for the proposed development, a trip generation analysis is warranted.

The following trip generation analysis has been performed, the results of which found that the proposed project would generate 64 (16 inbound and 48 outbound), 45 (23 inbound and 22 outbound), 76 (48 inbound and 28 outbound), and 68 (34 inbound and 34 outbound) vehicle trip ends during the AM, MD, PM, and Saturday peak hours, respectively. Vehicle trips generated by the proposed action would exceed the CEQR threshold of 50 vehicle trips during all peak hours, except Weekday Midday peak hour. Therefore and based on the *CEQR Technical Manual* criteria, a Level-Two Screening (project trip assignments) analysis is required.

Level-Two Screening

Vehicle trips, generated by the proposed action, would exceed the CEQR threshold of 50 vehicle trips during all peak hours, except the Weekday Midday peak hour. Based on the *CEQR Technical Manual* criteria, a Level-Two Screening (project trip assignments) analysis would be required.

The proposed project would include a pick-up and drop-off area along one-way northbound 113th Street, a pick-up and drop-off area along one-way southbound Grand Central Parkway Service Road and the proposed garage ingress and egress curb-cut along one-way southbound Grand Central Parkway Service Road. Based on the proposed site plan vehicular access points, roadways traffic flow direction in the study area and project generated vehicle trips by direction (inbound and outbound), If we conservatively assume all vehicle trips during all peak hours would occur along Grand Central Parkway Service Road, none of the intersections would experience more than 50 vehicle trip ends during any peak hour time period. Therefore, and in accordance with the *CEQR Technical Manual* the proposed project would not result in any conditions that would typically trigger the need for a detailed assessment of traffic and parking impacts.

Trip Generation Rates, Modal Split Data, and Sources

Residential Component

Project generated person and vehicular trips are based upon the rates and percent peak hours temporal distribution provided in the *2014 CEQR Technical Manual,* Table 16-2, for the residential portion of the development. The modal split information, including the vehicle occupancy rate, is based on the 5-Year 2011-2015 ACS Journey-to-Work (JTW) Census Tract #'s 739, 741, 747, 757.01 and 757.02 in Queens, NY. The *2014 CEQR Technical Manual* Table 16-2 was also applied in order to estimate the future truck trips for the residential component.

The results found that approximately 22.3% of those traveling to and from the residential portion of the project would travel by car, zero (0)% would travel by taxi, 4% would travel

by bus, 62.7% would travel by subway, 5.9% would travel by foot, and 5.1% would travel by other mode of travel, such as bicycle.

Community Facility Component-Medical Office Space

Project generated person trips, vehicular trips, percent temporal distribution, modal split information, vehicle occupancy rates and truck trips are based upon the rates provided by NYCDOT for medical office use in Queens.

The results found that approximately 30% of those traveling to and from the medical office component of the project would travel by car, 2% would travel by taxi, 18% would travel by bus, 33% would travel by subway, and 17% would travel by foot.

The above trip generation information is summarized in Table 1 (Attachment C).

Person and Vehicle Trips

Person Trips

The proposed project would generate a total of 304 person trip ends during the AM peak hour time period, 198 person trip ends during the Midday peak hour time period, 374 person trip ends during the PM peak hour time period, and 326 person trip ends during the Saturday peak hour time period, as summarized in Table 2 (Attachment C).

Vehicle Trips

The proposed project would generate a total of 64 (16 inbound and 48 outbound) vehicle trip ends during the Weekday AM peak hour time period, 45 (23 inbound and 22 outbound) vehicle trip ends during the Weekday Midday peak hour time period, 76 (48 inbound and 28 outbound) vehicle trip ends during the Weekday PM peak hour time period, and 68 (34 inbound and 34 outbound) vehicle trip ends during the Saturday peak hour time period, as summarized in Table 3 (Attachment C).

Vehicle trips, generated by the proposed action, would exceed the *CEQR threshold* of 50 vehicle trips during all peak hours, except the Weekday Midday peak hour. Based on the *CEQR Technical Manual* criteria, a Level-Two Screening (project trip assignments) analysis would be required.

The proposed project would include two buildings, one building along one-way northbound 113th Street with a pick-up and drop-off area for both the proposed mixed residential tower and ambulatory medical space and the other building along the one-way southbound Grand Central Parkway Service Road with a pick-up and drop-off area for the proposed market rate residential tower. The proposed market rate residential tower also includes a curb cut for garage access and egress. Based on the proposed site plan, roadways traffic flow direction in the study area, we have conservatively assumed all vehicle trips during all peak hours would occur along Grand Central Parkway Service Road, none of the intersections would experience more than 50 vehicle trip ends during any peak hour time period. Therefore, and in accordance with the *CEQR Technical Manual* the proposed project would not result in any conditions that would typically trigger the need for a detailed assessment of traffic and parking impacts.

Transit and Pedestrians

Bus Trips

The proposed action would generate a total of 15 bus trip ends during the Weekday AM peak hour time period, 16 bus trip ends during the Weekday Midday peak hour time period, 24 bus trip ends during the Weekday PM peak hour time period, and 21 bus trip ends during the Saturday peak hour time period, as is summarized in Table 2 (Attachment C).

The proposed action would generate less than 200 bus trip ends/and 50 bus trip ends per bus per direction during each peak hour time period, and in accordance with the *CEQR Technical Manual* criteria, would not result in any conditions that would typically trigger the need for a detailed assessment of bus impacts.

Subway Trips

The proposed action would generate a total of 184 subway trip ends during the Weekday AM peak hour period, 107 subway trip ends during the Weekday Midday peak hour time period, 216 subway trip ends during the Weekday PM peak hour time period, and 188 subway trip ends during the Saturday peak hour time period, as summarized in Table 2 (Attachment C).

There are two subway stations in the study area, Forest Hills-71st Avenue subway station for E, F, M and R trains and 75th Avenue subway station for E and F trains.

The proposed action would generate less than 200 subway trip ends during all peak hour time periods, except the Weekday PM peak hour. During the PM peak hour, none of the two subway stations would experience more than 200 subway trips and in accordance with the *CEQR Technical Manual* criteria, would not result in any conditions that would typically trigger the need for a detailed assessment of subway impacts.

Pedestrian Trips

The proposed action would generate a total of 234 pedestrian (bus, subway, walk and other) trip ends during the Weekday AM peak hour period, 148 pedestrian trip ends during the Weekday Midday peak hour time period, 284 pedestrian trip ends during the Weekday PM peak hour time period, and 248 pedestrian trip ends during the Saturday peak hour time period, as summarized in Table 2 (Attachment C).

The proposed action would generate more than 200 pedestrian trip ends during all peak hours, except the Weekday Midday peak hour. There are two separate residential buildings with separate pedestrian ingress and egress points along 113th Street and Grand Central Parkway Service Road. No pedestrian element in the area would likely experience more than 200 pedestrian trips during any peak hour time periods, and in accordance with the *CEQR Technical Manual* criteria, would not result in any conditions that would typically trigger the need for a detailed assessment of pedestrians impacts.

Conclusion

The results of the transportation analysis indicate that the proposed project would generate fewer than 50 vehicle trip ends at any intersection during the Weekday AM, Midday, PM, and Saturday peak hour periods. No significant adverse impacts related to traffic and parking conditions are anticipated to occur. Similarly, the project would not result in 200 or more transit trips or 200 or more pedestrian trips at any pedestrian elements in the study area during any peak hour. Therefore, no significant adverse impacts related to transit and pedestrians would be expected.

No significant adverse impacts related to transportation would occur as a result of the proposed action, and no further assessment is warranted.

17. AIR QUALITY

I. INTRODUCTION

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

- The potential for changes in vehicular travel associated with proposed development activities to result in significant mobile source (vehicular related) air quality impacts.
- Vehicular emission associated with off-street parking facilities.
- Emission from the burning of fossil fuels in the heating, ventilation and air conditioning (HVAC) equipment of the proposed developments.
- The potential for air toxic emissions released from existing industrial facilities to significantly impact the proposed development.
- Stationary source emission of facilities that require Prevention of Significant Deterioration permits (Title V), and facilities which require a state facility permit.
- Facilities' malodorous emissions to unreasonably interfere with the proposed project's occupant's comfortable enjoyment of life or their property.

The Rezoning Area

The Rezoning Area is located in the Forest Hills neighborhood of Queens, Community District #6. Two lots are primarily affected by the actions: The Projected Development Site at 70-35 113th Street (Block 2248, Lot 228) and 70-01 113th Street (Block 2246, Lot 11).

The Projected Development Site is currently developed with the vacant Parkway Hospital, a 6-stories, 86 feet high building. The 57,036 square feet lot has frontage along both 113th Street and Grand Central Parkway Service Road. A description of the Projected Development Site is provided below.

Block 2246, Lot 11 is developed with a six-story legally noncomplying apartment building with approximately 64,000 square feet of floor area that was constructed in 1940. This property is unable to increase any floor area based on legal noncomplying status and is anticipated to remain in the future with the Proposed Actions, and thus will not be included in this EAS for analysis purposes.

The Projected Development Site

The Projected Development Site consist of: (1) the existing but vacant Parkway Hospital which would receive a two-story enlargement and would accommodate an Affordable Independent Residence for Seniors; and (2) the development of a new fourteen-story market rate building.

The Existing Parkway Hospital Building (Enlarged Parkway Hospital)

The existing but vacant Parkway Hospital would receive a two (2) story enlargement, for a total of eight (8) stories. It would contain 118,973 gross square foot (gsf) and rise to a height of 89 feet above grade. Per the site plans, provided by the building architect for this project, the grade elevation is 49.29 feet. The residential lobby would be made accessible via the existing curb cuts and driveway along 113th Street, as well as the 4,034 square foot urgent care facility.

The Proposed New Market Rate Building

The new fourteen-story market rate building would be constructed on the remaining eastern portion of the Development Site and would consist of 216 market rate residential units. The building would rise to a height of 140 feet above grade (after a 10-foot setback) with 283,077 gsf of floor area. Per the site plans, provided by the building architect for this project, the grade elevation is 25.48 feet. The dwelling units would consist of a mix of studio, one- and two-bedroom apartments. The building would be accessible from the Grand Central Service Road with three new curb cuts. Two of the curb cuts would be reserved for a drop-off and pick-up driveway and the third curb cut would access a ramp leading to accessory parking in the cellar. The cellar area would contain 180 attended parking spaces, a fitness center and mechanical/storage areas. The rear lot would be improved with required recreation space.

Principal Conclusion

Principal Conclusion

Screening analysis for carbon monoxide was carried out to determine whether the project-generated traffic has the potential to cause significant air quality impacts. The preliminary traffic analysis for the Proposed Project indicated that the expected maximum peak hour increment is below the *CEQR Technical Manual* threshold of concern of 170 vehicle trips during any peak hour. Therefore, no significant air quality impacts are expected as a result of the Proposed Actions.

Screening analysis for particulate matter was carried out to determine whether the project-generated traffic has the potential to cause significant air quality impacts. The preliminary traffic analysis for the Proposed Project and county data for Queens indicated that the expected maximum peak hour increment of trucks and light duty gasoline trucks is below the *CEQR Technical Manual* threshold of concern of vehicle trips during any peak hour. Therefore, no significant air quality impacts are expected as a result of the Proposed Actions.

A screening analysis for the New Market Rate building parking garage showed that a detailed analysis is warranted. No parking garage screening analyses would be required for the Enlarged Parkway Hospital building as the development projected on this Site would not contain a parking garage. Air quality impact for the New Market Rate building was analyzed following the *CEQR Technical Manual* methodology. Pollutants from vehicle emissions were generated by the EPA's mobile source emission factor model, MOVES2014a. Pollutants concentrations from the garage's exhaust vent were calculated using the spreadsheet referenced in the *CEQR Technical Manual Appendices.* No significant air quality impacts were predicted.

The Projected Development Site impacts associated with the boiler stack emissions (HVAC) on existing land uses screened out. No major sources or odor producing facilities were identified within 1,000 feet of the Rezoning Area. A project-on-project screening analyses of HVAC system failed and a detailed analysis using AERMOD modeling was conducted using a Tier 3 - Plume Volume Molar Ratio Method (PVMRM) - module. The project-on-project HVAC analysis concluded that fuel would need to be restricted to the exclusive use of natural gas in the HVAC system of the Enlarged Parkway Hospital, and the minimum stack heights of both buildings of the Projected Development Site would need to be specified.

Online searches found no active manufacturing or commercial uses that could potentially require New York City Department of Environmental Protection (NYCDEP) operational permits. Therefore, no significant air quality impacts are predicted from industrial source emissions to the Rezoning Area.

II. AIR POLLUTANTS AND APPLICABLE STANDARDS/GUIDELINES

National Air Quality Standards

The U.S. Environmental Protection Agency (EPA) has identified six pollutants, known as criteria pollutants which are being of concern nationwide, and established threshold concentration based upon adverse effect on human health. The six pollutants and their characteristics are:

- Carbon Monoxide (CO) is mainly produced by motor vehicles from the incomplete combustion of gasoline. The impact of CO on the ambient air is analyzed next to roadways, intersections, parking lots, and parking garages vents as these locations are the most affected.
- Nitrogen Dioxide (NO_2) is a main concern related to the burning of natural gas. Emitted NOx from the burning of fossil fuel gradually convert to NO_2 in a chemical reaction that is effected by ozone concentration and the presence of sunlight. In a micro scale analysis, buildings HVAC systems are analyzed for NO_2 impact.
- Ozone (O_3) is formed by chemical reaction between hydrocarbons and nitrogen oxides and its impact is analyzed on a regional scale by monitoring stations.
- Lead (Pb) in the ambient air is monitored on a regional level. In a project scale analysis, impact due to Lead concentration levels are analyzed if a new source, such

as lead smelters, is introduced into the environment or if a project is located next to a lead emitter.

- Particulate Matter emissions are associated with both stationary sources and mobile sources. Two sizes of particulate matters are analyzed: Inhalable Particles (PM_{10}) and Fine Particulate Matter ($PM_{2.5}$), where the subscript number refers to the diameter of the particulate matter in micrometers.
- Sulfur Dioxide (SO_2) emission is principally associated with stationary sources that burn oil or coal.

As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for the criteria pollutants by EPA, and New York State has adopted the NAAQS as the State ambient air quality standards. The current standards together with their health-related averaging periods are presented in Table 17-1.

Table 17-1. National and New York States Ambient Air Quality

Pollutant	Averaging Period	National and State Standards
NO_2	1-Hour Concentration	0.10 ppm (188 μg/m^3)
	Annual Arithmetic Average	0.053 ppm (100 μg/m^3)
$PM_{2.5}$	24-Hour Concentration	35 μg/m^3
	Average of 3 Consecutive Annual Means	12 μg/m^3
PM_{10}	Maximum 24-Hour Concentration	150 μg/m^3
Lead	Rolling 3-month Average	0.15 μg/m^3
Ozone	8-Hour	0.07 ppm
CO	8-Hour	9 ppm
	1-Hour	35 ppm
SO_2	1-Hour Concentration	0.075 ppm (196 μg/m^3)
	3-Hour Concentration	0.050 ppm (1,300 μg/m^3)
	Maximum 24-Hour Concentration	0.14 ppm (365 μg/m^3)
	Annual Arithmetic Means	0.03 ppm (80 μg/m^3)

NO_2 NAAQS

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

The 1-hour NO_2 NAAQS standard of 0.100 ppm (188 ug/m^3) is the 3-year average of the 98th percentile of daily maximum 1-hour average concentrations in a year. For determining compliance with this standard, the EPA has developed a modeling approach for estimating 1-hour NO_2 concentrations that is comprised of 3 tiers: Tier 1, the most conservative approach, assumes a full (100%) conversion of NO_x to NO_2; Tier 2 applies a conservative ambient NOx/NO_2 ratio of 80% to the NO_x estimated concentrations; and Tier 3, which is the most precise approach, employs AERMOD's PVMRM module. The PVMRM accounts

for the chemical transformation of NO emitted from the stack to NO_2 within the source plume using hourly ozone background concentrations. When Tier 3 is utilized, AERMOD generates 8th highest daily maximum 1-hour NO_2 concentrations or total 1-hour NO_2 concentrations if hourly NO_2 background concentrations are added within the model.
Per the *CEQR Technical Manual*, a Tier 1 approach is initially applied, followed by a Tier 2 application of NOx/NO_2 ratio of 80% to the NOx modeled concentration to determine whether violation of the NAAQS is likely to occur. A less conservative Tier 3 approach is then applied if exceedances of the 1-hour NO_2 NAAQS were estimated.
The annual NO_2 standard is 0.053 ppm (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.

New York State Standards

As mentioned, New York State has adopted the national standard, NAAQS. In addition, the New York State Department of Environmental Conservation (NYSDEC) has established guidelines for maximum allowable concentration of "noncriteria pollutants," which are potentially toxic or carcinogenic pollutants. The maximum allowable guidelines set a maximum 1-hour and annual averaging time concentrations and are published in the DAR-1 AGC/SGC Table, where AGC/SGC refers to Annual and Short-term Guideline Concentrations. The most recent DAR-1 guidelines were created on July 14, 2016.
NYSDEC also regulates pollutants that produce discomfort due to odors, where significant discomfort is evaluated on quantity, characteristic or duration.

NYC Guidelines

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

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

Per the *CEQR Technical Manual*, significant adverse $PM_{2.5}$ concentration is determined by:

- Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard; or
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.1 µg/m^3 at ground level on a neighborhood scale (*i.e.*, the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered

on the location where the maximum ground-level impact is predicted for stationary sources; or for mobile sources, at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations); or

- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.3 $\mu g/m^3$ at any receptor location for stationary sources.

Background Concentrations

Determination of significant impact criteria is evaluated by adding the background concentrations at the nearest NYSDEC monitoring station to the concentrations of criteria pollutants in the ambient air of the project area.

Background concentrations of the criteria pollutants (for which detail analyses were performed) were obtained from the NYSDEC's annual report for 2017 at the Queens College monitoring station.

Table 17-2. Background Concentration at the Nearest Monitoring Station (NYSDEC 2017 Report)

Pollutant	Averaging Period	Background Concentration	Monitoring Station
NO_2	1-Hour Concentration	112.2 $\mu g/m^3$	Queens College
	Annual Arithmetic Average	32.4 $\mu g/m^3$	
$PM_{2.5}$	24-Hour Concentration	18.9 $\mu g/m^3$	
	Average of 3 Consecutive Annual Means	7.3 $\mu g/m^3$	
PM_{10}	Maximum 24-Hour Concentration	35 $\mu g/m^3$	
CO	Maximum 1-Hour	1.78 ppm	
	Maximum 8-Hour	0.9 ppm	

The *de minimis* criteria for CO and $PM_{2.5}$ were evaluated as described in the NYC Guidelines and are presented below:

- CO 8-hour 4.05 ppm
- 24-hour $PM_{2.5}$ 8.05 $\mu g/m^3$
- Annual $PM_{2.5}$ 0.3 $\mu g/m^3$

III. MOBILE SOURCE ANALYSIS

Projects may result in significant mobile source impacts when they create mobile sources of pollutants, change traffic pattern, or add new uses near mobile sources of pollutants. Per *CEQR* guidelines, a detailed analysis is conducted to predict whether the Proposed Actions could potentially have a significant adverse air quality impact if certain threshold criteria are met or exceeded, while proposed projects that do not meet or exceed the threshold criteria (screen out) are not expected to have a mobile source impact. As such, projects that require a detailed analysis model the ambient air CO and $PM_{10}/PM_{2.5}$ concentrations—the

mobile source pollutants of concern—and compare the modeled concentrations with the applicable air quality standard.

Mobile source impacts are a function of vehicular related emissions and the pollutants dispersion. Emission of vehicular mechanical components are generated with the latest EPA's Mobile Vehicle Emission Simulator 2014a version (MOVES2014a). Emission of dust generated by vehicle travelling on paved roadways (hereinafter "link") are added to the MOVES2014a emission to estimate total particulate matter emissions. The pollutants' concentrations at sensitive receptors are modeled with the EPA's CAL3QHC/R or AERMOD Gaussian dispersion models. Dispersion analysis of emission generated in parking facilities may use the spreadsheet and formula referenced in the CEQR Technical Manual Appendices.

Mobile Source Screen

Project-Generated Traffic

Per the *CEQR Technical Manual*, localized increases in CO and $PM_{2.5}$ levels may result from increased vehicular traffic volumes and changed traffic patterns in the study area as a consequence of the proposed development. As such, screening analyses for CO and $PM_{2.5}$ were carried out to determine whether the project-generated traffic have the potential to cause significant impact. The project-generated traffic is the vehicular trips in any given hour, determined as the difference between the Future No-Action and the Future With-Action.

The proposed project would generate a total of 64 (16 inbound and 48 outbound) vehicle trip ends during the Weekday AM peak hour time period, 45 (23 inbound and 22 outbound) vehicle trip ends during the Weekday Midday peak hour time period, 76 (48 inbound and 28 outbound) vehicle trip ends during the Weekday PM peak hour time period, and 68 (34 inbound and 34 outbound) vehicle trip ends during the Saturday peak hour time period.

For this area of the City, the threshold volume for a detailed analysis of CO concentration, using MOVES2014 and CAL3QHC or AERMOD, is an increment of 170 vehicles. $PM_{2.5}$ threshold criterion is an increment of applies heavy-duty diesel vehicles (HDDVs) screen.
As outlined in the Transportation section, the maximum trip generation increment between the Future No-Action and the Future With-Action does not exceeds the threshold of 170 vehicular trip generation.

According to *CEQR Technical Manual*, $PM_{2.5}$ detailed analysis is required if a threshold criterion, determined by project-generate peak hour HDDVs traffic or its equivalent in vehicular emission, is exceeded. The threshold criteria depend on the type of road and the incremental vehicular traffic as followed:

- 12 or more HDDV for paved roads with 5,000 vehicles;
- 19 or more HDDV for collector roads;

- 23 or more HDDV for principal and minor arterials; or
- 23 or more HDDV for expressways and limited access roads.

The Proposed New Market Rate Building is located along Grand central Parkway service road, which is a minor arterial. The Enlarged Parkway Hospital is located on 113th Street, categorized as a paved road with less than 5000 vehicles. The site configuration suggests that vehicle associated with each building are unlikely to travel through the same intersection. Therefore, each building was analyzed based on the vehicle source type, peak hour traffic, and adjacent roadway.

