Bruckner Boulevard Rezoning

Revised Environmental Assessment

Statement CEQR # 22DCP015X

Prepared for:
Throggs Neck Associates LLC

Prepared by:
Environmental Studies Corporation

August 19th, 2022

Note: This Revised Environmental Assessment Statement (EAS) supersedes the EAS issued on March 25, 2022. The Revised EAS incorporates additional information related to water and sewer infrastructure analysis that was omitted from the EAS issued on March 25, 2022. As described in the Revised EAS, the additional information related to water and sewer infrastructure would not alter the conclusions of the environmental review, which found no potential for significant adverse impacts.

Bruckner Boulevard Rezoning
Environmental Assessment Statement (EAS)

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CHAPTER I

Environmental Assessment Statement

(EAS) Form

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* Bruckner Boulevard Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
22DCP015X	N/A
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable)
220007ZMX, N220008ZRX, 210301MMX	(*e.g.*, legislative intro, CAPA) N/A

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY Department of City Planning, on behalf of City Planning Commission			NAME OF APPLICANT Throggs Neck Associates LLC		
NAME OF LEAD AGENCY CONTACT PERSON Stephanie Shellooe			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Hiram Rothkrug, Environmental Studies Corp.		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 55 Water Mill Ln.		
CITY New York	STATE NY	ZIP 10271	CITY Great Neck	STATE NY	ZIP 11021
TELEPHONE 212-720-3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 718-343-0026	EMAIL hrothkrug@environmentalstudiescorp.com	

5. *Project Description*

Throggs Neck Associates LLC (the "Applicant") seeks the following actions: 1) a zoning map amendment to change the existing: (i) R4-1 zoning district to the R5B/C2-4 zoning district for portions of Block 5307 fronting on Bruckner Boulevard south of Gifford Avenue and east of Balcom Avenue; R4-1, R4A, R4-1/C1-2 and R4A/C1-2 zoning districts to the R6A/C2-4 zoning district for portions of Blocks 5312, 5309, and 5306 fronting on Bruckner Boulevard bounded on the east by Crosby Avenue and the west by Revere Avenue; and (ii) a zoning text amendment to Appendix F to establish the Project Area as an MIH Area. A demapping of Meyers Street between Edison Avenue and East Tremont Avenue is also proposed. Overall, the four proposed applicant-controlled developments facilitated by the Proposed Actions would contain approximately 324,082 gsf of floor area, including 269,975 gsf of residential floor area (up to 384 dwelling units, of which 20 to 30 percent would be provided as affordable housing pursuant to MIH) and 54,107 gsf of commercial floor area. It is estimated that 303 accessory parking spaces would be provided across all four sites. Additionally, the proposed actions would facilitate development on non-applicant controlled sites, as described further below.

Project Location

BOROUGH	COMMUNITY DISTRICT(S)	STREET ADDRESS
Bronx	10	Multiple
TAX BLOCK(S) AND LOT(S) Block 5312, Lot 1 ("PD Site 1"); Block 5309, Lots 35, 36, 41, 42, 44, 47, and 50; ("PD Site 2"), Block 5306, Lots 8, 18, 19, 22, and 23 ("PD Site 3"); and Block 5307, Lots 55, 58, 61, 63, 64, 66 and 67 ("PD Site 4")		ZIP CODE 10465

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS The Project Area fronts on Bruckner Boulevard to the south, Hollywood Avenue to the east, and Balcolm Avenue to the west. The Project Area is alternately bounded by Gifford Avenue, St. Raymond's Cemetery, Haskin Street and Baisley Avenue to the north.

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY	ZONING SECTIONAL MAP NUMBER
R4A/ C1-2, R5B	4b

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 99,178 Waterbody area (sq. ft) and type: 0
Roads, buildings, and other paved surfaces (sq. ft.): 0 Other, describe (sq. ft.): 0

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): 324,082
NUMBER OF BUILDINGS: 4 (applicant controlled) GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 324,082
HEIGHT OF EACH BUILDING (ft.): 33-85 feet NUMBER OF STORIES OF EACH BUILDING: 4-8

Does the proposed project involve changes in zoning on one or more sites? ☒ YES ☐ NO
If "yes," specify: The total square feet owned or controlled by the applicant: 335,978
The total square feet not owned or controlled by the applicant: 32,609

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: sq. ft. (width x length) VOLUME OF DISTURBANCE: cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 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.)	269,975	54,107	0	0

Type (*e.g.,* retail, office, school)	384 dwelling units	Grocery store, office, local retail	0	0

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

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 1082 NUMBER OF ADDITIONAL WORKERS: 14

Provide a brief explanation of how these numbers were determined: Incremental number of residents generated in the With-Action Scenario, based on ACS 2015-2019 data

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

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

If "yes," see Chapter 2, "Establishing the Analysis Framework" and describe briefly: N/A

9. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2025

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 18-22

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Please see Construction section.

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

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

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. See attached.		
(e) Is the project a large, publicly sponsored project?	☐	☒
○ If "yes," complete a PlaNYC assessment and attach. N/A		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?	☐	☒
○ If "yes," complete the Consistency Assessment Form. N/A		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
○ Generate a net increase of 200 or more residential units?	☒	☐
○ Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
○ Directly displace more than 500 residents?	☐	☒
○ Directly displace more than 100 employees?	☐	☒
○ Affect conditions in a specific industry?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
○ Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
○ **Child Care Centers:** Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **Libraries:** Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☐
○ **Public Schools:** Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☒	☐
○ **Health Care Facilities and Fire/Police Protection:** Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the proposed project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
○ If "yes," would the proposed project generate more than 50 additional residents or 125 additional employees?	☐	☐
(c) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
○ If "yes," would the proposed project generate more than 350 additional residents or 750 additional employees?	☐	☐
(d) If the project in located an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☒	☐

	YES	NO
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☐	☒
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See attached.		
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. N/A		
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: See attached.	☒	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☒	☐
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than the amounts listed in Table 13-1 in Chapter 13?	☐	☒
(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒

	YES	NO
(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): 48,338		
○ 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): 51,721,023		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☒	☐
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☒
○ Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	☐	☒
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway trips per station or line?	☐	☒
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☒	☐
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☐	☒
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☒	☐
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed) See attached.	☐	☒
(c) Does the proposed project involve multiple buildings on the project site?	☒	☐
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☒
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality;	☒	☐

	YES	NO
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. There is no potential for significant adverse impacts related to air qualtiy, hazardous materials or noise.		
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 below.		

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
Kevin Corte	**08/19/2022**

SIGNATURE *Kevin Corte*

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.

19(b) explanation:

Construction activities would not limit access to the Bruckner Expressway, nor would construction on any site last longer than two years in duration. Construction activities would be short term and undertaken in accordance with all applicable city and state regulations. Construction would be undertaken using the Best Available Equipment and Best Management Practices for construction activities, as referenced in Chapter 22 of the *CEQR Technical Manual.*

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

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

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

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

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

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

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

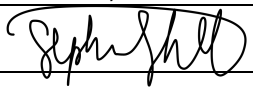
☐ **Positive Declaration**: If the lead agency has determined that the project may have a significant impact on the environment, and if a Conditional Negative Declaration is not appropriate, then the lead agency issues a *Positive Declaration* and prepares a draft Scope of Work for the Environmental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

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

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

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

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	NYC Dept of City Planning on behalf of the City Planning Commission
NAME	DATE
Stephanie Shellooe, AICP	August 19, 2022

SIGNATURE 

REVISED NEGATIVE DECLARATION - supersedes the Negative Declaration issued March 28, 2022*

Statement of No Significant Effect

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

Reasons Supporting this Determination

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

Land Use, Zoning, and Public Policy

A detailed analysis of land use, zoning, and public policy is included in the EAS. The proposed actions are a Zoning Map Amendment from R4-1, R4A, R4A/C1-2 zoning districts to R5B/C2-4 and R6A/C2-4 zoning districts and a Zoning Text Amendment to establish a Mandatory Inclusionary Housing (MIH) area coterminous with the rezoning area in the Schuylerville neighborhood of Bronx Community District 10. The Project Area consists of Block 5312, Lots 1, 10, 19, and p/o 21; Block 5309, Lot 1, 7, 11, 35, 36, 41, 42, 44, 47, 50, 54, and p/o 60; Block 5306, Lots 8, 18, 19, 22, 23, 28, 30, 31, and 231; Block 5307, Lots 55, 58, 61, 63, 64, 66, 67, 73, 75, and 76. In conjunction with this application, the Applicant is also requesting the demapping of Meyers Street between Edison Avenue and East Tremont Avenue (a segment approximately 400 feet in length) in a separate application before the City Planning Commission. The Proposed Actions would facilitate development on four applicant-owned development sites: Projected Development Site 1 (Block 5312, Lot 1), Projected Development Site 2 (Block 5309, Lots 35, 36, 41, 42, 44, 47 and 50), Projected Development Site 3 (Block 5306, Lots 8, 18, 19, 22 and 23), and Projected Development Site 4 (Block 5307, Lots 61, 63, 64, 66 and 67). Project Development Sites 1-4 would contain a total of 324,082 gross square feet (gsf), including 269,975 gsf of residential floor area and 54,107 gsf of commercial floor area. Projected Development Sites 1-4 would contain a total of 384 residential units, between 96 and 116 of which would be permanently affordable pursuant to the MIH program. A total of 301 accessory parking spaces would be provided across all four sites. The Proposed Actions would also facilitate development of three non-applicant controlled development sites, Projected Development Site 5 (Block 5309, Lots 1, 7 and 54), Projected Development Site 6 (Block 5307, Lots 73, 75 and 76), and Potential Development Site A (Block 5306, Lots 28, 30, 31 and 23). The proposed actions reinforce existing land use patterns, reflecting local commercial activity along Bruckner Boulevard and East Tremont Avenue, both wide streets. Zoning provisions of the R6A/C2-4 and R5B/C2-4 zoning districts would ensure that development under the proposed zoning districts would be compatible with the lower density residential development surrounding the Project Area. Significant adverse impacts related to land use, zoning and public policy are not expected to occur as a result of the Proposed Actions and no further analysis is required.

Community Facilities

A detailed analysis related to community facilities and services (primary schools) is included in this EAS. The analysis finds that the Proposed Actions would result in an increment of 82 new primary school students, exceeding the threshold described in the CEQR Technical Manual for a detailed analysis of primary schools. The analysis finds that while the increase would result in a utilization rate of 145% for primary schools in the study area, the incremental increase from the Proposed Actions would only be 3%, and would not exceed significant adverse impact criteria identified in the CEQR Technical Manual. The Proposed Actions would therefore not result in any significant adverse impacts to community facilities and services, and no further analysis is required.

Open Space

A detailed analysis related to open space is included in this EAS. The Proposed Actions would result in an increase of approximately 1,085 new residents, which is above the threshold described in the CEQR Technical Manual for a detailed analysis of residential (active) open space. The open space ratio for residents in the study area would decrease by approximately 4.79% as a result of the Proposed Actions. The analysis finds that while there would be a decrease in open space ratio as a result of the increase in population, a number of qualitative factors would help to prevent an impact to open space resources. Open space resources would be provided on Projected Development Sites 1-3, including outdoor recreation areas on Projected Development Sites 1 and 3, which would serve to meet at least a portion of the active and passive open space needs of the projects' residents. The Proposed Actions would therefore not result in any significant adverse impacts to open space, and no further analysis is required.

Shadows

A detailed analysis related to shadows is included in this EAS. The Projected and Potential Development Sites are expected to cast shadows on three sunlight-sensitive open space resources: St. Raymond's Cemetery, Miele Park and the Hutchinson River Parkway. The shadows created by the Projected and Potential Development Sites are not anticipated to result in significant adverse impacts to these open space resources. Shadows on these resources would cover a limited area, particularly on St. Raymond's Cemetery, where no shadows will be cast on walking paths. Shadows on Miele Park and the Hutchinson River Parkway are limited in duration and are not anticipated to affect sunlight sensitive plantings. On each relevant analysis day the resources will still receive four to six hours of sunlight in all areas. The development facilitated by the Proposed Actions is not expected to result in the potential for significant adverse shadows impacts.

Transportation

A detailed analysis related to transportation is included in this EAS. Transportation related vehicle trips, and pedestrian trips resulting from the Proposed Actions would exceed the relevant CEQR Technical Manual thresholds for conducting a detailed analysis of traffic and pedestrian impacts, therefore, the following Level 1 and Level 2 Screening assessments have been prepared. The detailed analysis concluded that in the future with the proposed project, all five (5) intersections would operate in an acceptable LOS, below Mid LOS D, during all peak hours and there would be no significant adverse traffic impacts. The Proposed Actions would result in over 200 pedestrian trips at more than one peak-hour period, exceeding the threshold described in the CEQR Technical Manual for a detailed analysis. The analysis finds that while there would be more pedestrian trips at the mid-day and p.m. peak hours and the Saturday mid-day peak hours, the increase in trips would not affect the level of service

Project Name: Bruckner Sites Rezoning
CEQR # 22DCP015X
SEQRA Classification: Unlisted

(LOS) of intersections studied in the Project Area study area, and all intersections would continue to operate at LOS A or B. The Proposed Actions would therefore not result in any significant adverse impacts to transportation, and no further analysis is required.

Hazardous Materials, Air Quality, and Noise
An (E) designation (E-669) related to hazardous materials, air quality, and noise would be established as part of the approval of the proposed actions. Refer to "Determination of Significance Appendix: (E) designation" for the applicable (E) designation requirements. The hazardous materials, air quality, and noise analyses conclude that with the (E) designation in place, the proposed actions would not result in a significant adverse impact related to hazardous materials, air quality, or noise.

No other significant effects upon the environment that would require the preparation of a Draft Environmental Impact Statement are foreseeable. This Negative Declaration has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law (SEQRA). Should you have any questions pertaining to this Negative Declaration, you may contact Stephanie Shellooe at +1 212-720-3328.

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	Department of City Planning on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | 212.720.3328
NAME Stephanie Shellooe, AICP	DATE August 19, 2022
SIGNATURE	

TITLE	
Vice Chair, City Planning Commission	
NAME Kenneth Knuckles	DATE August 22, 2022
SIGNATURE	

* This Revised Negative Declaration (prepared in accordance with a Revised EAS) supersedes the Negative Declaration issued on March 28, 2022. A Revised Environmental Assessment Statement (EAS) has been prepared which incorporates additional information related to water and sewer infrastructure analysis that was omitted from the EAS issued on March 25, 2022. As described in the Revised EAS, issued August 19, 2022, the additional information related to water and sewer infrastructure would not alter the conclusions of the environmental review, which found no potential for significant adverse impacts.

Project Name: Bruckner Sites Rezoning
CEQR # 22DCP015X
SEQRA Classification: Unlisted

Determination of Significance Appendix

The Proposed Action(s) were determined to have the potential to result in changes to development on the following site(s):

Development Site	Borough	Block and Lot
Projected Development Site 1	Bronx	Block 5312, Lot 1
Projected Development Site 2	Bronx	Block 5309, Lots 35, 36, 41, 42, 44, 47 and 50
Projected Development Site 3	Bronx	Block 5306, Lots 8, 18, 19, 22 and 23
Projected Development Site 4	Bronx	Block 5307, Lots 61, 63, 64, 66 and 67
Projected Development Site 5	Bronx	Block 5309, Lots 1, 7 and 54
Projected Development Site 6	Bronx	Block 5307, Lots 73, 75 and 76
Potential Development Site A	Bronx	Block 5306, Lots 28, 30, 31 and 231

(E) Designation Requirements

To ensure that the proposed actions would not result in significant adverse impacts related to hazardous materials, air quality, and noise an (E) designation (**E-669**) would be established as part of approval of the proposed actions on **Projected Development Sites 1-6 and Potential Development Site A** as described below:

Development Site	Hazardous Materials	Air Quality	Noise
Projected Development Site 1	X	X	X
Projected Development Site 2	X	X	X
Projected Development Site 3	X	X	X
Projected Development Site 4	X	X	X
Projected Development Site 5	X	X	X
Projected Development Site 6	X	X	X
Potential Development Site A	X	X	

Hazardous Materials

The (E) designation requirements applicable to **Projected Development Site 1-6 and Potential Development Site A** for hazardous materials would apply as follows:

Task 1-Sampling Protocol

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

Task 2-Remediation Determination and Protocol

A written report with findings and a summary of the data must 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.

Project Name: Bruckner Sites Rezoning
CEQR # 22DCP015X
SEQRA Classification: Unlisted

Air Quality

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

Block 5312, Lot 1 (Projected Development Site 1): *Any new residential or commercial development on the above‐referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s), ensure that the stack is located at the building's highest level or at least 88 feet above grade, and that the stack is located at least 20 feet from the western lot line facing Edison Avenue to avoid any potential significant adverse air quality impacts.*

Block 5309, Lots 35, 36, 41, 42, 44, 47, 50 (Projected Development Site 2): *Any new residential or commercial development on the above‐referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the stack is located at the building's highest level or at least 54 feet above grade, and that the stack is located at least 130 feet from the western lot line facing East Tremont Avenue to avoid any potential significant adverse air quality impacts.*

Block 5306, Lots 8, 18, 19, 22, 23 (Projected Development Site 3): *Any new residential or commercial development on the above‐referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the stack is located at the building's highest level or at least 84 feet above grade, and that the stack is located at least 70 feet from the eastern lot line facing East Tremont Avenue to avoid any potential significant adverse air quality impacts.*

Block 5307, Lots 61, 63, 64, 66, 67 (Projected Development Site 4): *Any new residential or commercial development on the above‐referenced property must ensure that the heating, ventilating, air conditioning (HVAC), and hot water system(s) stack is located at the building's highest level or at least 36 feet above grade, and that the stack is located at least 55 feet from the western lot line facing Balcom Avenue to avoid any potential significant adverse air quality impacts.*

Block 5309, Lots 1, 7, 54 (Projected Development Site 5): *Any new residential or commercial development on the above‐referenced property must ensure that the heating, ventilating, air conditioning (HVAC), and hot water system(s) stack is located at the building's highest level or at least 88 feet above grade to avoid any potential significant adverse air quality impacts.*

Block 5307, Lots 73, 75, 76 (Projected Development Site 6): *Any new residential or commercial development on the above‐referenced property must ensure that the heating, ventilating, air conditioning (HVAC), and hot water system(s) stack is located at the building's highest level or at least 36 feet above grade, and that the stack is located at least 45 feet from the eastern lot line facing East Tremont Avenue to avoid any potential significant adverse air quality impacts.*

Block 5306, Lots 28, 30, 31, 231 (Potential Development Site A): *Any new residential or commercial development on the above‐referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s), ensure that the stack is located at the building's highest level or at least 88 feet above grade, and that the stack is located at least 70 feet from the western lot line facing Revere Avenue to avoid any potential significant adverse air quality impacts.*

Project Name: Bruckner Sites Rezoning
CEQR # 22DCP015X
SEQRA Classification: Unlisted

Noise

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

Block 5312, Lot 1 (Projected Development Site 1): *To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on all facades to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

Block 5309, Lots 35, 36, 41, 42, 44, 47, 50 (Projected Development Site 2): *To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on eastern, western and southern facades to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

Block 5306, Lots 8, 18, 19, 22, 23 (Projected Development Site 3): *To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on eastern, western and northern facades and a minimum of 33 dBA window/wall attenuation on the southern facade to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

Block 5307, Lots 61, 63, 64, 66, 67 (Projected Development Site 4): *To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 33 dBA window/wall attenuation on all facades to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

Block 5309, Lots 1, 7, 54 (Projected Development Site 5): *To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on all facades to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

Block 5307, Lots 73, 75, 76 (Projected Development Site 6): *To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 33 dBA window/wall attenuation on all facades to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

NEGATIVE DECLARATION

Statement of No Significant Effect

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

Reasons Supporting this Determination

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

Land Use, Zoning, and Public Policy

A detailed analysis of land use, zoning, and public policy is included in the EAS. The proposed actions are a Zoning Map Amendment from R4-1, R4A, R4A/C1-2 zoning districts to R5B/C2-4 and R6A/C2-4 zoning districts and a Zoning Text Amendment to establish a Mandatory Inclusionary Housing (MIH) area coterminous with the rezoning area in the Schuylerville neighborhood of Bronx Community District 10. The Project Area consists of Block 5312, Lots 1, 10, 19, and p/o 21; Block 5309, Lot 1, 7, 11, 35, 36, 41, 42, 44, 47, 50, 54, and p/o 60; Block 5306, Lots 8, 18, 19, 22, 23, 28, 30, 31, and 231; Block 5307, Lots 55, 58, 61, 63, 64, 66, 67, 73, 75, and 76. In conjunction with this application, the Applicant is also requesting the demapping of Meyers Street between Edison Avenue and East Tremont Avenue (a segment approximately 400 feet in length) in a separate application before the City Planning Commission. The Proposed Actions would facilitate development on four applicant-owned development sites: Projected Development Site 1 (Block 5312, Lot 1), Projected Development Site 2 (Block 5309, Lots 35, 36, 41, 42, 44, 47 and 50), Projected Development Site 3 (Block 5306, Lots 8, 18, 19, 22 and 23), and Projected Development Site 4 (Block 5307, Lots 55, 58, 61, 63, 64, 66 and 67). Project Development Sites 1-4 would contain a total of 324,082 gross square feet (gsf), including 269,975 gsf of residential floor area and 54,107 gsf of commercial floor area. Projected Development Sites 1-4 would contain a total of 384 residential units, between 96 and 116 of which would be permanently affordable pursuant to the MIH program. A total of 301 accessory parking spaces would be provided across all four sites. The Proposed Actions would also facilitate development of three non-applicant controlled development sites, Projected Development Site 5 (Block 5309, Lots 1, 7 and 54), Projected Development Site 6 (Block 5307, Lots 73, 75 and 76), and Potential Development Site A (Block 5306, Lots 28, 30, 31 and 23). The proposed actions reinforce existing land use patterns, reflecting local commercial activity along Bruckner Boulevard and East Tremont Avenue, both wide streets. Zoning provisions of the R6A/C2-4 and R5B/C2-4 zoning districts would ensure that development under the proposed zoning districts would be compatible with the lower density residential development surrounding the Project Area. Significant adverse impacts related to land use, zoning and public policy are not expected to occur as a result of the Proposed Actions and no further analysis is required.

Community Facilities

A detailed analysis related to community facilities and services (primary schools) is included in this EAS. The analysis finds that the Proposed Actions would result in an increment of 82 new primary school students, exceeding the threshold described in the CEQR Technical Manual for a detailed analysis of primary schools. The analysis finds that while the increase would result in a utilization rate of 145% for primary schools in the study area, the incremental increase from the Proposed Actions would only be 3%, and would not exceed significant adverse impact criteria identified in the CEQR Technical Manual. The Proposed Actions would therefore not result in any significant adverse impacts to community facilities and services, and no further analysis is required.

Open Space

A detailed analysis related to open space is included in this EAS. The Proposed Actions would result in an increase of approximately 1,085 new residents, which is above the threshold described in the CEQR Technical Manual for a detailed analysis of residential (active) open space. The open space ratio for residents in the study area would decrease by approximately 4.79% as a result of the Proposed Actions. The analysis finds that while there would be a decrease in open space ratio as a result of the increase in population, a number of qualitative factors would help to prevent an impact to open space resources. Open space resources would be provided on Projected Development Sites 1-3, including outdoor recreation areas on Projected Development Sites 1 and 3, which would serve to meet at least a portion of the active and passive open space needs of the projects' residents. The Proposed Actions would therefore not result in any significant adverse impacts to open space, and no further analysis is required.

Shadows

A detailed analysis related to shadows is included in this EAS. The Projected and Potential Development Sites are expected to cast shadows on three sunlight-sensitive open space resources: St. Raymond's Cemetery, Miele Park and the Hutchinson River Parkway. The shadows created by the Projected and Potential Development Sites are not anticipated to result in significant adverse impacts to these open space resources. Shadows on these resources would cover a limited area, particularly on St. Raymond's Cemetery, where no shadows will be cast on walking paths. Shadows on Miele Park and the Hutchinson River Parkway are limited in duration and are not anticipated to affect sunlight sensitive plantings. On each relevant analysis day the resources will still receive four to six hours of sunlight in all areas. The development facilitated by the Proposed Actions is not expected to result in the potential for significant adverse shadows impacts.

Transportation

A detailed analysis related to transportation is included in this EAS. Transportation related vehicle trips, and pedestrian trips resulting from the Proposed Actions would exceed the relevant CEQR Technical Manual thresholds for conducting a detailed analysis of traffic and pedestrian impacts, therefore, the following Level 1 and Level 2 Screening assessments have been prepared. The detailed analysis concluded that in the future with the proposed project, all five (5) intersections would operate in an acceptable LOS, below Mid LOS D, during all peak hours and there would be no significant adverse traffic impacts. The Proposed Actions would result in over 200 pedestrian trips at more than one peak-hour period, exceeding the threshold described in the CEQR Technical Manual for a detailed analysis. The analysis finds that while there would be more pedestrian trips at the mid-day and p.m. peak hours and the Saturday mid-day peak hours, the increase in trips would not affect the level of service

Project Name: Bruckner Sites Rezoning
CEQR # 22DCP015X
SEQRA Classification: Unlisted

(LOS) of intersections studied in the Project Area study area, and all intersections would continue to operate at LOS A or B. The Proposed Actions would therefore not result in any significant adverse impacts to transportation, and no further analysis is required.

Hazardous Materials, Air Quality, and Noise
An (E) designation (E-669) related to hazardous materials, air quality, and noise would be established as part of the approval of the proposed actions. Refer to "Determination of Significance Appendix: (E) designation" for the applicable (E) designation requirements. The hazardous materials, air quality, and noise analyses conclude that with the (E) designation in place, the proposed actions would not result in a significant adverse impact related to hazardous materials, air quality, or noise.

No other significant effects upon the environment that would require the preparation of a Draft Environmental Impact Statement are foreseeable. This Negative Declaration has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law (SEQRA). Should you have any questions pertaining to this Negative Declaration, you may contact Stephanie Shellooe at +1 212-720-3328.

TITLE Director, Environmental Assessment and Review Division	LEAD AGENCY Department of City Planning on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | 212.720.3328
NAME Stephanie Shellooe, AICP	DATE March 25, 2022
SIGNATURE	
TITLE Chair, City Planning Commission	
NAME Dan Garodnick	DATE March 28, 2022
SIGNATURE	

Project Name: Bruckner Sites Rezoning
CEQR # 22DCP015X
SEQRA Classification: Unlisted

Determination of Significance Appendix

The Proposed Action(s) were determined to have the potential to result in changes to development on the following site(s):

Development Site	Borough	Block and Lot
Projected Development Site 1	Bronx	Block 5312, Lot 1
Projected Development Site 2	Bronx	Block 5309, Lots 35, 36, 41, 42, 44, 47 and 50
Projected Development Site 3	Bronx	Block 5306, Lots 8, 18, 19, 22 and 23
Projected Development Site 4	Bronx	Block 5307, Lots 55, 58, 61, 63, 64, 66 and 67
Projected Development Site 5	Bronx	Block 5309, Lots 1, 7 and 54
Projected Development Site 6	Bronx	Block 5307, Lots 73, 75 and 76
Potential Development Site A	Bronx	Block 5306, Lots 28, 30, 31 and 231

(E) Designation Requirements

To ensure that the proposed actions would not result in significant adverse impacts related to hazardous materials, air quality, and noise an (E) designation (**E-669**) would be established as part of approval of the proposed actions on **Projected Development Sites 1-6 and Potential Development Site A** as described below:

Development Site	Hazardous Materials	Air Quality	Noise
Projected Development Site 1	X	X	X
Projected Development Site 2	X	X	X
Projected Development Site 3	X	X	X
Projected Development Site 4	X	X	X
Projected Development Site 5	X	X	X
Projected Development Site 6	X	X	X
Potential Development Site A	X	X	

Hazardous Materials

The (E) designation requirements applicable to **Projected Development Site 1-6 and Potential Development Site A** for hazardous materials would apply as follows:

Task 1-Sampling Protocol

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

Task 2-Remediation Determination and Protocol

A written report with findings and a summary of the data must 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.

Project Name: Bruckner Sites Rezoning
CEQR # 22DCP015X
SEQRA Classification: Unlisted

Air Quality

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

Block 5312, Lot 1 (Projected Development Site 1): *Any new residential or commercial development on the above‐referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s), ensure that the stack is located at the building's highest level or at least 88 feet above grade, and that the stack is located at least 20 feet from the western lot line facing Edison Avenue to avoid any potential significant adverse air quality impacts.*

Block 5309, Lots 35, 36, 41, 42, 44, 47, 50 (Projected Development Site 2): *Any new residential or commercial development on the above‐referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the stack is located at the building's highest level or at least 54 feet above grade, and that the stack is located at least 130 feet from the western lot line facing East Tremont Avenue to avoid any potential significant adverse air quality impacts.*

Block 5306, Lots 8, 18, 19, 22, 23 (Projected Development Site 3): *Any new residential or commercial development on the above‐referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the stack is located at the building's highest level or at least 84 feet above grade, and that the stack is located at least 70 feet from the eastern lot line facing East Tremont Avenue to avoid any potential significant adverse air quality impacts.*

Block 5307, Lots 61, 63, 64, 66, 67 (Projected Development Site 4): *Any new residential or commercial development on the above‐referenced property must ensure that the heating, ventilating, air conditioning (HVAC), and hot water system(s) stack is located at the building's highest level or at least 36 feet above grade, and that the stack is located at least 55 feet from the western lot line facing Balcom Avenue to avoid any potential significant adverse air quality impacts.*

Block 5309, Lots 1, 7, 54 (Projected Development Site 5): *Any new residential or commercial development on the above‐referenced property must ensure that the heating, ventilating, air conditioning (HVAC), and hot water system(s) stack is located at the building's highest level or at least 88 feet above grade to avoid any potential significant adverse air quality impacts.*

Block 5307, Lots 73, 75, 76 (Projected Development Site 6): *Any new residential or commercial development on the above‐referenced property must ensure that the heating, ventilating, air conditioning (HVAC), and hot water system(s) stack is located at the building's highest level or at least 36 feet above grade, and that the stack is located at least 45 feet from the eastern lot line facing East Tremont Avenue to avoid any potential significant adverse air quality impacts.*

Block 5306, Lots 28, 30, 31, 231 (Potential Development Site A): *Any new residential or commercial development on the above‐referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s), ensure that the stack is located at the building's highest level or at least 88 feet above grade, and that the stack is located at least 70 feet from the western lot line facing Revere Avenue to avoid any potential significant adverse air quality impacts.*

Project Name: Bruckner Sites Rezoning
CEQR # 22DCP015X
SEQRA Classification: Unlisted

Noise

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

Block 5312, Lot 1 (Projected Development Site 1): *To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on all facades to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

Block 5309, Lots 35, 36, 41, 42, 44, 47, 50 (Projected Development Site 2): *To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on eastern, western and southern facades to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

Block 5306, Lots 8, 18, 19, 22, 23 (Projected Development Site 3): *To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on eastern, western and northern facades and a minimum of 33 dBA window/wall attenuation on the southern facade to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

Block 5307, Lots 61, 63, 64, 66, 67 (Projected Development Site 4): *To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 33 dBA window/wall attenuation on all facades to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

Block 5309, Lots 1, 7, 54 (Projected Development Site 5): *To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on all facades to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

Block 5307, Lots 73, 75, 76 (Projected Development Site 6): *To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 33 dBA window/wall attenuation on all facades to maintain an interior noise level not greater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*


St. Raymond Cemetery
St. Raymond Cemetery
St. Raymond Cemetery
Miele Park
Hutchinson River Parkway
E TREMONT AV
WHITTEMORE AV
BALCOM AV
WATERBURY AV
ELLISON AV
PURITAN AV
MAYFLOWER AV
BRADFORD AV
BAISLEY AV
EDISON AV
B ST
HOBART AV
CROSBY AV
THROGS NECK EXWY
FAIRFAX AV
HASKIN ST
MEYERS ST
BRUCKNER EXWY
OTIS AV
HOLLYWOOD AV
LOGAN AV
GREENE PL
EDISON AV
BARKLEY AV
SOMMER PL
REVERE AV
CALHOUN AV
QUINCY AV
SWINTON AV
GIFFORD AV
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Projected Development Site (Applicant Controlled)
Projected Development Site (Non-Applicant Controlled)
Potential Development Site (Non-Applicant Controlled)
Individual 400-Foot Study Area Radii
Combined Study Area Radius
Open Space and Recreation


St. Raymond Cemetery
St. Raymond Cemetery
St. Raymond Cemetery
Miele Park
Hutchinson River Parkway
E TREMONT AV
WHITTEMORE AV
BALCOM AV
WATERBURY AV
ELLISON AV
PURITAN AV
MAYFLOWER AV
BRADFORD AV
BAISLEY AV
EDISON AV
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CROSBY AV
HOBART AV
THROGS NECK EXWY
FAIRFAX AV
BRUCKNER EXWY
OTIS AV
HOLLYWOOD AV
LOGAN AV
EDISON AV
GREENE PL
BARKLEY AV
REVERE AV
CALHOUN AV
QUINCY AV
SWINTON AV
GIFFORD AV
GRAFF AV
BRINSMADE AV
HUNTINGTON AV
BALCOM AV
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175
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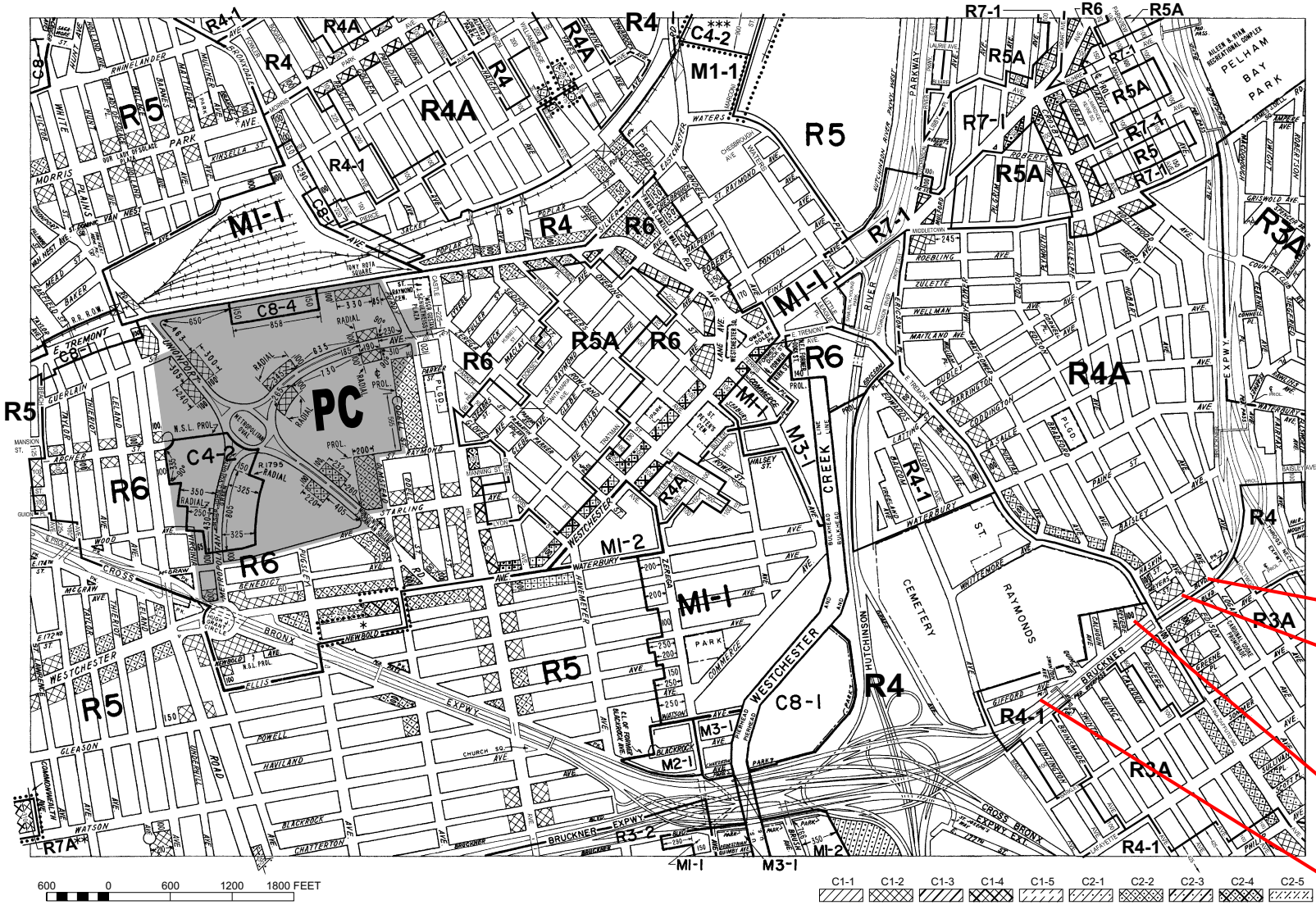
700
FT
Projected Development Site (Applicant Controlled)
Projected Development Site (Non-Applicant Controlled)
Potential Development Site (Non-Applicant Controlled)
Combined 400-Foot Study Area Radius
Meyers Street Proposed Demapping
Open Space and Recreation


Site 2
Site 1



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.

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:

***12-19-2017 C 170445 ZMX
**06-21-2017 C 170150 ZMX
*05-24-2017 C 160326 ZMX
10-27-2016 C 160332 ZMX

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 and Mandatory

Site 1 (2945 Bruckner Blvd.)

Site 2 (2917-39 Bruckner Blvd.)

Site 3 (Bruckner Blvd.)

Site 4 (2719 Bruckner Blvd.)

N

MAP KEY

3c	4a	4c
3d	**4b**	4d
6c	7a	7c

ZONING MAP **4b**

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

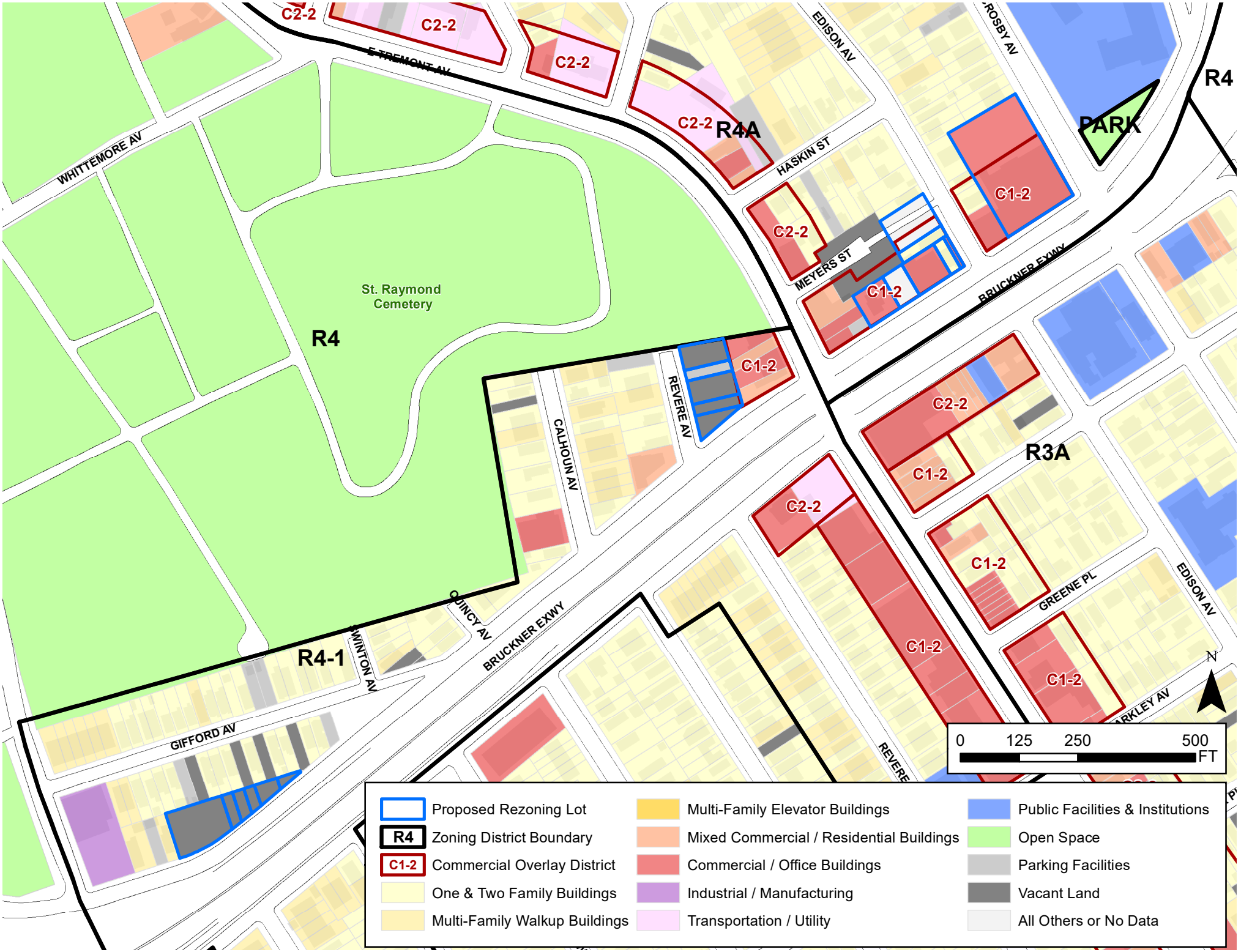
www.n

(212) 720-3291

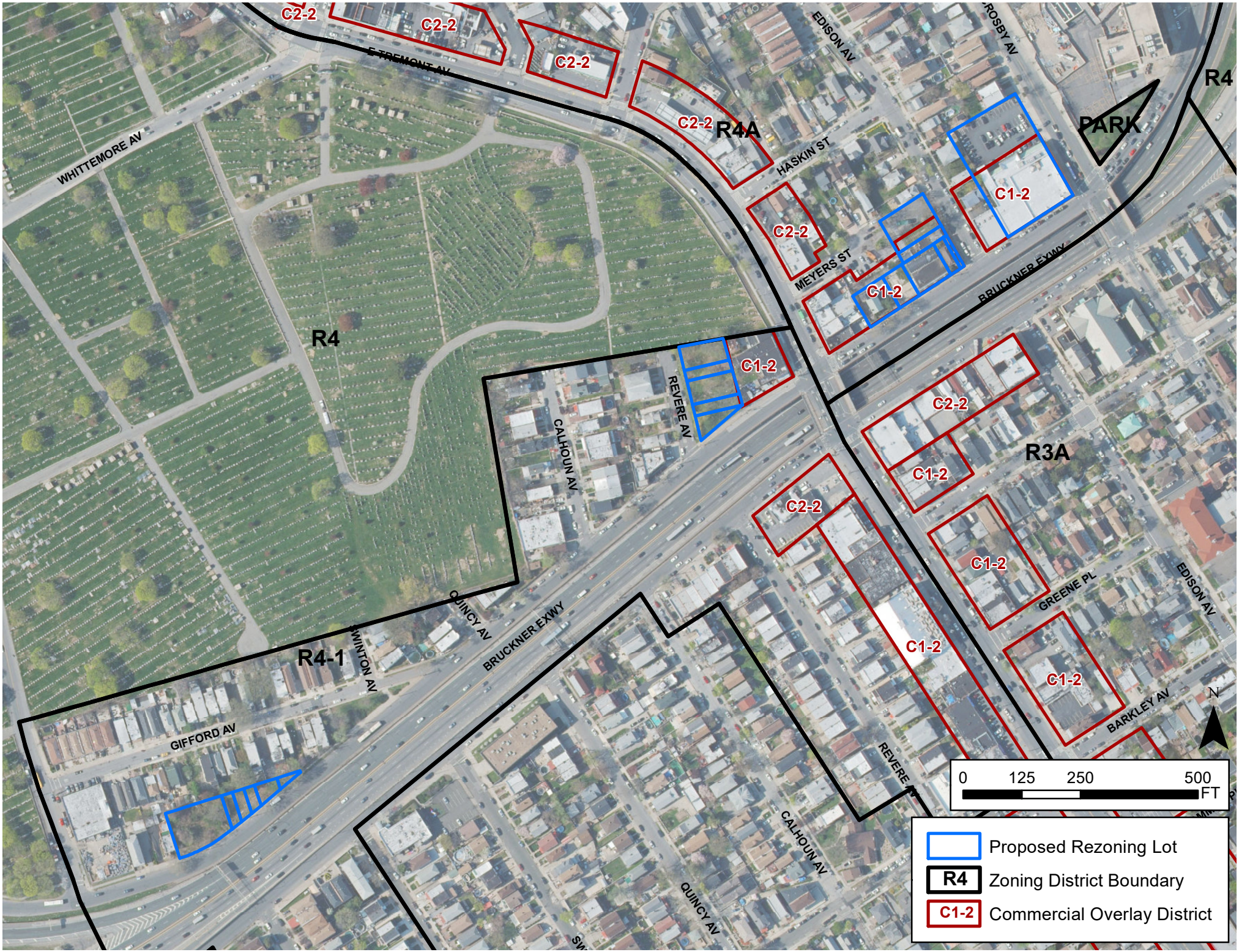

Site 4
Site 3
Site 2
Site 1


Site 3

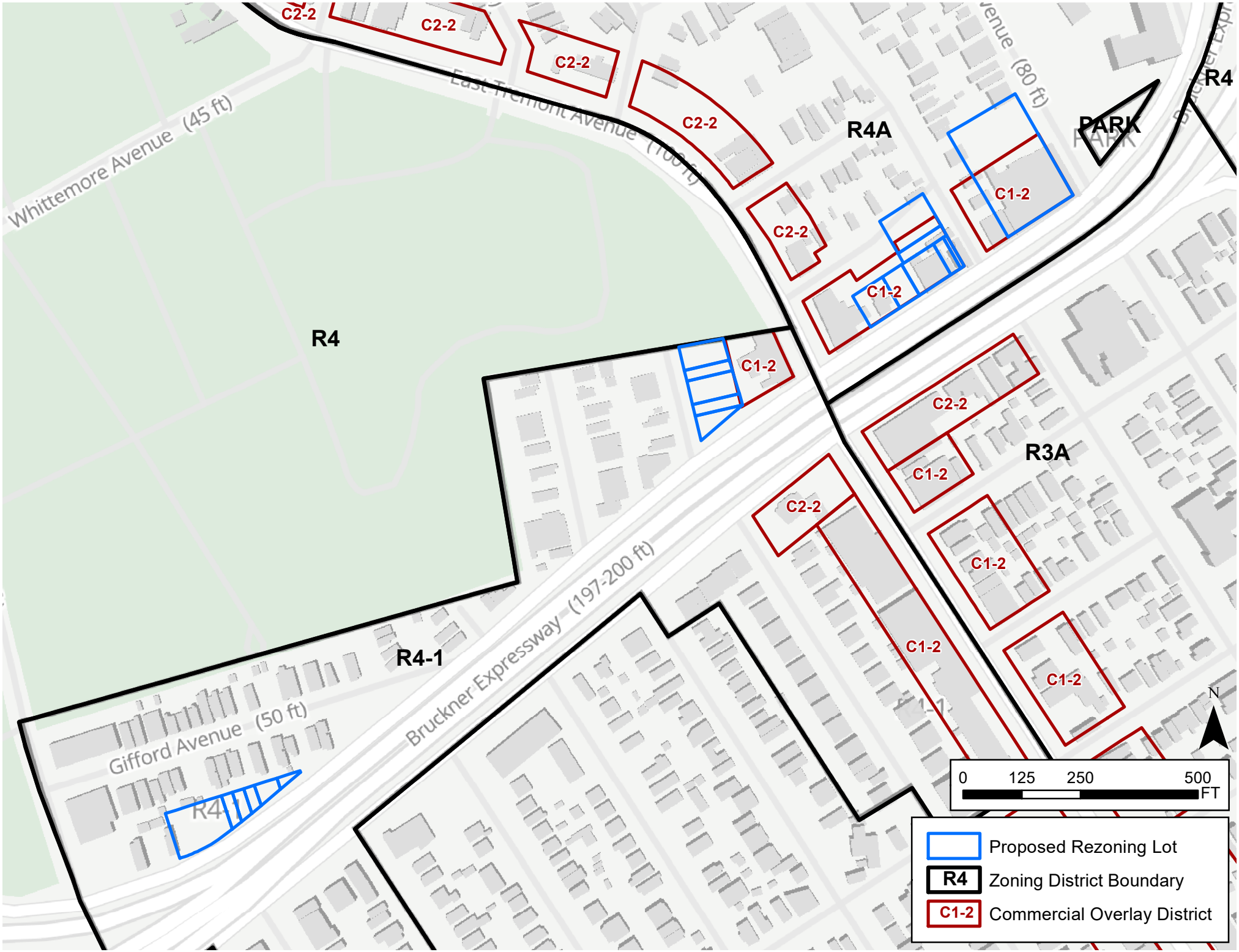

Site 4



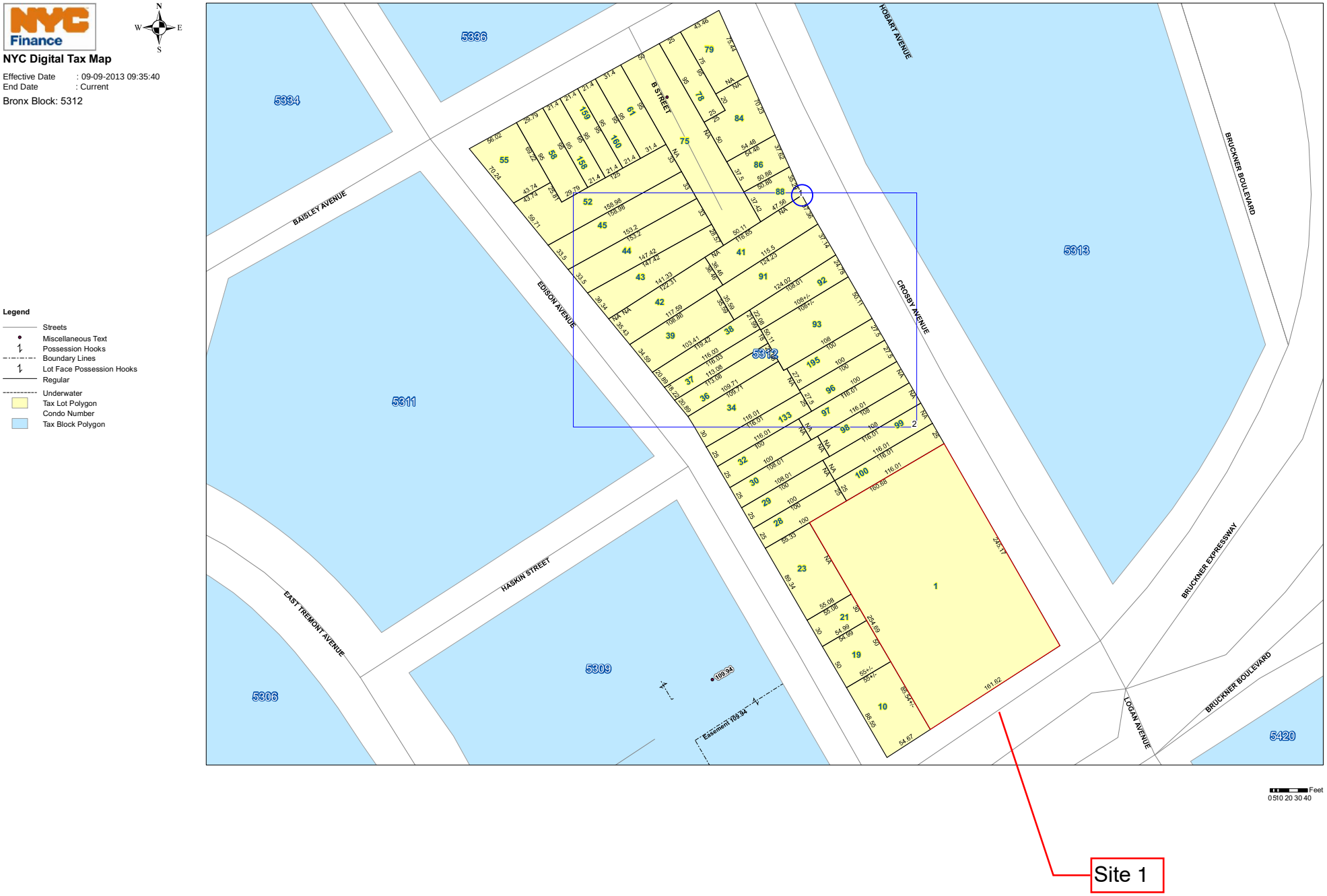
Bruckner Boulevard Rezoning



Bruckner Boulevard Rezoning



Bruckner Boulevard Rezoning


NYC Finance
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NYC Digital Tax Map
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End Date : Current
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Streets
Miscellaneous Text
Possession Hooks
Boundary Lines
Lot Face Possession Hooks
Regular
Underwater
Tax Lot Polygon
Condo Number
Tax Block Polygon
5312
5394
5336
5313
5311
5309
5306
5420
BAISLEY AVENUE
EDISON AVENUE
HASKIN STREET
EAST TREMONT AVENUE
HOBART AVENUE
CROSBY AVENUE
BRUCKNER BOULEVARD
BRUCKNER EXPRESSWAY
LOGAN AVENUE
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Easement 109.94
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Site 1

NYC Finance

NYC Digital Tax Map

Effective Date : 12-22-2016 15:36:42
End Date : Current

Bronx Block: 5309



Legend

- Streets
- Miscellaneous Text
- Possession Hooks
- Boundary Lines
- Lot Face Possession Hooks
- Regular
- Underwater
- Tax Lot Polygon
- Condo Number
- Tax Block Polygon

NYC Finance

NYC Digital Tax Map

Effective Date : 11-23-2016 16:47:55
End Date : Current

Bronx Block: 5306

Legend

- Streets
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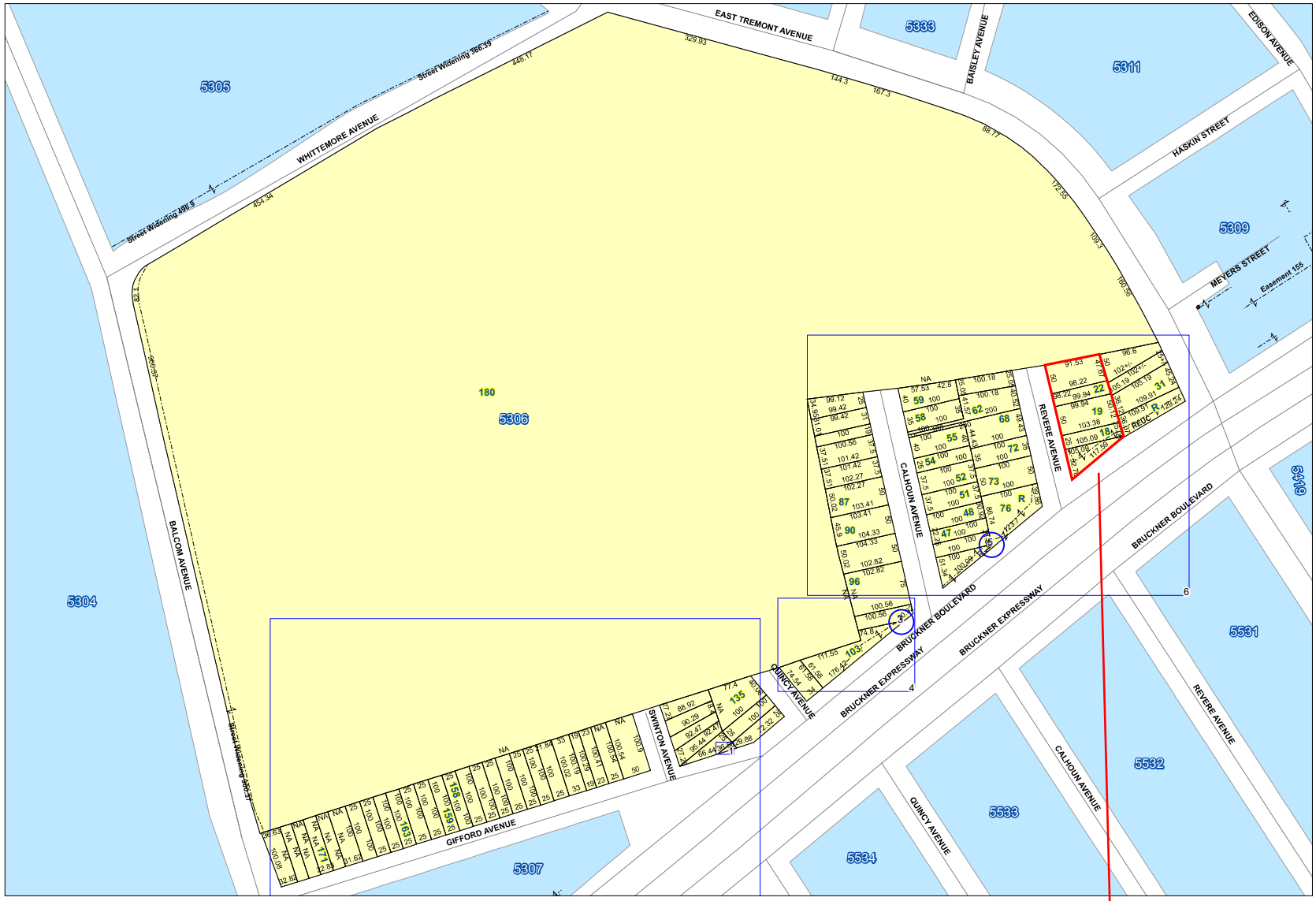
- Possession Hooks
- Boundary Lines
- Lot Face Possession Hooks
- Regular
- Underwater
- Tax Lot Polygon
- Condo Number
- Tax Block Polygon

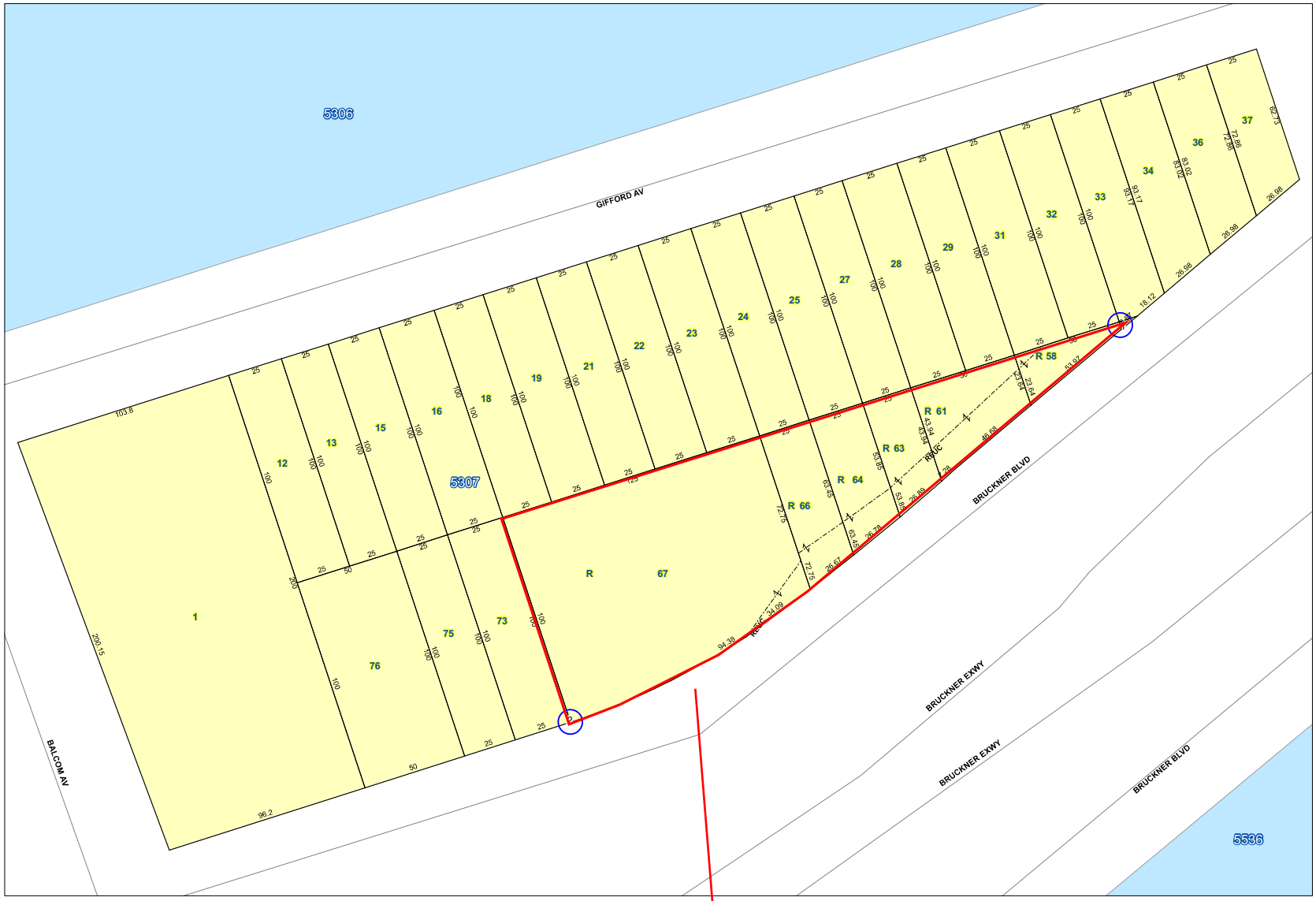


FINANCE NEW • YORK
MARTHA E. STARK
COMMISSIONER

NYC Digital Tax Map

Effective Date : 12-06-2008 17:56:36
End Date : Current

Bronx Block: 5307



Legend

- Streets
- Miscellaneous Text
- Possession Hooks
- Boundary Lines
- Lot Face Possession Hooks
- Regular
- Underwater
- Tax Lot Polygon
- Condo Number
- Tax Block Polygon

0 5 10 20 30 40 Feet

CHAPTER II

Project Description

Proposed Actions

Throggs Neck Associates LLC (the "Applicant"), the owners of Block 5312, Lot 1 ("Projected Development Site 1"); Block 5309, Lots 35, 36, 41, 42, 44, 47, and 50; ("Projected Development Site 2"), Block 5306, Lots 8, 18, 19, 22, and 23 ("Projected Development Site 3"); and Block 5307, Lots 55, 58, 61, 63, 64, 66 and 67 ("Projected Development Site 4") propose the following actions:

1) a zoning map amendment to change the existing:

    a. R4-1 zoning district to the R5B/C2-4 zoning district for portions of Block 5307 fronting on Bruckner Boulevard south of Gifford Avenue and east of Balcom Avenue including Block 5307, Lots 55, 58, 61, 63, 64, 66, 67, 73, 75 and 76;

    b. R4A and R4A/C1-2 zoning districts to the R6A/C2-4 zoning district for portions of Blocks 5312 fronting on Bruckner Boulevard bounded on the east by Crosby Avenue and the west by Edison Avenue including Block 5312, Lots 1, 10, 19, and p/o 21;

    c. R4A and R4A/C1-2 zoning districts to the R6A/C2-4 zoning district for portions of Blocks 5309 fronting on Bruckner Boulevard bounded on the east by Edison Avenue and the west by East Tremont Avenue including Block 5309, Lot 1, 7, 11, 35, 36, 41, 42, 44, 47, 50, 54, and p/o 60;

    d. R4-1 and R4-1/C1-2 zoning districts to the R6A/C2-4 zoning district for portions of Blocks 5306 fronting on Bruckner Boulevard bounded on the east by East Tremont Avenue and the west by Revere Avenue including Block 5306, Lots 8, 18, 19, 22, 23, 28, 30, 31, and 231 (collectively the "Project Area") in Bronx Community District 10; and

2) a zoning text amendment of the Zoning Resolution ("ZR") Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing ("MIH") Areas for Community District 10, Bronx to establish the Project Area as an MIH Area;

In conjunction with this application, the Applicant is also requesting the demapping of Meyers Street between Edison Avenue and East Tremont Avenue (a segment approximately 400 feet in length) in a separate application before the City Planning Commission. This demapping is proposed to facilitate development on Block 5309, Lot 60 (Projected Development Site 2), although it does not change the underlying analysis framework or density assumptions considered in the RWCDS.

The proposed actions would facilitate the development of four new mixed-use commercial and residential buildings, as described below.

- Uniform Land Use Review Procedure

The City's Uniform Land Use Review Procedure (ULURP), mandated by Sections 197-c and 201 of the City Charter, is a process specifically designed to allow public review at four levels: the Community Board, the Borough President, the City Planning Commission (CPC), and the City Council. The procedure sets time limits at each review, with a maximum period of approximately seven months. The process begins with Department of City Planning (DCP) certification that the land use application is complete. The application is then referred to the relevant Community Board. The Community Board has up to 60 days to review the proposal, hold a public hearing, and adopt a resolution regarding the proposal. Next, the Borough President has up to 30 days to perform the same steps. The CPC then has up to 60 days to issue its determination, during which time a ULURP public hearing is held. The CPC then forwards the application to the City Council. Following the Council's vote, the Mayor, at his discretion, may choose to veto the action. The City Council can override that veto.

- Environmental Review

The proposed actions are subject to the City Environmental Quality Review (CEQR) process. CEQR is a process by which agencies review discretionary actions for the purpose of identifying the effects those actions may have on the environment. The CEQR process requires City agencies to assess, disclose, and mitigate—to extent practicable—any significant environmental consequences of their decisions to fund, directly undertake, or approve a project.

DCP, acting on behalf of the CPC, is the lead agency for the environmental review.

Project Area

The Project Area consists of Block 5312, Lots 1, 10, 19, and p/o 21; Block 5309, Lot 1, 7, 11, 35, 36, 41, 42, 44, 47, 50, 54, and p/o 60; Block 5306, Lots 8, 18, 19, 22, 23, 28, 30, 31, and 231; Block 5307, Lots 55, 58, 61, 63, 64, 66, 67, 73, 75, and 76. The eastern portion of the Project Area fronts on Bruckner Boulevard and is bounded on the east by Crosby Avenue and the west by Revere Avenue. The western portion of the Project Area also fronts on Bruckner Boulevard south of Gifford Avenue and east of Balcom Avenue. The Project Area is characterized by a mix of uses, including low-density residential uses, low-density commercial uses and vacant land. The Project Area is located to the south of St. Raymond's Cemetery and to the north of the Bruckner Expressway, which runs parallel to Bruckner Boulevard.

In addition to Projected Development Site 1, Block 5312 within the Project Area includes Lots 10, 19, and p/o 21. Lot 10 is presently improved with a one-story office building that has approximately 3,733 square feet of floor area (0.78 FAR). One curb cut is located along Edison Avenue which provides access to approximately three accessory surface parking spaces. Lot 19 is presently improved with a one-story plus attic residential building with approximately 1,396 square feet of floor area (0.51 FAR). The Project Area also includes an approximately 11.5 foot portion of Lot 21 which is presently improved with a two-story residential building with approximately 1,320 square feet of floor area (0.80 FAR).

In addition Projected Development Site 2, Block 5309 within the Project Area includes Lots 1, 7, 11, 54, and p/o 60. Lots 1, 7, and 11 are presently improved with one- to three-story commercial buildings that include a total of approximately 13,195 square feet of floor area (1.31 FAR). Lot 54 is an accessory surface parking lot for the beauty parlor that is located on Lot 7. This accessory surface parking lot has space to accommodate approximately two cars and is accessed via an existing curb curt along Bruckner Boulevard. Lot 60 is largely traversed by Meyers Street which was dedicated to public use.

In addition to Projected Development Site 3, Block 5306 within the Project Area includes Lots 28, 30, 31, and 231. These lots are presently improved with two, two-story mixed commercial and residential buildings and two, two-story commercial buildings with a total floor area of approximately 12,197 square feet of floor area (0.86 FAR).

In addition to Projected Development Site 4, Block 5307 within the Project Area includes Lots 73, 75, and 76. Lot 73 is presently improved with a two-story multi-family residential building with approximately 1,920 square feet of floor area (0.77 FAR). An accessory parking garage with two spaces for the existing building located on Lot 73 is located on Lot 75. This accessory parking garage is accessed via an existing curb cut along Bruckner Boulevard. A two-story multi-family residential building with an accessory parking garage with three spaces is located in the rear of Lot 75. In total these two buildings include approximately 2,496 square feet of floor area (0.50 FAR). The accessory parking garage is also accessible via an existing curb cut along Bruckner Boulevard.

Proposed Development

The Proposed Actions would facilitate development on four applicant-controlled development sites (as well as two non-applicant controlled development sites, described further below).

Projected Development Site 1 (Block 5312, Lot 1) would be developed with a 3.6 FAR, approximately 142,468 gsf mixed-used building containing 125,500 gsf of residential floor area and an 16,968 gsf commercial ground floor. The proposed development would contain 139 dwelling units, of which 30 percent would be developed as affordable housing pursuant to MIH. Although it is the applicant's intention to build 139 dwelling units, for conservative analysis purposes the project will be analyzed with 182 dwelling units. The building would rise to a maximum of

85 feet (eight stories). 150 accessory residential parking spaces and 40 accessory commercial parking spaces would be provided.

On Projected Development Site 2 (Block 5309, Lots 35, 36, 41, 42, 44, 47, and 50), the existing building would be demolished and replaced with a 3.6 FAR, approximately 101,336 square feet mixed-use building containing approximately 77,633 square feet of residential floor area and 23,703 square feet of commercial floor area. The proposed development would contain 114 dwelling units, of which 30 percent would be developed as affordable housing pursuant to MIH. Although it is the applicant's intention to build 114 dwelling units, for conservative analysis purposes the project will be analyzed with 116 dwelling units. This building would rise to a maximum building height of 51 feet. t is estimated that 73-75 accessory parking spaces would be provided.

Projected Development Site 3 (Block 5306, Lots 8, 18, 19, 22 and 23) would be developed with a 3.6 FAR, approximately 63,505 gsf mixed-use building containing 50,069 gsf of residential floor area and 13,436 gsf of commercial floor area. The proposed development would include approximately 64 dwelling units, of which at least 20 percent would be affordable pursuant to MIH. The building would rise to a maximum of 84 feet (eight stories).[1] 16 accessory residential parking spaces and 13 accessory commercial parking spaces would be provided.

Projected Development Site 4 (Block 5307, Lots 61, 63, 64, 66 and 67) would be developed with an approximately 16,773 gsf residential building containing 22 units, of which at least 20 percent would be affordable pursuant to MIH. The building would rise to a maximum of 30 feet (three stories).[2] 9 accessory parking spaces would be provided.

Overall, the four proposed developments on Projected Development Sites 1-4 would contain approximately 324,082 gsf of floor area, including 269,975 gsf of residential floor area and 54,107 gsf of commercial floor area. 301 accessory parking spaces would be provided across all four sites.

Purpose and Need

The Proposed Actions are needed to facilitate the Proposed Development (described above). The current zoning does not allow for the development of moderate density residential developments—including affordable housing—on the Proposed Development Sites, nor for the development of AIRS housing. The Proposed Development would introduce new affordable and market rate residential units to an area with strong transit accessibility, furthering the goals of Housing New York, the mayor's 10-year plan to create or preserve up to 300,000 affordable housing units in New York City.

Analysis Year

The Build Year assumes a nine-month pre-certification timeframe, a seven-month ULURP review, and an 18-22 month construction period, for an overall completion date in 2025.

[1] The building is analyzed at 85 feet for conservative analysis purposes.
[2] The building is analyzed at 33 feet for conservative analysis purposes.

• Size of the development site: Lots must be large enough to be considered "soft." Generally, lots with a small lot size are not considered likely to be redeveloped, even if currently built to substantially less than the maximum allowable FAR. A small lot is often defined for this purpose as 5,000 square feet or less, but the lot size criteria is dependent on neighborhood specific trends, and common development sizes in the study area should be examined prior to establishing these criteria.

Reasonable Worst-Case Development Scenario (RWCDS)

Discretionary actions often permit a range of project characteristics, or development scenarios, to occur even though the action may be sought in order to facilitate a specific development. From the range of possible scenarios that are considered reasonable and likely, the scenario with the worst environmental consequences is chosen to present a conservative analysis. This development scenario is considered to be the Reasonable Worst-Case Development Scenario (RWCDS). By analyzing the potential for adverse impacts of the RWCDS, the EAS ensures that—regardless of which scenario occurs—its impacts would be no worse than those considered in the environmental review. The EAS analyzes the incremental differences between the future with approval of the Proposed Actions (the "With-Action Scenario") and the future without the approval of the Proposed Actions (the "No-Action Scenario").

Development Site Criteria

Pursuant to the CEQR Technical Manual, several factors were considered in projecting the amount and timing of new development on the non-applicant controlled lots within the Proposed Rezoning Area. These include known development proposals, past development trends, and the development site criteria described below. The first step in establishing the RWCDS was to identify those sites where new development could reasonably occur. According to the CEQR Technical Manual the following factors, commonly referred to as "soft site criteria," are generally considered when evaluating whether some amount of development would likely be constructed by the build year as a result of the Proposed Actions:

• The uses and bulk allowed: Lots located in areas where changes in use would be permitted and/or contain buildings built to substantially less than the maximum allowable FAR under the existing zoning are considered "soft" enough such that there would likely be sufficient incentive to develop in the future, depending on other factors specific to the area (e.g., the amount and type of recent asof-right development in the area, recent real estate trends, sitespecific conditions that make development difficult, and issues relating to site control or site assemblage that may affect redevelopment potential); and

• Size of the development site: Lots must be large enough to be considered "soft." Generally, lots with a small lot size are not considered likely to be redeveloped, even if currently built to substantially less than the maximum allowable FAR. A small lot is often defined for this purpose as 5,000 square feet or less, but the lot size criteria is dependent on neighborhood specific trends, and common development sizes in the study area should be examined prior to establishing these criteria.

However, the following uses and types of buildings that meet the soft site criteria are typically excluded from development scenarios because they are unlikely to be redeveloped as a result of the proposed project:

- Full block and newly constructed buildings with utility uses, as these uses are often difficult to relocate;

- Lots where construction is actively occurring, or has recently been completed, as well as lots with recent alterations that would have required substantial capital investment, unless recently constructed or altered lots were built to less than or equal to half of the maximum allowable FAR under the proposed zoning;

- Lots whose location or irregular shape would preclude or greatly limit future as-of-right development. Generally, development on irregular lots does not produce marketable floor space;

- Long-standing institutional uses with no known development plans; or

- Residential buildings with six or more units constructed before 1974. These buildings are likely to be rent-stabilized and difficult to legally demolish due to tenant re-location requirements.

Development Sites

The Project Area includes multiple lots not controlled by the applicant and not included as part of the applicant-controlled Proposed Developments.

On Block 5312, Lots 10, 19, 21 and 23 are not controlled by the applicant and contain small-scale residential and commercial uses. On Lot 10, the existing 3,733 gsf commercial building has four commercial store fronts and a 4,797 sf lot area. On Lot 19, there is an existing 1,396 gsf one-unit residential building on a 2,725 sf lot. On Lot 21, there is an existing 1,320 gsf one-unit residential building on a 1,640 sf lot. On Lot 23, there is an existing 2,232 gsf one-unit residential building on a 4,909 sf lot. Each of these lots is under 5,000 sf in area and under distinct ownership. Given the small lot sizes of each parcel and the difficulty of assembling these lots under common ownership, it is assumed that these lots would not be redeveloped in the With-Action Scenario.

On Block 5309, Lots 1, 7, 11, 54 and 60 (p/o) are not controlled by the applicant. On Lot 1, there is an existing 1,595 gsf commercial building on a 1,650 sf lot. On Lot 7, there is an existing 4,000 gsf commercial building on 2,657 sf lot. On Lot 11, there is an existing 7,600 gsf mixed commercial/ residential building on a 5,765 sf lot. This building has four residential units. On Lot 54, there is an existing 1,001 sf parking lot. Lot 60 (p/o) is vacant land owned by the New York City Department of Parks and Recreation. Lots 1, 7 and 54 are under common ownership and are and underbuilt relative to the allowable FAR in the With-Action Scenario. It is therefore assumed that these lots would be redeveloped in the With-Action Scenario as Projected Development Site 5. It is further assumed that Lot 11—which is under different ownership—and Lot 60 (p/o)—which is city-owned—would not be redeveloped. Pursuant to the Bronx Metro North Study, DCP's policy regarding assemblages is not to assume an assemblage of more than two property owners in the surrounding area. Additionally, the building occupying Block 5309, Lot 11 contains multiple commercial tenants in addition to the residential uses described above.

On Block 5307, Lots 73, 75 and 76 are not controlled by the applicant. On Lot 73, there is a 1,920 gsf three-unit residential building on a 2,500 sf lot. On Lot 75, there is a 400 gsf parking facility on a 2,500 sf lot. On Lot 76, there is a 2,496 gsf three-unit residential building on a 5,000 sf lot. Lots 73 and 75 are under common ownership. As two of these three lots are under common ownership and all are underbuilt relative to the allowable FAR in the With-Action Scenario, it is assumed that these lots would be redeveloped in the With-Action Scenario. Lots 73, 75 and 76 would constitute the non-applicant controlled Projected Development Site 6.

On Block 5306, Lots 28, 30, 31 and 231 are not controlled by the applicant. On Lot 28, there is an existing 1,912 gsf commercial building on a 3,172 sf lot. On Lot 30, there is an existing 4,227 gsf mixed residential/ commercial building on a 2,550 sf lot. There are two residential units in this building. On Lot 31, there is an existing 4,500 gsf commercial building on a 4,952 sf lot. On Lot 231, there is an existing 1,540 gsf mixed residential/commercial building on a 3,465 sf lot. Given the general real estate market conditions in the surrounding area and that these tax lots are all occupied with active commercial uses, it is assumed that these development sites are less likely to develop in the With-Action Scenario. Lots 28, 30, 31 and 231 therefore constitute the non-applicant controlled Potential Development Site A. However, per the CEQR Technical Manual, Potential Development Site A would not be analyzed for quantitative purposes as part of the environmental review (but may be analyzed for qualitative purposes).

Existing Conditions

The existing conditions on applicant-controlled block/ lots within the Project Area are described below. The existing conditions on non-applicant controlled block/ lots are described in 'Development Sites' above.

Projected Development Site 1 (Block 5312, Lot 1) is currently occupied by:

a one-story 19,800 gsf (use group 6) commercial use – a Foodtown grocery store (including 52 parking spaces and two existing curb cuts).

Projected Development Site 2 (Block 5309, Lots 35, 36, 41, 42, 44, 47, and 50) is occupied as follows:

Lot 35: 8,351 sf vacant lot;
Lot 36: 1,826 gsf two-story, two-unit residential building;
Lot 41: 519 gsf one-story commercial building;
Lot 42: 2,090 gsf two-story, two-unit residential building;
Lot 44: 3,000 gsf one-story commercial building;
Lot 47: 3,657 sf vacant lot; and
Lot 50: 2,238 gsf two-story commercial building.

Projected Development Site 3 (Block 5306, Lots 8, 18, 19, 22 and 23) is occupied as follows:

Lot 8: 3,294 sf vacant lot;
Lot 18: 2,355 sf vacant lot;
Lot 19: 5,100 sf vacant lot;
Lot 22: 2,454 sf surface parking lot; and
Lot 23: 4,644 sf vacant lot.

Projected Development Site 4 (Block 5307, Lots 61, 63, 64, 66 and 67) is occupied as follows:

Lot 61: 1,690 sf vacant lot;
Lot 63: 1,222 sf vacant lot;
Lot 64: 1,466 sf vacant lot;
Lot 66: 1,702 sf vacant lot; and
Lot 67: 11,180 sf vacant lot.

No-Action Scenario

In the No-Action Scenario, no development is anticipated to occur within the Project Area. The existing conditions—as described above—are anticipated to remain.

With-Action Scenario

In the With-Action Scenario, it is assumed that the development currently existing on the applicant-controlled Projected Development Sites 1-4, the non-applicant controlled Projected Development Sites 5-6 and the non-applicant controlled Potential Development Site A, would be redeveloped. The applicant controlled sites would be redeveloped as described above. The non-applicant controlled sites would be redeveloped as described below.

- Non-applicant controlled sites

Under the proposed R6A/C2-4 zoning, on Projected Development Site 5 it is assumed that an approximately 19,109 gsf mixed-use residential/commercial building would be built. This building would include an approximately 5,308 gsf commercial ground floor and approximately 13,801 of residential floor space, including 14 dwelling units (with 7 accessory parking spaces). 20 percent of residential floor area would be affordable pursuant to MIH. This building would rise to a maximum of 85 feet in height.

Under the proposed R5B/C2-4 zoning, on Projected Development Site 6 it is assumed that an approximately 13,500 gsf, 14-unit residential building would be built (including 4 accessory parking spaces). It is further assumed that 20 percent of units would be affordable pursuant to MIH. This building would rise to a maximum of between 30 and 33 feet in height.

Under the proposed R6A/C2-4 zoning, on Potential Development Site A an approximately 50,900 gsf mixed-use residential/commercial building could be built on this site, including 14,139 gsf of commercial floor area and 36,761 gsf of residential floor area (including 37 dwelling units and 14 accessory parking spaces). It is further assumed that 20 percent of units would be affordable pursuant to MIH. This building could rise to a maximum of 85 feet in height.

Overall, the two non-applicant controlled development sites on Projected Development Sites 5-6 would contain approximately 27,301 gsf of residential floor area (27 residential dwelling units, of which 20 percent would be affordable pursuant to MIH) and 5,308 gsf of commercial floor area. In total, there would be approximately 5 affordable dwelling units developed pursuant to MIH.

