1965 Lafayette Avenue

Environmental Assessment Statement

CEQR # 17DCP172X

ULURP #s 170392 ZMX & N 170393 ZRX

Lead Agency:
New York City Department of City Planning (DCP)

Prepared for:
Park Lane Residences Co.

Prepared by:
Philip Habib & Associates

June 2, 2017

1965 Lafayette Avenue

Environmental Assessment Statement

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EAS FORM

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

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

Part I: GENERAL INFORMATION

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

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

2. *Project Name* 1965 Lafayette Avenue

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
17DCP172X	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
170392 ZMX; N 170393 ZRX	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY New York City Department of City Planning (DCP)			NAME OF APPLICANT Park Lane Residences Co.		
NAME OF LEAD AGENCY CONTACT PERSON Robert Dobruskin, AICP , Director, EARD			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Joshua Siegel		
ADDRESS 120 Broadway			ADDRESS c/o Starrett Companies, 70 East 55th Street, 7th Floor		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10022
TELEPHONE 212-720-3420	EMAIL rdobrus@planning.nyc.gov		TELEPHONE 212-527-9903	EMAIL j.siegel@dvln.com	

5. *Project Description*

The applicant, Park Lane Residences Co. is seeking a series of discretionary actions to facilitate the development of two attached predominantly residential apartment buildings at 1965 Lafayette Avenue (Bronx Block 3672, p/o Lot 1) in the Soundview neighborhood of Bronx Community District (CD) 9. The proposed project would comprise a combined approximately 384,271 gross square foot (gsf) of floor area, including approximately 425 affordable residential units and approximately 19,938 gsf of local retail, as well as accessory parking. Specifically, the applicant is seeking (1) a zoning map amendment to rezone an approximately 107,890-sf rezoning area from R6 to R8 with a C2-4 commercial overlay along White Plains Road; (2) a text amendment to establish the rezoning area as an Mandatory Inclusionary Housing (MIH) designated area; (3) public financing from the New York City Department of Housing Preservation and Development (HPD) and/or the New York City Housing Development Corporation (HDC); and (4) additional HPD and New York State Department of Homes and Community Renewal (DHCR) approvals to facilitate development in the rezoning area in consideration of existing Mitchell Lama site controls. While the specific public financing source(s) will inform the affordability levels and number/type of the units, it is anticipated that the proposed project would include approximately 425 units affordable to households at a mix of income levels, including 292 affordable family units (to be located in the 281,572-gsf family housing building, in addition to the proposed retail and accessory parking uses) and 133 affordable senior housing units (to be located in the 102,699-gsf senior housing building, in addition to the accessory parking uses). The proposed project is expected to be completed and occupied by 2020.

The proposed actions are undergoing coordinated review, with the New York City Department of City Planning (DCP) serving as the lead agency, with HPD and HDC acting as involved agencies under CEQR.

Project Location

BOROUGH Bronx	COMMUNITY DISTRICT(S) 9	STREET ADDRESS 1965 Lafayette Avenue
TAX BLOCK(S) AND LOT(S) Block 3672, Lot 1 (p/o)		ZIP CODE 10473
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Western portion of the block bounded by Turnbull Avenue to the north, Lafayette Avenue to the south, and White Plains Road to the west		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R6		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 CERTIFICATION ☐ CONCESSION
☒ ZONING MAP AMENDMENT ☐ ZONING AUTHORIZATION ☐ UDAAP
☒ ZONING TEXT AMENDMENT ☐ ACQUISITION—REAL PROPERTY ☐ REVOCABLE CONSENT
☐ SITE SELECTION—PUBLIC FACILITY ☐ DISPOSITION—REAL PROPERTY ☐ FRANCHISE
☐ HOUSING PLAN & PROJECT ☐ OTHER, explain:
☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

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

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

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

☐ LEGISLATION
☒ FUNDING OF CONSTRUCTION, specify: The applicant is seeking public financing in the form of HPD bonds to construct the proposed affordable housing development.
☐ RULEMAKING
☐ POLICY OR PLAN, specify:
☐ CONSTRUCTION OF PUBLIC FACILITIES
☒ FUNDING OF PROGRAMS, specify: The applicant is seeking public financing from HPD.
☐ 384(b)(4) APPROVAL
☐ PERMITS, specify:
☒ OTHER, explain: HPD approval to allow for new development in the rezoning area, which is subject to existing controls under the Mitchell Lama program

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: The applicant is seeking public financing from HDC, and potentially federal or state Low Income Housing Tax Credits (LIHTC), as well as DHCR approval to allow for new development in the rezoning area, which is subject to existing controls under the Mitchell Lama program.

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

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

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

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 107,890
Waterbody area (sq. ft) and type: 0
Roads, buildings, and other paved surfaces (sq. ft.): 91,587
Other, describe (sq. ft.): 16,303 sf of grass/softscape

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

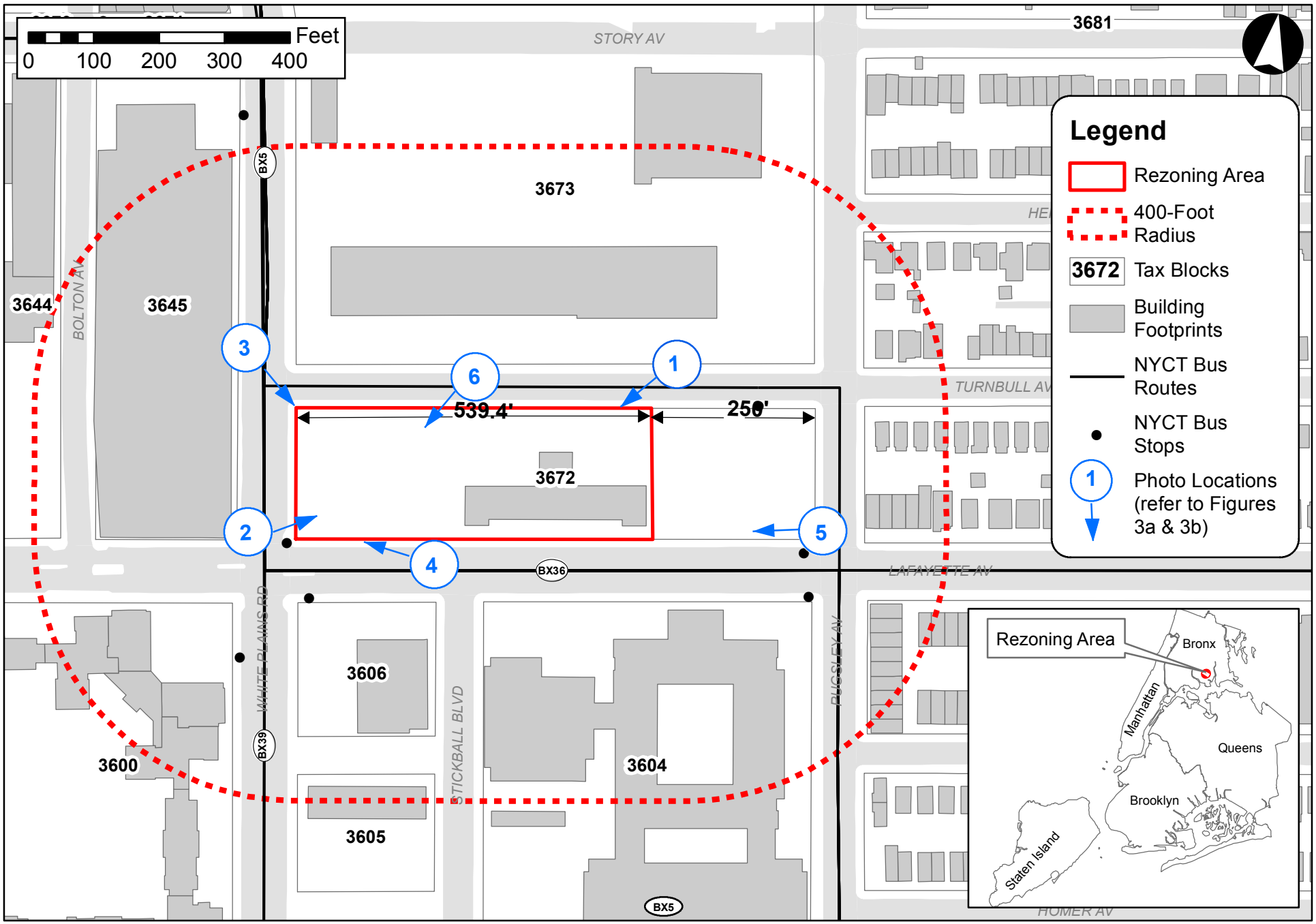
SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 384,271 gsf

NUMBER OF BUILDINGS: 2 attached buildings

GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): Affordable senior housing building: 102,699 gsf
Affordable family housing building: 281,572 gsf

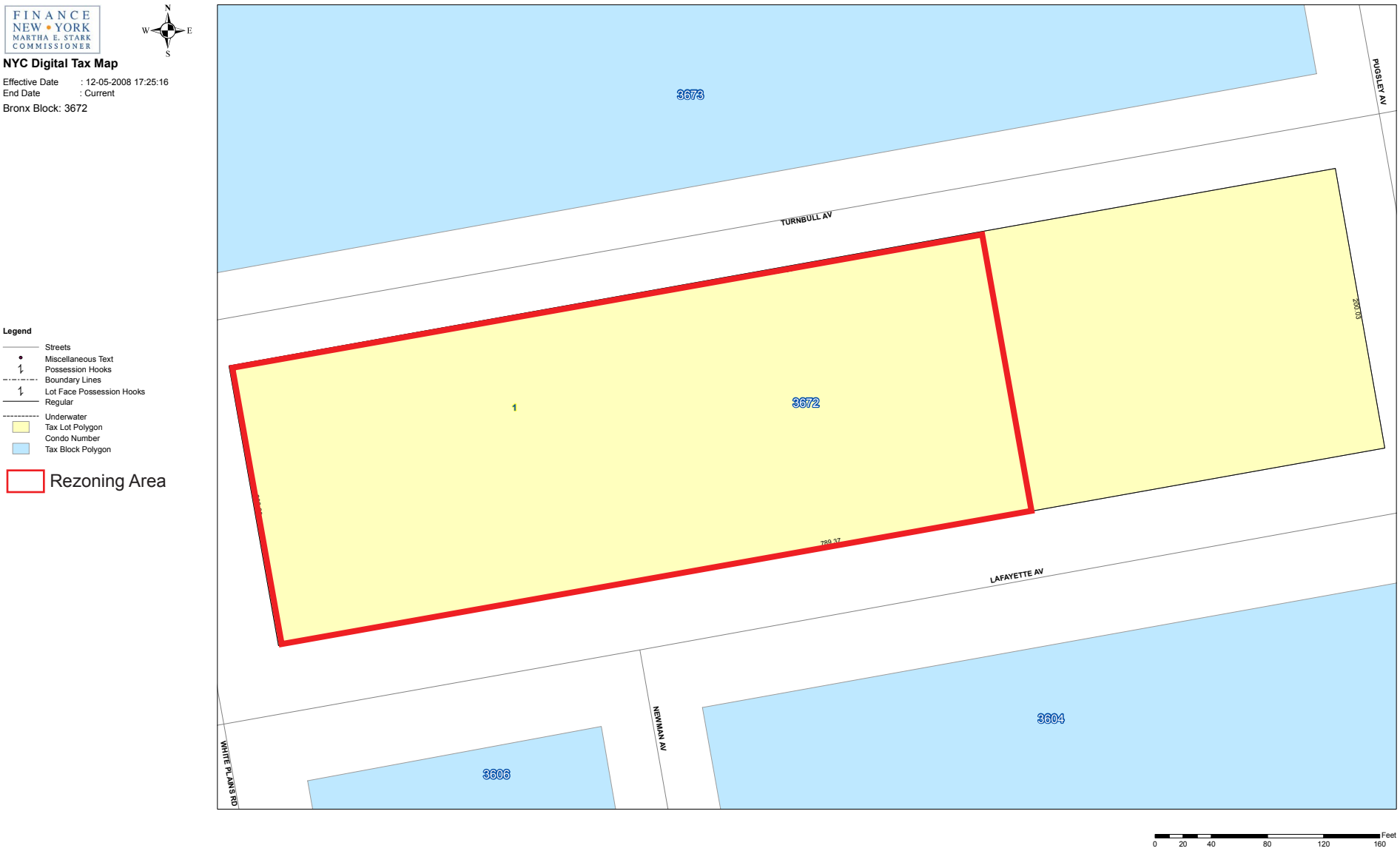
HEIGHT OF EACH BUILDING (ft.): Both buildings would have

NUMBER OF STORIES OF EACH BUILDING: Both buildings would have



1965 Lafayette Avenue

Figure 1
Site Location Map



1965 Lafayette Avenue

Figure 2
Tax Map

Rezoning Area Photos

(refer to Figure 1 Photo Key)

1. View southwest from Turnbull Avenue of the existing Mitchell Lama residential building.

2. View northeast from the corner of Lafayette Avenue and White Plains Road of the existing accessory parking lot.

3. View south from the corner of Turnbull Avenue and White Plains Road of the existing basketball court.

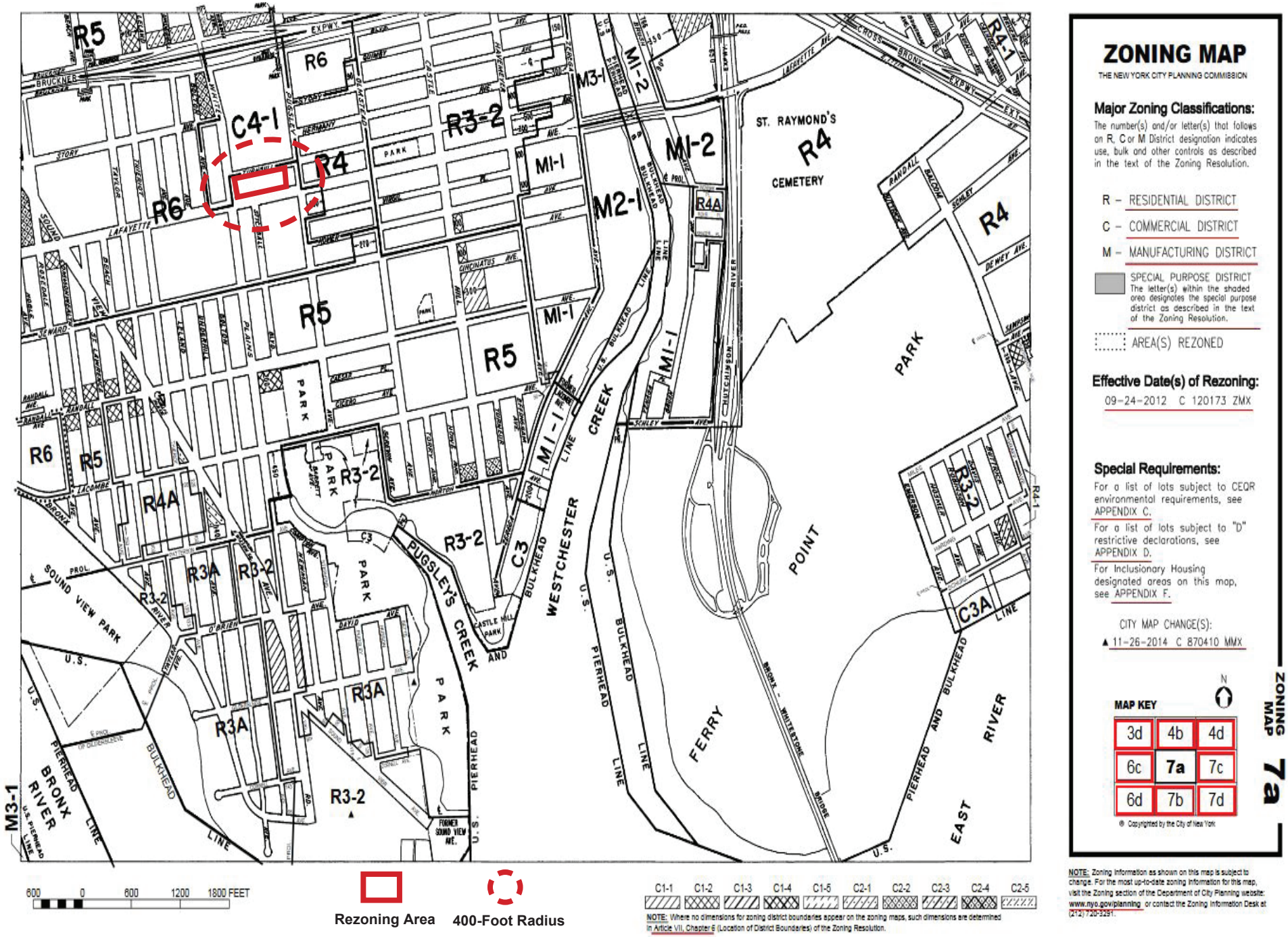
Rezoning Area Photos

(Refer to Figure 1 Photo Key)

4. View northwest from Lafayette Avenue of the existing parking lot entry.

5. View west from the corner of Lafayette Avenue and Pugsley Avenue of the existing accessory parking lot, with the rezoning area existing building in the background.

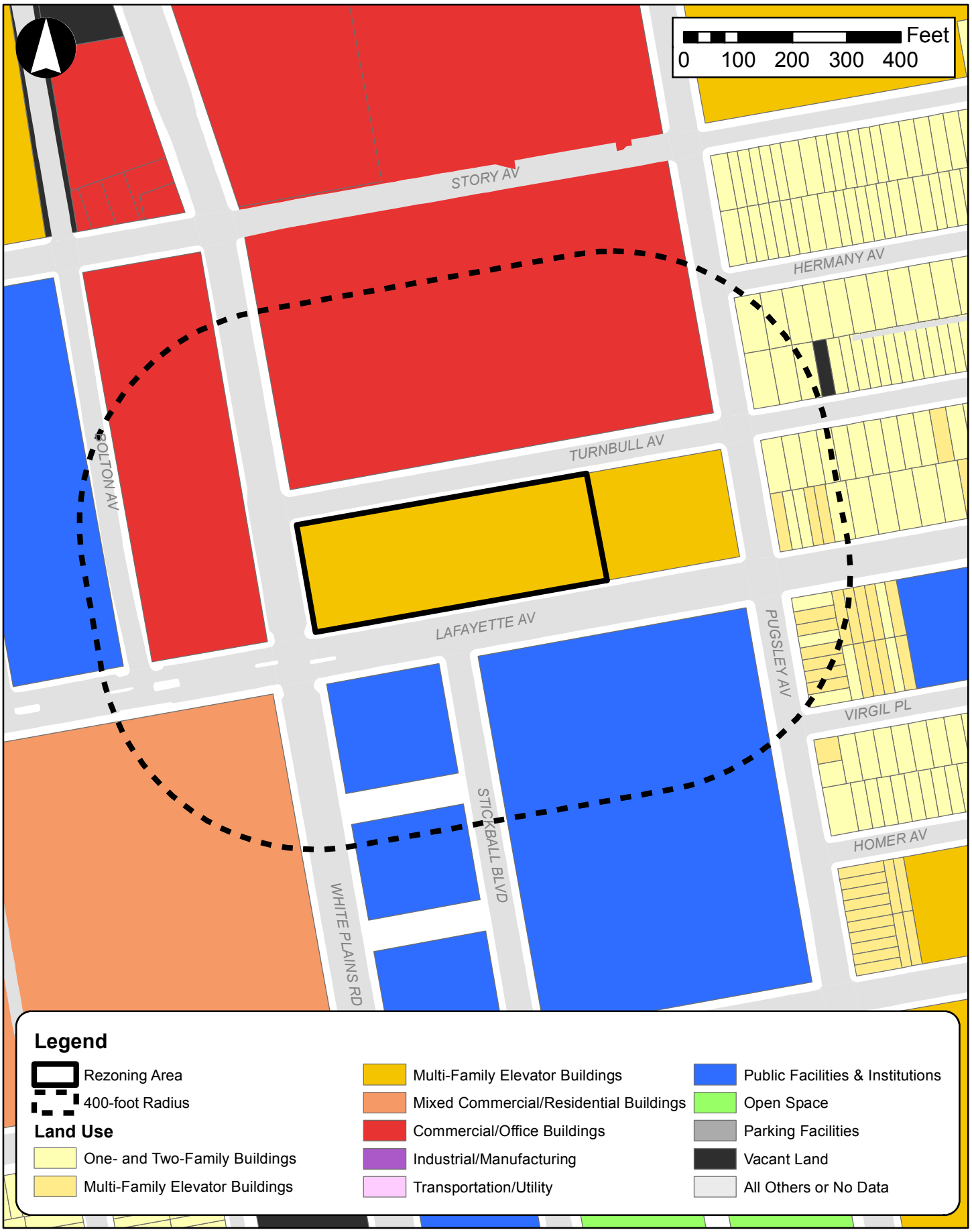
6. View southwest from Turnbull Avenue of the existing rezoning area parking lot.



1965 Lafayette Avenue

Figure 4
Zoning Map

Figure 5
Land Use Map



maximum building heights of approximately 137' 8" 14 stories

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: 107,890 sf

The total square feet not owned or controlled by the applicant: 0 sf

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

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

AREA OF TEMPORARY DISTURBANCE: 50,305 sq. ft. (width x length) VOLUME OF DISTURBANCE: 418,550 cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 38,050 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.)	332,868 gsf (inc. 233,857 gsf of affordable family gsf & 99,011 gsf of affordable senior gsf)	19,938 gsf	0	0
Type (*e.g.,* retail, office, school)	425 units (inc. 292 affordable family units & 233 affordable senior units	Retail	N/A	N/A

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

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 992 NUMBER OF ADDITIONAL WORKERS: 77

Provide a brief explanation of how these numbers were determined: Residents: based on 2.78 residents/unit (average household for Bronx CD 9, 2010 Census) for the proposed family units, an average of 1 occupant per senior studio unit, and an average of 1.5 occupants per senior 1-bedroom unit. Workers: assumes 3 employees per 1,000 sf of retail floor area and 1 employee per 25 residential units.

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

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

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

9. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2020

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 23

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: N/A

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

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

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

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

	YES	NO
involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?		
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): 21,604 lbs/week		
○ 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): 46,486,965 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 Attach. B & G	☐	☒
(c) Does the proposed project involve multiple buildings on the project site?	☒	☐
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☐
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to	☐	☒

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

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
PHILIP HABIB	6/2/17
SIGNATURE	

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

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

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

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

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

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

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

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

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

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

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

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

TITLE	LEAD AGENCY
Deputy Director, Envionmental Assessment & Review Division	New York City Department of City Planning
NAME	**DATE**
Olga Abinader	June 2, 2017

SIGNATURE Olga Abinader

ATTACHMENT A

PROJECT DESCRIPTION

I. INTRODUCTION

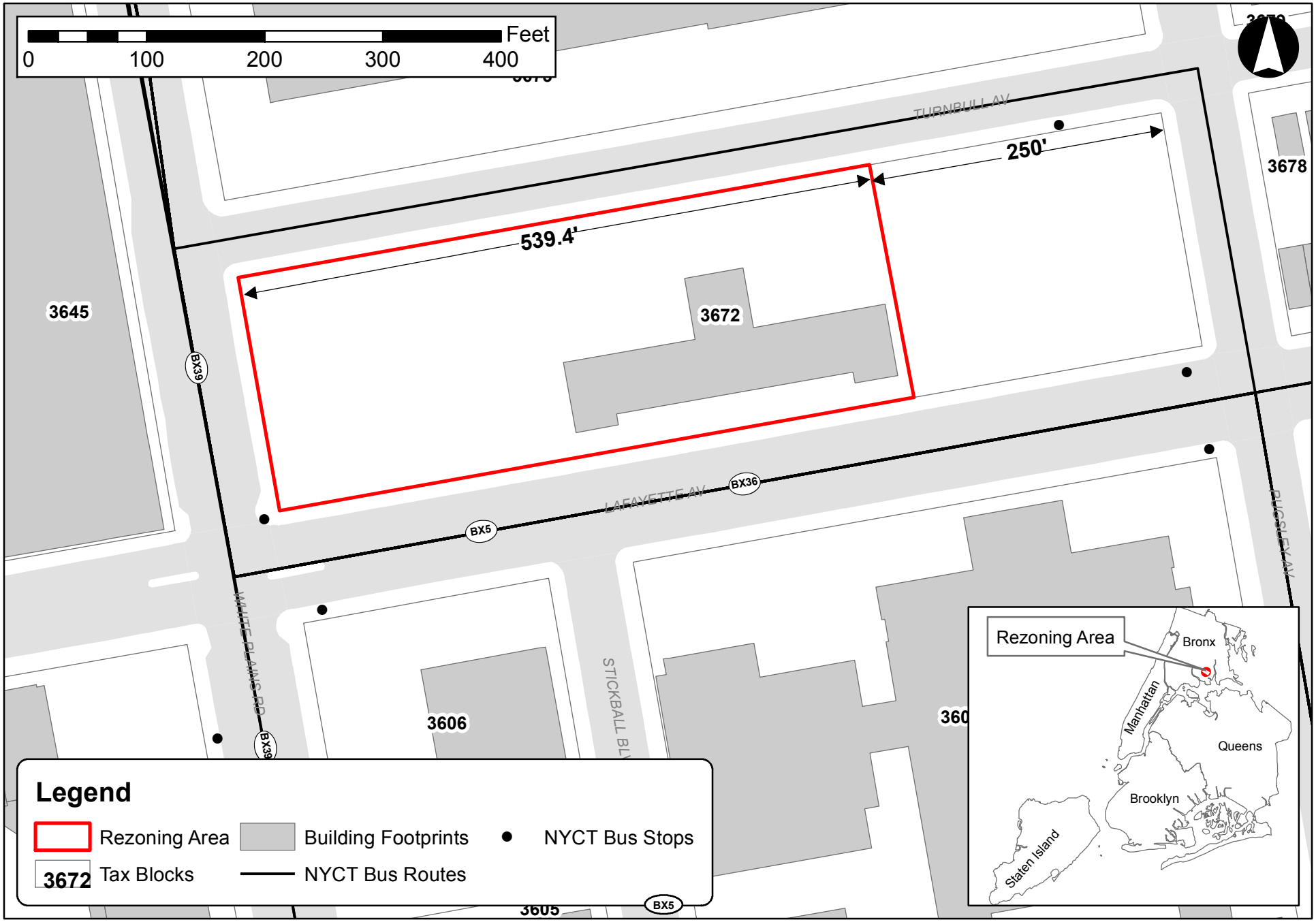
Park Lane Residences Co. is seeking a series of discretionary actions to facilitate the development of two attached predominantly residential apartment buildings at 1965 Lafayette Avenue (Bronx Block 3672, p/o Lot 1) in the Soundview neighborhood of Bronx Community District (CD) 9 (see Figure A-1). The proposed project would comprise a total of approximately 384,271 gross square foot (gsf) of floor area, including approximately 425 affordable residential units and approximately 19,938 gsf of local retail, as well as accessory parking. Specifically, the applicant is seeking zoning map and text amendments from the New York City Planning Commission (CPC), public financing from the New York City Department of Housing Preservation and Development (HPD) and/or the New York City Housing Development Corporation (HDC), and additional HPD and New York State Department of Housing and Community Renewal (DHCR) approvals to facilitate development in the rezoning area in consideration of existing Mitchell Lama site controls. While the specific public financing source(s) will inform the affordability levels and number/type of the units, it is anticipated that the proposed project would include approximately 425 units affordable to households at a mix of income levels, including 292 affordable family units (to be located in the 281,572-gsf family housing building, in addition to the proposed retail and accessory parking uses) and 133 affordable senior housing units (to be located in the 102,699-gsf senior housing building, in addition to accessory parking uses). The proposed project will be undergoing coordinated review, with the New York City Department of City Planning (DCP) serving as the lead agency, and HPD and HDC acting as involved agencies under CEQR.

This attachment provides a summary and description of the proposed actions, including rezoning area location, existing conditions of the rezoning area, project purpose and need, project description, reasonable worst-cast development scenario (RWCDS) under No-Action and With-Action conditions, and the governmental approvals required. The attached supplemental studies examine the potential for the proposed actions to result in impacts in any City Environmental Quality Review (CEQR) technical areas, including separate attachments with detailed analyses of land use, zoning, and public policy; socioeconomic conditions; community facilities; open space; shadows; urban design and visual resources; transportation; air quality; and noise in Attachments C through K, respectively. All other preliminary screening assessments are summarized in Attachment B, “Supplemental Screening.”

II. BACKGROUND AND EXISTING CONDITIONS

Rezoning Area

The rezoning area comprises approximately 107,890 sf of the approximately 157,896-sf Block 3672, Lot 1, with approximately 539 feet of street frontage on Turnbull Avenue (to the north) and Lafayette Avenue (to the south) and approximately 200 feet of street frontage on White Plains Road (to the west); the eastern approximately 50,008 portion of Block 3672, Lot 1, which has approximately 250 feet of frontage



1965 Lafayette Avenue

Figure A-1
Project Location

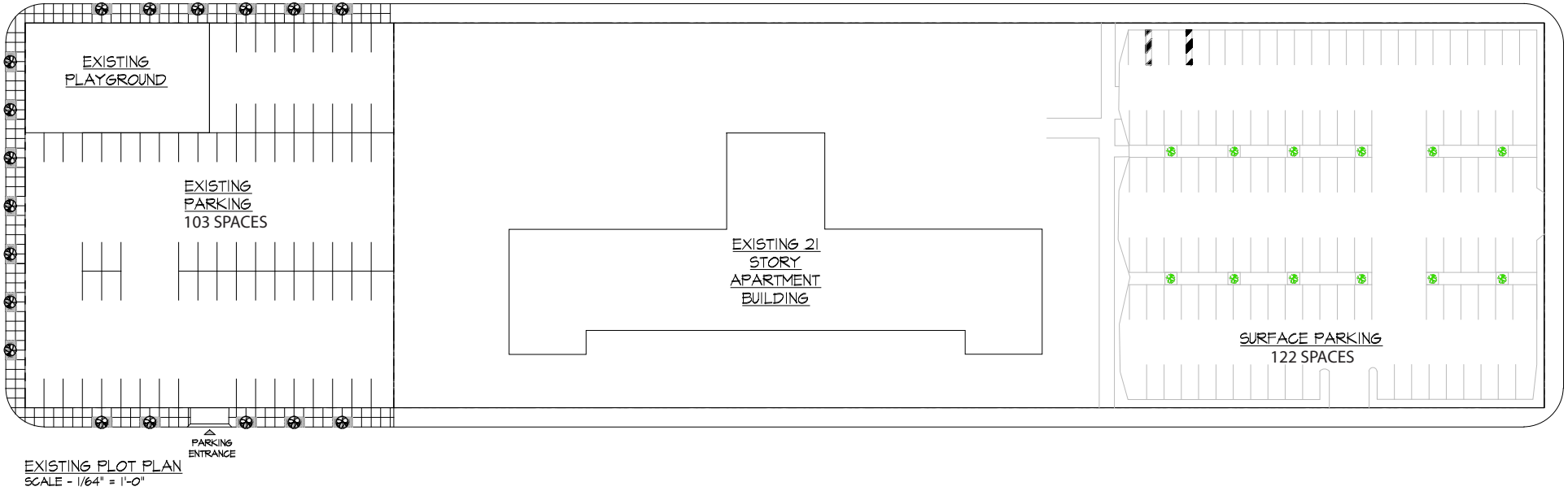
on Turnbull and Lafayette Avenues and approximately 200 feet of frontage on Pugsley Avenues would not be rezoned under the proposed actions. The entirety of the rezoning area is owned by the applicant.

As presented in Figure A-2, the rezoning area is currently occupied by a 21-story affordable residential building, surface accessory parking, and private open space uses, which was developed as part of the Mitchell Lama program. The existing building in the rezoning area totals 400,932 gsf of residential floor area and comprises 353 affordable residential units, developed as part of the Mitchell Lama program. The 21-story building is setback from the street with plantings, seating areas, and private open space to the north and south of the building; a playground and two pools are located to the north of the building. The two existing pools, which are located approximately ten feet ten inches from the northern lot line, were facilitated by a BSA variance (459-55-BZ, approved on September 20, 1966) that permitted the pools to encroach on the required 100-foot minimum distance to the lot line. Apart from the BSA variance for the two pools, the existing Block 3672, Lot 1 development was constructed in conformance with the existing R6 zoning regulations at place at the time of construction

To the west of the existing rezoning area building is a surface accessory parking lot, as well as additional residential open space amenities. The approximately 103-space paved surface parking lot is accessed via a curb-cut located on Lafayette Avenue. A basketball court, also accessory to the existing rezoning area residential building is located at the corner of White Plains Road and Turnbull Avenue. As shown in Figure A-3, both the parking lot and basketball court are enclosed by chain link fencing and are not accessible to the public. Street trees line the rezoning area's Turnbull Avenue, Lafayette Avenue, and White Plains Road street frontages.

The rezoning area is zoned R6. R6 districts are widely mapped in built-up, medium-density areas and can range in character from neighborhoods with a diverse mix of building types and heights to large scale "tower in the park" developments. Developers in R6 districts can choose between two sets of bulk regulations: standard Height Factor regulations, which produce small multi-family buildings on small zoning lots and, on larger lots, tall buildings set back from the street; and optional Quality Housing regulations that produce high lot coverage buildings with height limits that often reflect the scale of older, pre-1961 apartment buildings in the neighborhood. The existing residential building on Block 3672, Lot 1 was developed pursuant to Height Factor regulations and maximizes the permitted floor area under R6 Height Factor zoning requirements. In addition, all of the existing parking provided on Block 3672, Lot 1 (totaling 225, including the 103-space lot within the rezoning area and the 122 spaces located to the east (discussed below)) are accessory to the existing Mitchell Lama building, which requires a total of 248 accessory parking spaces pursuant to the existing R6 zoning.

The rezoning area is directly served by three New York City Transit (NYCT) bus routes: the BX5, BX36, and BX39, as presented in Figure A-1. The BX5, which runs along all four of the rezoning area's street frontages, provides local services between Pelham Bay Park and Hunts Point in the Bronx. The Bx36, which runs along the rezoning area's western (White Plains Road) and southern (Lafayette Avenue) frontages, provides local and limited-stop service between Soundview in the Bronx and Washington Heights in Manhattan. Lastly, the Bx39, which runs along the rezoning area's western (White Plains Road) frontage, provides local service between Wakefield and Clasons Point in the Bronx. The most proximate subway station serving the rezoning area is the Parkchester (No. 6) Station, which is located approximately ¾ miles north of the rezoning area and is accessible via the Bx39 local bus route.



EXISTING PLOT PLAN
SCALE - 1/64" = 1'-0"

Rezoning Area Photos

View southwest from Turnbull Avenue of the existing Mitchell Lama residential building.

View northeast from the corner of Lafayette Avenue and White Plains Road of the existing accessory parking lot.

View south from the corner of Turnbull Avenue and White Plains Road of the existing basketball court.

Remainder of Block 3672, Lot 1

The 50,008-sf eastern portion of the Block 3672, Lot 1, which is not part of the rezoning area and would remain zoned R6, as under existing conditions, in the future with the proposed actions, is occupied by 122 accessory parking spaces accessory to the existing rezoning area residential building. Similar to the accessory parking lot located on the western portion of the rezoning area, the approximately 122-space accessory lot located on the eastern portion of Block 3672, Lot 1 is enclosed with chain link fencing and is not accessible to the public; private vehicular access is provided via an entry/exit on Lafayette Avenue, with a separate pedestrian entry provided to the north (on Turnbull Avenue).

Surrounding Area

The rezoning area is located in the Soundview neighborhood of the south Bronx. Land uses in the vicinity of the rezoning area include a mix of residential, public facility, and commercial uses, reflecting the zoning districts mapped in the area.

Residential uses in the surrounding area range from one- and two-family residential buildings occupying small lots (east of Pugsley Avenue) to multi-family elevator and mixed commercial/residential buildings to the north and south of the rezoning area. The existing one- and two-family residential buildings are generally located within the existing R4 (lower-density residence) district mapped to the east of the rezoning area, while the multi-family elevator and mixed commercial/residential buildings are generally located within the R6 (medium-density residence) districts mapped to the south, west, and northeast of the rezoning area. It should also be noted that many of the medium- to higher-density residential buildings in the surrounding area are subsidized housing developments, including the 955-unit Stevenson Commons, located to the southwest of the rezoning area on the block bounded by Thieriot, Lafayette, and Seward Avenues and White Plains Road, and the 355-unit development at 2001 Story Avenue (located at the northeast corner of Pugsley and Story Avenues), among others.

Commercial uses are also well-represented in the surrounding area, and are generally located within the C4-1 commercial district mapped to the north and west of the rezoning area. C4-1 commercial districts are R5 equivalent districts that permit residential, commercial, and community facility uses as-of-right. The commercial uses located in the mapped C4-1 district adjacent to the rezoning area consist of one- to two-story commercial buildings with accessory surface parking. Directly north of the rezoning area is the 113,485-sf Shops at Bruckner Boulevard Shopping Center, which opened in November 1996.

The blocks directly south of the rezoning area are occupied by several public facilities and institutions, including a public school building occupied by the Millennium Arts Academy, Pablo Neruda Academy, Bronx Compass High School, and the Bronx Guild High School; a U.S. Post Office; and the Grand Manor Nursing and Rehabilitation center.

III. THE PROPOSED ACTIONS

ULURP Actions

The proposed project requires the following discretionary land use actions:

- ***Zoning Map Amendment:*** The applicant is proposing a zoning map amendment to rezone the western approximately 107,890 sf of Bronx Block 3672, Lot 1 (the "rezoning area") from R6 to R8 with a C2-4 commercial overlay mapped to a depth of 200 feet from White Plains Road (see Figure A-4 for the proposed zoning district boundary). Table A-1, below, compares the use and bulk requirements under the existing and proposed zoning districts.

Table A-1: Comparison of Existing and Proposed Zoning

	Existing R6	Proposed R8	Proposed R8/C2-4
Use Groups	1-4	1-4	1-9, 14
Maximum FAR			
Residential			
Height Factor Regulations	0.78-2.43	0.94-5.99	0.94-5.99
Quality Housing Regulations[1]	3.0	7.2	7.2
Inclusionary Housing/MIH Designated Areas[1]	3.6	7.2	7.2
Community Facility	4.8	6.5	6.5
Commercial	Not Permitted	Not Permitted	2.0
Manufacturing	Not Permitted	Not Permitted	Not Permitted

Source: *Zoning Resolution of the City of New York.*
Notes:
[1] For zoning lots within 100 feet of a wide street outside of the Manhattan core.

- ***Zoning Text Amendment:*** The applicant is proposing a zoning text amendment to Appendix F of the *Zoning Resolution of the City of New York* to establish the rezoning area as a Mandatory Inclusionary Housing (MIH) designated area (see Figure A-5).

The proposed zoning map and text amendments are discretionary public actions that are subject to both the Uniform Land Use Review Procedure (ULURP) and City Environmental Quality Review (CEQR).

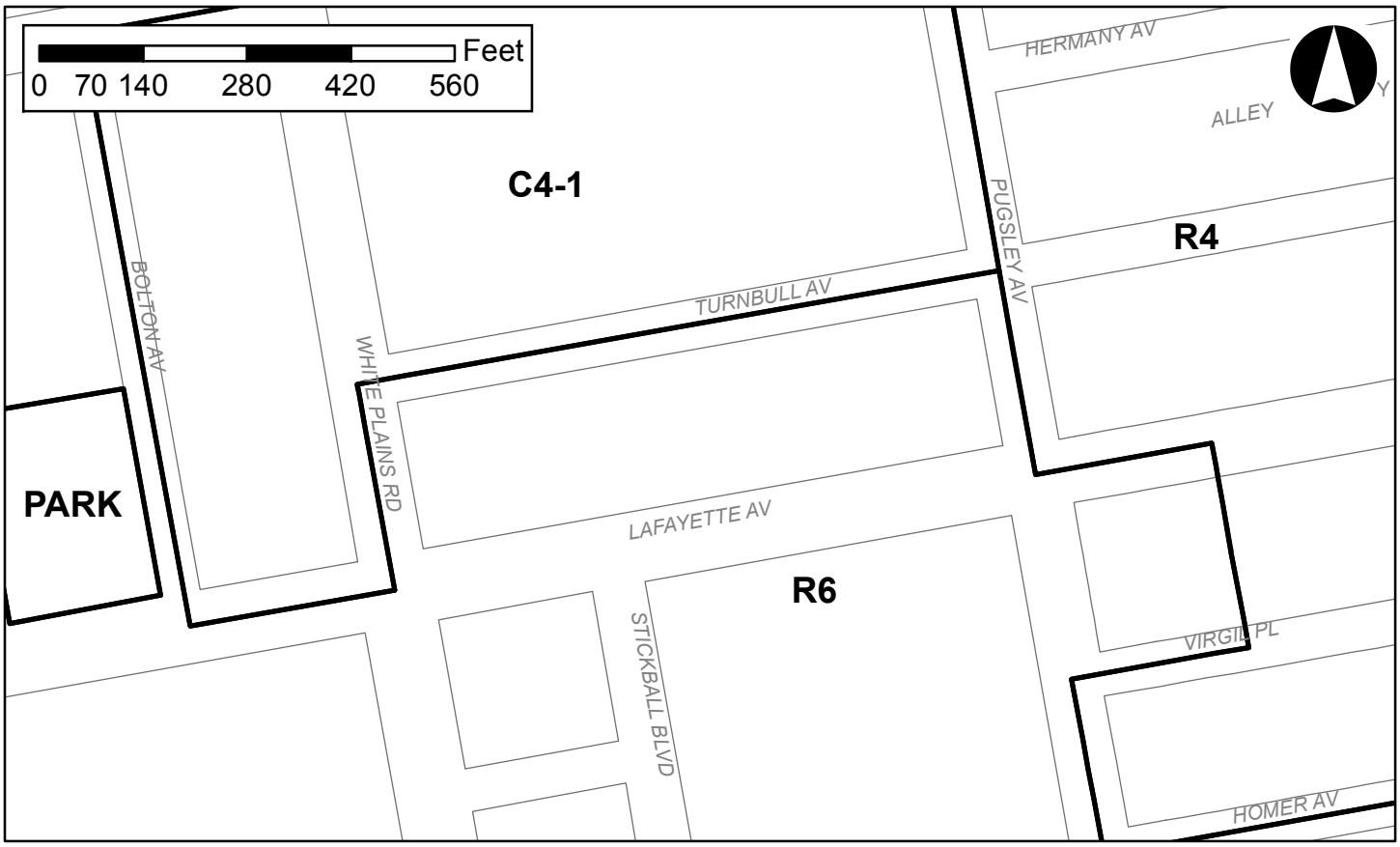
(E) Designations

As described in greater detail in Attachment B, "Supplemental Screening," Attachment K, "Air Quality," and Attachment L, "Noise," of this document, the proposed actions include the placement of a hazardous materials, air quality, and noise (E) designation (E-434) on Block 3672, Lot 1. The (E) designation is a mechanism that ensures no significant adverse impacts would result from a proposed action because of steps that would be undertaken prior to development of rezoned site. The hazardous materials, air quality, and noise (E) designation that would be assigned to Block 3671, Lot 1 as part of the proposed actions would: (1) ensure that the rezoning area would not be developed unless remedial measures are implemented and that there would be no significant adverse hazardous materials impacts; (2) require the fuel type and stack locations for the proposed project's heating, ventilation, and air conditioning (HVAC) systems; and (3) specify the level of attenuation that the proposed project would need to provide to ensure that there would be no significant adverse noise impacts.

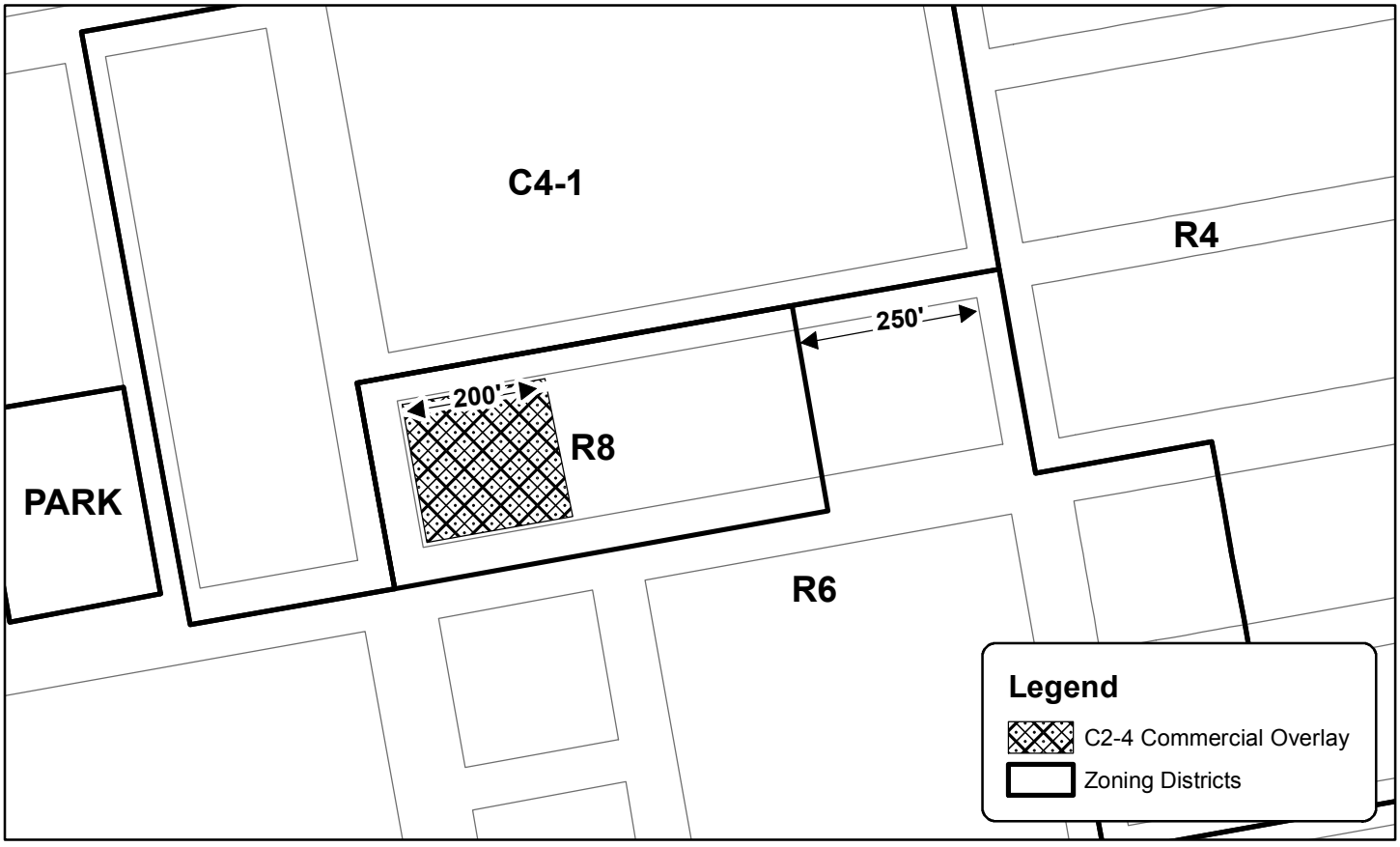
Additional Actions Not Subject to ULURP

In addition to the zoning map and text amendments described above, the applicant is seeking public financing from HPD and/or HDC. Preliminary financial analyses for the proposed project were initially submitted to HPD in 2016, with coordination with HPD ongoing. It is anticipated that the public financing

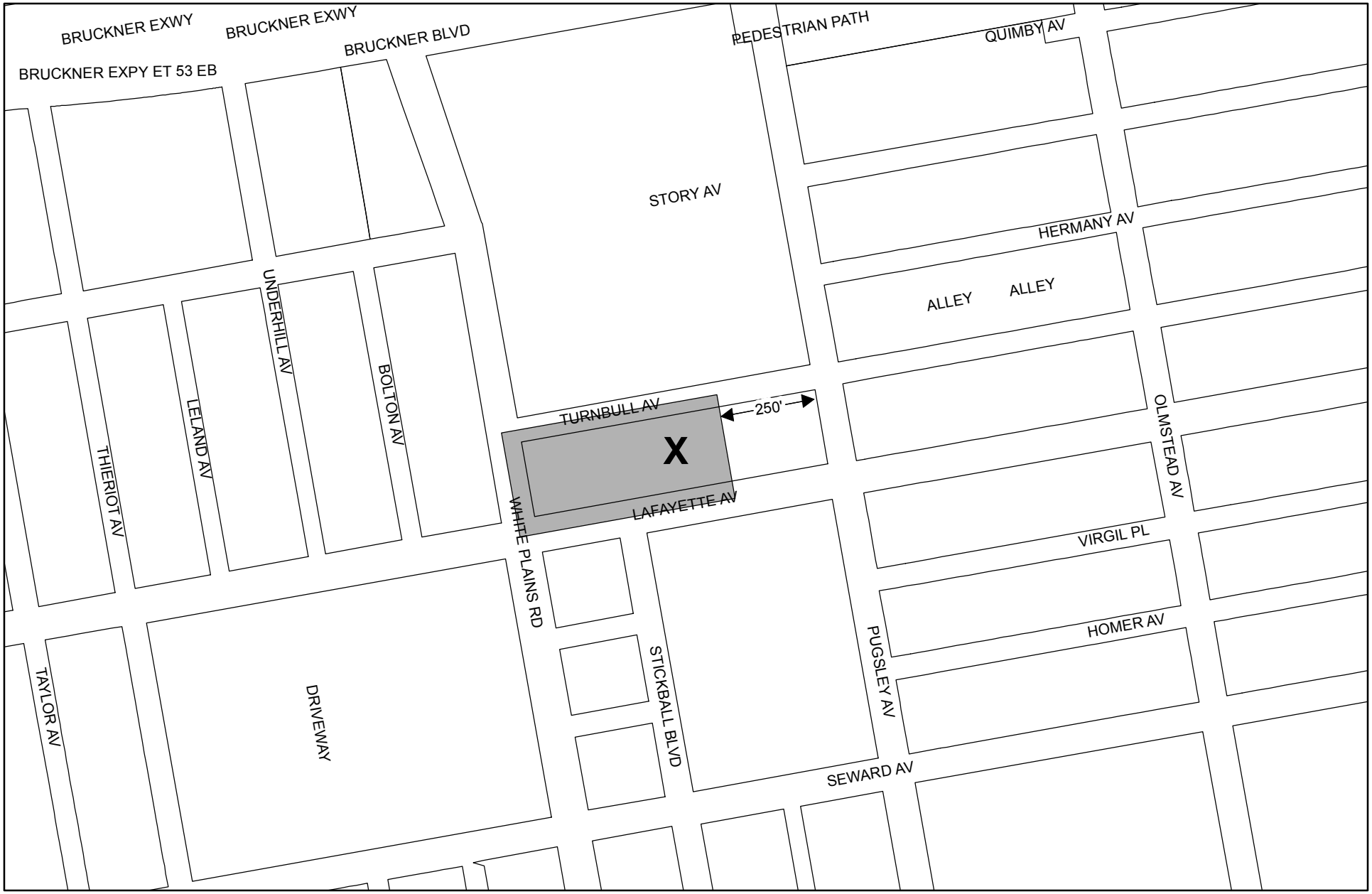
Existing and Proposed Zoning



Existing Zoning



Proposed Zoning



Mandatory Inclusionary Housing Area (MIHA)

X MIH Program Option X [section 23-154 (d) (3)]

1965 Lafayette Avenue

Figure A-5
Proposed MIH Area

would be sought once the proposed zoning map and text amendments have been approved, and would call for approved building permits from the New York City Department of Buildings (DOB). The anticipated public funding sources would also mandate the building uses planned for the proposed project (outlined in further detail below) and would satisfy the requirements the MIH Program, while facilitating a building with 100 percent of the units affordable.

As outlined above, the rezoning area, which is currently occupied by a 353-unit 21-story affordable housing development constructed in 1971, was developed as part of the Mitchell Lama program. As part of the deed from the City conveying the site to the site developer in 1968, changes to the site for a period of 50 years from issuance of the Temporary Certificate of Occupancy (TCO) (in 1971) require HPD and DHCR approval. As the proposed project would change the site conditions from those originally approved as part of the Mitchell Lama development in 1968, the applicant is seeking HPD and DHCR approvals to allow for new development in the rezoning area, which is subject to existing controls under the Mitchell Lama program through 2022. Specifically, on the condition that the applicant seeks the requested HPD financing to develop the site with new affordable housing, HPD will release the portion of Block 3672, Lot 1 that is proposed to be developed from the existing Mitchell Lama site controls to facilitate the development. The release of the development site from the existing Mitchell Lama site controls is contingent upon the applicant developing the site with affordable housing, pursuant to the requested HPD financing.

The requested public financing and HPD/DHCR approvals are discretionary actions subject to CEQR.

IV. PURPOSE AND NEED FOR PROPOSED ACTIONS

The proposed actions are intended to facilitate a new affordable residential development in the rezoning area.

The proposed zoning map change is needed to permit construction of the proposed project. Under the existing R6 zoning, no additional development can occur within the rezoning area despite the fact that much of the rezoning area is unbuilt and comprised of open surface parking lots. The proposed actions would allow the applicant to maximize the use of its property, allowing for additional residential development in an area well-suited to this type of development. Specifically, changing the zoning designation from R6 to R8 is the minimum upzoning for the rezoning area that would allow for the development of the proposed 14-story 384,271-gsf development while maintaining the existing Block 3672, Lot 1's zoning conformance. Under an alternate, lower density residential zoning designation (such as R7), the proposed project could not be constructed while maintaining the existing Mitchell Lama building's zoning conformance. Specifically, under R7 (MIH), the maximum residential zsf would be 667,384, which is less than the proposed 716,741 zsf of residential floor area. In addition, the maximum height in R7 (MIH) districtis is 135 feet (13 stories), which is less than the 137'8" (14 story) buildings that are proposed, as well as being less than height of the existing Mitchell Lama building (187'6"/21 stories). As such, the proposed R8 district is the minimum upzoning need to facilitate the proposed project and to develop 425 new affordable housing units on the site.

The proposed commercial overlay would serve as a connection between the existing commercial uses to the north and west of the rezoning area and the residential uses to the east and south, introducing commercial uses in an appropriate location along White Plains Road. The proposed C2-4 commercial

overlay would also minimize the amount of accessory parking required on the site and would allow a greater range of commercial uses than a C1 commercial overlay.

In addition, mapping the rezoning area as an MIH-designated area, in conjunction with the requested HPD and/or HDC financing, would promote the creation of permanently affordable housing. The proposed project is expected to provide approximately 425 units of affordable housing and would, according to the applicant, help to address the continuing need for affordable housing, including affordable senior housing, for a range of household income levels in Soundview and the surrounding neighborhoods.

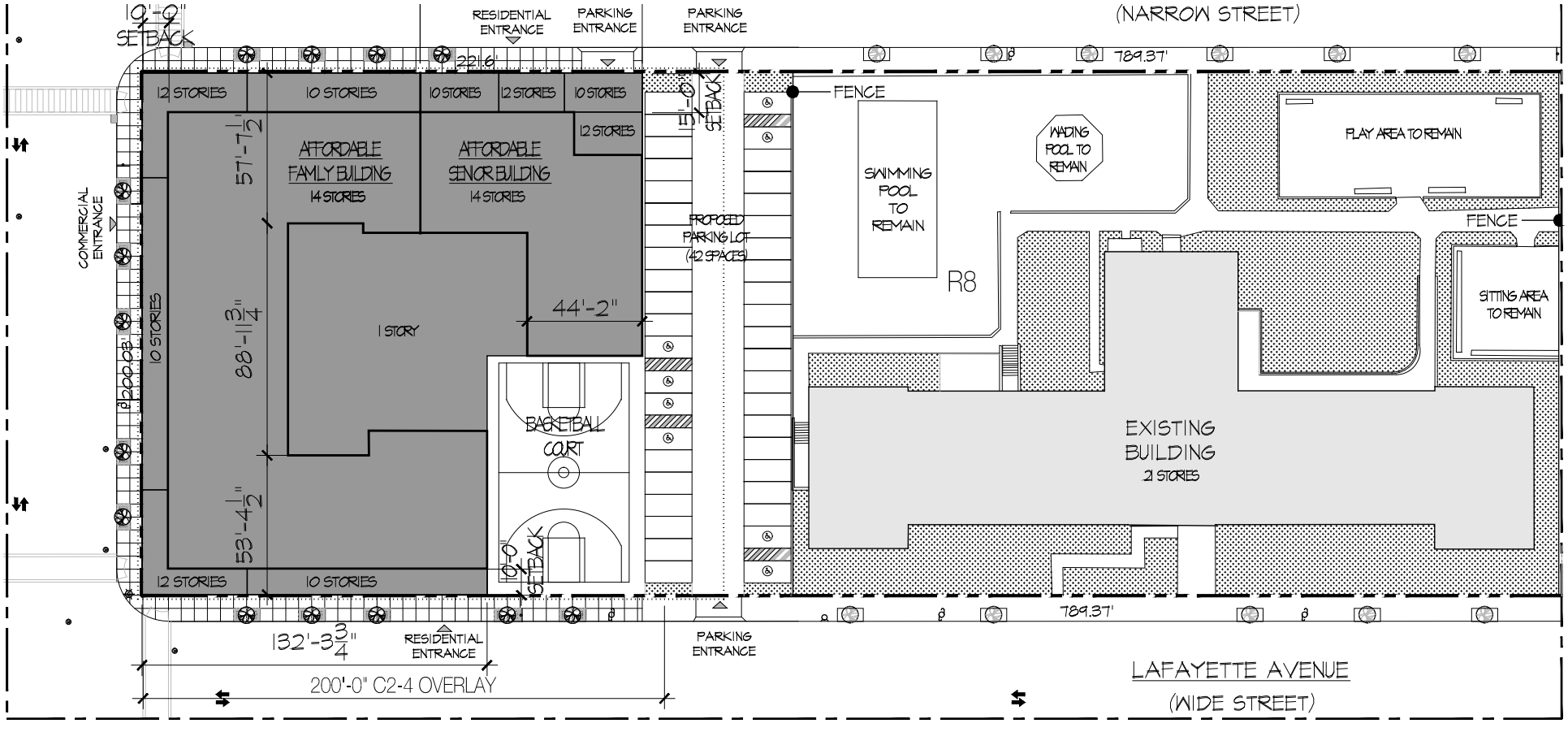
V. DESCRIPTION OF THE PROPOSED PROJECT

The applicant, Park Lane Residences Co., is proposing the redevelopment of the rezoning area (Bronx Block 3672, p/o Lot 1) with two attached predominantly residential buildings comprising a total of an approximately 384,271 gsf of floor area, including of 332,868 gsf of residential floor area, 19,938 gsf of commercial floor area, and 31,465 gsf of below-grade parking. The bulk of the buildings would conform with all bulk and use requirements applicable in R8/C2-4 (MIH) districts.