According to the transportation analysis for this project, the maximum HDDVs trip generation increment between the Future No-Action and the Future With-Action is 4 HDDVs peak hour traffic during the AM and MD peak hour periods and a total of 76 vehicles during the PM peak hour period. Assuming 72 vehicles are light duty gasoline vehicles (LDGT1) and the 4 trucks are Class 8a HDDVs, the Proposed New Market Rate Building passes the $PM_{2.5}$ screening analysis.

The transportation analysis, which was based on number of residential units in each building (and the medical office space in the Enlarged Parkway Hospital Building), was used to calculate the peak hour traffic of inbound and outbound autos and trucks associated with each building. The medical office traffic was associated with the Enlarged Parkway Hospital. As the $PM_{2.5}$ screen does not apply to passenger cars, the NYSDEC vehicle population by source type database (part of MOVES2014a database for the county of Queens) was consulted. The database shows that there are 453,895 and 296,515 passenger cars and passenger trucks in queens. This translates to 60.5% and 39.5% LDGV and LDGT1 distribution. Therefore, the Enlarged parkway Hospital would generate a total of 12 (10 LDGT1 and 2 HDDVs) vehicle trip ends during the Weekday AM peak hour time period, 11 (9 LDGT1 and 2 HDDVs) vehicle trip ends during the Weekday Midday peak hour time period, 15 (9 LDGT1 and 0 HDDVs) vehicle trip ends during the Weekday PM peak hour time period, and 13 (13 LDGT1 and 0 HDDVs) vehicle trip ends during the Saturday peak hour time period. All the peak hour vehicle trip ends pass the $PM_{2.5}$ screening analysis.

Therefore, no intersection detailed air quality analysis is required, and no significant mobile source air quality impacts are expected at intersections affected by the Proposed Project.

Parking Garage Screen

Based on *CEQR* recommendations, the maximum capacities of parking garages are evaluated with a threshold criterion to predict whether the potential impacts associated with mobile source emissions are significant. The threshold criteria level, per CEQR

guidelines, is 85 off-street parking spaces. If the threshold is met or exceeded, a detailed analysis is warranted.

The Enlarged Parkway Hospital building and the existing building at 70-01 113th Street (Block 2246, Lot 11) would not contain any parking garages. Therefore, no detailed air quality analysis was required.
The New Market Rate building, part of the Projected Development Site, would contain a 180 spaces parking garage. Therefore, a detailed analysis was required as further discussed below.

Parking Garage Detailed Analysis

The New Market Rate building would include 108 attended parking spaces with an entrance through Grand Central Parkway Service Road on the cellar level. The bottom level of the parking garage would occupy 22,785 square feet with a 126 feet ramp length at a 14% grade. As determined by the parking accumulation analysis and shown in Table 17-3, there is a maximum of 41 vehicles entering the parking garage in the PM hour between 17:00 to 18:00, and a maximum of 46 vehicles exiting the parking garage in the AM hour between 8:00 to 9:00. These traffic data were considered as a worst-case scenario.

Table 17-3. Parking Accumulation

Time	In	Out	Total	Parking Accumulation
				180
7-8AM	3	19	22	164
8-9	10	46	56	128
9-10	9	28	37	109
10-11	11	17	28	103
11-12N	12	12	24	103
12N-1PM	14	14	28	103
1-2	13	13	26	103
2-3	12	12	24	103
3-4	18	12	30	109
4-5	28	12	40	125
5-6	41	21	62	145
6-7	37	16	53	166
7-8	30	16	46	180

Per *CEQR Technical Manual*, vehicles exiting the parking garage idle for 1 minute before starting to travel to the parking lot exit and all parking garage vehicles are assumed to drive at a speed of 5 miles per hour. In addition, entering and exiting vehicles are assumed to travel a mean travel distance of two-thirds of the width and the length of the parking garage plus the ramp's length.

As outlined in the *CEQR Technical Manual*, a sensitive receptor is placed on the far sidewalk, opposite the garage's vent. Pollutants concentrations at the far sidewalk receptor are calculated by the combining the impacts of the garage's vent's emission and the on-street traffic emission. However, there is no sidewalk on the east side of Grand Central Parkway Service Road and there is no public access to there. Therefore, the far sidewalk receptor was not considered in the analysis and emission from on-street traffic was not required.

The following applicable conditions, as outlined in the *CEQR Technical Manual*, are assumed in the analysis to simulate the maximum potential air quality impacts:

- Pollutants within the garage are exhausted through a single vent situated above the parking garage entrance at 12 feet above grade.
- A receptor is placed at 6 feet high and 6 feet from the parking garage entrance, directly downwind from the garage's exhaust vent, to simulate a pedestrian on the adjacent sidewalk of the parking garage.
- A receptor is placed 5 feet above the garage's exhaust vent to simulate a receptor placed in a window above the exhaust vent.
- Wind speed is assumed to be 1 meter per second.
- The garage ventilation rate is assumed to be the minimum rate as required by the New York City Building Code and outlined in the *CEQR Technical Manual*.

Pollutants from vehicle emissions were generated by the EPA's mobile source emission factor model, MOVES2014a, as outlined below. Pollutants concentrations from the garage's exhaust vent were calculated using the spreadsheet referenced in the *CEQR Technical Manual Appendices.*

Per *CEQR Technical Manual,* a garage's exhaust vent is categorized as a stationary source. Therefore, a specific receptor was considered for the annual *de minimis* criterion.
Per *CEQR Technical Manual*, a persistence factor of 0.7 was applied to the 1-hour CO concentrations to evaluate the 8-hour CO concentrations.

According to the EPA's *AERSCREEN User Guide*, the 24-hour concentrations of PM_{10} and $PM_{2.5}$ were evaluated by multiplying the hourly concentrations by a 0.6 persistence factor, and the annual concentration of $PM_{2.5}$ was evaluated by multiplying the hourly concentration by a 0.1 persistence factor.

Parking Garage Emission Factors

In order to develop CO, $PM_{2.5}$ and PM_{10} emission factors, the EPA mobile source emission factor model MOVES2014a was used. MOVES can be used to calculate emission-related parameters such as total mass emissions, total energy consumption, vehicle activity (hours operated and miles travelled). From this output, emission rates (e.g., grams/vehicle-mile or grams/hour) can be determined for a wide variety of spatial and time scales.

MOVES has the capability to determine the emission factors for emission inventory or for project-level analyses for specific roadway segments or links to be used in the microscale

analysis. For the project-level analysis, MOVES requires the use of site-specific input data for traffic volume, vehicle type, fuel parameters, age distribution, and other input rather than the use of national default data. When conducting a project-scale analysis, MOVES also requires the analysis to be performed with no pre-aggregation (i.e., averaging) of input data. The MOVES input used in this analysis are provided in Table 17-4. The full set and detailed description of all input parameters for MOVES model can be found in the backup documentation for this project.

Table 17-4. MOVES2014a Inputs

Geographic bounds	Queens County, New York
Analysis year	2020
Worst-case month	January
Peak hour	Weekday PM 17:00-17:59
On-road fuel and vehicle type combinations	gasoline passenger cars
Road type	Urban Unrestricted Access
IM and vehicles age distribution data	From NYCDEP database
Fuel supply and fuel formulation (diesel and gasoline)	From NYCDEP database
Meteorological data	From NYCDEP database for study area with 45F inside the garage
CO emissions	Running exhaust and crankcase running exhaust
$PM_{2.5}$/PM_{10} emissions	Total running primary exhaust, crankcase running exhaust, brake wear and tire wear; total primary exhaust also included organic and elemental carbon and primary sulfate particulate

Parking Garage Results of Analysis

Table 17-5 shows the results of the parking garage analysis.

Table 17-5. Parking Garage Air Quality Impact

Pollutant		Near Sidewalk		Window Above Vent	
CO (ppm)	**Averaging Period**	**1-hour**	**8-hour**	**1-hour**	**8-hour**
	Garage	0.21	0.15	0.25	0.17
	Background concentration	1.78	0.9	1.78	0.9
	Total concentration	**2.0**	**1.05**	**2.03**	**1.07**
	NAAQS	35	9	35	9
	de minimis	N.A.	4.05	N.A.	4.05
	Impact	**No**		**No**	
$PM_{2.5}$ ($\mu g/m^3$)		**24-hour**	**Annual**	**24-hour**	**Annual**
	Garage	1.17	0.19	1.34	0.22
	de minimis	8.05	0.3	8.05	0.3
	Impact	**No**		**No**	
PM_{10} ($\mu g/m^3$)		**24-hour**		**24-hour**	
	Garage	5.4		6.2	
	Background concentration	35		35	
	Total concentration	**40.4**		**41.2**	
	NAAQS	150		150	
	Impact	**No**		**No**	

The analysis concluded that all the pollutants are within the NAAQS and the *de minimis* criterions. Therefore, no significant air quality impacts are expected as a result of the parking garage facility.

IV. STATIONARY SOURCE ANALYSIS

As outlined in the *CEQR Technical Manual*, stationary sources, which are analyzed below, are defined as HVAC systems, industrial sources, odor producing facilities, and major sources. The analysis considers both the proposed project's potential impact on existing or planned land uses and the potential of existing emission sources to significantly impact the proposed project. Existing emission sources that require analysis are industrial sources within 400 feet of the Rezoning Area, and major sources and odor producing facilities within 1,000 feet of the Rezoning Area. Figure 17-1 displays the Rezoning Area with 400-foot and 1,000-foot buffer zones.

Figure 17-1. The Rezoning Area with 400 and 1,000 feet Buffer Zones



HVAC systems

Introduction

Per the *CEQR Technical Manual*, the HVAC analysis considers the potential for emissions from the HVAC systems of the proposed developments to significantly impact existing land uses (project-on-existing), and the potential of the proposed developments' HVAC systems to significantly impact each other (project-on-project).

As outlined in the *CEQR Technical Manual*, the analysis of buildings' HVAC systems follows stationary sources methodology, and based on CEQR guidelines, a preliminary screening analysis is to be conducted as a first step to predict whether the potential impacts of the heat and hot water system boiler emissions can be significant. This CEQR screening procedure is applicable to buildings that are not less than 30 feet from the nearest building of similar or greater height. Otherwise, a detailed dispersion analysis is required.

As previously mentioned, the Proposed Actions would result in two developments: (1) The Enlarged Parkway Hospital; and (2) The Proposed New Market Rate Building. The Enlarged Parkway Hospital, fronting 113th Street, would rise to a height of 89 feet above the grade elevation of 113th Street (49.29 feet) and would contain 118,973 gsf. Natural gas would be the type of fuel used in the HVAC equipment of the Enlarged Parkway Hospital. The Proposed New Market Rate Building would rise to a height of 140 feet and contain 283,077 gsf. Accounting for difference in grade elevation, the Proposed New Market Rate Building would rise to a height of 116 feet above the grade elevation of 113th Street.

Screening Analysis

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

If the actual distance between a stack and the 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 a detailed analysis would be required.

HVAC Project-on-Existing

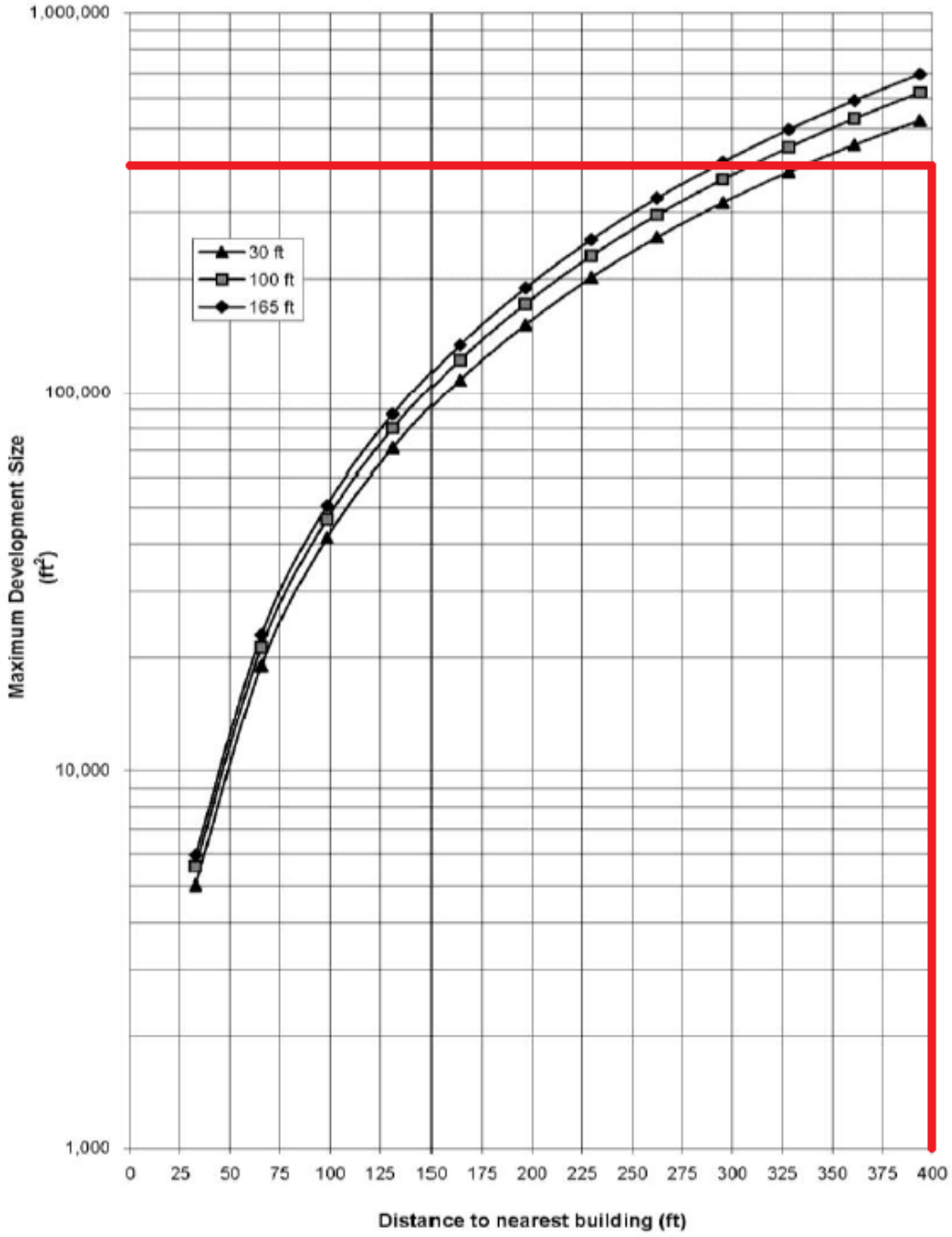
Each of the anticipated for development buildings in the Rezoning Area would be equipped with its own separate heat and hot water system. However, for purposes of a cumulative analysis, emissions from multiple stacks could be combined in a single stack situated as close as possible to the receiving building.

As the Proposed New Market Rate Building would not be restricted to the exclusive use of natural gas in its heat and hot water system boiler, the CEQR nomograph depicted on Figure 17-3 of the *CEQR Technical Manual* was used in the screening analysis. This nomograph depicts the size of a development versus distance below which the potential impact can occur and provides a conservative estimate of the threshold distance. As a conservative measure, the screening analysis assumed that the combined stack would be located on top of the lower building, the Enlarged Parkway Hospital building height of 89 feet, and as such, the nomograph 30-foot stack height was applied (as the 30 feet curve height is closest to but not higher than the proposed stack height, as the CEQR screening procedure requires).

A review of existing land uses within 400 feet of the Rezoning Area shows that there are no existing buildings similar to or greater in height than the Enlarged Parkway Hospital building within 400 feet of the Rezoning Area. The nearest building of similar or greater height is the 10-story residential building, located at 110-50 71 Road (Block 2235, Lot 25), and 480 feet from the Rezoning Area. Therefore, a distance of 400 feet was considered as the CEQR screening analysis procedure requires. Figure 17-2 shows the screening analysis, where the developments combined floor area is 402,050 gsf.

17-2. The Proposed Project Cumulative Screening Analysis –All Fuels Nomograph

Figure 17-3:
Stationary Source Screen



As seen in Figure 17-2, the proposed project passes the CEQR screening analysis on existing land uses.

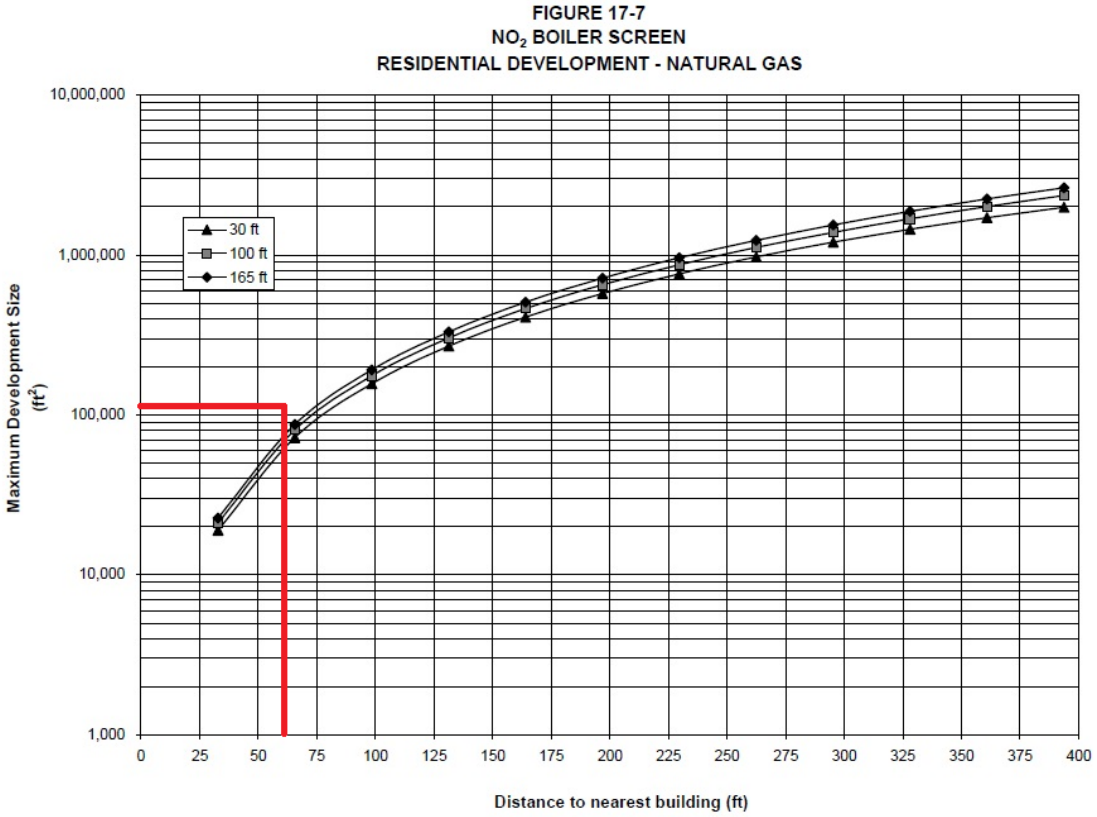
HVAC Project-on-Project

The Enlarged Parkway Hospital building is expected to use natural gas for its heat and hot water system. Therefore, a screening analysis was performed for natural gas use and environmental designations added to specify the use of natural gas only.

Per the *CEQR Technical Manual*, the total square footage of the Enlarged Parkway Hospital was used in the analysis and the CEQR natural gas nomograph depicted on Figure 17-7 of the *CEQR Technical Manual* Appendix for a 30-foot stack height was applied (as the 30 feet curve height is closest to but not higher than the proposed stack height, as the CEQR screening procedure requires). This nomograph depicts the size of the development versus distance below which the potential impact can occur, and provides a conservative estimate of the threshold distance.

Figure 17-3 depict the screening analysis of the Enlarged Parkway Hospital on the New Market Rate building, where the 63 feet distance between the buildings was procured from the site plan prepared by the project architect.

Figure 17-3. Enlarged Parkway Hospital on the New Market Rate building - Natural Gas Nomograph



As seen in Figure 17-3, the size of the development versus distance below which a potential impact can occur is above the curve. Therefore, the screening analysis failed, and a detailed analysis was conducted as further discussed in the Air Quality report below.

HVAC Detailed Analysis

A dispersion modeling analysis was conducted to estimate impacts from the stack emissions of the Enlarged Parkway Hospital using the EPA's AERMOD version 16216r. In accordance with CEQR guidance, this analysis was conducted assuming stack tip downwash, urban dispersion surface roughness length of 1.0 meter, elimination of calms, and with and without downwash effect on plume dispersion. AERMOD's Plume Volume Molar Ratio Method (PVMRM) module was utilized for the 1-hour NO_2 analysis to account for NOx to NO_2 conversion.

HVAC Emissions

Emission rates were estimated as follows:

- The Enlarged Parkway Hospital is expected to be heated by natural gas, emission rates of NOx and $PM_{2.5}$ were calculated based on annual natural gas usage corresponding to the gross floor area of the building and its use, EPA AP-42 emission factors for natural gas combustion in small boilers, and gross heating values of natural gas (1,020 Btu per million cubic feet).
- $PM_{2.5}$ emissions from natural gas combustion accounted for both filterable and condensable particulate matter.
- The natural gas fuel usage factor (59.1 cubic foot per square foot per year) was used to estimate annual natural gas usage for residential use and was calculated by dividing the energy consumption rate of 60.3 thousand Btu/ft^2 by natural gas heating value of 1020 Btu/ft^3.

Table 17-6 provides NO_2 and $PM_{2.5}$ emission rates, both short-term and annual, for the Enlarged Parkway Hospital. The diameter of the stacks and the exhaust's exit velocities were estimated based on values obtained from the NYCDEP "CA Permit" database for the corresponding boiler sizes (i.e., rated heat input or million Btu per hour). Boiler sizes were estimated based on the assumption that all fuel was consumed during the 100-day (or 2,400 hour) heating season. The stack exit temperature was assumed to be 300°F (423°K), which is appropriate for boilers.