CHAPTER III

TECHNICAL ANALYSES

1. Land Use, Zoning and Public Policy

Introduction

According to the *CEQR Technical Manual*, a land use analysis evaluates the use and development trends in the area that may be affected by a proposed action and determines whether the proposed action is compatible with those conditions or may affect them. Similarly, the analysis considers the proposed action's compliance with, and effect on, the area's zoning and other applicable public policies. This analysis is presented in three distinct sections.

The Proposed Actions include two zoning map amendments and zoning text amendment (as well as a demapping application) to facilitate the development of sites located within Bronx Community District 10, as follows:

1) a zoning map amendment to change the existing: (i) R4-1 zoning district to the R5B/C2-4 zoning district for portions of Block 5307 fronting on Bruckner Boulevard south of Gifford Avenue and east of Balcom Avenue including Block 5307, Lots 58, 61, 63, 64, 66, 67, 73, 75 and 76; and (ii) R4-1, R4A, R4-1/C1-2 and R4A/C1-2 zoning districts to the R6A/C2-4 zoning district for portions of Blocks 5312, 5309, and 5306 fronting on Bruckner Boulevard bounded on the east by Crosby Avenue and the west by Revere Avenue including Block 5312, Lots 1, 10, 19, and p/o 21; Block 5309, Lot 1, 7,11, 35, 36, 41, 42, 44, 47, 50, 54 and 60 (p/o); and Block 5306, Lots 8, 18, 19, 22, 23, 231, 28, 30, and 31 (collectively the "Project Area") in Bronx Community District 10); and

2) a zoning text amendment of the Zoning Resolution ("ZR") Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing ("MIH") Areas for Community District 10, Bronx to establish the Project Area as an MIH Area.

In conjunction with this application, the Applicant is also requesting the demapping of Meyers Street between Edison Avenue and East Tremont Avenue (a segment approximately 400 feet in length) in a separate application before the City Planning Commission. This demapping is proposed to facilitate development on Block 5309, Lot 60 (Projected Development Site 2), although it does not change the underlying analysis framework or density assumptions considered in the RWCDS.

The Proposed Actions would facilitate the development of six new, mixed use residential and commercial developments (the Proposed Developments). Detailed information on Projected Development Sites 1-6 and Potential Development A is included in the Project Description. No new development is anticipated in the With-Action Scenario for the other block/ lots located within the Project Area. The developments on Projected Development Sites 1-6 are anticipated to be completed by 2025. This build year assumes the development of multiple sites that are not controlled by the Applicant. Absent the Proposed Actions (the "No-Action Scenario"), it is

assumed that existing conditions would continue on both the applicant-controlled and non-applicant controlled sites.

According to the *CEQR Technical Manual*, the appropriate study area for land use, zoning and public policy is related to the type and size of the project, as well as the location and context of the area that could be affected by the project. 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 proposed Project Area. The 400-foot radius study area includes an area generally bounded by Bruckner Boulevard to the south, Hollywood Avenue to the east, and Balcom Avenue to the west. The Project Area is alternately bounded by Gifford Avenue, St. Raymond's Cemetery, Haskin Street and Baisley Avenue to the north.

Multiple 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

The Project Area is characterized by a mixture of uses, including low-density residential uses, low-density commercial uses and vacant land. The dominant features of the Project Area include St. Raymond's Cemetery to the north, the Bruckner Expressway—running in a trench parallel to Bruckner Boulevard—to the south, and a mixture of low and medium density residential and commercial buildings throughout the area.

Existing Conditions

Project Area

The Project Area includes blocks/ lots on three contiguous, and one non-contiguous, blocks in Bronx Community District 10. The contiguous blocks are Bronx Blocks 5306, 5309 and 5312. The non-contiguous block is Bronx Block 5307. The Project Area includes Block 5306 (Lots 8, 18, 19, 22, 23, 28, 30, 31 and 231); Block 5307 (Lots 61, 63, 64, 66, 67, 73, 75, 76); Block 5309 (Lots 1, 7 11, 35, 36, 41, 42, 44, 47, 50, 54 and 60 (p/o); and Block 5312 (1, 10, 19, 21 and 23). The existing conditions on these lots are described fully in the Project Description (see above).

400-Foot Radius Project Study Area

The Project Area is located in the Schuylerville neighborhood of Bronx, Community District 10. The surrounding area is characterized by a mix of predominately residential use with commercial uses concentrated along portions of Bruckner Boulevard and East Tremont Avenue, both of which are 100 feet wide. There are community facilities interspersed throughout the surrounding area, including the Senator John D. Calandra School (PSX014) and New York City Board of Education Building located to the west of the Project Area. Industrial uses are also located in the surrounding area to the west of the Project Area. Residential use generally consists of low-rise one- and two-family and multi-family walk-up buildings.

Bruckner Boulevard and East Tremont Avenue are commercial corridors through the surrounding area and are wide streets as defined in the Zoning Resolution.[1] Bruckner Boulevard runs east-west through the area and is separated by the Bruckner Expressway at its center. Bruckner Boulevard and Expressway have a combined width of approximately 200 feet. The Bruckner Expressway connects with the Throggs Neck Expressway approximately one block east of the Project Area. Miele Park is located directly east of Projected Development Site 1. It is a 0.39-acre triangular plaza owned and operated by the Department of Parks and Recreation. The northern portion of St. Raymond's Cemetery, a 180-acre Catholic cemetery, is located north and northeast of the Project Area.

Although the Project Area is located outside of the Transit Zone, it is well served by public transit including the Bx5 (Pelham Bay Park/Hunts Point), Bx8 (Locust Point/Williamsbridge), Bx40/Bx42 (Throgs Neck/River Park Towers), BxM8 (Pelham Bay/City Island/Midtown), and the Q50 (Co-Op City/Pelham Bay/Flushing) bus lines. FRESH discretionary tax incentives are available in the surrounding area.

No-Action Scenario

Project Area

Under the No-Action Scenario for the project build year of 2025, it is assumed that all development sites would remain in the Existing Condition, as detailed above. No new as-of-right development would occur based on the provisions of the existing zoning; the amount of development currently existing on each of these sites would therefore remain. Similarly, no new affordable housing development, including affordable housing units for seniors, is expected to be provided.

400-Foot Radius Project Study Area

No new development projects are identified for the 400-foot radius project study area based on a review of the New York City Department of City Planning's (DCP) ZAP Search of Zoning and Land Use Applications and the NYC Active Construction website (maintained by the New York City Department of Buildings). No development plans are known to exist for the undeveloped parcels or other uses within the project study area as identified above by the project build year of 2025.

Therefore, surrounding land uses within the immediate study area are expected to remain largely unchanged by the project build year of 2025.

With-Action Scenario

Project Area

Under the With-Action Scenario for the project build year, the six Projected Development Sites are expected to be developed with new, mixed-use buildings.

[1] Pursuant to the definition in ZR § 12-10, a "wide street" is any street that is 75 feet or more in width. A "narrow street" is any street that is less than 75 feet wide.

Overall, the four proposed developments on Projected Development Sites 1-4 would contain approximately 324,082 gsf of floor area, including 269,975 gsf of residential floor area and 54,107 gsf of commercial floor area. Appro imately 303 accessory parking spaces would be provided across all four sites. On the two non-applicant controlled development sites on Projected Development Sites 5-6, approximately 27,301 gsf of residential floor area (27 residential dwelling units, of which 20 percent would be affordable pursuant to MIH) and 5,308 gsf of commercial floor area would be developed. In total, there would be approximately 5 affordable dwelling units provided pursuant to MIH.

Detailed information on Projected Development Sites 1-6 is included in the Project Description. No new development is anticipated in the With-Action Scenario for Potential Site A or other sites excluded in the Reasonable Worst Case Development Scenario.

400-Foot Radius Project Study Area

The Proposed Actions would not result in any changes in land use within the 400-foot radius project study area.

Conclusion

The Applicant intends to develop the applicant-controlled Proposed Development Sites as described above. While the Proposed Actions would introduce increased density in the Project Area, the Proposed Actions would provide substantial new affordable housing, commercial space, and accessory parking. The Proposed Actions would also allow for the replacement of undeveloped lots and low-density uses with affordable housing, while largely maintaining the existing socioeconomic condition of the surrounding area. The replacement of these existing uses would not be considered to be a significant land use impact.

The Proposed Actions reinforce existing land use patterns, reflecting local commercial activity along Bruckner Boulevard and East Tremont Avenue. While the eastern portion of the Project Area will be rezoned to R6A/C2-4 (Projected Development Sites 1-3), the proposed increase in density is supported by the location of Projected Development Site 1 along two wide streets (i.e. Bruckner Boulevard and Crosby Street.) Moreover, to the east of the Project Area is an institutional use (Senator John Calandra School) and Miele Park. While the area surrounding the Project Area consists of predominantly 1-, 2- and 3-story residential buildings, height would be limited to 45 feet within the proposed R6A/C2-4 and R5B/C2-4 zoning districts within 25 feet of the boundary with the R4-1 and R4A zoning districts pursuant to ZR §§ 34-24(3) and 23-693. In addition, an 8-foot minimum side yard would be required along the zoning district boundary pursuant to ZR § 35-54. These zoning provisions would ensure that development under the R6A zoning district would respect the lower density residential development surrounding the Project Area.

The Proposed Actions would promote new mixed-use development with Mandatory Inclusionary Housing units on underutilized land within the Project Area. Specifically, Projected Development Sites 3 and 4 are vacant properties. Moreover, while Projected Development Site 1 has been historically utilized for commercial use since at least the 1950s, the existing surface parking lot for the grocery store is located outside of the existing C1-2 overlay and is a legal, non-conforming use. Extending the C2-4 over the entirety of the site would reflect this historic commercial use and would allow the grocery store to have a surface parking lot on the northern portion of the site. In addition, the mapping of the commercial overlay will not represent the encroachment of commercial use beyond where it is currently located, except where properties have remained vacant for long periods of time.

The proposed rezoning would also allow the creation of new income-restricted housing in Bronx Community District 10. Notably, Bronx Community District 10 has a higher proportion of adults aged 65 and older (19.6 percent) than the Bronx (11.8 percent) and New York City as a whole (13.6 percent).

Based on the above analyses, it has been determined that no potentially significant adverse impacts related to land use are expected to occur as a result of the Proposed Actions. Therefore, no further analysis is required.

ZONING

Existing Conditions

Project Area

The Project Area is presently mapped with R4A/ C1-2 and R4-1 zoning districts.

R4A contextual districts are similar to R3A and R3X districts in that only one- and two-family detached residences are permitted. Differences in the maximum permitted floor area ratio (FAR) and minimum required lot size, however, result in variations in the typical building envelope found in each district. Characterized by houses with two stories and an attic beneath a pitched roof, R4A districts have an FAR of up to 0.75 (plus an attic allowance) and a minimum lot width of 30 feet. The districts are usually mapped in older neighborhoods, such as Woodlawn and Throgs Neck in the Bronx.

As in R3A and R3X districts, the perimeter wall of a house may rise to 21 feet before sloping or being set back to the maximum building height of 35 feet. A front yard must be at least as deep as an adjacent front yard and at least 10 feet deep, but it need not exceed a depth of 20 feet. A 30 foot deep rear yard, and two side yards that total at least 10 feet with a minimum width of two feet each are also required. There must be at least eight feet between buildings on adjacent lots. Parking must be located in the side or rear yard and the driveway must be within the side lot ribbon. If the lot is 35 feet or wider, a garage is permitted within the house, provided the

driveway is at least 18 feet deep to prevent cars from jutting onto the sidewalk. One off-street parking space is required for each dwelling unit.

C1-2 districts are a type of commercial overlay district. C1-1 through C1-5 and C2-1 through C2-5 districts are commercial overlays mapped within residence districts. Mapped along streets that serve local retail needs, they are found extensively throughout the city's lower- and medium-density areas and occasionally in higher-density districts.

Typical retail uses include neighborhood grocery stores, restaurants and beauty parlors. C2 districts permit a slightly wider range of uses, such as funeral homes and repair services. In mixed buildings, commercial uses are limited to one or two floors and must always be located below the residential use.

When commercial overlays are mapped in R1 through R5 districts, the maximum commercial floor area ratio (FAR) is 1.0; when mapped in R6 through R10 districts, the maximum commercial FAR is 2.0. Commercial buildings are subject to commercial bulk rules.

Overlay districts differ from other commercial districts in that residential bulk is governed by the residence district within which the overlay is mapped. All other commercial districts that permit residential use are assigned a specific residential district equivalent. Unless otherwise indicated on the zoning maps, the depth of overlay districts ranges from 100 to 200 feet.

Generally, the lower the numerical suffix, the more off-street parking is required. For example, in C1-1 districts, typically mapped in outlying areas of the city, a large food store would require one parking space for every 100 square feet of floor area, whereas no parking is required in C1-5 districts, which are well served by mass transit.

R4-1 contextual districts, like R3-1 districts, permit only one- and two-family detached and semi-detached houses. Despite a narrower minimum lot width of 25 feet for detached homes, houses in R4-1 districts tend to be larger than those in R3-1 districts because of the higher floor area ratio (FAR) of 0.75 plus an attic allowance. The perimeter wall may rise to 25 feet, compared to 21 feet in R3-1 districts, before sloping or being set back to a maximum building height of 35 feet. Sections of Middle Village in Queens and Bay Ridge in Brooklyn are R4-1 districts.

Two side yards that total eight feet must be provided for a detached residence. There is no minimum width for each side yard but there must be eight feet between buildings on adjacent zoning lots. One four foot side yard is required for each semi-detached residence, which must be on a lot at least 18 feet wide. Zero lot line buildings permitted in R4-1 districts, require only one eight foot side yard. Front yards must be at least 10 feet deep and at least as deep as an adjacent front yard but need not exceed a depth of 20 feet. Parking must be within the side or rear yard or in a garage. An in-house garage is permitted within a semi-detached house, or in a

detached house if the lot is 35 feet or wider. One off-street parking space is required for each dwelling unit.

400-Foot Radius Project Study Area

The primary zoning districts mapped throughout the surrounding area include the aforementioned R4A/ C1-2 and R4-1 zoning districts (described above), as well as R3 districts.

Characteristic of many of the city's older neighborhoods, R3A contextual districts feature modest single- and two-family detached residences on zoning lots as narrow as 25 feet in width. Parts of College Point and Whitestone in Queens, City Island in the Bronx and Port Richmond in Staten Island are typical R3A neighborhoods.

The amount of required open space on residential lots in R3A districts is governed by yard requirements. New detached homes must have two side yards totaling at least eight feet, but there is no minimum width requirement for either one. R3A districts also permit zero lot line buildings which are set along a side lot line and have one side yard at least eight feet wide. The front yard of a new home must be at least 10 feet deep and, to promote a unified streetscape, it must be as deep as an adjacent front yard but need not exceed a depth of 20 feet. The maximum floor area ratio (FAR) of 0.5 may be increased up to 20% by an attic allowance for the inclusion of space beneath a pitched roof. The perimeter wall may rise to 21 feet before sloping or being set back to a maximum building height of 35 feet. Parking is in the side or rear yard but an in-house garage is allowed if the lot is 35 feet or wider, provided the driveway is at least 18 feet deep. One off-street parking space is required for each dwelling unit.

In addition, the Project Area was included in the 2004 Throgs Neck Rezoning (040479zmx). In 2003, residents of the Throgs Neck neighborhood in the Bronx raised concerns about development in the area, including the development of multifamily townhouses, lack of parking, inappropriate waterfront developments that block views of the water, and insufficient infrastructure to accommodate new residents. In response, DCP conducted an intensive lot-by-lot survey of 242 blocks in all lower-density zoning districts (R4, R3-2 and C3) in Community District 10 where townhouses are currently permitted. These areas include Throgs Neck, Silver Beach, Edgewater Park, Schuylerville, Eastchester Bay, and parts of Country Club, Spencer Estates, Pelham Bay and a five-block area near Coop City known as the Village of Baychester. The resulting zoning plan included proposals to ban attached townhouses, create a new waterfront zoning district and reduce the amount of bulk generated from land underwater for waterfront developments. Bronx Community District 10 was added to the city's Lower Density Growth Management (LDGM) Areas, while also increasing off-street parking requirements for new development and reducing the height of new buildings in the floodplain.

No-Action Scenario

Project Area

In the No-Action Scenario, the Project Area would maintain its current zoning.

400-Foot Radius Project Study Area

Based on a review of the Department of City Planning's information for Bronx Community District 10, no rezoning applications are presently proposed for the 400-foot radius project study area.

With-Action Scenario

Project Area

The Proposed Actions, described above, would rezone portions of the Project Area from a R4A/ C1-2 area to a R6A/ C2-4 area; rezone portions of the Project Area from a R4-1 area to a R5B/ C2-4 area; and apply a zoning text amendment pursuant to Appendix F to establish a Mandatory Inclusionary Housing ("MIH") Area coterminous to the areas being rezoned.

According to the NYU Furman Center, nearly 38 percent of households in Bronx Community District 10 are severely rent burdened.[2] There is therefore a strong need for zoning changes that facilitate the development of affordable housing that reaches a broad range of incomes. Under the MIH provisions applicable to the project, new affordable housing and affordable housing targeted to seniors would be provided.

The MIH program, as described further below (see Public Policy Section), requires that permanently affordable housing be provided within new residential developments, enlargements, and conversions from non-residential to residential use within the mapped MIH Areas.

R6A is a a contextual district where the Quality Housing bulk regulations are mandatory. These regulations produce high lot coverage, six- to eight-story apartment buildings set at or near the street line. Designed to be compatible with older buildings found in medium-density neighborhoods, R6A districts are mapped in the Bronx, Brooklyn and Queens. Parts of Kingsbridge in the Bronx and Williamsburg in Brooklyn are typical of R6A areas.

The floor area ratio (FAR) in R6A districts is 3.0. Above a minimum base height of 40 feet, the building must set back by at least 10 feet on a wide street and 15 feet on a narrow street before rising to its maximum height of 70 feet, or 75 feet if providing a qualifying ground floor. To preserve the traditional streetscape, the street wall of a new building can be no closer to the street line than any adjacent street wall , but need not be farther than 10 feet. The area between a building's street wall and the street line must be planted. R6A buildings must have interior amenities for the residents pursuant to the Quality Housing Program.

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[2] New York University Furman Center, https://wagner.nyu.edu/files/faculty/publications/NYU_Furman_Center_2015_State_of_New_York_Citys_Housing_Neighborhoods_in_2015.pdf

Higher maximum FAR and heights are available for buildings participating in the Inclusionary Housing Program or that provide certain senior facilities.

Off-street parking is generally required for 50 percent of a building's dwelling units, but requirements are lower for income-restricted housing units (IRHU) and are further modified in certain areas, such as within the Transit Zone and the Manhattan Core, or for lots less than 10,000 square feet. Parking can be waived if five or fewer spaces are required. Off-street parking is not allowed in front of a building.

R5B districts are contextual district which permit detached and semi-detached buildings. It is primarily a three-story rowhouse district typical of such neighborhoods as Windsor Terrace and Bay Ridge in Brooklyn. The traditional quality of R5B districts is reflected in the district's height and setback, front yard and curb cuts regulations that maintain the character of the neighborhood.

The floor area ratio (FAR) of 1.35 typically produces a building with a maximum street wall height of 30 feet, above which the building slopes or is set back to a maximum height of 33 feet. As in R4B districts, the front yard must be at least five feet deep and it must be at least as deep as one adjacent front yard and no deeper than the other, but it need not exceed a depth of 20 feet. Attached rowhouses do not require side yards but there must be at least eight feet between the end buildings in a row and buildings on adjacent zoning lots. Curb cuts are prohibited on zoning lot frontages less than 40 feet. Where off-street parking is required, on-site spaces must be provided for two-thirds of the dwelling units although parking can be waived when only one space is required. Requirements are lower for income-restricted housing units (IRHU) and are further modified within the Transit Zone. Front yard parking is prohibited.

400-Foot Radius Project Study Area

The Proposed Actions would not result in any additional changes in zoning in the 400-foot radius project study area. The development of the Proposed Project would introduce denser development than permitted by current zoning, but not development that is significantly out-of-character with the surrounding zoning in the study area.

Conclusion

The Proposed Actions would not introduce changes incompatible with the area's existing zoning. Based on the above analysis, it has been determined that no potentially significant adverse impacts related to zoning are expected to occur as a result of the Proposed Actions. Therefore, no further analysis is required.

PUBLIC POLICY

Existing Conditions

According to the *CEQR Technical Manual*, a project that would be located within areas governed by public policies controlling land use, or that has the potential to substantially affect land use regulation or policy controlling land use, requires an

analysis of public policy. Public policies applicable to the Project Area and 400-foot radius project study area are discussed below.

Project Area and 400-Foot Radius Project Study Area
Public policies applicable to portions of the study area include O*ne New York: The Plan for a Strong and Just City* (OneNYC) and *Housing New York: A Five-Borough, Five-Year Plan* (Housing New York).

OneNYC, originally released as PlaNYC in 2007, is a policy document designed to address New York City's long-term challenges, including a projected population increase to 9 million residents by 2040, changing climate conditions, an evolving economy, and aging infrastructure. OneNYC builds upon PlaNYC and focuses on four guiding principles: growth, equity, sustainability, and resiliency

The Proposed Actions are consistent with several of OneNYC's initiatives and support the growth goals of Vision 1, which aim to create the world's most dynamic urban economy where families, businesses, and neighborhoods thrive. The development facilitated by the Proposed Actions would support the goals of "Housing" and "Thriving Neighborhoods" under Vision 1 of OneNYC.

Goal (Housing): New Yorkers will have access to affordable, high-quality housing coupled with robust infrastructure and neighborhood services.

To ensure that all New Yorkers have access to housing they can afford, OneNYC's goal for housing is to produce and preserve affordable units, increase the overall supply of all types of new housing, and coordinate with regional partners to stimulate production of more housing to meet demand. The Proposed Actions would support the following initiatives and sub-initiatives under this goal:

- Creating and preserving 200,000 affordable housing units over ten years (since updated to 300,000 units) to alleviate New Yorker's rent burden and meet the needs of a diverse population; and supporting efforts by the private market to produce 160,000 additional new units of housing over ten years to accommodate a growing population;
- Establishing a MIH program to promote economic diversity and affordable-housing development; and
- Pursuing neighborhood planning initiatives that expand opportunities for mixed residential/commercial development, especially the attraction of retail and services to underserved neighborhoods.

The Proposed Actions would facilitate the development of approximately 404 incremental dwelling units on the Proposed Development Sites. By facilitating the creation of permanent affordable housing, the Proposed Actions would support a diverse residential population and would create additional housing options, which would help strengthen the City's economy. Based on this information, the Proposed Actions are consistent with the policies of OneNYC.

Goal (Thriving Neighborhoods): New York City's neighborhoods will continue to thrive and be well-served.

OneNYC identifies three core principles for guiding the City's neighborhood planning efforts: (i) supporting vibrant, mixed residential/commercial communities that align transit, housing, and jobs, and offer residents access to essential retail and services; (ii) proactively planning for current and future growth; and (iii) engaging New Yorkers in the planning process. In particular, OneNYC outlines how neighborhood planning, including changes to existing zoning, has the potential to create a wide range of opportunities for mixed residential/commercial neighborhoods. The Proposed Actions would allow greater density and expanded residential uses, redeveloping sites which are largely underutilized into a mixed residential/commercial development including commercial uses at the street level. Based on this information, the Proposed Actions are consistent with the policies of OneNYC.

Housing New York is the City's comprehensive housing development policy, which includes a primary goal of building or preserving 200,000 units of high-quality affordable housing over the next decade (since updated to 300,000 units in Housing New York 2.0). Housing New York was developed in conjunction with the New York City Department of Housing and Preservation (HPD) to create housing opportunities for New Yorkers with a range of incomes, while fostering vibrant and diverse neighborhoods.

In response to the policy goals and objectives in Housing New York, the City Council adopted an amendment to the ZR to establish the Mandatory Inclusionary Housing (MIH) program on March 22, 2016. This program requires that a percentage of new housing be permanently affordable when an increase in residential floor area is requested (i.e. an upzoning). The primary components of Housing New York include: (i) Mandatory affordable housing: production of affordable housing would be a condition of residential development when developers build in a designated MIH area, whether rezoned as part of a City neighborhood plan or a private rezoning application; and (ii) Affordable housing would be permanent: there would be no expiration to the affordability requirement of apartments generated through MIH, making them a long-term, stable reservoir of affordable housing. MIH includes a number of possible options (officially designated by the City Council), as follows:

- Option 1: 25 percent of the residential floor area shall be provided as housing affordable to households at an average of 60 percent of the Income Index (AMI), with no unit targeted at a level exceeding 130 percent of AMI;
- Option 2: 30 percent of the residential floor area shall be provided as housing affordable to households at an average of 80 percent of the Income Index (AMI), with no unit targeted at a level exceeding 130 percent of AMI.

In addition to one or both of the options above, the City Council and the City Planning Commission could decide to apply one or both of the following options:

- Deep Affordability Option: 20 percent of the total residential floor area must be for housing units for residents with incomes averaging 40 percent of AMI and no direct subsidies could be used for these units except where needed to support more affordable housing;
- Workforce Option: 30 percent of the total residential floor area must be for housing units for residents with incomes averaging 115 percent of AMI; no units could go to residents with incomes above 135 percent AMI; no direct subsidies could be used for these affordable housing units; and this could not apply to Manhattan Community Districts 1-8.

As noted above, the Proposed Actions would support the policies and goals of Housing New York by providing significant new permanently affordable housing units.

The Project Area and the 400-foot radius project study area are not located within the City's Coastal zone boundary. Therefore, these areas are not subject to the provisions of the City's Waterfront Revitalization Program (WRP).

No other public policies would apply to the Proposed Actions. The Project Area—and the surrounding 400-foot radius study area—are not located within the boundaries of any 197-a Community Development Plans and also are not within a critical environmental area, a significant coastal fish and wildlife habitat, a wildlife refuge, or a special natural waterfront area. No historic districts or individually designated historic resources are located within the Project Area (see 'Historic and Cultural Resources' section) or the surrounding 400-foot radius study area.

No-Action Scenario
In the No-Action Scenario, no new development would occur in the Project Area. No other public policy initiatives would pertain to the Project Area or to the study area by the build year of 2025. In addition, no changes are anticipated to any other public policy documents relating to the Project Area or the surrounding study area by the project build year.

With-Action Scenario
In the With-Action Scenario, the Applicant proposes to develop affordable housing pursuant to MIH (as well as market rate housing and commercial space). These actions help to meet the city's goal of creating new, permanently affordable housing, and therefore do not have the potential to cause a significant adverse impact to public policy.

Conclusion
No impacts to public policies would occur as a result of the Proposed Actions. The Applicant believes that the Proposed Actions would be a contextually appropriate development within the study area and support existing public policies applicable to the area, including OneNYC and Housing New York. The Proposed Actions would also facilitate the development of needed affordable housing—including affordable housing for seniors—in the Bronx. Based on the above analyses, it has been determined that no potentially significant adverse impacts related to public policy are expected to occur as a result of the Proposed Actions. Therefore, no further analysis is required.


St. Raymond Cemetery
St. Raymond Cemetery
St. Raymond Cemetery
Miele Park
Hutchinson River Parkway
E TREMONT AV
WHITTEMORE AV
BALCOM AV
WATERBURY AV
ELLISON AV
PURITAN AV
MAYFLOWER AV
BRADFORD AV
BAISLEY AV
EDISON AV
B ST
HOBART AV
CROSBY AV
THROGS NECK EXWY
FAIRFAX AV
HASKIN ST
MEYERS ST
BRUCKNER EXWY
OTIS AV
HOLLYWOOD AV
LOGAN AV
GREENE PL
EDISON AV
BARKLEY AV
SOMMER PL
REVERE AV
CALHOUN AV
QUINCY AV
SWINTON AV
GIFFORD AV
GRAFF AV
BRINSMADE AV
HUNTINGTON AV
BALCOM AV
1
2
3
A
4
5
6
N
0
175
350
700
FT
Projected Development Site (Applicant Controlled)
Projected Development Site (Non-Applicant Controlled)
Potential Development Site (Non-Applicant Controlled)
Individual 400-Foot Study Area Radii
Combined Study Area Radius
Open Space and Recreation


St. Raymond Cemetery
St. Raymond Cemetery
St. Raymond Cemetery
Miele Park
Hutchinson River Parkway
E TREMONT AV
WHITTEMORE AV
BALCOM AV
GRAFF AV
GIFFORD AV
SWINTON AV
QUINCY AV
CALHOUN AV
REVERE AV
BRUCKNER EXWY
HASKIN ST
EDISON AV
BAISLEY AV
CROSBY AV
HOBART AV
B ST
THROGS NECK EXWY
FAIRFAX AV
OTIS AV
HOLLYWOOD AV
LOGAN AV
GREENE PL
BARKLEY AV
BRINSMADE AV
HUNTINGTON AV
WATERBURY AV
ELLISON AV
PURITAN AV
MAYFLOWER AV
BRADFORD AV
1
2
3
4
5
6
A
N
0 175 350 700 FT
Projected Development Site (Applicant Controlled)
Projected Development Site (Non-Applicant Controlled)
Potential Development Site (Non-Applicant Controlled)
Combined 400-Foot Study Area Radius
Meyers Street Proposed Demapping
Open Space and Recreation

Existing Conditions




Allstate
Allstate
BRUCKNER
ONE WAY
Bruckner Blvd
Google
Site 1


BASEBALL MADE SIMPLE!
ONE WAY
Google
Site 2


BASEBALL MADE SIMPLE
646-372-3512
Site 2

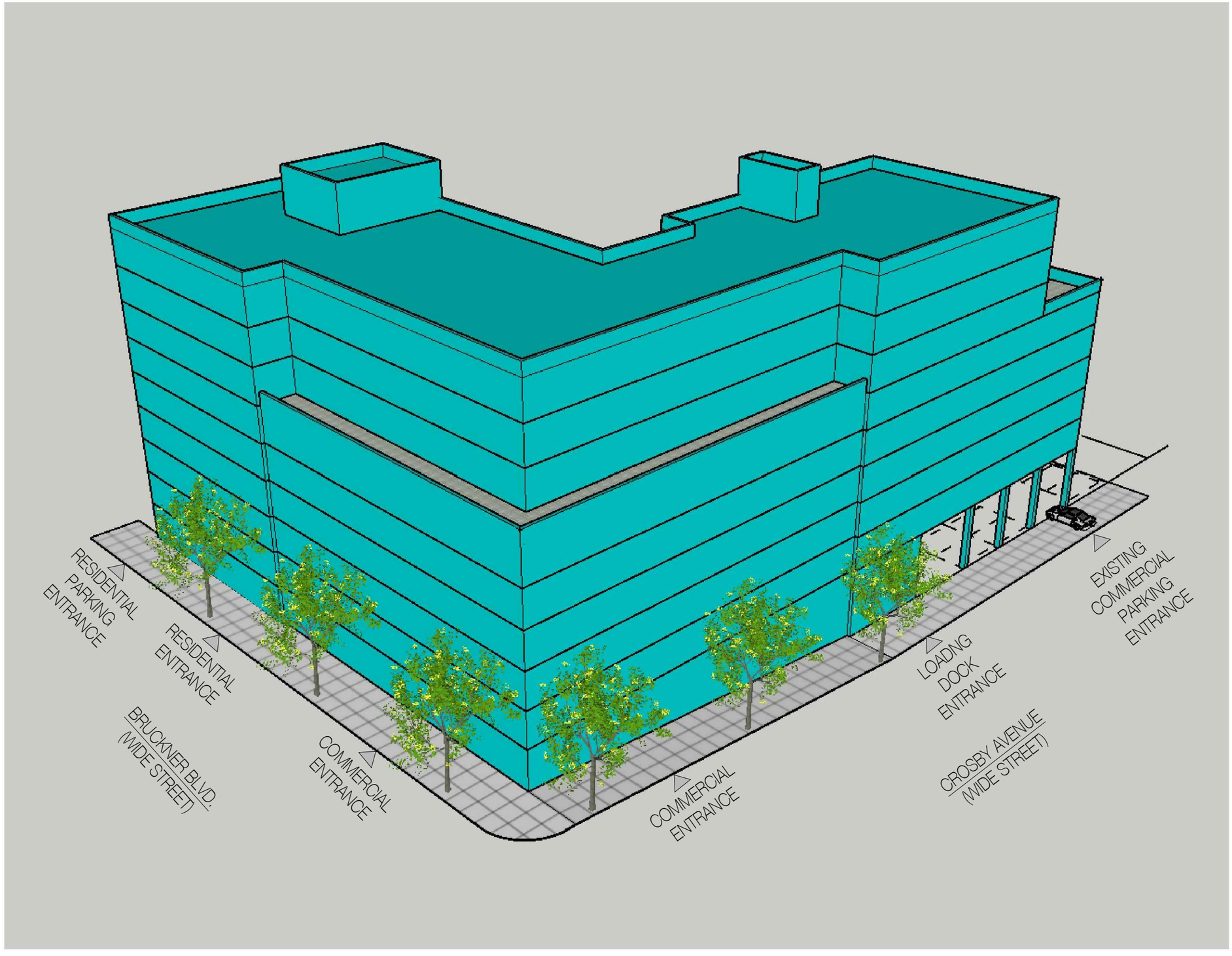

Edison Ave
Site 2


Google
Site 3


Brickell Ave
Google
Site 4


Bruckner Blvd
BX5
Google
Site 4

Projected Development Site 1



PROPOSED NEW DEVELOPMENT FOR:

2045 BRUCKNER BLVD.

BRONX, NY

BLOCK: 5312 LOT: 1

ARCHITECT:

AUFGANG ARCHITECTS LLC
74 LAFAYETTE AVE.
SUFFERN, NY
INFO@AUFGANG.COM 845.368.0004

AUFGANG ARCHITECTS

CLIENT:

DATE	SUBMISSIONS / REVISIONS
02/25/21	REVISED AS PER DCP COMMENTS
05/01/19	PROGRESS SET
11/14/18	PROGRESS SET

SHEET TITLE:

SCHEMATIC
3D MASSING



ISSUE DATE: 11/14/18

PROJECT NO: P-1851

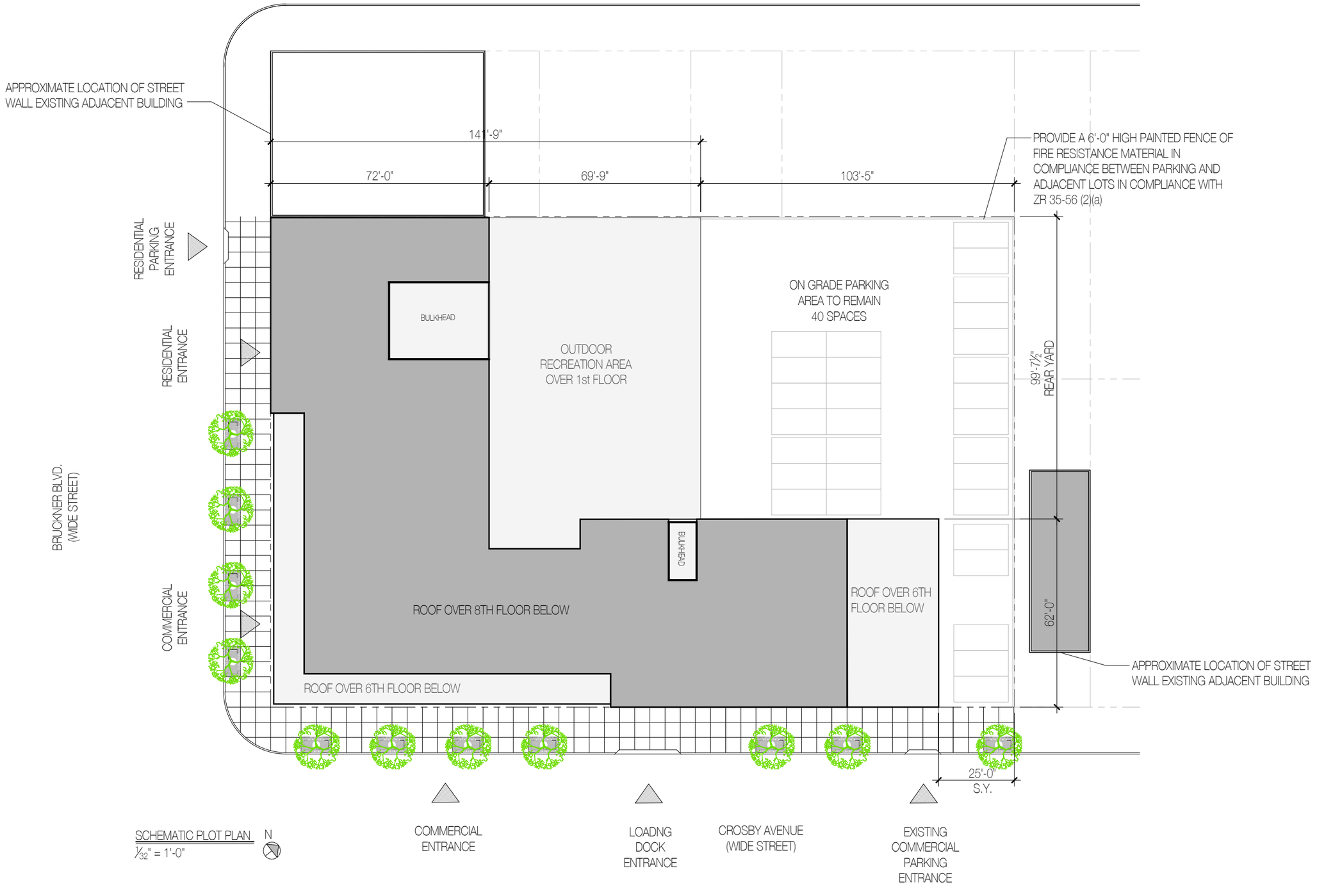
EXISTING ZONE: R4A W / C1-2

PROPOSED ZONE: R6A W / C2-4 (MIH)

SCALE:

SHEET NO: 08 OF 08

DRAWING NO: Z-108.00



SCHEMATIC PLOT PLAN
1/32" = 1'-0"

PROPOSED NEW DEVELOPMENT FOR:

2045 BRUCKNER BLVD.

BRONX, NY

BLOCK: 5312 LOT: 1

ARCHITECT:

AUFGANG ARCHITECTS LLC
74 LAFAYETTE AVE.
SUFFERN, NY
INFO@AUFGANG.COM 845.368.0004

AUFGANG ARCHITECTS

CLIENT:

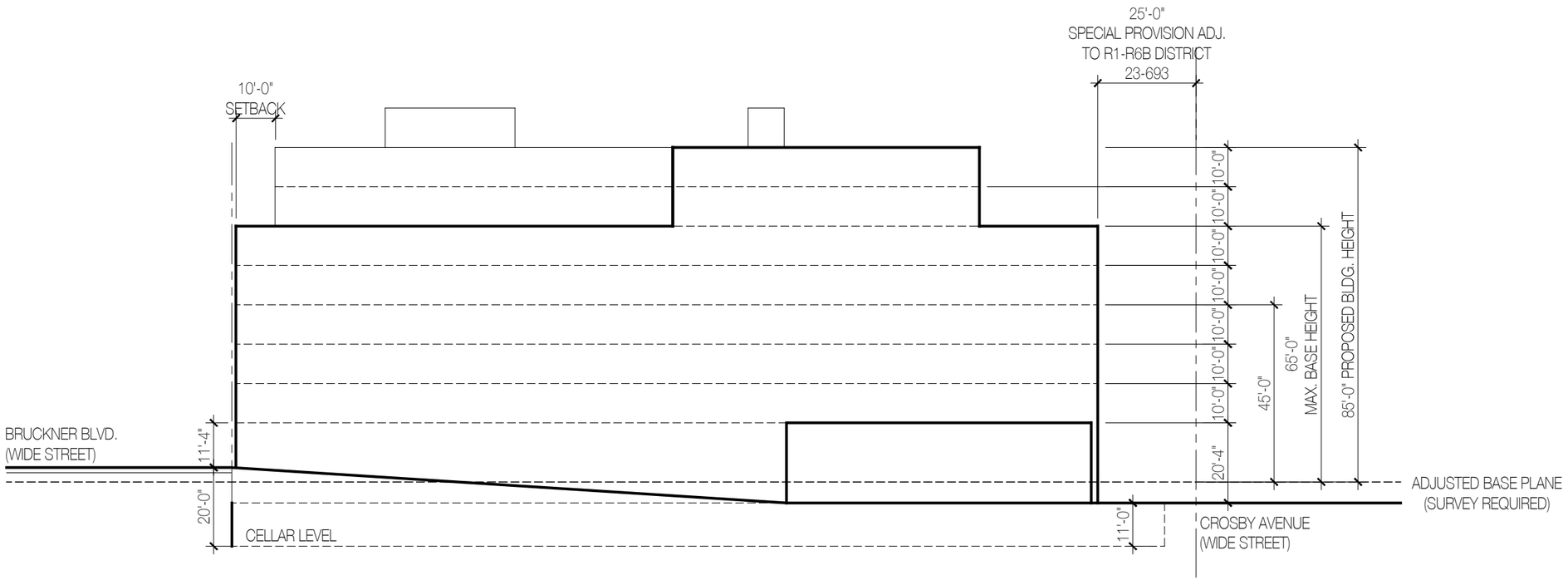
DATE	SUBMISSIONS / REVISIONS
02/25/21	REVISED AS PER DCP COMMENTS
05/01/19	PROGRESS SET
11/14/18	PROGRESS SET

SHEET TITLE:

SCHEMATIC PLOT PLAN



ISSUE DATE: 11/14/18
PROJECT NO: P-1851
EXISTING ZONE: R4A W / C1-2
PROPOSED ZONE: R6A W / C2-4 (MIH)
SCALE:
SHEET NO: 01 OF 08
DRAWING NO: Z-100.00



SCHEMATIC HEIGHT DIAGRAM (CROSBY SIDE)

1/32" = 1'-0"

DORMER CALCULATION:

BRUCKNER BLVD.

60% - 20' = 40%

161.33' x 0.40 = 64.54' MAXIMUM WIDTH

REVERE AVE.

60% - 20' = 40%

220' x 0.40 = 88'

PROPOSED NEW DEVELOPMENT FOR:

2045 BRUCKNER BLVD.

BRONX, NY

BLOCK: 5312 LOT: 1

ARCHITECT:

AUFGANG ARCHITECTS LLC
74 LAFAYETTE AVE.
SUFFERN, NY
INFO@AUFGANG.COM 845.368.0004

AUFGANG ARCHITECTS

CLIENT:

DATE	SUBMISSIONS / REVISIONS
02/25/21	REVISED AS PER DCP COMMENTS
05/01/19	PROGRESS SET
11/14/18	PROGRESS SET

SHEET TITLE:

SCHEMATIC HEIGHT DIAGRAM



ISSUE DATE: 11/14/18

PROJECT NO: P-1851

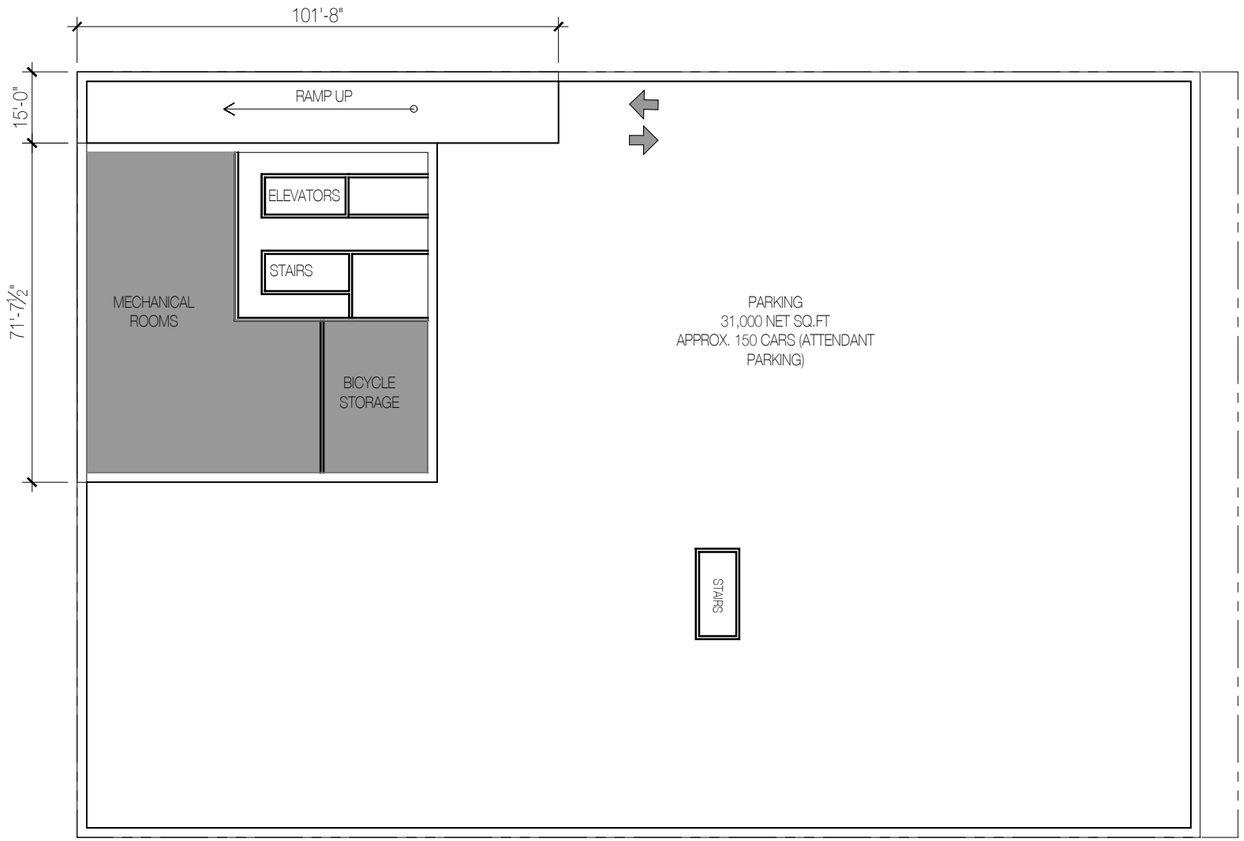
EXISTING ZONE: R4A W / C1-2

PROPOSED ZONE: R6A W / C2-4 (MIH)

SCALE:

SHEET NO: 02 OF 08

DRAWING NO: Z-101.00



SCHEMATIC CELLAR PLAN

1/32" = 1'-0"

PROPOSED NEW DEVELOPMENT FOR:

2045 BRUCKNER BLVD.

BRONX, NY

BLOCK: 5312 LOT: 1

ARCHITECT:

AUFGANG ARCHITECTS LLC
74 LAFAYETTE AVE.
SUFFERN, NY
INFO@AUFGANG.COM 845.368.0004

AUFGANG ARCHITECTS

CLIENT:

DATE	SUBMISSIONS / REVISIONS
02/25/21	REVISED AS PER DCP COMMENTS
05/01/19	PROGRESS SET
11/14/18	PROGRESS SET

SHEET TITLE:

SCHEMATIC CELLAR PLAN



ISSUE DATE: 11/14/18

PROJECT NO: P-1851

EXISTING ZONE: R4A W / C1-2

PROPOSED ZONE: R6A W / C2-4 (MIH)

SCALE:

SHEET NO: 05 OF 08

DRAWING NO: Z-104.00



SCHEMATIC 1ST FLOOR PLAN
1/32" = 1'-0"

PROPOSED NEW
DEVELOPMENT FOR:

2045 BRUCKNER BLVD.

BRONX, NY

BLOCK: 5312 LOT: 1

ARCHITECT:
AUFGANG ARCHITECTS LLC
74 LAFAYETTE AVE.
SUFFERN, NY
INFO@AUFGANG.COM 845.368.0004

AUFGANG ARCHITECTS

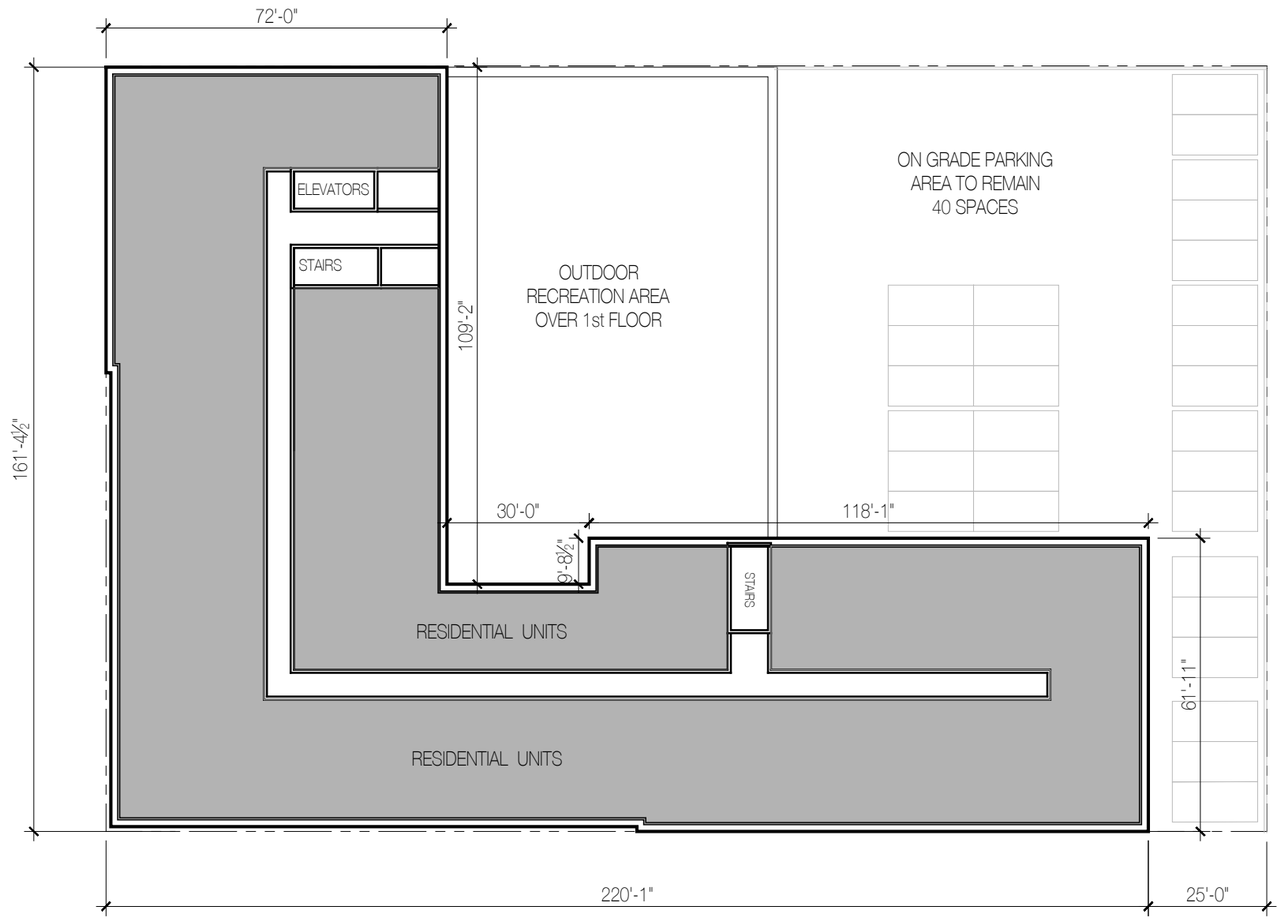
CLIENT:

DATE	SUBMISSIONS / REVISIONS
02/25/21	REVISED AS PER DCP COMMENTS
05/01/19	PROGRESS SET
11/14/18	PROGRESS SET

SHEET TITLE:
SCHEMATIC
1ST FLOOR
PLAN



ISSUE DATE: 11/14/18
PROJECT NO: P-1851
EXISTING ZONE: R4A W / C1-2
PROPOSED ZONE: R6A W / C2-4 (MIH)
SCALE:
SHEET NO: 06 OF 08
DRAWING NO: Z-105.00



SCHEMATIC 2ND-6TH FLOOR PLAN

1/32" = 1'-0"

PROPOSED NEW
DEVELOPMENT FOR:

2045 BRUCKNER BLVD.

BRONX, NY

BLOCK: 5312 LOT: 1

ARCHITECT:

AUFGANG ARCHITECTS LLC
74 LAFAYETTE AVE.
SUFFERN, NY
INFO@AUFGANG.COM 845.368.0004

AUFGANG ARCHITECTS

CLIENT:

DATE	SUBMISSIONS / REVISIONS
02/25/21	REVISED AS PER DCP COMMENTS
05/01/19	PROGRESS SET
11/14/18	PROGRESS SET

SHEET TITLE:
SCHEMATIC
2ND-6TH
FLOOR PLAN

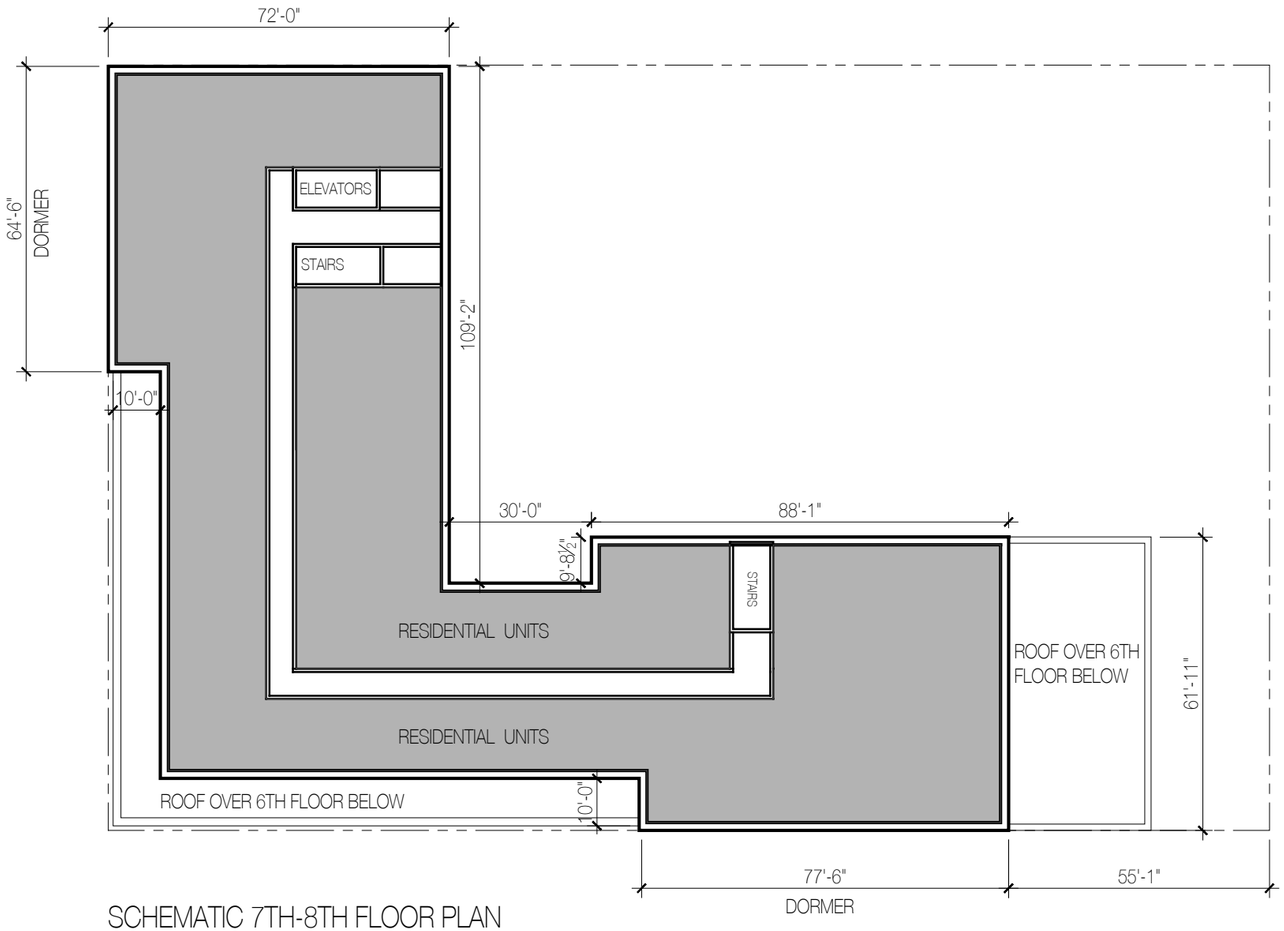


ISSUE DATE: 11/14/18
PROJECT NO: P-1851

EXISTING ZONE: R4A W / C1-2
PROPOSED ZONE: R6A W / C2-4 (MIH)

SCALE:
SHEET NO: 07 OF 08

DRAWING NO: Z-106.00



SCHEMATIC 7TH-8TH FLOOR PLAN

1/32" = 1'-0"

PROPOSED NEW DEVELOPMENT FOR:

2045 BRUCKNER BLVD.

BRONX, NY

BLOCK: 5312 LOT: 1

ARCHITECT:

AUFGANG ARCHITECTS LLC
74 LAFAYETTE AVE.
SUFFERN, NY
INFO@AUFGANG.COM 845.368.0004

AUFGANG ARCHITECTS

CLIENT:

DATE	SUBMISSIONS / REVISIONS
02/25/21	REVISED AS PER DCP COMMENTS
05/01/19	PROGRESS SET
11/14/18	PROGRESS SET

SHEET TITLE:

SCHEMATIC
7TH & 8TH
FLOOR PLAN



ISSUE DATE: 11/14/18

PROJECT NO: P-1851

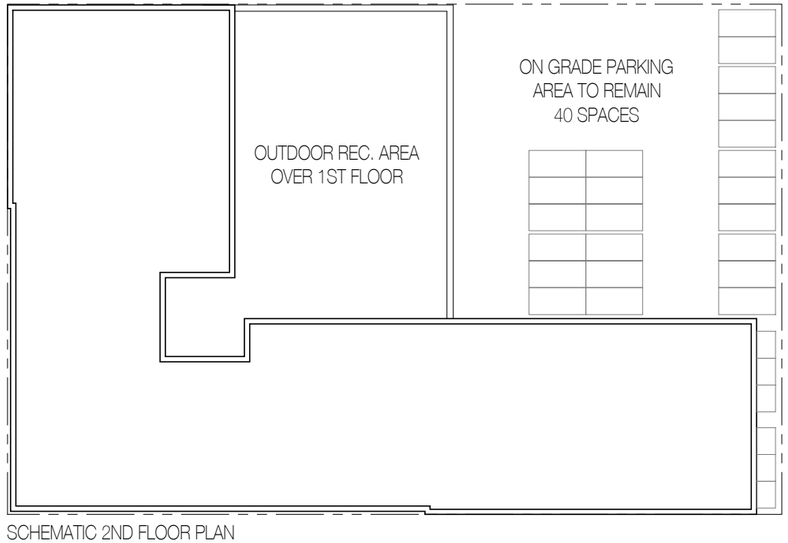
EXISTING ZONE: R4A W / C1-2

PROPOSED ZONE: R6A W / C2-4 (MIH)

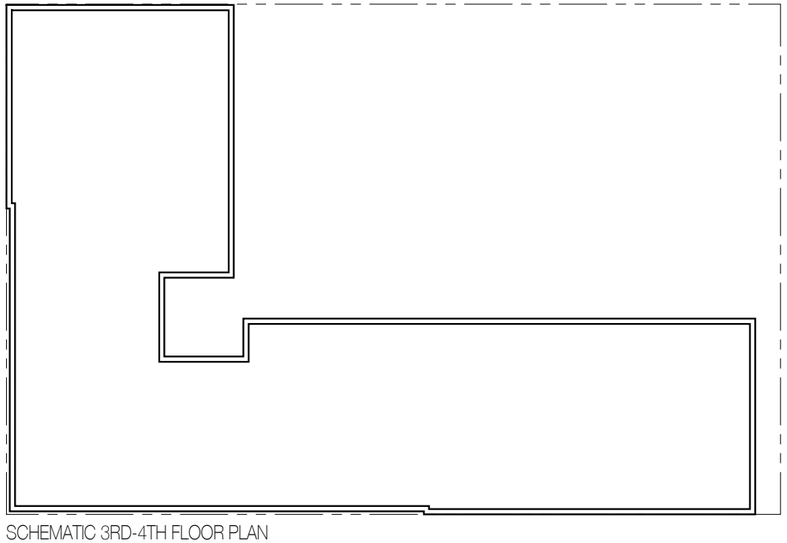
SCALE:

SHEET NO: 07 OF 08

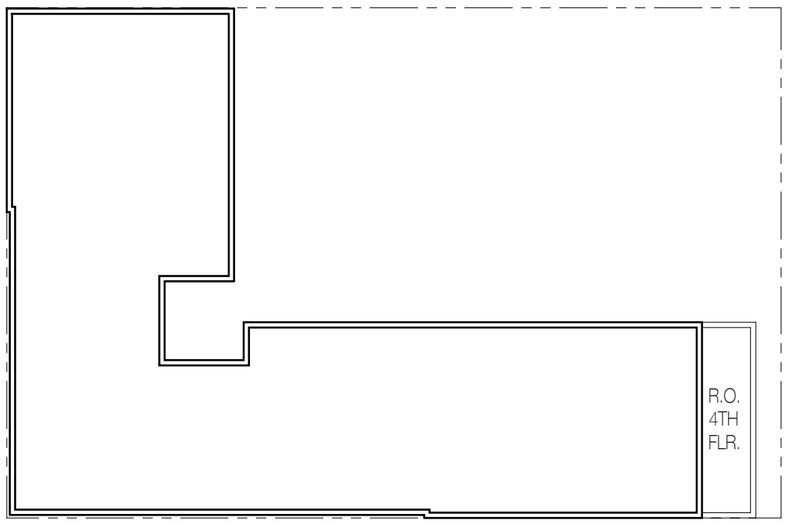
DRAWING NO: Z-107.00



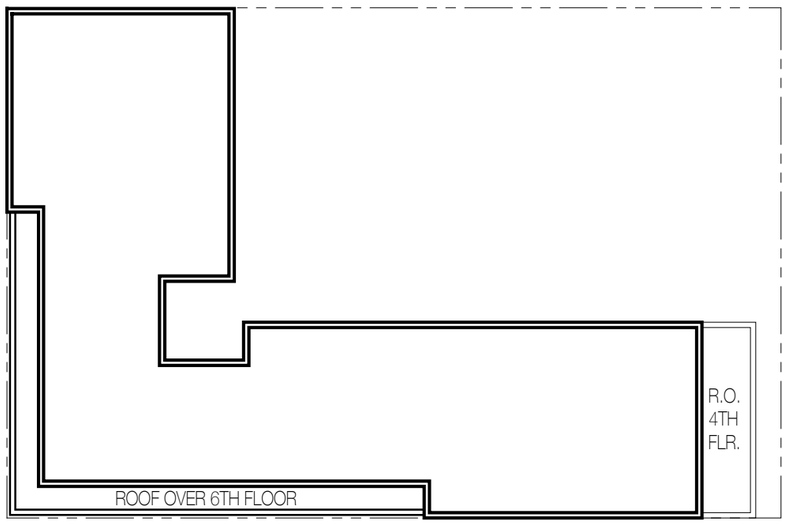
SCHEMATIC 2ND FLOOR PLAN
1/48" = 1'-0"



SCHEMATIC 3RD-4TH FLOOR PLAN
1/48" = 1'-0"



SCHEMATIC 5TH-6TH FLOOR PLAN
1/48" = 1'-0"



SCHEMATIC 7TH-8TH FLOOR PLAN
1/48" = 1'-0"

PROPOSED NEW
DEVELOPMENT FOR:

2945 BRUCKNER BLVD.

BRONX, NY

BLOCK: 5312 LOT: 1

ARCHITECT:

AUFGANG ARCHITECTS LLC
74 LAFAYETTE AVE.
SUFFERN, NY
INFO@AUFGANG.COM 845.368.0004

AUFGANG ARCHITECTS

CLIENT:

DATE	SUBMISSIONS / REVISIONS
05/01/19	PROGRESS SET
11/14/18	PROGRESS SET

SHEET TITLE:

SCHEMATIC
2ND-8TH
FLOOR PLAN

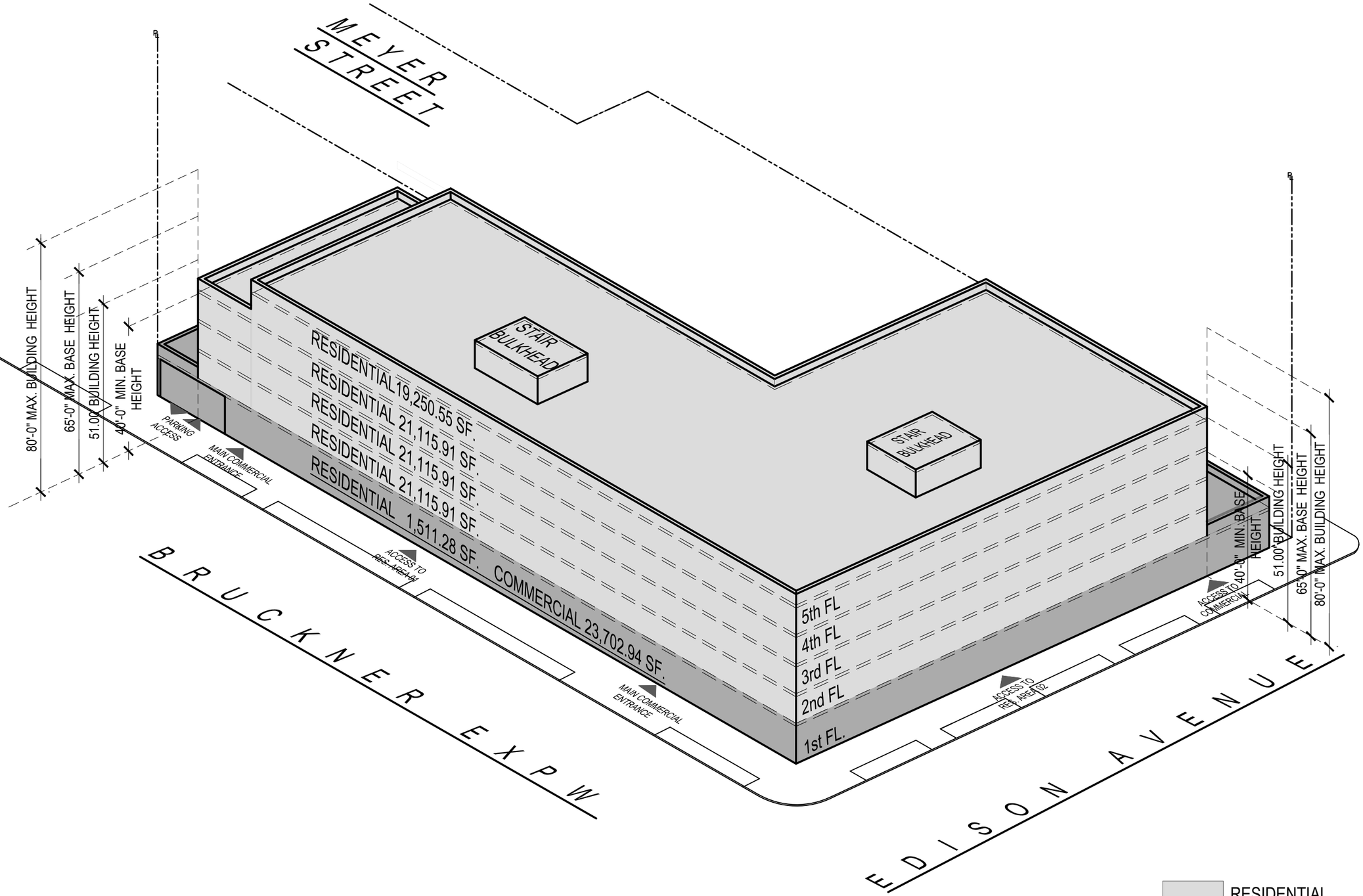


ISSUE DATE: 11/14/18
PROJECT NO: P-1851
EXISTING ZONE: R4A W / C1-2
PROPOSED ZONE: R6A W / C2-4 (MIH)
SCALE:
SHEET NO: 07 OF 08

DRAWING NO:

Z-106.00

Projected Development Site 2



FRANK J. QUATELA
ARCHITECT, P.C.
36-07 169th STREET
FLUSHING, NY 11358
TEL: 718.886.1600
FRANK@QUATELA-ARCHITECTS.COM
WWW.QUATELA-ARCHITECTS.COM

DRAWING TITLE:

SCHEMATIC 3D MASSING

PREMISES:

BRUCKNER BOULEVARD

BRONX, NEW YORK

DRAWN:	CHECKED:
FY/RC/VP	FJQ
JOB NO.:	DATE:
18026	02/17/2021

SCALE:
AS NOTED

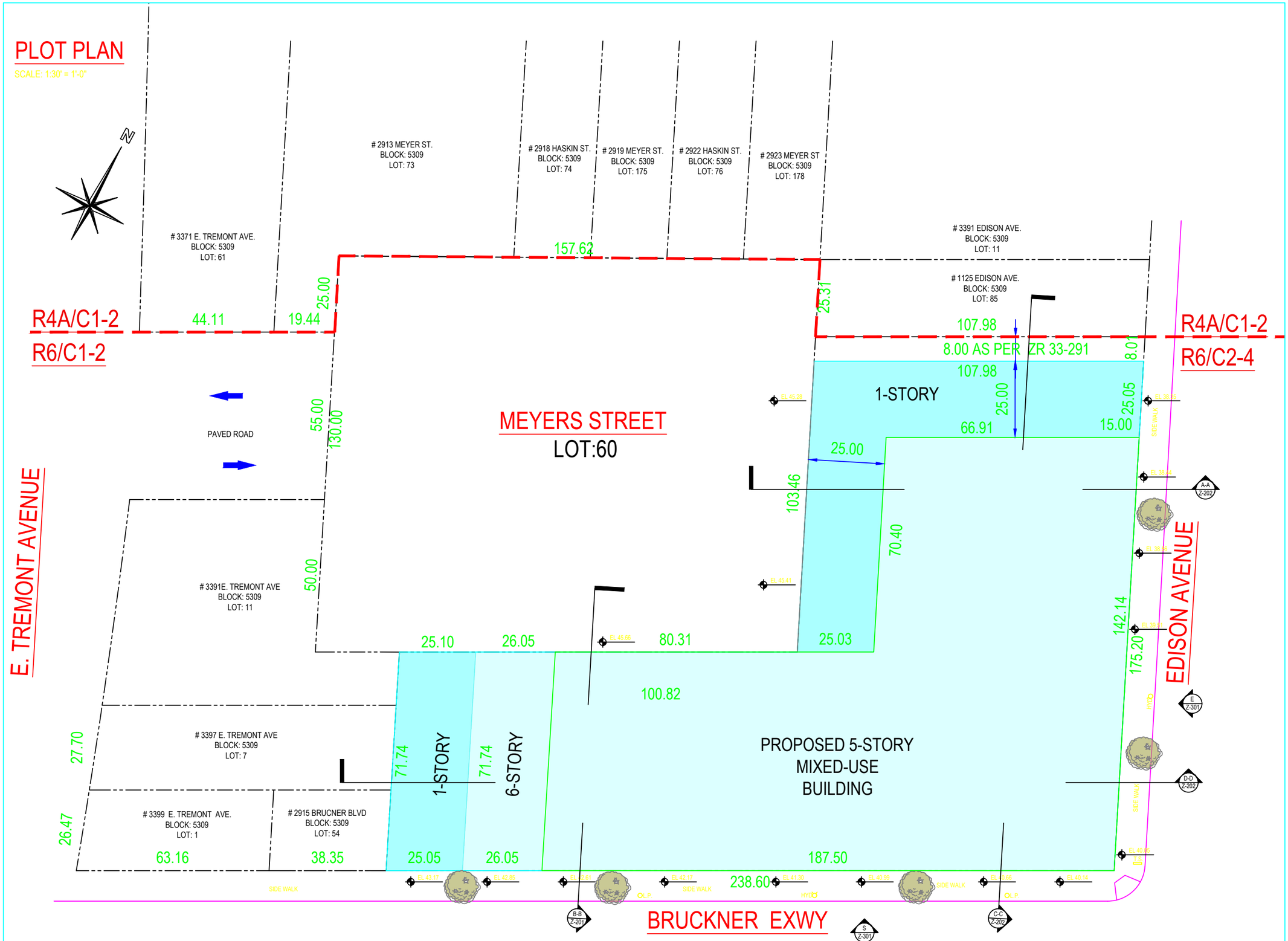
SEAL:

DRAWING:	9 OF 9

Z-401.00

PLOT PLAN

SCALE: 1:30' = 1'-0"



FRANK J. QUATELA
ARCHITECT, P.C.
36-07 169th STREET
FLUSHING, NY 11358
TEL: 718.886.1600
FRANK@QUATELA-ARCHITECTS.COM
WWW.QUATELA-ARCHITECTS.COM

DRAWING TITLE:

SCHEMATIC

PLOT PLAN

PREMISES:

BRUCKNER BOULEVARD

BRONX, NEW YORK

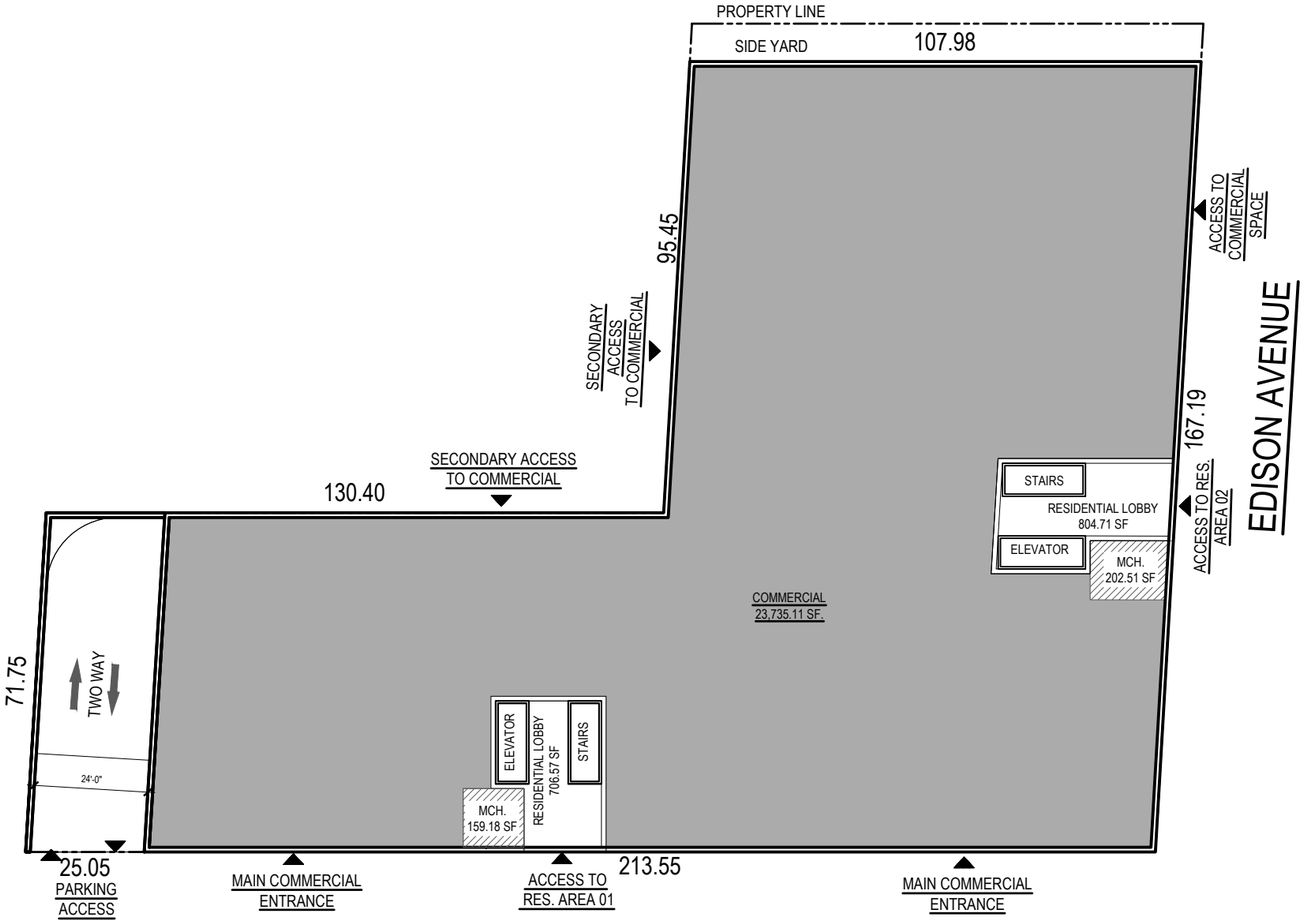
DRAWN:	CHECKED:
FY/RC/VP	FJQ
JOB NO.:	DATE:
18026	02/17/2021

SCALE:
AS NOTED

SEAL:

DRAWING: 1 OF 9

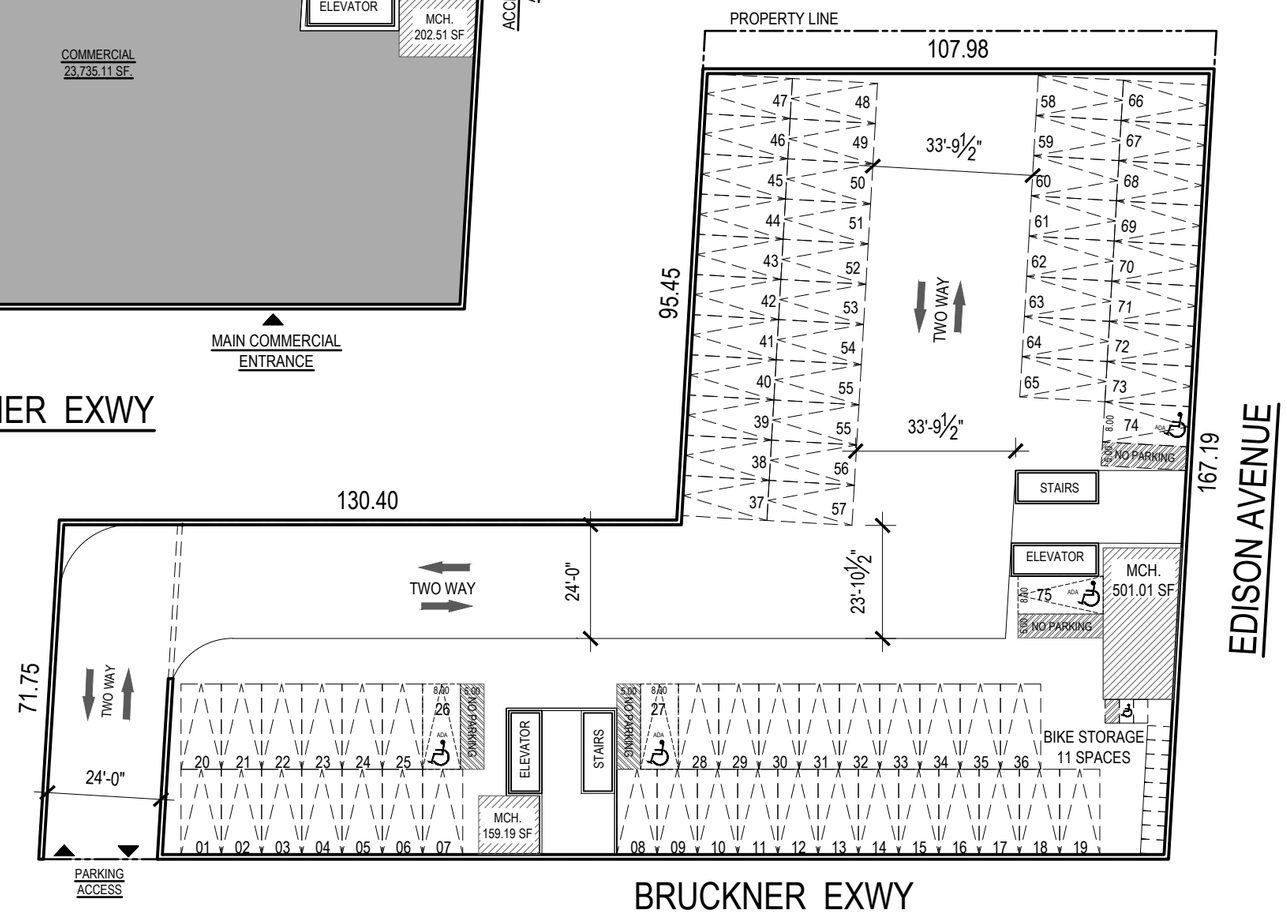
Z-001.00



SCHEMATIC FIRST FLOOR PLAN - COMMERCIAL USE

SCALE : 3/32=1'-0"

TOTAL AREA: 25,576.05 SQ.FT.



SCHEMATIC CELLAR PLAN - ACCESSORY USE

SCALE : 3/32=1'-0"

TOTAL AREA: 27,369.85 SQ.FT.

