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

909 Castle Hill Avenue

909 Castle Hill Avenue
Bronx, NY

Prepared for:
510 East Realty Inc
260 Madison Avenue, 5th Floor
New York, NY 10016

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

AECOM Project No. 60545942

December, 11th, 2020

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* 909 Castle Hill Avenue

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
19DCP222X	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
190118ZMX	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY			NAME OF APPLICANT		
New York City Dept of City Planning			510 East Realty Inc.		
NAME OF LEAD AGENCY CONTACT PERSON			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON		
Olga Abinader, Director of EARD			Amanda Iannotti		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 18 East 41st Street		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10017
TELEPHONE 212-720-3493	EMAIL oabinad@planning.nyc.gov		TELEPHONE (212) 725-2727	EMAIL aIannotti@sheldonlobelpc.com	

5. *Project Description*

The applicant, 510 East Realty Inc., proposes a zoning map amendment to rezone 909-921 Castle Hill Avenue, Block 3687, Lots 37, 39, 40, 41, 42 and 43 (the "Proposed Project Area"), in the Castle Hill neighborhood of Bronx Community District 9, from an R3-2 zoning district to an R6B/C1-3 and an R6B zoning district. The proposed zoning map amendment would facilitate the development of a mixed-use five-story plus cellar residential, commercial and community facility building with a total floor area of approximately 40,944 square feet of zoning floor area (2.0 FAR) and a total of 35 dwelling units (the "Proposed Development") to be constructed at 909 Castle Hill Avenue, Block 3687, Lot 43 (the "Proposed Development Site").The applicant also proposes a zoning text map amendment to amend Zoning Resolution ("ZR") Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Bronx Community District 9, to establish the Proposed Project Area as a Mandatory Inclusionary Housing ("MIH") Designated Area. The applicant proposes mapping Options 1 and 2 to provide maximum flexibility for non-applicant controlled sites.

The Proposed Development Site is 909 Castle Hill Avenue, Block 3687, Lot 43. The Proposed Development Site is a corner lot, located at the corner of the intersection formed by Castle Hill Avenue and Story Avenue. The Proposed Development Site has approximately of 104 feet of frontage on Castle Hill Avenue, approximately 181 feet of frontage on Story Avenue and a total lot area of approximately 18,643 square feet. The Proposed Development Site is improved with a two-story, approximately 3,250 gross square foot (0.17 FAR) residential building with three dwelling units built in 1899. One curb cut is located along Castle Hill Avenue.

The proposed rezoning would facilitate the development of a new five-story plus cellar mixed-use residential, commercial and community facility building with approximately 40,944 square feet of zoning floor area (2.0 FAR) and a total of 35 dwelling units at the Proposed Development Site. The Proposed Development will consist of required accessory residential parking spaces (15 required, 22 provided) and bicycle parking (44 spaces) in the cellar level which will be accessed through an entrance along Story Avenue, 3,744 square feet of ground floor commercial floor area, 2,446 square feet of ground floor community facility floor area and 34,754 square feet of residential floor area on floors two through five. Two ground floor commercial spaces will front Castle Hill Avenue, one commercial space will front

Story Avenue and one community facility space will front Story Avenue. The residential lobby will be accessed through an entrance along Story Avenue. The second through fifth floors will consist of a total 35 dwelling units (18 one-bedroom units, 11 two-bedroom units, 4 three-bedroom units and 2 studios). The roof level will contain tenant recreation space.

The proposed building would rise to a total height of 50'-0" and will set back 15'-0" from Story Avenue and 10'-0" from Castle Hill Avenue above the third floor. The proposed building will provide a 32'-0" rear yard, an 8'-0" side yard and a 5'-0" front yard along Story Avenue. The existing curb cut located on Castle Hill Avenue would be removed and a new 13'-0" curb cut is proposed on Story Avenue to access the cellar level parking garage.

Project Location

BOROUGH BX	COMMUNITY DISTRICT(S) 9	STREET ADDRESS 909-921 Castle Hiill Avenue
TAX BLOCK(S) AND LOT(S) 3687, Lots 37, 39, 40, 41, 42, and 43		ZIP CODE 10473
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Castle Hill Ave, Quimby Ave, Story Ave, Olmstead Ave		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R3-2		ZONING SECTIONAL MAP NUMBER 7A

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

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

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

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

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

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

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

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

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

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

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

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 26,843

Roads, buildings, and other paved surfaces (sq. ft.): 26,843

Waterbody area (sq. ft) and type: NA

Other, describe (sq. ft.): NA

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): 63,759
gsf*RWCDS (Residential+Commercial+Parking)

NUMBER OF BUILDINGS: 1

GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 63,759 gsf *RWCDS

HEIGHT OF EACH BUILDING (ft.): 55

NUMBER OF STORIES OF EACH BUILDING: 5

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: 18,643

The total square feet not owned or controlled by the applicant: 8,200

Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? ☒ YES ☐ NO

If "yes," indicate the estimated area and volume dimensions of subsurface permanent and temporary disturbance (if known):

AREA OF TEMPORARY DISTURBANCE: 18,643 sq. ft. (width x length) VOLUME OF DISTURBANCE: TBD cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 18,643 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.)	33,786*RWCDS	11,330*RWCDS		
Type (*e.g.,* retail, office, school)	37 units	retail		

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

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 99 NUMBER OF ADDITIONAL WORKERS: 30

Provide a brief explanation of how these numbers were determined: 3 workers per 1,000 gsf, 2.7 people per household in BX CB 9

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: It was assumed in the No-Action Scenario that the existing non-conforming retail uses on the lots adjacent to the Project Site, (all on the ground floor) would be vacated, and not re-occupied.

9. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2023

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 20-22

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Env. Review, ULURP, Financing,Design, Construction, Occupancy

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

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

Part II: TECHNICAL ANALYSIS

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

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

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

	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.		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
○ If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
○ If "yes," complete the Jamaica Bay Watershed Form, and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☐	☒
(b) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☐	☒
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☐	☒
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☐	☒
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: See Section 2.4	☒	☐
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): 4083		
○ 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): 6188724 MBtus		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☐	☒
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☐
○ Would the proposed project result in more than 200 subway/rail 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 Supp. Studies ○	☐	☒
(c) Does the proposed project involve multiple buildings on the project site?	☐	☒
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☒
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 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?	☐	☒

	YES	NO
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☐	☒
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary.		
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. While no detailed analysis for any of the aforementioned sections are warranted, a brief write up of Neighborhood Character will be provided in the EAS.		
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. While no detailed analysis for any of the aforementioned sections are warranted, a brief write up of Construction will be provided in the EAS		

20. *APPLICANT'S CERTIFICATION*

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

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

APPLICANT/REPRESENTATIVE NAME	DATE
Max Meltzer, AICP	October 9th, 2020

SIGNATURE

Max Meltzer

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

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

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

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

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

2. Are there any aspects of the project relevant to the determination of whether the project may have a significant impact on the environment, such as combined or cumulative impacts, that were not fully covered by other responses and supporting materials? ☐ ☒

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 Director, Environmental Assessment and Review Division	LEAD AGENCY NYC Dept. of City Planning
NAME Olga Abinader	DATE 12/11/20
SIGNATURE	

NEGATIVE DECLARATION

Statement of No Significant Effect

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

Reasons Supporting this Determination

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

Land Use, Zoning, and Public Policy

A detailed analysis of land use, zoning, and public policy is included in the EAS. The proposed actions are a Zoning Map Amendment to rezone the project area (Bronx Block 3687, Lots 37, 39, 40, 41, 42, and 43) from an R3-2 district to an R6B/C1-3 and R6B districts and a Zoning Text Amendment to establish a Mandatory Inclusionary Housing area with MIH options 1 and 2 coterminous with the rezoning area Bronx Community District 9. The proposed development site is a corner lot at the intersection of Castle Hill Avenue and Story Avenue. The proposed actions would facilitate the development of a mixed use five-story plus cellar residential, commercial and community facility building with a total floor area of approximately 40,944 square feet on Bronx Block 3687, Lot 43, containing 35 residential dwelling units. The proposed land uses (residential and commercial) are compatible with the residential and commercial uses in the surrounding Study Area. No new type of land use would be introduced with the proposed actions, therefore, no significant adverse impacts related to land use, zoning, or public policy are anticipated.

Hazardous Materials, Air Quality, and Noise

An (E) designation (E-596) 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 Laura Kenny at +1 212-720-3419.

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 | 212.720.3493
NAME Olga Abinader	DATE 12/11/20
SIGNATURE	

TITLE	
Chair, City Planning Commission	
NAME Marisa Lago	DATE 12/14/20
SIGNATURE	

Project Name: 909 Castle Hill Avenue
CEQR # 19DCP222X
SEQRA Classification: Unlisted

(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-596**) would be established as part of approval of the proposed actions on **Projected Development Site 1** as described below:

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

Hazardous Materials

The (E) designation requirements applicable to **Projected Development Site 1** 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: 909 Castle Hill Avenue
CEQR # 19DCP222X
SEQRA Classification: Unlisted

Air Quality

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

> ***Projected Development Site 1:*** *Any new residential or commercial development on the above-referenced property must ensure that the heating, ventilation, and air conditioning (HVAC) systems and/or the hot water equipment stack(s) is located at the building's highest level and at least 53 feet above grade to avoid any potential significant adverse air quality impacts.*

Noise

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

> ***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 31 dBA window/wall attenuation on the facades facing Castle Hill Avenue and portions of facades facing Quimby Avenue or Story Avenue within 50 feet of Castle Hill Avenue to ensure an interior noise level not greater than 45 dBA for residential and community facility uses or not greater than 50 dBA for commercial office uses. To maintain a closed-window condition, alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

AECOM Environment

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

AECOM No. 60495680

909 Castle Hill Avenue

Supplemental Studies to the Environmental Assessment Statement

Proposed Development Site:

909 Castle Hill Avenue (Block 3687, Lot 43)
Bronx, NY 10473

Prepared for:

510 East Realty Inc.
260 Madison Avenue, 5th Floor
New York, NY 10016

Prepared by:

AECOM
125 Broad Street
New York, NY 10004

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1.0 PROPOSED ACTION

The applicant, 510 East Realty Inc., proposes a zoning map amendment to rezone 909-921 Castle Hill Avenue, Block 3687, Lots 37, 39, 40, 41, 42 and 43 (the "Proposed Project Area"), in the Castle Hill neighborhood of Bronx Community District 9, from an R3-2 zoning district to an R6B/C1-3 and an R6B zoning district. The proposed zoning map amendment would facilitate the development of a mixed-use five-story plus cellar residential, commercial and community facility building with a total floor area of approximately 40,944 square feet (2.2 FAR) and a total of 35 dwelling units (the "Proposed Development") to be constructed at 909 Castle Hill Avenue, Block 3687, Lot 43 (the "Proposed Development Site").

The applicant also proposes a zoning text map amendment to amend Zoning Resolution ("ZR") Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Bronx Community District 9, to establish the Proposed Project Area as a Mandatory Inclusionary Housing ("MIH") Designated Area. The applicant proposes mapping Options 1 and 2 to provide maximum flexibility for non-applicant-controlled sites.

1.1 Project Location

The Rezoning Area is in the Castle Hill neighborhood of the Bronx, Community District 9 (**Figure 1-1**). The Proposed Development Site is located at 909 Castle Hill Avenue on Block 3687, Lot 43. (**Figure 1-2**) The total lot area of the Proposed Development Site is approximately 18,643 square feet, and the site is presently occupied by a two-story Use Group 2 residence. A key to photographs of the site and surrounding area is shown in **Figure 1-3** with the photographs displayed in **Figure 1-4**.

This EAS studies the potential for individual and cumulative environmental impacts related to the Proposed Action occurring in a Study Area of approximately 400 feet around the Rezoning Area. This study area is generally bound by Bruckner Blvd. to the north, 200 feet east of Olmstead Avenue to the west, 100 feet north of Turnbull Avenue to the south, and the midblock point between Castle Hill Avenue and Havemeyer Avenue to the east.

1.2 Description of Project Area and Proposed Development Site

The Proposed Rezoning Area (Project Area) is 909-921 Castle Hill Avenue (Block 3687, Lots 37, 39, 40, 41, 42, and 43). 911-921 Castle Hill Avenue (Lots 37, 39, 40, 41, and 42) each consists of a three-story mixed-use building with ground floor commercial use and residential use above. These five buildings are all non-conforming with respect to their ground floor commercial uses and are all non-complying in terms of FAR, with FARs ranging from 2.84-2.86. The Rezoning Area is located within an R3-2 zoning district. R3-2 zoning districts are residential districts that allow for UG 1 and 2 residential buildings up to a FAR of 0.6. R3-2 zoning districts also allow for UG's 3 and 4 buildings to be built to a FAR of 1.0. There is a maximum building height of 35 feet in R3-2 zoning districts and one parking spot is required per dwelling unit.

A more detailed breakdown of the lots within the rezoning area is listed below.

- 909 Castle Hill Avenue (Lot 43), the Proposed Development Site, consists of a large, lot with a lot area of 18,643 square feet, and is improved with a two-story, 3,250 square foot (0.17 FAR) residential building with three dwelling units which was constructed in 1899. The dwelling units in this building are not subject to rent regulation. This building is not a designated historic structure despite its old age.

- Lot 37 is a 2,993-sf lot occupied by an 8,531 gsf, three-story mixed residential and commercial building with 2,993 gsf of commercial floor area on the ground floor and 5,538 gsf of residential floor area on the upper floors. The building has four dwelling units, none of which are subject to rent regulation. The building was constructed in 1931 and is overbuilt per R3-2 regulations (2.85 FAR). Its retail uses are legally non-conforming as the building was constructed before the zoning resolution was passed in 1961. No Certificate of Occupancy ("C/O") exists on the property.

- Lot 39 is a 1,300-sf lot occupied by a 3,712 gsf, three-story mixed residential and commercial building with approximately 1,300 gsf of commercial floor area on the ground floor and 2,412 gsf of residential floor area on the upper floors. The building has 2 dwelling units, neither of which is subject to rent regulation. The building was built in 1920 and is overbuilt per R3-2 regulations (2.85 FAR). Its retail uses are legally non-conforming as the building was constructed before the zoning resolution was passed in 1961. A C/O from 1943 indicates that the building was occupied with residential uses and a ground floor storefront.

- Lot 40 is a 1,300-sf lot occupied by a 3,712, three-story mixed residential and commercial building with approximately 1,300 gsf of commercial floor area on the ground floor and 2,412 gsf of residential floor area on the upper floors. The building has 2 dwelling units, neither of which is subject to rent regulation. The building was built in 1920 and is overbuilt per R3-2 regulations (2.85 FAR). Its retail uses are legally non-conforming as the building was constructed before the zoning resolution was passed in 1961. No C/O exists on for the property.

- Lot 41 is a 1,300-sf lot occupied by a 3,712, three-story mixed residential and commercial building with approximately 1,300 gsf of commercial floor area on the ground floor and 2,412 gsf of residential floor area on the upper floors. The building has 2 dwelling units, neither of which is subject to rent regulation. The building was built in 1920 and is overbuilt per R3-2 regulations (2.85 FAR). Its retail uses are legally non-conforming as the building was constructed before the zoning resolution was passed in 1961. No C/O exists on for the property.

- Lot 42 is a 1,307-sf lot occupied by a 3,712, three-story mixed residential and commercial building with approximately 1,307 gsf of commercial floor area on the ground floor and 2,405 gsf of residential floor area on the upper floors. The building has 2 dwelling units, neither of which is subject to rent regulation. The building was built in 1920 and is overbuilt per R3-2 regulations (2.85 FAR). Its retail uses are legally non-conforming as the building was constructed before the zoning resolution was passed in 1961. No C/O exists on for the property.

1.3 Description of Proposed Development

The proposed rezoning would facilitate the development of a new four-story plus cellar mixed-use residential, commercial and community facility building with approximately 40,944 square feet of zoning floor area (2.0 FAR) and a total of 35 dwelling units at the Proposed Development Site.

The Proposed Development would consist of required accessory residential parking spaces (15 required, 22 provided) and bicycle parking (44 spaces) in the cellar level which would be accessed through an entrance along Story Avenue, 3,744 square feet of ground floor commercial floor area, 2,446 square feet of ground floor community facility floor area and 34,754 square feet of residential floor area on floors two through five. Two ground floor commercial spaces would front Castle Hill Avenue, one commercial space would front Story Avenue and one community facility space would front Story Avenue. The residential lobby would be accessed through an entrance along Story Avenue. The second through fifth floors would consist of a total 35 dwelling units (18 one-bedroom units, 11 two-bedroom units, 4 three-bedroom units and 2 studios). The roof level would contain tenant recreation space.

The proposed building would rise to a total height of 50’-0” and would set back 15’-0” from Story Avenue and 10’-0” from Castle Hill Avenue above the third floor. The proposed building would provide a 32’-0” rear yard, an 8’-0” side yard and a 5’-0” front yard along Story Avenue. The existing curb cut located on Castle Hill Avenue would be removed and a new 13’-0” curb cut is proposed on Story Avenue to access the cellar level parking garage.

1.4 Required Approvals and Actions Necessary to Facilitate the Proposal

The proposed zoning map amendment is a discretionary public action which is subject to the City Environmental Quality Review (CEQR) as an Unlisted action. Through CEQR, agencies review

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

The actions necessary to facilitate the Proposed Development at the Proposed Development Site are: (1) a zoning map amendment to rezone the Proposed Project Area from an R3-2 zoning district to an R6B/C1-3 and an R6B zoning district, and (2) a zoning text map amendment to amend ZR Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Bronx Community District 9, to establish the Proposed Project Area as an MIH Designated Area.

a. Rationale for the Zoning Map Amendment to an R6B/C1-3 and an R6B zoning district at the Proposed Project Area

This application seeks to rezone the Proposed Project Area from an R3-2 zoning district to an R6B/C1-3 and an R6B zoning district. The proposed R6B/C1-3 district would be mapped to a depth of 80'-0" from Castle Hill Avenue, with the proposed R6B district mapped to a depth of 180'-0" along Story Avenue.

R3-2 districts are general residential districts that allow for a mix of housing types with a maximum FAR of 0.5. However, with the exception of the Proposed Development Site all other lots located within the Proposed Project Area have non-complying FARs and non-conforming ground floor commercial uses. R6B districts are contextual residential zoning districts designed to encourage the development of Quality Housing buildings with a maximum permitted FAR of 2.0, or 2.2 with inclusionary housing. When mapped over an R6B district, C1-3 overlay districts permit commercial use up to a maximum FAR of 1.0. Thus, due to the current use and bulk of the existing buildings located within the Proposed Project Area, the inclusion of all lots located in the Proposed Project Area within the proposal is necessary to create a rational land use plan.

The Applicant believes that the proposed R6B/C1-3 mixed-use district is appropriate in terms of permitted use. As discussed above, located within the Surrounding Area along Castle Hill Avenue, and specifically within the Proposed Project Area, are mixed-use commercial and residential buildings. The proposed mixed-use development to be facilitated by the proposed rezoning would therefore be consistent with the existing character of the Proposed Project Area and the neighborhood.

The Applicant believes that the proposed R6B zoning district is appropriate in terms of density and permitted bulk as the Proposed Project Area includes five non-complying buildings with high FARs ranging from 2.84-2.86. Therefore, the degree of non-compliance of these buildings would be greatly reduced. Further, Castle Hill Avenue is a wide street. The R6B zoning district accommodates a maximum FAR of 2.2 in a form which is consistent with the built form on the northern portion of the subject block face and which is appropriate along this wide street. The proposed rezoning to an R6B zoning district would enable the applicant to develop the Proposed Development Site, which is a large, underutilized, vacant site, with a five-story, 2.2 FAR building consistent with the built character of the Surrounding Area and the FARs of the existing buildings located within the Proposed Project Area.
In addition, the proposed C1-3 overlay would allow for the development of commercial use within the Proposed Development, consistent with the character of the buildings fronting Castle Hill Avenue in the Surrounding Area. The proposed C1-3 overlay is consistent with the existing commercial uses located within the Proposed Project Area and would bring these existing non-conforming buildings into conformance in terms of their existing ground floor commercial uses.

b. Rationale for the ZR Appendix F Text Map Amendment to map an MIH Designated Area at the Proposed Project Area

The shortage of affordable housing and housing in general has been highlighted by the current administration as an urgent issue that needs addressing. The administration has released Housing New York, A Five-Borough, Ten-Year Housing Plan, which calls for the production and preservation of 200,000 affordable housing units within a decade.

The proposed text map amendment to ZR Appendix F would permit the applicant to develop the Proposed Development Site in accordance with the MIH program and would ensure that any future residential development at the Proposed Project Area would address the need for housing to serve a broad range of the City's diverse incomes. The applicant proposes mapping MIH Options 1 and 2 within the Proposed Project Area to provide maximum flexibility for non-applicant-controlled sites. Option 1 requires 25% of residential floor area to be set aside for affordable housing units for residents with incomes averaging 60% AMI, with a minimum of 10% of housing to be affordable at 40% AMI. Option 2 requires 30% of residential floor area to be set aside for affordable housing units for residents with incomes averaging 80% AMI. Under the City's MIH program, the Proposed Development would provide either nine affordable housing units (25%) pursuant to Option 1 of the MIH program or eleven affordable housing units (30%) pursuant to Option 2.



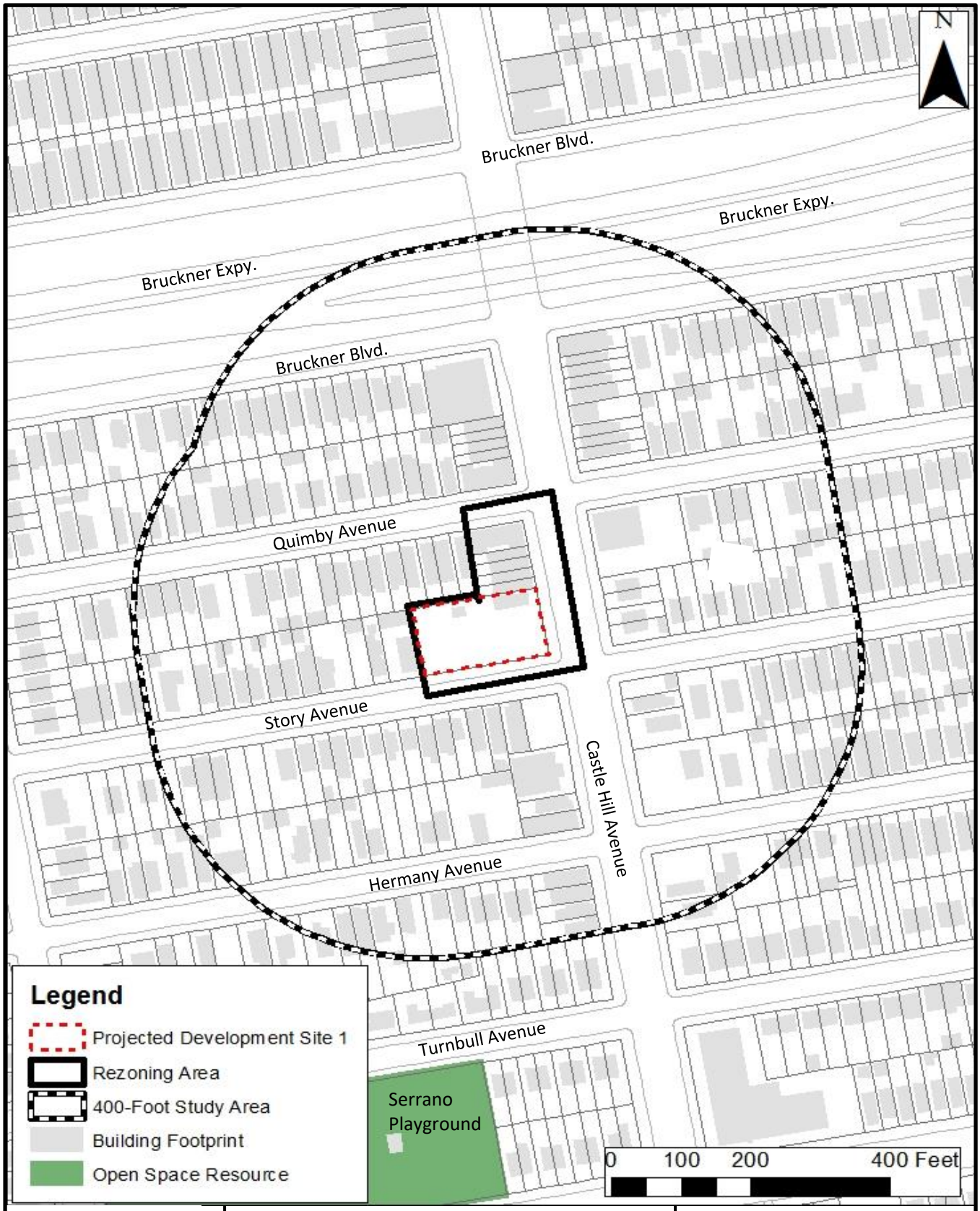


AECOM

Environmental Assessment Statement
909 Castle Hill Avenue Rezoning
Bronx, NY

Applicant Plans
Illustrative Purposes Only

Figure 1

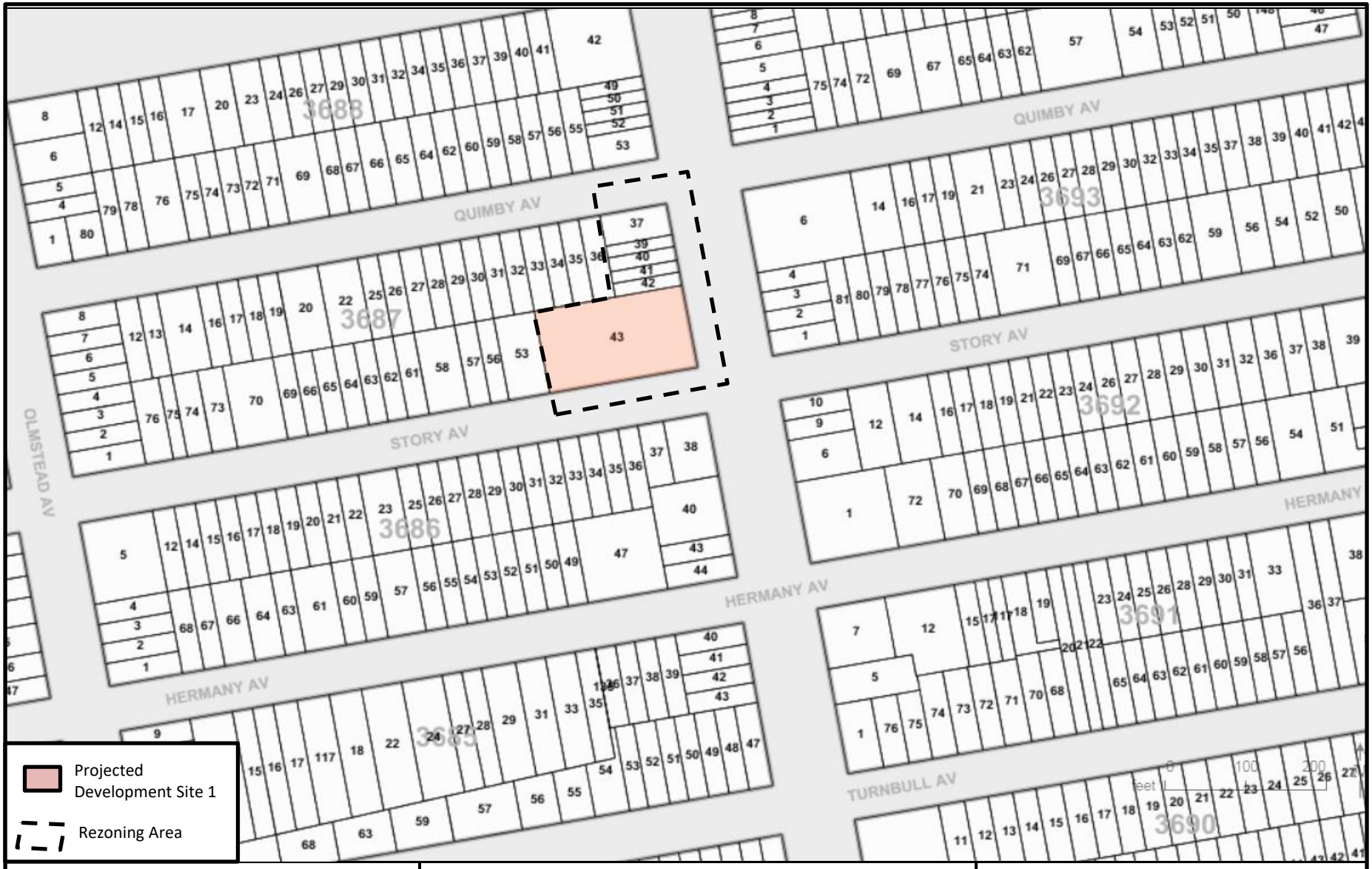


AECOM

Environmental Assessment Statement
909 Castle Hill Avenue Rezoning
Bronx, NY

Project Site Location

Figure 1-1

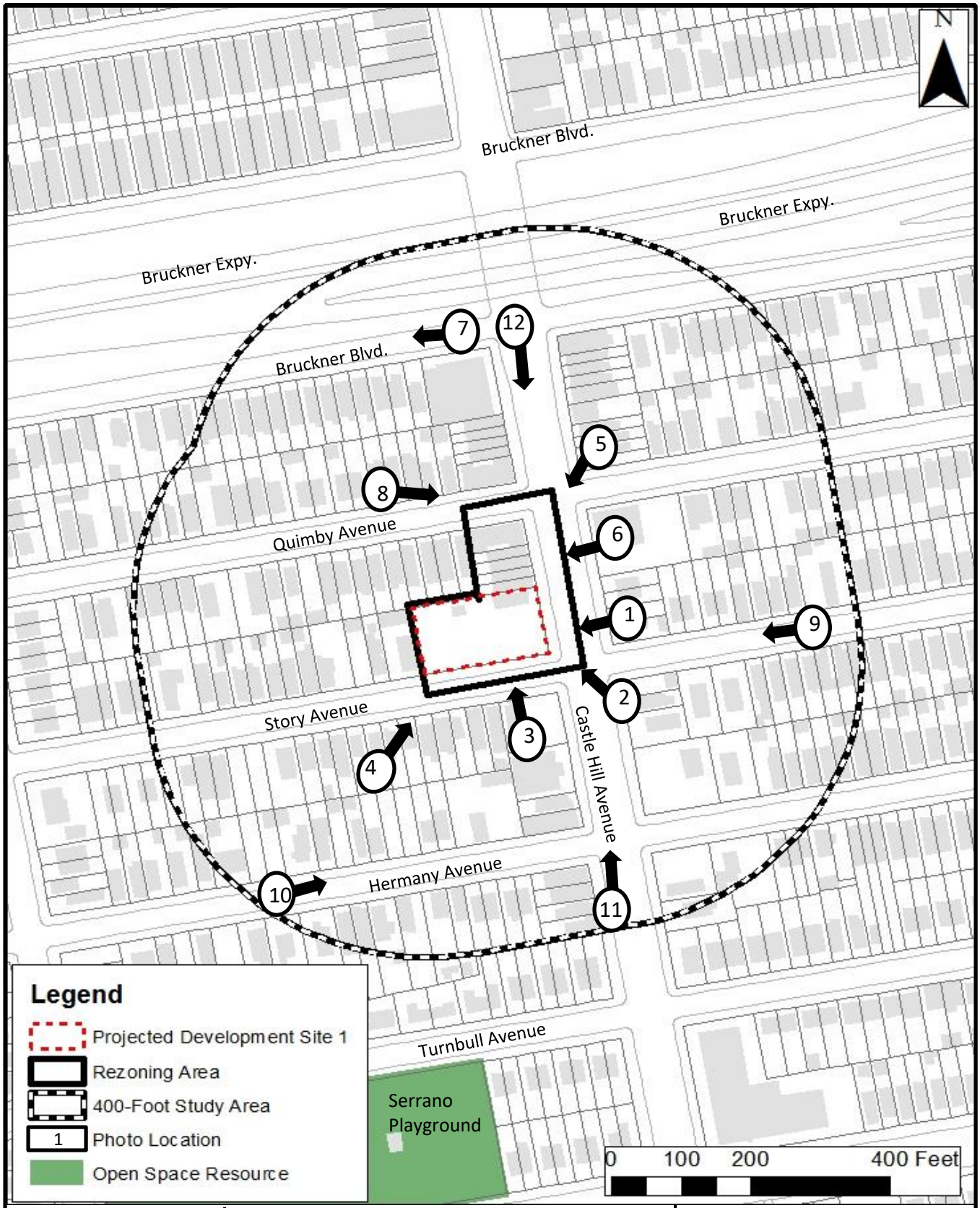


AECOM

Environmental Assessment Statement
909 Castle Hill Avenue Rezoning
Bronx, NY

Tax Map

Figure 1-2



AECOM

Environmental Assessment Statement
909 Castle Hill Avenue Rezoning
Bronx, NY

Photo Key Map Location

Figure 1-3

Figure 1-4 Photographs of the Site and Surrounding Area

Photos Taken June 16, 2020

Photograph 1



View of Projected Development Site 1 looking west on Castle Hill Avenue

Photograph 2



View of Projected Site 1 and portion of Rezoning Area looking northwest from Castle Hill Avenue

Photograph 3



View of Projected Site 1 looking north from Story Avenue

Photograph 4



View of Projected Site 1 looking northeast from Story Avenue from the southwestern edge of the Rezoning Area

Photograph 5



View of mixed non-conforming residential and commercial buildings adjacent to the Projected Site within the Rezoning Area on Castle Hill Avenue, looking southwest from Quimby Avenue, with Projected Site in background

Photograph 6



View of mixed non-conforming residential and commercial buildings within the Rezoning Area on Castle Hill Avenue, the existing building on the Projected Site is the white building on the far left.