As shown in Figures A-6, A-7, and A-8, the proposed project would comprise two attached buildings that would be located on the western end of the rezoning area and would be constructed to the lot line along Lafayette Avenue, White Plains Road, and Turnbull Road. The 102,699-gsf affordable senior housing building would have frontage on Turnbull Avenue, while the 281,572-gsf affordable family housing building would have frontage on Lafayette and Turnbull Avenues and White Plains Road. The proposed project would be constructed in conformance with R8 Quality Housing regulations and would have streetwall heights of 99’ 8” (ten stories) on all three street frontages, rising to a maximum building height of 137’ 8” (14 stories) after a setback. The setbacks along Lafayette Avenue and White Plains Road (wide streets) would be ten feet, while the setback along Turnbull Avenue (a narrow street) would be 15 feet. The proposed buildings would also feature 12-story dormers on portions of all three street frontages.

The proposed project would include approximately 425 affordable residential units, including 292 affordable family units and 133 affordable senior housing units (39 studios and 94 one-bedroom units). The affordable family units would comprise a total of 233,857 gsf of residential floor area, and the affordable senior units would comprise a total of 99,011 gsf of residential floor area, for an average residential unit size of 800 gsf per unit for the proposed affordable family units and an average unit size of 744 gsf per unit for the proposed affordable senior units. The affordable residential units of the proposed family housing building would have their primary entrance on Lafayette Avenue and the affordable units of the proposed senior housing building would have their primary entrance on Turnbull Avenue. The proposed residential units would be located on the second through fourteenth floors of the proposed project buildings, with residential lobbies located on the ground floor of each building. Both the senior and family housing buildings would also include accessory residential amenity space (e.g., fitness center/recreation rooms/outdoor recreation areas). In addition to the proposed residential uses, the proposed family housing building would include 19,938 gsf of local retail uses on the building’s ground floor, which would be accessed via White Plains Road.

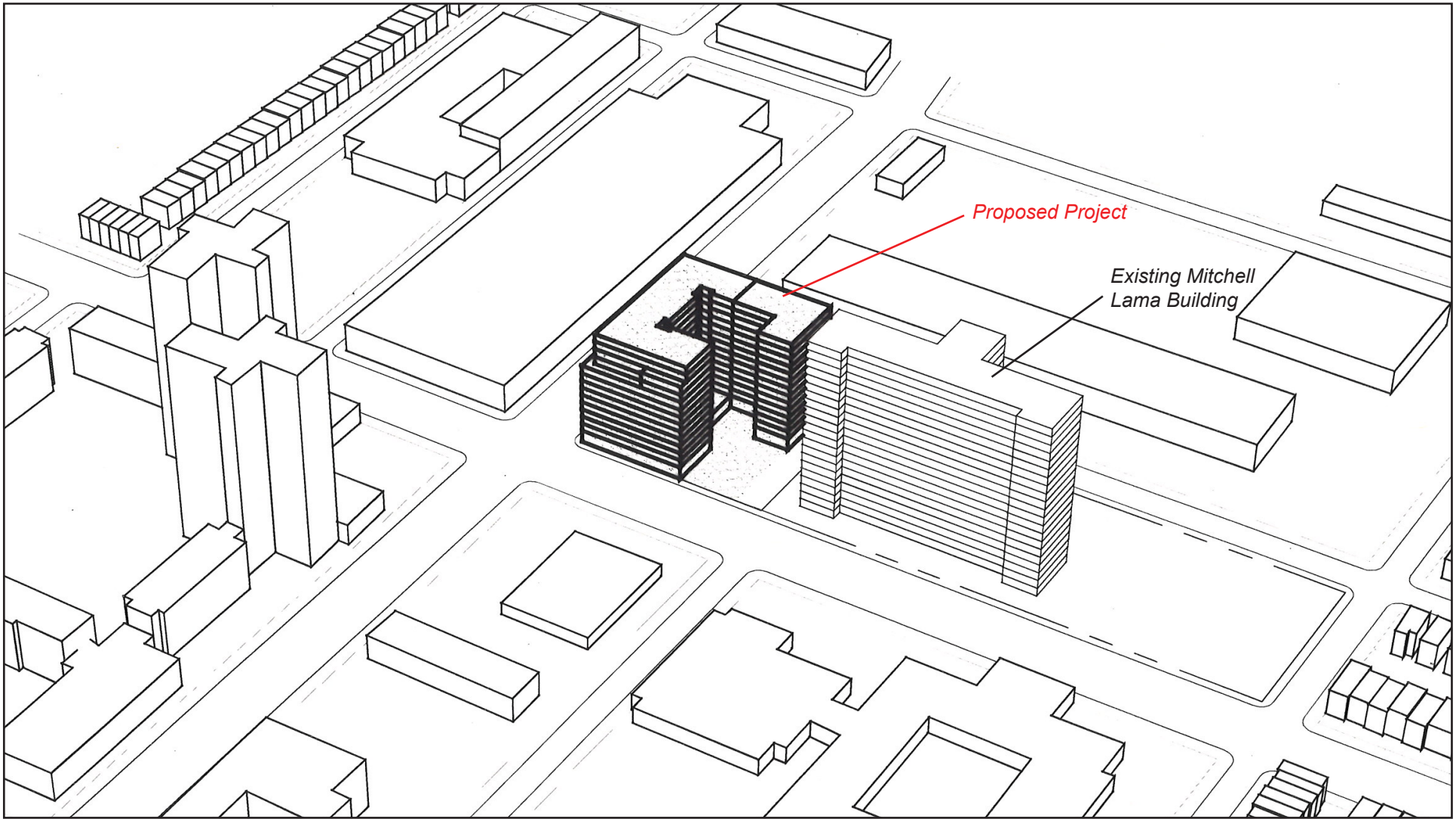
As the rezoning area is not located within the Transit Zone, parking is required for the proposed project’s residential uses. As the commercial accessory parking requirement (one accessory commercial space per 1,000 sf of commercial floor area) is waived if less than 40 spaces, no accessory parking is required for the proposed project’s commercial uses. The proposed project would include 67 enclosed below-grade



FOR ILLUSTRATIVE PURPOSES ONLY

1965 Lafayette Avenue

Figure 6
Proposed Site Plan



FOR ILLUSTRATIVE PURPOSES ONLY

1965 Lafayette Avenue

Figure A-7
Illustrative Massing

FOR ILLUSTRATIVE PURPOSES ONLY

1965 Lafayette Avenue

Figure A-8

Illustrative Rendering

parking spaces, which would be located in the proposed family housing building and would be accessed via a 18-foot-wide curb cut on Turnbull Avenue, approximately 170 feet east of White Plains Road (refer to Figure A-6); 48 of the 67 enclosed spaces would be accessory to the proposed project, with the remaining 19 spaces available to residents of the existing Mitchell Lama building. In addition, 42 surface parking spaces would be located between the proposed buildings and the existing Mitchell Lama building to the east would be accessory to the existing Mitchell Lama residential building. The surface parking spaces would be accessible via 18-foot-wide curb cuts located on both Lafayette and Turnbull Avenues, approximately 212'6" east of White Plains Road.

In addition, the proposed project would include an at-grade basketball court, to be located to the southeast of the proposed project. The basketball court would be utilized by residents of the proposed project, in addition to residents of the adjacent Mitchell Lama residential building.

In conjunction with the proposed project, improvements would also be implemented at the intersection of Story Avenue and White Plains Road (one block north of the rezoning area) to avoid the potential for significant adverse impacts at this location (as discussed in greater detail in Attachment I, "Transportation"). Notably, at the intersection of Story Avenue and White Plains Road one second of green time would be transferred from the northbound/southbound signal phase to the eastbound/westbound signal phase in the weekday AM and PM and Saturday midday peak hours, and the southbound approach would be restriped to convert the curb lane from a parking lane to a right-turn lane. These improvements would be required of the applicant pursuant to a Restrictive Declaration to be recorded against the project site.

VI. ANALYSIS FRAMEWORK AND RWCDS

Build Year

Accounting for DCP Pre-Application and Pre-Certification review time and public review under ULURP (approximately seven months), the applicant anticipates closing on the requested public financing in June 2018. Following closing on financing in June 2018, and based on the preliminary construction schedule prepared for the proposed project, it is anticipated that the proposed project would have an approximately 23-month construction schedule. As the foundations of the two proposed buildings would be constructed concurrently (with the proposed parking garage extending beneath both above-grade structures), the two buildings would be constructed in one single phase. Based on the above, it is anticipated that the proposed project would be built and occupied by 2020. Accordingly, the RWCDS uses a 2020 Build Year for analysis purposes.

The Future without the Proposed Actions (No-Action Condition)

In the future without the proposed actions, the rezoning area's existing R6 zoning would remain in place. As the existing Mitchell Lama residential building on Block 3672, Lot 1 maximizes the residential FAR permitted in R6 districts pursuant to Height Factor regulations, no new development is expected to occur in the 2020 future without the proposed actions. Therefore, in the No-Action condition, the rezoning area would continue to be occupied by a 353-unit affordable residential building and a 79-space paved surface accessory parking lot, as well as private open space areas accessory to the existing Mitchell Lama residential building.

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

In the 2020 future with the proposed actions, the rezoning area (p/o Bronx Block 3672, Lot 1) would be rezoned from R6 to R8 and R8/C2-4. The proposed R8 district with a C2-4 overlay would permit up to 7.2 FAR of residential uses under MIH, up to 6.5 FAR of community facility uses, and up to 2.0 FAR of commercial uses (refer to Table A-1). In addition, the requested HPD financing and approval would be approved in the 2020 With-Action condition, facilitating the development of the proposed project.

By 2020 under the With-Action condition, it is expected that the applicant would complete the proposed project, which would be facilitated by the proposed actions. As noted above, the proposed project would consist of two attached predominantly residential buildings comprising a combined approximately 384,271 gsf of floor area, including 332,868 gsf of residential floor area, 19,938 gsf of commercial floor area, and 31,465 gsf of below-grade parking.

As the proposed project is being developed using public financing, the proposed project represent the RWCDS. This unused 1.15 FAR cannot be added to the proposed building. Further, as discussed below, it is not economically feasible to construct a building taller than that which is being proposed. As discussed in greater detail above, the proposed project would be constructed in conformance with the optional Quality Housing regulations. While new buildings can typically be constructed pursuant to either Quality Housing or Height Factor regulations in R8 districts, a Height Factor development would not result in a building of greater density than permitted pursuant to the optional Quality Housing regulations. In addition, while buildings taller than those proposed by the applicant could be constructed under Height Factor regulations and the optional Quality Housing regulations (which permits a maximum building height of 215 feet for MIH developments in R8 districts pursuant to ZR Section 23-664(c) and 23-952), the applicant has stated that constructing affordable housing buildings taller than 14 stories (137’ 8”) would not be economically feasible due to the difference in the construction method and associated costs. Specifically, the proposed project will be a block and plank construction; this lower-cost construction method is typically not viable for buildings taller than 14 stories. As the proposed project would consist of a 100 percent affordable building, as ensured pursuant to the requested HPD and/or HDC actions, constructing buildings taller than that proposed would not be economically feasible, and would therefore not be a reasonable assumption for environmental review purposes. The proposed actions additionally consists of HPD and DHCR project approvals, and constructing buildings that differ from the approved project would not be permitted without further discretionary approvals and associated environmental review.

Under the proposed rezoning, the rezoning area (which would have a maximum permitted zoning floor area of 7.2 FAR) and the remainder of Block 3672, Lot 1 (which would remain zoned R6, as under exitsing conditions) would comprise one zoning lot. Accounting for the existing R6 zoning designation to remain on the eastern portion of Block 3672, Lot 1, the zoning lot would have a weighted FAR of 5.69 in the future with the proposed actions. As the existing Mitchell Lama residential building on the eastern portion of the rezoning area is 372,620 zsf, the proposed 344,121 zsf project would increase the built zoning floor area of the zoning lot to 716,741 zsf (4.54 FAR), including 696,803 zsf (4.41 FAR) of residential FAR, approximately 1.15 FAR (181,542 zsf) less than the maximum residential FAR that would be permitted on the zoning lot, based on the weighted maximum FARs of the proposed R8 (MIH) zoning and the existing R6 zoning to remain. However, given existing and future site constraints, developing an additional 1.15 FAR of residential floor area would not be practical or economically feasible. In addition, there is no available open area in the remainder of the rezoning area to accommodate this FAR based on the configuration of the currently unbuilt land area and the presence of existing built structures (e.g., pools

and residential amenity space). Utilizing this unused FAR on the remainder of Block 3672, Lot 1 (the eastern portion to remain zoned R6, as under existing conditions) is also not reasonable, as this area is currently occupied by parking (all of which is accessory to the existing Mitchell Lama building) and will continue to be used as such in the future with the proposed action. The applicant has stated that constructing an additional building on this eastern portion of the block and incorporating structured parking into the building would not be economically feasible. Furthermore, as noted above, as the entirety of Block 3672, Lot 1 is governed by existing Mitchell Lama site controls which would remain in the 2020 With-Action condition, no development can occur on the portion of the block to remain zoned R6 by the 2020 analysis year without discretionary approvals requiring subsequent environmental review. As such, the proposed project represents the RWCDS for environmental review purposes.

The proposed project would include approximately 425 affordable residential units, including 292 affordable family units and 133 affordable senior units. As noted above, in addition to the requested zoning map and text amendments, the applicant is seeking HPD and/or HDC financing, as well as HPD approval related to the existing Mitchell Lama site controls. The HPD approval related to the existing site controls would essentially remove the portion of the rezoning area that is proposed to be developed from the existing site controls, contingent upon its development with affordable housing pursuant to the requested HPD/HDC financing. The requested HPD and/or HDC financing, which would be a prerequisite for the removal of the development site from the existing Mitchell Lama site controls, would require that all of the proposed units be designated affordable; the financing approval would include approval of the number of affordable units provided, their AMI, and the dwelling unit size. The proposed mix of affordable family and affordable senior housing units would also be mandated by the requested HPD and/or HDC public financing, approvals, and this mix therefore represents the RWCDS.

The proposed project would also include 19,938 gsf of commercial floor area, to be located on the building's ground floor, and to be developed pursuant to the proposed R8/C2-4 zoning. Given the floor plate of the proposed ground floor commercial uses, and the proposed project's location adjacent to existing retail uses, the 19,938 gsf of commercial floor area is assumed to be occupied by local retail uses. While community facility uses could also be developed on the project site under the proposed zoning, ground floor retail uses represent a more worst-case scenario for environmental review purposes. In addition, as noted above, the proposed project would be mandated through the requested HPD, HDC, and DHCR approvals. As such, alternate building uses, such as community facility uses, could not be developed absent additional discretionary approvals, which would warrant subsequent environmental review.

Project Increment

As presented in Table A-2, compared to the No-Action condition, the proposed actions would result in the incremental development of 425 affordable DU (including 292 affordable family units and 133 affordable senior units) and 19,938 gsf of local retail, as well as a net increase of six accessory parking spaces. In terms of population, the proposed actions are expected to generate 992 incremental residents and 77 incremental employees, as compared to the 2020 No-Action condition.

Table A-2: Comparison of Existing, No-Action, and With-Action Conditions

	Existing Condition		No-Action Condition		With-Action Condition		Increment
LAND USE							
Residential	**X** YES	☐ NO	**X** YES	☐ NO	**X** YES	☐ NO	
If "yes," specify the following:							
Describe type of residential structure	Multi-family Mitchell Lama residential building		Multi-family Mitchell Lama residential building		Multi-family Mitchell Lama residential building & affordable rental apartment buildings		425 affordable rental apartments (inc. 292 family units and 133 senior units)
No. of dwelling units	353		353		778		+425 units
No. of low- to moderate-income units	353		353		778		+425 units
Gross floor area (sf)	400,932 sf		400,932 sf		733,800 sf		+332,868 gsf
Commercial	☐ YES	**X** NO	☐ YES	**X** NO	**X** YES	☐ NO	
If "yes," specify the following:							
Type of use	N/A		N/A		Local Retail		Local Retail
Gross floor area (sf)	N/A		N/A		19,938 gsf		+19,938 gsf
Manufacturing/Industrial	☐ YES	**X** NO	☐ YES	**X** NO	☐ YES	**X** NO	N/A
If "yes," specify the following:							
Type of use	N/A		N/A		N/A		N/A
Gross floor area (sf)	N/A		N/A		N/A		N/A
Open storage area (sf)	N/A		N/A		N/A		N/A
If any unenclosed activities, specify:	N/A		N/A		N/A		N/A
Community Facility	☐ YES	**X** NO	☐ YES	**X** NO	☐ YES	**X** NO	
If "yes," specify the following:							
Type	N/A		N/A		N/A		N/A
Gross floor area (sf)	N/A		N/A		N/A		N/A
Vacant Land	☐ YES	**X** NO	☐ YES	**X** NO	☐ YES	**X** NO	N/A
If "yes," describe:	N/A		N/A		N/A		N/A
Other Land Uses	**X** YES	☐ NO	**X** YES	☐ NO	**X** YES	☐ NO	
If "yes," describe:	Private Open Space		Private Open Space		Private Open Space		No Change
PARKING							
Garages	☐ YES	**X** NO	☐ YES	**X** NO	**X** YES	☐ NO	
If "yes," specify the following:							
No. of public spaces	N/A		N/A		0		No Change
No. of accessory spaces	N/A		N/A		67 (inc. 48 accessory to the proposed project & 19 accessory to the existing Mitchell Lama building)		+67
Lots	**X** YES	☐ NO	**X** YES	☐ NO	**X** YES	☐ NO	
If "yes," specify the following:							
No. of public spaces	0		0		0		No Change
No. of accessory spaces	103		103		42 (accessory to existing Mitchell Lama building)		-61
ZONING							
Zoning classification	R6		R6		R8 & R8/C2-4 (MIH)		Change from R6 to R8 & R8/C2-4 (MIH)
Maximum amount of floor area that can be developed	Residential: 0.78-2.43 (HF) Community Facility: 4.8		Residential: 0.78-2.43 (HF) Community Facility: 4.8		Residential: 7.2 (QH with MIH) Community Facility: 6.5 Commercial: 2.0		Residential: +4.77 (with MIH) Community Facility: +1.7 Commercial: +2.0
Predominant land use and zoning classifications within the land use study area(s) or a 400 ft. radius of proposed project	Land use: mix of residential, commercial, and public facility uses Zoning: R6, C4-1, and R4		Land use: mix of residential, commercial, and public facility uses Zoning: R6, C4-1, and R4		Land use: mix of residential, commercial, and public facility uses Zoning: R6, C4-1, and R4		
POPULATION							
Residents	1,023		1,023		2,015		+992
Workers	11		11		88		+77

Notes:

[1] Existing/No-Action residential and worker population provided by the applicant. With-Action population estimates based on the following assumptions: 2.78 residents/unit (average household for Bronx CD 9, 2010 Census) for the proposed family units; an average of one occupant/senior studio unit; an average of 1.5 occupants/senior one-bedroom unit; three retail employees/1,000 sf of retail; and one residential employee/25 DU.

VII. REQUIRED APPROVALS

The applicant requires zoning map and text amendments, as well as public financing approval from HPD/HDC and additional approvals from HPD and DHCR, to implement the proposed project. The proposed zoning map and text amendments are discretionary public actions that are subject to both the Uniform Land Use Review Procedure (ULURP) and CEQR; the requested public funding and HPD/DHCR approvals a discretionary public actions that are subject to CEQR.

The City's ULURP process, mandated by Sections 197-c and 197-d of the New York City Charter, is designed to allow public review of ULURP applications at four levels: Community Board, Borough President, the CPC, and the City Council. The procedure has mandated time limits for review at each stage to ensure a maximum review period of approximately seven months. The process begins with certification by DCP that the ULURP application is complete. The application is then referred to the relevant Community Board (in this case Bronx Community Board 9). The Community Board has up to 60 days to review and discuss the proposal, hold a public hearing, and adopt an advisory resolution on the ULURP application. The Borough President then has up to 30 days to review the application. CPC then has up to 60 days, during which time a public hearing is help on the ULURP application. If CPC approved, the application is then forwarded to the City Council, which has 50 days to review the ULURP application.

CEQR is a process by which agencies review discretionary actions for the purpose of identifying the effects those actions may have on the environment. The City of New York established CEQR regulations in accordance with the New York State Environmental Quality Review Act (SEQRA). In addition, the City has published a guidance manual for environmental review, the *CEQR Technical Manual*. CEQR rules guide environmental review through the following steps:

- *Establish a Lead Agency*. Under CEQR, the "lead agency" is the public entity responsible for conducting environmental review. The environmental review for the proposed actions is a coordinated review, with DCP serving as the lead agency for this project, and HPD and HDC are involved agencies under CEQR.
- *Environmental Review and Determination of Significance*. The lead agency will determine whether the proposed actions may have a significant impact on the environmental. To do so, an EAS must be prepared. This EAS will be reviewed by the lead agency, which will determine if the proposed actions and development would result in any significant adverse impacts on the environment.

ATTACHMENT B

SUPPLEMENTAL SCREENING

I. INTRODUCTION

This Environmental Assessment Statement (EAS) has been prepared in accordance with the guidelines and methodologies presented in the 2014 *City Environmental Quality Review* (CEQR) *Technical Manual*. For each technical area, thresholds are defined, which, if met or exceeded, require that a detailed technical analysis be undertaken. Using these guidelines, preliminary analyses were conducted for all aspects of the proposed actions to determine whether detailed analyses of any technical areas would be appropriate.

Part II of the EAS Form identifies those technical areas that warrant additional assessments. The technical areas that warranted a "Yes" answer in Part II of the EAS form were land use, zoning, and public policy; socioeconomic conditions; community facilities; open space; shadows; historic and cultural resources; urban design and visual resources; hazardous materials; water and sewer infrastructure; transportation; air quality; noise; public health; neighborhood character; and construction. As such, a supplemental screening assessment for each of the aforementioned analysis areas is provided in this attachment. All remaining technical areas detailed in the *CEQR Technical Manual* were not deemed to require supplemental screening, as they do not trigger initial CEQR thresholds and are unlikely to result in significant adverse impacts.

The supplemental screening assessment contained herein identified that detailed assessments are required in the areas of land use, zoning, and public policy; socioeconomic conditions; community facilities; open space; shadows; urban design and visual resources; water and sewer infrastructure; transportation; air quality; and noise. These analyses are provided in Attachments C through L, and are summarized below. Table B-1 identifies for each CEQR technical area whether (a) the potential for impacts can be screened out based on the EAS From, Part II, Technical Analyses; (b) the potential for impacts can be screened out based on a supplemental screening provided herein per the *CEQR Technical Manual*; or (c) a more detailed assessment is required to make an impact determination.

II. LAND USE, ZONING, AND PUBLIC POLICY

A detailed assessment of land use and zoning is appropriate if a proposed action would result in a significant change in land use or would substantially affect regulations or policies governing land use. An assessment of zoning is typically performed in conjunction with a land use analysis when the action would change the zoning on the site or result in the loss of a particular use. As the proposed actions include zoning map and text amendments, a detailed land use, zoning, and public policy is warranted and is provided in Attachment C, "Land Use, Zoning, and Public Policy."

Table B-1: Summary of CEQR Technical Areas Screening

Technical Area	Screened out per EAS Form	Screened out per Supplemental Screening	Detailed Analysis Required
Land Use, Zoning, & Public Policy			X
Socioeconomic Conditions			X
Community Facilities			X
Open Space			X
Shadows			X
Historic & Cultural Resources		X	
Urban Design & Visual Resources			X
Natural Resources	X		
Hazardous Materials		X	
Water & Sewer Infrastructure			X
Solid Waste & Sanitation Services	X		
Energy	X		
Transportation			X
Air Quality			X
Greenhouse Gas Emissions	X		
Noise			X
Public Health		X	
Neighborhood Character		X	
Construction		X	

As presented in Attachment C, no significant adverse impacts on land use, zoning, or public policy, as defined by the guidelines for determining impact significant set forth in the *CEQR Technical Manual*, are anticipated in the 2020 future with the proposed actions in the primary and secondary study areas. Compared to the future without the proposed actions, the proposed actions would introduce new residential and commercial uses in the rezoning area that would be compatible with adjacent land uses, which are predominantly residential and commercial and include a school directly south of the rezoning area. The proposed actions would not directly displace any land uses so as to adversely affect surrounding land uses, nor would the proposed actions generate land uses that would be incompatible with land uses, zoning, or public policy in the secondary study area or cause a substantial number of existing structures to become nonconforming. The proposed actions would not result in land uses that conflict with public policies applicable to the primary or secondary study areas. The proposed actions would facilitate new residential and commercial development in an appropriate location within the New York City Coastal Zone that is well-served by public facilities and infrastructure and characterized by a similar mix of uses under existing conditions.

III. SOCIOECONOMIC CONDITIONS

Socioeconomic impacts may occur when an action directly or indirectly changes population, housing stock, or economic activities in an area. In some cases, these changes may be substantial, but not significantly adverse. In other cases, these changes may be beneficial to some groups and adverse to others. The purpose of a socioeconomic assessment is to disclose potentially adverse changes that would be created by an action and identify whether they rise to the level of significance. According to the *CEQR Technical Manual*, a socioeconomic assessment should be conducted if an action may be reasonably expected to create socioeconomic changes in the area affected by the action that would not be expected to occur in the absence of the project. The following screening assessment considers threshold circumstances identified in the *CEQR Technical Manual* and enumerated below that can lead to socioeconomic changes warranting further assessment.

1. **Direct Residential Displacement: Would the project directly displace residential population to the extent that the socioeconomic character of the neighborhood would be substantially altered? Displacement of fewer than 500 residents would not typically be expected to alter the socioeconomic character of a neighborhood.**

As the development site does not contain any existing residential units, the proposed project would not directly displace any residents. Therefore, an assessment of direct residential displacement is not warranted.

2. **Direct Business Displacement: Would the project directly displace more than 100 employees? If so, assessments of direct business displacement and indirect business displacement are appropriate.**

There are no existing businesses on the development site. As the proposed actions would not directly displace more than 100 employees, an assessment of direct business displacement is not warranted.

3. **Direct Business Displacement: Would the project directly displace a business whose products or services are uniquely dependent on its location, are the subject of policies or plans aimed at its preservation, or serve a population uniquely dependent on its services in its present location? If so, an assessment of direct business displacement is warranted.**

There are no existing businesses on the development site. Therefore, an assessment of direct business displacement is not warranted.

4. **Indirect Displacement due to Increased Rents: Would the project result in substantial new development that is markedly different from existing uses, development, and activities within the neighborhood? Residential development of 200 units or less or commercial development of 200,000 sf or less would typically not result in significant socioeconomic impacts. For projects exceeding these thresholds, assessments of indirect residential displacement and indirect business displacement are appropriate.**

The proposed actions would introduce 425 residential units, and therefore would exceed the preliminary screening assessment threshold of 200 units warranting a preliminary assessment of indirect residential displacement. As the proposed project's commercial component would be less than 200,000 sf, the proposed actions would not result in significant adverse impacts due to indirect business or institutional

displacement, and the indirect displacement analysis provided in Attachment D, "Socioeconomic Conditions" focuses solely on the potential of the proposed actions to result in significant adverse impacts in regards to indirect residential displacement.

As presented in Attachment D, the proposed actions would not result in significant adverse socioeconomic impacts. The preliminary screening assessment determined that analyses of direct socioeconomic impacts, indirect business and institutional impacts, and adverse effects on specific industries were not warranted and that no significant adverse socioeconomic conditions impacts in these areas. Based on the screening assessment it was determined that a preliminary assessment of the potential impacts of the proposed actions on indirect residential displacement was warranted. The preliminary assessment was sufficient to conclude that the proposed actions would not result in any significant adverse socioeconomic impacts due to indirect residential displacement. The proposed project would introduce 425 affordable residential units; none of the proposed residential units would be market-rate units. Despite this fact, given the income levels of the residents in the ¼-mile socioeconomic conditions study area, it is possible that residents introduced by the proposed actions would have incomes higher than those of the surrounding study area. However, as the proposed actions would only increase the ¼-mile study area's residential population by 2.3 percent, the proposed actions would not introduce a substantial new population that could substantially affect residential real estate market conditions in the study area.

5. **Indirect Business Displacement due to Retail Market Saturation: Would the project result in a total of 200,000 sf or more of retail on a single development site or 200,000 sf or more of region-serving retail across multiple sites? This type of development may have the potential to draw a substantial amount of sales from existing businesses within the study area, resulting in indirect business displacement due to market saturation.**

The proposed project would include less than 200,000 sf of retail and therefore does not warrant an assessment of indirect business displacement due to market saturation.

6. **Adverse Effects on Specific Industries: Is the project expected to affect conditions within a specific industry? This could affect socioeconomic conditions if a substantial number of workers or residents depend on the goods and services provided by the affected businesses, or if the project would result in the loss or substantial diminishment of a particularly important product or service within the City.**

The proposed actions would not displace any existing businesses/industries on the development site and does not have the potential to affect conditions within a specific industry.

IV. COMMUNITY FACILITIES

Potential direct or indirect effects of a proposed action can trigger the need for analysis of community facilities. Direct effects occur if a project would "physically alter a community facility, whether by displacement or other physical change." Indirect effects occur if a project would add population to an area, which may potentially affect service delivery. While no community facilities would be directly displaced by the proposed actions, the proposed actions would facilitate the development of 419 affordable residential units. The *CEQR Technical Manual* provides density thresholds, which are used to

make an initial determination of whether detailed studies are necessary to determine potential indirect impacts. These density thresholds are summarized in Table B-2.

Table B-2: Preliminary Screening Analysis Criteria

Community Facility	Threshold for Detailed Analysis	Minimum Number of Residential Units in the Bronx that Trigger Detailed Analyses
Public Elementary/Intermediate Schools	50 or more elementary/intermediate school students	90
Public High Schools	150 or more high school students	787
Libraries	More than five percent increase in ratio of residential units to libraries in the borough	682
Health Care Facilities (outpatient)	Introduction of sizeable new neighborhood	N/A
Child Care Centers (publicly funded)	More than 20 eligible children under age six based on number of low- to moderate-income units	141
Fire Protection	Introduction of sizeable new neighborhood	N/A
Police Protection	Introduction of sizeable new neighborhood	N/A

Source: *CEQR Technical Manual*

Public Schools

As the proposed actions would result in the incremental development of more than 90 DU, it is expected to generate more than 50 elementary and intermediate school students per *CEQR Technical Manual* criteria, and a detailed assessment of the potential impacts of the proposed actions on public schools is provided in Attachment E, "Community Facilities." As the proposed project would not exceed the threshold for a detailed high school analysis, the public school analysis is focused solely on public elementary and intermediate schools. As presented in Attachment E, the 292 affordable family residential units facilitated by the proposed actions are expected to generate 114 elementary school students and 47 intermediate school students in Sub-district 2 of Community School District (CSD) 8. As CSD 8, Sub-district 2 intermediate schools would operate with available capacity in the 2020 With-Action condition (94.5 percent utilized), no significant adverse intermediate school impacts would result. While CSD 8, Sub-district 2 elementary schools would operate over capacity in the future with the proposed actions (112.3 percent utilization rate), as under No-Action conditions, the proposed actions would only increase the elementary school utilization rate by 1.7 percentage points. As the proposed actions would not result in a five percent or greater increase in the elementary school utilization rate, no significant adverse elementary school impacts would result, in accordance with *CEQR Technical Manual* impact criteria.

Child Care Facilities

The *CEQR Technical Manual* requires a detailed analysis of publicly-funded child care centers when a proposed action would produce substantial numbers of subsidized, low- to moderate-income affordable housing units that may therefore generate a sufficient number of eligible children to affect the availability of slots at group child care facilities. Typically, a proposed action that generates 20 or more eligible children under age six requires further analysis. As shown in Table B-2, above, based on *CEQR Technical Manual* multipliers, 141 affordable housing units in the Bronx would yield more than 20 children under age six eligible for publicly-funded child care.

As the proposed project would include 292 affordable family housing units, a detailed child care analysis is warranted and is provided in Attachment E. As outlined in Attachment E, the 292 affordable family units introduced in the rezoning area in the future with the proposed actions are expected to generate 41 publicly-funded child care-eligible students, increasing the study area child care facility utilization rate to 96.0 percent. As study area child care facilities would continue to operate with available capacity in the 2020 future with the proposed actions, no significant adverse impacts would result pursuant to *CEQR Technical Manual* methodology.

Libraries, Health Care Facilities, and Fire and Police Protection

As the proposed actions would not result in the introduction of a sizeable new neighborhood and would not result in a more than five percent increase in the ratio of residential units to libraries in the Bronx (i.e., would result in the development of fewer than 682 DU), analyses of fire and police protection, health care facilities, and libraries are not warranted, and significant adverse impacts are not anticipated in these technical areas.

V. OPEN SPACE

An open space assessment may be necessary if a proposed action could potentially have a direct or indirect effect on open space resources in the project area. A direct effect would "physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value." An indirect effect may occur when the population generated by a proposed action would be sufficient to noticeably diminish the ability of an area's open space to serve the existing or future population. According to the guidelines established in the *CEQR Technical Manual*, if a project is not located within an area that is "underserved" or "well-served" by open space, a project that would generate fewer than 200 residents or 500 employees is typically not considered to have indirect effects on open space.

The proposed actions would generate a net 992 residents in the rezoning area and therefore requires further assessment pursuant to *CEQR Technical Manual* guidelines.[1] As the number of incremental employees generated by the proposed project would be 99, which is less than the *CEQR Technical Manual* analysis threshold of 500, an analysis of non-residential indirect open space impacts is not warranted and the analysis focuses solely on the potential for residential study area indirect open space impacts.

As shown in Attachment F, "Open Space," the proposed actions would not result in significant adverse open space impacts. Although the existing open space ratios in the study area would remain less than the New York City Department of City Planning (DCP) planning goals and the citywide median in the future with the proposed actions, and the proposed project would result in a decrease in the open space ratios by more than one percent, as discussed in greater detail in Attachment F, the deficiency of open space resources within the study area would be ameliorated by several factors including the condition of the open space resources and their low to moderate utilization levels, which would be able to absorb additional users generated by the proposed project. Moreover, a wide variety of open space options are available, including a range of passive and actively programmed spaces. Lastly, an additional 7.93 acres of open space (including approximately 0.76 acres located in the rezoning area) that are located within the ½-mile residential open space study area were conservatively not included in the quantitative assessment

[1] Based on the average household size of 2.78 for Bronx Community District 9 (2010 U.S. Census) for the proposed family units and one occupant per studio unit and 1.5 occupants per one-bedroom unit for the proposed senior units.

as they are not fully accessible to the public, have limited hours, or do not include seating or other amenities. These additional open spaces include a mix of passive and active open space, including three community gardens with both planting beds and accessory open space amenities, such as playgrounds and events spaces, as well as several privately-owned open spaces with plantings, lawns, and seating areas.

As part of the proposed project, the existing basketball court, which is currently located at the corner of White Plains Road and Turnbull Avenue, would be rebuilt in a new location on the development site (along Lafayette Avenue). The new basketball court would be the same size as the existing basketball court and would be an improvement over the existing basketball court. In addition, the proposed project would include both outdoor and indoor recreation areas that would be accessible to the residents introduced by the proposed project. The proposed project's basketball court and additional outdoor recreation space would continue to be open to residents of the Park Lane Apartments, in addition to future residents of the proposed project. Lastly, there are several significant open space resources located just beyond the boundaries of the open space study area, including the 205-acre Soundview Park and the over 70 acres of Pugsley Creek Park that extend beyond the open space study area. Therefore, while the proposed actions would result in an incremental decrease in open space ratios in the future, given the existing low utilization of many of the study area's open spaces, the planned rezoning area open space improvements, and the availability of additional open spaces conservatively not included in the quantitative analysis, the proposed actions would not result in a significant adverse impact on open space.

VI. SHADOWS

As stated in the *CEQR Technical Manual*, a shadow assessment considers projects that result in new shadows long enough to reach a sunlight-sensitive resource. Therefore, a shadow assessment is generally required only if the project would either (a) result in 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.

As outlined in Attachment A, "Project Description," in the future with the proposed actions, buildings with maximum heights of 137' 8" would be developed on the western portion of the rezoning area. As such, a detailed shadows analysis was conducted, which is provided in Attachment G, "Shadows." As outlined in Attachment G, the proposed project would result in incremental shadow coverage on a sunlight-sensitive open space resource (the DPR/DOE-operated Space Time Playground, located one block west of the rezoning area) on three representative analysis days. Project-generated shadows would not affect the utilization or enjoyment of this sunlight-sensitive resource and all open spaces in the surrounding area would continue to receive a minimum of four hours of direct sunlight throughout the growing season. Therefore, the proposed actions are not expected to result in significant adverse shadows impacts at any sunlight-sensitive resources.

VII. HISTORIC AND CULTURAL RESOURCES

Historic and cultural resources are defined as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. This includes properties that have been designated or are under consideration for designation as New York City Landmarks or Scenic Landmarks, or are eligible

for such designation; properties within New York City Historic Districts; properties listed on the State and/or National Register of Historic Places; and National Historic Landmarks. An assessment of architectural and/or archaeological resources is usually needed for projects that are location adjacent to historic or landmark structures or projects that require in-ground disturbance, unless such disturbance occurs in an area that has already been excavated.

According the *CEQR Technical Manual* guidelines, impacts on historic resources are considered on those sites affected by proposed actions and in the area surrounding identified development sites. The historic resources study area is therefore defined as the rezoning area, as well as an approximately 400-foot radius around the rezoning area. Archaeological resources are considered only in those areas where new excavation or ground disturbance is likely and would result in new in-ground disturbance, as compared to No-Action conditions (the development site).

Based on a letter provided by the New York City Landmarks Preservation Commission (LPC) on August 25, 2016 (included in Appendix I), there are no architecturally or archaeologically sensitive resources on or within 400 feet of the rezoning area. As such, a historic resources assessment is not warranted, and no significant adverse impacts would result.

VIII. URBAN DESIGN AND VISUAL RESOURCES

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

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

As the proposed actions includes zoning map and text amendments that would change the permitted bulk allowed on the development site, a preliminary urban design analysis is required and is provided in Attachment H, "Urban Design and Visual Resources." As discussed therein, the proposed project would replace a 103-space accessory parking lot, enlivening the streetscape and serving as an extension of the residential and community-oriented uses in the surrounding area. While the proposed project would be taller than many of the secondary study area buildings, the proposed project would be shorter than the existing 21-story residential building in the eastern portion of the rezoning area. As such, the proposed project would serve as a transition between the lower-scale buildings found to the west and this existing rezoning area building. The proposed project would fill an existing void by replacing existing underutilized land with active pedestrian-oriented uses that would complement those found in the primary and secondary study areas. In addition, the proposed project would not alter views of study area visual

resources. Therefore, the proposed actions would not result in significant adverse impacts on urban design and visual resources.

IX. 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) an action would increase pathways to their exposure; or (c) an action would introduce new activities or processes using hazardous materials.

Phase I Environmental Site Assessment (ESA)

As the proposed project would involve new in-ground disturbance, a Phase I Environmental Site Assessment (ESA) was prepared to determine whether hazardous materials exist on the project site. The Phase I ESA was prepared by GZA GeoEnvironmental, Inc. in October 2016 in conformance with the guidelines described in ASTM International's Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process – E1527-13. The Phase I ESA consisted of visual observations, a review of historical information, environmental databases, information provided by the applicant, and interviews with current site representatives. The Phase I ESA evaluated the potential for hazardous materials on the entirety of Block 3672, Lot 1. As outlined in the Phase I ESA, an excerpt of which is provided in Appendix III, no evidence of Recognized Environmental Conditions (RECs), Historic RECs (HRECs), or *de minimis* conditions exist on Block 3672, Lot 1.

The Phase I ESA was reviewed by the New York City Department of Environmental Protection (DEP). In a letter dated March 8, 2017 (included in Appendix I), DEP stated that, as (1) the rezoning area and surrounding area were originally located in a river and wetland system, which may indicate the presence of historic fill (considered a historic environmental concern); (2) there is a No. 2 fuel oil aboveground storage tank (AST) and an abandoned 20,000 gallon underground storage tank (UST) located in the existing rezoning area building that once contained No. 6 fuel oil; (3) the New York State Department of Environmental Conservation (NYSDEC) database identified 26 leaking storage tanks within 0.5 miles of the rezoning area; (4) nine UST sites and six AST sites are located within 0.25 miles of the rezoning area; (5) 12 NY Spills sites are within approximately 0.125 miles of the rezoning area; and (6) one manufactured gas plant site is within approximately one mile of the rezoning area, a Phase II Environmental Site Investigation (ESI) is necessary to adequately identify/characterize the surface and subsurface soils of the rezoning area. DEP also stated that a Phase II Work Plan and Health and Safety Plan (HASP) should be submitted to DEP for review and approval prior to the start of any fieldwork.

To avoid the potential for significant adverse impacts related to hazardous materials, as part of the proposed actions, an (E) designation will be assigned to the rezoning area. The (E) designation provides the impetus to identify and address environmental conditions so that significant adverse impacts during site development would be reduced, with the New York City Office of Environmental Remediation (OER) providing the regulatory oversight of the environmental investigation and remediation during the process. Building permits are not issued by DOB without prior OER approval of the investigation and/or

remediation pursuant to the provisions of Section 11-15 ("Environmental Requirements") of the *Zoning Resolution of the City of New York*.

The text of the hazardous materials (E) designation for the rezoning area (Bronx Block 3672, Lot 1) would be as follows:

Task 1-Sampling Protocol

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

Task 2-Remediation Determination and Protocol

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

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

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

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

X. WATER AND SEWER INFRASTRUCTURE

For assessment purposes, the City's "infrastructure" comprises the physical systems supporting its population, including: water supply, wastewater treatment, and stormwater management. Other infrastructure components are addressed separately per CEQR guidelines. Given the size of New York City's water supply system and the City's commitment to maintaining adequate water supply and pressure, few actions have the potential to cause significant impacts on this system. Therefore, only very

large developments or actions having exceptionally large water demands (e.g., more than one million gallons per day) would warrant a detailed water supply assessment. For wastewater and stormwater conveyance and treatment, the *CEQR Technical Manual* indicates that a preliminary assessment is needed if a project is located in a combined sewer area and would exceed the following incremental development of residential units or commercial space thresholds above the predicted No-Action scenario: (a) 1,000 residential units or 250,000 sf of commercial space or more in Manhattan; or (b) 400 residential units or 150,000 sf of commercial space or more in the Bronx, Brooklyn, Staten Island, or Queens.

The proposed project would result in the incremental development of 425 residential units and, therefore, would exceed the CEQR analysis threshold for wastewater and stormwater conveyance and treatment. As presented in Attachment I, "Water and Sewer Infrastructure," the proposed project would not result in a significant adverse impact on wastewater and stormwater conveyance and treatment. The proposed project is expected to generate approximately 206,285 gallons per day (gpd) of sanitary sewage, an increase of 103,985 gpd over No-Action conditions. This incremental increase in sewage generation is less than 0.1 percent of the average daily flow at the Hunts Point Water Pollution Control Plant (WPCP) and would not result in an exceedance of the plant's permitted capacity. Because the City's sewers are sized and designed based on the designated zoning of an area and related population density and surface coverage characteristics, the proposed rezoning may result in development that is inconsistent with the design of the existing built sewer system. As such, an amended drainage plan will be prepared. In addition, in order to obtain a permit to connect to the City sewer, a site-specific hydraulic analysis to determine whether the existing sewer system is capable of supporting higher density development and related increases in sanitary flows would be prepared prior to development of the proposed project; sewer improvements may also be required to support the house or site connection proposal. Therefore, the proposed actions would not result in a significant adverse impact to the City's sanitary sewage conveyance and treatment system.

Depending on the rainfall volume and duration, the total With-Action volume to the combined sewer system could be between 0.03 and 0.31 million gallons (mg). Compared to existing conditions, this would represent an increase in combined sewer flows of 0.01 to 0.10 mg, depending on rainfall intensities. With the incorporation of selected stormwater source control best management practices (BMPs) that would be required as part of the site connection approval process, subject to the review and approval of the New York City Department of Environmental Protection (DEP), the peak stormwater runoff rates would be reduced. In addition, as noted above, as part of the site connection proposal process, an amended drainage plan and sewer improvements would be implemented, if determined warranted by DEP. Overall, the proposed project would not result in significant adverse impacts on the City's sewage conveyance and treatment systems.

XI. TRANSPORTATION

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

The *CEQR Technical Manual* identifies minimum development densities that have the potential to result in significant adverse impacts to traffic conditions and therefore require a detailed traffic analysis. As shown in Table 16-1 of the *CEQR Technical Manual*, actions with a single or multiple land use(s) that would

result in fewer than fifty peak hour vehicle trips are generally unlikely to cause significant adverse impacts. As the proposed project would exceed the Level 1 screening threshold, a detailed transportation analysis was prepared for the proposed actions, which is included in Attachment J, "Transportation."

As presented in Attachment J, the proposed actions would generate additional vehicular, transit, and pedestrian trips in the surrounding area. Study area pedestrian elements would continue to operate at acceptable levels in the future with the proposed actions, and the project-generated parking demand would be sufficiently accommodated by on-site accessory parking and available on-street parking in the surrounding area. Furthermore, the proposed actions would not exacerbate existing unsafe conditions at any study area networks. As the proposed project would not generate 200 or more subway trips in any peak hour, no significant adverse subway impacts would result. In addition, project-generated bus trips would not result in a capacity shortfall on study area buses. While several study area traffic intersection are expected to continue to operate under congested conditions, as under existing and No-Action conditions, with the implementation of traffic network improvements at the intersection of Story Avenue and White Plains Road, to be required of the applicant pursuant to a Restrictive Declaration to be recorded against the project site, no significant adverse traffic impacts would result. As such, the proposed actions would not result in any significant adverse impacts on traffic operations and mobility, public transportation facilities and services, pedestrian elements and flow, or parking.

XII. AIR QUALITY

Stationary Sources

Heating and Hot Water Systems

Actions can result in stationary source air quality impacts when they create new stationary sources of pollutants that can affect surrounding uses (such as emission stacks from industrial plants or exhaust from boiler stack(s) used for heating/hot water, ventilation, or air conditioning [HVAC] systems of a building); or when they locate new sensitive uses (schools, hospitals, residences) near such stationary sources. Air quality impacts from HVAC sources are unlikely at distances of 400 feet or more, but a large or major emission source within 1,000 feet warrants further evaluation.

The proposed project would use fossil fuels for HVAC purposes. Emissions from the HVAC system of the proposed project may affect air quality levels at other nearby existing land uses. According to *CEQR Technical Manual* guidelines, the impacts of these emissions would be a function of fuel type, stack height, building size, and location of each emissions source relative to nearby sensitive land uses. Because the Mitchell-Lama building is on the same lot as the proposed project, the potential for HVAC air quality impacts cannot be screened using the nomographs in the *CEQR Technical Manual.* According to the protocol required by the New York City Department of City Planning (DCP), detailed HVAC analyses were prepared, which are provided in Attachment K, "Air Quality." As presented in Attachment K, no significant adverse impacts related to the proposed project's HVAC system would result, provided that the development uses natural gas as the fuel for HVAC. To ensure that the proposed project uses natural gas as fuel for HVAC, and (E) designation would be assigned to the project site.

Air Toxics

To assess air quality impacts on the proposed project associated with emission from nearby industrial and major sources, an investigation of potential sources of concern (as defined in the *CEQR Technical Manual*) was carried. Based on a review of NYSDEC and DEP air toxic permits, two residential complexes within existing state permits were identified. As such, an industrial source air toxics analysis was prepared, which is provided in Attachment K. As presented in Attachment K, no significant adverse impacts would result.

Mobile Sources

As stated in the *CEQR Technical Manual*, a project—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, or add new users near mobile sources. Screening analyses were carried out for CO and $PM_{2.5}$ to determine whether the project-generated increases in traffic had the potential to cause a significant impact. According to the *CEQR Technical Manual* CO screening threshold criteria for the City, if 170 or more project-generated vehicles pass through an intersection in any given peak period or if a project would result in a substantial number of local or regional diesel vehicle trips, there is the potential for mobile air quality impacts and a detailed analysis is required. For the preliminary PM assessment, the screening is based on the number of heavy duty diesel vehicles (HDDVs) or its equivalent in vehicular emissions generated by a proposed project; the determination of HDDV equivalents is based on the vehicle increment, vehicle mix, and roadway classification of the intersection.

As presented in Attachment K, "Air Quality," while the proposed project would not exceed the CO screening threshold of 170 vehicles at any intersection and would, therefore, not warrant a detailed mobile source CO analysis, the proposed project would exceed the *CEQR Technical Manual*'s PM screening threshold, and a detailed mobile source air quality analysis focusing on PM is provided in Attachment K. As presented in Attachment K, the proposed project would not result in any significant adverse mobile source air quality impacts.

Parking Facilities

As stated in the *CEQR Technical Manual*, projects that would result in parking facilities may require a microscale air quality analysis. As the proposed project would include a 67-space parking facility, in addition to a 42-space surface parking lot (accessory to the existing Mitchell Lama building) directly adjacent to the proposed project, a detailed mobile source parking garage analysis was prepared, which is provided in Attachment K. For conservative analysis purposes the combined 109 parking spaces were analyzed as interior spaces with a shared emission source. As presented in Attachment K, based on this worst-case analysis approach and associated worst-case in/out vehicle volumes to the accessory parking spaces, no significant adverse air quality impacts would result.

XIII. NOISE

A noise analysis examines an action for its potential effects on sensitive noise receptors (which can be both indoors and outdoors), including the effects on the interior noise levels of residential, commercial, and certain community facility uses, such as hospitals, schools, and libraries. The principal types of noise sources affecting the City are mobile sources (primarily motor vehicles), stationary sources (typically

machinery or mechanical equipment associated with manufacturing operations or building HVAC systems) and construction noise (e.g., trucks, bulldozers, power tools, etc.). An initial impact screening would consider whether a proposed action would generate any mobile or stationary source noise, or would be located in an area with high ambient noise levels.

As the proposed actions would introduce new sensitive uses, a detailed noise analysis was conducted in compliance with *CEQR Technical Manual* guidelines to determine whether traffic generated by the proposed actions would have the potential to result in significant noise impacts and determine the level of building attenuation necessary to ensure that the proposed project's interior noise levels satisfy applicable interior noise criteria.

As presented in Attachment L, "Noise," noise from the increased traffic volumes generated by the proposed project would not cause significant adverse noise impacts. The noise level increases adjacent to existing sensitive receptors would increase by up to 0.9 dBA, and would be considered "Marginally Acceptable," as under existing and No-Action conditions. As the anticipated increases in noise levels adjacent to existing sensitive receptors would fall well below the applicable *CEQR Technical Manual* significant adverse impact threshold (3.0 dBA), no significant adverse noise impacts would result in the future with the proposed actions. In addition, noise generated by the proposed project's basketball court would not result in notable increases in noise levels at nearby sensitive receptors, with a maximum increase of 1.7 dBA predicted along the western façade of the existing Mitchell Lama building.

In terms of building attenuation required for the proposed project to ensure acceptable interior noise levels, based on the noise analysis presented in Attachment L, window/wall attenuation outside of standard modern construction practices would only be required on the proposed project's White Plains Road façade. Specifically, as the maximum predicted L_{10} noise levels along the proposed project's Lafayette and Turnbull Avenue frontage would fall within the CEQR "Marginally Acceptable" noise exposure category, no additional window/wall attenuation would be needed outside of standard modern construction practices to maintain interior noise levels of 45 dBA or lower for the proposed project's residential uses. Accounting for noise generated by the proposed project's basketball court, the maximum predicted L_{10} noise levels on the proposed project buildings' facades fronting the court would also fall within the "Marginally Acceptable" noise category, and would not require additional window/wall attenuation would be needed outside of standard modern construction practices to maintain acceptable interior noise levels. Along the site's White Plains Road frontage, noise levels would fall within the "Marginally Unacceptable (II)" noise exposure category, as under existing and No-Action condition, and would, therefore, require the provision of 31 dBA of attenuation along this more heavily trafficked frontage to ensure acceptable interior noise levels for the proposed project's residential uses. The noise attenuation specifications for the proposed project's White Plains Road frontage would be mandated through the assignment of an (E) designation. With implementation of the attenuation levels required pursuant to the (E) designation, the proposed project would provide sufficient attenuation to achieve the *CEQR Technical Manual* interior noise level guidelines of 45 dBA for residential uses. Therefore, the proposed actions would not result in any significant adverse noise impacts related to building attenuation requirements.

XIV. PUBLIC HEALTH

Public health involves the activities that society undertakes to create and maintain conditions in which people can be healthy. Many public health concerns are closely related to air quality, water quality, hazardous materials, and noise.

According to the guidelines of the *CEQR Technical Manual*, a public health assessment may be warranted if a project results in (a) increased vehicular traffic or emissions from stationary sources resulting in significant adverse air quality impacts; (b) increased exposure to heavy metals and other contaminants in soil/dust resulting in significant adverse impacts, or the presence of contamination from historic spills or releases of substances that might have affected or might affect groundwater to be used as a source of drinking water; (c) solid waste management practices that could attract vermin and result in an increase in pest populations; (d) potential significant adverse impacts to sensitive receptors from noise and odors; (e) vapor infiltration from contaminants within a building or underlying soil that may result in significant adverse hazardous materials or air quality impacts; (f) exceedances of accepted federal, state, or local standards; or (g) other actions that might not exceed the preceding thresholds but might, nonetheless, result in significant health concerns.

As detailed in the analyses provided in this EAS, the proposed actions would not result in significant adverse impacts in the areas of air quality, water quality, hazardous materials, or noise. Therefore, the proposed actions do not have the potential to result in significant adverse public health impacts, and no further assessment is warranted.

XV. NEIGHBORHOOD CHARACTER

A supplemental screening analysis is necessary to determine if a detailed neighborhood character analysis is warranted in accordance with *CEQR Technical Manual* methodology, because the proposed action required analyses of land use, zoning, and public policy, socioeconomic conditions, urban design and visual resources, transportation, and noise.

The proposed actions would not adversely affect any component of the surrounding area's neighborhood character. The proposed actions would facilitate the development of underutilized land in the rezoning area with productive residential and commercial development by 2020. The proposed project would not conflict with the surrounding activities, nor would they significantly impact land use patterns. The proposed zoning map and text amendments are intended to encourage affordable residential development and ground floor retail uses in an appropriate location, surrounded by existing residential, commercial, and community facility uses. The 425 proposed affordable DU would further expand housing options in the area and the proposed ground floor retail uses would complement the existing commercial uses to the north and west, bridging an existing gap between the neighborhood's residential and commercial land uses. The proposed project would also improve the pedestrian character of the rezoning area, introducing active ground floor retail uses and establish a streetwall where one is currently lacking today.

While the proposed project would increase traffic, pedestrian, and noise levels in the surrounding area, these increases would not be out of character with the existing neighborhood context. Moreover, the proposed actions are not expected to result in any significant adverse impacts on the technical areas

related to neighborhood character, including land use, socioeconomic conditions, urban design and visual resources, historic and cultural resources, transportation, and noise. Therefore, the proposed actions and the resultant proposed project would not result in a significant adverse impact on neighborhood character.

XVI. CONSTRUCTION

Although temporary, construction impacts can include noticeable and disruptive effects from an action that is associated with construction or could induce construction. Determination of the significance of the construction impacts and the need for mitigation is generally based on the duration and magnitude of the impacts. Construction impacts are usually important when construction activity could affect traffic conditions, archaeological resources, the integrity of historic resources, community noise patterns, and/or air quality conditions.

Based on a preliminary construction schedule prepared by Gilbane Building Company for the proposed project (presented in Table B-3), construction of the proposed project is expected to occur over a 23-month period, and is therefore considered short-term. A discussion of the typical activities associated with each phase of the proposed project's construction is provided below.

Table B-3: Preliminary Construction Schedule

2018												2019											
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Excavation/Foundation/Substructure 01/03/18 – 07/19/18 (6.5 Months)																							
					Superstructure 06/07/18 – 04/10/19 (10 Months)																			
									Building Envelope 10/01/18 – 07/12/19 (9.5 Months)														
									Mechanical/Electrical/Plumbing 09/24/18 – 05/23/19 (8 Months)														
													Interior Fit-Out 01/31/19 – 12/03/19 (10 Months)										

As presented in Table B-3, the first phase of construction would be the excavation/foundation/substructure (cellar) phase, which is expected to have a total duration of approximately 6.5 months. Typical equipment used for these activities would include excavators, backhoes, tractors, pile-drivers, hammers, and cranes. Trucks would arrive at the site with pre-mixed concrete and other building materials, and would remove any excavated material and debris. Construction of the buildings' superstructure is expected to begin in month six, with a total duration of approximately ten months. This process involves the installation of beams, columns, and decking, and would require the use of cranes, derricks, hoists, and welding equipment, as warranted. The superstructure phase would partially overlap with work associated with the building envelope (including installing brick veneer, windows, curtain walls, and roofing) and mechanical/electrical/plumbing, which are expected to occur over approximately 9.5-month and eight-month periods, respectively. During these activities, hoists and cranes would be used, and trucks would remain in use for material supply and construction waste removal. Interior fit-out would begin at the close of month 13, with a total duration of approximately ten

months and would entail work on the interior of the structure, with equipment generally limited to hand tools.

Most construction activity would take place Monday through Friday, although the delivery and installation of certain equipment could occur on weekend days. Hours of construction are regulated by the New York City Department of Buildings (DOB) and apply in all areas of the City. In accordance with those regulations, almost all work would occur between 7 AM and 6 PM on weekdays, although some workers would arrive and begin to prepare work areas before 7 AM. Occasionally, Saturday or overtime hours could be required to complete time-sensitive tasks. Weekend work requires a permit from the DOB and, in certain instances, approval of a noise mitigation plan from the New York City Department of Environmental Protection (DEP) under the New York City Noise Code.

Based on estimates provided by Gilbane Building Company, on an average day during the project's first 20 months of construction, 150 workers travel to/from the site, with an average of six to eight truck deliveries per day; the estimated number of daily truck deliveries would likely be between 12 and 14 during concrete pours and the block and plank (superstructure) tasks. The average number of daily workers and truck deliveries would begin to ramp down in month 20.

Transportation

As noted in the *CEQR Technical Manual*, construction activities may affect several elements of the City's transportation system, including traffic, transit, pedestrians, and parking. A transportation analysis of construction activities is predicated upon the duration, intensity, complexity, and/or location of construction activity. The *CEQR Technical Manual* notes that an analysis of the effects of construction activities on transportation is often not required, as many projects do not generate enough construction traffic to warrant such analysis. However, due to the location, extent, and intensity of construction for a particular project, this is not always the case. Therefore, the following factors are considered to determine whether a preliminary assessment of the effect of construction on transportation is needed: (1) whether the project's construction would be located in a Central Business District (CBD) or along an arterial or major thoroughfare; (2) whether a project's construction activities would require closing, narrowing, or otherwise impeding moving lanes, roadways, key pedestrian facilities, parking lanes/spaces, bicycle routes/facilities, bus lanes/routes, or access points; and (3) whether the project would involve construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap and last for more than two years overall.

As noted above, construction of the proposed project is expected to occur over a 23-month period. During this limited construction duration, construction activities may result in short-term disruption of both traffic and pedestrian movements in the vicinity of the rezoning area. This would occur primarily due to the potential temporary loss of curbside lanes from the staging of equipment and the movement of materials to and from the rezoning area.