TOTAL PARKING SPACES: 44

A.D.A. PARKING SPACES: 5% x 44 = 2.2 OR 2 SPOTS

FRANK J. QUATELA
ARCHITECT, P.C.
36-07 169th STREET
FLUSHING, NY 11358
TEL: 718.886.1600
FRANK@QUATELA-ARCHITECTS.COM
WWW.QUATELA-ARCHITECTS.COM

DRAWING TITLE:

SCHEMATIC

CELLAR & 1st FLOOR PLAN

PREMISES:

BRUCKNER BOULEVARD

BRONX, NEW YORK

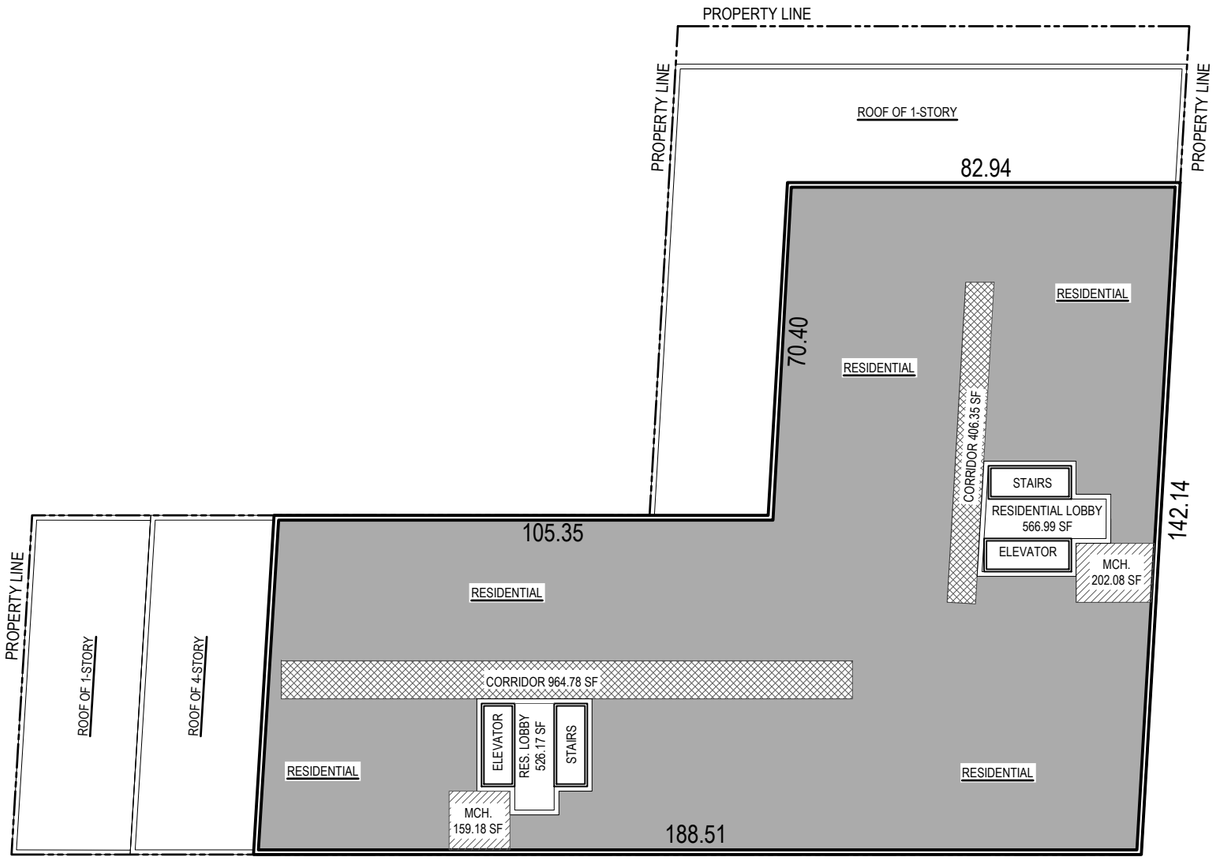
DRAWN: FY/RC/VP	CHECKED: FJQ
JOB NO.: 18026	DATE: 02/17/2021

SCALE: AS NOTED

SEAL:

DRAWING:	3 OF 9

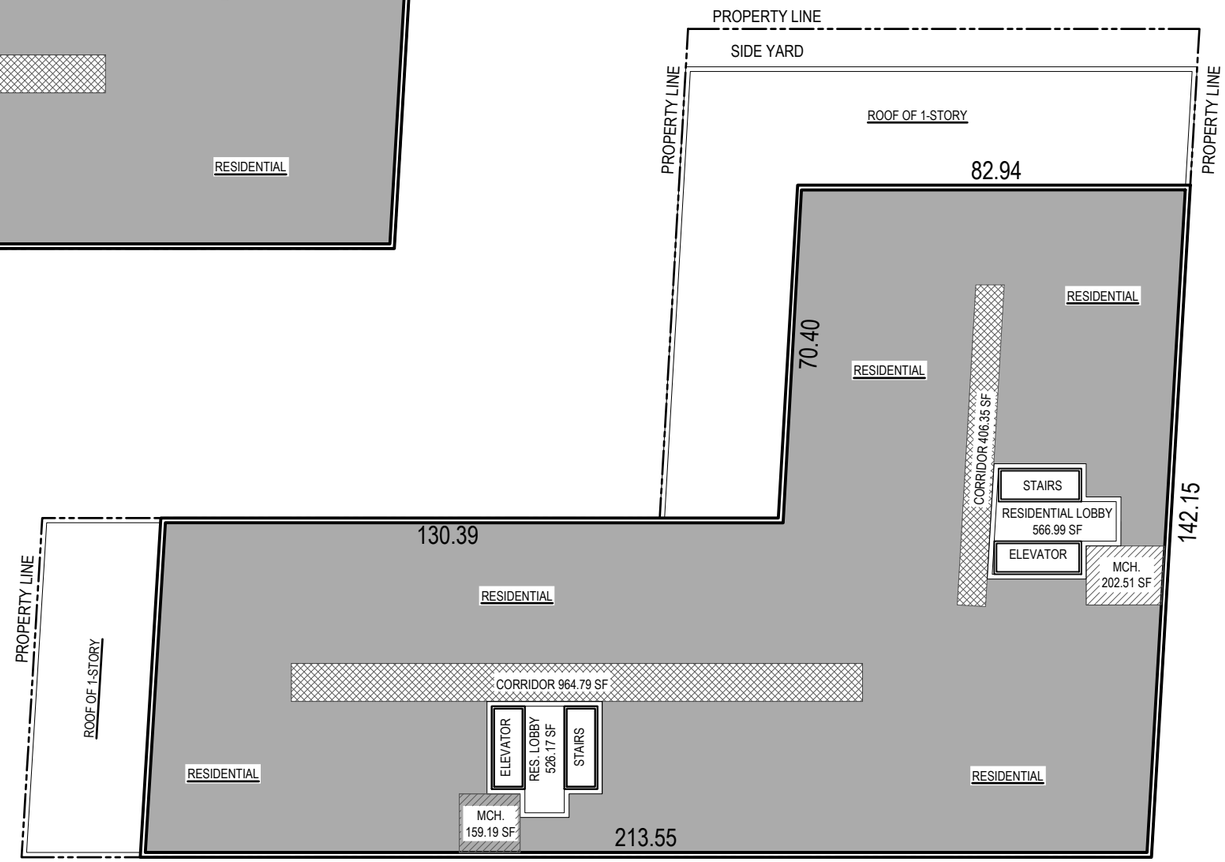
Z-101.00



SCHEMATIC 5th FLOOR PLAN - RESIDENTIAL USE

SCALE : 3/32=1'-0"

TOTAL AREA: 19,250.55 SQ.FT.



SCHEMATIC 2nd TROUGH 4th FLOOR PLAN - RESIDENTIAL USE

SCALE : 3/32=1'-0"

TOTAL AREA: 21,115.91 x 3 = 63,347.73 SQ.FT.

FRANK J. QUATELA
ARCHITECT, P.C.
36-07 169th STREET
FLUSHING, NY 11358
TEL: 718.886.1600
FRANK@QUATELA-ARCHITECTS.COM
WWW.QUATELA-ARCHITECTS.COM

DRAWING TITLE:

SCHEMATIC

2nd TO 5th FLOOR PLANS

PREMISES:

BRUCKNER BOULEVARD

BRONX, NEW YORK

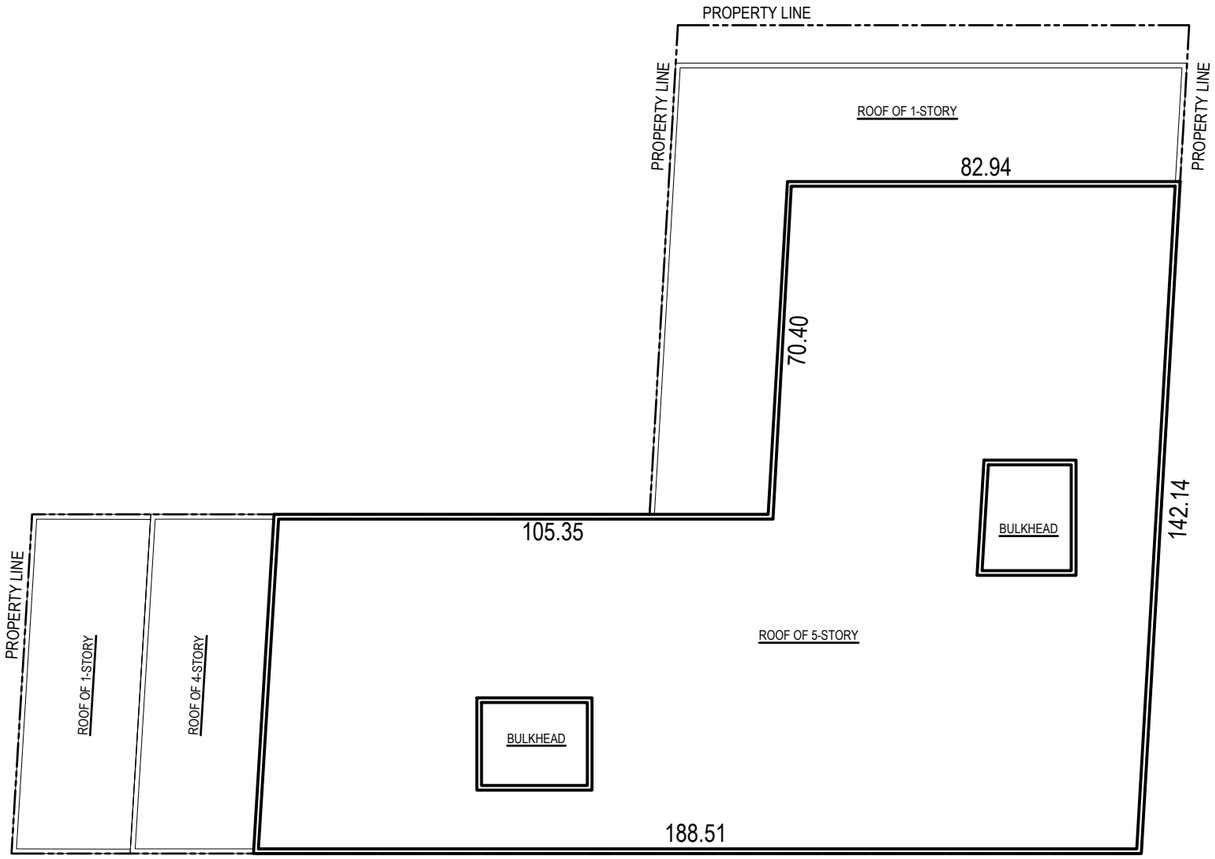
DRAWN:	CHECKED:
FY/RC/VP	FJQ
JOB NO.:	DATE:
18026	02/17/2021

SCALE:
AS NOTED

SEAL:

DRAWING:	4 OF 9

Z-102.00



SCHEMATIC ROOF PLAN - RESIDENTIAL USE

SCALE : 3/32=1'-0"

FRANK J. QUATELA
ARCHITECT, P.C.
36-07 169th STREET
FLUSHING, NY 11358
TEL: 718.886.1600
FRANK@QUATELA-ARCHITECTS.COM
WWW.QUATELA-ARCHITECTS.COM

DRAWING TITLE:

SCHEMATIC

ROOF PLAN

PREMISES:

BRUCKNER BOULEVARD

BRONX, NEW YORK

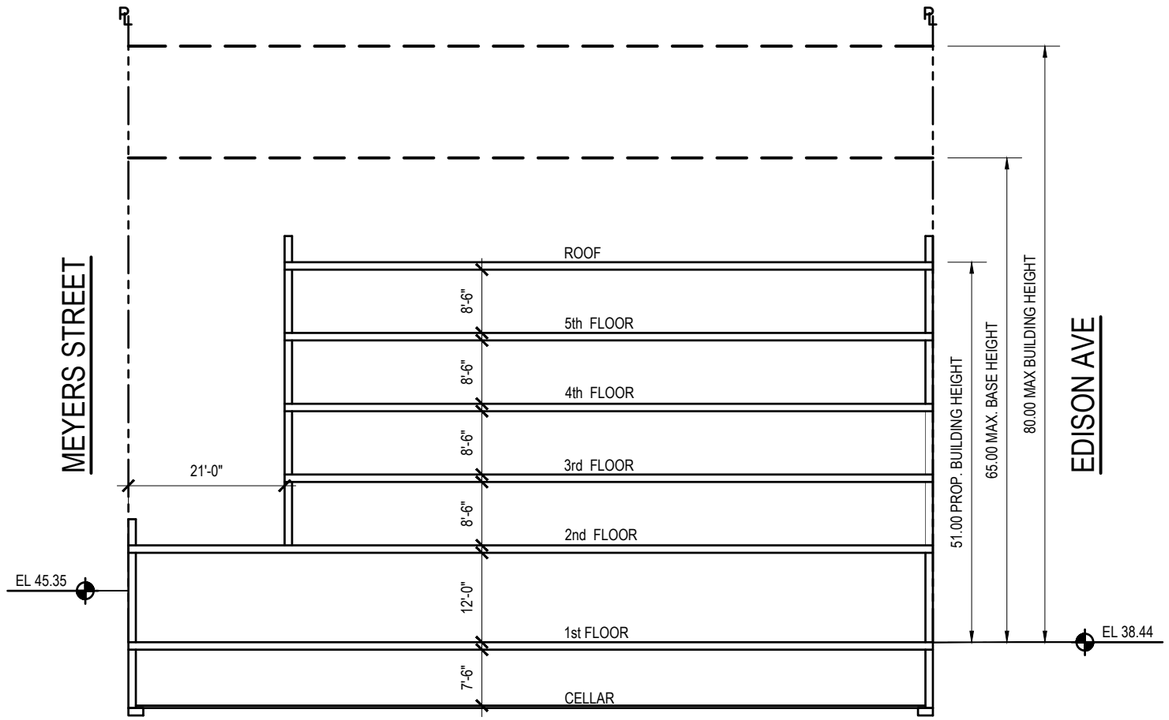
DRAWN:	CHECKED:
FY/RC/VP	FJQ
JOB NO.:	DATE:
18026	02/17/2021

SCALE:
AS NOTED

SEAL:

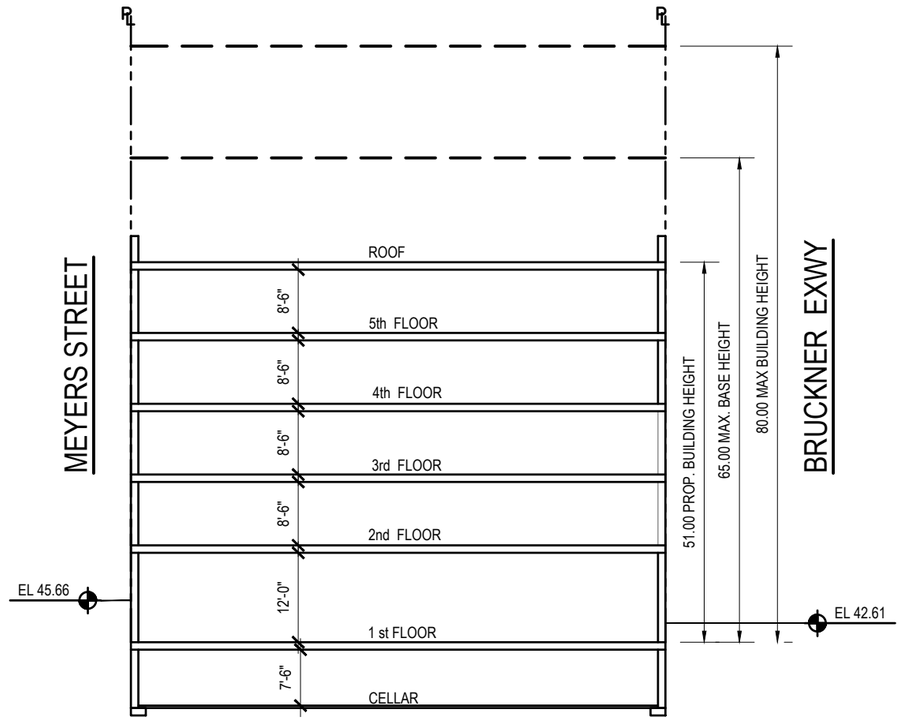
DRAWING:	5 OF 9

Z-103.00



SCHEMATIC SECTION A-A

SCALE: N.T.S.



SCHEMATIC SECTION B-B

SCALE: N.T.S.

FRANK J. QUATELA
ARCHITECT, P.C.
36-07 169th STREET
FLUSHING, NY 11358
TEL: 718.886.1600
FRANK@QUATELA-ARCHITECTS.COM
WWW.QUATELA-ARCHITECTS.COM

DRAWING TITLE:

SCHEMATIC

SECTION A-A & B-B

PREMISES:

BRUCKNER BOULEVARD

BRONX, NEW YORK

DRAWN:	CHECKED:
FY/RC/VP	FJQ
JOB NO.:	DATE:
18026	02/17/2021

SCALE:
AS NOTED

SEAL:

DRAWING:	6 OF 9

Z-201.00

Projected Development Site 3

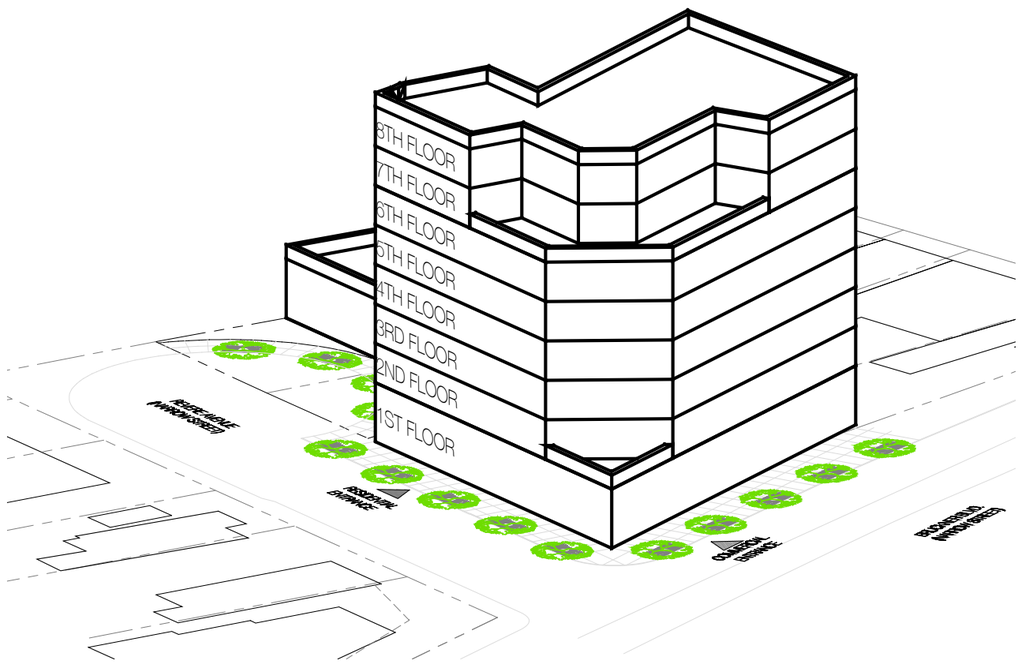


SCHEMATIC PLOT PLAN N
SCALE: 1/32" = 1'-0"

ALL FIGURES ARE PRELIMINARY AND APPROXIMATE. LOT AREAS AND EXISTING FLOOR AREAS ARE SUBJECT TO SURVEY CONFIRMATION. FINAL AREAS AND LOT ANGLES TO BE VERIFIED BY COMPLETE SURVEY

SITE DATA		LIST OF REQUIRED ACTIONS			QUALITY HOUSING PROGRAM
Block:	5306		CONST. CLASS 1-B 2HR RATED		ZONING MAP AMENDMENTS
Lots:	8,18,19,22 & 23		BUILDING CODE OCCUPANCY GROUP R-2		FRESH ZONE
Street Address:	REVERE AVENUE		BUILDING TO BE FULLY SPRINKLERED		LOWER DENSITY GROWTH MANAGEMENT AREA
Existing Zoning:	R4-1		BUILDING TO BE DESIGNED		
Proposed Zoning:	R6A / C2-4		PER 2014 NYC BUILDING CODE		
Community District:	10, BRONX		PER NYC ENERGY CODE		
Zoning Section Map:	4b				
Zoning Lot Area	17,640.44				

ZR - Section	Title	Descriotion				Permitted	Ex.to Remain	Proposed	Total	Compliance / Notes
22-10	USES									
32-00		USE GROUP 1, 2, 3,4,5,6, 6c,7,8,9 & 14						2 & 6		OK
23-011	QUALITY HOUSING									
	PROGRAM	R6A / C2-4						YES		OK
23-32	MIN LOT AREA	1,700								
		CORNER LOT				9980				
		INTERIOR LOT				7,660				OK
	FAR	R6A / C2-4								
23-154		RESIDENTIAL				3.6		2.84	3.60	OK
33-121		COMMERCIAL				2.0		0.76		
	FLOOR AREA									
		RESIDENTIAL								
23-154		17,640.44	X	3.6	=	63505.58		50,069		OK
		COMMERCIAL								
33-121		17,640.44	X	2.0	=	35280.88		13,436		
	TOTAL FLOOR AREA	TOTAL DEVELOPMENT								
23-154		17,640.44	X	3.6	=	63505.58		63505		OK
23-153	LOT COVERAGE									
		CORNER LOT		100%		17,640.44		7,524		
		INTERIOR LOT		65%		11466.29		234		OK
	YARD REGULATION									
23-45		FRONT YARD				NONE		NONE		OK
23-46		SIDE YARD				NONE		NONE		OK
23-47		REAR YARD				30'-0"		80'-4 3/4"		OK
23-532		REQUIRED REAR YARD EQUIVALENT								OK
23-531, 33-281		EXCEPTED TROUGH LOTS				N/A		N/A		OK
	HEIGHT & SETBACKS	R6A / C2-4								
23-664		MIN BASE				40'-0"		63'-9"		OK
23-664		MAX BASE				65'-0"		63'-9"		OK
23-664		MAX BUILDING HEIGHT				85'-0" / 8		83'-9" / 8		OK
	SETBACKS									
23-662		SETBACK @ WIDE STREETS				10'-0"		N/A		OK
23-662		SETBACK @ NARROW STREETS				15'-0"		15'-0"		OK
23-22	DENSITY									
		R6A / C2-4		680		73		64		OK
	ACCESSORY OFF-STREET PARKING									
		R6A / C2-4								
25-251		RESIDENTIAL		25%	=	16		16	29	OK
36-21		COMMERCIAL		1x1000	=	13		13		OK
25-51	PARKING LOCATION									
		ON SITE						YES		OK
36-711	BICYCLE PARKING									
		RESIDENTIAL		50%	=	32		32	33	OK
		COMMERCIAL		1X10000		1		1		OK
PARKING CALCULATION		29	PARKING SPACES REQUIRED AT CELLAR			14000	SQ. FT. OF SURFACE PARKING		475	SQ. FT. X CAR



PROPOSED NEW DEVELOPMENT FOR:

REVERE AVENUE

BRONX, NY

BLOCK: 5306 LOT: 8,18,19,22 & 23

ARCHITECT:
AUFGANG ARCHITECTS LLC
74 LAFAYETTE AVE.
SUFFERN, NY
INFO@AUFGANG.COM 845.368.0004

AUFGANG ARCHITECTS

CLIENT:

DATE	SUBMISSIONS / REVISIONS
05/30/19	PROGRESS SET

SHEET TITLE:

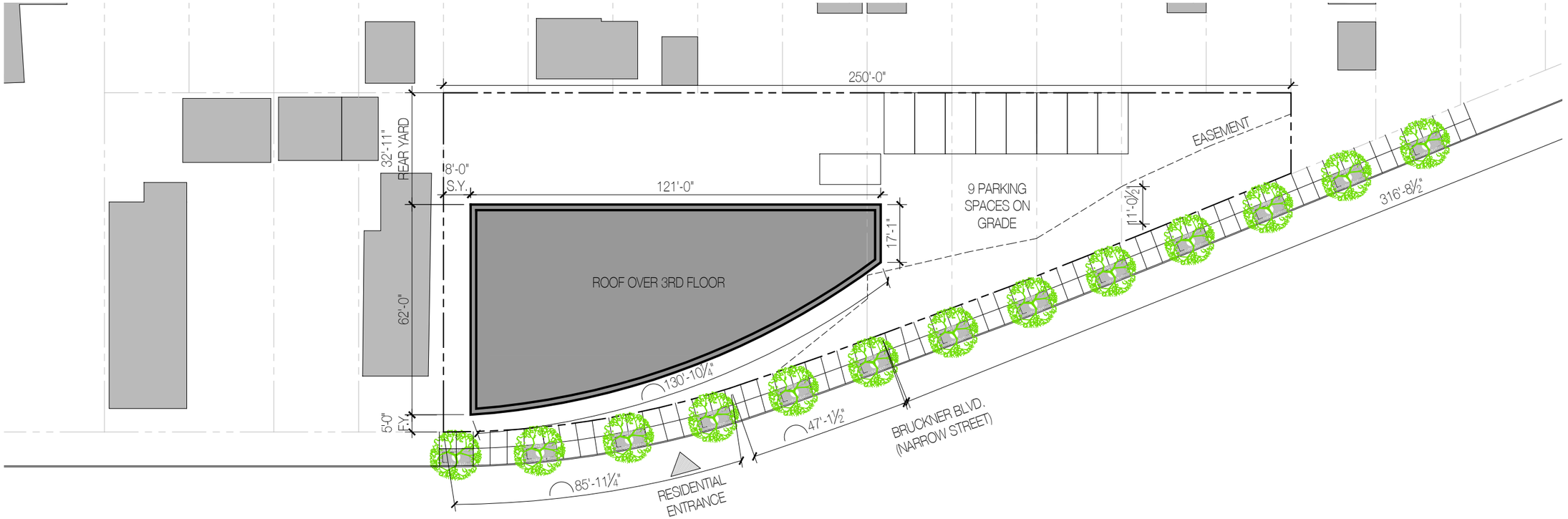
SCHEMATIC PLOT PLAN,
ZONING & MASSING



ISSUE DATE: 05/28/19
PROJECT NO: P-19160
EXISTING ZONING: R4-1
PROPOSED ZONING: R6A / C2-4
SCALE:
SHEET NO: 01 OF 01

DRAWING NO: Z-100.00

Projected Development Site 4



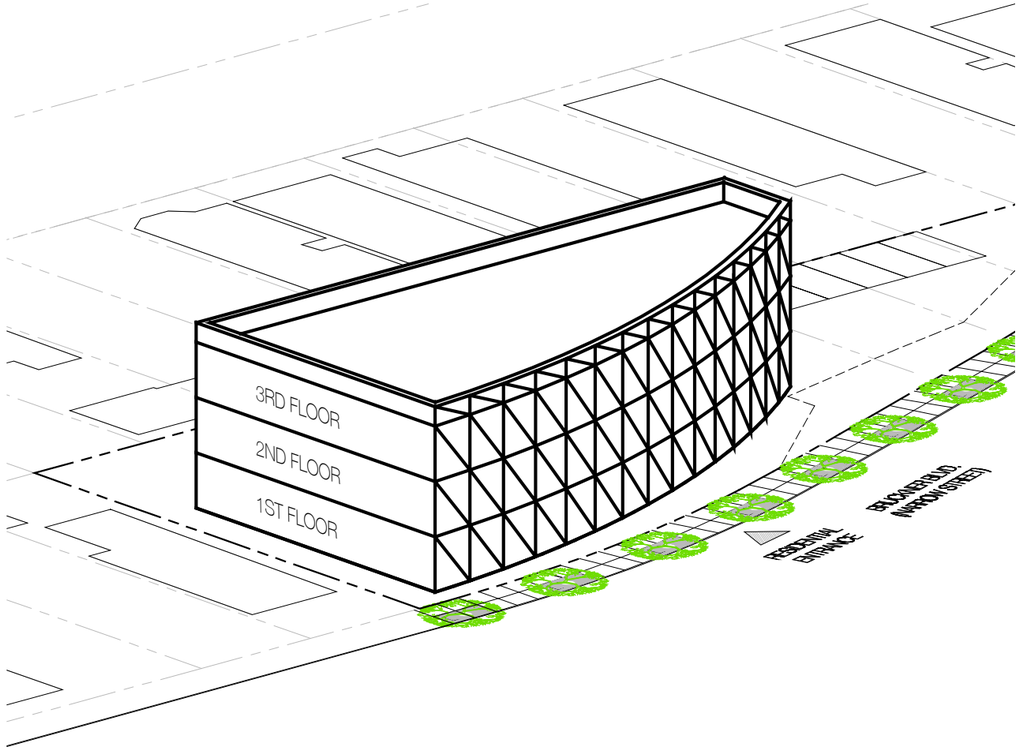
SCHEMATIC PLOT PLAN
SCALE: 1/32" = 1'-0"

N

ALL FIGURES ARE PRELIMINARY AND APPROXIMATE. LOT AREAS AND EXISTING FLOOR AREAS ARE SUBJECT TO SURVEY CONFIRMATION. FINAL AREAS AND LOT ANGLES TO BE VERIFIED BY COMPLETE SURVEY

SITE DATA		LIST OF REQUIRED ACTIONS		QUALITY HOUSING PROGRAM
Block:	5307		CONST. CLASS: 1-B 2HR. RATED	ZONING MAP AMENDMENTS
Lots:	61,63,64,66 & 67		BUILDING CODE OCCUPANCY GROUP: R-2	FRESH ZONE
Street Address:	2719 Bruckner Blvd.		BUILDING TO BE FULLY SPRINKLERED	LOWER DENSITY GROWTH MANAGEMENT
Existing Zoning:	R4-1		BUILDING TO BE DESIGNED	COASTAL ZONE
Proposed Zoning:	R5B		PER 2014 NYC BUILDING CODE	
Community District:	10, BRONX		PER NYC ENERGY CODE	
Zoning Section Map:	4b			
Zoning Lot Area	17,406.00			

ZR - Section	Title	Description	Permitted	Ex.to Remain	Proposed	Total	Compliance / Notes
22-10	USES						
32-00		USE GROUP 1, 2, 3,& 4			2		OK
23-011	QUALITY HOUSING						
	PROGRAM	R5B			YES		OK
23-32	MIN LOT AREA	1,700					
		INTERIOR LOT	17,406				OK
	FAR	R5B					
23-142		RESIDENTIAL	1.35		0.96	0.96	OK
	FLOOR AREA						
		RESIDENTIAL					
23-142		17,406.00 X 1.35 =	23,498.10		16,773		OK
	TOTAL FLOOR AREA	TOTAL DEVELOPMENT					
23-155		17,406.00 X 1.35 =	23,498.10		16,773		OK
23-142	LOT COVERAGE						
		INTERIOR LOT 55%	9,573.30		5,591		OK
	YARD REGULATION						
23-45		FRONT YARD	5'-0"		5'-0"		OK
23-46 / 23-49		SIDE YARD	8'-0"		8'-0"		OK
23-47 / 23-52		REAR YARD	30'-0"		32'-11"		OK
	HEIGHT & SETBACKS	R5B					
23-631		MAX BUILDING HEIGHT	30'-0"		30'-0"		OK
23-22	DENSITY						
		R5B 900	26		22		OK
	ACCESSORY OFF-STREET PARKING						
		R5B					
25-251		RESIDENTIAL 42.5% =	9		9	9	OK
25-51	PARKING LOCATION						
		ON SITE			YES		OK
	BICYCLE PARKING						
25-80		RESIDENTIAL 50% =	11		11	11	OK
PARKING CALCULATION	9	PARKING SPACES REQUIRED ON GRADE	5,192	SQ. FT. OF SURFACE PARKING		568	SQ. FT. X CAR



PROPOSED NEW
DEVELOPMENT FOR:

2719 BRUCKNER BLVD.

BRONX, NY

BLOCK: 5307 LOT: 55,58,61,63,64,66,67

ARCHITECT:
AUFGANG ARCHITECTS LLC
74 LAFAYETTE AVE.
SUFFERN, NY
INFO@AUFGANG.COM 845.368.0004

AUFGANG ARCHITECTS

CLIENT:

DATE	SUBMISSIONS / REVISIONS
06/28/19	PROGRESS SET-LOT 58 EXCLUDED
05/30/19	PROGRESS SET

SHEET TITLE:

SCHEMATIC PLOT PLAN,
ZONING & MASSING



ISSUE DATE: 05/28/19
PROJECT NO: P-19161
EXISTING ZONING: R4-1
PROPOSED ZONING: R5B
SCALE:
SHEET NO: 01 OF 01

DRAWING NO: Z-100.00

2. Socioeconomic Conditions

Introduction

~~This section analyzes the potenti~~al impacts of the Proposed Actions, as described above in the EAS Form, Project Description and Land Use, Zoning and Public Policy sections, to the socioeconomic condtions of the Study Area.

According to the *CEQR Technical Manual*, an analysis of socioeconomic conditions is conducted to determine whether a proposed project would affect land use patterns, low-income populations, the availability of goods and services, or economic investment in a way that changes the socioeconomic character of an area. The *CEQR Technical Manual* considers the socioeconomic character of an area to include its population, housing, and economic activity.

The *CEQR Technical Manual* primarily considers four types of potential impacts relative to socioeconomic conditions: *direct residential displacement, direct business displacement, indirect residential displacement* and *indirect business displacement*. The *CEQR Technical Manual* recommends an analysis of socioeconomic conditions if a project would directly displace residents or businesses, or if a project has the potential to indirectly displace them by altering any of the underlying forces that shape socioeconomic conditions in an area. If a project is expected to directly displace 500 residents or 100 workers by, for example, demolishing existing residential or commercial buildings, the *CEQR Technical Manual* considers that this may have a significant impact on the socioeconomic conditions of the Study Area. Further, a proposed project may result in significant changes to the socioeconomic conditions of a Study Area if the project introduces more than 200 dwelling units or 200,000 square feet of commercial space to the Study Area. As the Proposed Actions would facilitate the construction of greater than 200 dwelling units, a preliminary assessment of socioeconomic conditions is warranted and is provided below.

Preliminary Assessment

Study Area

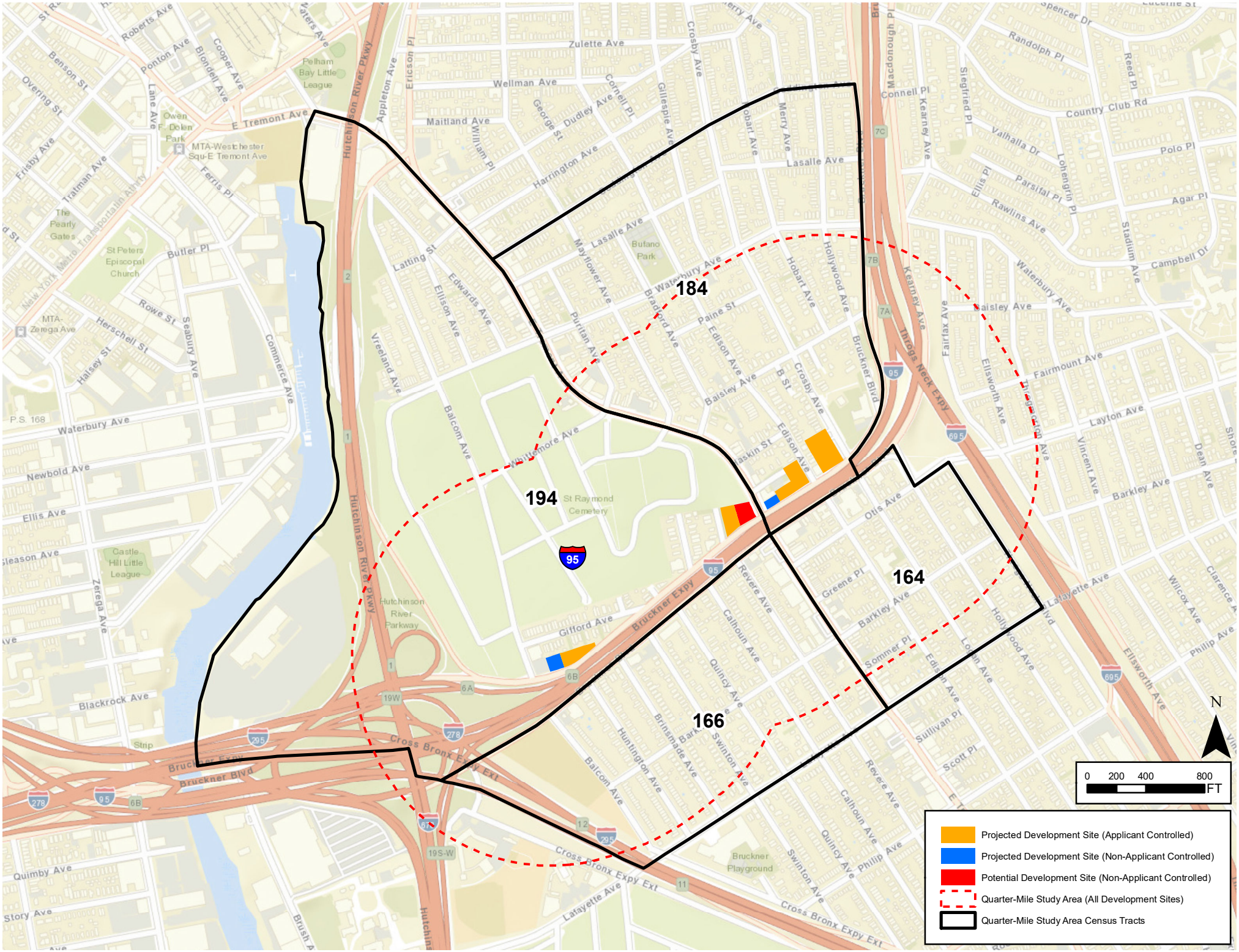
Per the *CEQR Technical Manual*, the Study Area for an assessment of socioeconomic conditions may be 400 feet, a 0.25-mile radius, or a 0.5-mile radius depending on the size of the development facilitated by the Proposed Actions. The *CEQR Technical Manual* suggests that if a project increases the population of the 0.25-mile Study Area by more than 5%, a 0.5-mile radius should be used. Table 2-1 illustrates the anticipated population increase in the preliminary 0.25-mile study area.

Table 2-1 (No-Action vs. With-Action Population in the 0.25 Mile Study Area)

Census Tracts (Bronx)	Existing Condition (Residents)	No-Action Scenario (Residents)	With-Action Scenario (Residents)	No-Action vs. With-Action Population (%)
164, 166, 184, 194	9,095[1]	9,320[2]	10,434[3]	1,114 (10.7%)

[1] Source: Population FactFinder, DCP, based on 2010 Census Population (9,065), plus units completed since 2010 in the Study Area (11 units), multiplied by the average household size in the relevant Census Tracts (2.77), factoring in the rental vacancy rate (1.8 percent)

[2] Per past CEQR practice for environmental reviews, assumed annual growth factor of 0.5% per year through the 2025 build year


184
194
164
166
St Raymond Cemetery
Bufano Park
Bruckner Playground
Hutchinson River Parkway
Bruckner Expy
Cross Bronx Expy Ext
Bruckner Blvd
Throgs Neck Expy
Hutchinson River Pkwy
Pelham Bay Little League
Castle Hill Little League
St Peters Episcopal Church
P.S. 168
Owen F. Dolen Park
MTA-Westchester Squ-E Tremont Ave
MTA-Zerega Ave
N
0 200 400 800
FT
Projected Development Site (Applicant Controlled)
Projected Development Site (Non-Applicant Controlled)
Potential Development Site (Non-Applicant Controlled)
Quarter-Mile Study Area (All Development Sites)
Quarter-Mile Study Area Census Tracts

[3] Includes the development of 402 incremental dwelling units in the Project Area and average household size of 2.77 persons per household (ACS 2014-2018 5-year estimate)

The With-Action Scenario would introduce an incremental 1,114 residents within the 0.25-mile Study Area, which includes Bronx Census Tracts 164, 166, 184, and 194 (those census tracts which are 50% or more within the 0.25-mile Study Area). In the Existing Condition, the Study Area includes 9,095 residents; in the No-Action Scenario, the Study Area includes 9,320 residents. In the With-Action Scenario, the Study Area would include 10,434 residents. This represents a 10.7% increase in the population. Per the *CEQR Technical Manual,* a 0.5-mile Study Area is therefore appropriate. This expanded study area includes Bronx Census Tracts 152, 160, 162, 164, 166, 184, 194 and 274.01 (see Figure 5-1, Socioeconomics Analysis Map).

Depending on natural or man-made features that exist in a given neighborhood, study areas for Socioeconomic Conditions may be adjusted to account for areas of non-contiguity. In the present case, the existing Study Area is bifurcated by the Bruckner Expressway. However, vehicular crossings traverse the expressway via the Hutchinson River Parkway and along East Tremont Avenue (which also has a pedestrian crossing). Four of the six applicant and non-applicant controlled Projected Development Sites are adjacent to or one to two blocks from the East Tremont Avenue road and pedestrian crossing. The remaining two of the six Projected Development Sites are proximate to the Hutchinson River Parkway vehicular crossing and are able to traverse the expressway in approximately two minutes. A modified study area incorporating only areas north of the Bruckner Expressway would therefore not represent a more cohesive study area boundary than the standard study area, and would still incorporate significant natural and man-made obstructions, including the Throggs Neck Expressway, the Hutchinson River Parkway, the entirety of St. Raymond's Cemetery and Westchester Creek. As such, the standard study area dimensions as described in the *CEQR Technical Manual* is utilized here.

Direct Residential Displacement

There are currently 10 existing residential units on Projected Development Sites 1-6. Assuming an average household size of 2.77 persons per household, 28 people would potentially be displaced from the Projected Development Sites in the With-Action Scenario. The *CEQR Technical Manual* states that directly displacing 500 or more people may cause a direct residential displacement impact. As the number cited is below this threshold, there would not be a direct residential displacement impact in the With-Action Scenario and no further analysis is required.

Direct Business Displacement

The *CEQR Technical Manual* states that there may be a direct business displacement impact when any of the following is true:

- The project would directly displace more than 100 employees;
- The businesses to be displaced provide products or services essential to the local economy that would no longer be available in its "trade area" to local

residents or businesses due to the difficulty of either relocating the businesses or establishing new, comparable businesses; and/ or

- A category of businesses is the subject of other regulations or publicly adopted plans to preserve, enhance, or otherwise protect it.

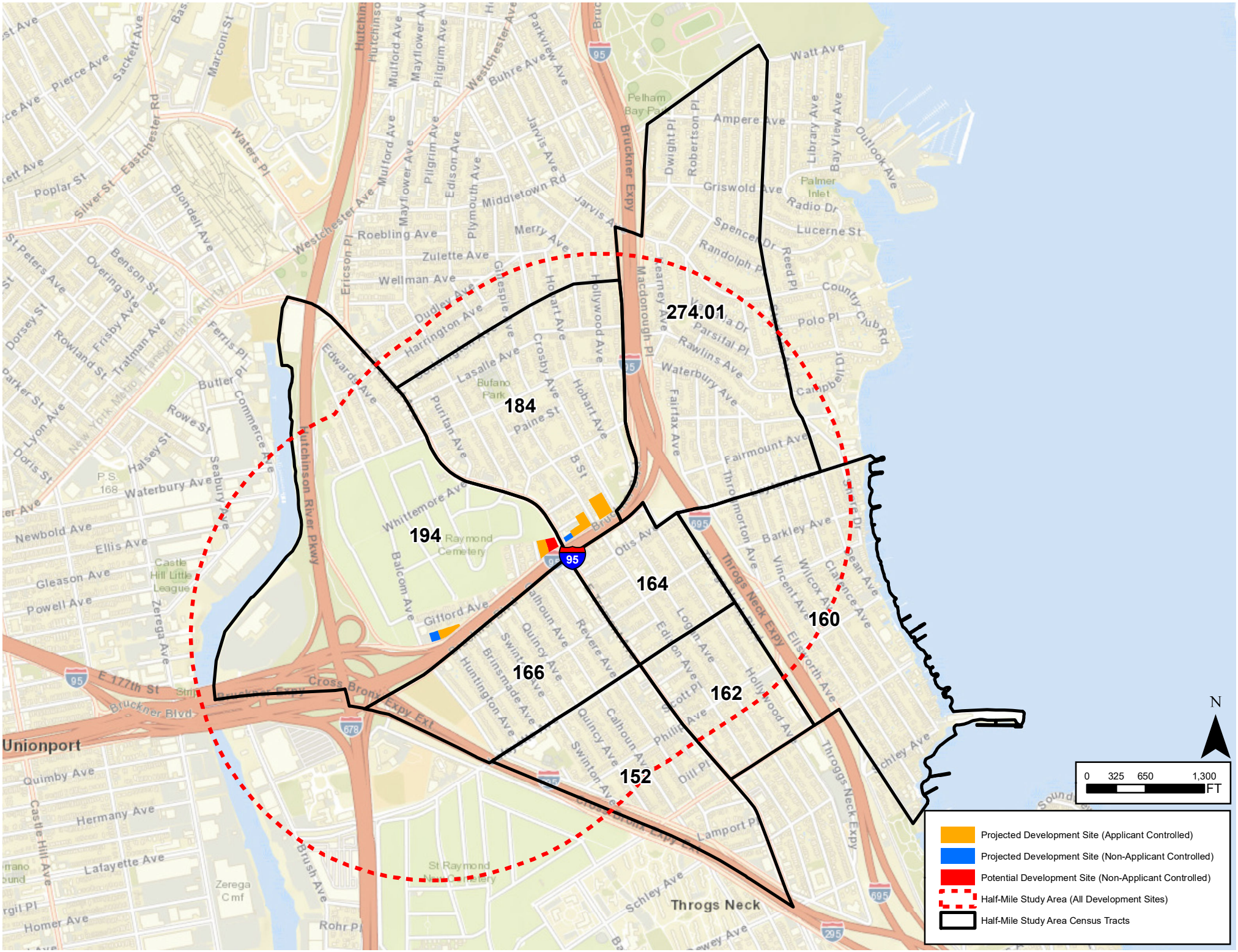
In terms of direct business displacement, the With-Action Scenario would displace an existing one-story 19,800 gsf commercial use—a Foodtown grocery store (including 52 parking spaces and two existing curb cuts)—on Projected Development Site 1. This use would be replaced in the Proposed Development with an expanded and modernized grocery store. Projected Development Site 2 is comprised of a number of vacant lots and three small commercial buildings containing a total of 5,757 gsf of commercial floor area. Projected Development Sites 3 and 4 are comprised solely of vacant lots, as well as one surface parking lot. Projected Development Sites 5 is comprised of 13,195 gsf of mixed commercial/ residential development across three sites. Projected Development Site 6 is comprised of small residential buildings and one 400 gsf parking facility on a 2,500 sf lot.

Overall, in the With-Action Scenario less than 100 employees would be potentially displaced. No business or service which provides products or services essential to the local economy which would no longer be available would be displaced. The existing Foodtown grocery store would be replaced by a similar and modernized facility. There are no regulations or publicly adopted plans to preserve, enhance, or otherwise protect any of the businesses that potentially would be displaced. As such, there would be no direct business displacement impacts related to the proposed project and no further analysis is required.

Indirect Residential Displacement

The *CEQR Technical Manual* states that "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. These rising rents 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.

As noted above, a 0.5-mile Study Area is appropriate for this project. The 0.5-mile Study Area has 21,840 residents in the Existing Conditions, 22,385 residents in the No-Action Scenario (assuming a conservative 0.5% annual growth factor through the build year) and 23,499 residents in the With-Action Scenario.* This represents a 4.98% increase. The dwelling unit characteristics and income distribution for the Study Area are illustrated in Tables 2-2, 2-3 and 2-4.



Bruckner Boulevard Rezoning

Figure 5-2 - Socioeconomic 0.50-Mile Study Area

Table 2-2 (Dwelling Unit Characteristics in the Study Area)

Census Tracts (Bronx)	Total Dwelling Units	Occupied Dwelling Units	Renter Occupied Dwelling Units	Owner Occupied Dwelling Units
152, 160, 162, 164, 166, 184, 194 and 274.01	8,784	8,269	3,591	4,678

Source: Population FactFinder, DCP (ACS 2014-2018 5-year Estimate)

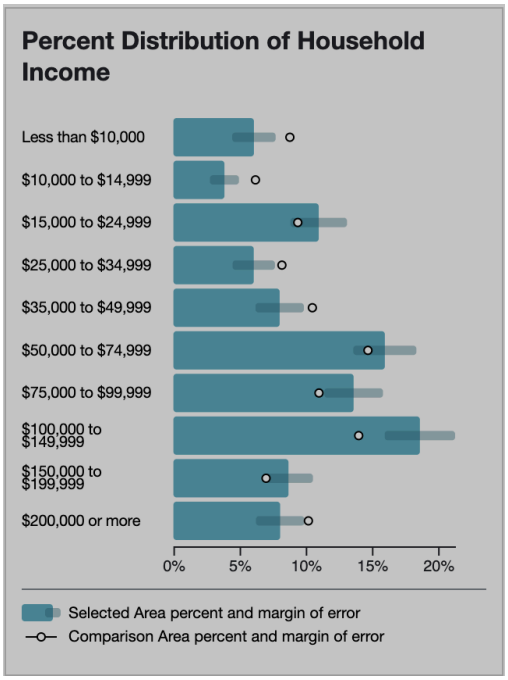
*Calculations based on 2010 Census Population (21,727), plus units completed since 2010 in the Study Area (42 units), multiplied by the average household size in the relevant Census Tracts (2.75), factoring in the rental vacancy rate (2.7 percent)

Table 2-3 (Income Distribution in the Study Area)

Census Tracts (Bronx)	Total Households	Percent earning less than $24,999	Percent earning $25,000-$49,999	Percent earning $50,000-$99,999	Percent earning $100,000-$199,999	Percent earning $200,000+
152, 160, 162, 164, 166, 184, 194 and 274.01	8,269	1,730 (21%)	1,166 (14.1%)	2,447 (29.6%)	2,259 (27.3%)	667 (8.1%)*

Source: Population FactFinder, DCP (ACS 2014-2018 5-year Estimate)
*Figure is approximate

Table 2-4 (Income Distribution in the Study Area) (Graph)



Source: Population FactFinder, DCP (ACS 2014-2018 5-year Estimate)

The Proposed Actions would introduce 402 incremental dwelling units to the Study Area, including MIH. The Proposed Actions would facilitate development in character with the neighborhood's existing socioeconomic conditions. The Proposed Actions would not introduce a substantial new population with incomes higher than the area average.

Furthermore, per the CEQR Technical Manual, populations changes of 5% or less within the Study Area "would not be expected to affect real estate market conditions." As the change between the No-Action and With-Action Scenarios in the 0.5-mile Study Area is 4.98%, no further analysis is necessary.

Indirect Business Displacement

The CEQR Technical Manual states that there may be an indirect business displacement iimpact when any of the following is true:

- The project would directly displace more than 100 employees;
- A commercial development contains more than 200,000 square feet of space that is "markedly different than existing uses";
- The project would add to, or create, a retail concentration that may draw a substantial amount of sales from existing businesses within the Study Area to the extent that certain categories of business close and vacancies in the area increase, thus resulting in a potential for disinvestment on local retail streets (i.e. retail market saturation); or
- Certain regulatory changes that could cause adverse impacts to specific industries.

In the With-Action Scenario, approximately 43 employees would potentially be displaced. This is below the 100-employee threshold established by the *CEQR Technical Manual.* The *CEQR Technical Manual* additionally states that "projects resulting in less than 200,000 square feet of retail on a single development site would not typically result in socioeconomic impacts," nor would projects under 200,000 square feet across numerous development sites. In the With-Action Scenario, an incremental 16,223 gsf of commercial space would be provided (56,671 gsf would be provided overall). The existing Foodtown grocery store would be replaced by a similar and modernized grocery store. Therefore, the proposed project would not have potential impacts related to retail market saturation or constitute a development greater than 200,000 square feet with uses "markedly different than existing uses." The proposed project would also not introduce any changes that would adversely impact a specific industry. As such, there would be no indirect business displacement impacts related to the proposed project and no further analysis is required.

Conclusion

Per the methodology described in the *CEQR Technical Manual*, in the With-Action Scenario there would be no potential significant adverse impacts to socioeconomic conditions. The proposed project would not lead to direct or indirect residential or business displacement in the Study Area. As such, no further analysis is required.

3. Community Facilities and Services

Introduction

According to the *CEQR Technical Manual,* community facilities are public or publicly funded schools, libraries, child care centers, health care facilities, and fire and police protection. The CEQR analysis looks at a project's potential effect on the services provided by these facilities. A project can affect facility services when it physically displaces or alters a community facility or causes a change in population that may affect the services delivered by a community facility, as might happen if a facility is already over-utilized, or if a project is large enough to create a demand that could not be met by the existing facility. The CEQR analysis examines potential impacts on existing facilities and generally focuses in detail on those services that the City is obligated to provide to any member of the community. These services also have precisely defined measures of utilization (e.g., enrollment/available seats for public education). The CEQR analysis is not a needs assessment for new or additional services. Service providers like schools or libraries conduct their own needs assessments on a continuing basis.

The CEQR analysis considers both *direct effects*--such as if a proposed project would displace existing community facilities--and *indirect effects*. An analysis of *indirect effects* considers whether the introduction of new residents to a given area may increase the utilization rate of a given community facility, thereby triggering a potential significant adverse impact.

Preliminary Assessment

Direct Effects

The Proposed Actions would not physically displace or affect any existing community facilities and would therefore have no direct effect on any community facilities or services. As such, further assessment of direct effects is not required.

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. The With-Action Scenario assumes the development of 402 incremental dwelling units on Projected Development Sites 1-6. No new residential development is anticipated to occur under the No-Action Scenario.

Public Schools

According to the *CEQR Technical Manual*, the introduction of 50 or more incremental students requires a detailed analysis of potential impacts to public elementary and middle schools. An increase of 150 incremental high school students would likewise warrant a detailed analysis. Table 6-1 (Incremental Public-School Students) summarizes the total students expected to be generated in the With-Action Scenario.

Table 6-1: Incremental Public School Students (Bronx CSD 8)

Incremental Dwelling Units	School Type	Public School Students per Unit[1]	Total Estimated Students	Analysis Threshold
402	Elementary	0.20	82	50
402	Middle School	0.09	35	
402	High School	0.13	53	150

[1] Based on SCA/DCP 2019 housing multiplier data; http://nycsca.org/Community/Capital-Plan-Reports-Data#Local-Law-167-Reports-352

Based on the SCA/ DCP housing multiplier for Bronx CSD 8, 82 students would be generated for elementary schools, 35 students for middle schools, and 53 students for high schools in the With-Action Scenario. In total, 117 estimated elementary/ middle school students would be generated in the With-Action Scenario. High schools do not exceed the threshold and no further analysis is required. A detailed analysis of the potential significant adverse impacts to elementary schools/ intermediate schools is included below.

Child Care Centers

According to the *CEQR Technical Manual*, the introduction of 20 or more eligible children under age 6 (based on the number of low or low/moderate income dwelling units) would warrant a detailed analysis. The minimum number of low or low/ moderate income dwelling units required in the Borough of the Bronx to trigger a detailed analysis is 141 dwelling units. The proposed development would provide 121 affordable dwelling units. As this number is below the threshold provided in the *CEQR Technical Manual,* no further analysis is required.

Libraries

According to the *CEQR Technical Manual*, a more than 5% increase in the ratio of residential units to library branches would warrant a detailed analysis. The minimum number of residential units required in the Borough of the Bronx to trigger a detailed analysis is 682 dwelling units. The With-Action Scenario would produce 402 incremental dwelling units. As this number is below the threshold provided in the *CEQR Technical Manual,* no further analysis is required.

Police/Fire Services and Health Care Services

According to the *CEQR Technical Manual*, a detailed analysis for police/fire services and health care services is only required if the With-Action Scenario would introduce a "sizeable new neighborhood, e.g. Hunter's Point South." The With-Action Scenario would introduce an incremental 402 dwelling units to an already built-up area and would not therefore create a "sizeable new neighborhood." As such, no further analysis is required.

Detailed Analysis

Public Schools

According to the *CEQR Technical Manual*, the study area for the analysis of elementary and intermediate schools should be the "sub-district" in which the project is located (see map below). The *CEQR Technical Manual* further states that the detailed analysis should include information on the relevant "sub-district" in the Existing Conditions, No-Action, and With-Action Scenarios.

Existing Conditions

The Project Area is located in Bronx Community School District (CSD) 8, Sub-district 3, which is considered to be the primary study area for the analysis of elementary and intermediate schools. Figure 6-1 (Public Schools Within CSD 8, Subdistrict 3) illustrates the locations of these schools.

Table 6-2 (Existing Elementary Schools) provides a list of the elementary and intermediate schools within this sub-district. The table identifies the schools by school number/name, address, and grades served, and includes the latest available enrollment and school capacity numbers.

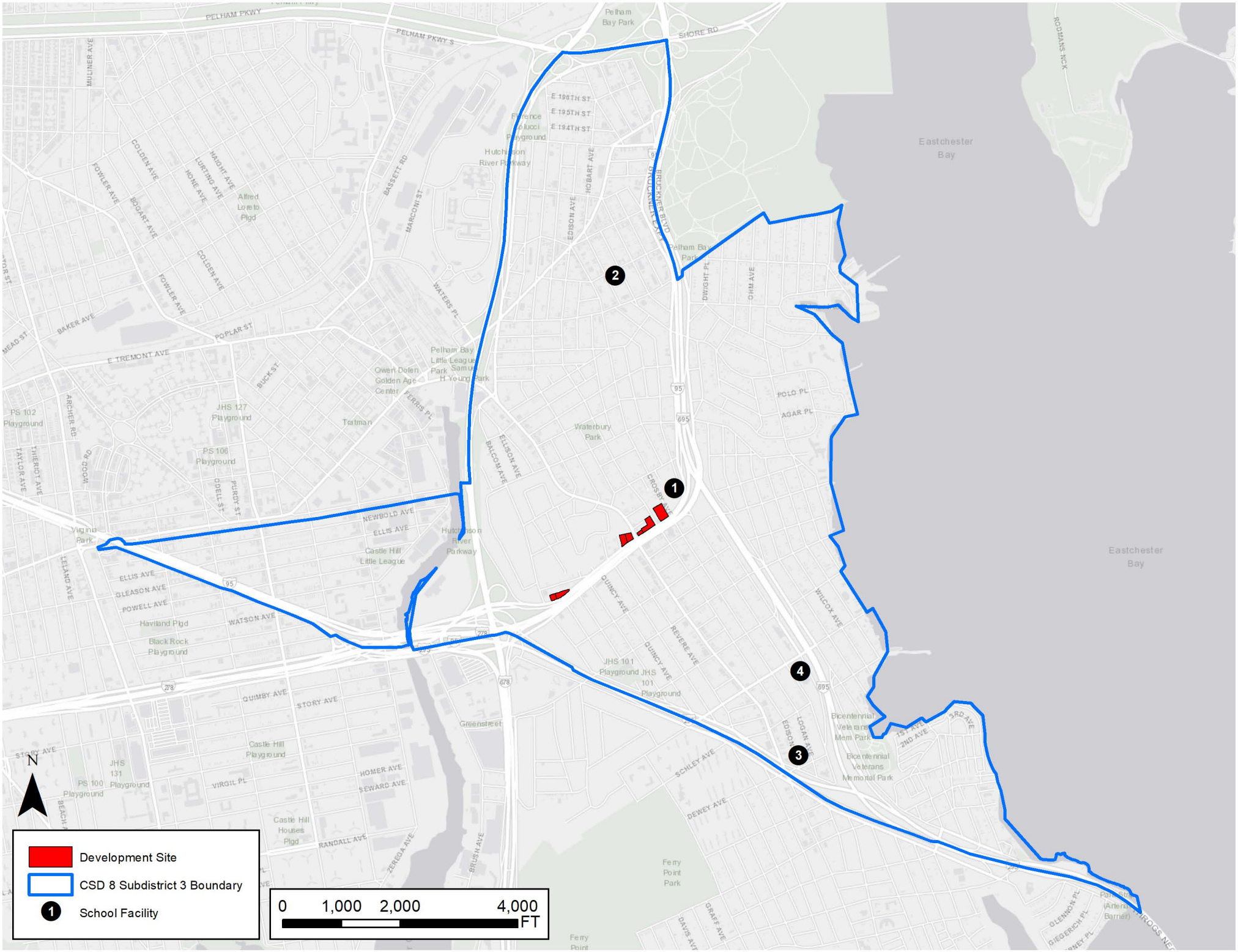
Elementary school capacity numbers are less than actual building capacities, as they assume a class size reduction of 20 students for kindergarten through the third grades, 28 students for grades 4 to 8, and 30 students for grades 9 to 12. This is defined as their "target capacity."

Table 6-2 indicates that the elementary schools within the sub-district are generally over capacity, with an average utilization rate of approximately 101%. Schools have enrollments ranging from 77% to 114% of target capacity at individual schools. The elementary schools within the sub-district have a total enrollment of 2,674 students relative to a target capacity of 2,640 seats, resulting in a shortfall of 34 seats.

Table 6-2: Existing Elementary Schools

Map ID	School Name	Address	Enroll-ment	Target Capacity	Available Seats	Utilizat-ion (%)
1	P.S. 14	3047 Bruckner Blvd.	581	756	175	77%
2	P.S. 71	3040 Roberts Ave.	914	801	--113	114%
3	P.S. 72	2951 Dewey Ave.	757	779	22	97%
4	Bronx Delta School (I.S. 192)	650 Hollywood Ave.	339	304	-35	112%
Totals (District 8 - Subdistrict 3)			2,674	2,640	-34	101%

* Transportable classroom capacity is excluded from the analysis



Bruckner Boulevard Rezoning

Figure 6-1 - CSD 8, Subdistrict 3 Elementary and Intermediate Schools Map

[1]Data based on SCA/DCP 2019 data; http://nycsca.org/Community/Capital-Plan-Reports-Data#Local-Law-167-Reports-352

Table 6-3 (Existing Intermediate Schools) indicates that the intermediate schools within the sub-district are generally under-capacity, with an average utilization rate of approximately 88%. Schools have enrollments ranging from 57% to 114% of target capacity at individual schools. The intermediate schools within the sub-district have a total enrollment of 1,291 students relative to a target capacity of 1,469 seats. This results in a surplus of 178 seats.

Table 6-3: Existing Intermediate Schools

Map ID	School Name	Address	Enroll-ment	Target Capacity	Available Seats	Utilizat-ion (%)
3	P.S. 71	3040 Roberts Ave.	524	459	-65	114%
4	I.S. 371 (I.S. 192)	650 Hollywood Ave.	378	413	35	92%
4	Mott Hall Community School (I.S. 192)	650 Hollywood Ave.	341	597	256	57%
Totals (District 8 - Subdistrict 3)			1,291	1,469	178	88%

* Transportable classroom capacity is excluded from the analysis
[1]Data based on SCA/DCP 2019 data; http://nycsca.org/Community/Capital-Plan-Reports-Data#Local-Law-167-Reports-352

No-Action Scenario

This section presents an analysis of public school enrollments (including pre-kindergarten enrollments) and capacities for the project build year in the No-Action Scenario. The analysis includes the primary study area of CSD 8, Sub-district 3 and is derived from Department of Education enrollment projections.

In the No-Action Scenario, it is assumed that no new residential development would occur in the Project Area by the project build year of 2025. However, based on the NYC School Construction Authority's (SCA) "Projected New Housing Starts" (a.k.a. Housing Pipeline) projections, additional student enrollments would occur in CSD 8, Sub-district 3 in the No-Action Scenario by the project build year. This information is presented in Table 6-4 below.

According to 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 Department of Education's (DOE) Five-Year Capital Plan. Per DOE's "Significant Changes in School Utilization" information, no future changes to elementary/intermediate school capacities are anticipated within the sub-district.

Table 6-4: No-Action Enrollment and Capacity

Study Area	Projected Build Year Enrollment	Students Introduced by No Action Development	Total No Action Enrollment	Capacity	Available Seats	Utilization (%)
Primary Schools						
D8, S3	3,731	20	3,751	2,640	-1111	142%
Intermediate Schools						
D8, S3	1,057	32	1,089	1,469	380	74%

[1] Data based on SCA/DCP 2019 data; http://nycsca.org/Community/Capital-Plan-Reports-Data#Local-Law-167-Reports-352

In the No-Action Scenario, the utilization rate for elementary schools would be 142%; for intermediate schools the utilization rate would be 74%. These figures represent a 31% increase and a 12% decrease in the respective utilization rates as compared to the Existing Conditions.

With-Action Scenario

According to the *CEQR Technical Manual,* a significant impact on schools may occur if the following two conditions are met:

- 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% in the With-Action Scenario, and if the project results in an increase of 5% or more in the collective utilization rate between the No-Action and With-Action Scenario.

In the With-Action Scenario, the utilization rate for elementary schools would increase to 145% and the utilization rate for intermediate schools would increase to 77%. The difference between the No-Action and With-Action Scenarios is approximately 3.11% and 2.38% for elementary and middle schools, respectively. The projected increase of elementary and middle school students resulting from the Proposed Actions would have a limited impact upon the utilization rates of the schools in the sub-district and would not exceed the impact threshold described in the *CEQR Technical Manual.*

Table 6-5: With Action Enrollment and Capacity

School Level	Projected Enrollment w/o Project	Students Generated by Project	Projected Enrollment w/ Project	Projected Capacity	Available Seats	Utilization with Project

Primary Schools	3,751	82	3,833	2,640	-1193	145% (3%)
Intermediate Schools	1,089	35	1,124	1,469	345	77% (2%)

It is expected that DOE will continue to monitor enrollment trends within Bronx Community School District (CSD) 8, Sub-district 3, as new housing units identified in the No-Action and With-Action conditions are developed and will plan for new capacity or administrative actions to accommodate new students accordingly.

Measures utilized by DOE to address increased elementary school enrollment could include: relocating administrative functions to other sites, thereby freeing up space for classrooms; making space within the study area available to DOE; restructuring or reprogramming existing school space within the district; or providing for new capacity by constructing a new school or an addition to an existing school. It should also be noted that the analysis of public elementary school conditions relies on conservative assumptions regarding both background growth in the student population and the development of new residential units in future conditions. Should this level of background growth and residential development in the district not occur, the shortage of elementary school seats in CSD 8, Sub-district 3 could be reduced or potentially eliminated.

While the utilization rate for elementary schools exceeds the 100% threshold in the With-Action Scenario, the Proposed Actions do not lead to an "increase of 5% or more in the utilization rate." As such, the With-Action Scenario would not be expected to result in a significant adverse impact on elementary or intermediate schools. No further analysis is required.

Conclusion

The With-Action Scenario would not physically displace or alter a community facility or cause a change that could affect the service delivery of a community facility. As such, there would be no direct effects on community facilities and services. A preliminary analysis of the indirect effects of the With-Action Scenario found that the applicable thresholds described in the *CEQR Technical Manual* for child care, libraries, police/ fire services and health care centers were not exceeded. Therefore, detailed analyses were not required. The preliminary analysis of the indirect effects of the With-Action Scenario relative to public schools found that a detailed analysis was required. This detailed analysis concluded that there would be no potential significant adverse impact to schools in the With-Action Scenario.

4. **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. According to the *CEQR Technical Manual,* 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.

Direct Effects

According to the *CEQR Technical Manual*, a proposed project may have a direct effect on an open space when it:

- Results in a physical loss of public open space (by encroaching on an open space or displacing an open space);
- Changes the use of an open space so that it no longer serves the same user population (e.g., elimination of playground equipment);
- Limits public access to an open space; or
- Causes increased noise or air pollutant emissions, odors, or shadows on public open space that would affect its usefulness, whether on a permanent or temporary basis.

As described in the Project Description, the Proposed Actions would introduce new development on six Projected Development Sites within the Project Area. None of these sites would replace publicly accessible open space, reconfigure existing open space, limit public access to open space, or cause increased noise or air pollutant emissions, odors, or shadows that would affect the usefulness of an open space.

The Project Area is adjacent to/or near resources including St. Raymond's Cemetery, the Hutchinson River Parkway, Bruckner Playground, and Bufano Park. However, as discussed in the Shadows section, no shadows from the Projected Developments would affect these open space resources. As such, no direct effects impact to open space would occur, and no further analysis is necessary.

Indirect Effects

According to the *CEQR Technical Manual*, if a project may add population to an area, demand for existing open space facilities would typically increase. Indirect effects may occur when the population generated by the proposed project would be large enough to noticeably diminish the ability of an area's open space to serve the future population. For the majority of projects, an assessment is conducted if the proposed project would generate more than 200 residents or 500 employees, or a similar number of other users (such as the visitor population that might be introduced by a large shopping area). However, the need for an open space assessment may vary in certain areas of the city that are considered either underserved or well-served by open space.

As the Proposed Actions would introduce more than 200 residents—but far less than 500 employees—to the Project Area, an assessment of the potential indirect effects on open space resources for residents is generally required. This assessment is included below. A quantitative analysis of indirect open space impacts for employees would not be required.

Preliminary Assessment

Existing Conditions

The first step in an open space analysis is to define and map a study area. Once the study area is defined, the following step is to determine which analysis is required by calculating the percentage change in the open space ratio between the No-Action and With-Action Scenarios.

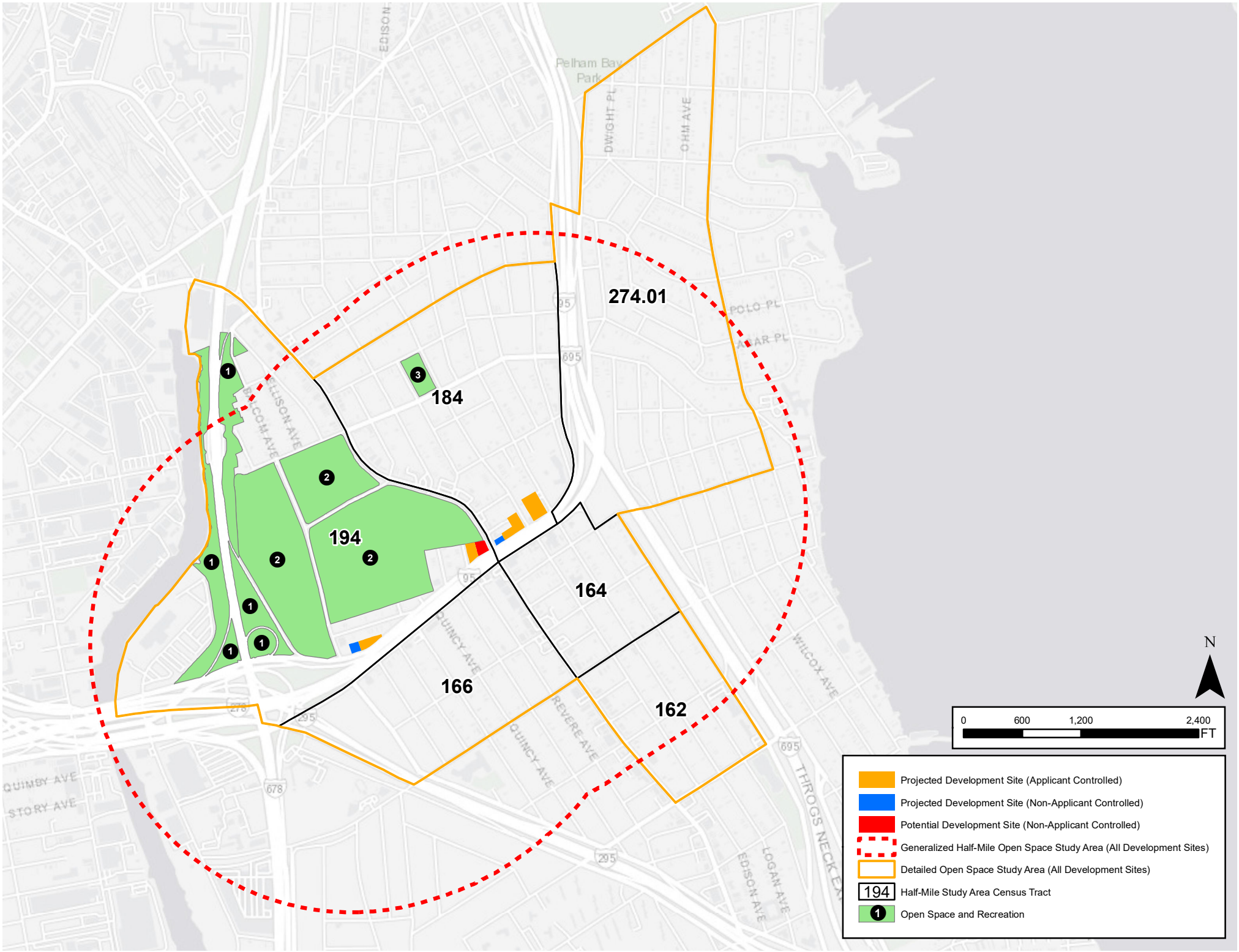
Study areas for open space are generally defined by a reasonable walking distance that users would travel to reach local open space and recreation areas—typically 0.5 miles for residential users and 0.25 miles from commercial projects with a worker population. However, the boundaries of the study area should reflect existing conditions and may be irregularly shaped.

For the Proposed Development, a 0.5-mile study area has been utilized, as shown in Figure 7-1 (Open Space Facilities and Census Tracts). According to the *CEQR Technical Manual*, the existing population for the study area should include all census tracts which are 50% or more within the study area. As such, Bronx Census Tracts 160, 162, 164, 166, 184, 194 and 274.01 have been included in this analysis. Table 7-1 (Existing Conditions - Study Area Population) displays the population in the study area.

Table 7-1
Existing Conditions - Study Area Population

Census Tract	Total Population
160	4,003
162	1,908
164	1,221
166	2,625
184	4,329
194	2,022
274.01	5,136
Study Area Total	**21,244**

Source: Population FactFinder, DCP; 2020 Census


274.01
184
194
164
166
162
N
0
600
1,200
2,400
FT
Projected Development Site (Applicant Controlled)
Projected Development Site (Non-Applicant Controlled)
Potential Development Site (Non-Applicant Controlled)
Generalized Half-Mile Open Space Study Area (All Development Sites)
Detailed Open Space Study Area (All Development Sites)
194 Half-Mile Study Area Census Tract
1 Open Space and Recreation

According to the *CEQR Technical Manual*, an initial quantitative open space assessment involves a determination of an area's open space ratio based on the population of the study area compared to the acreage of all publicly accessible open space resources within the study area. If an area's open space ratio decreases significantly as a result of a proposed action or if an area has a very low open space ratio, a more detailed assessment may be required.

The Appendix to the *CEQR Technical Manual* considers the Project Area to be an area neither under-served nor well-served by open space resources. Overall, the study area has an open space ratio of 1.188 acres of open space per 1,000 population (based on 25.232 acres of existing open space divided by the study area population of 21,244 persons). This ratio falls below the citywide average of 1.5 acres per 1,000 population, as well as the city's benchmark of 2.5 acres per 1,000 population. This 25.232 acres includes 16.828 acres of active open space and 8.404 acres of passive open space. The open space ratio for active open space is 0.792 acres per 1,000 population, while the open space ratio for passive open space is 0.396 acres per 1,000 population.

Table 7-2, Inventory of Open Space Resources shows existing open space resources in the study area. Per the *CEQR Technical Manual*, this analysis assumes that playgrounds, multipurpose play areas, and ballfields constitute 100% active space, while sitting areas constitute 100% passive space.

Table 7-2
Inventory of Open Space Resources

Map ID	Name/Location	Owner	Acres	Active Open Space	Passive Open Space	Features	Condition
1	Hutchinson River Parkway	NYC DPR / DOE	23.12*	15.4	7.712	Playground, walking paths, basketball courts	N/A
2	St. Raymond Cemetery	Archdiocese of New York	0.216**	0	0.216	Cemetery	N/A
3	Bufano Park	NYC DPR	1.904	1.428	0.476	Basketball **courts and playgrounds**	Acceptable (11/29/19)
	Total		25.232	16.828	8.404		

*Acreage only reflects that portion within the Detailed Open Space Study Area (the park is approximately 229.14 acres in its entirety) and those areas which are publicly accessible
**This acreage indicates the total area of walking paths within the cemetery. The entire cemetery area is approximately 70.287 acres.

No-Action Scenario

As stated above, the population of the 0.5-mile study area is 21,244. In order to account for background growth to the 2025 project build year, a conservative annual growth rate of 0.5% per year was applied to the population of the study area, for an incremental growth of 320 people. No new residential development would occur in the Project Area in the No-Action Scenario. Therefore, the base population is projected to be 21,564 residents, as shown in Table 7-3 below.

Table 7-3
No-Action – Study Area Population

Existing Conditions – Study Area Population	Increment	No-Action – Study Area Population (2025 build year)
21,244	320	21,564

[1]Assumes annual growth factor of 0.5% per year to the 2025 build year

By the 2025 project build year, there is no projected increase or decrease in the 25.232 acres of existing open space in the study area.

In the No-Action Scenario, based on the area population of 21,564 in the 2025 build year and the 25.232 acres of open space area, the open space ratio would be 1.170 acres per 1,000 population. Based on 16.828 acres of active open space, the No-Action Scenario active open space ratio would be 0.780 acres per 1,000 population. Based on 8.404 acres of passive open space, the No-Action Scenario passive open space ratio would be 0.390 acres per 1,000 population.

With-Action Scenario

As discussed above, the With-Action Scenario includes the development of 402 incremental dwelling units in the Project Area. It is assumed that these units would have an average household size of 2.70 persons per household. The estimated household sizes are drawn from 2020 Census Data available on Population FactFinder. As such, the total incremental population introduced in the With-Action Scenario would be 1,085 people. Adding this population to the No-Action Scenario population of 21,564 people would result in a total study area population of approximately 22,649 people in the With-Action Scenario, as shown in Table 7-4 below.

Table 7-4
With-Action – Study Area Population

No-Action – Study Area Population (2025 build year)	Increment	With-Action Population
21,564	1,085	22,649

No new publicly accessible open space or recreational resources are planned to be added to the study area in the With-Action Scenario. Therefore, in the build year it is assumed that the same amount of open space would remain in the study area.

Based on a population of 22,649 people and 25.232 acres of open space, the open space ratio in the With-Action Scenario would be 1.114 acres per 1,000 residents (with a 0.743 active open space ratio and a 0.371 passive open space ratio). This represents a decrease of approximately 4.79% in the open space ratio. Therefore, the community would continue to have a below average amount of open space compared to New York City as a whole, as well as the desired benchmark ratio (2.5 acres per 1,000 population) described in the *CEQR Technical Manual*.

Table 7-5 shows the calculation of open space ratios for the existing, No-Action, and With-Action Scenarios.

Table 7-5

Existing Conditions, No-Action, and With-Action Open Space Ratios

	Existing Conditions	No-Action	With-Action
Open Space (Acreage)	25.232 (16.828 active, 8.404 passive)	25.232 (16.828 active, 8.404 passive)	25.232 (16.828 active, 8.404 passive)
Study Area Population	21,244	21,564	22,649
Open Space Ratio (Acres/1,000 Residents)	1.188 (0.792 active, 0.396 passive)	1.170 (0.780 active, 0.390 passive)	1.114 (0.743 active, 0.371 passive) (4.79% decrease)

Impact Significance

The significance of a project's effects on an area's open spaces is determined using both qualitative and quantitative factors, as compared to the No-Action Scenario. The determination of significance is based upon the context of a project, including its location, the quality and quantity of the open space in the With-Action Scenario, the types of open space provided, and any new open space provided by the project.

If the open space ratio would increase or remain substantially the same in the With-Action Scenario compared to the No-Action Scenario, no further analysis of open space is generally needed (unless direct, qualitative changes to an open space may occur because of the project).

A decrease in the open space ratio approaching or exceeding 5% is generally considered to be substantial. However, if the existing open space ratio is low, even an open space ratio change of less than 1% may result in potential significant open space impacts. In the present project, the decrease in the open space ratio is 4.79%. Given additional qualitative and quantitative factors (described below), this decrease would not result in a potential significant adverse impact to open space resources.

Quantitative Impact

The *CEQR Technical Manual* considers an action to result in significant impacts to open space resources if it would directly displace or alter an existing resource to the detriment of its users. The Projected Development would not result in the direct displacement of any parklands or recreational facilities. The Proposed Actions would, however, reduce the open space ratio by 4.79%. This decrease however is below the 5% threshold noted in the *CEQR Technical Manual* and is not—compared to other community districts in New York City—an extremely low ratio. Therefore, based on *CEQR Technical Manual* criteria, the proposed project would not result in a significant adverse impact on open space resources. A detailed open space assessment is not required as it has been determined that the project would not decrease the open space ratio by more than 5%.

In addition, open space resources would be provided on Projected Development Sites 1-3, as detailed in Table 7-6 below. This open space would serve to meet at least a portion of the active and passive open space needs of the projects' residents. The development on Projected Development Site 1 would contain an outdoor recreation deck suspended over the building's first floor. This outdoor recreation desk would be approximately 7,000 sf, landscaped and contain active (incl. recreational exercise, sports equipment and facilities (ex. bocce court, etc.)) and passive recreational amenities for building residents (please see Open Space – Figure 1, below). Projected Development Site 2 would have landscaped areas at its front entrance, including seating. Projected Development Site 3 would also have an outdoor recreation area over the building's first floor. This outdoor recreation deck would be approximately 5,000 sf, landscaped and contain active and passive recreational amenities for building residents (please see Open Space – Figure 2, below).