Photograph 7



View of Bruckner Blvd (left) and Bruckner Expy. Looking west from northern portion of the Study Area

Photograph 8



View of northwestern portion of Rezoning Area and adjacent UG 2 residential building on Quimby Avenue looking east

Photograph 9



View of UG 1 and 2 residential uses on Story Avenue looking west towards Castle Hill Avenue

Photograph 10



View of UG 1 residential uses on Hermany Avenue in the southern portion of the Study Area looking east towards Castle Hill Avenue

Photograph 11



View of Castle Hill Avenue looking north from the southern portion of the Study Area.

Photograph 12



View of residential and commercial uses looking south on Castle Hill Avenue

1.5 Analysis Framework (Reasonable Worst Case Development Scenario)

Existing Conditions

In addition to the Proposed Development Site (Block 3687, Lot 43), the proposed Rezoning Area includes Lots 37, 39, 40, 41, and 42 on Block 3687. The existing conditions of each of the lots are as follows:

- 909 Castle Hill Avenue (Lot 43), the Proposed Development Site, consists of a large, underutilized lot with a lot area of 18,643 square feet, and is improved with a two-story, 3,250 square foot (0.17 FAR) residential building with three dwelling units which was constructed in 1899. The dwelling units in this building are not subject to rent regulation.

- Lot 37 is a 2,993-sf lot occupied by an 8,531 gsf, three-story mixed residential and commercial building with 2,993 gsf of commercial floor area on the ground floor and 5,538 gsf of residential floor area on the upper floors. The building has four dwelling units, none of which are subject to rent regulation. The building was constructed in 1931 and is overbuilt per R3-2 regulations (2.85 FAR) and its retail uses are legally non-conforming as the building was built well before the zoning resolution was passed in 1961. No Certificate of Occupancy ("C/O") exists on the property.

- Lot 39 is a 1,300-sf lot occupied by a 3,712 gsf, three-story mixed residential and commercial building with approximately 1,300 gsf of commercial floor area on the ground floor and 2,412 gsf of residential floor area on the upper floors. The building has 2 dwelling units, neither of which is subject to rent regulation. The building was built in 1920 and is overbuilt per R3-2 regulations (2.85 FAR) and its retail uses are legally non-conforming as the building was built well before the zoning resolution was passed in 1961. A C/O from 1943 indicates that the building was occupied with residential uses and a ground floor storefront.

- Lot 40 is a 1,300-sf lot occupied by a 3,712, three-story mixed residential and commercial building with approximately 1,300 gsf of commercial floor area on the ground floor and 2,412 gsf of residential floor area on the upper floors. The building has 2 dwelling units, neither of which is subject to rent regulation. The building was built in 1920 and is overbuilt per R3-2 regulations (2.85 FAR) and its retail uses are legally non-conforming as the building was built well before the zoning resolution was passed in 1961. No C/O exists on for the property.

- Lot 41 is a 1,300-sf lot occupied by a 3,712, three-story mixed residential and commercial building with approximately 1,300 gsf of commercial floor area on the ground floor and 2,412 gsf of residential floor area on the upper floors. The building has 2 dwelling units, neither of which is subject to rent regulation. The building was built in 1920 and is overbuilt per R3-2 regulations (2.85 FAR) and its retail uses are legally non-conforming as the building was built well before the zoning resolution was passed in 1961. No C/O exists on for the property.

- Lot 42 is a 1,307-sf lot occupied by a 3,712, three-story mixed residential and commercial building with approximately 1,307 gsf of commercial floor area on the ground floor and 2,405 gsf of residential floor area on the upper floors. The building has 2 dwelling units, neither of which is subject to rent regulation. The building was built in 1920 and is overbuilt per R3-2 regulations (2.85 FAR) and its retail uses are legally non-conforming as the building was built well before the zoning resolution was passed in 1961. No C/O exists on for the property.

Future No-Action Scenario

The No-Action Scenario would be congruent to the Existing Conditions for a number of reasons. Projected Development Site 1 (Lot 43) would remain the same in the No-Action Scenario as in the Existing Conditions as it is applicant controlled and the applicant does not have any plans to build on the lot absent the Proposed Action it is the applicant's opinion that the existing zoning has limited potential for economic development

Lots 37 and 39-42 would also remain in their existing condition in the No-Action Scenario. The sites are currently overbuilt per existing zoning regulations and have non-conforming ground floor commercial uses.

Even if the ground floor uses were vacated, each of these lots would still be non-conforming with regards to FAR, as the residential FAR on these lots would be 1.85, which is still larger than what is allowed for residential uses per the existing R3-2 zoning district.

Furthermore, we cannot assume that these ground floor commercial uses would be replaced with a conforming community facility or residential uses because the existing zoning would not allow it per maximum FAR regulations in an R3-2 zoning district. Given the existing zoning regulations in an R3-2 zoning district, maximum Community Facility FAR is 1.0 and maximum residential FAR is 0.6. Since the buildings would be overbuilt with just the residential uses (assuming the ground floor is vacated) in the No-Action Scenario, it cannot be assumed that a portion of the building would be deconstructed or razed to make the buildings conforming.

While no C/O's exist for any of the properties, except for Lot 39 which indicated a storefront was located on the ground floor before the Zoning Resolution was in place, making it a legal, non-conforming use, all of the buildings on Lot 37 and 39-42 were built before the Zoning Resolution was passed in 1961. Based on the age of the buildings and aerial photographs, the No-Action assumes that all commercial uses on the ground floor were in place before the zoning resolution was in place.

Given the above information, the No-Action Scenario assumes that these buildings on Lots 37, and 39-42 would remain in their existing conditions in the No-Action Scenario.

Additionally, these lots are not Projected Development Sites. They are currently overbuilt per R3-2 zoning guidelines. These lots, which all have FAR's over 2.0, would not be able to expand under the proposed rezoning (lots are currently built at a 2.85 FAR, while the proposed rezoning would make the allowable FAR 2.0). Therefore, is it's not reasonable to assume any development beyond the existing conditions.

Future With-Action Scenario

The proposed zoning map amendment would facilitate the development of a mixed-use five-story plus cellar residential, commercial and community facility building with a total floor area of approximately 40,944 square feet (2.2 FAR) and a total of 35 dwelling units (the "Proposed Development") to be constructed at 909 Castle Hill Avenue, Block 3687, Lot 43. The Proposed Development would consist of required accessory residential parking spaces (15 required, 22 provided) and bicycle parking (44 spaces) in the cellar level which would be accessed through an entrance along Story Avenue, 3,744 square feet of ground floor commercial floor area, 2,446 square feet of ground floor community facility floor area and 34,754 square feet of residential floor area on floors two through five. Two ground floor commercial spaces would front Castle Hill Avenue, one commercial space would front Story Avenue and one community facility space would front Story Avenue. The residential lobby would be accessed through an entrance along Story Avenue. The second through fifth floors would consist of a total 35 dwelling units. The proposed building would rise to a total height of 50'-0" and would set back 15'-0" from Story Avenue and 10'-0" from Castle Hill Avenue above the third floor. The proposed building would provide a 32'-0" rear yard, an 8'-0" side yard and a 5'-0" front yard along Story Avenue. The existing curb cut located on Castle Hill Avenue would be removed and a new 13'-0" curb cut is proposed on Story Avenue to access the cellar level parking garage.

The RWCDS is more conservative than the applicant's proposed development. The RWCDS assumes the Block 3687 would be built to its full allowable FAR under R6B/C1-3 zoning regulations.

On an 18,643-sf lot, it is assumed that the applicant would construct a 63,759 gsf (41,014 zsf) mixed residential and commercial building. The building would be constructed to a FAR of 2.2, the maximum FAR allowed for residential uses under R6B zoning regulations.

<u>Block 3687, Lot 43 (Projected Development Site 1)</u>

In the Future with Action Scenario, the applicant would place parking uses in the cellar. It is also reasonable to assume that there would be ground floor commercial with frontage on Castle Hill Avenue. Additionally, it is assumed the upper floors would contain strictly UG 2 residential dwelling units.

Given the lot dimensions of 103 feet by 181, with the C1-3 overlay depth at 100 feet along Castle Hill Avenue, it is reasonable to assume that the applicant would be able to construct approximately 11,330 gsf (10,300 zsf) of commercial floor area on the ground floor along Castle Hill Avenue. The remaining portion of the ground floor would be utilized for the residential lobby and residential utilities.

On the entirety of upper floors, the applicant would construct approximately 33,786 gsf (30,714 zsf) of residential floor area. Assuming 900 square feet per dwelling unit, the applicant would be able to construct approximately 37 dwelling units under a Reasonable Worst Case Development Scenario of which approximately 7 would be set aside as affordable The applicant would have to provide 15 parking spaces for the residential units which are market rate. It assumes the parking spaces would be in the cellar of the building and occupy 18,643 gsf.

It is assumed that the building would be built to a maximum height of 55 feet (maximum height followed in R6B zoning district). It is expected that this building would be ready for occupancy in 2023 and has been designated as the build year for this project.

Other Sites

Block 3687, Lots 37, 39, 40, 41, and 42

In the Future-With Action Scenario, it is assumed that, Lots 37, and 39-42 would be occupied with ground floor commercial uses and residential uses on the upper floors in a matter that is congruent to their current Existing Conditions and No-Action Scenario.

Table 1-1 Existing, No-Action, With-Action for Lots 37, 39-42

Block	Lot(s)	Existing FAR	Existing Uses	Existing SF	No-Action FAR	No-Action Uses	No-Action SF	With-Action FAR	With-Action Uses	With-Action SF	Increment
3687	37	2.85	Ground Floor Commercial, Residential Above	8,531 gsf-(2,993 gsf commercial and 5,538 gsf residential)	2.85	Ground Floor Commercial, Residential Above	8,531 gsf-(2,993 gsf commercial and 5,538 gsf residential)	2.85	Ground Floor Commercial, Residential Above	8,531 gsf-(2,993 gsf commercial and 5,538 gsf residential)	0
3687	39	2.85	Ground Floor Commercial, Residential Above	3,712 gsf-(1,300 gsf commercial and 2,412 gsf residential)	2.85	Ground Floor Commercial, Residential Above	3,712 gsf-(1,300 gsf commercial and 2,412 gsf residential)	2.85	Ground Floor Commercial, Residential Above	3,712 gsf-(1,300 gsf commercial and 2,412 gsf residential)	0
3687	40	2.85	Ground Floor Commercial, Residential Above	3,712 gsf-(1,300 gsf commercial and 2,412 gsf residential)	2.85	Ground Floor Commercial, Residential Above	3,712 gsf-(1,300 gsf commercial and 2,412 gsf residential)	2.85	Ground Floor Commercial, Residential Above	3,712 gsf-(1,300 gsf commercial and 2,412 gsf residential)	0
3687	41	2.85	Ground Floor Commercial, Residential Above	3,712 gsf-(1,300 gsf commercial and 2,412 gsf residential)	2.85	Ground Floor Commercial, Residential Above	3,712 gsf-(1,300 gsf commercial and 2,412 gsf residential)	2.85	Ground Floor Commercial, Residential Above	3,712 gsf-(1,300 gsf commercial and 2,412 gsf residential)	0
3687	42	2.85	Ground Floor Commercial, Residential Above	3,712 gsf-(1,307 gsf commercial and 2,405 gsf residential)	2.85	Ground Floor Commercial, Residential Above	3,712 gsf-(1,307 gsf commercial and 2,405 gsf residential)	2.85	Ground Floor Commercial, Residential Above	3,712 gsf-(1,300 gsf commercial and 2,412 gsf residential)	0

Site data for the Projected Development covered by the proposed zoning area are shown in **Table 1-2** below.

Table 1-2 Projected Development Under the Proposed Rezoning

Block	Lot(s)	Lot Area	Existing Zoning	Existing FAR	No-Action FAR	Proposed Zoning	Projected Res. sf	Projected Comm. sf	Projected FAR	DUs	Increment
3687	43	18,643	R3-2	0.17	0.17	R6B/C1-3, R6B	33,786	11,330	2.2	37	34
	Total						***33,786***	***11,330***		***37***	***34***

*Assuming 900 square feet per dwelling unit- 900 feet is assumed as this is not in an area that features a number of apartment buildings, is not easily accessible via subway (closest subway is over .5 mile away) and is not in an area that is particularly dense when it comes to building bulk. Based on this, a unit size of 900 feet was used

Table 1-3 **No- Action and With -Action Scenario Totals and Increment**

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Land Use				
Residential	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	
If "yes," specify the following:				
Describe type of residential structures	UG 2	UG 2	UG 2	
No. of dwelling units	3	3	37	34
No. of low- to moderate-income units	NA	NA	0	0
Gross floor area (sq. ft.)	3250	3250	33786	30,536
Commercial	☐ Yes ☑ No	☐ Yes ☑ No	☑ Yes ☐ No	
If "yes," specify the following:				
Describe type (retail, office, other)			UG 6 Local Retail	
Gross floor area (sq. ft.)	0	0	11330	11,330
Manufacturing/Industrial	NA	NA	NA	
If "yes," specify the following:				
Type of Use				
Gross floor area (sq. ft.)				
Open storage area (sq. ft.)				
If any enclosed activities, specify:				
Community Facility	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If "yes," specify the following:				
Type of Use	N/A	N/A	N/A	
Gross floor area (sq. ft.)	N/A	N/A	N/A	
Vacant Land	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If "yes", describe:	N/A	N/A	N/A	
Publicly Accessible Open Space	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If "yes," specify type (mapped City, State, or Federal Parkland, wetland-mapped or otherwise known, other):	N/A	N/A	N/A	
Other Land Uses	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If "yes," describe:	N/A	N/A	N/A	
Parking				
Garages	☐ Yes ☑ No	☐ Yes ☑ No	☑ Yes ☐ No	
If "yes," specify the following:				
No. of public spaces	N/A	N/A	0	
No. of accessory spaces	N/A	N/A	15	15
Operating hours	N/A	N/A	TBD	
Attended or non-attended	N/A	N/A	TBD	
Lots	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If "yes," specify the following:				
No. of public spaces	N/A	N/A	N/A	
No. of accessory spaces	N/A	N/A	N/A	
Operating hours	N/A	N/A	N/A	
Other (includes street parking)	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If "yes," describe:	N/A	N/A	N/A	
Population				

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Residents	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	
If "yes," specify number:	7	7	91	84
Briefly explain how the number of residents was calculated:	2.46 -Average number of people per household in Bronx CD 9			
Businesses	☐ Yes ☑ No	☐ Yes ☑ No	☑ Yes ☐ No	
If "yes," specify the following:				
No. and type			UG 6 Local retail	
No. and type of workers by business			Approx 33	Approx 33
No. and type of non-residents who are not workers				
Briefly explain how the number of businesses was calculated:	3 workers per 1,000 gsf of UG 6 retail			
Other (students, visitors, concert-goers, *etc* .)	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If any, specify type and number:	N/A	N/A	N/A	
Briefly explain how the number was calculated:				
Zoning				
Zoning classification	R3-2	R3-2	R6B	
Maximum amount of floor area that can be developed	0.6 FAR Res, 1 FAR CF	0.6 FAR Res, 1 FAR CF	2.2 FAR Res, 1 FAR Comm., 2.0 CF	1.6 FAR Res, 1.0 FAR Comm 1.0 CF
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Residential, Commercial, mixed Residential and Commercial, Public Facility and Instituions, Vacant Land , R3-2, R5	Residential, Commercial, mixed Residential and Commercial, Public Facility and Instituions, Vacant Land , R3-2, R5	Residential, Commercial, mixed Residential and Commercial, Public Facility and Instituions, Vacant Land R3-2, R5, R3-2/C1-3	C1-3
Attach any additional information that may be needed to describe the project. If your project involves changes that affect one or more sites not associated with a specific development, it is generally appropriate to include total development projections in the above table and attach separate tables outlining the reasonable development scenarios for each site.				

*Only Projected Sites are included in this Table

2.0 ENVIRONMENTAL REVIEW

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

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

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

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

2.1 LAND USE, ZONING AND PUBLIC POLICY

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

2.1.1 Land Use

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

Existing Conditions

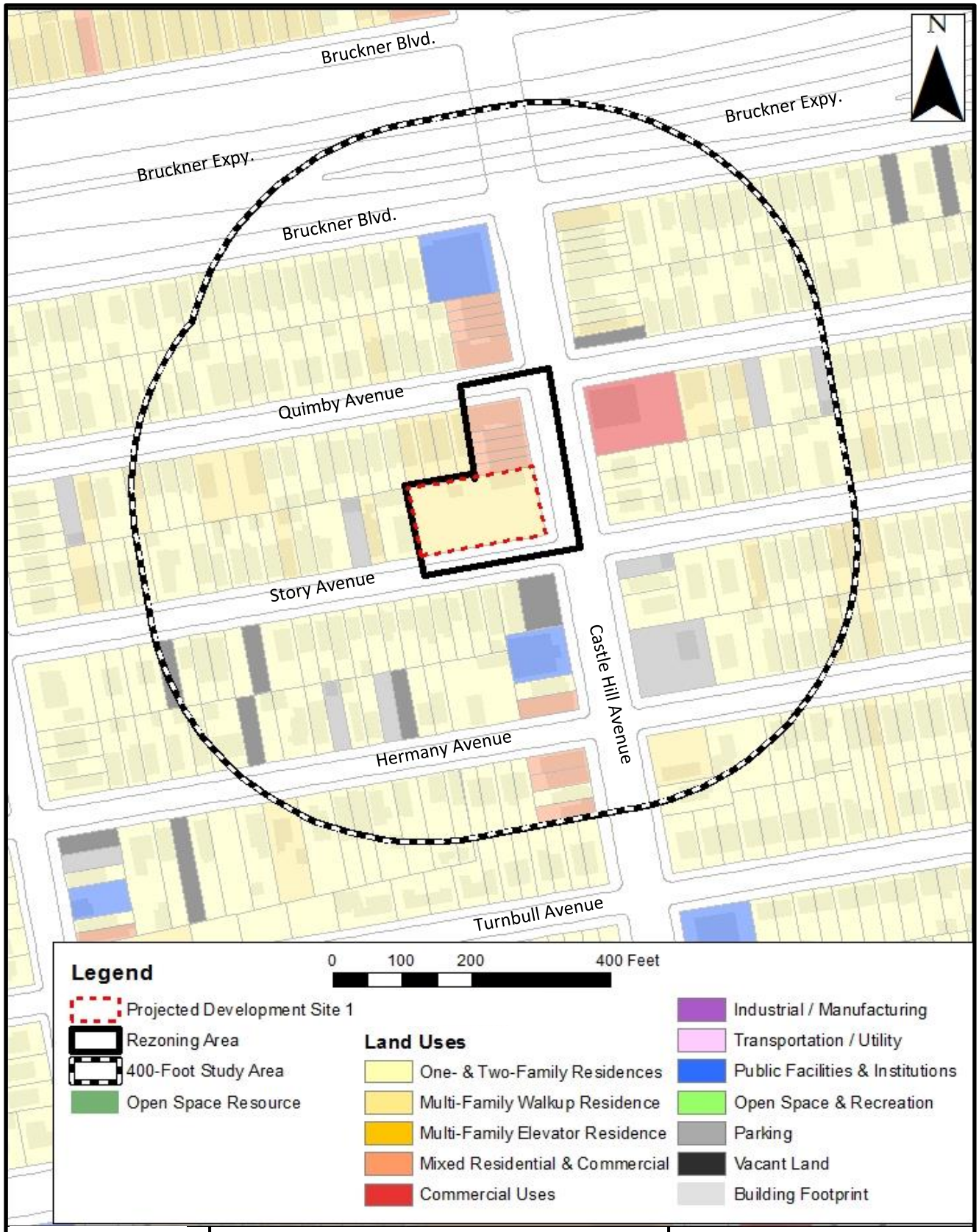
The *CEQR Technical Manual* recommends a land use; zoning and public policy study area extending 400 feet from the site of the Proposed Action. This study area is generally bound by Bruckner Blvd. to the north, 200 feet east of Olmstead Avenue to the west, 100 feet north of Turnbull Avenue to the south, and the midblock point between Castle Hill Avenue and Havemeyer Avenue to the east.

A field survey was conducted to determine the existing land use patterns and neighborhood characteristics of the study area. Existing land use immediately surrounding the project area includes a wide mix of one- and two-family buildings, multi-family buildings, mixed-use commercial and residential buildings, and parking uses. The commercial uses are comprised of local retail such as restaurants, hair salons, barber shops, and delis. One- and two-family buildings make up the majority of land uses within the 400-foot Study Area, which is consistent with the rest Bronx Community District 9, as One- and Two-Family buildings are the most common type of land use. The prevailing built form of the area is a mix of low- rise residential and mixed residential and commercial buildings. The project area is just south of the Bruckner Expressway.

The Projected Development Site is controlled by the applicant (Block 3687, Lot 43) and is located on the western side of Castle Hill Avenue at the intersection Castle Hill Avenue and Story Avenue. It consists of a two-story Use Group 2 residential building on an approximtaley 18,643 square foot lot. Directly adjacent of this site, the proposed Rezoning Area would extend north to include Block 3687, Lots 37,39,40,41, and 42. Each of these lots contains a mixed residential building with ground floor commercial uses and residential uses on top. The ground floor commercial uses are nonconforming. Additionally, the buildings on each of these lots are overbuilt per R3-2 zoning guidelines. However, all these building were constructed before the implementation of the 1961 zoning resolution.

The western and eastern portions of the Study Area, to the west and east of Castle Hill Avenue respectively, generally are comprised of one- and two-family homes, with a handful of multi-family walk-up residences as well. There are a few lots which are vacant or used for parking and are unimproved. The northern and southern portions of the Study Area, in addition to one and two and multi-family residences, have some commercial development as well, particularly, along the Castle Hill Avenue corridor. Local retail uses, along with mixed residential and commercial uses, can be found up and down Castle Hill Avenue within the Study Area. Churches are also present along Castle Hill Avenue, with one being located at the intersection of Castle Hill Avenue and Bruckner Blvd, and just south of the Rezoning Area at Castle Hill Avenue and Story Avenue.

The general mix of land use observed in the study area generally reflects the distribution of land use observed throughout Bronx CD 9, which is summarized in **Table 2.** The most prominent land use within Bronx CD 9 is one- and two-family residences, which accounted for nearly 21 percent of the land in the Community District. Residential uses are the overwhelmingly most prominent land use in the Community District, as residential uses account for nearly 53 percent of land use in the Community District. The most prominent land use in the Community District is “Open Space and Recreation”, which accounts for approximately 19 percent of the land in the district.



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Environmental Assessment Statement
909 Castle Hill Avenue Rezoning
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Land Use Map

Figure 2.1-1

Table 2.1-1 Land Use Distribution- Bronx Community District 9

LAND USES	PERCENT OF TOTAL
Residential Uses	
1-2 Family	20.90
Multi-Family Elevator	18.24
Multi-Family Walk Up	13.83
Mixed Residential/Commercial	3.02
Subtotal of Residential Uses	*55.99*
Non-Residential Uses	
Commercial/Office	5.41
Industrial	3.82
Transportation/Utility	0.94
Institutions	6.14
Open Space/Recreation	18.66
Parking Facilities	3.86
Vacant Land	4.92
Miscellaneous	0.26
Subtotal of Non-Residential Uses	*44.01*
TOTAL	**100.0**

Source: *Community District Profiles, New York City Department of City Planning.*

Future No-Action Scenario

The No-Action Scenario would be congruent to the Existing Conditions for a number of reasons. Projected Development Site 1 (Lot 43) would remain the same in the No-Action Scenario as in the Existing Conditions as it is applicant controlled and the applicant does not have any plans to build on the lot absent the Proposed Action.

Lots 37 and 39-42 would also remain in their existing condition in the No-Action Scenario. The sites are currently overbuilt per existing zoning regulations and have non-conforming ground floor commercial uses. Even if the ground floor uses were vacated, each of these lots would still be non-conforming with regards to FAR, as the residential FAR on these lots would be 1.85, which is still larger than what is allowed for residential uses per the existing R3-2 zoning district.

Furthermore, we cannot assume that these ground floor commercial uses would be replaced with a confirming community facility or residential uses because the existing zoning would not allow it per maximum FAR regulations in an R3-2 zoning district. Given the existing zoning regulations in an R3-2 zoning district, maximum Community Facility FAR is 1.0 and maximum residential FAR is 0.6. Since the buildings would be overbuilt with just the residential uses (assuming the ground floor is vacated) in the No-Action Scenario, it is not reasonable to assume that a portion of the building would be deconstructed or razed to make the buildings conforming.

While no C/O's exist for any of the properties, except for Lot 39 which indicated a storefront was located on the ground floor before the Zoning Resolution was in place, making it a legal, non-conforming use, all of the buildings on Lot 37 and 39-42 were built before the Zoning Resolution was passed in 1961. Based on the age of the buildings and aerial photographs, it is fair to assume that all commercial uses on the ground floor were in place before the zoning resolution was in place.

Given the above information, it is most reasonable to assume that these buildings on Lots 37, and 39-42 would remain in their existing conditions in the No-Action Scenario.

Future With-Action Scenario

In the With-Action Scenario, it is assumed that Block 3687 would be built out to its full FAR allowed under R6B/C1-3 zoning regulations. On an 18,643-sf lot, it is reasonable to assume that the applicant would construct a 63,759 gsf (41,014 zsf) mixed residential and commercial building, with parking in the cellar of the building. The buildings would be constructed to a FAR of 2.2, the maximum FAR allowed for residential uses under R6B zoning regulations. In the Future With-Action Scenario, the applicant would place parking uses in the cellar. It is also assumed that there would be ground floor commercial with frontage on Castle Hill Avenue and residential uses along Story Avenue. Additionally, it is assumed the upper floors would contain strictly UG 2 residential dwelling units. Given the lot dimensions of 103 feet by 181 feet, with the C1-3 overlay depth at 100 feet along Castle Hill Avenue, it is assumed that the applicant would be able to construct approximately 11,330 gsf (10,300 zsf) of commercial floor area on the ground floor along Castle Hill Avenue.

Additionally, on the remaining portion of the ground floor and the entirety of upper floors, the applicant would construct approximately 33,786 gsf (30,714 zsf) of residential floor area. Assuming 900 square feet per dwelling unit, the applicant would be able to construct approximately 37 dwelling units under a Reasonable Worst-Case Development Scenario, of which, 7 would be set aside as affordable. The applicant would have to provide 15 parking spaces for the market residential units. It is assumed that the building would be built to a maximum height of 55 feet (maximum height followed in R6B zoning district).

Additionally, in the Future-With Action Scenario, it is assumed that, Lots 37, and 39-42 would be occupied with ground floor commercial uses and residential uses on the upper floors in a matter that is congruent to their current Existing Conditions and No-Action Conditions.

The proposed land uses (reisdential and commercial) are compatible with the residential and commercial uses in the surrounding Study Area. No new types of land use would be introduced in the With-Action Scenario. Ground floor retail would be consistent with the commercial uses along Castle Hill Avenue. Therefore, the Proposed Action is not expected to have any adverse impacts on the surrounding land uses.

2.1.2 Zoning

The *New York City Zoning Resolution* dictates the use, density and bulk of developments within New York City. Additionally, the Zoning Resolution provides required and permitted accessory parking regulations. The City has three basic zoning district classifications – residential (R), commercial (C), and manufacturing (M). These classifications are further divided into low-, medium-, and high-density districts.

Existing Conditions

Zoning designations within and around the study area are depicted in **Figure 2.1-2a**, while **Table 2.1-2** summarizes use, floor area and parking requirements for the zoning districts in the study area.

The Rezoning Area (and entirety of the 400-foot Study Area) is in a mapped R3-2 zoning district. The R3-2 zoning district is generally mapped along Bruckner Blvd. to the north, Olmstead Avenue to the west, Seward Avenue to the south, and Havemeyer Avenue to the east. The proposed project area is also within an area designated for the FRESH Program (zoning and discretionary tax incentives area).

Future No-Action Scenario

In the future without the Proposed Action, zoning changes are not expected to occur on Projected Development Site 1, Rezoning Area or within the surrounding Study Area. As the Applicant may not construct any new residential and commercial square footage on Projected Development Site 1 without the proposed zoning map amendment, it is assumed that the Future No-Action Scenario would remain consistent with existing

conditions on Projected Development Site 1. All other lots in the Rezoning Area would also remain in their existing zoning in the No-Action Scenario and the lots would not see any new development for reasons previously discussed in the analysis framework and land use section above.