As no parking would be provided for construction workers on-site, daily worker trips would be distributed throughout the surrounding area, and trips in the immediate vicinity would be limited to truck deliveries, which, as noted above, would peak at 12-14 daily trips during the peak periods of construction. As such, construction of the proposed project is not expected to result in 50 or more vehicle trips at a study area intersection. In addition, most construction traffic would take place outside of the AM and PM traffic peak hours in vicinity of the rezoning area due to typical construction hours, and the total construction duration is not expected to exceed 24 months. While construction may at times result in temporary closings of

sidewalks adjacent to the rezoning area in order to accommodate construction vehicles, equipment, and supplies, the construction site would be surrounded by construction fencing and barriers as required by DOB, and detailed Maintenance and Protection of Traffic (MPT) plans for any temporary sidewalk or lane closure for the construction site would need to be submitted for approval to the DOT Office of Construction Mitigation and Coordination (OCMC), the entity that insures critical arteries are not interrupted, especially in peak travel periods. Given the limited duration of any obstructions, these conditions would not result in significant adverse impacts on traffic and transportation conditions.

Air Quality and Noise

With regard to the air quality and noise effects of the proposed project's construction, the *CEQR Technical Manual* indicates that the following should be considered in determining whether a preliminary analysis is needed: (1) is the project considered short-term (less than two years); (2) is the project located near sensitive receptors; and (3) does the project involve the construction of multiple buildings where there is the potential for on-site receptors on buildings to be completed before the final build-out. If a project meets one or more of the criteria above, factors such as the types of construction equipment, the physical relationship of the project site to nearby sensitive receptors, the type of construction activity, and the duration of heavy construction activity are considered to determine whether a preliminary construction air quality or noise assessment is required.

Construction of the proposed project would occur over a 23-month period and would, therefore, be considered short-term. In addition, the most intensive construction activities in terms of air pollutant and noise emissions (excavation and foundation work, where a number of large non-road diesel engines could be employed) would occur over a short-term 6.5-month period. The intensity of these preliminary construction phases would be further reduced by the fact that there are no existing structures on the development site that would need to be demolished.

However, construction of the proposed project would occur in proximity to several sensitive receptors, including the existing Mitchell Lama building, located approximately 60 feet east of the proposed senior housing building and the existing public school building on the south side of Lafayette Avenue, approximately 250 feet southeast of the proposed family housing building at its closest point. As noted above, the most intensive construction activities in terms of air pollutant and noise emissions (excavation and foundation) would occur over during the first 6.5 months of the proposed project's short-term construction schedule. During these most intensive periods of construction, given the size of the construction site and the distance from the construction site to these nearby sensitive receptors, pollutant dispersion would be enhanced and noise levels would be reduced. In addition, the types of construction activities would not be considered out of the ordinary in terms of intensity: no buildings would need to be demolished, and due to the proposed maximum height of the buildings, the extent of excavation and foundation work would not be as extensive as that required for buildings of greater height.

While the proposed project comprises two buildings, they would be constructed concurrently/in a single phase, and it is not anticipated that one of the buildings would be occupied prior to completion of construction, given the configuration of the proposed site plan, in addition to logistical considerations. Should one building be occupied prior to completion of construction, the type of activities that could potentially still be occurring would be the least noise and air quality intensive tasks, comprising site work and interior fit-out, which do not require the use of excavators, backhoes, and pile drivers; the equipment that would be operating in these later tasks would mostly be small in engine size and/or dispersed vertically throughout the building.

Noise and air quality emissions associated with construction would be limited to typical construction activities and would be subject to compliance with applicable regulations, further reducing air quality and noise emission intensity. Notably, ultra-low sulfur diesel (ULSD) would be used exclusively for all diesel engines, as mandated by New York City law. All necessary measures would be implemented to ensure that the New York City Air Pollution Control Code regulating construction-related dust emissions is followed and that local law restricting unnecessary idling on roadways would be adhered to. Construction noise levels would also be regulated by the New York City Noise Code and the EPA noise emission standards for construction equipment. The New York City Noise Code, as amended in December 2005 and effective July 1, 2007, requires the adoption and implementation of a noise mitigation plan for all construction sites, limits construction (absent special circumstances) to weekdays between the hours of 7 AM and 6 PM, and sets noise limits for certain specific pieces of construction equipment. EPA requirements further mandate that certain classifications of construction equipment meet specified noise emission standards. These controls, in addition to the relatively-low intensity and the temporary nature of construction activity associated with the proposed project would assure that there would be no significant adverse air quality and noise impacts associated with construction activity on nearby sensitive receptors.

Other Technical Areas

As described in Section VII, "Historic and Cultural Resources," there are no historic resources within 90 feet of the rezoning area; therefore, no significant adverse construction-related impacts on historic and cultural resources would result. In addition, as presented in Section IX, "Hazardous Materials," above, an (E) designation would be assigned to the rezoning area, which would require the applicant to prepare a CHASP if the presence of hazardous materials in the rezoning area is confirmed based on the results of the Phase II ESI. As such, no significant adverse hazardous materials impacts would occur during construction of the proposed project. Lastly, as construction of the proposed project would not be considered long-term (more than two years) and the proposed project's short-term construction would not directly affect a technical area (such as impeding the operation of a community facility), further assessment is not warranted for other technical areas, and no significant adverse impacts would result.

ATTACHMENT C

LAND USE, ZONING, AND PUBLIC POLICY

I. INTRODUCTION

The applicant, Park Lane Residences Co., is seeking a series of discretionary actions to facilitate the development of two attached predominantly residential apartment buildings comprising a total of approximately 384,271 gross square foot (gsf) of floor area at 1965 Lafayette Avenue (Bronx Block 3672, p/o Lot 1) in the Soundview neighborhood of Bronx Community District (CD) 9. Specifically, the applicant is seeking zoning map and text amendments from the New York City Planning Commission (CPC), public financing from the New York City Department of Housing Preservation and Development (HPD) and/or the New York City Housing Development Corporation (HDC), and additional HPD and New York State Department of Housing and Community Renewal (DHCR) approvals to facilitate development in the rezoning area in consideration of existing Mitchell Lama site controls.

A detailed assessment of land use and zoning is appropriate if a proposed action would result in a significant change in land use or would substantially affect regulations or policies governing land use. An assessment of zoning is typically performed in conjunction with a land use analysis when the action would change the zoning on the site or result in the loss of a particular use. As the proposed actions include zoning map and text amendments, a detailed assessment of land use, zoning, and public policy is warranted and is provided in this attachment. In addition, as the rezoning area is located within the New York City Coastal Zone, an assessment of the proposed actions' consistency with the Waterfront Revitalization Program (WRP) is warranted. The assessment considers the effects of the proposed actions on the land use study area, as well as the proposed actions' potential effects on zoning and public policy in the study area.

II. PRINCIPAL CONCLUSIONS

No significant adverse impacts on land use, zoning, or public policy, as defined by the guidelines for determining impact significant set forth in the *CEQR Technical Manual*, are anticipated in the 2020 future with the proposed actions in the primary and secondary study areas. Compared to the future without the proposed actions, the proposed actions would introduce new residential and commercial uses in the rezoning area that would be compatible with adjacent land uses, which are predominantly residential and commercial and include a school directly south of the rezoning area. The proposed actions would not directly displace any land uses so as to adversely affect surrounding land uses, nor would the proposed actions generate land uses that would be incompatible with land uses, zoning, or public policy in the secondary study area, or cause a substantial number of existing structures to become nonconforming. The proposed actions would not result in land uses that conflict with public policies applicable to the primary or secondary study areas. The proposed actions would facilitate new residential and commercial development in an appropriate location within the New York City Coastal Zone that is well-served by public facilities and infrastructure and characterized by a similar mix of uses under existing conditions. In addition, the proposed actions would facilitate the construction of new affordable housing without

changing the status of the existing Mitchell Lama building on Block 3672, Lot 1, and would, therefore, be consistent with the goals of the Mitchell-Lama Housing Program.

III. METHODOLOGY

The proposed actions include zoning map and text amendments, which would affect land use, zoning and public policy, as well as additional discretionary actions from HPD/HDC. Land use, zoning, and public policy are addressed and analyzed for two geographical areas for the proposed actions. For the purpose of this assessment, the primary study area encompasses the rezoning area (Bronx Block 3672, p/o Lot 1), which is bounded by White Plains Road to the west, Turnbull Avenue to the north, a line 250 feet west of Pugsley Avenue to the east, and Lafayette Avenue to the south. The secondary study area encompasses areas that have the potential to experience indirect impacts as a result of the proposed actions. Both the primary and secondary study areas have been established in accordance with *City Environmental Quality Review* (CEQR) *Technical Manual* guidelines and can be seen in Figure C-1.

The analysis of land use, zoning, and public policy first provides a description of the existing land use, zoning, and public policy conditions in the study areas. Existing land uses in the primary and secondary study area were determined based on the New York City Primary Land Use Tax Lot Output (PLUTO) data files for 2016 and July 2016 field visits. New York City Zoning and Land Use (ZoLa), New York City Zoning maps, and the *Zoning Resolution of the City of New York* were consulted to describe existing zoning districts in the study areas. Relevant public policy recognized by the New York City Department of City Planning (DCP) and other City agencies were utilized to describe existing public policies pertaining to the primary and secondary study areas.

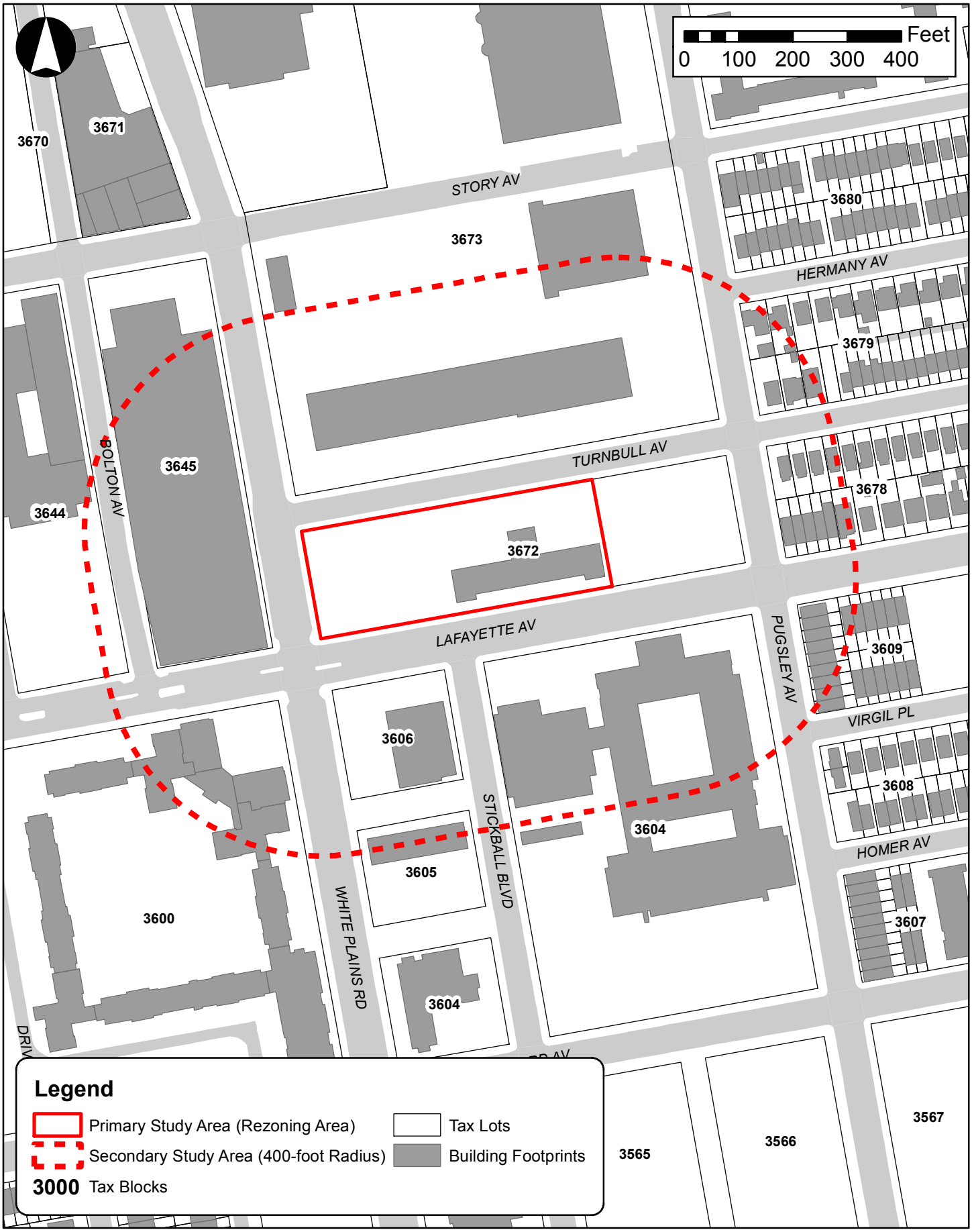
The analysis then projects land use, zoning, and public policy conditions in the 2020 analysis year without the proposed actions. This is the "No-Action" or "future without the proposed actions" condition, which is developed by identifying proposed developments and other relevant changes anticipated to occur in the primary and secondary study areas within this time frame. The No-Action condition describes the baseline conditions in the study areas against which the proposed actions' incremental changes are measured. Finally, the analysis projects land use, zoning, and public policy conditions in 2020 with the completion of the proposed project. This is the "With-Action" or "future with the proposed actions" condition.

IV. PRELIMINARY ASSESSMENT

Land Use and Zoning

A preliminary assessment, which includes a basic description of existing and future land uses and zoning, should be provided for all projects that would affect land use or would change the zoning on a site, regardless of the project's anticipated effects. As the proposed actions include zoning map and text amendments, a detailed assessment of land use and zoning is warranted and provided in Section V below.

Figure C-1
Land Use Study Area



Public Policy

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

The primary study area is not located in an urban renewal area, a designated Industrial Business Zone (IBZ), a Business Improvement District (BID), a designated historic district, or within an area defined by an adopted 197-a plan. As (1) the primary study area and portions of the secondary study area are located within the City's designated coastal zone (see Figure C-2) and; (2) the primary study area was developed as part of the Mitchell-Lama Housing Program, a detailed public policy assessment is warranted and is provided in Section V, "Detailed Assessment."

V. DETAILED ASSESSMENT

Existing Conditions

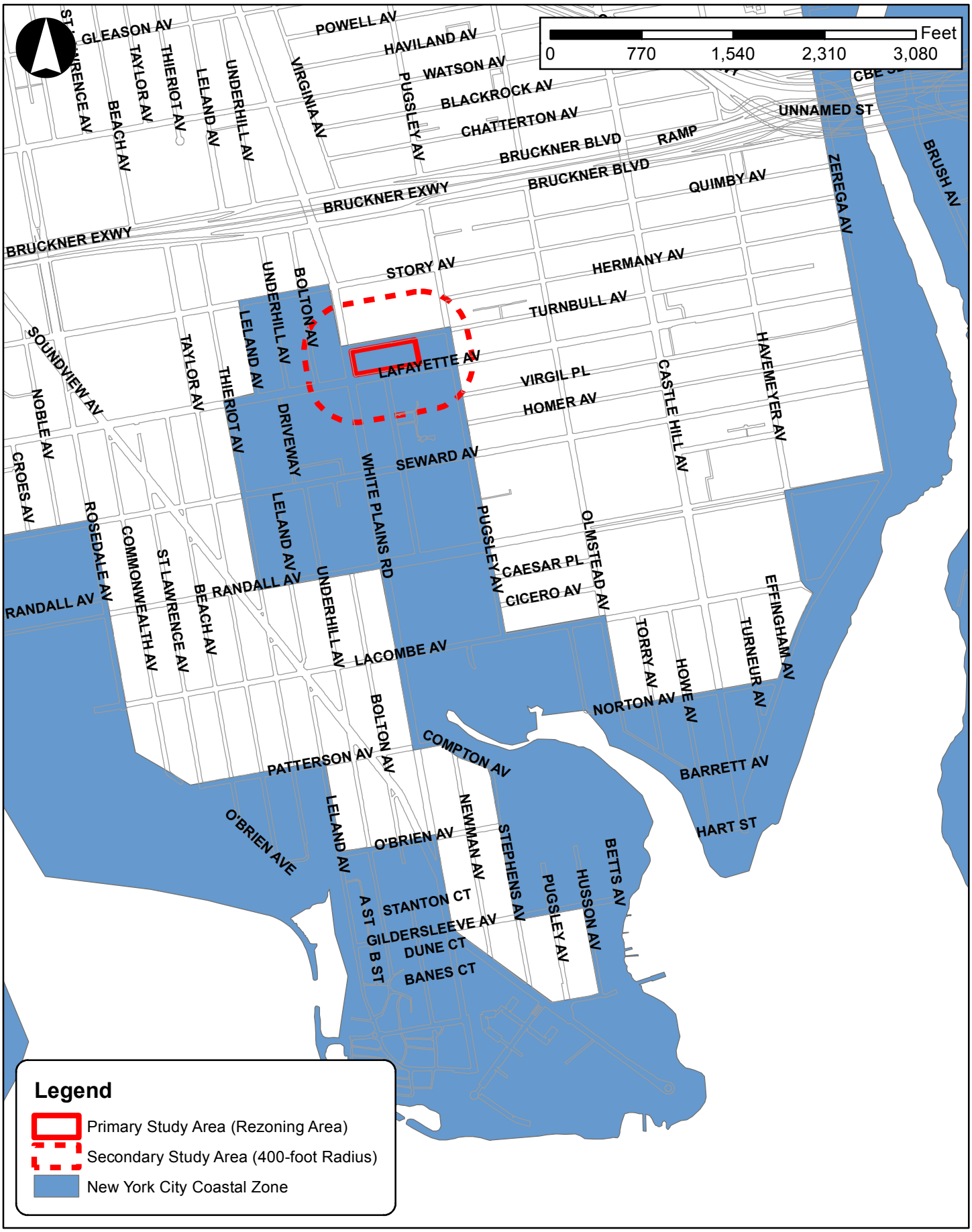
Land Use

Primary Study Area (Rezoning Area)

The approximately 107,890-sf primary study area, which is coterminous with the rezoning area, comprises the western portion of Bronx Block 3672, Lot 1 in the Soundview neighborhood of Bronx CD 9. The primary study area fronts Turnbull and Lafayette Avenues to the north and south, respectively (539 feet of frontage on each street) and White Plains Road to the west (200 feet of frontage); the eastern boundary of the primary study area lies 250 feet west of Pugsley Avenue.

As presented in Figure C-3, the primary study area is currently occupied by a 21-story multi-family affordable residential building (Use Group 2) comprising a total of 400,932 sf (353 affordable residential units), as well as accessory residential and parking uses. The existing 21-story residential building was developed as part of the Mitchell Lama program, occupies the south central portion of Block 3672, Lot 1, and is setback from the street. Directly north and south of the existing residential building, the lot is improved with plantings, seating areas, and private open space, including a playground and two pools, which are located to the north of the building.

To the west of the existing residential building is an approximately 103-space paved surface parking lot accessory to the existing primary study area residential building, in addition to a privately-owned basketball court, also accessory to the existing primary study area residential building.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POWELL AV
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WATSON AV
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CHATTERTON AV
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RAMP
UNNAMED ST
BRUCKNER EXWY
QUIMBY AV
ZEREGA AV
BRUSH AV
STORY AV
HERMANY AV
TURNBULL AV
LAFAYETTE AV
VIRGIL PL
HOMER AV
CASTLE HILL AV
HAVEMEYER AV
SEWARD AV
WHITE PLAINS RD
DRIVEWAY
PUGSLEY AV
OLMSTEAD AV
CAESAR PL
CICERO AV
EFFINGHAM AV
RANDALL AV
UNDERHILL AV
LACOMBE AV
TORRY AV
HOWE AV
TURNEUR AV
NORTON AV
BARRETT AV
HART ST
BOLTON AV
COMPTON AV
PATTERSON AV
O'BRIEN AV
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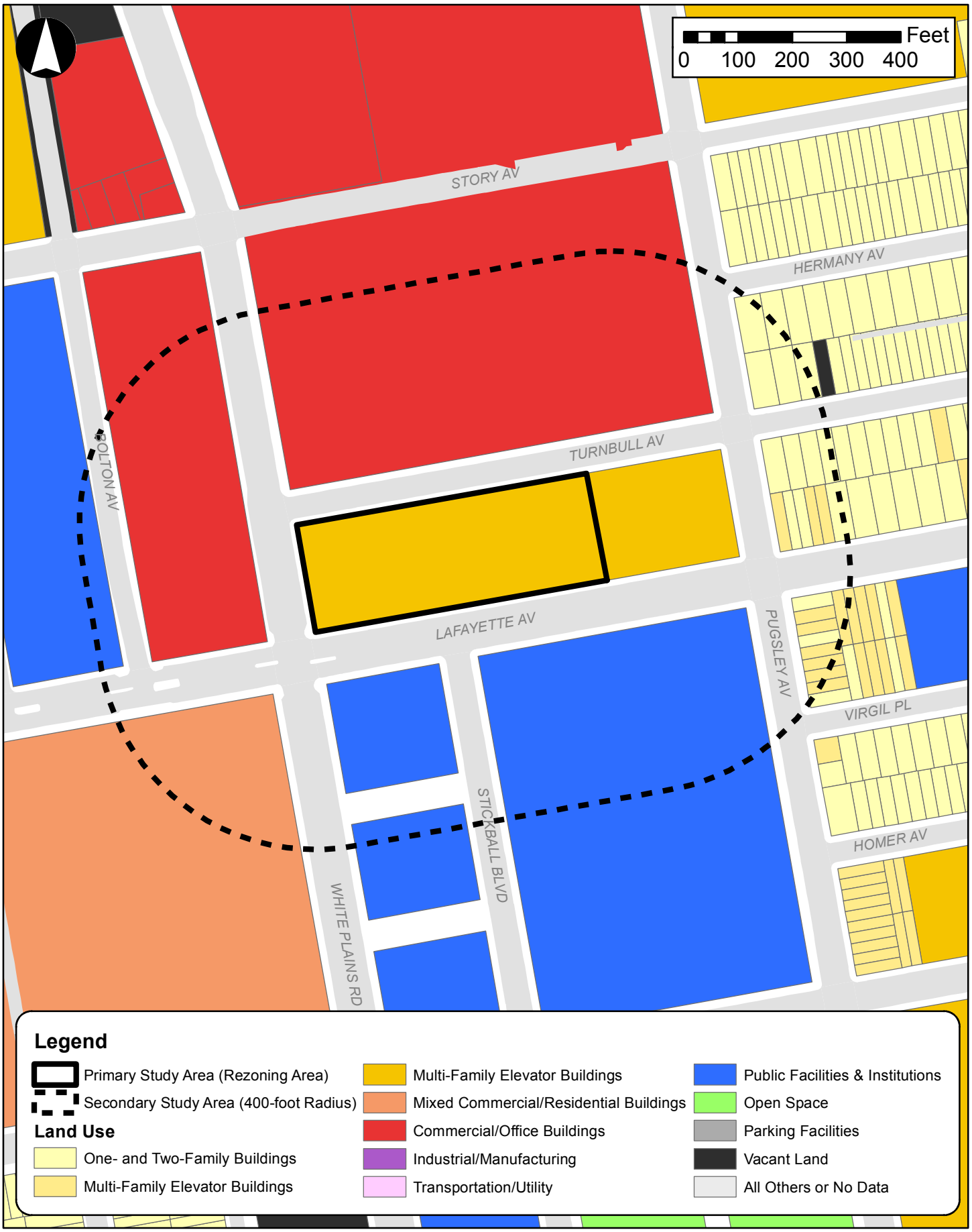
LELAND AV
NEWMAN AV
STEPHENS AV
BETTS AV
HUSSON AV
STANTON CT
GILDERSLEEVE AV
DUNE CT
BANES CT
A ST
B ST
SOUNDVIEW AV
NOBLE AV
CROES AV
ROSEDALE AV
COMMONWEALTH AV
ST LAWRENCE AV
BEACH AV
TAYLOR AV
THIERIOT AV
LELAND AV
UNDERHILL AV
VIRGINIA AV
PUGSLEY AV
BRUCKNER EXWY
Legend
Primary Study Area (Rezoning Area)
Secondary Study Area (400-foot Radius)
New York City Coastal Zone

Figure C-3
Study Area Land Uses



Secondary Study Area

As shown in Figure C-3 and Table C-1, land uses in the secondary study area include a mix of residential, and institutional uses. There are no industrial, transportation/utility, open space, parking facilities, or vacant land present in the secondary study area.

Table C-1: Existing Land Uses within the Secondary Study Area

Land Use	Number of Lots	Percentage of Total Lots (%)	Lot Area (sf)	Percentage of Total Lot Area (%)	Building Area (sf)	Percentage of Total Building Area (%)
Residential	27	78.8	68,261	3.2	64,420	2.3
One & Two-Family Residential	*15*	*45.5*	*47,753*	*2.3*	*31,912*	*1.1*
Multi-Family Walkup Buildings	*11*	*33.3*	*20,508*	*1.0*	*32,508*	*1.2*
Multi-Family Elevator Buildings	*0*	*0.0*	*0*	*0.0*	*0*	*0*
Mixed Commercial/Residential Buildings	1	3.0	679,000	32.1	1,021,752	36.7
Commercial/Office Buildings	2	6.1	806,808	38.2	498,776	17.9
Industrial/Manufacturing	0	0.0	0	0.0	0	0.0
Transportation/Utility	0	0.0	0	0.0	0	0.0
Public Facilities & Institutions	4	12.1	561,744	26.5	1,197,698	43.0
Open Space	0	0.0	0	0.0	0	0.0
Parking Facilities	0	0.0	0	0.0	0	0.0
Vacant Land	0	0.0	0	0.0	0	0.0
Total	*33*	*100.0*	*2,115,813*	*100.0*	*2,782,646*	*100.0*

Source: 2016 PLUTO data; July 2016 field visits.

As presented in Figure C-3, residential uses are located to the east and southwest of the primary study area. Residential uses comprise a total of approximately 79 percent of the secondary study area's lots, but, due to their generally smaller lot area, compared to commercial and institutional uses, represent a smaller percentage (approximately 3.2 percent) of the secondary study area's lot area. One- and two-family residential buildings and multi-family walkup buildings are found to the east of Pugsley Street. To the southwest of the primary study area is a large mixed-use multi-family residential building complex with ground floor retail.

Commercial uses are found on two lots in the secondary study area (north and west of the primary study area across Turnbull Avenue and White Plains Road, respectively) and reflect the underlying C4-1 commercial zoning district mapped in these areas (discussed in greater detail below). While only comprising two lots in the secondary study area, commercial uses represent a substantial percentage of the secondary study area lot area (approximately 32 percent), due to the large size of these two lots. The secondary study area commercial uses consist of one- to two-story commercial buildings occupied by chain retailers and surrounded by accessory surface parking. Directly north of the primary study area is the 113,485-sf Shops at Bruckner Boulevard Shopping Center, which opened in November 1996 and is currently undergoing a substantial modernization and renovation process.

As presented in Figure C-3, institutional uses are generally located on the blocks directly south of the primary study area (across Lafayette Avenue). Existing secondary study area institutional uses include a public school building occupied by the Millennium Arts Academy, Pablo Neruda Academy, Bronx Compass High School, and the Bronx Guild High School; a U.S. Post Office; and the Grand Manor Nursing and Rehabilitation Center. In total, while institutional uses are only found on four of the secondary study area

lots, they comprise approximately 43 percent of the secondary study area building area (refer to Table C-1).

Zoning

Primary Study Area (Rezoning Area)

As presented in Figure C-4, the primary study area is currently zoned R6. R6 districts are widely mapped in built-up, medium-density areas and can range in character from neighborhoods with a diverse mix of building types and heights to large scale "tower in the park" developments. Developers in R6 districts can choose between two sets of bulk regulations: standard Height Factor regulations, which produce small multi-family buildings on small zoning lots and, on larger lots, tall buildings set back from the street; and optional Quality Housing regulations that produce high lot coverage buildings with height limits that often reflect the scale of older, pre-1961 apartment buildings in the neighborhood. Under Height Factor regulations, the maximum permitted residential floor area ratio (FAR) ranges from 0.78 (for a single story building) to 2.43 at a typical height of 13 stories; the open space ratio (OSR) ranges from 27.5 to 37.5. Residential buildings developed pursuant to R6 (Height Factor) regulations require off-street parking for 70 percent of a building's dwelling units and parking can be waived if five or fewer spaces are required. Under Quality Housing regulations, the maximum permitted FAR is 3.0 on wide streets outside of the Manhattan Core and 2.2 on narrow streets. Community facility uses are permitted up to 4.8 FAR in R6 districts under both Height Factor and Quality Housing regulations. Residential buildings developed pursuant to R6 (Quality Housing) regulations require off-street parking for 50 percent of a building's dwelling units and parking can be waived if five or fewer spaces are required.

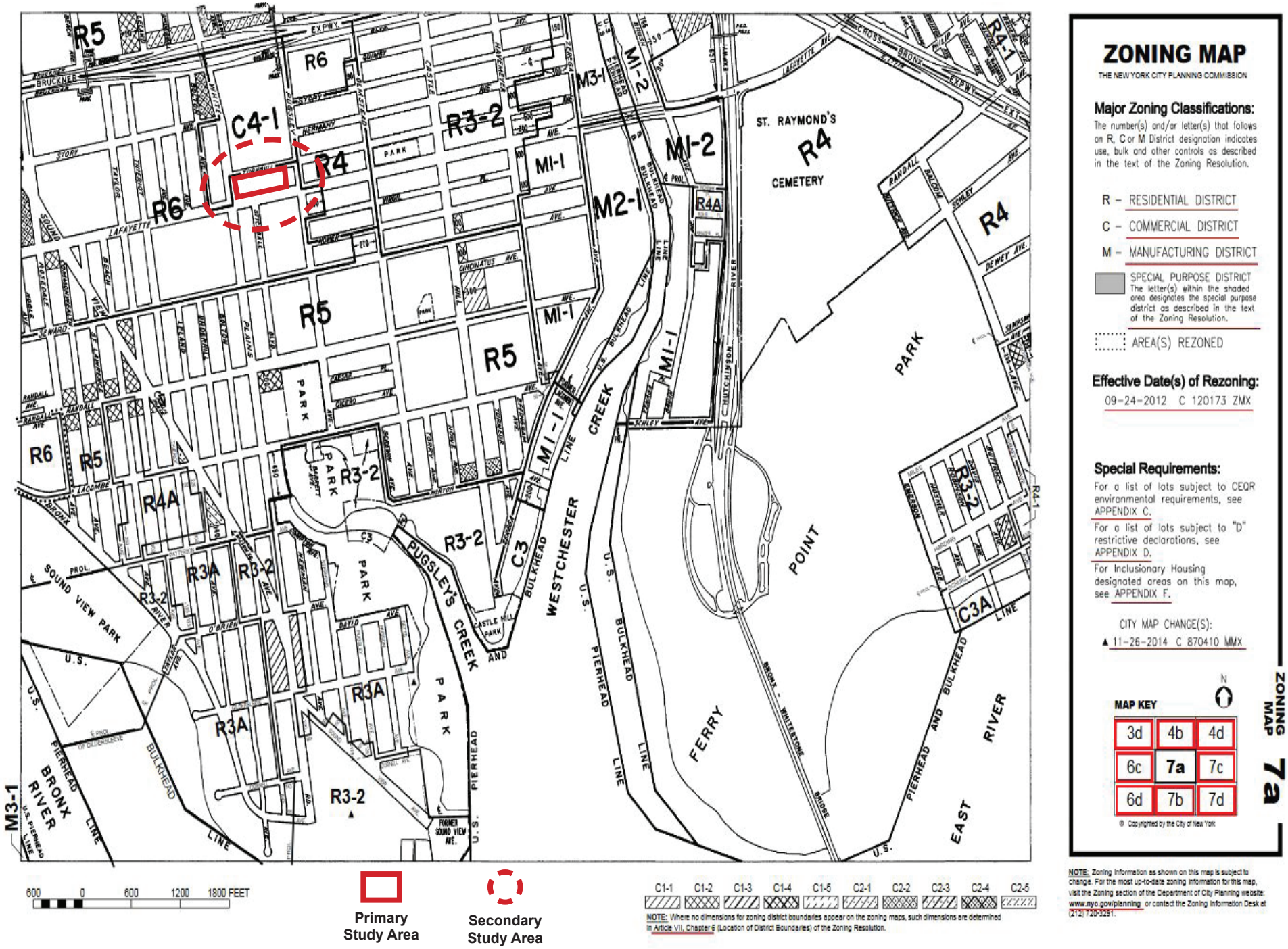
The existing residential building on Block 3672, Lot 1 was developed pursuant to Height Factor regulations and maximizes the permitted floor area under R6 Height Factor zoning requirements.

Secondary Study Area

The secondary study area encompasses an R6 medium-density residential district, a C4-1 commercial district, and an R4 lower-density residential district. As presented in Figure C-4, the R6 district mapped within the primary study area extend to the south of Lafayette Avenue, as well as encompassing portions of blocs east of Pugsley Avenue (southeast of the primary study area) and west of Bolton Avenue (west of the primary study area).

An R4 lower-density residential district is mapped to the east of Pugsley Avenue. R4 districts permit residential uses up to 0.75 FAR (or 0.90 FAR with an attic allowance) and community facility uses up to 2.0 FAR. R4 zoning typically produces buildings of three stories. Off-street parking is required for each dwelling unit in R4 zoning districts.

As presented in Figure C-4, a C4-1 commercial district is mapped to the north and west of the primary study area. C4-1 districts are mapped in outlying regional commercial centers (located outside of the central business districts) that require large amounts of parking. In these areas, specialty and department stores, theaters, and other commercial and office uses serve a larger region and generate more traffic than neighborhood shopping area. Use Groups 5, 6, 8, 9, 10, and 12, which include most retail establishments, are permitted in C4 districts up to 1.0 FAR. Uses that would interrupt the desired continuous retail frontage, such as home maintenance and repair service stores listed in Use Group 7, are



1965 Lafayette Avenue

Figure C-4
Study Area Zoning

not allowed. C4-1 districts are an R5 residential equivalent district that permit residential uses up to 1.25 FAR. Community facility uses are also permitted in C4-1 districts up to 2.0 FAR.

Public Policy

As noted above, the primary study area is not located in an urban renewal area, a designated IBZ, a BID, a designated historic district, or within an area defined by an adopted 197-a plan. However, the entirety of the primary study area, as well as portions of the secondary study area are located within the New York City Coastal Zone. In addition, the primary study area was developed as part of the Mitchell-Lama Housing Program. As such, a discussion of the Waterfront Revitalization Program (WRP) and the Mitchell-Lama Housing Program is provided below.

Waterfront Revitalization Program

Projects that are located within the designated boundaries of New York City's Coastal Zone must be assessed for their consistency with the City's WRP. The federal Coastal Zone Management Act (CZMA) of 1972 was enacted to support and protect the distinctive character of the waterfront and to set forth standard policies for reviewing proposed development projects along coastlines. The program responded to City, State, and Federal concerns about the deterioration and inappropriate use of the waterfront. In accordance with the CZMA, New York State adopted its own Coastal Management Program (CMP), which provides for local implementation when a municipality adopts a local waterfront revitalization program, as is the case in New York City. The New York City WRP is the City's principal coastal zone management tool. The WRP was originally adopted in 1982 and approved by the New York State Department of State (NYSDOS) for inclusion in the New York State CMP. The WRP encourages coordination among all levels of government to promote sound waterfront planning and requires consideration of the program's goals in making land use decisions. NYSDOS administers the program at the State level, and DCP administers it in the City. The WRP was revised and approved by the City Council in October 1999. In August 2002, NYSDOS and federal authorities (i.e., the U.S. Army Corps of Engineers [USACE] and the U.S. Fish and Wildlife Service [USFWS]) adopted the City's ten WRP policies for most of the properties located within its boundaries.

In October 2013, the City Council approved revisions to the WRP in order to proactively advance the long-term goals laid out in Vision 2020: The New York City Comprehensive Waterfront Plan, released in 2011. The changes solidify New York City's leadership in the area of sustainability and climate resilience planning as one of the first major cities in the U.S. to incorporate climate change considerations into its Coastal Zone Management Program. They also promote a range of ecological objectives and strategies, facilitate interagency review of permitting to preserve and enhance maritime infrastructure, and support a thriving, sustainable working waterfront. The New York State Secretary of State approved the revisions to the WRP on February 3, 2016. The U.S. Secretary of Commerce concurred with the State's request to incorporate the WRP into the New York State CMP.

In 2013, the New York City Panel on Climate Change (NPCC) released a report (Climate Risk Information 2013: Observations, Climate Change Projections, and Maps) outlining New York City-specific climate change projections to help respond to climate change and accomplish PlaNYC goals. The 2013 NPCC report predicted future City temperatures, precipitations, sea levels, and extreme event frequency for the 2020s and 2050s. Subsequently, in January 2015, the Second NPCC (NPCC2) released an updated report that presented the full work of the NPCC2 from January 2013 to 2015 and include temperature, precipitation,

sea level, and extreme event frequency predictions for the 2081 to 2100 time period. While the projections will continue to be refined in the future, current projections are useful for present planning purposes and to facilitate decision-making in the present that can reduce existing and near-term risks without impeding the ability to take more informed adaptive actions in the future. Specifically, the NPCC report predicts that mean annual temperatures will increase by 2.0 to 2.8˚F, 4.1 to 5.7˚F, 5.3 to 8.8˚F, and 5.8 to 10.3˚F by the 2020s, 2050s, 2080s, and 2100, respectively; total annual precipitation will rise by 1 to 8 percent, 4 to 11 percent, 5 to 13 percent, and -1 to +19 percent by the 2020s, 2050s, 2080s, and 2100, respectively; sea level will rise by 4 to 8 inches, 11 to 21 inches, 18 to 39 inches, and 22 to 50 inches by the 2020s, 2050s, 2080s, and 2100, respectively; heat waves and heavy downpours are very likely to become more frequent, more intense, and longer in duration, with coastal flooding very likely to increase in frequency, extent, and elevation.

As illustrated in Figure C-2, "Coastal Zone Boundary Map," the entirety of the primary study area, as well as portions of the secondary study area, fall within the City Coastal Zone. Therefore the proposed actions must be assessed for their consistency with the policies of the City's Local Waterfront Revitalization Program (LWRP).

Mitchell-Lama Housing Program

The Limited Profit Housing Companies Act was created in 1955 for the purpose of building affordable housing for middle-income residents. The housing developed under this program is more commonly known as "Mitchell Lama" housing. It is officially embodied in the Private Housing Finance Law and is designed to accommodate the housing needs of moderate income families. There are both New York City-supervised Mitchell Lama developments and New York State-supervised Mitchell Lama developments.

There are currently 68 State-supervised and 109 City-supervised Mitchell Lama developments in the City comprising over 100,000 apartments, combined; the existing rezoning area building was developed as part of the Mitchell-Lama Housing Program in 1971. In exchange for low-interest mortgage loans and real property tax exemptions, the Mitchell-Lama Housing Program requires limitations on profits and income limits on tenants. The New York State Department of Housing and Community Renewal (DHCR) has supervision over State-supervised Mitchell Lama developments, whereas HPD supervises waiting lists, management issues, and has other oversight responsibilities over the City-supervised Mitchell Lama developments, with some City-sponsored developments under shared supervision by HPD and the U.S. Department of Housing and Urban Development (HUD). Typically, after twenty years from initial occupancy, housing companies are statutorily permitted to voluntarily dissolve (buyout) and leave the program; when developments buy out, they are no longer subject to the Mitchell-Lama Housing Program regulation, and apartments need not be kept affordable for moderate-income facilities. Since 1991, developments built before 1974 that buy out that are located in areas subject to the Rent Stabilization Law or the Emergency Tenant Protection Act are covered by rent stabilization; in areas not subject to these laws or developments built in or after 1974, the buildings are no longer subject to regulation post-buyout.

The Future without the Proposed Actions (No-Action Condition)

Primary Study Area (Rezoning Area)

In the future without the proposed actions, the primary study area's existing R6 zoning would remain in place. As the existing Mitchell Lama residential building on Block 3672, Lot 1 maximizes the residential FAR permitted in R6 districts pursuant to Height Factor regulations, no new development is expected to occur in the 2020 future without the proposed actions. Therefore, in the No-Action condition, the primary study area would continue to be occupied by the existing 353-unit multi-family affordable residential building, as well as accessory residential and parking uses.

Secondary Study Area

There are no known or anticipated developments or proposals to alter zoning in the secondary study area in the 2020 future without the proposed actions.

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

In the 2020 future with the proposed actions, the primary study area would be rezoned from R6 to R8 and R8/C2-4. In addition, the requested public financing and approval would be approved in the 2020 With-Action condition, facilitating the development of the proposed project.

Land Use

By 2020 under the With-Action condition, it is expected that the applicant would complete the proposed project, which would be facilitated by the proposed actions. The proposed project would consist of approximately 384,271 gsf of floor area distributed between a 102,699-gsf senior housing building and a 281,572-gsf family housing building. The two attached buildings, combined, would comprise 332,868 gsf of residential floor area, 19,938 gsf of commercial floor area, and 31,465 gsf of below-grade parking. The proposed project would include approximately 425 affordable residential units, including 133 affordable senior units (to be located in the senior housing building) and 292 affordable family units (to be located in the family housing building). The proposed project's commercial floor area would be located on the family housing building's ground floor and would comprise local retail uses. In addition, the proposed project would include a total of 109 accessory parking spaces, including 67 enclosed below-grade spaces to be located in the family housing building (48 of which would be accessory to the proposed project and 19 of which would be accessory to the existing Mitchell Lama building) and 42 surface spaces accessory to the existing Mitchell Lama building, as well as a private open space for use by the primary study area's existing and future residents. Table C-2 provides a comparison of the No-Action and With-Action primary study area land uses.

Table C-2: Comparison of Primary Study Area No-Action and With-Action Condition Land Uses

Land Use	No-Action	With-Action	Increment
Residential	400,932 gsf (353 DU)	733,800 gsf (778 DU)	+332,868 gsf (+425 DU)
Retail	0	19,938 gsf	+19,938 gsf
Accessory Parking	103	109	+6
Enclosed	*0*	*67*	*+67*
Surface	*103*	*42*	*-61*
Total gsf (including below-grade parking)	400,932 gsf	785,203 gsf	+384,271 gsf

The proposed actions would result in changes to land use within the primary study area by introducing retail uses to the primary study area. As described above, the primary study area is currently occupied by a multi-family affordable residential building and is located in a mixed-use neighborhood with a mix of residential, commercial, and community facility uses. The proposed land uses would be consistent with, and complementary to, these existing land uses.

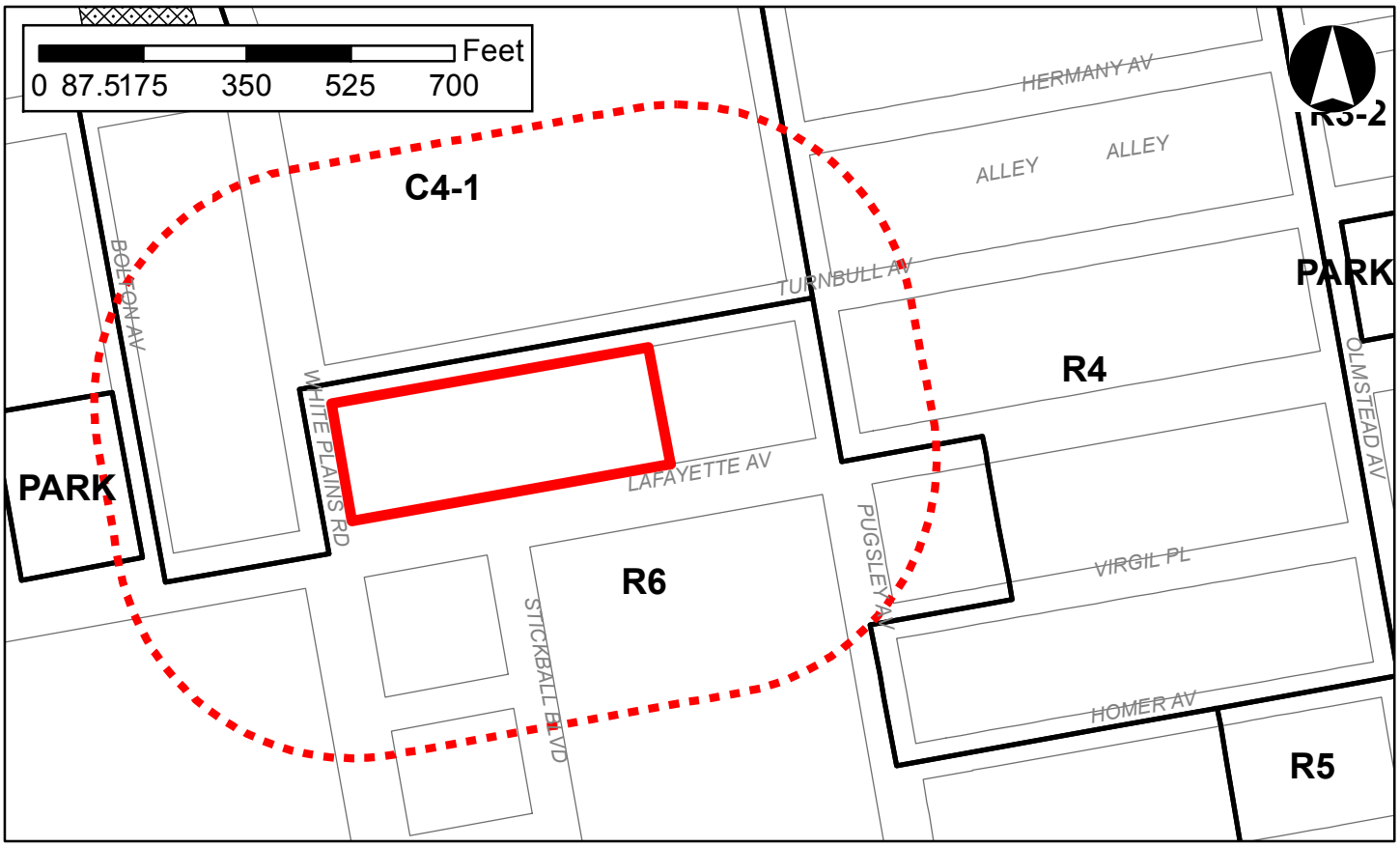
The proposed multi-family affordable residential buildings would be located on the western portion of the primary study area, sharing a block with the existing primary study area multi-family affordable residential building, and in proximity to multi-family residential buildings found to the west and southwest of the primary and secondary study areas. In addition, the proposed commercial uses would serve as an extension of the commercial uses found to the north of the primary study area, to the ground floor retail uses found to the south, serving to fill an existing void and create a vibrant commercial corridor.

The proposed actions would not generate land uses that would be incompatible with surrounding uses, nor would they displace existing primary study area land uses in such a way as to adversely affect surrounding land uses. Therefore, the proposed actions would support land use trends, and no significant adverse land use impacts are expected in the primary study area. In addition, the secondary study area would not undergo any land use changes as a result of the proposed actions. As noted above, the secondary study area includes a mix of residential, commercial, and institutional uses. Therefore, the proposed actions would not introduce any new land uses that would be compatible with their surroundings, and no significant adverse land use impacts would occur in the secondary study area.

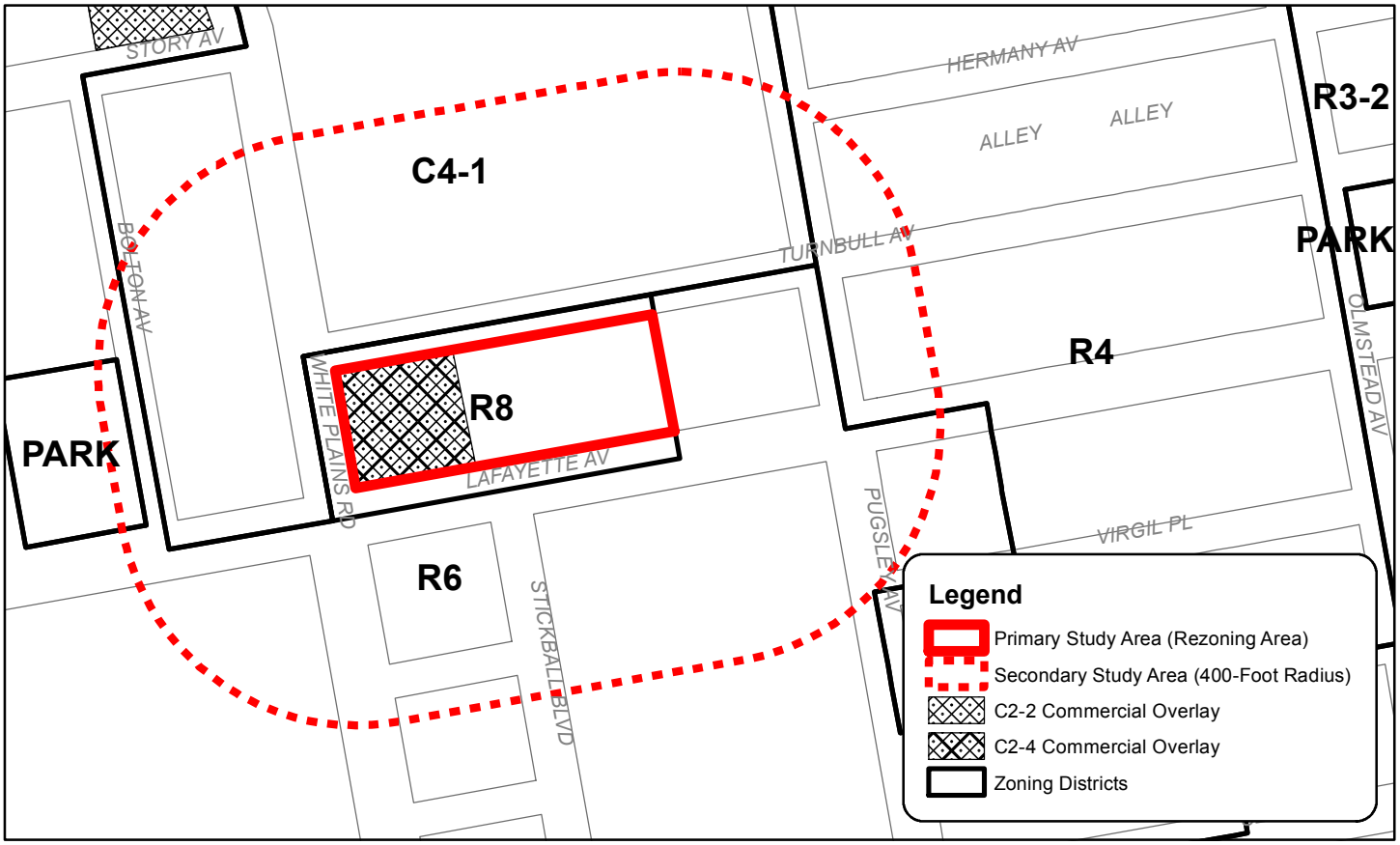
Zoning

In the future with the proposed actions, the primary study area would be rezoned from R6 to R8 (MIH) with a C2-4 commercial overlay mapped along its White Plains Road frontage (see Figures C-5 and C-6). As presented in Figure C-5, the proposed C2-4 commercial overlay would be mapped on the western portion of Block 3672 to a depth of 200 feet from White Plains Road. As shown in Table C-3, the proposed R8 (MIH) zoning would increase the allowable maximum density to 7.2 FAR for residential uses and 6.5 for community facility uses. The C2-4 overlay would allow for a 2.0 FAR for commercial uses.

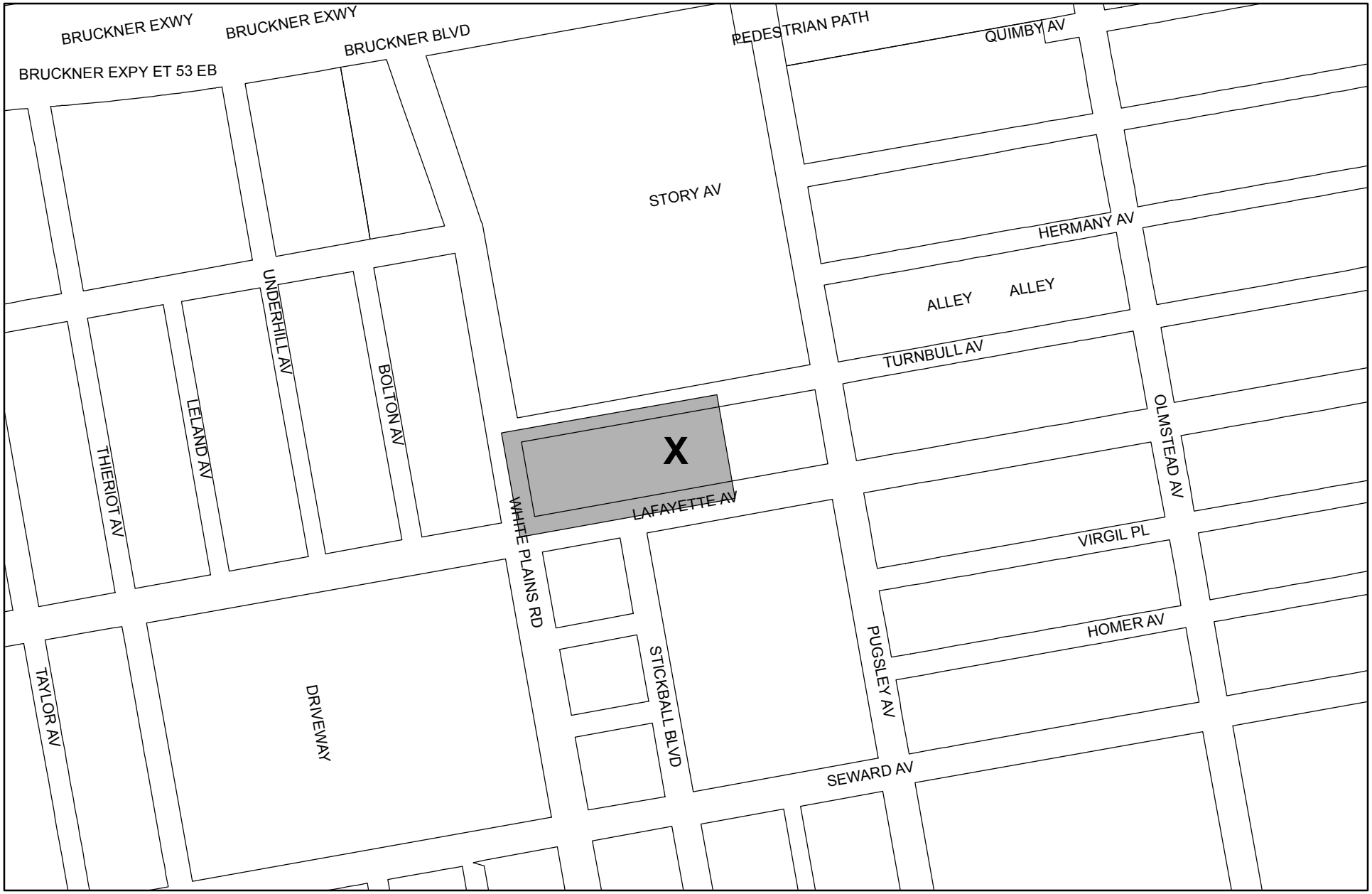
Figure C-5
Existing and Proposed Zoning



Existing Zoning



Proposed Zoning



Mandatory Inclusionary Housing Area (MIHA)

X MIH Program Option X [section 23-154 (d) (3)]

1965 Lafayette Avenue

Figure C-6
Proposed MIH Area

Table C-3: Comparison of Existing and Proposed Zoning

	Existing R6	Proposed R8/C2-4 (MIH)
Use Groups	1-4	1-9, 14
Maximum FAR		
Residential	2.43	7.2
Community Facility	4.8	6.5
Commercial	0	2.0
Manufacturing	0	0.0

Source: *Zoning Resolution of the City of New York.*
Notes:
[1] 7.2 FAR for provision of Inclusionary Housing pursuant to the MIH Program (ZR Section 23-90).

While the proposed R8 zoning designation would facilitate as-of-right development at a higher density than allowed in the secondary study area zoning districts, the higher density residential zoning designation and associated increased density would be appropriate, given the primary study area's location along wide thoroughfares, including Lafayette Avenue and White Plains Road. The proposed C2-4 commercial overlay would complement the existing commercial district mapped to the north and west of the primary study area, serving as a transition to the residential uses to the east.

In addition, the proposed zoning text amendment would be approved in the 2020 With-Action condition. Specifically, as noted above and shown in Figure C-6, the rezoning area would be designated an MIH area subject to the affordability requirements of the MIH program (as an amendment to Appendix F of the *Zoning Resolution of the City of New York*). The proposed zoning text amendment to establish the primary study area as an MIH-designated area would facilitate the development of affordable housing in an appropriate location with existing affordable housing, private amenities, and nearby public facilities. The requested zoning text amendment would not introduce any uses that would not be permitted as-of-right pursuant to the proposed R8 zoning.

For these reasons, the proposed actions would not represent a significant adverse impact on zoning in the primary or secondary study areas, in accordance with the criteria set forth in the *CEQR Technical Manual.*

Public Policy

Waterfront Revitalization Program

As noted above, the entirety of the primary study area, as well as portions of the secondary study area fall within the City's designated coastal zone (refer to Figure C-2). Therefore, the proposed actions must be assessed for their consistency with the policies of the WRP. The WRP includes policies designed to maximize the benefits derived from economic development, environmental preservation, and public use of the waterfront, while minimizing the conflicts among those objectives. The WRP Consistency Assessment Form (CAF) (see Appendix II) lists the WRP policies and indicates whether the proposed actions would promote or hinder each policy, or if that policy would not be applicable. This section provides additional information for the policies that have been checked "promote" or "hinder" in the WRP CAF.

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

Policy 1.1: Encourage commercial and residential development in appropriate Coastal Zone areas.

The rezoning area is located in a well-established neighborhood with existing residential, commercial, and institutional uses. The proposed actions would facilitate the development of compatible residential, commercial, and community facility uses. The rezoning area is not located within a Significant Maritime and Industrial Area (SMIA), Special Natural Waterfront Area (SNWA), Priority Maritime Activity Zone (PMAZ), Recognized Ecological Complex (REC), or West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA), as defined in the WRP, and is therefore not located in a special area designation that may be affected by the development of new residential, commercial, or community facility uses. For these reasons, the proposed actions would promote Policy 1.1 of the WRP and would facilitate commercial and residential development in an area well-suited to such development.