Table 17-6. Estimated Emission Rates of the Enlarged Parkway Hospital

Site ID	Floor Area	NO_2 Emission factor (2) g/sec		$PM_{2.5}$ Emission factor (1) g/sec	
	ft^2	1-hour	Annual	24-hour	Annual
Enlarged Parkway Hospital	118,973	3.69E-02	1.01E-02	2.81E-03	7.69E-04

Notes:
1. PM2.5 emission factor for natural gas combustion of 7.6 lb/10^6 cubic feet included filterable and condensable particulate matter, filterable PM2.5=1.9 lb/10^6 cubic feet and condensable PM2.5=5.7 lb/10^6 cubic feet (AP-42, Table 1.4-2).
2. NOx emission factor for natural gas of 100 lb/10^6 cubic feet for uncontrolled boilers with <100MMBtu/hr (AP-42, Table 1.4-1).
3. Boiler size was estimated based on a fuel consumption rate of 1,020 Btu/ft^3 and the assumption that all fuel is consumed in a 100 day (2,400 hours) heating season using the following equation: MMBtu/hr = X ft^3/yr / 2,400hrs/yr * 1020 Btu/ft^3/10^6 MMBtu/Btu.

HVAC 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. Data was processed by Lakes Environmental Software, Inc. using the current EPA AERMET version (16216) 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.

Meteorological data were combined to develop a 5-year set of meteorological conditions, which was used for the AERMOD modeling runs and Anemometer height of 9.4 meters was specified per Lakes Environmental Software Inc.

Per Lakes Environmental Inc., $PM_{2.5}$ special procedure which is 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.

HVAC Background Concentrations

For the purpose of conducting the 1-hour NO_2 Tier 3 analysis, hourly NO_2 and hourly ozone background concentrations were obtained from the NYC Department of City Planning. This data was developed from available monitoring data collected by the New York State Department of Environmental Conservation (NYSDEC) at the Queens College monitoring station for the 5 consecutive years (2012-2016), and compiled into AERMOD's required hourly emission (NO_2) and concentration (ozone) data format.

The seasonal hourly NO_2 monitored background concentrations were added as a source in AERMOD. This produces three outputs: (1) the individual impact of the building stack's emission; (2) the individual impact of the background concentration; and (3) the combined impact of both the building stack's emission and the background concentration at corresponding hours.

HVAC AERMOD Setting

AERMOD calculates concentrations according to the dispersion option, pollutant and averaging time, and output specified in the model. All models specified flat and elevated terrain, the default urban roughness coefficient of 1.0 meter with a population of 2,000,000. The other parameters of each pollutant were:

1-hour NO_2: NAAQS option enabled, Tier 3 conversion method and 8th highest value output. The stack's equilibrium ratio and in-stack ratio were set to 0.5 and 0.9, respectively.

24-hour $PM_{2.5}$ NAAQS: Based on a multi-year average of ranked maximum daily values enabled and 1st highest value output.

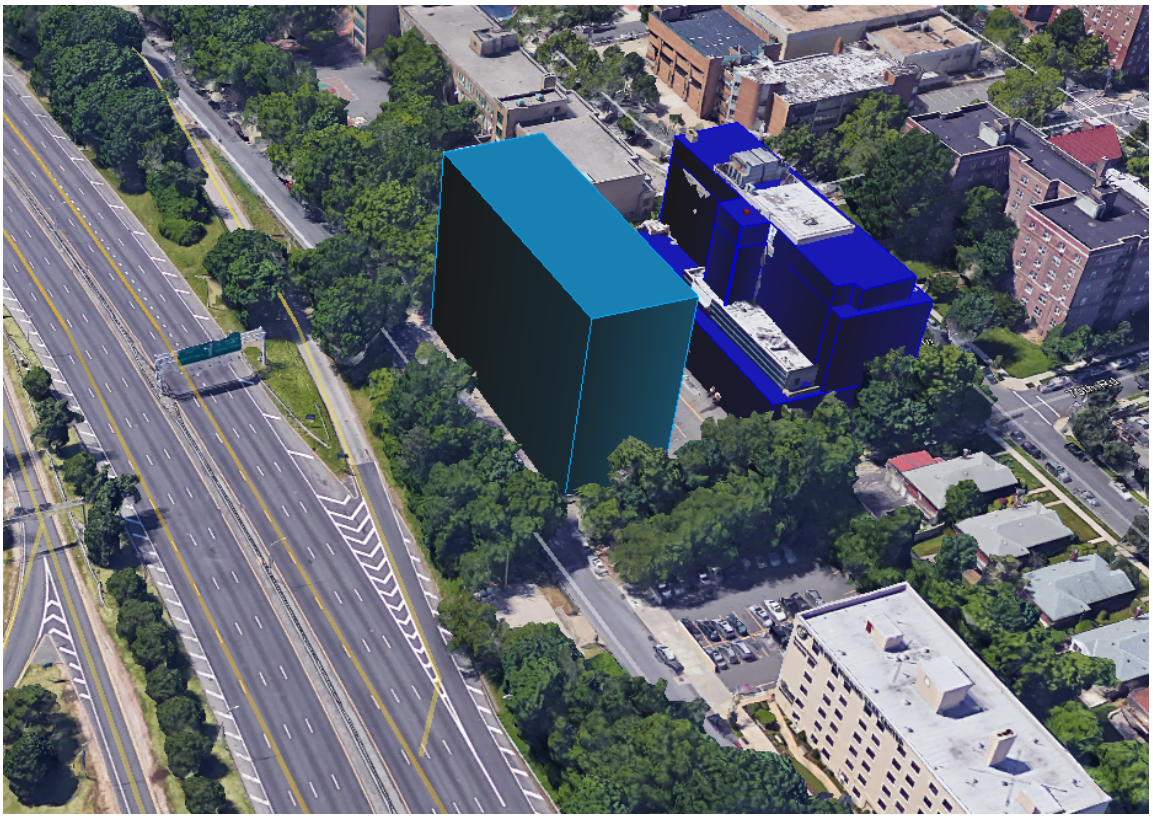
In addition, base elevations of 49.29 feet were specified for the Enlarged Parkway Hospital building and stack input, and 25.48 feet for the New Market Rate Building receptors and building inputs. These base elevations were obtained from the site plans provided by the building's architect for this project.

HVAC Stack and Receptor Locations

The New York City Building Code (Building Code) requires that a rooftop stack should be at least 10 feet away from the edge of the roof and at least 3 feet higher than the roofline. As such, the HVAC stack on the Enlarged Parkway Hospital building was located on the buildings' highest tier, 10 feet from the edge of the roof, and as close as possible to the receiving building (the New Market Rate building). If exceedances of the $PM_{2.5}$ or NO_2 significant impact criteria were predicted at this stack location, set-back distances were increased, in five feet increment, until the threshold distance at which the projected building would pass the analysis was found.

Figure 17-4 displays AERMOD's buildings configuration plotted in Google Earth to illustrate the stack location of the Enlarged Parkway Hospital building, where the Enlarged Parkway Hospital building is shaded in dark blue. The stack was reasonably located on the building's highest tier, and an E-designations specify this location and height.

Figure 17-4. AERMOD's Projected Development Site Input Plotted in Google Earth and Viewed from the South



Receptors on the receiving building were placed at 10-foot increments on all floor levels, and conservatively at 5 feet below the roof line. As previously mentioned, a grade elevation of 25.48 feet was specified per the site plans provided by the building's architect for this project.

HVAC Results of Dispersion Analyses

Results are compared with the 24-hour/annual $PM_{2.5}$ significant impact criteria, and the 1-hour/annual NO_2 NAAQS.

The potential $PM_{2.5}$ impacts from the Enlarged Parkway Hospital emissions on the New Market Rate building are as follows:

- With the stack located 159 feet from lot line facing the Grand Central Parkway Service Road, the maximum 24-hour $PM_{2.5}$ impact is estimated to be 3.4 $\mu g/m^3$ and the annual average impact is estimated to be 0.09 $\mu g/m^3$.

These impacts are less than the significant impact criteria for $PM_{2.5}$ of 8.05 $\mu g/m^3$ and 0.3 $\mu g/m^3$, respectively. As such, restrictions on stack location and height would be required and with (E) Designation in place, the emissions from the Enlarged Parkway Hospital would not significantly impact the New Market Rate building.

Results of the 1-hour and annual NO_2 impacts on the New Market Rate building are as follows:

- The 1-hour NO_2 8th highest daily 1-hour concentration with added background hourly concentrations averaged over 5 years is 186 $\mu g/m^3$.
- The maximum annual total NO_2 concentration is estimated to be 31.5 $\mu g/m^3$ with added annual background concentrations (i.e., with a maximum estimated impact of 1.2 $\mu g/m^3$ and background value of 33.6 $\mu g/m^3$).

Both the 1-hour and annual NO_2 concentrations estimated are less than the 1-hour and annual NO_2 NAAQS of 188 $\mu g/m^3$and 100 $\mu g/m^3$, respectively. Therefore, the 1-hour and annual NO_2 emissions from the Enlarged Parkway Hospital would not significantly impact the New Market Rate building, with restriction on stack location and height in place.

Therefore, with (E) Designations in place, the emissions from the Enlarged Parkway Hospital would not significantly impact the New Market Rate building.

(E) Designation

The HVAC analysis concluded that fuel would need to be restricted to the exclusive use of natural gas in the HVAC system of the Enlarged Parkway Hospital building, and the minimum stack heights would need to be specified for the Projected Development Site buildings. In addition, the Enlarged Parkway Hospital building would require specifying the stacks' location. To ensure that the proposed actions would not result in significant adverse air quality impacts, an (E) Designation (E-502) will be placed on the following site as described below:

Projected Development Site 1 (Block 2248, Lot 228):

Western portion of Lot 228, "Enlarged Parkway Hospital Building": Any new residential, commercial or community facility development on the above-referenced property must use exclusively natural gas as the type of fuel for space heating, ventilating, air conditioning (HVAC) systems to avoid any potential significant adverse air quality impacts. The building's stack must be located at the building's highest tier, and at a minimum of 92 feet above grade, and at least 92 feet from the western façade at the

"Proposed New Market Rate Building" to avoid any significant adverse air quality impact.

Eastern portion of Lot 228, "Proposed New Market Rate Building": Any new residential or commercial development on the above-referenced property must insure that the stack shall be located at the building's highest tier, and at a minimum of 143 feet above grade to avoid any significant adverse air quality impact.

Toxic Air Emissions from Industrial Facilities

Information regarding potential emissions of toxic air pollutants from existing industrial sources was developed using the following procedure:

- A study area was developed that includes all industrial facilities with potential air toxic emissions located within 400 feet of the Rezoning Area using Zoning and Land Use application (ZoLa);
- New York City's Open Accessible Space Information System Cooperative (OASIS), Google Street View, on-line searches, and land surveys were used to identify and categorize facilities;
- A search was performed to identify permits listed in the EPA Envirofacts database in this study area; and
- A formal request with blocks and lot numbers necessary to identify industrial source permits within 400 feet of the Rezoning Area was submitted to NYCDEP;

The study found numerous public facilities and one mixed-use building; a residential and Doctor's office. The land survey results are shown in Table 17-7.

Table 17-7. Sites of Interest for Air Quality Within 400 feet of Rezoning Area

Block	Lot(s)	Address	Use
2244	1	112-05 70th Avenue, Queens 11375	Residential & Doctor's Office
2244	30	70-11 112th Street, Queens 11375	Church
2246	1	70-37 112th Street, Queens 11375	Church
2246	4	70-35 112th Street, Queens 11375	Church
2246	31	71-11 112th Street, Queens 11375	Jewish Temple & Public School
2246	41	71-02 113th Street, Queens 11375	University & Jewish School
2245	46	69-70 Grand Central Parkway Surface Road Southwest, Queens 11375	Senior Care Center
2248	9	112-02 71st Road, Queens 11375	Residential & Doctor's Office
2248	11	112-08 71st Road, Queens 11375	Parking

2248	44	112-21 72nd Avenue, Queens 11375	Synagogue
2248	100	71-25 113th Street, Queens 11375	Public School
2248	228	70-35 113th Street, Queens 11375	Building Not in Use
2280	1	N/A	Park

The result of the study identified no commercial, industrial, or processing facilities that are likely to have NYC operational permits. Therefore, no significant air quality impacts are predicted from industrial source emissions to the Rezoning Area.

Major Sources and Odor

No existing large combustion sources, such as power plants, cogeneration facilities, etc., located within 1,000 feet of the Rezoning Area were identified. However, a cluster of several notable community facility institutions are within 1,000 feet from the Rezoning Area. These include the Fairview Nursing Care Center (Block 2245, Lot 45; north and immediately adjacent to Development Site); Atria Supporting Housing of Forest Hills at 112-50 72nd Avenue (Block 2248, Lot 99); the First Presbyterian Church of Forest Hills at 70-35 112nd Street (block 2246, Lots 1, 4 & 9); Iglesia Ni Cristo at 70-11 112th Street (Block 2244, Lot 30); The Reform Temple of Forest Hills at 71-11 112th Street (Block 2246, Lot 31); Touro College at 71-02 113th Street (Block 2246, Lot 41); and P.S. 196 at 71-25 113th Street (block 2248, Lot 100). These locations are not registered as Title V facilities or Air State facilities, and their boilers are smaller than 20 MMBtu/hour per DEP's CATS information system. As such, no analysis was warranted and no significant air quality impacts are predicted from these sites.

V. CONCLUSION

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

- Emissions from project-related vehicle trips would not cause significant air quality impacts to receptors at the local or neighborhood scale;
- Emission from the parking garage of the New Market Rate building would not cause significant air quality impacts to receptors at the local scale;
- As no existing large or major sources are located within 1,000 feet of the Rezoning Area, emissions from existing stationary HVAC sources would not cause a significant air quality impact to the proposed project;
- No significant air quality impacts to the proposed project are anticipated from air toxics;
- Emissions from project-related heating, ventilation, and air conditioning systems (HVACs) would not cause significant air quality impacts to receptors at the local scale with (E) – Designations (E-502) in place.

19. NOISE

Introduction

The proposed zoning actions would allow for the development of independent senior housing and market rate housing. The site is located at 70-35 113th Street in the Forest Hills neighborhood of Queens, New York. Vehicular traffic is the predominant source of noise, and therefore the proposed development warrants an assessment of the potential for adverse effects on project occupants from ambient noise. The proposed redevelopment of the property would not create a significant noise generator. Additionally, project-generated traffic would not double vehicular traffic on nearby roadways, and therefore would not result in a perceptible increase in vehicular noise. This noise assessment is limited to an assessment of ambient noise that could adversely affect occupants of the development.

The Development Site is located in the Forest Hills section of Queens Community District 6 (Block 2248, Lot 228). The Development Site is bound to the north by an unbuilt section of 70th Road, the east by the Grand Central Parkway and the west by 113th Street. The Development Site is developed with the vacant former Parkway Hospital and parking lot and is located within an area containing public facilities and institutions, commercial, and residential uses.

Framework of Noise Analysis

Noise is defined as any unwanted sound, and sound is defined as any pressure variation that the human ear can detect. Humans can detect a large range of sound pressures, from 20 to 20 million micropascals, but only those air pressure variations occurring within a particular set of frequencies are experienced as sound. Air pressure changes that occur between 20 and 20,000 times a second, stated as units of Hertz (Hz), are registered as sound. Because the human ear can detect such a wide range of sound pressures, sound pressure is converted to sound pressure level (SPL), which is measured in units called decibels (dB). The decibel is a relative measure of the sound pressure with respect to a standardized reference quantity. Because the dB scale is logarithmic, a relative increase of 10 dB represents a sound pressure that is 10 times higher. However, humans do not perceive a 10-dB increase as 10 times louder. Instead, they perceive it as twice as loud. The following Table 19-1 lists some noise levels for typical daily activities.

Table 19-1 Noise Levels of Common Sources	
Sound Source	**SPL (dB(A))**
Air Raid Siren at 50 feet	120
Maximum Levels at Rock Concerts (Rear Seats)	110
On Platform by Passing Subway Train	100
On Sidewalk by Passing Heavy Truck or Bus	90
On Sidewalk by Typical Highway	80
On Sidewalk by Passing Automobiles with Mufflers	70
Typical Urban Area	60-70
Typical Suburban Area	50-60
Quiet Suburban Area at Night	40-50
Typical Rural Area at Night	30-40
Isolated Broadcast Studio	20
Audiometric (Hearing Testing) Booth	10
Threshold of Hearing	0

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

Source: 2014 CEQR Technical Manual

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

Table 19-2
Noise Exposure Guidelines For Use in City Environmental Impact Review[1]

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	$L_{dn} \leq 60$ dBA		$60 < L_{dn} \leq 65$ dBA		(I) $65 < L_{dn} \leq 70$ dBA, (II) $70 \leq L_{dn}$		$L_{dn} \leq 75$ 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 dB(A) 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 as important public need, and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. Examples are grounds for ambulatory hospital patients and patients and residents of sanitariums and nursing homes.

[3] One may use the FAA-approved L_{dn} contours supplied by the Port Authority, or the noise contours may be computed from the federally approved 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).

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

The following is typical of human response to relative changes in noise level:

- 3-dBA change is the threshold of change detectable by the human ear;
- 5-dBA change is readily noticeable; and
- 10-dBA change is perceived as a doubling or halving of the noise level.

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

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

- $L_{eq(24)}$ is the continuous equivalent sound level over a 24-hour time period.

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

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

Table 19-3
Required Attenuation Values To Achieve Acceptable Interior Noise Levels

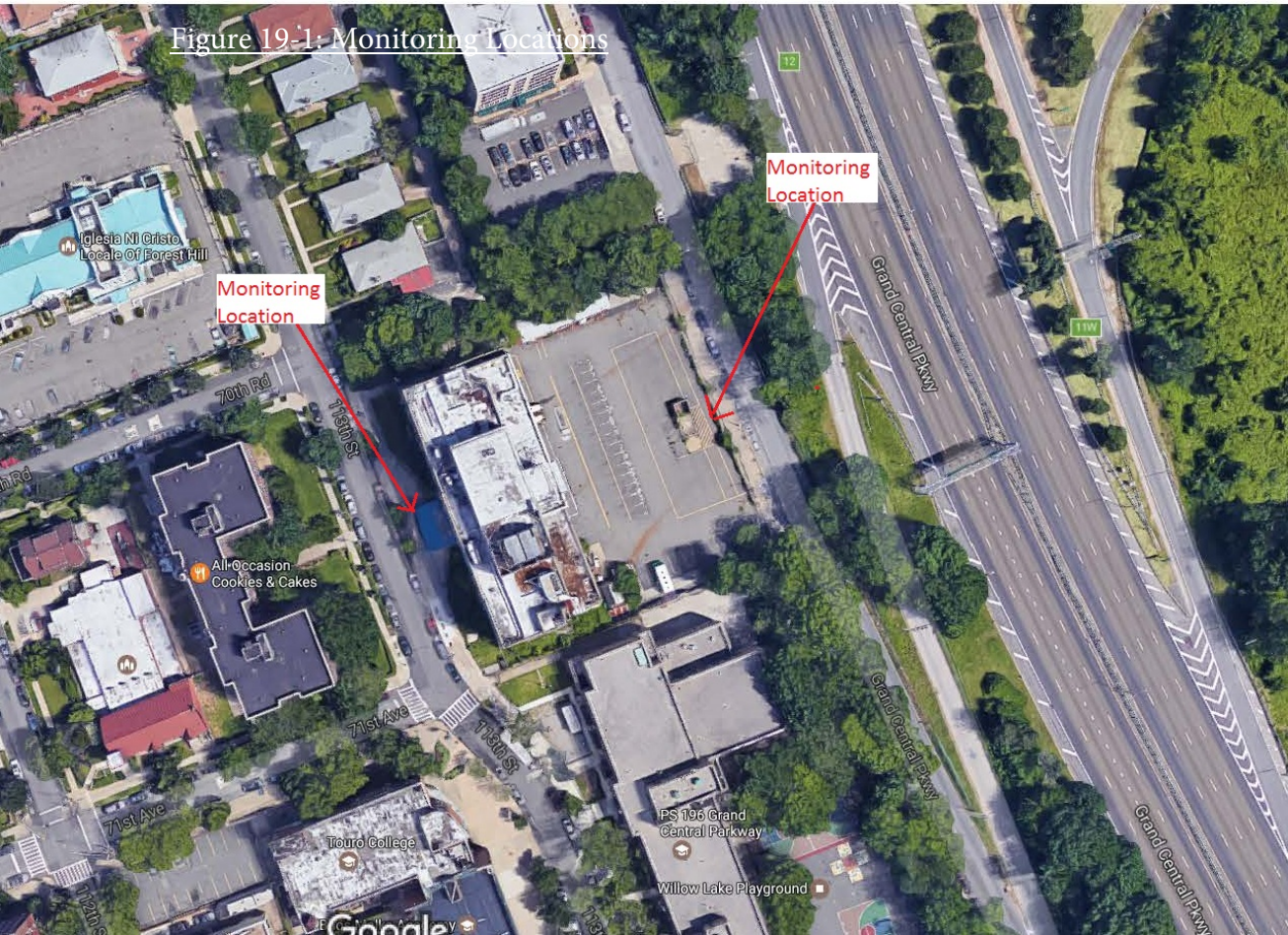
	Marginally Unacceptable				Clearly Unacceptable
Noise level with proposed project	$70<L_{10}\leq73$	$73<L_{10}\leq76$	$76<L_{10}\leq78$	$78<L_{10}\leq80$	$80<L_{10}$
Attenuation[A]	(I) 28 dB(A)	(II) 31 dB(A)	(III) 33 dB(A)	(IV) 35 dB(A)	$36 + (L_{10} - 80)$[B] dB(A)

Note: [A] The above composite window-wall attenuation values are for residential dwellings and community facility development. Commercial office spaces and meeting rooms would be 5 dB(A) less in each category. All of the above categories require a closed window situation and hence an alternate means of ventilation.
[B] Required attenuation values increase by 1 dB(A) increments for L_{10} values greater than 80 dBA.
Source: New York City Department of Environmental Protection

Measurement Location and Equipment

Because the predominant noise source in the area of the proposed project is vehicular traffic, noise monitoring was conducted during peak vehicular travel periods, 8:00 – 9:00 am, 12:00 -1:00 pm, and 5:00-6:00 pm. Pursuant to CEQR Technical Manual methodology, readings on the 113th Street and Grand Central Parkway frontages were conducted for 20-minute periods during each peak time interval to account for vehicular noise. Noise monitoring was conducted using a Type 1 Casella CEL-633 sound meter, with windscreen. The monitor was placed on a tripod at a height of approximately three feet above the ground, away from any other surfaces. The monitor was calibrated prior to and following each monitoring session. Vehicular traffic constitutes the primary source for noise at the project site.