Table 7-6

Proposed Open Spaces on Projected Development Sites 1-3

	Feature
Projected Development Site 1	Outdoor recreation area over first floor (**See** Open Space Figure 1)
Projected Development Site 2	Landscaped entrance area at ground level
Projected Development Site 1	Outdoor recreation area over first floor (**See** Open Space Figure 2)

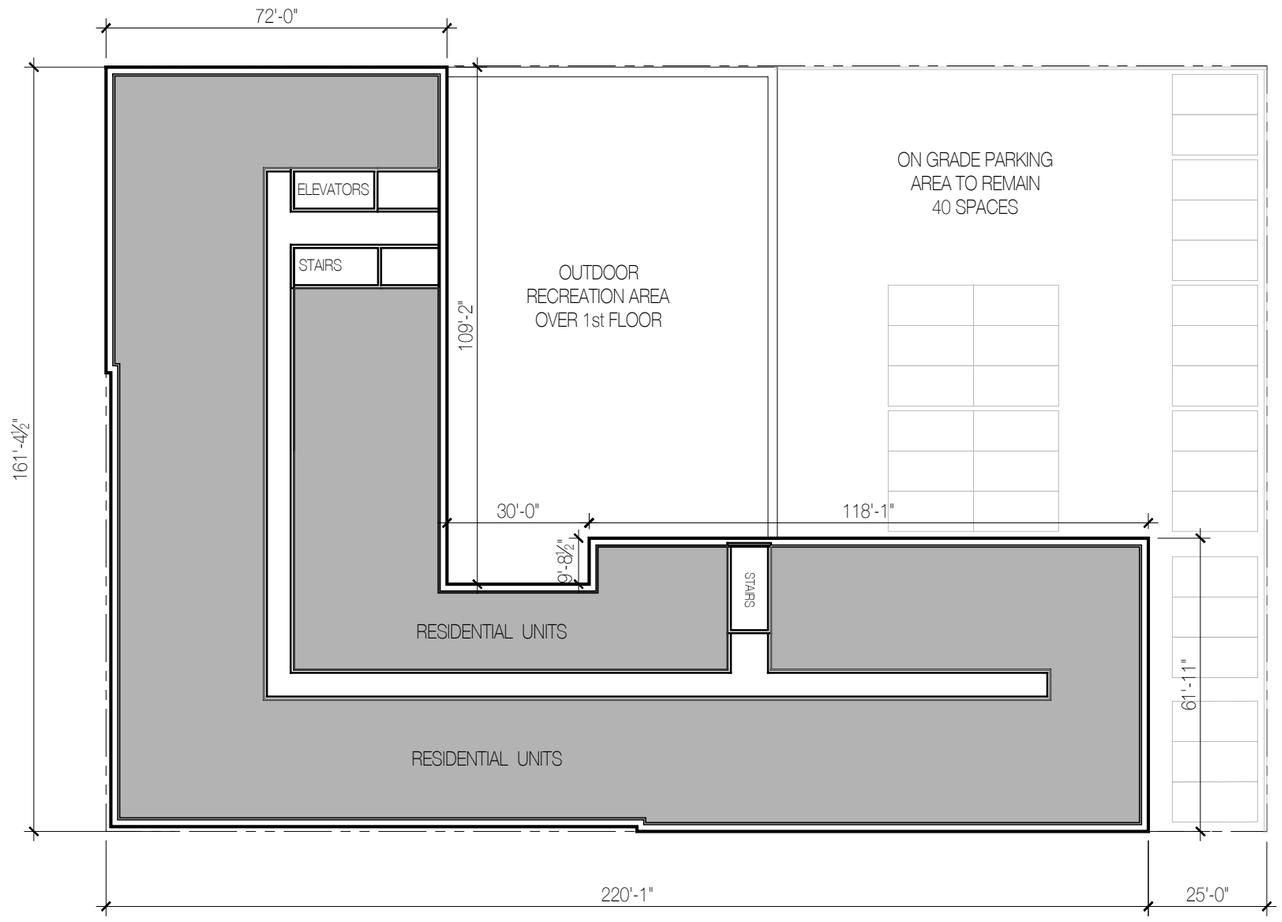
Qualitative Impact

The *CEQR Technical Manual* considers an action to result in significant impacts to open space resources if it would significantly increase shadows, noise, air pollutant emissions, or odors on existing public open spaces resources compared to No-Action Scenario. The Projected Development would not increase such impacts on existing public open spaces resources. Based on *CEQR Technical Manual* criteria and as explained further in the Shadows section below, there is no Shadows impact on existing open space resources.

Conclusion

In the With-Action Scenario, there would be no direct impacts on any open space resources. Despite the limited decrease in the With-Action Scenario open space ratio, the Proposed Actions would not cause any indirect impacts to open space resources. As such, the Proposed Actions would not cause a potentially significant adverse impact and no further analysis is required.

Open Space - Figure 1



SCHEMATIC 2ND-6TH FLOOR PLAN

1/32" = 1'-0"

PROPOSED NEW
DEVELOPMENT FOR:

2045 BRUCKNER BLVD.

BRONX, NY

BLOCK: 5312 LOT: 1

ARCHITECT:

AUFGANG ARCHITECTS LLC
74 LAFAYETTE AVE.
SUFFERN, NY
INFO@AUFGANG.COM 845.368.0004

AUFGANG ARCHITECTS

CLIENT:

DATE	SUBMISSIONS / REVISIONS
02/25/21	REVISED AS PER DCP COMMENTS
05/01/19	PROGRESS SET
11/14/18	PROGRESS SET

SHEET TITLE:

SCHEMATIC
2ND-6TH
FLOOR PLAN



ISSUE DATE: 11/14/18

PROJECT NO: P-1851

EXISTING ZONE: R4A W / C1-2

PROPOSED ZONE: R6A W / C2-4 (MIH)

SCALE:

SHEET NO: 07 OF 08

DRAWING NO: Z-106.00

Open Space - Figure 2

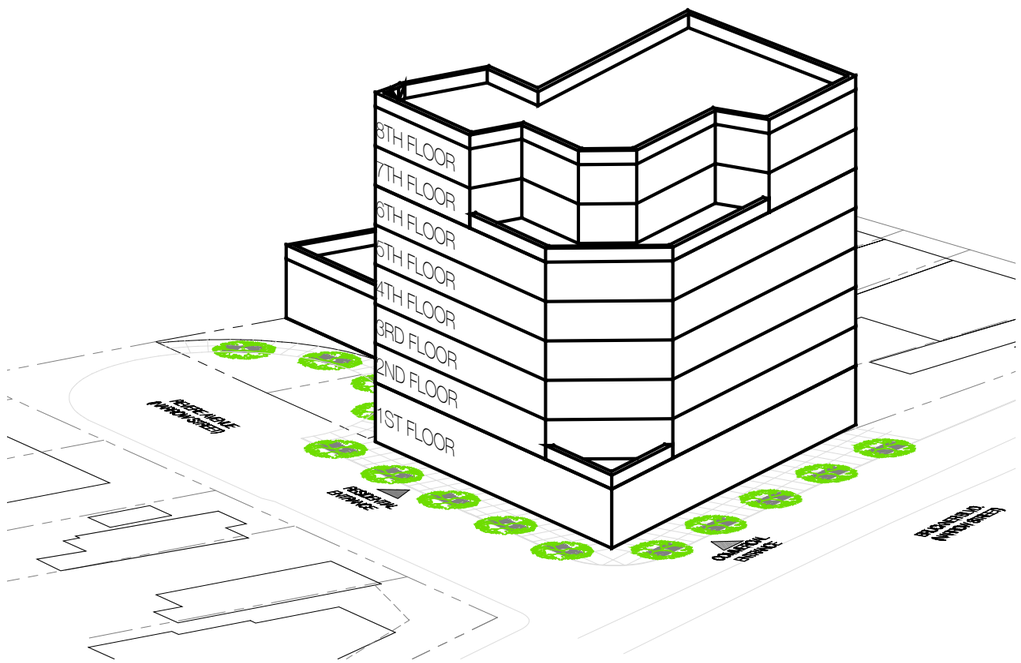


SCHEMATIC PLOT PLAN N
SCALE: 1/32" = 1'-0"

ALL FIGURES ARE PRELIMINARY AND APPROXIMATE. LOT AREAS AND EXISTING FLOOR AREAS ARE SUBJECT TO SURVEY CONFIRMATION. FINAL AREAS AND LOT ANGLES TO BE VERIFIED BY COMPLETE SURVEY

SITE DATA		LIST OF REQUIRED ACTIONS			QUALITY HOUSING PROGRAM
Block:	5306		CONST. CLASS 1-B 2HR RATED		ZONING MAP AMENDMENTS
Lots:	8,18,19,22 & 23		BUILDING CODE OCCUPANCY GROUP R-2		FRESH ZONE
Street Address:	REVERE AVENUE		BUILDING TO BE FULLY SPRINKLERED		LOWER DENSITY GROWTH MANAGEMENT AREA
Existing Zoning:	R4-1		BUILDING TO BE DESIGNED		
Proposed Zoning:	R6A / C2-4		PER 2014 NYC BUILDING CODE		
Community District:	10, BRONX		PER NYC ENERGY CODE		
Zoning Section Map:	4b				
Zoning Lot Area	17,640.44				

ZR - Section	Title	Descriotion	Permitted	Ex.to Remain	Proposed	Total	Compliance / Notes
22-10	USES						
32-00		USE GROUP 1, 2, 3,4,5,6, 6c,7,8,9 & 14			2 & 6		OK
23-011	QUALITY HOUSING PROGRAM	R6A / C2-4			YES		OK
23-32	MIN LOT AREA	1,700					
		CORNER LOT	9980				
		INTERIOR LOT	7,660				OK
	FAR	R6A / C2-4					
23-154		RESIDENTIAL	3.6		2.84	3.60	OK
33-121		COMMERCIAL	2.0		0.76		
	FLOOR AREA						
		RESIDENTIAL					
23-154		17,640.44 X 3.6 =	63505.58		50,069		OK
		COMMERCIAL					
33-121		17,640.44 X 2.0 =	35280.88		13,436		
	TOTAL FLOOR AREA	TOTAL DEVELOPMENT					
23-154		17,640.44 X 3.6 =	63505.58		63505		OK
23-153	LOT COVERAGE						
		CORNER LOT 100%	17,640.44		7,524		
		INTERIOR LOT 65%	11466.29		234		OK
	YARD REGULATION						
23-45		FRONT YARD	NONE		NONE		OK
23-46		SIDE YARD	NONE		NONE		OK
23-47		REAR YARD	30'-0"		80'-4 3/4"		OK
23-532		REQUIRED REAR YARD EQUIVALENT					OK
23-531, 33-281		EXCEPTED TROUGH LOTS	N/A		N/A		OK
	HEIGHT & SETBACKS	R6A / C2-4					
23-664		MIN BASE	40'-0"		63'-9"		OK
23-664		MAX BASE	65'-0"		63'-9"		OK
23-664		MAX BUILDING HEIGHT	85'-0" / 8		83'-9" / 8		OK
	SETBACKS						
23-662		SETBACK @ WIDE STREETS	10'-0"		N/A		OK
23-662		SETBACK @ NARROW STREETS	15'-0"		15'-0"		OK
23-22	DENSITY						
		R6A / C2-4 680	73		64		OK
	ACCESSORY OFF-STREET PARKING						
		R6A / C2-4					
25-251		RESIDENTIAL 25% =	16		16	29	OK
36-21		COMMERCIAL 1x1000 =	13		13		OK
25-51	PARKING LOCATION						
		ON SITE			YES		OK
	BICYCLE PARKING						
36-711		RESIDENTIAL 50% =	32		32	33	OK
		COMMERCIAL 1X10000	1		1		OK
PARKING CALCULATION	29	PARKING SPACES REQUIRED AT CELLAR	14000	SQ. FT. OF SURFACE PARKING	475		SQ. FT. X CAR



PROPOSED NEW DEVELOPMENT FOR:

REVERE AVENUE

BRONX, NY

BLOCK: 5306 LOT: 8,18,19,22 & 23

ARCHITECT:

AUFGANG ARCHITECTS LLC
74 LAFAYETTE AVE.
SUFFERN, NY
INFO@AUFGANG.COM 845.368.0004

AUFGANG ARCHITECTS

CLIENT:

DATE	SUBMISSIONS / REVISIONS
05/30/19	PROGRESS SET

SHEET TITLE:

SCHEMATIC PLOT PLAN, ZONING & MASSING



ISSUE DATE: 05/28/19
PROJECT NO: P-19160
EXISTING ZONING: R4-1
PROPOSED ZONING: R6A / C2-4
SCALE:
SHEET NO: 01 OF 01
DRAWING NO: Z-100.00

8. Shadows

Introduction

Per the *CEQR Technical Manual,* the purpose of a shadows analysis is to assess whether new structures may cast shadows on sunlight sensitive publicly accessible resources or other resources of concern such as natural resources, and to assess the significance of their impact.

Sunlight sensitive resources of concern include Open Space Resources (see Open Space above), Architectural Resources (specifically features of landmark or historic structures that depend on direct sunlight), Natural Resources (see Natural Resources below), and "Green-streets".

Threshold Assessment

Per the *CEQR Technical Manual*, a shadows assessment is required if proposed actions would lead to the development of a structure at least 50 feet tall. Shorter structures that might cast substantial new shadows on an adjacent park, historic resource, or an important natural resource also require an analysis. The tallest building height on any of the Proposed and Projected Development Sites described above is 85 feet tall (95 feet with bulkhead and parapet wall). The Proposed and Projected Development Sites are adjacent to the Hutchinson River Parkway, Miele Park, Schneider Sampson Square, a portion of a "Green-street", and St. Raymond's Cemetery.

Preliminary Screening Assessment

Per the *CEQR Technical Manual*, a preliminary assessment of shadows impact determines whether shadows from a proposed or projected development could reach a sunlight sensitive resource.

Per the *CEQR Technical Manual*, the first step in conducting the screening assessment is to develop a base map that illustrates the proposed site location in relationship to the sunlight-sensitive resources. This base map is incorporated in **Figures 8-1a and 8-1b: Tier I and Tier II Shadows Screening Assessment**. The figures demonstrate that the Proposed Development Sites have the potential to cast shadows on five open space resources. There are no sunlight sensitive natural resources or sunlight sensitive archaeological resources that could be affected by shadows cast by development on the Proposed and Projected Development Sites. A Tier I shadow assessment is required.

Tier I Assessment

Per the *CEQR Technical Manual*, a Tier I shadow assessment creates a longest shadow study area. The longest shadow study area encompasses the Project Area and a perimeter around the area's boundary with a radius equal to the longest shadow that could be cast by the proposed structure. The longest shadow cast by the Proposed and Projected Development is 4.3 times the height of the tallest structure: 408.5 Feet. **Figures 8-1a and**

8-1b: Tier I and Tier II Shadows Screening Assessment demonstrate that the following sunlight sensitive resources have the potential to receive shadows from the Proposed and Projected Developments:

- Hutchinson River Parkway
- Miele Park
- Schneider Sampson Square
- a portion of a "Green-street" located between Hollywood Avenue and the Bruckner Expressway
- St. Raymond's Cemetery

All of the sunlight-sensitive resources identified in the Preliminary Screening Assessment lay within the longest shadow study. A Tier II assessment is required.

Tier II Assessment

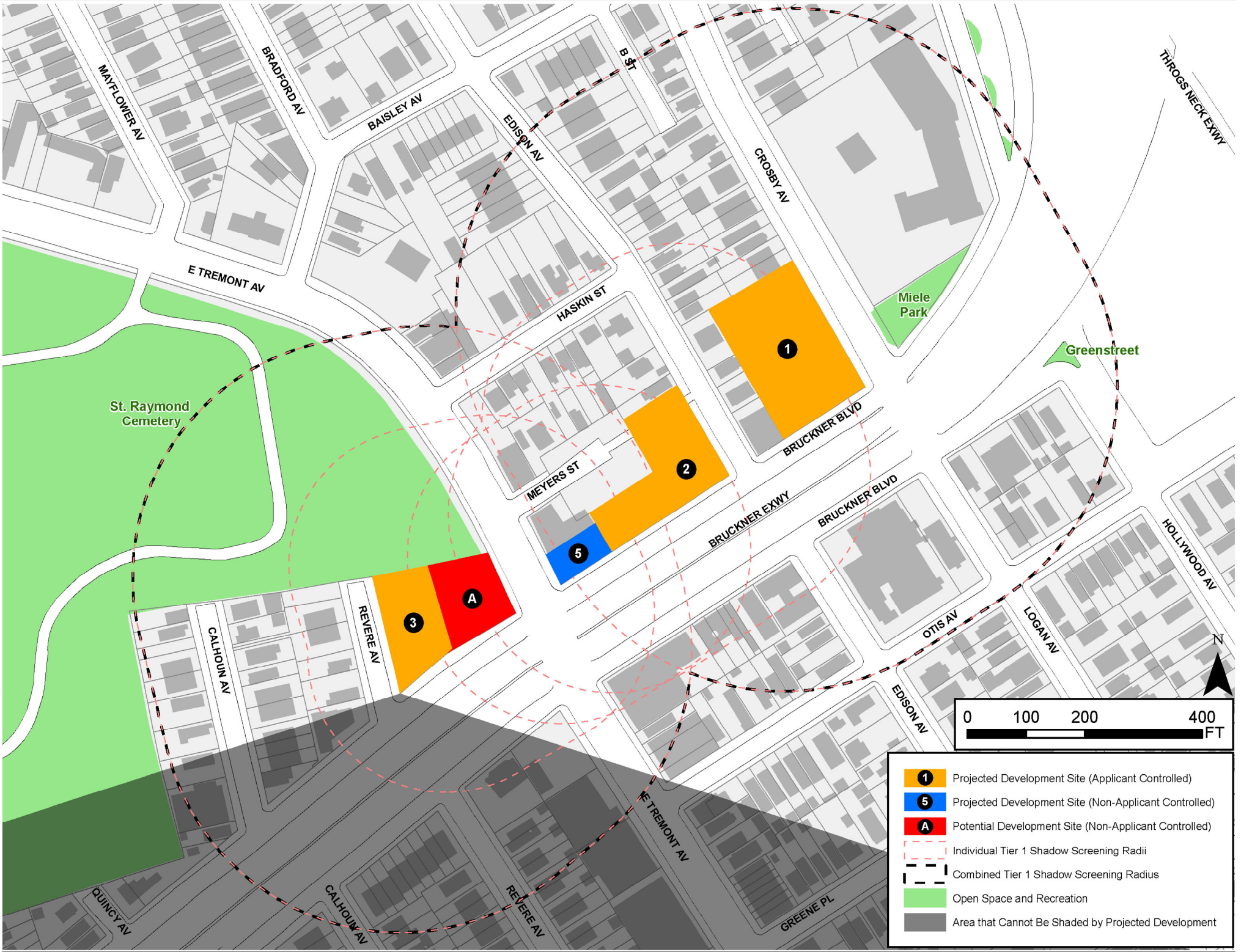
Per the *CEQR Technical Manual*, because of the path that the sun travels across the sky in the northern hemisphere, no shadow can be cast in a triangular area between -108 and +108 degrees from true north of any given project site. **Figures 8-1a and 8-1b: Tier I and Tier II Shadows Screening Assessment** demonstrate that the following sunlight sensitive resources have the potential to receive shadows from the Proposed and Potential Developments:

- Hutchinson River Parkway
- Miele Park
- Schneider Sampson Square
- a portion of a "Green-street" located between Hollywood Avenue and the Bruckner Expressway
- St. Raymond's Cemetery

All five sunlight-sensitive resources identified in the Preliminary Screening Assessment continue to have the potential to receive shadows from the Proposed Development (including a small sliver of Hutchinson River Parkway). A Tier III assessment is required.

Tier III Assessment

The Tier 3 screening assessment is used to determine whether shadows resulting from the proposed and potential projects can reach a sunlight-sensitive resource by introducing the use of three-dimensional computer modeling software with the capacity to accurately calculate shadow patterns. Because the sun rises in the east and travels across the southern part of the sky to set in the west, a project's earliest shadows would be cast almost directly westward. Throughout the day, they would shift clockwise (moving northwest, then north, then northeast) until sunset, when they would fall east. Also, because the direction and length of shadows vary throughout the course of the day and the time of the year, the assessment of shadows is focused on representative times of the year relevant to the use and function of the identified sunlight-sensitive resources.


MAYFLOWER AV
BRADFORD AV
BAISLEY AV
EDISON AV
B ST
CROSBY AV
THROGS NECK EXWY
E TREMONT AV
HASKIN ST
Miele Park
Greenstreet
St. Raymond Cemetery
1
2
5
A
3
MEYERS ST
BRUCKNER BLVD
BRUCKNER EXWY
BRUCKNER BLVD
HOLLYWOOD AV
OTIS AV
LOGAN AV
EDISON AV
REVERE AV
CALHOUN AV
E TREMONT AV
QUINCY AV
CALHOUN AV
REVERE AV
GREENE PL
N
0 100 200 400 FT
Projected Development Site (Applicant Controlled)
Projected Development Site (Non-Applicant Controlled)
Potential Development Site (Non-Applicant Controlled)
Individual Tier 1 Shadow Screening Radii
Combined Tier 1 Shadow Screening Radius
Open Space and Recreation
Area that Cannot Be Shaded by Projected Development

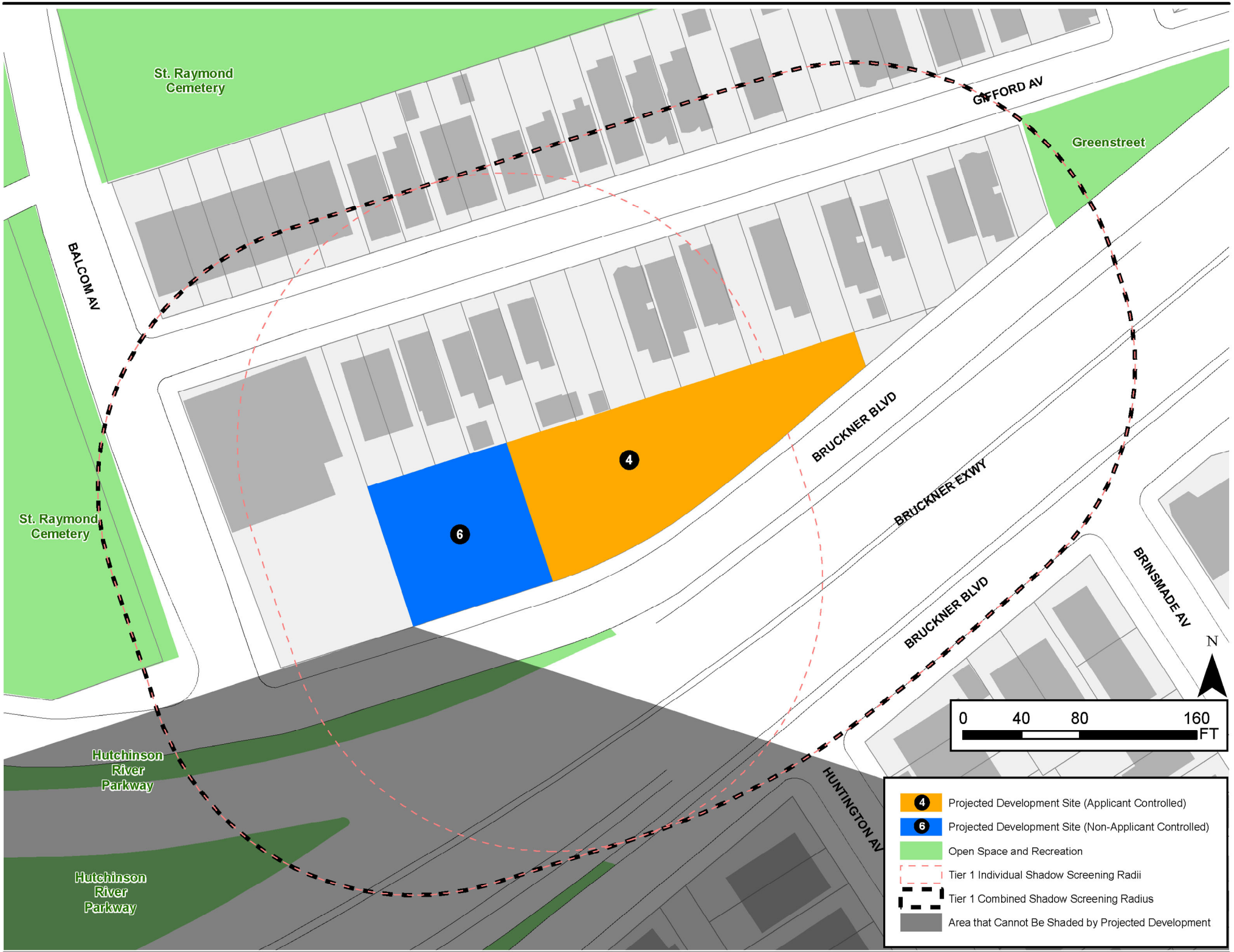


Figure 8-1b - Tiers 1 and 2 Shadows Screening Assessment (Southwestern Development Site Cluster)

Per the *CEQR Technical Manual,* the months of interest for an open space resource encompass the growing season (March through October) and one month between November and February (usually December) representing a cold-weather month. Representative days for the growing season are generally the March 21 vernal equinox (or the September 21 autumnal equinox, which is approximately the same), the June 21 summer solstice, and a spring or summer day halfway between the summer solstice and equinoxes such as May 6 or August 6 (which are approximately the same). For the cold weather months, the December 21 winter solstice is usually included to demonstrate conditions during cold weather when people who do use open spaces rely most heavily on available sunlight for warmth. Project shadows that reach a sunlight-sensitive resource during any of these months could be of concern. These months and days are also used for assessing shadows on historic or natural sunlight-sensitive resources as they represent the full range of possible shadows.

The Proposed and Projected Development Sites described above includes six mixed use residential/ commercial buildings and one residential building ranging in heights from 33 to 85 feet (43 to 95 feet with bulkhead). The following figures demonstrate the extent of the shadows cast by the Proposed and Potential Development Sites throughout the year:

As demonstrated in **Figures 8-2a and 8-3a: Tier III Screening Assessment for Dec. 21st**, the Proposed and Potential Developments will cast shadows on St. Raymond's Cemetery and Miele Park, two open space resources. Shadows cast by the Proposed and Projected Developments are not expected to reach Schneider Sampson Square, the Hutchinson River Parkway, nor the above-mentioned portion of a "Green-street" located between Hollywood Avenue and the Bruckner Expressway

As demonstrated in **Figures 8-2b and 8-3b: Tier III Screening Assessment for Mar. 21st**, the Proposed and Potential Developments will cast shadows on St. Raymond's Cemetery and Miele Park, two open space resources. Shadows cast by the Proposed and Projected Developments are not expected to reach Schneider Sampson Square, the Hutchinson River Parkway, nor the above-mentioned portion of a "Green-street" located between Hollywood Avenue and the Bruckner Expressway

As demonstrated in **Figures 8-2c and 8-3c: Tier III Screening Assessment for May. 6th**, the Proposed and Potential Developments will cast shadows on St. Raymond's Cemetery and Miele Park, two open space resources. Shadows cast by the Proposed and Projected Developments are not expected to reach Schneider Sampson Square, the Hutchinson River Parkway, nor the above-mentioned portion of a "Green-street" located between Hollywood Avenue and the Bruckner Expressway

As demonstrated in **Figures 8-2d and 8-3d: Tier III Screening Assessment for Jun. 21st**, the Proposed and Potential Developments will cast shadows on St. Raymond's Cemetery, Miele Park, and the Hutchinson River Parkway. These are all open space resources. Shadows cast by the Proposed and Projected Developments are not expected to reach

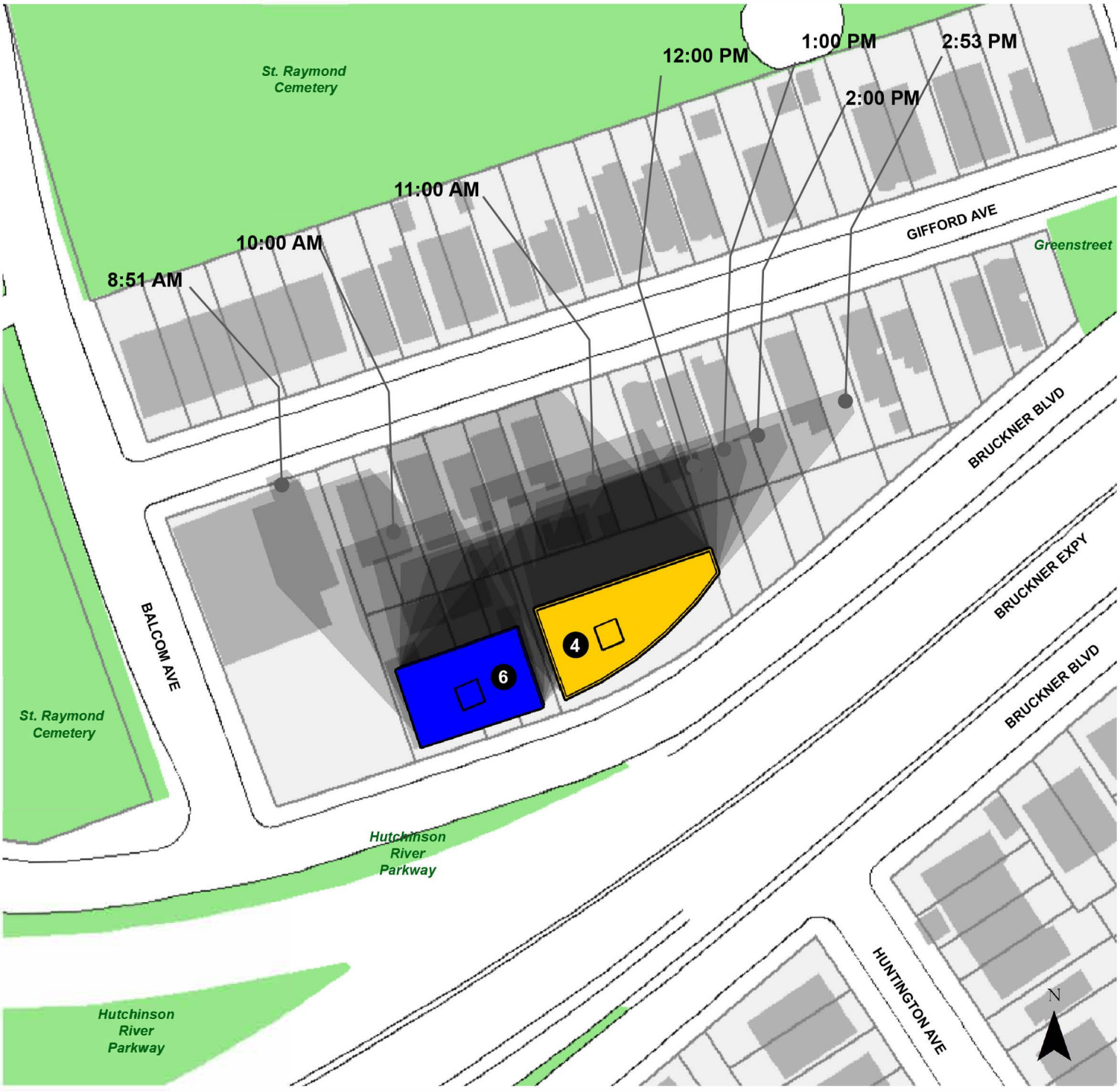
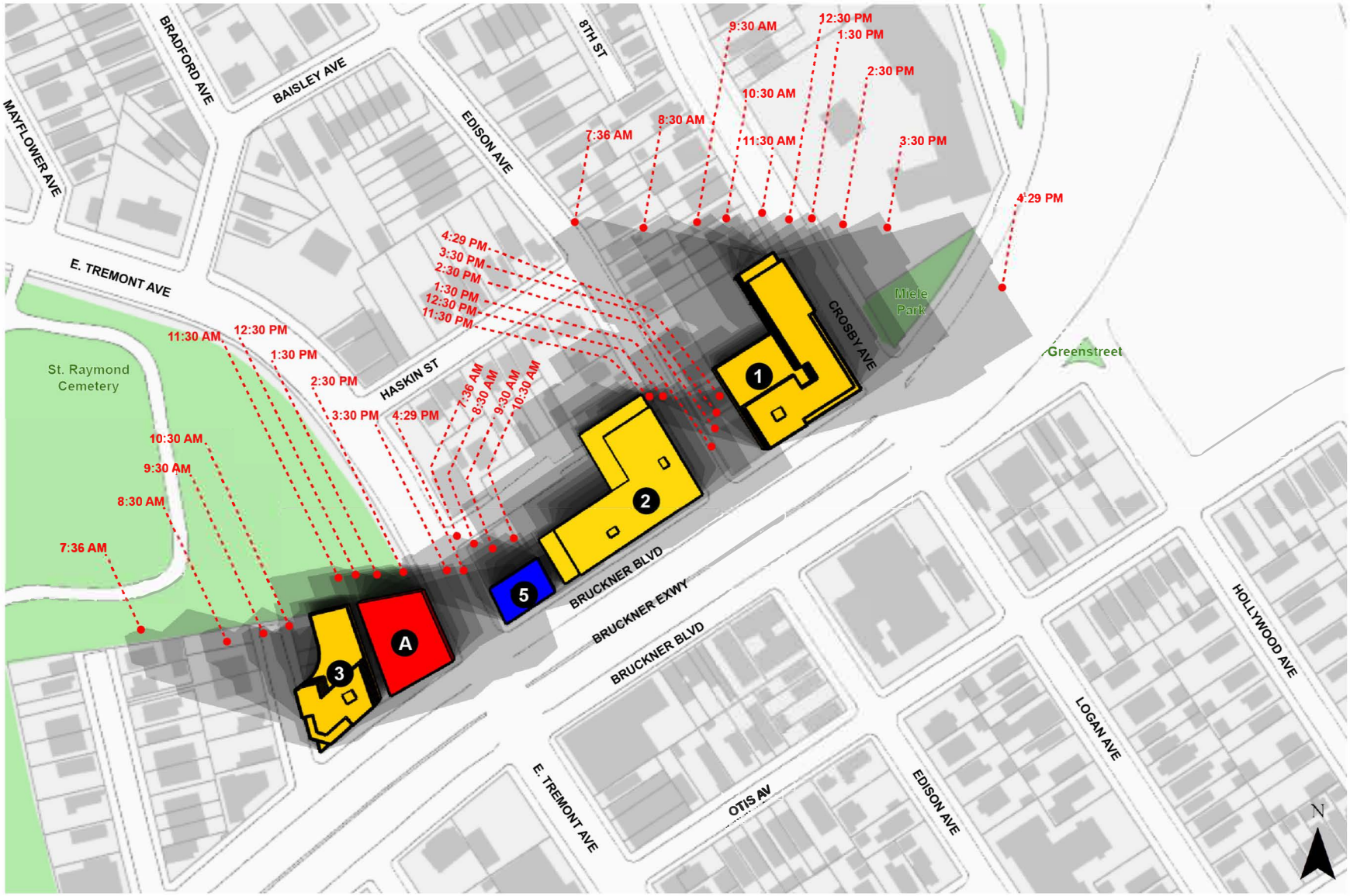


Figure 8-2b: Tier III Screening Assessment for Dec. 21st



1 Projected Development Site (Applicant Controlled)

5 Projected Development Site (Non-Applicant Controlled)

A Projected Development Site (Applicant Controlled)

Projected Tier 3 Shadow

Open Space and Recreation

Figure 8-3a: Tier III Screening Assessment for Mar. 21st

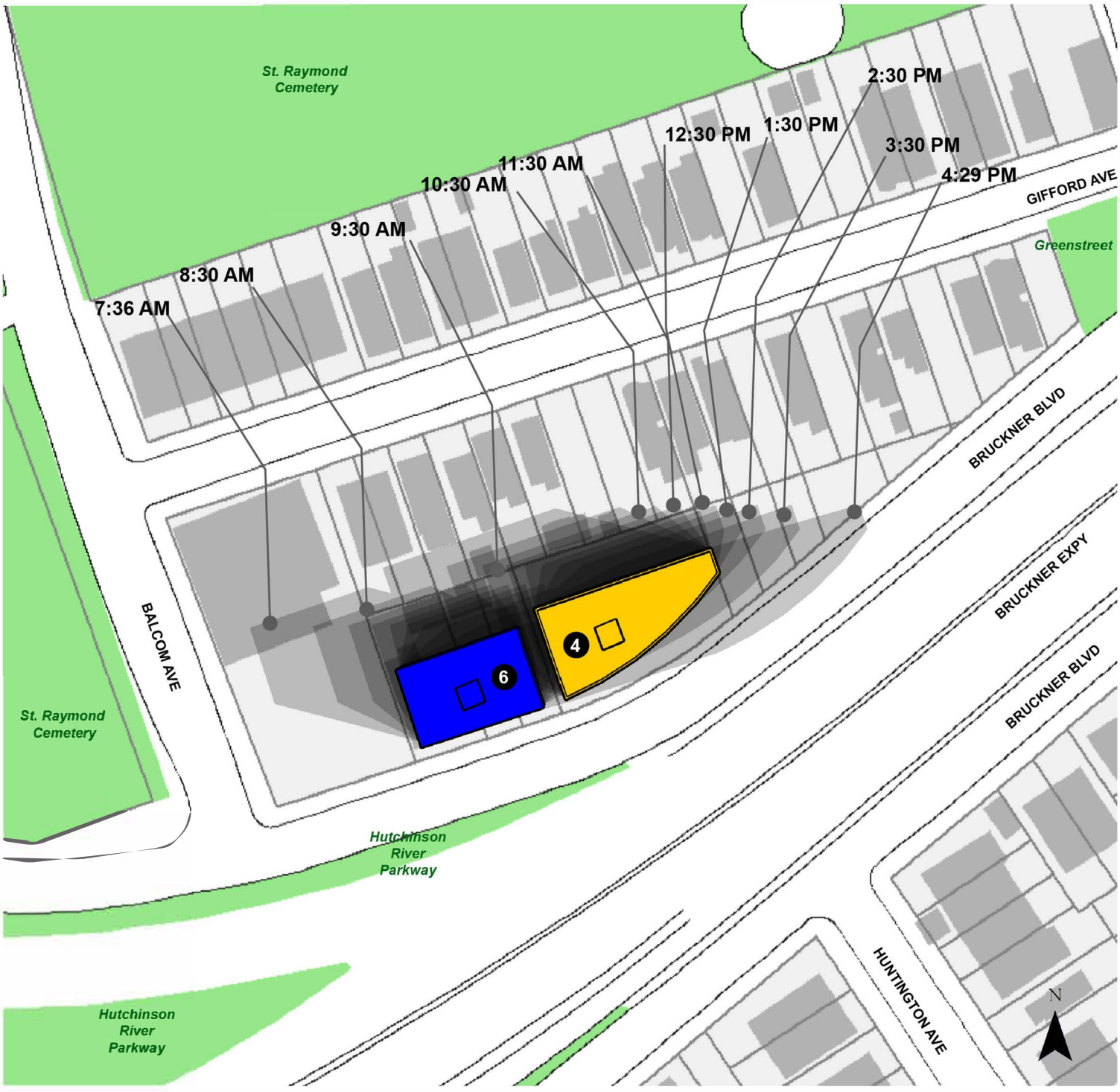
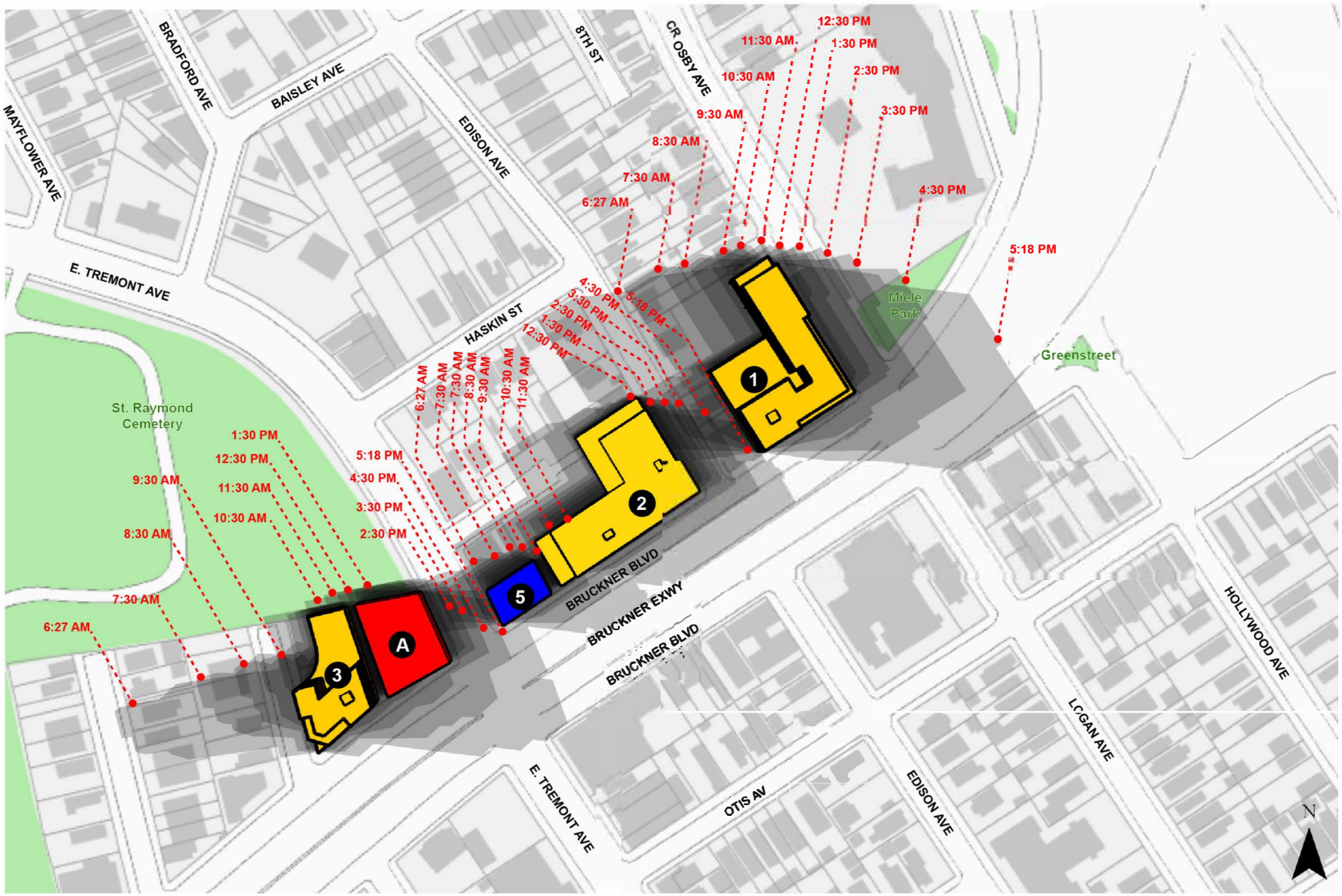


Figure 8-3b: Tier III Screening Assessment for Mar. 21st



1 Projected Development Site (Applicant Controlled)

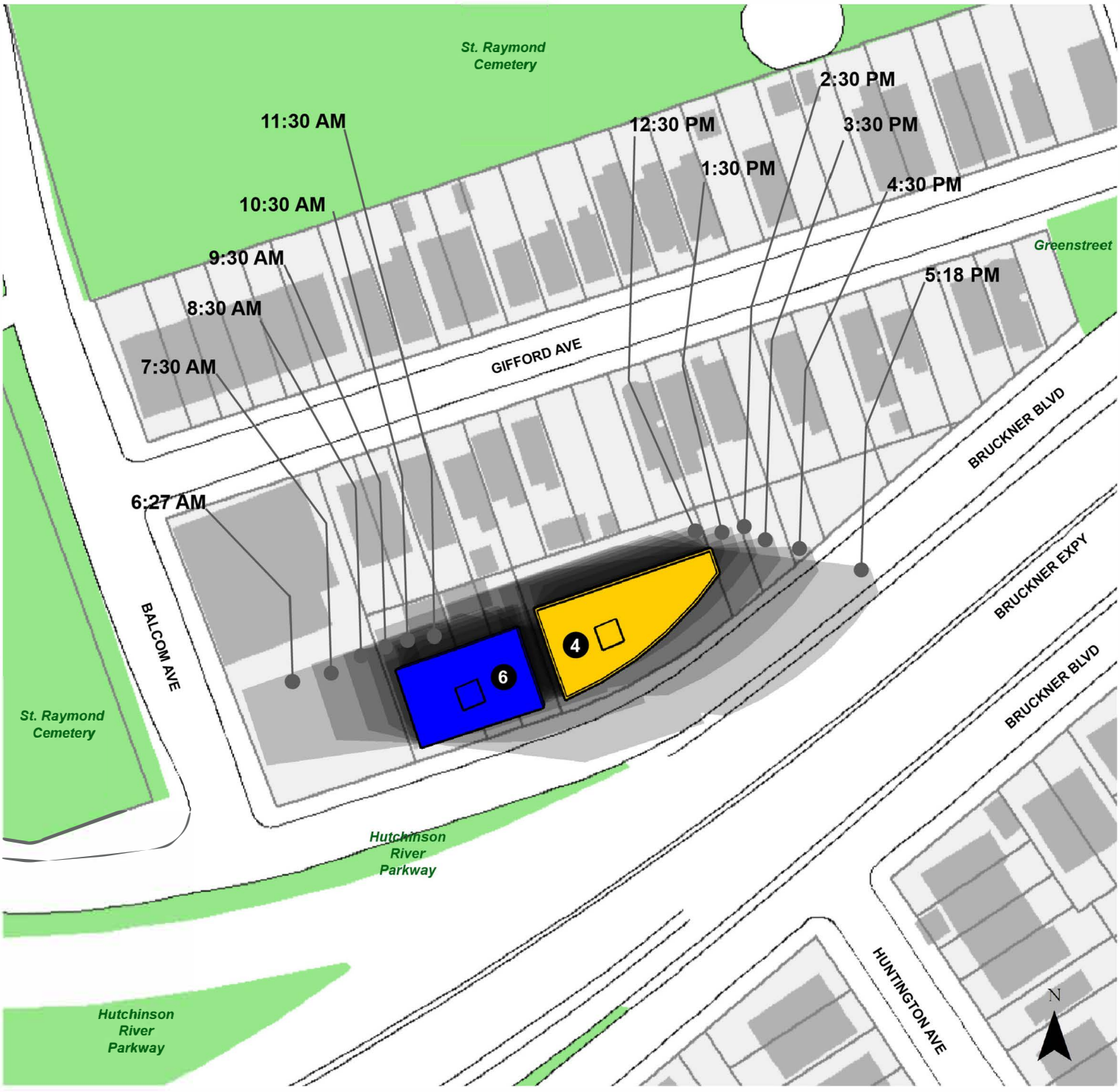
5 Projected Development Site (Non-Applicant Controlled)

A Projected Development Site (Applicant Controlled)

Projected Tier 3 Shadow

Open Space and Recreation

Figure 8-2c: Tier III Screening Assessment for May 6th



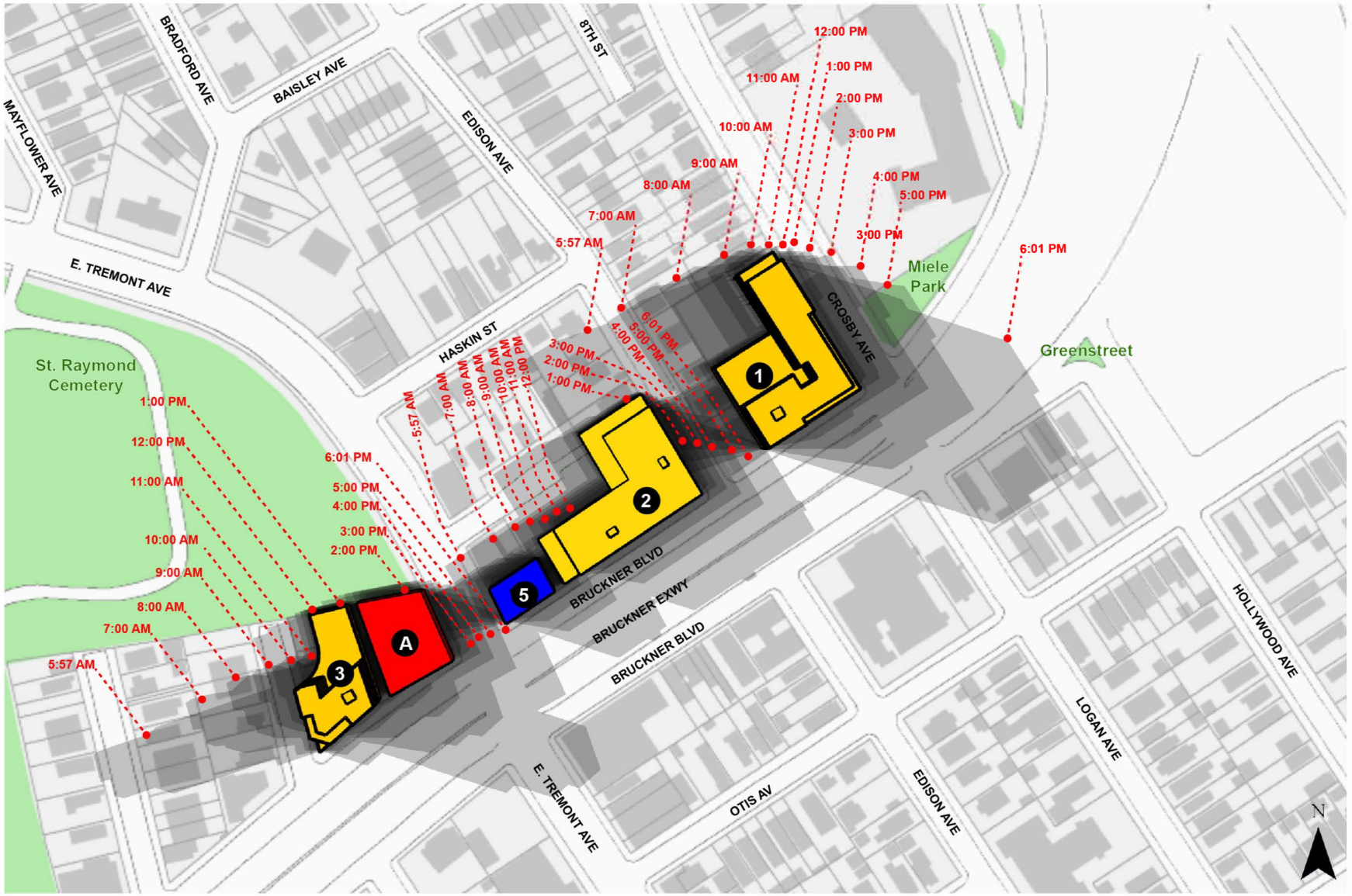
4 Projected Development Site (Applicant Controlled)

6 Projected Development Site (Non-Applicant Controlled)

Projected Tier 3 Shadow

Open Space and Recreation

Figure 8-3c: Tier III Screening Assessment for May. 6th



1 Projected Development Site (Applicant Controlled)

5 Projected Development Site (Non-Applicant Controlled)

A Projected Development Site (Applicant Controlled)

Projected Tier 3 Shadow

Open Space and Recreation

Figure 8-2d: Tier III Screening Assessment for Jun. 21st

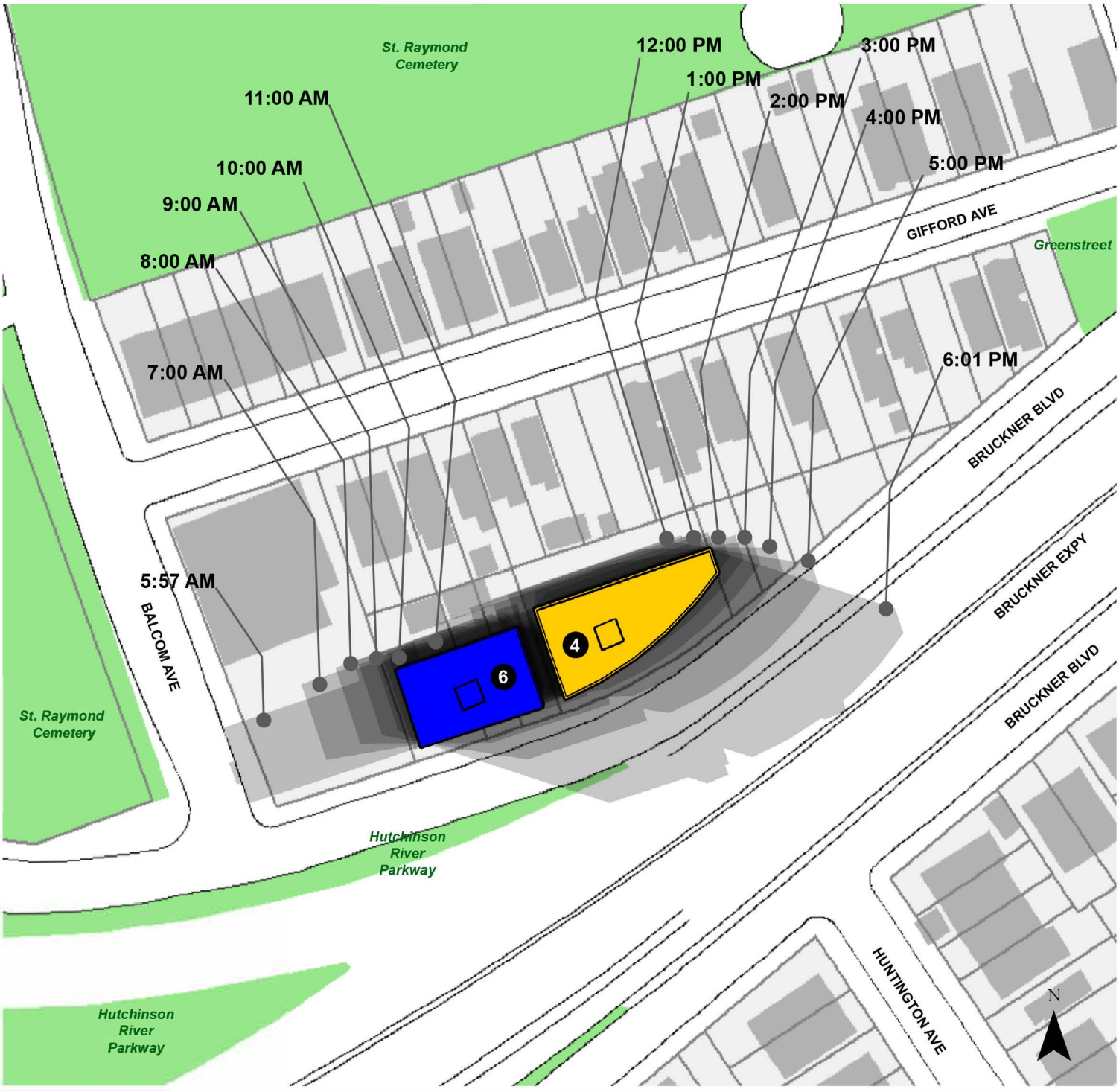


Figure 8-3d: Tier III Screening Assessment for Jun. 21st



1 Projected Development Site (Applicant Controlled)

5 Projected Development Site (Non-Applicant Controlled)

A Projected Development Site (Applicant Controlled)

Projected Tier 3 Shadow

Open Space and Recreation

Figure 8-2a: Tier III Screening Assessment for Dec. 21st

Schneider Sampson Square, nor the above-mentioned portion of a "Green-street" located between Hollywood Avenue and the Bruckner Expressway

As the Proposed Development has the potential to cast shadows on one or more of the analysis days on three sunlight sensitive resources (the Hutchinson River Parkway, St. Raymond's Cemetery, and Miele Park) a detailed analysis of shadows is included below.

Detailed Analysis

Per the *CEQR Technical Manual*, a detailed shadow analysis is warranted when the screening analyses described above does not rule out the possibility that project-generated shadows would reach any sunlight-sensitive resources. The detailed shadow analysis establishes a baseline condition (No-Action Scenario), which is compared to the scenario resulting from the proposed project (With-Action Scenario). This comparison illustrates the shadows cast by existing or future buildings and distinguishes the additional (incremental) shadow cast by the project. The purpose of the detailed analysis is to determine the extent and duration of new incremental shadows that fall on a sunlight-sensitive resource as a result of the proposed project. To evaluate the extent and duration of new shadow that would be cast on a sunlight-sensitive resource as a result of the proposed project, shadows that would exist in the No-Action Scenario are also defined. Because existing buildings may already cast shadows on a sunlight-sensitive resource (or a future building could be expected to cast shadows), the proposed project may not result in additional, or incremental, shadows upon that resource.

No-Action Scenario

As discussed above, if the Proposed Actions are not approved, development is not anticipated to occur on any of the Proposed or Projected Development Sites. These are anticipated to remain in their existing conditions.

With-Action Scenario

If the Proposed Actions are approved, development is expected to occur on all of the Projected and Potential Development Sites. The tallest building height on any of the Proposed and Projected Development Sites described above is 85 feet tall (95 feet with the bulkhead and parapet wall).

St. Raymond's Cemetery

As demonstrated in **Figures 8-4a and 8-4b: St. Raymond's Cemetery Impact Assessment for Dec. 21st**, Proposed Development Site 3 and Potential Development Site A would cast shadows on St. Raymond's Cemetery, an open space resource. Shadows would enter the easternmost corner of the cemetery at 8:51 am and remain in the cemetery until 2:53 pm. The duration of the shadows is 6 hours and 2 minutes. The portion of the cemetery covered by incremental shadows created by the Proposed Development is less than 5%.

The walking paths, which are the only portions of the cemetery that can be counted as passive open space, are not affected by the shadows cast.

As demonstrated in **Figures 8-5a, 8-5b, and 8-5c: St. Raymond's Cemetery Impact Assessment for March 21st**, Proposed Development Site 3 and Potential Development Site A would cast shadows on St. Raymond Cemetery, an open space resource. Shadows would enter the easternmost corner of the cemetery at 7:36 am and remain in the cemetery until 4:29 pm. The duration of the shadows is 8 hours and 53 minutes. The portion of the cemetery covered by incremental shadows created by the Proposed Development is less than 1%. The walking paths, which are the only portions of the cemetery that can be counted as passive open space , are not affected by the shadows cast.

As demonstrated in **Figures 8-6a, 8-6b, and 8-6c: St. Raymond's Cemetery Impact Assessment for May 6th**, Proposed Development Site 3 and Potential Development Site A would cast shadows on St. Raymond's Cemetery, an open space resource. Shadows would enter the easternmost corner of the cemetery at 7:36 am and remain in the cemetery until 4:29 pm. The duration of the shadows is 8 hours and 48 minutes. The portion of the cemetery covered by incremental shadows created by the Proposed Development is less than 1%. The walking paths, which are the only portions of the cemetery that can be counted as passive open space , are not affected by the shadows cast.

As demonstrated in **Figures 8-7a and 8-7b: St. Raymond's Cemetery Impact Assessment for June 21st**, Proposed Development Site 3 and Potential Development Site A would cast shadows on St. Raymond's Cemetery, an open space resource. Shadows would enter the easternmost corner of the cemetery at 6:53 am and remain in the cemetery until 2:34 pm. The duration of the shadows is 7 hours and 41 minutes. The portion of the cemetery covered by incremental shadows created by the Proposed Development is less than 1%. The walking paths, which are the only portions of the cemetery that can be counted as passive open space, are not affected by the shadows cast.

Miele Park

As demonstrated in **Figures 8-8a and 8-8b: Miele Park Impact Assessment for Dec. 21st**, Proposed Development Site 1 would cast shadows on Miele Park, an open space resource. Shadows would enter the park at 12:18 pm and remain in the park until 2:53 pm. The duration of the shadows (2 hours and 35 minutes) is not anticipated to significantly affect the open space resource. The incremental shadows created by the Proposed Development would cover between 5 and 90% of the park during this period.

As demonstrated in **Figures 8-9a and 8-9b: Miele Park Impact Assessment for Mar. 21st**, Proposed Development Site 1 would cast shadows on Miele Park, an open space resource. Shadows would enter the park at 1:38 pm and remain in the park until 4:29 pm. The duration of the shadows (2 hours and 51 minutes) is not anticipated to

significantly affect the open space resource. The incremental shadows created by the Proposed Development would cover between 5 and 100% of the park during this period.

As demonstrated in **Figures 8-10a and 8-10b: Miele Park Impact Assessment for May 6th**, Proposed Development Site 1 would cast shadows on Miele Park, an open space resource. Shadows would enter the park at 2:43 pm and remain in the park until 5:18 pm. The duration of the shadows (2 hours and 35 minutes) is not anticipated to significantly affect the open space resource. The incremental shadows created by the Proposed Development would cover between 5 and 50% of the park during this period.

As demonstrated in **Figures 8-10a and 8-10b: Miele Park Impact Assessment for June 21st**, Proposed Development Site 1 would cast shadows on Miele Park, an open space resource. Shadows would enter the park at 3:00 pm and remain in the park until 6:00 pm. The duration of the shadows (3 hours and 3 minutes) is not anticipated to significantly affect the open space resource. The incremental shadows created by the Proposed Development would cover between 5 and 30% of the park during this period.

Hutchinson River Parkway

As demonstrated in **Figures 8-3d** above, Proposed Development Site 6 would cast a shadow on a portion of the Hutchinson River Parkway. The area in question is a landscaped highway median (not publicly accessible) and represents less than 1% of the area of the open space resource. The shadow cast on the June 21st analysis day would enter the landscaped median at 5:45 pm and exit at 6:01 pm. The duration of the shadow is 16 minutes. Further analysis is not warranted.

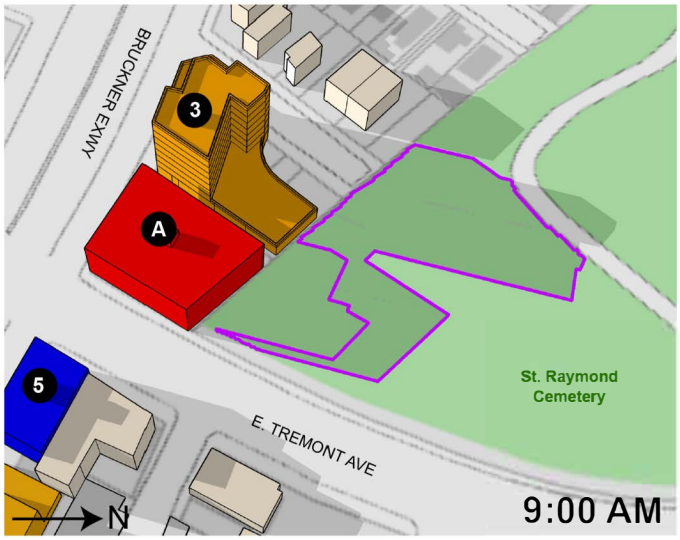
Conclusion

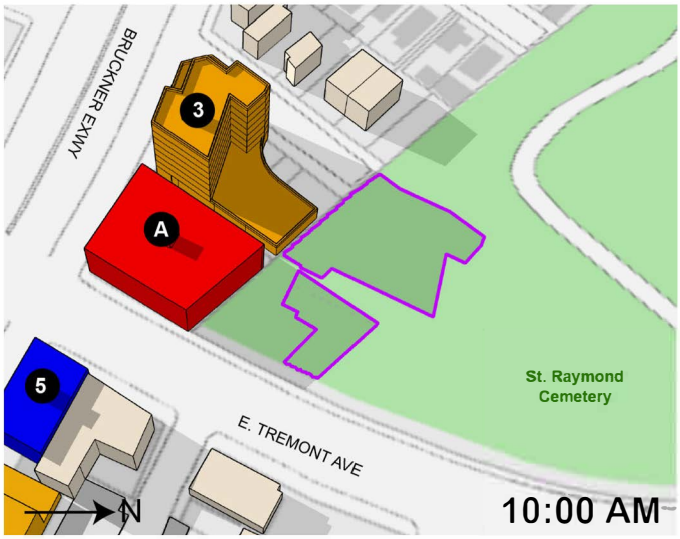
As discussed above in the detailed analysis, the Proposed and Projected Developments are expected to cast shadows on St. Raymond's Cemetery, Miele Park and the Hutchinson River Parkway. The shadows created by the Proposed and Projected Developments are not anticipated to result in significant adverse impacts to these open space resources. Shadows on these resources would cover a limited area, particularly on St. Raymond's Cemetery, where no shadows will be cast on walking paths (**See** Table 1, below). Shadows on Miele Park and the Hutchinson River Parkway are limited in duration and are not anticipated to affect sunlight sensitive plantings, On each relevant analysis day the resources will still receive four to six hours of sunlight in all areas. The development facilitated by the Proposed Actions is not expected to result in the potential for significant adverse shadows impacts.

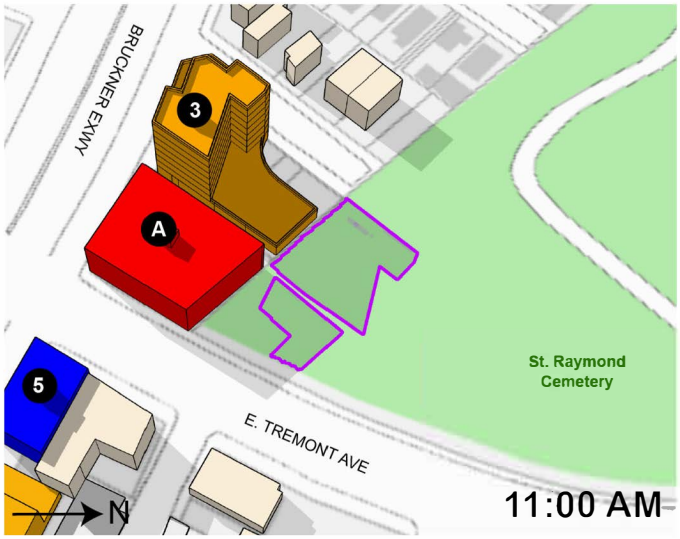
Table 1:
Tier 3 Resources and Shadows Duration

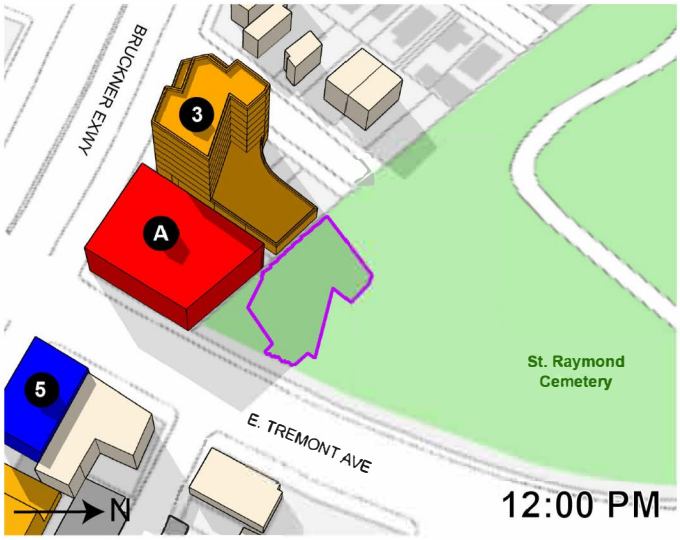
Resource	Analysis Day	Day Length	Shadow Duration	Portion of Resource Covered by Incremental Shadow
St. Raymond's Cemetery	December 21	9 hours, 15 minutes	6 hours, 2 minutes	5%
	March 21	12 hours, 12 minutes	8 hours, 53 minutes	1%
	June 21	15 hours, 5 minutes	8 hours, 48 minutes	1%
	September 21	12 hours, 11 minutes	7 hours, 41 minutes	1%
Miele Park	December 21	9 hours, 15 minutes	2 hours, 35 minutes	5 to 90%
	March 21	12 hours, 12 minutes	2 hours, 51 minutes	5 to 100%
	June 21	15 hours, 5 minutes	2 hours, 35 minutes	5 to 50%
	September 21	12 hours, 11 minutes	3 hours, 3 minutes	5 to 30%
Hutchinson River Parkway*	December 21	9 hours, 15 minutes	NA	NA
	March 21	12 hours, 12 minutes	NA	NA
	June 21	15 hours, 5 minutes	16 minutes	Less than 1%
	September 21	12 hours, 11 minutes	NA	NA

*Portion impacted is part of a landscaped highway median and not publicly accessible









3 Projected Development Site (Applicant Controlled)

5 Projected Development Site (Non-Applicanted Controlled)

A Potential Development Site (Non-Applicanted Controlled)

Projected WIth-Action Condition Shadow

New Incremental Shadow

Open Space and Recreation

Figure 8-4a St. Raymond Cemetery Impact Assessment for Dec. 21st,



Figure 8-4b St. Raymond Cemetery Impact Assessment for Dec. 21st

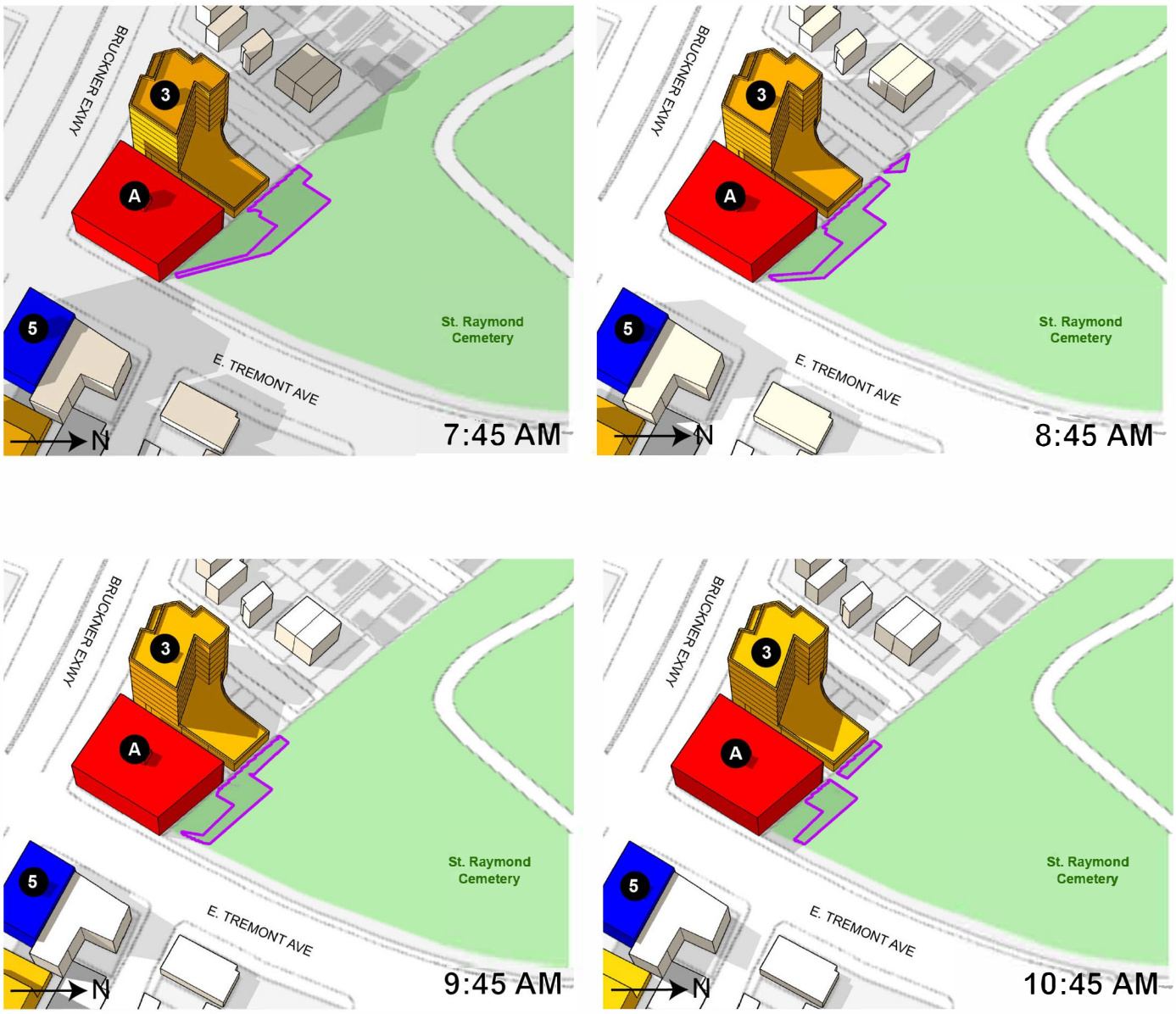
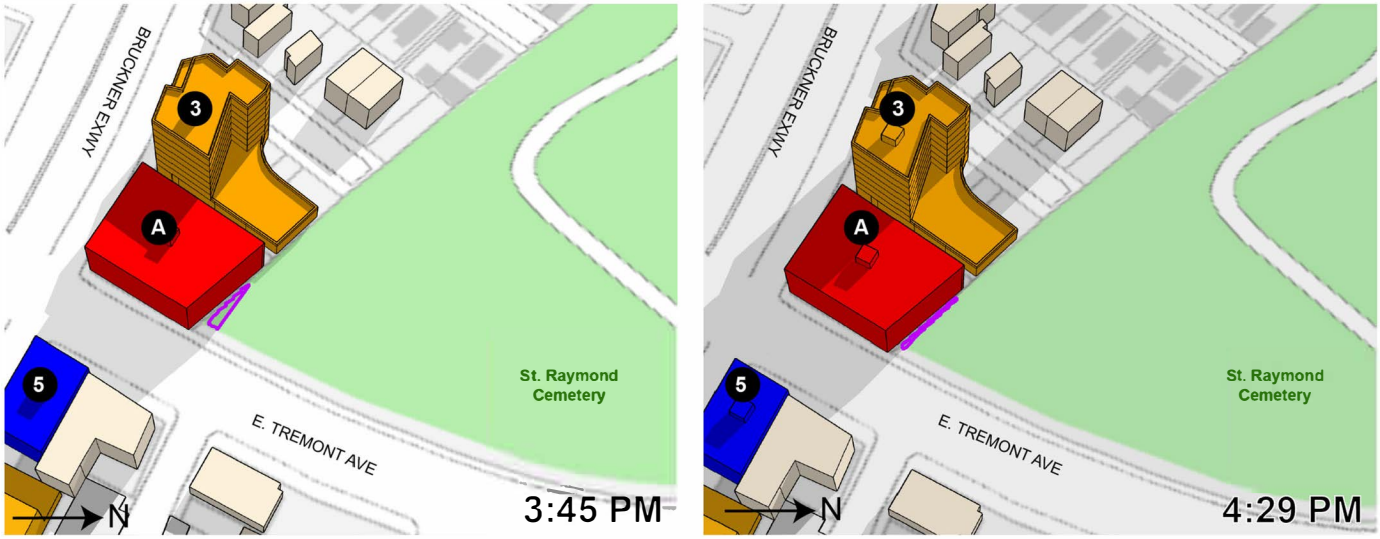


Figure 8-5a St. Raymond Cemetery Impact Assessment for Mar. 21st



Figure 8-5b St. Raymond Cemetery Impact Assessment for Mar. 21st



3 Projected Development Site (Applicant Controlled)

5 Projected Development Site (Non-Applicanted Controlled)

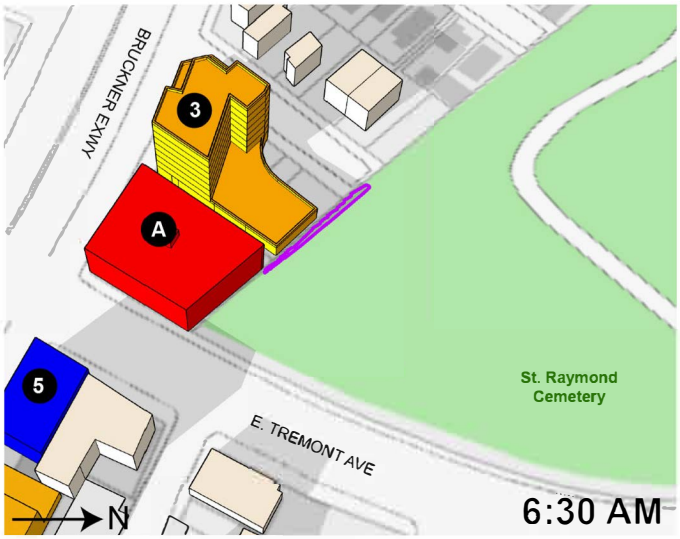
A Potential Development Site (Non-Applicanted Controlled)

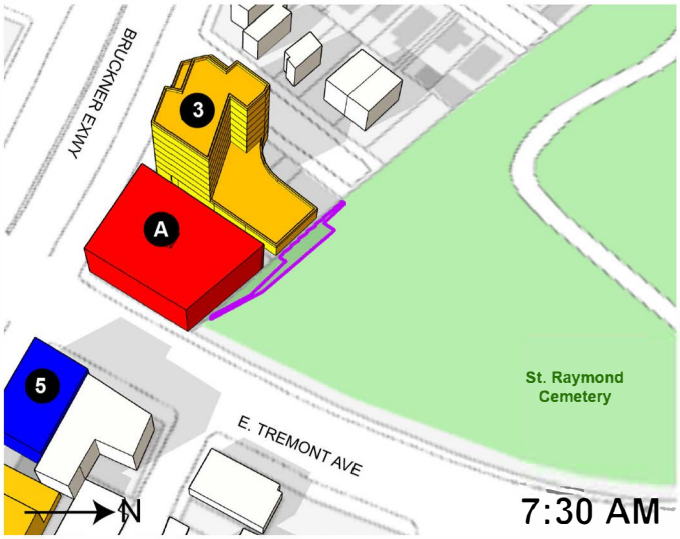
Projected WIth-Action Condition Shadow

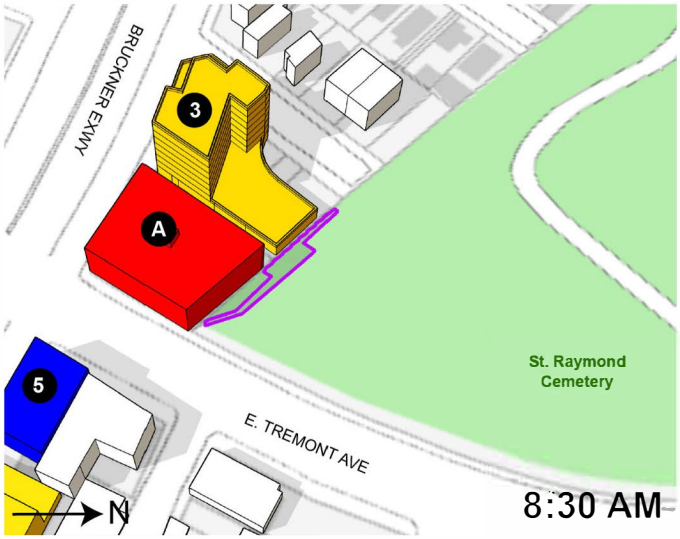
New Incremental Shadow

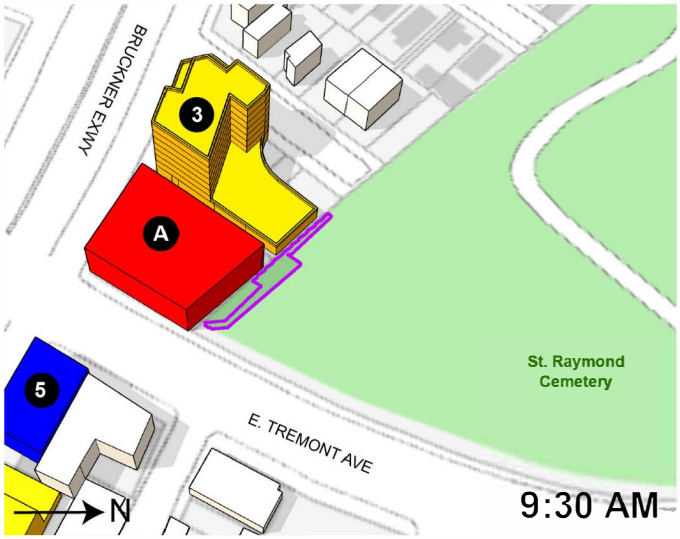
Open Space and Recreation

Figure 8-5c St. Raymond Cemetery Impact Assessment for Mar. 21st









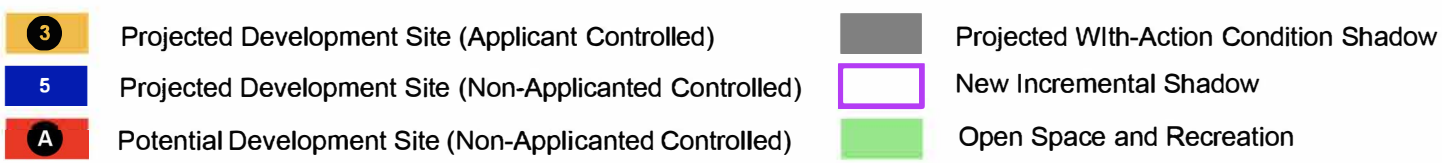
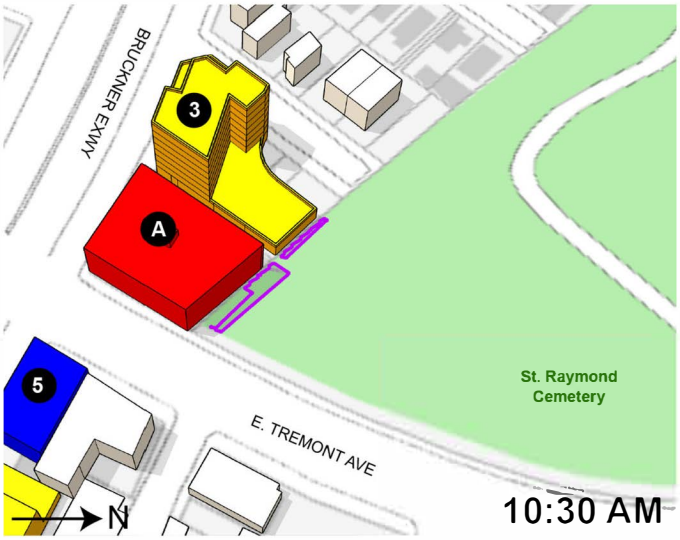
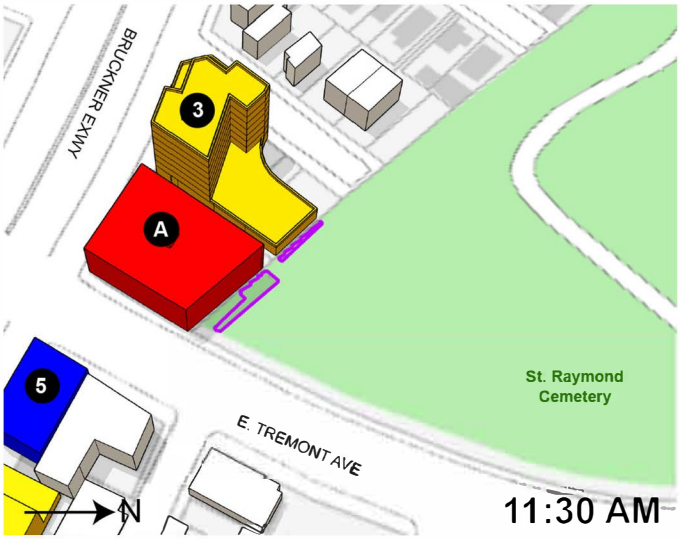
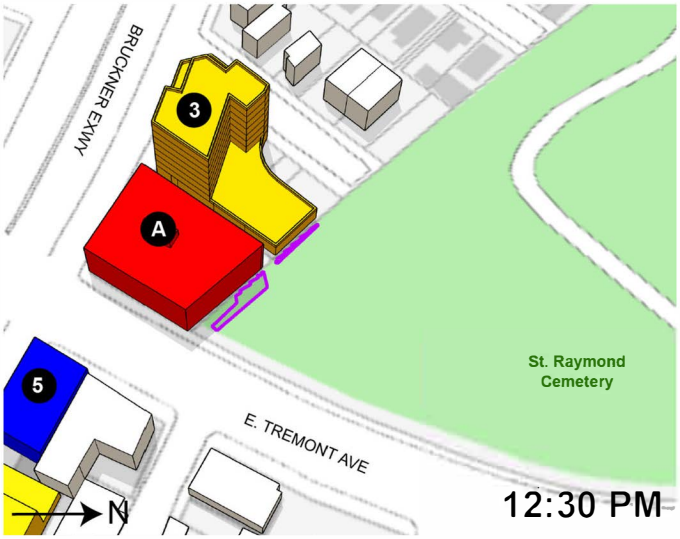
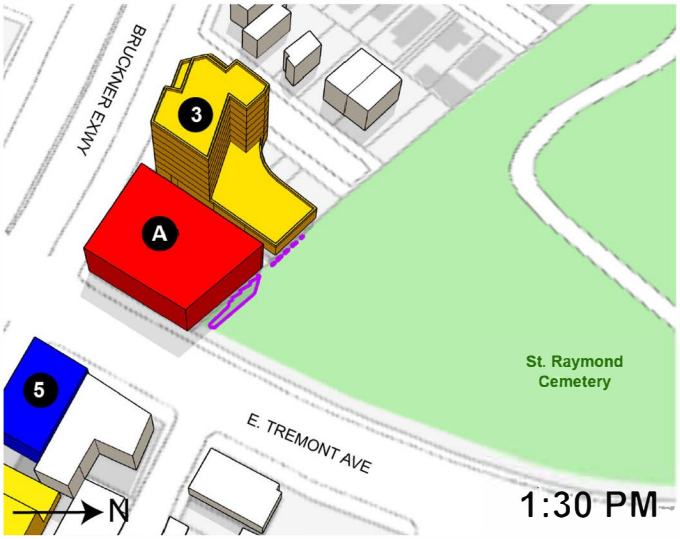