Table 2.1-2 Summary of Existing and No-Action Zoning Regulations

Zoning District	Type and Use Group (UG)	Floor Area Ratio (FAR)	Parking (Required Spaces)
R3-2	Residential- UG's 1-4	0.5 FAR – Residential (0.6 FAR with attic allowance) 1.0 FAR – Community Facility 4	1 per dwelling unit

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

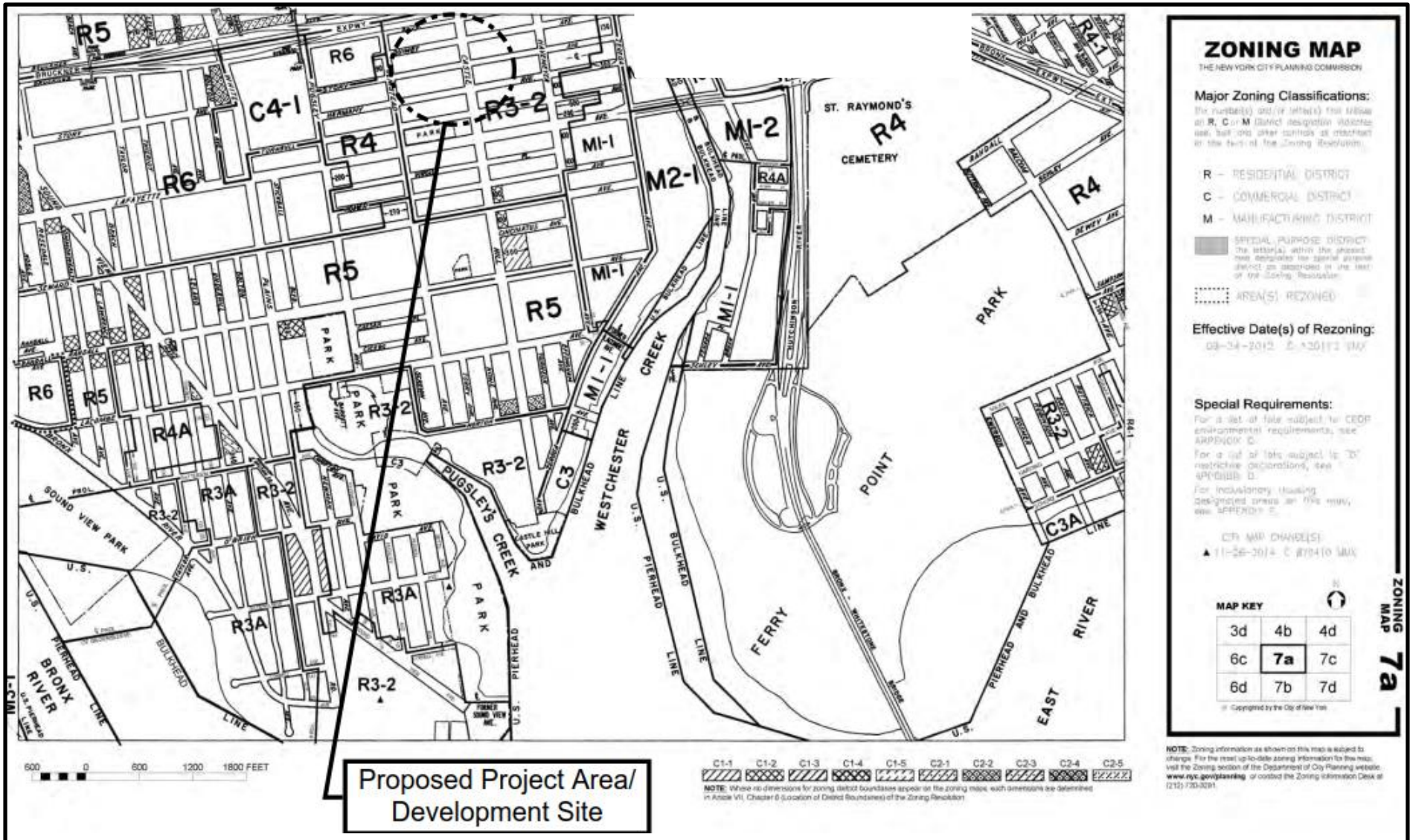
Future With-Action Scenario

In the With-Action Scenario, it is assumed that Block 3687 would be built out to its full FAR allowed under R6B/C1-3 zoning regulations. On an 18,643-sf lot, it is reasonable to assume that the applicant would construct a 63,759 gsf (41,014 zsf) mixed residential and commercial building, with parking in the cellar of the building. The buildings would be constructed to a FAR of 2.2, the maximum FAR allowed for residential uses under R6B zoning regulations. In the Future With-Action Scenario, the applicant would place parking uses in the cellar. It is also assumed that there would be ground floor commercial with frontage on Castle Hill Avenue and residential uses along Story Avenue. Additionally, it is assumed the upper floors would contain strictly UG 2 residential dwelling units. Given the lot dimensions of 103 feet by 181 feet, with the C1-3 overlay depth at 100 feet along Castle Hill Avenue, it is assumed that the applicant would be able to construct approximately 11,330 gsf (10,300 zsf) of commercial floor area on the ground floor along Castle Hill Avenue.

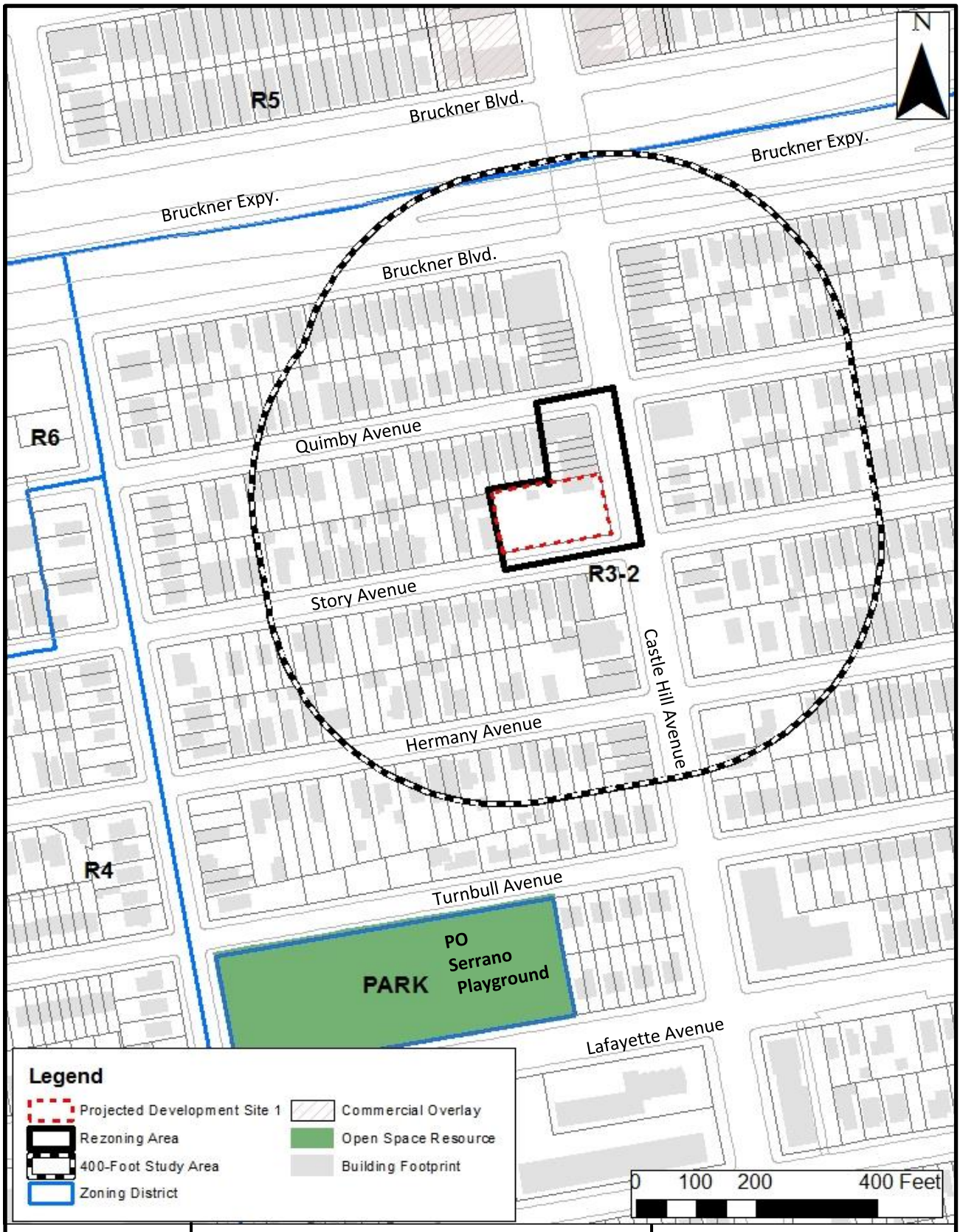
Additionally, on the remaining portion of the ground floor and the entirety of upper floors, the applicant would construct approximately 33,786 gsf (30,714 zsf) of residential floor area. Assuming 900 square feet per dwelling unit, the applicant would be able to construct approximately 37 dwelling units under a Reasonable Worst-Case Development Scenario, of which, 7 would be set aside as affordable. The applicant would have to provide 15 parking spaces for the market residential units. It is assumed that the building would be built to a maximum height of 55 feet (maximum height followed in R6B zoning district).
Additionally, in the Future-With Action Scenario, it is assumed that, Lots 37, and 39-42 would be occupied with ground floor commercial uses and residential uses on the upper floors in a matter that is congruent to their current Existing Conditions and No-Action Conditions
The Proposed Action would allow for residential and commercial uses on the site. Both of these uses exist in the Study Area. While the Proposed Action would allow for a residential development of a greater FAR than is currently allowed, the height of the building would not be out of context with the surrounding 400-Foot Study Area as there are many three-story buildings in close proximity to the proposed four-story building. The Proposed Action would therefore not have a significant impact on the extent of conformity with the current zoning in the surrounding area, and it would not adversely affect the viability of conforming uses on nearby properties. Significant adverse impacts to zoning are not anticipated and further zoning analysis is not warranted.

Table 2.1-3 Summary of With-Action Zoning Regulations

Zoning District	Type and Use Group (UG)	Floor Area Ratio (FAR)	Parking (Required Spaces)
R3-2	Residential- UG's 1-4	0.5 FAR – Residential (0.6 FAR with attic allowance) 1.0 FAR – Community Facility 4	1 per dwelling unit
R6B	Residential UGs 1-4	2.2 FAR for Residential (MIH) 2.0FAR for Community Facility	50 percent of all market-rate dwelling units
C1-3	Commercial Overlay (Local Service) UGs 1-9, and 14	1.0 FAR for Commercial	Generally Not Required



AECOM	**Environmental Assessment Statement** **909 Castle Hill Avenue Rezoning** **Bronx, NY**	**Official Zoning Map** **Figure 2.1.2**



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Environmental Assessment Statement
909 Castle Hill Avenue Rezoning
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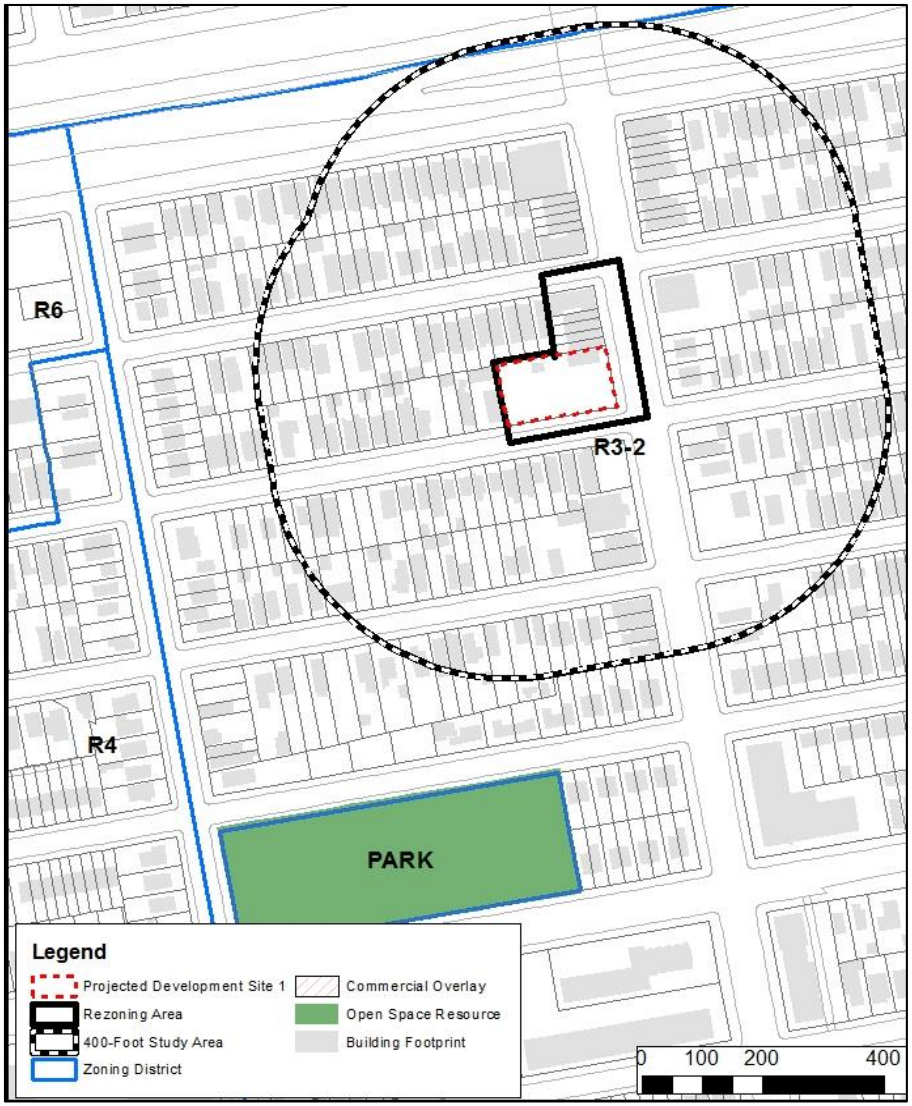
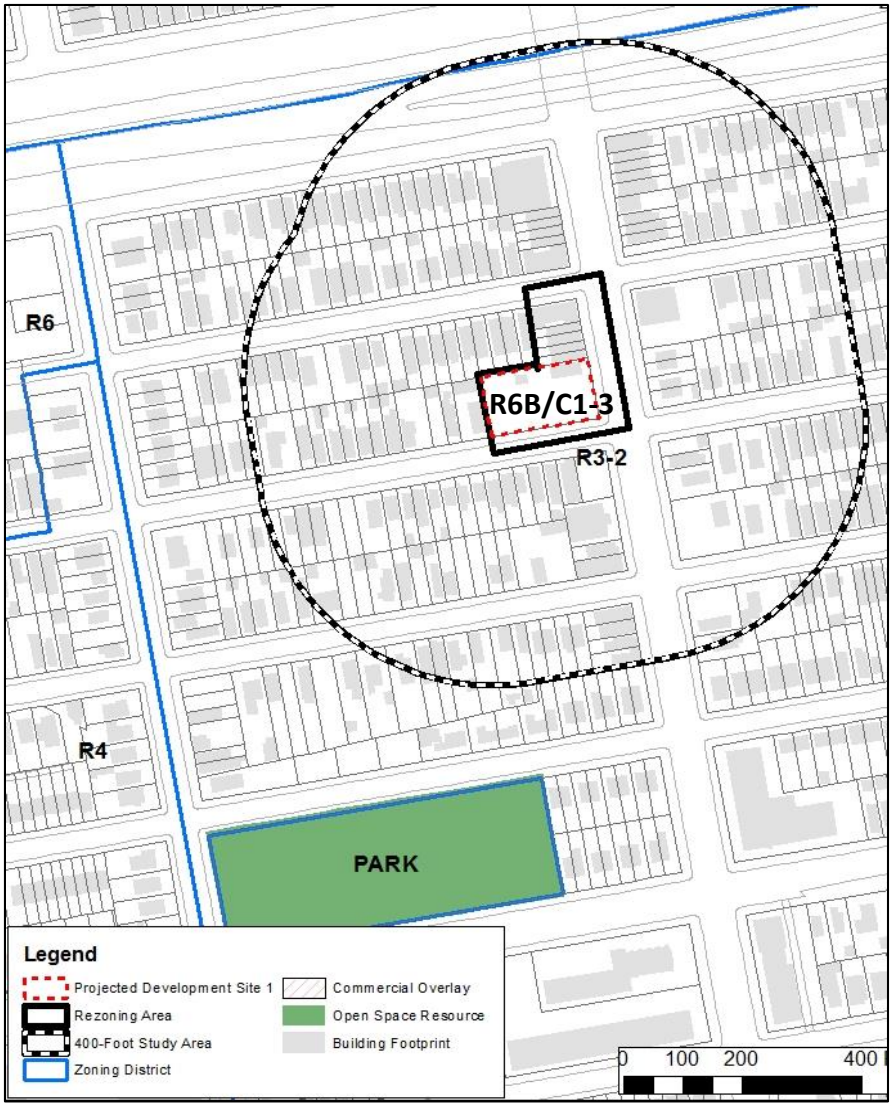
With-Action Detailed Zoning

Figure 2.1-2a

Existing Zoning



Proposed Zoning



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909 Castle Hill Avenue Rezoning
Bronx, NY

Zoning Change Map

Figure 2.1-2b

2.1.3 Public Policy

Projected Development Site 1 is not part of, or subject to, an Urban Renewal Plan (URP), adopted community 197-a Plan, Solid Waste Management Plan, Business Improvement District (BID), Industrial Business Zone (IBZ), or the New York City Landmarks Law. The Proposed Action is also not a large publicly sponsored project, and as such, consistency with the City's *PlanNYC 2030* for sustainability is not warranted. In addition, the rezoning area is not located in the Coastal Management Zone; therefore, a consistency review for the Waterfront Revitalization Program is not warranted and, therefore, further analysis is not needed.

The Project is located within a FRESH Zone. FRESH financial incentives are open to grocery store operators renovating existing retail space or developers seeking to construct or renovate retail space that would be leased by a full-line grocery store operator. However, it is not expected that a grocer would occupy the commercial floor area at Projected Development Site 1, and therefore, FRESH is non-applicable.

Conclusion

Based on the above assessments that analyze the impacts that the Proposed Action would have on land use, zoning, and public policy, no significant adverse impacts are expected, and no further analysis is required.

2.2 SHADOWS

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

The *CEQR Technical Manual* states that a shadow assessment considers projects that result in new shadows long enough to reach a sunlight-sensitive resource. Therefore, a shadow assessment is warranted only if the project would either result in: (a) new structures (or additions to existing structures including the addition of rooftop mechanical equipment) of 50 feet or more; or, (b) be located adjacent to, or across the street from, a sunlight-sensitive resource.

2.2.1 Preliminary Shadow Screening Assessment

The shadow assessment begins with a preliminary screening assessment to ascertain whether a project's shadow may reach any sunlight-sensitive resources at any time of the year. If the screening assessment does not eliminate this possibility, a detailed shadow analysis is generally warranted in order to determine the extent and duration of the net incremental shadow resulting from the project.

Tier 1 Screening Assessment

The first step in the preliminary shadow screening is a Tier 1 Screening Assessment. A base map is developed that illustrates the proposed site location in relationship to any sunlight-sensitive resources (**Figure 2.2-1**). An elevation map of the Shadow Study Area is also provided below.

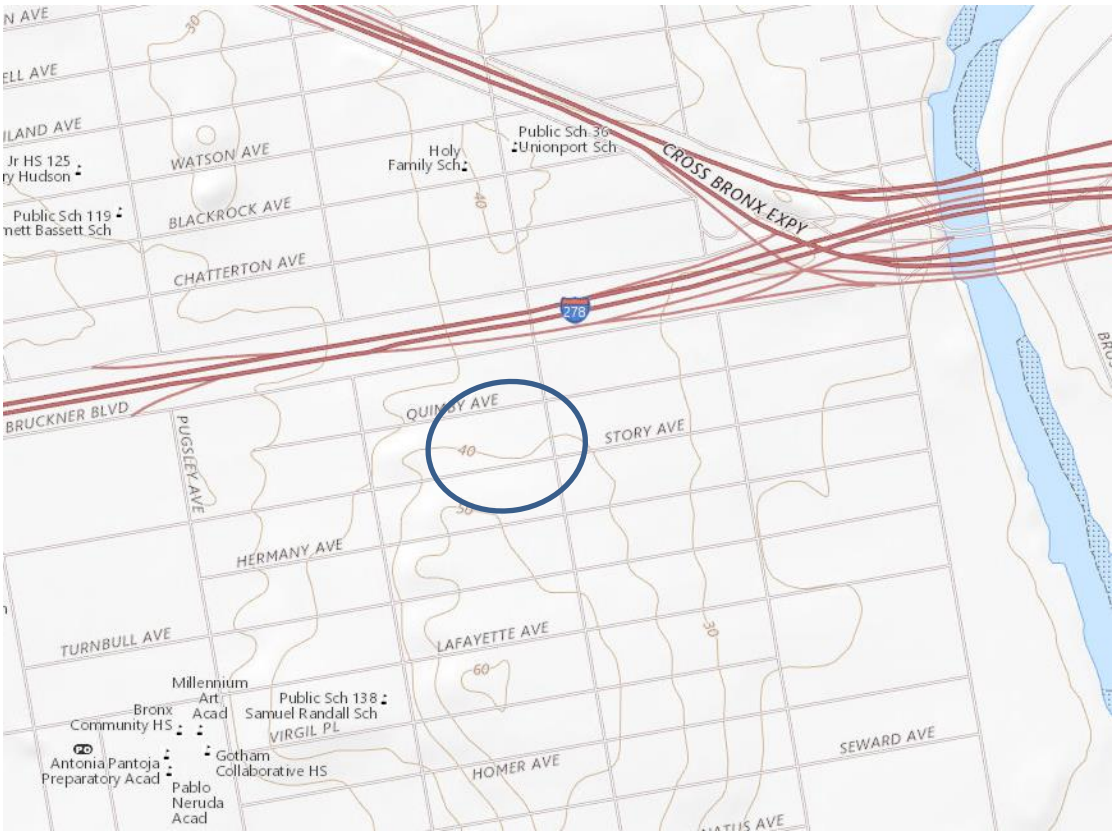
The longest shadow study area is then determined, which encompasses the site of the proposed project and a perimeter around the site's boundary with a radius equal to the longest shadow that could be cast by the proposed structure, which is 4.3 times the height of the structure that occurs on December 21st, the winter solstice. To find the longest shadow length, the maximum height of the structure (including any rooftop mechanical equipment) was multiplied by the factor of 4.3.

A shadow radius of 4.3 times the maximum allowable height on the Projected Development Site (55 feet) was calculated, resulting in a shadow radius of approximately 236.5 feet. According to a land use check, no sunlight sensitive resources were in the area. There were no churches with stained glass windows and no open spaces. With no sunlight sensitive resources within the Tier 1 Study Area for Projected Development Site 1 and no additional shadow analysis is required as no impacts with regards to shadows are expected to occur resulting from the Proposed Actions.

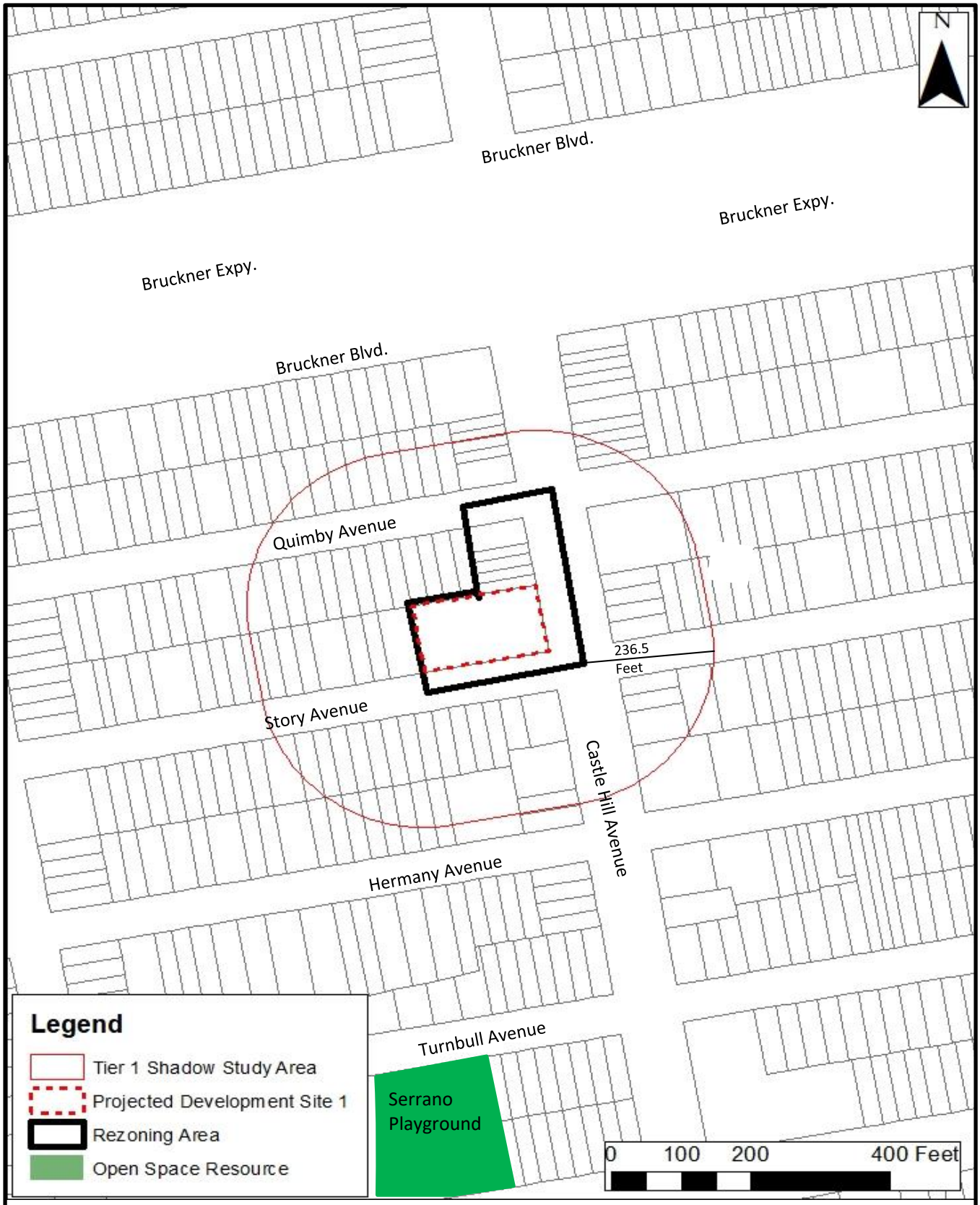
Conclusion

Based on the above assessment that analyzes the impacts that the Proposed Action would potentially have with regards to project generated shadows, no significant adverse impacts are expected, and no further analysis is required.

United States Geological Survey (USGS) Topography Map showing elevation changes



Area of Shadows Study



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Tier 1 Shadow Screen

Figure 2.2-1

2.3 HISTORIC AND CULTURAL RESOURCES

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

The term “historic resources” defines districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, architectural and archaeological importance. In assessing both historic and cultural resources, the findings of the appropriate city, state, and federal agencies are consulted. Historic resources include: the New York City Landmarks Preservation Commission (LPC)-designated landmarks, interior landmarks, scenic landmarks, and historic districts; locations being considered for landmark status by the LPC; properties/districts listed on, or formally determined eligible for, inclusion on the State and/or National Register (S/NR) of Historic Places; locations recommended by the New York State Board for Listings on the State and/or National Register of Historic Places and National Historic Landmarks.

Architectural Resources

According to *CEQR Technical Manual* guidelines, impacts on historic resources are considered on those sites affected by the Proposed Action and in the area surrounding identified development sites. The historic resources study area is therefore defined as Projected Development Site 1 and Rezoning Area plus an approximately 400-foot radius around the Proposed Action area.

No properties in the Rezoning Area are designated local or S/NR historic resource or property, nor are any lots part of any designated historic district. LPC was contacted for their initial review of the project’s potential to impact nearby historic and cultural resources, and a response was received on June 21, 2018, indicating that no sites within the rezoning area have any architectural significance (see **Appendix B**).

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

Cultural and Archaeological Resources

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

All lots in the study area are presently improved with structures occupying a portion or the entirety of their respective lots. As noted, the LPC was contacted for their initial review of the project’s potential to impact nearby historic and cultural resources, and a response was received on June 21, 2018 (see **Appendix B**). The LPC has indicated that no cultural resource, architectural or archaeological significance is associated with the proposed development site or projected development sites. Therefore, significant adverse impacts to archaeological resources are not expected as a result of the Proposed Action, and further analysis is not warranted.

Conclusion

Based on the above assessment that analyzes the potential impacts that the Proposed Action would potentially have with regards to historic or culturally sensitive resources, coupled with LPC’s response, no significant adverse impacts are expected, and no further analysis is required.

2.4 URBAN DESIGN AND VISUAL RESOURCES

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

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

2.4.1 Preliminary Analysis

As stated in the *CEQR Technical Manual*, the study area for urban design is the area where the project may influence land use patterns and the built environment and is generally consistent with the study area used for the land use analysis (i.e., 400 feet around the Rezoning Area). The purpose of the preliminary assessment is to determine whether any physical changes proposed by a project may raise the potential to significantly and adversely affect elements of urban design, which would warrant the need for a detailed urban design and visual resources assessment.

Existing Conditions

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

The architecture throughout the study area is eclectic, with no unity of form to tie the built form together visually. The area is characterized by a mix of one- and two-family residential, multi-family residential, commercial, and isolated public facility and institutional uses. The northern portion of the study area features a portion of the Bruckner Expressway. Several vacant lots also exist within the study area. The commercial uses are comprised of bodegas, delis, an auto repair shop, a medical office, and other local retail. The prevailing built form in the area is a mix of low- to mid-rise residential and small apartment buildings. There are also some mixed commercial and residential buildings with ground floor commercial and two to three stories of residential uses above the ground floor.

There are few streetscape elements present within the study area and little in the way of visual interest. Most of the streets contain street trees, which are generally located at irregular intervals. The Bruckner Expressway, characterized as a barrier, separates the study area's low density R3-2 zoning district from the higher density R5 zoning district to the north. No other notable streetscape elements (e.g. benches) are located within the study area. The street hierarchy of the study area includes a few different functional classifications. Castle Hill Avenue is classified as a "Major Collector roadway". In the northern portion of the study area, Bruckner Boulevard is classified as a "Principal Arterial Other roadway" according to the New York State Department of Transportation Additionally, in the northern portion of the study area, the Bruckner Expressway is classified as a "Principal Arterial Interstate." All other roadways in the study area are classified as local roads.

Future No-Action Scenario

Under the Future No-Action Condition, significant changes to Projected Development Site 1, Rezoning Area, and Study Area are not expected by the analysis year of 2023. It is anticipated that while tenants

within area buildings may change, the overall use of these buildings would remain the same, and any physical changes would comply with applicable zoning regulations. No significant changes to the area's urban character are anticipated.