Figure 19-1: Monitoring Locations



Monitoring Locations (see Figure 19-1):

1. Location 1: Grant Central Parkway Service Road Frontage
2. Location 2: 113th Street Frontage

Figure 19-2: Grand Central Parkway Service Road Frontage Monitoring Location



Figure 19-3: Grand Central Parkway Service Road Frontage Monitoring Location



Figure 19-4: 113th Street Frontage Monitoring Location



Figure 19-5: 113th Street Frontage Monitoring Location



Measurement Conditions

Monitoring was conducted during typical midweek conditions, on Thursday, November 10, 2016. The weather was sunny and dry throughout the day and wind speeds were moderate. Neighboring properties were not a significant source of ambient noise. Traffic volumes and vehicle classification were documented during the noise monitoring. The sound meter was calibrated before and after each monitoring session.

Existing Conditions

Based on the noise measurements taken at the project site, the predominant source of noise at the site is commercial vehicular traffic. The volume of traffic, and its corresponding level of noise, is moderate on the 113th street frontage and moderate on the Grand Central Parkway frontage. Table 19-4 and Table 19-5 contains the results for the measurements taken at the subject site.

Table 19-4 (1 of 2): Noise Levels at the 113th Street frontage (dB)

	Thursday, November 10, 2016		
	8:23 – 8:43 am	12:33 – 12:53 pm	5:23 – 5:44 pm
L_{max}	70.5	70.3	70.8
L_{10}	**60.0**	**57.5**	**55.5**
L_{eq}	58.6	55.7	53.4
L_{50}	57.0	52.5	51.5
L_{90}	55.5	50.0	50.0
L_{min}	53.9	48.0	48.9

Table 19-4 (2 of 2): Noise Levels at the Grand Central Parkway frontage (dB)

	Thursday, November 10, 2016		
	8:02 – 8:22 am	12:09 – 12:30 pm	5:01 – 5:21 pm
L_{max}	77.4	83.1	81.7
L_{10}	**71.5**	**71.0**	**66.5**
L_{eq}	69.4	68.9	65.5
L_{50}	69.0	68.0	63.5
L_{90}	66.0	66.0	62.5
L_{min}	65.1	64.2	61.0

Table 19-5 (1 of 3): Morning Traffic Volumes and Vehicle Classifications (vehicle counts for duration of the morning monitoring session)

	113th Street	**Grand Central Parkway (service road)**
Car/ Taxi	1	147
Van/ Light Truck/SUV	3	220
Heavy Truck	0	4
Mini Bus	0	3
Bus	3	10

Table 19-5 (2 of 3): Mid-day Traffic Volumes and Vehicle Classifications (vehicle counts for duration of the mid-day monitoring session)

	113th Street	Grand Central Parkway (service road)
Car/ Taxi	3	123
Van/ Light Truck/SUV	1	192
Heavy Truck	0	3
Mini Bus	0	4
Bus	0	3

Table 19-5 (3 of 3): Evening Traffic Volumes and Vehicle Classifications (vehicle counts for duration of the evening monitoring session)

	113th Street	Grand Central Parkway (service road)
Car/ Taxi	11	194
Van/ Light Truck/SUV	6	251
Heavy Truck	0	3
Mini Bus	0	4
Bus	0	6

Conclusions

The 2014 *CEQR Technical Manual* Table 19-2 contains noise exposure guidelines. For a residential use such as would occur under the proposed action, an L_{10} of between 65 and 70 dB(A) is identified as marginally acceptable general external exposure, and an L_{10} of between 70 and 80 dB(A) is identified as marginally unacceptable. The highest recorded L_{10} at the 113th Street frontage of the subject property was 60.0 dB(A) during the morning period. The highest recorded L_{10} at the Grand Central Parkway frontage of the subject property was 71.5 dB(A) during the morning period.

Because the L_{10} values on the 113th Street frontage does not exceed 70 dB(A), window-wall noise attenuation would not be required at this frontage. Because the L_{10} values on the Grand Central Parkway frontage exceeds 70 dB(A), window-wall noise attenuation would be required to ensure an acceptable indoor noise level. Based on Table 19-3 of the *CEQR Technical Manual*, the required attenuation value to achieve acceptable interior noise levels at the Grand Central Parkway frontage is 28 dB(A).

Provision of this level of window-wall attenuation would ensure that no adverse impacts related to noise occur.

Window-wall attenuation on portions of the Development Site would be achieved through an E-designation. The text for the E-designation (E-502) would be as follows:

Projected Development Site 1 (Block 2248, Lot 228):

In order to ensure an acceptable interior noise environment, future residential/community facility uses must provide a closed-window condition with a minimum of 28 dB(A) window/wall attenuation on all building's facades in order to maintain an interior noise level of 45 dB(A). In order to maintain a closed-window condition, an alternate means of ventilation must be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning or air conditioning sleeves containing air conditioners.

With these measures included as part of the Proposed Actions, no significant adverse noise impacts would occur.

21. NEIGHBORHOOD CHARACTER

The *CEQR Technical Manual* states that a neighborhood character assessment is generally required when the Proposed Action would significantly impact land use, urban design, visual resources, historic resources, socioeconomic conditions, open space, shadows, transportation or noise within the neighborhood; or if it would have moderate effects on several of the elements that contribute to neighborhood character.

While a combination of moderate changes in several of these technical areas may potentially have a significant effect on neighborhood character, the Proposed Action would be compatible with the medium density residential and institutional character of the neighborhood and, as discussed in the relevant sections of this EAS, is not anticipated to result in any significant adverse impacts on land use, zoning and public policy; community facilities; socioeconomics; open space; shadows; historic and cultural resources; urban design and visual resources; transportation; air quality; noise; or construction within the neighborhood.

Therefore, no significant adverse impacts on neighborhood character are anticipated as a result of the Proposed Action.

22. CONSTRUCTION

Introduction

A preliminary construction analysis may be required because the proposed development would result in construction activities lasting longer than two years.

Proposed Construction Schedule

The former Parkway Hospital would be renovated and expanded between September of 2018 and March of 2020 (18 months) and the new market rate building would be constructed between March of 2020 and finalized in March of 2022 (24 months) for full occupation of both buildings by the middle of 2022.

Table 22-1

Building Construction/Occupancy Schedule

Projected Development Site	Begin Construction	Complete Construction	Construction Length	Occupancy
1	May 2019	December 2022	42 Months	Early 2023

Proposed Construction Activities

The renovation and expansion of the former Parkway Hospital, which consists of half of the Development Site is expected to begin first and would occur between May and June of 2019 and December of 2020. The second phase of the construction schedule would consist of a new fourteen-story residential building on the remainder of the Development Site which would occur between December of 2020 and December of 2022. See attached Construction Schedule.

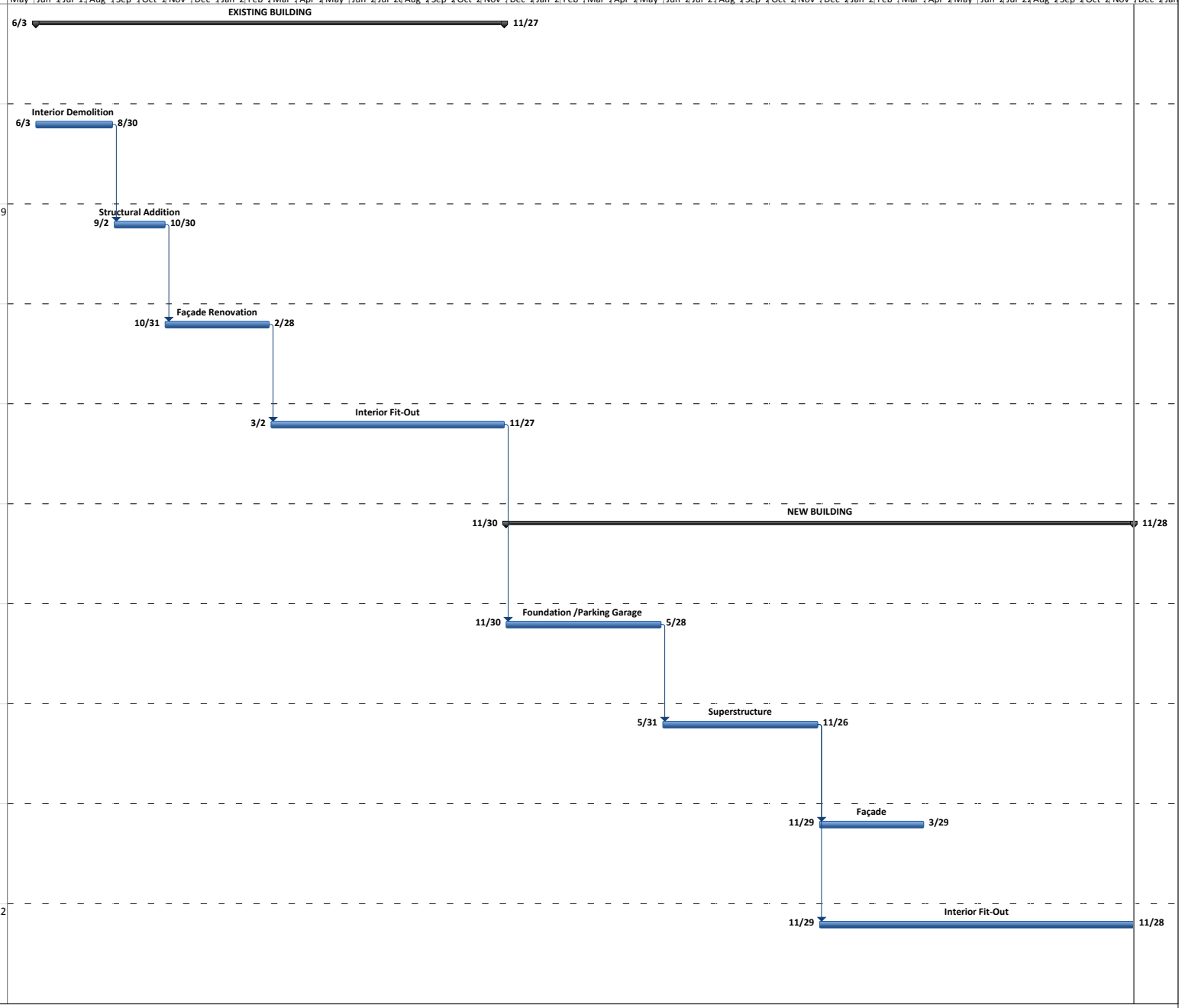
Construction activities would include the following:

- Interior Demolition (former Parkway Hospital): 3 months
- Structural Addition (former Parkway Hospital): 2 months
- Façade Renovation (former Parkway Hospital): 5 months
- Interior Fit-Out (former Parkway Hospital): 9 months
- Foundation/Parking Garage (new building): 8 months
- Superstructure (new building): 6 months
- Façade (new building): 4 months
- Interior Fit-Out (new building): 12 months

Most construction work would take longer for the new residential building as the existing vacant hospital site only needs a two-story addition compared to the construction of a new fourteen-story residential building.

73-35 113th St
Forest Hills, NY

ID	Task Name	Duration	Start	Finish
1	**EXISTING BUILDING**	**390 days**	**Mon 6/3/19**	**Fri 11/27/20**
2	Interior Demolition	65 days	Mon 6/3/19	Fri 8/30/19
3	Structural Addition	43 days	Mon 9/2/19	Wed 10/30/19
4	Façade Renovation	87 days	Thu 10/31/19	Fri 2/28/20
5	Interior Fit-Out	195 days	Mon 3/2/20	Fri 11/27/20
6	**NEW BUILDING**	**521 days**	**Mon 11/30/20**	**Mon 11/28/22**
7	Foundation /Parking Garage	130 days	Mon 11/30/20	Fri 5/28/21
8	Superstructure	130 days	Mon 5/31/21	Fri 11/26/21
9	Façade	87 days	Mon 11/29/21	Tue 3/29/22
10	Interior Fit-Out	261 days	Mon 11/29/21	Mon 11/28/22



NEWMAN DESIGN

Task	Summary	External Milestone	Inactive Summary	Manual Summary Rollup	Finish-only
Split	Project Summary	Inactive Task	Manual Task	Manual Summary	Deadline
Milestone	External Tasks	Inactive Milestone	Duration-only	Start-only	Progress

5.14.18

Demolition and building construction work would take approximately 12 months for for the former Parkway Hospital while foundation and subcellar construction, façade construction and interior construction of the new fourteen-story reisdential building would take 24 months to finalize the construction of the development for a total of approximately 42 months of total construction time.

While the renovation and construction of the former Parkway Hospital would be completed prior to the new construction of the adjacent fourteen-story residential building, it is not anticipated that the former Parkway Hospital would be occupied prior to the finalization of the new building in 2023. Therefore, there would be no construction impacts of either building on the residents of the other.

Project construction activities are expected to be typical for larger building construction projects in New York City. Construction activities would predominantly occur Monday through Friday, although limited delivery of certain critical pieces of equipment (e.g., cranes) may be necessary on weekend days if required in order to minimize traffic disruptions. Any weekend work would be contingent upon any conditions that may be imposed by City agencies that approve and monitor construction activities such as the NYC Department of Buildings (DOB) and the NYC Department of Transportation (DOT). DOB also regulates the permitted hours of construction. In accordance with those regulations, typical construction activities in New York City begin no earlier than 7 AM during the week, and workers typically arrive and begin to prepare work areas between 6 and 7 AM. The standard weekday construction workday ends by 3:30 PM with an occasional extended shift until 6 PM.

Potential Construction Impacts

In accordance with the 2014 *CEQR Technical Manual*, the proposed project was reviewed to determine whether further analysis of the proposed construction activities is needed for any technical area, as follows.

Transportation

According to the *CEQR Technical Manual*, a number of factors should be considered before determining whether a preliminary assessment of the effect of construction on transportation is needed including:

- *Whether the project's construction would be located in a Central Business District (CBD) or along an arterial or major thoroughfare;*
- *Whether the project's construction activities would require closing, narrowing, or otherwise impeding moving lanes, roadways, key pedestrian facilities, parking lanes and/or parking spaces, bicycle routes and facilities, bus lanes or routes, or access points to transit; and*
- *Whether the project would involve construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap, and last for more than two years overall.*

The Development Site consists of a single through lot with frontage along 113th Street and the Grand Central Parkway service road. Both of these streets are one-way streets with 113th street changing directions between 71st Avenue. The Grand Central Parkway Service Road moves one-way (south) and primarily provides access to the Grand Central Parkway (southbound). 113th Street provides access to medium density residential and community facility uses along this street. As the Development Site is vacant with a large undeveloped parking lot area, all construction equipment and supplies could therefore be stored on site, it is not anticipated that construction of the project would require closing, narrowing, or otherwise impeding moving lanes, roadways, key pedestrian facilities, parking lanes and/or parking spaces, bicycle routes and facilities, bus lanes or routes, or access points to transit.

The construction of the proposed development may require the temporary closing of sidewalks adjacent to the block at times during the construction process. The sidewalks adjacent to the Development Site are likely to be reconstructed, which may temporarily impact pedestrian flow and the availability of parking spaces along these streets. However, changes to moving traffic lanes are not likely.

The roadways, sidewalks, and crosswalks surrounding the block do not have high pedestrian activity and are not near capacity. Any potential closure of the sidewalks adjacent to the Rezoning Area would be considered a routine closure that would be addressed by a permit and pedestrian access plan issued by NYC DOT Office of Construction Mitigation and Coordination at the time of closure.

Although the project would involve construction in two phases in excess of two years (approximately 42 months), exterior construction of the proposed development would occur over a shorter time period of approximately 23 months (7 months for the existing hospital and 16 months for the new building) with 21 months dedicated to construction primarily occurring indoors. On the basis of the above, construction of the proposed project would not be expected to result in significant adverse impacts on transportation.

Air Quality and Noise

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

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

The Development Site is located near sensitive receptors as it is located in close proximity to residential buildings, a school and other community facility uses.

The proposed development would not result in the construction of multiple buildings where there is the potential for on-site receptors on buildings to be completed before the final build-out. As noted in the construction schedule, concurrent major construction would be occurring on the Development Site, which would make it infeasible for occupancy of the former Parkway Hospital prior to the finalization of total construction in 2023.

All construction work would be completed by December of 2022 with occupants moving in starting in the beginning of 2023. Construction activities with the greatest impacts relative to noise generation and air pollutant emissions include exterior site preparation and building construction work, which would extend over a period of 23 months with 21 months dedicated to construction primarily occurring indoors.

The *CEQR Technical Manual* states that if a project meets one or more of the criteria above, a preliminary air quality or noise assessment is not automatically required. Instead, various factors should be considered, such as the types of construction equipment (*e.g.*, gas, diesel, electric), the nature and extent of any commitment to use the Best Available Technology (BAT) for construction equipment, the physical relationship of the Development Site to nearby sensitive receptors, the type of construction activity, and the duration of any heavy construction activity. These measures are discussed below.

Excavation and foundation activities, which often generate the highest levels of air emissions, would be temporary and limited in duration and would take approximately 6 months to complete, as only one of the proposed buildings required foundation work, as the existing Former Hospital requires no new foundation work. This activity would occur at one location on the lot and would not overlap with other activities. In addition, any heavy equipment associated with the construction of the buildings (such as a crane) would operate from a single location.

Other exterior building activities would occur over 10 additional months and would not overlap of the other exterior building activities. The lack of overlapping construction activities would result in a reduced potential for low air quality and noise impacts on the surroundings. No external air and noise impacts for the interior building work would be expected.

Since the proposed construction involves minimal on-site roadway work and the site contains access to existing utilities, no significant cumulative air and noise impacts would be expected.

Air Quality

The project would make use of the Best Available Technology to minimize impacts to the residential and medical office uses in the vicinity of the Projected Development Sites as further discussed below.

As with most construction projects in the City, the proposed project would require the operation of several pieces of diesel equipment at one time during the heavier periods of construction, such as excavation. The Applicant would implement the following measures that would minimize air quality and noise impacts on the surrounding community.

• *Diesel Equipment Reduction.* Construction of the proposed project would minimize the use of diesel engines and use electric engines, to the extent practicable. This would reduce the need for on-site generators and require the use of electric engines in lieu of diesel where practicable.

• *Clean Fuel.* To the extent practicable, ultra-low sulfur diesel (ULSD) would be used for diesel engines on the Projected Development Sites.

• *Best Available Tailpipe Reduction Technologies.* To the extent practicable, non-road diesel engines with a power rating of 50 horsepower (hp) or greater would utilize the best available tailpipe (BAT) technology for reducing diesel particulate matter (DPM) emissions. Diesel particle filters (DPF) have been identified as being the tailpipe technology currently proven to have the highest PM reduction capability.

To the extent practicable, construction contracts would specify that all diesel non-road engines rated at 50 hp or greater would utilize DPFs, either installed on the engine by the original equipment manufacturer (OEM) or retrofit with a DPF verified by EPA or the California Air Resources Board, and may include active DPFs if necessary; or other technology proven to reduce DPM by at least 90 percent.

• *Utilization of Newer Equipment.* EPA's Tier 1 through 4 standards for non-road engines regulate the emission of criteria pollutants from new engines, including PM, CO, NOx, and hydrocarbons (HC). To the extent practicable, all non-road construction equipment in the project would meet at least the Tier 2 emissions standard, and construction equipment meeting Tier 3 and/or Tier 4 emissions standards would be used where conforming equipment is widely available, and the use of such equipment is practicable.

• *Dust Control.* Fugitive dust control plans will be implemented as part of the construction process. For example, stabilized truck exit areas would be established for washing off the wheels of all trucks that exit the construction sites. Truck routes within the sites would be watered as needed to avoid the re-suspension of dust. All trucks hauling loose material will be equipped with tight fitting tailgates and their loads securely covered prior to leaving the sites. In addition to regular cleaning by the City, streets adjacent to the Rezoning Area would be cleaned as frequently as needed by the construction contractor. Water sprays will be used for all transfer of spoils to ensure that materials are dampened as necessary to avoid the suspension of dust into the air.

• *Restrictions on Vehicle Idling.* In addition to adhering to local laws restricting unnecessary idling on roadways, on-site vehicle idle time will also be restricted to three minutes, to the extent practicable, for all equipment and vehicles that are not using their engines to operate

a loading, unloading, or a processing device (e.g., concrete mixing trucks) or otherwise required for the proper operation of the engine.

Overall, these air emission control commitments would significantly reduce DPM emissions to a level otherwise achieved by applying the currently defined best available control technologies under NYC Local Law 77, which are required only for publically funded City capital projects. In addition, as stated in the *CEQR Technical Manual*, all the necessary measures would be implemented to ensure compliance with the NYC Air Pollution Control Code regulating construction-related dust emissions. Based on the project size and the construction work involved, construction activities for the proposed project would not be considered out of the ordinary or exceptional in terms of intensity and would be of a relatively short duration. Therefore, based on above and with the implementation of an emissions control program, the proposed project would not result in any significant adverse impacts on air quality.

Noise

While increases in ambient noise levels due to construction exceeding the *CEQR* impact criteria for two years or more may be noisy and intrusive, they are not considered to be significant adverse noise impacts. As described above, exterior construction of the proposed development would occur over a shorter time period of approximately 23 of these months out of the total 42 month construction process. In addition, excavation and foundation activities, which are the noisiest construction activities, would be temporary and limited in duration and would take approximately 6 months to complete. These activities would occur at a single location and would not overlap with other activities.

As described above, exterior building activities would occur over 10 additional months and would not overlap of the other exterior building activities. These activities would be located a single location on a large lot. Site work for the construction of on-site roadways and utilities would be minimal. Site work would not overlap and this work would be occurring along different street frontages of the block, so no significant cumulative noise impacts would be expected.

Construction noise is regulated by the NYC Noise Control Code and by EPA's noise emission standards for construction equipment. These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emission standards; that construction activities be limited to weekdays between the hours of 7 AM and 6 PM; and that construction materials be handled and transported in such a manner as not to create unnecessary noise. If weekend or after hour work is necessary, permits would be required to be obtained, as specified in the NYC Noise Control Code. In addition, the Applicant would commit to a preparing a noise control plan that would be implemented during project construction. The measures to be contained in the plan would avoid noise impacts on the surrounding community. As stated above, there would be no noise impacts from construction to the residents of the project as project occupancy would not occur until all on-site construction is completed. The plan would be prepared to be compliant with the NYC Noise Control Code (which requires a

"Construction Noise Mitigation Plan") and would include such measures as construction noise source controls, path controls, and receiver controls. With these measures in place, no significant noise impacts are expected to occur as a result of the project construction.