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

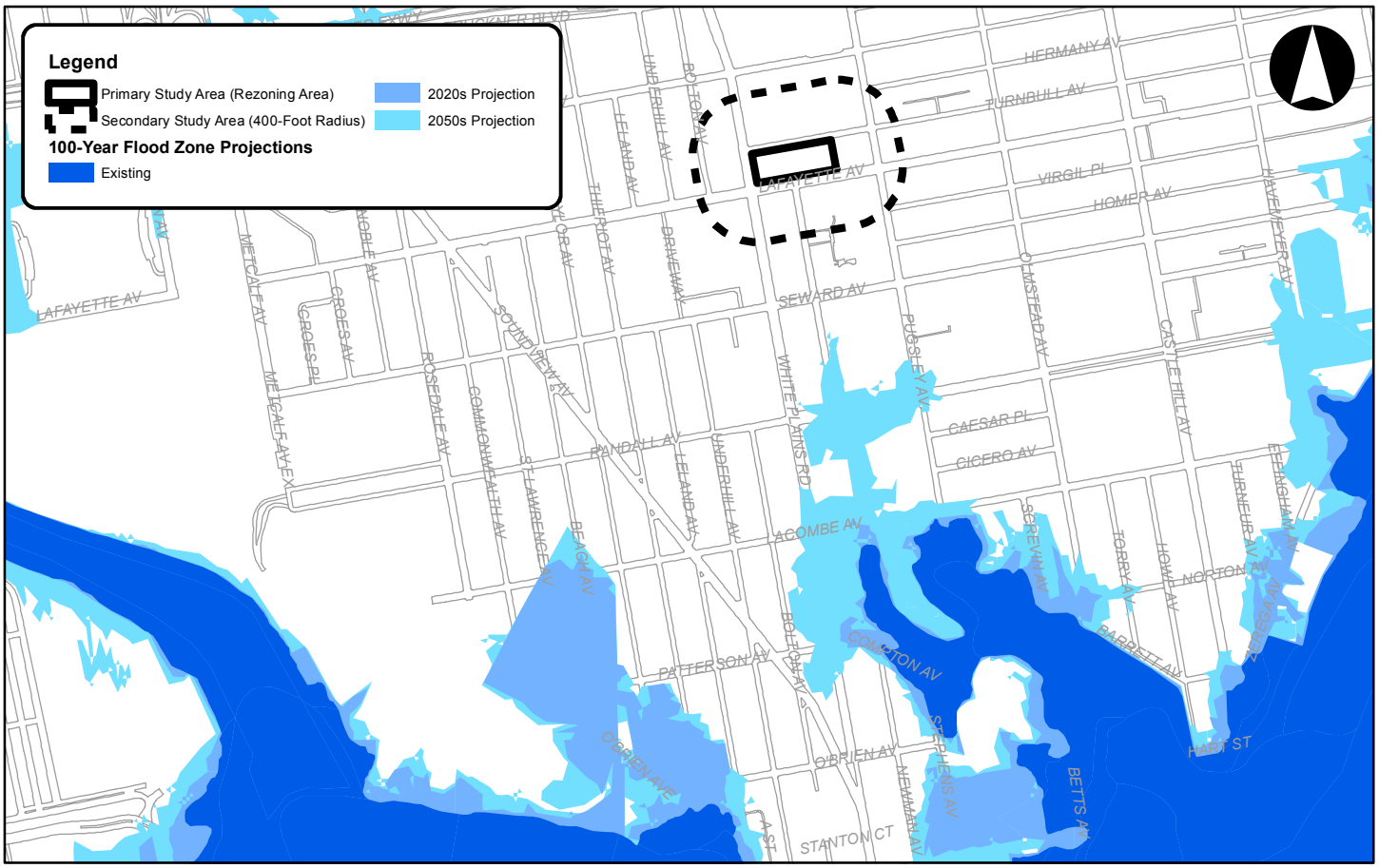
The proposed actions would facilitate the redevelopment of a site that is well-served by existing public facilities and infrastructure, and would therefore be consistent with Policy 1.3 of the WRP. The development site is directly served by three New York City Transit (NYCT) bus routes: the Bx5, Bx36, and Bx39. The BX5, which runs along the rezoning area's three street frontages, provides local services between Pelham Bay Park and Hunts Point in the Bronx. The Bx36, which runs along the rezoning area's western (White Plains Road) and southern (Lafayette Avenue) frontages, provides local and limited-stop service between Soundview in the Bronx and Washington Heights in Manhattan. Lastly, the Bx39, which runs along the rezoning area's western (White Plains Road) frontage, provides local service between Wakefield and Clasons Point in the Bronx. The most proximate subway station serving the rezoning area is the Parkchester (No. 6) Station, which is located approximately ¾ miles north of the rezoning area and is accessible via the Bx39 local bus route. In addition, the rezoning area is located in a combined sewer area, with existing sewer and water mains along the adjacent roadways. The proposed project would also be in close proximity to several public facilities, including a public school and a U.S. Post Office immediately south of the rezoning area.

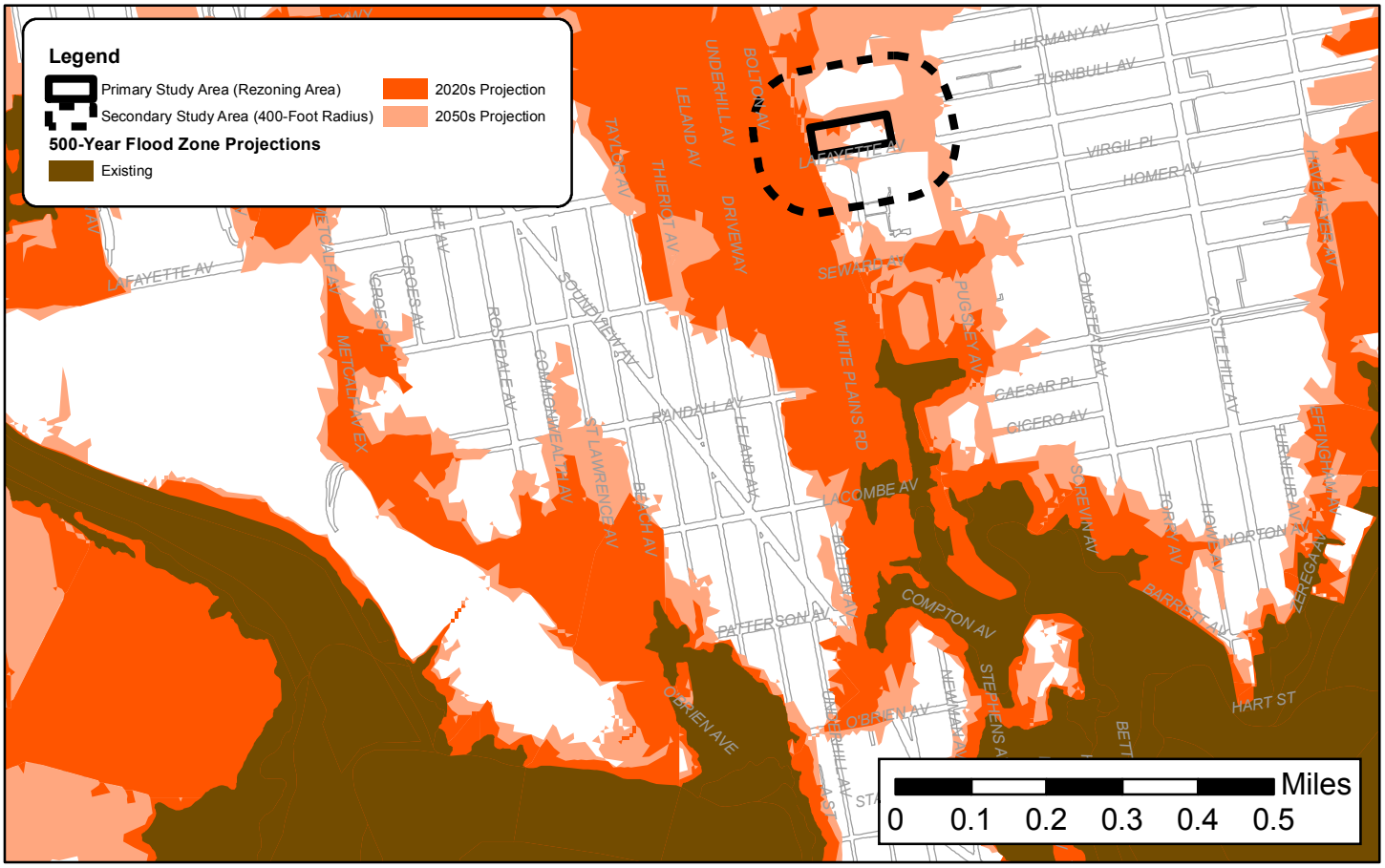
Policy 6: Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.

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

The primary study area, while located within the Coastal Zone, is not located within the currently applicable 100-year of 500-year floodplains. As presented in Figure C-7, while portions of the primary study area (including the entirety of the development site) are expected to fall within the projected 500-year floodplain by the 2050s, the primary study area is not expected to fall within the predicted 2020s or 2050s 100-year floodplains, as published by the NPCC. As such, the development site is susceptible to minimal flooding risk, and will continue to be so in the future. In addition, the NPCC recommends that these maps not be used to judge site-specific risks and they are subject to change.

Figure C-7
NPCC Flood Projections





Mitchell-Lama Housing Program

As noted above, the primary study area was developed as part of the Mitchell-Lama Housing Program in 1971. The goals of the program are to build affordable housing for middle-income residents. The proposed project, which would be 100 percent affordable (exceeding the minimum HIM requirements) would be consistent with the goals of the Mitchell-Lama Housing Program, in addition to furthering the current City policy mandate of creating additional affordable housing. Specifically, the proposed actions would facilitate the development of 425 affordable housing units, beyond the minimum number of affordable units required pursuant to the MIH Program. The proposed actions would not change the status of the existing Mitchell Lama building located in the rezoning area, which would continue to be administered as part of the Mitchell-Lama Housing Program in the future with the proposed actions. As such, the proposed actions would not result in a significant adverse impact on this public policy.

ATTACHMENT D

SOCIOECONOMIC CONDITIONS

I. INTRODUCTION

This attachment assesses whether the proposed actions would result in significant adverse impacts to the socioeconomic character of the area within and surrounding the proposed rezoning area. As described in the *City Environmental Quality Review* (CEQR) *Technical Manual*, the socioeconomic character of an area includes its population, housing, and economic activities. Socioeconomic changes may occur when a project directly or indirectly affects any of these elements. Although some socioeconomic changes may not result in environmental impacts under CEQR, they are disclosed if they would affect land use patterns, low-income populations, the availability of goods and services, or economic investment in a way that changes the socioeconomic character of the area.

As described in Attachment A, "Project Description," the applicant, Park Lane Residences Co., is seeking a series of discretionary actions to facilitate the development of two attached predominantly residential apartment buildings at 1965 Lafayette Avenue (Bronx Block 3672, p/o Lot 1) in the Soundview neighborhood of Bronx Community District (CD) 9. The proposed project would comprise a total of approximately 384,271 gross square foot (gsf) of floor area, including 425 affordable dwelling units (DU) (133 affordable senior units and 292 affordable family units), in addition to approximately 19,938 gsf of ground floor retail. As presented in Attachment B, "Supplemental Screening," the proposed project does not exceed the thresholds warranting detailed analyses of direct residential or business displacement, indirect business displacement, or adverse effects on specific industries. As the proposed project would exceed the *CEQR Technical Manual* threshold warranting a preliminary indirect residential displacement analysis (200 DU), a preliminary assessment is provided herein.

II. PRINCIPAL CONCLUSIONS

The analysis finds that the proposed actions would not result in significant adverse socioeconomic impacts. The preliminary screening assessment determined that analyses of direct socioeconomic impacts, indirect business and institutional impacts, and adverse effects on specific industries were not warranted and that no significant adverse socioeconomic conditions impacts in these areas. Based on the screening assessment it was determined that a preliminary assessment of the potential impacts of the proposed actions on indirect residential displacement was warranted. The preliminary assessment was sufficient to conclude that the proposed actions would not result in any significant adverse socioeconomic impacts due to indirect residential displacement. The proposed project would introduce 419 affordable residential units; none of the proposed residential units would be market-rate units. Despite this fact, given the income levels of the residents in the ¼-mile socioeconomic conditions study area, it is possible that residents introduced by the proposed actions would have incomes higher than those of the surrounding study area. However, as the proposed actions would only increase the ¼-mile study area's residential population by 2.3 percent, the proposed actions would not introduce a substantial new population that could substantially affect residential real estate market conditions in the study area. The

proposed project would advance the goals of Housing New York, the City's ten-year strategy to build or preserve 200,000 units of high quality affordable housing to meet the needs of more than 500,000 people.

III. METHODOLOGY

Under CEQR, the socioeconomic character of an area is defined by its population, housing, and economic activities. The assessment of socioeconomic conditions usually distinguishes between the socioeconomic conditions of an area's residents and businesses. However, proposed action(s) may affect either or both of these segments in the same ways: they may directly displace residents or businesses or they may alter one or more of the underlying forces that shape socioeconomic conditions in an area and thus may cause indirect displacement of residents or businesses. The objectives of the CEQR analysis is to disclose whether any changes created by the proposed actions would have a significant impact compared with what would happen in the future without the proposed actions (i.e., the No-Action condition).

Determining Whether a Socioeconomic Assessment is Appropriate

Direct displacement is defined as the involuntary displacement of residents, businesses, or institutions from the actual site (or sites directly affected by) a proposed action. Examples include the proposed development of a currently occupied site for new uses or structures, or a proposed easement or right-of-way that would take a portion of a parcel and this render it unfit for its current use. Since the occupants of a particular site are usually known, the disclosure of direct displacement focuses on specific businesses and employment and an identifiable number of residents and workers. As presented in Attachment B, "Supplemental Screening," as the development site does not contain any existing residential units, the proposed project would not directly displace any residents. Nor are there existing businesses on the development site; therefore, the proposed project would not directly displace any businesses or institutions.

Indirect or secondary displacement is defined as the involuntary displacement of residents, businesses, or employees in an area adjacent to, or close to, a project site that results from changes in socioeconomic conditions created by a proposed project. Examples include rising rents in an area that result from a new concentration of higher-income housing introduced by a project, which ultimately could make existing housing unaffordable to lower income residents; a similar turnover of industrial to higher-rent commercial tenancies induced by the introduction of a successful office project in an area; or the flight from a neighborhood that can occur if a proposed project creates conditions that break down the community (such as a highway dividing the area). Unlike direct displacement, the exact occupants to be indirectly displaced are not known. Therefore, an assessment of indirect displacement usually identifies the size and type of groups or residents, businesses, or employees potentially affected. As presented in Attachment B, "Supplemental Screening," the proposed project would introduce 425 residential units, and therefore would exceed the preliminary screening assessment threshold of 200 units warranting a preliminary assessment of indirect residential displacement. As the proposed project's commercial component would be less than 200,000 sf, the proposed project would not result in significant adverse impacts due to indirect business or institutional displacement.

Lastly, even if projects do not directly or indirectly displace businesses, they may affect the operation and vitality of a major industry or commercial operation in the City. An example would be new regulations that prohibit or restrict the use of certain processes that are critical to certain industries. In these cases,

the CEQR review process may involve the assessment of the economic impacts of the project on the specific industry in question. As presented in Attachment B, "Supplemental Screening," the proposed actions would not displace any existing businesses/industries on the development site and do not have the potential to affect conditions within a specific industry.

Based on the screening assessment provided in Attachment B, "Supplemental Screening," and summarized above, the proposed actions warrant analysis of indirect residential displacement.

Analysis Format

Based on *CEQR Technical Manual* guidelines, the analysis of indirect residential displacement begins with a preliminary assessment. The objective of the preliminary assessment is to learn enough about the potential effects of the proposed actions to either rule out the possibility of significant adverse impacts or determine that a more detailed analysis is required to fully determine the extent of the impacts. A detailed analysis, when required, is framed in the context of existing conditions and evaluates the changes to those conditions in the With-Action condition as compared with the changes that would be expected in the No-Action condition. In conjunction with the land use task, specific development projects expected to occur by the build year of the proposed project are identified. These projects are described in terms of the possible changes to socioeconomic conditions that they would cause, including potential population increases, changes in income characteristics of the affected area, changes to the rents or sale prices of residential units, new commercial or industrial uses, or changes to employment or retail sales. Those conditions are then compared with the future with the proposed actions to determine the potential for significant adverse impacts.

As presented below, a preliminary assessment was sufficient to conclude that the proposed actions would not result in any significant adverse socioeconomic impacts due to indirect residential displacement.

Study Area Definition

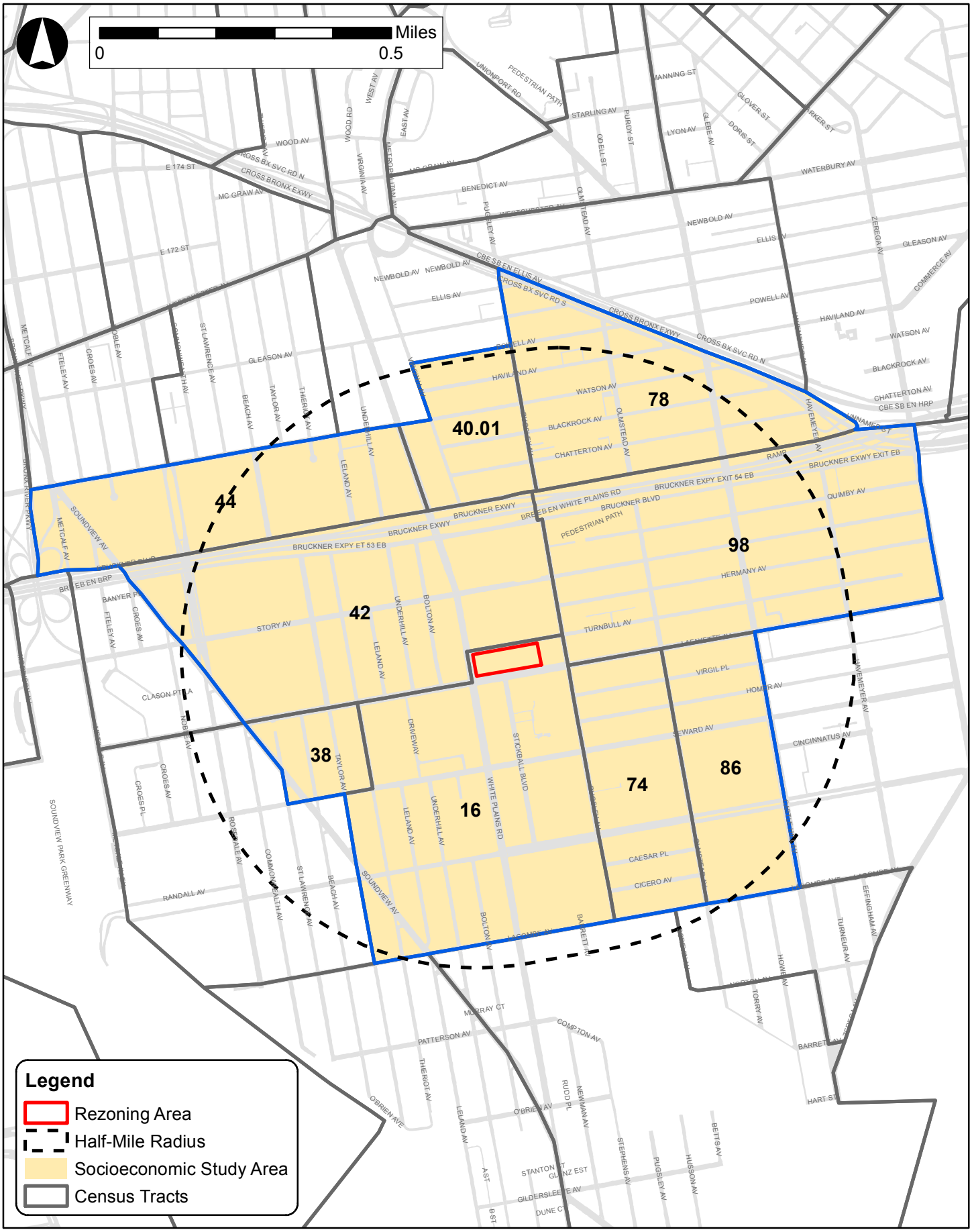
The *CEQR Technical Manual* explains that for actions that would increase the residential population by more than five percent as compared to the population expected to reside in the ¼-mile study area in the future No-Action condition, a ½-mile study area is appropriate. The incremental population introduced by the proposed actions (992 residents) would result in an increase in the ¼-mile study area residential population of less than five percent. As such, a ¼-mile study area is the appropriate study area for assessing the potential for indirect residential displacement, in accordance with *CEQR Technical Manual* methodology. The socioeconomic conditions study area includes those census tracts that most closely describe (i.e., are at least 50 percent within) the ¼-mile perimeter around the rezoning area, including census tracts 16, 38, 40.01, 42, 44, 74, 78, 86, and 98 (see Figure D-1).

Data Sources

Data related to residential conditions, including population, housing, and income data, were obtained from the U.S. Census Bureau's 2010-2014 American Community Survey (ACS), In addition, land use and parcel data were collected from the City's Primary Land Use Tax Lot Output (PLUTO) data files and online Geographic Information Systems (GIS) databases, including the New York City Open Accessible Space Information System (http://www.oasisnyc.net) and NYCityMap (http://gis.nyc.gov/doitt/nycitymap/).

1965 Lafayette Avenue

Figure D-1
Socioeconomic Study Area



IV. PRELIMINARY INDIRECT RESIDENTIAL DISPLACEMENT ASSESSMENT

Indirect residential displacement usually results from substantial new development that is markedly different from existing uses and activity in an area, which causes increased property values in the area. Increased property values can lead to increased rents, which can make it difficult for some existing residents to afford their homes. The indirect residential displacement assessment aims to determine whether the proposed actions would either introduce a trend or accelerate an existing trend of changing real estate market conditions that may have the potential to displace a vulnerable residential population and substantially change the socioeconomic character of the neighborhood. This preliminary assessment follows the step-by-step preliminary assessment guidelines described in Section 322.1 of the *CEQR Technical Manual.*

Step 1: Determine if the proposed project would add new population with higher average incomes compared with the average incomes of the existing populations and any new population expected to reside in the study area without the project.

The ¼-mile socioeconomic conditions study area is generally bounded by Watson Avenue and the Cross Bronx Expressway to the north, the Bronx River Parkway and Soundview Avenue to the west, Lacombe and Lafayette Avenues to the south, and Zerega Avenue to the east (refer to Figure D-1). The socioeconomic conditions study area encompasses portions of three residential neighborhoods in the South Bronx: Soundview, Castle Hill, and Unionport.

The predominant land use in the ¼-mile study area is residential. More than 72 percent of the existing built square footage in the study area is residential, and approximately 91 percent of buildings in the study area contain at least one residential unit. According to 2016 PLUTO data, the ¼-mile study area contains more than 14,450 housing units.

The majority of the residential buildings in the study area (approximately 88 percent) comprise one- to two-family residential buildings, and approximately 98 percent of the residential buildings in the study area include ten or fewer residential units. Multi-unit residential buildings containing 50 or more residential units comprise 1.2 percent of the residential buildings in the study area but make up approximately 64 percent of the study area's residential units. Public housing also comprises a significant portion of housing stock in the study area. Approximately 26 percent of housing units in the study area are contained in housing developments owned by the New York City Housing Authority (NYCHA), including the Sotomoyer Houses and the Monroe Houses, as well as the portion of the Castle Hill Houses located within the study area.

Approximately 48 percent of the study area housing stock was constructed prior to 1947. Another 30 percent of units were constructed between the late 1940s and early 1970s. Approximately seven percent of the housing stock in the study area was constructed since 2000.

Median household incomes in the study area are comparable to those of the Bronx overall, while considerably lower than greater New York City. As shown in Table D-1, the 2010-2014 median household income in the study area was an estimated $33,881 (in 2016 dollars), which is approximately 36 percent lower than the median household income for New York City ($52,996). This may be partly attributable to the large number of public housing residents in the study area.

As shown in Table D-1, the median household income in the study area, while remaining relatively stable between 1999 and 2006-2010 (and more stable than the Bronx and New York City as a whole), declined substantially (15.7 percent) between 2006-2010 and 2010-2014. While both the study area and the Bronx experienced greater decreases between 2006-2010 and 2010-2014 in median household income than New York City as a whole, the study area's decline was almost double that of the Bronx and more than five times that of New York City as a whole. In New York City overall, the median household income declined by 3.5 percent between 1999 and 2006-2010 and by only 2.9 percent between 2006-2010 and 2010-2014.

Table D-1: Household Income Characteristics – 1999, 2006-2010, and 2010-2014

	Median Household Income			Percentage Change (%)		Mean Household Income			Percentage Change (%)	
	1999	2006-2010	2010-2014	1999 to 2006-2010	2006-2010 to 2010-2014	1999	2006-2010	2010-2014	1999 to 2006-2010	2006-2010 to 2010-2014
Study Area	$40,485	$40,195	$33,881	-0.7	-15.7	$53,668	$53,060	$46,250	-1.1	-12.8
Bronx	$38,711	$37,937	$34,849	-2.0	-8.1	$54,622	$52,398	$50,480	-4.1	-3..7
New York City	$55,576	$54,595	$52,996	-3.5	-2.9	$93,349	$84,573	$84,406	-9.4	-0.2

Notes: Inflation adjusted 2016 dollars. Study area incomes are weighted average incomes based on census tracts within an approximate ¼-mile radius of the project site.
Source: Bureau of the Census, 2000 Census, 2006-2010 and 2010-2014 ACS.

Similar to median household income, the mean household income in the study area is comparable to that of the Bronx while lower than the mean household income of the City as a whole. As shown in Table D-1, the 2010-2014 mean household income in the study area was an estimated $46,250 (in 2016 dollars), just over half the mean household income for New York City ($84,406). The mean household income in the study area has also experienced steeper declines than both the borough and the City as a whole, declining from a high of $53,668 in 1999 to $46,250 in 2010-2014.

As shown in Table D-2, poverty levels in the study area were comparable to the Bronx and considerably higher than in the City as a whole. In 2010-2014, the poverty rate in the study area was approximately 31 percent, approximately 50 percent higher than the percentage for New York City (20.6 percent). Between 1999 and 2010-2014, the study area experienced a slight increase in the percentage of persons below poverty level, whereas the percentages of persons below the poverty rate decreased slightly in the Bronx and in the City as a whole.

Table D-2: Poverty Status – 1999 and 2010-2014

	Percent of Population Below Poverty Level (%)	
	1999	2010-2014
Study Area	29.6	31.0
Bronx	30.7	30.5
New York City	21.2	20.6

Source: Bureau of the Census, 2000 Census, 2006-2010 and 2010-2014 ACS.

The proposed project would introduce approximately 425 new affordable residential units, including 133 affordable senior units and 292 affordable family units. Assuming an average household size of 2.78 persons (the average household size of Bronx Community District 9 according to the 2010 Census) for the

proposed family units, one senior per studio senior unit and 1.5 seniors per one-bedroom senior unit, as well as 100 percent occupancy, these 425 housing units would add an estimated 992 residents. In accordance with the requirements of the HPD and/or HDC financing being sought by the applicant, all of the proposed residential units introduced on the site be designated affordable, thereby advancing the goals of Housing New York, the City's ten-year strategy to build or preserve 200,000 units of high quality affordable housing to meet the needs of more than 500,000 people. As it is possible that some of the proposed affordable residential units would be targeted to income levels above those of the existing population in the study area (i.e., targeted to households above 40 percent AMI, or the equivalent of a median household income of $34,070), some of the project-generated residents could have household incomes higher than that of the existing population in the study area.

Although the proposed project would expand housing options available to low- and moderate-income residents in the study area, given the potential difference between the study area's existing average household income and that of the project-generated population, Step 2 of the preliminary assessment is warranted.

Step 2: Determine if the proposed project's increase in population is large enough relative to the size of the population expected to reside in the study area without the project to affect real estate market conditions in the study area.

According to 2010-2014 ACS data, the residential population of the ¼-mile study area was approximately 40,124 (refer to Table D-3). As shown in Table D-3, between 2000 and 2010, the study area's population declined by 2.9 percent. The populations of the larger borough and New York City as a whole increased during the same timeframe by approximately 7.8 and 2.1 percent, respectively. As shown in Table D-3, the study area experienced a 1.3 percent rate of population growth between 2010 and 2010-2014, a rate lower than experienced in the Bronx (2.1 percent) and in New York City (2.2 percent).

Table D-3: Residential Population, 2000, 2010, and 2010-2014

	Residential Population			Change 2000 to 2010		Change 2010 to 2010-2014	
	2000	2010	2010-2014	Number	Percent (%)	Number	Percent (%)
Study Area	39,723	39,609	40,124	-114	-2.9	+515	+1.3
Bronx	1,285,415	1,385,108	1,413,566	+99,693	+7.8	+28,458	+2.1
New York City	8,008,278	8,175,133	8,354,889	+166,855	+2.1	+179,756	+2.2

Source: Bureau of the Census, 2000 Census, 2010 Census, 2010-2014 ACS, DCP.

As presented in Attachment C, "Land Use, Zoning, and Public Policy," there are no known and anticipated residential developments that are expected to be completed in the ¼-mile study area by the 2020 analysis year. As presented in Table D-4, accounting for general background growth, the study area residential population is expected to increase to 42,337 by the 2020 analysis year, an approximately 5.5 percent increase over the study area's 2010-2014 residential population.

Table D-4: Estimated Study Area Population in the Future with the Proposed Project

Existing 2010-2014 Population	2020 No-Action Condition[1]	2020 With-Action Condition[2]	Percent Change (%)
40,124	42,337	43,329	2.3

Notes:

[1] Based on annual compound growth rate of 0.9 percent.

[2] Based on average households size of 2.78 persons/household for Bronx CD 9 (2010 Census) for the proposed family units, an average of one occupant per senior studio unit, and an average of 1.5 occupants per senior one-bedroom unit.

Source: 2006-2010 ACS, 2010-2014 ACS, DCP.

The proposed project would introduce 425 DUs in the study area, resulting in an approximately three percent increase in the study area housing stock. Assuming an average household size of 2.78 persons (the average household size of Bronx Community District 9 according to the 2010 Census) for the proposed family units, one senior per studio senior unit and 1.5 seniors per one-bedroom senior unit, as well as 100 percent occupancy, these 425 housing units would add an estimated 992 residents to the study area over the No-Action condition. As presented in Table D-4, when compared to the No-Action condition, the proposed project would result in an estimated 2.3 percent population increase in the ¼-mile study area.

According to *CEQR Technical Manual* methodology, if the project-generated population increase is less than five percent in the study area, it would not introduce a substantial new population that could substantially affect residential real estate market conditions in the study area. As the proposed actions would result in an increase in the ¼-mile study area residential population of only 2.3 percent, this would not represent a substantial new population, and no significant adverse indirect residential displacement impacts would result. The proposed project, which would introduce 425 affordable DU, would advance the goals of Housing New York, the City's ten-year strategy to build or preserve 200,000 units of high quality affordable housing to meet the needs of more than 500,000 people.

ATTACHMENT E

COMMUNITY FACILITIES

I. INTRODUCTION

The *City Environmental Quality Review* (CEQR) *Technical Manual* defines community facilities as public or publicly-funded facilities including schools, libraries, day care centers, health care facilities, and fire and police protection services. This attachment examines the potential effects of the proposed project by 2020 on the capacity and provision of services by those community facilities.

A project can affect community facility services when it physically displaces or alters a community facility (direct effect) or causes a change in population that may affect the services delivered by a community facility (indirect effect), which could happen if a facility is already over utilized, or if a project is large enough to create a demand that could not be met by the existing facility/facilities. The CEQR analysis examines potential impacts on existing facilities and generally focuses in detail on those services that the City is obligated to provide to any member of the community. This analysis is not a needs assessment for new or additional services. Service providers like schools or libraries conduct their own needs assessments on a continuing basis.

As described in Attachment A, "Project Description," the proposed actions would facilitate the construction of 425 affordable dwelling units (DU), including 133 affordable senior units and 292 affordable family units, as well as commercial and community facility uses at 1965 Lafayette Avenue. No community facilities are located in the rezoning area under existing conditions. Accordingly, as there would be no direct effects to existing community facilities resulting from the proposed actions, this analysis concentrates on the potential for indirect effects.

The analysis of community facilities has been conducted in accordance with the guidelines established in the *CEQR Technical Manual*. The demand for community services generally stems from the introduction of new residents to an area. In general, size, income characteristics, and the age distribution of a new population are factors that could affect the delivery of services. The *CEQR Technical Manual* provides guidelines or thresholds that can be used to make an initial determination of whether a detailed study is necessary to determine potential impacts.

As discussed in Attachment B, "Supplemental Screening," the proposed actions and subsequent proposed project exceed the *CEQR Technical Manual* threshold in the areas of public elementary and intermediate schools and child care facilities. Therefore, a detailed analysis of these services is provided below. The population anticipated to be introduced as a result of the proposed project would not exceed the *CEQR Technical Manual* thresholds requiring detailed analysis of other community facilities, including high schools, libraries, health care facilities, and fire and police protection services.

II. PRINCIPAL CONCLUSIONS

The proposed actions would not result in significant adverse impacts on community facilities. The 292 affordable family units facilitated by the proposed actions are expected to generate 114 elementary

school students and 47 intermediate school students in Sub-district 2 of Community School District (CSD) 8. As CSD 8, Sub-district 2 intermediate schools would operate with available capacity in the 2020 With-Action condition (94.5 percent utilized), no significant adverse intermediate school impacts would result. While CSD 8, Sub-district 2 elementary schools would operate over capacity in the future with the proposed actions (112.3 percent utilization rate), as under No-Action conditions, the proposed actions would only increase the elementary school utilization rate by 1.7 percentage points. As the proposed actions would not result in a five percent or greater increase in the elementary school utilization rate, no significant adverse elementary school impacts would result, in accordance with *CEQR Technical Manual* impact criteria.

In regards to child care facilities, the 292 affordable family units introduced by the proposed project in the future with the proposed actions are expected to generate 41 publicly-funded child care-eligible students, increasing the study area child care facility utilization rate to 96.0 percent. As study area child care facilities would continue to operate with available capacity in the 2020 future with the proposed actions, no significant adverse impacts would result pursuant to *CEQR Technical Manual* methodology.

III. PUBLIC ELEMENTARY AND INTERMEDIATE SCHOOLS

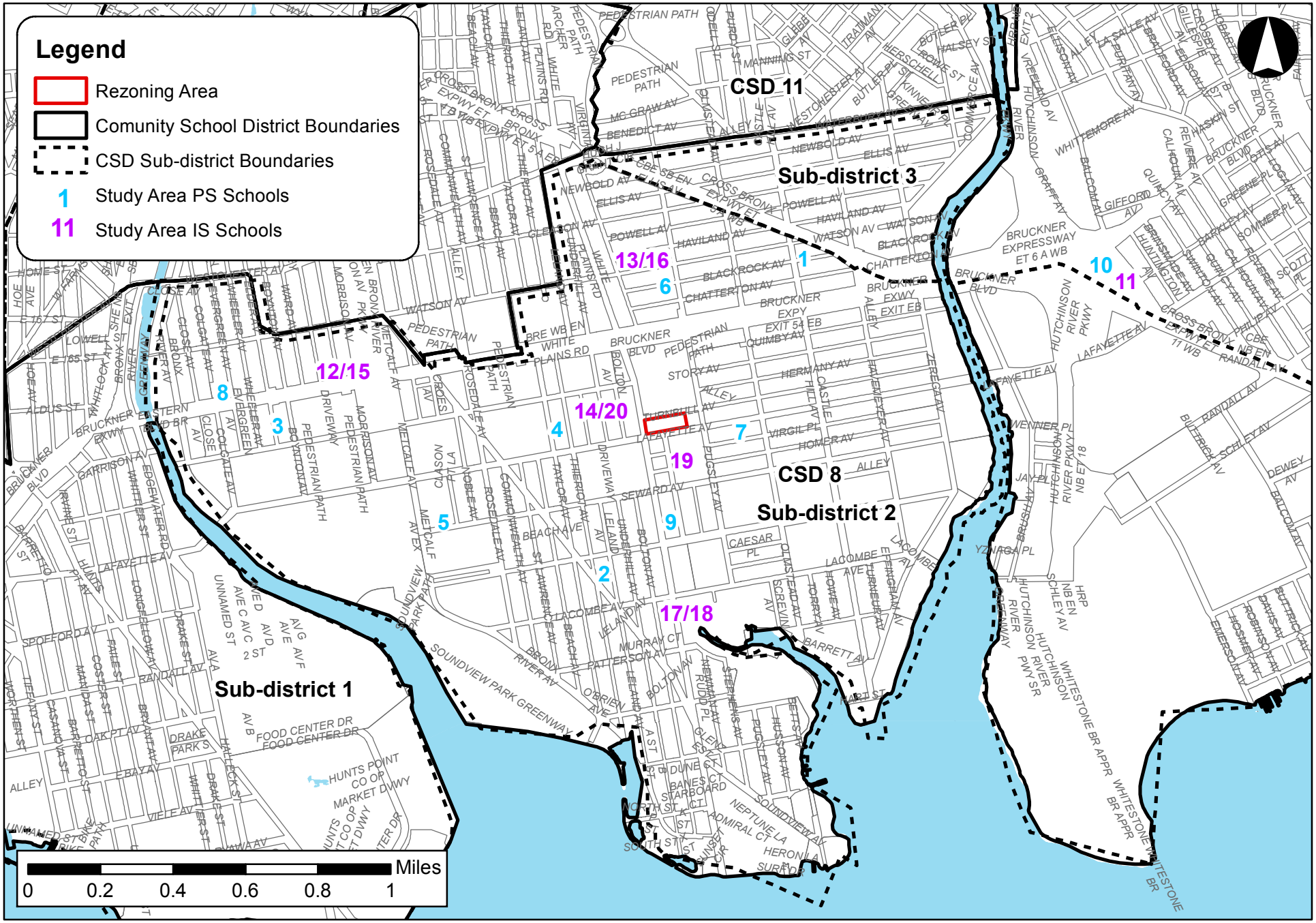
Methodology

According to the guidelines presented in the *CEQR Technical Manual*, a schools analysis focuses on potential impacts on public schools operated by the New York City Department of Education (DOE). Therefore, private and parochial schools within the study area are not included in the analysis of schools presented in this attachment.

Based on the multipliers presented in Table 6-1a of the *CEQR Technical Manual*, the proposed project would result in the introduction of approximately 161 new elementary and intermediate school students (114 elementary and 47 intermediate school students), which exceeds the threshold of 50 students for detailed analysis. The proposed project would also add an estimated 55 new high school students compared to No-Action conditions, which would not trigger the *CEQR Technical Manual* threshold of 150 students for detailed analysis of high schools. Therefore, the following schools analysis focuses on elementary and intermediate school levels only.

Pursuant to *CEQR Technical Manual* guidelines, this analysis assesses the potential effects of the proposed project on elementary and intermediate schools located within the study area, defined as Sub-district 2 of CSD 8 (see Figure E-1). Children residing in the proposed project would most likely attend the elementary and intermediate schools in this study area. The following schools analysis presents the most recent capacity, enrollment, and utilization rates for elementary and intermediate schools in the study area. Per New York City Department of City Planning (DCP) and New York City School Construction Authority (SCA) guidance, existing mini-school and transportable school capacity is excluded from the analysis. Future No-Action conditions are then predicted based on enrollment projections and proposed development projects,[1] and the future utilization rate for school facilities is calculated by adding the estimated enrollment from proposed residential developments in the schools study area to DOE's projected enrollment and then comparing that number with projected school capacity. DOE's most recent

[1] School Construction Authority, *Projected New Housing Starts as Used in 2015-2019 Enrollment Projection*.



1965 Lafayette Avenue

Figure E-1
Study Area Elementary and Intermediate Schools

enrollment projections (Actual 2014, Projected 2015-2024) are posted on the SCA's website.[2] In addition, any new school projects identified in the DOE 2015-2019 Five-Year Capital Plan (and/or subsequent amendments) are included if construction has begun. According to the *CEQR Technical Manual*, some schools may be included in the analysis if they are in the DOE Five-Year Capital Plan but are not yet under construction if the lead agency, in consultation with the SCA, concurs that it is appropriate.

Impacts are identified if the proposed project would result in: (1) a collective utilization rate of the elementary and/or intermediate schools in the sub-district study area that is equal to or greater than 100 percent in the With-Action Condition; and (2) an increase of five percent or more in the collective utilization rate between the future No-Action and With-Action conditions.

Existing Conditions

Elementary Schools

As described above, elementary schools in New York City are located in geographically defined school districts. As shown in Figure E-1, the rezoning area is located within the boundaries of CSD 8, Sub-district 2. All public schools serving elementary level students in CSD 8, Sub-district 2 are elementary (PS) schools that serve pre-kindergarten or kindergarten through 5th grades.

As shown in Figure E-1 and Table E-1, there are ten elementary schools located within Sub-district 2 of CSD 8. The nearest elementary school to the rezoning area is P.S. 138 – Samuel Randall, which is located at 2060 Lafayette Avenue and is also the zoned elementary school for the rezoning area.

Table E-1 provides the existing capacity, enrollment, and utilization figures for elementary schools within Sub-district 2 of CSD 8 during the 2015-2016 academic year. As shown in Table E-1, the ten schools within CSD 8, Sub-district 2 that serve elementary levels had a target capacity of 6,220 seats (excluding transportable school and mini-school capacity) and enrollment of 7,181 students, for a utilization of approximately 115.5 percent and a shortfall of 961 seats.

While not included in the quantitative analysis pursuant to the *CEQR Technical Manual*, it should be noted that there are three charter schools in CSD 8, Sub-district 2 that serve elementary students: Icahn Charter School, Success Academy, and Boys Preparatory Charter School of the Bronx.

Intermediate Schools

Table E-1 shows the existing capacity, enrollment, and utilization figures for intermediate schools within CSD 8, Sub-district 2. As shown in Table E-1, in the 2015-2016 academic year there were ten public schools within the study area that served intermediate students, including eight intermediate school and two schools serving both intermediate and high school levels (the Archimedes Academy for Math, Science, and Technology Applications and Antonio Pantoja Preparatory Academy: A College Board School). In such instances, the school's intermediate school seat breakdown was provided by the SCA. The zoned middle school for the rezoning area is I.S. 131 – The Albert Einstein School, which is located two blocks west of the rezoning area.

[2] Enrollment projections by the Grier Partnership were used: http://www.nycsca.org.

As shown in Table E-1, CSD 8, Sub-district 2 had a target capacity of 4,345 intermediate school seats in the 2015-2016 academic year and an enrollment of 3,600 students, for a total utilization of approximately 82.9 percent and 745 available seats.

Table E-1: 2015-2016 Public Elementary and Intermediate School Enrollment, Capacity, and Utilization in CSD 8, Sub-district 2

Map No.[1]	Name	Address	Enrollment	Target Capacity	Available Seats	Utilization (%)
Elementary Schools						
1	P.S. 36 – Unionport	1070 Castle Hill Avenue	777	701	-76	110.8
2	P.S. 69 – Journey Prep	500 Thieriot Avenue & 639 Thierior Avenue	622[2,3]	394[3]	-228	157.9
3	P.S. 93 – Albert G. Oliver	1535 Story Avenue	384[2]	395	11	97.2
4	P.S. 100 – Isaac Clason	800 Taylor Avenue	612	663	51	92.3
5	P.S. 107	1695 Seward Avenue	526	478	-48	110.0
6	P.S. 119 – The Dr. Emmett W. Bassett School	1075 Pugsley Avenue & 1111 Pugsley Avenue	979[4]	958	-21	102.2
7	P.S. 138 – Samuel Randall	2060 Lafayette Avenue	784[4]	528	-256	148.5
8	P.S. 152 – Evergreen	1007 Evergreen Avenue & 1025 Morrison Avenue	948[2]	716	-232	132.4
9	P.S. 182	601 Stickball Boulevard	1,030	898	-132	114.7
10	P.S. 304 – Early Childhood School	2750 Lafayette Avenue[6]	519	489	-30	106.1
Total Elementary Schools in Sub-district 2 of CSD 8			***7,181***	***6,220***	***-961***	***115.5***
Intermediate Schools						
11	I.S. 101 – Edward R. Byrne	2750 Lafayette Avenue[6]	496	532	36	93.2
12	I.S. 123 – James M. Kieran	1025 Morrison Avenue	343	644	301	53.3
13	I.S. 125 – Henry Hudson	1111 Pugsley Avenue	373	615	242	60.7
14	I.S. 131 – The Albert Einstein School	885 Bolton Avenue	539	628	89	85.8
15	I.S. 337 – The School for Inquiry and Social Justice	1025 Morrison Avenue	475	476	1	99.8
16	I.S. 562 – Blueprint Middle School	111 Pugsley Avenue	301	163	-138	184.7
17	Archimedes Academy for Math, Science, and Technology Applications (I.S. Component Only)[5]	456 White Plains Road	278	326	48	85.3
18	The Bronx Math Preparatory School	456 White Plains Road	252	306	55	82.0
19	Antonio Pantoja Preparatory Academy: A College Board School (I.S. Component Only)[5]	1980 Lafayette Avenue	182	257	75	70.8
20	Soundview Academy for Culture and Scholarship	885 Bolton Avenue	362	398	36	91.0
Total Intermediate Schools in Sub-district 2 of CSD 8			***3,707***	***4,425***		

Notes:

[1] Map numbers correspond to Figure E-1.

[2] Includes mini-school enrollment.

[3] Includes annex enrollment and capacity.

[4] Includes transportable school enrollment.

[5] I.S./H.S. breakdown provided by the SCA via DCP.

[6] While 2750 Lafayette Avenue (Bldg X101) is located outside of the boundaries of CSD 8, Sub-district 2, P.S. 304 and I.S. 101 serve students of CSD 8, Sub-district 2 per the SCA/DOE.

Source: DOE, Enrollment-Capacity-Utilization Report, 2015-2016 School Year.

The Future without the Proposed Actions (No-Action Condition)

In the 2020 future without the proposed actions, future utilization of public elementary and intermediate schools serving the study area would be affected by changes in enrollment mainly due to: (1) aging of the existing student body and new arrivals born in the area or moving to it; and (2) changes in capacity, or number of available seats, in the schools as a result of planned construction of new schools or building additions.

Capacity Changes

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

The latest Five Year Capital Plan Proposed Amendment was issued in March 2016 and identified one new school that is currently under construction in CSD 8, Sub-district 2 that is expected to be completed by the proposed project's 2020 analysis year. The new school (P.S. 317) is currently under construction at 1024-1036 White Plains Road, and is expected to have a total capacity of 468 seats. In addition, two significant changes in school utilization were recently approved by the Panel for Educational Policy (PEP) that would affect the capacity of CSD 8, Sub-district 2 elementary and intermediate schools. Specifically, in 2015, the PEP approved the expansion of Icahn Charter School 7, which is co-located with P.S. 93 – Albert G. Oliver, beginning in the 2016-2017 academic year. Upon full implementation (in the 2017-2018 academic year), P.S. 93's capacity is expected to increase to 427 seats. In addition, in 2013, the PEP approved the co-location of Success Academy Charter School – New York 2 with I.S. 131 – The Albert Einstein School and Soudview Academy for Culture and Scholarship, beginning in the 2014-2015 academic year. As the capacity of Success Academy Charter School continues to increase, and the school begins admitting students in grades K through 5 by the 2018-2019 academic year, I.S. 131's capacity is expected to decrease to 555 seats, with Soundview Academy's capacity decreasing to 315 seats.[3]

As a result of these approved capacity changes, CSD 8, Sub-district 2 elementary school capacity will increase to 6,720 seats by the 2020 analysis year, with CSD 8, Sub-district 2 intermediate school capacity decreasing to 4,189 seats.

Enrollment Changes

Estimates of future enrollment are derived from the latest available DOE enrollment projection data for CSD 8, Sub-district 2 for 2020 (Actual 2014, Projected 2015-2024), including pre-K and special education enrollment. In the 2020 future without the proposed actions, DOE projections show that demand for public elementary schools in CSD 8, Sub-district 2 is expected to decrease by 0.1 percent (to 7,173) while demand for public intermediate schools in the sub-district is expected to increase by approximately 5.6 percent (to 7 3,803). The enrollment projections focus on natural growth of the City's student population and other population increases and do not account for new residential developments planned for the area (i.e., No-Action projects).

[3] DOE's *Educational Impact Statement: The Proposed Co-location of Success Academy Charter School – New York 2 (84XTBD) with Existing Schools J.H.S. 131 Albert Einstein (08X131) and Soundview Academy for Culture and Scholarship (08X448) in Building X13 Beginning in 2014-2015,* August 30, 2013.

A considerable amount of new residential development is also planned in the study area by the analysis year of 2020. Using numbers derived from the SCA's Projected New Housing Starts for Sub-district 2 of CSD 8, approximately 260 new elementary school students and 107 new intermediate school students are expected to be added to the study area by the 2020 analysis year. As such, 2020 projected elementary and intermediate school enrollment in the future without the proposed actions would increase to 7,433 and 3,910, respectively.

Elementary Schools

As discussed above, in the 2020 future without the proposed actions, CSD 8, Sub-district 2 elementary school enrollment is expected to increase to 7,433, while capacity will increase to 6,720 seats. Based on these changes, elementary schools in Sub-district 2 of CSD 8 are expected to continue to operate above capacity (approximately 110.6 percent utilization), with a shortfall of 713 seats (see Table E-2).

Table E-2: 2020 No-Action Estimated Public Elementary and Intermediate School Enrollment, Capacity, and Utilization in CSD 8, Sub-district 2

	2020 Projected Enrollment[1]	Students Generated from Development in No-Action	Total Projected Enrollment in No-Action	Projected Capacity[2]	Seats Available	Utilization (%)
Elementary Schools	7,173	260	7,433	6,720	-713	110.6
Intermediate Schools	3,803	107	3,910	4,189	279	93.3

Notes:
[1] DOE Enrollment Projections (Actual 2014, Projected 2015-2024).
[2] Reflects increase in elementary school capacity by 32 seats and decrease in intermediate school capacity by 156 seats.

Intermediate Schools

As shown in Table E-2, with CSD 8, Sub-district 2 intermediate school capacity expected to decrease to 4,189 seats and intermediate school enrollment expected to increase to 3,910, the utilization rate for intermediate schools in CSD 8, Sub-district 2 is expected to increase to approximately 93.3 percent, with 279 available seats.

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

As described in Attachment A, "Project Description," the proposed actions would facilitate the construction of 425 residential units in the rezoning area by 2020, including 292 affordable family units and 133 affordable senior units. In accordance with *CEQR Technical Manual* methodology, the senior units, which are not expected to generate school demand, are not included in the school impact analysis. Based on *CEQR Technical Manual* student generation rates, the estimated school age population generated by the 292 proposed affordable family residential units would include 114 elementary school students and 47 intermediate school students.

Elementary Schools

In the future with the proposed actions, elementary schools in Sub-district 2 of CSD 8 would continue to operate above capacity as under No-Action conditions. As shown in Table E-3, the addition of 114 elementary school students generated by the proposed actions would increase the utilization by approximately 1.7 percentage points to 112.3 percent. The proposed actions would somewhat exacerbate

the projected 2020 overcrowded conditions in elementary schools in Sub-district 2 of CSD 8. However, the *CEQR Technical Manual* states that if the impact assessment finds that if a proposed action would cause an increase in utilization of less than five percent in a sub-district, no significant impact would occur. As the proposed actions would result in an increase of only 1.7 percentage points over the No-Action condition, no significant adverse impacts on elementary schools would result, per the criteria of the *CEQR Technical Manual*.

Table E-3: 2020 With-Action Estimated Public Elementary and Intermediate School Enrollment, Capacity, and Utilization for CSD 8, Sub-district 2

	2020 No-Action Total Projected Enrollment	New Students Generated by Proposed Actions	Total Future With-Action Projected Enrollment	Projected Capacity	Seats Available	Utilization (%)	Increase in Utilization (%) from No-Action condition
Elementary Schools	7,433	114	7,547	6,720	-827	112.3	+1.7
Intermediate Schools	3,910	47	3,957	4,189	232	94.5	+1.1

It is expected that the DOE will continue to monitor enrollment trends within CSD 8 and its sub-districts, as new housing units identified in the No-Action and With-Action conditions are developed and will plan for new capacity or administrative actions to accommodate new students accordingly. Measures utilized by the DOE to address increased elementary school enrollment could include: relocating administrative functions to other sites, thereby freeing up space for classrooms; making space within the study area available to the DOE; restructuring or reprogramming existing school space within the district; or providing for new capacity by constructing a new school or an addition to an existing school.

Intermediate Schools

As shown in Table E-3, the addition of 47 intermediate school students to CSD 8, Sub-district 2 would increase intermediate school enrollment to 3,957 in the With-Action condition. As under No-Action conditions, CSD 8, Sub-district 2 intermediate schools would operate with available capacity, with the proposed actions expected to increase the study area intermediate school utilization by 1.1 percentage points to 94.5 percent. As CSD 8, Sub-district 2 intermediate schools would operate with available capacity in the 2020 With-Action condition, no significant adverse impacts would result.

III. PUBLICLY FUNDED CHILD CARE FACILITIES

Methodology

The New York City Administration for Children's Services (ACS) provides subsidized child care in center-based group child care, family-based child care, informal child care, and Head Start programs. Publicly financed child care services are available for income-eligible children up through the age of 12. The CEQR analysis focuses on services for children under age six, as eligible children aged six through 12 are expected to be in school for most of the day.

Families eligible for subsidized child care must meet financial and social eligibility criteria established by ACS. In general, children in families that have incomes at or below 200 percent of the federal poverty level, depending on family size, are financially eligible, although in some cases eligibility can go up to 275

percent. The family must also have an approved "reason for care," such as involvement in a child welfare case or participation in a "welfare-to-work" program. Head Start is a federally funded child care program that provides children with half-day and full-day early childhood education; program eligibility is limited to families with incomes at 130 percent or less than the federal poverty level.

The City's affordable housing market is pegged to AMI, rather than the federal poverty level. Since family incomes at or below 200 percent of the federal poverty level fall under 80 percent of AMI, for the purposes of CEQR analysis, the number of housing units expected to be subsidized and targeted for incomes of 80 percent AMI or below is used as a proxy for eligibility. This provides a conservative assessment of demand, since eligibility for subsidized child care is not defined strictly by income, but also takes into account family size and other reasons for care (e.g., low-income parent(s) in school; low-income parent(s) training for work; or low-income parent(s) who is/are ill or disabled).

Since there are no locational requirements for enrollment in child care centers, and some parents or guardians choose a child care center close to their place of employment rather than their residence, the service area of these facilities can be quite large and are not subject to strict delineation on a map. However, for the purposes of this child care center, publicly funded group child care centers within approximately 1.5 miles of the rezoning area were identified, reflecting the fact that the centers closest to a given site are more likely to be subject to increased demand. ACS provided the most recent information regarding publicly funded group child care facilities within the study area, including their current capacity, enrollment, and number of available slots. Family child care and voucher slots were not included in the analysis, in accordance with the *CEQR Technical Manual.*

The child care center enrollment in the future without the proposed actions was estimated by multiplying the number of new low-income and low- and moderate-income housing units expected in the 1.5-mile child care study area by the appropriate multiplier from Table 6-1b of the *CEQR Technical Manual*. The estimate of new publicly funded child care-eligible children was added to the existing child care enrollment to estimate enrollment in the future without the proposed actions. The child care-eligible population introduced by the proposed actions was also estimated using the *CEQR Technical Manual* child care multipliers. The project-generated publicly funded child-care eligible population was then added to the No-Action child care enrollment to determine future With-Action enrollment. According to the *CEQR Technical Manual*, if a project would result in demand for slots greater than the remaining slots for child care centers and if that demand would constitute an increase of five percentage points or more in the collective capacity of child care centers serving the study area, a significant adverse impact may result.

Existing Conditions

As indicated in Table E-4 and Figure E-2, there are eight publicly funded child care centers within the study area with a combined capacity of 725 slots and 109 available slots (85.0 percent utilization). Table E-4 shows the current capacity and enrollment for each of these facilities. As noted above, while family-based child care facilities and informal care arrangements provide additional slots in the study area, these slots are not included in the quantitative analysis.

The Future without the Proposed Actions (No-Action Condition)

There are two known and anticipated affordable housing developments expected to be completed in the child care study area by the 2020 analysis year: 1755 Watson Avenue, a 250-unit affordable housing development and Phase III of the Soundview Family Housing development, which will include 32

Figure E-2
Study Area Child Care Facilities

affordable DUs. Based on the *CEQR Technical Manual* generation rates, these combined 282 affordable housing units are expected to generate 39 additional publicly funded child care-eligible children under age six to the study area, increasing the total child care center enrollment to 655. No changes to child care center capacity are anticipated in the 2020 No-Action condition.

Table E-4: Study Area Child Care Facilities

Map No.[1]	Facility Name	Address	Capacity	Enrollment	Utilization (%)	Available Slots
1	Watson Avenue Early Childcare Center	1880 Watson Avenue	87	74	85.1	13
2	Bronxdale Nursery	1065 Beach Avenue	60	46	76.7	14
3	Sound Dale Center for Early Childhood Education	1211 Croes Avenue	169	138	81.7	31
4	Westchester Tremont Day Care Center	5247 East Tremont Avenue	86	83	96.5	3
5	Leake and Watts Services, Inc.	575 Soundview Avenue	82	71	86.6	11
6	Lutheran Social Services of New York Early LIFE Childrens Center 6	2125 Watson Avenue	107	97	90.7	10
7	Bronx River Child Care Center	1555 East 174th Street	60	53	88.3	7
8	East Bronx Day Care Center	1113 Colgate Avenue	74	54	73.0	20
		Study Area Total	***725***	***616***	***85.0***	***109***

Source: ACS, June 2016.
Notes:
[1] Refer to Figure E-2.

As presented in Table E-5, the future No-Action utilization rate is expected to increase by 5.4 percentage points to 90.3 percent and, therefore, the study area's child care centers would continue to operate with available capacity.

Table E-5: Comparison of Budget Capacity, Enrollment, Available Slots, and Percent Utilized for the 2015 Existing Conditions and the 2020 Future No-Action Conditions

	Budget Capacity	Enrollment	Available Slots	Utilization (%)
Existing Conditions	725	616	109	85.0
No-Action Increment	0	+39	-39	+5.4
2020 No-Action Condition	725	655	70	90.3

Source: *CEQR Technical Manual*, Table 6-1b.

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

As discussed above, the *CEQR Technical Manual* requires a detailed analysis of child care centers when a proposed action would produce substantial numbers of subsidized low- to moderate-income family housing units that may therefore generate a sufficient number of eligible children to affect the availability of slots at area publicly funded child care centers. By 2020, it is anticipated that the proposed project would be completed and occupied and 425 affordable housing units would be introduced in the rezoning area, including 292 affordable family housing units and 133 affordable senior housing units. Pursuant to *CEQR Technical Manual* methodology, only the 292 family units are included in the child care analysis. While the specific income bands of these affordable units is not known at this time, for conservative analysis purposes, 100 percent of the 292 proposed family units are assumed to be occupied by families eligible for publicly-funded child care services.

Based on Table 6-1b of the *CEQR Technical Manual*, these additional 292 affordable family units would generate 41 children under age six eligible for publicly funded child care services (see Table E-6), increasing the study area child care enrollment to 696. As presented in Table E-7, the collective utilization rate of study area child care centers would increase to 96.0 percent in the 2020 With-Action condition (with 29 available slots), an approximately 5.7 percent increase from the No-Action utilization rate.

Table E-6
Projected Number of Publicly Funded Child Care Pupils Generated by the Proposed Project

Affordable Family Units	Generation Ratio per Unit (Children ≤ Age 6)	Number of Children≤ Age 6 Generated
292	0.139	41

Source: *CEQR Technical Manual*, Table 6-1b.

Table E-7
Comparison of Budget Capacity, Enrollment, Available Slots, and Percent Utilized for the 2020 Future No-Action and With-Action Conditions

	Budget Capacity	Enrollment	Available Slots	Utilization (%)
2020 No-Action Condition	725	655	70	90.3
With-Action Increment	0	+41	-41	+5.7
2020 With-Action Condition	725	696	29	96.0

Source: *CEQR Technical Manual*, Table 6-1b.