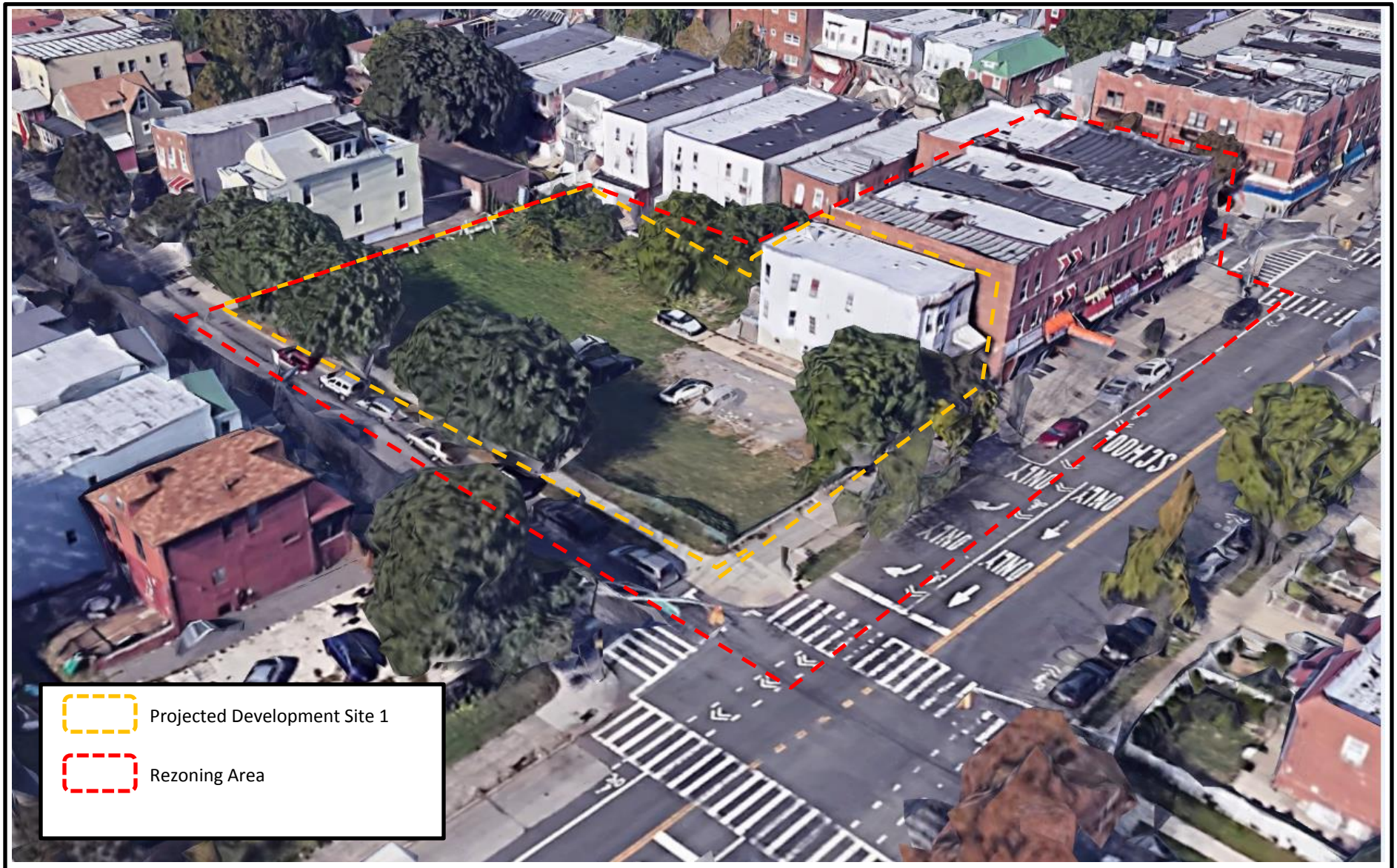
Future With-Action Scenario

According to the *CEQR Technical Manual*, if a preliminary assessment determines that changes to the pedestrian environment are sufficiently significant to require greater explanation and further study, then a detailed urban design and visual resources analysis is appropriate. Detailed analyses are generally appropriate for all area-wide rezoning applications that include an increase in permitted floor area or changes in height and setback requirements, general large-scale developments, or projects that would result in substantial changes to the built environment of a historic district, or components of a historic building that contribute to the resource's historic significance. Conditions that merit consideration for further analysis of visual resources include when the project partially or totally blocks a view corridor or a natural or built defining visual resource. Further conditions that merit an urban design analysis are when the Proposed Actions change urban design features within the Rezoning Area so that the context of a natural or built visual resource is altered, such as if a project alters the street grid so that the approach to the resource changes from a pedestrian view, or if a project changes the scale of surrounding buildings so that the context changes.

The Projected Development Site at 909 Castle Hill Avenue consists of an approximately 18,643 square foot lot occupied by a two-story Use Group 2 residential building with three dwelling units. Under the Future With-Action scenario, the Proposed Action would amend the zoning map to change the existing R3-2 district to an R6B/C1-3 district. It is assumed that the Projected Development Site at 909 Castle Hill Avenue (Block 3687, Lot 43) would be developed to the maximum FAR of 2.2 and a height of 55 feet.

Conclusion

While the projected development would change views of the development site as witnessed by pedestrians on Castle Hill Avenue and Story Avenue, significant adverse impacts to urban design and visual resources would not occur. The Proposed Actions would not result in any conditions that would merit further detailed assessment of urban design and visual resources. While no other 5-story, 55 -foot buildings are located within the 400-foot Study Area, there are several buildings that are three stories and 30 feet in height along Castle Hill Avenue, adjacent to Projected Development Site 1 and in the 400-foot Study Area. The Proposed Action would not result in a building out of context with the surrounding Study Area. The Proposed Actions would also not block any view corridors or views to/from any natural areas with rare or defining features, as the proposed building is contained to the subject site. Therefore, the Proposed Actions are not expected to result in any significant adverse urban design or visual resource related impacts. **Figures 2.4-1 to 2.4-2** highlight the No-Action Scenario and the future With-Action Scenario of the Applicant-owned site. View 1 shows an up-close street level view of the Projected Development from the intersection of Castle Hill Avenue and Story Avenue while View 2 shows the Projected Development Site from a zoomed in aerial perspective to demonstrate how the building would fit in with the context of the surrounding landscape.



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909 Castle Hill Avenue Rezoning
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No-Action View 1

Figure 2.4-1



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With-Action View 1

Figure 2.4-2

2.5 HAZARDOUS MATERIALS

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

Projected Development Site 1 is currently partially improved. Additionally, due to Projected Development 1, which would require in ground construction and disturbance, further review of Projected Development Site 1's potential for contamination was conducted to determine the presence of on-site hazardous materials.

2.5.1 Summary of Phase I ESA

A Phase I Environmental Site Assessment (ESA) of a residential property located at 909 Castle Hill Avenue, Bronx County, New York (subject property). This Phase I ESA was performed in accordance with the scope and limitations of ASTM Standard Practice Designation E 1527-13 for ESAs. Exceptions to, or deletions from, this practice are described in this report.

The site visit occurred on September 13, 2018. The approximately 0.43-acre subject property contains a 3,250-square foot, two-story residential building with a basement located on the northeast portion of the subject property. The building is comprised of three residential units. The remainder of the subject property consists of a partial concrete-paved entrance driveway located adjacent to the south of the subject property building, a mostly unpaved lot currently used for parking of operable and non-operable motor vehicles located south of the entrance driveway, and a vacant grassy area west of the subject property building. During the site visit, no visual evidence of underground storage tanks (USTs, e.g., vent pipes, fill ports), potable water wells, monitoring wells, dry wells, clarifiers, septic tanks, or leach fields was observed on the subject property. However, the vacant portion of the subject property had numerous small depressions.

The subject property is located in a predominately residential section of the Bronx. The subject property is bordered to the north by mixed use buildings consisting of commercial storefront operations on the ground floor and residential dwellings on the upper floors. The subject property is bordered by Castle Hill Avenue to the east, beyond which is a medical office building and residential dwellings. The subject property is bordered to the south by Story Avenue, beyond which are residential dwellings. The subject property is bordered to the west by residential dwellings. Gasoline service stations were not observed in the immediate vicinity (approximately 500 feet) of the subject property. A dry cleaner was identified approximately 220 feet north of the subject property along Castle Hill Avenue. Other off-site sources of concern were not identified in the immediate vicinity.

The NYDOF indicates that the current residential building located on the subject property was constructed in 1899. However, historical research indicates that the subject property was primarily vacant with the exception of a presumed two-story residential dwelling located along Castle Hill Avenue south of the current subject property building and an associated auto garage located on the northern property border in 1898. By 1908, both the current building and the older two-story building are illustrated in Sanborn® Fire Insurance Maps. Both of these structures are identified as residential dwellings. The garage building to the north also remained. By 1919, both residential buildings were still present, but the auto garage to the north was no longer present. A chicken coop and one small square unidentified structure were present in the center of the subject property. By 1929, only the two residential dwellings were present at the property. No changes to the subject property were evident until 1962 when aerial photographs indicate that the original two-story building was no longer present. Other than some changes in the amount of vegetation present at the subject property, no changes to the property were noted until 1995 when the vacant western portion of the property was identified as parking. No changes were evident at the property after 1995.

The subject property is not identified on the environmental database search report obtained for this project. According to the environmental database report, 119 sites were identified within their respective ASTM

and/or EDR search distances from the subject property. Based on AECOM's review and analysis of the database listings, none of the surrounding sites is expected to present a recognized environmental condition (REC) to the subject property, based on their distance (generally greater than 500 feet), regulatory status (i.e. regulatory closure, no violations found), media impacted (soil only), and/or topographical position relative to the subject property (i.e. down-gradient or cross-gradient) with the exception of the sites described below.

The following RECs were identified during this assessment:

– Due to the history of area, including the potential for orphan USTs, migration of contamination from off-site sources, urban fill, and the possible discharge of motor fluids from abandoned automobiles, the possibility exists for subsurface contamination on and in immediate vicinity of subject property to be present.

– Based on a review of historical sources and the site-specific environmental database report, a dry-cleaning facility located at 937 Castle Hill Road located approximately 215 feet north of the subject property performed on-site cleaning services from at least 1969 through 2006. An evaluation of this site per the ASTM E2600 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions dated October 2015, proximity to the subject property, and lack of information regarding the facility's historical hazardous material and waste handling and disposal practices prior to the mid-1990s, it is our opinion that this off-site dry cleaning facility is a REC and the potential for a vapor encroachment condition (VEC) exists.

– Based on a review of historical sources and the site-specific environmental database report, a gasoline station formerly operated at 860 Castle Hill Road 250 feet southeast of the subject property from as early as 1969 through 1991. The former gasoline station continues to be monitored for the presence of contaminated groundwater as a result of leaking USTs removed in the 1990s. Based on the proximity and presumed up gradient location, known discharge history to soil and groundwater, ongoing groundwater monitoring activities, and unknown extent of groundwater impacts, it is our opinion that this former gasoline station is considered a REC and the potential for a VEC exists.

Based on the above-described activities, no controlled RECs (CRECs) or historical RECs (HRECs) were identified in connection with the subject property. However, the following de minimis condition was identified during this assessment:

- De minimis trash and miscellaneous debris (household garbage, plastic bags, etc.) was scattered throughout the vacant portions on the subject property. No staining was observed in the vicinity of this debris.
- De minimis petroleum staining approximately three inches wide was observed from a small oil leak in the subject property building's cast iron tankless boiler located in the utility room in the basement. However, the concrete floor was observed in good condition in the stained area with no floor drains located within the vicinity.

2.5.2 Conclusions

To preclude the potential for significant adverse impacts, an (E) Designation would be provided for the Projected Development Site at 909 Castle Hill Avenue (Block 3687, Lot 43). The text of the (E) designation for would be as follows: E-596 has been assigned to this project.

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.

2.6 TRANSPORTATION

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

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

The *CEQR Technical Manual* also states that if the threshold for traffic is surpassed, a parking assessment may also be warranted. This chapter assesses the potential for project-generated vehicle, transit, and pedestrian trips to affect the local transportation network in the vicinity of the Projected Development at 909 Castle Hill Avenue, as well as an assessment of transportation safety in the Study Area.

In order to determine the number of trips generated by the Proposed Action, trip generation estimates were prepared for each of the land uses proposed as part of the zoning amendment, namely residential, and local retail uses. Under the Proposed Action, there would be an incremental increase of approximately 34 new dwelling units and approximately 11,330 square feet of new local retail space use on Block 3687 (**Table 2.6-1**).

As this combined incremental exceeds the *CEQR Technical Manual* Transportation thresholds for a combination of new dwelling units and new local retail floor area (**Table 16-1**), an analysis is required.

Table 2.6-1- Development under the Proposed Action Scenario

Block	No-Action		With-Action		Increments	
	DUs	Local Retail	DUs	Local Retail	DUs	Local Retail
Site 1	3	0	37	11,330	34	11,330
TOTALS =	**3**	**0**	**37**	**11,330**	**34**	**11,330**

Tables 2-6-2 shows the estimated person-trips, for the Proposed Action during the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours, as well as the associated transportation planning assumptions.

Table 2.6-2 - Estimated Peak Hour Person-Trip Generation Characteristics

Projected Development Site 1 (909 Castle Hill Avenue)

Land Use	Size	Weekday Daily Person-Trip Rate	Saturday Daily Person-Trip Rate	Temporal Distribution (%)				Estimated Person-Trips			
				Weekday AM	Weekday MD	Weekday PM	Saturday MD	Weekday AM	Weekday MD	Weekday PM	Saturday MD
Residential	34 units	8.075 trips per DU	9.6 trips per DU	10.0%	5.0%	11.0%	8.0%	27	14	30	26
Local Retail	11,330 SF	205 trips per 1,000 sq. ft.	240 trips per 1,000 sq. ft.	3.0%	19.0%	10.0%	10.0%	70	441	232	272
						TOTAL PERSON-TRIPS =		**97**	**455**	**262**	**298**

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

Increment Totals		
Residential =	34	units
Local Retail =	11,330	SF

2.6.1 Traffic

This section examines potential future traffic conditions associated with the Proposed Project Area. In most areas of the city, including the area of the Bronx where Projected Development Site 1 is located, if a proposed project is projected to result in 50 or more peak hour vehicular trip ends (a Level 1 screening assessment), there is the potential for traffic impacts and a detailed traffic assessment is recommended by the *CEQR Technical Manual*. As shown in **Table 2.6-3**, the proposed project is projected to generate approximately 11 vehicle trips during the weekday AM peak hour, 22 vehicle trips during the weekday midday peak hour, 18 trips during the weekday PM peak hour, and 19 trips during a typical Saturday midday peak hour. Because the numbers of vehicle trips during the weekday AM, weekday PM, and Saturday midday peak hours do not exceed the 50 vehicle-trips/peak hour threshold for a detailed analysis in the *CEQR Technical Manual*, no level 2 screening assessment is provided for all these time periods. Therefore, no detailed traffic analysis is warranted.

- Weekday AM peak hour: approximately 13 vehicle trips (3 inbound and 10 outbound)
- Weekday midday peak hour: approximately 30 vehicle trips (15 inbound and 15 outbound)
- Weekday PM peak hour: approximately 22 vehicle trips (13 inbound and 9 outbound)
- Saturday midday peak hour: approximately 22 vehicle trips (11 inbound and 11outbound)

Table 2.6-3 shows that the Proposed Action is estimated to generate vehicle trips as follows:

Table 2.6-3- Estimated Peak Hour Vehicle-Trip Generation Characteristics

Projected Development Site 1 (909 Castle Hill Avenue)

Land Use	Size (sq. ft)	No. of Units	Estimated Mode Split (AM, MD, PM)							Estimated Mode Split (SAT)							Estimated Vehicle-Trips											
																	Weekday AM			Weekday MD			Weekday PM			Saturday MD		
			Auto	Taxi	Sub-way	Rail-road	Bus	Walk	Total	Auto	Taxi	Sub-way	Rail-road	Bus	Walk	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	-	34	36.0%	1.0%	35.0%	0.0%	21.0%	7.0%	100.0%	36.0%	1.0%	35.0%	0.0%	21.0%	7.0%	100.0%	10	2	8	5	2	2	10	7	3	9	4	4
Local Retail	11,330	-	11.0%	0.0%	3.0%	0.0%	2.0%	84.0%	100.0%	11.0%	0.0%	3.0%	0.0%	2.0%	84.0%	100.0%	5	3	3	33	16	16	17	9	9	19	9	9
Linked-Trip / Pass-by Trip Reduction																	*-1*	*-1*	*-1*	*-8*	*-4*	*-4*	*-4*	*-2*	*-2*	*-5*	*-2*	*-2*
Net New Trips =																	4	2	2	24	12	12	13	6	6	14	7	7
		TOTAL =															**13**	**3**	**10**	**29**	**15**	**15**	**23**	**14**	**10**	**23**	**12**	**12**

Residential mode split and auto occupancy (1.10) based on census JTW data for tracts 16, 42, 74, 78, 86, 90, 98.
Residential Taxi occupancy (1.40) based on Jerome Avenue Rezoning EIS.
Residential In/Out directional distributions (AM: 15/85, MD: 50/50, PM: 70/30, SAT: 50/50) based on Jerome Avenue Rezoning EIS.
Local Retail mode split, auto occupancy (1.5 for weekday and 1.6 for weekend) based on NYC Department of City Planning.
Local Retail In/Out directional distributions (AM: 50/50, MD: 50/50, PM: 50/50, SAT: 50/50) based on Jerome Avenue Rezoning EIS.
Linked-Trip / Pass-by Trip Reduction credit of 25% as per *CEQR Technical Manual* .
The number of additional truck trips generated by the propose school, including trash pickup, food service, and deliveries (UPS, FedEx, etc.) are relatively low and typically occur largely during off-peak hours. Therefore, truck trips are not included in the estimate of weekday peak hour trips.

2.6.2 Transit

Projected Development Site 1 is accessible via public transit. Three New York City Transit (NYCT) bus lines are routed near Projected Development Site 1. The Bx22 and the Bx5 run along Castle Hill Avenue and have a stop across the street from Projected Development Site 1. Additionally, the BxM 8 runs along Bruckner Blvd as has a stop two blocks north of Projected Development Site 1.

The closest subway station to the planned development site is the Castle Hill Avenue Station on the "6" line, approximately one-half a mile north of Projected Development Site 1 at the intersection of Castle Hill Avenue and Westchester Avenue.

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

Table 2.6-4 shows that the Proposed Action is estimated to generate subway and bus trips as follows:

Table 2.6-4 - Estimated Peak Hour Subway and Bus Trip Generation

Land Use	Subway												Bus											
	Weekday AM			Weekday MD			Weekday PM			Saturday MD			Weekday AM			Weekday MD			Weekday PM			Saturday MD		
	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	10	1	8	5	2	2	11	7	3	9	5	5	6	1	5	3	1	1	11	7	3	5	3	3
Local Retail	2	1	1	13	7	7	7	3	3	8	4	4	1	1	1	9	4	4	5	2	2	5	3	3
Linked-Trip / Pass-by Trip Reduction (25%)=	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net New Trips =	2	1	1	13	7	7	7	3	3	8	4	4	1	1	1	9	4	4	5	2	2	5	3	3
TOTAL =	**12**	**2**	**9**	**18**	**9**	**9**	**18**	**11**	**7**	**17**	**9**	**9**	**7**	**2**	**6**	**12**	**6**	**6**	**15**	**10**	**5**	**11**	**5**	**5**

Linked-Trip / Pass-by Trip Reduction credit assumed to be 25% as per *CEQR Technical Manual* and applies to walk trips only during weekday midday, weekday PM, and Saturday midday peak hours.

2.6.3 Pedestrians

The March 2014 *CEQR Technical Manual* indicates that a detailed pedestrian analysis be performed for projects that are likely to generate 200 or more incremental pedestrian trips during any peak hour on any one pedestrian element (i.e., a crosswalk, street corner, or sidewalk). As shown in **Table 2.6-5**, the proposed project is projected to generate more than 200 combined new pedestrian trips (i.e., the combined total of subway, bus, and walk trips) during the weekday midday peak hours (309 trips) and Saturday midday (201 trips). It would not generate more than 200 combined new pedestrian trips during the Weekday AM hours (79 trips), Weekday PM hours (177 trips). Since the generated trips for Saturday PM is barely larger than the 200 criteria, and the weekday midday shares the same distribution as Saturday midday but with a higher generated trip, all the potential mitigation methods work on weekday midday can be applied to Saturday midday as well. No Saturday midday pedestrian analysis need to be conducted separately. Therefore, we only analyze the Weekday midday peak hours with regards to incremental pedestrian trips.

This With-Action Scenario has one Projected Development Site. Projected Site 1 (Lot 43) has frontage on both Castle Hill Avenue and Story Avenue. With the Projected Sites having frontage on two separate streets, it is highly unlikely that any one pedestrian element would be significantly impacted in the With-Action Scenario, or any one pedestrian element would see an incremental increase of 200 or more pedestrians during any of the peak hour periods. Because the Proposed Action is projected to generate a significantly higher number of trips during the weekday midday than other periods, the weekday midday peak hour is assumed to represent a Reasonable Worst-Case Development Scenario. Therefore, a Level 2 screening was performed for Pedestrians during the Weekday Midday peak hour (which had the highest number of pedestrian trips). Subway, bus and walk-only trips were assigned to the surrounding roadway network based on the location of the nearest subway station, bus stops in the vicinity of the site, and walking routes to and from the site based on household distribution with no vehicles for adjacent census tracts. The

pedestrian assignments were based on the ground floor plan, which indicates that there are entrances/exits on Story Avenue and Castle Hill Avenue. Accordingly, pedestrian trips were assigned to both entrances and exits based on expected origins/destinations.

Figure 2.6-1 shows the census tracts and household distribution without any vehicles used for the pedestrian analysis, while **Figure 2.6-2** shows the pedestrian trip assignment for the Weekday Midday period.

Based on the trip generation estimates shown in **Table 2.6-5** and the trip distribution estimates, by mode, identified above, pedestrians were assigned through the study intersections for the weekday midday peak hour, which is the time period with the highest number of site-generated pedestrian trips.

As shown in **Figures 2.6-2**, the resulting assignments of the incremental site-generated pedestrian volumes (i.e., combined subway, bus, and walk trips) projected during the midday at intersections in the vicinity of the Proposed Rezoning Area for the build year of 2023 generated on pedestrian elements beyond all intersections during the weekday midday are below the 200-trip threshold. Based on the Level 2 screening, Pedestrians screened out during the Midday peak hour (the highest hour); and therefore, in accordance with the CEQR Technical Manual, no detailed pedestrian analyses are required.

Table 2.6-5 - Estimated Peak Hour Pedestrian-Trip Generation Characteristic

Projected Development Site 1 (909 Castle Hill Avenue)

Land Use	Estimated Person-Trips				Mode Split (AM, MD, PM)			Mode Split (SAT)			Weekday AM									Weekday Midday									Weekday PM									Saturday Midday								
											Subway			Bus			Walk			Subway			Bus			Walk			Subway			Bus			Walk			Subway			Bus			Walk		
	Weekday AM	Weekday MD	Weekday PM	Saturday MD	Subway	Bus	Walk	Sub-way	Bus	Walk	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	27	14	30	26	35.0%	21.0%	7.0%	35.0%	21.0%	7.0%	10	1	8	6	1	5	2	0	2	5	2	2	3	1	1	1	0	0	11	7	3	6	4	2	2	1	1	9	5	5	5	3	3	2	1	1
Local Retail	70	441	232	272	3.0%	2.0%	84.0%	3.0%	2.0%	84.0%	2	1	1	1	1	1	59	29	29	13	7	7	9	4	4	371	185	185	7	3	3	5	2	2	196	98	98	8	4	4	5	3	3	228	114	114
Linked-Trip / Pass-by Trip Reduction (25%) =											*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-93*	*-46*	*-46*	*0*	*0*	*0*	*0*	*0*	*0*	*-49*	*-24*	*-24*	*0*	*0*	*0*	*0*	*0*	*0*	*-57*	*-29*	*-29*
Net New Trips =											2	1	1	1	1	1	59	29	29	13	7	7	9	4	4	278	139	139	7	3	3	5	2	2	146	73	73	8	4	4	5	3	3	171	86	86
TOTAL =	97	455	262	298	TOTAL NET NEW PERSON-TRIPS =						12	2	9	7	2	6	60	30	31	18	9	9	12	6	6	279	139	139	18	11	7	11	7	4	148	75	74	17	9	9	11	5	5	173	87	87

Linked-Trip / Pass-by Trip Reduction credit assumed to be 25% as per *CEQR Technical Manual* and applies to walk trips only during weekday midday, weekday PM and Saturday midday peak hours.
Residential mode split based on census JTW data for tracts 16, 42, 74, 78, 86, 90, 98.
Residential In/Out directional distributions (AM 15/85, MD: 50/50, PM: 70/30, SAT: 50/50) based on Jerome Avenue Rezoning EIS.
Local Retail mode split based on suggestions from NYC Department of City Planning.
Local Retail In/Out directional distributions (AM 50/50, MD: 50/50, PM: 50/50, SAT: 50/50) based on Jerome Avenue Rezoning EIS.

| | | | | | | | | | | |

Figure 2.6-1 Census Map- Household Distribution

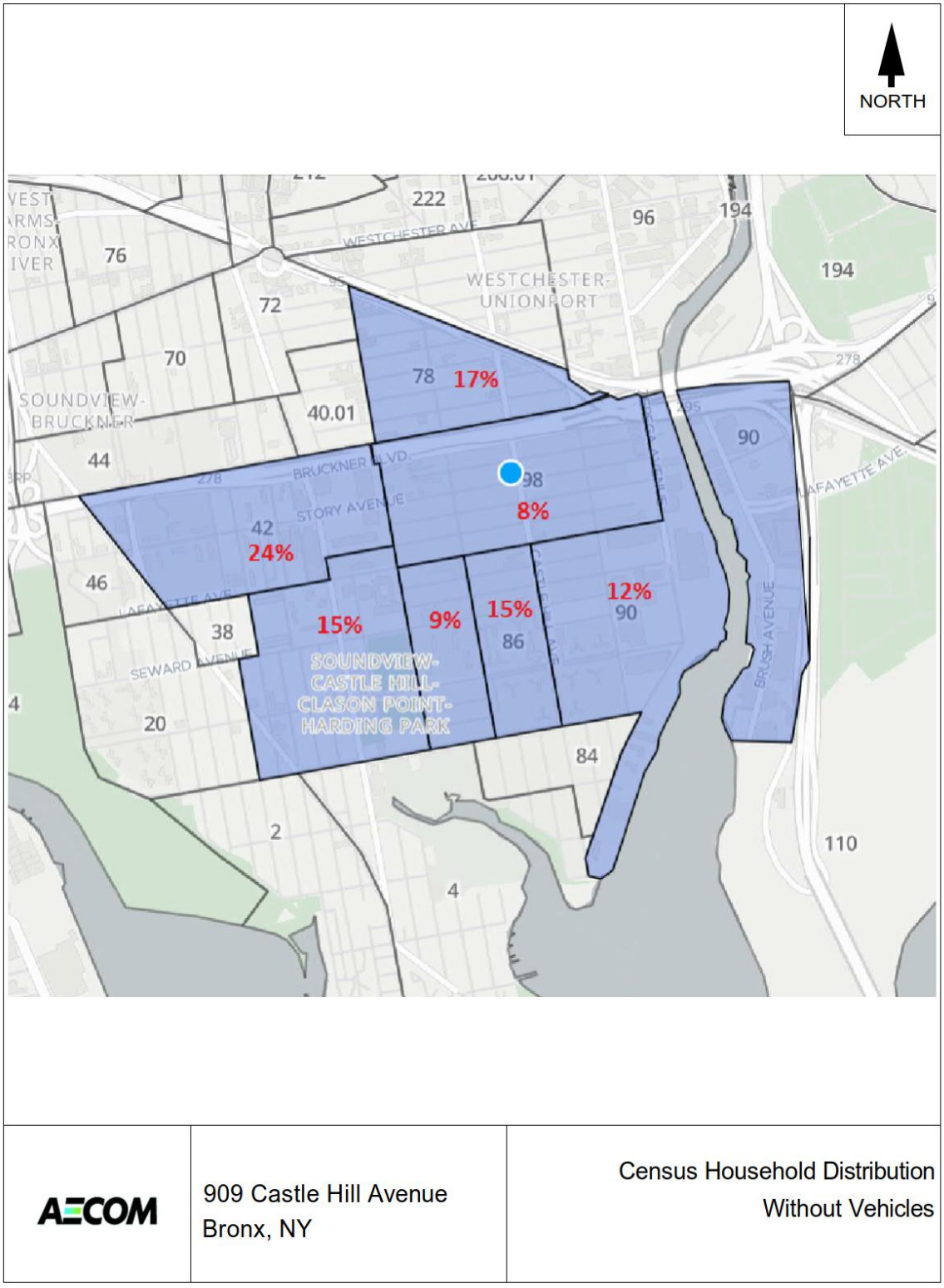
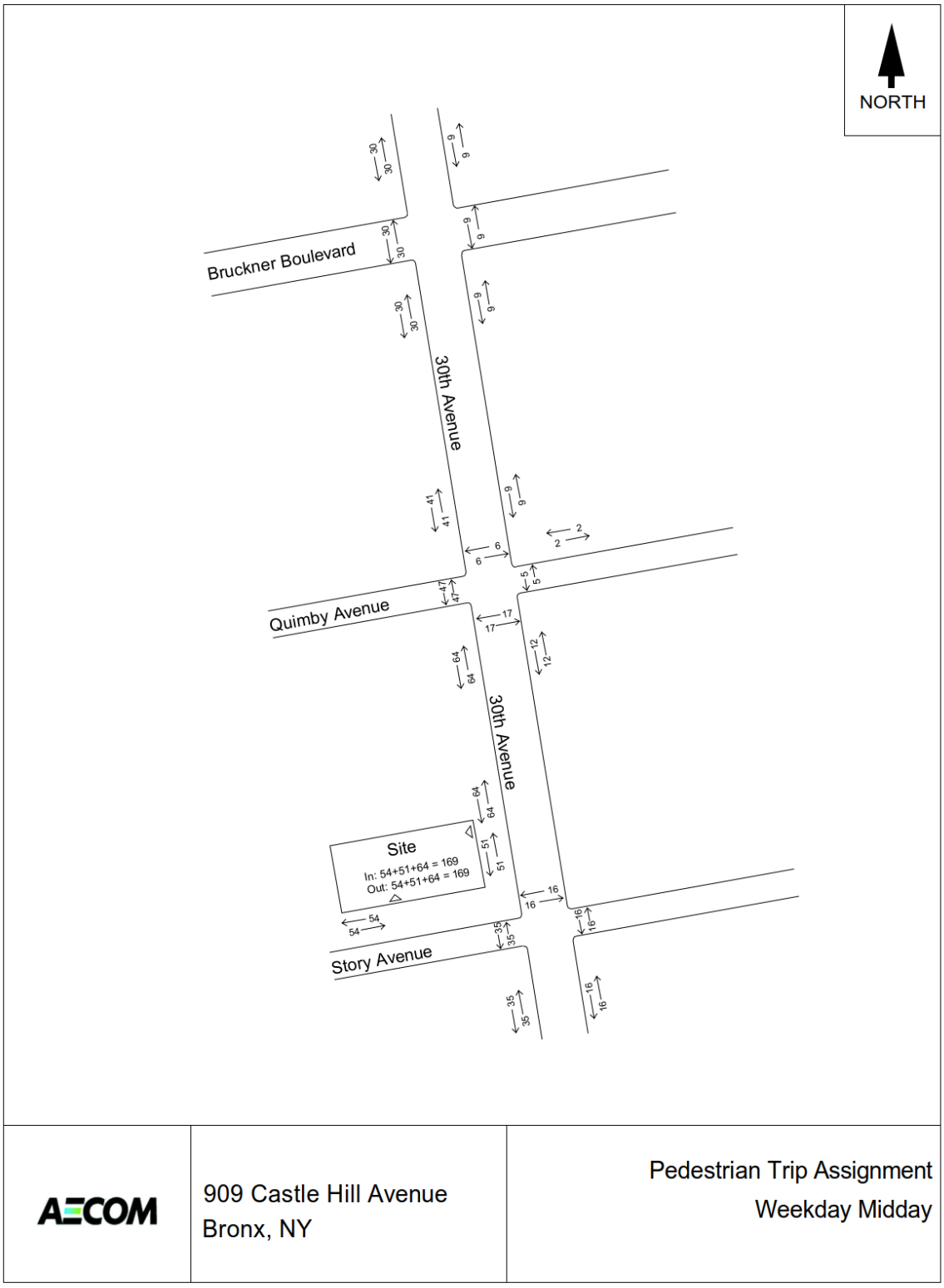


Figure 2.6-2 Census Map- Pedestrian Trip Assignment- Weekday Midday



2.6.4 Parking

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

Conclusion

Based on the above assessment that analyzes the potential impacts that the Proposed Action would potentially have with regards to transportation, our analysis indicates no significant adverse impacts are expected with regards to traffic, transit, pedestrians, and parking, and no further analysis is required.