Historic and Cultural Resources

There are no known historic or archaeological resources either on the Development Site or within 400 feet of the Rezoning Area. Therefore, no impacts to historic and cultural resources would be anticipated from construction of the proposed development.

Hazardous Materials

As explained in the Hazardous Materials section above, the Phase I ESA conducted for the Rezoning Area revealed the following recognized environmental conditions (RECs) in connection with the Rezoning Area:

- Observation of at least two (2) underground storage tanks (UST) with fill ports and vent pipes located in the parking lot and along the eastern wall of the subject property. AESI found through preliminary research that records of five (5) petroleum bulk storage (PBS) tanks exist on the property, with three (3) registered with the New York State Department of Environmental Conservation (NYSDEC) PBS Program. Additionally, AESI observed a manhole lid and monitoring well within the parking lot of the subject property. It is likely that the tanks are located in this area of the subject property.
- Observation of an aboveground waste oil storage tank in the parking lot of the subject property.
- Observation of signs of staining beneath two generators located in the parking lot of the subject property.
- Observation of several drums and hazardous waste containers located in the ground level, roof mechanical room, boiler room, and sheds in the parking lot of the subject property.
- Observation of motor oil spilled as a result of an overturned 55-gallon drum within the boiler room of the subject property.
- Findings through available databases that an adjacent property at 71-25 113th Street (Public School 196) has at least six (6) spill case numbers assigned Records indicate that at least six spill numbers have been assigned to this property and closed between 1995 and 2008. Due to the distance of this site to the subject property, it is possible that these spills have had an adverse effect on the subject property.
- Presumed asbestos pipe insulation and 9x9 floor tiles were noted during the inspection.
- Materials presumed to contain lead-based paint were identified on the walls within the subject property.

To avoid any potential impacts associated with hazardous materials, the Proposed Actions would map an (E) designation (E-502) for hazardous materials on the Development Site as follows:

Projected Development Site 1 (Block 2248, Lot 228):

Due to the possible presence of hazardous materials on the aforementioned designated site, there is potential for contamination of the soil and groundwater. To determine if contamination exists and perform the appropriate remediation, the following tasks must be undertaken by the fee owners of the lot restricted by this (E) designation prior to any demolition or disturbance of soil on the lot.

Task 1

The fee owners of the lot restricted by this (E) designation will be required to prepare a scope of work for any soil, gas, or groundwater sampling and testing needed to determine if contamination exists, the extent of the contamination, and to what extent remediation may be required. The scope of work will include all relevant supporting documentation, including site plans and sampling locations. This scope of work will be submitted to the OER for review and approval prior to implementation. It will be reviewed to ensure that an adequate number of samples will be collected and that appropriate parameters are selected for laboratory analysis.

No sampling program may begin until written approval of a work plan and sampling protocol is received from the OER. The number and location of sample sites should be selected to adequately characterize the type and extent of the contamination, and the condition of the remainder of the site. 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 choosing sampling sites and performing sampling will be provided by OER upon request.

Task 2

A written report with findings and a summary of the data must be presented to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such test results, a determination will be provided 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 necessary according to test results, a proposed remediation plan must be submitted to OER for review and approval. The fee owners of the lot restricted by this (E) designation must perform such remediation as determined necessary by OER. After completing the remediation, the fee owners of the lot restricted by this (E) designation should provide proof that the work has been satisfactorily completed.

An OER-approved construction-related health and safety plan 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 the implementation of the above (E) designation, no significant adverse impacts related to hazardous materials during construction of the project would occur.

Natural Resources

According to the *CEQR Technical Manual*, a construction assessment is not needed for natural resources unless the construction activities would disturb a site or be located adjacent to a site containing natural resources. The Development Site entirely developed with a vacant hospital and parking lot. The Development Site is surrounded by existing streets or development on all sides and therefore is not located adjacent to properties containing natural resources. Therefore, there is no potential for significant adverse construction impacts on natural resources.

Open Space, Socioeconomic Conditions, Community Facilities, Land Use and Public Policy, Neighborhood Character, and Infrastructure

According to the *CEQR Technical Manual*, a preliminary construction assessment is generally not needed for these technical areas unless the following are true:

- *The construction activities are considered "long-term" (more than 2 years);*
- *Short-term construction activities would not directly affect a technical area, such as impeding the operation of a community facility.*

As discussed above, construction activities would be considered long term as they would occur from the beginning of January of 2018 through July of 2020, a period of over two years. Construction on the Development Site would occur over a period of 30 months. However, construction of the proposed project would not have any significant direct effects on open space areas, socioeconomic conditions, community facilities, or infrastructure conditions, and would not have cumulative impacts on land use or neighborhood character. Therefore, construction of the proposed project would not be expected to result in any significant adverse construction impacts on these technical areas.

Conclusion

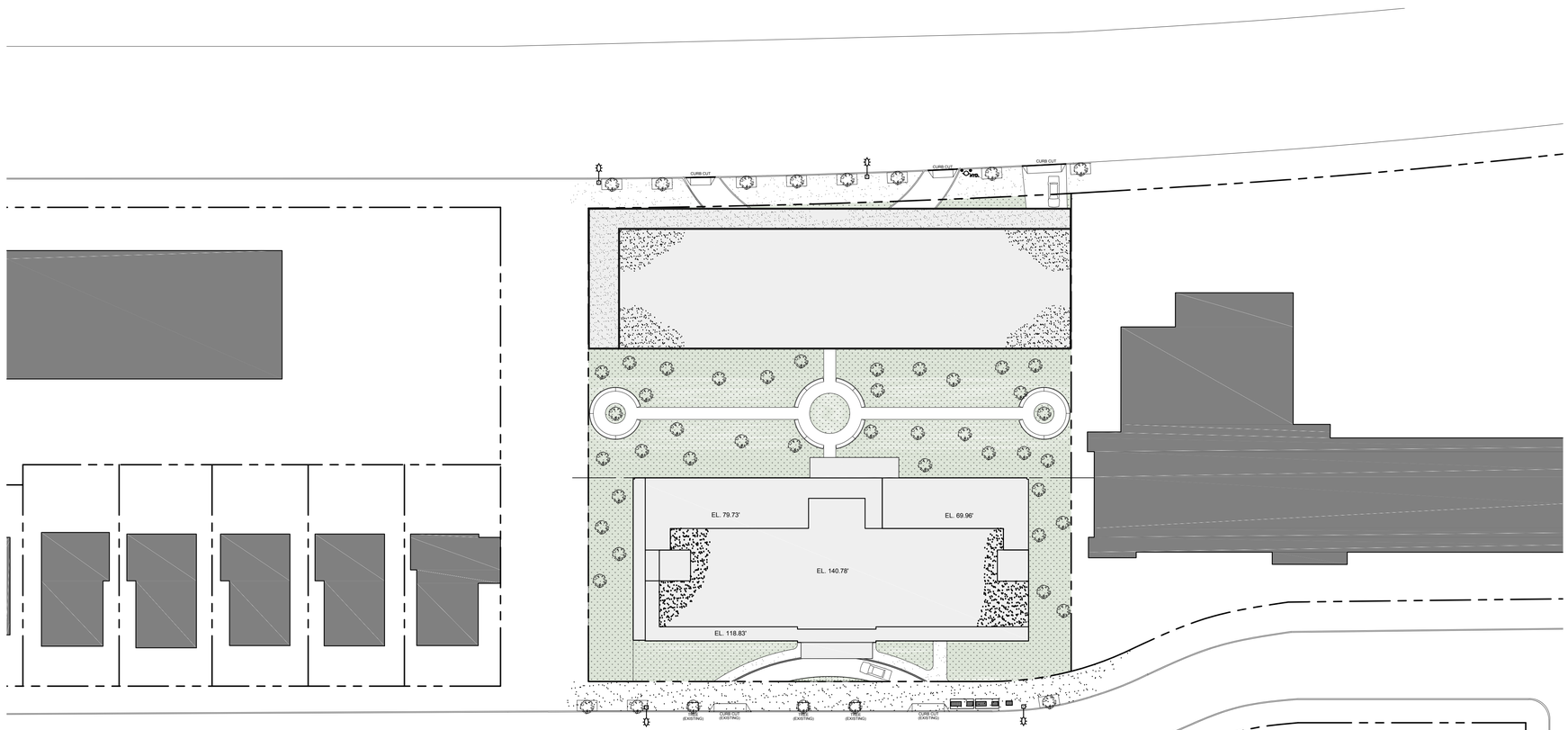
On the basis of the above analysis, the Proposed Actions would not have any potentially significant adverse construction impacts, and further analysis would not be warranted.

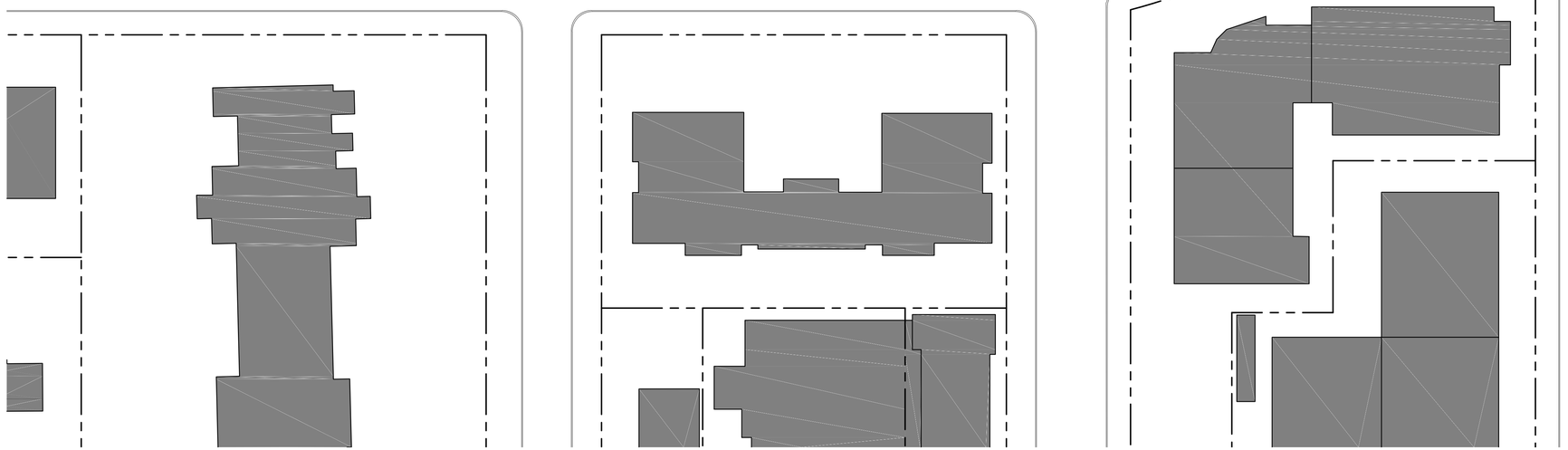
Attachment A

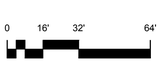
Illustrative Site Plans











SCALE: 1/32" = 1'-0"

1 PROPOSED SITE PLAN
Scale: 1/32" = 1'-0"

LEGEND:	
	ZONING LOT
	TAX LOT
	BUILDING ENTRANCE
	PLANTS
	LANDSCAPED AREA- extensive green roof/ grass

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

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www.ndarchitects.com

PROJECT:
70-35 113TH STREET
FLUSHING, N.Y. 11375

BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
SITE PLAN

STAMP:

DATE: 11-30-17
REVISION DATE:
JOB #: 15-48
DRAWN BY: AG

DRAWING NO:
Z-001

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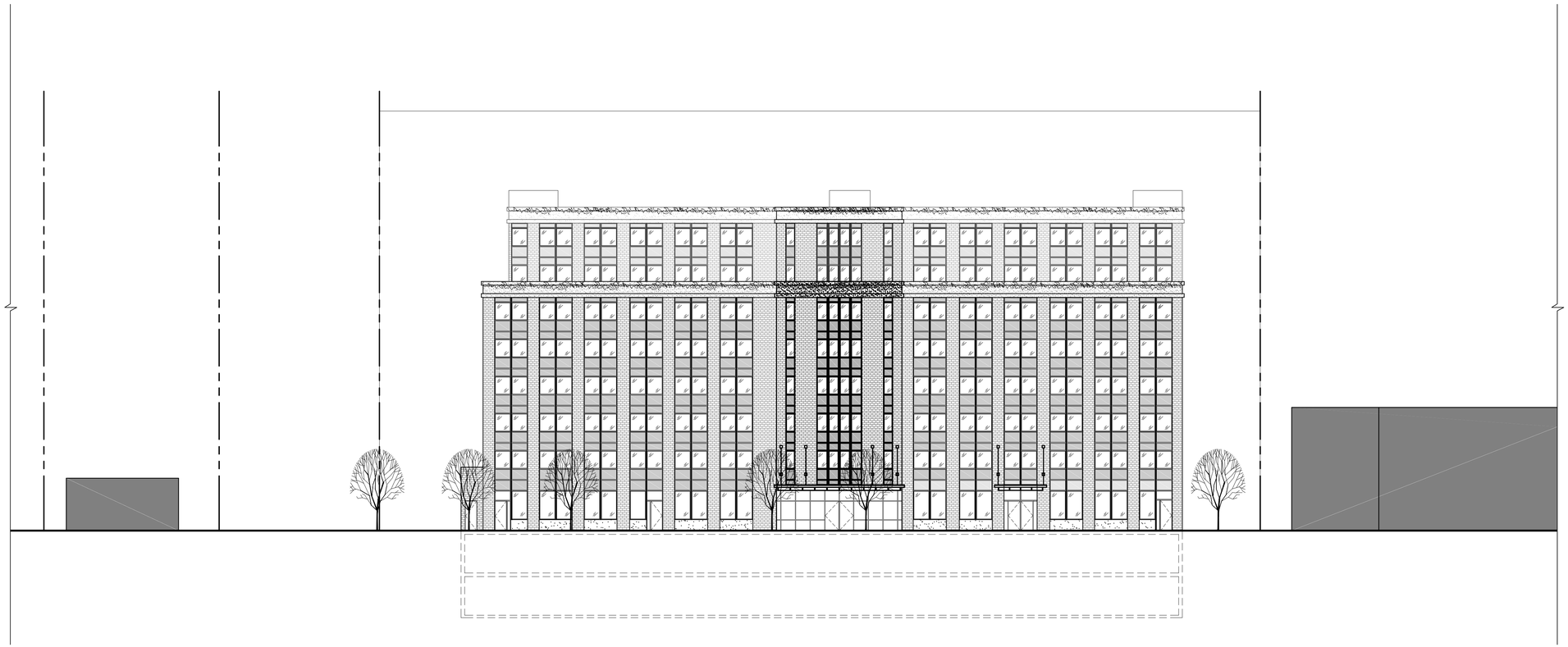

0 8' 16' 32'

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

NOTE:
STREET TREE LOCATIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY

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

LEGEND:	
	TAX LOT

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PROJECT:
70-35 113TH STREET
FLUSHING, N.Y. 11375

BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
113TH STREET ELEVATION

STAMP:

DATE: 11-30-17
REVISION DATE:
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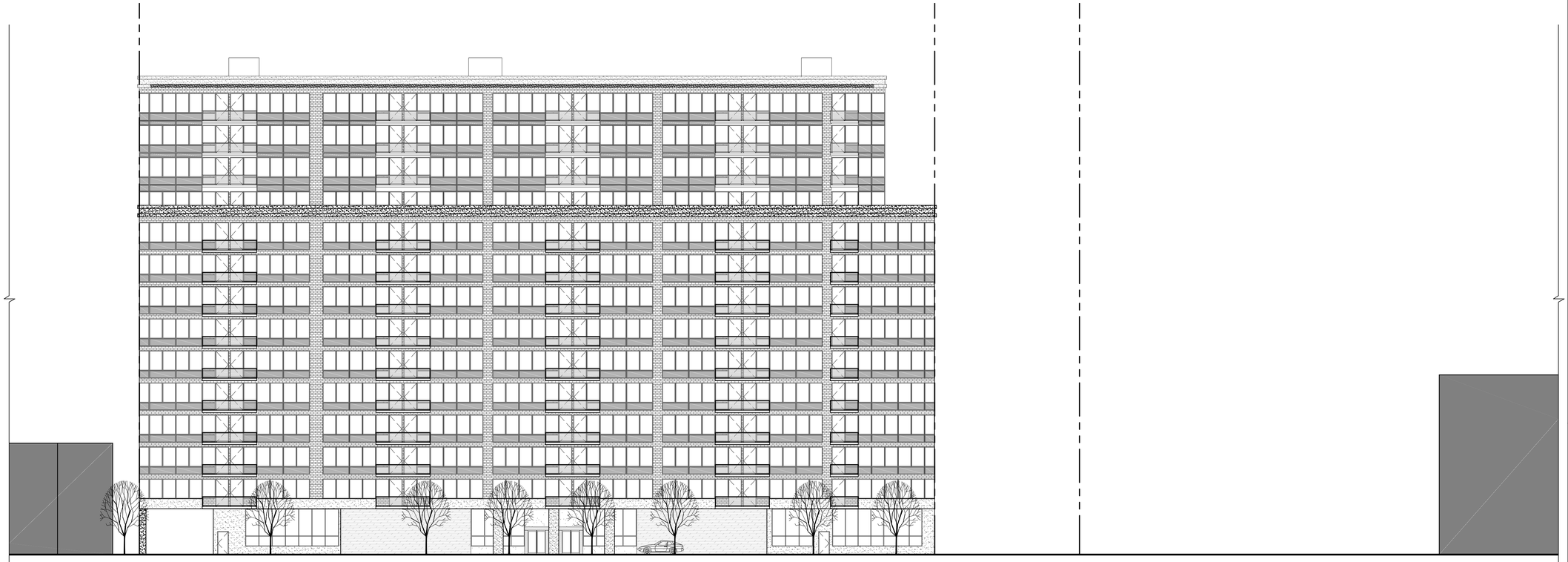

0 8' 16' 32'

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

NOTE:
STREET TREE LOCATIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY

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

LEGEND:	
	TAX LOT

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70-35 113TH STREET
FLUSHING, N.Y. 11375

BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
GRAND CENTRAL PARKWAY ELEVATION

STAMP:

DATE: 11-30-17
REVISION DATE:
JOB #: 15-48
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DRAWING NO:
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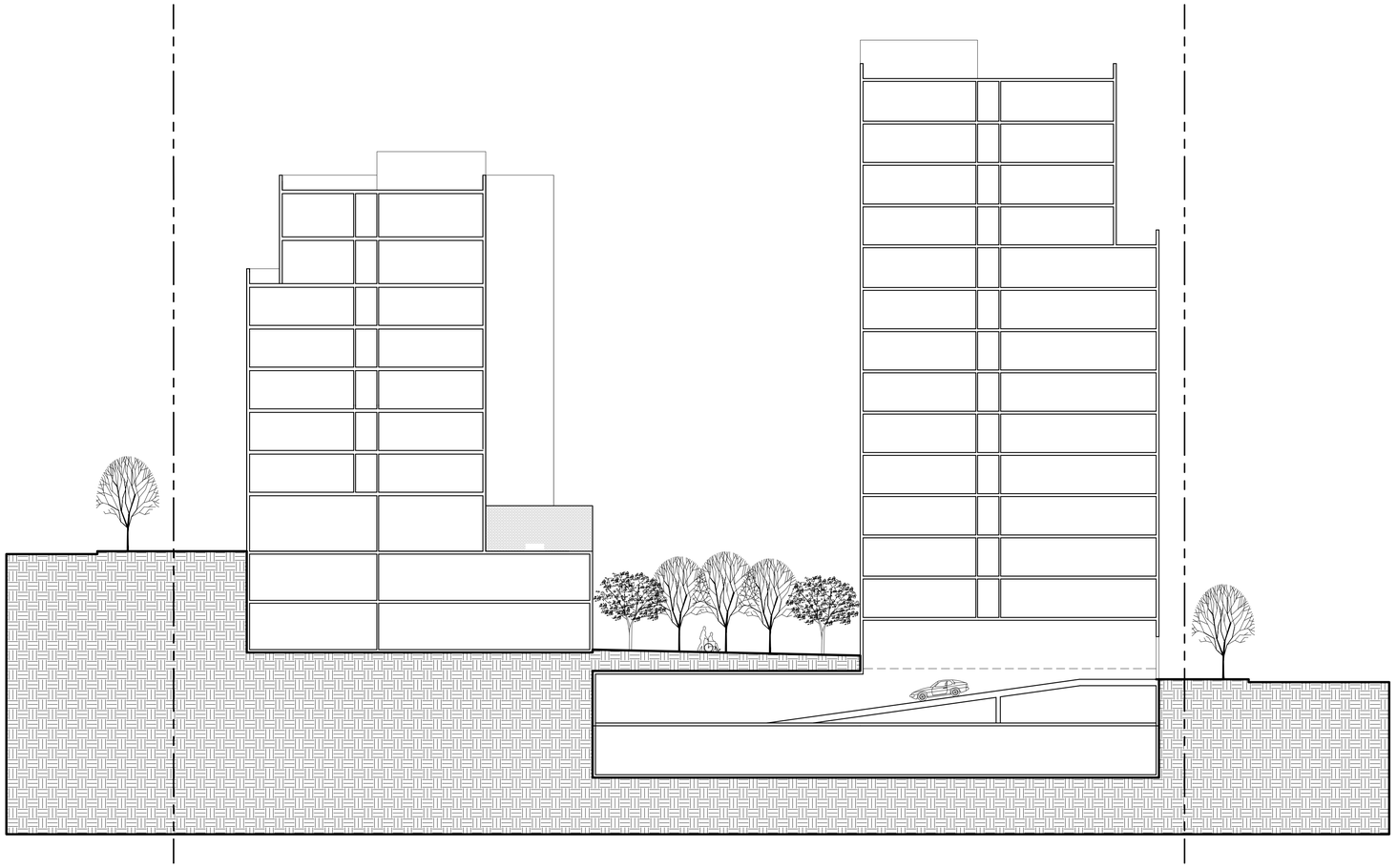


0 8' 16' 32'

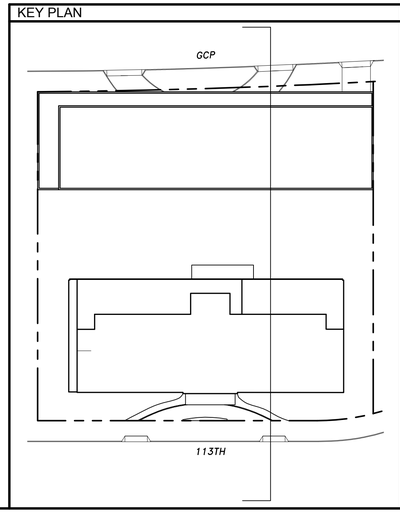
SCALE: 1/16" = 1'-0"

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

LEGEND:

----------	TAX LOT

KEY PLAN



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70-35 113TH STREET
FLUSHING, N.Y. 11375

BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
SITE CROSS SECTION LOOKING TOWARDS 70TH ST.