According to the *CEQR Technical Manual*, a significant adverse child care center impact could result if a proposed actions results in: (1) a collective utilization rate greater than 100 percent in the With-Action condition; and (2) the demand constitutes an increase of five percent or more in the collective capacity of child care centers serving the study area over the No-Action condition. As study area child care facilities would continue to operate with available capacity in the 2020 With-Action condition, no significant adverse impacts would result.

ATTACHMENT F

OPEN SPACE

I. INTRODUCTION

An open space assessment may be necessary if a proposed action could potentially have a direct or indirect effect on open space resources in the project area. A direct effect would "physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value." An indirect effect may occur when the population generated by a proposed development would be sufficient to noticeably diminish the ability of an area's open space to serve the existing or future population. According to the guidelines established in the *City Environmental Quality Review* (CEQR) *Technical Manual,* a project that would add fewer than 200 residents or 500 employees, or a similar number of other users, is typically not considered to have indirect effects on open space.

Although the proposed actions would not have a direct effect on existing open space resources, development facilitated by the proposed actions (the "proposed project") is expected to result in an incremental increase of 425 dwelling units over the 2020 No-Action condition. This would result in an increase of 992 residents[1], which exceeds the *CEQR Technical Manual* threshold for a detailed indirect open space analysis. A quantitative assessment was conducted to determine whether the proposed actions would significantly reduce the amount of open space available for the area's residential population. While, the proposed project is also expected to introduce a net increment of 88 employees to the project site, based on standard planning assumptions, this is below the *CEQR Technical Manual* threshold for a nonresidential indirect open space analysis. Therefore, the analysis of indirect open space impacts focuses exclusively on the open space needs of the area residential population.

II. PRINCIPAL CONCLUSIONS

The proposed actions would not result in significant adverse open space impacts. However, the existing open space ratios in the study area would remain less than the New York City Department of City Planning (DCP) planning goals and the citywide median in the future with the proposed actions, and the proposed project would result in a decrease in the open space ratios by more than one percent. Specifically, the total, passive, and active residential study area open space ratios would decrease by 2.5 percent from 0.64, 0.14, and 0.50 acres per 1,000 residents to 0.63, 0.14, and 0.49 acres per 1,00 residents. The deficiency of open space resources within the study area would be ameliorated by several factors, including the condition of the open space resource and their low to moderate utilization levels, which would be able to absorb additional users generated by the proposed project. Moreover, a wide variety of open space options are available, including a range of passive and actively programmed spaces. Lastly, an additional 7.93 acres of open space (including approximately 0.76 acres located in the rezoning area) were conservatively not included in the quantitative assessment as they are not fully accessible to the public, have limited hours, or do not include seating or other amenities. These additional open spaces include a mix of passive and active open space, including three community gardens with both planting beds and accessory open space amenities, such as playgrounds

[1] Based on the average household size of 2.78 for Bronx Community District (CD) 9 (2010 U.S. Census) for the proposed family units and one occupant per studio unit and 1.5 occupants per one-bedroom unit for the proposed senior units.

and events spaces, as well as several privately-owned open spaces with plantings, lawns, and seating areas.

As part of the proposed project, the existing basketball court, which is currently located on a portion at the corner of White Plains Road and Turnbull Avenue, would be rebuilt in a new location on the development site (along Lafayette Avenue). The new basketball court would be the same size as the existing basketball court and would be an improvement over the existing basketball court. In addition, the proposed project would include both outdoor and indoor recreation areas that would be accessible to the residents introduced by the proposed project. The proposed project's basketball court and additional outdoor recreation space would continue to be open to residents of the Park Lane Apartments, in addition to future residents of the proposed project. Lastly, there are several significant open space resources located just beyond the boundaries of the open space study area, including the 205-acre Soundview Park and the over 70 acres of Pugsley Creek Park that extend beyond the open space study area. Therefore, while the proposed actions would result in an incremental decrease in open space ratios in the future, given the existing low utilization of many of the study area's open spaces, the planned rezoning area open space improvements, and the availability of additional open spaces conservatively not included in the quantitative analysis, the proposed actions would not result in a significant adverse impact on open space.

III. METHODOLOGY

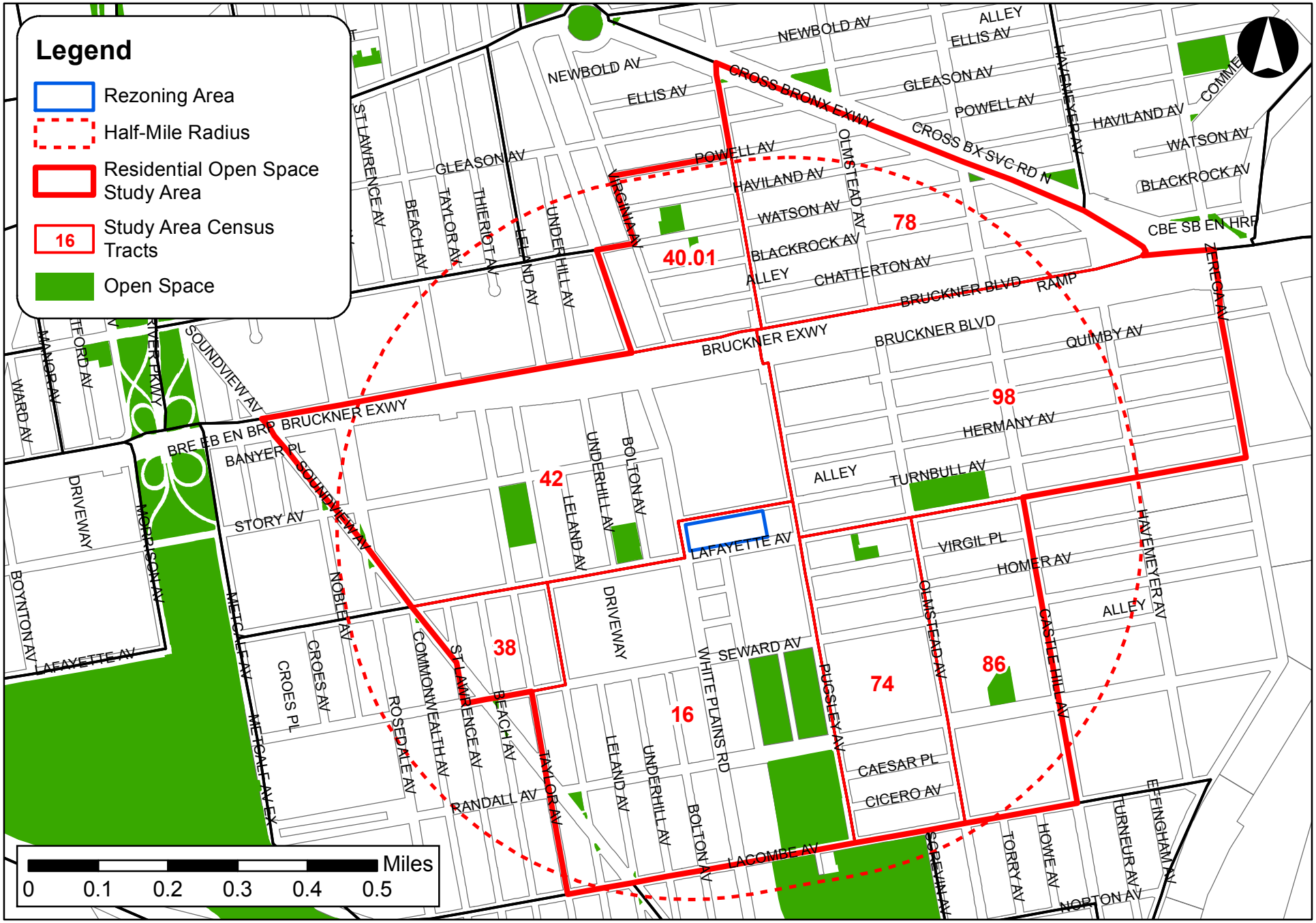
The analysis of open space resources has been conducted in accordance with the guidelines established in the *CEQR Technical Manual*. Using CEQR methodology, the adequacy of open space in the study area is assessed quantitatively using a ratio of usable open space acreage to the study area population, referred to as the open space ratio. This quantitative measure is then used to assess the changes in the adequacy of open space resources in the future, both without and with the proposed actions. In addition, qualitative factors are considered in making an assessment of the proposed actions' effects on open space resources.

In accordance with the guidelines established in the *CEQR Technical Manual,* the open space study area is generally defined by a reasonable walking distance that users would travel to reach local open space and recreational resources. That distance is typically a half-mile radius for residential projects and a quarter-mile radius for commercial projects with a worker population. Because the worker population generated by the proposed actions falls well below the threshold of 500 additional employees, a half-mile radius is the appropriate study area boundary.

Open Space Study Area

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

The rezoning area encompasses the western portion of Bronx Block 3672, Lot 1 in the Soundview neighborhood of Bronx Community District (CD) 9. As shown in Figure F-1, the ½-mile open space study area includes the following census tracts in their entirety: census tracts 16, 38, 40.01, 42, 74, 78, 86, and 98. The open space study area extends approximately to Bruckner Expressway, Powell Avenue,



1965 Lafayette Avenue

Figure F-1
Open Space Study Area

and the Cross Bronx Expressway to the north; to Zerega and Castle Hill Avenues to the east; to Lacombe Avenue to the south; and to Soundview Avenue to the west.

Analysis Framework

Direct Effects Analysis

According to the *CEQR Technical Manual*, a proposed action would have a direct effect on an open space if it causes the physical loss of public open space because of encroachment onto the space or displacement of the space; changes the use of an open space so that it no longer serves the same user population; limits public access to an open space; or causes increased noise or air pollutant emissions, odors, or shadows that would affect its usefulness, whether on a permanent or temporary basis.

This attachment uses information from other attachments of this EAS to determine whether the proposed actions would directly affect any open spaces near the proposed project. The direct effects analysis is included in the "The Future with the Proposed Actions (With-Action Condition)" section of this attachment.

Indirect Effects Analysis

Indirect effects occur to an area's open spaces when a proposed action would add enough population, either workers or residents, to noticeably diminish the ability of an area's open space to serve the existing or future population. The *CEQR Technical Manual* methodology suggests conducting an initial quantitative assessment to determine whether more detailed analyses are appropriate, but also recognizes that for projects that introduce a large population in an area that is underserved by open space, it may be clear that a full detailed analysis should be conducted. The development site is not located within an underserved or well-served area as identified in the *CEQR Technical Manual*.

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

- Characteristics of the existing and future (2020) residential users. To determine the number of residents in the study area, 2010 Census data have been compiled for census tracts comprising the open space study area. The 2020 No-Action residential population was calculated in consideration of anticipated background growth and planned and anticipated study area residential developments. The residential population introduce by the proposed project's family units was estimated based on the average household size of Community District 9 (2.78) per 2010 Census data, while an average of one occupant per studio unit and 1.5 occupants per one-bedroom unit was assumed for the proposed senior units.
- An inventory of all publicly accessible passive and active recreational facilities in the open space study area.
- An assessment of the quantitative ratio of open space in the study area by computing the ratio of open space acreage to the population in the study area and comparing this open space ratio with certain guidelines.

  - As a planning goal, a ratio of 2.5 acres per 1,000 residents represents an area well-served by open spaces and is consequently used by the City as an optimal benchmark for residential populations in large-scale plans and proposals. Ideally, this would be comprised of a balance of 80 percent active open space (2.0 acres per 1,000 residents) and 20 percent passive open space (0.5 acres per 1,000 residents).
  - Local open space ratios vary widely, and the median ratio at the citywide community district level is 1.5 acres of open space per 1,000 residents.
- An evaluation of qualitative factors affecting open space use.
- A final determination of the adequacy of open space in the residential open space study area.

Impact Assessment

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

The quantitative assessment considers how a project would change the open space ratios in the study area. The *CEQR Technical Manual* indicates that a significant adverse impact may result if a project would reduce the open space ratio by more than five percent in areas that are currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents, or where there would be a direct displacement or alteration of existing open space within the study area that has a significant adverse effect on existing users. In areas that are extremely lacking in open space, a reduction as small as one percent may be considered significant, depending on the area of the City. Furthermore, in areas that are well-served by open space, a greater change in the open space ratio may be tolerated.

The qualitative assessment supplements the quantitative assessment and considers nearby destination resources, the connectivity of open space, the effects of new open space provided by the project, a comparison of projected open space ratios with established City guidelines, and open spaces created by the proposed project not available to the general public. It is recognized that the City's planning goals are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these are benchmarks indicating how well an area is served by open space.

D. PRELIMINARY ASSESSMENT

According to the *CEQR Technical Manual*, an initial quantitative open space assessment may be useful to determine if a detailed open space analysis is necessary, or whether the open space assessment can be targeted to a particular user group. This initial assessment calculates an open space ratio by relating the existing residential and nonresidential populations to the total open space in the study area. It then compares that ratio with the open space ratio in the future with the proposed actions. If there is a decrease in the open space ratio that would approach or exceed five percent, or if the study area exhibits a low open space ratio from the onset (indicating a shortfall of open spaces), a detailed analysis is warranted. The detailed analysis examines passive and active open space resources available to both residents and nonresidents (e.g., daily workers and visitors) within study areas delineated in accordance with the *CEQR Technical Manual*.

Pursuant to the guidelines of the *CEQR Technical Manual*, a preliminary open space assessment was conducted. As the study area exhibits a low open space ratio (i.e., below the citywide community district median of 1.5 acres per 1,000 residents and the City's optimal planning goal of 2.5 acres per 1,000 residents) under existing and future conditions, a detailed open space analysis is warranted and is provided below.

E. DETAILED ANALYSIS

Existing Conditions

Demographic Characteristics of the Study Area

To determine the residential population served by existing open space resources, 2010 Census data were compiled for the census tracts comprising the ½-mile study area. With an inventory of available open space resources and the number of potential users, open space ratios were calculated and compared with the existing citywide median ratio and the City's planning goals. As mentioned above and shown in Figure F-1, the open space study area is comprised of eight census tracts. As shown in Table F-1 below, 2010 Census data indicate that the study area has a total residential population of approximately 34,812.

Table F-1: Residential Population and Age Distribution in the ½-Mile Study Area

Census Tract	Total Population	Under 5 Years		5 to 9 Years		10 to 14 Years		15 to 19 Years		20 to 64 Years		65+ Years		Median Age
		#	%	#	%	#	%	#	%	#	%	#	%	
16	5,643	402	7.1	394	7.0	450	8.0	469	8.3	3,116	55.2	812	14.4	35.0
38	1,264	82	6.5	92	7.3	94	7.4	123	9.7	756	59.8	117	9.3	31.0
40.01	1,420	85	6.0	94	6.6	97	6.8	82	5.8	837	58.9	225	15.8	39.7
42	7,143	469	6.6	481	6.7	564	7.9	645	9.0	4,037	56.5	947	13.3	35.1
74	3,710	230	6.2	233	6.3	281	7.6	344	9.3	2,109	56.8	513	13.8	37.6
78	6,418	497	7.7	510	7.9	529	8.2	510	7.9	3,847	59.9	525	8.2	31.4
86	4,176	287	6.9	316	7.6	392	9.4	483	11.6	2,170	52.0	528	12.6	30.1
98	5,038	318	6.3	315	6.3	356	7.1	395	7.8	3,077	61.1	577	11.5	36.9
Total	***34,812***	***2,370***	***6.8***	***2,435***	***7.0***	***2,763***	***7.9***	***3,051***	***8.8***	***19,949***	***57.3***	***4,244***	***12.2***	***34.4***

Source: 2010 Census, SF1 100%

Within a given area, the age distribution of a population affects the way open spaces are used and the need for various types of recreational facilities. Typically, children four years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children ages five through nine typically use traditional playgrounds, as well as grassy and hard-surfaced open spaces, which are important for activities such as ball playing, running, and skipping rope. Children ages ten through 14 use playground equipment, court spaces, and little league fields, and ball fields. Teenagers' and young adults' needs tend toward court game facilities such as basketball and field sports. Adults between the ages of 20 and 64 continue to use court game facilities and fields for sports, as well as more individualized recreation such as rollerblading, biking, and jogging, requiring bike paths, promenades, and vehicle-free roadways. Adults also gather with families for picnicking, ad hoc active sports such as Frisbee®, and recreational activities in which all ages can participate. Senior citizens engage in active recreation such as tennis, gardening, and swimming, as well as recreational activities that require passive facilities.

Therefore the residential population of the study area was also broken down by age group. As shown in Table F-1, people between the ages of 20 and 64 make up the majority (approximately 57 percent) of the residential population. Children and teenagers (0 to 19 years old) account for approximately 31 percent of the entire residential population, and persons 65 years and over account for approximately 12 percent of the residential study area population. Compared to the Bronx and New York City as a whole, the study area residential population includes a larger percentage of children/teenagers and a smaller adult (20-64 years) population; the study area's elderly population is larger than that of the Bronx and comparable to that of New York City as a whole.

The median age for the population within the individual census tracts of the residential study area ranges from a low of 30.1 years (census tract 86) to a high of 39.7 years (census tract 40.01). The open space study area's median age of 34.4 is slightly older than the median age for the Bronx (32.8 years) and slightly younger than the median age for New York City as a whole (35.4 years).

This data suggests a need for facilities geared towards the recreational needs of children and teenagers, as the study area exhibits a high percentage of residents in the 0 to 19 age bracket.

Inventory of Publicly Accessible Open Space

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

An open space is determined to be active or passive by the uses that the design of the space allows. Active open space is the part of a facility used for active play, such as sports or exercise, and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf courses, and multi-purpose play areas (open lawns and paved areas for active recreation such as running games, informal ball-playing, skipping rope, etc.). Passive open space is used for sitting, strolling, and relaxation, and typically contains benches, walkways, and picnicking areas.

Within the defined study area, all publicly accessible open spaces were inventoried and identified by their location, size, owner, type, utilization, equipment, hours, and condition. The information used for this analysis was gathered through field inventories conducted in the summer and fall of 2016, the New York City Department of Park and Recreation's (DPR's) website, the New York City Open Accessible Space Information System (OASIS) database, and other secondary sources of information.

Table F-2: Inventory of Existing Open Space and Recreational Facilities in the Study Area[1]

Map No.[1]	Name	Location	Owner/ Agency	Features	Total Acres	Passive Acres	Passive %	Active Acres	Active %	Condition	Utilization
Open Space Resources included in Quantitative Analysis											
1	Haviland Playground	Haviland & Watson Aves. Btwn. Virginia & Puglsey Aves.	DPR/DOE	Basketball courts, asphalt baseball field, benches, trees	0.84	0.08	10	0.76	90	Good	Low
2	Black Rock Playground	Watson & Blackrock Aves. Btwn. Virginia & Pugsley Aves.	DPR/DOE	Playground, benches, trees	0.32	0.03	10	0.29	90	Good	Moderate
3	Story Playground	Story Ave. btwn. Taylor & Thieriot Aves.	DPR/DOE	Basketball & handball courts, fitness equipment, playgrounds, benches, trees	2.08	0.21	10	1.87	90	Good	High
4	Space Time Playground	Lafayette Ave. btwn. Bolton & Underhill Aves.	DPR/DOE	Basketball & handball courts, playgrounds, spray showers, benches, trees	1.28	0.13	10	1.15	90	Good	Moderate
5	P.O. Serrano Playground	Olmstead Ave btwn. Turnbull & Lafayette Aves.	DPR	Basketball & handball courts, playgrounds, spray showers, baseball/soccer field, benches, trees	2.62	0.26	10	2.36	90	Good	Moderate
6	P.S. 138 Open Space	Lafayette Ave. & Virgil Pl. btwn. Olmstead & Pugsley Aves.	DOE	Playground, ball courts, benches, trees	0.51	0.05	10	0.46	90	Good	Low
7	Pugsley Creek Park	Randall Ave. & Pugsley Ave.	DPR	Baseball field, benches, trees	8.08	0.40	5	7.68	95	Good	Moderate
8	Randall Playground	Randall Ave. btwn. Olmstead & Castle Hill Aves.	DPR	Basketball & handball courts, playgrounds, spray showers, benches	1.00	0.10	10	0.90	90	Good	Low
9	Bronx Guild Open Space	Seward Ave. & Steve Mercado Stickball Blvd.	DOE	Raised beds, wildlife habitat, benches, paths, handball court, athletic fields, bleachers, track	4.26	0.85	20	3.41	80	Good	Low
10	Castle Hill Houses	Seward Ave. btwn. Olmstead, Castle Hill, & Randall Aves.	NYCHA	Benches, grass, trees	1.79	1.79	100	0.00	0	Good	Moderate
11	Monroe Houses	Lafayette & Story Aves. Btwn. Rosedale & Taylor Aves.	NYCHA	Benches, trees, playgrounds, spray shower, baseball field, basketball court	1.67	1.50	90	0.17	10	Good	High
				Total Included in Quantitative Analysis	*24.45*	*5.41*	*22.1*	*19.0*	*77.9*		

Table F-2: Inventory of Existing Open Space and Recreational Facilities in the Study Area[2]

Map No.[3]	Name	Location	Owner/ Agency	Features	Total Acres	Passive Acres	Passive %	Active Acres	Active %
Open Space Resources not included in Quantitative Analysis									
A	Randall Community Garden (Bronx Guild Open Space)	1961 Randall Ave.	DOE	Bronx Guild orchard, tennis courts	3.37	1.69	50	1.69	50
B	Taylor-Soundview Block Association Garden	564 Soundview Ave.	HPD	Event space, garden	0.24	0.24	100	0.00	0
C	Rosedale Gardens	Bruckner Blvd. btwn. Rosedale & Taylor Aves.	Rosedale Gardice	Playground, trees, benches, spray shower	1.79	1.61	90	0.18	10
D	Jamie Towers Housing Co. Open Space	Seward Ave. btwn. Olmstead & Pugsley Aves.	Jamie Towers Housing	Lawn, trees, benches, paths	0.48	0.48	100	0.00	0
E	2040 Bruckner Boulevard Open Space	2040 Brucker Blvd.	Stellar 2020 LLC	Trees, benches, plants	0.10	0.10	100	0.00	0
F	920 Thierot Avenue Open Space	920 Thierot Ave.	Underhill Realty	Lawn	0.86	0.00	10	0.86	100
G	Park Lane Apartments Open Space	Turnbull Ave. btwn. White Plains Rd. & Pugsley Ave.	Pacla Apartments Inc.	Basketball court, swimming pools, playground, lawns, benches, trees	0.76	0.15	20	0.61	80
H	Stevenson Commons Plaza	Lafayette Ave. at White Plains Rd.	Lavanberg Community I	Plaza, decorative pavings, plantings, trees	0.33	0.33	100	0.00	0
				Total Excluded from Quantitative Analysis	*7.93*	*4.60*	*58.0*	*3.33*	*42.0*

Source: NYC OASIS, DPR, summer and fall 2016 field visits.

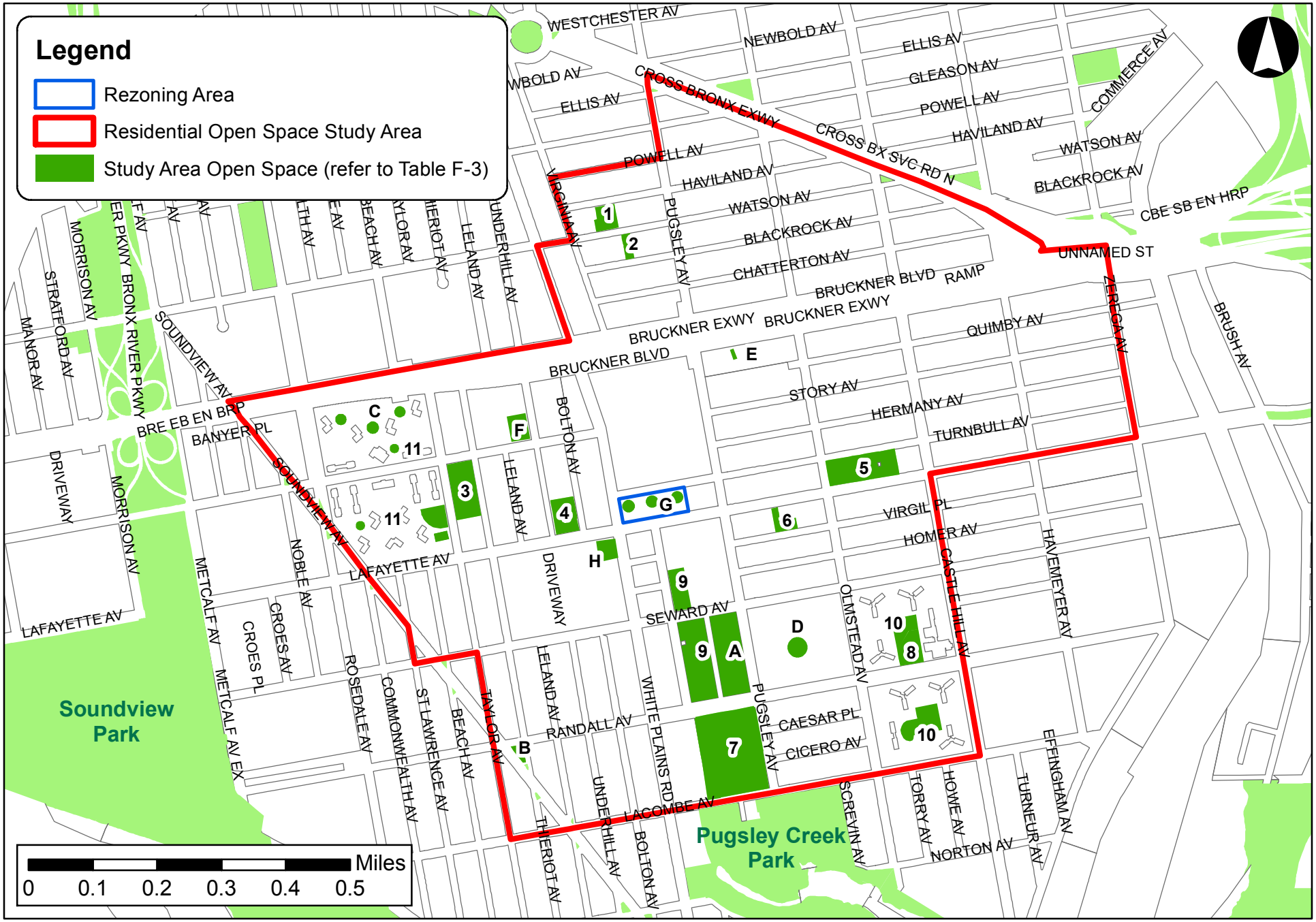
Notes:

[1] Including in quantitative analysis.

[2] Not included in quantitative analysis.

[3] Refer to Figure F-2.

DPR = New York City Department of Parks and Recreation; NYCHA = New York City Housing Authority; DOE = New York City Department of Education; HPD = New York City Department of Housing Preservation and Development



1965 Lafayette Avenue

Figure F-2
Study Area Open Space

The condition of each open space facility was categorized as "Excellent," "Good," "Fair," or "Poor." A facility was considered in excellent condition if the area was clean and attractive and if all equipment was present and in good repair. A good facility had minor problems such as litter or older but operative equipment. A fair or poor facility was one that was poorly maintained, had broken or missing equipment or lack of security, or other factors that would diminish the facility's attractiveness. Determinations were made subjectively, based on a visual assessment of the facilities.

Likewise, judgments as to the intensity of use of the facilities were qualitative, based on an observed degree of activity or utilization on a weekday afternoon, which is considered the weekday peak utilization period according to the *CEQR Technical Manual*. If a facility seemed to be at or near capacity (i.e. the majority of benches or equipment was in use), then utilization was considered heavy. If the facility or equipment was in use but could accommodate additional users, utilization was considered moderate. If a playground or sitting area had few people, usage was considered light. Table F-2, "Inventory of Existing Open Space and Recreational Facilities in Study Area," identifies the address, ownership, features, and acreage of active and passive open spaces in the study area, as well as their condition and utilization. Figure F-2 maps their location in the study area.

Open Space Resources

As shown in Table F-2, there are 11 publicly accessible open space in the residential open space study area. In addition, there are eight resources located within the study area (including one on the applicant-owned Block 3672, Lot 1) that are not included in the quantitative analysis due to limited hours of operation and/or accessibility or due to the fact that they do not include seating or other amenities.

The study area contains a total of approximately 24.45 acres of publicly accessible open space, approximately 78 percent of which (19.04 acres) comprises active open space and approximately 22 percent of which (5.41 acres) comprises passive open space (refer to Table F-2). The largest open space in the study area is the 8.08-acre Pugsley Creek Park (Map No. 7), located on the southern border of the study area and bordered by Lacombe, Randall, and Pugsley Avenues. The open space is operated by DPR and features a baseball field and walking paths, in addition to benches and trees for passive recreation. While only 8.08 acres of Pugsley Creek Park fall within the boundaries of the residential open space study area, the park extends south beyond Lacombe Avenue along Pugsley Creek and totals over 83 acres, including wetlands and marshes, walking and biking paths, and boat launches.

Other significant open space resources in the study area include the 4.26–acre Bronx Guild wildlife habitat and athletic field (Map No. 9), which is located one block south of the rezoning area, and the 2.62-acre P.O. Serrano Playground (Map No. 5), which is located two blocks east of the rezoning area and comprises the majority of the block bounded by Lafayette, Turnbull, Olstead, and Castle Hill Avenues. The Bronx Guild open space, which is operated by the New York City Department of Education (DOE), includes a wildlife habitat, raised beds, benches, a running track, handball courts, and athletic fields. The DPR-operated P.O. Searrano playground also features a variety of active open space amenities, including basketball and handball courts, playgrounds, spray showers, and a baseball/soccer field, as well as benches and trees for passive recreation. Additionally, Story Playground (Map No. 3) is a 2.08-acre open space resource located to the west of the rezoning area on Story Avenue between Taylor and Thieriot Avenues. The playground is jointly operated by DPR and DOE and features basketball courts, handball courts, fitness equipment, playgrounds, benches and trees.

The remaining study area open spaces are all under two acres in size. Several open spaces in the study area are adjacent to public schools and are jointly operated by the DPR and DOE, including Haviland

Playground (Map No. 1), Black Rock Playground (Map No. 2), and Space Time Playground (Map No. 4). With the exception of the two publicly accessible open spaces owned and operated by the New York City Housing Authority (NYCHA) (Map Nos. 10 and 11), all of the study area open space resources are comprised of predominantly active open space amenities.

As noted above, there are a number of additional open spaces that are conservatively not included in the quantitative analysis because they are not fully accessible to the public, have limited hours, or do not include seating or other amenities. However, these spaces constitute important recreational resources for neighborhood residents. Most notably, on Block 3672, Lot 1, the existing Park Lane Apartments have 0.76 acres of predominantly active open space amenities that are accessory to and used by the 1,023 existing Park Lane Apartments residents. These accessory open spaces are well-maintained and lightly utilized and feature a basketball court, two swimming pools, a playground, benches, and open lawns and plantings.

It should also be noted that the 205-acre Soundview Park, a significant open space destination, is located just one block beyond the western boundary of the residential open space study area (refer to Figure F-2) and is likely used by residents of the area. Called the "Gateway to the Bronx River," Soundview Park is situated where the Bronx River opens into the East River and features baseball fields, a cricket pitch, a running track, a soccer field, six basketball courts, six handball courts, a running track with synthetic turf field, walking/biking paths, and a new performance lawn.

Existing Open Space Adequacy

The following analysis of the adequacy of existing open space resources within the study area takes into consideration the ratios of active, passive, and total open space resources per 1,000 residents. As an optimal planning goal, the City tries to achieve an overall residential open space ratio of 2.5 acres per 1,000 residents (80 percent [2 acres] active and 20 percent [0.5 acres] passive) for large-scale plans and proposals. Although a typical population mix may call for such a goal, it is often not feasible for many areas of the City (especially higher density areas). Therefore, the City does not consider these ratios as open space policy for every neighborhood. Rather, the ratios serve as benchmarks that represent how well an area is served by open space.

In calculating the open space ratio per 1,000 user population for the study area, all of the resources listed in the "Open Space Resources Included in the Quantitative Analysis" section of Table F-2 were included; Resources A through H were not included in the calculations pursuant to the *CEQR Technical Manual*, for the reasons described above. Table F-3 shows that, with an existing study area residential population of approximately 34,812 people, the existing total open space ratio in the study area is approximately 0.70 acres of open space per 1,000 residents; the study area has 0.16 acres of passive open space per 1,000 residents and 0.55 acres of active open space per 1,000 residents. As indicated in Table F-3, the existing total, active, and passive residential open space ratios are below both the City's open space planning goals of 2.5 acres per 1,000 residents and the City's median community district open space ratio of 1.5 acres per 1,000 residents.

Table F-3: Adequacy of Open Space Resource in the Study Area – Existing Conditions

Existing Population	Open Space Acreage			Open Space per 1,000 Residents			City Open Space Planning Goals		
	Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
34,812	24.45	5.41	19.04	0.70	0.16	0.55	2.50	0.50	2.0

The Future without the Proposed Actions (No-Action Condition)

In the 2020 future without the proposed actions, the existing R6 zoning district currently mapped on Block 3672, Lot 1 would remain and no changes to the land uses occupying the rezoning area would occur.

Study Area Population

While there are no known and anticipated residential developments in the open space study area, the study area residential population is expected to increase due to general background growth. Specifically, based on the compound annual growth rate of 0.9 percent, the 2020 open space study area residential population is expected to increase to 38,071.

Open Space Resources

While there are no planned changes to open space resources that would increase or decrease the overall study area acreage, DPR is currently in the process of reconstructing the Black Rock Playground (Map No. 2 in Figure F-2), which will improve the condition and usability of this existing study area open space resource. Conceptual designs for the planned improvement are expected to be completed in spring 2017, with construction completed in spring 2019.

Open Space Adequacy

Table F-5, below, presents the No-Action open space ratios for the ½-mile study area, based on the anticipated population increase outlined above. As indicated in Table F-5, in the No-Action condition, as under existing conditions, the total, passive, and active open space ratios would be less than the City' open space planning goals of 2.5 acres of open space per 1,000 residents (including 0.5 acres of passive open space and two acres of active open space), as well as the City's median community district open space ratio of 1.5 acres per 1,000 residents. Specifically, the total open space ratio is expected to decrease to 0.64 acres per 1,000 residents in the No-Action condition, with No-Action passive and active open space ratios of 0.14 and 0.50 acres per 1,000 residents, respectively.

Table F-5: Adequacy of Open Space Resource in the Study Area – No-Action Conditions

No-Action Population	Open Space Acreage			Open Space per 1,000 Residents			City Open Space Planning Goals		
	Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
38,071	24.45	5.41	19.04	0.64	0.14	0.50	2.50	0.50	2.0

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

This section describes the open space conditions that would result from the proposed actions by 2020. It evaluates the potential for the proposed actions to result in significant adverse impacts to open space resources directly and indirectly based on a comparison of the No-Action condition (described above) to the With-Action condition.

Project Site Population

As described in Attachment A, "Project Description," in the future with the proposed actions, it is estimated 425 DU would be introduced on the project site, which are expected to introduce a net 992

residents.[2] Based on this incremental residential population growth, the study area's population would increase to a total of 39,063 residents in the 2020 With-Action condition.

Direct Effects Analysis

The proposed actions would not have a direct effect on any study area publicly-accessible open spaces. Construction and operation of the proposed project would not cause the physical loss of public open space because of encroachment or displacement of the space; would not change the use of an open space so that it no longer serves the same user population; and would not limit public access to an open space. In addition, as discussed in other chapters of this EAS, the proposed actions would not significantly affect the usefulness or utilization of any study area open spaces due to increased noise or air pollutant emissions, odors, or shadows.

It should be noted, however, that as part of the proposed project, the existing basketball court, which is currently located at the corner of White Plains Road and Turnbull Avenue would be rebuilt in a new location on the development site (along Lafayette Avenue). The new basketball court would be the same size as the existing basketball court and, as it would be newly constructed, would be an improvement over the existing basketball court. In addition, as described in Attachment A, "Project Description," the proposed project would include both outdoor and indoor recreation areas that would be accessible to the residents introduced by the proposed project. The basketball court would continue to be open to residents of the Park Lane Apartments, in addition to future residents of the proposed project.

Indirect Effects Analysis

As noted above, the open space impact analysis consists of both a quantitative assessment and a qualitative assessment. The quantitative assessment considers how a project would change the open space ratios in the study area. As the study area open space ratios are significantly less than both the City's optimal benchmark of 2.5 acres of open space per 1,000 residents and the City's median community district open space ratio of 1.5 acres of open space per 1,000 residents, a reduction in the open space ratio of as small as one percent may be considered significant, depending on the area of the City, and in consideration of qualitative factors, including proximity to nearby destination resources, the connectivity of open space, the effects of new open space provided by the project, and open spaces created by the proposed project not available to the general public. It is recognized that the City's planning goals are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these are benchmarks indicating how well an area is served by open space.

Quantitative Assessment

Table F-6 compares the No-Action and With-Action open space ratios per 1,000 residents. As presented in Table F-6, in the With-Action condition, as under existing and No-Action conditions, the open space ratios in the ½-mile study area would be less than the City's open space planning goals of 2.5 acres of open space per 1,000 residents, including 0.5 acres of passive open space and 2.0 acres of active open space. Specifically, in the future with the proposed actions, the total open space ratio is expected to decrease by 0.016 acres per 1,000 residents (a 2.5 percent reduction) from 0.64 to 0.63 acres of open

[2] Based on the average household size of 2.78 for Bronx CD 9 (2010 U.S. Census) for the proposed family units and one occupant per studio unit and 1.5 occupants per one-bedroom unit for the proposed senior units.

space per 1,000 residents (as compared to the No-Action condition); the With-Action passive and active open space ratios would similarly decrease by 2.5 percent (0.004 and 0.013 acres per 1,000 residents, respectively) to 0.14 and 0.49 acres per 1,000 residents, respectively.

Table F-6: Adequacy of Open Space Resource in the Study Area – No-Action vs. With-Action Conditions

		Open Space Acreage			Open Space per 1,000 Residents (acres)			City Open Space Planning Goals		
	Population	Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
No-Action Condition	38,071	24.45	5.41	19.04	0.64	0.14	0.50	2.50	0.50	2.0
With-Action Condition	39,063				0.63	0.14	0.49			
Incremental Change	992				-0.016 (-2.5%)	-.0.004 (-2.5%)	-0.013 (-2.5%)			

As the proposed project would result in a decrease in the open space ratios by more than one percent in an area that is lacking in open space, a qualitative assessment is needed to determine whether this level of reduction in the open space ratio would be considered a significant adverse indirect open space impact. The qualitative assessment is provided below.

Qualitative Assessment

As outlined below, while the study area would continue to have a shortfall of open space in the future with the proposed project, and the existing open space ratios in the study area would remain less than the DCP planning goals and the citywide median, the deficiency of open space resources within the study area would be ameliorated by several factors. All of the open space resources in the study area were found to be in good condition. In addition, nine of the 11 open space resources have only low to moderate utilization levels and would be able to absorb additional users generated by the proposed project. Moreover, a wide variety of options are available, ranging from sitting areas and walking paths to playgrounds, basketball and handball courts, ball fields, and picnic area. An additional 7.93 acres of open space (including approximately 0.76 acres located in the rezoning area, which would remain accessible to the existing rezoning area residents) were conservatively not included in the quantitative assessment as they are not fully accessible to the public, have limited hours, or do not include seating or other amenities. These additional open spaces include a mix of passive and active open space, including three community gardens with both planting beds and accessory open space amenities, such as playgrounds and events spaces, as well as several privately-owned open spaces with plantings, lawns, and seating areas.

The proposed project would also include additional indoor and outdoor recreation space, which was also conservatively not included in the quantitative analysis. Notably, the proposed project would include a newly constructed basketball court that would be an improvement over the existing basketball court, as well as additional indoor and outdoor recreation spaces that would be accessible to the residents introduced by the proposed project. Lastly, there are several significant open space resources located just beyond the boundaries of the open space study area, including the 205-acre Soundview Park, which is located just one block beyond the western boundary of the residential open space study area, and over 70 acres of Pugsley Creek Park that extend beyond the open space study area's southern border (refer to Figure F-2). Although these resources were excluded from the quantitative assessment, it is likely that existing and future residents within the study area would take advantage of these additional resources. If included in the quantitative analysis, these open spaces would improve the open space ratios.

Therefore, while the proposed actions would result in an incremental decrease in open space ratios in the future, given the existing low utilization of many of the study area's open spaces, the planned project site open space improvements, and the availability of additional open spaces conservatively not included in the quantitative analysis, the proposed actions would not result in a significant adverse impact on open space.

ATTACHMENT G

SHADOWS

I. INTRODUCTION

This chapter assesses the potential for the proposed project to result in incremental shadows long enough to reach any nearby publicly accessible open spaces or other sunlight-sensitive resources. According to the 2014 *CEQR Technical Manual*, a shadows assessment is required if a proposed action would result in structures (or additions to existing structures) of 50 feet in height or greater, or those that would be located adjacent to, or across the street from, a sunlight sensitive resource. As discussed in Attachment A, "Project Description," the proposed actions would result in new buildings greater than 50 feet in height over the No-Action condition. As such, a detailed shadows analysis was prepared to determine the potential for the proposed project to result in significant adverse impacts on sunlight-sensitive resources.

II. PRINCIPAL CONCLUSIONS

The proposed project would result in incremental shadow coverage on Space Time Playground on three representative analysis days. Project-generated shadows would not affect the utilization or enjoyment of this sunlight-sensitive resource and all open spaces in the surrounding area would continue to receive a minimum of four hours of direct sunlight throughout the growing season. Therefore, the proposed actions are not expected to result in significant adverse shadows impacts at any sunlight-sensitive resources.

III. METHODOLOGY

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

First, a preliminary screening assessment must be conducted to ascertain whether shadows resulting from a project could reach any sunlight-sensitive resource at any time of year. The *CEQR Technical Manual* defines sunlight-sensitive resources as those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity. The following are considered to be sunlight-sensitive resources:

- *Public open space* (e.g., parks, playgrounds, plazas, schoolyards, greenways, and landscaped medians with seating). Planted areas within unused portions or roadbeds that are part of the Greenstreets program are also considered sunlight-sensitive resources. The use of vegetation in an open space establishes its sensitivity to shadows. This sensitivity is assessed for both (1) warm-weather dependent features, like wading pools and sandboxes, or vegetation that could be affected by loss of sunlight during the growing season (i.e., March through October); and (2) features, such as benches, that could be affected by a loss of winter sunlight. Uses

that rely on sunlight include: passive use, such as sitting or sunning; active use, such as playfields or paved courts; and such activities as gardening, or children's wading pools and sprinklers. Where lawns are actively used, the turf requires extensive sunlight. Vegetation requiring direct sunlight includes the tree canopy, flowering plants, and plots in community gardens. Generally, four to six hours a day of sunlight, particularly in the growing season, is a minimum requirement.

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

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

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

If the third tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a detailed shadow analysis is required to determine the extent and duration of the incremental shadow resulting from the project. In accordance with the *CEQR Technical Manual*, shadows on sunlight-sensitive resources of concern were modeled for four representative days of the year. For the New York City area, the months of interest for an open space resource encompass the growing season (i.e., March through October) and one month between November and February representing a cold-weather month (usually December). Representative days for the growing season are generally the March 21st vernal equinox (or the September 21st autumnal equinox, which is approximately the same), the June 21st summer solstice, and a spring or summer day halfway between the summer solstice and equinoxes, such as May 6th or August 6th (which are approximately the same). For the cold- weather months, the December 21st winter solstice is included to demonstrate conditions when open space users rely most heavily on available sunlight warmth. As these months and days are representative of the full range of possible shadows, they are also used for assessing shadows on sunlight-sensitive historic and natural resources.

The *CEQR Technical Manual* defines the temporal limits of a shadow analysis period to fall from an hour and a half after sunrise to an hour and a half before sunset.

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

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

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

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

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

In general, a significant adverse shadow impact occurs when the incremental shadow added by a proposed action falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight exposure, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other resources.

IV. PRELIMINARY SCREENING

Tier 1 Screening Assessment

According to the *CEQR Technical Manual*, the longest shadow that a structure will cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height. The height of the proposed buildings including the mechanical bulkhead (145 feet) was used to determine the maximum shadow radius of 624 feet (Tier 1 Assessment). Within this longest shadow study area, there are three potentially sunlight-sensitive resources. Therefore, further screening was warranted in order to determine whether any resources could be affected by project-generated shadows.

Tier 2 Screening Assessment

Due to the path of the sun across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City, this area lies between -108 and +108 degrees from true north. The purpose of the Tier 2 screening is to determine whether the sunlight-sensitive resources identified in the Tier 1 screening are located within portions of the longest shadow study area that can receive shade from the proposed project.

Figure G-1 provides a base map illustrating the results of the Tier 1 and Tier 2 screening assessments (i.e., the portion of the longest shadow study area lying within -108 degrees from the true north and +108 degrees from true north as measured from southernmost corner of the proposed buildings). One sunlight-sensitive resource, Space Time Playground, was identified for further assessment based on the results of the Tier 1 and Tier 2 assessments.

Tier 3 Screening Assessment

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

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

As shown in Figure G-2 and Table G-1 below, the Tier 3 analysis determined that the Space Time Playground could, in the absence of intervening buildings, receive project-generated shadows on the March 21/September 21, May 6/August 6, and June 21 analysis days.

Table G-1: Tier 3 Assessment Results

Name	March 21/Sept. 21 7:36 AM - 4:29 PM	May 6/August 6 6:27 AM - 5:18 PM	June 21 5:57 AM - 6:01 PM	December 21 8:51 AM - 2:53 PM	Number of Analysis Days
Space Time Playground	YES	YES	YES	NO	3

V. DETAILED ANALYSIS OF SHADOW IMPACTS

Resources Affected by Project-Generated Shadows

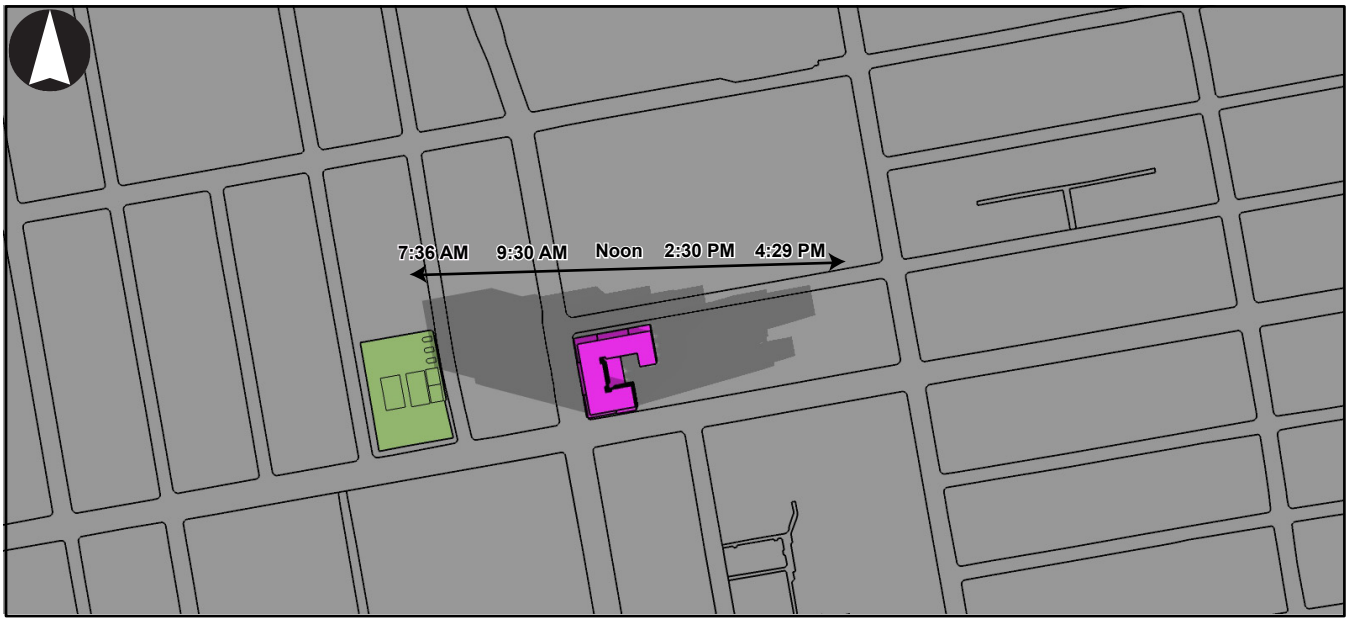
Space Time Playground

Space Time Playground is a 1.28-acre public open space located on Lafayette Avenue between Bolton and Underhill Avenues. The open space is jointly operated by the New York City Department of Parks and Recreation (DPR) and the New York City Department of Education (DOE) and features a number

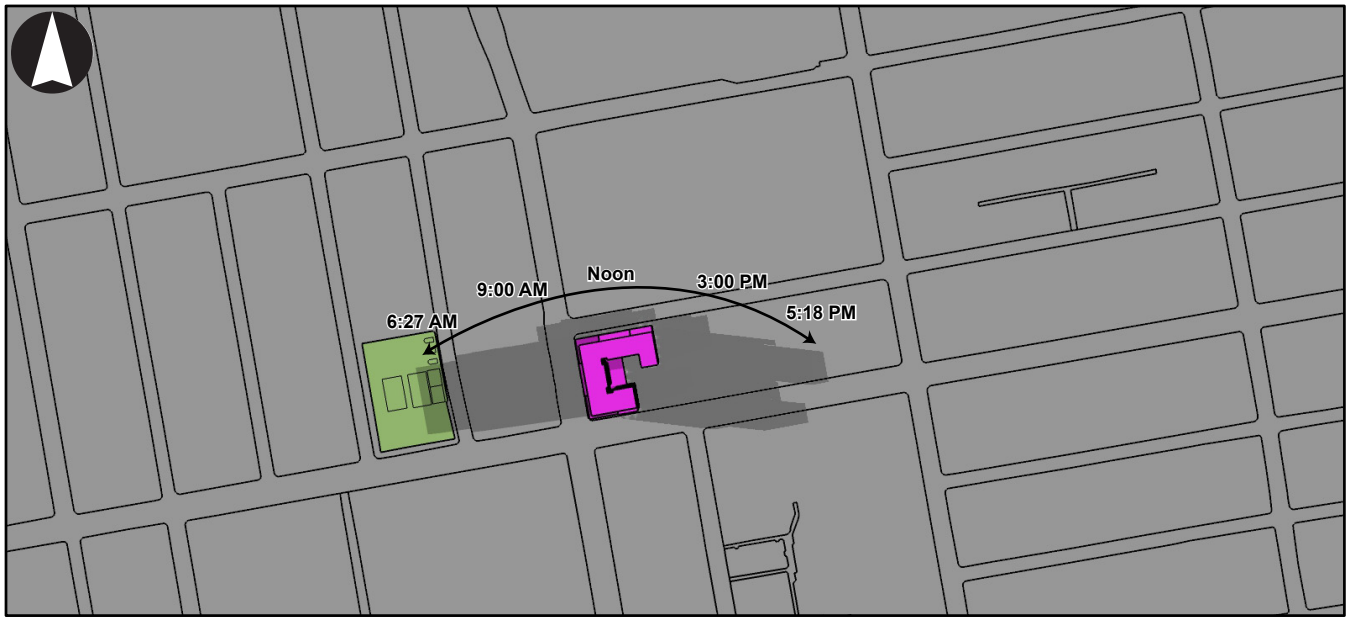
1965 Lafayette Avenue

Figure G-1
Tier 1 and Tier 2 Screening Assessment

Tier 3 Screening

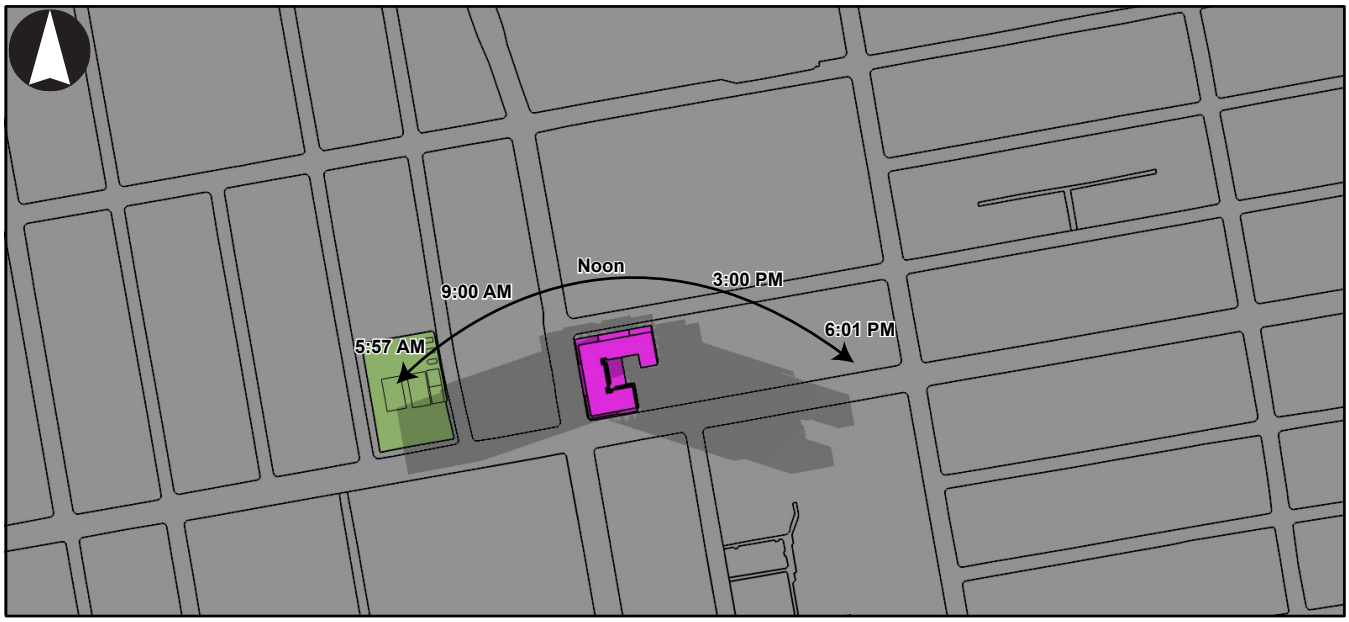


MARCH 21/SEPTEMBER 21

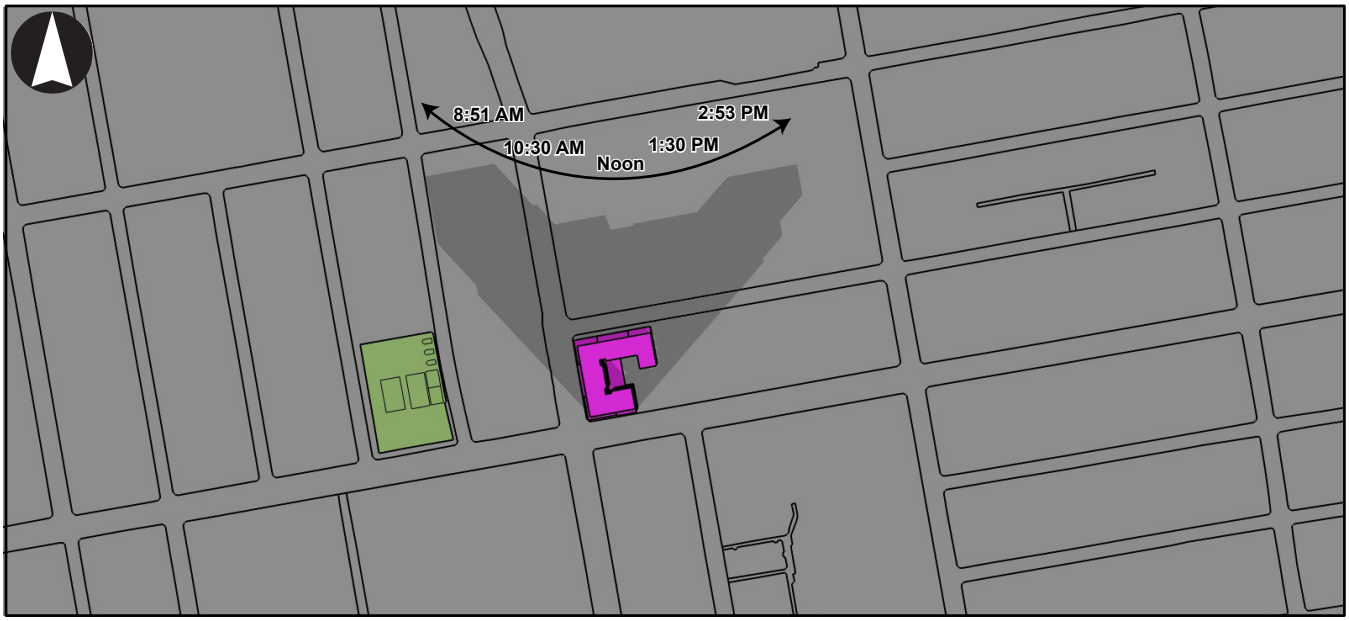


MAY 6/AUGUST 6

Proposed Development **Open Space** **Incremental Shadow**



JUNE 21



DECEMBER 21

Proposed Development **Open Space** **Incremental Shadow**

of amenities (see Figure G-3). The playground area, which features swings, jungle gym equipment, spray showers, benches, and trees, is located on the southern portion of the open space along Lafayette Avenue. Just north of the playground area in the middle portion of the open space are basketball and handball courts. The northernmost portion of the open space is comprised of a multi-purpose paved asphalt space.

Detailed Shadows Analysis

Per *CEQR Technical Manual* guidelines, shadow analyses were performed for the sunlight-sensitive resources identified above on three representative days of the year: March 21/September 21, the equinoxes; May 6, the midpoint between the summer solstice and the equinox (and equivalent to August 6); and June 21, the summer solstice and the longest day of the year. As the Tier 3 assessment found that no project-generated shadows could reach any sunlight-sensitive resources on December 21, the winter solstice and shortest day of the year, this day was excluded from the detailed analysis. These representative days indicate the range of shadows over the course of the year. CEQR guidelines define the temporal limits of a shadow analysis period to fall from 1.5 hours after sunrise to 1.5 hours before sunset. As discussed above, the results of the shadows analysis show the incremental difference in shadow impact between the No-Action and With-Action conditions (see Table G-2).

As shown in Table G-2, incremental project-generated shadows would reach Space Time Playground, the only sunlight-sensitive resources identified in the Tier 3 assessment. Increases in shadow coverage would occur at Space Time Playground on March 21/September 21, May 6/August 6, and June 21. Figures G-4 through G-6, provided at the end of this attachment, show representative shadow views on each of the representative analysis days.