2.7 AIR QUALITY

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

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

2.7.1 Mobile Sources

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

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

In the With-Action Scenario, it is assumed that Block 3687, Lot 43 would be built out to its full FAR and that the applicant would construct a 63,759 gsf mixed residential/commercial/parking building with 37 dwelling

units, 11,330 gsf of retail, and the cellar would have 15 parking spaces for the units

Furthermore, it is expected that the ground floor commercial uses that are currently located on the adjacent lots would re-occupy their ground floor spaces. The Proposed Action is not expected to exceed the 170-peak-hour-trip CEQR preliminary screening threshold for an air quality mobile source assessment.

According to the CEQR Technical Manual, the threshold for detailed PM2.5 impact analysis is 12 to 23 HDDV or its equivalent vehicular emissions based on the type of the road. Per the functional classification provided by DOT, Castle Hill Ave is considered a major collector road, as such, a maximum of 30 trips during weekday midday peak hour would be equivalent to 6 trucks, which would not exceed the threshold for detailed PM2.5 impact analysis. Therefore, no further assessment of mobile source air quality is warranted and no significant adverse impacts on air quality generated by mobile sources are expected as a result of the Proposed Action.

2.7.2 Stationary Sources

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

- New stationary sources of pollutants are created (e.g., emission stacks for industrial plants, hospitals, other large institutional uses).
- Certain new uses near existing (or planned future) emissions stacks are introduced that may affect the use.
- Structures near such stacks are introduced so that the structures may change the dispersion of emissions from the stacks so that surrounding uses are affected.
- Fossil fuels (fuel oil or natural gas) for heating/hot water, ventilation, and air conditioning systems are used.
- Large emission sources are created (e.g., solid waste or medical-waste incinerators, cogeneration facilities, asphalt/concrete plants, or power-generating plants, etc.).
- New sensitive uses are located near a large emission source.
- Medical, chemical, or research labs are created or result in new uses being located near them.
- Operation of manufacturing or processing facilities is created.
- New sensitive uses created within 400 feet of manufacturing or processing facilities.
- New uses created within 400 feet of a stack associated with commercial, institutional, or residential developments (and the height of the new structures would be similar to or greater than the height of the emission stack).
- Potentially significant odors are created.
- New uses near an odor-producing facility are created.
- “Non-point” sources that could result in fugitive dust are created.
- New uses near non-point sources are created.
- A generic or programmatic action is introduced that would change or create a stationary source or that would expose new populations to such a stationary source.

The proposed rezoning in the With-Action Scenario would introduce approximately 63,759 gsf of commercial, residential, and parking floor space on the Projected Development Site 1 and would not result in any of the above thresholds being exceeded. Furthermore, no manufacturing or processing facilities were noted within 400 feet of the Rezoning Area during a recent field inspection. Additionally, a search for large and major sources was completed and none were found within 1000 feet of Projected Development Site 1 or Rezoning Area.

HVAC and Hot Water Boiler Emissions Screening

Impacts from boiler emissions at the projected development sites are a function of fuel oil type, stack height, minimum distance from the source to the nearest building, and square footage of the development. For each building, site stack height and development size are plotted on the appropriate graph, provided

in the *CEQR Technical Manual*. Buildings for which no boiler information was found are assumed to use Fuel Oil #2. Furthermore, while different screening graphs are used for residential and non-residential buildings, for the purposes of this analysis the non-residential development screening graph has been used, which presents a more conservative screening analysis.

These graphs indicate the minimum distance between subject buildings (i.e., a projected development site) and surrounding buildings (with operable windows, balconies, etc.) of a similar or greater height needed to avoid a potential air quality impact. The screening results for the Projected Development Site are shown below in **Figure 2-7.1**

The Reasonable Worst-Case Development Scenario (RWCDs) as shown in **Table 2.7-1**.

Table 2.7-1 Reasonable Worst-Case Development Scenario (RWCDS)

Site No.	Block	Lot	Lot Area (sq. ft.)	Proposed Zoning	Max Allowable (sq. ft.)	Max Allowable Height (ft.)
Projected Development Site 1	3687	43	18,643	R6B/C1-3	41,014 zsf (63,759 gsf plus cellar)	55

Analysis

As demonstrated below, in **Figure 2.7-1,** this required distance for the Projected Development Site is beyond the minimum distance needed to avoid the potential for a significant adverse air quality impact related to the building's boiler emissions. Therefore, significant adverse impacts regarding stationary air quality sources are not expected, and further stationary source air quality analyses are not warranted. **(See below).**

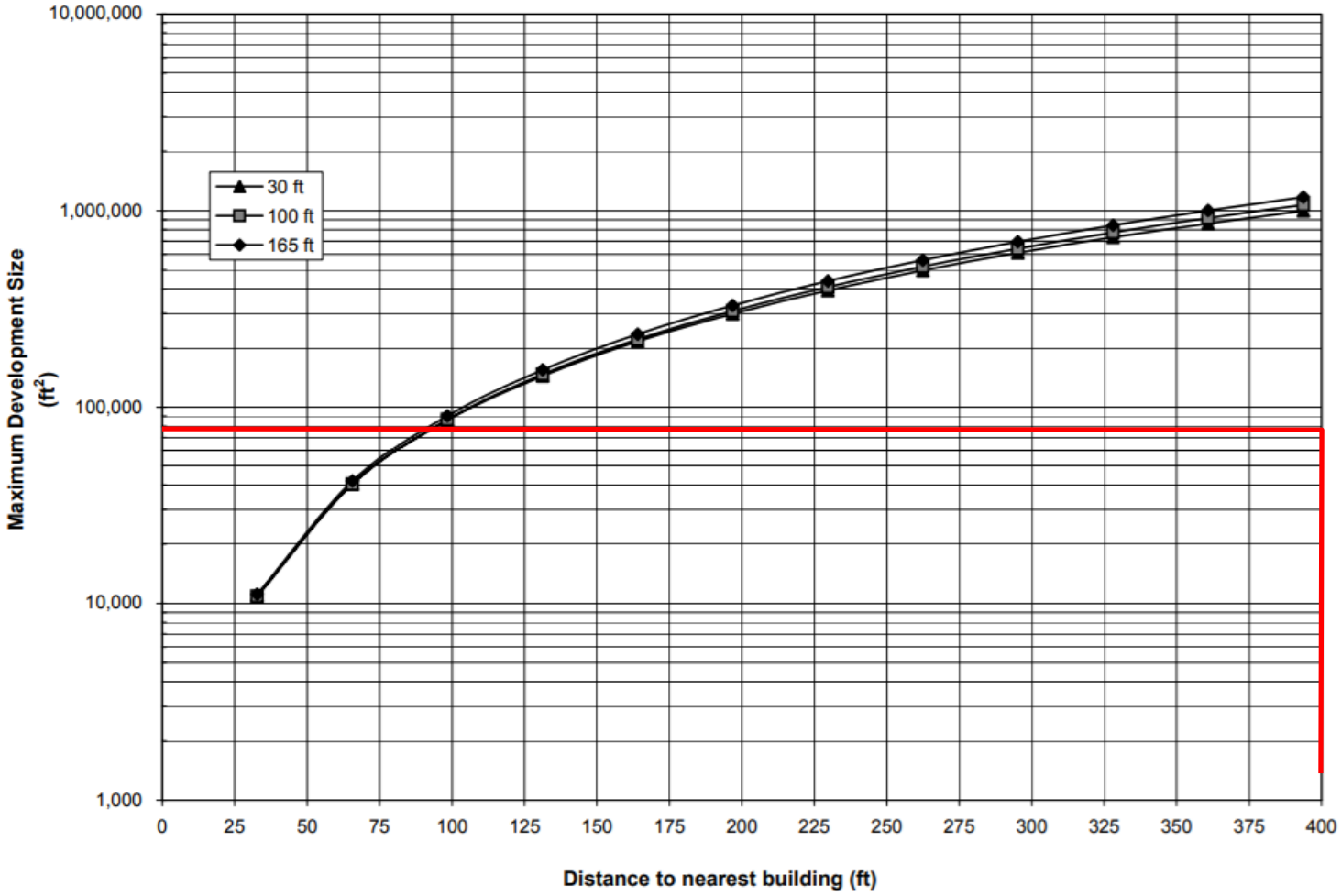
A review of the surrounding area indicates that the nearest building occupied with sensitive receptors and operable windows (taller than projected 40-foot tall subject building) is the 9-story apartment building located at 2001 Story Avenue (Bronx Block 3681, Lot 1), west of Projected Development Site 1. This building is located approximately 763 feet west Projected Development Site 1. This distance is well beyond the minimum distance needed to avoid the potential for a significant adverse air quality impact related to its boiler emissions, and therefore the impact from this projected development site does not warrant further analyses.

To preclude the potential for significant adverse impacts, an (E) Designation would be provided for 909 Castle Hill Avenue (Bronx Block 3687, Lot 43), the Projected Development Site. E-596 has been assigned to this project. The text of the (E) designation for would be as follows:

> Block 3687 Lot 43: Any new residential, commercial and/or community facility development on the above-referenced property must ensure the heating, ventilating and air conditioning (HVAC) systems and hot water equipment stack is located at the highest tier and at least 53 feet above grade to avoid any potential significant adverse air quality impacts.

With this (E) Designation in place, no advise impacts with regards to air quality are anticipated, and no further analysis is required.

FIG App 17-5
SO_2 BOILER SCREEN
RESIDENTIAL DEVELOPMENT - FUEL OIL #2



AECOM	Environmental Assessment Statement 909 Castle Hill Avenue Rezoning Bronx, NY	**Air Quality Screen – Projected Site 1** **Figure 2.7-1**

2.8 NOISE

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

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

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

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

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

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

2.8.1 Mobile Sources

Mobile noise sources are those which move in relation to receptors. The mobile source screening analysis addresses potential noise impacts associated with vehicular traffic generated by the Proposed Action. According to the *CEQR Technical Manual*, if existing passenger car equivalent (PCE) values are increased by 100 percent or more due to a Proposed Action, a detailed analysis is generally performed. In the future with the Proposed Action, a total of six parcels are projected to be in the Rezoning Area. This would result in the increment of approximately 11,330 gross square feet of commercial floor area, and the increment of approximately 34 dwelling units (37 would be Projected on Development Site 1). The creation of the commercial and residential space that would result from this action is not expected to cause vehicular traffic (and thus PCE values) to double at any local intersections. The Proposed Action is not anticipated to generate enough vehicular traffic to double traffic levels on adjacent streets during any peak hour due to the relatively moderate to high numbers of vehicles in the immediate area. As such, the Proposed Action is unlikely to warrant a mobile source analysis and significant mobile source related impacts are not expected.

2.8.2 Stationary Sources

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

docks, and other noise associated with building structures may also be considered in a stationary source noise analysis. Impacts may occur when a stationary noise source is near a sensitive receptor and is unenclosed.

The subject site is located on Castle Hill Avenue, which is a heavily-trafficked thoroughfare. Therefore, the Proposed Action would involve the placement of new sensitive receptors near a potentially significant noise source.

Introduction

The Applicant is proposing a zoning map amendment in the Castle Hill neighborhood of the Bronx's Community District 9. The proposed Rezoning Area is bounded by Castle Hill Avenue to the east, Story Avenue to the south, Quimby Avenue to the north, and approximately 175 feet west of Castle Hill Avenue to the west. It consists of Block 3687, Lots 37, 39, 40, 41, 42, and 43. The Applicant proposes to map an R6B zoning district with a C1-3 commercial overlay at a depth of 100 feet along Castle Hill Avenue within the Project Area, which is currently, zoned R3-2. The proposed rezoning would facilitate the development of Block 3687, Lot 43 (the "Development Site" or "Projected Site") with a new four-story residential and commercial building.

This analysis describes the noise measurement results collected on June 19, 2018 at two locations around Projected Development Site 1 shown in **Figure 2.8-1**. These measurements were then compared with New York City Department of Environmental Protection (NYCDEP)-established exterior noise exposure guidelines in Table 19-2 in the *City Environmental Quality Review (CEQR) Technical Manual*, to determine appropriate building noise attenuation, if required, for any of proposed buildings to ensure that interior noise levels would be acceptable per Table 19-3 in the *CEQR Technical Manual*.

Noise Measurement

Noise measurements were conducted at **two** locations as shown in Figure 1 (**Figure 2.8-1**) during peak vehicular travel periods, 7:00-9:00 am, 12:00-2:00 pm, and 4:00-6:00 pm. The weather conditions were normal with calm winds and were considered suitable for an ambient noise measurement. A Type 1 sound level meter (Larson Davis LxT) with wind shield was used to conduct the noise monitoring. The meter was placed on a tripod at a height of approximately five feet above the ground, away from any reflective surfaces. The meter was calibrated prior to and following each monitoring session.

Noise measurements were conducted at four locations as shown in Figure 1:

- Location 1: midblock of Castle Hill Avenue between Story Street and Quimby Avenue (See below);
- Location 2: sidewalk of Story Street, in front of Projected Development Site 1 (See below);



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Noise Measurement Locations

Figure 2.8-1



Meter Setup at Location 1



Meter Setup at Location 2

Measurement Summary

Tables 2.8-1 and 2.8-2 present the ambient noise levels in terms of various noise metrics measured at **two** selected locations during three daytime periods. L_{10} is the metric used by NYCDEP in establishing the exterior noise exposure guidelines.

Table 2.8-1: Noise Levels in dBA at Location 1

Noise Metric	Time Period		
	8:30-8:50 AM	12:11-12:31 PM	5:07-5:27 PM
L_{eq}	70.4	68.3	69.4
L_{max}	95.2	85.6	90.2
L_{10}	**74.0**	**71.0**	**72.2**
L_{50}	67.1	64.1	64.6
L_{90}	52.3	59.8	57.8
L_{min}	55.3	56.8	53.2

Table 2.8-2: Noise Levels in dBA at Location 2

Noise Metric	Time Period		
	8:53-9:13 AM	12:33-12:53 PM	4:45-5:05 PM
L_{eq}	65.1	65.2	61.2
L_{max}	86.2	82.9	77.3
L_{10}	**67.2**	**67.2**	**64.1**
L_{50}	62.1	62.6	57.7
L_{90}	57.7	59.4	53.7
L_{min}	54.7	56.9	49.8

Noise Measurement Assessment

Comparing to *CEQR Technical Manual* guidelines, existing noise levels measured at Location 1 is “marginally unacceptable”. Existing noise level measured at Location 2 is “marginally acceptable”. Therefore, 31-dBA window-wall noise attenuation is required for the proposed building façade facing Castle Hill Avenue. Based on the measured L10 noise level of 74 dBA at Location 1 and placement of Monitoring Locations, portions of northern and southern facades closer to Castle Hill Avenue would likely experience higher noise levels. Therefore, in order to avoid any potential significant adverse impact at northern and southern facades of the proposed building, 31-dBA window-wall noise attenuation is required for the portions of northern and southern facades within 50 feet from Castle Hill Avenue.”

Conclusion

To preclude the potential for significant adverse impacts related to noise, an (E) designation would be incorporated into the rezoning proposal. E-596 has been assigned to this project.

The text of the E-Designation would be as follows:

Block 3687, Lot 43: To ensure an acceptable interior noise environment, future residential/commercial office/community facility uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the façades facing Castle Hill Avenue and the façades facing Quimby Avenue within 50 feet of Castle Hill Avenue and the facades facing Story Avenue within 50 feet of Castle Hill Avenue to ensure an interior noise level not greater than 45 dBA for residential and community facility uses or not greater than 50 dBA for commercial office uses as illustrated in the EAS. To maintain a closed-window

condition, alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.
With these (E) designations in place, no significant adverse noise impacts related to noise are expected, and no further analysis is warranted.

Additionally, any stationary noise sources associated with the proposed project (i.e., mechanical equipment) would be designed to meet all applicable noise regulations (i.e. Subchapter 5, §24-227 of the New York City Noise Control Code and the New York City Department of Buildings Code) and would not generate any significant increase in ambient noise levels."



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Attenuation Requirement

Figure 2.8-2

2.9 NEIGHBORHOOD CHARACTER

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

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

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

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

The assessment begins with a review of existing conditions and the neighborhood of the study area. The information is drawn from the preceding sections of this EAS but is presented in a more integrated way. While the other sections present all relevant details about aspects of the environmental setting, the discussion for neighborhood character focuses on a limited number of important features that gives the neighborhood its own sense of place and that distinguish them from other parts of the city. A concise discussion of the changes anticipated by the 2023analysis year under the Future No-Action Condition is then included. A brief overview of the Proposed Action is then presented, along with an analysis of whether any anticipated significant adverse impacts and moderate adverse effects, regarding the relevant technical CEQR assessment categories for neighborhood character, would adversely affect any of the defining features.

2.9.1 Existing Conditions

Land Use, Zoning and Public Policy

A field survey was conducted to determine the existing land use patterns and neighborhood characteristics of the study area. Existing land use immediately surrounding the project area includes a wide mix of one- and two-family buildings, multi-family buildings, mixed-use commercial and residential buildings, and parking uses. The commercial uses are comprised of local retail such as restaurants, hair salons, barber shops, and delis. One- and two-family buildings make up the majority of land uses within the 400-foot Study Area, which is consistent with the rest Bronx Community District 9, as One- and Two-Family buildings are the most common type of land use. The prevailing built form of the area is a mix of low- rise residential and mixed residential and commercial buildings. The project area is just south of the Bruckner Expressway.

The Projected Development Site is controlled by the applicant (Block 3687, Lot 43) and is located on the western side of Castle Hill Avenue at the intersection Castle Hill Avenue and Story Avenue. It consists of a two-story Use Group 2 residential building on an approximtaley 18,643 square foot lot. Directly adjacent of this site, the proposed Rezoning Area would extend north to include Block 3687, Lots 37,39,40,41, and 42. Each of these lots contains a mixed residential building with ground floor commercial uses and residential uses on top. The ground floor commercial uses are nonconforming. Additionally, the buildings on each of these lots are overbuilt per R3-2 zoning guidelines. However, all of these building were constructed before the implementation of the 1961 zoning resolution.

The western and eastern portions of the Study Area, to the west and east of Castle Hill Avenue respectively, generally are comprised of one- and two-family homes, with a handful of multi-family walk-up residences as well. There are a few lots which are vacant or used for parking and are unimproved. The northern and southern portions of the Study Area, in addition to one and two and multi-family residences, have some commercial development as well, particularly, along the Castle Hill Avenue corridor. Local retail uses, along with mixed residential and commercial uses, can be found up and down Castle Hill Avenue within the Study Area. Churches are also present along Castle Hill Avenue, with one being located at the intersection of Castle Hill Avenue and Bruckner Blvd, and just south of the Rezoning Area at Castle Hill Avenue and Story Avenue

Zoning designations within and around the study area are depicted in **Figure 2.1-2a**, while **Table 2.1-2** summarizes use, floor area and parking requirements for the zoning districts in the study area. The Rezoning Area (and entirety of the 400-foot Study Area) is in a mapped R3-2 zoning district. The R3-2 zoning district is generally mapped along Bruckner Blvd. to the north, Olmstead Avenue to the west, Seward Avenue to the south, and Havemeyer Avenue to the east. The proposed project area is also within an area designated for the FRESH Program (zoning and discretionary tax incentives area).

Urban Design and Visual Resources

The architecture throughout the study area is eclectic, with no unity of form to tie the built form together visually. The area is characterized by a mix of one- and two-family residential, multi-family residential, commercial, and isolated public facility and institutional uses. The norther portion of the study area features a portion of the Bruckner Expressway. Several vacant lots also exist within the study area. The commercial uses are comprised of bodegas, delis, an auto repair shop, a medical office, and other local retail. The prevailing built form in the area is a mix of low- to mid-rise residential and small apartment buildings. There are also some mixed commercial and residential buildings with ground floor commercial and two to three stories of residential uses above the ground floor. Most buildings within the study area are arranged regular (parallel) with respect to their lot placement There are few streetscape elements present within the study area and little in the way of visual interest. Most of the streets contain street trees, which are generally located at irregular intervals. The Bruckner Expressway, characterized as a barrier, separates the study area's low density R3-2 zoning district from the higher density R5 zoning district to the north. No other notable streetscape elements (e.g. benches) are located within the study area.

Transportation

The street hierarchy of the study area includes a few different functional classifications. Castle Hill Avenue is classified as a Major Collector roadway. In the northern portion of the study area, Bruckner Boulevard is classified as a Principal Arterial Other. Additionally, in the northern portion of the study area, the Bruckner Expressway is classified as a Principal Arterial Interstate. All other roadways in the study area are classified as local roads. Projected Development Site 1 is accessible via public transit. Three New York City Transit (NYCT) bus lines are routed near Projected Development Site 1. The Bx22 and the Bx5 run along Castle Hill Avenue and have a stop across the street from Projected Development Site 1. Additionally, the BxM 8 runs along Bruckner Blvd as has a stop two blocks north of Projected Development Site 1 The closest subway station to the planned development site is the Castle Hill Avenue Station on the "6" line, approximately one-half a mile north of Projected Development Site 1 at the intersection of Castle Hill Avenue and Westchester Avenue.

2.9.2 Future No-Action Scenario

The No-Action Scenario would be congruent to the Existing Conditions for a number of reasons. Projected Development Site 1 (Lot 43) would remain the same in the No-Action Scenario as in the Existing Conditions as it is applicant controlled and the applicant does not have any plans to build on the lot absent the Proposed Action.

Lots 37 and 39-42 would also remain in their existing condition in the No-Action Scenario. The sites are currently overbuilt per existing zoning regulations and have non-conforming ground floor commercial uses. Even if the ground floor uses were vacated, each of these lots would still be non-conforming with regards to FAR, as the residential FAR on these lots would be 1.85, which is still larger than what is allowed for residential uses per the existing R3-2 zoning district.

Furthermore, we cannot assume that these ground floor commercial uses would be replaced with a confirming community facility or residential uses because the existing zoning would not allow it per maximum FAR regulations in an R3-2 zoning district. Given the existing zoning regulations in an R3-2 zoning district, maximum Community Facility FAR is 1.0 and maximum residential FAR is 0.6. Since the buildings would be overbuilt with just the residential uses (assuming the ground floor is vacated) in the No-Action Scenario, it cannot be assumed that a portion of the building would be deconstructed or razed to make the buildings conforming.

While no C/O's exist for any of the properties, except for Lot 39 which indicated a storefront was located on the ground floor before the Zoning Resolution was in place, making it a legal, non-conforming use, all of the buildings on Lot 37 and 39-42 were built before the Zoning Resolution was passed in 1961. Based on the age of the buildings and aerial photographs, it is fair to assume that all commercial uses on the ground floor were in place before the zoning resolution was in place.

Given the above information, it is most reasonable to assume that these buildings on Lots 37, and 39-42 would remain in their existing conditions in the No-Action Scenario.

Additionally, these lots are not Projected Development Sites. They are currently overbuilt per R3-2 zoning guidelines. These lots, which all have FAR's over 2.0, would not be able to expand under the proposed rezoning (lots are currently built at a 2.85 FAR, while the proposed rezoning would make the allowable FAR 2.0). Therefore, is it's not reasonable to assume any development beyond the existing conditions.

2.9.3 Future With-Action Scenario

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

Land Use, Zoning and Public Policy

In the With-Action Scenario, it is reasonable to assume that Block 3687 would be built out to its full FAR allowed under R6B/C1-3 zoning regulations. On an 18,643-sf lot, it is reasonable to assume that the applicant would construct a 63,759 gsf (41,014 zsf) mixed residential and commercial building. The buildings would be constructed to a FAR of 2.2, the maximum FAR allowed for residential uses under R6B zoning regulations. In the Future with Action Scenario, the applicant would place parking uses in the cellar. It is also reasonable to assume that there would be ground floor commercial with frontage on Castle Hill Avenue and residential uses along Story Avenue. Additionally, it is assumed the upper floors would contain strictly UG 2 residential dwelling units. Given the lot dimensions of 103 feet by 181, with the C1-3 overlay depth at 100 feet along Castle Hill Avenue, it is reasonable to assume that the applicant would be able to construct approximately 11,330 gsf (10,300 zsf) of commercial floor area on the ground floor along Castle Hill Avenue.

Additionally, on the remaining portion of the ground floor and the entirety of upper floors, the applicant would construct approximately 33,786 gsf (30,714 zsf) of residential floor area. Assuming 900 square feet

per dwelling unit, the applicant would be able to construct approximately 37 market rate dwelling units under a Reasonable Worst-Case Development The applicant would have to provide 15 parking spaces for the residential units which are market rate. It assumes the parking spaces would be in the cellar of the building and occupy 18,643 gsf. It is assumed that the building would be built to a maximum height of 55 feet (maximum height followed in R6B zoning district).

Additionally, in the Future-With Action Scenario, it is reasonable to assume that, Lots 37, and 39-42 would be occupied with ground floor commercial uses and residential uses on the upper floors in a matter that is congruent to their current Existing Conditions and No-Action Conditions.

The applicant believes proposed land uses (residential and commercial) are compatible with the residential and commercial uses in the surrounding Study Area. No new types of land use would be introduced in the With-Action Scenario. Ground floor retail would be consistent with the commercial uses along Castle Hill Avenue. Therefore, the Proposed Action is not expected to have any adverse impacts on the surrounding land uses.

Furthermore, it is assumed that, Lots 37, and 39-42 would be re-occupied with ground floor commercial uses and residential uses on the upper floors in a matter that is congruent to their current Existing Conditions. The Proposed Action would bring the ground floor commercial uses that currently exist on these lots into conformance.

The Proposed Action would allow for residential and commercial uses on the site. Both of these uses exist in the Study Area. While the Proposed Action would allow for a residential development of a greater FAR than is currently allowed, the height of the building would not be out of context with the surrounding 400-Foot Study Area as there are many three-story buildings in close proximity to the proposed four-story building. The Proposed Action would therefore not have a significant impact on the extent of conformity with the current zoning in the surrounding area, and it would not adversely affect the viability of conforming uses on nearby properties. Significant adverse impacts to zoning are not anticipated and further zoning analysis is not warranted

Historic and Cultural Resources

According to *CEQR Technical Manual* guidelines, impacts on historic resources are considered on those sites affected by the Proposed Action and in the area surrounding identified development sites. The historic resources study area is therefore defined as Projected Development Site 1 and Rezoning Area plus an approximately 400-foot radius around the Proposed Action area. The Projected Development Site and no properties in the Rezoning Area are designated local or S/NR historic resource or property, nor is the Projected Site or Rezoning Area part of any designated historic district. The Landmarks Preservation Commission was contacted for their initial review of the project's potential to impact nearby historic and cultural resources, and a response was received on June 21, 2018, indicating that no sites within the rezoning area have any architectural significance (see **Appendix B**).

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

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

All lots in the study area are presently improved with structures occupying a portion or the entirety of their respective lots. As noted, the LPC was contacted for their initial review of the project's potential to impact nearby historic and cultural resources, and a response was received on June 21, 2018 (see **Appendix B**). The LPC has indicated that no cultural resource, architectural or archaeological significance is associated with the proposed development site or projected development sites. Therefore, significant adverse impacts to archaeological resources are not expected as a result of the Proposed Action, and further analysis is not warranted.

Urban Design and Visual Resources

The Projected Development Site at 909 Castle Hill Avenue consists of an approximately 18,643 square foot lot occupied by a two-story Use Group 2 residential building with three dwelling units. Under the Future With-Action scenario, the Proposed Action would amend the zoning map to change the existing R3-2 district to an R6B/C1-3 district. It is assumed that the Projected Development Site at 909 Castle Hill Avenue (Block 3687, Lot 43) would be developed to the maximum FAR of 2.2 and a height of 55 feet

While the projected development would change views of the development site as witnessed by pedestrians on Castle Hill Avenue and Story Avenue, significant adverse impacts to urban design and visual resources would not occur. The Proposed Actions would not result in any conditions that would merit further detailed assessment of urban design and visual resources. While no other 4-story, forty-foot buildings are located within the 400-foot Study Area, there are several buildings that are three stories and 30 feet in height along Castle Hill Avenue, adjacent to Projected Development Site 1 and in the 400-foot Study Area. The Proposed Action would not result in a building out of context with the surrounding Study Area. The Proposed Actions would also not block any view corridors or views to/from any natural areas with rare or defining features, as the proposed building is contained to the subject site. Therefore, the Proposed Actions are not expected to result in any significant adverse urban design or visual resource related impacts and no further analysis is required.

Transportation

According to CEQR, changes in traffic and pedestrian conditions can affect neighborhood character in a number of ways. For traffic to have an effect on neighborhood character, it must be a contributing element to the character of the neighborhood (either by its absence or its presence), and it must change substantially as a result of the action. According to the *CEQR Technical Manual*, such substantial traffic changes can include: changes in level of service (LOS) to C or below; change in traffic patterns; change in roadway classifications; change in vehicle mixes, substantial increase in traffic volumes on residential streets; or significant traffic impacts, as identified in the technical traffic analysis. Regarding pedestrians, when a proposed project would result in substantially different pedestrian activity and circulation, it has the potential to affect neighborhood character. The Proposed Action would not lead to an increase of 50 or more vehicle trips at any one intersection in the vicinity of the proposed development sites. Therefore, the Proposed Action would not lead to any significant adverse traffic impacts. Additionally, the Proposed Action would not lead to an increase of 200 or more transit trips or walking trips at any one pedestrian element. Therefore, the Proposed Action would not lead to any significant adverse subway or bus impacts. Therefore, no significant adverse impacts related to transportation are expected and no further analysis is required.

Air Quality

As demonstrated below, in **Figure 2.7-1,** this required distance for the Projected Development Site is beyond the minimum distance needed to avoid the potential for a significant adverse air quality impact related to the building's boiler emissions. Therefore, significant adverse impacts regarding stationary air quality sources are not expected, and further stationary source air quality analyses are not warranted.

A review of the surrounding area indicates that the nearest building occupied with sensitive receptors and operable windows (taller than projected 40-foot tall subject building) is the 9-story apartment building located at 2001 Story Avenue (Bronx Block 3681, Lot 1), west of Projected Development Site 1. This building is located approximately 763 feet west Projected Development Site 1. This distance is well beyond

the minimum distance needed to avoid the potential for a significant adverse air quality impact related to its boiler emissions, and therefore the impact from this projected development site does not warrant further analyses.

A search of DEP permits within 400-feet of the Project Area was conducted and no industrial source permits were found within 400-feet of the Rezoning Area. As such, no further analysis related to air quality is required and no significant adverse impacts are expected.

Noise

Noise measurements were conducted at two locations (**Figure 2.8-1**) during peak vehicular travel periods, 7:00-9:00 am, 12:00-2:00 pm, and 4:00-6:00 pm. The weather conditions were normal with calm winds and were considered suitable for an ambient noise measurement. A Type 1 sound level meter (Larson Davis LxT) with wind shield was used to conduct the noise monitoring. The meter was placed on a tripod at a height of approximately five feet above the ground, away from any reflective surfaces. The meter was calibrated prior to and following each monitoring session.