STAMP:

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JOB #: 15-48
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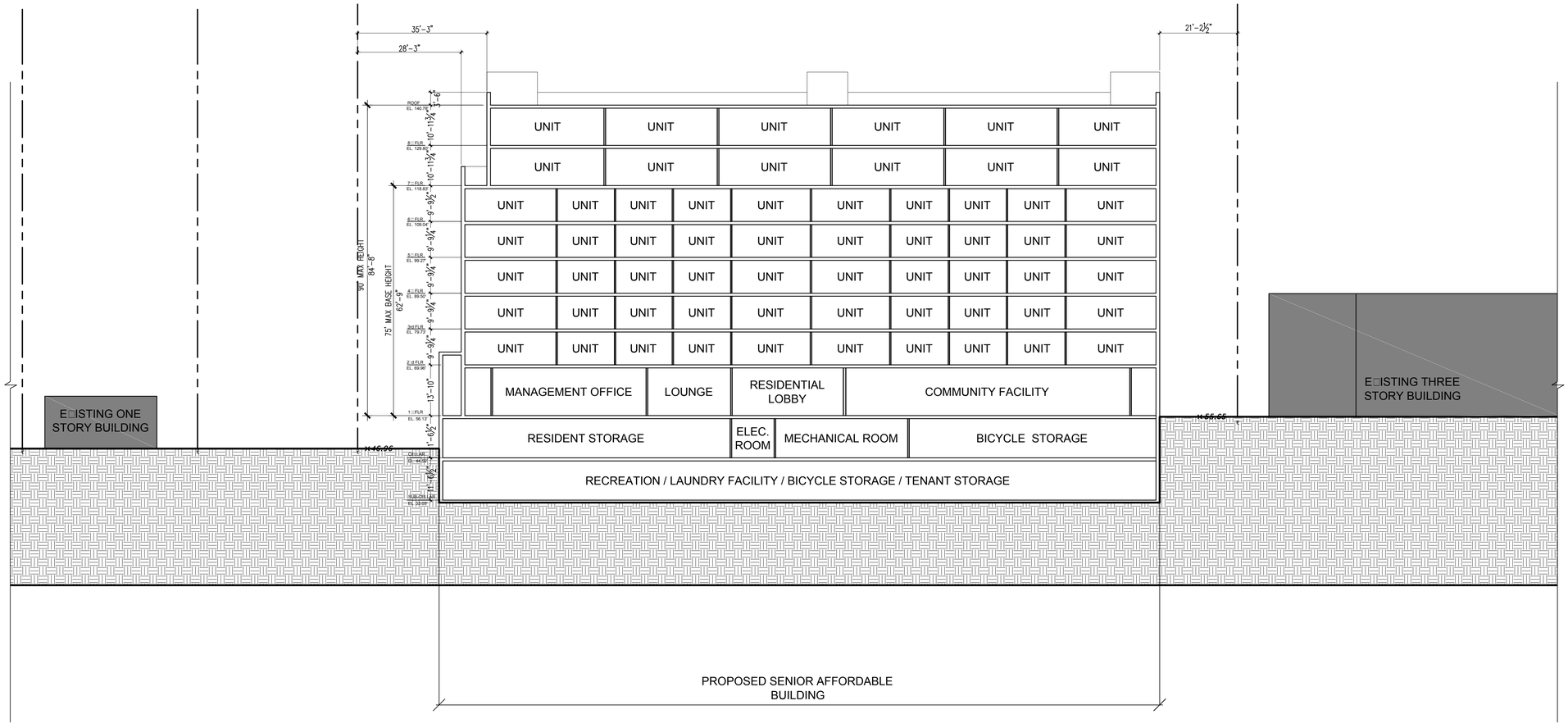


0 8' 16' 32'

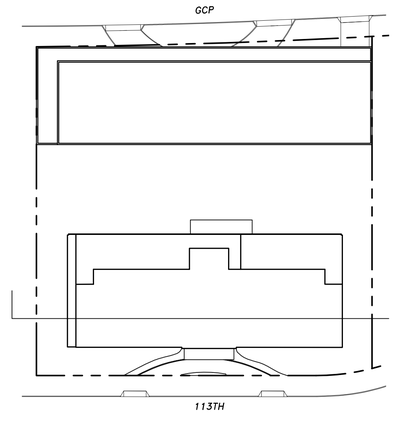
SCALE: 1/16" = 1'-0"

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

LEGEND:

----------	TAX LOT

KEY PLAN



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BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
113TH STREET SECTION

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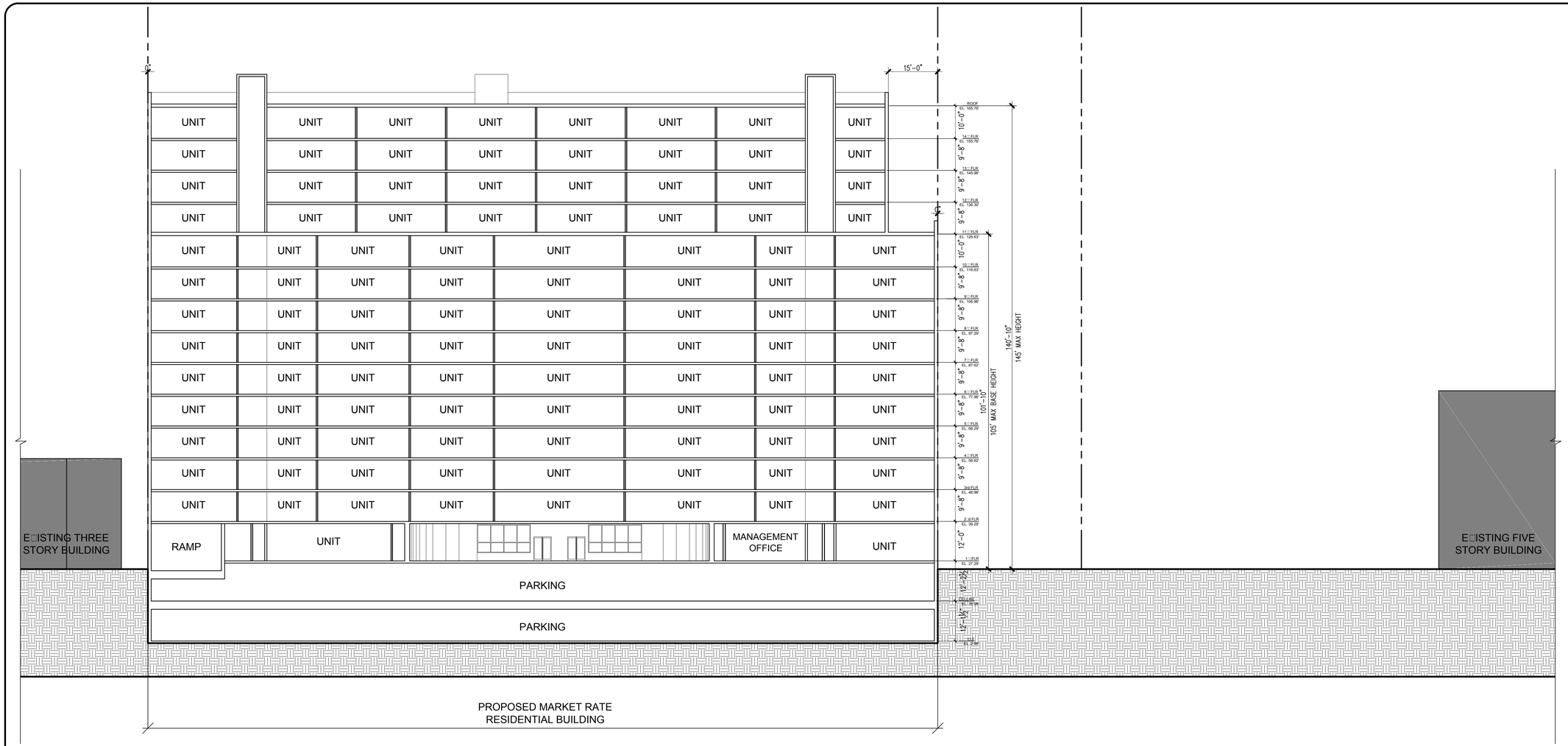


0 8' 16' 32'

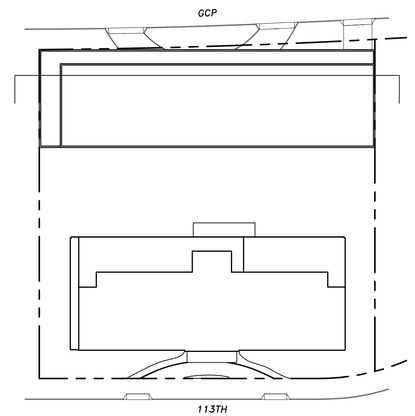
SCALE: 1/16" = 1'-0"

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

LEGEND:

----------	TA□ LOT

KEY PLAN



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BOROUGH: QUEENS
BLOCK: 2248
LOT: 226
ULURP:

TITLE:
GRAND CENTRAL PARKWAY SECTION

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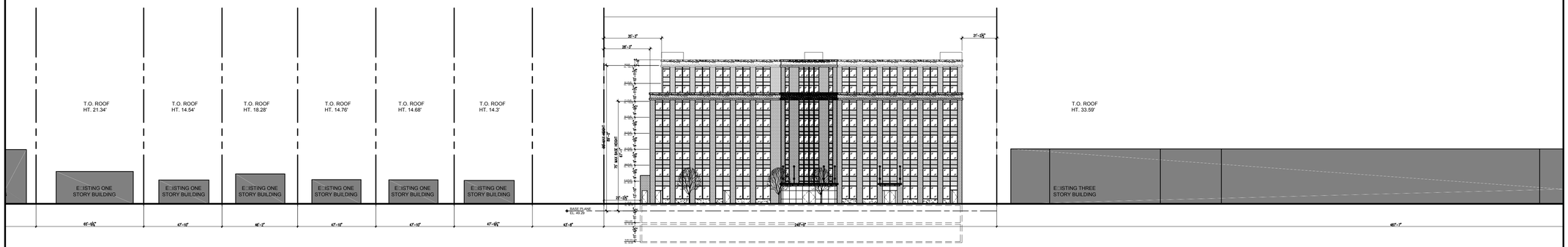
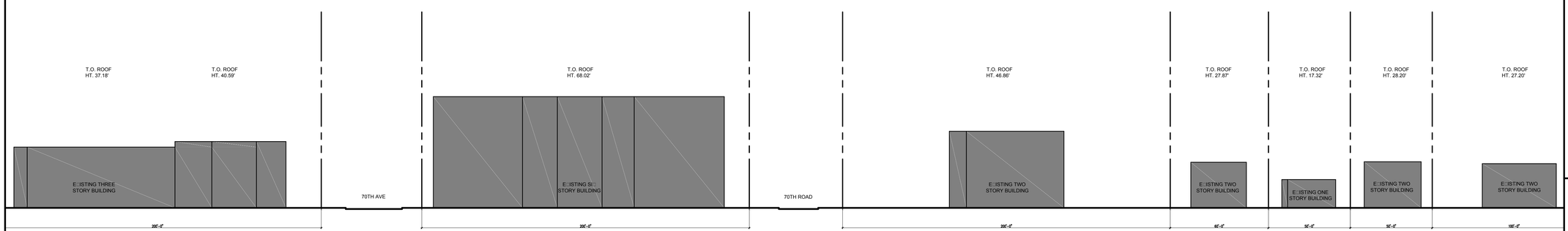


NEIGHBORHOOD CHARACTER DIAGRAM OF WEST SIDE OF 113TH STREET



0 16' 32' 64'

SCALE: 1/32" = 1'-0"

NEIGHBORHOOD CHARACTER DIAGRAM OF EAST SIDE OF 113TH STREET



KEY PLAN

N

LEGEND:

▬▬▬▬▬▬▬▬	TA□ LOT

NOTE:
STREET TREE LOCATIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY

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

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PROJECT:
70-35 113TH STREET
FLUSHING, N.Y. 11375

BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
STREETSCAPE
113TH STREET

STAMP:

DATE: 11-30-17
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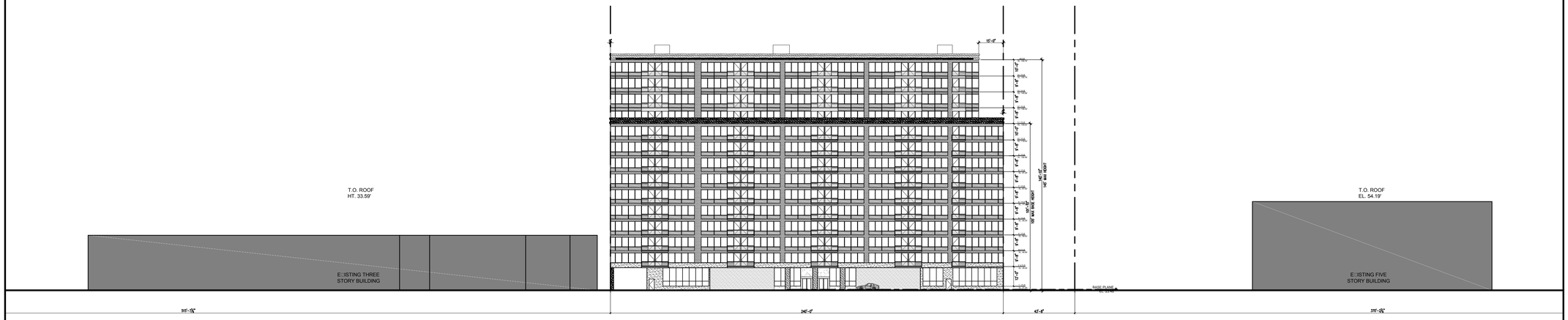

0 16' 32' 64'

SCALE: 1/32" = 1'-0"

NEIGHBORHOOD CHARACTER DIAGRAM OF EAST SIDE OF GRAND CENTRAL PARKWAY SERVICE ROAD



KEY PLAN



LEGEND:

----------	TA□ LOT

NOTE:
STREET TREE LOCATIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY

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PROJECT:
70-35 113TH STREET
FLUSHING, N.Y. 11375

BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
STREET SCAPE
GRAND CENTARL PARKWAY
SERVICE ROAD

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REVISION DATE:
JOB #: 15-48
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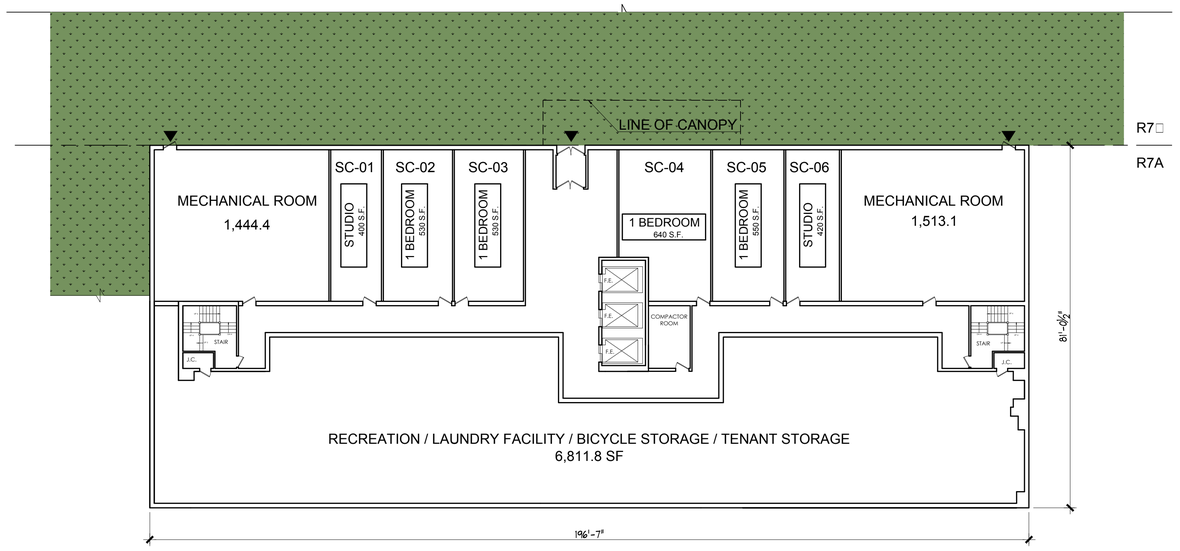


0 8' 16' 32'

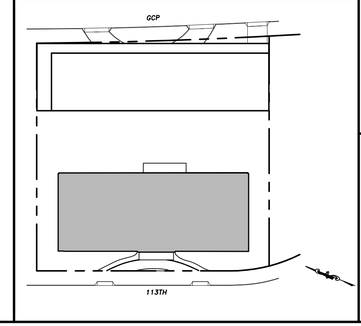
SCALE: 1/16" = 1'-0"

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

LEGEND:

	TA□ LOT
	LANDSCAPED AREA- □□□□□□□□ □r□□□ r□□7/ □r□□□
▲	BUILDING ENTRANCE

KEY PLAN



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PROJECT:
70-35 113TH STREET
FLUSHING, N.Y. 11375

BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
EXISTING BUILDING SUB-CELLAR PLAN

STAMP:

DATE: 11-30-17
REVISION DATE:
JOB #: 15-48
DRAWN BY: AG

DRAWING NO:
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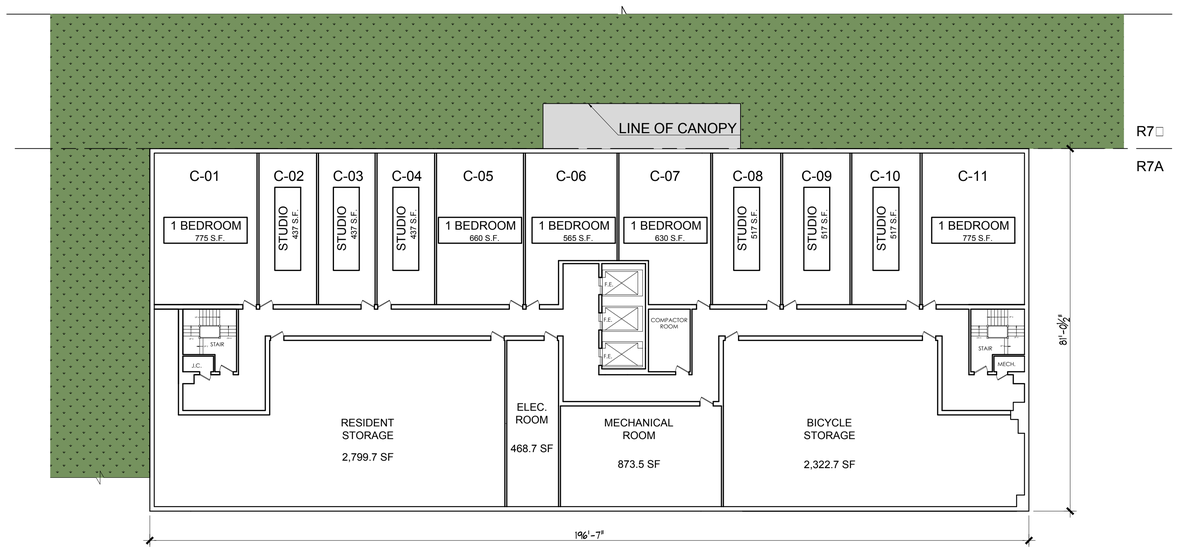


0 8' 16' 32'

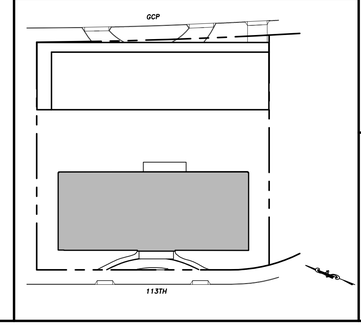
SCALE: 1/16" = 1'-0"

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

LEGEND:

	TA□ LOT
	LANDSCAPED AREA- □□□□□□□□ □r□□□ r□□/ □r□□□

KEY PLAN



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PROJECT:
70-35 113TH STREET
FLUSHING, N.Y. 11375

BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
EXISTING BUILDING CELLAR PLAN

STAMP:

DATE: 11-30-17
REVISION DATE:
JOB #: 15-48
DRAWN BY: AG

DRAWING NO:
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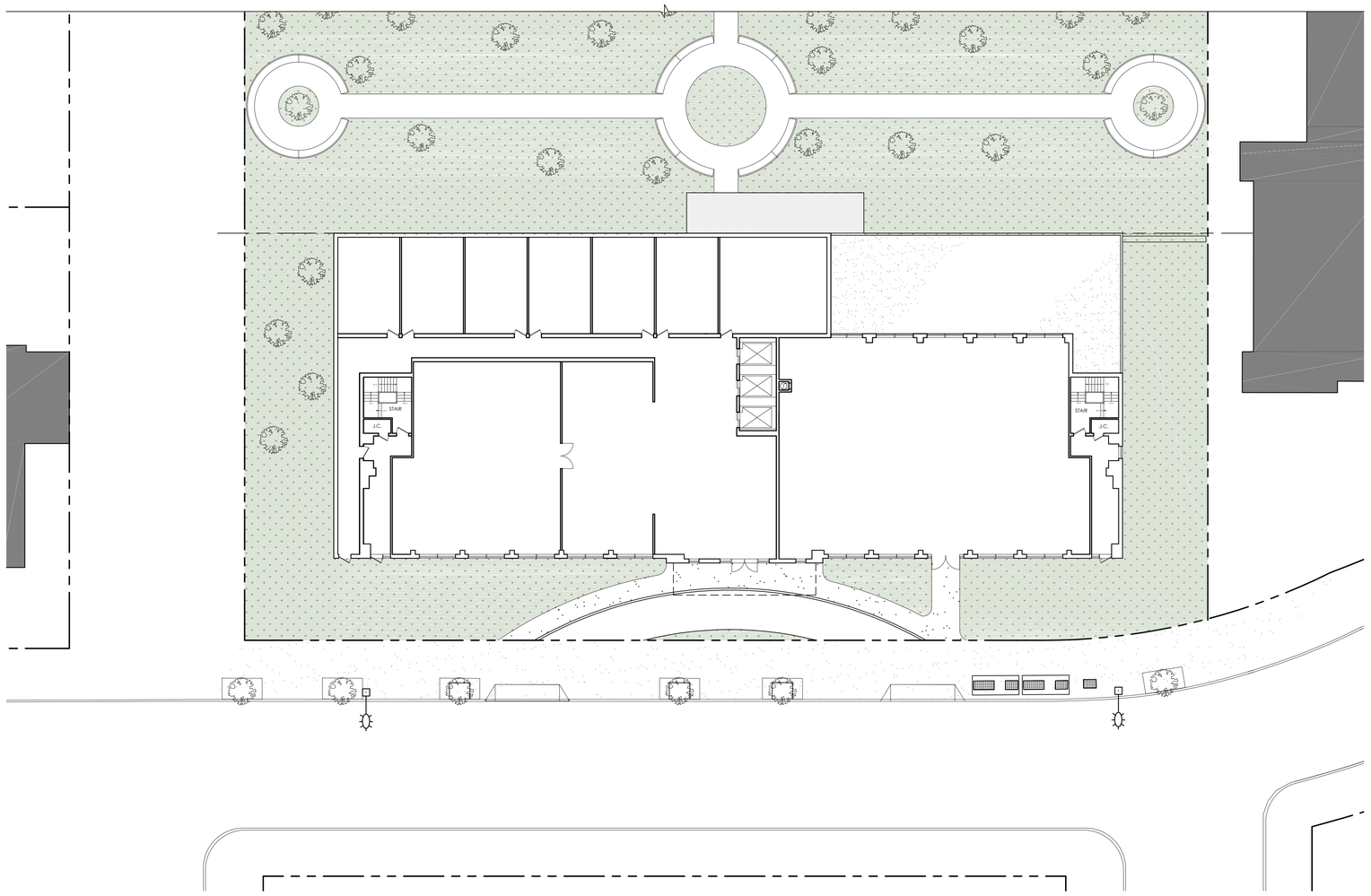


LEGEND:

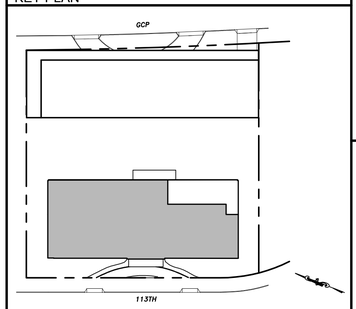
	ZONING LOT
	TAX LOT
	BUILDING ENTRANCE
	PLANTS
	LANDSCAPED AREA- extensive green roof/ grass

0 8' 16' 32'

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

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

KEY PLAN



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PROJECT:
70-35 113TH STREET
FLUSHING, N.Y. 11375

BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
EXISTING BUILDING FIRST FLOOR PLAN

STAMP:

DATE: 11-30-17
REVISION DATE:
JOB #: 15-48
DRAWN BY: AG

DRAWING NO:
Z-011

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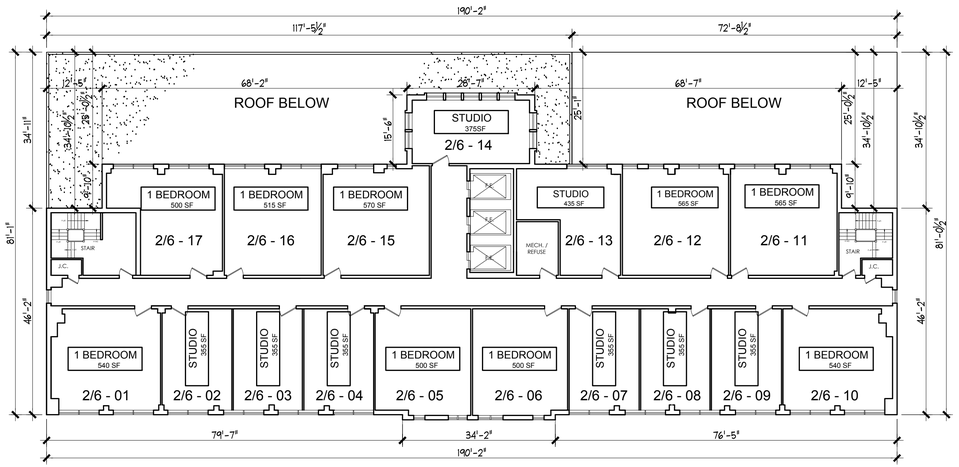
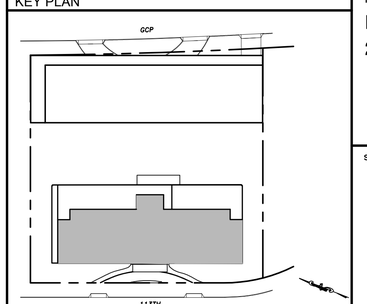


0 8' 16' 32'

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

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

KEY PLAN



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PROJECT:
70-35 113TH STREET
FLUSHING, N.Y. 11375

BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
EXISTING BUILDING
2ND THRU 6TH FLOOR PLANS

STAMP:

DATE: 11-30-17
REVISION DATE:
JOB #: 15-48
DRAWN BY: AG

DRAWING NO:
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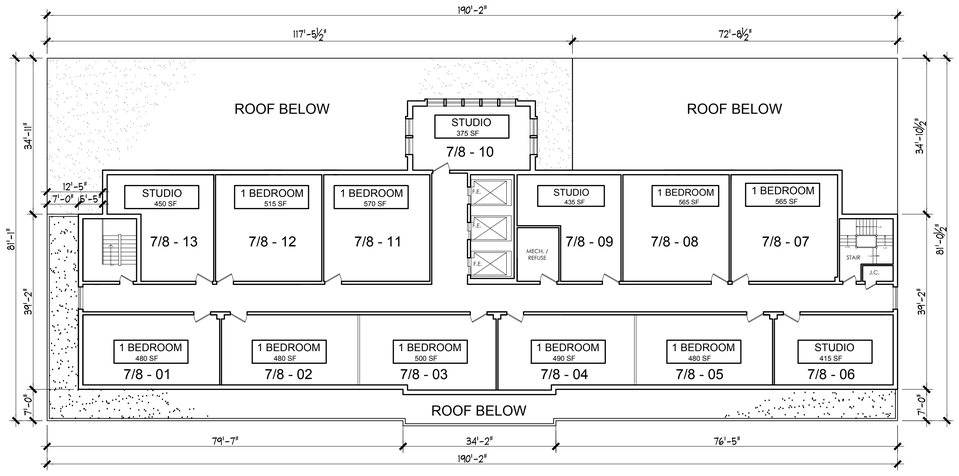

0 8' 16' 32'

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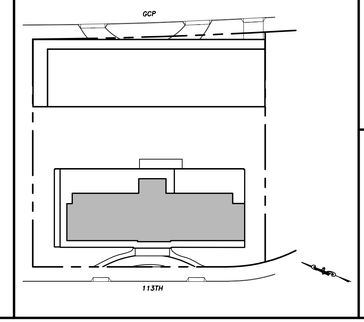
KEY PLAN



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PROJECT:
70-35 113TH STREET
FLUSHING, N.Y. 11375

BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
EXISTING BUILDING 7TH & 8TH FLOOR PLANS

STAMP:

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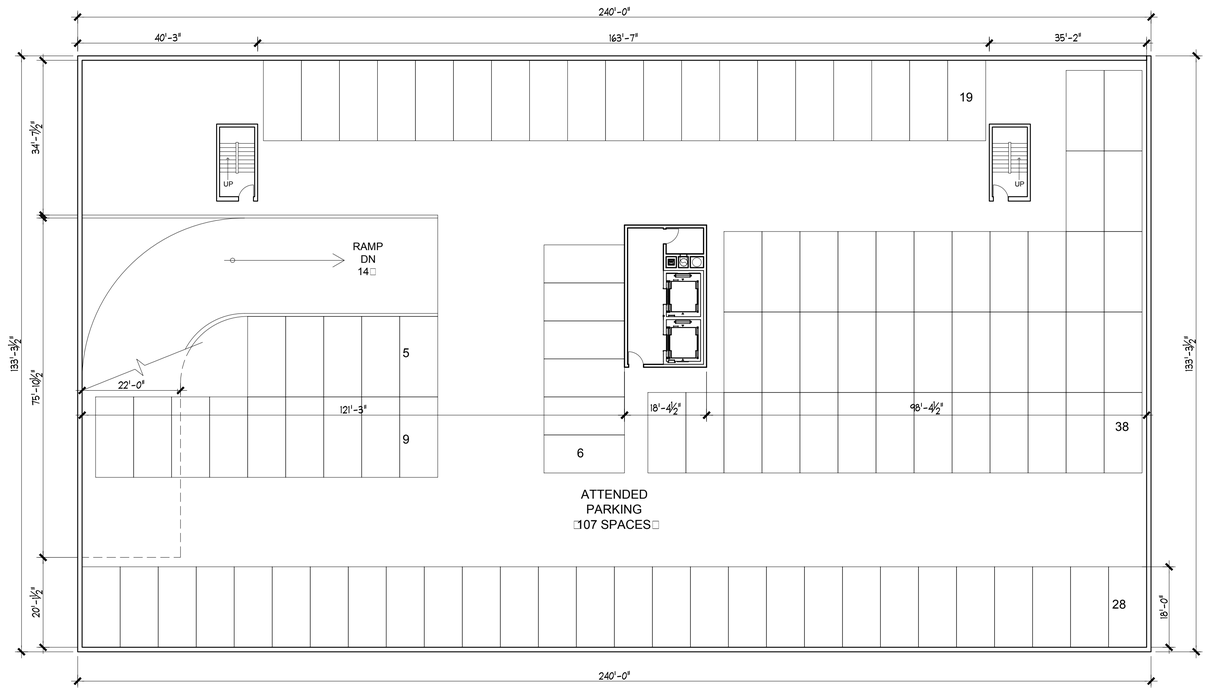
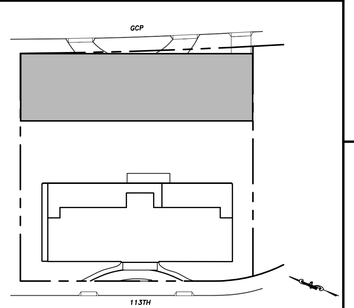


0 8' 16' 32'

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

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

KEY PLAN



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PROJECT:
70-35 113TH STREET
FLUSHING, N.Y. 11375

BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
PROPOSED BUILDING SUB-CELLAR PLAN

STAMP:

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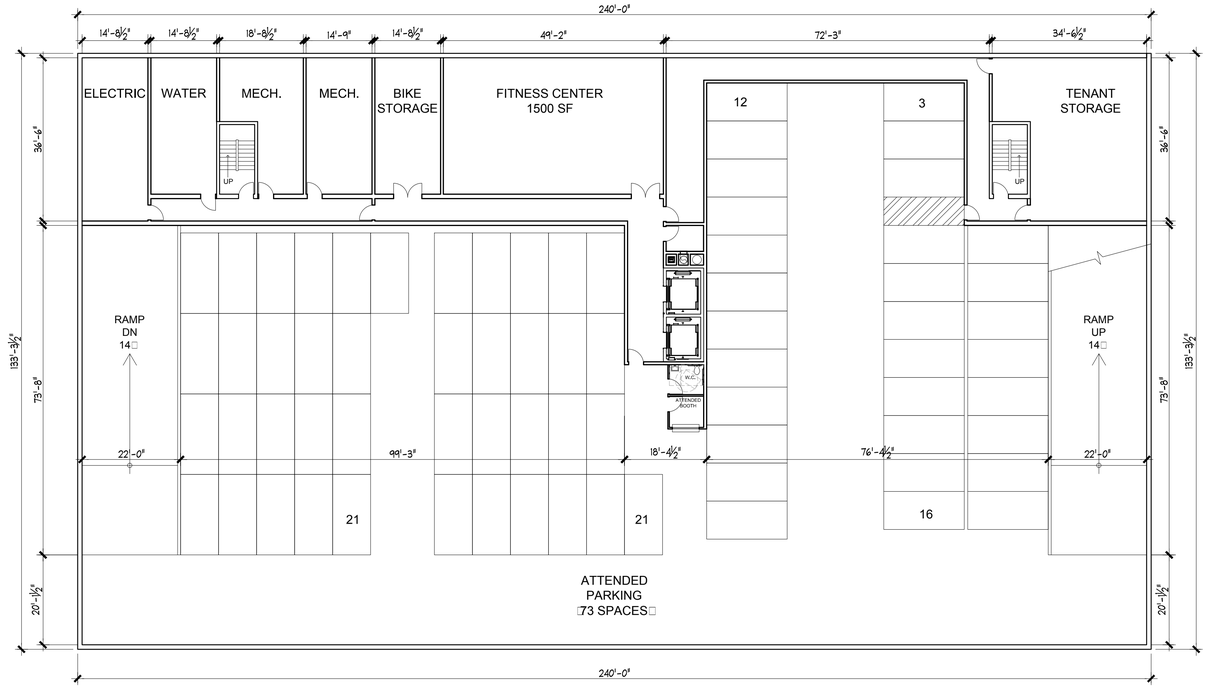


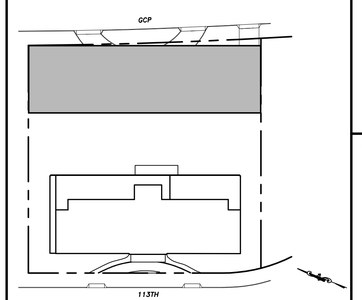
0 8' 16' 32'

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

N

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

KEY PLAN



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PROJECT:
70-35 113TH STREET
FLUSHING, N.Y. 11375

BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
PROPOSED BUILDING CELLAR PLAN

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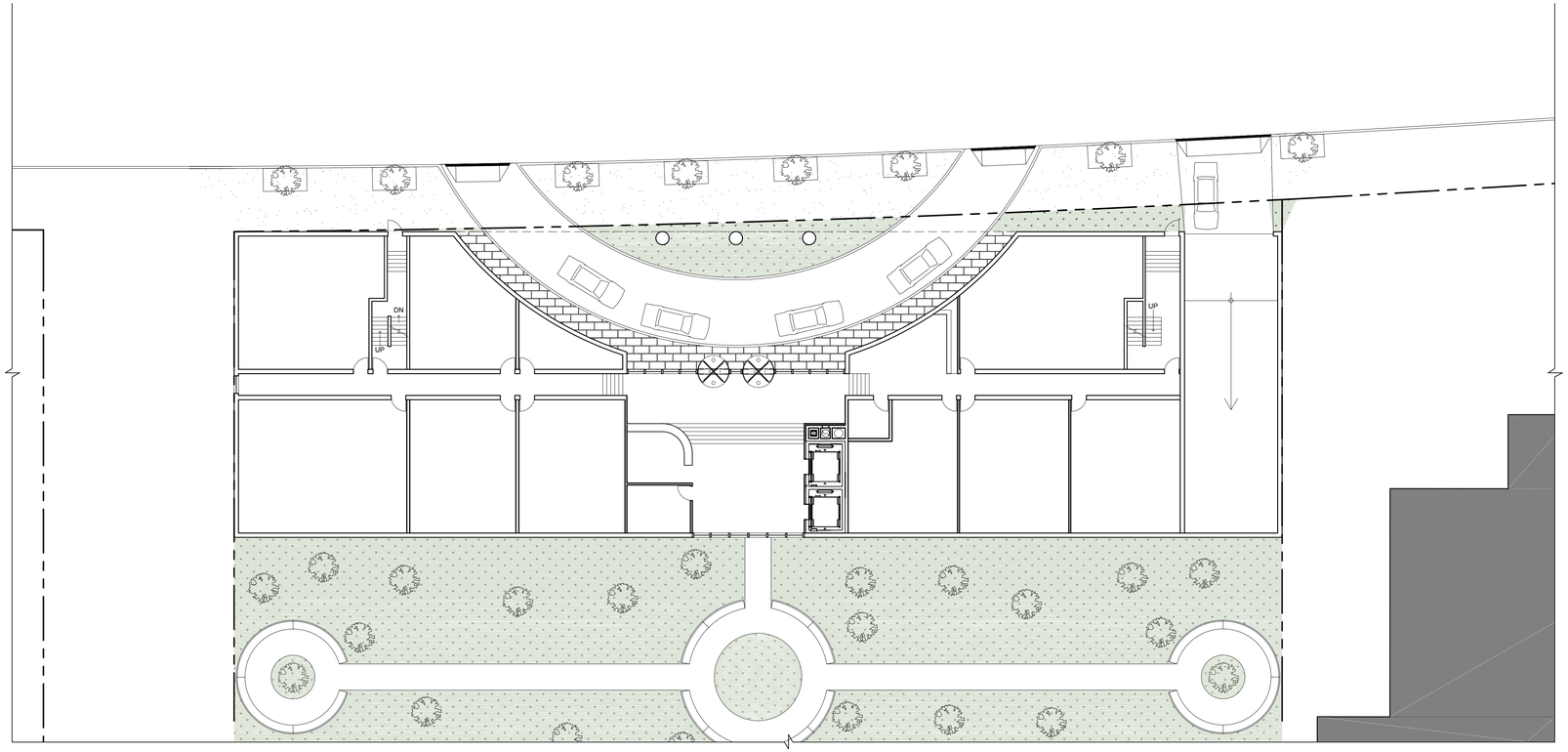


0 8' 16' 32'

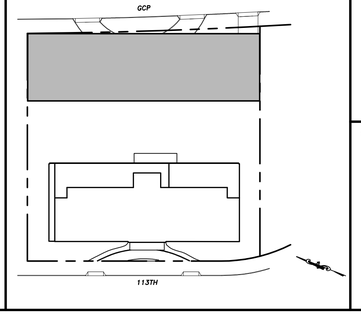
SCALE: 1/16" = 1'-0"

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

LEGEND:

	TAX LOT
	LANDSCAPED AREA- extensive green roof/ grass
	BUILDING ENTRANCE

KEY PLAN



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PROJECT:
70-35 113TH STREET
FLUSHING, N.Y. 11375

BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
PROPOSED BUILDING FIRST FLOOR PLAN

STAMP:

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JOB #: 15-48
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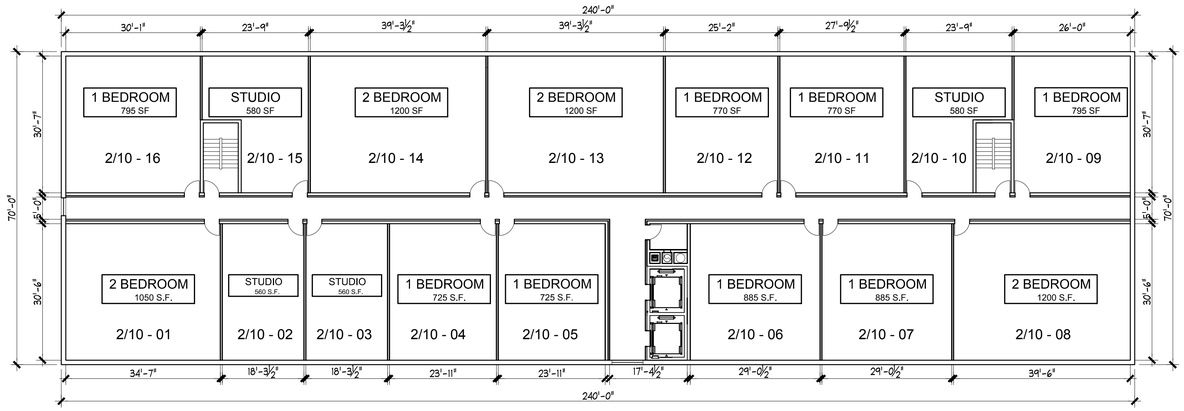

0 8' 16' 32'

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

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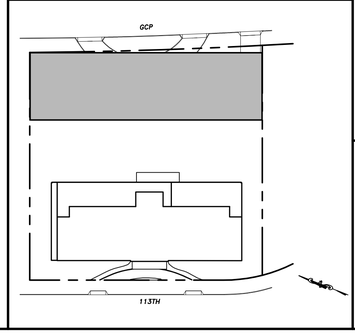

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PROJECT:
70-35 113TH STREET
FLUSHING, N.Y. 11375

BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
PROPOSED BUILDING
2ND THRU 10TH FLOOR PLANS

STAMP:

DATE: 11-30-17
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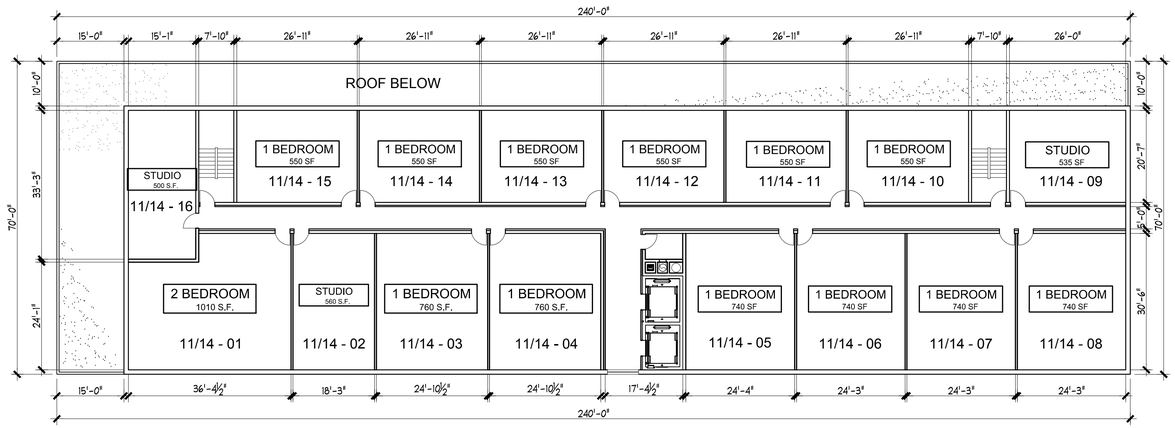

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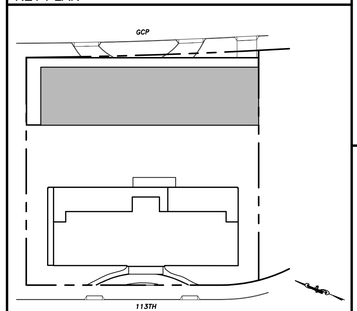

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PROJECT:
70-35 113TH STREET
FLUSHING, N.Y. 11375

BOROUGH: QUEENS
BLOCK: 2248
LOT: 228
ULURP:

TITLE:
PROPOSED BUILDING
11TH THRU 14TH FLOOR PLANS

STAMP:

DATE: 11-30-17
REVISION DATE:
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APPLICANT/ARCHITECT MUST CONFIRM ALL NUMBERS AND LANGUAGE AND FILL IN ALL EMPTY CELLS. THE DEPARTMENT OF CITY PLANNING AND ITS TECHNICAL REVIEW DIVISION IS NOT RESPONSIBLE FOR THE ACCURACY OF ANY OF THE CALCULATIONS ON THIS SHEET. THE RELAVENT SECTIONS AND RELATED CALCULATIONS WERE PULLED FROM DRAFT MATERIALS GIVEN TO THE DEPARTMENT BY THE APPLICANT.