Table G-2: Duration of Shadows on Sunlight Sensitive Resources (Increment Compared to No-Action)

	Analysis Day	March 21/Sept. 21	May 6/August 6	June 21	December 21
		7:36 AM – 4:29 PM	6:27 AM – 5:18 PM	5:57 AM – 6:01 PM	8:51 AM – 2:53 PM
Space Time Playground	Shadow enter-exit time	7:36 – 7:38 AM	6:27 – 6:42 AM	5:57 – 6:26 AM	Screened out per Tier 3 Assessment
	Incremental shadow duration	2 minutes	15 minutes	29 minutes	

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

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

March 21/September 21

On March 21/September 21 the time period for shadows analysis begins at 7:36 AM and continues until 4:29 PM. March is considered the beginning of the growing season in New York City, and September 21, which has the same shadow patterns as March 21, is also within the growing season. On the March 21/September 21 analysis day, the proposed project would cast incremental shadows on Space Time Playground beginning at 7:36 AM and continuing until 7:38 AM, for a duration of two minutes. After 7:38 AM the open space would not experience any incremental shadow coverage. As indicated in Figure G-4, incremental shadows would be limited to a small northeastern corner of the open space along Bolton Avenue comprised of asphalt.

Figure G-3

Space Time Playground - Aerial View

May 6/August 6

On May 6/August 6 the time period for shadows analysis begins at 6:27 AM and continues until 5:18 PM. On the midpoint between the equinoxes and the solstices, incremental shadows would reach Space Time Playground. The proposed project would cast incremental shadows on the playground beginning at 6:27 AM and continuing until 6:42 AM, for a duration of 15 minutes. After 6:42 AM the playground would not experience any incremental shadow coverage. As indicated in Figure G-5, incremental shadows would be limited to small areas along the playground's eastern edge on Bolton Avenue, where basketball and handball courts and the playground are located.

June 21

On June 21 the time period for shadows analysis begins at 5:57 AM and continues until 6:01 PM. On the summer solstice, which is the day of the year with the longest period of daylight, the sun is most directly overhead and generally shadows are shortest and move across the widest angular range from west to east. On this date, the proposed project would cast incremental shadows on Space Time Playground beginning at 5:57 AM and continuing until 6:26 AM, for a duration of 29 minutes. As indicated in Figure G-6, incremental shadows would be limited to a small southern and central portion of the open space, where basketball and handball courts and the playground are located. After 6:26 AM the open space would not experience any incremental shadow coverage.

Assessment

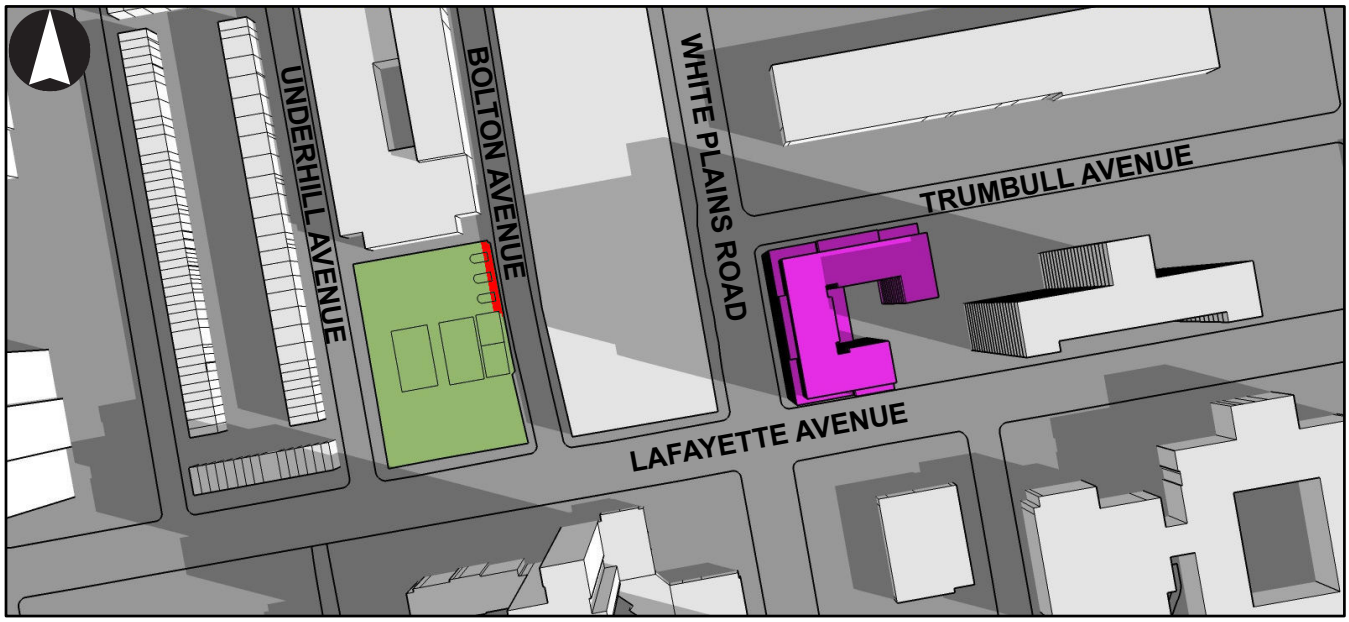
The shadows analysis determined that the duration and coverage of incremental shadows on Space Time Playground would be limited. Incremental shadow duration would range from two minutes on March 21 to 29 minutes on June 21. As shadow coverage would generally be limited to small portions of the open space, would be limited duration, and would occur early in the morning long before the primary hours of utilization, incremental shadows are not expected to have a significant effect on the utilization or enjoyment of this resource (see Figures G-4 through G-6). Furthermore, as it is expected that the playground would still obtain adequate sunlight during the plant growing season (at least the four to six hour minimum specified in the *CEQR Technical Manual*), trees and plantings would not be affected. Therefore, the incremental shadows that could result from the proposed actions are not anticipated to adversely impact Space Time Playground.

1965 Lafayette Avenue

Figure G-4

Space Time Playground

Incremental Shadows on March 21/September 21

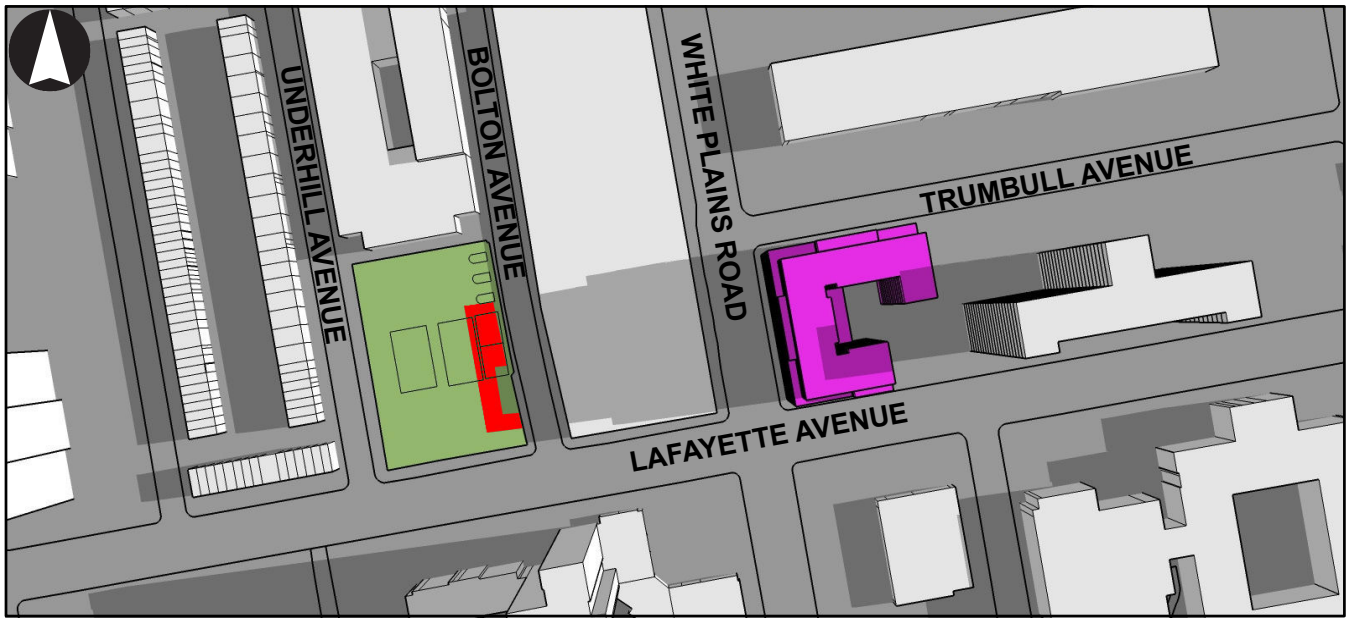


7:36 AM

Proposed Development **Open Space** **Incremental Shadow**

1965 Lafayette Avenue **Figure G-5**

Space Time Playground
Incremental Shadows on May 6/August 6

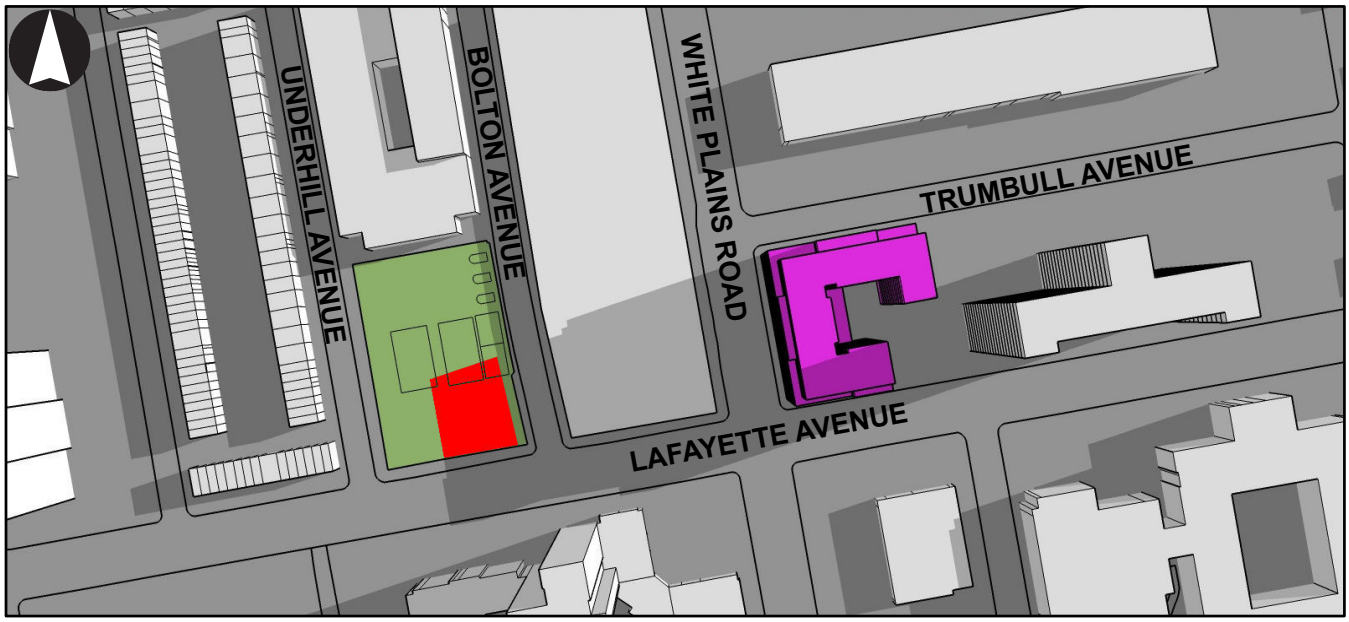


6:30 AM

Proposed Development **Open Space** **Incremental Shadow**

1965 Lafayette Avenue

Figure G-6
Space Time Playground
Incremental Shadows on June 21



6:00 AM

Proposed Development **Open Space** **Incremental Shadow**

ATTACHMENT H

URBAN DESIGN AND VISUAL RESOURCES

I. INTRODUCTION

This attachment considers the potential effects of the proposed actions and subsequent development on urban design and visual resources. As defined in the *City Environmental Quality Review* (CEQR) *Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. Elements such as streets, buildings, visual resources, open space, natural resources, wind, and sunlight play an important role in the pedestrian experience. The proposed actions would facilitate the construction of an approximately 384,271-gross square foot (gsf) development comprised of 332,868 gsf of residential floor area, 19,938 gsf of commercial floor area, and 31,465 gsf of below-grade parking at 1965 Lafayette Avenue in the Soundview neighborhood of Bronx Community District (CD) 9.

In accordance with *CEQR Technical Manual* guidelines, the assessment focuses on the components of the proposed actions that may have the potential to alter the arrangement, appearance, and functionality of the built environment. The effect of the proposed actions represents the incremental effect on conditions resulting from the net change in development between No-Action and With-Action conditions.

II. PRINCIPAL CONCLUSIONS

The proposed actions and subsequent development, while resulting in a notable change in the urban design of the study area, would not result in a significant adverse impact on the area's urban design and visual resources, as defined by the *CEQR Technical Manual*. The proposed actions would facilitate the construction of a new 14-story tall predominantly residential development comprised of 425 affordable dwelling units (DU), as well as local retail and accessory parking uses. The proposed project would replace a 103-space accessory parking lot, enlivening the streetscape and serving as an extension of the residential and community-oriented uses in the surrounding area. While the proposed project would be taller than many of the secondary study area buildings, the proposed project would be shorter than the existing 21-story residential building in the eastern portion of the rezoning area. As such, the proposed project would serve as a transition between the lower-scale buildings found to the west and this existing rezoning area building. The proposed project would fill an existing void by replacing existing underutilized land with active pedestrian-oriented uses that would complement those found in the primary and secondary study areas. In addition, the proposed project would not alter views of study area visual resources. Therefore, the proposed actions would not result in significant adverse impacts on urban design and visual resources.

III. METHODOLOGY

Pursuant to the *CEQR Technical Manual*, an assessment of urban design is appropriate when a project may have effects on one or more of the elements that contribute to the pedestrian experience of public space. The assessment focuses on the components of a proposed action or project that may have the potential to alter the arrangement, appearance, and functionality of the built environment.

As described in the *CEQR Technical Manual*, a preliminary urban design analysis is appropriate when there is potential for a pedestrian to observe from the street level a physical alteration beyond that allowed by existing zoning. A preliminary analysis provides a "snapshot" of the project, comparing existing and future conditions with and without the proposed actions. The following analysis examines each of the elements that play an important role in the pedestrian experience, including street hierarchy and streetscape (including the arrangement and orientation of streets); building scale, form and arrangement; and natural features, open space, and topography.[1] The following preliminary analysis also considers the effects of the proposed actions on the area's visual resources, which are generally considered to be important public view corridors, vistas, or natural or built features. Visual resources can include waterfront views, public parks, landmark structures or districts, or natural features, such as rivers or geologic formations.

Based on *CEQR Technical Manual* guidelines, the study area for urban design is the area where the project may influence land use patterns and the built environment. The urban design study areas consists of both a primary study area (where urban design effects of the proposed actions are direct) and a secondary study area. For the purpose of this assessment, the primary study area encompasses the rezoning area. Consistent with the analysis of land use, zoning, and public policy, the secondary study area for the urban design assessment has been defined as an area within approximately 400 feet of the rezoning area (see Figure H-1).

The analysis is based on field visits, aerial views, photographs, and other graphic images of the rezoning area and surrounding area. Zoning calculations, including floor area calculations, building heights, and lot coverage information are also provided.

IV. PRELIMINARY ASSESSMENT

Existing Conditions

Urban Design

Primary Study Area (Rezoning Area)

The rezoning area comprises the western 107,890 sf of Block 3672, Lot 1, with 539 feet of street frontage on Turnball Avenue (to the north) and Lafayette Avenue (to the south) and approximately 200 feet of street frontage on White Plains Road (to the west); the remainder of Block 3672, Lot 1 abuts the rezoning area to the east. Turnbull Avenue is a narrow lightly-trafficked two-way roadway with parking on both sides. White Plains Road is a major two- to four- lane north-south corridor, with a striped central median. Lafayette Avenue similarly features a striped central median, as well as a raised median/pedestrian safety island at the intersection of White Plains Road.

[1] Per criteria of Section 230 of the *CEQR Technical Manual*, a wind condition analysis is not warranted for the proposed actions. The study area is not located in a high wind location (such as along west and northwest-facing waterfronts) and the proposed project would not be of a "substantial size" that would have the potential to alter wind conditions.

1965 Lafayette Avenue

Figure H-1
Urban Design Study Areas

The rezoning area is currently occupied by a 21-story affordable residential building, surface accessory parking, and private open space uses. The existing building in the rezoning area totals 400,932 sf of residential floor area and comprises 353 affordable residential units, developed as part of the Mitchell Lama program. The 21-story building is a brick construction T-shaped building that was built in 1969, with balconies and regular fenestration on all facades. The existing rezoning area residential building was developed pursuant to Height Factor regulations and maximizes the permitted floor area under R6 Height Factor zoning requirements, with a built FAR of 2.43.

The existing residential building is setback from the street with plantings, seating areas, and private open space to the north and south of the building. The area to the south of the existing building (on Lafayette Avenue) is improved with a lawn and plantings, as well as a wide paved area leading to the building's Lafayette Avenue pedestrian entrance. To the north of the building (on Turnbull Avenue) are a playground, a garden, and two pools, all of which are surrounded by chain link fencing. The northern lawn is also improved with trees, plantings, lighting fixtures, and benches and features multiple paved pathways connecting the building's Turnbull Avenue entrance to the Turnbull Avenue sidewalk and rezoning area outdoor amenity space (refer to Figure H-2). Paved pathways are also present directly east and west of the existing residential building, serving as a pedestrian link between Lafayette and Turnbull Avenues.

To the west of the existing rezoning area building is a surface accessory parking lot, as well as additional residential open space amenities. The approximately 103-space paved surface parking lot is accessed via a curb-cut located on Lafayette Avenue. A basketball court, also accessory to the existing rezoning area residential building, is located at the corner of White Plains Road and Turnbull Avenue. As shown in Figure H-2, both the parking lot and basketball court are enclosed by chain link fencing and are not accessible to the public. "Private Property" signs are posted at the Lafayette Avenue parking entry, which is also characterized by a larger metal sliding entry gate.

Street trees line the rezoning area's Turnbull Avenue, Lafayette Avenue, and White Plains Road street frontages. Other streetscape elements along the rezoning area's street frontages are limited to standard cobrahead street lights, fire hydrants, trash cans, utility poles (on Lafayette Avenue and White Plains Road), and traffic signage; bus shelters are located along the rezoning area's Lafayette Avenue frontage (just east of the existing residential building) and White Plains Road frontage (just south of Turnbull Avenue). It should also be noted that the sidewalk surrounding the existing rezoning area residential building is currently dominated by the presence of a construction sidewalk shed, associated with general building façade improvements that are currently underway (refer to Figure H-2).

Secondary Study Area

The blocks comprising the secondary study area are rectilinear in form. Blocks to the west of White Plains Road are generally oriented north-south, and blocks east of Pugsley Avenue are generally oriented east-west, while blocks between White Plains Road and Pugsley Avenue exhibit a greater variety in terms of block form. In terms of building height, as presented in Figures H-3, the tallest buildings in the secondary study area are generally the buildings with the largest building footprints and are located along Lafayette Avenue. Similarly, as presented in Figure H-4, the highest density building of the secondary study area is located on Lafayette Avenue.

Bolton Avenue is the westernmost north-south roadway of the secondary study area and serves two-way north-south traffic with parking on both sides. The western side of the roadway is occupied by the Albert Einstein Jr. High School (on the northern portion of the block) and the New York City Department of Parks

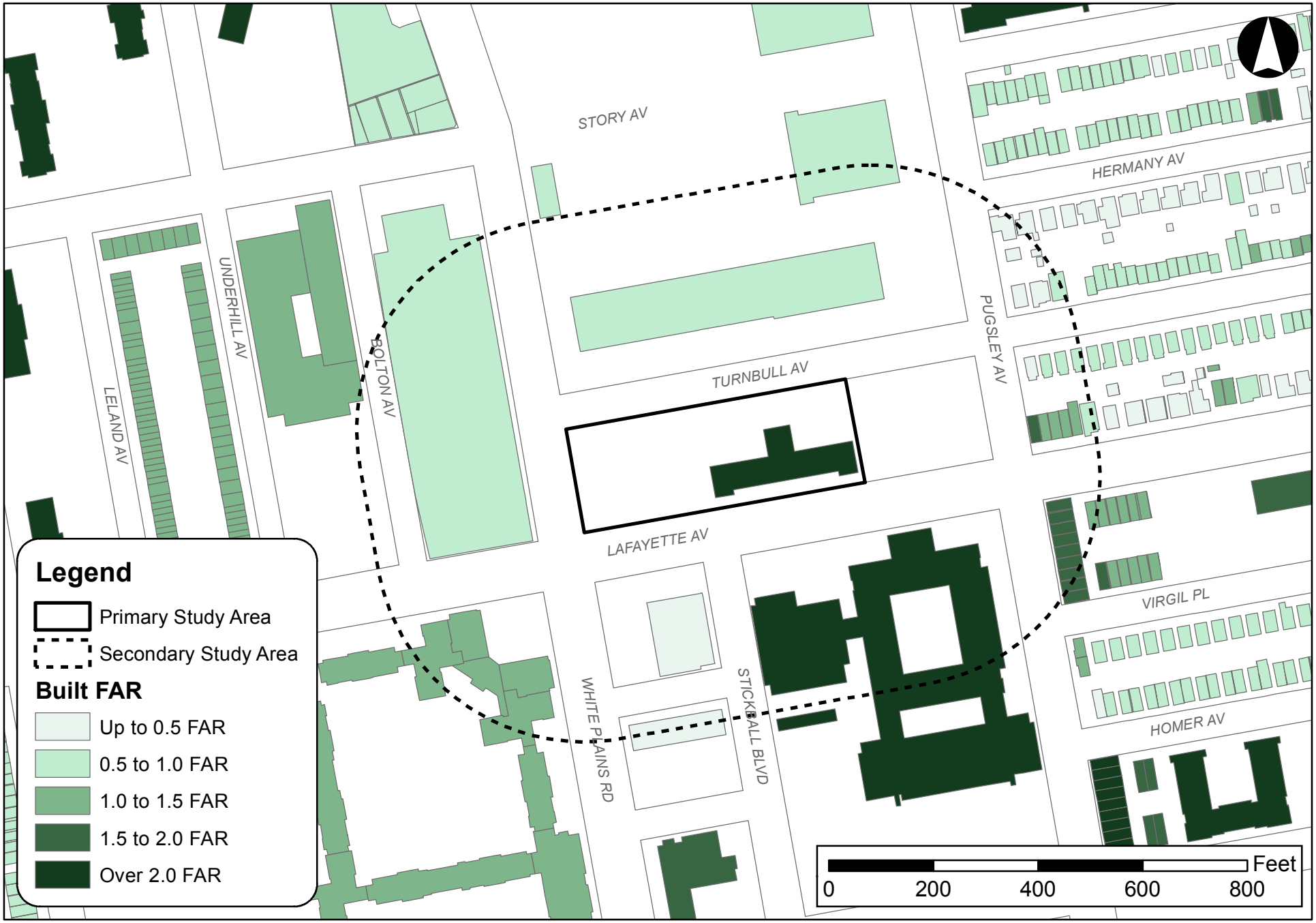
Clockwise from top left: (1) View southwest from Turnbull Ave. of residential amenity space on north side of existing residential building; (2) View southeast from Turnbull Ave. of existing residential building's accessory playground; (3) View northwest along Lafayette Ave. of existing accessory parking lot entry; (4) View southwest from the northwest corner of Turnbull Ave. and White Plains Road of private basketball court, with existing residential building in background.

1965 Lafayette Avenue

Figure H-2
Primary Study Area Photos

1965 Lafayette Avenue

Figure H-3
Study Area Building Heights



1965 Lafayette Avenue

Figure H-4
Study Area Building Density

and Recreation- (DPR-) operated Space Time Playground (on the southern portion of the block). The street's western sidewalk is characterized by multiple street trees, metal fencing lining the Space Time Playground, fire hydrants, standard street signage, cobra head lamps, and utility poles. As presented in Figure H-5, the eastern side of the roadway is in stark contrast with the lively open space usage it fronts and is characterized by multiple large curb cuts, loading dock, and bollards, coupled with a lack of building fenestration. Street trees and standard street signage is also present along Bolton Avenue's eastern sidewalk.

The block frontages to the north and west of the rezoning area are characterized by chain retail establishments and large retail signage; however, the block to the north of the rezoning area (bounded by Turnbull, Story, and Pugsley Avenue and White Plains Road) is much more auto-oriented than the retail establishments present along the west side of White Plains Road (refer to Figure H-5). Notably, the large block to the north of the rezoning area is occupied by the Shops at Bruckner Boulevard, comprised of multiple one- to two-story retail buildings setback from the roadway and surrounded by large swaths of paved accessory parking; multiple wide curb cuts dominate the abutting sidewalk streetscapes, with minimal street trees along White Plains Road. While the western side of White Plains Road is similarly occupied by a large building footprint one-story retail building with multiple national retailers, the building is constructed to the lot line, with minimal curb cuts; food carts are occasionally found along the adjacent sidewalk.

These retail uses continue to the southwest corner of Lafayette Avenue and White Plains Road, where multiple local retail establishments occupy the one-story base of the predominately residential 24-story multi-family development. The retail uses are setback from the street, forming a large plaza at the southwest corner of the intersection. The plaza is improved with plantings, decorative lamps, paving, and banners and is lined with bollards separating the plaza area from the adjacent sidewalk (refer to Figure H-5). As presented in Figure H-3, this development is also notable for being the tallest building in the secondary study area.

As discussed in Attachment C, "Land Use, Zoning, and Public Policy," the blocks directly south of the rezoning area are both occupied by community facility uses. The one-story U.S. Post office located on the south side of Lafayette Avenue between White Plains Road and Steve Mercado Stickball Boulevard is surrounded by a paved surface parking lot. Other distinguishing urban design characteristics of this lot include the unusual placement of street trees along the lot's abutting Lafayette Avenue sidewalk (rather than being located adjacent to the roadway bed) and the angled parking along the lot's White Plains Road frontage (refer to Figure H-5). As shown in Figure H-5, the public school building on the south side of Lafayette Avenue between Steve Mercado Stickball Boulevard and Pugsley Avenue is similarly set back from Lafayette Avenue, with the exception of the building entrance. The building rises four stories in height and is surrounded by lawns, plantings, and multiple flagpoles. The lot is surrounded by a decorative blue metal fence. This public school building is also the highest density building in the secondary study area, with a built FAR of 2.98 (refer to Figure H-4).

East of Pugsley Avenue, buildings generally occupy smaller lots than characteristic of buildings to the west of Pugsley Avenue (refer to Figures H-3 and H-4). As shown in Figure H-5, the residential buildings lining Lafayette Avenue east of Pugsley Avenue are generally three-story multi-family residential buildings set back from the lot line with paved driveways, planted lawns, and decorative brick and white painted metal fences separating the buildings from the sidewalk. The presence of multiple utility poles and utility lines traversing Lafayette Avenue are also a notable feature of the roadway segment's urban design character.

View south on Bolton Avenue (north of Lafayette Avenue)

View north on White Plains Road (north of Turnbull Avenue)

Plaza at southwest corner of White Plains Road and Lafayette Avenue (view west)

Angled parking on east side of White Plains Road south of Lafayette Avenue (view northeast)

Public school on south side of Lafayette Avenue (view southeast)

Residential buildings on south side of Lafayette Avenue east of Pugsley Avenue (view south)

South side of Turnbull Avenue east of Pugsley Avenue (view southeast)

Shops at Bruckner Bruckner Boulevard loading on west side of Pugsley Avenue (view northwest)

Turnbull Avenue, while similarly occupied by residential buildings on small lots set back from the street, distinguishes itself from the urban design character of Lafayette Avenue in its lower building heights, narrower roadway, and greater presence of street trees (refer to Figure H-5).

Pugsley Avenue is the easternmost north-south roadway of the secondary study area and serves two-way traffic with parking on both sides. The eastern side of the roadway is characterized by the presence of one- to three-story residential buildings and narrow sidewalks with decorative fencing and minimal street trees lining the sidewalk. In contrast, the western side of Pugsley Avenue is characterized by greater building setbacks, utility lines, and more regularly planted street trees. North of Turnbull Avenue, the buildings on the west side of Pugsley Avenue comprise the back of the Shops at Bruckner Boulevard buildings, with loading and utility uses the most dominant visual presence (refer to Figure H-5).

Visual Resources

The only visual resource in the urban design study area is the Space Time Playground, located at the northwest corner of Bolton and Lafayette Avenues (in the secondary study area). Views of this open space resource are limited to portions of Lafayette Avenue (west of White Plains Road) and Bolton Avenue; the Space Time Playground is not visible from the rezoning area (primary study area).

The Future without the Proposed Actions (No-Action Condition)

Primary Study Area (Rezoning Area)

In the 2020 future without the proposed actions, the rezoning area would remain as under existing conditions with no changes to the urban design. As such, the rezoning area would continue to be occupied by a 21-story affordable residential building surrounded by surface accessory parking and private open space uses.

Secondary Study Area

As described in Attachment C, "Land Use, Zoning, and Public Policy," there are no known development projects in the secondary study area that are expected to be completed and occupied by the 2020 analysis year.

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

In the 2020 With-Action condition, the western portion of the rezoning area would be redeveloped with two attached predominantly residential buildings comprising approximately 384,271 gsf of floor area, including 425 affordable DU, 19,938 gsf of local retail, and 31,465 gsf of below-grade accessory parking. In conjunction with the proposed project, 42 surface accessory parking spaces would be paved in the midblock area between the proposed project and the existing rezoning area residential building.

As discussed in Attachment A, "Project Description," the proposed project would comprise two attached buildings that would be located on the western portion of the rezoning area and would be constructed to the lot line along Lafayette Avenue, White Plains Road, and Turnbull Road. The affordable senior housing building would have frontage on Turnbull Avenue, while the affordable family housing building would have frontage on Lafayette and Turnbull Avenues and White Plains Road. The proposed project would be

constructed in conformance with R8 Quality Housing regulations and would have streetwall heights of 99' 8" (ten stories) on all three street frontages, rising to maximum building heights of 137' 8" (14 stories) after a setback. The setbacks along Lafayette Avenue and White Plains Road (wide streets) would be ten feet, while the setback along Turnbull Avenue (a narrow street) would be 15 feet. The proposed buildings would also feature 12-story dormers on portions of all three street frontages.

The affordable family units would have their primary entrance on Lafayette Avenue and the affordable senior units would have their primary entrance on Turnbull Avenue. In addition to the proposed residential uses, the proposed family housing building would include 19,938 gsf of local retail uses on the building's ground floor, which would be accessed via White Plains Road. The proposed 67-space enclosed accessory parking garage would be accessed via Turnbull Avenue, while, as noted above, the 42 surface accessory parking spaces would be located to the east of the proposed buildings, with access provided on both Turnbull and Lafayette Avenues. In addition, the proposed project would include an at-grade basketball court and outdoor recreation area, to be located to the southeast of the proposed project buildings. The basketball court and additional outdoor recreation area would be utilized by residents of the proposed project, in addition to residents of the adjacent Mitchell Lama residential building.

In conjunction with the proposed project, street trees would be planted every 25 feet along the proposed project's White Plains Road, Lafayette Avenue, and Turnbull Avenue frontages, in accordance with zoning requirements; additional trees would be planted on the interior of the rezoning area, lining the proposed outdoor amenity space.

Urban Design

Primary Study Area (Rezoning Area)

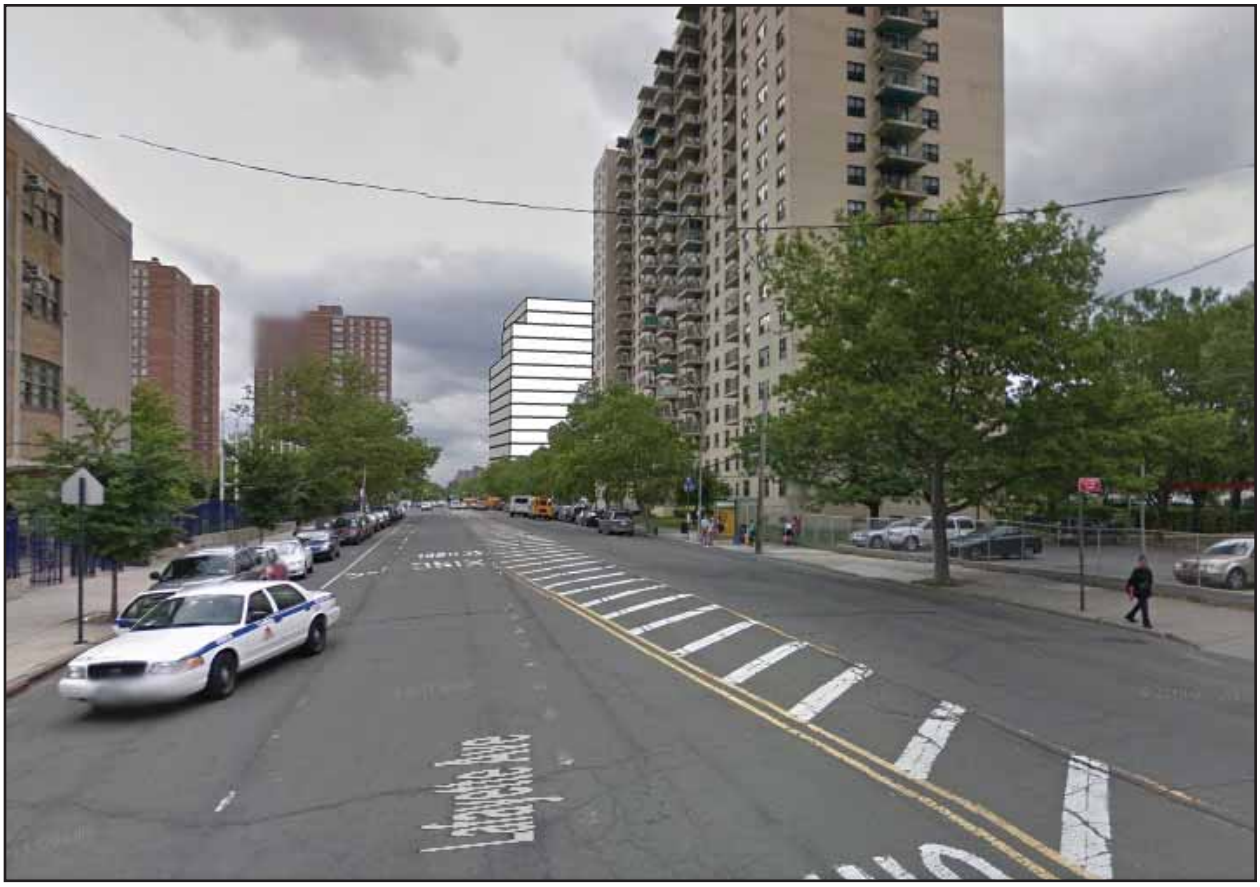
In the 2020 future with the proposed actions, the proposed approximately 384,271-gsf predominantly residential proposed project would be constructed on the western portion of the rezoning area. The buildings would include a total of 425 affordable residential units (comprising 292 family units and 133 senior units), 19,938 gsf of ground floor local retail, and accessory parking. The proposed project would have an FAR of 6.91 and would conform with all bulk and use requirements applicable in R8/C2-4 (MIH) districts.

As presented in Figures H-6 through H-8, the proposed project would result in a noticeable change in the urban design character of the primary study area, as compared to existing and No-Action conditions. As discussed above, the rezoning area is currently occupied by a 21-story residential building, which is located on the central portion of Block 3672, as well as accessory surface parking and outdoor recreation space. The proposed project would replace the existing 103-space surface accessory parking lot, which currently occupies the western portion of the rezoning area; as part of the proposed project, a new basketball court would also be constructed along the rezoning area's Lafayette Avenue frontage, replacing the existing rezoning area basketball court that is currently located at the corner of Turnbull Avenue and White Plains Road.

The proposed project would improve the pedestrian streetscape by introducing active uses built to the lot line on Lafayette and Turnbull Avenues and White Plains Road. The proposed residential and commercial uses would introduce new foot traffic, enlivening the streetscape and replacing existing fenced-off auto-oriented uses. The additional retail activity would be focused on White Plains Road (an

Comparison of No-Action and With-Action Conditions
(view west on Lafayette Avenue from Pugsley Avenue)

No-Action



With-Action

Comparison of No-Action and With-Action Conditions
(view east on Lafayette Avenue from west of Bolton Avenue)

No-Action

With-Action

Figure H-8

Comparison of No-Action and With-Action Conditions
(view southeast from the corner of White Plains Road and Turnbull Avenue)

No-Action

With-Action

existing retail corridor) and would complement and fill the existing void present along the rezoning area's White Plains Road frontage today.

The proposed building massings would not be out of character with the surrounding area, which is characterized by a mix of building typologies. As presented in Figures H-6 through H-8, the proposed project would be shorter than the existing Mitchell Lama residential building occupying the eastern portion of the rezoning area, thereby serving as a transition from the lower scale buildings found directly west on White Plains Road. The proposed siting of the building, while a departure from the siting of the existing Mitchell Lama building within open space pursuant to Height Factor zoning, would similarly serve as a complement and a transition between this existing building and the continuous streetwall of the buildings found on the west side of White Plains Road.

For these reasons, the proposed actions would not result in significant adverse impacts on the urban design of the primary study area.

Secondary Study Area

The proposed actions would not result in any changes in the urban design in the secondary study area, as development facilitated by the proposed actions would be limited to the rezoning area. The proposed project would introduce uses that would be consistent with those found in the surrounding secondary study area, which is characterized by a mix of residential, commercial, and community facility uses. The additional street activity generated by the proposed project would serve as a connection between the retail activities found to the north, west, and southwest. While the proposed project would be taller than many buildings in the secondary study area, the secondary study area is already characterized by a variety of building heights and typologies, and the building's placement on the westernmost portion of the rezoning area would serve as a transition between the variety of building heights found in the secondary study area and the 21-story existing Mitchell Lama building in the eastern portion of the rezoning area (refer to Figures H-6 through H-8).

Overall, the proposed actions would contribute to the urban design character of the secondary study area. The proposed actions would not adversely affect any urban design features of the secondary study area and would not result in significant adverse impacts to the experience of the pedestrian.

Visual Resources

As described above, the only visual resource located within, or visible from, the primary or secondary study areas is the Space Time Playground, which is located within the secondary study area and visible from limited portions of Lafayette Avenue (west of White Plains Road) and Bolton Avenue; the Space Time Playground is not visible from the rezoning area (primary study area). The proposed project would not be visible in views of this secondary study area visual resource; therefore, no significant adverse impacts on visual resources in the primary or secondary study areas would occur in the future with the proposed actions.

ATTACHMENT I

WATER AND SEWER INFRASTRUCTURE

I. INTRODUCTION

As defined in the *City Environmental Quality Review* (CEQR) *Technical Manual*, infrastructure comprises the physical systems that support populations and includes structures such as water mains and sewers, bridges and tunnels, roadways, and electrical substations. These structures are static and thus have defined capabilities that may be affected by growth in a particular area.

As described in Attachment A, "Project Description," the proposed project consists of an approximately 384,271 gross square foot (gsf) predominantly residential development comprising approximately 425 affordable residential units and approximately 19,938 gsf of local retail, as well as accessory parking. This attachment provides an evaluation of the potential effect of the Proposed Development on the City's water and sewer infrastructure. Other City infrastructure identified in the *CEQR Technical Manual*, including the transportation network and public transportation systems, are discussed in separate attachments of this Environmental Assessment Statement (EAS). Included is a description of the existing water and sewer infrastructure in the study area, as well as changes to water and sewer infrastructure conditions that would occur in the 2018 future with and without the proposed project.

II. PRINCIPAL CONCLUSIONS

The proposed actions would not result in significant adverse impacts on wastewater treatment or stormwater conveyance infrastructure. The proposed project is expected to generate approximately 206,285 gallons per day (gpd) of sanitary sewage, an increase of 103,985 gpd over No-Action conditions. This incremental increase in sewage generation is less than 0.1 percent of the average daily flow at the Hunts Point Water Pollution Control Plant (WPCP) and would not result in an exceedance of the plant's permitted capacity. Because the City's sewers are sized and designed based on the designated zoning of an area and related population density and surface coverage characteristics, the proposed rezoning may result in development that is inconsistent with the design of the existing built sewer system. As such, an amended drainage plan will be prepared. In addition, in order to obtain a permit to connect to the City sewer, a site-specific hydraulic analysis to determine whether the existing sewer system is capable of supporting higher density development and related increases in sanitary flows would be prepared prior to development of the proposed project; sewer improvements may also be required to support the house or site connection proposal. Therefore, the proposed actions would not result in a significant adverse impact to the City's sanitary sewage conveyance and treatment system.

Depending on the rainfall volume and duration, the total With-Action volume to the combined sewer system could be between 0.03 and 0.31 million gallons (mg). Compared to existing conditions, this would represent an increase in combined sewer flows of 0.01 to 0.10 mg, depending on rainfall intensities. With the incorporation of selected stormwater source control best management practices (BMPs) that would be required as part of the site connection approval process, subject to the review and approval of the New York City Department of Environmental Protection (DEP), the peak stormwater runoff rates would

be reduced. In addition, as noted above, as part of the site connection proposal process, an amended drainage plan would be prepared and sewer improvements would be implemented, if determined warranted by DEP. Overall, the proposed project would not result in significant adverse impacts on the City's sewage conveyance and treatment systems.

III. METHODOLOGY

This analysis follows the methodologies set forth in the *CEQR Technical Manual*. Pursuant to CEQR, a preliminary water analysis is needed if a project would result in an exceptionally large demand of water (over 1,000,000 gpd) or is located in an area that experiences low water pressure. The proposed project is located in the Soundview neighborhood of the Bronx and is not located in an area that experiences low water pressure (i.e., it is not located at the end of the water supply distribution system, such as the Rockaway Peninsula or Coney Island). The proposed project would generate an incremental water demand of 107,375 gpd (including water related to sanitary and domestic uses) compared with the No-Action conditions. While this would represent an increase in demand on the New York City water supply system, it does not meet the *CEQR Technical Manual* threshold requiring a detailed analysis. Therefore, an analysis of water supply is not warranted, and it is expected that there would be adequate water service to meet the incremental water demand, and there would be no significant adverse impacts on the City's water supply.

A preliminary sewer analysis is warranted if a project site comprises more than five acres and would result in an increase of impervious surfaces on the site, or if a project is located in a combined sewer area and would result in the incremental development of at least 400 residential units or 150,000 sf or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens or at least 1,000 residential units or 250,000 sf or more of commercial space in Manhattan. As the rezoning area is located in a combined sewer area in the Bronx and the proposed project would exceed the CEQR 400-DU threshold, a preliminary sewer analysis was conducted.

Existing and future sanitary sewage generation is calculated based on use generation rates set forth in Table 13-2 of the *CEQR Technical Manual*. The DEP Volume Calculation Matrix is then used to calculate the overall combined sanitary sewage and stormwater runoff volume discharged to the combined sewer systems for four rainfall volume scenarios with varying durations. Stormwater runoff volumes are determined by estimating the amount of pervious and impervious surfaces within the rezoning area. The ability of the City's water and sewer infrastructure to handle the estimated demand/generation that is anticipated from the proposed project is assessed by estimating existing, No-Action, and With-Action water demand and sewage generation. With-Action water demand and wastewater generation is compared to the No-Action condition, and With-Action combined stormwater runoff and wastewater generation volumes are compared to existing conditions.

IV. EXISTING CONDITIONS

Conveyance System

According to the *CEQR Technical Manual*, wastewater is considered to include sanitary sewage, wastewater generated by industries, and stormwater. Water used for air conditioning generates a negligible amount of wastewater as it recirculates or evaporates in the cooling and heating process.

New York City's sewer system consists of a grid of sewers beneath the streets that send wastewater flows to fourteen different WPCPs. The City's WPCPs are regulated by the New York State Department of Environmental Conservation (NYSDEC), which issues permits regulating the discharge of treated effluent. Combined, all fourteen WPCPs in New York City have a State Pollution Discharge Elimination System (SPDES) permitted total capacity of 1.8 billion gpd. The area served by each plant is called a "drainage area" or "catchment area." The majority of New York City's sewers are combined sewers, since they receive both sanitary wastewater and stormwater runoff. During wet weather, large volumes of rainfall runoff enter the combined system through storm drains and catch basins in streets and mix with sanitary sewage, then flow through regulators (relief valves), before being sent to the WPCPs through interceptor sewers. During such wet-weather events, excessive volumes of stormwater runoff (ten to 50 times the dry-weather flow) can enter the combined sewer system and, if transported to the WPCP, could exceed the treatment design capacity. For limited periods, WPCPs are designed for only twice the average dry-weather flow. Flow into the interceptor sewers are controlled by regulators along the length of the interceptor sewers. The purpose of the regulators is to divert sanitary flow from the existing combined sewers to the interceptor sewers during normal flow periods (dry weather) and limit the flow to the interceptor sewers to twice dry weather flow during storm periods (wet weather). The existing tide gates placed on the combined sewer overflows (CSOs) downstream of the regulators are designed to keep tidal water from entering the existing combined sewers and the interceptor sewers. Tide gates can be part of the regulator structure or stand-alone chambers. The New York City sewer system currently treats approximately 1.3 billion gpd of municipal wastewater and a portion of combined sewer flow during wet weather events.

Sanitary sewers can be one to two feet in diameter on side streets and three or four feet in diameter under larger roadways. They connect to trunk sewers, which are generally five to seven feet in diameter. Combined sewers discharge to regulators and the inceptors carry wastewater to the WPCPs for treatment. The wastewater collection system at the project site consists of a 108"-by-96" combined sewer located beneath Pugsley Avenue, a 66" combined sewer is located beneath Lafayette Avenue, and a 30" sanitary sewer located beneath White Plains Road; there are no sewers beneath Turnbull Avenue between Pugsley Avenue and White Plains Road. From the project site, the combined sewer flows are directed south via Pugsley Avenue and eventually lead to the Hunts Point WPCP.

The Hunts Point WPCP is one of the largest of the City's 14 WPCPs, treating wastewater from a 16,000-acre area located in the northeast part of the Bronx. The Hunts Point WPCP has been operating since 1952 and is regulated by a SPDES permitted dry weather capacity of 200 million gallons per day (mgd). As presented in Table I-1, in 2016, the Hunts Point WPCP handled an average of 119.42 mgd of flows, which is less than the facility's permitted capacity of 200 mgd. DEP recently upgrading the Hunts Point WPCP to enhance water quality in the East River and comply with federal and state regulations and judicial Orders of Consent, including ensuring that the plant can treat 400 mgd peak wet weather flow.

Table I-1: Existing Hunts Point WPCP Average Daily Sewer Flows

Month	Average Daily Flows (mgd)
January	122
February	117
March	116
April	116
May	122
June	115
July	137
August	116
September	109
October	115
November	120
December	128
12-Month Average	119.42

Source: DEP "Monthly Operating Efficiency" tables.

Sanitary Flows

As described in Attachment A, "Project Description," the 107,890-sf rezoning area is currently occupied by a 21-story 353-unit residential building, in addition to residential amenity and parking areas. As presented in Table I-2, below, the existing rezoning area residential building currently generates 102,300 gpd of wastewater.

Table I-2: Existing Rezoning Area Water Consumption and Wastewater Generation

Land Use	Rate[1]	Area (sf)	Domestic Water/ Wastewater Generation (gpd)	A/C (gpd)
Residential	Domestic: 100 gpd/person	353 units (1,023 residents)	102,300	0
		Total Water Consumption	102,300	
		Total Wastewater Generation	102,300	

Notes:

1 Based on water demand rates provided in the *CEQR Technical Manual.*

Stormwater Flows

The rezoning area has a total area of approximately 107,890 sf. Table I-3 provides a breakdown of the existing pervious and impervious surface types comprising the rezoning area. As presented in Table I-2, the majority (68 percent) of the rezoning area is comprised of pavement and walks, followed by roof area (17 percent) and grass and softscape (15 percent). Base on the existing surface area breakdown and standard DEP runoff coefficients, the rezoning area has an existing runoff coefficient of 0.78.

Table I-3: Existing Rezoning Area Surface Types

Surface Type	Roof[1]	Pavement and Walks	Other	Grass and Softscape	Total
Area (%)	17	68	0	15	100
Surface Area (sf)	18,018	73,569	0	16,303	107,890
Runoff Coefficient[2]	1.0	0.85	0.85	0.20	0.78

Notes:
1 Total roof area on site.
2 Runoff coefficients for each surface type are as per DEP.

For this analysis, standard DEP runoff coefficients were used to calculate the amount of stormwater runoff for various rainfall intensities and durations, with rainfall ranging from 0.00 inches to 2.50 inches over durations of 3.80 to 19.50 hours. Table I-4 shows the rezoning area's existing combined stormwater runoff and wastewater generation. As indicated in the table, the rezoning area currently generates between 0.02 and 0.21 mgd of stormwater within the Hunts Point WPCP for the different rainfall intensities.

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

As described in Attachment A, "Project Description," no changes to the rezoning area would occur in the future without the proposed actions. As such, the existing dry weather and wet weather flows that are currently generated by the rezoning area would remain unchanged in the No-Action condition.

Table I-4: Existing Combined Stormwater Runoff and Wastewater Generation

Rainfall (inches)	Duration (Hours)	Total Area (Acres)	Runoff Coefficient	Runoff Volume to CSS (MG)	Sanitary to CSS (MG)	Total (MG)
0.00	3.80	2.48	0.78	0.00	0.02	0.02
0.40	3.80			0.02	0.02	0.04
1.20	11.30			0.06	0.05	0.11
2.50	19.50			0.13	0.08	0.21

Notes:
CSS = combined sewer system
MG = million gallons

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

In the 2020 With-Action condition, the applicant would construct the proposed project on the western portion of the rezoning area. Specifically, as described in Attachment A, "Project Description," the proposed project would be comprised of 425 affordable residential units and 19,938 gsf of local retail, in addition to below-grade accessory parking.

Sanitary Flows

In the future with the proposed actions, wastewater from the rezoning area would continue to be treated by the Hunts Point WPCP, which has an SPDES-permitted dry weather flow capacity of 200 mgd. As shown in I-5, the proposed project would generate approximately 206,285 gpd of sanitary sewage, with a total water demand of approximately 209,675 gpd. This sanitary sewage generation represents a

net increase of approximately 103,985 gpd (0.1 mgd) over the No-Action condition. While this represents an increase in sanitary flows, it is equivalent to less than 0.1 percent of the average daily flow at the Hunts Point WPCP and would not result in an exceedance of the plant's permitted capacity of 200 mgd. In addition, in accordance with the New York City Plumbing Code (Local Law 33 of 2007), the proposed project would be required to utilized low-flow plumbing fixtures, which would reduce sanitary flows to the plant. Because the City's sewers are sized and designed based on the designated zoning of an area and related population density and surface coverage characteristics, the proposed rezoning may result in development that is inconsistent with the design of the existing built sewer system. As such, an amended drainage plan will be prepared. In addition, in order to obtain a permit to connect to the City sewer, a site-specific hydraulic analysis to determine whether the existing sewer system is capable of supporting higher density development and related increases in sanitary flows would be prepared prior to development of the proposed project; sewer improvements may also be required to support the house or site connection proposal. Therefore, the proposed project would not result in a significant adverse impact to the City's sanitary sewage conveyance and treatment.

Table I-5: With-Action Rezoning Area Water Consumption and Wastewater Generation

Land Use	Rate[1]	Area	Domestic Water/ Wastewater Generation (gpd)	A/C (gpd)
Residential	Domestic: 100 gpd/person	778 units (2,015 residents)	201,500	0
Retail	Domestic: 0.24 gpd/sf A/C: 0.17 gpd/sf	19,938 gsf	4,785	3,389
Total Water Consumption			209,675	
Total Wastewater Generation			206,285	

Notes:

1 Based on water demand rates provided in the *CEQR Technical Manual.*

Stormwater Flows

In the future with the proposed actions, the amount of roof area in the rezoning would increase over existing conditions (replacing the existing paved parking lot and basketball court), with no changes to the amount of grass/softscape in the rezoning area. Table I-6 shows the surface types that are expected in the rezoning area under 2020 With-Action conditions. As presented in Table I-6, the runoff coefficient for the rezoning area would increase to 0.81, as compared to 0.78 under existing conditions, in the future with the proposed actions.

Table I-6: With-Action Rezoning Area Surface Types

Surface Type	Roof[1]	Pavement and Walks	Other	Grass and Softscape	Total
Area (%)	40	45	0	15	100
Surface Area (sf)	43,467	48,120	0	16,303	107,890
Runoff Coefficient[2]	1.0	0.85	0.85	0.20	0.81

Notes:

1 Total roof area on site.

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

Table I-7 compares the estimated combined flows (stormwater runoff and sanitary flows) to the combined sewer system under existing and With-Action conditions using the DEP Flow Volume Calculation Matrix. As

shown in the table, depending on the rainfall volume and duration, the total With-Action volume to the combined sewer system could be between 0.03 and 0.31 mgd. Compared to existing conditions, this would represent an increase in combined sewer flows of 0.01 to 0.10 mgd, depending on rainfall intensities.

Table I-7: Existing and With-Action Combined Stormwater Runoff and Wastewater Generation

Rainfall (inches)	Duration (Hours)	Existing Conditions			With-Action Condition			Increased Total Volume to CSS (MG)
		Stormwater Runoff (MG)	Sanitary to CSS (MG)	Total (MG)	Stormwater Runoff (MG)	Sanitary to CSS (MG)	Total (MG)	
0.00	3.80	0.00	0.02	0.02	0.00	0.03	0.03	0.01
0.40	3.80	0.02	0.02	0.04	0.02	0.03	0.05	0.01
1.20	11.30	0.06	0.05	0.11	0.07	0.10	0.17	0.06
2.50	19.50	0.13	0.08	0.21	0.14	0.17	0.31	0.10

Notes:
MG = million gallons

The Flow Volume Matrix calculations do not reflect the use of any sanitary and stormwater source control BMPs to reduce sanitary flow and stormwater runoff volumes to the combined sewer system. As noted above, the proposed project would incorporate low-flow plumbing fixtures to reduce sanitary flow in accordance with the New York City Plumbing Code. In addition, stormwater BMPs would be required as part of the DEP site connection approval process in order to bring the building into compliance with the required stormwater release rate. Based on the DEP Guidelines for Design and Detention Facility Design, dated June 6, 2012, for new developments, the required stormwater release rate for the proposed project is required to be 0.25 cubic feet per second (cfs) or ten percent of the allowable flow. Specific BMP methods will be determined with further refinement of the building design and in consultation with DEP.

The incorporation of the appropriate BMPs that would be required as part of the site connection approval process, with the review and approval of DEP, would reduce the overall volume of stormwater runoff, as well as the peak stormwater runoff rate from the project site. In addition, as noted above, as part of the site connection proposal process, an amended drainage plan and sewer improvements would be implemented, if determined warranted by DEP. Therefore, there would be no significant adverse impacts on wastewater treatment or stormwater conveyance infrastructure.

ATTACHMENT J

TRANSPORTATION

I. INTRODUCTION

This transportation attachment presents the findings of the analyses of traffic, parking, transit, and pedestrian conditions for the proposed 384,271 gross square foot (gsf) predominantly residential apartment building at 1965 Lafayette Avenue (Bronx Block 3672, p/o Lot 1) in the Soundview neighborhood of Bronx Community District (CD) 9. The proposed project would include approximately 425 affordable residential units, including 133 senior units and 292 family units, and approximately 19,938 gsf of local retail, as well as 67 enclosed below-grade accessory parking spaces. In order to maintain the existing number of accessory parking spaces available to the Mitchell Lama building, 19 of the 67 below-grade spaces would be made available for its residents, with the remaining 48 parking spaces accessory to the proposed project.

The proposed project is expected to be completed and occupied by 2020. In the absence of the proposed actions (the "No-Action condition"), it is anticipated that the existing project site uses would remain. The incremental development on the project site forms the basis of the transportation impact analysis.

II. PRINCIPAL CONCLUSIONS

The proposed actions would generate additional vehicular, transit, and pedestrian trips in the surrounding area. Study area pedestrian elements would continue to operate at acceptable levels in the future with the proposed actions, and the project-generated parking demand would be sufficiently accommodated by on-site accessory parking and available on-street parking in the surrounding area. Furthermore, the proposed actions would not exacerbate existing unsafe conditions at any study area networks. As the proposed project would not generate 200 or more subway trips in any peak hour, no significant adverse subway impacts would result. In addition, project-generated bus trips would not result in a capacity shortfall on study area buses. While several study area traffic intersection are expected to continue to operate under congested conditions, as under existing and No-Action conditions, with the implementation of traffic network improvements at the intersection of Story Avenue and White Plains Road, to be required of the applicant pursuant to a Restrictive Declaration to be recorded against the project site, no significant adverse traffic impacts would result. As such, the proposed actions would not result in any significant adverse impacts on traffic operations and mobility, public transportation facilities and services, pedestrian elements and flow, or parking.

III. PRELIMINARY ANALYSIS METHODOLOGY

The 2014 *City Environmental Quality Review* (CEQR) *Technical Manual* describes a two-level screening procedure for the preparation of a "preliminary analysis" to determine if quantified operational analyses of transportation conditions are warranted. As discussed below, the preliminary analysis begins with a trip generation (Level 1) analysis to estimate the number of person and vehicle trips attributable to the proposed project. According to the *CEQR Technical Manual*, if the proposed project is expected to result

in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (Level 2) are to be performed to estimate the incremental trips that could be incurred at specific transportation elements and to identify potential locations for further analyses. If the trip assignments show that the proposed project would generate 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a sidewalk, corner area, or crosswalk, then further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, parking, and vehicular and pedestrian safety.

IV. LEVEL 1 SCREENING ASSESSMENT

A Level 1 trip generation screening assessment was conducted to estimate the number of peak hour person and vehicle trips by mode expected to be generated by the proposed project. The peak hour person and vehicle trip estimates were then compared to the *CEQR Technical Manual* analysis thresholds to determine if a Level 2 screening and/or quantified operational analyses may be warranted. The travel demand assumptions used for the assessment are discussed below and a detailed travel demand forecast is provided.

Transportation Planning Factors

The transportation planning factors used to forecast travel demand for the proposed project's land uses are summarized in Table J-1 and discussed below. The trip generation rates, temporal distributions, modal splits, vehicle occupancies, and truck trip factor each of land use were primarily based on 2014 *CEQR Technical Manual*, census data, and studies that have been used in previous environmental review documents for projects with similar uses. Factors are shown for the weekday AM, midday, and PM and Saturday midday peak periods.

Residential – Family Units

The forecast of travel demand for the affordable family residential units used a weekday trip generation rate of 8.075 person trips per dwelling unit (DU), a Saturday trip generation rate of 9.6 person trips per DU, and temporal distributions of 10.0 percent, 5.0 percent, 11.0 percent, and 8.0 percent for the weekday AM, midday, and PM and Saturday midday peak hours, respectively, as per the *CEQR Technical Manual*. The family units' modal split estimated 34.0 percent, 0.0 percent, 33.0 percent, 26.0 percent, and 7.0 percent for private auto, taxi, bus-to-subway, bus-only, and walk-only/other modes, respectively, as per the 2010-2014 American Community Survey (ACS) Means of Transportation to Work Table for Bronx Census Tracts 16, 38, 42, 74, and 98 for renter-occupied units. The auto occupancy rate of 1.14 persons per auto was based on this source for all family units, as renter-occupied data is not available. Directional splits and the taxi occupancy rate of 1.40 persons per taxi were based on the 2012 *Soundview Partners Apartments Environmental Assessment* (EA). Truck trip generation rates were based on the *CEQR Technical Manual*.