Figure 8-6a St. Raymond Cemetery Impact Assessment for May 6th









3 Projected Development Site (Applicant Controlled)

5 Projected Development Site (Non-Applicanted Controlled)

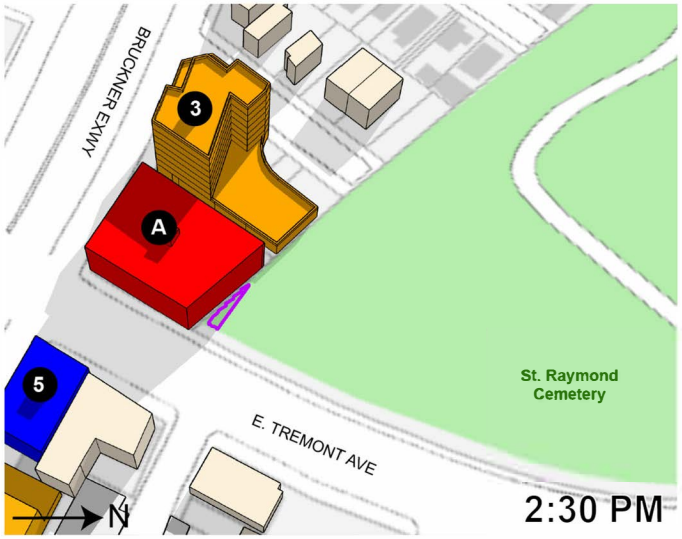
A Potential Development Site (Non-Applicanted Controlled)

Projected WIth-Action Condition Shadow

New Incremental Shadow

Open Space and Recreation

Figure 8-6b St. Raymond Cemetery Impact Assessment for May 6th



3 Projected Development Site (Applicant Controlled)

5 Projected Development Site (Non-Applicanted Controlled)

A Potential Development Site (Non-Applicanted Controlled)

Projected WIth-Action Condition Shadow

New Incremental Shadow

Open Space and Recreation

Figure 8-6c St. Raymond Cemetery Impact Assessment for May 6th

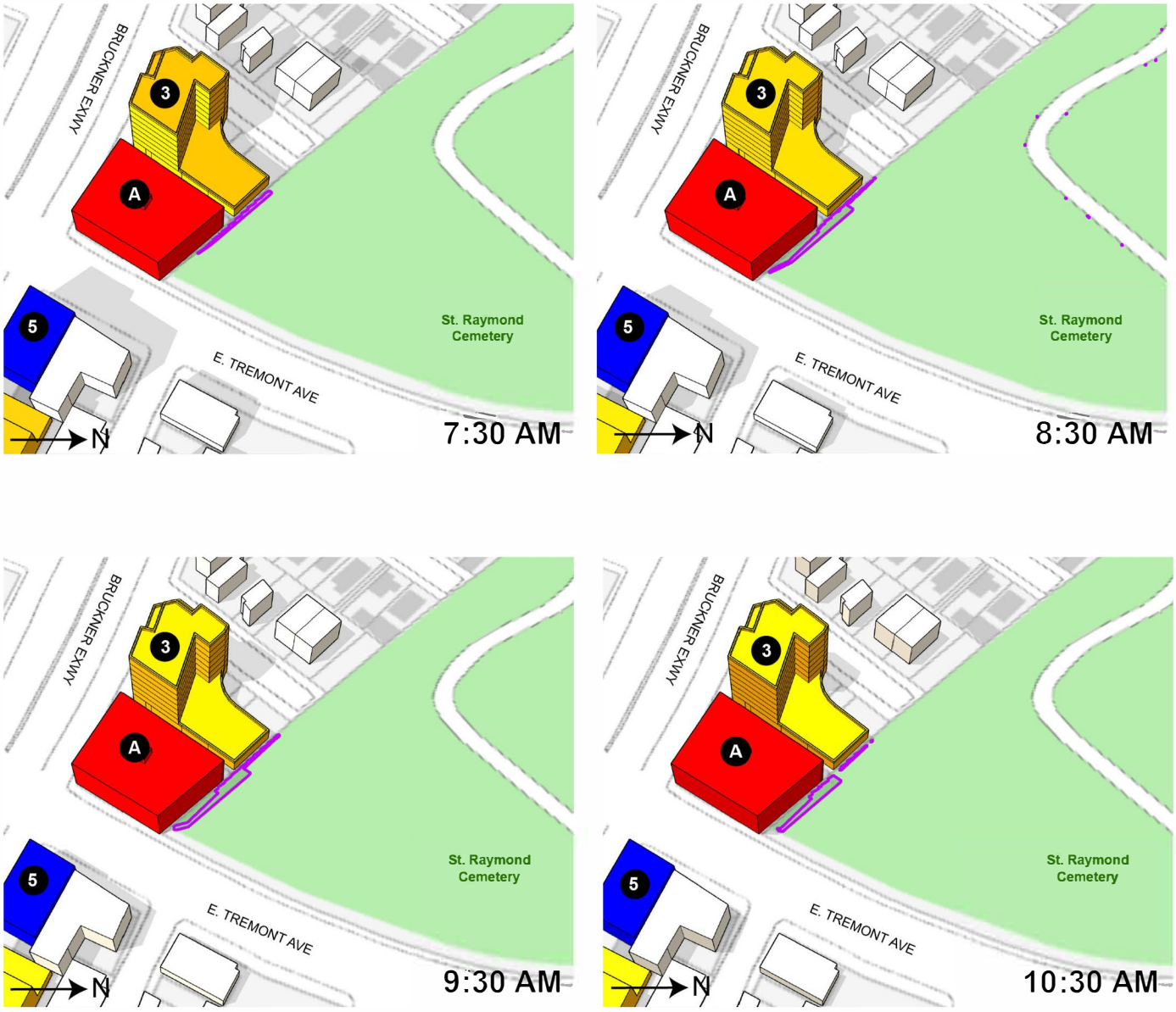
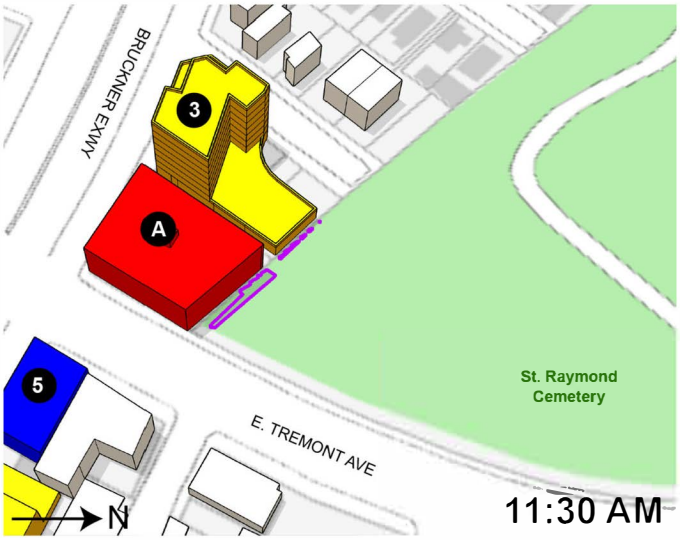
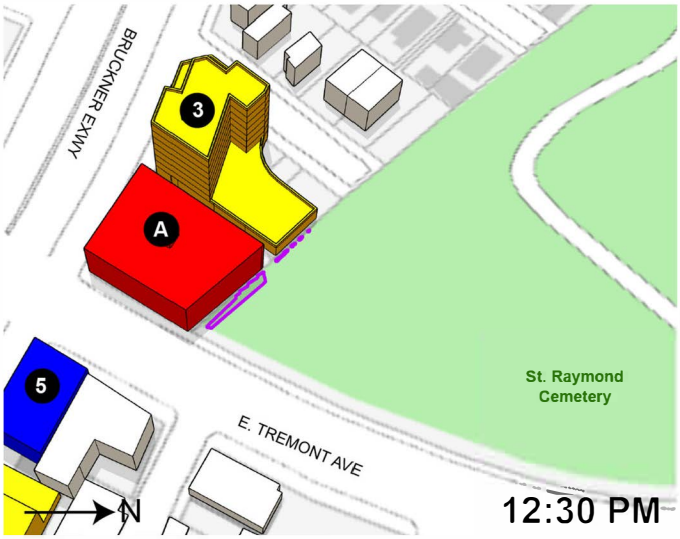
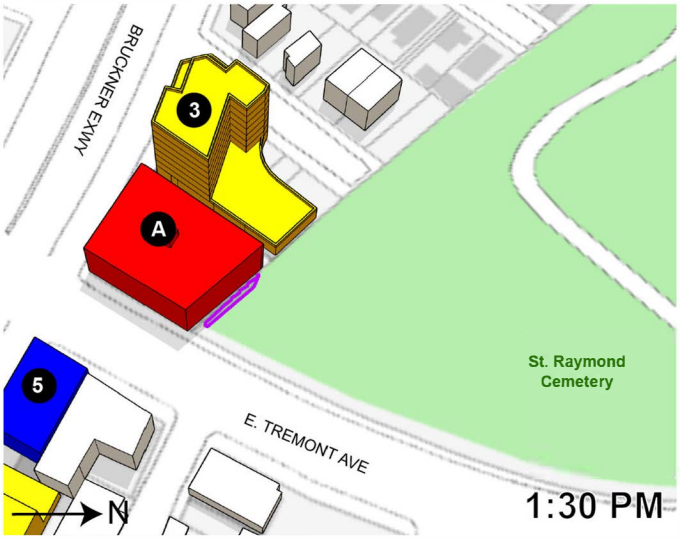
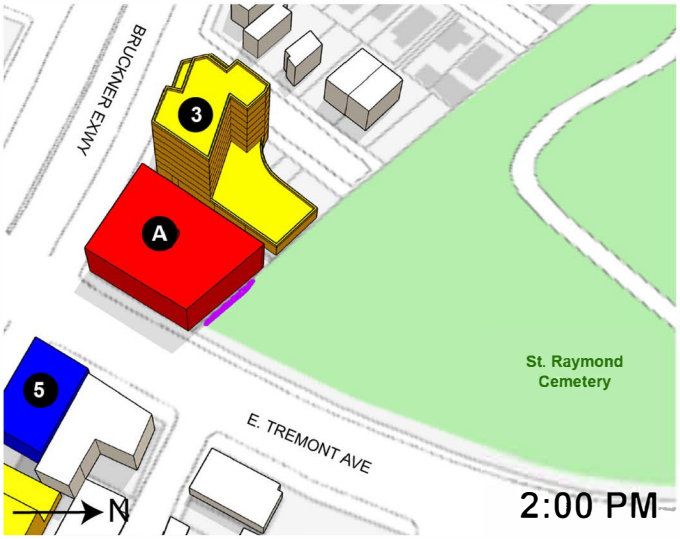


Figure 8-7a St. Raymond Cemetery Impact Assessment for June 21st









3 Projected Development Site (Applicant Controlled)

5 Projected Development Site (Non-Applicanted Controlled)

A Potential Development Site (Non-Applicanted Controlled)

Projected WIth-Action Condition Shadow

New Incremental Shadow

Open Space and Recreation

Figure 8-7b St. Raymond Cemetery Impact Assessment for June 21st

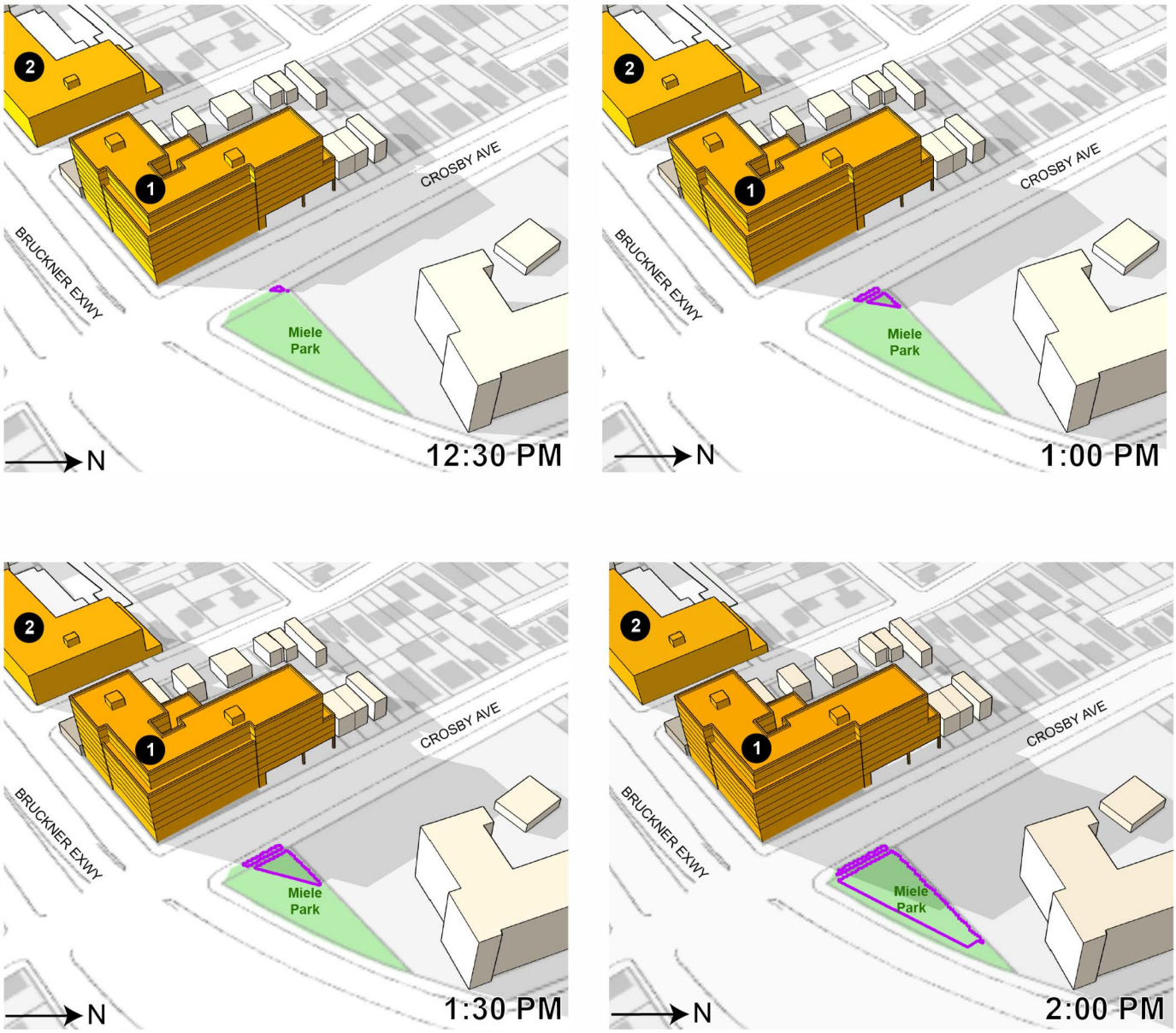
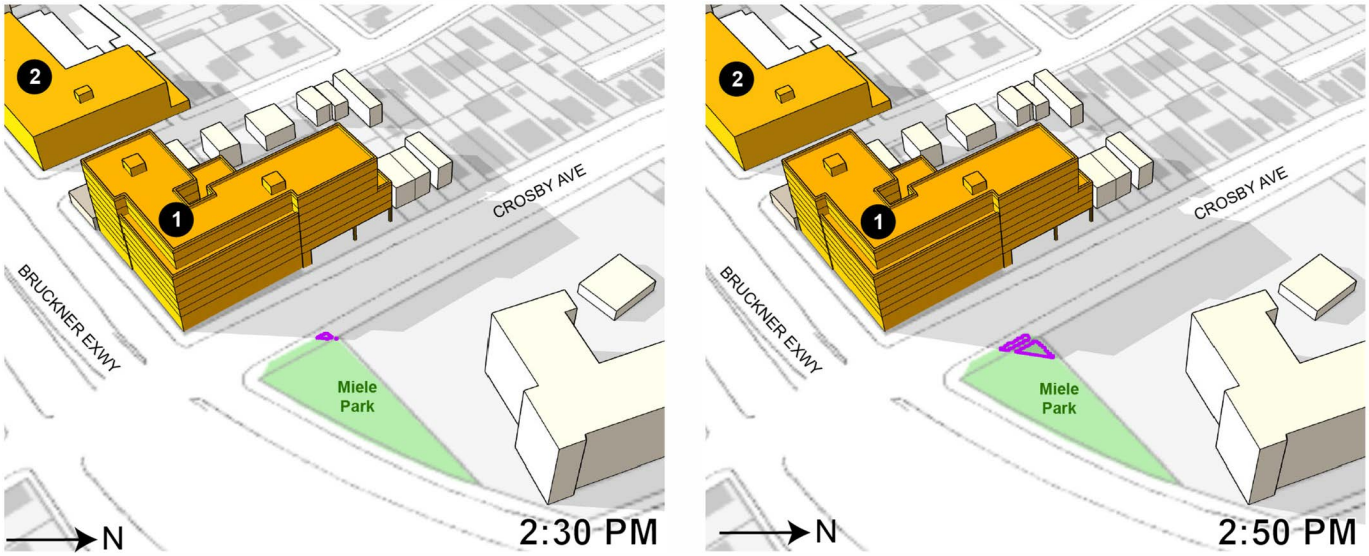


Figure 8-8a Meile Park Impact Assessment for Dec. 21st



1 Projected Development Site (Applicant Controlled)

Projected WIth-Action Condition Shadow

New Incremental Shadow

Open Space and Recreation

Figure 8-8b Meile Park Impact Assessment for Dec. 21st

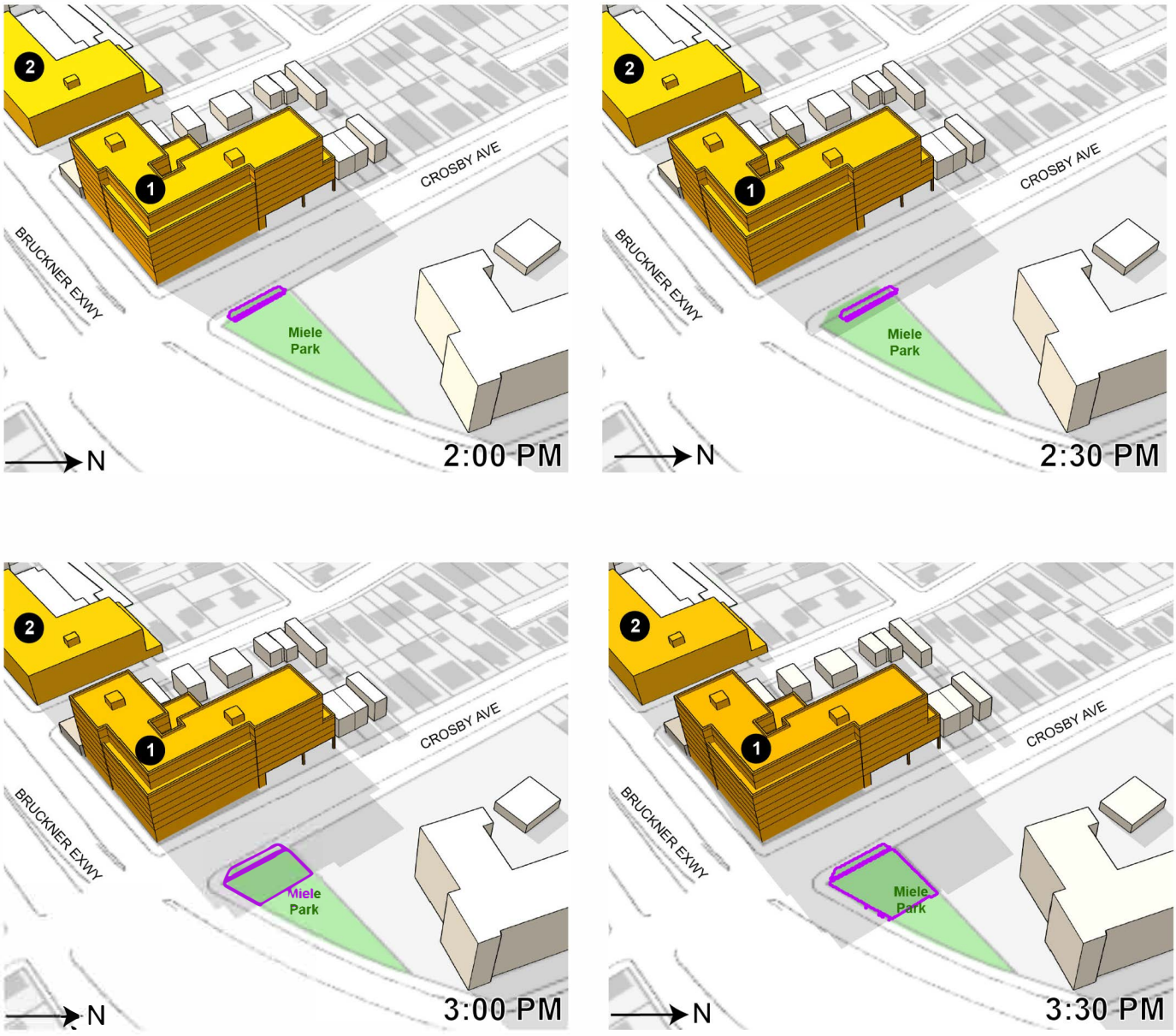
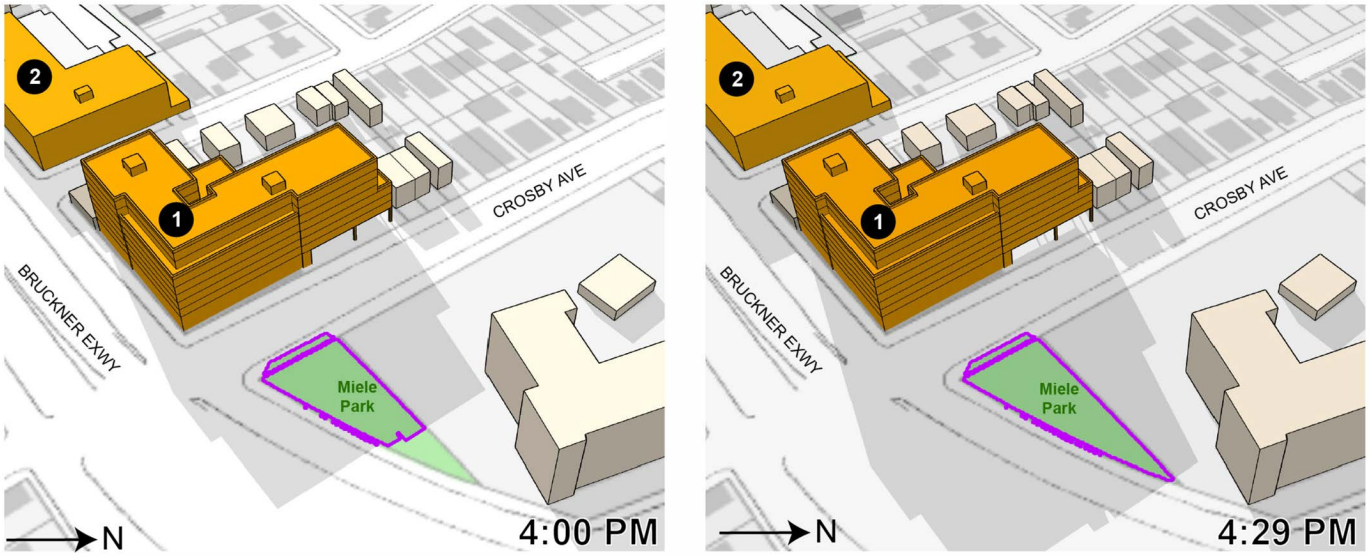


Figure 8-9a Meile Park Impact Assessment for Mar. 21st



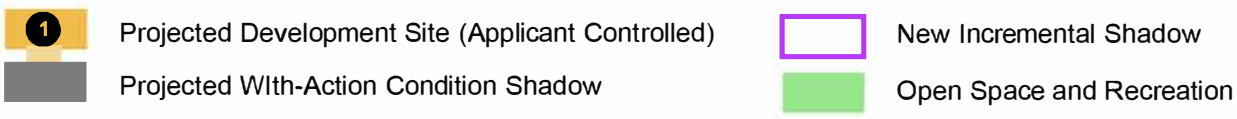
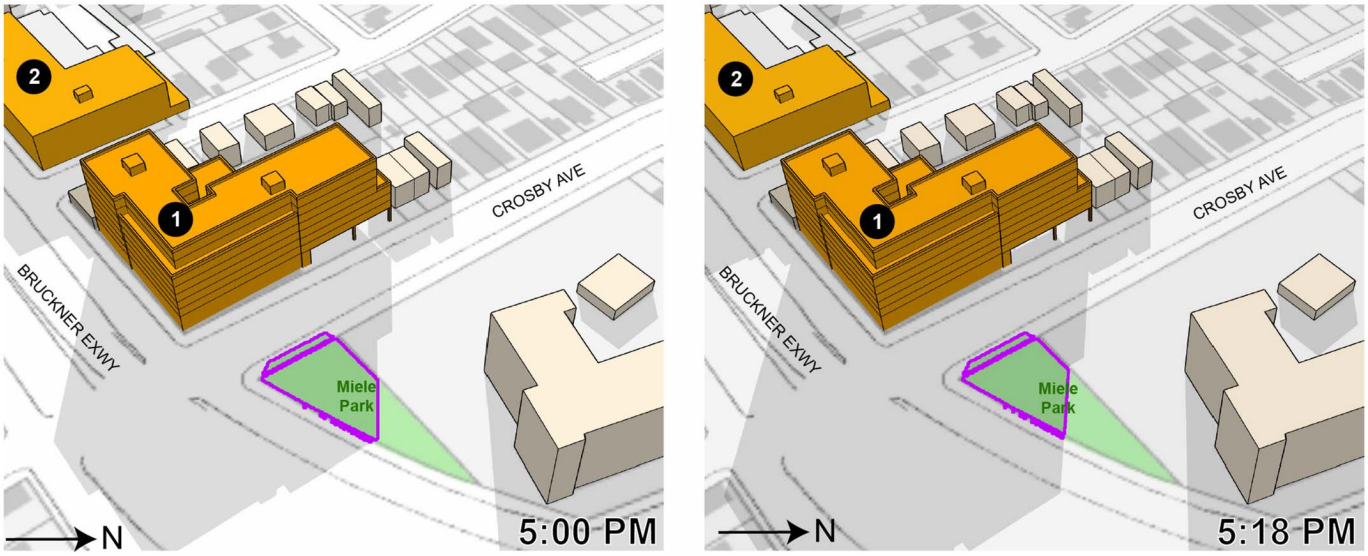


Figure 8-9b Meile Park Impact Assessment for Mar. 21st



1 Projected Development Site (Applicant Controlled)

Projected WIth-Action Condition Shadow

New Incremental Shadow

Open Space and Recreation

Figure 8-10b Meile Park Impact Assessment for May 6th

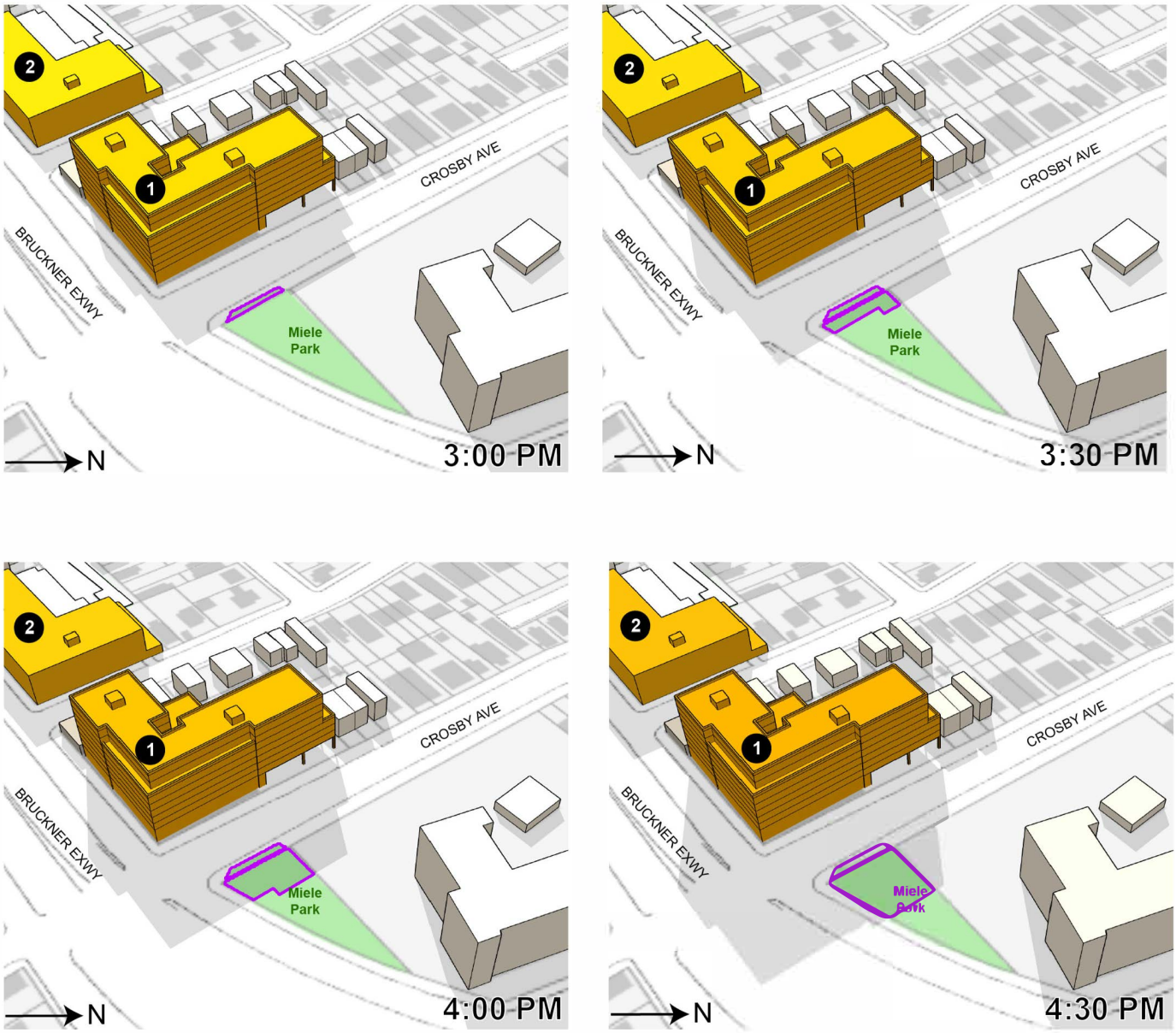


Figure 8-10a Meile Park Impact Assessment for May 6th

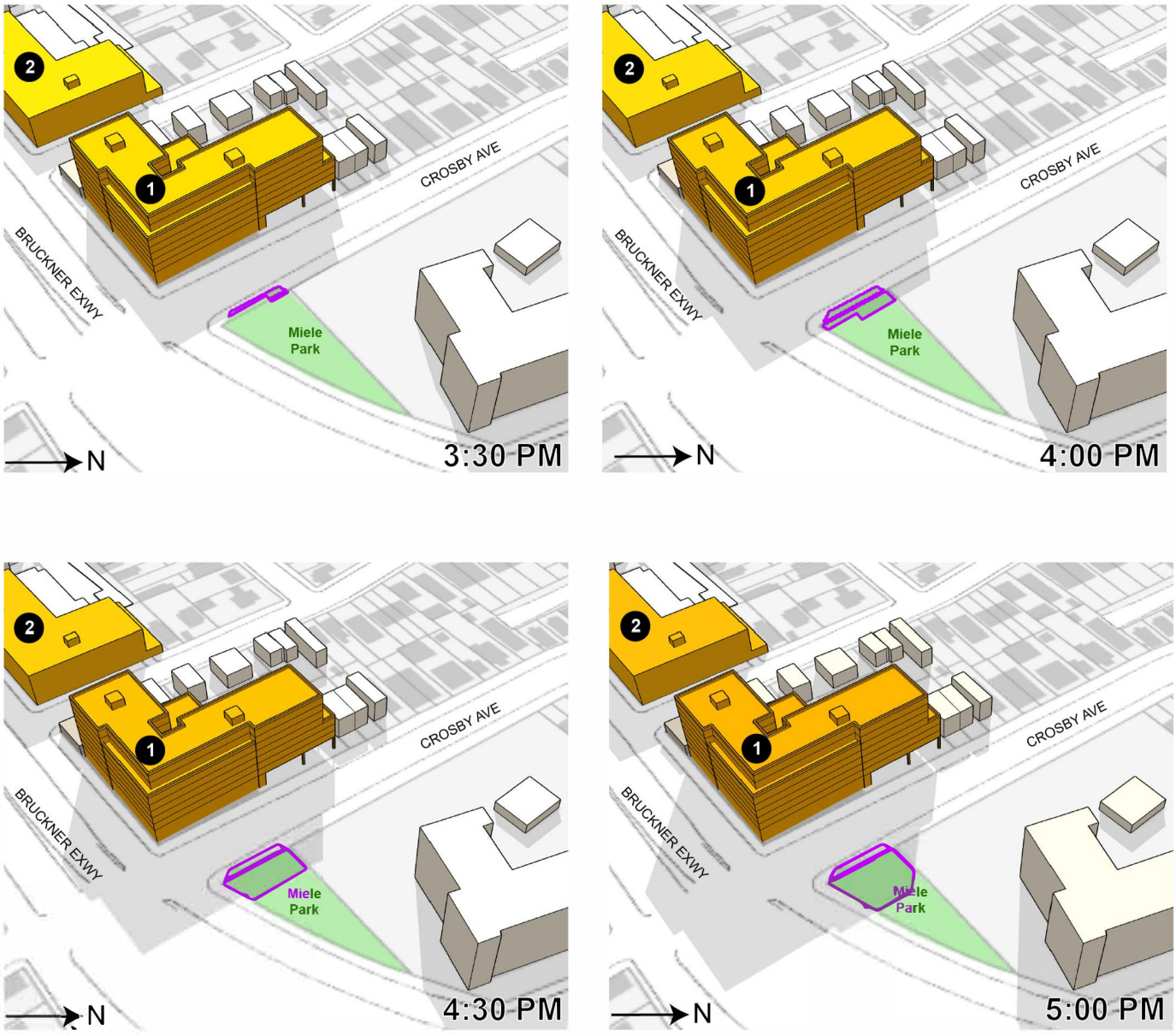
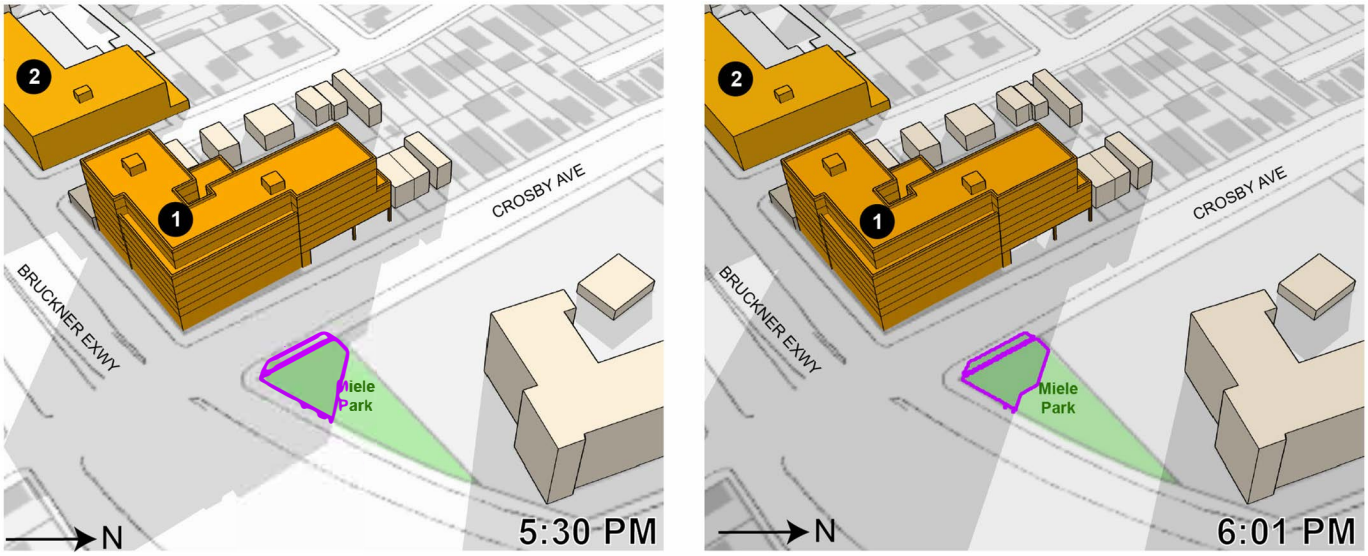


Figure 8-11a Meile Park Impact Assessment for June 21st



1 Projected Development Site (Applicant Controlled)

Projected WIth-Action Condition Shadow

New Incremental Shadow

Open Space and Recreation

Figure 8-11b Meile Park Impact Assessment for June 21st

6. Historic and Cultural Resources

Historic and cultural resources are defined as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. This includes properties that have been designated or are under consideration for designation as New York City Landmarks or Scenic Landmarks, or are eligible for such designation; properties within New York City Historic Districts; properties listed on the State and/or National Register of Historic Places; and National Historic Landmarks. An assessment of architectural and/or archaeological resources is usually needed for projects that are location adjacent to historic or landmark structures or projects that require in-ground disturbance, unless such disturbance occurs in an area that has already been excavated.

According the CEQR Technical Manual guidelines, impacts on historic resources are considered on those sites affected by proposed actions and in the area surrounding identified development sites. In a letter from the Landmarks Preservation Commission (LPC), February 27, 2020 (included below), the proposed rezoning area and surrounding 400-foot study area have no historical or archaeological features. Therefore, no further analysis is warranted.

NYC Landmarks Preservation Commission

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

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

ENVIRONMENTAL REVIEW

Project number: HOUSING PRESERVATION AND DEV / LA-CEQR-X
Project: BRUCKNER_BLVD_REZONING
Date Received: 2/27/2020

Properties with no Architectural or Archaeological significance:

1) BRUCKNER BOULEVARD, BBL: 2053060008
2) REVERE AVENUE, BBL: 2053060018
3) REVERE AVENUE, BBL: 2053060019
4) 5308 REVERE AVENUE, BBL: 2053060022
5) REVERE AVENUE, BBL: 2053060023
6) 3390 EAST TREMONT AVENUE, BBL: 2053060028
7) 3392 EAST TREMONT AVENUE, BBL: 2053060030
8) 3394 EAST TREMONT AVENUE, BBL: 2053060031
9) 3398 EAST TREMONT AVENUE, BBL: 2053060231
10) BRUCKNER BOULEVARD, BBL: 2053070061
11) BRUCKNER BOULEVARD, BBL: 2053070063
12) BRUCKNER BOULEVARD, BBL: 2053070064
13) BRUCKNER BOULEVARD, BBL: 2053070066
14) 2719 BRUCKNER BOULEVARD, BBL: 2053070067
15) 2717 BRUCKNER BOULEVARD, BBL: 2053070073
16) 2715 BRUCKNER BOULEVARD, BBL: 2053070075
17) 2711 BRUCKNER BOULEVARD, BBL: 2053070076
18) 3399 EAST TREMONT AVENUE, BBL: 2053090001
19) 3397 EAST TREMONT AVENUE, BBL: 2053090007
20) 3391 EAST TREMONT AVENUE, BBL: 2053090011
21) 2936 MEYERS STREET, BBL: 2053090035
22) 1119 EDISON AVENUE, BBL: 2053090036
23) 2939 BRUCKNER BOULEVARD, BBL: 2053090041
24) 2937 BRUCKNER BOULEVARD, BBL: 2053090042
25) 2931 BRUCKNER BOULEVARD, BBL: 2053090044
26) 2923 BRUCKNER BOULEVARD, BBL: 2053090047
27) 2917 BRUCKNER BOULEVARD, BBL: 2053090050
28) 2915 BRUCKNER BOULEVARD, BBL: 2053090054
29) BRUCKNER BOULEVARD, BBL: 2053090060
30) 2945 BRUCKNER BOULEVARD, BBL: 2053120001
31) 2941 BRUCKNER BOULEVARD, BBL: 2053120010
32) 1122 EDISON AVENUE, BBL: 2053120019
33) 1124 EDISON AVENUE, BBL: 2053120021
34) 1130 EDISON AVENUE, BBL: 2053120023

Gina Santucci

3/9/2020

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 34830_FSO_DNP_03052020.docx

7. Urban Design and Visual Resources

Introduction

Per the *CEQR Technical Manual*, an urban design assessment considers whether and how a project may change the experience of a pedestrian in the project area. The assessment focuses on the components of a proposed project that may have the potential to alter the arrangement, appearance, and functionality of the built environment.

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 Actions.

As discussed above in "Land Use, Zoning, and Public Policy," the Proposed Actions include zoning map amendments and city map amendments to remove the Project Area from the Lower Growth Density Management Area (LGDMA). These actions would both permit the modification of yard, height, and setback requirements and result in an increase in built floor area beyond what would be allowed 'as-of-right' in the current R4A/ C1-2 and R4-1 zoning districts.

R4-1 districts permit only one and two family detached and semi-detached homes with 0.75 FAR and an attic allowance. The maximum building height is 35 (but a slope is required on the perimeter wall after 25 feet). Front yards must be between 10 and 20 feet deep, rear yards must be 30 feet deep, and two side yards that total eight feet must be provided for a detached residence. There is no minimum width for each side yard but there must be eight feet between buildings on adjacent zoning lots. One four-foot side yard is required for each semi-detached residence, which must be on a lot at least 18 feet wide.

R4A districts permit only one and two-family detached homes with 0.75 FAR and an attic allowance. The maximum building height is 35 feet (but a slope is required on the perimeter wall after 21 feet). Front yards must be between 10 and 20 feet deep, rear yards must be 30 feet deep, and two side yards that total at least 10 feet with a minimum width of two feet each are also required. There must be at least eight feet between buildings on adjacent lots. The C1-2 overlay mapped over this district within the project area allows for commercial uses (Use Groups 5 and 6), up to a FAR of 1.0. The underlaying bulk regulations of the R4A district continue to apply.

The Proposed Actions would rezone the R4A/ C1-2 portions of the Project Area to R6A/ C2-4. The Proposed Actions would rezone the R4-1 portions of the Project Area to R5B.

R6A districts permit six- to eight-story apartment buildings set at or near the street line with a maximum of 3.00 FAR (3.6 FAR with inclusionary housing and 3.9 FAR with AIRS). The maximum building height is 70 feet (75 if a qualifying ground floor is used), but a 10- or 15-foot setback is required after 40 feet. In the higher FAR scenarios, the maximum building height is 85 feet. To preserve the traditional streetscape, the street wall of a new building can be no closer to the street line than any adjacent street wall but need not be farther than 10 feet. The C2-4 overlay mapped over this district within the project area allows for commercial uses (Use Groups 5 through 9 and 14), up to an FAR of 2.0. The underlaying bulk regulations of the R6A district continue to apply.

R5B districts permit detached and semi-detached homes with 1.35 FAR. The maximum building height is 33 but a slope is required on the perimeter wall after 30 feet. Front yards must be between 5 and 20 feet deep. There must be at least eight feet between buildings on adjacent lots, but side yards are not required for attached rowhouses.

The Proposed Actions would facilitate the development of six new, mixed-use residential and commercial developments and a seventh potential development (described in detail above). These developments would range in height between 33 and 85 feet. The Proposed Actions would permit the modification of yard, height, and setback requirements in the Project Area and result in an increase in built floor area beyond what would be allowed 'as-of-right' absent the Proposed Actions. The Projected and Potential Developments are also anticipated to result in a different built form at the street level. An assessment of urban design and visual resources is warranted.

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.

Existing Building Bulk, Use, Type, and Arrangement

As discussed above, the Project Area currently contains a mix of uses including single-family and multi-family residences, community facility uses, limited commercial uses, transportation and utility uses, and open space facilities. These uses are located in a range of low-rise buildings (one- to two-stories) and mid-rise buildings. The Project Area itself contains single and multifamily family residential buildings, one and two-story commercial buildings, and a surface parking lot. The dominant features of the Study Area include St. Raymond's Cemetery to the north, the Bruckner Expressway—running in a

trench parallel to Bruckner Boulevard—to the south, and a mixture of low and medium density residential and commercial buildings throughout the area.

No-Action Scenario

If Proposed Actions are not approved, the built form, use, type, and arrangement of the Study Area and surrounding area would remain unchanged, as no new development is expected to occur within the Project Area or anywhere else within the Study Area.

With-Action Scenario

If the Proposed Actions are approved, the built form, use, type, and arrangement of the Study Area and surrounding area would remain unchanged, however the Proposed Development on the Project Area will introduce new building heights, bulk, and density to the Study Area. The Proposed Actions would facilitate the construction of six Projected Development sites and one Potential Development site. The bulk and height of these developments are rendered in **Figure 10-1: Urban Design Rendering View Map** and **Figures 10-2 through Figures 10-5: Urban Design Diagram.** As discussed above, the Project Area is isolated within the Study Area, as it is bordered by St. Raymond's Cemetery to the north and the Bruckner Expressway to the south. The combined width of the Bruckner Expressway and Bruckner Boulevard is more than 180 feet, which makes the expressway the dominant feature of the Study Area. The increased height, bulk and density in the With-Action Scenario would change the appearance of the built environment, but this change would not negatively affect the pedestrian's experience of the area. The Proposed Developments would introduce a cohesive street-wall and active ground floor uses to the Project Area.

Block Form, Street Pattern, and Street Hierarchy

As discussed above, the Study Area is divided by the Bruckner Expressway and Bruckner Boulevard. Within the Study Area, only East Tremont Avenue and Crosby Avenue provide pedestrian or vehicle access across the Bruckner Expressway. The northern portion of Bruckner Boulevard is a one-way road that connects all of the residential uses (on narrow roads) in the western portion of the Study Area to the rest of the surrounding neighborhood. There is a more consistent grid pattern in the eastern portion of the Study Area, with narrow roads oriented east-west, and larger north-south connections (particularly Crosby Avenue and East Tremont Avenue)

No-Action Scenario

If the Proposed Actions are not approved, the block form, street pattern and street


E TREMONT AV
WHITTEMORE AV
EDISON AV
OSBY AV
HASKIN ST
MEYERS ST
BRUCKNER EXWY
REVERE AV
CALHOUN AV
QUINCY AV
SWINTON AV
GIFFORD AV
GREENE PL
BARKLEY AV
1
2
3
4
5
6
A
N
0 125 250 500 FT
Projected Development Site (Applicant Controlled)
Projected Development Site (Non-Applicant Controlled)
Potential Development Site (Non-Applicant Controlled)
Rendering View Location

hierarchy will remain as per existing conditions.

With-Action Scenario

If the Proposed Actions are approved, the block form, street pattern and street hierarchy will remain as per existing conditions. No new street will be built within the Study Area. The developments on the Proposed and Projected Development Sites are not expected to introduce a significant number of new curb cuts. Those sites that are projected to include on-site parking facilities will be accessed via curb cuts on Bruckner Boulevard and Crosby Avenue. This is the same as the existing conditions within the Study Area.

Streetscape Elements

The Study Area includes some street trees, mainly along Bruckner Boulevard. The East Tremont and Crosby Avenue frontages of the Project Area currently contain no street trees. The are a few New York City Transit (NYCT) bus stops within the Study Area; these are located along Bruckner Boulevard (BX5, BXM8, and Q50), East Tremont Avenue (BX40 and BX42) and Crosby Avenue (BX8). Only the stops on East Tremont Avenue have shelters.

Sidewalks in the Study Area are generally 10-feet wide in front of all buildings. Sidewalks along Crosby and East Tremont Avenues are between 15 and 20 feet wide. Low-height fencing is present along the frontages of many residential buildings in the Study Area. Crossings over the Bruckner Expressway, the southern side of Bruckner Boulevard, and St. Raymond's Cemetery are also fenced in.

No-Action Scenario

In the No-Action Scenario, the streetscape elements will remain. There are currently no known plans that will significantly alter sidewalk widths, add or remove street trees, or introduce new bus shelters.

With-Action Scenario

In the With-Action Scenario, the required street tree coverage would be increased along the frontages of the Projected and Potential Development Sites. The remaining streetscape elements would otherwise remain unchanged.

Visual Resources

There are no natural features in the Project Area or within the surrounding 400 feet. Therefore, no natural features are visible from the Project Area or from any point within the Study Area. There are no notable features or buildings existing in the immediate

vicinity of the study area. Therefore, based on the criteria in the *CEQR Technical Manual*, the Proposed Actions would not result in the obstruction of views of a natural or built visual resource. The Proposed Actions would not result in the significant alteration of views from streets. Therefore, no significant impacts related to visual resources are expected.

Conclusion

The Proposed Actions would allow physical alteration of the Project Area beyond that allowed by existing zoning. As discussed above, the Proposed Developments would introduce new bulk, height, and density to the Study Area. The increased height, bulk and density in the With-Action Scenario would change the appearance of the built environment, but this change would not negatively affect the pedestrian's experience of the area. The Proposed Developments would introduce a street-wall and active ground floor uses to the Project Area, which is currently primarily characterized by the Bruckner Expressway. Further, the Proposed Actions would not result in development that would alter the block form, street pattern, nor street hierarchy of the Study Area. The Proposed Development would result in the introduction of new street trees but would not otherwise introduce new streetscape elements. The Proposed Actions are not anticipated to result in a significant adverse impact to urban design or visual resources in the Study Area.

Urban Design Diagram Renderings, View No. 1



No-Action Condition: View of Projected Development Sites 4 (background) and 6 (foreground) facing east along Bruckner Boulevard

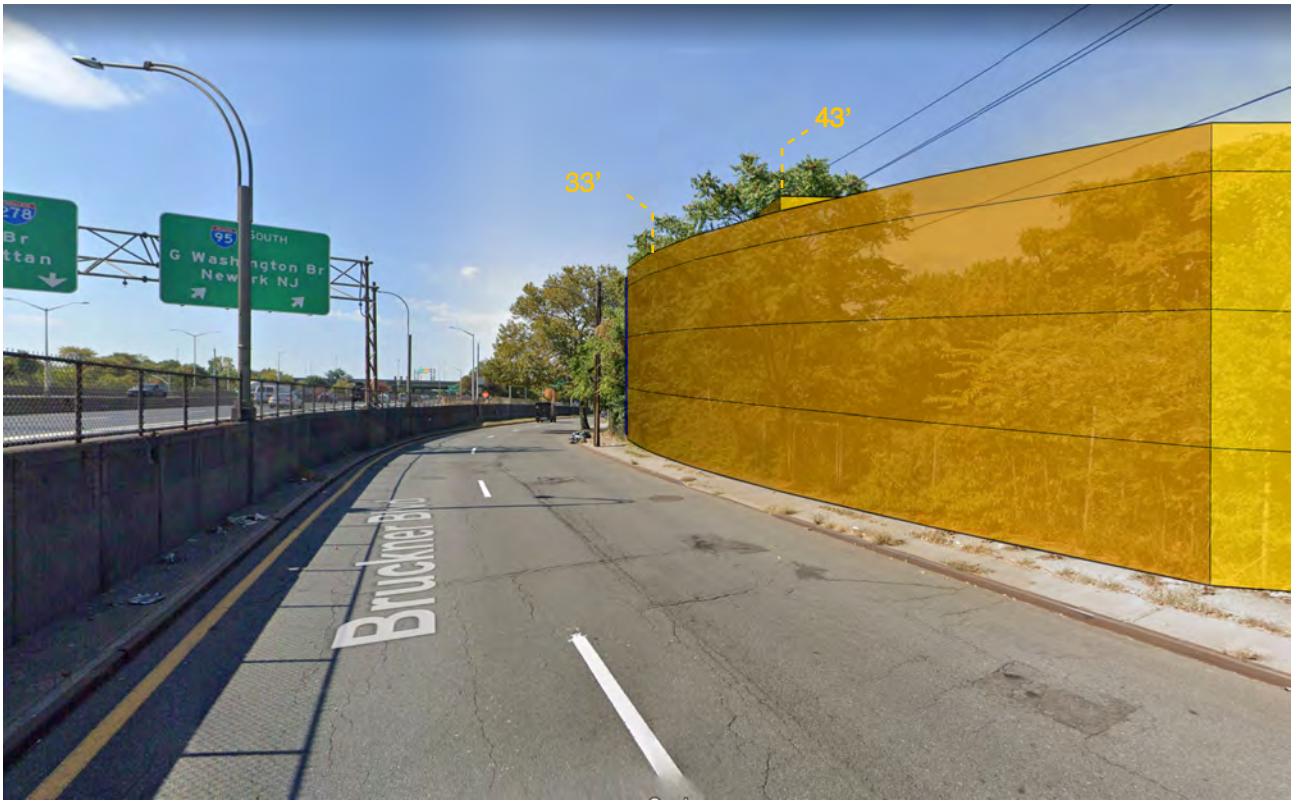


With-Action Condition: View of Projected Development Sites 4 (background) and 6 (foreground) facing east along Bruckner Boulevard

Urban Design Diagram Renderings, View No. 2



No-Action Condition: View of Projected Development Site 4 facing east along Bruckner Boulevard



With-Action Condition: View of Projected Development Site 4 facing east along Bruckner Boulevard

Urban Design Diagram Renderings, View No. 3



No-Action Condition: View of Potential Development Site A (foreground) and Projected Development Site 3 (background), facing northwest from the intersection of Bruckner Boulevard and East Tremont Avenue



With-Action Condition: View of Potential Development Site A (foreground) and Projected Development Site 3 (background), facing northwest from the intersection of Bruckner Boulevard and East Tremont Avenue

Urban Design Diagram Renderings, View No. 4



No-Action Condition: View of Projected Development Sites 5 (foreground) and 2 (background), facing northeast from the intersection of Bruckner Boulevard and East Tremont Avenue



With-Action Condition: View of Projected Development Sites 5 (foreground) and 2 (background), facing northeast from the intersection of Bruckner Boulevard and East Tremont Avenue

Urban Design Diagram Renderings, View No. 5



No-Action Condition: View of Projeced Development Site 1, facing northeast from Bruckner Boulevard



With-Action Condition: View of Projeced Development Site 1, facing northeast from Bruckner Boulevard

8. Water and Sewer Infrastructure

Introduction

Per the CEQR Technical Manual purpose of an assessment of water and sewer infrastructure is to assess whether a proposed development may have a significant adverse impact on the City's water distribution or sewer system. The CEQR Technical Manual states that only projects that increase density or change drainage conditions on a large site require an infrastructure analysis. In addition to water supply, conveyance, and waste water treatment plant (WWTP) assessments, stormwater management is an integral component of an infrastructure analysis due to potential environmental impacts related to how much the built sewer and conveyance system can handle, and related effects such as street flooding, surcharging sewers downstream, sewer back-ups (SBUs), increases in CSOs, and pollutant loadings contained in CSOs or direct stormwater discharges to the City's surrounding waterbodies.

The CEQR Technical Manual states that a preliminary water supply infrastructure analysis is needed if the project would result in an exceptionally large demand for water (e.g., those that are projected to use more than one million gallons per day such as power plants, very large cooling systems, or large developments); or is located in an area that experiences low water pressure (e.g. areas at the end of the water supply distribution system such as the Rockaway Peninsula and Coney Island). A preliminary wastewater and stormwater conveyance and treatment infrastructure analysis would be needed if the project is located in a combined sewer area and would result in the development of more than 400 residential units or 150,000 sq. ft. of commercial, public facility, and institution and/or community facility space or more in the Bronx, Brooklyn, Staten Island, or Queens. A preliminary analysis would also be required if the Proposed Development is located in a separately sewered area.

As discussed in detail in above, the Proposed Actions would facilitate development on four applicant-owned development sites: Projected Development Site 1 (Block 5312, Lot 1), Projected Development Site 2 (Block 5309, Lots 35, 36, 41, 42, 44, 47 and 50), Projected Development Site 3 (Block 5306, Lots 8, 18, 19, 22 and 23), and Projected Development Site 4 (Block 5307, Lots 55, 58, 61, 63, 64, 66 and 67). Project Development Sites 1-4 would contain a total of 324,082 gross square feet (gsf), including 269,975 gsf of residential floor area and 54,107 gsf of commercial floor area. Projected Development Sites 1-4 would contain a total of 384 residential units, between 96 and 116 of which would be permanently affordable pursuant to the MIH program. A total of 301 accessory parking spaces would be provided across all four sites. The Proposed Actions would also facilitate development of three non-applicant controlled development sites, Projected Development Site 5 (Block 5309, Lots 1, 7 and 54), Projected Development Site 6 (Block 5307, Lots 73, 75 and 76), and Potential Development Site A (Block 5306, Lots 28, 30, 31 and 23). The Proposed Actions would result in a total of 402 incremental residential units being developed across the sites detailed above.

As the project is located in a combined sewer area and would result in the development of more

than 400 residential units in the Bronx, a preliminary assessment of the Proposed Development's impacts on both water supply infrastructure and wastewater and stormwater conveyance and treatment infrastructure is presented below.

Preliminary Analysis

Water Supply Infrastructure

Per the CEQR Technical Manual, a preliminary water supply infrastructure analysis is needed if the project would result in an exceptionally large demand for water (e.g., those that are projected to use more than one million gallons per day such as power plants, very large cooling systems, or large developments); or is located in an area that experiences low water pressure (e.g. areas at the end of the water supply distribution system such as the Rockaway Peninsula and Coney Island).

To estimate the water demand of a Proposed Project (in gallons per day), the CEQR Technical Manual provides water usage and sewage generation rates for impact assessments. These are summarized in **Table 11-1: Water Usage and Sewage Generation Rates.**

Table 11-1: Water Usage and Sewage Generation Rates

Use	Rate (Gallons Per Day)
Residential	100 gpd/person
Retail Stores	
Domestic	0.24 gpd/sf
Air Conditioning	0.17 gpd/sf
Commercial/Office	
Domestic	0.10 gpd/sf
Air Conditioning	0.17 gpd/sf
Hotel	
Domestic	120 gpd/rm/occupant
Air Conditioning	0.17 gpd/sf
Schools (day)	
Domestic	10 gpd/seat
Air Conditioning	0.17 gpd/sf
Note: These rates are for new uses incorporating low-flow fixtures, as required by law.	

Using the rates provided, the total estimated water usage of the Proposed Development is **340,689** gallons per day. The water usage of the Proposed Development by use is summarized in **Table 11-2: Project Water Usage and Sewage Generation.**

Table 11-2: Project Water Usage and Sewage Generation

	Units	Rates	With-Action Usage	Increment
Residential	1,082 residents	100gpd/Person	108,200gpd	108,200gpd
Retail Domestic	73,554 sf	0.24gpd/sf	17,653 gpd	17,653 gpd
Retail A/C	73,554 sf	0.17gpd/sf	12,504 gpd	12,504 gpd
Office Domestic	0 sf	0.10gpd/sf	0 gpd	0 gpd
Office A/C	0 sf	0.17gpd/sf	0 gpd	0 gpd
Hotel Domestic	0 Rooms	120gpd/Room[1]	0 gpd	0 gpd
Hotel A/C	0 sf	0.17gpd/sf	0 gpd	0 gpd
Schools Domestic	0 sf	10gpd/student	0 gpd	0 gpd
Schools A/C	0 sf	0.17gpd/sf	0 gpd	0 gpd
Total			**138,357 gpd**	**138,357 gpd**

The Proposed Development is not located in an area that experiences low water pressure and is not anticipated to consume more than 1 Million gallons of water per day. Further assessment of water supply infrastructure is therefore, not warranted.

Wastewater and Stormwater Infrastructure

Wastewater Treatment Plants and Collection Facilities

The Proposed Development is located in the Throg's Neck neighborhood of the Bronx. This area is serviced by the Hunt's Point Water Pollution Control Plant (WPCP). The Hunt's Point WPCP is located in the Hunt's Point section of the Bronx on the banks of the East River. The Hunt's Point WPCP treats wastewater from a Combined Sewer System, which serves all of the eastern half of the Bronx. The Hunt's Point WPCP received considerable upgrades in 2007 and will again be expanded and upgraded (Phase III of the renovation and expansion plan). An Environmental Impact Statement (EIS) and subsequent Technical Memorandum were produced in 2007 and 2020 respectively (05DEP023X). Treatment processes include: primary screening; raw sewage pumping; grit removal and primary settling; air activated sludge capable of operating in the step aeration mode; final settling; and chlorine disinfection.

As discussed above and summarized in **Table 11-2: Project Water Usage and Sewage Generation** the Proposed Development is expected to generate 125,853[1] gallons of wastewater per day. Per the CEQR Technical Manual, and information from the Department of Environmental Protection, the Hunt's Point WPCP is currently processing 200 Million Gallons per Day (MGD). The wastewater from the Proposed Development represents 0.07% of the plant's operational capacity. The Hunt's Point WPCP has a design dry-weather flow capacity of 200 MGD and is designed to receive a maximum wet-weather flow of 400 MGD (two times design dry weather flow [2xDDWF]), with 300 MGD (one and one-half times design dry-weather flow [1.5xDDWF]) receiving secondary treatment. Flows over 300 MGD receive primary treatment and disinfection.

[1] Per the 2021 CEQR Technical Manual expected daily sanitary sewage generation excludes air conditioning generation.

The wastewater from the Proposed Development is therefore not expected to significantly strain the wastewater infrastructure in the area. No further assessment of water treatment plants or collection plants is warranted.

Sanitary and Stormwater Drainage and Management

Per the CEQR Technical Manual, if analyses indicate the project would increase flows of stormwater, overburden the wastewater or stormwater infrastructure, or create the potential to result in additional Combined Sewage Overflow (CSO) volumes or events, changes to the affected sewer system the Proposed Project may have a significant on water infrastructure.

As described in the EAS, the Project Sites are currently occupied by a variety of different uses. Currently, only Projected Development Sites (PDS) 3 and 4 are undisturbed (neither paved over nor developed). The existing conditions across Projected Development Sites 1-6 consist of 35,107 sf of grass (PDS 3 and PDS 4), 50,173 sf of roofs (assumes an average of 0.6 FAR on PDS 1, 2, 5, and 6), and 33,448 sf of pavement. The combined 118,728 sf of area across PDS 1-6 therefore have a weighted runoff coefficient of 0.72.

The Proposed Actions are anticipated to introduce green landscaping, and other softscape elements to Projected Development Sites 1-4. In order to present a conservative analysis, it is assumed that in the future With Action Scenario buildings on Projected Development Sites 1-6 would not include any permeable surfaces and that buildings would cover 100% of the lot area. This ensures that the Stormwater Runoff Coefficient in the With-Action Scenario is as high as possible. The Weighted Runoff Coefficient in the With-Action Scenario is 1.00. The Proposed Action will result in an increase in total impermeable surface of the combined Project Sites. (PD 1-6).

As demonstrated in the summary table below, the With-Action scenario is expected to increase the volume of water to the Combined Sewage System (CSS) during rainfall events. The Proposed Actions will increase total volume to the CSS during rain events of 2.5 inches for 19.5 hours from 0.13 Million Gallons (MG) to 0.32 MG. This represents an increase of 0.19 MG in the With-Action Scenario over existing conditions. Therefore, the Proposed Development is likely to increase overall stormwater runoff within the Project Area. The increase of 0.19 MG represents less than 0.1% of capacity at the Hunt's Point WPCP. The Proposed Actions would increase CSO volumes however, this would not increase the likelihood of CSO events. The Proposed Development does not have the potential to create significant stormwater drainage impacts.

Conclusion

Approval of the Proposed Actions would result in an approximate increase of **138,357 gallons per day** in water consumption compared to the No-Action condition. The Proposed Development would also introduce 125,853 gallons of sewage to the Hunt's Point Wastewater Pollution Control Plant (WPCP). This increase would represent **0.07%** of the total capacity of the Hunt's Point WCPC and is therefore not anticipated to result in significant adverse impacts. Further, the Hunt's Point WPCP has received multiple efficiency and capacity upgrades in the last decade. The Proposed Development would increase the total impermeable surface of the Project Site and therefore increase stormwater volumes. The increase in stormwater volume, (0.19 MG) would not contribute to CSO events. No significant adverse impacts to water or sewer infrastructure are anticipated as a result of development facilitated by the approval of the Proposed Actions.

COMPARISON OF EXISTING AND WITH-ACTION VOLUME

CSO SUBCATCHMENT AREA:[1] Hunt's Point

EXISTING

		Area = 118,728 SF (2.73 ACRES)				Area = XX,XXX SF (XX.XX ACRES)				
		SITE A				SITE B[2]				SITE A & B
RAINFALL VOLUME (in)	RAINFALL DURATION (hr)[3]	RUNOFF VOLUME DIRECT DRAINAGE (MG)[4]	RUNOFF VOLUME TO CSS (MG)	SANITARY VOLUME TO CSS (MG)	TOTAL VOLUME TO CSS (MG)	RUNOFF VOLUME TO RIVER (MG)	RUNOFF VOLUME TO CSS (MG)	SANITARY VOLUME TO CSS (MG)	TOTAL VOLUME TO CSS (MG)	TOTAL VOLUME TO CSS (MG)
0.00	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.40	3.80	0.02	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.02
1.20	11.30	0.06	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.06
2.50	19.50	0.13	0.13	0.00	0.13	0.00	0.00	0.00	0.00	0.13

With-Action

		Area = 118,728 SF (2.73 ACRES)				Area = XX,XXX SF (XX.XX ACRES)				
		SITE A				SITE B[2]				SITE A & B
RAINFALL VOLUME (in)	RAINFALL DURATION (hr)[3]	RUNOFF VOLUME DIRECT DRAINAGE (MG)[4]	RUNOFF VOLUME TO CSS (MG)	SANITARY VOLUME TO CSS (MG)	TOTAL VOLUME TO CSS (MG)	RUNOFF VOLUME TO RIVER (MG)	RUNOFF VOLUME TO CSS (MG)	SANITARY VOLUME TO CSS (MG)	TOTAL VOLUME TO CSS (MG)	TOTAL VOLUME TO CSS (MG)
0.00	3.80	0.00	0.00	0.13	0.13	0.00	0.00	0.00	0.00	0.13
0.40	3.80	0.03	0.03	0.13	0.16	0.00	0.00	0.00	0.00	0.16
1.20	11.30	0.09	0.09	0.13	0.22	0.00	0.00	0.00	0.00	0.22
2.50	19.50	0.19	0.19	0.13	0.32	0.00	0.00	0.00	0.00	0.32

[1] If the proposed project crosses over several different CSO subcatchment areas, the above summary table should be completed for each CSO sub-catchment area.

[2] If proposed project includes a phased implementation plan or discrete sites, assess volumes using additional cells above (e.g., Site B).

[3] Based on ***Intensity/duration/Frequency Rainfall Analysis, New York City and the Catskill Mountain Water Supply Reservoirs,*** Vieux & Associates, Inc., April 4, 2006. The 24-hour rainfall volume is based on average rainfall intensity over 24-hours (inch/per) times 24 hrs. (Duration information provided by T. Newman & P. Jadhav, HydroQual).

[4] The volume (calculated in WS2) of stormwater runoff from any portion of the proposed project site draining to a separate storm sewer or as overland flow directly to a waterbody should be entered here.

SURFACE CALCULATIONS

CSO SUBCATHMENT OR RECEIVING WATERBODY FOR STORM SEWER OR DIRECT DISCHARGE Hunt's Point

	EXISTING					
	WEIGHTED RUNOFF COEFFICIENT, C					
	SURFACE TYPE[1]	ROOF[2]	PAVT & WALKS	OTHER[3]	GRASS & SOFT SCAPE	TOTAL
SITE A	AREA, %	42%	28%	0%	30%	100%
	SURFACE AREA, SF	50173	33448	0	35107	118728
	RUNOFF COEFFICIENT	1.00	0.85	0.85	0.20	**0.72**
SITE B	AREA, %	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	SURFACE AREA, SF	0	0	0	0	0
	RUNOFF COEFFICIENT	1.00	0.85	0.85	0.20	**#DIV/0!**

NOTES:

1 Runoff coefficients for each surface type are as per DEP.

2 Total roof areas onsite.

3 Identify any other surfaces onsite and obtain runoff coefficients from DEP.

CSO SUBCATHMENT OR RECEIVING WATERBODY FOR STORM SEWER OR DIRECT DISCHARGE Hunt's Point

	WITH-ACTION SCENARIO (PROJECT + NO-ACTION SCENARIO)					
	WEIGHTED RUNOFF COEFFICIENT, C					
	SURFACE TYPE[1]	ROOF[2]	PAVT & WALKS	OTHER[3]	GRASS & SOFT SCAPE	TOTAL
SITE A	AREA, %	100%	0%	0%	0%	100%
	SURFACE AREA, SF	118728	0	0	0	118728
	RUNOFF COEFFICIENT	1.00	0.85	0.85	0.20	**1.00**
SITE B	AREA, %	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	SURFACE AREA, SF	0	0	0	0	0
	RUNOFF COEFFICIENT	1.00	0.85	0.85	0.20	**#DIV/0!**

NOTES:

1 Runoff coefficients for each surface type are as per NYCDEP.

2 Total roof areas onsite.

3 Identify any other surfaces onsite and obtain runoff coefficients from NYCDEP.

EXISTING:

CSO SUBCATCHMENT AREA: Hunt's Point

Rainfall, in	Duration, hr	Total Area (A), acre	Weighted Runoff Coefficient (C)	Stormwater to CSS, MG	Daily Sanitary Sewage Generation per CEQR TM, MGD	Sanitary to CSS , MG
0.00	3.80	2.73	0.72	0.00	0.00	0.000
0.40	3.80	2.73	0.72	0.02	0.00	0.000
1.20	11.30	2.73	0.72	0.06	0.00	0.000
2.50	19.50	2.73	0.72	0.13	0.00	0.000

RECEIVING WATERBODY FOR STORM SEWER OR DIRECT DISCHARGE: Hunt's Point

Rainfall, in	Duration, hr	Total Area (A), acre	Weighted Runoff Coefficient (C)	Stormwater Runoff, MG	Daily Sanitary Sewage Generation per CEQR TM, MGD	Sanitary to CSS, MG	TOTAL Sanitary to CSS, MG	TOTAL TO CSS, MG
0.00	3.80	2.73	0.72	0.00	0.00	0.000	0.000	0.00
0.40	3.80	2.73	0.72	0.02	0.00	0.000	0.000	0.02
1.20	11.30	2.73	0.72	0.06	0.00	0.000	0.000	0.06
2.50	19.50	2.73	0.72	0.13	0.00	0.000	0.000	0.13

WITH-ACTION SCENARIO (PROPOSED PROJECT + WITHOUT ACTION SCENARIO):

CSO SUBCATCHMENT AREA: Hunt's Point

Rainfall (I), in	Duration, hr	Total Area (A), acre	Weighted Runoff Coefficient (C)	Stormwater to CSS, MG	Daily Sanitary Sewage Generation per CEQR TM, MGD	Sanitary to CSS , MG
0.00	3.80	2.73	1.00	0.00	0.13	0.021
0.40	3.80	2.73	1.00	0.03	0.13	0.021
1.20	11.30	2.73	1.00	0.09	0.13	0.061
2.50	19.50	2.73	1.00	0.19	0.13	0.106

RECEIVING WATERBODY FOR STORM SEWER OR DIRECT DIS Hunt's Point

Rainfall (I), in	Duration, hr	Total Area (A), acre	Weighted Runoff Coefficient (C)	Stormwater Runoff, MG	Daily Sanitary Sewage Generation per CEQR TM, MGD	Sanitary to CSS, MG	TOTAL Sanitary to CSS , MG	TOTAL TO CSS, MG
0.00	3.80	2.73	1.00	0.00	0.13	0.021	0.041	0.04
0.40	3.80	2.73	1.00	0.03	0.13	0.021	0.041	0.07
1.20	11.30	2.73	1.00	0.09	0.13	0.061	0.122	0.21
2.50	19.50	2.73	1.00	0.19	0.13	0.106	0.211	0.40

9. Hazardous Materials

Introduction

A hazardous material is any substance that poses a threat to human health or the environment. Substances that can be of concern include but are not limited to, heavy metals, volatile and semivolatile organic compounds, methane, polychlorinated biphenyls, and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive, or toxic). According to the *CEQR Technical Manual*, the potential for significant adverse impacts from hazardous materials can occur when: a) hazardous materials exist on a site and b) an action would increase pathways to their exposure; or c) an action would introduce new activities or processes using hazardous materials.

In accordance with the *CEQR Technical Manual* guidelines, an assessment was conducted to determine whether the proposed action could lead to increased exposure of people or the environment to hazardous materials and whether the increased exposure would result in significant adverse public health impacts or environmental damage. Since the Proposed Actions are anticipated to result in increased ground disturbance, an assessment of Hazardous Materials is required.

Environmental Studies Corp. has performed a Phase I Environmental Site Assessment (ESA) of the four applicant-controlled properties associated with the Brucker Boulevard Rezoning, as follows:

- Bruckner Rezoning Site A (Projected Development Site 1), located at 2945-2965 Bruckner Boulevard, in the Borough of the Bronx, New York City, New York.
- Bruckner Boulevard Rezoning Site B (Projected Development Site 2), located at 2917-2939 Bruckner Boulevard, 1117-1121 Edison Avenue, and 2922 and 2936 Meyers Street, in the Borough of the Bronx, New York City, New York.
- Bruckner Rezoning Site C (Projected Development Site 3), Block 5306, Lots 8, 18, 19, 22 & 23, located at the northeast corner of the intersection of Bruckner Boulevard and Revere Avenue, in the Borough of the Bronx, New York City, New York.
- Bruckner Rezoning Site D (Projected Development Site 4), located at 2719-2741 Bruckner Boulevard, in the Borough of the Bronx, New York City, New York.

These Phase I ESAs were prepared in accordance with the latest ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Designation E 1527-13).

Summaries of the findings of all four Phase I ESAs are included below.

Summary of Site A (Projected Development Site 1)

Site Description

The subject property at 2945-2965 Bruckner Boulevard, Bronx, New York, is a 40,000+/- square foot, rectangular shaped parcel. The property is occupied by a Super Foodtown grocery store, with a 1-story (plus basement), masonry and steel frame commercial building on the south side of the lot. The building has an approximate footprint of 19,000 square feet, with a 2-story office mezzanine on the west side. The first floor contains the retail store, a small office, and bathrooms. The basement contains general storage space, walk-in refrigerators, and the refrigeration compressor room. Heat and hot water for the building are provided by gas-fired systems. The northern half of the site contains an asphalt-paved parking area, and a one-berth loading bay.

Site History

Research into the history of the property reveals that there was a 1-story stable located on the site, which was an accessory structure to a nearby dwelling, from at least 1893 until its demolition sometime between 1909 and 1919. The property remained undeveloped and vacant until 1940. From 1940 to 2003, there were two 1-story retail buildings on the south side of the site, with parking on the northern part of the lot. The eastern building was occupied by an A&P grocery store from 1940 to 2002. The identified former occupants of the western building are Drayer's Tavern (1940 to 1976), Mil-One Hour Cleaner (1965), Judo and Jiu Jitsu centers (early 1980s), fitness centers (1980s & 1990s), and construction/home improvement companies (1980s & 1990s). With the exception of Mil-One Hour Cleaners, the identified former occupants of the project site are not types of businesses or operations that typically store or use hazardous substances or petroleum products.

It is not known how long Mil-One Hour Cleaners operated at the project site. This business is listed at the subject property only in the 1965 reverse telephone directory. However, the city directory abstract for the project site includes a review of the 1961, 1965 and 1971 directories, and therefore this business could have operated at the site anytime between 1962 and 1970. Dry cleaners typically use various solvents and other chemicals including tetrachloroethylene, also known as perchloroethylene or perc, in their operations. Any past spills, leaks or discharges of such materials at the site would represent a potential source of contamination to the property. In addition, solvents such as perc have the propensity to move through the soil in the form of a vapor and therefore, the potential for the encroachment of vapors to the existing or any future buildings at the site exists.

In 2003, the two retail buildings at the site were altered, expanded and combined into the existing building. The entire property has been occupied by a Super Foodtown grocery store from 2004 to the present time.

Environmental Liens and Activity and Use Limitations

There were not any indications of Environmental Liens or Activity and Use Limitations found on file for the project site in the New York City Department of Finance records reviewed. There are any Environmental Liens or Activity and Use Limitations identified at the project site in the EDR database report.

Drainage Structures

Typical lavatory drains such as sinks and toilets were observed in the building. In addition, storm drains were present in the parking area on the north side of the site. According to information from the New York City Department of Buildings, stormwater and sanitary wastes from the site are discharged to the municipal sewer system. No chemical/oil staining or other indications of past spills, leaks or discharges of hazardous substances or petroleum products were observed around any of the drainage structures at the property

Petroleum Storage Tanks

No aboveground storage tanks (ASTs), or visible indications of the presence of underground storage tanks (USTs), such as fillports, vent lines, associated mechanical equipment, etc., were observed at the property during the site visit. The property is not identified in the New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage (PBS) database, which lists all registered facilities with a total combined petroleum storage capacity in excess of 1,100 gallons. There are not any Oil Burner Applications on file for the project site in the New York City Department of Buildings (NYCDOB) records reviewed.