Noise measurements were conducted at four locations as shown in Figure 1:

- Location 1: midblock of Castle Hill Avenue between Story Street and Quimby Avenue;
- Location 2: sidewalk of Story Street, in front of Projected Development Site 1

Comparing to *CEQR Technical Manual* guidelines, existing noise levels measured at Location 1 is "marginally unacceptable". Existing noise level measured at Location 2 is "marginally acceptable". Therefore, 31-dBA window-wall noise attenuation is required for the proposed building façade facing Castle Hill Avenue and no window-wall attenuation is required for the other façades." Based on the measured L10 noise level of 74 dBA at Monitoring Location 1 and placement of Monitoring Locations, portions of northern and southern facades closer to Castle Hill Avenue would likely experience higher noise levels. Therefore, in order to avoid any potential significant adverse impact at northern and southern facades of the proposed building, please include portions of northern and southern facades within 50 feet from Castle Hill Avenue for 31 dBA of attenuation requirement.

Additionally, any stationary noise sources associated with the proposed project (i.e., mechanical equipment) would be designed to meet all applicable noise regulations (i.e. Subchapter 5, §24-227 of the New York City Noise Control Code and the New York City Department of Buildings Code) and would not generate any significant increase in ambient noise levels."

Conclusion

To preclude the potential for significant adverse impacts related to noise, an (E) designation would be incorporated into the rezoning proposal.

Projected Site 1 (Block 3687, Lot 43)

Block 3687, Lot 43: To ensure an acceptable interior noise environment, future residential/commercial office/community facility uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the façades facing Castle Hill Avenue and the façades facing Quimby Avenue within 50 feet of Castle Hill Avenue and the facades facing Story Avenue within 50 feet of Castle Hill Avenue to ensure an interior noise level not greater than 45 dBA for residential and community facility uses or not greater than 50 dBA for commercial office uses as illustrated in the EAS. To maintain a closed-window condition, alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.
With these (E) designations in place, no significant adverse noise impacts related to noise are expected, and no further analysis is warranted.

Additionally, any stationary noise sources associated with the proposed project (i.e., mechanical equipment) would be designed to meet all applicable noise regulations (i.e. Subchapter 5, §24-227 of the New York City Noise Control Code and the New York City Department of Buildings Code) and would not generate any significant increase in ambient noise levels."

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Conclusions

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

2.10 CONSTRUCTION

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

The Proposed Action involves a rezoning in the Castle Hill neighborhood of the Bronx. The applicant owned site is the only Projected Development Site in the Rezoning Area. No other sites are expected to undergo new construction or development. The duration of construction on the applicant's site is expected to last approximately 20 months.

A detailed construction analysis is not typically required if the construction period is less than 24 months. As construction induced by the Proposed Action would be gradual, taking place over a 20-month period at a single site, a detailed constriction analysis would not be required. potential impacts would be minimal and, as discussed below in a qualitative manner, would not be expected to have any significant adverse impacts. The following is a brief discussion of the effects associated with construction related activities on traffic, air quality, noise, and historical resources resulting from the construction of the projected development sites.

Effect of Construction on Traffic

The Proposed Action would result in new development at 909 Castle Hill Avenue. This development would replace the existing residential use on the site. During construction, the sites would generate trips from workers traveling to and from the construction sites, and from the movement of materials and equipment.

Given typical construction hours of 7:00 AM to 4:00 PM, worker trips would be concentrated in off-peak hours typically before both the AM and PM peak commuter periods. Truck movements typically would be spread throughout the day on weekdays and would generally occur between the hours of 7:00 AM and 4:30 PM. Traffic generated by construction workers and construction truck traffic would not represent a substantial increment during the area's peak travel periods.

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

Effect of Construction on Air Quality

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

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

Mobile source emissions may result from the operation of construction equipment, trucks delivering materials and removing debris, workers' private vehicles, or occasional disruptions in traffic near the construction site. As the number of construction-related vehicle trips generated by the Proposed Action would be relatively small and the emissions from such vehicles as well as construction equipment would occur over a 20-month period. The mobile source emissions generated by the Proposed Action would not be significant. Overall, the Proposed Action would not have the potential to result in significant adverse air quality impacts.

Effect of Construction on Noise

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

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

Construction noise associated with the Proposed Action is expected to be similar to noise generated by other small-scale residential construction projects in the city. Increased noise level caused by construction activities can be expected to be more significant during early excavation phases of construction and would be of relatively short duration. Increases in noise levels caused by delivery trucks and other construction vehicles would not be significant.

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

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

Effect of Construction on Historic Resources

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

Conclusion

Construction-related activities are not expected to have any significant adverse impacts on traffic, air quality, noise, historic resources, or hazardous materials conditions as a result of the Proposed Action. A detailed construction analysis is not typically required if the construction period is less than 24 months. As construction induced by the Proposed Action would be gradual, taking place over a 20-month period, no further analysis would be required.

APPENDICES

APPENDIX A – Applicant Plans

909 CASTLE HILL AVE, BRONX. NY

BLOCK:	3687
LOT:	43
ZONING MAP:	7A
HISTORIC ZONING MAP:	7A
ZONE:	R3-2/COMMERCIAL OVERLAY: NONE
PROPOSED ZONING:	R6B/COMMERCIAL OVERLAY C1-3
	DEPTH OF COMMERCIAL OVERLAY 80 FEET
LOT DIMENSIONS:	103' X 181'
LOT AREA:	18,643 SQ. FT.

PROJECT TO BE DEVELOPED AS A MIXED-USE BUILDING, RESIDENTIAL UG-2 AND COMMERCIAL (OFFICE) UNDER UG-6

ANALYSIS APPLIES PROVISIONS OF THE PROPOSED ZQA TEXT AMENDMENT.

SECTIONS 23-154(b) ZR

RESIDENTIAL FLOOR AREA R6-B w/MIH	2.20
TOTAL ALLOWABLE RESIDENTIAL FLOOR AREA:	41,014 SQ.FT.
TOTAL PROPOSED RESIDENTIAL FLOOR AREA:	**34,754 SQ.FT.**
TOTAL PROPOSED COMMERCIAL FLOOR AREA:	**3,744 SQ.FT.**
TOTAL PROPOSED COMM. FACILITY FLOOR AREA:	**2,446 SQ.FT.**
TOTAL PROPOSED FLOOR AREA:	**40,944 SQ.FT. OK**
LOT COVERAGE CORNER LOT:	100'x100' =10,000 SQ.FT.
PERMITTED LOT COVERAGE CORNER LOT:	100% OF 10,000 SQ.FT
	= 10,000 SQ.FT.
PROPOSED LOT COVERAGE CORNER LOT:	**7,996 SQ.FT. OK**
LOT COVERAGE INTERIOR LOT:	81'x103'= 8,343 SQ.FT.
	3'x100'= 300 SQ.FT.
PERMITTED INTERIOR LOT COVERAGE :	60% OF 8,646 SQ.FT.
	= 5,185.8 SQ.FT.
PROPOSED INTERIOR LOT COVERAGE:	**4,818 SQ.FT OK**
TOTAL OF LOT COVERAGE PERMITTED:	15,185.8 SQ.FT.
TOTAL PROPOSED LOT COVERAGE:	**12,814 SQ.FT. OK**

SECTION 23-22 ZR

DENSITY SF/DWELLING UNIT	680
TOTAL UNITS PERMITTED (34,824/680)	51 UNITS
TOTAL UNITS PROPOSED	**35 UNITS OK**

SECTION 23-462 (c); 23-47; 23-471 & 23-541

REQUIRED FRONT YARD:	NO FRONT YARD IS REQUIRED
REQUIRED SIDE YARD:	NO SIDE YARD IS REQUIRED
PROPOSED SIDE YARD:	**8 FEET ON WEST & NORTH SIDE OF LOT (STORY AVE & CASTLE HILL AVE)**
REQUIRED REAR YARD:	30 FEET
PROPOSED REAR YARD:	**32 FEET OK**

SECTION 23- 661(b) (1) ZR

MAX. BASE HEIGHT OF BUILDING PROPOSED	50 FEET
MAX. HEIGHT OF BUILDING STRUCTURE	50 FEET
MAX. BUILDING HEIGHT IN STORIES	5 STORIES
PROPOSED BUILDING HEIGHT IN STORIES	**5 STORIES**

SETBACKS: 10 FEET SETBACK ON CASTLE HILL AVENUE AND 15 FEET SETBACK ON STORY AVE FOR THE LAST STORY

SECTION 25-23 ZR AND 25-25ZR

REQUIRED SPACES FOR 35 DWELLING UNITS AS FOLLOWS:
9 AFFORDABLE DWELLING UNITS REQUIRED 25% OF PARKING SPACES 0R 2 SPACES
26 DWELLING UNITS REQUIRED 50% OF PARKING SPACES OR 13 SPACES

TOTAL PARKING SPACES REQUIRED	15 SPACES
TOTAL PARKING SPACES PROVIDED	**22 SPACES**
6 SPACES ARE HANDICAP	
BETTER THAN REQUIRED	

SECTION 25-811 ZR

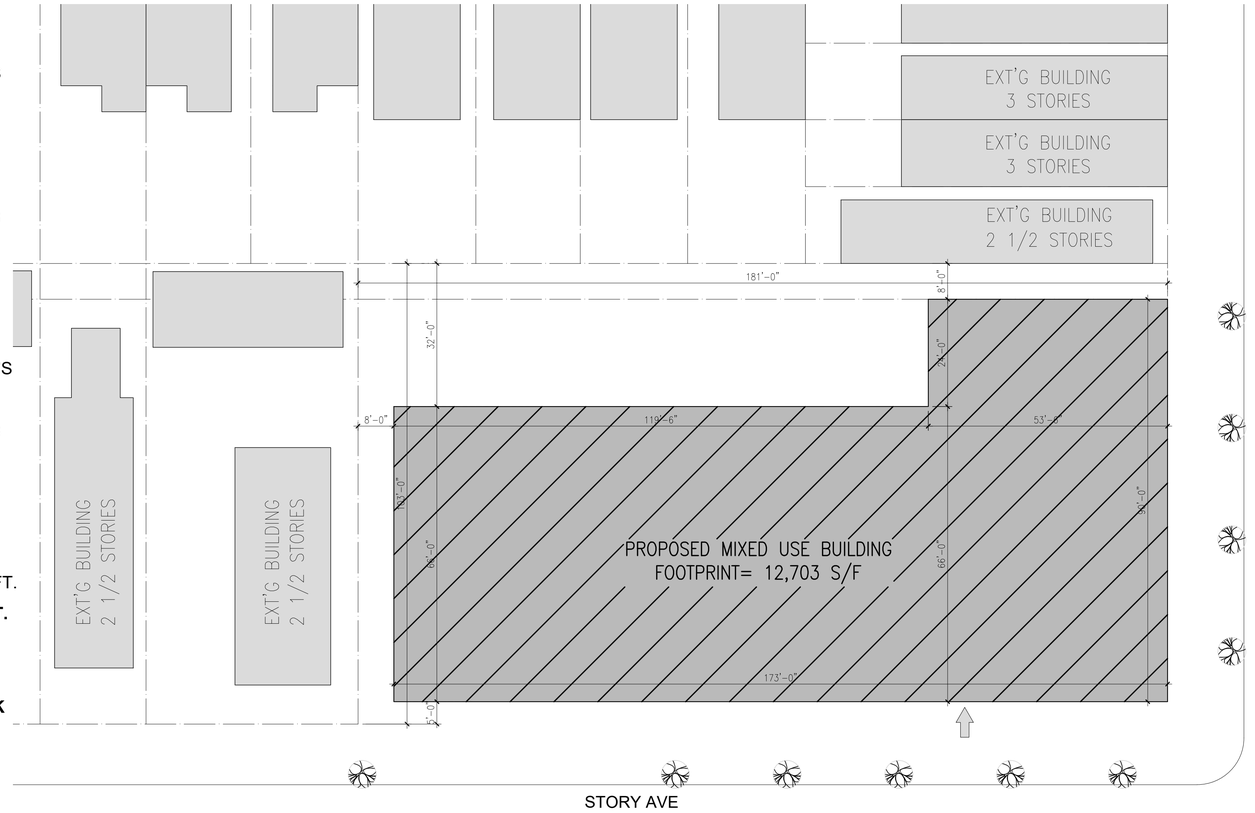
REQUIRED BICYCLE PARKING	1 PER 2 DU'S
REQUIRED SPACES FOR 35 UNITS/2	16 SPACES
BICYCLE SPACES PROVIDED	**44 SPACES**
BETTER THAN REQUIRED	

SECTION 33-121 ZR

COMMERCIAL FLOOR AREA RATIO C1-3	2.00
ALLOWABLE FLOOR AREA	37,286 SQ.FT.
PROPOSED COMMERCIAL FLOOR AREA	**3,744 SQ.FT.**
PARKING REQUIRED	1 EVERY
400 SQ. FT. OR 25	
WAIVED IF UNDER 25 PARKING	**WAIVED OK**

SECTION 36-20 ZR

REQUIRED PARKING FOR PRC-B1	**NONE**



1 PLOT PLAN
Scale: 1/16"=1'-0"

UNIT DISTRIBUTION & BUILDING AREA

FLOORS	TOTAL UNITS	TOTAL STUDIOS	TOTAL 1BR UNITS	TOTAL 2BR UNITS	TOTAL 3BR UNITS	BLDG GROSS S.F.
5th	4	1	3	0	0	3,993
4th	9	1	7	1	0	8,009
3rd	11	0	4	5	2	11,376
2nd	11	0	4	5	2	11,376
				TOTAL RESIDENTIAL		**34,754**
1st	RESIDENTIAL LOBBY & UTILITIES					1,300
1st	COMMERCIAL					3,744
1st	COMMUNITY FACILITY					2,446
CELLAR	PARKING & UTILITY SPACE					N/A
TOTALS	**35**	**2**	**18**	**11**	**4**	**42,244**

PROPOSED MIXED BUILDING

Z-00

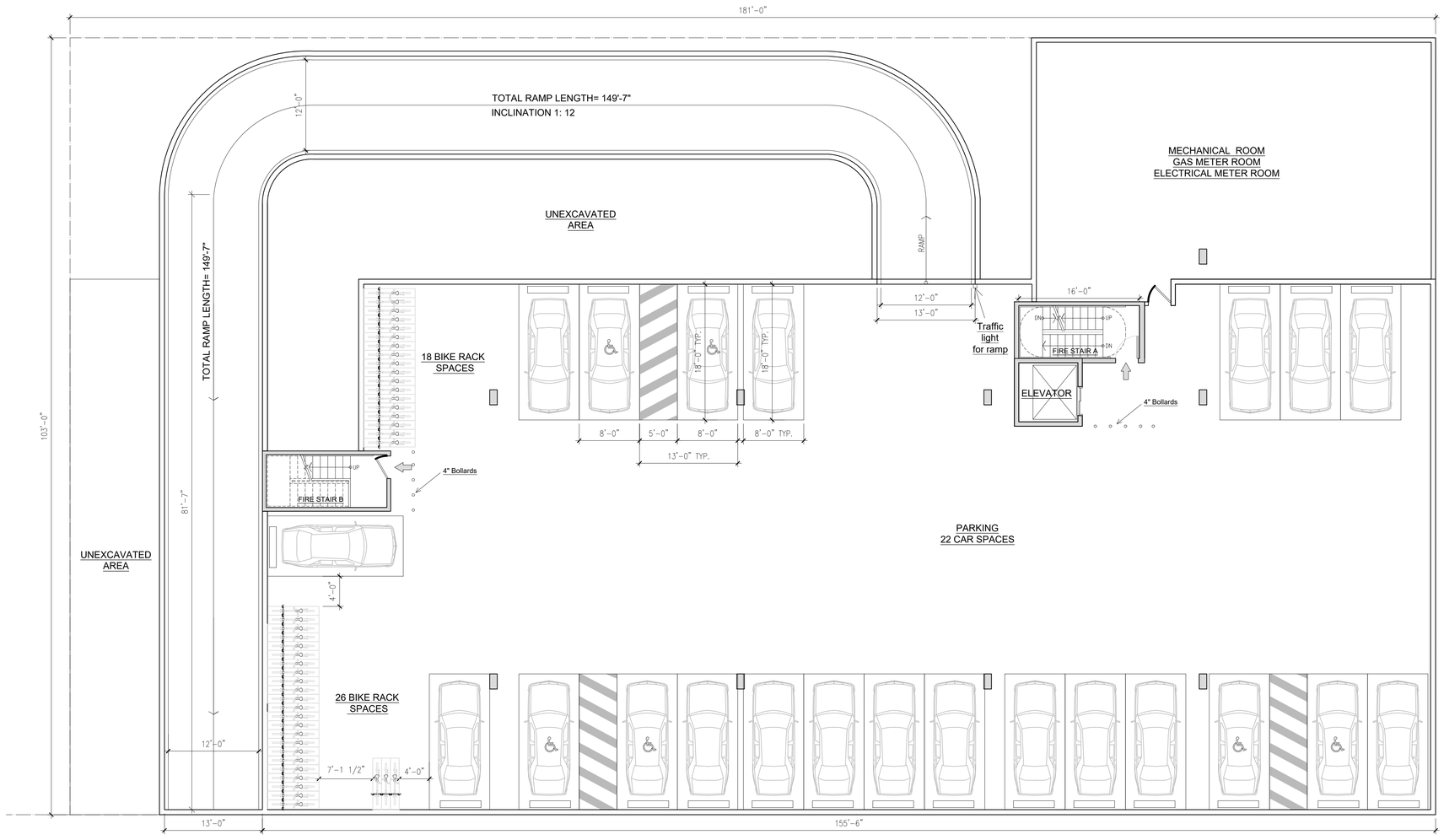
909 CASTLE HILL AVE, BRONX. NY

ZONING CHANGE

ZONING ANALYSIS
1/16"=1'-0"

Rev. 06/10/2020
03/21/2018

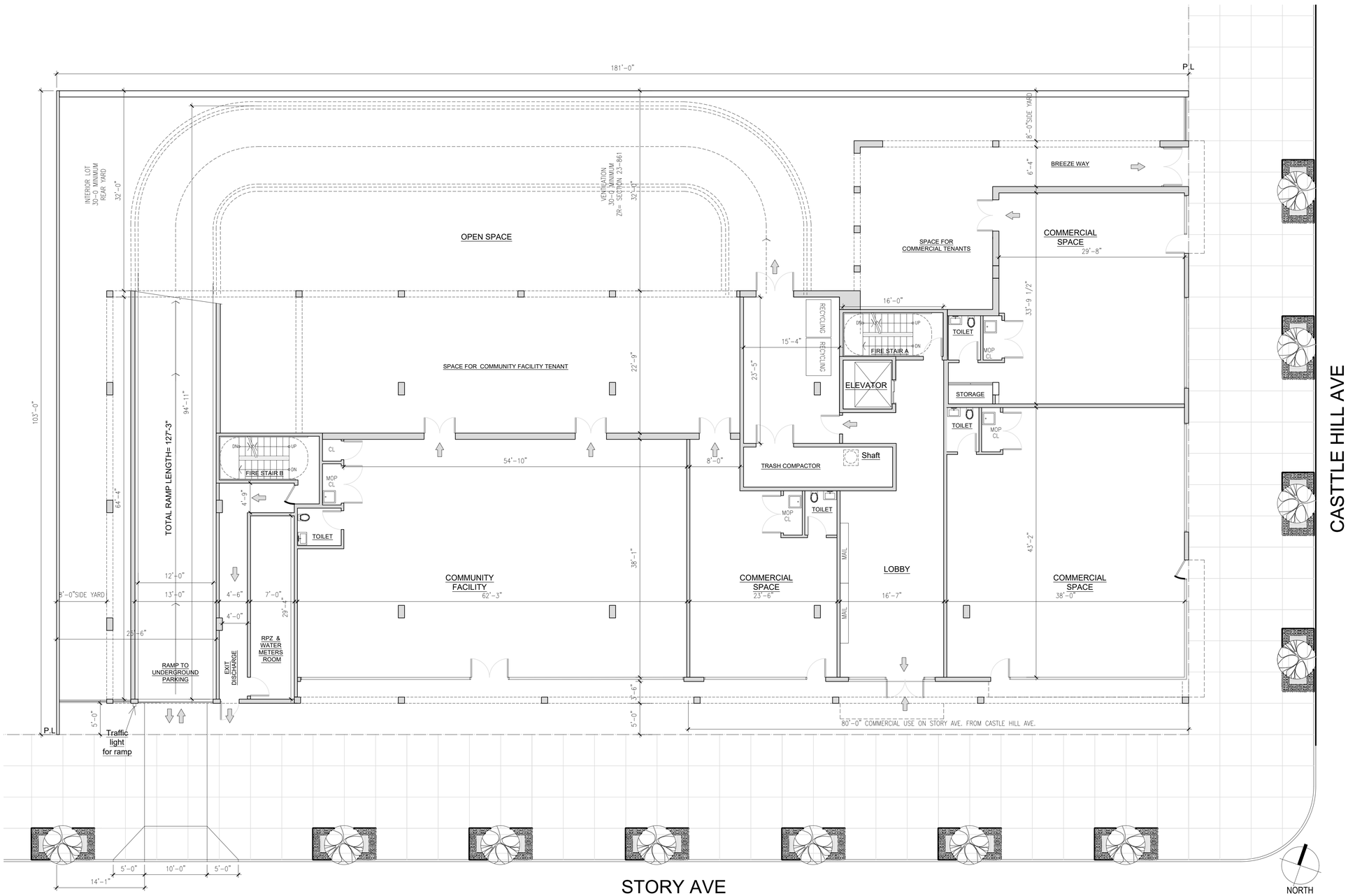
Blanco Design, Inc.
162-10 Powells Cove Blvd, Ste 5D
Beechhurst, NY 11357-1414



NORTH

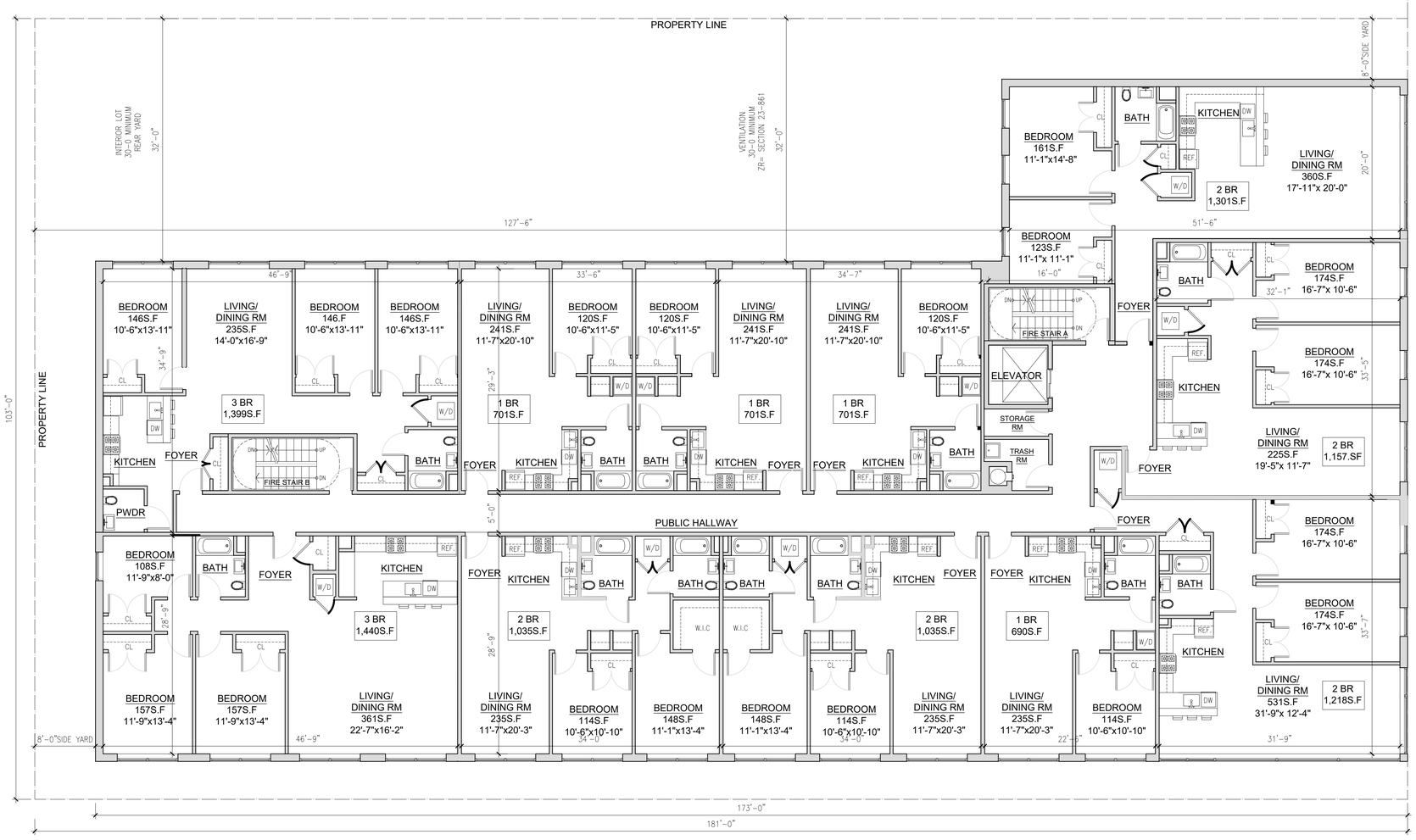
1 CELLAR FLOOR PLAN
Scale: 1/8"=1'-0"

PROPOSED MIXED BUILDING		A-00
909 CASTLE HILL AVE, BRONX. NY	CELLAR - PARKING 1/8'=1'-0"	Rev. 06/10/2020 03/21/2018
ZONING CHANGE	Blanco Design, Inc. 162-10 Powells Cove Blvd, Ste 5D Beechhurst, NY 11357-1414	



1 GROUND FLOOR PLAN
Scale: 1/8"=1'-0"

PROPOSED MIXED BUILDING		A-01
909 CASTLE HILL AVE, BRONX. NY	GROUND FLOOR 1/8'=1'-0"	Rev. 06/10/2020 03/21/2018
ZONING CHANGE	Blanco Design, Inc. 162-10 Powells Cove Blvd, Ste 5D Beechhurst, NY 11357-1414	



CASTTLE HILL AVE

STORY AVE

NORTH

1 2nd to 3rd FLOOR PLAN
Scale: 1/8"=1'-0"

PROPOSED MIXED BUILDING

A-02

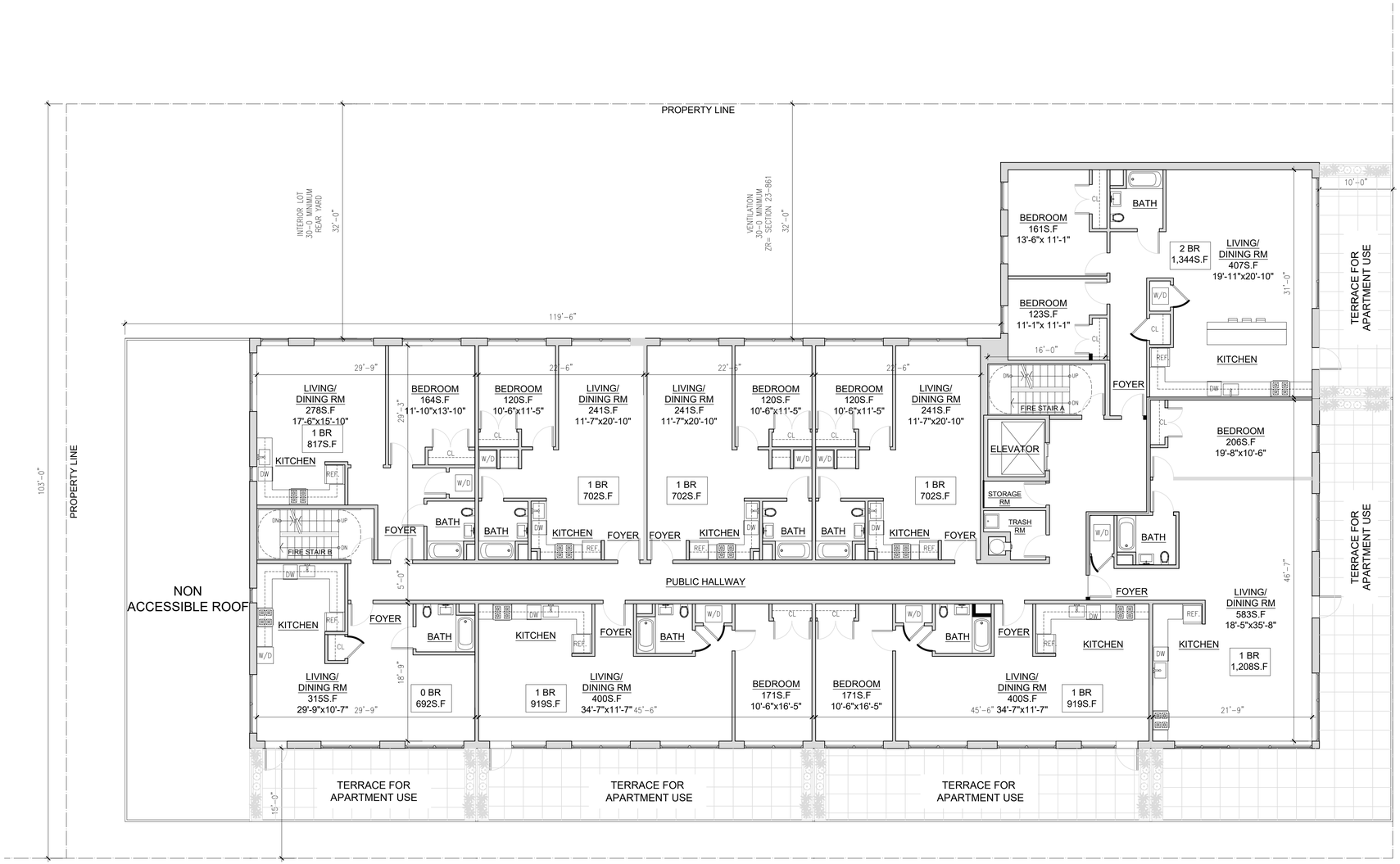
909 CASTLE HILL AVE, BRONX. NY

ZONING CHANGE

2ND & 3RD FLOORS
1/8"=1'-0"

Rev. 06/10/2020
03/21/2018

Blanco Design, Inc.
162-10 Powells Cove Blvd, Ste 5D
Beechhurst, NY 11357-1414



1 4th FLOOR PLAN
Scale: 1/8"=1'-0"