Table J-1: Travel Demand Forecast Assumptions

Land Use:	**Residential - Family**		**Local Retail**		**Residential - Senior**	
Size/Units:	292 DU		19,938 gsf		133 DU	
Trip Generation:	(1)		(1)		(6,7)	
Weekday	8.075		205.0		4.599	
Saturday	9.600		240.0		3.489	
	per DU		per 1,000 gsf		per DU	
Temporal Distribution:	(1)		(1)		(6)	
AM	10.0%		3.0%		5.8%	
MD	5.0%		19.0%		9.0%	
PM	11.0%		10.0%		7.3%	
SatMD	8.0%		10.0%		11.9%	
	(2)		(4)		(2)	
Modal Splits:	All Periods		All Periods		All Periods	
Auto	34.0%		7.3%		34.0%	
Taxi	0.0%		1.7%		0.0%	
Bus-to-Subway	33.0%		3.7%		33.0%	
Bus Only	26.0%		8.7%		26.0%	
Walk/Other	7.0%		78.6%		7.0%	
	100.0%		100.0%		100.0%	
	(3)		(5)		(7)	
In/Out Splits:	In	Out	In	Out	In	Out
AM	16.0%	84.0%	63%	37%	36.0%	64.0%
MD	50.0%	50.0%	55%	45%	50.0%	50.0%
PM	67.0%	33.0%	47%	53%	60.0%	40.0%
Sat MD	53.0%	47.0%	50%	50%	53.0%	47.0%
Vehicle Occupancy:	(2,3)		(5)		(7)	
	All Periods		All Periods		All Periods	
Auto	1.14		1.40		1.27	
Taxi	1.4		1.65		1.4	
Truck Trip Generation:	(1)		(1)		(1)	
Weekday	0.06		0.35		0.06	
Saturday	0.02		0.04		0.02	
	per DU		per 1,000 sf		per DU	
	(1)		(1)		(1)	
AM	12.0%		8.0%		12.0%	
MD	9.0%		11.0%		9.0%	
PM	2.0%		2.0%		2.0%	
Sat MD	9.0%		11.0%		9.0%	
	In	Out	In	Out	In	Out
AM/MD/PM	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%

Notes :

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

(2) Based on 2010-2014 *American Community Survey (ACS)*
Means of Transportation to Work Table for Bronx Census Tracts 16, 38, 42, 74, and 98 for rental units.

(3) Based on *Soundview EAS* .

(4) Based on 2015 NYCDOT Trip Generation and Mode Choice Survey.

(5) Based on *Gateway Estates II FEIS* .

(6) Based on the *Institute for Transportation Engineers (ITE) Trip Generation Manual 9th Edition* , Land Use 252, Senior Housing (attached). Weekday midday temporal distributions assumed a ratio of Saturday peak hour trips to weekday daily trips.

(7) Based on *Soundview Partners Apartments EA* .

Table J-2: Travel Demand Forecast

Land Use:		Residential - Family		Local Retail*		Residential - Senior		Total	
Size/Units:		292	DU	19,938	gsf	133	DU		
Peak Hour Person Trips:									
	AM	236		92		36		364	
	MD	118		584		56		758	
	PM	260		308		46		614	
	Sat MD	226		360		56		642	
Person Trips:									
		In	Out	In	Out	In	Out	In	Out
AM	Auto	13	67	4	2	4	8	21	77
	Taxi	0	0	1	1	0	0	1	1
	Bus-to-Subway	12	65	2	1	4	8	18	74
	Bus Only	10	52	5	3	3	6	18	61
	Walk/Other	3	14	46	27	1	2	50	43
	Total	38	198	58	34	12	24	108	256
		In	Out	In	Out	In	Out	In	Out
MD	Auto	20	20	23	19	10	10	53	49
	Taxi	0	0	5	4	0	0	5	4
	Bus-to-Subway	20	20	12	10	9	9	41	39
	Bus Only	15	15	28	23	7	7	50	45
	Walk/Other	4	4	253	207	2	2	259	213
	Total	59	59	321	263	28	28	408	350
		In	Out	In	Out	In	Out	In	Out
PM	Auto	59	29	11	12	9	6	79	47
	Taxi	0	0	2	3	0	0	2	3
	Bus-to-Subway	58	29	5	6	9	6	72	41
	Bus Only	45	22	13	14	7	5	65	41
	Walk/Other	12	6	114	128	2	2	128	136
	Total	174	86	145	163	27	19	346	268
		In	Out	In	Out	In	Out	In	Out
Sat MD	Auto	41	36	13	13	10	8	64	57
	Taxi	0	0	3	3	0	0	3	3
	Bus-to-Subway	40	35	7	7	10	9	57	51
	Bus Only	31	28	16	16	8	7	55	51
	Walk/Other	8	7	141	141	2	2	151	150
	Total	120	106	180	180	30	26	330	312
Vehicle Trips :									
		In	Out	In	Out	In	Out	In	Out
AM	Auto (Total)	11	59	3	1	3	6	17	66
	Taxi	0	0	1	1	0	0	1	1
	Taxi Balanced	0	0	2	2	0	0	2	2
	Truck	1	1	0	0	0	0	1	1
	Total	12	60	5	3	3	6	20	69
		In	Out	In	Out	In	Out	In	Out
MD	Auto (Total)	18	18	16	14	8	8	42	40
	Taxi	0	0	3	2	0	0	3	2
	Taxi Balanced	0	0	5	5	0	0	5	5
	Truck	1	1	0	0	0	0	1	1
	Total	19	19	21	19	8	8	48	46
		In	Out	In	Out	In	Out	In	Out
PM	Auto (Total)	52	25	8	9	7	5	67	39
	Taxi	0	0	1	2	0	0	1	2
	Taxi Balanced	0	0	3	3	0	0	3	3
	Truck	0	0	0	0	0	0	0	0
	Total	52	25	11	12	7	5	70	42
		In	Out	In	Out	In	Out	In	Out
Sat MD	Auto (Total)	36	32	9	9	8	6	53	47
	Taxi	0	0	2	2	0	0	2	2
	Taxi Balanced	0	0	4	4	0	0	4	4
	Truck	0	0	0	0	0	0	0	0
	Total	36	32	13	13	8	6	57	51

	Total Vehicle Trips			Total Pedestrian Trips**		
	In	Out	Total	In	Out	Total
AM	20	69	89	86	178	264
MD	48	46	94	350	297	647
PM	70	42	112	265	218	483
Sat MD	57	51	108	263	252	515

***assumes 25% linked trip credit**

**** includes trips from subway-to-bus, bus only and walk/other.**

Residential – Senior Units

The forecast of travel demand for the affordable senior residential units was primarily based on the 2012 *Soundview Partners Apartments EA*, which similarly included affordable senior housing units and was located in the Soundview neighborhood, updated to reflect revised factors from the 9th Edition of the *Institute for Transportation Engineers* (ITE) *Trip Generation Manual*. Based on these data, the proposed project's affordable residential senior units used a weekday trip generation rate of 4.599 person trips per DU, a Saturday trip generation rate of 3.485 person trips per DU, and temporal distributions of 5.8 percent, 9.0 percent, 7.3 percent, and 11.9 percent for the weekday AM, midday, and PM and Saturday midday peak hours, respectively. The modal split assumptions used for the family units were similarly applied to the proposed affordable senior units. Truck trip generation rates were based on the *CEQR Technical Manual*.

Local Retail

The forecast of travel demand for the local retail use used a weekday trip generation rate of 205.0 person trips per 1,000 gsf, a Saturday trip generation rate of 240.0 person trips per 1,000 gsf, and temporal distributions of 3.0 percent, 19.0 percent, 10.0 percent, and 10.0 percent for the weekday AM, midday, and PM and Saturday midday peak hours, respectively, as per the *CEQR Technical Manual*. The local retail modal splits of 7.3 percent, 1.7 percent, 3.7 percent, 8.7 percent, and 78.6 percent for private auto, taxi, bus-to-subway, bus-only, and walk-only/other modes, respectively, was based on a 2015 New York City Department of Transportation (DOT) Trip Generation and Mode Choice Survey. The vehicle occupancy rates of 1.40 persons per auto and 1.65 persons per taxi, as well as the directional splits, were based on the 2009 *Gateway Estates II Final Environmental Impact Statement* (FEIS). Truck trip generation rates were based on the *CEQR Technical Manual*. It was also assumed that 25.0 percent of local retail trips would be linked and not new to the study area.

Travel Demand Forecast

Table J-2 presents the person and vehicle trips expected to be generated by the proposed project. As presented in Table J-2, the proposed project would generate approximately 366, 820, 614, and 672 person trips in the weekday AM, midday, and PM and Saturday midday peak hours, respectively. A discussion of the incremental person trips and vehicle trips, by mode, is provided below.

Traffic

As shown in Table J-2, the travel demand forecast indicates that the proposed project would generate a project increment of approximately 89, 94, 112, and 109 vehicle trips (in and out combined) in the weekday AM, midday, and PM and Saturday midday peak periods, respectively, thereby warranting a Level 2 vehicle trip assignment for all four peak hours, which is provided in Section V, "Level 2 Screening Assessment."

Transit

According to the general thresholds used by the Metropolitan Transportation Authority (MTA) specified in the *CEQR Technical Manual*, detailed transit analyses are not required if the proposed project is projected to result in less than 200 peak hour rail or 50 peak hour bus transit riders, because a proposed

development that generates such a low number of transit riders is unlikely to create a significant adverse impact on the current transit facilities.

As shown in Table J-2, the approximate net hourly subway trips generated by the proposed project would be 92, 80, 113, and 107 (in and out combined) trips in the weekday AM, midday, and PM and Saturday midday peak hours, respectively. As there would be fewer than 200 project-generated subway trips in all peak hours, a detailed subway analysis would not be warranted as significant impacts would be unlikely.

As also shown in Table J-2, the approximate hourly public bus trips generated by the proposed project would be 171, 175, 219, and 212 trips in the weekday AM, midday, and PM and Saturday midday peak hours, respectively. This includes trips that would use the bus to access the subway, as well as bus-only trips. As the number of peak hour bus trips would exceed 200 in one or more peak hour, a Level 2 bus trip assignment is warranted and is provided in the following section.

Pedestrians

Analyses of pedestrian conditions focuses on elements where a substantial number of trips are generated by an action. These elements include sidewalks, corner areas, and crosswalks. As shown in Table J-2, the proposed project would generate 264, 647, 483, and 514 pedestrian trips (bus only, bus-to-subway, and walk-only; in and out combined) in the weekday AM, midday, and PM and Saturday midday peak hours, respectively. As the number of incremental peak hour trips would exceed the *CEQR Technical Manual* analysis thresholds in all peak hours, a Level 2 screening assessment was undertaken, which is presented below.

V. LEVEL 2 SCREENING ASSESSMENT

A Level 2 screening assessment involves the assignment of project-generated trips to the study area street and transit networks and the identification of specific locations where the incremental increase in demand may potentially exceed *CEQR Technical Manual* analysis thresholds and, therefore, require a quantitative analysis.

Traffic

As noted above, the travel demand forecast indicates that the proposed project would generate a project increment of approximately 93, 116, 115, and 122 vehicle trips (in and out combined) in the weekday AM, midday, and PM and Saturday midday peak periods, respectively, thereby warranting a Level 2 vehicle trip assignment for all four peak hours. The residential vehicle trips were assigned to portals based on 2006-2010 ACS Journey-to-Work origin-destination data for Bronx Census Tracts 16, 38, 42, 74, and 98, while local retail trips were distributed evenly to the local traffic network. While it is anticipated that some auto trips would park in nearby on- and off-street parking facilities, which would disperse auto trips over the local traffic network, for conservative analysis purposes, all auto trips were assigned to the garage entrance/exit. Specifically, auto trips generated by the proposed project were assigned to/from the proposed accessory parking garage entry/exit on the south side of Turnbull Avenue between White Plains Road and Pugsley Avenue, taxi trips were assigned to all three frontages, and truck trips were assigned to White Plains Road via Lafayette Avenue. It should also be noted that, as the layout of the parking spaces accessory to the existing Mitchell-Lama building would change in the future

with the proposed project (with the removal of 103 accessory parking spaces currently occupying the development site, the striping of a new 42-space lot directly east of the development site, and the restriping of the existing lot on the eastern portion of Block 3672 to accommodate 159 vehicles), peak hour vehicle in-out counts were conducted at the existing parking entry/exit; the vehicle assignment accounts for the resultant traffic diversions.

The peak hour vehicle assignments are shown in Figures J-1a and J-1b. As shown in the figures, four signalized intersections would exceed the *CEQR Technical Manual* 50 vehicle trip per hour threshold and, therefore, would require a detailed traffic analysis. The intersections selected for analysis are included in a list below and shown on a map in Figure J-2:

- Bruckner Boulevard South and White Plains Road (signalized)
- Story Avenue and White Plains Road (signalized)
- Shops at Bruckner Plaza Entrance/Exit and White Plains Road (signalized)
- Turnbull Avenue and White Plains Road (signalized)

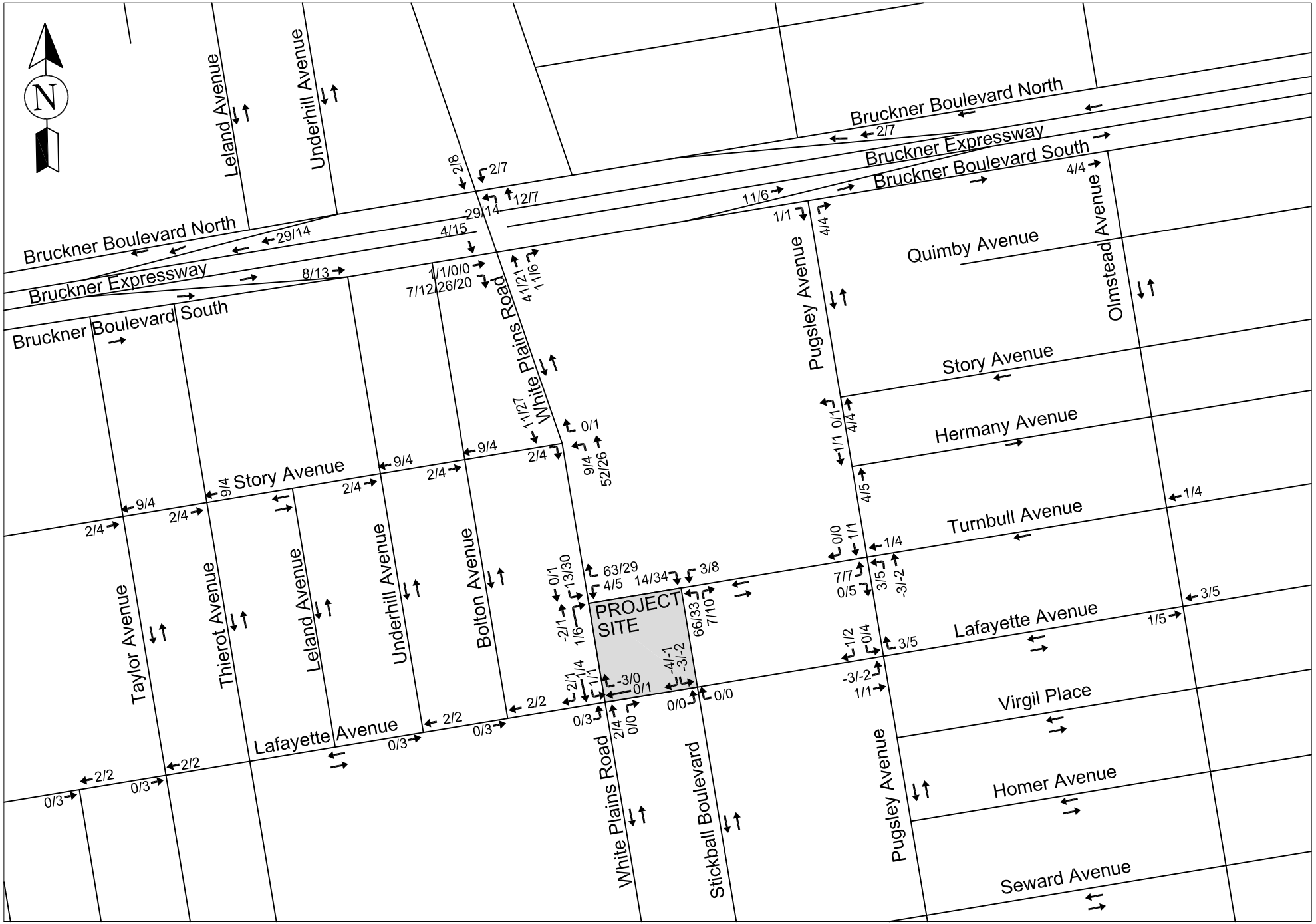
Transit – Bus

As shown in Table J-2, the approximate hourly public bus trips generated by the proposed project would be 171, 175, 219, and 213 trips in the weekday AM, midday, and PM, and Saturday midday peak hours, respectively. This includes trips that would use the bus to access the subway, as well as bus-only trips. According to the *CEQR Technical Manual*, a detailed analysis of bus conditions is generally not required if a proposed project is projected to result in fewer than 50 peak hour person trips assigned to a single bus line (in a single direction), as this level of new demand is considered unlikely to result in significant adverse impacts. As such, preliminary assignments of project-generated weekday AM and PM peak hour bus person trips were prepared. Although the total number of bus person-trips would exceed 200 in the weekday midday and Saturday midday peak hours, these trips would be off-peak when the bus system typically has ample capacity. As such, these off-peak periods are not analyzed and no bus impacts are anticipated in these periods.

As presented in Figure J-3, the rezoning area is directly served by three New York City Transit (NYCT) bus routes: the BX5, BX36, and BX39. The BX5, which runs along all four of the rezoning area's street frontages, provides local services between Pelham Bay Park and Hunts Point in the Bronx. The Bx36, which runs along the rezoning area's western (White Plains Road) and southern (Lafayette Avenue) frontages, provides local and limited-stop service between Soundview in the Bronx and Washington Heights in Manhattan. Lastly, the Bx39, which runs along the rezoning area's western (White Plains Road) frontage, provides local service between Wakefield and Clasons Point in the Bronx. The most proximate subway station serving the rezoning area is the Parkchester (No. 6) Station, which is located approximately ¾ miles north of the rezoning area and is accessible via the Bx39 local bus route.

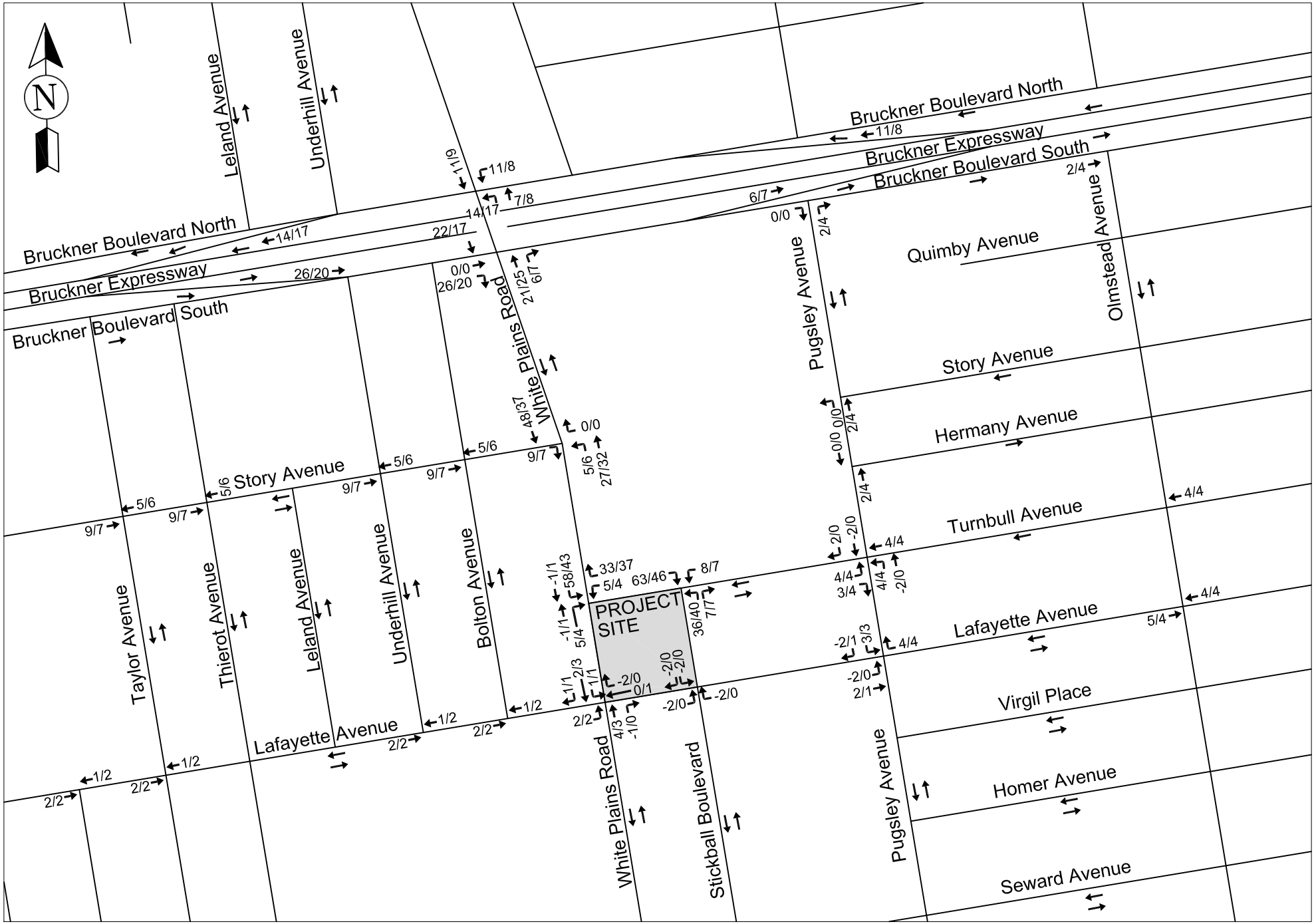
Project-generated bus trips were distributed as follows:

- Nineteen percent of bus-only trips would be expected to use the Bx5 local bus. Eastbound trips would board or alight on the south side of Lafayette Avenue between White Plains Road and Pugsley Avenue, and westbound trips would board or alight on the east side of White Plains Road between Lafayette and Turnbull Avenues. Given the rezoning area's location along the Bx5 route, it was assumed that trips would be split evenly by direction.



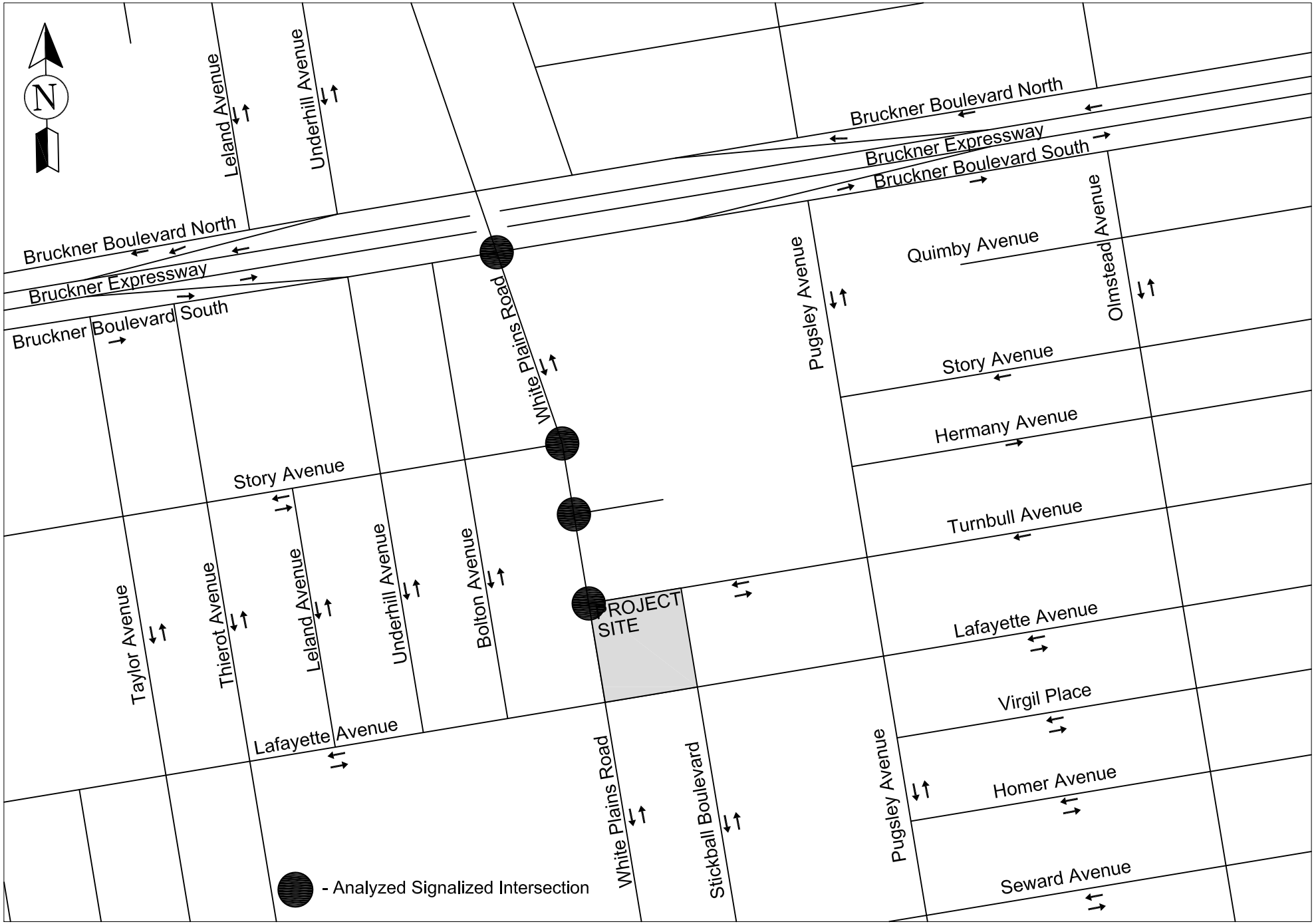
1965 Lafayette Avenue

Figure J-1a
AM/Midday Peak Hour Traffic Assignments



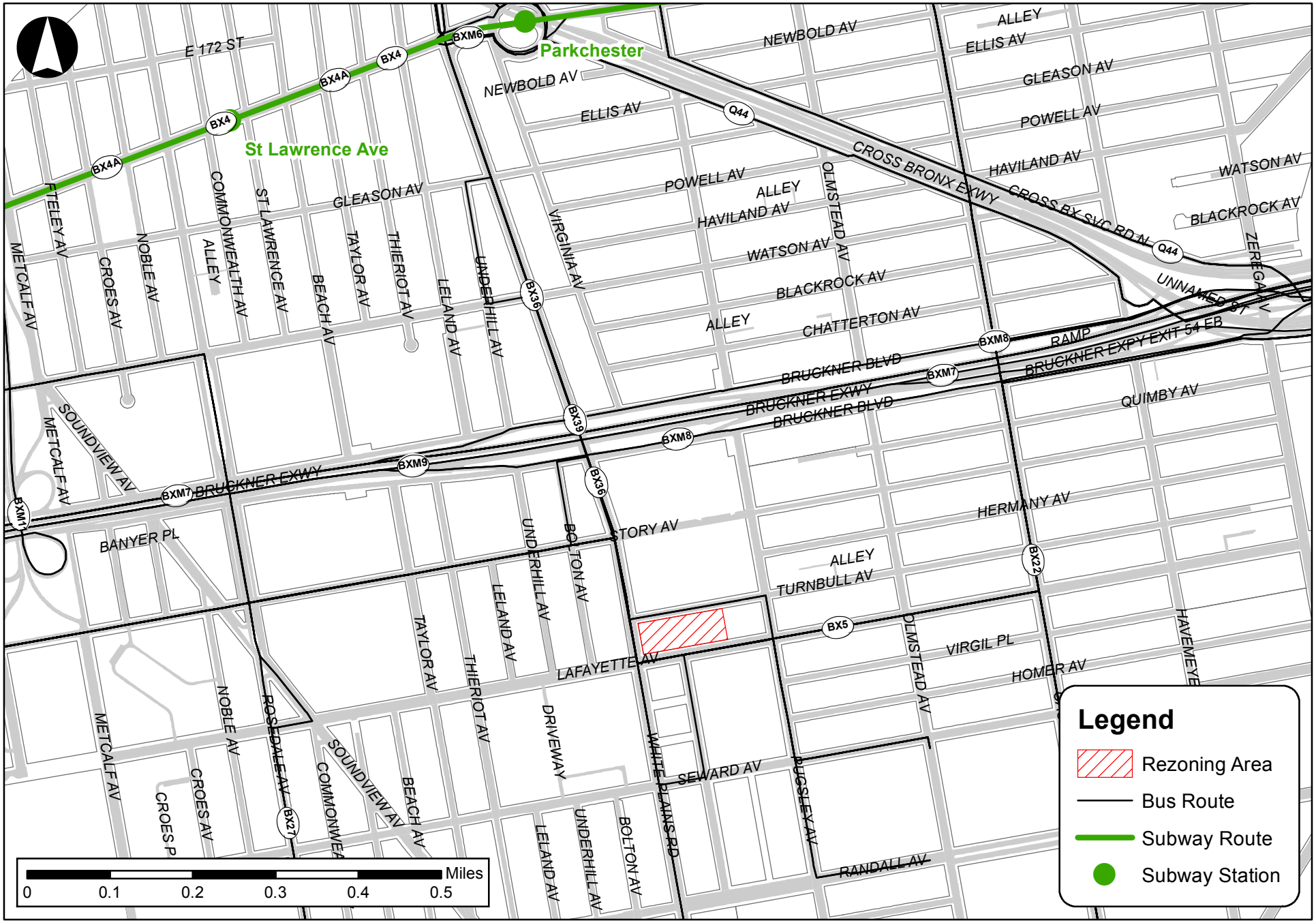
1965 Lafayette Avenue

Figure J-1b
PM/Saturday Midday Peak Hour Traffic Assignments



1965 Lafayette Avenue

Figure J-2
Traffic Analysis Locations



1965 Lafayette Avenue

Figure J-3
Study Area Public Transit Network

- Fifty-three percent of bus-only trips and 65 percent of bus-to-subway trips would be expected to use the Bx36 local bus to or from points north. Inbound (southbound) trips would alight on the south side of Lafayette Avenue between White Plains Road and Pugsley Avenue, and outbound (northbound) trips would board on the east side of White Plains Road between Lafayette and Turnbull Avenues.
- Twenty-eight percent of bus-only trips and 35 percent of bus-to-subway would be expected to use the Bx39 local bus. Southbound trips would board or alight on the west side of White Plains Road between Story and Turnbull Avenues, and northbound trips would board or alight on the east side of White Plains Road between Lafayette and Turnbull Avenues. Given the rezoning area's location along the Bx39 route, it was assumed 90 percent of bus-only trips and all bus-to-subway trips would travel to or from points north.

Table J-3 provides the bus route assignment of project-generated bus person-trips for the weekday AM and PM peak hours. As shown in Table J-3, based on the bus route distribution outlined above, the Bx36 bus would experience an increase of 80 northbound (outbound) trips in the weekday AM peak hour and 82 southbound (inbound) trips in the weekday PM peak hour. Therefore, a detailed bus analysis of the Bx36 bus route is warranted for both peak hours.

Table J-3: Bus Route Assignments

Route	Inbound		Outbound	
	AM	PM	AM	PM
Bx5 to/from Points East	2	7	6	4
Bx5 to/from Points West	1	6	6	3
Bx36 to/from Points North (Including Subway)	22	82	80	49
Bx39 to/from Points North (Including Subway)	11	40	41	24
Bx39 to/from Points South	0	1	2	1
Total	**36**	**136**	**135**	**81**

Pedestrians

As shown in Table J-2, the proposed project would generate 264, 647, 483, and 514 pedestrian trips (bus only, bus-to-subway, and walk-only; in and out combined) in the weekday AM, midday, and PM and Saturday midday peak hours, respectively. Bus only, bus-to-subway, and walk-only trips would each have a different assignment pattern. Subway and bus trips would be assigned as described above. Walk-only trips were assigned evenly through the local street network, with residential and local retail "walk-only" trips originating/ending at their respective entrance/exit locations based on the proposed site plan.

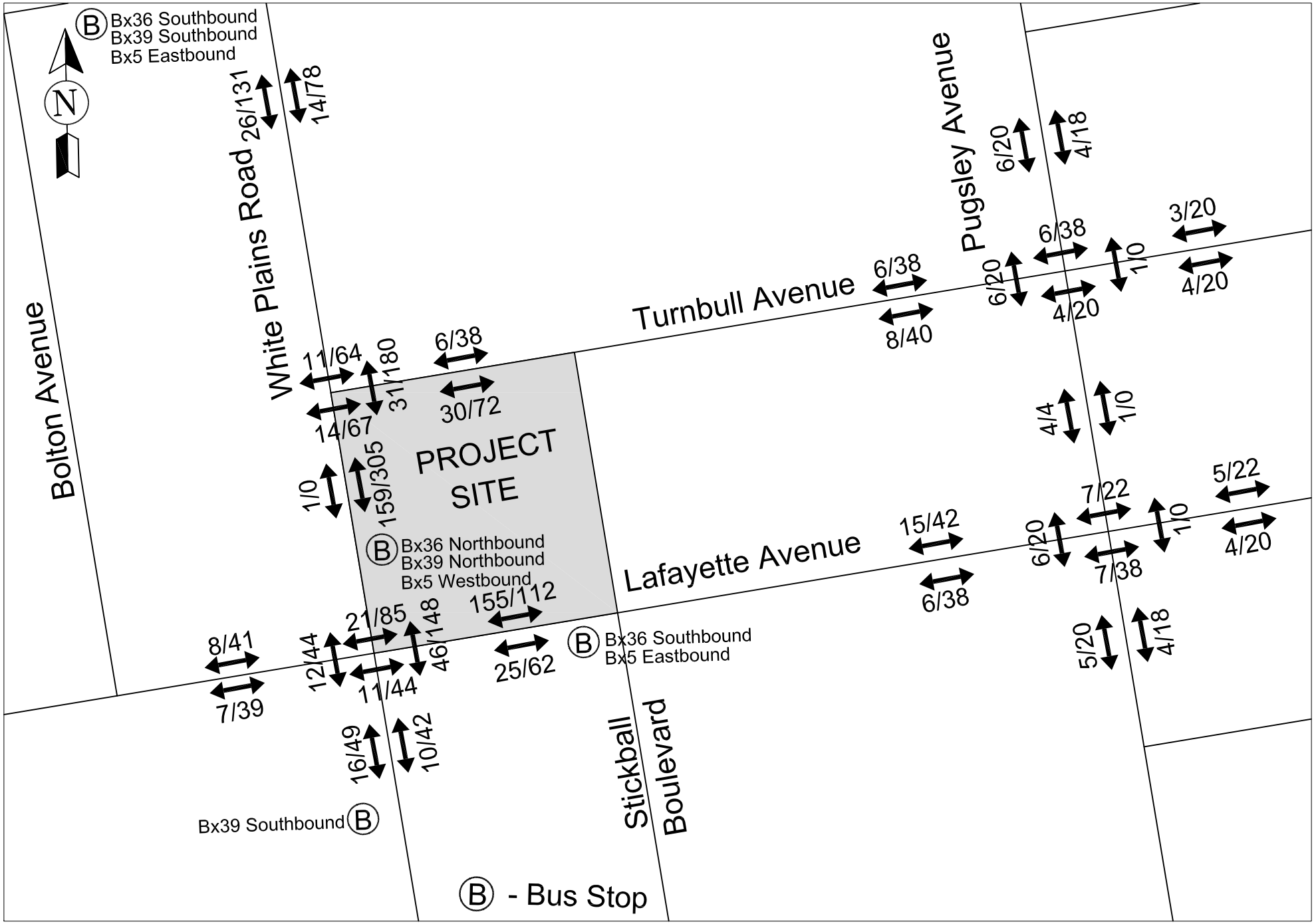
An assignment of weekday AM and midday pedestrian trips is shown in Figure J-4, and an assignment of weekday PM and Saturday midday pedestrian trips is shown in Figure J-5. As shown in Figures J-4 and J-5, the following pedestrian elements would experience an increase of 200 or more pedestrian trips in any one peak hour thereby warranting detailed analyses:

SIDEWALKS

- East sidewalk on White Plains Road between Lafayette and Turnbull Avenues

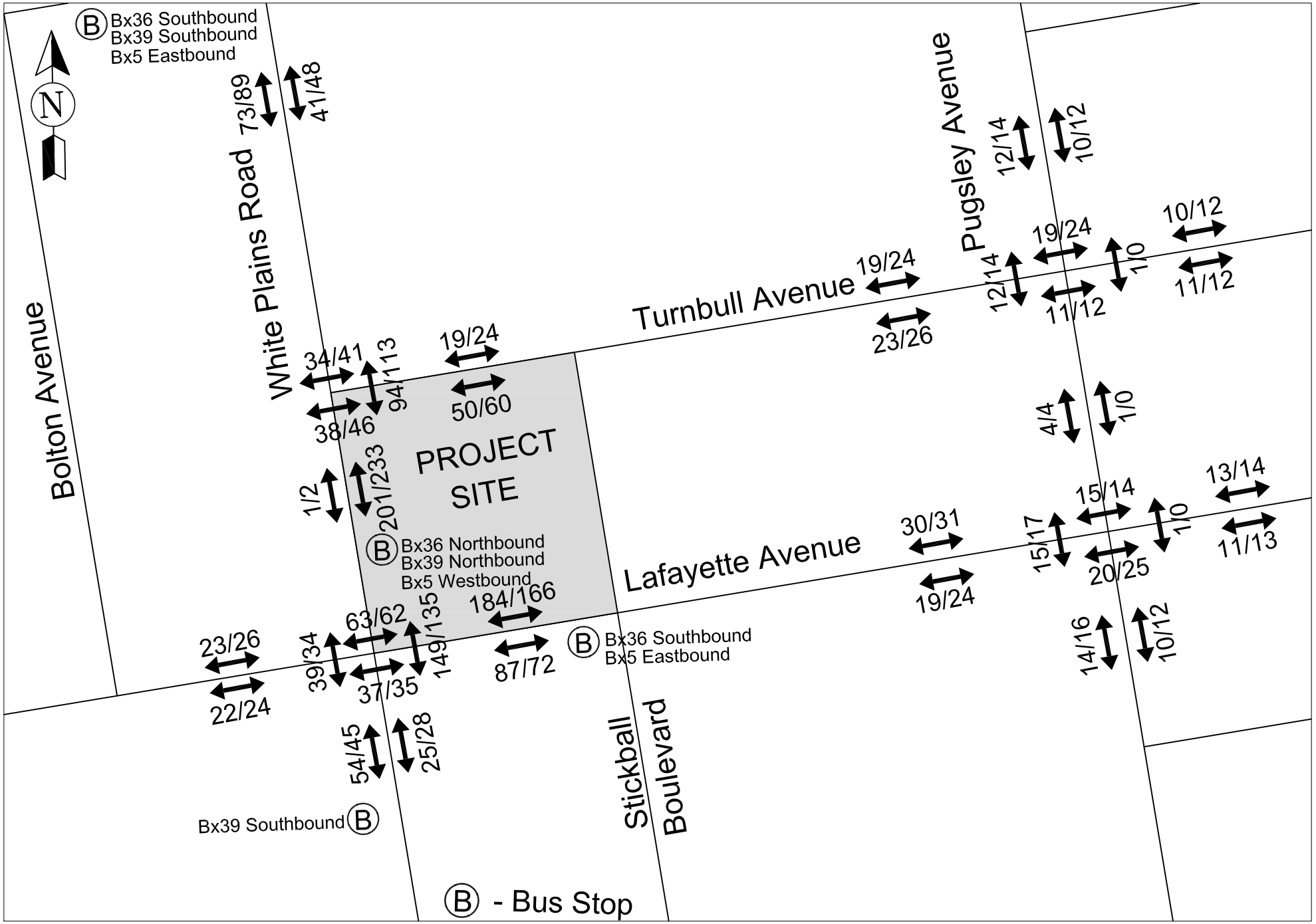
CORNER AREAS

- Lafayette Avenue and White Plains Road – Northeast Corner



1965 Lafayette Avenue

Figure J-4
AM/Midday Peak Hour Pedestrian Assignments



1965 Lafayette Avenue

Figure J-5
PM/Saturday Peak Hour Pedestrian Assignments

- Turnbull Avenue and White Plains Road – Southeast Corner

At these locations, a detailed pedestrian analysis would be warranted in the weekday midday, PM, and Saturday midday peak hours. As no study area pedestrian elements are expected to experience 200 or more incremental pedestrian trips in the weekday AM peak hour, an AM peak hour pedestrian impact analysis is not warranted, and no significant adverse pedestrian impacts are anticipated during this period.

Parking

According to the *CEQR Technical Manual*, a parking analysis is generally not required if a detailed traffic analysis is not warranted. As the proposed project warrants a detailed traffic analysis, as discussed above, a detailed parking analysis is required. As the proposed project is predominantly residential, it is anticipated that parking demand would peak in the overnight periods. For the proposed 292 affordable family units, 2010-2014 ACS Vehicles Available data for renter-occupied households in Bronx Census Tracts 16, 38, 42, 74, and 98 were utilized, which indicates an auto-ownership rate of 0.531 autos per household. To account for the lower auto-ownership rate exhibited by senior affordable housing units, data from the New York City Department of City Planning's (DCP's) *Zoning for Quality and Affordability Environmental Assessment Statement* (EAS) were utilized, which indicated that senior affordable housing units located more than a half-mile from transit typically have an auto ownership rate equivalent to less than one-third of that of affordable family units. Accordingly, an auto ownership rate of 0.149 autos per household was used for the 133 proposed affordable senior units. Therefore, the proposed project would generate an overnight demand of approximately 175 vehicles.

Tables J-4a and J-4b show the hourly parking accumulation for the proposed project for a typical weekday and Saturday based on the hourly temporal distributions from the *West Harlem Rezoning FEIS*. With 48 parking spaces to be accessory to the proposed project, the proposed project would generate parking demand exceeding capacity on a typical weekday and between 5 PM and 10 AM on Saturdays. During the overnight period, when residential parking demand is typically highest, the proposed project would generate an overnight parking deficit of approximately 127 spaces, with a slightly greater deficit (130 spaces) on weekdays between 8 and 9 PM (refer to Tables J-4a and J-4b). As action-generated parking demand is expected to exceed the proposed on-site accessory parking supply, an off-site parking analysis would be required within ¼-mile of the rezoning area during the overnight period.

VI. TRANSPORTATION ANALYSES METHODOLOGIES

Traffic

Analysis Methodology

The traffic analysis examines conditions in the weekday AM, midday, and PM and Saturday midday peak hours when the increased travel demand attributable to the proposed actions is expected to be the greatest. The weekday peak hours selected for analysis are 7:45-8:45 AM, 12:30-1:30 PM, and 4:30-5:30 PM, and the Saturday peak hour is 2:00-3:00 PM. These peak hours were selected based on existing traffic volumes in the study area, as reflected in automatic traffic recorder (ATR) count data.

The capacity analyses at intersections are based on the methodology presented in the Highway Capacity Manual (HCM) Software HCS+ Version 5.5. Traffic data required for these analyses include the hourly volumes on each approach, turning movements, the percentage of trucks and buses, and pedestrian volumes at crosswalks. Field inventories are also necessary to document the physical layout and street widths, lane markings, curbside parking regulations, and other relevant characteristics needed for the analysis.

Table J-4a: Weekday Parking Accumulation

	Family Housing		Local Retail		Senior Housing		Accumulation	Available
	292	du	19,938	gsf	133	du		Accessory Spaces
	704	Total auto trips/day	160	Total auto trips/day	164	Total auto trips/day		
	In	Out	In	Out	In	Out		
12-1	1	1	0	0	0	0	**175**	**-127**
1-2	1	1	0	0	0	0	**175**	**-127**
2-3	1	1	0	0	0	0	**175**	**-127**
3-4	1	1	0	0	0	0	**175**	**-127**
4-5	1	1	0	0	0	0	**175**	**-127**
5-6	3	7	0	0	1	2	**170**	**-122**
6-7	6	21	0	0	1	4	**152**	**-104**
7-8	7	22	0	0	2	6	**133**	**-85**
8-9	11	59	3	1	3	6	**84**	**-36**
9-10	13	19	2	1	3	5	**77**	**-29**
10-11	13	22	6	3	3	6	**68**	**-20**
11-12	14	19	6	6	3	5	**61**	**-13**
12-1	18	18	16	14	8	8	**63**	**-15**
1-2	18	18	7	7	4	5	**62**	**-14**
2-3	19	18	7	5	5	5	**65**	**-17**
3-4	27	16	6	6	7	4	**79**	**-31**
4-5	46	26	6	7	11	7	**102**	**-54**
5-6	52	25	8	9	7	5	**130**	**-82**
6-7	35	18	4	8	9	5	**147**	**-99**
7-8	32	14	4	7	8	3	**167**	**-119**
8-9	19	9	3	4	4	2	**178**	**-130**
9-10	6	7	2	2	1	2	**176**	**-128**
10-11	4	5	0	0	1	1	**175**	**-127**
11-12	4	4	0	0	1	1	**175**	**-127**
Total	352	352	80	80	82	82		

Table J-4b: Saturday Parking Accumulation

	Family Housing		Local Retail		Senior Housing		Accumulation	Available
	292	du	19,938	gsf	133	gsf		Accessory Spaces
	In	Out	In	Out	In	Out		
12-1	1	1	0	0	0	0	**175**	**-127**
1-2	1	1	0	0	0	0	**175**	**-127**
2-3	1	1	0	0	0	0	**175**	**-127**
3-4	1	1	0	0	0	0	**175**	**-127**
4-5	1	1	0	0	0	0	**175**	**-127**
5-6	3	9	0	0	0	1	**168**	**-120**
6-7	7	25	0	0	1	4	**147**	**-99**
7-8	9	34	1	0	1	6	**118**	**-70**
8-9	10	36	3	3	1	7	**86**	**-38**
9-10	12	34	3	2	2	5	**62**	**-14**
10-11	13	34	7	4	2	5	**41**	**7**
11-12	14	29	7	7	2	4	**24**	**24**
12-1	25	30	19	19	3	7	**15**	**33**
1-2	36	32	9	9	8	6	**21**	**27**
2-3	38	34	10	7	5	5	**28**	**20**
3-4	32	32	7	7	5	2	**31**	**17**
4-5	30	30	8	8	4	5	**30**	**18**
5-6	52	24	10	10	9	1	**66**	**-18**
6-7	44	12	5	9	6	2	**98**	**-50**
7-8	42	6	5	8	6	1	**136**	**-88**
8-9	26	7	4	5	4	1	**157**	**-109**
9-10	11	2	2	2	2	1	**167**	**-119**
10-11	6	2	0	0	1	0	**172**	**-124**
11-12	4	2	0	0	1	0	**175**	**-127**
Total	419	419	100	100	63	63		

The HCM methodology produces a volume-to-capacity (v/c) ratio for each signalized intersection approach. The v/c ratio represents the ratio of traffic volume on an approach to the approach's carrying capacity. A v/c ratio of less than 0.90 is generally considered indicative of non-congested conditions in dense urban areas; when higher than this value, the ratio reflects increasing congestion. At a v/c ratio between 0.95 and 1.0, near-capacity conditions are reached and delays can become substantial. Ratios of greater than 1.0 indicate saturated conditions with queuing. The HCM methodology also expresses the quality of traffic flow in terms of level of service (LOS), which is based on the amount of delay that a driver typically experiences at an intersection. Levels of service range from A, representing minimal delay (ten seconds or less per vehicle), to F, which represents long delays (greater than 80 seconds per vehicle).

Table J-5 shows the LOS/delay relationship for signalized intersections using the HCM methodology. Levels of service A, B, and C generally represent highly favorable to fair levels of traffic flow. At LOS D, the influence of congestion becomes noticeable. LOS E is considered to be the limit of acceptable delay, and LOS F is considered to be unacceptable to most drivers. In these traffic impact analyses, a signalized

lane group operating at LOS E or F or a v/c ratio of 0.90 or more is identified as congested. For unsignalized intersections, a movement with LOS E or F is also identified as congested.

Table J-5: Signalized Intersection Level of Service Criteria

LOS	Description	Average Delay per Vehicle (seconds)
A	Satisfactory – Little/No Delay	Less than 10.1
B	Satisfactory – Minor Delay	10.1 to 20.0
C	Satisfactory – With Some Delay	20.1 to 35.0
D	Borderline Congestion	35.1 to 55.0
E	Marginally Acceptable Congestion	55.1 to 80.0
F	Unsatisfactory – Highly Congested	Greater than 80.0

Source: *2000 Highway Capacity Manual*

Significant Impact Criteria

The identification of significant adverse traffic impacts at analyzed intersections is based on criteria presented in the *CEQR Technical Manual*. If a lane group in the With-Action condition would be LOS A, B or C, or marginally acceptable LOS D (i.e., delay less than or equal to 45.0 seconds/vehicle for signalized intersections), the impact is not considered significant. If the lane group LOS would deteriorate from LOS A, B, or C in the No-Action condition to worse than mid-LOS D or to LOS E or F in the With-Action condition, a significant traffic impact is identified. For a lane group that would operate at LOS D in the No-Action condition, an increase in delay of 5.0 or more seconds in the With-Action condition is considered a significant impact if the With-Action delay would exceed mid-LOS D. For a lane group that would operate at LOS E in the No-Action condition, a projected With-Action increase in delay of 4.0 or more seconds is considered a significant impact. For a lane group that would operate at LOS F in the No-Action condition, a projected With-Action increase in delay of 3.0 or more seconds is considered a significant impact.

Transit – Bus

Analysis Methodology

The operating conditions for bus service are measured in terms of the number of passengers carried per bus at the maximum load point for each route. This is determined by dividing the peak hour passenger count by the number of buses during that hour. The bus load levels are compared with the New York City Transit (NYCT) loading guidelines of 54 passengers for a 40-foot standard bus and 85 passengers for a 60-foot articulated bus. The bus analyses focus on the weekday AM and PM commuter peak hours as it is during these periods that overall demand on the bus system is usually highest.

Significant Impact Criteria

According to the *CEQR Technical Manual* and NYCT guidelines, additional bus service along a route is recommended when load levels exceed maximum capacity at the route's maximum load point. A significant impact is considered at the route's maximum load point when an increase in bus load levels would exceed the maximum capacity. NYCT's general policy is to provide additional bus service where demand warrants increased service, taking into account fiscal and operational constraints.

Pedestrians

Analysis Methodology

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

LOS standards are based on the average area available per pedestrian during the analysis period, typically expressed as a 15-mintue peak period. LOS grades from A to F are assigned, with LOS A representative of free flow conditions without pedestrian conflicts and LOS F depicting significant capacity limitations and inconvenience. Table J-6 defines the LOS criteria for pedestrian crosswalk/corner area and sidewalk conditions, as based on the *Highway Capacity Manual* methodology.

Table J-6: Pedestrian Crosswalk/Corner Area and Sidewalk Levels of Service Descriptions

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

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

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

Significant Impact Criteria

Sidewalks

The *CEQR Technical Manual* impact criteria for a non-CBD location are used to identify significant adverse impacts due to the proposed actions. These criteria define a significant adverse sidewalk impact in a non-CBD area to have occurred under platoon conditions if the average pedestrian space under the

No-Action condition is greater than 44.3 square feet per pedestrian (sf/ped), and the average pedestrian space under the With-Action condition is 40.0 sf/ped or less (LOS D or worse). If the average pedestrian space under the With-Action condition is greater than 40.0 sf/ped (LOS C or better), the impact should not be considered significant. If the No-Action pedestrian space is between 6.4 and 44.3 sf/ped, a reduction in pedestrian space under the With-Action condition should be considered significant based on Table J-7, which shows a sliding scale that identifies what decrease in pedestrian space is considered a significant impact for a given pedestrian space value in the No-Action condition. If the reduction in pedestrian space is less than the value in Table J-7, the impact is not considered significant. If the average pedestrian space under the No-Action condition is less than 6.4 sf/ped, then a reduction in pedestrian space greater than or equal to 0.3 sf/ped, under the With-Action condition, should be considered significant.

Corner Areas and Crosswalks

For a non-CBD area, *CEQR Technical Manual* criteria define a significant adverse corner area or crosswalk impact to have occurred if the average pedestrian space under the No-Action condition is greater than 26.6 sf/ped and, under the With-Action condition, the average pedestrian space decreases to 24 sf/ped or less (LOS D or worse). If the pedestrian space under the With-Action condition is greater than 24 sf/ped (LOS C or better), the impact should not be considered significant. If the average pedestrian space under the No-Action condition is between 5.1 and 26.6 sf/ped, a decrease in pedestrian space under the With-Action condition should be considered significant based on Table J-8, which shows a sliding scale that identifies what decrease in pedestrian space is considered a significant impact for a given amount of pedestrian space in the No-Action condition. If the decrease in pedestrian space is less than the value in Table J-8, the impact is not considered significant. If the average pedestrian space under the No-Action condition is less than 5.1 sf/ped, then a decrease in pedestrian space greater than or equal to 0.2 sf/ped should be considered significant.

Pedestrian and Vehicular Safety Evaluation

Under *CEQR Technical Manual* guidelines, an evaluation of vehicular and pedestrian safety is needed for locations within the traffic and pedestrian study areas that have been identified as high accident locations. These are defined as locations where 48 or more total reportable and non-reportable crashes or five or more pedestrian/bicyclist injury crashes have occurred in any consecutive 12 months of the most recent three-year period for which data are available. For these locations, accident trends would be identified to determine whether projected vehicular and pedestrian traffic would further impact safety, or whether existing unsafe conditions could adversely impact the flow of the projected new trips. The determination of potential significant safety impacts depends on the type of area where the project site is located, traffic volumes, accident types and severity, and other contributing factors. Where appropriate, measures to improve traffic and pedestrian safety should be identified and coordinated with DOT.

Parking

Analysis Methodology

The parking analysis identifies the supply of on-street and off-street public parking near a proposed project and determines the extent to which the supply is utilized in existing conditions and in the future without and with a proposed action. The analysis considers anticipated changes in the study area's

parking supply and demand, and compares project-generated parking demand with future parking availability to determine if a parking shortfall is likely to result. Typically, the analysis encompasses the parking facilities—public parking lots and garages and on-street curb spaces—that vehicular traffic destined to the project site or area would likely utilize. According to the *CEQR Technical Manual*, a ¼-mile radius around a project site is generally assumed as the distance that someone driving to the site would be willing to walk. The parking analyses therefore document changes in the parking supply and utilization within a ¼-mile radius of the rezoning area under both No-Action and With-Action conditions.

Table J-7: Significant Impact Criteria for Sidewalks with Platooned Flow in a Non-CBD Location

No-Action Condition Pedestrian Flow (sf/ped)	With-Action Condition Pedestrian Flow Increment to be Considered a Significant Impact (sf/ped)
> 44.3	With-Action Condition ≤ 40.0
43.5 to 44.3	Reduction ≥ 4.3
42.5 to 43.4	Reduction ≥ 4.2
41.6 to 42.4	Reduction ≥ 4.1
40.6 to 41.5	Reduction ≥ 4.0
39.7 to 40.5	Reduction ≥ 3.9
38.7 to 39.6	Reduction ≥ 3.8
37.8 to 38.6	Reduction ≥ 3.7
36.8 to 37.7	Reduction ≥ 3.6
35.9 to 36.7	Reduction ≥ 3.5
34.9 to 35.8	Reduction ≥ 3.4
34.0 to 34.8	Reduction ≥ 3.3
33.0 to 33.9	Reduction ≥ 3.2
32.1 to 32.9	Reduction ≥ 3.1
31.1 to 32.0	Reduction ≥ 3.0
30.2 to 31.0	Reduction ≥ 2.9
29.2 to 30.1	Reduction ≥ 2.8
28.3 to 29.1	Reduction ≥ 2.7
27.3 to 28.2	Reduction ≥ 2.6
26.4 to 27.2	Reduction ≥ 2.5
25.4 to 26.3	Reduction ≥ 2.4
24.5 to 25.3	Reduction ≥ 2.3
23.5 to 24.4	Reduction ≥ 2.2
22.6 to 23.4	Reduction ≥ 2.1
21.6 to 22.5	Reduction ≥ 2.0
20.7 to 21.5	Reduction ≥ 1.9
19.7 to 20.6	Reduction ≥ 1.8
18.8 to 19.6	Reduction ≥ 1.7
17.8 to 18.7	Reduction ≥ 1.6
16.9 to 17.7	Reduction ≥ 1.5
15.9 to 16.8	Reduction ≥ 1.4
15.0 to 15.8	Reduction ≥ 1.3
14.0 to 14.9	Reduction ≥ 1.2
13.1 to 13.9	Reduction ≥ 1.1
12.1 to 13.0	Reduction ≥ 1.0
11.2 to 12.0	Reduction ≥ 0.9
10.2 to 11.1	Reduction ≥ 0.8
9.3 to 10.1	Reduction ≥ 0.7
8.3 to 9.2	Reduction ≥ 0.6
7.4 to 8.2	Reduction ≥ 0.5
6.4 to 7.3	Reduction ≥ 0.4
< 6.4	Reduction ≥ 0.3

Source: *CEQR Technical Manual*

Table J-8: Significant Impact Criteria for Corners and Crosswalks in a Non-CBD Location

No-Action Condition Pedestrian Flow (sf/ped)	With-Action Condition Pedestrian Flow Increment to be Considered a Significant Impact (sf/ped)
> 26.6	With-Action Condition ≤ 24.0
25.8 to 26.6	Reduction ≥ 2.6
24.9 to 25.7	Reduction ≥ 2.5
24.0 to 24.8	Reduction ≥ 2.4
23.1 to 23,9	Reduction ≥ 2.3
22.2 to 23.0	Reduction ≥ 2.2
21.3 to 22.1	Reduction ≥ 2.1
20.4 to 21.2	Reduction ≥ 2.0
19.5 to 20.3	Reduction ≥ 1.9
18.6 to 19.4	Reduction ≥ 1.8
17.7 to 18.5	Reduction ≥ 1.7
16.8 to 17.6	Reduction ≥ 1.6
15.9 to 16.7	Reduction ≥ 1.5
15.0 to 15.8	Reduction ≥ 1.4
14.1 to 14.9	Reduction ≥ 1.3
13.2 to 14.0	Reduction ≥ 1.2
12.3 to 13.1	Reduction ≥ 1.1
11.4 to 12.2	Reduction ≥ 1.0
10.5 to 11.3	Reduction ≥ 0.9
9.6 to 10.4	Reduction ≥ 0.8
8.7 to 9.5	Reduction ≥ 0.7
7.8 to 8.6	Reduction ≥ 0.6
6.9 to 7.7	Reduction ≥ 0.5
6.0 to 6.8	Reduction ≥ 0.4
5.1 to 5.9	Reduction ≥ 0.3
< 5.1	Reduction ≥ 0.2

Source: *CEQR Technical Manual*

Significant Impact Criteria

Should a proposed action generate the need for more parking than it provides, a shortfall of spaces may be considered significant. The availability of off-street and on-street parking spaces within a convenient walking distance (about a ¼-mile), as well as the availability of alternative modes of transportation, are considered in making this determination.