According to information from the New York City Department of Buildings, there was a diesel generator and a 275-gallon diesel fuel tank installed at the subject property by the A&P supermarket in 1995. No evidence of this tank or generator was found at the property during the site visit. It is possible that they were removed when the building was re-constructed in 2003.

Asbestos/Lead-Based Paints/PCBs

No suspected asbestos-containing materials or lead-based paints were observed at the property during the site visit. There is a pad-mounted, electric transformer located near the northeast corner of the property. It is likely that this transformer is owned and maintained by Con Edison, the local electric utility. No staining or other indications of past oil leaks were observed around this transformer.

Regulatory Agency Records

The subject property is not identified in any of the Federal or State environmental databases reviewed, including the USEPA's Superfund, CORRACTS, CERCLIS or ERNS databases, the RCRA Hazardous Waste Generators list or hazardous waste Treatment/Storage/Disposal Facilities list, or the NYSDEC's Spill Logs database, Petroleum Bulk Storage database, Solid Waste Facilities database, Voluntary Cleanup Program, Brownfield Cleanup Program, or the Registry of Inactive Hazardous Waste Disposal Sites.

Surrounding Land Uses

The project site is adjoined to the north by single-family dwellings. Adjacent and to the south of the site is Bruckner Boulevard, beyond which is a church. Adjacent and to the east is Crosby Avenue, beyond which is a small park and the Senator John D. Calandra School (Public School 14). The property is adjoined to the west by a 1-story

commercial office building and single-family dwellings. Land uses in the immediate vicinity of the project site (i.e., within approximately 500 feet) are predominantly comprised of residential and commercial/retail.

A review of Sanborn maps shows that the project site has been adjoined by residential uses since at least the 1930s. Land uses in the immediate area of the property have been predominantly residential and commercial/retail since at least the 1930s. There are not any heavy industrial facilities identified in the immediate vicinity of the project site on any of the historical Sanborn maps reviewed.

There were not any potential off-site sources of contamination which are considered likely to have impacted the project site identified in the regulatory agency database or historical information reviewed for this report.

Conclusions

A Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of 2945-2965 Bruckner Boulevard, Bronx, New York, the property, has been performed. Any exceptions to or deletions from this standard are described in the full Phase I ESA. This assessment has revealed no evidence of *Controlled Recognized Environmental Conditions* or *Historical Recognized Environmental Conditions* in connection with the property. This assessment as revealed no evidence of *Recognized Environmental Conditions* in connection with the property, with the following exceptions:

- The potential for impacts to the property from past on-site dry cleaning operations, including the potential for encroachment of vapors to existing and any new future buildings at the site.

Summary of Site B (Projected Development Site 2)

Site Description

The subject property at 2917-2939 Bruckner Boulevard, 1117-1121 Edison Avenue, and 2922 & 2936 Meyers Street, Bronx, New York, is a 28,000 square foot, L-shaped parcel consisting of seven adjoining tax lots. The property contains two 2-story dwellings, two 1-story commercial/retail buildings, and a 2-story office building. The rest of the site consists of partially-paved open yards, driveways and parking space. With the exception of the occupied dwelling at 2937 Bruckner Blvd., all of the buildings at the site have been vacant for at least the past five years.

Site History

Research into the history of the property reveals that the project site has been occupied by residential and commercial/retail uses since at least the 1890s.

Lot 35 was occupied by a combination of dwellings (as many as four), stables and barns from the 1890s to the 1960s. By 1977, all of the former structures on this lot had been demolished, and the lot became part of a larger garden center (Better Grow

Garden Center). The lot was occupied by the garden center until circa 2015. From 2015 to the present time the lot has been vacant, and occasionally used for parking and storage.

Lot 36 has contained a 2-story dwelling on the east side of the lot from at least 1893 to the present time. Between 1908 and the 1930s, there was also a detached garage on the west side of the lot which was used for storage and an unspecified shop.

Lot 41 was occupied by a 1-story, wood frame building from at least 1893 to the 1930s. The identified former uses in this structure include a stable, and outhouse, and a shop (in 1919). This building was demolished sometime between 1930 and 1950, at which time the existing 1-story retail building was constructed. The identified former occupants of the existing building include a fish market, restaurants (Holiday Clam Bar, Don Panini), a salon (Hairy Situations), a sports memorabilia store (Sport Card Korner), and, in 1971, American Plastic Cover (use unknown). This building has been vacant since at least 2011.

Lot 42 was part of a larger residential parcel from at least 1893 to the 1930s. During this time the lot was the rear yard of the dwelling, and in the 1930s contained a small accessory private garage. Sometime between 1930 and 1950, the existing 2-story dwelling was constructed on this lot.

Prior to 1950, Lot 44 was part of a larger residential parcel and was the undeveloped rear yard of this parcel. From 1950 to the present time this lot has been occupied by retail stores, and from at least 1965 to 2015, it was occupied by the Better Grow Garden Center/Better Gardens Florists, Inc. Part of this building was also occupied by a baseball instruction school in 2015 (Baseball Made Simple). This lot has remained vacant since circa 2015.

Lot 47 was part of a larger residential parcel and was the undeveloped rear yard of this parcel in the 1890s. In 1908 and 1919 this lot contained two dwellings. From 1930 to 1993 the lot was occupied by one dwelling. From 1995 to circa 2003, the lot contained one dwelling and a greenhouse, which was part of the Better Grow Garden Center. These structures were demolished circa 2003 and the lot was part of the garden center until 2015. It has remained vacant since 2015.

Lot 50 was part of a larger residential parcel and was the undeveloped rear yard of this parcel from the 1890s to the 1930s. Sometime between 1930 and 1950, the existing 2-story building was constructed on the lot. From the time of its construction to 1965, this building was a 1-family dwelling. In 1965 the use of the building was converted to professional offices, including dentist offices. The building was occupied by dentist offices and professional offices from 1965 to circa 2015. This building has been vacant since 2015.

Dentists offices are types of operations which typically involve the storage or use of hazardous substances, specifically x-ray photo-developing fluids. However, and given the likelihood that the building has been connected to the municipal sewer system since its construction, any such wastes would have been carried off-site via the sewer system. In addition, while it is likely that small quantities of fertilizers and pesticides would have been stored and packaged for retail sale by the garden center,

it is considered unlikely that significant quantities of such materials would have been applied to the site. The remaining identified former uses of the project site are not types of businesses or operations which typically involve the storage or use of hazardous substances.

In January of 2014, a Phase II Environmental Site Investigation was performed at the site for the New York City School Construction Authority for a potential public-school facility at the subject property. Historical fill materials to a maximum depth of 12 feet below grade were found throughout the site. Field screening of samples collected from a bore hole located outside the east wall of the building on Lot 41 found indications of petroleum contamination in the soil and groundwater from 13 to 19 feet below grade. The New York State Department of Environmental Conservation (NYSDEC) was notified, and on January 14th, 2014, assigned Spill Number 1309994 to the site.

The Phase II investigation found no obvious source for the contamination, but it was suspected to have originated from on-site petroleum use. At the time of the site visit, indications of the presence of two petroleum storage tanks were observed in the area. It is not known if these tanks are located in the basement of the building on Lot 41, or below the sidewalk. No anomalies consistent with underground storage tanks were found in the area during the geophysical survey performed as part of the Phase II investigation. Sanborn historical maps show that there was formerly a 1-story building at this location from the 1890s to the 1930s, and the use of the building is shown as a shop on the 1919 Sanborn map. Given the depth that the contamination was found, it is possible that it is originated from this former building/use.

Laboratory analysis of the soil sample collected from the 13' to 19' depth did not show concentrations of petroleum-related contaminants in excess of applicable soil cleanup objectives. However, groundwater samples from this location exhibited concentrations of five volatile organic compounds (VOCs) and one semi- volatile organic compound (SVOC) in excess of applicable regulatory groundwater standards.

With the exception of acetone, no VOCs were detected at concentrations exceeding soil cleanup objectives in any of the soil samples analyzed during the Phase II. Acetone is a common laboratory contaminant, and the Phase II identifies laboratory contamination as the likely source of acetone in the sample. Six SVOCs at concentrations exceeding soil cleanup objectives were identified in one of the other soil samples. No SVOCs were identified in the remaining soil samples. Concentrations of three pesticides were detected at concentrations exceeding soil cleanup objectives in one of the soil samples. Concentrations of metals exceeding soil cleanup objectives were detected in samples from all boring locations at the site. The Phase II identifies the historical fill materials as the likely source of the metal and pesticide contamination at the site. However, based on the results of the analyses of soil samples collected during the Phase II for waste characterization/soil disposal purposes, material excavated from the site is expected to be non-hazardous excavated material.

Four of the six groundwater samples collected during the Phase II did not exhibit concentrations of VOCs or SVOCs in excess of applicable groundwater standards.

Five VOCs and one SVOC were detected at concentrations in excess of applicable groundwater standards in the groundwater sample collected from outside the east wall of the building on Lot 41. There were concentrations of two VOCs slightly in excess of applicable groundwater standards found in one other groundwater sample from the site. Concentrations of both total and dissolved metals in excess of applicable groundwater standards were detected in all of the groundwater samples collected from the site.

Petroleum-related VOCs were detected in soil vapor samples at concentrations slightly exceeding comparison criteria which are likely attributable to the petroleum impacts noted in the subsurface soil and groundwater at the site.

The report includes the following recommendations: The proper characterization, handling and disposal of soils excavated and removed from the site; in order to prevent petroleum-related VOCs in soil vapor from entering future buildings at the site, a soil vapor barrier should be integrated into the design of future buildings at the site; if landscaped areas are incorporated into the development of the site, any exposed soil should be covered by a minimum 2-foot thick layers of environmentally-clean fill; and provisions should be in place for the appropriate removal and disposal of ASTs and/or USTs that may be encountered during construction.

Spill Number 1309994 was closed by the NYSDEC on 3/30/2016.

Environmental Liens and Activity and Use Limitations

There were not any indications of Environmental Liens or Activity and Use Limitations found on file for the project site in the New York City Department of Finance records reviewed. There are any Environmental Liens or Activity and Use Limitations identified at the project site in the EDR database report.

Drainage Structures

Typical lavatory drains such as sinks and toilets are present in the buildings at the project site. It is likely that these discharge to the municipal sewer system. No storm drains, drywells, trench drains or other such drainage structures were observed.

Petroleum Storage Tanks

A fuel oil tank fillport and vent line were observed protruding from the south wall of the dwelling on Lot 36. A fuel oil tank fillport and vent line were present outside the west wall of the dwelling on Lot 42, and a fuel oil tank fillport and vent line were observed protruding from the east wall of the building on Lot 50. There was also one fuel oil tank fillport and two tank vent lines present in the sidewalk immediately outside the west wall of the building on Lot 41. These are reportedly connected to aboveground fuel oil tanks in the buildings. No other aboveground storage tanks (ASTs), or indications of the presence of underground storage tanks (USTs), such as additional tank fillports or vent lines, were observed at the property during the site visit.

The property is not identified in the NYSDEC Petroleum Bulk Storage (PBS) database, which lists all registered facilities with a petroleum storage capacity in excess of 1,100

gallons. In addition, there were not any Oil Burner applications found on file for the project site in the NYCDOB records reviewed.

It is not known how the buildings formerly located at the project site were heated (e.g., oil, gas, coal, electric, etc.). No anomalies consistent with underground storage tanks were found at the project site during the geophysical survey performed as part of the Phase II report. However, any fuel oil tanks discovered at the site during re-development of the project site should be properly removed and disposed in accordance with all applicable regulations.

Asbestos/Lead-Based Paints/PCBs

Given the age of the buildings on the subject property, it is possible that they contain asbestos building materials and lead-based paints. No electrical transformers or other equipment suspected of containing PCBs were observed at the project site.

Regulatory Agency Records

The subject property is identified in the NYSDEC Spills database. The property is not identified in any of the other Federal or State environmental databases reviewed, including the USEPA's Superfund, CORRACTS, CERCLIS or ERNS databases, the RCRA Hazardous Waste Generators list or hazardous waste Treatment/Storage/Disposal Facilities list, or the NYSDEC's Spill Logs database, Petroleum Bulk Storage database, Solid Waste Facilities database, Voluntary Cleanup Program, Brownfield Cleanup Program, or the Registry of Inactive Hazardous Waste Disposal Sites.

Surrounding Land Uses

The project site is adjoined to the north by single-family dwellings and a parking lot. Adjacent and to the south of the site is Bruckner Boulevard, beyond which is the Bruckner Expressway, residential apartments, retail stores and a fire house. Adjacent and to the east of the property is Edison Avenue, beyond which are residential dwellings, a professional office building and grocery store. The site is adjoined to the west by professional office uses and retail stores.

Land uses in the immediate vicinity of the project site (i.e., within approximately 500 feet) are predominantly comprised of residential and commercial/retail. There are not any heavy industrial uses located in the immediate vicinity of the project site. There is an active gasoline filling station located at 3424 East Tremont Avenue, which is located approximately 300 feet southwest of the project site. There are not any open NYSDEC-reported spill incidents identified at this filling station. There is also an active filling station at 3355 East Tremont Avenue, which is located approximately 400 feet northwest of the project site. There is one NYSDEC-reported spill incident identified at this location which has not been closed by the NYSDEC. According to information in the spill report, the direction of groundwater flow at this site is to the west, away from the subject property. Given this information, it is considered unlikely that this filling station would have impacted the property.

A review of Sanborn maps shows that the project site has been adjoined by residential uses, commercial/retail uses, and a firehouse least the 1930s. Land uses in the

immediate area of the site have been predominantly residential and commercial/retail since that time. There are not any heavy industrial facilities identified in the immediate vicinity of the project site on any of the historical Sanborn maps reviewed.

There were not any potential off-site sources of contamination which are considered likely to have impacted the project site identified in the regulatory agency database or historical information reviewed for this report.

Conclusions

A Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of 2917-2939 Bruckner Boulevard, 1117-1121 Edison Avenue, and 2922 & 2936 Meyers Street, Bronx, New York, the property, has been performed. Any exceptions to or deletions from this standard are described in section A of the full Phase I report. This assessment has revealed no evidence of *Controlled Recognized Environmental Conditions* in connection with the property. This assessment has revealed no evidence of *Historical Recognized Environmental Conditions* in connection with the property, with the following exception:

- Spill Number 1309994, assigned to the project site on January 14th, 2014, was closed by the NYSDEC on March 30th, 2016.

This assessment as revealed no evidence of *Recognized Environmental Conditions* in connection with the property, with the following exceptions:

- The presence of historical fill materials to a maximum depth of 12 feet below grade at the project site.
- The presence of contamination in excess of regulatory standards and/or cleanup objectives in the soil, groundwater, and soil vapor at the project site.
- The presence of five or more petroleum storage tanks at the project site, four of which are currently out of service.

Summary of Site C (Projected Development Site 3)

Site Description

The subject property referred to as Bruckner Boulevard Rezoning Site C, consists of five adjoining tax lots (Lots 8, 18, 19, 22 & 23) on Block 5306, at the northwest corner of the intersection of Bruckner Boulevard and Revere Avenue, in the Borough of the Bronx, New York City, New York. The property has a total combined area of approximately 17,850 square feet, and all five lots are vacant and undeveloped. The surface of the site is unpaved and partially covered by weeds and other low vegetation, with exposed soils in some areas. In general, the surface soils appear to be dark, organic soils. There are also several mature trees scattered around the property.

Small quantities of typical household garbage and debris including paper, bottles, cans, plastic, etc., as well as wood, bricks and concrete and other construction debris, were present on the property at the time of the site visit. However, there were no indications of the on-site storage, use or disposal of hazardous materials or petroleum

products observed, such as chemical/oil stained soils, discarded drums or chemical containers, dead or dying vegetation, etc.

Site History

Research into the history of the property reveals that there was a 1-story stable on the site in 1898, which was an accessory structure to a nearby dwelling. This stable was demolished sometime before 1908, and from 1908 to sometime between 1930 and 1950, the site remained vacant and undeveloped. By 1950 a small, 1-story storage building was constructed on the north half of the site. This structure was most likely an accessory storage structure for the adjoining building at 3392 East Tremont Avenue, which has historically been occupied by a restaurant and an apartment. Sometime between 1950 and 1967, a small 1-car garage was constructed on the south half of the lot, and was also most likely an accessory structure for an adjoining building. During the 1980s, there was also a driveway across the property leading from Revere Avenue to the rear of an adjoining building along East Tremont Avenue. The rest of the project site has historically been undeveloped, vacant land covered by low vegetation.

All of the former structures on the property had been demolished by 2009, and the site has remained vacant and undeveloped since that time. The identified former uses of the subject property are not types of operations which typically involve the storage or use of hazardous substances or petroleum products.

Environmental Liens and Activity and Use Limitations

There were not any indications of Environmental Liens or Activity and Use Limitations found on file for the project site in the New York City Department of Finance records reviewed. There are any Environmental Liens or Activity and Use Limitations identified at the project site in the EDR database report.

Drainage Structures

No lavatory drains, floor drains, drywells, trench drains or other such drainage structures were observed at the project site. Stormwater and sanitary wastes in the surrounding area are discharged to the municipal combined sewer system.

Petroleum Storage Tanks

A discarded, 275-gallon aboveground storage tank was present on the southeast part of the site. This tank appeared to be empty. There were also several beer and beverage kegs stored in the area, and it is likely that these items were being stored by the adjoining restaurant at 3392 East Tremont Avenue. No staining or other indications of past spills or leaks were observed around the tank. No additional aboveground storage tanks (ASTs), or visible indications of the presence of underground storage tanks (USTs) such as fillports, vent lines, associated mechanical equipment, etc. were observed at the subject property during the site visit.

The property is not identified in the NYSDEC Petroleum Bulk Storage (PBS) database, which lists all registered facilities with a petroleum storage capacity in excess of 1,100 gallons. In addition, there were not any Oil Burner applications found on file for the project site in the NYCDOB records reviewed.

Asbestos/Lead-Based Paints/PCBs

No suspected asbestos-containing materials or lead-based paints were observed at the subject property during the site visit. No electrical transformers or other equipment suspected of containing PCBs were present at the project site.

Regulatory Agency Records

The subject property is not identified in any of the Federal or State environmental databases reviewed, including the USEPA's Superfund, CORRACTS, CERCLIS or ERNS databases, the RCRA Hazardous Waste Generators list or hazardous waste Treatment/Storage/Disposal Facilities list, or the NYSDEC's Spill Logs database, Petroleum Bulk Storage database, Solid Waste Facilities database, Voluntary Cleanup Program, Brownfield Cleanup Program, or the Registry of Inactive Hazardous Waste Disposal Sites.

Surrounding Land Uses

The project site is adjoined to the north by St. Raymond's Cemetery. Adjacent and to the south of the site is Bruckner Boulevard, beyond which are a gasoline filling station and a restaurant/diner. Adjacent and to the east are 2-story commercial buildings occupied by retail stores, professional offices and restaurants. The property is adjoined to the west by Revere Avenue, beyond which are single-family dwellings. Land uses in the immediate vicinity of the project site (i.e., within approximately 500 feet) are predominantly comprised of residential and commercial/retail. There are not any heavy industrial uses located in the immediate vicinity of the project site.

There is an active gasoline filling station at 3424 East Tremont Avenue, which is located approximately 200 feet south/southeast of the project site. There are not any open NYSDEC-reported spill incidents identified at this filling station. There is also an active gasoline filling station at 3355 East Tremont Avenue, which is located approximately 400 feet north of the project site. There is one NYSDEC-reported spill incident identified at this station which has not been closed by the NYSDEC. According to information in the spill report, the direction of groundwater flow at this site is to the west. Given this information, it is considered unlikely that this filling station would have impacted the subject property.

A review of Sanborn maps shows that the project site has been adjoined by St. Raymond's Cemetery, residential uses, and commercial/retail uses, since at least the 1930s. Land uses in the immediate area of the site have been predominantly residential and commercial/retail since that time. There are not any heavy industrial facilities identified in the immediate vicinity of the project site on any of the historical Sanborn maps reviewed.

There were not any potential off-site sources of contamination which are considered likely to have impacted the project site identified in the regulatory agency database or historical information reviewed for this report.

Conclusions

A Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of the Bruckner Boulevard Rezoning Site C, Block 5603, Lots 8, 18, 19, 22 & 23, Bronx, New York, the property, has been performed. Any exceptions to or deletions from this standard are described in the full Phase I ESA. This assessment has revealed no evidence of *Recognized Environmental Conditions, Controlled Recognized Environmental Conditions* or *Historical Recognized Environmental Conditions* in connection with the property.

Summary of Site D (Projected Development Site 4)

Site Description

The subject property, referred to as Bruckner Boulevard Rezoning Site D at 2719-2741 Bruckner Boulevard, Bronx, New York, consists of five adjoining tax lots with a total combined area of approximately 17,260 square feet. All five lots are vacant and undeveloped, and were overgrown with tress and dense vegetation at the time of the site visit. The surface was covered with fallen leaves, sticks and branches, and was generally uneven with several low spots/depressions on the north side of the site. There is a chain link fence running across the center of the property in a north/south direction, and there were also several small, wood structures on the east side of the site which appeared to be part of a former garden or possibly raised planting beds.

Small quantities of typical household garbage and debris including paper, bottles, cans, plastics, etc., as well as wood, bricks and concrete and other construction debris, were present on the property at the time of the site visit. However, there were no indications of the on-site storage, use or disposal of hazardous materials or petroleum products observed, such as chemical/oil stained soils, discarded drums or chemical containers, dead or dying vegetation, etc.

Site History

Research into the history of the property reveals that the project site was undeveloped, vacant land from at least 1898 to 1919.

Lot 61 contained a 1-story shed, a 1-car garage, and a 2-car garage in 1930, all of which were accessory structures to a nearby dwelling. These structures were demolished sometime between 1930 and 1950, and this lot has remained vacant since that time.

Lots 63 and 64 both contained 2-story dwellings from at least 1930 to early 1967, at which time these dwellings were demolished. These lots have remained vacant since 1967.

Lot 66 remained vacant until 1954, at which time a small, 1-story commercial building occupied by a snack bar was constructed on the lot. This building was demolished in early 1967 and Lot 66 has remained vacant since that time.

Lot 67. Sometime between 1919 and 1930, a 1- and 2-story industrial building was constructed. The identified former occupants/uses in this building are cement block manufacturing, marine engine sales and service, and Barwitt Machining and

Engraving. This building was demolished in early 1967 and this lot has remained vacant since that time.

The cement block manufacturing, marine engine sales and service, and machining and engraving operations are types of uses that typically involve the storage or use of hazardous substances and petroleum products. Any past spills, leaks or discharges of such materials would be a potential source of contamination to the project site. The other identified uses of the property (i.e., vacant, undeveloped land, residential dwellings, snack bar) are not types of operations that typically involve the storage or use of hazardous substances or petroleum products.

Environmental Liens and Activity and Use Limitations

There were not any indications of Environmental Liens or Activity and Use Limitations found on file for the project site in the New York City Department of Finance records reviewed. There are any Environmental Liens or Activity and Use Limitations identified at the project site in the EDR database report.

Drainage Structures

No lavatory drains, floor drains, drywells, trench drains or other such drainage structures were observed at the project site. Stormwater and sanitary wastes in the surrounding area are discharged to the municipal combined sewer system.

Petroleum Storage Tanks

No aboveground storage tanks (ASTs), or visible indications of the presence of underground storage tanks (USTs) such as fillports, vent lines, associated mechanical equipment, etc. were observed at the subject property during the site visit.

The property is not identified in the New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage (PBS) database, which lists all registered facilities with a petroleum storage capacity in excess of 1,100 gallons. In addition, there were not any Oil Burner applications found on file for the project site in the New York City Department of Buildings (NYCDOB) records reviewed.

There were formerly two residential dwellings, a small commercial building, and an industrial building located at the subject property. It is not known how these former buildings were heated (e.g., oil, gas, coal, electric, etc.). Any past fuel oil tanks which were not removed from the site when these structures were demolished may remain at the subject property. Any fuel oil storage tanks found at the project site during re-development of the property should be properly removed and disposed of in accordance with all applicable NYSDEC and New York City Fire Department (FDNY) regulations.

Asbestos/Lead-Based Paints/PCBs

No suspected asbestos-containing materials or lead-based paints were observed at the subject property during the site visit. No electrical transformers or other equipment suspected of containing PCBs were noted on the project site.

Regulatory Agency Records

The subject property is not identified in any of the Federal or State environmental databases reviewed, including the USEPA's Superfund, CORRACTS, CERCLIS or ERNS databases, the RCRA Hazardous Waste Generators list or hazardous waste Treatment/Storage/Disposal Facilities list, or the NYSDEC's Spill Logs database, Petroleum Bulk Storage database, Solid Waste Facilities database, Voluntary Cleanup Program, Brownfield Cleanup Program, or the Registry of Inactive Hazardous Waste Disposal Sites.

Surrounding Land Uses

The project site is adjoined to the north, east and west by residential uses. Adjacent and to the south of the site is Bruckner Boulevard, beyond which is the Bruckner Expressway, apartments and a church. Land uses in the immediate vicinity of the project site (i.e., within approximately 500 feet) are a cemetery (St. Raymond Cemetery), residential uses, professional office uses, and a large, interstate highway interchange. There is a 1-story industrial/warehouse building and materials/equipment storage yard for the cemetery at 1140 Balcom Avenue, which is located approximately 100 feet west of the project site. There were not any heavy industrial uses or gasoline filling stations identified in the immediate vicinity of the project site.

A review of Sanborn maps shows that the project site has been adjoined by St. Raymond's Cemetery and residential uses since at least the 1930s. Land uses in the immediate area of the property have been predominantly the cemetery, and residential dwellings since that time. There are not any heavy industrial facilities identified in the immediate vicinity of the project site on any of the historical Sanborn maps reviewed. The 1930 Sanborn map shows a 1-story garage with two buried 550-gallon gasoline tanks approximately 50 feet east/southeast of the project site. These structures were removed sometime prior to 1950, and this site is now part of Bruckner Boulevard. There are not any NYSDEC-reported spill incidents at this location.

There were not any potential off-site sources of contamination which are considered likely to have impacted the project site identified in the regulatory agency database or historical information reviewed for this report.

Conclusions

A Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of the Bruckner Boulevard Rezoning Site D, located at 2719-2741 Bruckner Boulevard, Bronx, New York, the property, has been performed. Any exceptions to or deletions from this standard are described in the full Phase I ESA. This assessment has revealed no evidence of *Controlled Recognized Environmental Conditions* or *Historical Recognized Environmental Conditions* in connection with the property. This assessment has revealed no evidence of *Recognized Environmental Conditions* in connection with the property, with the following exceptions:

- The potential for site contamination from past cement block manufacturing operations, marine engine sales and service, and machining and engraving operations on Lot 67 of the subject property.

- The possible presence of fill materials of an unknown origin located at the project site.

Conclusion

As discussed above, the applicant controlled Projected Development Sites 1-4, have demonstrated the potential for *Recognized Environmental Conditions* and further assessment is required. Typically, as part of CEQR, a Phase II Environmental Site Assessment (ESA) would be conducted on the subject sites. It is not possible to conduct a Phase II ESA at this time on any of the applicant-owned Potential Development Sites. It should be noted that tests are not typically performed on non-applicant controlled sites.

On Projected Development Site 1, the existing grocery store described in Section 1 of this EAS is open and operational, preventing the collection of soil samples from the site.

On Projected Development Site 2, the existing commercial uses described in Section 1 of this EAS is open and operational, preventing the collection of soil samples from the site.

Projected Development Sites 3 and 4, are currently vacant. It is therefore possible to collect soil samples to perform further analysis. However, conducting a Phase II Environmental Site Analysis for these sites would require the coordination and participation of the various property owners who's sites are affected by the Proposed Actions. The complex ownership structure of the Projected Development Sites identified in this EAS, makes it difficult to ensure that the additional expense and time needed to conduct Phase II testing occurs during the Pre-Certification stage of these Proposed Actions.

It is, however possible to ensure that additional tests are conducted on this site before any construction would begin on the site through the use of an (E) Designation. The same is proposed for all non-applicant owned Projected Development Sites and the Potential Development Site as described below.

To ensure that there were no significant adverse impacts on the applicant-controlled Projected Development Sites 1-4, the non-applicant controlled Projected Development Sites 5 and 6 and the non-applicant controlled Potential Development Site A, (E) designations are proposed for all properties.

The requirements of the (E) Designation, **E-669**, would apply to the following parcels and be as follows:

Projected Development Site 1 - Block 5312, Lot 1
Projected Development Site 2 - Block 5309, Lots 35, 36, 41, 42, 44, 47, and 50
Projected Development Site 3 - Block 5306, Lots 8, 18, 19, 22, and 23
Projected Development Site 4 - Block 5307, Lots 55, 58, 61, 63, 64, 66, and 67
Projected Development Site 5 - Block 5309, Lots 1, 7, and 54
Projected Development Site 6 - Block 5307, Lots 73, 75, and 76
Potential Development Site A - Block 5306, Lots 28, 30, 31 and 231

Task 1:
The applicant submits to OER, for review and approval, a Phase 1A of the site along with a soil and groundwater testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of sample sites should be selected to adequately characterize the site, the specific source of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2:
A written report with findings and a summary of the data must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER. If remediation is indicated from the test results, a proposed remediation plan must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER. The applicant should then provide proper documentation that the work has been satisfactorily completed. An OER-approved construction-related health and safety plan would be implemented during evacuation and construction and activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil and/or groundwater. This plan would be submitted to OER for review and approval prior to implementation.
With the proposed (E) Designation in place, the Proposed Actions would not result in any potentially significant adverse impacts related to hazardous materials; therefore, no further analysis is necessary.

10. TRANSPORTATION

INTRODUCTION

Pursuant to the guidance of the *2020 City Environmental Quality Review (CEQR) Technical Manual,* this chapter examines the potential effects of the proposed project (RWCDS) on the study area's transportation systems. Specifically, it compares conditions in the future with the proposed project (the With Action condition) against conditions in the future without the proposed project (the No-Action)) in order to determine the potential for significant adverse impacts to transportation systems. The analyses consider the 2025 analysis year to identify potential impacts, and if warranted, identify improvement measures that would be appropriate to address those impacts.

PROJECT AREA

The Project Area is bound by Baisley Avenue (for Site 1), Meyers Street (for Sites 2 & 5), Patsy J Touhey Gravesite (for Site 3), Gifford Avenue (for Sites 4 & 6) to the north, Balcom Avenue to the west, Bruckner Boulevard (w/b) to the south and Crosby Avenue to the east in the Schuylerville section of the Bronx Community District #10, as illustrated in **Figure 1** and in the proposed Site Plans **(see Transportation Appendix).**

The Project Area is comprised of the following sites:

Site 1 (Block 5312, Lot 1): Located along Bruckner Boulevard W/B between Crosby and Edison Avenues and controlled by the applicant,

Site 2 (Block 5309, Lots 35, 36, 41, 42, 44, 47 & 50): Located along Bruckner Boulevard W/B between Edison and E. Tremont Avenues and controlled by the applicant,

Site 3 (Block 5306, Lots 8, 18, 19, 22 & 23): Located along Bruckner Boulevard W/B between E. Tremont and Revere Avenues and controlled by the applicant,

Site 4 (Block 5307, Lots 61, 63, 64, 66 & 67): Located along Bruckner Boulevard W/B between Gifford and Balcom Avenues and controlled by the applicant,

Site 5 (Block 5309, Lots 1, 7 & 54): Located along Bruckner Boulevard W/B between Edison and E. Tremont Avenues. The applicant does not control this site,

Site 6 (Block 5307, Lots 73, 75 & 76): Located along Bruckner Boulevard W/B between Gifford and Balcom Avenues. The applicant does not control this site.

NO-ACTION SCENARIO

Absent the proposed actions, the Development Sites is expected to remain as the Existing conditions, as described below and no new development is expected to occur within the Project Area.


St. Raymond Cemetery
St. Raymond Cemetery
St. Raymond Cemetery
Miele Park
Hutchinson River Parkway
E TREMONT AV
WHITTEMORE AV
BALCOM AV
WATERBURY AV
ELLISON AV
PURITAN AV
MAYFLOWER AV
BRADFORD AV
BAISLEY AV
EDISON AV
HASKIN ST
B ST
CROSBY AV
HOBART AV
THROGS NECK EXWY
FAIRFAX AV
BRUCKNER EXWY
OTIS AV
HOLLYWOOD AV
LOGAN AV
EDISON AV
GREENE PL
BARKLEY AV
REVERE AV
CALHOUN AV
QUINCY AV
SWINTON AV
GIFFORD AV
GRAFF AV
BRINSMADE AV
HUNTINGTON AV
BALCOM AV
1
2
3
4
5
6
A
N
0 175 350 700 FT
Projected Development Site (Applicant Controlled)
Projected Development Site (Non-Applicant Controlled)
Potential Development Site (Non-Applicant Controlled)
Combined 400-Foot Study Area Radius
Meyers Street Proposed Demapping
Open Space and Recreation

Applicant-controlled sites

In total, there is 4 dwelling units (3,916 sf) of residential floor area, 25,557 sf of commercial local retail floor area across the four applicant-controlled sites, with 52 accessory parking spaces on Projected Development Site 1. The majority of local retail space is represented by the Foodtown grocery store on Projected Development Site 1 (19,800 gsf). There is a cumulative 5,757 gsf of local retail on Projected Development Site 2, spread across three lots. There is no development on Projected Development Sites 3 and 4.

Non-applicant controlled sites

In total, there is 6,596 gsf of commercial local retail floor area, 6 dwelling units (4,416 sf) of residential floor area, and 4 parking spaces across the two non-applicant-controlled sites.

A total of 47,115 sf of vacant lots currently exists in the Project Area.

WITH-ACTION (RWCDS) SCENARIOS

Mixed-Use Residential and Commercial Local Retail Development

Applicant-controlled sites

Overall, the four proposed developments on Projected Development Sites 1-4 would contain 324,082 gsf of floor area, including 269,975 gsf of residential floor area (384 dwelling units, of which a total of 30 percent of units would be affordable pursuant to MIH) and 54,107 gsf of commercial local retail floor area. A total of 301 accessory parking spaces would be provided across all four sites as summarized in **Table 1** and illustrated in the Site Plans **(see Transportation Appendix).**

Non-applicant controlled sites

Overall, the two non-applicant controlled development sites on Projected Development Sites 5-6 would contain approximately 27,301 gsf of residential floor area (28 residential dwelling units, of which 20 percent (5 d.u.) would be affordable pursuant to MIH) and 5,308 gsf of commercial floor area. A total of 11 accessory parking spaces would be provided across two sites, as summarized in **Table 1**, and illustrated in the Site Plans **(see Transportation Appendix).**

The No-Actions, With-Action development scenarios and the Increment between the No-Action and With-Action development scenarios are summarized in **Table 1**.

Using the proposed development sites increment (**Table 1**) and approved and standard trip rates, modal split data, peak hour temporal distribution and truck trip rates, the proposed person and vehicle trips are estimated for the proposed mixed-use development as detailed below:

The proposed actions would generate a total of 439, 1,011, 773, and 792 person trip ends and 168, 125, 190, and 165 vehicle trip ends during the AM, Midday, PM and Saturday Midday peak

hours, respectively, as detailed in **Tables 3, 4, 6, 7, 9, 10, 12, 13, 15, 16, 18 and 19** and summarized in **Table 20 (see Transportation Appendix).**

PRINCIPAL CONCLUSIONS

TRAFFIC

Trip generation (Level-One Screening)
Based on the trip generation results for the proposed development sites, as presented in **Tables 4, 7, 10, 13, 16, and 19,** all peak hours vehicle trip-ends would exceed the *CEQR 50-vehicle peak hour trip* threshold and, therefore in accordance with the *CEQR Technical Manual criteria*, would trigger the need for a detailed assessment (level two screening) of traffic or parking impacts, as detailed below.

Trip Assignments (Level-Two Screening)

Autos and trucks were assigned to the on-site proposed parking facilities and truck loading/unloading areas, and taxis to the four corners of the proposed development sites, as shown in **Figures 10 through 13 (see Transportation Appendix).** Based upon vehicle trip-ends assignments, five (5) intersections, as listed below**,** would exceed 50-vehicle trip-ends threshold and therefore they would be analyzed in detail:

- Bruckner Boulevard Service Road (w/b) and Crosby Avenue (Signalized Intersection);
- Bruckner Boulevard Service Road (e/b) and Logan Avenue (Signalized Intersection);
- Bruckner Boulevard Service Road (w/b) and Edison Avenue (Un-Signalized Intersection);
- Bruckner Boulevard Service Road (w/b) and E Tremont Avenue (Signalized Intersection);
- Bruckner Boulevard Service Road (e/b) and E Tremont Avenue (Signalized Intersection);

Conclusions

Based on Level 1 and Level 2 screening analyses, as described above, it was concluded a detailed traffic analysis would be required, per the *CEQR Technical Manual,* for the above 5 intersections.

The detailed analysis concluded that in the future with the proposed rezoning, all five (5) intersections would operate in an acceptable LOS, below Mid LOS D, during all peak hours and there would be no significant adverse traffic impacts, as described below and shown in Levels of Service (LOS) summary **Tables 22 through 24 (Transportation Attachment)**.

TRANSIT

Subway
The proposed actions would generate a total of 87, and 102 net subway trip-ends during the AM, and PM peak hour time periods, respectively, as presented in **Tables 3, 6, 9, 12, 15, 18 and 21(see Transportation Appendix).**

The Project would generate fewer than 200 net peak hour subway trip ends during the AM and PM peak hours and based upon the *CEQR Technical Manual* would not trigger the need for a detailed assessment of subway impact.

Bus

The proposed action would generate a total of 35, and 42 net bus trip ends during the AM, and PM peak hour time periods, respectively, as presented in **Tables 3, 6, 9, 12, 15, 18 and 21(see Transportation Appendix).** Six (6) bus lines are operating in the proposed study area, Bx8 (along Crosby/Logan Avenues), Bx40, and BX42 (along E Tremont Avenue), BxM8, and Q50 (along Bruckner Boulevard w/b) and Bx51 and Q50 (along Bruckner Boulevard e/b).

The Project would generate fewer than 50 bus trip ends per line per direction in any peak hour and based upon the *CEQR Technical Manual* would not trigger the need for a detailed assessment of bus impact.

Bus plus Subway trips

Bus lines Bx8, Bx40 and Bx42 are also utilized for subway riders to and from Westchester Square/ E Tremont Avenue Subway Station, therefore, the proposed project would generate a total of (87+35=122), and (102+42=144) net bus trip-ends.

The Project would generate fewer than 50 bus trip ends per line per direction in any peak hour and based upon the *CEQR Technical Manual* would not trigger the need for a detailed assessment of bus impact.

Conclusions

Based on Level 1 screening analysis, as described above, it was concluded no detailed transit analysis would be required, per the *CEQR Technical Manual.*

PEDESTRIANS

The proposed action would generate a total of 257, 841, 548, and 598 net pedestrian (transit, walk and other) trip ends during the AM, Midday, PM, and Saturday Midday peak hour time periods, respectively. Based on the trip generation results for the proposed development sites, as presented in **Tables 3, 6, 9, 12, 15, 18 and 21(see Transportation Appendix),** all peak hours pedestrian trip-ends would exceed the *CEQR 200-pedestrian peak hour trip* threshold and, therefore in accordance with the *CEQR Technical Manual criteria*, would trigger the need for a detailed assessment (level two screening) of pedestrian impacts, as detailed below.

Trip Assignments (Level-Two Screening)

Project generated pedestrian trip-ends for all peak hour periods, Weekday AM, Midday, PM and Saturday Midday peak hour periods, were assigned to street networks, based on bus stop locations for bus riders, subway station for subway riders, and pedestrian destination for pedestrian to walk and shop, as shown in **Figures 6 through 9 (see Transportation Appendix),** for all peak hour periods.

Based upon pedestrian trip-ends assignments to/from bus stops, Westchester Square/E Tremont Avenue Subway Station, and pedestrian destination for walking and shopping, the following pedestrian elements (AM peak hour period would screen for detailed pedestrian analysis, per *CEQR*, as shown in **Figure 18**), as listed below, and shown in **Figures 19 through 21,** would exceed 200 trip-ends threshold and based upon the *CEQR Technical Manual* would warrant detailed pedestrian assessment.

AM Peak Hour period

Based on pedestrian trip assignment, as shown in **Figure 18,** no pedestrian element would exceed the *CEQR 200-pedestrian peak hour trip* threshold and, therefore in accordance with the *CEQR Technical Manual criteria*, no detailed assessment would be required.

Midday Peak Hour Period

Based on pedestrian trip assignment, as shown in **Figure 19,** a total of nine (9) pedestrian elements would exceed the *CEQR 200-pedestrian peak hour trip* threshold, and further detailed pedestrian analysis would be required, per the *CEQR Technical Manual.*

Sidewalk

- Bruckner Boulevard S.R. (w/b), between Edison and E Tremont Avenues, north sidewalk (S1),
- Bruckner Boulevard S.R. (w/b), between E Tremont and Revere Avenues, north sidewalk (S2).

Crosswalk

- Bruckner Boulevard S.R. (w/b) and E Tremont Avenue Intersection, north crosswalk (X1),
- Bruckner Boulevard S.R. (w/b) and Edison Avenue Intersection, north crosswalk (X2)

Corner

- Bruckner Boulevard S.R. (w/b) & E Tremont Avenue Intersection, N/E and N/W Corners (C1 & C2),
- Bruckner Boulevard S.R. (e/b) & E Tremont Avenue Intersection, S/E Corner (C3),
- Bruckner Boulevard S.R. (w/b) & Edison Avenue Intersection, N/W and N/E Corners (C4 & C5).

PM Peak Hour Period

Based on pedestrian trip assignment, as shown in **Figure 20,** a total of four (4) pedestrian elements would exceed the *CEQR 200-pedestrian peak hour trip* threshold, and further detailed pedestrian analysis would be required, per the *CEQR Technical Manual.*

Sidewalk

- Bruckner Boulevard S.R. (w/b), between Edison and E Tremont Avenues, north sidewalk (S1),

- Bruckner Boulevard S.R. (w/b), between E Tremont and Revere Avenues, north sidewalk (S2).

Corner

- Bruckner Boulevard S.R. (w/b) & E Tremont Avenue Intersection, N/E and N/W Corners (C1 & C2).

Saturday Midday Peak Hour Period

Based on pedestrian trip assignment, as shown in **Figure 21,** a total of five (5) pedestrian elements would exceed the *CEQR 200-pedestrian peak hour trip* threshold, and further detailed pedestrian analysis would be required, per the *CEQR Technical Manual.*

Sidewalk

- Bruckner Boulevard S.R. (w/b), between Edison and E Tremont Avenues, north sidewalk (S1,
- Bruckner Boulevard S.R. (w/b), between E Tremont and Revere Avenues, north sidewalk (S2).

Crosswalk

- Bruckner Boulevard S.R. (w/b) and E Tremont Avenue Intersection, north crosswalk (X1).

Corner

- Bruckner Boulevard S.R. (w/b) & E Tremont Avenue Intersection, N/E and N/W Corners (C1 & C2).

Conclusions

Based on Level 1 and Level 2 screening analyses, as described above, it was concluded a detailed pedestrian analysis would be required, per the *CEQR Technical Manual,* for the above pedestrian elements.

The detailed analysis concluded that in the future with the proposed rezoning, all pedestrian elements would operate in level of service (LOS) B or better, during all peak hours and there would be no significant adverse pedestrian impacts, as described below and shown in Levels of Service (LOS) summary **Tables 29 through 52.**

BUILD YEAR

The Build Year considers a nine (9)-month Pre-Certification timeframe, a seven (7)-month ULURP review and an 18-month construction period, for an overall completion date in late 2025.

ANALYSIS FRAMEWORK

The transportation screening below has been prepared based on the difference between the No-Action and With-Action Scenarios, which would result in the development under the With-Action Scenario of an increase of 402 d.u. (288,944 sf), 30,094 sf of commercial local retail, and a

decrease of 2,832 sf of supermarket/grocery space. The proposed action would provide additional 256 accessory parking spaces (in addition to 56 parking spaces in the no-build condition) for a total of 312 parking spaces, throughout the project area, as summarized in **Table 1**.

PRELIMINARY ANALYSIS METHODOLOGY AND SCREENING ASSESSMENT

This level of development would exceed the minimum development density potentially requiring a transportation analysis as shown in **Table 16-1** of the transportation chapter of the *2020 CEQR Technical Manual*. The applicable minimum development density for the location of the project site in Zone 5 is 100 new residential dwelling units, 10,000 additional square feet of commercial local retail, 15,000 additional square feet of community facility, or 60 new off-street parking spaces.

Transportation related vehicle trips, and pedestrian trips resulting from the Proposed Actions would exceed the relevant *2020 CEQR Technical Manual thresholds* for conducting a detailed analysis of traffic and pedestrian impacts, therefore, the following Level 1 and Level 2 Screening assessments have been prepared.

The *CEQR Technical Manual* recommends a two-tier screening procedure for the preparation of a "preliminary analysis" to determine if quantified analyses of transportation conditions are warranted. As discussed below, the preliminary analysis begins with a trip generation analysis (Level 1) to estimate the volume of person and vehicle trip-ends attributable to the Proposed Project. If the Proposed Project is expected to result in fewer than 50 peak hour vehicle trip-ends and fewer than 200 peak hour transit or pedestrian trip-ends, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (Level 2) are performed to estimate the incremental trips at specific transportation elements and to identify potential locations for further analyses. If the trip assignments show that the Proposed Project would result in 50 or more peak hour vehicle trip-ends at an intersection, 200 or more peak hour subway trip-ends at a station, 50 or more peak hour bus trip-ends in one direction along a bus route, or 200 or more peak hour pedestrian trip-ends traversing a pedestrian element, then further quantified analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, and parking.

LEVEL 1 SCREENING ASSESSMENT

A Level 1 trip generation screening assessment was conducted to estimate the numbers of person and vehicle trip-ends by mode expected to be generated by the Proposed Project during the weekday AM, midday, and PM peak hours. These estimates were then compared to the *CEQR Technical Manual thresholds* to determine if a Level 2 screening and/or quantified operational analyses would be warranted.

LEVEL 2 SCREENING ASSESSMENT

A Level 2 screening assessment involves the distribution and assignment of projected trip-ends to the transportation network and the determination of whether specific locations are expected to experience incremental trip-ends exceeding *CEQR Technical Manual thresholds.* Typically, if the results of this analysis show that the Proposed Project would result in 50 or more peak hour

vehicle trip-ends through an intersection, 50 or more peak hour bus trip-ends on a bus route in a single direction, 200 or more peak hour subway trip-ends per station, or 200 or more peak hour pedestrian trip-ends per pedestrian element, further quantified analyses may be warranted to evaluate the potential for significant adverse traffic, transit, pedestrian, and parking impacts.

TRANSPORTATION PLANNING ASSUMPTIONS

Trip generation factors for the Proposed Project were determined based on information from the *2020 City Environmental Quality Review* (CEQR) Technical Manual, U.S. Census Data, recent NYCDOT data, and other approved EASs and EISs. The travel demand assumptions and trip generation sources are summarized in **Tables 2, 5, 8, 11, 14 and 17 (see Transportation Appendix).**

Residential Development

Future With and Without-Action Scenarios generated person and vehicular trips, including truck trips, are based upon the rates and percent temporal distribution as provided in the *2020 CEQR Technical Manual (Table 16-2),* for residential development. The modal split information, and auto occupancy rate were estimated by utilized the *2015-2019 American Community Survey (ACS) Journey-to-Work information for census tract numbers 90, 96, 110, 164, 166, 184, 194, 264, 274.01 and 284* in the Schuylerville section of the Bronx NY, as summarized in **Exhibits 1 and 2 (see Transportation Appendix),** respectively. Taxi occupancy rate of 1.4, is based on the *Jerome Avenue Rezoning FEIS, Table 13.8.*

The estimated modal split data for residential use found that approximately 54.8% would travel by car, 1.1 percent would travel by taxi, 10.6% would travel by bus, 26% would travel by subway, 7.5% would travel by foot and other mode of travel, such as bicycle, as shown and summarized in **Exhibit 1**. Auto occupancy rate is estimated at 1.07, based on the 2015-2019 American Community Survey (ACS) Journey-to Work (JTW) data for Census Tract *numbers 90, 96, 110, 164, 166, 184, 194, 264, 274.01 and 284* in the Schuylerville section of the Bronx, NY, as shown and summarized in **Exhibit 2**.

Supermarket/Grocery Store

Future With and Without-Action Scenarios generated person and vehicular trips, are based upon the rates and percent temporal distribution as provided in the *2020 CEQR Technical Manual (Table 16-2),* for supermarket space. The modal split, vehicle occupancy rates, daily temporal distribution, and truck trip rates are all based on the recently approved *Industry City FEIS, Tables 11-2 and 11-3*, as summarized in **Table 2.**

The estimated modal split data for supermarket use found that approximately 54% would travel by car, 2 percent would travel by taxi, 10% would travel by bus, 10% would travel by subway, 24% would travel by foot and other mode of travel, such as bicycle, as shown and summarized in **Table 2**.

Local Retail

Future With and Without-Action Scenarios generated person and vehicular trips, are all based upon the rates, percent temporal distribution, modal split information as provided by *NYCDOT for a NTZ local retail development in Queens NY*, as summarized in **Tables 5, 8, 11, 14 and 17 (see Transportation Appendix).** Truck trip rate is based on the *2020 CEQR Technical Manual (Table 16-2),* for local retail development. Vehicle occupancy rates are based on the rates provided by NYCDOT for local retail use.

The estimated modal split results for local commercial retail use found that approximately 11% would travel by car, 0% would travel by taxi, 2% would travel by bus, 3% would travel by subway, and 84% would travel by foot.

TRANSPORTATION ANALYSIS METHODOLOGIES TRAFFIC OPERATIONS

The operation of all the signalized intersections and unsignalized intersection in the study area were assessed using methodologies presented in the 2000 Highway Capacity Manual (HCM). The intersections have been analyzed based on the methodologies of the Highway Capacity Software (HCS), Version HCS+5.5. Information derived from the manual relative to the level of service criteria is provided below.

SIGNALIZED INTERSECTIONS

The average control delay per vehicle is the basis for LOS determination for individual lane groups (grouping of movements in one or more travel lanes), the approaches, and the overall intersection. The LOS criteria for signalized intersections are summarized in **Table 27.**

Table 27

Signalized and Un-Signalized Level of Service Criteria		
Level of Service (LOS)	**Average Delay (Seconds per Vehicle)**	
	Signalized	**Un-Signalized**
A	<=10	0-10
B	>10-20	>10-15
C	>20-35	>15-25
D	>35-55	>25-35
E	>55-80	>35-50
F	>80	>50

Source: 2000 Highway capacity Manual.

Although the HCM methodology calculates a volume-to-capacity (v/c) ratio, there is no strict relationship between v/c ratios and LOS as defined in the HCM. A high v/c ratio indicates substantial traffic passing through an intersection, but a high v/c ratio combined with low average delay represents the most efficient condition in terms of traffic engineering standards, where an approach or the whole intersection processes traffic close to its theoretical maximum

capacity with minimal delay. However, very high v/c ratios—especially those approaching or greater than 1.0—are often correlated with a deteriorated LOS. Other important variables affecting delay include cycle length, progression, and green time. LOS A and B indicate good operating conditions with minimal delay. At LOS C, the number of vehicles stopping is higher, but congestion is still light. LOS D describes a condition where congestion levels are more noticeable and individual cycle failures (a condition where motorists may have to wait for more than one green phase to clear the intersection) can occur. Conditions at LOS E and F reflect poor service levels, and cycle breakdowns are frequent. The HCM methodology also provides for a summary of the total intersection operating conditions. The analysis chooses the two critical movements (the worst case from each roadway) and calculates a summary critical v/c ratio. The overall intersection delay, which determines the intersection's LOS, is based on a weighted average of control delays of the individual lane groups. Per the CEQR Technical Manual, the midpoint of LOS D (45 seconds of delay) is generally considered as the threshold between acceptable and unacceptable operations.

UNSIGNALIZED INTERSECTIONS

For unsignalized intersections, the average control delay is defined as the total elapsed time from which a vehicle stops at the end of the queue until the vehicle departs from the stop line. This includes the time required for the vehicle to travel from the last-in-queue to the first-in-queue position. As per the HCM, the average control delay for any minor movement is a function of the service rate or capacity of the approach and the degree of saturation. The LOS criteria for unsignalized intersections are also summarized in **Table 27**.

The LOS thresholds for unsignalized intersections are different from those for signalized intersections. The primary reason is that drivers expect different levels of performance from different types of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection; hence, the corresponding control delays are higher at a signalized intersection than at an unsignalized intersection for the same LOS. In addition, certain driver behavioral considerations combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections can relax during the red interval, whereas drivers on minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized intersections. For these reasons, the corresponding delay thresholds for unsignalized intersections are lower than those of signalized intersections. Per the CEQR Technical Manual, as with signalized intersections, the midpoint of LOS D (30 seconds of delay) is generally perceived as the threshold between acceptable and unacceptable operations.

TRAFFIC

2020 Existing Conditions

Traffic data were collected on November 7 through 18, 2020 for the weekday AM, midday, PM, and Saturday peak periods via a combination of video data intersection counts and 24-hour Automatic Traffic Recorder (ATR) counts. These traffic counts were used to develop balanced traffic networks for the weekday AM, midday, and PM peak hours, as well as the Saturday peak hour, which are generally *7:45 to 8:45AM, 1:00 to 2:00PM, 4:00 to 5:00PM and 2:30 to 3:30 PM,* respectively.

Inventories of roadway geometry, traffic controls, bus stops, and parking regulations/activities were recorded to provide appropriate inputs for the operational analyses. Official signal timings were measured in the field and obtained from NYCDOT for use in the analysis of the study area signalized intersections**. Figures 2 through 5 (Transportation Attachment)** show the 2020 existing traffic volumes for the weekday AM, midday, PM, and Saturday peak hours, respectively.

LEVELS OF SERVICE

A summary of the 2020 existing conditions traffic analysis results with details on level-of-service, v/c (LOS) ratios, and average delays are presented in **Table 22**. Overall, the capacity analysis indicates that all the study area's intersection approaches/lane groups operate acceptably—at mid-LOS D or better (i.e., with delays of 45 seconds or less per vehicle for signalized intersections and 30 seconds or less per vehicle for un-signalized intersections) for the analysis peak hours.

2025 No-Build Conditions

The 2025 no-build traffic volumes are constructed by increasing the existing traffic volumes by 1.25 percent (.25 percent per year per CEQR TM guidelines). There is no major development planned in the study area, according to the NYC active major constructions. **Figures 6 through 9** show the 2025 no-build traffic volumes for the weekday AM, midday, PM, and Saturday peak hours, respectively.

The 2025 no-build conditions traffic analysis results with details on level-of-service (LOS), v/c ratios, and average delays are presented in **Table 23**.

All the study area's intersection approaches/lane groups would operate acceptably—at mid-LOS D or better (i.e., with delays of 45 seconds or less per vehicle for signalized intersections and 30 seconds or less per vehicle for un-signalized intersections) for the analysis peak hours.

2025 Build Conditions

The 2025 build traffic volumes are prepared by adding the project generated incremental vehicle trips (**Figures 10 through 13)** to the no-build traffic volumes (**Figures 6 through 9**) as shown in **Figures 14 through 17.**

The 2025 build conditions traffic analysis results with details on level-of-service (LOS), v/c ratios, and average delays are presented in **Table 24.**

Overall, the capacity analysis indicates that all the study area's intersection approaches/lane groups would operate acceptably—at mid-LOS D or better (i.e., with delays of 45 seconds or less per vehicle for signalized intersections and 30 seconds or less per vehicle for un-signalized intersections) for the analysis peak hour.

The detailed analysis concluded that in the future with the proposed project, all five (5) intersections would operate in an acceptable LOS, below Mid LOS D, during all peak hours and there would be no significant adverse traffic impacts, as described below and shown in Levels of Service summary **Tables 22 through 24 (Transportation Attachment)**.

PARKING

On-Site Accessory Parking Garage

The proposed actions would provide a total of 312-on-site accessory parking facilities throughout the rezoning area. The proposed project parking demand would be accommodated at the site for most of the demand and for the remaining would be accommodated on street. The accessory parking facility would be accessed via ingress and egress points along Bruckner Boulevard and Crosby Avenue, as illustrated in the Site Plans **(see Transportation Appendix).** The parking accumulation (demand) for the largest site (1) is shown in **Tables 25 and 26** for Weekday and Saturday, respectively**.**

PEDESTRIANS

Analysis Methodology Peak 15-minute pedestrian flow conditions during the weekday AM, midday, PM, and Saturday Midday peak hours are analyzed using the Highway Capacity Manual 2010 methodology and procedures outlined in the CEQR Technical Manual. Using this methodology, the congestion level of pedestrian facilities is determined by considering pedestrian volume, measuring the sidewalk or crosswalk width, determining the available pedestrian capacity, and developing a ratio of volume flows to capacity conditions. The resulting ratio is then compared with LOS standards for pedestrian flow, which define a qualitative relationship at a certain pedestrian traffic concentration level. The evaluation of street crosswalks and corners is more complicated as these spaces cannot be treated as corridors due to the time incurred waiting for traffic lights. To effectively evaluate these facilities a "time-space" analysis methodology is employed, which takes into consideration the traffic light cycle at intersections. LOS standards are based on the average area available per pedestrian during the analysis period, typically expressed as a 15-minute peak period. LOS grades from A to F are assigned, with LOS A representative of free flow conditions without pedestrian conflicts and LOS F depicting significant capacity limitations and inconvenience. **Table 28** summarizes the LOS criteria for pedestrian crosswalk/corner area and sidewalk conditions, as based on the *Highway Capacity Manual methodology*. The analysis of sidewalk conditions includes a "platoon"

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

Table 28-Level of Service Criteria for Pedestrian Elements

LOS	Sidewalks			Corners Reservoirs and Crosswalks
		Non-Platoon Flow	Platoon Flow	
A	(Unrestricted)	> 60	> 530	> 60
B	(Slightly Restricted)	> 40 to 60	> 90 to 530	> 40 to 60
C	(Restricted but fluid)	> 24 to 40	> 40 to 90	> 24 to 40
D	(Restricted, necessary to continuously alter walking stride and direction)	> 15 to 24	> 23 to 40	> 15 to 24
E	(Severely restricted)	> 8 to 15	> 11 to 23	> 8 to 15
F	(Forward progress only by shuffling; no reverse movement possible)	<8	< 11	<8

Notes:

SEP: square feet per pedestrian.

Source: *CEQR Technical Manual*

2020 EXISTING CONDITIONS

Pedestrian counts were collected on November 7 and 10, 2020 for the Saturday Midday, and Weekday AM, midday, PM peak periods, respectively. These pedestrian counts were used to develop balanced pedestrian networks for the weekday midday, and PM peak hours, as well as the Saturday Midday peak hour, which are *1:00 to 2:00PM, 4:15 to 5:15PM and 2:30-3:30 PM,* respectively.

Inventories of roadway geometry, traffic controls, bus stops, and subway location were recorded to provide appropriate inputs for the operational analyses. Official signal timings were measured in the field and obtained from NYCDOT for use in the analysis of the study area signalized intersections**. Figures 18 through 20 (Transportation Attachment)** show the 2020 existing traffic volumes for the Weekday Midday, PM, and Saturday peak hours, respectively.

LEVELS OF SERVICE (LOS)

Midday Peak Hour

A summary of the 2020 existing conditions pedestrian analysis results with details on average pedestrian space (sf/ped), level-of-service (LOS), and LOS adjusted for platoon are presented in **Tables 29 through 31 (Transportation Attachment).** Overall, the LOS analysis indicates that all the study area's pedestrian elements operate at LOS A for the Midday analysis peak hour.

PM Peak Hour

A summary of the 2020 existing conditions pedestrian analysis results with details on average pedestrian space (sf/ped), level-of-service (LOS), and LOS adjusted for platoon are presented in **Tables 32 and 33 (Transportation Attachment)**. Overall, the LOS analysis indicates that all the study area's pedestrian elements operate at LOS A for the PM analysis peak hour.

Saturday Midday Peak Hour

A summary of the 2020 existing conditions pedestrian analysis results with details on average pedestrian space (sf/ped), level-of-service (LOS), and LOS adjusted for platoon are presented in **Tables 34 through 36 (Transportation Attachment)**. Overall, the LOS analysis indicates that all the study area's pedestrian elements operate at LOS A for the Saturday Midday analysis peak hour.

2025 NO-BUILD CONDITIONS

The 2025 no-build pedestrian volumes are constructed by increasing the existing pedestrian volumes by 1.25 percent .25 percent per year per CEQR TM guidelines). There is no major development planned in the study area, according to the NYC active major constructions.

Figures 21 through 23 (Transportation Attachment) show the 2025 no-build pedestrian volumes for the Weekday midday, PM, and Saturday peak hours, respectively.

Midday Peak Hour

A summary of the 2025 no-build conditions pedestrian analysis results with details on average pedestrian space (sf/ped), level-of-service (LOS), and LOS adjusted for platoon are presented in **Tables 37 through 39 (Transportation Attachment)**. Overall, the LOS analysis indicates that all the study area's pedestrian elements operate at LOS A for the Midday analysis peak hour.

PM Peak Hour

A summary of the 2025 no-build conditions pedestrian analysis results with details on average pedestrian space (sf/ped), level-of-service (LOS), and LOS adjusted for platoon are presented in **Tables 40 and 41 (Transportation Attachment)**. Overall, the LOS analysis indicates that all the study area's pedestrian elements operate at LOS A for the PM analysis peak hour.

Saturday Midday Peak Hour

A summary of the 2025 no-build conditions pedestrian analysis results with details on average pedestrian space (sf/ped), level-of-service (LOS), and LOS adjusted for platoon are presented in **Tables 42 THROUGH 44 (Transportation Attachment)**. Overall, the LOS analysis indicates that all the study area's pedestrian elements operate at LOS A for the Saturday Midday analysis peak hour.

2025 BUILD CONDITIONS

The 2025 build pedestrian volumes are prepared by adding the project generated incremental pedestrian trips (**Figures 24 through 27)** to the no-build pedestrian volumes (**Figures 21 through 23**) as shown in **Figures 28 through 30 (Transportation Attachment).** The 2025 build pedestrian volumes are, respectively, shown for the midday, PM, and Saturday peak hours in **Figures 28 through 30 (Transportation Attachment)**.
The Project would generate fewer than 200 pedestrian trip ends per pedestrian element in the AM peak hour and based upon the CEQR Technical Manual would not trigger the need for a detailed assessment of pedestrian impact during the AM peak hour, as shown in Figure 24.

Midday Peak Hour

A summary of the 2025 build conditions pedestrian analysis results with details on average pedestrian space (sf/ped), level-of-service (LOS), and LOS adjusted for platoon are presented in **Tables 45 through 47 (Transportation Attachment)**. Overall, the LOS analysis indicates that all the study area's pedestrian elements operate at LOS B or better for the Midday analysis peak hour.

PM Peak Hour

A summary of the 2025 build conditions pedestrian analysis results with details on average pedestrian space (sf/ped), level-of-service (LOS), and LOS adjusted for platoon are presented in **Tables 48 and 49 (Transportation Attachment)**. Overall, the LOS analysis indicates that all the study area's pedestrian elements operate at LOS B or better for the PM analysis peak hour.

Saturday Midday Peak Hour

A summary of the 2023 build conditions pedestrian analysis results with details on average pedestrian space (sf/ped), level-of-service (LOS), and LOS adjusted for platoon are presented in **Tables 50 through 52 (Transportation Attachment).** Overall, the LOS analysis indicates that all the study area's pedestrian elements operate at LOS B or better for the Saturday Midday analysis peak hour.

VEHICULAR AND PEDESTRIAN SAFETY

Crash data for traffic and pedestrian study area intersections were obtained from the New York City Department of Transportation (NYCDOT) for the three-year reporting period (2016 through 2018). This information is based on data provided by the NYSDOT, NYSDMV, and NYPD. The crash data detail reported crashes (crashes resulting in death, injury, or property damage in excess of $1,000), fatalities, injuries, and pedestrian and bicycle injuries annually. According to the *2020 CEQR Technical Manual*, a location is considered a high-crash location when there are 48 or more total reportable and non-reportable crashes, or five or more pedestrian/bicyclist injury crashes in any consecutive 12 months during the most recent three-year period for which data are available.

Table 53 (Transportation Appendix) presents a summary of total crashes at the study area intersections during the three-year period of 2016 through 2018, as well as total fatalities, injuries, and pedestrian and bicycle crashes. Crash information for the Intersections analyzed for the transportation study area, as summarized in **Table 53**, are all below vehicular/ pedestrian threshold. Therefore, per the *2020 CEQR Technical Manual Threshold*, no further analysis is required.

CONCLUSIONS

As described above, and in accordance with the threshold guidelines as detailed in the *2020 CEQR Technical Manual*, the proposed action would not result in significant adverse transportation impacts.

11. AIR QUALITY

INTRODUCTION

Analysis Framework

Ambient air quality, or the quality of the surrounding air, may be affected by air pollutants produced by motor vehicles, referred to as "mobile sources"; by fixed facilities, usually referenced as "stationary sources"; or by a combination of both. Under City Environmental Review (CEQR), an air quality assessment determines both a proposed project's effects on ambient air quality and the effects of ambient air quality on the project.

Air Quality Standards, Regulations, and Benchmarks

Criteria Pollutants - National Air Quality Standards

The EPA has established national ambient air quality standards (NAAQS) for seven of the most common air pollutants—known as "criteria" pollutants. The presence of these pollutants in ambient air is generally due to numerous diverse and widespread sources of emissions. The NAAQS primary standards are designed to protect public health with adequate margin of safety. The NAAQS secondary standards are designed to protect the public welfare from adverse effects, including those related to effects on soils, water, vegetation, visibility, and other aspects. As required by the Clean Air Act, EPA periodically conducts comprehensive reviews of the scientific literature on health and welfare effects associated with exposure to the criteria air pollutants. The NAAQS have been adopted as the ambient air quality standards for the State of New York.

The New York State Department of Environmental Conservation (NYSDEC) measures air pollutants at more than 50 sites across the state using continuous and/or manual instrumentation. These sites are a mix of federally-mandated and supplemental monitoring networks. The primary NAAQS and background concentrations from the nearest federally-mandated monitoring station(s) of the pollutant(s) that a detailed analysis was conducted for are presented in **Table 17-1.**

Table 17-1: NAAQS and Background Concentration Published in the NYSDEC 2019 Report

Pollutant	Averaging Period	National and State Standards	Background Concentration	Monitoring Station
$PM_{2.5}$	24-Hour	35 µg/m^3	19.8 µg/m^3	Botanical Garden
	Annual	12 µg/m^3	7.7 µg/m^3	
SO_2	1-Hour	196 µg/m^3	13.7 µg/m^3	
	Annual(1)	80 µg/m^3	1.5 µg/m^3	
NO_2	1-Hour	188 µg/m^3	100.4 µg/m^3	
	Annual	100 µg/m^3	24.2 µg/m^3	
CO	1-Hour	35 ppm	1.94 ppm	
	8-Hour	9 ppm	1.50 ppm	
PM_{10}	24-Hour	150 µg/m^3	33 µg/m^3	IS 52

1. 6 CRR-NY 257-2.3 for annual SO_2 standard: "During any 12 consecutive months, the annual average of the 24-hour average concentrations shall not exceed 0.03 ppm.

NO_2 NAAQS

The 1-hour NO_2 NAAQS was promulgated in the United States in February 2010. The 1-hour standard is based on a percentile rank from the annual distribution of daily maximum 1-hour values, averaged across the number of years processed. The 1-hour NO_2 modeled design value is based on the 98th percentile, or 8th highest, of the daily maximum 1-hour values across the year. For typical multi-year modeling analysis based on 5 years of National Weather Service (NWS) meteorological data, the modeled design value is the 5-year average of the 8th highest values for NO_2.

Nitrogen oxide (NOx) emissions from combustion consist predominantly of nitric oxide (NO) at the source. The NOx in these emissions is then gradually converted to NO_2. For determining compliance with the 1-hour standard, the EPA has developed a three-tiered modeling approach: a) Tier 1, the most conservative approach, assumes a full (100%) conversion of NOx to NO_2. b) Tier 2 is the Ambient Ratio Method 2 (ARM2) which assumes ambient equilibrium between NO and NO_2. AERMOD multiplies Tier 1 impacts with default ambient ratios, or source-specific NO_2/NO_x in-stack ratio (ISR) data (the national default minimum and maximum ambient ratios for the primary facility are 0.5 and 0.9, respectively.) c) Tier 3, which is the most precise approach, accounts for the chemical transformation of NO emitted from the stack to NO_2 within the source plume using hourly ozone background concentrations.

<u>NYC Guidelines</u>

The city's *de minimis* criteria are used to determine the significance of the incremental increase in CO and $PM_{2.5}$ concentrations that would result as a consequence of the proposed project. The CO criteria set the minimum change in 8-hour average CO concentration that constitutes a significant environmental impact. Significant increase of CO concentrations in New York City are:

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

The following criteria are used for determination of significant adverse $PM_{2.5}$ incremental impacts for projects subject to CEQR:

- Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard; or
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.1 $\mu g/m^3$ at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or for mobile sources, at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations); or
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.3 $\mu g/m^3$ at any receptor location for stationary sources.

Accordingly, the 8-hour CO *de minimis* design value is 3.75 ppm and the 24-hour $PM_{2.5}$ *de minimis* design value is 7.6 µg/m^3.

Non-Criteria Pollutants

The NYSDEC Department of Air Resources established short-term (one-hour) and annual concentrations standards for certain noncriteria pollutants. The standards are acceptable ambient levels for these pollutants, which are based on human exposure. The New York State standards for noncriteria pollutants are published in the DAR-1 guidance document (latest version dated August 10, 2016). DAR-1 presents Annual and Short-Term Guideline Concentrations (AGCs and SGCs, respectively) for contaminants that range in toxicity from high to low. The AGCs and SGCs are annual and 1-hour guideline concentrations, respectively, for potentially toxic or carcinogenic air contaminants. In addition, NYSDEC also regulates pollutants that produce discomfort due to odors, where significant discomfort is evaluated on quantity, characteristic, or duration.

MOBILE SOURCE ANALYSIS

According to the *CEQR Technical Manual,* projects may result in significant mobile source air quality impacts when they increase or cause a redistribution of traffic, create any other mobile sources of pollutants (e.g., diesel trains, helicopters, boats), or add new uses near mobile sources (e.g., roadways, garages, parking lots). Detailed analyses are required to predict whether a proposed action could potentially result in significant adverse air quality impact if certain threshold criterions are met or exceeded. Proposed actions that do not meet or exceed the threshold criterions (screen out) are not expected to result in mobile source impacts.

Screening Assessment

Project-Generated Traffic

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

According to the transportation analysis for this project, the Proposed Project would generate a total of 171 (167 autos and 4 trucks), 139 (133 autos and 6 trucks), 198 (198 autos and 0 trucks), and 173 (173 autos and 0 trucks) net vehicle trip ends (inbound and outbound combined) during the AM, midday, PM, and Saturday peak hour periods, respectively. However (according to the transportation analysis for this project), the Proposed Project would not result in 50 or more peak hour vehicle trip-ends at an intersection (Level 2 screening assessment). As such, no intersection would experience peak-hour project generated traffic that exceed the 170 incremental vehicular trips threshold (condition outlined in Sections 210 of Chapter 17 of *the CEQR Technical Manual*). Therefore, no CO detailed analysis is required.

The project-generate peak hour HDDVs traffic or its equivalent in vehicular emission that would require a detailed $PM_{2.5}$ analysis depends on the type of road. The thresholds incremental traffic per road type ranges from 12 to 23 HDDVs. Bruckner Boulevard is classified as a principal arterial

(23 HDDVs threshold screen), Crosby Avenue, Logan Avenue and East Tremont Avenue are classified as minor arterials (23 HDDVs threshold screen), and Edison Avenue, Gifford Avenue, and Balcom Avenue are classified as local streets (12 HDDVs threshold screen), which are paved roads with below 5000 vehicle trips per day. The Proposed Project total net vehicle trip ends was used for the arterial type roadways (23 HDDVs threshold screen) screening analysis, and the project-generated traffic on local streets (12 HDDVs threshold screen) was obtained from the trip assignment analysis. All autos were assumed to be LDGT1 class vehicles, based on guidance from the New York City Department of City Planning (DCP). **Table 17-2** shows the *CEQR Technical Manual* Equivalent Truck Calculation for the above-mentioned roadways.

Table 17-2: *CEQR Technical Manual* Equivalent Truck Calculations

Roadway	Roadway Classification (Threshold HDDVs screen) [1]	Peak-Hour Period	Truck Per Hour [4]	Auto Per Hour	Equivalent Truck	Pass / Fail
Bruckner Blvd, Crosby Avenue, Logan Avenue, East Tremont Avenue [2]	Arterial (12)	AM	4	167	10	Pass
		MD	6	133	10	Pass
		PM	0	198	9	Pass
		SAT	0	173	8	Pass
Edison Avenue [3]	Paved (12)	AM	4	9	8	Pass
		MD	6	2	6	Pass
		PM	0	13	6	Pass
		SAT	0	11	5	Pass
Gifford Avenue [3]	Paved (12)	AM	4	12	9	Pass
		MD	6	3	6	Pass
		PM	0	10	5	Pass
		SAT	0	13	6	Pass
Balcom Avenue [3]	Paved (12)	AM	4	2	4	Pass
		MD	2	0	2	Pass
		PM	0	2	1	Pass
		SAT	0	3	1	Pass

Note:
1. Roadway classification obtained from the New York State Department of Transportation (NYSDOT) map application (Feb. 2020). https://gis3.dot.ny.gov/html5viewer/?viewer=FC.
2. The Proposed Project total net vehicle trip ends was used for the arterial type roadways screening analysis.
3. The project-generated traffic on local streets was obtained from the trip assignment analysis.
4. The Proposed Project total net trucks trip ends.

As seen in **Table 17-2**, the Proposed Project total net HDDVs or its equivalent in vehicular emissions does not exceed the threshold of 23 HDDVs for arterial roadways, and the worst-case HDDVs or its equivalent in vehicular emissions on local roadways would occur on Gifford Avenue during the AM peak hour period (9 equivalent trucks). Therefore, the Proposed Actions equivalent in vehicular emissions pass the $PM_{2.5}$ HDDVs screening analysis, and no detailed analysis is required.

Parking Garage

Based on CEQR guidelines, the maximum capacity of a parking facility is evaluated with a threshold capacity to determine whether a detailed analysis is required. The threshold increment, per the NYC Department of City Planning (DCP), is 85 new off-street parking spaces. If the threshold is met or exceeded, a detailed analysis is warranted. The Projected Development Site 1 would facilitate an increment of 150 off-street parking spaces. Therefore, a detailed air quality analysis is required for this development site.

Existing Mobile Source of Pollutants

According to the *CEQR Technical Manual*, projects that would result in new sensitive uses within 200 feet of an atypical roadway or near other major mobile source of pollutant may result in significant adverse mobile source air quality impacts. Each of the development sites are located just north of Bruckner Boulevard, and approximately 55 feet from the Bruckner Expressway westbound travelling lanes. Therefore, a detailed analysis is required.

Parking Facility Detailed Analysis

Methodology

Mobile source impacts are a function of vehicular related emissions and pollutants' dispersion. The emissions of vehicular mechanical and combustion related components were calculated with the EPA's Mobile Vehicle Emission Simulator (MOVES) version 2014b, and emission of dust generated by vehicles travelling on paved roadways were added to estimate total particulate matter emissions. Dispersion analysis for the parking garage vent were calculated using the spreadsheet referenced in the *CEQR Technical Manual Appendices*. Pollutants' concentrations at the sidewalk across the street from the parking garage resulting from the on-street traffic were modeled with the EPA's CAL3QHCR Gaussian dispersion model.

Projected Development Site 1 would include a 150 spaces parking garage in its cellar level (the existing surface parking area would remain). The parking accumulation (ingress and egress) was provided by the transportation analysis for this project. Short-term (1-hour, 8-hour, 24-hour) concentrations were analyzed based on the worst-case (weekday or Saturday) peak-hour outbound vehicles and corresponding inbound vehicles. Annual concentrations were based on the daily average (7 AM – 8 PM and not include the overnight hours when there is significantly less traffic) parking accumulation. Accordingly, the parking garage worst-case traffic would be 11 incoming and 64 outgoing vehicles during the AM peak-hour period of 8:00-9:00, and the daily average traffic would be 30 incoming and 29 outgoing vehicles per hour. The AM peak-hour period was used for the on-street traffic, where all project-generated trucks assumed to travel on both Bruckner Boulevard westbound and eastbound roadways.

The parking garage dimension, ramp length, and egress/ingress (Bruckner Boulevard westbound) were obtained from the site plans, provided by the building architect for this project. Incoming/outgoing vehicles were assumed to travel half the width and two-third the length of the garage and cars were assumed to idle for 1-minute prior to traveling out of the parking facility, based on the *CEQR Technical Manual*.

Emissions

The EPA's MOVES2014b emission factor algorithm was used to compile the CO and $PM_{2.5}$ emission rates. MOVES can be used to calculate emission rates of criteria air pollutants, greenhouse gas emissions, and some hazardous air pollutants for both on-road motor vehicles

and non-road equipment. MOVES models calculate emissions at the national, county, and project level by use of databases and by specifying the characteristics (Run Specification) of the scenario that is modeled. For microscale (project level) analyses, MOVES require the use of traffic and roadways characteristics for each link (roadway segment) that is modeled and county data.

County database for the MOVES model was obtained from the NYSDEC.[1] The county data included inspection and maintenance, passenger car/truck distribution, fuel data (fuel properties, distribution, and engine technology), age distribution, and meteorology data. Vehicles age distribution was projected for the Build year 2022 using the EPA[2] tool. Vehicles emissions inside the parking garage were modeled with an ambient temperature of 45-degree Fahrenheit, based on the *CEQR Technical Manual*.

$PM_{2.5}$ emissions of dust generated by vehicles traveling on paved roadways were added to estimate total particulate matter emissions for the short-term analysis (annual fugitive dust emission is negligible). Fugitive dust emissions were calculated with the formula in the EPA's AP-42 manual.[3] A slit loading factor of 0.1 g/m^2 (for arterial roadways) was applied, based on value from the *CEQR Technical Manual*. In addition, the conservative assumptions of "dry" road condition was used for the short-term calculation (precipitation reduced silt loading).

Dispersion Analysis

The EPA's CAL3QHCR dispersion model version 13196 was used for the dispersion analysis of the on-street traffic. 1-Hour concentrations were predicted with the emulate CAL3QHC meteorology data, specifying 10-deg incremental wind vector direction, 1-meter per second wind speed, natural stability, and 285.5 Kelvin, and 1,000-meter mixing height. All models specified settling and deposition velocities of 0-meter per second, 60-minute averaging time, and urban surface roughness of 175-centimeter corresponding to office land-use. A persistence factor of 0.7 was used to evaluate the 8-hour CO concentration. The 1-hour $PM_{2.5}$ impact concentration was used to predict the 24-hour and annual concentrations.

Emissions from the garage were assumed to be vented through a single vent. The *CEQR Technical Manual Appendices* worksheet calculation was used to calculate dispersion of a pollutant emitted at a rate of 1 gram per second. A persistence factor of 0.7 was used to evaluate the 8-hour CO concentration and persistence factors of 0.4 and 0.1 to evaluate the 24-hour and annual $PM_{2.5}$ concentrations, respectively. The garage vent was located 10-foot above grade (adjoining grade) and vent at the minimum ventilation rate. A wind speed of 1-meter per second, based on CAL3QHC input, was conservatively assumed. Receptors were located on the adjacent and opposite sidewalks at a height of 6 feet above grade, and 5-foot directly above the vent simulating an operable window. The concentrations corresponding to the 1 gram per second emission rate were multiplied by the calculated emissions in the parking garage to predict the concentrations.

Results

Table 17-3 shows the parking garage dispersion analysis results. As previously mentioned, the analysis corresponds to the on-street peak-hour traffic. The concentrations were evaluated with

[1] County database obtained from the NYSDEC in January, 2021.
[2] https://www.epa.gov/moves/tools-develop-or-convert-moves-inputs
[3] EPA. *Compilation of Air Pollutant Emission Factors AP-42 Fifth Edition, Vol. 1: Paved Roads Chapter 13*: *Miscellaneous Sources* https://www3.epa.gov/ttn/chief/ap42. January 2011.

the *de minimis* design value. **Table 17-3** shows the results of the parking facility dispersion analysis.

Table 17-3: Parking Facility Dispersion Analysis Results

Pollutant	Concentration			*de minimis* Design Value	Concentration Unit
	Adjacent	Across the Street (1)	Window Above		
8-Hour CO	0.14	0.03	0.12	3.75	ppm
24-Hour $PM_{2.5}$	1.7	0.7	1.4	7.60	$\mu g/m^3$
Annual $PM_{2.5}$	0.12	0.12	0.10	0.3	$\mu g/m^3$
Note: 1. Concentration increments include on-street traffic emissions.					

As seen in **Tables 17-3** the 8-hour CO and $PM_{2.5}$ concentrations do not exceed the de minims design values. Therefore, no impact is predicted from mobile source emissions associated with the parking facility.