PROPOSED MIXED BUILDING

A-03

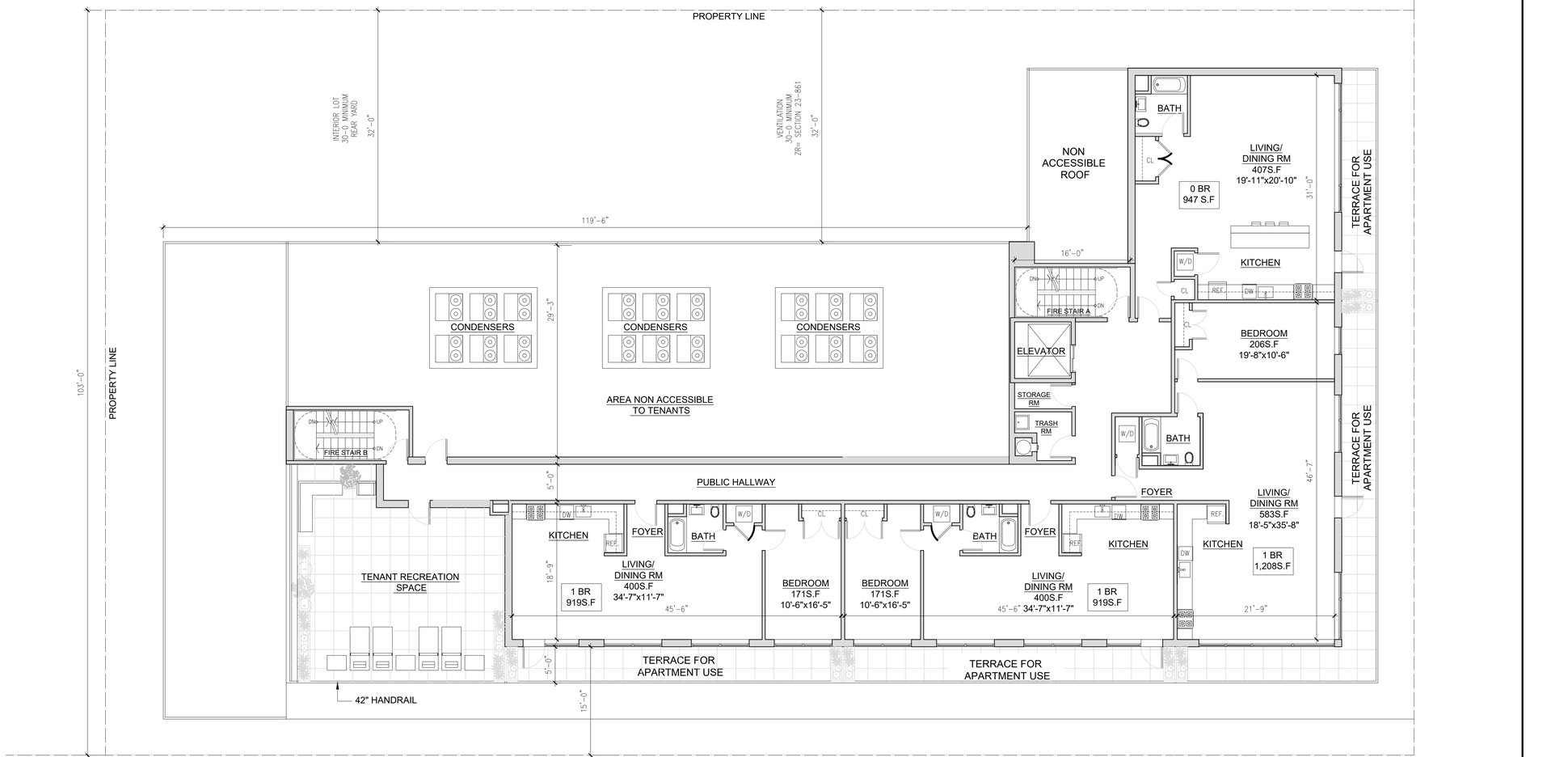
909 CASTLE HILL AVE, BRONX. NY

ZONING CHANGE

4TH FLOOR
1/8'=1'-0"

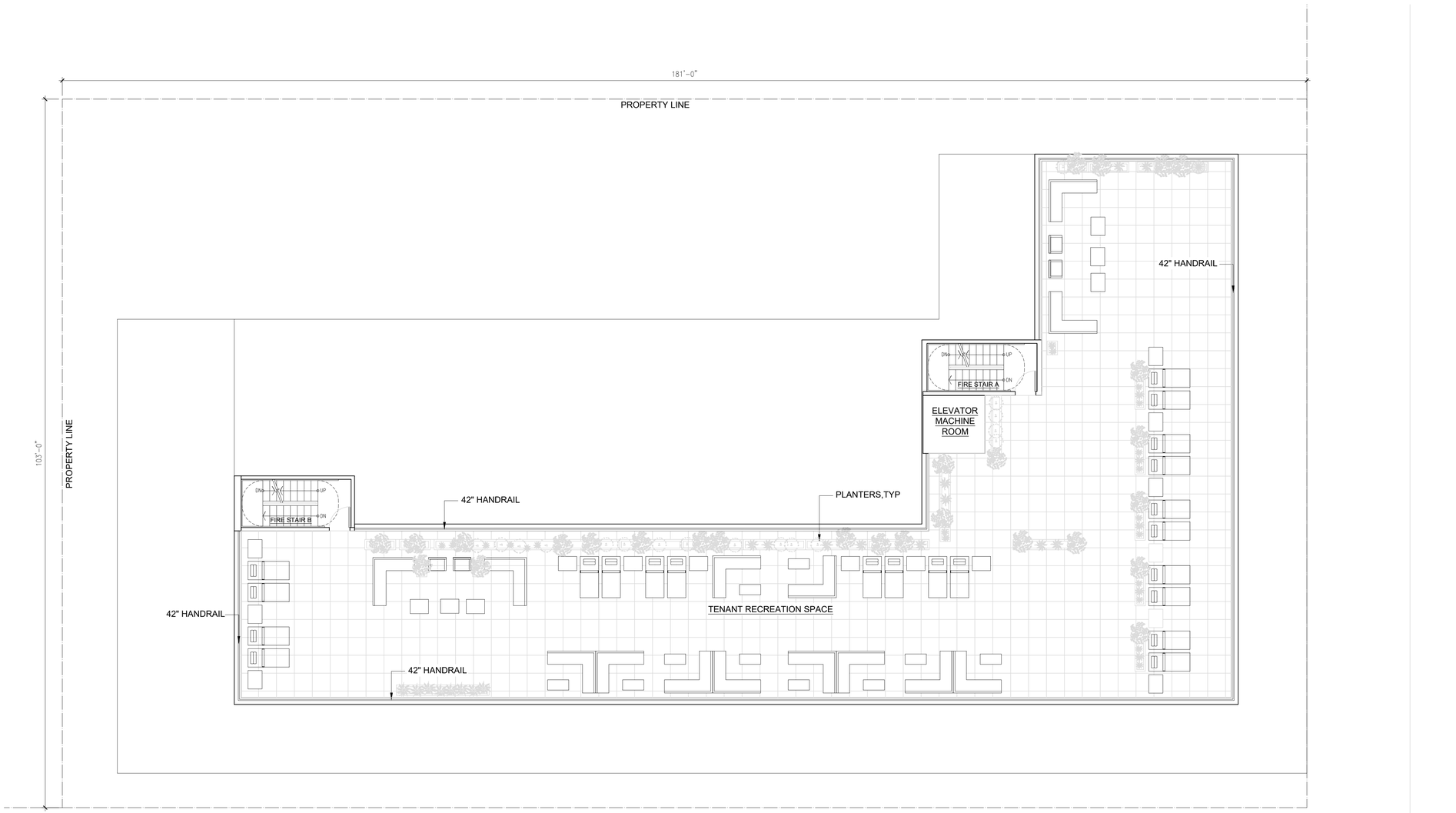
Rev. 06/10/2020
03/21/2018

Blanco Design, Inc.
162-10 Powells Cove Blvd, Ste 5D
Beechhurst, NY 11357-1414



1 5th FLOOR PLAN
Scale: 1/8"=1'-0"

PROPOSED MIXED BUILDING		A-04
909 CASTLE HILL AVE, BRONX. NY	5TH FLOOR 1/8'=1'-0"	Rev. 06/10/2020 03/21/2018
ZONING CHANGE	Blanco Design, Inc. 162-10 Powells Cove Blvd, Ste 5D Beechhurst, NY 11357-1414	



CASTTLE HILL AVE

STORY AVE

NORTH

1 ROOF PLAN
Scale: 1/8"=1'-0"

PROPOSED MIXED BUILDING

A-05

909 CASTLE HILL AVE, BRONX. NY

ZONING CHANGE

Roof plan
1/8'=1'-0"

Rev. 06/10/2020
03/21/2018

Blanco Design, Inc.
162-10 Powells Cove Blvd, Ste 5D
Beechhurst, NY 11357-1414



1 FACADE ON CASTLE AVE
Scale: 1/8"=1'-0"



2 FACADE ON STORY AVE
Scale: 1/8"=1'-0"

PROPOSED MIXED BUILDING

A-06

909 CASTLE HILL AVE, BRONX. NY

ZONING CHANGE

FACADES
1/8"=1'-0"

Rev. 06/10/2020
03/21/2018

Blanco Design, Inc.
162-10 Powells Cove Blvd, Ste 5D
Beechhurst, NY 11357-1414

APPENDIX B – NYCLPC CORRESPONDENCE

Landmarks Preservation Commission

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

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

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / LA-CEQR-X
Project: CASTLE HILL AVENUE REZONING
Date received: 6/19/2018

Properties with no Architectural or Archaeological significance:

1) ADDRESS: 921 Castle Hill Avenue, BBL: 2036870037
2) ADDRESS: 917 Castle Hill Avenue, BBL: 2036870039
3) ADDRESS: 915 Castle Hill Avenue, BBL: 2036870040
4) ADDRESS: 913 Castle Hill Avenue, BBL: 2036870041
5) ADDRESS: 911 Castle Hill Avenue, BBL: 2036870042
6) ADDRESS: 909 Castle Hill Avenue, BBL: 2036870043

Gina Santucci 6/21/2018

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 33449_FSO_DNP_06212018.doc

APPENDIX C – PHASE I ESA

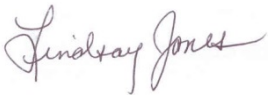
Phase I Environmental Site Assessment of 909 Castle Hill Avenue, Bronx County, New York

Marcus & Millichap on behalf of Alfredo Quinones

60545942

October 2018

Quality information

Prepared by	Checked by	Approved by
		
Nelson J. Abrams, PG Senior Project Manager nelson.abrams@aecom.com (212) 377-8705	Lindsay Jones Project Specialist lindsay.jones@aecom.com 610-832-8838	Rebecca Kelly Senior Project Specialist rebecca.kelly@aecom.com (207) 541-2045

Revision History

Revision	Revision date	Details	Authorized	Name	Position

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Executive Summary

Marcus & Millichap contracted with AECOM Technical Services, Inc. (AECOM) to perform a Phase I Environmental Site Assessment (ESA) of a residential property located at 909 Castle Hill Avenue, Bronx County, New York (subject property). This Phase I ESA was performed in accordance with the scope and limitations of ASTM Standard Practice Designation E 1527-13 for ESAs. Exceptions to, or deletions from, this practice are described in this report.

The site visit occurred on September 13, 2018. The approximately 0.43-acre subject property contains a 3,250-square foot, two-story residential building with a basement located on the northeast portion of the subject property. The building is comprised of three residential units. The remainder of the subject property consists of a partial concrete-paved entrance driveway located adjacent to the south of the subject property building, a mostly unpaved lot currently used for parking of operable and non-operable motor vehicles located south of the entrance driveway, and a vacant grassy area west of the subject property building. During the site visit, no visual evidence of underground storage tanks (USTs, e.g., vent pipes, fill ports), potable water wells, monitoring wells, dry wells, clarifiers, septic tanks, or leach fields was observed on the subject property. However, the vacant portion of the subject property had numerous small depressions.

The subject property is located in a predominately residential section of the Bronx. The subject property is bordered to the north by mixed use buildings consisting of commercial storefront operations on the ground floor and residential dwellings on the upper floors. The subject property is bordered by Castle Hill Avenue to the east, beyond which is a medical office building and residential dwellings. The subject property is bordered to the south by Story Avenue, beyond which are residential dwellings. The subject property is bordered to the west by residential dwellings. Gasoline service stations were not observed in the immediate vicinity (approximately 500 feet) of the subject property. A dry cleaner was identified approximately 220 feet north of the subject property along Castle Hill Avenue. Other off-site sources of concern were not identified in the immediate vicinity.

The NYDOF indicates that the current residential building located on the subject property was constructed in 1899. However, historical research indicates that the subject property was primarily vacant with the exception of a presumed two-story residential dwelling located along Castle Hill Avenue south of the current subject property building and an associated auto garage located on the northern property border in 1898. By 1908, both the current building and the older two-story building are illustrated in Sanborn® Fire Insurance Maps. Both of these structures are identified as residential dwellings. The garage building to the north also remained. By 1919, both residential buildings were still present, but the auto garage to the north was no longer present. A chicken coop and one small square unidentified structure were present in the center of the subject property. By 1929, only the two residential dwellings were present at the property. No changes to the subject property were evident until 1962 when aerial photographs indicate that the original two-story building was no longer present. Other than some changes in the amount of vegetation present at the subject property, no changes to the property were noted until 1995 when the vacant western portion of the property was identified as parking. No changes were evident at the property after 1995.

.

The subject property is not identified on the environmental database search report obtained for this project. According to the environmental database report, 119 sites were identified within their respective ASTM and/or EDR search distances from the subject property. Based on AECOM's review and analysis of the database listings, none of the surrounding sites is expected to present a recognized environmental condition (REC) to the subject property, based on their distance (generally greater than 500 feet), regulatory status (i.e. regulatory closure, no violations found), media impacted (soil only), and/or topographical position relative to the subject property (i.e. down-gradient or cross-gradient) with the exception of the sites described below.

The following RECs were identified during this assessment:

- Due to the history of area, including the potential for orphan USTs, migration of contamination from off-site sources, urban fill, and the possible discharge of motor fluids from abandoned automobiles, the possibility exists for subsurface contamination on and in immediate vicinity of subject property to be present.

- Based on a review of historical sources and the site specific environmental database report, a dry cleaning facility located at 937 Castle Hill Road located approximately 215 feet north of the subject property performed on-site cleaning services from at least 1969 through 2006. Based on AECOM's evaluation of this site per the ASTM E2600 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions dated October 2015, proximity to the subject property, and lack of information regarding the facility's historical hazardous material and waste handling and disposal practices prior to the mid-1990s, it is our opinion that this off-site dry cleaning facility is a REC and the potential for a vapor encroachment condition (VEC) exists.
- Based on a review of historical sources and the site specific environmental database report, a gasoline station formerly operated at 860 Castle Hill Road 250 feet southeast of the subject property from as early as 1969through 1991. The former gasoline station continues to be monitored for the presence of contaminated groundwater as a result of leaking USTs removed in the 1990s. Based on theproximity and presumed upgradient location, known discharge history to soil and groundwater, ongoing groundwater monitoring activities, and unknown extent of groundwater impacts, it is our opinion that this former gasoline station is considered a REC and the potential for a VEC exists.

Based on the above-described activities, no controlled RECs (CRECs) or historical RECs (HRECs) were identified in connection with the subject property.

The following de minimis condition was identified during this assessment:

- De minimis trash and miscellaneous debris (household garbage, plastic bags, etc.) was scattered throughout the vacant portions on the subject property. No staining was observed in the vicinity of this debris.
- De minimis petroleum staining approximately three inches wide was observed from a small oil leak in the subject property building's cast iron tankless boiler located in the utility room in the basement. However, the concrete floor was observed in good condition in the stained area with no floor drains located within the vicinity.

1. Introduction

1.1 Purpose

This Phase I Environmental Site Assessment (ESA) was performed pursuant to AECOM Technical Services, Inc. (AECOM's) written proposal, dated June 21, 2018. This assessment was performed in advance of the potential redevelopment of the subject property. The purpose of this Phase I ESA is to provide the client with information for use in evaluating recognized environmental conditions (RECs) associated with the subject property.

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

This assessment is based on a review of existing conditions, reported pre-existing conditions, and observed operations at the subject property and adjacent properties.

1.2 Scope of Work

The Phase I ESA included a site visit, regulatory research, historical review, and a review and an environmental database analysis of the subject property. In conducting the Phase I ESA, AECOM assessed the subject property for visible signs of possible contamination, researched public records for the subject property and adjacent properties (as applicable), and conducted interviews with persons knowledgeable about the subject property.

This project was performed in accordance with ASTM Standard Practice Designation E 1527-13 and AECOM's proposal, dated June 21, 2018. Conclusions reached in this report are based upon the assessment performed and are subject to limitations set forth in Sections 1.3, 1.4, and 1.5 below.

1.3 Study Limitations

This report describes the results of AECOM's Phase I ESA to identify the presence of conditions materially affecting the subject facility and/or property within the limits of the established scope of work as described in our proposal.As with any due diligence assessment, there is a certain degree of dependence upon oral information provided by facility or site representatives, which is not readily

verifiable through visual observations or supported by any available written documentation. AECOM shall not be held responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed by facility or site representatives at the time this assessment was performed. In addition, the findings and opinions expressed in this report are subject to certain conditions and assumptions, which are noted in the report. Any party reviewing the findings of the report must carefully review and consider all such conditions and assumptions.

This report and all field data and notes were gathered and/or prepared by AECOM in accordance with the agreed upon scope of work and generally accepted engineering and scientific practice in effect at the time of AECOM's assessment of the subject property. The statements, findings and opinions contained in this report are only intended to give approximations of the environmental conditions at the subject property.

As specified in the ASTM standard (referred to below as "this practice"), it is incumbent that the client and any other parties who review and rely upon this report understand the following inherent conditions surrounding any Phase I ESA:

- Uncertainty Not Eliminated - No ESA can wholly eliminate uncertainty regarding the potential for REC in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for REC in connection with a property, and this practice recognizes reasonable limits of time and costs. (Section 4.5.1 of the ASTM standard)
- Not Exhaustive - "All appropriate inquiry" does not mean an exhaustive assessment of a clean property. There is a point at which the cost of information obtained outweighs the usefulness of the information and, in fact, may be a material detriment to the orderly completion of transactions. One of the purposes of this practice is to identify a balance between the competing goals of limiting the costs and time demands inherent in performing an ESA and the reduction of uncertainty about unknown conditions resulting from additional information. (Section 4.5.2 of the ASTM Standard)
- Comparison with Subsequent Inquiry - ESAs must be evaluated based on the reasonableness of judgments made at the time and under the circumstances in which they were made. Subsequent ESAs should not be considered valid standards to judge the appropriateness of any prior assessment based on hindsight, new information, use of developing technology or analytical techniques, or other factors. (Section 4.5.4 of the ASTM Standard)

A similar set of inherent limitations exist in cases where the Phase I ESA included a screening-level assessment of vapor migration or vapor encroachment; such an assessment is a required part of a Phase I ESA when the ASTM E1527-13 standard is employed. According to the ASTM E2600-15 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, the following limitations apply:

- Uncertainty Not Eliminated in Screening - No vapor encroachment screen (VES) can wholly eliminate uncertainty regarding the identifications of vapor encroachment conditions (VECs) in connection with the target property. (Section 4.5.1)
- Not Exhaustive - The guide is not meant to be an exhaustive screening. There is a point at which the cost of information obtained outweighs the usefulness of the information and, in fact, may be a material detriment to the orderly completion of real estate transactions. One of the purposes of this guide is to identify a balance between the competing goals of limiting the

costs and time demands inherent in performing a VES and the reduction of uncertainty about unknown conditions resulting from additional information. (Section 4.5.2)

- Comparison with Subsequent Investigations - It should not be concluded or assumed that an investigation was not adequate because the investigation did not identify any VECs in connection with a property. The VES must be evaluated based on the reasonableness of judgments made at the time and under the circumstances in which they were made. Subsequent VESs should not be considered valid bases to judge the appropriateness of any prior screening if based on hindsight, new information, use of developing technology or analytical techniques, or similar factors. (Section 4.5.4)

This report was prepared pursuant to an agreement between Marcus and Millchap (Client) and AECOM and is for the exclusive use of the Client. No other party is entitled to rely on the conclusions, observations, specifications, or data contained herein without first obtaining AECOM's written consent and provided any such party signs an AECOM-generated Reliance Letter. A third party's signing of the AECOM Reliance Letter and AECOM's written consent are conditions precedent to any additional use or reliance on this report.

The passage of time may result in changes in technology, economic conditions, site variations, or regulatory provisions, which would render the report inaccurate. Reliance on this report after the date of issuance as an accurate representation of current site conditions shall be at the user's sole risk.

1.4 Site-Related Limiting Conditions

The following site-specific limitations were encountered during the course of this assessment:

- It was not feasible to evaluate every individual room or space within each of the apartments in the building located on the subject property during the site visit. AECOM's evaluation of the building focused on areas where hazardous substances are handled. Based on the use of the building on the subject property (residential/commercial), this particular site-related limiting condition is not expected to have a significant limitation to this assessment.
- During the site visit, AECOM did not access the roof of the subject property building. AECOM's evaluation of the subject property focused on areas where hazardous substances are handled. The site contact did not report any hazardous materials associated with the roof. Based on this information, this particular site-related limiting condition is not expected to have a significant limitation to this assessment.
- During the site visit, multiple operable and non-operable motor vehicles were observed parked on a mostly unpaved arealocated south of the subject property building. Therefore, AECOM was unable to observe the condition of the entire ground surface at the subject property, including the potential for staining from the parked vehicles. Based on this information, this particular site-related limiting condition is expected to have a significant limitation to this assessment.

1.5 Data Gaps/Data Failure

The following data failure/data gaps were encountered during the course of this assessment:

- The earliest source of historical information reasonably ascertainable within the time frame of this report in which usage could be determined was a Sanborn Map from 1898. The Sanborn Map shows the subject property occupied by a domestic dwelling. Therefore, the ASTM E1527 requirement to determine all obvious uses of the property from the present back to the property's first obvious developed use, or back to 1940, whichever is earlier, could not be achieved. However, based upon the identified residential land use, it is unlikely that there had been significant prior development; therefore, this data failure is not expected to impact the results of this assessment.
- As specified in the agreed upon scope of work, a title search and environmental lien search were not conducted as part of this ESA. However, based upon historical data collected from other sources, this data gap is not expected to impact the results of this assessment.
- Per ASTM, past owners, operators, and occupants of the subject property who are likely to have material information regarding the potential for contamination at the subject property shall be contacted to the extent that they can be identified and that the information likely to be obtained is not duplicative of information already obtained from other sources. AECOM was unable to interview past owners and/or operators at the subject property. However, based upon historical data collected from other sources, this data gap is not expected to impact the results of this assessment.
- Per the agreed scope-of-work and the ASTM Standard, information related to certain site-specific items should be provided by the ESA report user to AECOM. To assist the user in gathering information that may be material to identifying RECs, AECOM provided the Client (the users) with the User Questionnaire from the ASTM Standard; at this time the completed form has not been returned for inclusion in this report. However, this data gap is not expected to represent a significant limitation to this investigation given the historical use of the subject property.
- As of the date of this report, AECOM has not received any responses to Freedom of Information Act (FOIA) requests made to the New York City Department of Environmental Protection (NYCDEP), New York State Department of Health (NYSDOH), Fire Department of the City of New York (FDNY) or New York State Department of Environmental Conservation (NYSDEC). However, based upon historical data collected from other sources, this data gap is not expected to impact the results of this assessment.

2. Site Description

2.1 Site Location and Parcel Description

The subject property is located at 909 Castle Hill Avenue, Bronx County, New York. The subject property is situated on the northwest intersection of Castle Hill Avenue and Story Avenue. The subject property is accessed from Castle Hill Avenue (eastern property boundary).

According to the New York City Department of Finance (DOF), the subject property consists of one parcel of land designated as Block 3687, Lot 43. The approximate location of the subject property is illustrated on Figure 1 - Site Location Map.

2.2 Site Ownership

According to the DOF, the subject property is owned by 510 East Realty Inc., which Mr. Alfredo Quinones is identified as the owner.

2.3 Site Visit

Mr. Nelson Abrams with AECOM's 125 Broad Street, New York, New York office visited the subject property on September 13, 2018. During the site visit, Mr. Abrams was accompanied by Mr. Alfredo Quinones, owner of the subject property along with the tenants that occupied the three apartments located in the building. Mr. Quinones provided information regarding the subject property's current operations and history. Site-related limiting conditions encountered during this assessment were previously summarized in Section 1.4.

The site visit methodology consisted of walking over accessible areas of the subject property, including the building interior and exterior, the perimeter, and the portions of the surrounding area. The following sections summarize the results of the site visit.

2.3.1 Site and Facility Description

The approximately 0.43-acre subject property contains a 3,250-square foot, two-story residential building with a basement located on the northeast portion of the subject property. The building is comprised of three residential units. The building is constructed of a wood frame with brick masonry walls, a flat asphalt roof, and a stone foundation. The remainder of the subject property consists of a partial concrete-paved entrance driveway located adjacent to the south of the subject property building, a mostly unpaved area currently used for parking of operable and non-operable motor vehicles located south of the entrance driveway, and a vacant grassy area west of the subject property building.

During the site visit, no visual evidence of underground storage tanks (e.g., vent pipes, fill ports), potable water wells, monitoring wells, dry wells, clarifiers, septic tanks, or leach fields was observed on the subject property. However, the vacant portion of the subject property had numerous small depressions. No visual evidence of discolored soil, water, or unusual vegetative conditions or odors was observed during the site visit. No visual evidence of significant corrosion was observed on the floors or walls of the subject property buildings or on the exterior of the subject property.

The general layout of the subject property is illustrated on Figure 2 - Site Plan and Representative Site Photographs are provided in Appendix A.

2.3.2 Surrounding Properties

The subject property is located in a predominately residential section of the Bronx. The subject property is bordered to the north by mixed use buildings consisting of commercial storefront operations on the ground floor and residential dwellings on the upper floors. The subject property is bordered to the east by Castle Hill Avenue, beyond which is a medical office building and residential dwellings. The subject property is bordered to the south by Story Avenue, beyond which are residential dwellings. The subject property is bordered to the west by residential dwellings.

AECOM did not observe any active gasoline service stations in the immediate vicinity (approximately 500 feet) of the subject property. However, a former gasoline station undergoing groundwater monitoring is located approximately 250 feet south of the subject property along Castle Hill Avenue. A dry cleaner was also identified approximately 215 feet north of the subject property along Castle Hill Avenue. These facilities are discussed in further detail in Section 5.3.2. No sensitive receptors (i.e. day care centers, schools, hospitals, water bodies) are located adjacent to the subject property. Based on AECOM's site reconnaissance of the surrounding neighborhood and review of historical sources and the site specific environmental database report, both the former gasoline station and the dry cleaner are potential off-site sources of concern.

2.3.3 Petroleum Products and Hazardous Materials

In addition to the fuel-oil aboveground storage tank (AST) discussed in Section 2.3.5, petroleum products and hazardous materials observed at the subject property included typical commercial cleaning supplies located within the residential apartments and motor oil and gasoline contained in a small lawnmower located in the utility room of the subject property building basement. AECOM also observed abandoned and old vehicles on the subject property. AECOM presumes that the engines and gasoline tanks of these vehicles contain fluids including motor oil, antifreeze, lubricants, and gasoline.

No additional hazardous materials or petroleum products were observed at the subject property, and none were reported by site contacts to be located at the subject property. De minimims petroleum staining was observed from a small three inch diameter oil leak in the apartment's cast iron tankless boiler located in the utility room. However, the concrete floor was observed in good condition in the stained area with no floor drains located within the vicinity. No other staining or visual evidence of a hazardous materials release was observed at the time of the site visit.

2.3.4 Polychlorinated Biphenyls

Polychlorinated biphenyls (PCB)-containing dielectric fluids have been widely used as coolants and lubricants in transformers, capacitors, and other electric equipment due to their insulating and nonflammable properties. No hydraulic equipment (transformers, trash compactors, lifts) was observed on the subject property. One pole-mounted transformer is located adjacent to the east of the subject property along Castle Hill Road. Labeling indicating PCB content was not observed on the transformers. However, the transformer is owned by Consolidated Edison, and AECOM presumes the utility would be responsible for a release regardless of PCB content.

2.3.5 Aboveground Storage Tanks

A 275-gallon AST was located in a small storage space adjacent to the apartment located on the ground floor of on-site building. The AST containing fuel oil is used by the building's cast iron tankless boiler to create hot water for heating and domestic use. Both the fill port and the ventilation pipe are located on the exterior portion of the building along Castle Hill Avenue.

No other ASTs were observed at the subject property. In addition, no ASTs were listed in the site-specific environmental database report reviewed by AECOM, or otherwise identified during AECOM's review of historical aerial photographs.

2.3.6 Underground Storage Tanks

Visual evidence of underground storage tanks (USTs) (e.g., vent pipes, fill ports) was not observed during the site visit. Site contacts indicate that to the best of their knowledge, no USTs are currently located on the subject property and they are not aware of any USTs historically located on the subject property. In addition, no USTs were listed in the site-specific environmental database report reviewed by AECOM, or otherwise identified during AECOM's review of historical aerial photographs. However, it should be noted that the historic fuel source for the former on-site residences is unknown.

2.3.7 Solid Waste

Solid waste trash cans and bags were observed along the western wall of the residential building. Trash is placed in the front of the apartment building along Castle Hill Avenue for removal by the New York City Department of Sanitation (DOS) on are regular weekly basis. No evidence of inappropriate disposal activities and no significant staining were observed in the vicinity of the trash cans. No other solid waste is generated from the subject property. Trash and miscellaneous debris (such as damaged automobiles, residential garbage, plastic bags, etc.) was scattered throughout the vacant area on the subject property. No staining was observed in the vicinity of this debris. AECOM observed abandoned and old vehicles on the subject property. AECOM presumes that the engines and gasoline tanks of these vehicles contain fluids including motor oil, antifreeze, lubricants, and gasoline. As noted in Section 1.4, AECOM was unable to observe the condition of the ground surface beneath the parked vehicles for potential for staining.

2.3.8 Hazardous Waste

No evidence of hazardous waste generation was observed at the subject property, and the site contacts reported no such activities. In addition, the subject property was not listed as a generator of hazardous waste in the site-specific database report.

2.3.9 Water

The subject property building receives its potable water supply from the New York City Department of Environmental Protection (NYCDEP). No potable water wells were observed at the subject property or reported by the site contacts to be present on subject property.

2.3.10 Wastewater

Wastewater discharges from the subject property building include effluent from human consumptive use discharge directly to the NYCDEP municipal sanitary sewer system. With the exception of the on-site showers, floor drains were not observed within the residential dwelling.

2.3.11 Stormwater

Several stormwater drains were observed along Castle Hill Avenue. Stormwater which doesn't infiltrate the unpaved surfaces is expected to flow towards these drains.

2.3.12 Heating and Cooling

The residential dwelling is heated by hot water radiant heat through an oil-fired, tankless hot water heater located in building's utility room on the ground floor. Air conditioning for the apartments are provided through electric window mounted units. Consolidated Edison provides electrical service to the subject property while Quality Oil provides the fuel oil for the boiler.

3. Environmental Setting

3.1 Topography

According to the United States Geological Survey (USGS) topographic map of the subject property area (Flushing, New York quadrangle) and a review of the Google Earth application, the elevation of the subject property is approximately 39 feet above mean sea level (msl). Based on a review of these technical resources and AECOM's site visit, the subject property appears to be generally flat with a slight downward slope toward the northwest.

3.2 Soil/Geology

Site-specific geologic information was not identified during the course of this assessment. Though the subject property has never been developed other than being used as either a parking lot or its current use, the environmental database report indicates that the subject property is underlain with Urban Land, which is considered to be historic fill of unknown origin and is typically covered by streets, parking lots, buildings, and other structures of urban areas.

According to geologic information obtained from the United States Geological Survey, the soils underlying the surface soils at the subject property likely consists of unconsolidated strata of clay, silt, sand and gravel of late Cretaceous and Late Pleistocene ages. This consolidated material lies on crystalline bedrock of Ordovician age consisting of granitic gneiss of the Hartland Formation.

3.3 Groundwater/Hydrology

Site-specific hydrologic information was not identified during the course of this assessment. Based on the topographic gradient in the area of the subject property and other environmental investigations available through the NYC Office of Environmental Remediation (OER), the depth of groundwater beneath the subject property and in the surrounding area is anticipated to be between 20 and 30 feet below ground surface (bgs) and flow to the northwest. However, the actual groundwater flow direction and depth in the vicinity of the subject property cannot be determined without site-specific groundwater monitoring well data.