SITE DATA

Block: 2248

Lots: 228

Street Address: 70-35 113th Street, Flushing, NY

Existing Zoning: R1-2A

Proposed Zone: R7-X & R7-A (Inclusionary Housing Designated Area)

Community District: 6, Queens

Zoning Section Map No. 14a

Zoning Lot Area: 57,035.87 sf

R7-X: 32,812 sf

R7-A: 24,224.87 sf

List of Required Actions:

1. Zoning map amendment, from R1-2A to R7A and R7X;
2. A text amendment to Appendix F of the Zoning Resolution ("ZR") for Mandatory Inclusionary Housing Area (MIHA).

ZR Section	Title	Permitted/Required	Proposed	Total	Compliance/Notes
22-12	**USES**	R7X/R7A: USE GROUP 2A- RESIDENTIAL R7A: USE GROUP 4A – COMMUNITY FACILITY AMBULATORY HEALTH CARE			
23-153	**LOT COVERAGE CALCULATION**	R7A – CORNER LOT: 10,000 sf x 1.0 = 10,000.0 sf THRU LOT: 14,103.87 x .65 = 9,167.5 sf MAX. ALLOWED = 19,167.5 sf R7X – CORNER LOT: 10,071 sf x 1.0 = 10,071.0 sf THRU LOT: 19,345 sf x .70 = 13,542.0 sf INTERIOR LOT: 3,517 sf x .70 = 2,462.0 sf MAX. ALLOWED = 26,075.0 sf MAX. ALLOWED = 45,242.5 sf	EXISTING BUILDING: 15,941.0 sf PROPOSED BUILDING: 16,800.0 sf	32,741 sf	
23-153	**QUALITY HOUSING BUILDING**	R7A FAR = 4.0 4.0 x 24,223.87 = 96,895 sf MAX ALLOWABLE COMMUNITY FACILITY	4,034 sf COMMUNITY FACILITY		COMPLIES
	(QUALITY HOUSING) MAX LOT COVERAGE	ALLOWED – 45,242.5 sf	32,741 sf		COMPLIES
23-154 (d) (2)	**MAX RESIDENTIAL F.A.R. (INCLUSIONARY HOUSING)**	R7-X FAR = 6.0 6.0 x 32,812 sf = 196,872 sf R7-A FAR = 4.6 (SENIOR AFFORDABLE) 4.6 x 24,224.87 sf = 111,430 sf 196,872 sf + 111,430 sf = 308,302 sf MAX ALLOWABLE F.A. (RESIDENIAL)	206,715 sf (PROPOSED MARKET RATE) + 91,942 sf (PROPOSED AFFORDABLE) = 298,657 sf RESIDENTIAL FA 298,657 sf (RES. F.A.) + 4,034 sf (COMM. FAC. F.A.) = 302,691 sf		COMPLIES

23-154 (d) (3) (iv)	**INCLUSIONARY HOUSING – WORKFORCE OPTION**	30% OF RESIDENTIAL FLOOR AREA SHALL BE AFFORDABLE	TOTAL F.A. FOR ZOINING LOT: 302,691 sf TOTAL RESIDENTIAL F.A. FOR ZOINING LOT: 298,657 Sf AFFORDABLE FLOOR AREA: 91,942 sf 91,942 sf / 298,657 sf = 30.8%		COMPLIES
23-22	**FACTOR FOR DETERMINING MAX. NUMBER OF D.U.**	R7: 680/ MAX. ALLOWABLE F.A.	308,302 sf / 680 = 453 D.U. ALLOWED 351 D.U. PROVIDED		COMPLIES
23-532 (a)	**REQUIRED REAR YARD EQUIVALENT REQUIRED FOR LOTS DEEPER THAN 110'**	LOT IS 237'-5" THEREFORE OPEN AREA WITH MIN. DEPTH OF 60'-0"	63'-11 ½"		
23-662 (c) (1)	**SETBACK REGULATIONS**	AT A HEIGHT NOT LOWER THEN THE MIN. BASE HEIGHT: 10' MIN. FROM ANY STREET WALL ON A WIDE STREET 15' MIN. FROM ANY STREET WALL ON A NARROW STREET	GRAND CENTRAL SERVICE ROAD – WIDE STREET: SETBACK – 10' 70TH STREET – NARROW STREET (REDUCE TO 7' WHEN BUILDING IS SET BACK): SETBACK – 7' & 15'		COMPLIES
23-664	**MODIFIED HEIGHT AND SETBACK REGULATIONS FOR CERTAIN INCLUSIONARY HOUSING BUILDINGS OR AFFORDABLE INDEPENDENT RESIDENCES FOR SENIORS**	R7A – QUALITY HOUSING (a) ELIGIBLE BUILDINGS (3) MIH DEVELOPMENTS CONTAINS ALL REQUIRED AFFORDABLE FLOOR AREA FOR MIH TABLE 1: MODIFIED MAX BASE HEIGHT AND MAXIMUM BUILDING HEIGHT FOR CERTAIN QUALITY HOUSING BUILDINGS R7X (1) MODIFIED BASE & MAX BUILDING HEIGHTS MUST MEET CRITERIA (a)(3) OR (a)(4) (a)(3): ELIGIBLE BUILDINGS: MIH DEVELOPMENTS CONTAINS ALL REQUIRED AFFORDABLE FLOOR AREA FOR MIH			COMPLIES
23-664	**TABLE 1:** **MODIFIED MAXIMUM BASE HEIGHT AND MAXIMUM BUILDING HEIGHT FOR CERTAIN QUALITY HOUSING BUILDINGS**	R7X: MAX ALLOWABLE BASE HEIGHT – 105'-0" MAX. ALLOWABLE BUILDING HEIGHT – 145'-0" MAX. # OF STORIES ALLOWED – 14 STORIES R7A: EXISTING HEIGHT – 62'-8 5/8" (67'-1" TO AVG. BASE PLANE) MAX ALLOWABLE BASE HEIGHT – 75'-0" MAX. ALLOWABLE BUILDING HEIGHT – 90'-0" MAX. # OF STORIES ALLOWED – 9 STORIES	R7X: BASE HEIGHT – 101'-10" BUILDING HEIGHT – 140'-10" STORIES – 14 R7X: BASE HEIGHT – 67'-1" BUILDING HEIGHT – 89'-0" STORIES – 8		
23-693	**SPECIAL PROVISIONS APPLYING ADJACENT TO R1 THROUGH R6B DISTRICTS**	R7X: 65'-0" R7A: 55'-0"			COMPLIES COMPLIES
24-10	**COMMUNITY FACILITY IN RESIDENTIAL ZONE**	ZONE R7A [USE GROUP 4A (COMMUNITY FACILITY AMBULATORY HEALTH CARE)]	SEE ARTICLE II, CHAPTER 3; REFER TO (a) QUALITY HOUSING R7A FOR COMMUNITY FACILITY F.A.		COMPLIES

	PARKING REQUIREMENTS				
25-23	**REQUIREMENTS WHERE GROUPPARKING FACILITIES AREA PROVIDED**	R7A/R7X 50% OF TOTAL # OF D.U. REQUIRE PARKING	216 x .50 = 108 SPACES REQUIRED 68 x .50 = 34 SPACES REQUIRED		
25-252	**AFFORDABLE INDEPENDENT RESIDENCES FOR SENIORS**	OUTSIDE TRANSIT ZONE 10% OF TOTAL # OF D.U. REQUIRE PARKING	67 x .10 = 6.7 SPACE REQUIRED		
25-30	**REQUIRED OFF STREET PARKING SPACES FOR PERMITTED NON-RESIDENTIAL USES**	COMMUNITY FACILITY USE – USE GROUP 4A	R7A – NON REQUIRED		
		TOTAL PARKING REQUIRED: 149 SPACES	TOTAL PARKING PROVIDED: 180 SPACES		
	QUALITY HOUSING PROGRAM				COMPLIES
28-23	**REFUSE ROOM ON EACH FLOOR**	MIN. 12 sf (DEDUCTED FROM F.A.)			
28-24	**LAUNDRY FACILITY**	1 WASHING / 20 UNIS 1 DRYING / 40 UNITS - EXTERIOR WALL W/ WINDOWS NOT LESS THEN 9.5% OF TOTAL FLOOR SPACES OF ROOM (IF WANT TO DEDUCT FROM F.A.)			
28-25	**DAYLIGHT IN CORRIDORS**	50% OF CORRIDOR CAN BE DEDUCTED FROM F.A. IF MIN. 20 sf WINDOW PROVIDED - DIRECTLY VISIBLE FROM 50% OF CORRIDOR ON VERTICAL CORE - LOCATED AT LEAST 20’ FROM A WALL ON SIDE OF REAR LOT LINE			
28-31	**REQUIRED RECREATIONAL SPACE**	AGGREGATED INDOOR OR OUTDOORS (ALL IN ONE LOCATION) - INDOOR MAY BE EXCLUDED FROM F.A. R7: 3.3% OF RESIDENTIAL F.A. MARKET RATE: 206,715 sf x 3.3% = 6,821 sf AFFORDABLE: 91,942 sf x 3.3% = 3,034 sf			
28-32	**STANDARDS FOR RECREATION SPACE**	MIN. DIMENSION OF 15’ MIN. SIZE ROOM EXT. 225 sf / MIN. SIZE INT. 300 sf INDOOR RECREATION LOCATED IN A STORY MUST HAVE EXTERIOR WALL W/ WINDOWS (NOTE: CELLAR IS NO A STORY)			

CALCULATIONS:

PROPOSED RESIDENTIAL FLOOR AREA CALCULATION:

EXISTING BUILDING (SENIOR AFFORDABLE)

SUB-CELLAR:	6,000 sf (RES. F.A. ONLY)
CELLAR:	9,467 sf (RES. F.A. ONLY)
1ST FLOOR:	10,000 sf
2ND – 6TH:	10,175 sf x 5 flr. = 50,875 sf
7TH & 8TH:	7,800 sf x 2 flr. = 15,600 sf
TOTAL:	**91,942 sf (SENIOR AFFORDABLE) (RES.)**

PROPOSED BUILDING (MARKET RATE)

LL2:	NOT IN F.A.
CELLAR:	NOT IN F.A
1ST:	11,515 sf
2ND – 10TH:	16,000 sf x 9 flr. = 144,000 sf
11TH – 14TH:	12,800 sf X 4 flr. = 51,200 sf
TOTAL:	**206,715 sf (MARKET RATE)**

BASE PLANE CALCULATION:

113TH STREET

55.40'
+ 51.64'
107.04' x 196.5' = 21,033.3 / 2 = 10,516.65

32.29'
+ 49.99'
82.28' x 102' = 8,392.56 / 2 = 4,196.28

10,516.65 + 4,196.28 = 14,712.93
196.5' + 102' = 298.5 = **49.29'**

GRAND CENTRAL PARKWAY SERVICE ROAD

27.77'
+ 23.29'
51.06' x 240' = 12,254.4 / 2 = 6,127.2

23.29'
+ 27.41'
50.70' x 70' = 3,549.00 / 2 = 1,774.50

6,127.20 + 1,774.50 = 7,901.70
240' + 70' = 310' = **25.48'**

UNIT MIX:

EXISTING BUILDING

SUB-CELLAR:	1 flr. x (2) STUDIO	= 2
(A.I.R.S)	1 flr. x (4) 1 BD	= 4
CELLAR:	1 flr. x (6) STUDIO	= 6
(A.I.R.S)	1 flr. x (5) 1 BD	= 5
1ST FLOOR:	1 flr. x (6) STUDIO	= 6
(A.I.R.S)	1 flr. x (1) 1 BD	= 1
2ND – 6TH:	5 flr. x (8) STUDIO	= 40
(A.I.R.S)	5 flr. x (9) 1 BD	= 45
7TH & 8TH:	2 flr. x (4) STUDIO	= 8
(A.I.R.S)	2 flr. x (9) 1 BD	= 18
TOTAL:	**135 UNITS**	

STUDIO APARTMENTS: 62
1 BEDROOM APARTMENTS: 73

135 D.U.
+ 216 D.U.
351 D.U.

PROPOSED BUILDING

1ST FLOOR:	1 flr. x (5) STUDIO	= 5
	1 flr. x (3) 1 BD	= 3
2ND – 10TH:	9 flr. x (4) STUDIO	= 36
	9 flr. x (8) 1 BD	= 72
	9 flr. x (4) 2 BD	= 36
11TH – 14TH:	4 flr. x (3) STUDIO	= 12
	4 flr. x (12) 1 BD	= 48
	4 flr. x (1) 2 BD	= 4
TOTAL:	**216 UNITS**	

STUDIO APARTMENTS: 48
1 BEDROOM APARTMENTS: 125
2 BEDROOM APARTMENTS: 43

Attachment B

NYC LPC CORRESPONDENCE

Landmarks Preservation Commission

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

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

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / 18DCP021Q
Project: FORMER PARKWAY HOSPITAL
Address: 70-35 113 STREET, **BBL:** 4022480228
Date Received: 7/3/2018

[X**] No architectural significance**

[X**] No archaeological significance**

[ ] Designated New York City Landmark or Within Designated Historic District

[ ] Listed on National Register of Historic Places

[ ] Appears to be eligible for National Register Listing and/or New York City Landmark Designation

[ ] May be archaeologically significant; requesting additional materials

Gina Santucci 7/3/2018

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 32962_FSO_GS_07032018.doc

Attachment C

Transportation Tables

Table 1 : Transportation Planning Factors

70-35 113th Street, Forest Hills Queens, NY

Land Use:	Residential	Medical Office
	d.u.	Space-sq.ft.
Size/Units:	351	4,034
	(1)	**(3)**
Trip Generation:		
Weekday	8.075	127
Saturday	9.6	127
	per 1,000 sq-ft	per 1,000 sq.ft.
Linked-Trip:	0%	0%
Temporal Distribution:	**(1)**	**(3)**
AM Peak Hour	10%	4%
MD Peak Hour	5%	11%
PM Peak Hour	11%	12%
Saturday Midday Peak Hour	8%	11%
	(2)	**(3)**
Modal Split :	all periods	all periods
Auto	22.3%	30%
Taxi	0.0%	2%
Subway	62.7%	33%
Bus	4.0%	18%
Walk	5.9%	17%
Other	5.1%	0%
Total	100%	100%
	(3)	(3)
In/Out Splits:	In/Out	In/Out
AM Peak Hour	15/85	89/11
MD Peak Hour	50/50	51/49
PM Peak Hour	70/30	48/52
Saturday Midday Peak Hour	50/50	41/59
Vehicle Occupancy:	**(2)**	(3)
Auto	1.13	1.5
Taxi	1.30	1.5
Truck Trip Generation:	**(1)**	**(3)**
Weekday	0.06	0.29
Saturday	0.02	0.29
	per 1,000 sqft	per 1,000 s.f.
	(1)	**(3)**
AM Peak Hour	12%	3%
MD Peak Hour	9%	11%
PM Peak Hour	2%	1%
Saturday Midday Peak Hour	9%	0%
AM/MD/PM/Saturday Midday	50/50	50/50

Sources:

(1)-2014 CEQR Technical Manual, Table 16-2.

(2)-2011-2015 (ACS)-Journey-to-Work (JTW)Census Tract #'s 739, 741, 747, 757.01 and 757.02 in Queens N.Y.

(3)_NYCDOT

Table 2 : Estimated Person Trips

70-35 113th Street, Forest Hills Queens, NY

Land Use:	Residential	Medical Office	Total Net	
	d.u.	Space sq.ft.	Demand	
Size/Units:	351	4,034		
Peak hour Trips				
AM Peak Hour	283	20	304	
Midday Peak Hour	142	56	198	
PM Peak Hour	312	61	373	
Saturday Midday Peak Hour	270	56	326	
Person Trips:				
AM Peak Hour				
Auto	63	6	69	
Taxi	0	0	0	
Subway	178	7	184	184
Bus	11	4	15	15
Walk	17	3	20	20
Other	14	0	14	14
Total	283	20	304	234
Midday Peak Hour				
Auto	32	17	49	
Taxi	0	1	1	
Subway	89	19	107	107
Bus	6	10	16	16
Walk	8	10	18	18
Other	7	0	7	7
Total	142	56	198	148
PM Peak Hour				
Auto	70	18	88	
Taxi	0	1	1	
Subway	195	20	216	216
Bus	12	11	24	24
Walk	18	10	29	29
Other	16	0	16	16
Total	312	61	374	284
Saturday Midday Peak Hour				
Auto	60	17	77	
Taxi	0	1	1	
Subway	169	19	188	188
Bus	11	10	21	21
Walk	16	10	25	25
Other	14	0	14	14
Total	270	56	326	248

Table 3 : Estimated Vehicular Trips

70-35 113th Street, Forest Hills Queens, NY

Vehicular Trips	Residential	Medical Office	Total
AM Peak Hour			
Auto (Total)	56	4	60
Taxi	0	0	0
Taxi (Balanced)	0	0	0
Truck	3	0	3
Truck(Balanced)	4	0	4
Total	60	4	64
Inbound/Outbound Trips	***12/48***	***4/0***	***16/48***
Midday Peak Hour			
Auto (Total)	28	11	39
Taxi	0	1	1
Taxi (Balanced)	0	2	2
Truck	2	0	2
Truck(Balanced)	4	0	4
Total	32	13	45
Inbound/Outbound Trips	***16/16***	***7/6***	***23/22***
PM Peak Hour			
Auto (Total)	62	12	74
Taxi	0	1	1
Taxi (Balanced)	0	2	2
Truck	0	0	0
Truck(Balanced)	0	0	0
Total	62	14	76
Inbound/Outbound Trips	***41/21***	***7/7***	***48/28***
Saturday Midday Peak Hour			
Auto (Total)	53	11	64
Taxi	0	1	1
Taxi (Balanced)	0	2	2
Truck	1	0	1
Truck(Balanced)	2	0	2
Total	55	13	**68**
Inbound/Outbound Trips	***28/27***	***6/7***	***34/34***

Table A

70-35 113th Street, QueensNY Parking Accumulation-Revised A/Q Parking Analysis

Time	in	out	total	Parking Accu.
				180
7-8AM	**3**	**19**	**22**	**164**
8-9	**10**	**46**	**56**	**128**
9-10	**9**	**28**	**37**	**109**
10-11	**11**	**17**	**28**	**103**
11-12N	**12**	**12**	**24**	**103**
12N-1PM	**14**	**14**	**28**	**103**
1-2	**13**	**13**	**26**	**103**
2-3	**12**	**12**	**24**	**103**
3-4	**18**	**12**	**30**	**109**
4-5	**28**	**12**	**40**	**125**
5-6	**41**	**21**	**62**	**145**
6-7	**37**	**16**	**53**	**166**
7-8	**30**	**16**	**46**	**180**

Source:P & Z, Table 2.7.

Exhibit A

Modal Split Information

2011-2015 ACS 5-YEAR Journey-to-Work (JTW) for Census Tract numbers 739, 741, 747, 757.01 and 757.02 in Queens, NY

70-35 113th Street, Queens New York

2011-2015 ACS 5-Year, Journey-to-Work:

Census Tract	Total Workers	Car or Van Drive-Alone	Carpool	Bus	Street Car	Subway	R.R.	Ferry	Taxi	Motor cycle	Bicycle	Walked	Other Means	Worked @ Home	Total
739	**2768**	**573**	**92**	**54**	**0**	**1608**	**65**	**0**	**0**	**0**	**0**	**95**	**17**	**264**	2,768
741	**1581**	**386**	**80**	**81**	**0**	**811**	**35**	**0**	**0**	**0**	**0**	**98**	**0**	**90**	1,581
747	**1719**	**330**	**150**	**154**	**0**	**874**	**0**	**0**	**0**	**0**	**0**	**192**	**8**	**11**	1,719
757.01	2,748	349	165	125	0	1,863	22	0	0	0	0	157	0	67	2,748
757.02	2,068	250	53	17	0	1,531	17	0	0	0	0	98	13	89	2,068
Total	10,884	1,888	540	431	0	6,687	139	0	0	0	0	640	38	521	10,884
		0.173	***0.050***	***0.040***	***0.00***	***0.614***	***0.013***	***0.00***	***0.00***	***0.00***	***0.00***	***0.059***	***0.00***	***0.048***	***1.00***

Exhibit B

Vehicle Occupancy Information

2011-2015 ACS 5-YEAR Journey-to-Work (JTW) for Census Tract numbers 739, 741, 747, 757.01 and 757.02 in Queens, NY

Vehicle Occupancy Rate:

Census Tract	Total	Drove alone	Total carpool	2person	3 Person	4 Person	5 or 6 Person	7 or more Person	Total
739	665	573	92	92	0	0	0	0	92
741	466	386	80	71	0	0	0	9	80
747	480	330	150	111	32	7	0	0	150
757.01	514	349	165	165	0	0	0	0	165
757.02	303	250	53	53	0	0	0	0	53
	2,428	1,888	540	246	11	2	0	1	2,148
Vehicle Occupancy =			**1.13**						

Modal Split summary

Auto	**0.223**
Taxi	**0.000**
Bus	**0.040**
Subway	**0.627**
Walk	**0.059**
Other	**0.051**
Total	**1.000**