Atypical Roadway Detailed Analysis

Methodology and Databases

Emissions of vehicular mechanical components (exhaust, crank case, break ware, and tire wear) were generated with the latest EPA's Mobile Vehicle Emission Simulator 2014. Fugitive road dust emissions were added to estimate total particulate matter emissions. The pollutants' concentrations at sensitive receptors were modeled with the EPA's CAL3QHCR Gaussian dispersion model.

The Bruckner Expressway (I-95) is a three lane in each direction restricted roadway. The highway is below grade near the Projected Development Sites 1, 2, 3, 5 and Potential Development Site A. Further north the southbound lanes are at grade and the northbound lanes are above grade. The distance between Site 4 and 6 from the any other site is approximately 1,150 feet. As such, Projected Development Site 4 and 6 were modeled separately.

The highway is above grade near the Projected Development Sites 4 and 6. North of Crosby Avenue the northbound lanes are at positive gradient. Otherwise, the highway is generally flat. Elevation points[4] on the highway were used to define links for the MOVES model and the links heights relative to the grade elevation at the sites.

Hourly traffic counts and classifications were obtained from the New York State Department of Transportation (NYSDOT) for station 010036, which is the Bruckner Expressway. The traffic data report included the average weekly count, daily classification, and annual average counts. The *CEQR Technical Manual*, Table 16-4: Annual Background Growth Rates, of 0.25% was used to account for the general background traffic growth in the area. The speeds of Vehicles traveling on the highway were obtained from UBER Movement for periods of the weekday.[5] Peak hour period was determined as the westbound and eastbound combined maximum traffic count.

[4] https://data.cityofnewyork.us/Transportation/Elevation-points/szwg-xci6

[5] https://movement.uber.com/?lang=en-US

Average emission of the annual $PM_{2.5}$ was calculated as the weighted average emission per period of the day. Short-term concentrations (1, 8, and 24-hour) were modeled with the peak-hour traffic.

Emission Rates

The EPA's MOVES2014b emission factor algorithm was used to compile the CO, PM_{10}, and $PM_{2.5}$ emission factors. MOVES can be used to calculate emissions of criteria air pollutants, greenhouse gas emissions, and some hazardous air pollutants for both on-road motor vehicles and non-road equipment. MOVES models calculate emissions at the national, county, and project level by use of databases and by specifying the characteristics (Run Specification) of the scenario that is modeled. For project level analyses, MOVES require the use of site-specific input data of traffic volume and speed, vehicle types, fuel parameters, age distribution, and meteorology conditions, rather than the use of national default data. The MOVES model was run for primary total CO, $PM_{2.5}$, and PM_{10} and primary $PM_{2.5}$ species running and crankcase exhaust, with primary $PM_{2.5}$ and PM_{10} brake and tire wear emissions.

The NYSDEC county database (MOVES input file for the borough of the Bronx) was used to further characterize vehicles types and engine technologies. MOVES inputs of inspection/maintenance, fuel data (fuel properties, distribution, and engine technology), age distribution, and meteorology, were all obtained from the NYSDEC for the borough of the Bronx. The links' gradients were accounted for in the MOVES model.

Peak hour emission factors were compiled for winter and summer season during the PM peak hour period. The resulting greatest emission factors, for each pollutant independently, were used in the dispersion analyses. Annual particulate emission factors were compiled for the five periods of the day (early morning, AM, Midday, PM, and evening), and the hourly weighted average calculated. Dust generated by vehicles traveling on paved roadways were added to estimate total particulate matter emissions for the short-term analysis (per DEP, annual fugitive dust emission is negligible). A silt loading factor of 0.015 g/m^2 (for expressways) was applied, based on the *CEQR Technical Manual*. In addition, based on DEP guidance, the conservative assumptions of "dry" road condition was used for the short-term calculation (precipitation reduced silt loading).

Gaussian Dispersion

Dispersion analysis was conducted using the EPA's CAL3QHCR dispersion model version 13196. $PM_{2.5}$ concentrations were predicted with model-ready meteorology data of JFK airport, obtained from New York City Department of City Planning (DCP). 1-hour CO and 1-hour PM_{10} concentrations were predicted using the emulate CAL3QHC meteorology data, specifying 10-deg incremental wind vector direction, 1-meter per second wind speed, natural stability, and 285.5 Kelvin, and 1,000-meter mixing height. All models specified settling and deposition velocities of 0-meter per second, 60-minute averaging time, and urban surface roughness of 175-centimeter.

Separate links were specified for the westbound and eastbound traffic. Each link specified 17-meter widths, which is the width of the 3 lanes plus 6-meter. Links used to simulate the westbound and eastbound traffics were broken down to contiguous links based on the highway height (relative to the surrounding area and height relative to the grade elevation at the development sites) and curvature in the road.

Persistence factor of 0.7 was applied to the 1-hour CO concentration to predict the 8-hour CO concentration. Persistence factor of 0.4 was applied to the 1-hour PM_{10} concentration to predict the 24-hour PM_{10} concentration.

Receptors at the development site were placed around the sites' outer perimeter (the lot lines), in 10 feet horizontal increment at the sides closer to the highway and in greater horizontal increment otherwise. These receptors were placed 6 feet above each floor level.

Atypical Roadway Analysis Results

The predicted concentrations of the 24-hour $PM_{2.5}$ and CO 8-hour were evaluated with the NYC Guideline (*de minimis*); the 24-hour PM_{10}, annual $PM_{2.5}$ and CO 1-hour predicted concentrations were added to the background concentrations, and results evaluated with the NAAQS. **Table 17-4** shows the dispersion analysis results at the Projected Development Sites 4 and 6.

Table 17-4: Dispersion Analysis Results Projected Development Sites 4 and 6

Pollutant and Averaging Time	Modeled Concentration	Background Concentration	Evaluated Concentration	Threshold Concentration	Threshold Standard
$PM_{2.5}$ 24-hour	3.26 $\mu g/m^3$	N.A.	3.26 $\mu g/m^3$	7.60 $\mu g/m^3$	*de minimis*
$PM_{2.5}$ Annual	0.43 $\mu g/m^3$	7.7	8.1 $\mu g/m^3$	12 $\mu g/m^3$	NAAQS
PM_{10} 24-hour	8 $\mu g/m^3$	33	41 $\mu g/m^3$	150 $\mu g/m^3$	NAAQS
CO 1-hour	0.26 ppm	1.94	2.20 ppm	35 ppm	NAAQS
CO 8-hour	0.19 ppm	N.A.	0.19 ppm	3.75 ppm	*de minimis*

Table 17-5 shows the maximum dispersion analysis results at Projected Developments 1, 2, 3, 5, and Potential Development Site A.

Table 17-5: Dispersion Analysis Results Projected Development Sites 1, 2, 3, 5, and Potential Development Site A

Pollutant and Averaging Time	Modeled Concentration	Background Concentration	Evaluated Concentration	Threshold Concentration	Threshold Standard
$PM_{2.5}$ 24-hour	3.75 $\mu g/m^3$	N.A.	3.75 $\mu g/m^3$	7.60 $\mu g/m^3$	*de minimis*
$PM_{2.5}$ Annual	0.65 $\mu g/m^3$	7.7	8.4 $\mu g/m^3$	12 $\mu g/m^3$	NAAQS
PM_{10} 24-hour	12 $\mu g/m^3$	33	45 $\mu g/m^3$	150 $\mu g/m^3$	NAAQS
CO 1-hour	0.41 ppm	1.94	2.35 ppm	35 ppm	NAAQS
CO 8-hour	0.28 ppm	N.A.	0.28 ppm	3.75 ppm	*de minimis*

As seen in **Table 17-4 and 17-5**, the 24-hour $PM_{2.5}$ and 8-hour CO concentrations do not exceed the *de minimis,* and the PM_{10}, annual $PM_{2.5}$, and CO 1-hour concentrations are within the NAAQS. Therefore, no significant adverse air quality impacts are predicted at the development sites from the emissions associated with the vehicular traffic on the Bruckner Expressway.

STATIONARY SOURCE ANALYSIS

Heating and Hot Water Systems

Per the *CEQR Technical Manual*, the HVAC analysis considers the potential for emissions from the HVAC system of the Proposed Actions to result in development that significantly impact existing land uses (project-on-existing), and the potential of the Proposed Actions to result in two or more developments that significantly impact each other (project-on-project). Based on CEQR guidance, a preliminary screening assessment is to be conducted as a first step to predict whether the

potential impacts of the heat and hot water system(s) boiler emissions can be significant. The screening analysis determines the threshold of development size below which the action would not have a significant impact. This CEQR screening procedure is applicable to buildings that are not less than 30 feet from the nearest building of similar or greater height. Otherwise, a detailed dispersion analysis is required. In addition, a maximum screening distance of 400 feet is applied if the actual distance between the stack and the receiving is greater.

Screening Analysis

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

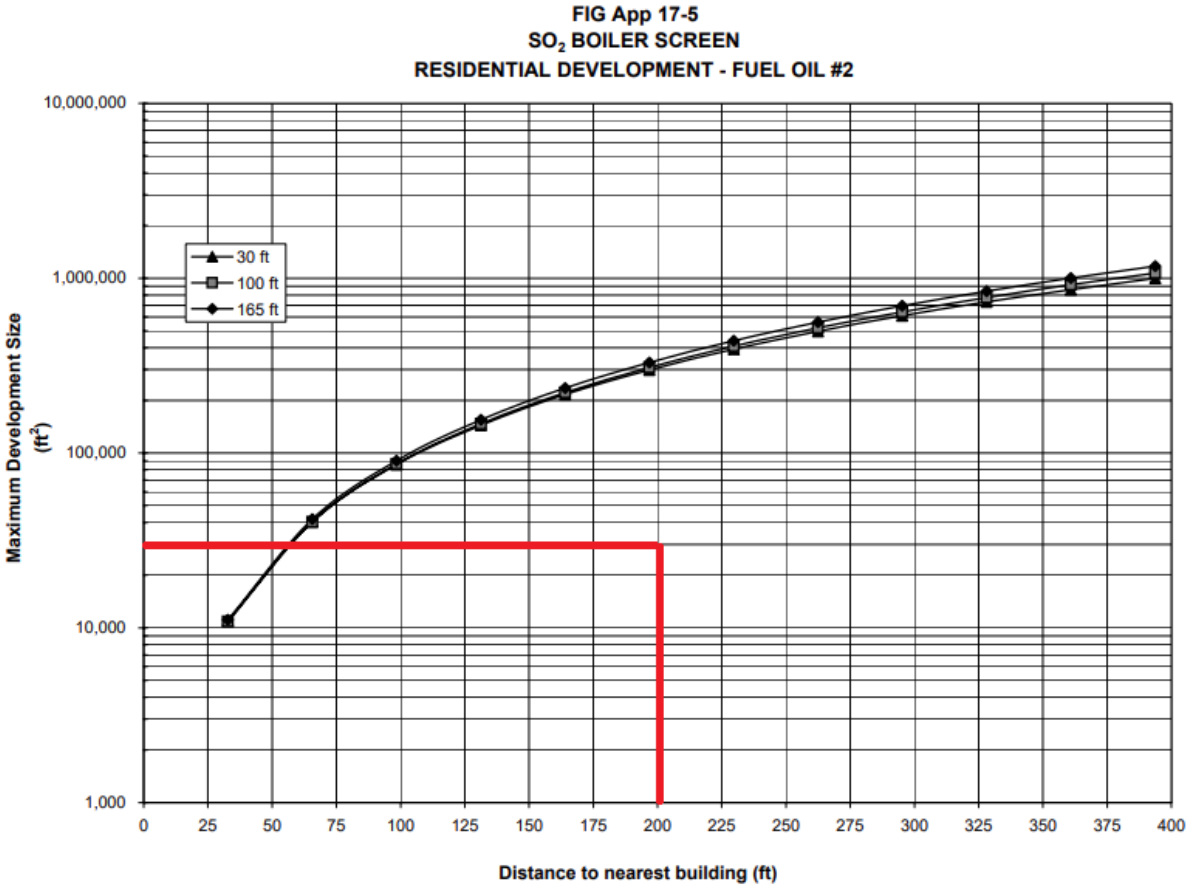
As screening analysis is only applicable to a single smokestack, for the purposes of a cumulative screening analysis emissions from multiple stacks were combined in a single stack situated as close as possible to the receiving building. In addition, according to 15 RCNY 2-15, no new boiler or burner installations may use No. 6 or No. 4 fuel oils. Therefore, the highest-emitting fuel that could be used is No. 2 fuel oil.

Project-on-Existing

Projected Development Site 4 and 6 are 33 feet high and are located approximately 1,500 feet from the other development sites. As such, cumulative screening analyses were conducted for the Projected Development Site 4 and 6 combined and for the other development sites combined. The following project-on-existing screening analyses were conducted:

1. Projected Development Sites 4 and 6 on existing land uses: Based on the methodology above, Projected Development Sites 4 and 6 were combined and analyzed as a 35-foot-tall residential building, containing 30,273 gsf. A distance of approximately 200 feet, which is the distance between Projected Development Site 4 and the building located at 1066 Huntington Avenue (Block 5536, Lot 2), was used in the screening analysis. The CEQR nomograph, depicted on Figure 17-5 of the *CEQR Technical Manual Appendices*, was used for the screening analysis and is for Oil No. 2 fueled boiler serving residential development. **Figure 17-1** (using Figure 17-5 of the *CEQR Technical Manual Appendices*) shows the screening analysis.

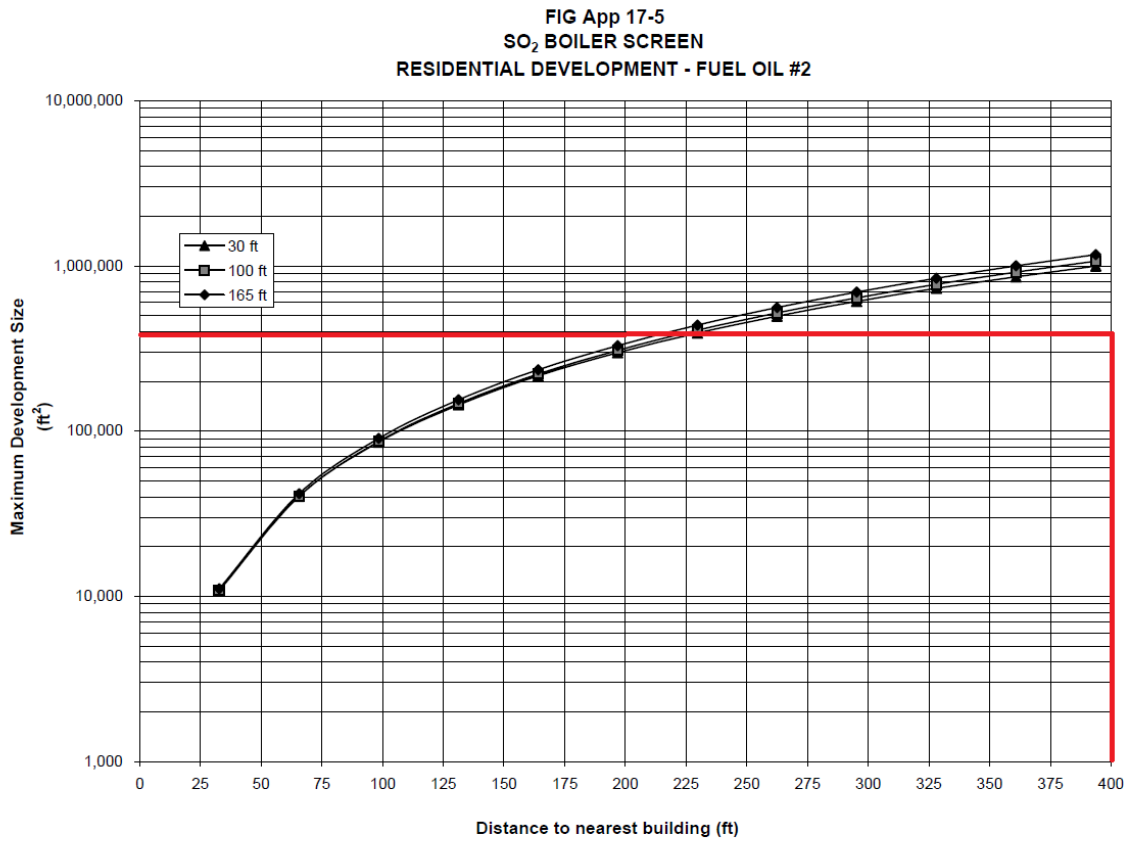
   Figure 17-1: Projected Development Site 4 and 6 on Existing Land Uses – HVAC Screen



As seen in the screening analysis (see **Figure 17-1**), using the nomograph provided in the *CEQR Technical Manual*, Projected Development Sites 4 and 6 on the closest existing building with a similar or taller building height would fall below the curve for fuel oil No. 2. As such, Projected Development Sites 4 and 6 pass the HVAC screening analysis on existing land uses.

2. Projected Development Sites 1, 2, 3, 5, and Potential Development Site A on existing land uses: Based on the methodology above, Projected Development Sites 1, 2, 3, 5, and Potential Development Site A were combined and analyzed as a 84-foot-tall residential building (Projected Development Site 3 height, which is the lowest height between Projected Development Sites 1, 3, 5, and Potential Development Site A), containing 389,087 gsf. A distance of 400 feet (the *CEQR Technical Manual* maximum distance) was used in the analysis as there are no existing buildings located within 400 feet of these Development Sites that are 70-foot or taller. The CEQR nomograph, depicted on Figure 17-5 of the *CEQR Technical Manual Appendices,* was used for the screening analysis and is for Oil No. 2 fueled boiler serving residential development. **Figure 17-2** (using Figure 17-5 of the *CEQR Technical Manual Appendices*) shows the screening analysis.

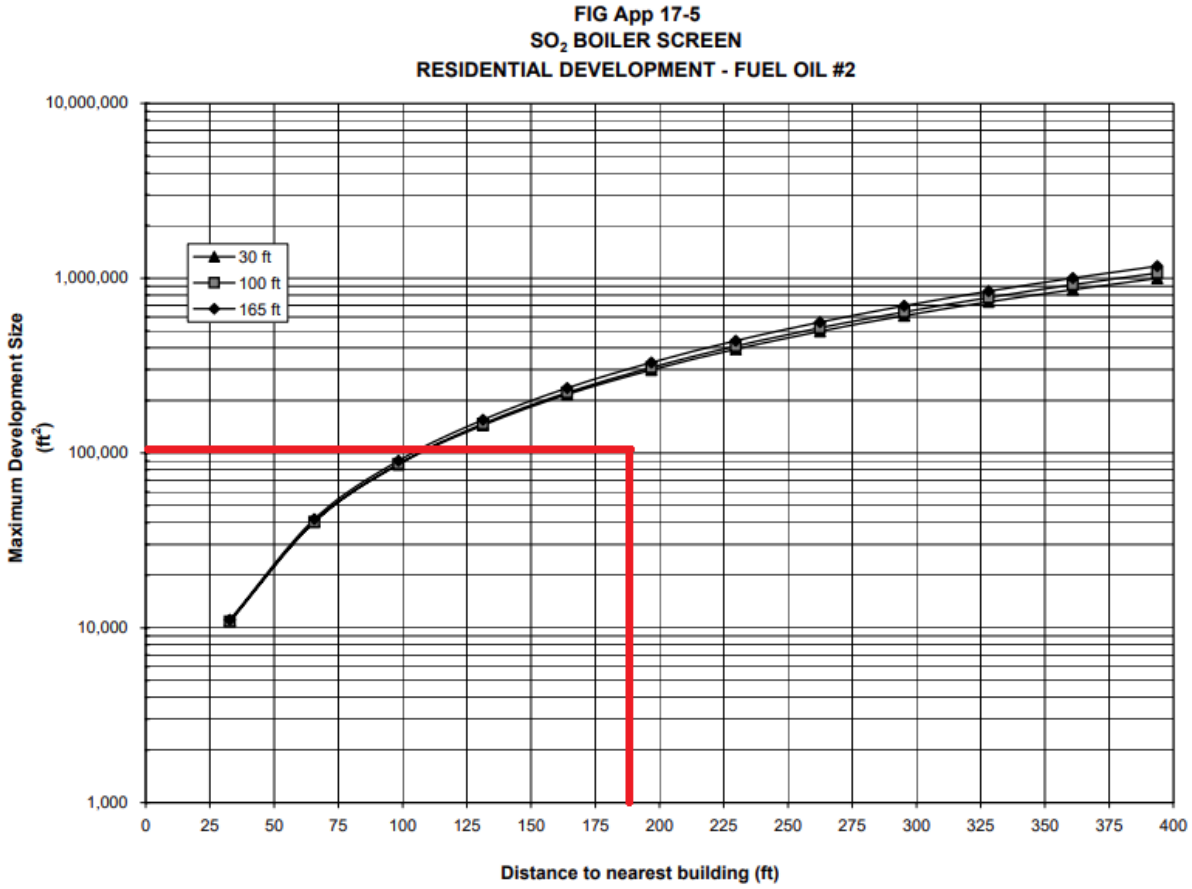
Figure 17-2: Projected Development Sites 1, 2, 3, 5, and Potential Development Site A on Existing Land Uses – HVAC Screen



As seen in the screening analysis (see **Figure 17-2**), using the nomograph provided in the *CEQR Technical Manual*, Projected Development Sites 1, 2, 3, 5, and Potential Development Site A on the closest existing building with a similar or taller building height would fall below the curve for fuel oil No. 2. As such, Projected Development Sites 1, 2, 3, 5, and Potential Development Site A pass the HVAC screening analysis on existing land uses.

3. Projected Development Site 2 on existing land uses: Based on the methodology above, Projected Development Site 2 as a 54-foot-tall residential building, containing 101,366 gsf. A distance of approximately 190 feet, which is the distance between Projected Development Site 2 and the building located at 1082 Edison Avenue (Block 5420, Lot 2), was used in the screening analysis. The CEQR nomograph, depicted on Figure 17-5 of the *CEQR Technical Manual Appendices,* was used for the screening analysis and is for Oil No. 2 fueled boiler serving residential development. **Figure 17-3** (using Figure 17-5 of the *CEQR Technical Manual Appendices*) shows the screening analysis.

Figure 17-3: Projected Development Site 2 on Existing Land Uses – HVAC Screen



As seen in the screening analysis (see **Figure 17-3**), using the nomograph provided in the *CEQR Technical Manual*, Projected Development Site 2 on the closest existing building with a similar or taller building height would fall below the curve for fuel oil No. 2. As such, Projected Development Site 2 passes the HVAC screening analysis on existing land uses.

Project-on-Project

Projected Development Site 4 and 6 are of equal height and are adjacent. Therefore, a detailed analysis was required for both these development sites.

For Projected Development Sites 1, 2, 3, 5, and Potential Development Site A, because each development could be affected by all other developments (except Projected Development Site 2, which is the lowest), cumulative detailed analyses were conducted.

Detailed Analysis

Methodology

A stationary source modeling was conducted to evaluate the potential impacts associated with the boilers stacks emissions. Lakes Environmental MPI executable was used in the analysis. The MPI executable take advantage of computers with multiple processors, reducing run-time significantly. Lakes Environmental has adjusted the US EPA AERMOD source code and

recompiled the model to parallelize the processing of receptors. The latest MPI executable (used in the analysis) modified the EPA's AERMOD latest executable model version 19191. The AERMOD model incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain. The model was run for both with and without downwash effects options, where the Building Profile Input Program (BPIP) was run with the downwash effect enabled. All analyses were conducted using five consecutive years of meteorological data (2015-2019), obtained from the NYSDEC, Division of Air Resources, BAQAR, Impact Assessment and Meteorology Section. Surface data used in the analysis is from LaGuardia Airport, upper air data is from Brookhaven station, New York. The meteorological data was processed using the latest versions of AERMINUTE, AERSURFACE and AERMET. The meteorological data provided hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the 5-year period. Population in the Bronx county, obtained from the U.S. Census Bureau (July 2019), was specified to account for the effects of increased surface heating from an urban area on pollutant dispersion under stable atmospheric conditions.

Natural gas would be the type of fuel used in Projected Development Site 1, 2, 3, and Potential Development Site As' boilers, and the burner(s) of Projected Development Sites 2 and 3 would utilize low-NOx burners. The pollutants of concern of natural gas fueled boilers are NO_2 and $PM_{2.5}$. Fuel Oil No. 2 would be the type of fuel used in the other Development Sites heating and hot water systems, where the pollutants of concern of Oil No. 2 fueled boilers are NO_2, $PM_{2.5}$, and SO_2. The boilers' energy intensities were calculated based on energy consumption rate, obtained from the *CEQR Technical Manual Appendices*, corresponding to residential use in the buildings. Emissions were calculated based on emission factors obtained from the EPA's AP-42 manual for external combustion sources.[6] All fuel was assumed to be consumed during the 100-day (or 2,400 hour) heating season, based on *CEQR Technical Manual* guidance. **Table 17-6** shows the boiler's energy intensity and pollutants emission rates.

Table 17-6: RWCDS HVAC Systems Short-term and Annual Emission Rates

Site ID	Development Site RWCDS Floor Area (gsf)	Boiler's Energy Intensity (MMBtu); Fuel Used	Pollutant	Short-term Emission Rate (g/s)	Annual Emission Rate (g/s)
Projected Development Site 1	154,157	3.87; Natural gas	NO_2	4.60E-03	1.26E-03
			$PM_{2.5}$	7.00E-04	1.92E-04
Projected Development Site 2	101,366	2.55; Natural gas low-NOx	NO_2	1.57E-02	4.31E-03
			$PM_{2.5}$	2.39E-03	6.55E-04
Projected Development Site 3	63,505	1.60; Natural gas low-NOx	NO_2	9.85E-03	2.70E-03
			$PM_{2.5}$	1.50E-03	4.10E-04
Projected Development Site 4	16,773	0.42; Oil No. 2	NO_2	7.61E-03	2.08E-03
			$PM_{2.5}$	8.10E-04	2.22E-04
			SO_2	8.10E-05	2.22E-05
Projected Development Site 5	19,109	0.48; Oil No. 2	NO_2	8.67E-03	2.37E-03
			$PM_{2.5}$	9.23E-04	2.53E-04

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

			SO_2	9.23E-05	2.53E-05
Projected Development Site 6	13,500	0.34; Oil No. 2	NO_2	6.12E-03	1.68E-03
			$PM_{2.5}$	6.52E-04	1.79E-04
			SO_2	6.52E-05	1.79E-05
Potential Development Site A	50,900	1.28; Natural gas	NO_2	1.58E-02	4.33E-03
			$PM_{2.5}$	1.20E-03	3.29E-04

The *CEQR Technical Manual* default stack's diameter and exhausts exit velocity were applied for the boilers with heat capacity less than 1-million British Thermal Units (Btu). Stacks' diameters of boilers with heat capacity greater than 1-million Btu were estimated based on values obtained from the New York City Department of Environmental Protection (DEP) "CA Permit" database for the corresponding boiler sizes (i.e., rated heat input or million Btu per hour).[7] All the stacks exit temperatures were assumed to be 426°K, which is appropriate for boilers. The fuels dry volume of combustion components per unit of heat content was used to calculate these stacks exit velocities. The boilers stacks were placed 3 feet above the roofs and as close as possible to the receiving building(s); hence, a stack set back distance was specified if exceedance of a threshold concentration standard was predicted.

The projected development sites were modeled as buildings that cover their entire lot(s) area(s) (the wall façade located on the outer lot lines) and rise to their RWCDS heights. Buildings in the surrounding area were accounted for in the downwash effect on plums dispersions (BPIP). Receptors on the receiving building were placed on all wall façade from the ground floor to the roof-top height in spaced intervals.

The USGS National Elevation Dataset (NED) 1/3 arc-second resolution (GeoTIFF dataset), the terrain data set recommended by the US EPA for use in the United States for regulatory purposes, was used to process buildings base elevations. The base elevations of receptors and stacks were set to their buildings base elevations. Roof heights of buildings in the area were obtained from the NYC Building Footprint database.[8]

24-hour $PM_{2.5}$ was modeled with 1st highest output concentration, which is the *de minimis* design value. The 1-hour NO_2 concentration was modeled with 8th highest concentration (the NAAQS design value) and a Tier 1 or Tier 2 approach (ARM 2), where the national default in-stack and ambient ratios of 0.5 and 0.9, respectively, were applied for the Tier 2 approach.

Results of Dispersion Analyses

Each pollutant averaging time was modeled twice; with building wake effect enabled/disabled. The predicted concentration is the highest concentration of these. The NO_2 and SO_2 modeled concentrations were added to the background concentrations. The $PM_{2.5}$ modeled concentrations were evaluated with the NYC Guidelines threshold, *de minimis*, for stationary sources. The HVAC dispersions analysis results are shown in **Table 17-7**.

Table 17-7: HVAC Dispersion Analysis Results

[7] DEP "CA Permit" database obtained from the New York City Department of City Planning, February 2020.

[8] City of New York, nyc-geo-metadata (May 03, 2016); https://data.cityofnewyork.us/Housing-Development/Building-Footprints/nqwf-w8eh

Pollutant and Averaging Time	Modeled Concentration (μg/m³) [2]	Background Concentration (μg/m³)	Evaluated Concentration (μg/m³)	Threshold Concentration (μg/m³)	Threshold Standard
Concentration at Projected Development Site 1					
1-hour NO_2	55.71	100.4	145	188	NAAQS
Annual NO_2	0.82	24.2	25	100	NAAQS
24-hour $PM_{2.5}$	3.89	19.8	3.9	7.6	*de minimis*
Annual $PM_{2.5}$	0.12	7.7	0.12	0.3	*de minimis*
1-hour SO_2	0.1	13.7	14	196	NAAQS
Annual SO_2	0.001	1.5	1	80	NAAQS
Concentration at Projected Development Site 3					
1-hour NO_2	77.59	100.4	178	188	NAAQS
Annual NO_2	2.01	24.2	26	100	NAAQS
24-hour $PM_{2.5}$	5.09	19.8	5.1	7.6	*de minimis*
Annual $PM_{2.5}$	0.17	7.7	0.17	0.3	*de minimis*
1-hour SO_2	0.2	13.7	14	196	NAAQS
Annual SO_2	0.002	1.5	1	80	NAAQS
Concentration at Projected Development Site 4					
1-hour NO_2	84.43	100.4	185	188	NAAQS
Annual NO_2	1.30	24.2	25	100	NAAQS
24-hour $PM_{2.5}$	3.76	19.8	3.8	7.6	*de minimis*
Annual $PM_{2.5}$	0.14	7.7	0.14	0.3	*de minimis*
1-hour SO_2	1.3	13.7	15	196	NAAQS
Annual SO_2	0.014	1.5	2	80	NAAQS
Concentration at Projected Development Site 5					
1-hour NO_2	71.71	100.4	172	188	NAAQS
Annual NO_2	2.16	24.2	26	100	NAAQS
24-hour $PM_{2.5}$	3.66	19.8	3.7	7.6	*de minimis*
Annual $PM_{2.5}$	0.24	7.7	0.24	0.3	*de minimis*
1-hour SO_2	0.0	13.7	14	196	NAAQS
Annual SO_2	0.000	1.5	1	80	NAAQS
Concentration at Projected Development Site 6					
1-hour NO_2	77.31	100.4	178	188	NAAQS
Annual NO_2	6.75	24.2	31	100	NAAQS
24-hour $PM_{2.5}$	5.02	19.8	5.0	7.6	*de minimis*
Annual $PM_{2.5}$	0.20	7.7	0.20	0.3	*de minimis*
1-hour SO_2	1.7	13.7	15	196	NAAQS
Annual SO_2	0.020	1.5	2	80	NAAQS
Concentration at Potential Development Site A					
1-hour NO_2	86.74	100.4	187	188	NAAQS
Annual NO_2	2.24	24.2	26	100	NAAQS
24-hour $PM_{2.5}$	5.83	19.8	5.8	7.6	*de minimis*
Annual $PM_{2.5}$	0.29	7.7	0.29	0.3	*de minimis*
1-hour SO_2	0.6	13.7	14	196	NAAQS
Annual SO_2	0.007	1.5	2	80	NAAQS

The concentrations shown in **Table 17-7** were predicted with certain restrictions to ensure that no significant adverse air quality impact(s) would occur. The restrictions for the Proposed Actions are specified in the Air Quality E-Designations that would be placed on the Development Site(s), which are detailed further below.

***(E) Designation* - E-669**

***Block 5312, Lot 1 (Projected Development Site 1):* Any new residential or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s), ensure that the stack is located at the building's highest level or at least 88 feet above grade, and that the stack is located at least 20 feet from the western lot line facing Edison Avenue to avoid any potential significant adverse air quality impacts.**

***Block 5309, Lots 35, 36, 41, 42, 44, 47, 50 (Projected Development Site 2):* Any new residential or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the stack is located at the building's highest level or at least 54 feet above grade, and that the stack is located at least 130 feet from the western lot line facing East Tremont Avenue to avoid any potential significant adverse air quality impacts.**

***Block 5306, Lots 8, 18, 19, 22, 23 (Projected Development Site 3):* Any new residential or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the stack is located at the building's highest level or at least 84 feet above grade, and that the stack is located at least 70 feet from the eastern lot line facing East Tremont Avenue to avoid any potential significant adverse air quality impacts.**

***Block 5307, Lots 61, 63, 64, 66, 67 (Projected Development Site 4):* Any new residential or commercial development on the above-referenced property must ensure that the heating, ventilating, air conditioning (HVAC), and hot water system(s) stack is located at the building's highest level or at least 36 feet above grade, and that the stack is located at least 55 feet from the western lot line facing Balcom Avenue to avoid any potential significant adverse air quality impacts.**

***Block 5309, Lots 1, 7, 54 (Projected Development Site 5):* Any new residential or commercial development on the above-referenced property must ensure that the heating, ventilating, air conditioning (HVAC), and hot water system(s) stack is located at the building's highest level or at least 88 feet above grade to avoid any potential significant adverse air quality impacts.**

***Block 5307, Lots 73, 75, 76 (Projected Development Site 6):* Any new residential or commercial development on the above-referenced property must ensure that the heating, ventilating, air conditioning (HVAC), and hot water system(s) stack is located at the building's highest level or at least 36 feet above grade, and that the stack is located at least 45 feet from the eastern lot line facing East Tremont Avenue to avoid any potential significant adverse air quality impacts.**

Block 5306, Lots 28, 30, 31, 231 (Potential Development Site A): ***Any new residential or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s), ensure that the stack is located at the building's highest level or at least 88 feet above grade, and that the stack is located at least 70 feet from the western lot line facing Revere Avenue to avoid any potential significant adverse air quality impacts.***

Industrial Source

Identifying Potential Emission Sources

Per the *CEQR Technical Manual*, projects that would result in new uses (particularly schools, hospitals, parks, and residences) within 400 feet of manufacturing processing facilities may result in potentially significant adverse impacts. The analysis first determines if there are any existing manufacturing uses within the 400-foot study area containing exhaust stacks, vents, or other emission sources that may have the potential to adversely affect the uses introduced by the project. If warranted, an air dispersion analysis is then conducted for any existing industrial source(s) located in the study area.

Existing manufacturing uses with exhaust stacks, vents, or other emission sources that may have the potential to adversely affect the uses introduced by the project were identified by reviewing the DEP online Clean Air Tracking System (CATS) database, the NYSDEC map application (DECinfo Locator), and through a field survey. The field survey took place on February 24, 2020.

Two study areas were established. The east study area encompasses Bruckner Rezoning Projected Development Sites 1, 2, 3, 5 and Potential Development Site A, and includes all or part of Blocks 5306, 5309, 5311, 5312, 5313, 5419, 5420, 5531 and 5532. The west study area encompasses Bruckner Rezoning Projected Development Sites 4 and 6, and includes all or parts of Blocks 5304, 5306, 5307, 5535, 5536 and 5537.

The project area is characterized by a mixture of uses, including low density residential uses, low density commercial uses, institutional uses including churches and schools, and vacant land. The dominant features of the project area include St. Raymond's Cemetery to the north, Bruckner Boulevard and Bruckner Expressway to the south, and a mixture of low and medium density residential and commercial buildings throughout the area but concentrated along Bruckner Boulevard and East Tremont Avenue. No industrial uses were identified in the project area. Therefore, no analysis was required.

Major and Large Source

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

No existing large combustion source(s), such as power plants, cogeneration facilities, etc., located within 1,000 feet of the Project Site, was identified[9]. In addition, no odor producing facility was identified within 1,000 feet of the Project Site. As such, no analysis was warranted, and no significant adverse air quality impacts are predicted from these types of facilities.

CONCLUSION

Based on the detailed air quality analysis, conditions associated with the Proposed Actions would not result in any violations of the ambient air quality standards. Therefore, there is no reason to believe that the Proposed Actions would result in any potentially significant adverse stationary or mobile source air quality impacts, and further assessment is not warranted.

[9] https://gisservices.dec.ny.gov/gis/dil/

12. **Noise**

Introduction

Equity Environmental Engineering, LLC (Equity) conducted noise monitoring on Tuesday, March 3rd and Wednesday March 4th, 2020 in support of a zoning map amendment to rezone an existing R4A/C1-2 zoning district to a R5A/C2-4 zoning district. The various Project Sites are located along Bruckner Boulevard within Bronx Community District 10.

	Address	Block	Lot
Projected Development Site 1	2945 Bruckner Blvd	5312	1
Projected Development Site 2	2917-39 Bruckner Blvd	5309	35, 36, 41, 42, 44, 47, 50
Projected Development Site 3	No Street Address	5306	8, 18, 19, 22, 23
Projected Development Site 4	No Street Address	5307	61, 63, 64, 66, 67
Projected Development Site 5	2915-3399 Bruckner Blvd	5309	1, 7, 54
Projected Development Site 6	2717 Bruckner Blvd	5307	73, 75, 76
Potential Development Site A	3390-98 East Tremont Ave	5306	28, 30, 31, 231

The Proposed Action would create noise-sensitive residential development. Therefore, an assessment of the potential for adverse effects on project occupants from ambient noise is warranted. The projected development would not create a significant stationary 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. Therefore, this noise assessment is limited to an assessment of ambient noise that could adversely affect occupants of the development. The predominant noise source at the Affected Area is vehicular traffic on surrounding streets.

Framework of Noise Analysis

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

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

Sound is often measured and described in terms of its overall energy, taking all frequencies into account. However, the human hearing process is not the same at all frequencies. Humans are less sensitive to low frequencies (less than 250 Hz) than mid-frequencies (500 Hz to 1,000 Hz) and are

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

Table 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	

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

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

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

- L_{eq} is the continuous equivalent sound level. The sound energy from the fluctuating SPLs is averaged over time to create a single number to describe the mean energy, or intensity, level. High noise levels during a measurement period will have a greater effect on the L_{eq}

than low noise levels. L_{eq} has an advantage over other descriptors because L_{eq} values from various noise sources can be added and subtracted to determine cumulative noise levels.

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

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

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

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

Noise Standards and Guidelines

In 1983, the New York City Department of Environmental Protection (NYCDEP) adopted the City Environmental Quality Review (CEQR) noise exposure guidelines for exterior noise levels. As shown in Table 19-2 below, noise standards classify noise exposure into four categories based on noise level limits and land use, for vehicular traffic, rail, and aircraft noise sources: Acceptable, Marginally Acceptable, Marginally Unacceptable and Clearly Unacceptable, Table 19-3 of the *CEQR Technical Manual* defines attenuation requirements for buildings based on exterior noise exposure levels. Recommended noise attenuation values for buildings are designed to maintain interior noise levels of 45 dBA (*L_{10} or Ldn, depending on the source*) or below.

Table 19-2: Noise Exposure Guidelines for Use in City Environmental Impact Review

Receptor Type	Time Period	Acceptable General External Exposure	Airport[3] Exposure	Marginally Acceptable General External Exposure	Airport[3] Exposure	Marginally Unacceptable General External Exposure	Airport[3] Exposure	Clearly Unacceptable General External Exposure	Airport[3] Exposure
1.Outdoor area requiring serenity and quiet[2]		$L_{10} \leq 55$ dBA	Ldn < 60 dBA		Ldn < 60 dBA		Ldn < 60 dBA		Ldn < 75 dBA
2. Hospital, Nursing Home		$L_{10} \leq 55$ dBA		55<L_{10}≤65 dBA		65<L_{10}≤80 dBA		L_{10}>80dBA	
3. Residence, residential hotel or motel	7 am to 10 pm	$L_{10} \leq 65$dBA		65<L_{10}≤70 dBA		70<L_{10}≤80 dBA		L_{10}>80dBA	
	10 pm to 7 am	L10≤55dBA		55<L_{10}≤70 dBA		70<L_{10}≤80 dBA		L_{10}>80dBA	
4. School, museum, library, court house of worship, transient hotel or motel, public meeting room, auditorium, out-patient public health facility		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM- 10 PM)		Same as Residential Day (7 AM –10 PM)	
5. Commercial or office		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM –10 PM)		Same as Residential Day (7 AM-10 PM)	
6. Industrial, public areas only[4]	Note 4	Note 4		Note 4		Note 4		Note 4	

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

Notes:

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

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

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

Table 19-3 CEQR TM: Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Noise Level with Proposed Project	70 < L_{10} ≤ 73	73 < L_{10} ≤ 76	76 < L_{10} ≤ 78	78 < L_{10} ≤ 80	80 < L_{10}
Attenuation[1]	(i) 28 dB(A)	(ii) 31 dB(A)	(iii) 33 dB(A)	(iv) 35 dB(A)	36 + (L_{10} - 80)^2 dB(A)

Source: New York City of Environmental Protection

Notes:

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

2 Required attenuation values increase by 1 dB(A) increments for L_{10} values greater than 80 dBA.

Initial Impact Screening

The *CEQR Technical Manual* recommends an analysis of two principal types of noise sources: mobile sources; and stationary sources. As the Project will not be a stationary generator of noise, mobile noise sources will be examined in the following sections. The initial impact screening considers whether the project would:

(1) Generate any mobile sources of noise and/or
(2) Be located in an area with existing high ambient noise levels.

As discussed above, the noise analysis presented in this chapter focuses on the operational noise effects of the Proposed Action and the impacts of the ambient noise levels on the Proposed Action.

- An analysis to determine the level of building attenuation necessary to ensure that interior noise levels satisfy City Environmental Quality Review (CEQR) requirements; and
- A Noise Passenger Car Equivalent Screening to determine if the Proposed Action would result in an increase to existing Noise PCE values by 100 percent or more. The Noise PCE screening analyzes the potential for significant adverse impacts on adjacent receptors, and to determine, if any, the level of additional mitigation required to attenuate project-generated mobile noise sources.

Measurement Location and Equipment

Because the predominant noise sources in the area of the proposed project consist of vehicular traffic, noise monitoring was conducted during peak weekday vehicular travel periods (AM, Midday, PM) on a typical midweek day. Pursuant to CEQR Technical Manual Methodology, one (1) measurement was collected for 20-minute periods: Location One (1) was at the frontage of Projected Development Site 4 and 6 along Bruckner Boulevard; Location Two (2) was at frontage of Projected Development Site 3 along Revere Avenue; Location Two A (2A) was at Projected Development Site 3 along the northern façade (rear); Location Three (3) was at the frontage of Projected Development Site 3 along Bruckner Boulevard; Location Four (4) was at the frontage of Projected Development Site Five (5) along Bruckner Boulevard; Location Five (5) was at the frontage of Projected Development Site 2; Location Five A (5A) was along the northern façade (rear) of Projected Development Site 2; Location Six (6) was at the frontage of Projected Development Site 1 along Crosby Avenue; Location Six A (6A) was at the northern façade of Projected Development Site 1 (rear).

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

Photo 19-1: ***Noise Monitoring Location One (1)***



Photo 19-2: ***Noise Monitoring Location Two (2)***



Photo 19-3: ***Noise Monitoring Location Two A (2A)***



Photo 19-4: ***Noise Monitoring Location Three (3)***



Photo 19-5: ***Noise Monitoring Location Four (4)***



Photo 19-6: ***Noise Monitoring Location Five (5)***



Photo 19-7: ***Noise Monitoring Location Five A (5A)***



Photo 19-8: ***Noise Monitoring Location Six (6)***



Photo 19-9: ***Noise Monitoring Location Six A (6A)***



Figure 19-1: Noise Monitoring Location



Measurement Conditions
Monitoring was conducted during typical midweek conditions, on Tuesday, March 3rd and Wednesday March 4th, 2020. The weather was dry and wind speeds were moderate during all monitoring periods. The sound meter was calibrated before and after each monitoring session.

Existing Conditions
Based on the noise measurements, the predominant source of noise is vehicular traffic.

Table 19-4 through 19-12 *below contains the results for the measurements taken at the Project Site:*

Table 19-4
Noise Levels (dB) at Location 1

Tuesday, March 3, 2020			
Time	**8:27 am – 8:47 am**	**12:48 pm – 1:08 pm**	**5:18 pm – 5:39 pm**
L_{max}	88.4	84.8	83.0
L_{10}	**76.5**	**76.0**	**76.0**
L_{eq}	**74.4**	**73.1**	**72.9**
L_{50}	**73.0**	**71.5**	**71.5**
L_{90}	70.0	68.5	68.5
L_{min}	66.3	66.0	66.5

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

Table 19-5
Noise Levels (dB) at Location 2

Tuesday, March 3, 2020			
Time	**7:58 am – 8:20 am**	**12:22 pm – 12:45 pm**	**4:55 pm – 5:15 pm**
L_{max}	75.8	76.2	77.4
L_{10}	69.0	68.0	**70.0**
L_{eq}	65.5	64.5	66.3
L_{50}	63.0	61.5	63.5
L_{90}	60.0	59.0	60.0
L_{min}	57.9	56.1	56.9

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

Table 19-6 *Noise Levels (dB) at Location 2A*			
Tuesday, March 3, 2020			
Time	**7:57 am – 8:17 am**	**12:23 pm – 12:44 pm**	**4:54 pm – 5:14 pm**
L_{max}	74.9	76.3	79.5
L_{10}	68.0	68.0	**72.0**
L_{eq}	64.4	64.5	68.5
L_{50}	61.5	61.0	65.5
L_{90}	59.0	59.0	62.0
L_{min}	56.9	54.7	59.6

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

Table 19-7 *Noise Levels (dB) at Location 3*			
Tuesday, March 3, 2020			
Time	**7:31 am – 7:51 am**	**12:00 pm - 12:20 pm**	**4:30 pm – 4:50 pm**
L_{max}	85.2	82.9	84.5
L_{10}	**77.5**	**76.0**	**76.5**
L_{eq}	**74.7**	**73.5**	**74.2**
L_{50}	**74.0**	**73.0**	**73.5**
L_{90}	**70.5**	69.5	**70.0**
L_{min}	68.1	59.8	60.9

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

Table 19-8 *Noise Levels (dB) at Location 4*			
Wednesday, March 4, 2020			
Time	**7:50 am – 8:10 am**	**12:21 pm – 12:41 pm**	**4:51 pm – 5:11 pm**
L_{max}	82.6	83.1	89.0
L_{10}	**71.0**	68.0	**70.5**
L_{eq}	68.8	67.1	68.3
L_{50}	67.0	65.5	65.0
L_{90}	65.0	62.5	62.5
L_{min}	62.4	59.8	60.5

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

Table 19-9 *Noise Levels (dB) at Location 5*
Wednesday, March 4, 2020

Time	**8:11 am – 8:31 am**	**12:44 pm – 1:44 pm**	**5:11 pm – 5:31 pm**
L_{max}	84.4	80.5	88.6
L_{10}	**72.0**	68.0	**72.0**
L_{eq}	68.9	66.2	69.4
L_{50}	67.0	65.5	66.5
L_{90}	64.5	63.0	63.5
L_{min}	54.5	59.6	54.7

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

Table 19-10
Noise Levels (dB) at Location 5A

Wednesday, March 4, 2020

Time	**7:50 am – 8:10 am**	**12:21 pm – 12:41 pm**	**4:51 pm – 5:11 pm**
L_{max}	79.5	89.4	78.8
L_{10}	68.0	65.5	63.5
L_{eq}	65.0	63.8	60.4
L_{50}	61.0	59.0	54.5
L_{90}	59.5	57.0	52.0
L_{min}	57.8	55.6	50.0

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

Table 19-11
Noise Levels (dB) at Location 6

Wednesday, March 4, 2020

Time	**7:30 am – 7:50 am**	**12:00 pm – 12:20 pm**	**4:30 pm – 4:50 pm**
L_{max}	78.8	92.3	83.1
L_{10}	**72.0**	68.5	**71.0**
L_{eq}	69.2	68.0	68.2
L_{50}	67.5	65.5	66.0
L_{90}	64.5	63.5	63.5
L_{min}	60.9	60.6	52.5

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

Table 19-12
Noise Levels (dB) at Location 6A

Wednesday, March 4, 2020

Time	**7:30 am – 7:50 am**	**12:00 pm – 12:20 pm**	**4:30 pm – 4:50 pm**

L_{max}	81.6	74.6	78.4
L_{10}	**71.5**	62.0	62.0
L_{eq}	67.3	59.6	58.3
L_{50}	62.5	58.0	54.0
L_{90}	60.5	56.5	50.5
L_{min}	59.0	53.9	48.3

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

Table 19-13 through 19-18 *below contains the traffic counts and vehicle classifications during each monitoring period for 20 minutes:*

Table 19-13
Location 1: *Traffic volumes and vehicle classifications*

	8:27 am – 8:47 am	**12:48 pm – 1:08 pm**	**5:18 pm – 5:39 pm**
Car/ Taxi	88	80	90
Van/Light Truck/SUV	139	119	134
Medium Truck	3	2	4
Heavy Truck	1	0	1
Bus	18	10	15
Train	0	0	0

Table 19-14
Location 2: *Traffic volumes and vehicle classifications*

	7:58 am – 8:20 am	**12:22 pm – 12:45 pm**	**4:55 pm – 5:15 pm**
Car/ Taxi	0	0	1
Van/Light Truck/SUV	3	1	0
Medium Truck	0	0	0
Heavy Truck	0	0	0
Bus	0	0	0
Train	0	0	0

Table 19-15
Location 3: *Traffic volumes and vehicle classifications*

	7:31 am – 7:51 am	**12:00 pm - 12:20 pm**	**4:30 pm – 4:50 pm**
Car/ Taxi	101	186	110
Van/Light Truck/SUV	126	105	117
Medium Truck	2	1	3

Heavy Truck	1	0	1
Bus	14	9	12
Train	0	0	0

Table 19-16
Location 4: *Traffic volumes and vehicle classifications*

	7:50 am – 8:10 am	**12:21 pm – 12:41 pm**	**4:51 pm – 5:11 pm**
Car/ Taxi	68	59	59
Van/Light Truck/SUV	63	51	72
Medium Truck	2	3	0
Heavy Truck	2	1	0
Bus	6	5	10
Train	0	0	0

Table 19-17
Location 5: *Traffic volumes and vehicle classifications*

	8:11 am – 8:31 am	**12:44 pm – 1:44 pm**	**5:11 pm – 5:31 pm**
Car/ Taxi	37	44	36
Van/Light Truck/SUV	58	36	39
Medium Truck	0	0	1
Heavy Truck	0	2	0
Bus	6	4	6
Train	0	0	0

0

Table 19-18
Location 6: *Traffic volumes and vehicle classifications*

	7:30 am – 7:50 am	**12:00 pm – 12:20 pm**	**4:30 pm – 4:50 pm**
Car/ Taxi	48	38	51
Van/Light Truck/SUV	66	43	56
Medium Truck	4	1	2
Heavy Truck	2	1	0
Bus	14	3	10
Train	0	0	0

Preliminary PCE Screening

Pursuant to Section 111 of the 2014 CEQR Technical Manual, mobile sources are those noise sources that move in relation to a noise-sensitive receptor—principally automobiles, buses, trucks, aircraft, and trains. Each has its own distinctive noise character, and, consequently, an associated set of noise assessment descriptors.

For Mobile Sources, an initial noise assessment may be appropriate if a proposed action would generate additional project-generated vehicular traffic in an area where roadways currently carry no or very low traffic volumes, or where a nearby receptor would potentially be impacted by high ambient noise levels. Receptors are generally the subject of most noise impact analyses. A noise-sensitive location (known as a "receptor") is usually defined as an area where human activity may be adversely affected when noise levels exceed predefined thresholds of acceptability or when noise levels increase by an amount exceeding predefined thresholds of change.

Automobile noise is a function of vehicle speed and engine noise. With changing gears, the noise levels tend to increase in a sawtooth kind of pattern as vehicular speed increases. The interaction of the road surface with the tires generates noise that increases with vehicle speed. At vehicular speeds below 30 miles per hour, the typical automobile noise spectrum is dominated by engine noise. At speeds higher than 30 miles per hour, the automobile noise signature is composed of a combination of lower frequency engine noise and higher frequency tire noise. The engine and tire noise for vehicular speeds above 30 miles per hour are comparable in noise level. Noise generated by buses and heavy trucks is also composed of engine and tire noise, but tire noise tends to dominate the noise signature at vehicular speeds above 30 miles per hour in trucks and buses. Cargo load normally does not significantly affect noise levels because increased load usually results in decreased vehicular speed and the effects cancel each other out. Because individual trucks and buses are noisier than individual automobiles, the concept of Noise passenger car equivalents (PCEs) is used.

Pursuant to Section 332.1 of the 2014 CEQR Technical Manual, the below values can be used to calculate vehicular noise using the following projections:

- Each Automobile or Light Truck: 1 Noise PCE
- Each Medium Truck: 13 Noise PCEs
- Each Bus: 18 Noise PCEs
- Each Heavy Truck: 47 Noise PCEs

To determine if the Proposed Action would result in an increase to existing Noise PCE values by 100 percent or more, a preliminary screening was conducted. This screening assesses the Noise PCE values of the vehicles projected to arrive and depart the Project Site pursuant to the Proposed Action as determined by the traffic analysis (*See Section 16 above*), compared to the PCE values of existing background traffic recorded during noise monitoring.

Noise PCE Screening Assumptions

The Trip Generation provided in Table 20 of Appendix C in the EAS was used for the Noise PCE Screening Assessment.

Tables 19-19 through 19-24 *below provides the results of the Noise PCE Screening Analysis.*

Table 19-19 Noise PCE Screening Site 1

Traffic volumes, vehicle classifications, and PCE Noise Values

Existing/No-Action Noise PCE Value

	AM Existing Vehicle Counts 1-Hour	AM Noise PCE Value	MD Existing Vehicle Counts 1-Hour	MD Noise PCE Value	PM Existing Vehicle Counts 1-Hour	PM Noise PCE Value
Car/ Taxi	48	48	38	38	51	51
Van/Light Truck/SUV	66	66	43	43	53	53
Motorcycle	0	0	0	0	0	0
Medium Truck	44	572	1	13	2	26
Heavy Truck	2	94	1	47	0	0
Bus	14	252	3	54	10	180
Total Noise PCE	-	**1032**	-	**195**	-	**310**

With Action Noise PCE Value

	AM Existing Vehicle Counts 1-Hour	AM Project Generated Vehicle Counts 1-Hour	AM Noise PCE Value	MD Existing Vehicle Counts 1-Hour	MD Project Generated Vehicle Counts1-Hour	MD Noise PCE Value	PM Existing Vehicle Counts 1-Hour	PM Project Generated Vehicle Counts 1-Hour	PM Noise PCE Values
Car/ Taxi	48	64	112	38	28	66	51	63	114
Van/Light Truck/SUV	66	0	66	43	0	43	53	0	53
Motorcycle	0	0	0	0	0	0	0	0	0
Medium Truck	44	0	572	1	0	13	2	0	26
Heavy Truck	2	0	94	1	0	47	0	0	0
Bus	14	0	252	3	0	54	10	0	180
Total Noise PCE	-	-	**1096**	-	-	**223**	-	-	**373**

Increment:	No-Acting/Existing	With Action	Increment	%Increase
AM Noise PCE	**1032**	**1096**	**64**	**6**
MD Noise PCE	**195**	**223**	**28**	**14**
PM Noise PCE	**310**	**373**	**63**	**20**

Table 19-20 Noise PCE Screening Site 2

Traffic volumes, vehicle classifications, and PCE Noise Values

Existing/No-Action Noise PCE Value

	AM Existing Vehicle Counts 1-Hour	AM Noise PCE Value	MD Existing Vehicle Counts 1-Hour	MD Noise PCE Value	PM Existing Vehicle Counts 1-Hour	PM Noise PCE Value
Car/ Taxi	37	37	44	44	36	36
Van/Light Truck/SUV	58	58	36	36	39	39
Motorcycle	0	0	0	0	0	0
Medium Truck	0	0	0	0	1	13
Heavy Truck	0	0	2	94	0	0
Bus	6	108	4	72	6	108
Total Noise PCE	-	**203**	-	**246**	-	**196**

With Action Noise PCE Value

	AM Existing Vehicle Counts 1-Hour	AM Project Generated Vehicle Counts 1-Hour	AM Noise PCE Value	MD Existing Vehicle Counts 1-Hour	MD Project Generated Vehicle Counts1-Hour	MD Noise PCE Value	PM Existing Vehicle Counts 1-Hour	PM Project Generated Vehicle Counts 1-Hour	PM Noise PCE Values
Car/ Taxi	37	50	87	44	56	100	36	64	100
Van/Light Truck/SUV	58	0	58	36	0	36	39	0	39
Motorcycle	0	0	0	0	0	0	0	0	0
Medium Truck	0	0	0	0	0	0	1	0	13
Heavy Truck	0	0	0	2	0	94	0	0	0
Bus	6	0	108	4	0	72	6	0	108
Total Noise PCE	-	-	**253**	-	-	**302**	-	-	**260**

Increment:	No-Acting/Existing	With Action	Increment	%Increase
AM Noise PCE	**203**	**253**	**50**	**25**
MD Noise PCE	**246**	**302**	**56**	**23**
PM Noise PCE	**196**	**260**	**64**	**33**

Table 19-21 Noise PCE Screening Site 3

Traffic volumes, vehicle classifications, and PCE Noise Values

Existing/No-Action Noise PCE Value

	AM Existing Vehicle Counts 1-Hour	AM Noise PCE Value	MD Existing Vehicle Counts 1-Hour	MD Noise PCE Value	PM Existing Vehicle Counts 1-Hour	PM Noise PCE Value
Car/ Taxi	101	101	186	186	110	110
Van/Light Truck/SUV	126	126	105	105	117	117
Motorcycle	0	0	0	0	0	0
Medium Truck	2	26	1	13	3	39
Heavy Truck	1	47	0	0	1	47
Bus	14	252	9	162	12	216
Total Noise PCE	-	**552**	-	**466**	-	**529**

With Action Noise PCE Value

	AM Existing Vehicle Counts 1-Hour	AM Project Generated Vehicle Counts 1-Hour	AM Noise PCE Value	MD Existing Vehicle Counts 1-Hour	MD Project Generated Vehicle Counts1-Hour	MD Noise PCE Value	PM Existing Vehicle Counts 1-Hour	PM Project Generated Vehicle Counts 1-Hour	PM Noise PCE Values
Car/ Taxi	101	28	129	186	43	229	110	41	151
Van/Light Truck/SUV	126	0	126	105	0	105	117	0	117
Motorcycle	0	0	0	0	0	0	0	0	0
Medium Truck	2	0	26	1	0	13	3	0	39
Heavy Truck	1	0	47	0	0	0	1	0	47
Bus	14	0	252	9	0	162	12	0	216
Total Noise PCE	-	-	**580**	-	-	**509**	-	-	**570**

Increment:	No-Acting/Existing	With Action	Increment	%Increase
AM Noise PCE	**552**	**580**	**28**	**5**
MD Noise PCE	**466**	**509**	**43**	**9**
PM Noise PCE	**529**	**570**	**41**	**8**

Table 19-22 Noise PCE Screening Site 4

Traffic volumes, vehicle classifications, and PCE Noise Values

Existing/No-Action Noise PCE Value

	AM Existing Vehicle Counts 1-Hour	AM Noise PCE Value	MD Existing Vehicle Counts 1-Hour	MD Noise PCE Value	PM Existing Vehicle Counts 1-Hour	PM Noise PCE Value
Car/ Taxi	88	88	80	80	90	90
Van/Light Truck/SUV	139	139	119	119	134	134
Motorcycle	0	0	0	0	0	0
Medium Truck	3	39	2	26	4	52
Heavy Truck	1	47	0	0	1	47
Bus	18	324	10	180	15	270
Total Noise PCE	-	**637**	-	**405**	-	**593**

With Action Noise PCE Value

	AM Existing Vehicle Counts 1-Hour	AM Project Generated Vehicle Counts 1-Hour	AM Noise PCE Value	MD Existing Vehicle Counts 1-Hour	MD Project Generated Vehicle Counts1-Hour	MD Noise PCE Value	PM Existing Vehicle Counts 1-Hour	PM Project Generated Vehicle Counts 1-Hour	PM Noise PCE Values
Car/ Taxi	88	8	96	80	4	84	90	9	99
Van/Light Truck/SUV	139	0	139	119	0	119	134	0	134
Motorcycle	0	0	0	0	0	0	0	0	0
Medium Truck	3	0	39	2	0	26	4	0	52
Heavy Truck	1	0	47	0	0	0	1	0	47
Bus	18	0	324	10	0	180	15	0	270
Total Noise PCE	-	-	**645**	-	-	**409**	-	-	**602**

Increment:	No-Acting/Existing	With Action	Increment	%Increase
AM Noise PCE	**637**	**645**	**8**	**1**
MD Noise PCE	**405**	**409**	**4**	**1**
PM Noise PCE	**593**	**602**	**9**	**2**

Table 19-23 Noise PCE Screening Site 5

Traffic volumes, vehicle classifications, and PCE Noise Values

Existing/No-Action Noise PCE Value

	AM Existing Vehicle Counts 1-Hour	AM Noise PCE Value	MD Existing Vehicle Counts 1-Hour	MD Noise PCE Value	PM Existing Vehicle Counts 1-Hour	PM Noise PCE Value
Car/ Taxi	68	68	59	59	59	59
Van/Light Truck/SUV	63	63	51	51	72	72
Motorcycle	0	0	0	0	0	0
Medium Truck	2	26	3	39	0	0
Heavy Truck	2	94	1	47	0	0
Bus	6	108	5	90	10	180
Total Noise PCE	-	**359**	-	**286**	-	**311**

With Action Noise PCE Value

	AM Existing Vehicle Counts 1-Hour	AM Project Generated Vehicle Counts 1-Hour	AM Noise PCE Value	MD Existing Vehicle Counts 1-Hour	MD Project Generated Vehicle Counts1-Hour	MD Noise PCE Value	PM Existing Vehicle Counts 1-Hour	PM Project Generated Vehicle Counts 1-Hour	PM Noise PCE Values
Car/ Taxi	68	5	73	59	3	62	59	4	63
Van/Light Truck/SUV	63	0	63	51	0	51	72	0	72
Motorcycle	0	0	0	0	0	0	0	0	0
Medium Truck	2	0	26	3	0	39	0	0	0
Heavy Truck	2	0	94	1	0	47	0	0	0
Bus	6	0	108	5	0	90	10	0	180
Total Noise PCE	-	-	**364**	-	-	**289**	-	-	**315**

Increment:	No-Acting/Existing	With Action	Increment	%Increase
AM Noise PCE	**359**	**364**	**5**	**1**
MD Noise PCE	**286**	**289**	**3**	**1**
PM Noise PCE	**311**	**315**	**4**	**1**

Table 19-24 Noise PCE Screening Site 6

Traffic volumes, vehicle classifications, and PCE Noise Values

Existing/No-Action Noise PCE Value

	AM Existing Vehicle Counts 1-Hour	AM Noise PCE Value	MD Existing Vehicle Counts 1-Hour	MD Noise PCE Value	PM Existing Vehicle Counts 1-Hour	PM Noise PCE Value
Car/ Taxi	88	88	80	80	90	90
Van/Light Truck/SUV	139	139	119	119	134	134
Motorcycle	0	0	0	0	0	0
Medium Truck	3	39	2	26	4	52
Heavy Truck	1	47	0	0	1	47
Bus	18	324	10	180	15	270
Total Noise PCE	-	**637**	-	**405**	-	**593**

With Action Noise PCE Value

	AM Existing Vehicle Counts 1-Hour	AM Project Generated Vehicle Counts 1-Hour	AM Noise PCE Value	MD Existing Vehicle Counts 1-Hour	MD Project Generated Vehicle Counts1-Hour	MD Noise PCE Value	PM Existing Vehicle Counts 1-Hour	PM Project Generated Vehicle Counts 1-Hour	PM Noise PCE Values
Car/ Taxi	88	3	91	80	2	82	90	4	94
Van/Light Truck/SUV	139	0	139	119	0	119	134	0	134
Motorcycle	0	0	0	0	0	0	0	0	0
Medium Truck	3	0	39	2	0	26	4	0	52
Heavy Truck	1	0	47	0	0	0	1	0	47
Bus	18	0	324	10	0	180	15	0	270
Total Noise PCE	-	-	**640**	-	-	**407**	-	-	**597**

Increment:	No-Acting/Existing	With Action	Increment	%Increase
AM Noise PCE	**637**	**640**	**3**	**0**
MD Noise PCE	**405**	**407**	**2**	**0**
PM Noise PCE	**593**	**597**	**4**	**1**

Noise PCE Screening Conclusion

Per the CEQR Technical Manual, if existing passenger car equivalent (PCE) Noise values would not increase by 100 percent or more due to a Proposed Action, a detailed analysis is not required. As indicated above in Tables 19-19 through 19-24, the Proposed Action would not result in an increase to existing Noise PCE values by greater than 100% at the bounding roadways during the AM, Midday and PM peak periods. Therefore, a detailed Noise PCE Analysis is not warranted.

Determination of Impacts/Building Attenuation Requirements

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. An L_{10} of between 70 and 75 dB(A) is identified as marginally unacceptable general external exposure. The highest recorded L_{eq} at Location One (1) of the subject property was 76.5 dB(A) during the morning monitoring period. The highest recorded L_{10} at Location Two (2) of the subject property was 70.0 dB(A) during the evening monitoring period. The highest recorded L_{10} at Location Two A (2A) of the subject property was 72.0 dB(A) during the evening monitoring period. The highest recorded L_{10} at Location Three (3) of the subject property was 77.5 dB(A) during the evening monitoring period. The highest recorded L_{10} at Location Four (4) of the subject property was 71.0 dB(A) during the morning monitoring period. The highest recorded L_{10} at Location Five (5) of the subject property was 71.0 dB(A) during the morning monitoring period. The highest recorded L_{10} at Location Five A (5A) of the subject property was 68.0 dB(A) during the morning monitoring period. The highest recorded L_{10} at Location Six (6) of the subject property was 72.0 dB(A) during the morning monitoring period. The highest recorded L_{10} at Location Six A (6A) of the subject property was 71.5 dB(A) during the morning monitoring period.

Based on the results of the noise monitoring, the following window-wall attenuations will be required by Projected Development Site:

Projected Development Site	Required Attenuation
1 (all facades)	28 dB(A)
2 (southern, eastern, western facades)	28 dB(A)
2 (northern façade)	none
3 (southern façade)	33 dB(A)
3 (northern, eastern, western facades)	28 dB(A)
4	33 dB(A)
5	28 dB(A)
6	33 dB(A)

With these levels of attenuation, there would be no potential for adverse impacts related to ambient noise. To ensure that the required noise attenuation is provided, an ( ) designation would be placed on Projected evelopment Sites 1-6. The te t of the ( ) designation (**669**) will state the following:

Block 5312, Lot 1 (Projected Development Site 1):

To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on all facades to maintain an interior noise level not grater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Block 5309, Lots 35, 36, 41, 42, 44, 47, 50 (Projected Development Site 2):

To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on eastern, western and southern facades to maintain an interior noise level not grater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Block 5306, Lots 8, 18, 19, 22, 23 (Projected Development Site 3):

To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on eastern, western and northern facades and a minimum of 33 dBA window/wall attenuation on the southern facade to maintain an interior noise level not grater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Block 5307, Lots 61, 63, 64, 66, 67 (Projected Development Site 4):

To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 33 dBA window/wall attenuation on all facades to maintain an interior noise level not grater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Block 5309, Lots 1, 7, 54 (Projected Development Site 5):

To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on all facades to maintain an interior noise level not grater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Block 5307, Lots 73, 75, 76 (Projected Development Site 6):

To ensure an acceptable interior noise environment, future residential/commercial office uses must provide a closed-window condition with a minimum of 33 dBA window/wall attenuation on all facades to maintain an interior noise level not grater than 45 dBA for residential uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Stationary Source

The Proposed Actions would not include any unenclosed mechanical equipment for building ventilation purposes, and would not include any active outdoor recreational space that could result in stationary source noise impacts to the surrounding area. All mechanical equipment would be located either inside the building or would be enclosed on the roof of the structures, and would be designed to meet all applicable noise regulations and requirements. Therefore, the Proposed Actions would not result in any significant increase in ambient noise levels in the vicinity of the Project Area or the surrounding study area.

Conclusion

With this level of attenuation, there would be no potential for adverse impacts related to ambient noise.

13. Neighborhood Character

Introduction

The *CEQR Technical Manual* states that a neighborhood character assessment is generally required when a proposed action would have the potential to result in a significant adverse impact in the following areas: land use, zoning and public policy, 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. The Proposed Actions would not have the potential to result in any significant adverse impacts to the pertinent analysis areas related to neighborhood character, as discussed below.

Land Use, Zoning, and Public Policy

As stated in the Land Use, Zoning and Public Policy section, the Proposed Actions would not result in significant adverse impacts related to land use, zoning, or public policy. Although the Land Use, Zoning, and Public Policy technical area of the EAS provides a detailed analysis, a neighborhood character assessment is not warranted as the project does not have the potential to result in any significant adverse Land Use, Zoning, or Public Policy impacts.

Regarding land use, the Project Area presently contains a mix of residential, commercial, and vacant properties. No significant adverse impacts related to land use would occur as a result of the proposed rezoning. Regarding zoning, the proposed zoning map amendment to R6A/C2-4 and R5B under MIH is appropriate given the context of the Rezoning Area. The Rezoning Area is located along a heavily-trafficked corridor—the Bruckner Expressway—in an area that is developed with a mix of pre-existing commercial and residential uses. The existing development is largely compatible with the development resulting from the Proposed Actions. Thus, the increase in height and FAR permitted by this proposal is consistent with that which is already permitted in the area.

Socioeconomic Conditions

As stated in the Socioeconomics section, the Proposed Actions would result in an increase in the resident and worker population of the Study Area. The *CEQR Technical Manual* considers an action to result in significant impacts where the action results in the direct or indirect displacement of over 100 workers, introduces new uses that substantially change the conditions in the area, or introduce a substantial new residential population. The Proposed Actions would directly result in the displacement of fewer than 100 workers, are not expected to affect conditions within a specific industry, and do not introduce a new residential population greater than 5% of the existing residential population.

Open Space

As stated in the Open Space section, the Proposed Actions would result in an incremental increase in the resident and worker population of the study area. The *CEQR Technical Manual* considers an action to result in significant impacts to open space resources if it would directly displace or alter an existing resource to the detriment of its users. The Proposed Development associated with the Proposed Actions would not result in the direct displacement of any parklands or recreational facilities. The Proposed Actions would, however, reduce the open space ratio.

The open space ratio in the study area is below *CEQR Technical Manual* planning ratios and would result in an incremental decrease of approximately 4.8% between the No-Action Scenario and the With-Action Scenario. This decrease in the open space ratio would not exceed the *CEQR Technical Manual* threshold of 5% (or as little as 1% in an underserved area), therefore there is no potential for a significant adverse impact to Open Space.

Shadows

As stated in the Shadows section, there are no sunlight-sensitive resources within the Study Area which would be negatively impacted by incremental development resulting from the Proposed Actions.

Historic and Cultural Resources

As stated in the Historic and Cultural Resources section, the Landmarks Preservation Commission (LPC) has issued a finding that the Project Area does not contain architectural or archeological resources. No additional historic or cultural resources in the Project Area or the surrounding area would be affected by the Proposed Actions.

Urban Design and Visual Resources

As stated in the Urban Design and Visual Resources section, the Proposed Actions do not have the potential to result in any significant adverse impact to Urban Design and Visual Resources.

The Proposed Developments would adhere to the underlying floor area, yard, height, and setback regulations of the proposed zoning districts. The proposed zoning map amendment to R6A/C2-4 and R5B is appropriate given the context of the area. The Project Area is located along a heavily trafficked mixed-use corridor adjacent to the Bruckner Expressway, a major artery connecting the Bronx to wider metropolitan region and providing cross-access through New York City.

Transportation

As noted in the Transportation section, the Proposed Actions do exceed the impact thresholds for traffic, subway or pedestrian impacts. Therefore, the Proposed Actions are not anticipated to significantly impact traffic in the surrounding area, nor significantly impact the pedestrian experience or transit operations.

Noise

The Proposed Actions required a detailed noise analysis due to ambient noise levels in the vicinity of the Project Area that could have a potentially adverse impact on future residents of the Projected Development Sites. As discussed in the Noise section, window-wall noise attenuation could be incorporated into the project design; therefore there would be no adverse impacts related to noise for project occupants. In order to avoid a significant adverse impact related to noise, E designations may be placed.

Conclusion

While a combination of moderate changes in several of these technical areas may potentially have a significant effect on neighborhood character, the Proposed Actions would be compatible with the mixed-use character of the neighborhood and, as discussed in the relevant sections of this EAS, are not anticipated to result in any significant adverse impacts on land use, zoning and public policy; open space; shadows; historic and cultural resources; urban design and visual resources; transportation or noise within the area.

The Proposed Actions will not alter the character of the neighborhood, impair the appropriate use or development of adjacent property, nor be detrimental to the public welfare. Therefore, no significant adverse impacts on neighborhood character are anticipated as a result of the proposed action.

13. Construction

Introduction

According to the CEQR Technical Manual, construction activities, although temporary, may sometimes result in significant impacts. Construction duration, which is a critical measure to determine a project's potential for adverse impacts during construction, is categorized as short-term (less than 24 months) and long-term (24 months or more). For construction activities not related to in-ground disturbance, short-term construction generally does not warrant a detailed construction analysis. However, consideration of several factors, including the location and setting of the project in relation to other uses and the intensity of construction activities, may indicate that a project's construction activities, even if short-term, warrant analysis in additional areas such as traffic, hazardous materials, historic and cultural resources, noise, and air quality. As discussed in the Project Description, the Proposed Actions would facilitate the development of four applicant-controlled properties (Projected Development Site 1-4) and may facilitate the development of two non-applicant controlled properties (Projected Development Sites 5-6) (as described in the Project Description).

Methodology

The cumulative construction period for development to be completed on the applicant-controlled Projected Development Site is less than 24 months; therefore, pursuant to *CEQR Technical* Manual guidelines, any impacts resulting from such short-term construction generally do not require a detailed assessment (**See** Letter from Aufgang Architects, below). However, because the Proposed Project is near the Bruckner Expressway, a targeted preliminary assessment of transportation as it relates to construction will be included. It is anticipated that construction activities on the applicant-controlled Projected Development Sites would last 18 months.

Regulatory Agencies and Oversight

Regardless of the length of the construction period, New York City has defined a number of regulations that must be adhered to. In addition to the regulatory requirements, applicants must coordinate with New York City, New York State, and occasionally federal agencies to ensure that construction is facilitated appropriately.

New York City Air Pollution Control Code

All projects, whether or not subject to the requirements of CEQR, are required to comply with the New York City Air Pollution Control Code, which regulates fugitive dust under Section 1402.2-9.11, "Preventing Particulate Matter from Becoming Air-Borne; Spraying of Asbestos Prohibited; Spraying of Insulating Material and Demolition Regulated" (Title 24 of the Administrative Code of the City of New York, Chapter 1, Subchapter 6, Section 24-146).

New York City Asbestos Control Program

The regulations of the New York City Asbestos Control Program include specific procedures that must be followed for the control of asbestos during construction. In instances where demolition of an existing building could result in release of asbestos, the qualitative analysis should document a commitment to the adherence of these measures and requirements during construction.

Local Law 24 Of 2005

Local Law 24 of 2005 requires the issuance of a Community Reassessment, Impact and Amelioration (CRIA) statement, or Environmental Assessment Statement (EAS)/Environmental Impact Statement (EIS) in lieu of CRIA, if a publicly mapped street is closed for more than 180 consecutive calendar days to vehicular traffic. The CRIA Statement or equivalent EAS/EIS must be delivered to both the community board and the city council member in whose district the street is located on or before the 210th day of the street closure. In addition, at least one public forum must be held prior to the issuance of the CRIA, EAS, or EIS if the project is one for which the New York City Department of Transportation (DOT) has issued a permit.

Required Permits from DOT's Office of Construction Mitigation and Coordination

Before receiving construction permits from the New York City Department of Transportation (NYCDOT) (such as street opening, sidewalk construction, construction activity, or canopy permits), traffic, bicycle detour, and pedestrian access plans must be approved by the Office of Construction Mitigation and Coordination (OCMC). Additionally, pedestrian access plans should identify the extent to which any sidewalks and/or crosswalks would be closed or narrowed to allow for construction related activity and describe how pedestrian access to adjacent land uses and uses through the area/intersections would be maintained.

New York City Noise Control Code

The New York City Noise Control Code, as amended by Local Law 113 of 2005, defines "unreasonable and prohibited noise standards and decibel levels" for the City of New York. The New York City Noise Control Code, Section 24-219, contains rules that prescribe "noise mitigation strategies, methods, procedures, and technology that shall be used at construction sites" when certain construction devices or activities occur. Additionally, the New York City Noise Control Code requires construction activities to occur between 7 AM to 6 PM Monday through Friday. Construction activities occurring outside the permitted days/hours would require prior authorization.

New York City Procedure for the Avoidance of Damage to Historic Structures

Regulations for the protection of historic structures are found in "Technical Policy and Procedure Notice #10/88, Procedures for the Avoidance of Damage to Historic Structures Resulting from Adjacent Construction When Subject to Controlled Inspection by Section 27-724 and for Any Existing Structure Designated by the Commissioner," issued by the New York City Department of Buildings (NYCDOB).

Construction Sequencing
The four applicant-controlled sites are proposed to be developed in 18-22 months. The applicant-controlled sites are non-contiguous and it is therefore not expected that the sites' construction periods would cause any cumulative or associated impacts.

Assessment
According to *CEQR Technical Manual* guidelines, a preliminary construction assessment evaluates the impact of construction activities facilitated by the Proposed Actions with regard to transportation, air quality, noise, historic and cultural resources, and hazardous materials. Due to the anticipated construction timeframe of less than 24 months, the only technical area that will be assessed with regard to construction is transportation.

Transportation
Construction activities on the Development Site would generate trips by workers traveling to and from construction sites as well as trips by the delivery of construction related materials and equipment. The New York City Noise Control Code requires construction activities to occur between 7 AM to 6 PM Monday through Friday; therefore, worker trips would be concentrated in off-peak hours and would not generate 50 or more vehicle trips (presented in Passenger Car Equivalents (PCEs)) during peak travel periods. In addition, any closures to pedestrian sidewalk or partial lane closures would occur for less than two years and would be reviewed by NYCDOT. Because construction is anticipated to occur simultaneously but on non-contiguous sites, and trips generated by construction activities would not generate 50 or more PCEs during peak traffic hours, the construction activities facilitated by the Proposed Actions would not result in significant adverse impacts to transportation activities in the area.

Conclusion
The Proposed Actions would facilitate the development of four applicant-controlled development sites and may facilitate the development of two non-applicant controlled development sites. The anticipated construction schedule for Projected Development Sites 1-4 assumes that construction activities would not exceed 24 months. Because construction periods of the Projected Development Sites would not exceed 24 months, and because 50 or more PCEs will not be generated during peak traffic hours as a result of construction, the Proposed Action is not anticipated to result in significant adverse impacts related to construction activities. Therefore, no further analysis is required.

April 21, 2021

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

Re. Throgg's Neck Rezoning, NY

Dear Ms. Camilleri

We are the project architects for Site A within this 4-site development site project. We are addressing the question pertaining to the build-out timeframe. We are confirming that a 22-month construction period is not unreasonable for a variety of factors. First, this is being developed by 3 different development teams (Sites C & D are by the same development team). Therefore, there is not really any capacity issues to perform and from a scale perspective, individually these sites are very reasonable construction undertakings. They all have corner frontage with minimal neighboring properties that would not require complex construction methods. Second, along these same lines of development ease, none of the sites have difficult site constraints that we increase the construction timeframe. Third, the contemplated methods of construction for Block and Plank Sites A and B, and C-joists and decking for Sites C and D – lead to an accelerated construction timeline. Finally, there are no jurisdictional or agency obstacles, such as MTA sphere of influence or City/State Bridges that could potentially delay construction approvals or construction progress.

We are routinely involved with larger scale and more complex development projects and we concur that those schedules are more in line with a 24-month period. But as detailed above, these sites are smaller on an individual basis and have minimal site constraints and development obstacles that would likely push out the construction timeframe periods contemplated with the EAS document.