4. Site and Area History

Historical information for the subject property and surrounding properties is based on AECOM's review and analysis of the following historical sources:

- Aerial photographs dated 1924, 1951, 1954, 1962, 1966, 1974, 1976, 1980, 1985, 1994, 2006, 2009, 2013, and 2017;
- Sanborn® Fire Insurance Maps dated 1898, 1908, 1919, 1929, 1950, 1977, 1981, 1986, 1988, 1991 – 1993, 1995, 1996, 1998, and 2001 – 2007;
- Topographic maps dated 1897, 1898, 1900, 1947, 1955, 1966, 1979, 1995, and 2013;
- City directories for the years 1927 - 2014 at approximate 5 to 7 year intervals; and
- Online Property Information reviewed via the City of NYCDOF and the City of New York City Department of Buildings (DOB) websites.

In addition, an interview was conducted with Mr. Alfredo Quinones who owns the subject property.

4.1 Subject Property

The NYDOF indicates that the current residential building on the subject property was constructed in 1899. However, historical research indicates that, the subject property was primarily vacant with the exception of a presumed two-story residential dwelling located along Castle Hill Avenue south of the current subject property building location and an associated auto garage located on the northern property border in 1898. By 1908, both the current building and the older two-story building are illustrated in Sanborn Fire Insurance Maps. Both of these structures are identified as residential dwellings. The garage building to the north also remains. By 1919, both residential buildings are still present, but the auto garage to the north is no longer present. A chicken coop and one small square unidentified structure are present in the center of the subject property. By 1929, only the two residential dwellings are present at the subject property. There are no changes to the subject property until 1962 when aerial photographs indicate that the original two-story building is no longer present. Other than some changes in the amount of vegetation present at the subject property, there are no changes noted until 1995 when the vacant portion of the property is identified as parking. No changes were evident at the proeprty after 1995.

4.2 Off-site Properties

NORTH

Properties to the north of the subject property in 1898 were vacant. By 1908, residential dwellings were present to the northeast of the subject property and by 1919, additional residential dwellings were present to the northeast and northwest. As of 1929. the majority of the vacant properties identified in 1898 consisted of either residential dwellings or residential dwellings with storefront commercial operations. Note that the storefront located at 937 Castle Hill Avenue was later labeled as a dry cleaner in the 1977 Sanborn map. This historical dry cleaner is discussed in further detail in Section 5.3.2. Additional residential dwellings and residential dwellings with storefront commercial operations were present to the north by 1950. Other than the development of an office

building to the northeast of the subject property between 1954 and 1962, no significant changes were noted since 1950.

EAST

Properties to the east of the subject property in 1898 were vacant. By 1908, only one residential dwelling was present to the southeast of the subject property. No significant changes are identified until 1962 when residential dwellings were present to the east and southeast. In addition, a gasoline station appears to be located to the southeast of the subject property. Other than the gasoline station, whics was no longer identified in 1998, there have been no significant changes since 1962. This gasoline station is discussed in further detail in Section 5.3.2.

SOUTH

Properties to the south of the subject property in 1898 were vacant. By 1908, some residential dwellings were present and additional dwellings were constructed between 1908 and 1950. By 1950, there appeared to be no significant changes to the properties south of the subject property with the exception of a commercial storefront located to the south at 861 Castle Hill Avenue. The area to the south appeared to remain generally unchanged through 1995. In 1996, Kingdom Hall of Jehovah's Witnesses was present to the south at 875 Castle Hill Avenue. No significant changes appeared to be evident in the area to the south after 1996.

WEST

Properties to the west of the subject property in 1898 were vacant. By 1908, some residential dwellings were present and additional dwellings were constructed between 1908 and 1950. No significant changes were evident at the properties west of the subject property since 1950.

Based on a review of historical sources, with the exception of the historical dry cleaner located to the north and gasoline station formerly located to the southeast, no off-site potential environmental concerns were identified.

4.3 Previously Prepared Environmental Reports

AECOM inquired about existing environmental reports associated with the subject property. Previously prepared environmental reports were not identified during this assessment. Neither of the pastors indicated that to their knowledge, there were no previous environmental assessments or reports associated with the subject property.

5. Database and Records Review

5.1 User Provided Information

Section 6 of the ASTM Standard states that certain tasks, which will help to determine the possibility of RECs associated with the subject property, are generally conducted by the ESA report user. This includes the following: reviewing title records for environmental liens or activity and land use limitations and considering awareness of any specialized knowledge (e.g., information about previous ownership or environmental litigation), experience related to RECs at the subject property, or significant reduction in the purchase price of the subject property. Per the agreed scope-of-work, information related to these items should be provided by the ESA report user to AECOM. To assist the user in gathering information that may be material to identifying RECs, AECOM has provided the Client (the users) with the User Questionnaire from the ASTM Standard; however, at this time the completed form has not been returned for inclusion in this report. This data gap is not expected to represent a significant limitation to this investigation based on other documentation reviewed as part of the Phase I ESA.

5.2 Title Records/Environmental Liens

Per the agreed upon scope of work, a chain-of-title and an environmental lien search were not performed as part of this assessment.

5.3 Database Information

In accordance with the scope of work and ASTM Standard E-1527-13, a search of various governmental databases was conducted by EDR. The site-specific environmental database report was reviewed to evaluate if soil and or groundwater from an on-site and/or off-site sources of concern has the potential to impact the subject property. The database abbreviations are provided in the site-specific environmental database report.

The database report includes various reports detailing database information for each of the sites identified/geocoded within the specified radius. Additional sites were identified within the database report; however EDR was not able to map them to specific locations due to insufficient/contradicting address information. These sites were included in the database report as "orphan" sites. Based upon AECOM's review, no orphan sites were identified. A summary of AECOM's review and analysis of the site-specific environmental database report is presented below. A copy of the database report is provided in Appendix B.

Based on AECOM's research, the subject property is not located on or within a 1-mile radius of tribal lands.

5.3.1 Subject Property

The subject property was not identified in the site-specific environmental database report.

5.3.2 Surrounding Sites

According to the environmental database report, 119 sites were identified within their respective ASTM and/or EDR search distances from the subject property. Based on AECOM's review and

analysis of the database listings, none of the surrounding sites is expected to present a REC to the subject property, based on their distance (generally greater than 500 feet), regulatory status (i.e. regulatory closure, no violations found), media impacted (soil only), and/or topographical position relative to the subject property (i.e. down-gradient or cross-gradient) with the exception of the following sites:

- **Big A Service Station / Mobil Oil Corporation SS K1Vs** (EDR ID B10, B11) at 860 Castle Hill Avenue, is located approximately 250 feet southeast and presumed to be topographically upgradient of the subject property. This site is currently an auto repair and used automobile sales facility. The site is listed on the EDR Historical Auto Stations (EDR Hist Auto), New York Leaking Storage Tanks (NY LTANKS), NY Underground Storage Tank (NY UST), NY Spills Information (NY Spills), Resource Conservation and Recovery Act-Non Generator/No Longer Regulated (RCRA-NonGen/NLR), and Aerometyric Information Retrieval System Facility Subsystem (US AIRS) databases. According to the site specific environmental database report, this site operated as a gasoline service station from 1969 through 1991 and an automotive repair shop since 1991. Leaking USTs were reported to the New York State Department of Environmental Conservation (NYSDEC) in 1990 and the USTs were removed at that time. Qquarterly monitor of groundwater appears to be ongoing, with the most recent report round of sampling in May 2018. However, the extent of groundwater impacts is unknown. Therefore, this site is considered a REC for the subject property, in AECOM's opinion.

- **Rosins Cleaners Inc / Hahan's Dry Cleaners** (EDR ID A5, A6, A7, A8, A9) at 937 Castle Hill Avenue is located approximately 215 feet north and presumed to be topographically downgradient of the subject property. This site is listed on the Registered Drycleaners (NY Drycleaners), EDR Historical Dry Cleaner (EDR Hist Cleaner), NY Spills, NY LTANKS, RCRA-NonGen/NLR, Integrated Compliance Information System (ICIS), Facility Index System/Facility Registry System (FINDS), Enforcement and Compliance History Information (ECHO), New York Facility and Manifest Data (NY Manifest) databases. According to the site specific environmental database report, this site has been operating as a dry cleaner since 1969. It was identified as a Conditionally Exempt Small Quantity Generator (CESQG) in 1996 and listed as a non-generator in 2006. Wastes disposal manifests for spent halogenated solvents were generated from the site from 1997 through 2007. The site does not currently generate hazardous waste. The site was also involved with a 1995 overfill of a No. 2 fuel oil tank located in the basement of the building where the dry cleaner is located. This spill was remediated and closed the same day. However, based on proximity and unknown historical hazardous material and waste management and disposal practices of this facility which pre-date current regulations, this site is considered a REC in AECOM's opinion.

5.4 Vapor Encroachment Screening

AECOM conducted a Tier 1 vapor encroachment screening (VES) as part of this assessment. This screening was conducted in general accordance with the ASTM E2600 *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions* dated October 2015 (ASTM E2600). The objective of the VES was to determine if a VEC exists or if a VEC does not exist.

5.4.1 Subject Property

No on-site sources of vapor encroachment (e.g. UST, contaminated soil, groundwater plume, etc.) were identified during this assessment. Based on this information, a VEC due to an on-site source does not appear to exist.

5.4.2 Off-site

To conduct the VES of the nearby area, AECOM conducted a detailed review and analysis of the site-specific environmental database report with particular focus on the follow two types of sites:

1. Off-site properties that are impacted by chlorinated volatile organic compounds (VOCs) and/or semi-volatile-organic compounds (SVOCs) and are located within approximately 1,750 feet of the subject property, and
2. Off-site properties that are impacted by petroleum hydrocarbons and are located within approximately 525 feet of the subject property.

The following paragraph summarizes the results of AECOM's VES of the nearby area.

A review of the site-specific environmental database indicates that no chlorinated VOC/SVOC sites and four petroleum hydrocarbon impacted sites are located with the above-described radii of the subject property. Three of the petroleum hydrocarbon-impacted sites can be ruled out due to their regulatory status (i.e. regulatory closure has been issued), media impacted (i.e. soil only), and/or topographical position from the subject property (i.e. down-gradient or cross-gradient). As previous discussed in Section 5.3.2, one petroleum hydrocarbon impacted former gasoline station was identified upgradient from the subject property. This site continues to be monitored as required by the NYSDEC for groundwater contamination. In addition, a dry cleaner, though outside the defined limits of ASTM E2600 for downgradient properties is close enough to the subject project where it AECOM's judgement has the potential for environmental impacts. Based on the ongoing monitoring activities at the former gasoline station this facility, and the known historical information and proximity of the dry cleaner to the subject property, a VEC due to these two off-site properties may exist.

5.5 Agency File Review

5.5.1 Local

AECOM submitted Freedom of Information Act (FOIA) requests to the NYCDEP. As of the date of this report, responses to AECOM's FOIA requests have not been received. Based on AECOM's research to date, AECOM does not anticipate the response (if any) from these agencies to our FOIA request will significantly alter the conclusions or recommendations of this report. However, if information is received from these FOIA requests that significantly impact the conclusions of this report, this information will be forwarded upon receipt.

5.5.2 State

In addition, AECOM submitted FOIA requests to the NYSDEC and the NYSDOH. As of the date of this report, responses to AECOM's FOIA requests to the NYSDEC and the NYSDOH have not been received. Based on AECOM's research to date, AECOM does not anticipate the response (if any) from these agencies to our FOIA requests will significantly alter the conclusions or

recommendations of this report. However, if information is received from these FOIA requests that significantly impact the conclusions of this report, this information will be forwarded upon receipt.

AECOM also reviewed the following databases, in addition to those identified in Section 5.3.2:

- NYSDEC Bulk Storage Database Search. The subject property was not identified in the database.
- NYSDEC Spill Incident Database Search. The subject property was not identified in the database.

5.5.3 Federal

AECOM searched the U.S. EPA's Envirofacts and Superfund Enterprise Management System (SEMS) online databases. The SEMS database replaced the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) which has since been retired. SEMS includes the same data fields and content as CERCLIS. The Envirofacts database retrieves information obtained from 17 national systems, including the CERCLIS, Superfund program (NPL sites), hazardous waste sites, and potential hazardous waste sites. The subject property was not listed on the Envirofacts or SEMS databases.

6. Findings and Opinions

AECOM performed a Phase I ESA of the subject property in accordance with the scope and limitations of ASTM Practice E 1527-13, which meets the requirements of Title 40, Code of Federal Regulations Part 312 and is intended to constitute *all appropriate inquiry* for purposes of the landowner liability protections. Any exceptions to, or deletions from, this practice are described in Section 1.3 through 1.5 of this report.

The following sections summarize the findings and opinions of this Phase I ESA of the subject property.

6.1 Recognized Environmental Conditions

The following RECs were identified during this assessment:

- Due to the history of area, including the potential for orphan USTs, migration of contamination from off-site sources, urban fill, and the possible discharge of motor fluids from abandoned automobiles, the possibility exists for subsurface contamination on and in immediate vicinity of subject property to be present.

- Based on a review of historical sources and the site specific environmental database report, a dry cleaning facility located at 937 Castle Hill Road located approximately 215 feet north of the subject property performed on-site cleaning services from at least 1969 through 2006. Based on AECOM's evaluation of this site per the ASTM E2600 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions dated October 2015, proximity to the subject property, and lack of information regarding the facility's historical hazardous material and waste handling and disposal practices prior to the mid-1990s, it is our opinion that this off-site dry cleaning facility is a REC and the potential for a vapor encroachment condition (VEC) exists.
- Based on a review of historical sources and the site specific environmental database report, a gasoline station formerly operated at 860 Castle Hill Road 250 feet southeast of the subject property from as early as 1969through 1991. The former gasoline station continues to be monitored for the presence of contaminated groundwater as a result of leaking USTs removed in the 1990s. Based on theproximity and presumed upgradient location, known discharge history to soil and groundwater, ongoing groundwater monitoring activities, and unknown extent of groundwater impacts, it is our opinion that this former gasoline station is considered a REC and the potential for a VEC exists.

6.2 Controlled Recognized Environmental Conditions

Based on the above-described activities, no CRECs were identified in connection with the subject property.

6.3 Historical Recognized Environmental Conditions

Based on the above-described activities, no HRECs were identified in connection with the subject property.

6.4 De Minimis Conditions

The following de minimis condition was identified during this assessment:

- De minimis trash and miscellaneous debris (household garbage, plastic bags, etc.) was scattered throughout the vacant portions on the subject property. No staining was observed in the vicinity of this debris.
- De minimis petroleum staining approximately three inches wide was observed from a small oil leak in the subject property building's cast iron tankless boiler located in the utility room in the basement. However, the concrete floor was observed in good condition in the stained area with no floor drains located within the vicinity.

7. Conclusions

We have performed a Phase I ESA in accordance with the scope and limitations of ASTM Practice E 1527-13 of 426 – 444 Beach 67th Street, New York, Queens County, New York, the subject property. Any exception to, or deletions from, this practice are described in Sections 1.3 through 1.5 of this report. This assessment has revealed no evidence of RECs or CRECs in connection with the property except the following:

- Due to the history of area including the potential for orphan USTs, migration of contamination from off-site sources, urban fill, and the possible discharge of motor fluids from abandoned automobiles, the possibility exists for subsurface contamination on and in immediate vicinity of subject parcel to be present.

- A dry cleaning facility located at 937 Castle Hill Road is within 220 feet of the subject property which performed onsite cleaning services possible since 1969 through 2006. Based on AECOM's evaluation of this site per ASTM E2600 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions dated October 2015, their proximity position, and the lack of information regarding their historical hazardous material and waste handling and disposal practices prior to the mid-1990s, it is our opinion that these off-site dry cleaning facilities are an REC and the potential for a VEC exists.
- A former gasoline station located at 860 Castle Hill Road is within 250 feet of the subject property which operated 1969 and 1991. The former gasoline station continues to be monitored for the presences of contaminated groundwater. Based on AECOM's evaluation of this site per ASTM E2600 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions dated October 2015, their proximity upgradient position, the known discharge history to the soil and groundwater, and the ongoing groundwater monitoring activities, it is our opinion that these off-site dry cleaning facilities are an REC and the potential for a VEC exists.

8. Environmental Professional Statement

Mr. Abrams was the Environmental Professional (EP) for this project. Mr. Abrams' EP statement is below and his resume is provided in Appendix C:

I declare that, to the best of our professional knowledge and belief, I meet the definition of an EP as defined in §312.10 of 40 Code of Federal Regulations (CFR) and that I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Signature: _____ Date: October 17, 2018

9. References

9.1 Persons Interviewed

Quinones, Alfredo, Owner, 510 East Realty Inc., 1832 Edenwald Avenue, Bronx, New York 10466. Telephone number not provided. Provided site walk escort and site history on September 13, 2018.

9.2 Agencies Contacted

Environmental Protection Agency Envirofacts database - http://www.epa.gov/enviro/

Environmental Protection Agency Superfund Enterprise Management System (SEMS) database, https://cumulis.epa.gov/supercpad/cursites/srchsites.cfm.

Fire Department of the City of New York, Public Records Unit / Tanks Section, 9 MetroTech Center, Brooklyn, New York 11201-3857. (718) 999-2441 or 2442.

New York City Department of Buildings. Building permits accessed online at: http://www.nyc.gov/html/dob/html/home/home.html

New York City Department of Finance. Review of Digital Tax Maps. System accessed online at: http://www1.nyc.gov/subject property/finance/taxes/property-digital-tax-map.page

New York State Department of Environmental Conservation, Bulk Storage Database Search, bulk storage information pertaining to the subject property, retrieved online at http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=4

New York State Department of Environmental Conservation, Spill Incidents Database Search, spill information pertaining to the subject property, retrieved online at http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=2

New York State Department of Environmental Conservation, Office of General Counsel, 625 Broadway, Albany, New York 12233-1500.

New York State Department of Health, 59-17 Junction Boulevard, Corona, New York 11368.

9.3 Documents Reviewed

ASTM E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, dated November 2013. www.astm.org.

ASTM E2600-15, Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, dated October 2015. www.astm.org.

Brock, Pamela Chase, and Brock, Patrick W.G. Geologic Map of New York City, dated October 2001. State University of New York at Stony Brook, www.geo.sunusb/reports/ny-city/full-map.png.

EDR 7.5 Minute Topographic Maps, prepared for Site Redevelopment - Castle Hill Avenue, 909 Castle Hill Avenue, Bronx, NY 10473, dated July 20, 2018. Inquiry number 5368803.8. Topographic Maps 1897, 1898, 1900, 1947, 1955, 1966, 1979, 1995, and 2013. Report prepared

by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

EDR Aerial Photos Decade Package, prepared for Site Redevelopment - Castle Hill Avenue, 909 Castle Hill Avenue, Bronx, NY 10473, dated July 23, 2018. Inquiry number 5368803.8. Aerial photographs dated 1924, 1951, 1954, 1961, 1966, 1974, 1976, 1984, 1991, 1995, 2008, 2011, and 2015. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

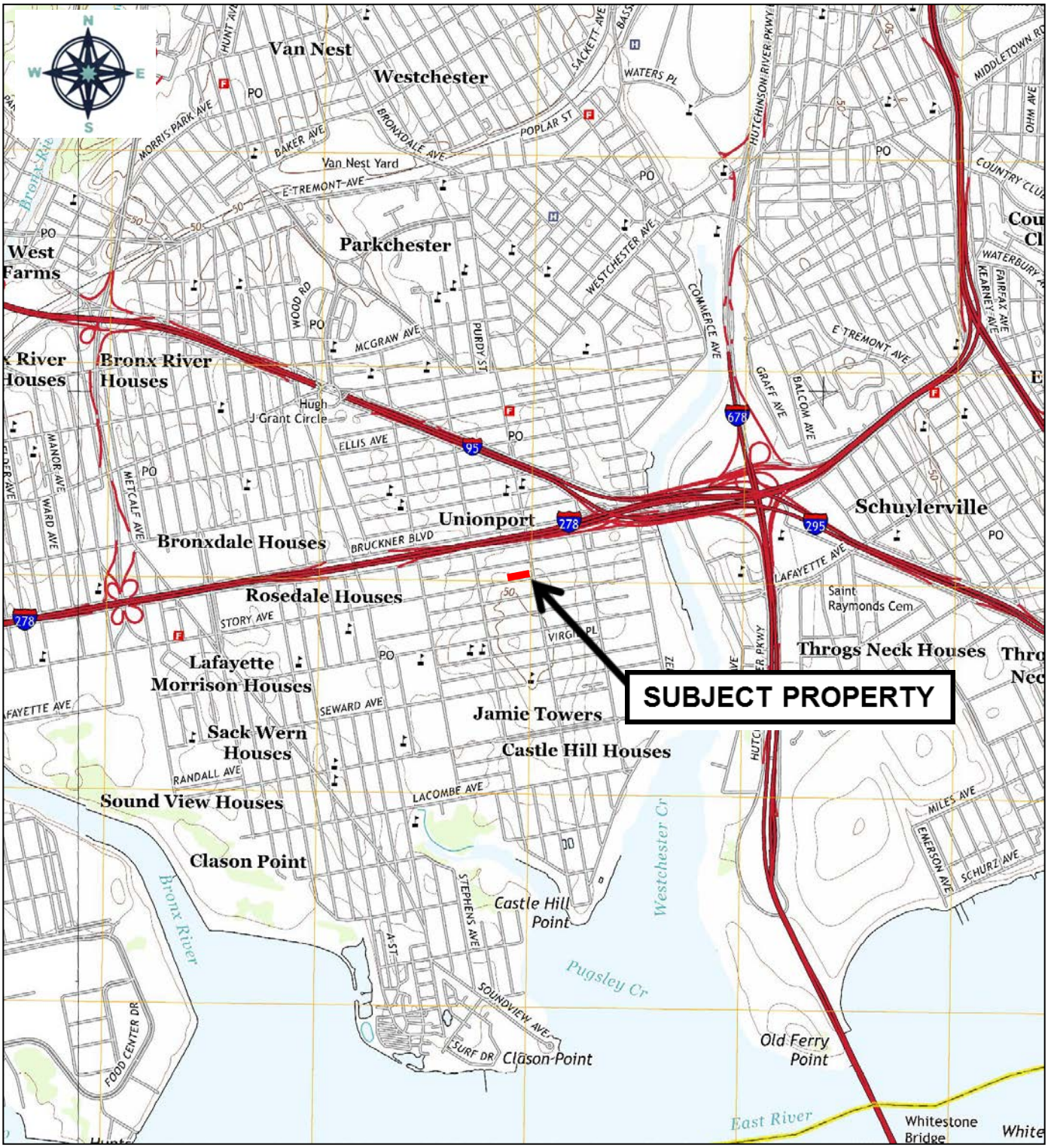
EDR City Directory Abstract prepared for prepared Site Redevelopment - Castle Hill Avenue, 909 Castle Hill Avenue, Bronx, NY 10473, dated July 23, 2018. Inquiry number 5368803.5. City directories were reviewed from 1927 - 2014 in approximately 3 to 5 year intervals. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

EDR Radius Map with GeoCheck®, prepared for Site Redevelopment - Castle Hill Avenue, 909 Castle Hill Avenue, Bronx, NY 10473, dated July 20, 2018. Inquiry number 5368803.2s. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

EDR Sanborn Map Report, Package prepared for Site Redevelopment - Castle Hill Avenue, 909 Castle Hill Avenue, Bronx, NY 10473, dated July 23, 2018. Inquiry number 5368803.3. Sanborn Maps dated 1898, 1908, 1919, 1929, 1950, 1977, 1981, 1986, 1988, 1991 – 1993, 1995, 1996, 1998, and 2001 – 2007. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

Google Earth website, www.google.earth.com. This information was reviewed online by Mr. Nelson Abrams with AECOM on October 10, 2018.

Figures

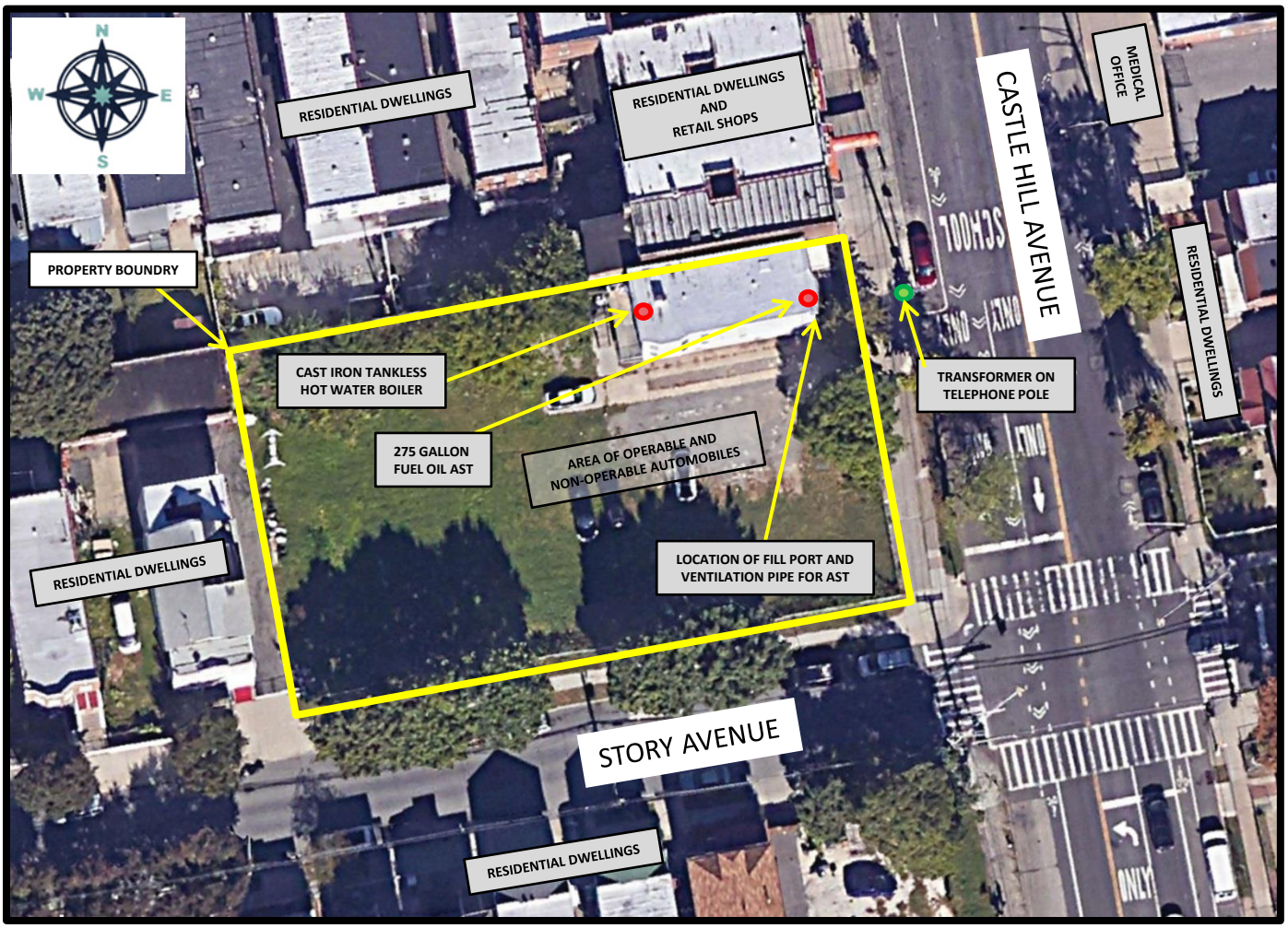


Scale 1:24,000

FLUSHING / CENTRAL PARK, NY
7.5 Minute U.S.G.S. Quadrangles – 2013

AECOM

Figure 1
Site Location Map
Site Redevelopment – Castle Hill
909 Castle Hill Avenue
Bronx, New York



AECOM

Figure 2
Site Plan
Site Development – Castle Hill
909 Castle Hill Avenue
Bronx, New York

APPENDIX D – (E)- Designation

NYC Environmental Protection

Vincent Sapienza, P.E.
Commissioner

Angela Licata
Deputy Commissioner of Sustainability

59-17 Junction Blvd.
Flushing, NY 11373

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July 10, 2019

Laura Kenny
Project Manager
Environmental Assessment and Review Division
New York City Department of City Planning
120 Broadway, 31st Floor
New York, New York 10271

Re: Castle Hill Avenue Rezoning
Block 3687, Lots 37, 39, 40, 41, 42 and 43
CEQR # 19DCP222X

Dear Ms. Kenny:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the June 2019 Environmental Assessment Statement (EAS) and the October 2018 Phase I Environmental Site Assessment (Phase I) prepared by AECOM USA Inc., on behalf of 510 East Realty Inc., (applicant) for the above referenced project. It is our understanding that the applicant is seeking a zoning map amendment from the New York City Department of City Planning (DCP) to rezone the project area from a R3-2 zoning district to a R5D/C1-3 zoning district. As currently proposed, the rezoning action would facilitate the development of a new four-story, mixed-use residential and commercial building containing 3,744 square feet (sf) of ground floor commercial floor area, 2,446 sf of ground floor community facility floor area and 30,761 sf of residential floor area on floors two through four. The 0.43-acre applicant-owned development site (Block 3687, Lot 43) is located between Story Avenue and Quimby Avenue in the Castle Hill neighborhood of Bronx Community District 9 and is currently improved with a two-story residential building in the northeast portion of the property. It should also be noted that, in the Future-With Action Scenario, it is assumed that the non-applicant Lots 37, 39, 40, 41 and 42 would be occupied with ground floor commercial uses and residential uses on the upper floors in a matter that is congruent to their current Existing Conditions and No-Action Scenario.

The October 2018 Phase I report revealed that historical on-site and surrounding area land uses consists of residential and commercial uses including gas stations, a dry cleaner, an auto garage, a church, Essential Realty Group LLC., New Look Salon, a barber shop, a tattoo studio, Castle Hill Medical of New York, Alexa Beauty Salon as well as several residential buildings. Regulatory databases such as the New York State Department of Environmental Conservation SPILLS, Leaking Underground Storage Tank, Leaking Storage Tanks (LTANKS), Resource Conservation and Recovery Act Generators, and Petroleum Bulk Storage (PBS) Underground Storage Tanks (USTs) and PBS Aboveground Storage Tanks (ASTs) identified several sites in close proximity to the project site. The SPILLS database reported nine SPILLS within a 1/8-mile radius of the project site and the LTANKS database reported 30 LTANKS within a 1/2-mile radius of the project site. The PBS USTs and the PBS ASTs databases reported four USTs and four ASTs within a 1/4-mile radius of the project site. The Phase I also reported one Historical Auto Station and one Historical

Cleaner within a 1/8-mile radius of the project site. Based on the age of the building that currently occupies the project site, asbestos containing materials and lead based paint could be present in the structure.

Based upon our review of the submitted documentation, we have the following comments and recommendations to DCP:

Projected Development Site: Block 3687, Lot 43 (applicant-owned site)

- Based on prior on-site and/or surrounding area land uses which could result in environmental contamination, DEP concurs with the EAS recommendation that an (E) designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for the subject property. The (E) designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance. The applicant should be directed to coordinate further hazardous materials assessments through the Mayor's Office of Environmental Remediation (OER).

Future correspondence and submittals related to this project should include the following CEQR number **19DCP222X**. If you have any questions, you may contact Ms. Cassandra Scantlebury at (718) 595-6756.

Sincerely,

Wei Yu

Wei Yu
Deputy Director, Hazardous Materials

cc: R. Weissbard
T. Estesen
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