Sincerely,



Ariel Aufgang, AIA

AUFGANG ARCHITECTS

74 Lafayette Avenue, Suite 301
Suffern, New York 10901
Office 845 368 0004
www.aufgang.com

APPENDIX I

TRANSPORTATION ATTACHMENTS

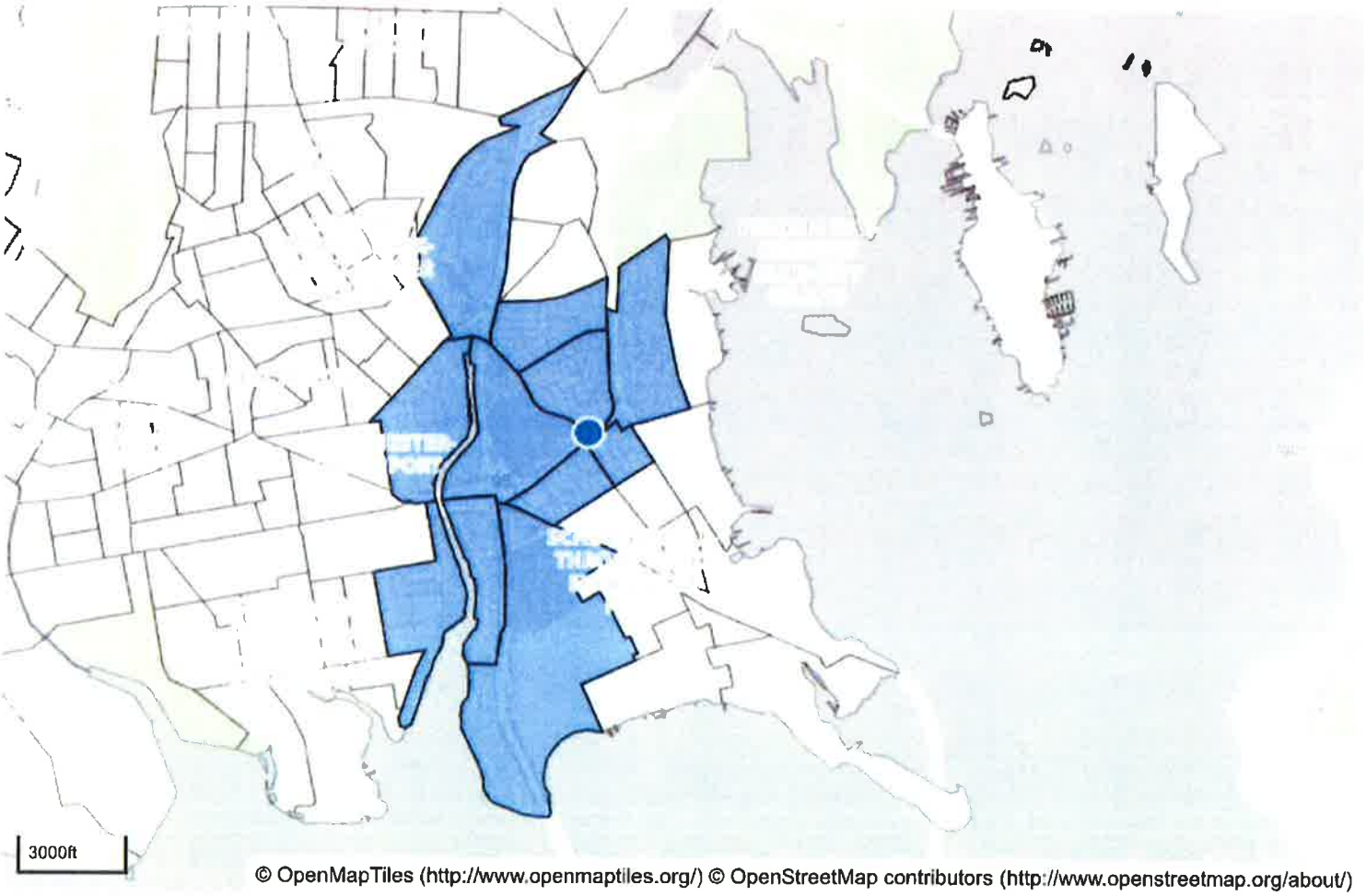
BRUCKNER BOULEVARD, BRONX NY-EAS

Transportation Appendix

Date: March 30, 2021

NYC PLANNING (http://www1.nyc.gov/site/planning/index.page) **Population FactFinder (/)**

Census Block | Census Tract | Neighborhood (NTA) | PUMA



Draw

Select individual census tracts to add them to the profile.

Polygon | Radius

View Profile
10 Tracts

Advanced Options

Clear Selection

Exhibit 1

Modal Split Information

2015-2019 ACS 5-YEAR Journey-to-Work (JTW) for Census Tract numbers 90, 96, 110, 164, 166, 184, 194, 264, 274.01 and 284 in Bronx, NY

2917, and 2945 Bruckner Boulevard, Bronx New York

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
90	886	211	54	226	0	259	5	0	45	0	0	55	0	31	886
96	943	328	37	61	0	410	0	0	5	0	0	68	9	25	943
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
164	442	236	49	68	0	45	0	0	0	5	0	39	0	0	442
166	1148	622	54	181	0	150	28	0	0	0	0	80	0	33	1,148
184	1845	1035	100	134	0	537	0	0	10	0	0	12	0	17	1,845
194	871	304	97	77	0	292	8	0	0	0	0	41	13	39	871
264	2338	953	102	125	88	743	58	0	47	0	59	155	0	8	2,338
274.01	2219	1225	134	287	0	354	13	0	36	0	0	27	0	143	2,219
284	18	0	0	5	0	8	0	0	0	0	5	0	0	0	18
Total	8,439	4,139	487	809	88	2,084	107	0	93	0	64	315	13	240	8,439
		0.490	*0.058*	*0.096*	*0.01*	*0.247*	*0.013*	*0.00*	*0.01*	*0.00*	*0.01*	*0.037*	*0.00*	*0.028*	*1.00*

Modal Split summary

Auto	**0.548**
Taxi	**0.011**
Bus	**0.106**
Subway	**0.260**
Walk	**0.037**
Other	**0.038**
Total	**1.000**

Exhibit 2

Vehicle Occupancy Information

2015-2019 ACS 5-YEAR Journey-to-Work (JTW) for Census Tract numbers 90, 96, 110, 164, 166, 184, 194, 264, 274.01 and 284 in Bronx, NY

2917, and 2945 Bruckner Boulevard, Bronx New York carpool

Census Tract	Total	Drove alone	Total	2person	3 Person	4 Person	5 or 6 Persor	7 or more Person	Total
90	265	211	54	54	0	0	0	0	54
96	365	328	37	37	0	0	0	0	37
110	0	0	0	0	0	0	0	0	0
164	285	236	49	30	19	0	0	0	49
166	676	622	54	44	10	0	0	0	54
184	1135	1035	100	43	57	0	0	0	100
194	401	304	97	37	21	5	34	0	97
264	1055	953	102	87	15	0	0	0	102
274.01	1359	1225	134	85	49	0	0	0	134
284	0	0	0	0	0	0	0	0	0
Total	5,541	4,914	627	417	171	5	34	0	627
		4,914		209	57	1	6	0	5,187
Vehicle Occupancy =			**1.07**						

Exhibit 3

Car Ownership Information

ACS 5-YEAR Household Size by Vehicles Available for Census Tract #'s 90, 96, 110, 164, 166, 184, 194, 264, 274.01 and 284 in Bronx, NY

Bruckner Blvd. Rezoning, Bronx NY

Census Tract	Total units	Unites with No- Vehicle	Unites with One-Vehicle	Unites with Two-Vehicle	Unites with Three-Vehicle	Unites with Four-Vehicle	Total
90	1179	755	265	135	20	4	1,179
96	750	350	245	120	15	20	750
110	50	15	10	25	0	0	50
164	414	75	185	150	0	4	414
166	765	210	260	225	60	10	765
184	1420	230	715	385	70	20	1,420
194	735	170	330	190	30	15	735
264	2000	705	705	465	95	30	2,000
274.01	1700	295	735	360	210	100	1,700
284	35	10	0	25	0	0	35
Total Units	9,048	2,815	3,450	2,080	500	203	9,048
Total Cars		***0***	***3,450***	***4,160***	***1,500***	***812***	***9,922***

Car Ownership ***1.097***

Table 1: Development Increments between No-Action and With-Action Conditions by Development Site

Projected Development Sites (RWCDS) Proposed Floor Area by Use (GSF	No-Action Condition	With-Action Condition	Increment
Site 1			
Residential	0	182 d.u. (125,500 sf)	+182 d.u. (125,500 sf)
Commercial Local Retail	0	0	0
Grocery Store/Supermarket	19,800 sf	16,968 sf	-2,832 sf
Accessory Parking Spaces	52	190	+138
Site 2			
Residential	4 d.u. (3,916 sf)	116 d.u. (77,633 sf)	+112 d.u. (73,717 sf)
Commercial Local Retail	5,757 sf	23,703 sf	+17,946 sf
Vacant Lots	12,008 sf	0	-12,008 sf
Accessory Parking Spaces	0	73	+73
Site 3			
Residential	0	64 d.u. (50,069 sf)	+64 d.u. (50,069 sf)
Commercial Local Retail	0	13,436 sf	+13,436 sf
Vacant Lots	17,847 sf	0	-17,847 sf
Accessory Parking Spaces	0	29	+29
Site 4			
Residential	0	22 d.u. (16,773 sf)	+22 d.u. (16,773 sf)
Vacant Lots	17,260 sf	0	-17,260 sf
Accessory Parking Spaces	0	9	+9
Site 5			
Residential	0	14 d.u. (13,801 sf)	+14 d.u. (13,801 sf)
Commercial Local Retail	6,596 sf	5,308 sf	-1,288 sf
Accessory Parking Spaces	0	7	+7
Site 6			
Residential	6 d.u. (4,416 sf)	14 d.u. (13,500 sf)	+8 d.u. (9,084 sf)
Accessory Parking Spaces	4 spaces (400 sf)	4	+0

Applicant –Controlled Sites 1-4

Residential	**4 d.u. (3,916 sf)**	**384 d.u. (269,975 sf)**	**+380 d.u. (266,059 sf)**
Commercial Local Retail	**5,757 sf**	**37,139 sf**	**31,382 sf**
Grocery Store/Supermarket	**19,800 sf**	**16,968 sf**	**-2,832 sf**
Vacant Lots	**47,115 sf**	**0**	**-47,115 sf**
Accessory Parking Spaces	**52**	**301**	**+249**

Non-Applicant –Controlled Sites 5 & 6

Residential	**6 d.u. (4,416 sf)**	**28 d.u. (27,301 sf)**	**+22 d.u. (22,885 sf)**
Commercial Local Retail	**6,596 sf**	**5,308 sf**	**-1,288 sf**
Accessory Parking Spaces	**4**	**11**	**+7**

Source: RWCDS and Proposed Site Plans

Table 2 : Transportation Planning Factors

Bruckner Boulevard Rezoning, Bronx NY

SITE 1 (Block 5312, Lot 1)

Land Use:	Residential	Supermarket	
	d.u.	gsf	
Size/Units:	182	-2,832	
	(1)	(1)	
Trip Generation:			
Weekday	8.075	175	
Saturday	9.6	231	
	per d.u.	per 1,000 gsf	
Linked-Trip:	0%	0%	
Temporal Distribution:	(1)	(1)	
AM Peak Hour	10%	5%	
MD Peak Hour	5%	6%	
PM Peak Hour	11%	10%	
Saturday Midday Peak Hour	8%	9%	
	(2)	(4)	(4)
Modal Split :	all periods	AM/MD/PM	Saturday
Auto	54.8%	54%	63%
Taxi	1.1%	2%	3%
Subway	26.0%	10%	10%
Bus	10.6%	10%	10%
Walk & Other	7.5%	24%	14%
Total	100%	100%	100%
	(3)	(3)	
In/Out Splits:	In/Out	In/Out	
AM Peak Hour	15/85	57/43	
MD Peak Hour	50/50	50/50	
PM Peak Hour	70/30	52/48	
Saturday Midday Peak Hour	50/50	52/48	
Vehicle Occupancy:	(2&3)	(4)	
Auto (Weekday))	1.07	n/a	
Auto-AM	n/a	1.12	
Auto-Midday	n/a	1.32	
Auto-PM	n/a	1.34	
Auto-Saturday	n/a	1.48	
Taxi (Weekday & Saturday)	1.40	1.38	
Truck Trip Generation:	(1)	(4)	
Weekday	0.06	2.14	
Saturday	0.02	0.85	
	per 1,000 gsf	per 1,000 gsf	
	(1)	(4)	
AM Peak Hour	12%	12%	
MD Peak Hour	9%	13%	
PM Peak Hour	2%	4%	
Saturday Midday Peak Hour	9%	9%	
AM/MD/PM/Saturday Midday	50/50	50/50	

Sources:

(1)-2020 CEQR Technical Manual, Table 16-2.

(2)- 2015-2019 (ACS)-Journey-to-Work (JTW) Census Tract #'s

(2)- 90, 96, 110, 164, 166, 184, 194, 264, 274.01 and 284, Bronx N.Y.

(3)_Jerome Avenue Rezoning FEIS, Table 13.8.

(4)-Industry City, Tables 11-2 and 11-3.

Table 3 : Estimated Person Trips

Bruckner Boulevard Rezoning, Bronx NY

SITE 1 (Block 5312, Lot 1)

Land Use:	Residential	Supermarket	Total Net	Subway
Size/Units:	182	-2832	Demand	Bus
	d.u.	gsf		Walk
Peak hour Trips				Pedestrian
AM Peak Hour	147	-25	122	
Midday Peak Hour	73	-30	44	
PM Peak Hour	162	-50	112	
Saturday Midday Peak Hour	140	-59	81	
Person Trips:				
AM Peak Hour				
Auto	81	-13	67	
Taxi	2	0	2	
Subway	38	-2	36	36
Bus	16	-2	13	13
Walk & Other	11	-6	5	5
Total	147	-24	123	54
Midday Peak Hour				
Auto	40	-16	24	
Taxi	1	-1	0	
Subway	19	-3	16	16
Bus	8	-3	5	5
Walk & Other	6	-7	-2	-2
Total	73	-30	43	19
PM Peak Hour				
Auto	89	-27	62	
Taxi	2	-1	1	
Subway	42	-5	37	37
Bus	17	-5	12	12
Walk & Other	12	-12	0	0
Total	162	-50	113	49
Saturday Midday Peak Hour				
Auto	77	-37	40	
Taxi	2	-2	0	
Subway	36	-6	30	30
Bus	15	-6	9	9
Walk & Other	10	-8	2	2
Total	140	-59	81	42

Table 4 : Estimated Vehicular Trips

Bruckner Boulevard Rezoning, Bronx NY

SITE 1 (Block 5312, Lot 1)

Land Use:	Residential	Supermarket	Total Net
Size/Units:	182	-2832	Demand
	d.u.	gsf	
Vehicular Trips			
AM Peak Hour			
Auto (Total)	75	-12	63
Taxi	1	0	1
Taxi (Balanced)	2	0	2
Truck	1	-1	0
Truck(Balanced)	2	-2	0
Total	79	-14	65
Inbound/Outbound Trips	***13/66***	***-8/-6***	***5/60***
Midday Peak Hour			
Auto (Total)	37	-12	25
Taxi	1	0	1
Taxi (Balanced)	2	0	2
Truck	1	-1	0
Truck(Balanced)	2	-2	0
Total	41	-14	27
Inbound/Outbound Trips	***20/21***	***-7/-7***	***13/14***
PM Peak Hour			
Auto (Total)	83	-20	63
Taxi	1	-1	0
Taxi (Balanced)	2	-2	0
Truck	0	0	0
Truck(Balanced)	0	0	0
Total	85	-22	63
Inbound/Outbound Trips	***59/26***	***-11/-11***	***48/15***
Saturday Midday Peak Hour			
Auto (Total)	72	-25	47
Taxi	1	-1	0
Taxi (Balanced)	2	-2	0
Truck	0	0	0
Truck(Balanced)	0	0	0
Total	74	-27	47
Inbound/Outbound Trips	***37/37***	***-14/-13***	***23/24***

Table 5 : Transportation Planning Factors

Bruckner Boulevard, Bronx NY

SITE 2 (Block 5309, Lots 35, 36, 41, 42, 44, 47 & 50)

Land Use:	Residential	Local Retail
	d.u.	gsf
Size/Units:	112	17,946
	(1)	(1)
Trip Generation:		
Weekday	8.075	205
Saturday	9.6	240
	per d.u.	per 1,000 gsf
Linked-Trip:	0%	25%
Temporal Distribution:	(1)	(1)
AM Peak Hour	10%	3%
MD Peak Hour	5%	19%
PM Peak Hour	11%	10%
Saturday Midday Peak Hour	8%	10%
	(2)	(4)
Modal Split :	all periods	all periods
Auto	54.8%	11%
Taxi	1.1%	0%
Subway	26.0%	3%
Bus	10.6%	2%
Walk & Other	7.5%	84%
Total	100%	100%
	(3)	(3)
In/Out Splits:	In/Out	In/Out
AM Peak Hour	15/85	50/50
MD Peak Hour	50/50	50/50
PM Peak Hour	70/30	50/50
Saturday Midday Peak Hour	50/50	50/50
Vehicle Occupancy:	(2&3)	(3)
Auto	1.07	1.6
Taxi	1.40	1.2
Truck Trip Generation:	(1)	(1)
Weekday	0.06	0.35
Saturday	0.02	0.04
	per d.u.	per 1,000 gsf
	(1)	(1)
AM Peak Hour	12%	8%
MD Peak Hour	9%	11%
PM Peak Hour	2%	2%
Saturday Midday Peak Hour	9%	11%
AM/MD/PM/Saturday Midday	50/50	50/50

Sources:

(1)-2020 CEQR Technical Manual, Table 16-2.

(2)-2015-2019 (ACS)-Journey-to-Work (JTW)Census Tract #'s

(2)- 90, 96, 110, 164, 166, 184, 194, 264, 274.01 and 284, Bronx N.Y.

(3)_Jerome Avenue Rezoning FEIS, Table 13.8.

(4)- Provided by NYCDOT for a NTZ Local Retail use.

Table 6 : Estimated Person Trips

Bruckner Boulevard, Bronx NY

SITE 2 (Block 5309, Lots 35, 36, 41, 42, 44, 47 & 50)

Land Use:	Residential	Local Retail	Total Net	
	d.u.	gsf	Demand	
Size/Units:	112	17,946		
Peak hour Trips				
AM Peak Hour	90	83	173	
Midday Peak Hour	45	524	569	
PM Peak Hour	99	276	375	
Saturday Midday Peak Hour	86	323	409	
Person Trips:				
AM Peak Hour				
Auto	50	9	59	
Taxi	1	0	1	
Subway	24	2	26	26
Bus	10	2	11	11
Walk & Other	7	70	76	76
Total	90	83	173	114
Midday Peak Hour				
Auto	25	58	83	
Taxi	0	0	0	
Subway	12	16	27	27
Bus	5	10	15	15
Walk & Other	3	440	444	444
Total	45	524	570	487
PM Peak Hour				
Auto	55	30	85	
Taxi	1	0	1	
Subway	26	8	34	34
Bus	11	6	16	16
Walk & Other	7	232	239	239
Total	100	276	376	289
Saturday Midday Peak Hour				
Auto	47	36	83	
Taxi	1	0	1	
Subway	22	10	32	32
Bus	9	6	16	16
Walk & Other	6	271	278	278
Total	86	323	409	325

Table 7 : Estimated Vehicular Trip

Bruckner Boulevard, Bronx NY

SITE 2 (Block 5309, Lots 35, 36, 41, 42, 44, 47 & 50)

Land Use:	Residential d.u.	Local Retail gsf	Total Net Demand
Size/Units:	112	17,946	
Vehicular Trips			
AM Peak Hour			
Auto (Total)	46	6	52
Taxi	1	0	1
Taxi (Balanced)	2	0	2
Truck	1	1	2
Truck(Balanced)	2	2	4
Total	50	8	58
Inbound/Outbound Trips	***9/41***	***4/4***	***13/45***
Midday Peak Hour			
Auto (Total)	23	36	59
Taxi	0	0	0
Taxi (Balanced)	0	0	0
Truck	1	1	2
Truck(Balanced)	2	2	4
Total	25	38	63
Inbound/Outbound Trips	***13/12***	***19/19***	***32/31***
PM Peak Hour			
Auto (Total)	51	19	70
Taxi	1	0	1
Taxi (Balanced)	2	0	2
Truck	0	0	0
Truck(Balanced)	0	0	0
Total	53	19	72
Inbound/Outbound Trips	***37/16***	***10/9***	***47/25***
Saturday Midday Peak Hour			
Auto (Total)	44	22	66
Taxi	1	0	1
Taxi (Balanced)	2	0	2
Truck	0	0	0
Truck(Balanced)	0	0	0
Total	46	22	68
Inbound/Outbound Trips	***23/23***	***11/11***	***34/34***

Table 8 : Transportation Planning Factors

Bruckner Boulevard, Bronx NY

SITE 3 (Block 5306, Lots 8, 18, 19, 22 & 23)

Land Use:	Residential	Local Retail
	d.u.	gsf
Size/Units:	64	13,436
	(1)	(1)
Trip Generation:		
Weekday	8.075	205
Saturday	9.6	240
	per d.u.	per 1,000 gsf
Linked-Trip:	0%	25%
Temporal Distribution:	(1)	(1)
AM Peak Hour	10%	3%
MD Peak Hour	5%	19%
PM Peak Hour	11%	10%
Saturday Midday Peak Hour	8%	10%
	(2)	(4)
Modal Split :	all periods	all periods
Auto	54.8%	11%
Taxi	1.1%	0%
Subway	26.0%	3%
Bus	10.6%	2%
Walk & Other	7.5%	84%
Total	100%	100%
	(3)	(3)
In/Out Splits:	In/Out	In/Out
AM Peak Hour	15/85	50/50
MD Peak Hour	50/50	50/50
PM Peak Hour	70/30	50/50
Saturday Midday Peak Hour	50/50	50/50
Vehicle Occupancy:	(2&3)	(3)
Auto	1.07	1.6
Taxi	1.40	1.2
Truck Trip Generation:	(1)	(1)
Weekday	0.06	0.35
Saturday	0.02	0.04
	per d.u.	per 1,000 gsf
	(1)	(1)
AM Peak Hour	12%	8%
MD Peak Hour	9%	11%
PM Peak Hour	2%	2%
Saturday Midday Peak Hour	9%	11%
AM/MD/PM/Saturday Midday	50/50	50/50

Sources:

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

(2)- 2015-2019 (ACS)-Journey-to-Work (JTW)Census Tract #'s

(2)-90, 96, 110, 164, 166, 184, 194, 264, 274.01 and 284 in Bronx N.Y.

(3)_Jerome Avenue Rezoning FEIS, Table 13.8.

(4)-Provided by NYCDOT for a NTZ Local Retail Use.

Table 9 : Estimated Person Trips

Bruckner Boulevard, Bronx NY

SITE 3 (Block 5306, Lots 8, 18, 19, 22 & 23)

Land Use:	Residential d.u.	Local Retail gsf	Total Net Demand	
Size/Units:	64	13,436		
Peak hour Trips				
AM Peak Hour	52	62	114	
Midday Peak Hour	26	392	418	
PM Peak Hour	57	207	263	
Saturday Midday Peak Hour	49	242	291	
Person Trips:				
AM Peak Hour				
Auto	28	7	35	
Taxi	1	0	1	
Subway	13	2	15	15
Bus	5	1	7	7
Walk & Other	4	52	56	56
Total	52	62	114	78
Midday Peak Hour				
Auto	14	43	57	
Taxi	0	0	0	
Subway	7	12	18	18
Bus	3	8	11	11
Walk & Other	2	330	332	332
Total	26	392	418	361
PM Peak Hour				
Auto	31	23	54	
Taxi	1	0	1	
Subway	15	6	21	21
Bus	6	4	10	10
Walk & Other	4	174	178	178
Total	57	207	263	209
Saturday Midday Peak Hour				
Auto	27	27	54	
Taxi	1	0	1	
Subway	13	7	20	20
Bus	5	5	10	10
Walk & Other	4	203	207	207
Total	49	242	291	237

Table 10 : Estimated Vehicular Trips

Bruckner Boulevard, Bronx NY

SITE 3 (Block 5306, Lots 8, 18, 19, 22 & 23)

Land Use:	Residential	Local Retail	Total Net
	d.u.	gsf	Demand
Size/Units:	64	13,436	
Vehicular Trips			
AM Peak Hour			
Auto (Total)	26	4	30
Taxi	0	0	0
Taxi (Balanced)	0	0	0
Truck	0	0	0
Truck(Balanced)	0	0	0
Total	26	4	30
Inbound/Outbound Trips	***4/22***	***2/2***	***6/24***
Midday Peak Hour			
Auto (Total)	13	27	40
Taxi	0	0	0
Taxi (Balanced)	0	0	0
Truck	0	1	1
Truck(Balanced)	0	2	2
Total	13	29	42
Inbound/Outbound Trips	***6/7***	***14/15***	***20/22***
PM Peak Hour			
Auto (Total)	29	14	43
Taxi	0	0	0
Taxi (Balanced)	0	0	0
Truck	0	0	0
Truck(Balanced)	0	0	0
Total	29	14	43
Inbound/Outbound Trips	***20/9***	***7/7***	***27/16***
Saturday Midday Peak Hour			
Auto (Total)	25	17	42
Taxi	0	0	0
Taxi (Balanced)	0	0	0
Truck	0	0	0
Truck(Balanced)	0	0	0
Total	25	17	42
Inbound/Outbound Trips	***13/12***	***8/9***	***21/21***

Table 11 : Transportation Planning Factors

Bruckner Boulevard, Bronx NY

SITE 4 (Block 5307, Lots 61, 63, 64, 66 & 67)

Land Use:	Residential
	d.u.
Size/Units:	22
	(1)
Trip Generation:	
Weekday	8.075
Saturday	9.6
	per d.u.
Linked-Trip:	0%
Temporal Distribution:	(1)
AM Peak Hour	10%
MD Peak Hour	5%
PM Peak Hour	11%
Saturday Midday Peak Hour	8%
	(2)
Modal Split :	all periods
Auto	54.8%
Taxi	1.1%
Subway	26%
Bus	10.6%
Walk & Other	7.5%
Total	100%
	(3)
In/Out Splits:	In/Out
AM Peak Hour	15/85
MD Peak Hour	50/50
PM Peak Hour	70/30
Saturday Midday Peak Hour	50/50
Vehicle Occupancy:	(2&3)
Auto	1.07
Taxi	1.40
Truck Trip Generation:	(1)
Weekday	0.06
Saturday	0.02
	per d.u.
	(1)
AM Peak Hour	12%
MD Peak Hour	9%
PM Peak Hour	2%
Saturday Midday Peak Hour	9%
AM/MD/PM/Saturday Midday	50/50

Sources:

(1)-2020 CEQR Technical Manual, Table 16-2.

(2)-2015-2019 (ACS)-Journey-to-Work (JTW)Census Tract #'s

(2)-90, 96, 110, 164, 166, 184, 194, 264, 274.01 and 284, Bronx N.Y.

(3)_Jerome Avenue Rezoning FEIS, Table 13.8.

Table 12 : Estimated Person Trips

Bruckner Boulevard, Bronx NY

SITE 4 (Block 5307, Lots 61, 63, 64, 66 & 67)

Land Use:	Residential	Total Demand	Pedestrian Trips
	d.u.		
Size/Units:	22		
Peak hour Trips			
AM Peak Hour	18	18	
Midday Peak Hour	9	9	
PM Peak Hour	20	20	
Saturday Midday Peak Hour	17	17	
Person Trips:			
AM Peak Hour			
Auto	10	10	
Taxi	0	0	
Subway	5	5	5
Bus	2	2	2
Walk & Other	1	1	1
Total	18	18	8
Midday Peak Hour			
Auto	5	5	
Taxi	0	0	
Subway	2	2	2
Bus	1	1	1
Walk & Other	1	1	1
Total	9	9	4
PM Peak Hour			
Auto	11	11	
Taxi	0	0	
Subway	5	5	5
Bus	2	2	2
Walk & Other	1	1	1
Total	20	20	9
Saturday Midday Peak Hour			
Auto	9	9	
Taxi	0	0	
Subway	4	4	4
Bus	2	2	2
Walk & Other	1	1	1
Total	17	17	7

Table 13 : Estimated Vehicular Trips

Bruckner Boulevard, Bronx NY

SITE 4 (Block 5307, Lots 61, 63, 64, 66 & 67)

Land Use:	Residential	Total Demand
	d.u.	
Size/Units:	22	
Vehicular Trips		
AM Peak Hour		
Auto (Total)	9	9
Taxi	0	0
Taxi (Balanced)	0	0
Truck	0	0
Truck(Balanced)	0	0
Total	9	9
Inbound/Outbound Trips	***1/8***	***1/8***
Midday Peak Hour		
Auto (Total)	5	5
Taxi	0	0
Taxi (Balanced)	0	0
Truck	0	0
Truck(Balanced)	0	0
Total	5	5
Inbound/Outbound Trips	***3/2***	***3/2***
PM Peak Hour		
Auto (Total)	10	10
Taxi	0	0
Taxi (Balanced)	0	0
Truck	0	0
Truck(Balanced)	0	0
Total	10	10
Inbound/Outbound Trips	***7/3***	***7/3***
Saturday Midday Peak Hour		
Auto (Total)	9	9
Taxi	0	0
Taxi (Balanced)	0	0
Truck	0	0
Truck(Balanced)	0	0
Total	9	9
Inbound/Outbound Trips	***4/5***	***4/5***

Table 14 : Transportation Planning Factors

Bruckner Boulevard, Bronx NY

SITE 5 (Block 5309, Lots 1, 7 & 54)

Land Use:	Residential	Local Retail
	d.u.	gsf
Size/Units:	14	-1,288
	(1)	(1)
Trip Generation:		
Weekday	8.075	205
Saturday	9.6	240
	per d.u.	per 1,000 gsf
Linked-Trip:	0%	25%
Temporal Distribution:	(1)	(1)
AM Peak Hour	10%	3%
MD Peak Hour	5%	19%
PM Peak Hour	11%	10%
Saturday Midday Peak Hour	8%	10%
	(2)	(4)
Modal Split :	all periods	all periods
Auto	54.8%	11%
Taxi	1.1%	0%
Subway	26.0%	3%
Bus	10.6%	2%
Walk & Other	7.5%	84%
Total	100%	100%
	(3)	(3)
In/Out Splits:	In/Out	In/Out
AM Peak Hour	15/85	50/50
MD Peak Hour	50/50	50/50
PM Peak Hour	70/30	50/50
Saturday Midday Peak Hour	50/50	50/50
Vehicle Occupancy:	(2&3)	(4)
Auto	1.07	1.6
Taxi	1.40	1.2
Truck Trip Generation:	(1)	(1)
Weekday	0.06	0.35
Saturday	0.02	0.04
	per d.u.	per 1,000 gsf
	(1)	(1)
AM Peak Hour	12%	8%
MD Peak Hour	9%	11%
PM Peak Hour	2%	2%
Saturday Midday Peak Hour	9%	11%
AM/MD/PM/Saturday Midday	50/50	50/50

Sources:

(1)-2020 CEQR Technical Manual, Table 16-2.

(2)- 2015-2019 (ACS)-Journey-to-Work (JTW)Census Tract #'s

(2)-90, 96, 110, 164, 166, 184, 194, 264, 274.01 and 284, Bronx N.Y.

(3)_Jerome Avenue Rezoning FEIS, Table 13.8.

(4)-Provided by NYCDOT for a NTZ Local Retail Use.

Table 15 : Estimated Person Trips

Bruckner Boulevard, Bronx NY

SITE 5 (Block 5309, Lots 1, 7 & 54)

Land Use:	Residential d.u.	Local Retail gsf	Total Net Demand	
Size/Units:	14	-1,288		
Peak hour Trips				
AM Peak Hour	11	-6	5	
Midday Peak Hour	6	-38	-32	
PM Peak Hour	12	-20	-7	
Saturday Midday Peak Hour	11	-23	-12	
Person Trips:				
AM Peak Hour				
Auto	6	-1	6	
Taxi	0	0	0	
Subway	3	0	3	3
Bus	1	0	1	1
Walk & Other	1	-5	-4	-4
Total	11	-6	5	0
Midday Peak Hour				
Auto	3	-4	-1	
Taxi	0	0	0	
Subway	1	-1	0	0
Bus	1	-1	0	0
Walk & Other	0	-32	-31	-31
Total	6	-38	-32	-31
PM Peak Hour				
Auto	7	-2	5	
Taxi	0	0	0	
Subway	3	-1	3	3
Bus	1	0	1	1
Walk & Other	1	-17	-16	-16
Total	13	-20	-7	-12
Saturday Midday Peak Hour				
Auto	6	-3	3	
Taxi	0	0	0	
Subway	3	-1	2	2
Bus	1	0	1	1
Walk & Other	1	-19	-19	-19
Total	11	-23	-12	-16

Table 16 : Estimated Vehicular Trips

Bruckner Boulevard, Bronx NY

SITE 5 (Block 5309, Lots 1, 7 & 54)

Land Use:	Residential d.u.	Local Retail gsf	Total Net Demand
Size/Units:	14	-1,288	
Vehicular Trips			
AM Peak Hour			
Auto (Total)	6	0	6
Taxi	0	0	0
Taxi (Balanced)	0	0	0
Truck	0	0	0
Truck(Balanced)	0	0	0
Total	6	0	6
Inbound/Outbound Trips	***1/5***	***0/0***	***1/5***
Midday Peak Hour			
Auto (Total)	3	-3	0
Taxi	0	0	0
Taxi (Balanced)	0	0	0
Truck	0	0	0
Truck(Balanced)	0	0	0
Total	3	-3	0
Inbound/Outbound Trips	***2/1***	***-2/-1***	***0/0***
PM Peak Hour			
Auto (Total)	7	-1	6
Taxi	0	0	0
Taxi (Balanced)	0	0	0
Truck	0	0	0
Truck(Balanced)	0	0	0
Total	7	-1	6
Inbound/Outbound Trips	***5/2***	***-1/0***	***4/2***
Saturday Midday Peak Hour			
Auto (Total)	6	-2	4
Taxi	0	0	0
Taxi (Balanced)	0	0	0
Truck	0	0	0
Truck(Balanced)	0	0	0
Total	6	-2	4
Inbound/Outbound Trips	***3/3***	***-1/-1***	***2/2***

Table 17 : Transportation Planning Factors

Bruckner Boulevard, Bronx NY

SITE 6 (Block 5307, Lots 73, 75 & 76)

Land Use:	Residential
	d.u.
Size/Units:	8
	(1)
Trip Generation:	
Weekday	8.075
Saturday	9.6
	per d.u.
Linked-Trip:	0%
Temporal Distribution:	(1)
AM Peak Hour	10%
MD Peak Hour	5%
PM Peak Hour	11%
Saturday Midday Peak Hour	8%
	(2)
Modal Split :	all periods
Auto	54.8%
Taxi	1.1%
Subway	26%
Bus	10.6%
Walk & Other	7.5%
Total	100%
	(3)
In/Out Splits:	In/Out
AM Peak Hour	15/85
MD Peak Hour	50/50
PM Peak Hour	70/30
Saturday Midday Peak Hour	50/50
Vehicle Occupancy:	(2&3)
Auto	1.07
Taxi	1.40
Truck Trip Generation:	(1)
Weekday	0.06
Saturday	0.02
	per d.u.
	(1)
AM Peak Hour	12%
MD Peak Hour	9%
PM Peak Hour	2%
Saturday Midday Peak Hour	9%
AM/MD/PM/Saturday Midday	50/50

Sources:

(1)-2020 CEQR Technical Manual, Table 16-2.

(2)-2015-2019 (ACS)-Journey-to-Work (JTW)Census Tract #'s

(2)-90, 96, 110, 164, 166, 184, 194, 264, 274.01 and 284, Bronx N.Y.

(3)_Jerome Avenue Rezoning FEIS, Table 13.8.

Table 18 : Estimated Person Trips

Bruckner Boulevard, Bronx NY

SITE 6 (Block 5307, Lots 73, 75 & 76)

Land Use:	Residential d.u.	Total Demand	Pedestrian Trips
Size/Units:	8		
Peak hour Trips			
AM Peak Hour	6	6	
Midday Peak Hour	3	3	
PM Peak Hour	7	7	
Saturday Midday Peak Hour	6	6	
Person Trips:			
AM Peak Hour			
Auto	4	4	
Taxi	0	0	
Subway	2	2	2
Bus	1	1	1
Walk & Other	0	0	0
Total	6	6	3
Midday Peak Hour			
Auto	2	2	
Taxi	0	0	
Subway	1	1	1
Bus	0	0	0
Walk & Other	0	0	0
Total	3	3	1
PM Peak Hour			
Auto	4	4	
Taxi	0	0	
Subway	2	2	2
Bus	1	1	1
Walk & Other	1	1	1
Total	7	7	4
Saturday Midday Peak Hour			
Auto	3	3	
Taxi	0	0	
Subway	2	2	2
Bus	1	1	1
Walk & Other	0	0	0
Total	6	6	3

Table 19 : Estimated Vehicular Trips

Bruckner Boulevard, Bronx NY

SITE 6 (Block 5307, Lots 73, 75 & 76)

Land Use:	Residential	Total Demand
	d.u.	
Size/Units:	8	
Vehicular Trips		
AM Peak Hour		
Auto (Total)	3	3
Taxi	0	0
Taxi (Balanced)	0	0
Truck	0	0
Truck(Balanced)	0	0
Total	3	3
Inbound/Outbound Trips	***0/3***	***0/3***
Midday Peak Hour		
Auto (Total)	2	2
Taxi	0	0
Taxi (Balanced)	0	0
Truck	0	0
Truck(Balanced)	0	0
Total	2	2
Inbound/Outbound Trips	***1/1***	***1/1***
PM Peak Hour		
Auto (Total)	4	4
Taxi	0	0
Taxi (Balanced)	0	0
Truck	0	0
Truck(Balanced)	0	0
Total	4	4
Inbound/Outbound Trips	***3/1***	***3/1***
Saturday Midday Peak Hour		
Auto (Total)	3	3
Taxi	0	0
Taxi (Balanced)	0	0
Truck	0	0
Truck(Balanced)	0	0
Total	3	3
Inbound/Outbound Trips	***2/1***	***2/1***

Table 20

Bruckner Boulevard Mixed Use Development Person and Vehicular Trip-Ends by Site and Total

Peak Hour	Person Trip-Ends							VehicleTrip-Ends							
Proposed Site	1	2	3	4	5	6	Total	1 In/Out	2 In/Out	3 In/Out	4 In/Out	5 In/Out	6 In/Out	Total In/Out	Total
Weekday															
AM Peak Hour	123	173	114	18	5	6	439	5/60	13/45	6/24	1/8	1/5	0/3	26/145	171
Midday Peak Hour	43	570	418	9	-32	3	1011	13/14	32/31	20/22	3/2	0/0	1/1	69/70	139
PM Peak Hour	113	376	263	20	-7	8	773	48/15	47/25	27/16	7/3	4/2	3/1	136/62	198
Saturday															
Midday Peak Hour	81	409	291	17	-12	6	792	23/24	34/34	21/21	4/5	2/2	2/1	86/87	173

Source:Transportation Planning Factors Tables 2 thru 19 (See Transportation Attachment).

Table 21

Bruckner Boulevard Mixed-Use Development Subway, Bus and pedestrian Trip-Ends by Site and Total

Peak Hour	Subway Trip-Ends							Bus Trip-Ends							Pedestrian Trip-Ends						
Proposed Site	1	2	3	4	5	6	**Total**	1	2	3	4	5	6	**Total**	1	2	3	4	5	6	**Total**
Weekday																					
AM Peak Hour	36	26	15	5	3	2	**87**	13	11	7	2	1	1	**35**	54	114	78	8	0	3	**257**
Midday Peak Hour	16	27	18	2	0	1	**64**	5	15	11	1	0	0	**32**	19	487	361	4	-31	1	**841**
PM Peak Hour	37	34	21	5	3	2	**102**	12	16	10	2	1	1	**42**	49	289	209	9	-12	4	**548**
Saturday																					
Midday Peak Hour	30	32	20	4	2	2	**90**	9	16	10	2	1	1	**39**	42	325	237	7	-16	3	**598**

Source:Transportation Planning Factors Tables 2 thru 19 (See Transportation Attachment).

Table 22

Lane Groups At Analyzed Intersections Under 2020 Existing Conditions

Intersections	Approach	Weekday AM Lane Group	V/C Ratio	Delay Sec/Veh	LOS	Weekday MD Lane Group	V/C Ratio	Delay Sec/Veh	LOS	Weekday PM Lane Group	V/C Ratio	Delay Sec/Veh	LOS	Saturday PM Lane Group	V/C Ratio	Delay Sec/Veh	LOS
Signalized																	
W. Bruckner Blvd. S.R.	Westbound	L	0.17	30.3	C	L	0.14	29.9	C	L	0.2	30.7	C	L	0.21	30.8	C
and E. Tremont Avenue		TR	0.57	38.4	D	TR	0.52	36.6	D	TR	0.53	37	D	TR	0.58	38.4	D
	Northbound	DefL	0.41	20.7	C	DefL	0.43	24.6	C	DefL	0.51	28.8	C	DefL	0.5	28.9	C
		T	0.54	16.6	B	T	0.63	19	B	T	0.57	17.4	B	T	0.64	19.3	B
	Southbound	TR	0.49	25.4	C	TR	0.66	30.5	C	TR	0.74	34	C	TR	0.76	34.7	D
E. Bruckner Blvd. S.R.	Eastbound	L	0.35	33.4	C	L	0.37	33.8	C	L	0.41	34.6	C	L	0.44	35.1	D
and E. Tremont Avenue		TR	0.53	38.1	D	TR	0.64	41.6	D	TR	0.62	40.9	D	TR	0.66	42.2	D
	Northbound	TR	0.42	22.8	C	TR	0.46	23.4	C	TR	0.46	23.4	C	TR	0.53	24.8	C
	Southbound	LT	0.23	11.5	B	LT	0.3	12.2	B	LT	0.39	13.3	B	LT	0.38	13.2	B
W. Bruckner Blvd. S.R.	Westbound	L	0.19	20.9	C	L	0.15	20.5	C	L	0.23	0.23	C	L	0.22	21.4	C
and Crosby Avenue		T	0.46	25.6	C	T	0.37	23.9	C	T	0.43	0.43	C	T	0.44	25.2	C
		R	0.09	19.8	B	R	0.11	20	B	R	0.14	0.14	C	R	0.15	20.5	C
	Northbound	L	0.1	17.8	B	L	0.13	19	B	L	0.12	0.12	B	L	0.12	19.7	B
		T	0.21	18.9	B	T	0.21	18.9	B	T	0.25	0.25	B	T	0.25	19.4	B
	Southbound	TR	0.16	29.2	C	TR	0.24	30.3	C	TR	0.29	0.29\	C	TR	0.29	30.8	C
E. Bruckner Blvd. S.R.	Eastbound	L	0.09	19.7	B	L	0.11	20	B	L	0.09	19.8	B	L	0.1	19.8	B
and Logan Avenue		TR	0.43	25.4	C	TR	0.48	26.1	C	TR	0.53	27.3	C	TR	0.52	27	C
	Northbound	TR	0.38	33.3	C	TR	0.39	33.5	C	TR	0.43	34.3	C	TR	0.42	34	C
	Southbound	L	0.19	19.2	B	L	0.37	21.6	C	L	0.52	24.4	C	L	0.49	23.7	C
		TR	0.16	18.3	B	TR	0.14	18.1	B	TR	0.19	18.6	B	TR	0.14	18	B
Unsignalized																	
W. Bruckner Blvd. S.R.	Westbound	R	0.04	9.4	A	R	0.04	9.4	A	R	0.05	9.5	A	R	0.07	9.7	A
and Edison Avenue																	

Table 23

Lane Groups At Analyzed Intersections Under 2025 No-Build Conditions

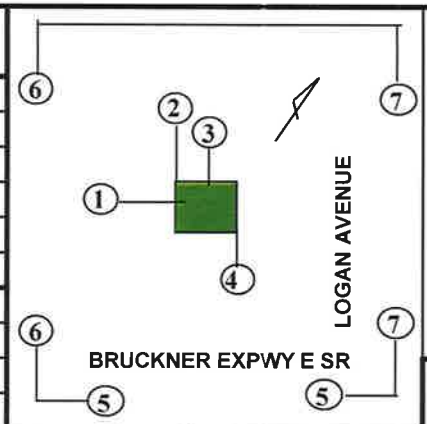
Intersections	Approach	Weekday AM Lane Group	V/C Ratio	Delay Sec/Veh	LOS	Weekday MD Lane Group	V/C Ratio	Delay Sec/Veh	LOS	Weekday PM Lane Group	V/C Ratio	Delay Sec/Veh	LOS	Saturday PM Lane Group	V/C Ratio	Delay Sec/Veh	LOS
Signalized																	
W. Bruckner Blvd. S.R.	Westbound	L	0.17	30.3	C	L	0.14	29.9	C	L	0.2	30.7	C	L	0.21	30.8	C
and E. Tremont Avenue		TR	0.58	38.7	D	TR	0.53	36.9	D	TR	0.54	37.2	D	TR	0.59	38.7	D
	Northbound	DefL	0.42	21.2	C	DefL	0.44	25.1	C	DefL	0.52	29.5	C	DefL	0.52	29.6	C
		T	0.54	16.8	B	T	0.64	19.2	B	T	0.58	17.6	B	T	0.65	19.5	B
	Southbound	TR	0.5	25.6	C	TR	0.67	30.8	C	TR	0.75	34.4	C	TR	0.76	35.2	D
E. Bruckner Blvd. S.R.	Eastbound	L	0.36	33.5	C	L	0.38	34	C	L	0.42	34.9	C	L	0.45	35.4	D
and E. Tremont Avenue		TR	0.54	38.6	D	TR	0.65	42.1	D	TR	0.64	41.4	D	TR	0.67	42.7	D
	Northbound	TR	0.43	22.8	C	TR	0.46	23.4	C	TR	0.46	23.5	C	TR	0.54	24.8	C
	Southbound	LT	0.23	11.5	B	LT	0.3	12.3	B	LT	0.39	13.4	B	LT	0.38	13.3	B
W. Bruckner Blvd. S.R.	Westbound	L	0.19	20.9	C	L	0.15	20.5	C	L	0.23	21.5	C	L	0.22	21.4	C
and Crosby Avenue		T	0.46	25.8	C	T	0.38	24.1	C	T	0.44	25.2	C	T	0.45	25.4	C
		R	0.09	19.8	B	R	0.11	20	B	R	0.14	20.4	C	R	0.15	20.5	C
	Northbound	L	0.1	17.8	B	L	0.13	19.1	B	L	0.12	19.6	B	L	0.13	19.8	B
		T	0.22	19	B	T	0.22	19	B	T	0.26	19.6	B	T	0.25	19.5	B
	Southbound	TR	0.16	29.2	C	TR	0.25	30.4	C	TR	0.29	30.9	C	TR	0.29	30.9	C
E. Bruckner Blvd. S.R.	Eastbound	L	0.09	19.7	B	L	0.11	20	B	L	0.09	19.8	B	L	0.1	19.8	B
and Logan Avenue		TR	0.44	25.6	C	TR	0.49	26.3	C	TR	0.54	27.4	C	TR	0.53	27.2	C
	Northbound	TR	0.39	33.5	C	TR	0.4	33.7	C	TR	0.44	34.5	C	TR	0.43	34.2	C
	Southbound	L	0.19	19.2	B	L	0.39	21.9	C	L	0.53	24.9	C	L	0.5	24.1	C
		TR	0.16	18.3	B	TR	0.14	18.1	B	TR	0.19	18.6	B	TR	0.14	18	B
Unsignalized																	
W. Bruckner Blvd. S.R.	Westbound	R	0.04	9.4	A	R	0.04	9.4	A	R	0.05	9.6	A	R	0.07	9.8	A
and Edison Avenue																	

Table 24

Lane Groups At Analyzed Intersections Under 2025 Build Conditions

Intersections	Approach	Weekday AM Lane Group	V/C Ratio	Delay Sec/Veh	LOS	Weekday MD Lane Group	V/C Ratio	Delay Sec/Veh	LOS	Weekday PM Lane Group	V/C Ratio	Delay Sec/Veh	LOS	Saturday PM Lane Group	V/C Ratio	Delay Sec/Veh	LOS
Signalized																	
W. Bruckner Blvd. S.R.	Westbound	L	0.25	31.5	C	L	0.18	30.5	C	L	0.23	31.2	C	L	0.25	31.5	C
and E. Tremont Avenue		TR	0.66	41.2	D	TR	0.57	37.9	D	TR	0.59	38.5	D	TR	0.65	40.4	D
	Northbound	DefL	0.43	21.4	C	DefL	0.47	26.1	C	DefL	0.57	31.5	C	DefL	0.55	30.9	C
		T	0.54	16.8	B	T	0.64	19.2	B	T	0.58	17.6	B	T	0.65	19.5	B
	Southbound	TR	0.5	25.7	C	TR	0.68	31.3	C	TR	0.77	35.3	C	TR	0.77	35.8	D
E. Bruckner Blvd. S.R.	Eastbound	L	0.37	33.7	C	L	0.4	34.3	C	L	0.45	35.4	D	L	0.46	35.7	D
and E. Tremont Avenue		TR	0.55	38.9	D	TR	0.68	43.4	D	TR	0.69	43.9	D	TR	0.71	44.4	D
	Northbound	TR	0.43	22.9	C	TR	0.47	23.5	C	TR	0.47	23.6	C	TR	0.54	24.9	C
	Southbound	LT	0.28	12.1	B	LT	0.33	12.6	B	LT	0.41	13.7	B	LT	0.42	13.8	B
W. Bruckner Blvd. S.R.	Westbound	L	0.19	20.9	C	L	0.15	20.5	C	L	0.23	21.5	C	L	0.22	21.4	C
and Crosby Avenue		T	0.47	26	C	T	0.41	24.7	C	T	0.49	26.4	C	T	0.48	26	C
		R	0.09	19.8	B	R	0.11	20	c	R	0.15	20.5	C	R	0.16	20.6	C
	Northbound	L	0.11	17.9	B	L	0.16	19.7	B	L	0.2	21.3	C	L	0.17	20.9	C
		T	0.22	19.1	B	T	0.22	19	B	T	0.27	19.7	B	T	0.26	19.6	B
	Southbound	TR	0.17	29.4	C	TR	0.26	30.5	C	TR	0.31	31.2	C	TR	0.31	31.1	C
E. Bruckner Blvd. S.R.	Eastbound	L	0.09	19.7	B	L	0.13	20.2	C	L	0.13	20.2	C	L	0.13	20.1	C
and Logan Avenue		TR	0.48	26.4	C	TR	0.51	26.8	C	TR	0.55	27.8	C	TR	0.55	27.8	C
	Northbound	TR	0.4	33.7	C	TR	0.42	34.1	C	TR	0.48	35.6	D	TR	0.45	34.7	C
	Southbound	L	0.2	19.4	B	L	0.4	22.1	C	L	0.56	25.8	C	L	0.52	24.5	C
		TR	0.17	18.4	B	TR	0.14	18.1	B	TR	0.19	18.7	B	TR	0.14	18.1	B
Unsignalized																	
W. Bruckner Blvd. S.R.	Westbound	R	0.05	9.6	A	R	0.05	9.6	A	R	0.07	9.8	A	R	0.08	10	A
and Edison Avenue																	B

	1	2	3	4	5	6	7
	R	R	R	R	DW	DW	DW
	A	A	A	A	WK	WK	WK
	G	G	G	G			
			←A				
			←G				
L/S #	1	2	3	4	5	6	7
NEMA	1	OL1	2	3	1P	POL1	3P
		(2+3)				(2+3)	



	1	2	3	4	5	6	7	06:30-21:00 MON-SUN	21:00 - 06:30 MON-SUN		
								120 SEC	**90 SEC**		
PHASE A	G	R	R	R	WK	DW	DW	40	26		
SPARE	G	R	R	R	WK	DW	DW	2	2		
PED CL	G	R	R	R	**FLDW**	DW	DW	10	10		
TSP-EXT	G	R	R	R	DW	DW	DW	1	1		
VEH CL	A	R	R	R	DW	DW	DW	3	3		
VEH CL	R	R	R	R	DW	DW	DW	2	2		
								58	**44**		
PHASE B	R	G	G/G←	R	DW	WK	DW	13	10		
VEH CL	R	G	G/A←	R	DW	WK	DW	3	3		
VEH CL	R	G	G	R	DW	WK	DW	2	2		
								18	**15**		
PHASE C	R	G	G	G	DW	WK	WK	29	16		
PED CL	R	G	G	G	DW	**FLDW**	**FLDW**	10	10		
VEH CL	R	A	A	A	DW	DW	DW	3	3		
VEH CL	R	R	R	R	DW	DW	DW	2	2		
								44	**31**		

CITY OF NEW YORK
BUREAU OF TRAFFIC OPERATIONS
34-02 Queens Blvd. Long Island City, NY 11101

8/20	M.M	TIMING MODIFICATION
		INSTALL PEDESTRIAN COUNTDOWN SIGNALS
DATE	BY	REVISIONS

NOTES: NON-ACTUATED
PC = 3.0 FT/SEC
PEDESTRIAN COUNTDOWN INTERVAL PROGRAM
CABINET TYPE: ASTC-12
CABINET ADRESS: 4334

OFFSET

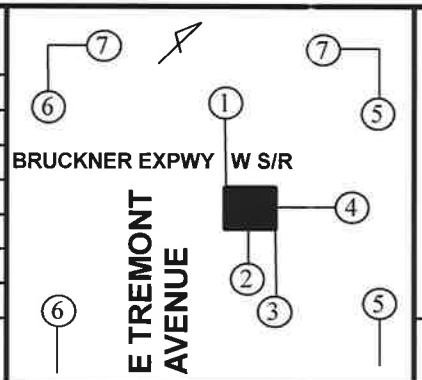
105	**22**		

BRUCKNER EXPWY E S/R @ LOGAN AVENUE

Prep. M.MEGALA Date 08/28/20

Appr. _____ Date _____

	1	2	3	4	5	6	7	8
	R	R	R	R	DW	DW	DW	
	A	A	A	A	WK	WK	WK	
	G	G	G	G				
		←A						
		←G						
L/S#	1	2	3	4	5	6	5Y6Y	
NEMA	1	3	OL1	2	POL1	1P	2P	
			1+3		1+3			
PHASE A	G	G	G	R	WK	WK	DW	
SPARE	G	G	G	R	WK	WK	DW	
PED CL	G	G	G	R	**FLDW**	**FLDW**	DW	
VEH CL	A	A	A	R	DW	DW	DW	
VEH CL	R	R	R	R	DW	DW	DW	
PHASE B	R	R	R	G	DW	DW	WK	
PED CL	R	R	R	G	DW	DW	**FLDW**	
VEH CL	R	R	R	A	DW	DW	DW	
VEH CL	R	R	R	R	DW	DW	DW	
PHASE C	R	G/←G	G	R	WK	DW	DW	
VEH CL	R	G/←A	G	R	WK	DW	DW	
VEH CL	R	G	G	R	WK	DW	DW	



	1	2				
	MON-FRI 06:30-21:00 WEEKEND 06:30-21:00	MON-FRI 21:00-06:30 WEEKEND 21:00-06:30				
	120 SEC	**60 SEC**				
	47	7				
	2	2				
	6	6				
	3	3				
	2	2				
	60	**20**				
	21	7				
	17	17				
	3	3				
	2	2				
	43	**29**				
	12	6				
	3	3				
	2	2				
	17	**11**				
OFFSET						
65	**34**					

CITY OF NEW YORK
BUREAU OF TRAFFIC OPERATIONS
34-02 Queens Blvd. Long Island City, NY 11101

Channel "7" see I/O Mapping
Don't Use Default I/O Mapping
Use "ALT" I/O Mapping

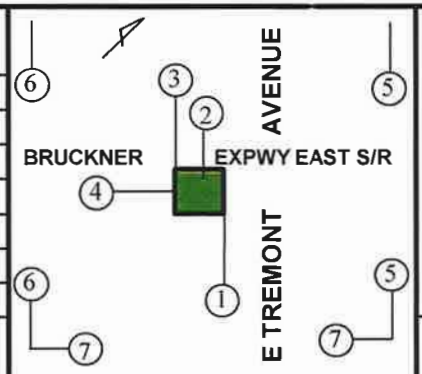
11/18	MK	TIMING MODIFICATION / 868
DATE	BY	REVISIONS

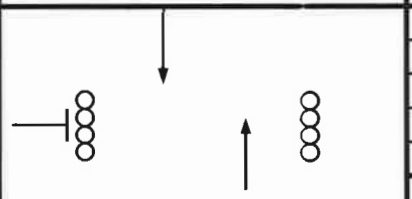
NOTES:NON ACTUATED
PC = 3 FT/SEC
CABINET TYPE: ASTC-6
CABINET ADDRESS: 4367
INTERVAL PROGRAM
PEDESTRIAN COUNTDOWN

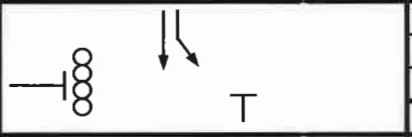
E TREMONT AV @ BRUCKNER EXPWY W S/R

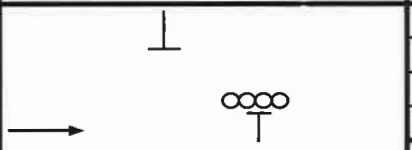
Prep M.Kobets Date 11/27/18
Appr. _____ Date _____

	1	2	3	4	5	6	7	8
	R	R	R	R	DW	DW	DW	
	A	A	A	A	WK	WK	WK	
	G	G	G	G				
		←G						
L/S#	1	2	3	4	5	6	5Y6Y	
NEMA	1	2	OL1	3	1P	POL1	3P	
			1+2			1+2		
PHASE A	G	G	G	R	WK	WK	DW	
SPARE	G	G	G	R	WK	WK	DW	
PED CL	G	G	G	R	**FLDW**	WK	DW	
VEH CL	A	G	G	R	DW	WK	DW	
VEH CL	R	G	G	R	DW	WK	DW	
PHASE B	R	G/←G	G	R	DW	**FLDW**	DW	
VEH CL	R	A	A	R	DW	DW	DW	
VEH CL	R	R	R	R	DW	DW	DW	
PHASE C	R	R	R	G	DW	DW	WK	
PED CL	R	R	R	G	DW	DW	**FLDW**	
VEH CL	R	R	R	A	DW	DW	DW	
VEH CL	R	R	R	R	DW	DW	DW	









	1	2					
	MON-FRI 06:30-21:00 WEEKEND 06:30-21:00	MON-FRI 21:00-06:30 WEEKEND 21:00-06:30					
	120 SEC	**60 SEC**					
	47	9					
	2	2					
	6	6					
	3	3					
	2	2					
	60	**22**					
	12	6					
	3	3					
	2	2					
	17	**11**					
	23	7					
	15	15					
	3	3					
	2	2					
	43	**27**					
OFFSET							
48	**24**						

CITY OF NEW YORK

BUREAU OF TRAFFIC OPERATIONS

34-02 Queens Blvd. Long Island City, NY 11101

Channel "7" see I/O Mapping

Don't Use Default I/O Mapping

Use "ALT" I/O Mapping

NOTES:NON ACTUATED

PC = 3 FT/SEC

CABINET TYPE: ASTC-6.

CABINET ADDRESS: 4366

INTERVAL PROGRAM

PEDESTRIAN COUNTDOWN

E TREMONT AVE @ BRUCKNER EXPWY E S/R

Prep. M.Kobets Date 11/27/18

Appr. _____ Date _____

DATE	BY	REVISIONS
11/18	MK	TIMING MODIFICATION / 868

Table 53

Bruckner Boulevard, Bronx NY

Summary of Motor Vehicle Crash Data-2016-2018

Intersections	Pedestrian Injury Crashes			Bicycle Injury Crashes			Total Pedestrian/Bicycle Crashes			Total Crashes Including Motor Vehicle-Only		
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
Bruckner Blvd./East Tremont Ave	2	0	0	1	0	0	***3***	***0***	***0***	17	6	2
Bruckner Blvd./ Crosby Ave./ Logan Ave.	0	1	0	0	0	0	***0***	***1***	***0***	0	6	3
Total										***17***	***12***	***5***

Data Source: NYCDOT/NYPD/ NYSDOT/DMV (2016 -Present)

* *No fatalities are recorded between 2016 and Present in the study area (NYSDOT/DMV/NYCDOT/NYPD).*

There is no crash in the intersection of Bruckner Expressway Service Road and Edison Avenue Between 2016 and 2018.

APPENDIX II

NOISE ATTACHMENTS

Certificate of Conformity and Calibration

CASELLA CEL

Instrument Model: CEL-120/1 Acoustic Calibrator
Serial Number: 4478708

Certificate #: 19651-1



Calibration References:

Casella CEL hereby certifies that the above listed sound measuring instrument has been tested according to the manufacturer's specifications and meets the requirements of the relevant American National Standards Institute (ANSI) Standard for Sound Calibrators S1.40 - 1983 (R1997). This instrument was calibrated against standards which are either traceable to the National Institute of Standards and Technology (NIST) or they have been derived by approved ratio techniques.

Test Conditions:

23.5 °C
87.7 %RH
1013.5 mBar

Date of Issue:- August 22, 2019
Due Date:- August 22, 2020
Service Engineer:- Ken Umbeer

Declaration of conformity:-

This test certificate confirms that the instrument specified above has been successfully tested to comply with the manufacturer's published specifications. Tests are performed using equipment traceable to national standards. This product is certified as being compliant to the requirements of the CE Directive. Test accuracy ratio (TAR) ≥1.

Summary:

The data represents the response of the sound level meter calibrator to the reference source corrected for atmospheric conditions at the time of calibration.

	Nominal Value	Tolerance	As Received	As Adjusted
Frequency (Hz)	1000.0	±5.0	1000.0	1000.0
Level (dB)	114.0	±0.3	114.2	114.0
Level (dB)	94.0	±0.3	94.1	94.0

Standards Used in Calibration:		Serial Number	Calibration Due Date	Certificate Number
Sound Level Meter:	CEL-620.A1	5130002	2/4/2020	29619-2
Multimeter:	Fluke 45	4995184	2/4/2020	1821321

Casella CEL
415 Lawrence Bell Dr.
Unit #4
Buffalo, NY 14221
U.S.A.

Toll Free: +1 (800) 366 2966
Fax +1 (716) 276 3043
E-mail: info@casellaUSA.com
Web: www.casellaUSA.com

Casella CEL (U.K.)
Regent House
Wolsely Road
Kempston
Bedford
MK42 7JY

Phone: +44 (0) 1234 844100
Fax:- +44(0) 1234 841490
E-mail: info@casellacel.com
Web: www.casellacel.com

Certificate of Conformity and Calibration

Instrument Type:-	**CEL-633C**
Serial Number	5086866
Firmware revision	V006-03
Microphone Type:-	CEL-251
Serial Number	83127
Preamplifier Type:-	CEL-495
Serial Number	004744
Instrument Class/Type:-	1



Applicable standards:-

IEC 61672: 2002 / EN 60651 (Electroacoustics - Sound Level Meters)
IEC 60651 1979 (Sound Level Meters), ANSI S1.4: 1983 (Specifications For Sound Level Meters)

Note:- *The test sequences performed in this report are in accordance with the current Sound level meter Standard - IEC61672. The combination of tests performed are considered to confirm the products electro-acoustic performance to all applicable standards including superceeded Sound Level Meter Standards - IEC60651 and IEC60804.*

Test Conditions:-	19 °C	**Test Engineer:-**	Stephen Potten
	37 %RH	**Date of Issue:-**	July 23, 2019
	1015 mBar		

Declaration of conformity:-

This test certificate confirms that the instrument specified above has been successfully tested to comply with the manufacturer's published specifications. Tests are performed using equipment traceable to national standards in accordance with Casella's ISO 9001:2008 quality procedures. This product is certified as being compliant to the requirements of the CE Directive.

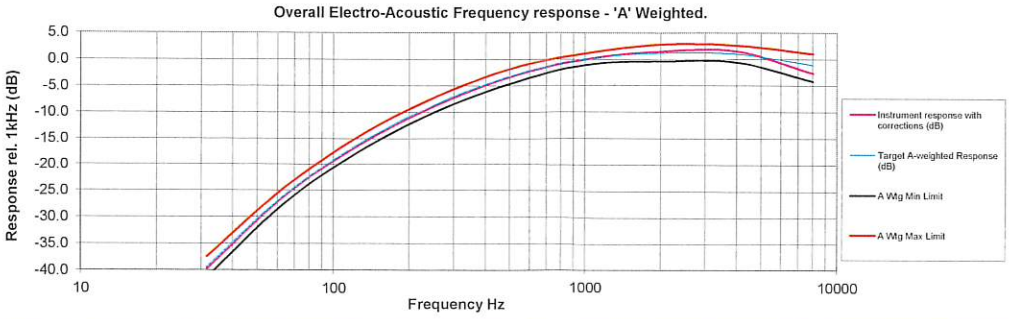
Test Summary:-

Self Generated Noise Test	**All Tests Pass**
Electrical Signal Test Of Frequency Weightings	**All Tests Pass**
Frequency & Time Weightings At 1 kHz	**All Tests Pass**
Level Linearity On The Reference Level Range	**All Tests Pass**
Toneburst Response Test	**All Tests Pass**
C-peak Sound Levels	**All Tests Pass**
Overload Indication	**All Tests Pass**
Acoustic Tests	**All Tests Pass**

Combined Electro-Acoustic Frequency Response - *A Weighted*

Combined Electro-Acoustic Frequency Response - A Weighted (IEC 61672-3:2006)

The following A-Weighted frequency response graph shows this instruments overall frequency response based upon the application of multi-frequency pressure field calibrations. The microphones Pressure to Free field correction coefficients are applied to pressure response. Reference level taken at 1kHz.



Casella CEL (U.K.)
Regent House, Wolseley Road,
Kempston, Bedford
MK42 7JY

Phone: +44(0) 1234 844100
Fax: +44(0) 1234 841490
E-mail: info@casellameasurement.com
Web: www.casellameasurement.com

Casella CEL
415 Lawrence Bell Drive
Unit 4
Buffalo, NY 14221

Toll Free: (800) 366 2966
TEL: (716) 276-3040 Fax: (716) 276-3043
E-mail: info@casellausa.com
Web: www.casellausa.com

CASELLA

Certificate of Conformity and Calibration

Instrument Model:-	**CEL-633C**	**Preamplifier Type:-**	**CEL-495**
Serial Number	2670911	Serial Number	3409
Firmware revision	V006-03		
Microphone Type:-	**CEL-251**	As Received:-	114.1
Serial Number	3700	As Adjusted:-	114.0
Instrument Class/Type:-	1		



Applicable standards:-

IEC 61672: 2002 / EN 60651 (Electroacoustics - Sound Level Meters)
IEC 60651 1979 (Sound Level Meters), ANSI S1.4: 1983 (Specifications For Sound Level Meters)

Note:- The test sequences performed in this report are in accordance with the current Sound level meter *Standard - IEC61672. The combination of tests performed are considered to confirm the products electro-acoustic performance to all applicable standards including superceeded Sound Level Meter Standards - IEC60651 and IEC60804.*

Test Conditions:-	23 °C	Test Engineer:-	Ken Umbeer
	87.7 %RH	Date of Issue:-	December 4, 2019
	996.3 mBar	Date Due:-	December 4, 2020

Declaration of conformity:-

This test certificate confirms that the instrument specified above has been successfully tested to comply with the manufacturer's published specifications. Tests are performed using equipment traceable to NIST. This product is certified as being compliant to the requirements of the CE Directive.

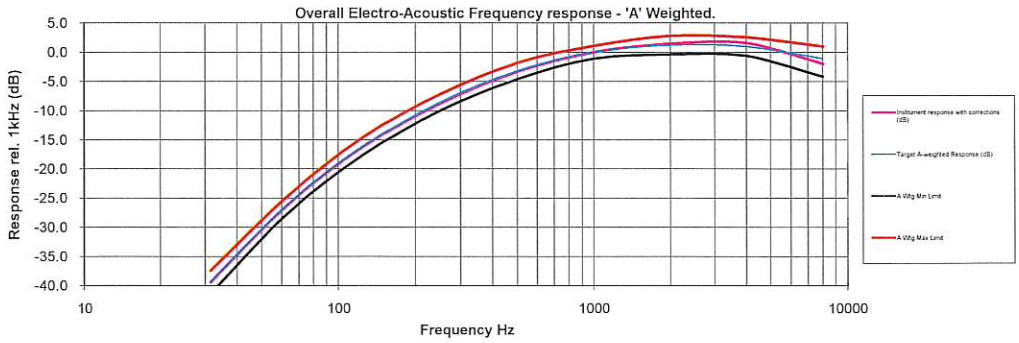
Test Summary:-

Self Generated Noise Test	All Tests Pass
Electrical Signal Test Of Frequency Weightings	All Tests Pass
Frequency & Time Weightings At 1 kHz	All Tests Pass
Level Linearity On The Reference Level Range	All Tests Pass
Toneburst Response Test	All Tests Pass
C-peak Sound Levels	All Tests Pass
Overload Indication	All Tests Pass
Acoustic Tests	All Tests Pass

Combined Electro-Acoustic Frequency Response - A Weighted

Combined Electro-Acoustic Frequency Response - A Weighted (IEC 61672-3:2006)

The following A-Weighted frequency response graph shows this instruments overall frequency response based upon the application of multi-frequency pressure field calibrations. The microphones Pressure to Free field correction coefficients are applied to pressure response. Reference level taken at 1kHz.



Casella CEL
Regent House, Wolseley Road,
Kempston, Bedford
MK42 7JY
United Kingdom

Phone: +44 (0) 1234 844100
Fax:- +44(0) 1234 841490
E-mail:
info@casellameasurement.com
Web: www.casellameasurement.com

Casella CEL, Inc. a subsidiary of IDEAL Industries, Inc.
415 Lawrence Bell Drive
Unit 4
Buffalo
NY 14221
USA

Toll Free: (800) 366-2966
Tel (716) 276-3040 Fax: (716) 276-3043
E-mail: info@casellausa.com
Web: www.casellausa.com

Certificate of Conformity and Calibration



Instrument Model:-	**CEL-633C**		
Serial Number	1488256		
Firmware revision	V006-03		
Microphone Type:-	**CEL-251**	**Preamplifier Type:-**	**CEL-495**
Serial Number	3700	Serial Number	003409
Instrument Class/Type:-	1		

Applicable standards:-

IEC 61672: 2002 / EN 60651 (Electroacoustics - Sound Level Meters)
IEC 60651 1979 (Sound Level Meters), ANSI S1.4: 1983 (Specifications For Sound Level Meters)

Note:- *The test sequences performed in this report are in accordance with the current Sound level meter Standard - IEC61672. The combination of tests performed are considered to confirm the products electro-acoustic performance to all applicable standards including superceeded Sound Level Meter Standards - IEC60651 and IEC60804.*

Test Conditions:-	24.4 °C	**Test Engineer:-**	Malcolm Neale
	52.4 %RH	**Date of Issue:-**	July 11, 2019
	1006.5 mBar		

Declaration of conformity:-

This test certificate confirms that the instrument specified above has been successfully tested to comply with the manufacturer's published specifications. Tests are performed using equipment traceable to national standards in accordance with Casella's ISO 9001:2008 quality procedures. This product is certified as being compliant to the requirements of the CE Directive.

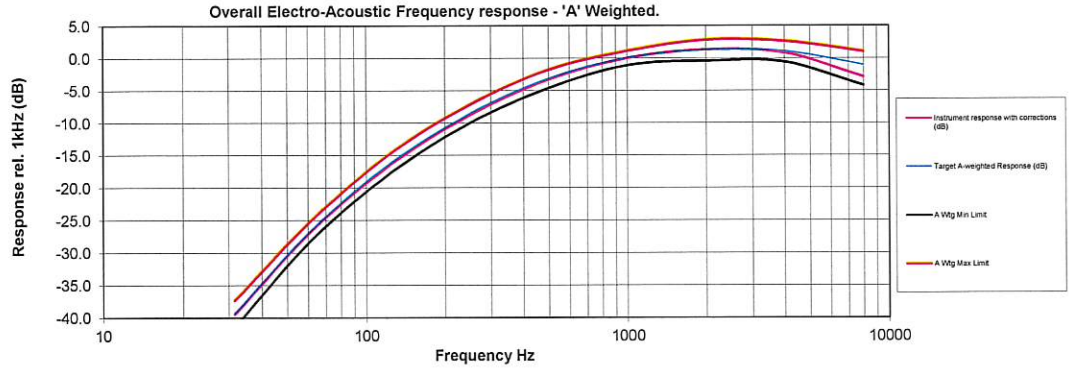
Test Summary:-

Self Generated Noise Test	**All Tests Pass**
Electrical Signal Test Of Frequency Weightings	**All Tests Pass**
Frequency & Time Weightings At 1 kHz	**All Tests Pass**
Level Linearity On The Reference Level Range	**All Tests Pass**
Toneburst Response Test	**All Tests Pass**
C-peak Sound Levels	**All Tests Pass**
Overload Indication	**All Tests Pass**
Acoustic Tests	**All Tests Pass**

Combined Electro-Acoustic Frequency Response - *A Weighted*

Combined Electro-Acoustic Frequency Response - A Weighted (IEC 61672-3:2006)

The following A-Weighted frequency response graph shows this instruments overall frequency response based upon the application of multi-frequency pressure field calibrations. The microphones Pressure to Free field correction coefficients are applied to pressure response. Reference level taken at 1kHz.



Casella UK
Regent House, Wolseley Road, Kempston, Bedford MK42 7JY United Kingdom
Tel: +44 (0) 1234 844100
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E-mail: info@casellasolutions.com

Casella USA
415 Lawrence Bell Drive, Unit 4 Buffalo, NY 14221, USA
Toll Free (800) 366-2966
Tel: +1 (716) 276 3040
E-mail: info@casellausa.com

Casella India
Ideal Industries India Pvt.Ltd. 229-230, Spazedge, Tower -B Sohna Road, Sector-47, Gurgaon-122001, Haryana , India.
Tel: +91 124 4495100
E-mail: casella.sales@ideal-industries.in

Casella China
Ideal Industries China Room 305, Building 1, No.1279, Chuanqiao Rd, Pudong New District, Shanghai, China
Tel: +86-21-31263188
Fax: +86-21-61605906
Email: info@casellasolutions.cn

Casella Australia
Ideal Industries (Aust) PTY. LTD Unit 17, 35 Dunlop Rd, Mulgrave. Vic. 3170, Australia.
Email: australia@casellasolutions.com

Tested to CEL-63X test sheet TP444 revision 01-00

CASELLA

Certificate of Conformity and Calibration

Customer:	Equity Environmental
Instrument:	CEL-120/1
Serial Number:	2045304
Job Number:	19468
Date of Issue:	11-Jul-2019
Engineer:	M Neale

Traceable Equipment:		
	Reference Calibrator	EQ11205
	DVM type Fluke 45	EQ00318

Test Conditions:

Ambient Temperature	24.1	°C
Ambient Humidity	53.8	%RH
Ambient Pressure	1007	mBar

Results:

	Level 1	Level 2	Frequency
Initial Reading	114.12 dB	94.06 dB	1.0000 kHz
Final Reading	114.00 dB	93.99 dB	1.0000 kHz

Uncertainty:

Level	±	0.15	dB
Frequency	±	0.5	Hz

This test certificate confirms that the instrument specified above has been successfully tested to comply with the manufacturer's published specifications.
Tests are performed using equipment traceable to national standards in accordance with Casella's ISO 9000:2015 quality procedures.
The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%.
This certificate may not be reproduced other than in full, except with prior written approval of the issuing laboratory.

Casella UK
Regent House, Wolseley Road, Kempston, Bedford MK42 7JY United Kingdom
Tel: +44 (0)1234 844100
Fax: +44(0)1234 841490
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415 Lawrence Bell Drive, Unit 4, Buffalo, NY 14221, USA
Toll Free: (800) 366 2966
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E: Casella.Sales@ideal-industries.in

Casella China
IDEAL Industries China
Room 305, Building 1, No. 1279, Chuanqiao Rd, Pudong New District, Shanghai, China
Tel: +86 21 31263188
Fax: +86 21 61605906
E: info@casellasolutions.cn

Casella Australia
IDEAL Industries (AUST) Pty. Ltd
Unit 17, 35 Dunlop Rd, Mulgrave, VIC 3170, Australia
Tel: +61 3 9562 0175
E: australia@casellasolutions.com

Certificate of Conformity and Calibration



Instrument Model:-	**CEL-633C**		
Serial Number	1274486		
Firmware revision	V006-03		
Microphone Type:-	**CEL-251**	**Preamplifier Type:-**	**CEL-495**
Serial Number	2467	Serial Number	003570
Instrument Class/Type:-	**1**		

Applicable standards:-

IEC 61672: 2002 / EN 60651 (Electroacoustics - Sound Level Meters)
IEC 60651 1979 (Sound Level Meters), ANSI S1.4: 1983 (Specifications For Sound Level Meters)

Note:- *The test sequences performed in this report are in accordance with the current Sound level meter Standard - IEC61672. The combination of tests performed are considered to confirm the products electro-acoustic performance to all applicable standards including superceeded Sound Level Meter Standards - IEC60651 and IEC60804.*

Test Conditions:-	24.3 °C	**Test Engineer:-**	Malcolm Neale
	52.4 %RH	**Date of Issue:-**	July 11, 2019
	1007 mBar		

Declaration of conformity:-

This test certificate confirms that the instrument specified above has been successfully tested to comply with the manufacturer's published specifications. Tests are performed using equipment traceable to national standards in accordance with Casella's ISO 9001:2008 quality procedures. This product is certified as being compliant to the requirements of the CE Directive.

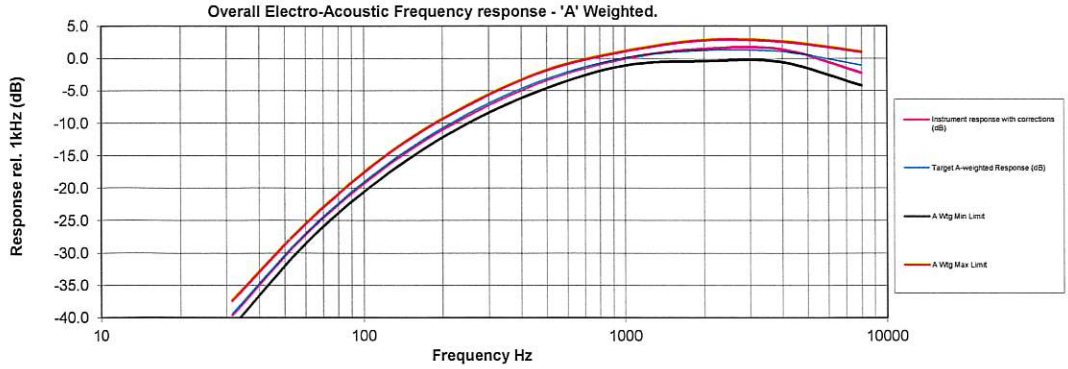
Test Summary:-

Self Generated Noise Test	**All Tests Pass**
Electrical Signal Test Of Frequency Weightings	**All Tests Pass**
Frequency & Time Weightings At 1 kHz	**All Tests Pass**
Level Linearity On The Reference Level Range	**All Tests Pass**
Toneburst Response Test	**All Tests Pass**
C-peak Sound Levels	**All Tests Pass**
Overload Indication	**All Tests Pass**
Acoustic Tests	**All Tests Pass**

Combined Electro-Acoustic Frequency Response - *A Weighted*

Combined Electro-Acoustic Frequency Response - A Weighted (IEC 61672-3:2006)

The following A-Weighted frequency response graph shows this instruments overall frequency response based upon the application of multi-frequency pressure field calibrations. The microphones Pressure to Free field correction coefficients are applied to pressure response. Reference level taken at 1kHz.



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Tested to CEL-63X test sheet TP444 revision 01-00

CASELLA

Certificate of Conformity and Calibration

Customer:	Equity Environmental
Instrument:	CEL-120/1
Serial Number:	3574248
Job Number:	19468
Date of Issue:	11-Jul-2019
Engineer:	M Neale

Traceable Equipment:

Reference Calibrator	EQ11205
DVM type Fluke 45	EQ00318

Test Conditions:

Ambient Temperature	24.1	°C
Ambient Humidity	52.7	%RH
Ambient Pressure	1007	mBar

Results:

	Level 1	Level 2	Frequency
Initial Reading	113.92 dB	93.93 dB	1.0000 kHz
Final Reading	114.00 dB	93.99 dB	1.0000 kHz

Uncertainty:

Level	±	0.15	dB
Frequency	±	0.5	Hz

This test certificate confirms that the instrument specified above has been successfully tested to comply with the manufacturer's published specifications.
Tests are performed using equipment traceable to national standards in accordance with Casella's ISO 9000:2015 quality procedures.
The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%.
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IDEAL Industries (AUST) Pty. Ltd
Unit 17, 35 Dunlop Rd, Mulgrave.
VIC 3170, Australia
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CASELLA

Certificate of
Conformance and Calibration for

CEL-120 Acoustic Calibrator

Applicable Standards :-IEC 60942: 2003 & ANSI S1.40: 2006

CEL-120/1 Class 1 ☑

CEL-120/2 Class 2 ☐

Serial No: 1090999

Firmware: 04

Temperature: 22.8 °C Pressure: 997.9 mb %RH 48.8

Frequency = 1.00kHz ± 2Hz T.H.D. = < 1%	Calibration Level
SPL @ 114.0dB Setting	114.01 dB
SPL @ 94.0dB Setting (CEL-120/1 only)	93.94 dB/N.A

Engineer :- S. Pike Date :- 27 SEP 2019

Company test equipment and acoustic working standards, used for conformance testing, are subject to periodic calibration, traceable to UK national standards, in accordance with the company's ISO9001 Quality System.

DECLARATION OF CONFORMITY

This certificate confirms that the instrument specified above has been produced and tested to comply with the manufacturer's published specifications and the relevant European Community CE directives.

Casella
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