Under *CEQR Technical Manual* guidelines, different criteria for determining significance are applied based on whether or not a proposed project is located in residential or commercial areas designated as Parking Zones 1 and 2 as shown in Map 16-2 (CEQR Parking Zones) in the *CEQR Technical Manual*. As the rezoning area is not located within these two zones, a parking shortfall that exceeds more than half the available on-street and off-street parking spaces within ¼-mile of the site can be considered significant. Additional factors that can be considered when determining whether such a shortfall is significant include: the availability and extent of transit in the area; the proximity of the project to such transit; any features of the project that are considered trip reduction or travel demand management (TDM) measures; travel modes of customers of area commercial businesses; and patterns of automobile usage by area residents. The sufficiency of parking within ½-mile (rather than ¼-mile) of the project site to accommodate the projected shortfall may also be considered.

VII. DETAILED TRAFFIC ANALYSIS

Existing Conditions

Study Area Street Network

The rezoning area occupies the western portion of Block 3672, Lot 1, with approximately 539 feet of street frontage on Turnbull and Lafayette Avenues (to the north and south, respectively) and approximately 200 feet of street frontage on White Plains Road (to the west).

White Plains Road is a major two- to four- lane north-south corridor running from Bronx River Avenue in the Shorehaven area along the East River to the border with Westchester County at East 243rd Street, where it continues as West 1st Street in the city of Mount Vernon. It is a designated local truck route north of the Bruckner Expressway. The Bx39 bus route runs along its entire length north of Soundview Avenue, and the Bx36 runs along White Plains Road in the vicinity of the rezoning area. The Bx5 bus travels along White Plains Road in the vicinity of the rezoning area between Story and Lafayette Avenues. White Plains Road provides the most direct vehicular connection between the rezoning area and the Bruckner Expressway.

Lafayette Avenue is an east-west corridor that runs in four sections. In the Soundview area of the Bronx, it runs from Soundview Park in the west to Zerega Avenue in the east with two lanes and a hatched median. In the vicinity of the rezoning area, the Bx5 bus runs along Lafayette Avenue between White Plains Road and Castle Hill Avenue, and the Bx36 runs along Lafayette Avenue between White Plains Road and Pugsley Avenue. There is a Class II bicycle lane on Lafayette Avenue between Metcalf and Zerega Avenues.

Pugsley Avenue is a two-lane north-south corridor that runs in three sections; the southernmost section runs east of the rezoning area from Bruckner Boulevard to Lacombe Avenue.

Story Avenue is a two-lane east-west corridor in the Soundview area of the Bronx that runs from Bronx River Avenue in the west to Zerega Avenue in the east. The Bx5 bus runs along Story Avenue west of White Plains Road. Story Avenue provides the most direct vehicular connection between the rezoning area and the Bronx River Parkway.

The Bruckner Expressway is a six- to eight-lane east-west limited access highway that carries Interstate 278 between the Triborough Bridge (with connections to Queens, Brooklyn, and Staten Island) and the Bruckner Interchange with the Cross Bronx Expressway and the Hutchinson River Parkway. The Bruckner Expressway continues east carrying Interstate 95 to the Bronx and Pelham Parkway, where it continues north as the New England Thruway. In the vicinity of the rezoning area, Exit 53 provides a connection from the Bruckner Expressway to White Plains Road. Bruckner Boulevard runs parallel to the Bruckner Expressway and acts as a service road. Bruckner Boulevard is a local truck route and the Bruckner Expressway is a through truck route.

The Bronx River Parkway is a four- to six-lane north-south limited access parkway that runs from Story Avenue in the Bronx to NY State Route 22 in Westchester County near the Kensico Dam. Trucks are not permitted on the Bronx River Parkway.

Traffic Conditions

To establish the existing conditions traffic network, an extensive traffic data collection program, including ATR counts, turning movement counts, and vehicle classification counts, were undertaken in October and November of 2016. Physical inventory data needed for operational analysis—e.g., the number of traffic lanes, lane widths, pavement markings, turn prohibitions, bus stops, and typical parking regulations—were also collected during this period. Signal timing plans for signalized intersections within the study area were obtained from DOT. Figure J-6 shows existing traffic volumes during weekday AM, midday, and PM and Saturday midday peak hours.

Intersection Capacity Analysis

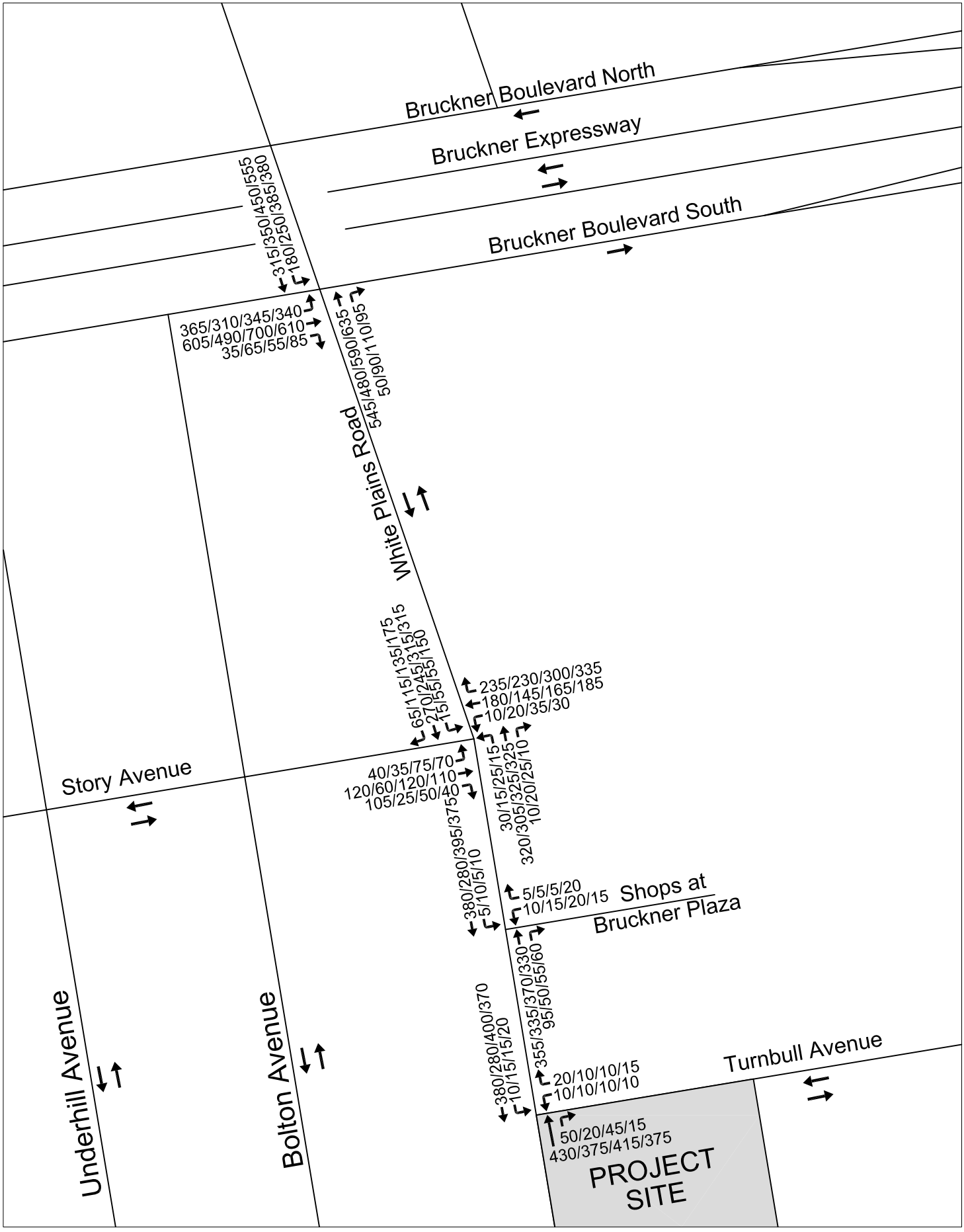
Table J-9 shows the detailed existing v/c ratios, delays, and LOS by movement at the analyzed existing intersections for each peak hour and identifies those movements that are considered congested in one or more peak hour. A lane group is considered congested if it operates at LOS E or F and/or with a v/c ratio of 0.90 or above. A v/c ratio of 1.00 or above reflects capacity conditions.

Table J-9: 2016 Existing Conditions – LOS at Analyzed Intersection

		Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Midday Peak Hour		
Intersection	Lane Group	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS
Bruckner Blvd. S. (EB) at White Plains Rd. (N-S)	EB-L	0.59	30.1	C	0.54	31.5	C	0.68	37.7	D	0.57	32.0	C
	EB-LTR	0.61	29.1	C	0.57	30.5	C	0.86	44.2	D	0.58	30.6	C
	NB-TR	0.69	39.8	D	0.56	30.4	C	0.63	33.3	C	0.62	31.6	C
	SB-L	0.36	34.3	C	0.48	32.9	C	-	-	-	0.67	47.3	D
	SB-DefL	-	-	-	-	-	-	0.61	37.8	D	-	-	-
	SB-LT	0.36	20.2	C	0.48	20.1	C	-	-	-	0.66	24.3	C
	SB-T	-	-	-	-	-	-	0.52	19.6	B	-	-	-
Story Ave. (E-W) at White Plains Rd. (N-S)	EB-LTR	0.82	45.8	D	0.37	26.9	C	1.03	91.0	F*	0.92	64.3	E*
	WB-LT	0.43	27.4	C	0.37	26.1	C	0.43	27.3	C	0.46	27.8	C
	WB-R	0.66	35.0	D	0.78	43.6	D	0.77	40.7	D	1.05	90.3	F*
	NB-L	0.13	13.0	B	0.07	12.1	B	0.11	12.7	B	0.07	12.2	B
	NB-TR	0.58	19.7	B	0.64	21.6	C	0.58	19.5	B	0.53	18.2	B
	SB-L	0.04	11.7	B	0.17	13.2	B	0.19	13.5	B	0.54	21.5	C
	SB-TR	0.69	23.3	C	0.67	22.9	C	0.80	29.0	C	1.05	76.1	E*
Shops at Bruckner Plaza (E-W) at White Plains Rd.	WB-LR	0.02	18.3	B	0.03	18.4	B	0.04	18.4	B	0.07	18.7	B
	NB-TR	0.74	23.9	C	0.57	18.0	B	0.63	19.2	B	0.59	18.3	B
	SB-L	0.02	10.5	B	0.03	10.6	B	0.02	10.4	B	0.03	10.6	B
	SB-T	0.64	19.5	B	0.45	15.3	B	0.56	17.3	B	0.53	16.7	B
Turnbull Ave. (E-W) at White Plains Rd. (N-S)	WB-LR	0.09	20.3	C	0.05	19.8	B	0.05	19.9	B	0.06	20.0	B
	NB-T	0.65	18.4	B	0.54	15.7	B	0.57	16.0	B	0.42	13.5	B
	NB-R	0.09	10.0	B	0.03	9.6	A	0.07	9.9	A	0.02	9.5	A
	SB-L	0.05	10.0	A	0.06	10.0	B	0.07	10.2	B	0.06	9.9	A
	SB-T	0.59	17.0	B	0.39	13.3	B	0.57	16.5	B	0.50	15.0	B

Notes:
EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound
L = Left; T = Through; R = Right; DefL = Analysis considers a defacto left lane on this approach
v/c ratio = Volume-to-Capacity ratio; sec. = Seconds; LOS = Level of Service
* Denotes a congested movement (LOS E or F or v/c ratio greater than or equal to 0.9)
Analysis based on the 2000 Highway Capacity Manual methodology (HCS+, version 5.5)

2016 Existing Traffic Volumes



As presented in Table J-9, the existing congested lane groups are as follows:

Story Avenue at White Plains Road

- Eastbound shared left-turn/through/right-turn (weekday PM and Saturday midday)
- Westbound right-turn (Saturday midday)
- Southbound shared through/right-turn (Saturday midday)

Future Without the Proposed Actions (No-Action)

Changes to the Study Area Traffic Network

NYCDOT recently implemented signal timing changes along White Plains Road at the intersections with Bruckner Boulevard South, Story Avenue and the Shopping Center Driveway between Story Avenue and Turnbull Avenue. These signal timing changes were accounted for in the analysis of No-Action and With-Action traffic conditions.

No-Action Traffic Growth

In the future without the proposed actions, it is expected that transportation demands in the vicinity of the rezoning area will increase due to background growth; no new developments are anticipated in the immediate vicinity of the rezoning area. The No-Action traffic volumes were therefore calculated using an annual background growth rate of 0.25 percent for the 2016 through 2020 period, as recommended in the *CEQR Technical Manual* for projects in the Bronx. Figure J-7 shows the total No-Action traffic volumes during the weekday AM, midday, and PM and Saturday midday peak hours.

Intersection Capacity Analysis

Table J-10 shows the detailed No-Action v/c ratios, delays, and LOS by movement at the analyzed intersections for each peak hour and identifies those movements that are expected to be congested in one or more peak hour. As shown in Table J-10, as under existing conditions, all lane groups at the two intersections most proximate to the rezoning area (White Plains Road at the Shops at Bruckner Plaza and White Plains Road at Turnbull Avenue) would continue to operate at LOS C or better in all peak hours. The three lane groups at Story Avenue and White Plains Road that experience congestion during one or more peak hours under existing conditions, (namely the eastbound shared left-turn/through/right-turn, the westbound right-turn and the southbound shared through/right-turn) would experience increases in delays and v/c ratios under No-Action conditions. There would be no new congested lane groups under No-Action conditions, compared to existing conditions.

2020 No-Action Traffic Volumes

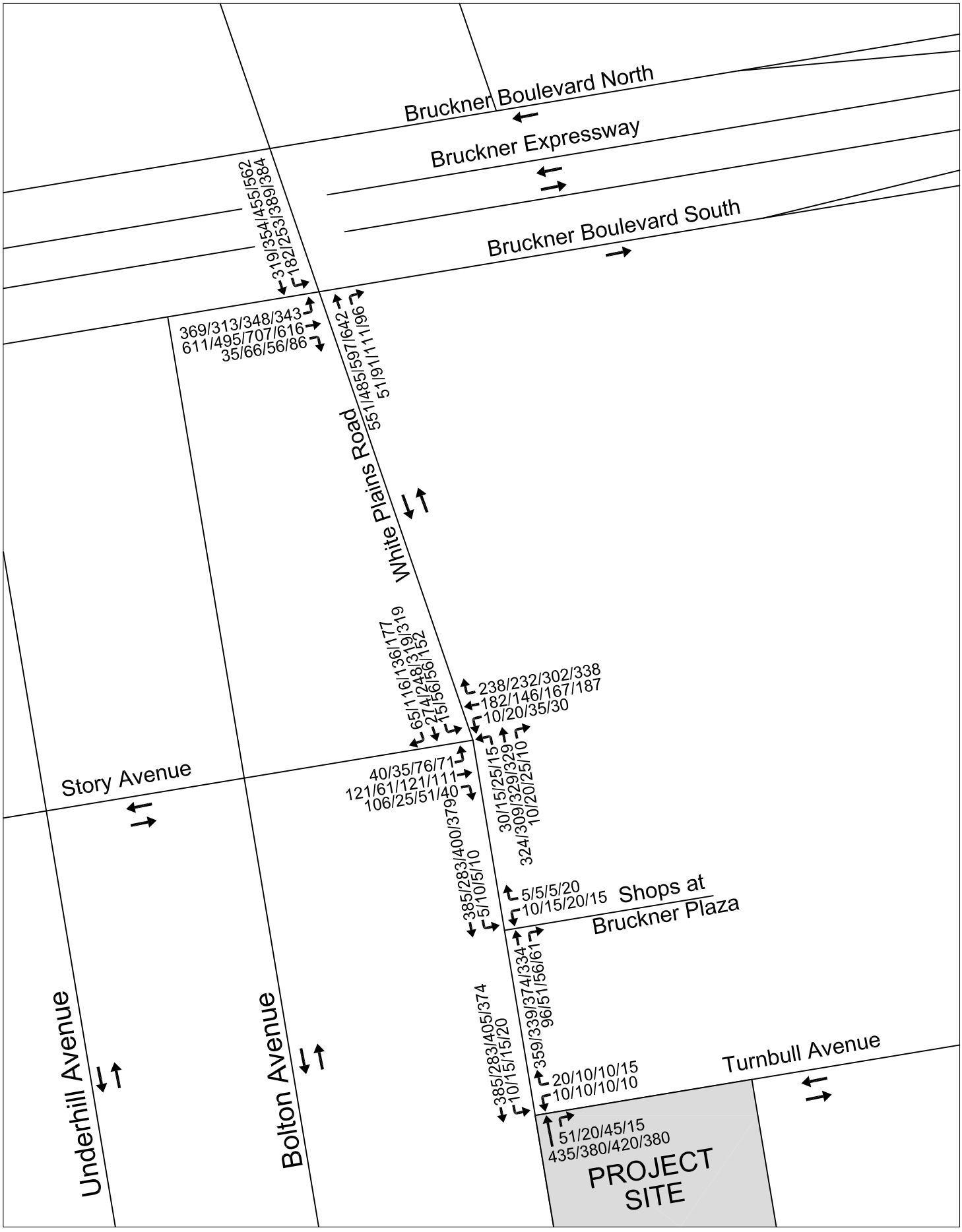


Table J-10: 2020 No-Action Conditions – LOS at Analyzed Intersection

Intersection	Lane Group	Weekday AM Peak Hour						Weekday Midday Peak Hour						Weekday PM Peak Hour						Saturday Midday Peak Hour					
		Existing			No-Action			Existing			No-Action			Existing			No-Action			Existing			No-Action		
		V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS
Bruckner Blvd. S. (EB) at White Plains Rd. (N-S)	EB-L	0.59	30.1	C	0.60	30.3	C	0.54	31.5	C	0.55	31.6	C	0.68	37.7	D	0.68	38.0	D	0.57	32.0	C	0.57	32.1	C
	EB-LTR	0.61	29.1	C	0.62	29.3	C	0.57	30.5	C	0.57	30.6	C	0.86	44.2	D	0.87	44.9	D	0.58	30.6	C	0.59	30.8	C
	NB-TR	0.69	39.8	D	0.70	40.1	D	0.56	30.4	C	0.57	30.6	C	0.63	33.3	C	0.64	33.5	C	0.62	31.6	C	0.63	31.7	C
	SB-L	0.36	34.3	C	0.37	34.8	C	0.48	32.9	C	0.49	33.4	C	-	-	-	-	-	-	0.67	47.3	D	0.69	48.5	D
	SB-DefL	-	-	-	-	-	-	-	-	-	-	-	-	0.61	37.8	D	0.61	38.0	D	-	-	-	-	-	-
	SB-LT	0.36	20.2	C	0.36	20.3	C	0.48	20.1	C	0.49	20.3	C	-	-	-	-	-	-	0.66	24.3	C	0.67	24.6	C
	SB-T	-	-	-	-	-	-	-	-	-	-	-	-	0.52	19.6	B	0.52	19.7	B	-	-	-	-	-	-
Story Ave. (E-W) at White Plains Rd. (N-S)	EB-LTR	0.82	45.8	D	1.02	86.7	F*	0.37	26.9	C	0.45	31.1	C	1.03	91.0	F*	1.32	205.0	F*	0.92	64.3	E*	1.20	157.8	F*
	WB-LT	0.43	27.4	C	0.49	30.9	C	0.37	26.1	C	0.42	29.3	C	0.43	27.3	C	0.50	31.1	C	0.46	27.8	C	0.52	31.6	C
	WB-R	0.66	35.0	D	0.77	44.3	D	0.78	43.6	D	0.91	63.3	E*	0.77	40.7	D	0.88	56.6	E*	1.05	90.3	F*	1.23	159.2	F*
	NB-L	0.13	13.0	B	0.16	15.8	B	0.07	12.1	B	0.08	14.5	B	0.11	12.7	B	0.14	15.5	B	0.07	12.2	B	0.09	14.7	B
	NB-TR	0.58	19.7	B	0.65	24.3	C	0.64	21.6	C	0.72	27.3	C	0.58	19.5	B	0.65	24.1	C	0.53	18.2	B	0.59	22.3	C
	SB-L	0.04	11.7	B	0.05	13.9	B	0.17	13.2	B	0.20	16.1	B	0.19	13.5	B	0.22	16.5	B	0.54	21.5	C	0.64	29.3	C
	SB-TR	0.69	23.3	C	0.76	30.1	C	0.67	22.9	C	0.75	29.6	C	0.80	29.0	C	0.89	40.9	D	1.05	76.1	E*	1.29	169.6	F*
Shops at Bruckner Plaza (E-W) at White Plains Rd.	WB-LR	0.02	18.3	B	0.02	16.4	B	0.03	18.4	B	0.03	16.5	B	0.04	18.4	B	0.04	16.5	B	0.07	18.7	B	0.06	16.8	B
	NB-TR	0.74	23.9	C	0.80	29.7	C	0.57	18.0	B	0.62	21.2	C	0.63	19.2	B	0.68	22.8	C	0.59	18.3	B	0.64	21.6	C
	SB-L	0.02	10.5	B	0.02	12.0	B	0.03	10.6	B	0.03	12.1	B	0.02	10.4	B	0.02	12.0	B	0.03	10.6	B	0.04	12.2	B
	SB-T	0.64	19.5	B	0.69	23.1	C	0.45	15.3	B	0.48	17.7	B	0.56	17.3	B	0.60	20.3	C	0.53	16.7	B	0.57	19.4	B
Turnbull Ave. (E-W) at White Plains Rd. (N-S)	WB-LR	0.09	20.3	C	0.09	20.3	C	0.05	19.8	B	0.05	19.8	B	0.05	19.9	B	0.05	19.9	B	0.06	20.0	B	0.06	20.0	B
	NB-T	0.65	18.4	B	0.66	18.7	B	0.54	15.7	B	0.55	15.9	B	0.57	16.0	B	0.57	16.2	B	0.42	13.5	B	0.43	13.6	B
	NB-R	0.09	10.0	B	0.09	10.1	B	0.03	9.6	A	0.03	9.6	A	0.07	9.9	A	0.07	9.9	A	0.02	9.5	A	0.02	9.5	A
	SB-L	0.05	10.0	A	0.05	10.0	A	0.06	10.0	B	0.06	10.0	B	0.07	10.2	B	0.07	10.2	B	0.06	9.9	A	0.06	9.9	A
	SB-T	0.59	17.0	B	0.60	17.2	B	0.39	13.3	B	0.39	13.3	B	0.57	16.5	B	0.58	16.7	B	0.50	15.0	B	0.50	15.1	B

Notes:

EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound

L = Left; T = Through; R = Right; DefL = Analysis considers a defacto left lane on this approach

v/c ratio = Volume-to-Capacity ratio; sec. = Seconds; LOS = Level of Service

* Denotes a congested movement (LOS E or F or v/c ratio greater than or equal to 0.9)

Analysis based on the 2000 Highway Capacity Manual methodology (HCS+, version 5.5)

Future With the Proposed Actions (With-Action)

With-Action Traffic Growth

The proposed actions would facilitate the development of a predominantly residential building on the western portion of the rezoning area comprised of 425 affordable residential units (including 133 senior units and 292 family units) and 19,938 gsf of residential floor area. 71 enclosed accessory parking spaces would also be provided as part of the proposed project. As discussed above in Section IV, "Level 1 Screening Assessment," the proposed project is expected to generate a total of 93, 116, 115, and 122 vehicle trips (in and out combined) in the weekday AM, midday, and PM and Saturday midday peak periods, respectively. The assignment of the projected vehicle trip increments generated during these peak hours are shown in Figures J-1a and J-1b. Figure J-8 shows the resultant total traffic network vehicle volumes under the With-Action condition for the weekday AM, midday, and PM and Saturday midday peak hours. The volumes shown in Figure J-8 are the sum of the incremental traffic generated by the proposed project and the No-Action traffic network.

Intersection Capacity Analysis

Table J-11 shows the detailed v/c ratios, delays and LOS by movement at all analyzed intersections in each peak hour under With-Action conditions. As presented in Table J-11, all lane groups at the two intersections most proximate to the project site (White Plains Road at Turnbull Avenue and White Plains Road at the entrance to the Shops at Bruckner Plaza) would continue to operate at LOS C or better in all peak hours, with the exception of the northbound through/right-turn movement at the Shops at Bruckner Plaza, which would operate at an acceptable LOS D under With-Action conditions. At the intersection of White Plains Road and Bruckner Boulevard South, all movements would continue to operate at LOS D or better. At the intersection of White Plains Road and Story Avenue, the potential for significant adverse traffic impacts were identified during the weekday AM and PM and Saturday midday peak hours. Specifically, the potential for significant adverse impacts were identified for the following lane groups: (1) the eastbound left-turn/through/right-turn approach in the weekday AM and PM and Saturday midday peak hours, which would continue to operate at LOS F with an increase in delay exceeding three seconds in those three peak hours; (2) the southbound through/right-turn lane in the weekday PM peak hour, which would deteriorate from an acceptable LOS D to LOS E; and (3) the southbound through/right-turn lane in the Saturday midday peak hour, which would continue to operate at LOS F with an increase in delay exceeding three seconds. As discussed in the following section, improvement measures would be implemented at this location to avoid the identified potential significant adverse impacts at this intersection.

Figure J-8
2020 With-Action Traffic Volumes

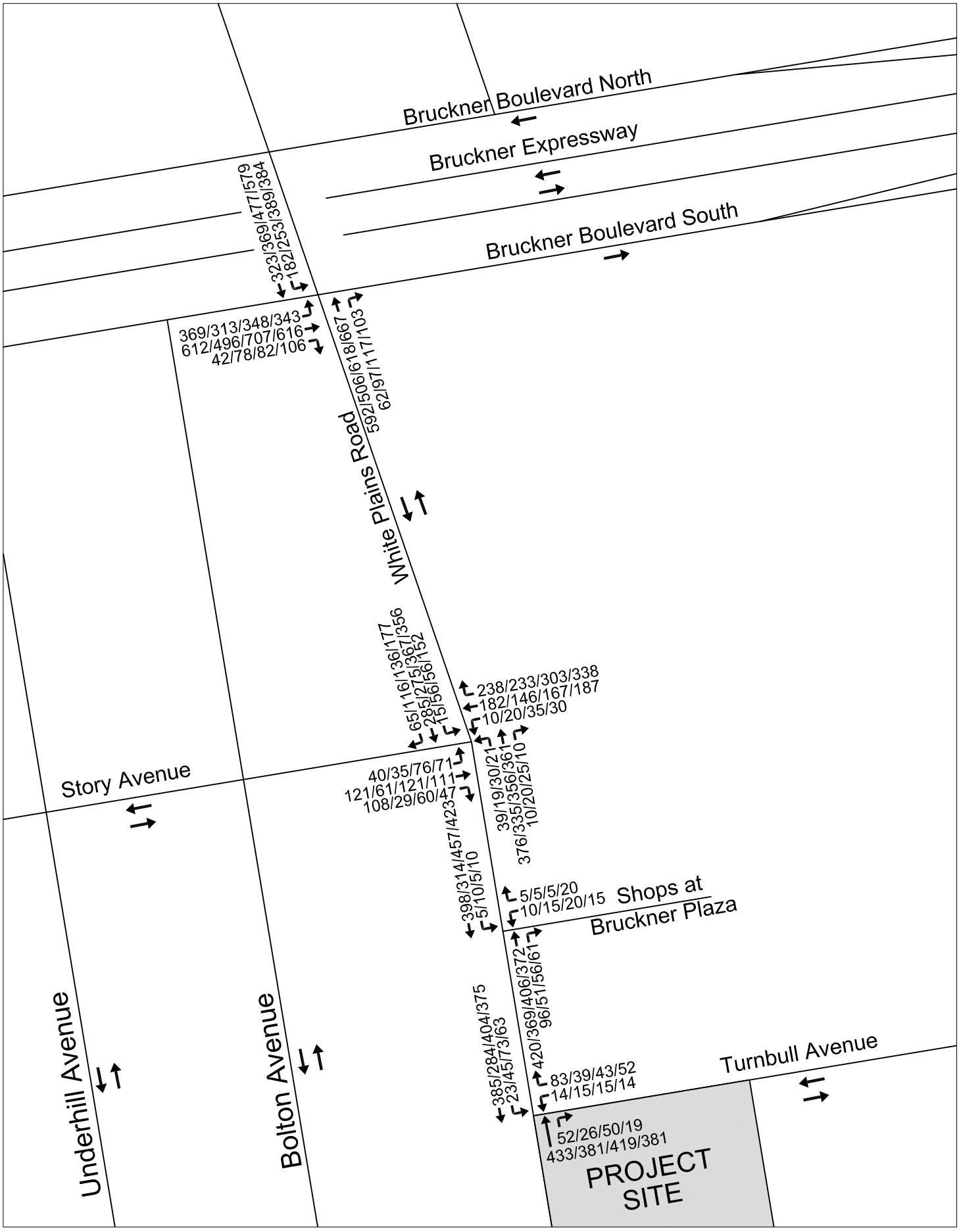


Table J-11: 2020 With-Action Conditions – LOS at Analyzed Intersection

Intersection	Lane Group	Weekday AM Peak Hour						Weekday Midday Peak Hour						Weekday PM Peak Hour						Saturday Midday Peak Hour					
		No-Action			With-Action			No-Action			With-Action			No-Action			With-Action			No-Action			With-Action		
		V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS
Bruckner Blvd. S. (EB) at White Plains Rd. (N-S)	EB-L	0.60	30.3	C	0.60	30.3	C	0.55	31.6	C	0.55	31.6	C	0.68	38.0	D	0.68	38.0	D	0.57	32.1	C	0.57	32.1	C
	EB-LTR	0.62	29.3	C	0.63	29.5	C	0.57	30.6	C	0.59	31.0	C	0.87	44.9	D	0.90	48.3	D	0.59	30.8	C	0.61	31.3	C
	NB-TR	0.70	40.1	D	0.76	42.5	D	0.57	30.6	C	0.60	31.3	C	0.64	33.5	C	0.67	34.2	C	0.63	31.7	C	0.66	32.5	C
	SB-L	0.37	34.8	C	0.39	37.4	D	0.49	33.4	C	0.51	35.5	D	-	-	-	-	-	-	0.69	48.5	D	-	-	-
	SB-DefL	-	-	-	-	-	-	-	-	-	-	-	-	0.61	38.0	D	0.61	38.0	D	-	-	-	0.58	39.2	D
	SB-LT	0.36	20.3	C	0.38	20.5	C	0.49	20.3	C	0.51	20.7	C	-	-	-	-	-	-	0.67	24.6	C	-	-	-
	SB-T	-	-	-	-	-	-	-	-	-	-	-	-	0.52	19.7	B	0.55	20.2	C	-	-	-	0.67	25.3	C
Story Ave. (E-W) at White Plains Rd. (N-S)	EB-LTR	1.02	86.7	F	1.03	90.1	F*	0.45	31.1	C	0.47	31.7	C	1.32	205.0	F	1.38	230.0	F*	1.20	157.8	F	1.25	177.1	F*
	WB-LT	0.49	30.9	C	0.49	30.9	C	0.42	29.3	C	0.42	29.3	C	0.50	31.1	C	0.50	31.2	C	0.52	31.6	C	0.52	31.7	C
	WB-R	0.77	44.3	D	0.77	44.3	D	0.91	63.3	E	0.91	63.9	E	0.88	56.6	E	0.89	57.0	E	1.23	159.2	F	1.23	159.2	F
	NB-L	0.16	15.8	B	0.22	17.0	B	0.08	14.5	B	0.11	15.2	B	0.14	15.5	B	0.20	16.9	B	0.09	14.7	B	0.14	15.7	B
	NB-TR	0.65	24.3	C	0.75	28.5	C	0.72	27.3	C	0.77	30.5	C	0.65	24.1	C	0.70	25.9	C	0.59	22.3	C	0.65	23.9	C
	SB-L	0.05	13.9	B	0.06	14.1	B	0.20	16.1	B	0.23	16.7	B	0.22	16.5	B	0.24	17.0	B	0.64	29.3	C	0.71	34.7	C
	SB-TR	0.76	30.1	C	0.79	31.7	C	0.75	29.6	C	0.82	34.8	C	0.89	40.9	D	0.99	60.3	E*	1.29	169.6	F	1.39	213.1	F*
Shops at Bruckner Plaza (E-W) at White Plains Rd.	WB-LR	0.02	16.4	B	0.02	16.4	B	0.03	16.5	B	0.03	16.5	B	0.04	16.5	B	0.04	16.5	B	0.06	16.8	B	0.06	16.8	B
	NB-TR	0.80	29.7	C	0.91	40.6	D	0.62	21.2	C	0.68	23.0	C	0.68	22.8	C	0.73	24.9	C	0.64	21.6	C	0.71	23.8	C
	SB-L	0.02	12.0	B	0.02	12.0	B	0.03	12.1	B	0.04	12.2	B	0.02	12.0	B	0.02	12.0	B	0.04	12.2	B	0.04	12.2	B
	SB-T	0.69	23.1	C	0.71	24.0	C	0.48	17.7	B	0.54	18.7	B	0.60	20.3	C	0.69	23.0	C	0.57	19.4	B	0.64	21.2	C
Turnbull Ave. (E-W) at White Plains Rd. (N-S)	WB-LR	0.09	20.3	C	0.29	23.3	C	0.05	19.8	B	0.14	21.0	C	0.05	19.9	B	0.15	21.1	C	0.06	20.0	B	0.18	21.4	C
	NB-T	0.66	18.7	B	0.65	18.5	B	0.55	15.9	B	0.55	15.9	B	0.57	16.2	B	0.57	16.1	B	0.43	13.6	B	0.43	13.6	B
	NB-R	0.09	10.1	B	0.09	10.1	B	0.03	9.6	A	0.05	9.7	A	0.07	9.9	A	0.09	10.1	B	0.02	9.5	A	0.03	9.6	A
	SB-L	0.05	10.0	A	0.12	11.0	B	0.06	10.0	B	0.20	12.0	B	0.07	10.2	B	0.35	15.4	B	0.06	9.9	A	0.19	11.5	B
	SB-T	0.60	17.2	B	0.60	17.2	B	0.39	13.3	B	0.39	13.3	B	0.58	16.7	B	0.57	16.7	B	0.50	15.1	B	0.50	15.1	B

Notes:

* Denotes a significant adverse impact. EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound

L = Left; T = Through; R = Right; DefL = Analysis considers a defacto left lane on this approach

v/c ratio = Volume-to-Capacity ratio; sec. = Seconds; LOS = Level of Service

Analysis based on the 2000 Highway Capacity Manual methodology (HCS+, version 5.5)

With-Action Traffic Network Improvements

As the With-Action traffic analysis (presented above) indicates that project-generated traffic has the potential to generate a significant adverse impact, improvement measures would be implemented at the time of development to avoid a significant adverse impact. Specifically, in conjunction with the proposed project, improvement measures would be implemented at the intersection of Story Avenue and White Plains Road to avoid the potential for significant adverse impacts at this location. As presented in Table J-12, one second of green time would be transferred from the northbound/southbound signal phase to the eastbound/westbound signal phase in the weekday AM and PM and Saturday midday peak hours. In addition the southbound approach would be restriped to convert the curb lane from a parking lane to a right turn lane (refer to Figure J-9). This would eliminate approximately five parking spaces. These proposed traffic network improvements measures were reviewed by DOT, who deemed these measures reasonable and appropriate. DOT would also implement the appropriate striping and signage as per their standards. A Restrictive Declaration will be recorded against the project site to ensure that the proposed traffic improvement measures are implemented.

Table J-12: Proposed Traffic Improvement Measures

Intersection	Signal Phase	No-Action Signal Timing (seconds)[1]				Proposed With-Action Signal Timing (seconds)[1]				Summary of Proposed With-Action Traffic Network Improvements
		AM	MD	PM	Sat	AM	MD	PM	Sat	
Story Ave. (EB/WB) at White Plains Rd. (NB/SB)	Peds	7	7	7	7	7	7	7	7	-Restripe SB approach as one 10.5' left turn-lane, one 11' through lane, and on 13.5' right-turn lane. -Transfer 1 sec. of green time from NB/SB to EB/WB in AM, PM and Sat.
	EB/WB	30	30	30	30	31	30	31	31	
	Peds	7	7	7	7	7	7	7	7	
	NB/SB	46	46	46	46	45	46	45	45	

Notes:
[1] Signal timings shown indicate green plus yellow (including all red) for each phase.
EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound

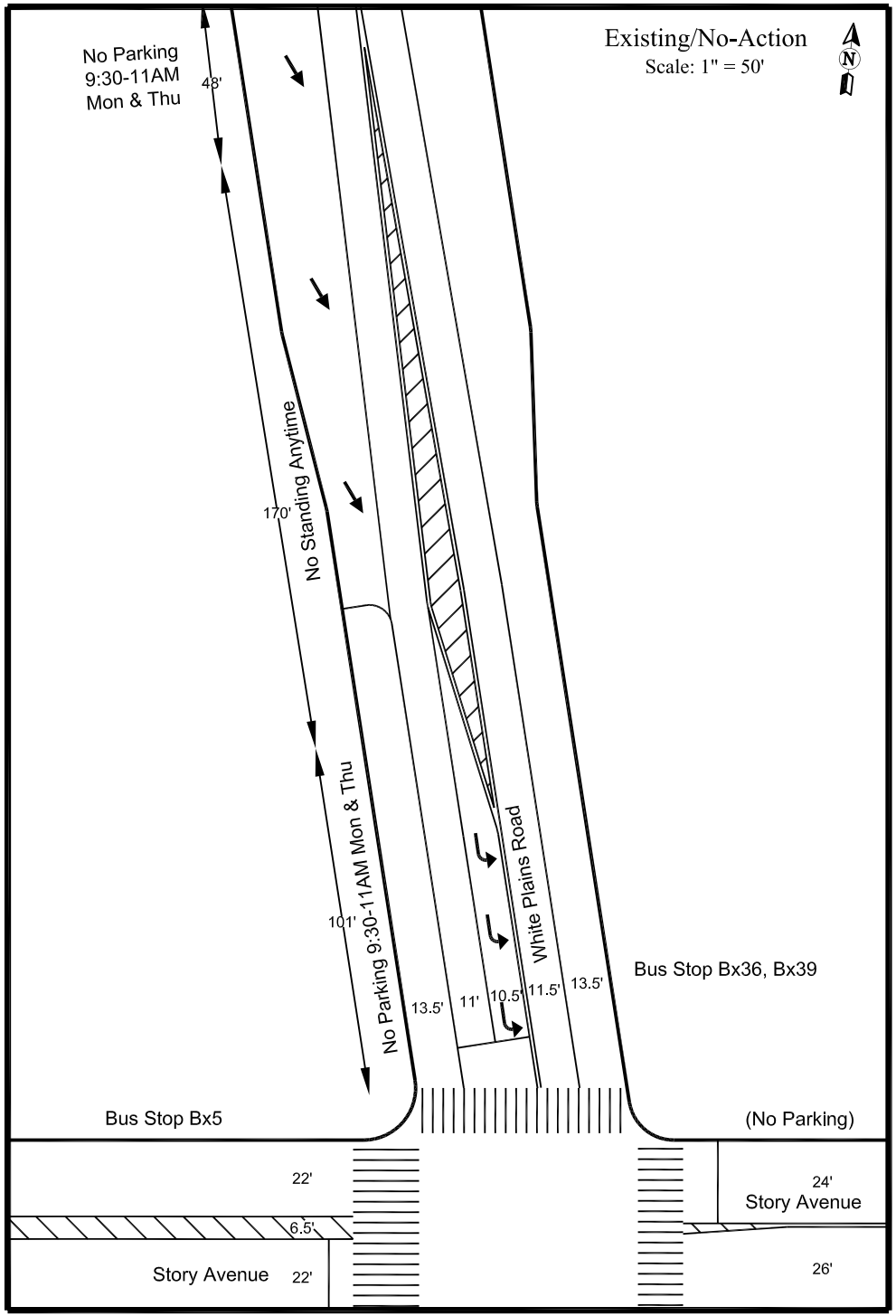
Intersection Capacity Analysis with Proposed Traffic Improvement Measures

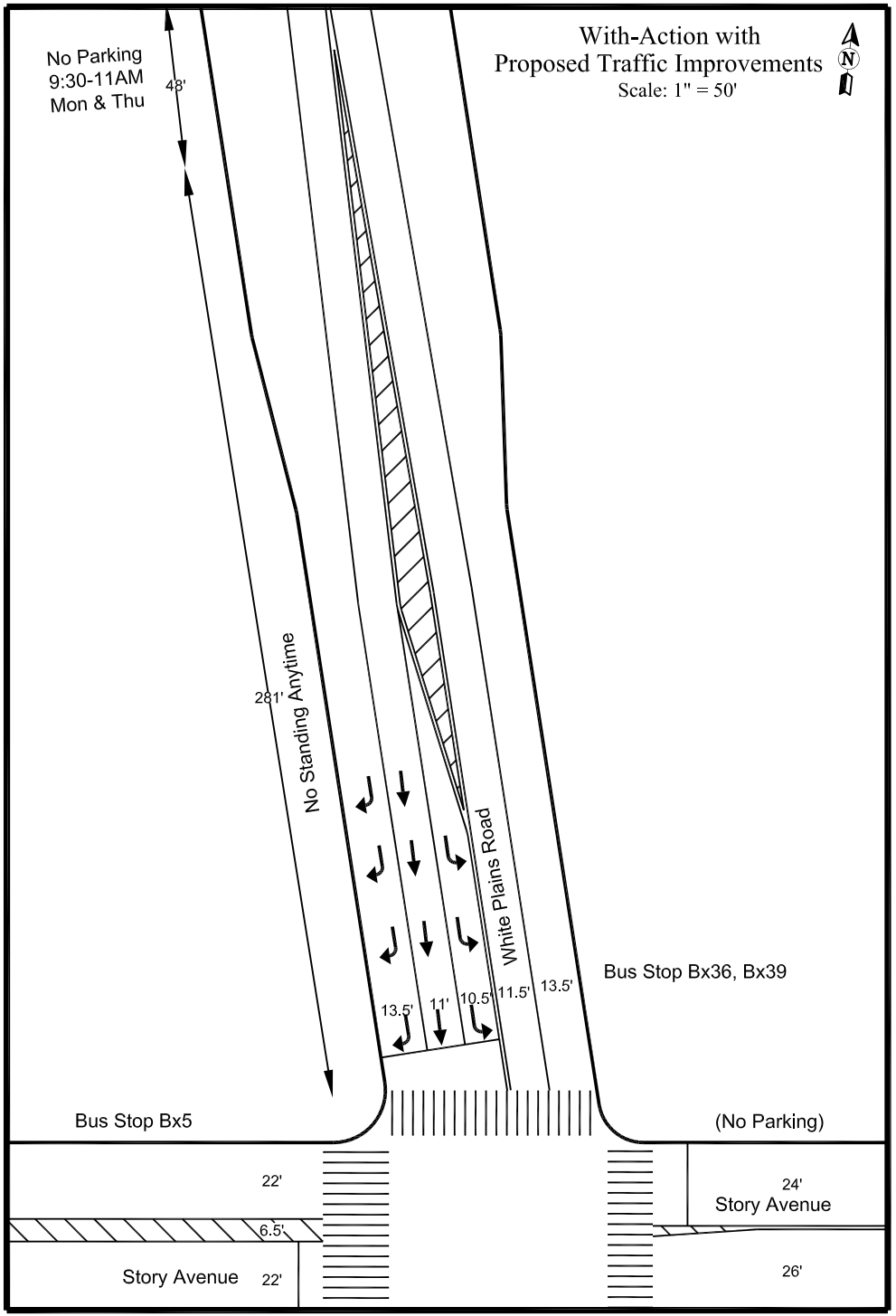
As presented in Table J-11, above, the potential for significant adverse impacts was identified at the intersection of Story Avenue and White Plains Road in the weekday AM and PM and Saturday midday peak hours. Therefore, in conjunction with the proposed actions, improvement measures would be implemented to avoid a significant adverse impact (refer to Table J-12). Table J-13 compares the No-Action, With-Action without Improvement, and With-Action with Improvement conditions at this intersection. As presented in Table J-13, with the incorporation of these traffic improvement measures, no significant adverse impacts would result.

VIII. DETAILED TRANSIT (BUS) ANALYSIS

Existing Conditions

As discussed in Section V, "Level 2 Screening Assessment," only the Bx36 local bus route is expected to experience 50 or more new peak hour trips in one direction and therefore requires a detailed analysis pursuant to *CEQR Technical Manual* methodology. The Bx36 provides 24-hour weekday and weekend service between Soundview in the Bronx and Washington Heights in Manhattan.





1965 Lafayette Avenue EAS

Figure J-9

Proposed Traffic Improvement Measures at Story Avenue and White Plains Road

Table J-13: Comparison of LOS at Story Avenue and White Plains Road – 2020 No-Action, With-Action without Improvements, and With-Action with Improvements Conditions

Peak Hour	Lane Group	No-Action			With-Action without Improvement			With-Action with Improvement[1]		
		V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS
Weekday AM	EB-LTR	1.02	86.7	F	1.03	90.1	F*	0.96	70.1	E
	WB-LT	0.49	30.9	C	0.49	30.9	C	0.47	29.7	C
	WB-R	0.77	44.3	D	0.77	44.3	D	0.74	40.9	D
	NB-L	0.16	15.8	B	0.22	17.0	B	0.19	16.8	B
	NB-TR	0.65	24.3	C	0.75	28.5	C	0.76	30.3	C
	SB-L	0.05	13.9	B	0.06	14.1	B	0.06	14.7	B
	SB-TR	0.76	30.1	C	0.79	31.7	C	0.55	21.9	C
Weekday Midday	EB-LTR	0.45	31.1	C	0.47	31.7	C	0.47	31.7	C
	WB-LT	0.42	29.3	C	0.42	29.3	C	0.42	29.3	C
	WB-R	0.91	63.3	E	0.91	63.9	E	0.91	63.9	E
	NB-L	0.08	14.5	B	0.11	15.2	B	0.11	15.2	B
	NB-TR	0.72	27.3	C	0.77	30.5	C	0.77	30.5	C
	SB-L	0.20	16.1	B	0.23	16.7	B	0.23	16.7	B
	SB-TR	0.75	29.6	C	0.82	34.8	C	0.82	34.8	C
Weekday PM	EB-LTR	1.32	205.0	F	1.38	230.0	F*	1.28	186.2	F
	WB-LT	0.50	31.1	C	0.50	31.2	C	0.48	29.8	C
	WB-R	0.88	56.6	E	0.89	57.0	E	0.84	50.1	D
	NB-L	0.14	15.5	B	0.20	16.9	B	0.14	15.8	B
	NB-TR	0.65	24.1	C	0.70	25.9	C	0.71	27.4	C
	SB-L	0.22	16.5	B	0.24	17.0	B	0.26	17.9	B
	SB-TR	0.89	40.9	D	0.99	60.3	E*	0.61	23.1	C
Saturday Midday	EB-LTR	1.20	157.8	F	1.25	177.1	F*	1.15	134.8	F
	WB-LT	0.52	31.6	C	0.52	31.7	C	0.50	30.3	C
	WB-R	1.23	159.2	F	1.23	159.2	F	1.17	135.0	F
	NB-L	0.09	14.7	B	0.14	15.7	B	0.09	15.2	B
	NB-TR	0.59	22.3	C	0.65	23.9	C	0.67	25.2	C
	SB-L	0.64	29.3	C	0.71	34.7	C	0.74	38.4	D
	SB-TR	1.29	169.6	F	1.39	213.1	F*	0.69	26.0	C

Notes:
[1] Reflects the incorporation of the improvements presented in Table J-12.
* Denotes a significant adverse impact.
EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound
L = Left; T = Through; R = Right
v/c ratio = Volume-to-Capacity ratio; sec. = Seconds; LOS = Level of Service
Analysis based on the 2000 Highway Capacity Manual methodology (HCS+, version 5.5)

Table J-14 shows the existing number of buses and ridership at the maximum load point in each direction for the analyzed Bx36 in the weekday AM and PM peak hours. As shown in Table J-14, the Bx36 currently operates with available capacity at its maximum load points in northbound and southbound directions in the AM peak hour and in the southbound direction in the PM peak hour. The Bx36 currently operates over capacity at its maximum load point in the northbound direction in the PM peak hour, with a deficit of 40 spaces.

Future Without the Proposed Actions (No-Action)

Demand on the Bx36 is expected to increase during the 2016 through 2020 period as a result of background growth. As shown in Table J-15, existing levels of bus service will not be sufficient to provide adequate supply to meet the projected demand in the 2020 No-Action condition on the northbound Bx36 route in the PM peak hour. Based on a loading guideline of 54 passengers per standard bus, one

additional bus per hour would be needed (for a total of 12) in the northbound direction in the PM peak hour to accommodate projected No-Action demand.

Table J-14: 2016 Existing Conditions Bx36 Bus Line Haul Analysis

Peak Hour	Direction	Maximum Load Point	Peak Hour Buses[1]	Peak Hour Passengers[1]	Average Passengers per Bus	Available Capacity[2]
AM	NB	E. Tremont Ave. & Webster Ave.	16	901	56	118
	SB	E. 180th St. & Webster Ave.	16	542	34	477
PM	NB	E. Tremont Ave. & Grand Concourse	11	634	58	-40
	SB	E. Tremont Ave. & Grand Concourse	11	519	47	75

Notes:
[1] Based on most currently available data from NYCT/MTA Bus.
[2] Available capacity based on MTA loading guidelines of 54 passengers per standard bus.

Table J-15: 2020 No-Action Conditions Bx36 Bus Line Haul Analysis

			No-Action Conditions with Current Service Levels			No-Action Conditions with Potential Service Adjustments		
Peak Hour	Direction	Maximum Load Point	Peak Hour Buses[1]	Average Passengers per Bus	Available Capacity[2]	Peak Hour Buses[1]	Average Passengers per Bus	Available Capacity[2]
AM	NB	E. Tremont Ave. & Webster Ave.	16	57	109	16	57	109
	SB	E. 180th St. & Webster Ave.	16	34	472	16	34	472
PM	NB	E. Tremont Ave. & Grand Concourse	11	58	-46	12	53	8
	SB	E. Tremont Ave. & Grand Concourse	11	48	70	11	48	70

Notes:
[1] Based on most currently available data from NYCT/MTA Bus.
[2] Available capacity based on MTA loading guidelines of 54 passengers per standard bus.

As a general policy, the MTA (NYCT and MTA Bus) provides additional bus services where demand warrants, taking into account financial and operational constraints. Based on ongoing passenger monitoring programs, comprehensive service plans would be generated to respond to specific, known needs with capital and/or operational improvements where fiscally and operationally practicable. The MTA's capital program is developed on a five-year cycle; through this program, expansion of bus services would be provided as needs are determined. It is therefore anticipated that in the No-Action condition, MTA Bus would increase service frequency on the Bx36 route to address its capacity shortfall on this route in the northbound direction in the PM peak hour.

Future With the Proposed Actions (With-Action)

As shown in Table J-16, demand on the Bx36 is expected to increase by approximately seven northbound trips and three southbound trips at the maximum load points in the AM peak hour and by two northbound trips and three southbound trips at the maximum load points in the PM peak hour. Based on the projected level of bus service in the No-Action condition, there would be sufficient capacity to accommodate project-generated bus demand, and no significant adverse impacts would result.

Table J-16: 2020 With-Action Conditions Bx36 Bus Line Haul Analysis

Peak Hour	Direction	Maximum Load Point	Peak Hour Buses[1]	No-Action Available Capacity	Project Increment[3]	With-Action Available Capacity[2]
AM	NB	E. Tremont Ave. & Webster Ave.	16	109	6	103
	SB	E. 180th St. & Webster Ave.	16	472	3	469
PM	NB	E. Tremont Ave. & Grand Concourse	12	8	2	6
	SB	E. Tremont Ave. & Grand Concourse	11	70	4	66

Notes:
[1] Based on most currently available data from NYCT/MTA Bus.
[2] Available capacity based on MTA loading guidelines of 54 passengers per standard bus.
[3] Assumes ten percent of project-generated bus-only trips would be removed from project increment every 0.5 miles. Subway trips would be removed at the Parkchester subway station.

IX. DETAILED PEDESTRIAN ANALYSIS

Existing Conditions

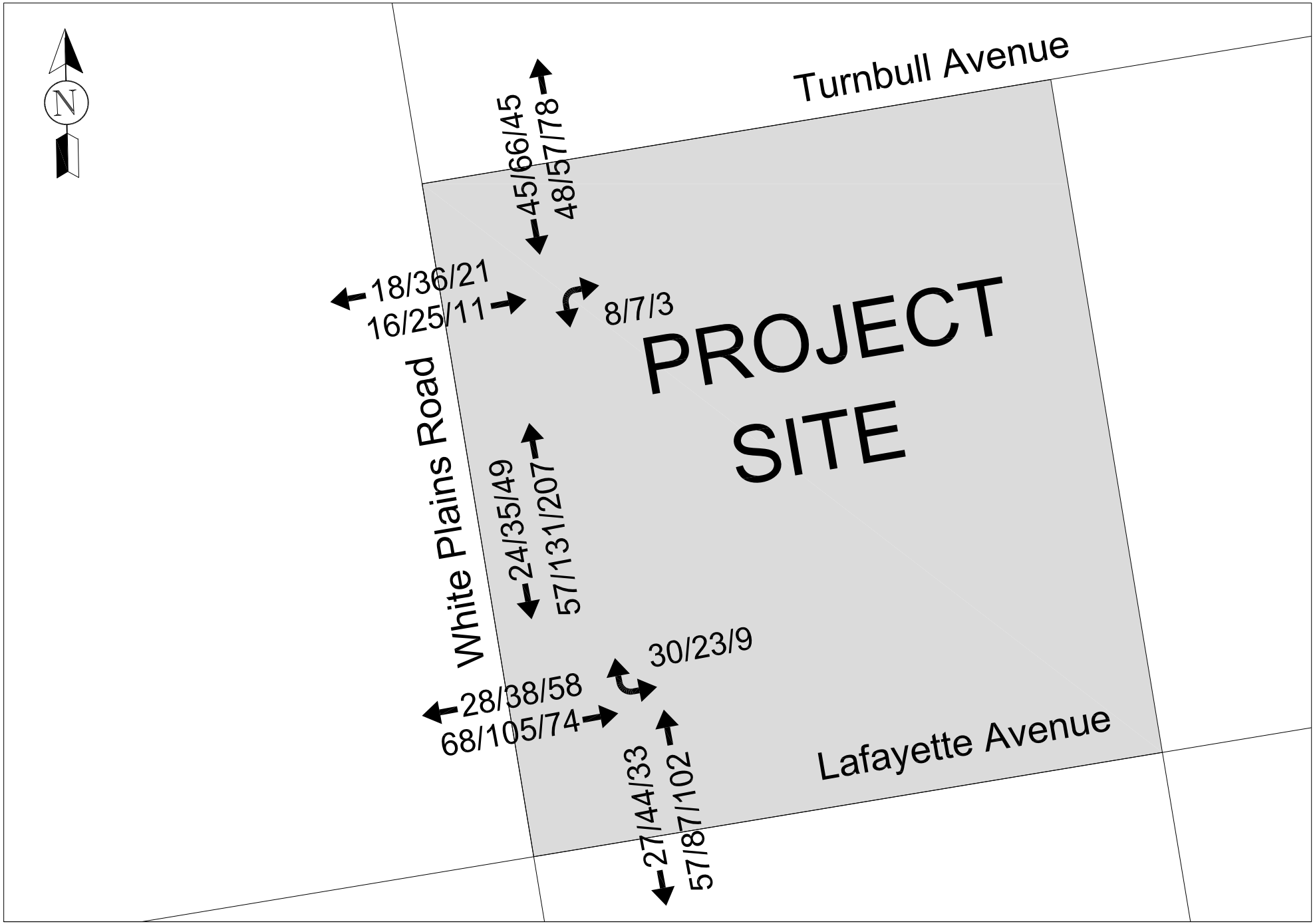
As discussed previously in Section V, "Level 2 Screening Assessment," a total of one sidewalk and two corner areas where project-generated pedestrian trips are expected to exceed the 200-trip *CEQR Technical Manual* threshold in one or more peak hour have been selected for analysis. Figure J-10 shows the existing pedestrian volumes at the analyzed pedestrian elements for the weekday midday and PM and Saturday midday peak hours. Tables J-17 and J-18 show the existing pedestrian space (in square feet per pedestrian) and LOS at analyzed sidewalks and corner areas, respectively. Peak 15-minute volumes are also provided for all analyzed locations. As shown in Tables J-17 and J-18, all analyzed pedestrian elements are currently operating at LOS B or better.

Table J-17: 2016 Existing Conditions Sidewalk Analysis

Location	Effective Width (ft.)	Peak Hour Volumes			Average Pedestrian Space (sf/ped)			Platoon-Adjusted LOS		
		Weekday Midday	Weekday PM	Saturday Midday	Weekday Midday	Weekday PM	Saturday Midday	Weekday Midday	Weekday PM	Saturday Midday
East sidewalk of White Plains Road btwn. Lafayette & Turnbull Aves.	4.0	81	166	256	430.1	209.7	200.2	B	B	B

Table J-18: 2016 Existing Conditions Corner Area Analysis

Location	Weekday Midday		Weekday PM		Saturday Midday	
	Average Pedestrian Space (sf/ped)	LOS	Average Pedestrian Space (sf/ped)	LOS	Average Pedestrian Space (sf/ped)	LOS
Turnbull Ave. & White Plains Rd. (SE corner)	490.7	A	303.8	A	365.0	A
Lafayette Ave. & White Plains Rd. (NE corner)	738.0	A	541.3	A	512.8	A



1965 Lafayette Avenue

Figure J-10

2016 Existing Weekday Midday/PM/Saturday Midday Pedestrian Volumes

The Future without the Proposed Actions (No-Action Conditions)

Estimates of peak hour volumes in the No-Action condition were developed by applying the *CEQR Technical Manual* recommended annual background growth rate to existing volumes and are shown in Figure J-11. Tables J-19 and J-20 show the forecasted No-Action average pedestrian space (in square feet per pedestrian) and LOS at analyzed sidewalks and corner areas, respectively. Peak 15-minute volumes are also provided for all analyzed locations. As shown in Tables J-19 and J-20, all analyzed pedestrian elements are expected to continue to operate at LOS B or better in the 2020 No-Action condition.

Table J-19: 2020 No-Action Conditions Sidewalk Analysis

Location	Effective Width (ft.)	Peak Hour Volumes			Average Pedestrian Space (sf/ped)			Platoon-Adjusted LOS		
		Weekday Midday	Weekday PM	Saturday Midday	Weekday Midday	Weekday PM	Saturday Midday	Weekday Midday	Weekday PM	Saturday Midday
East sidewalk of White Plains Road btwn. Lafayette & Turnbull Aves.	4.0	82	167	258	424.8	208.4	198.6	B	B	B

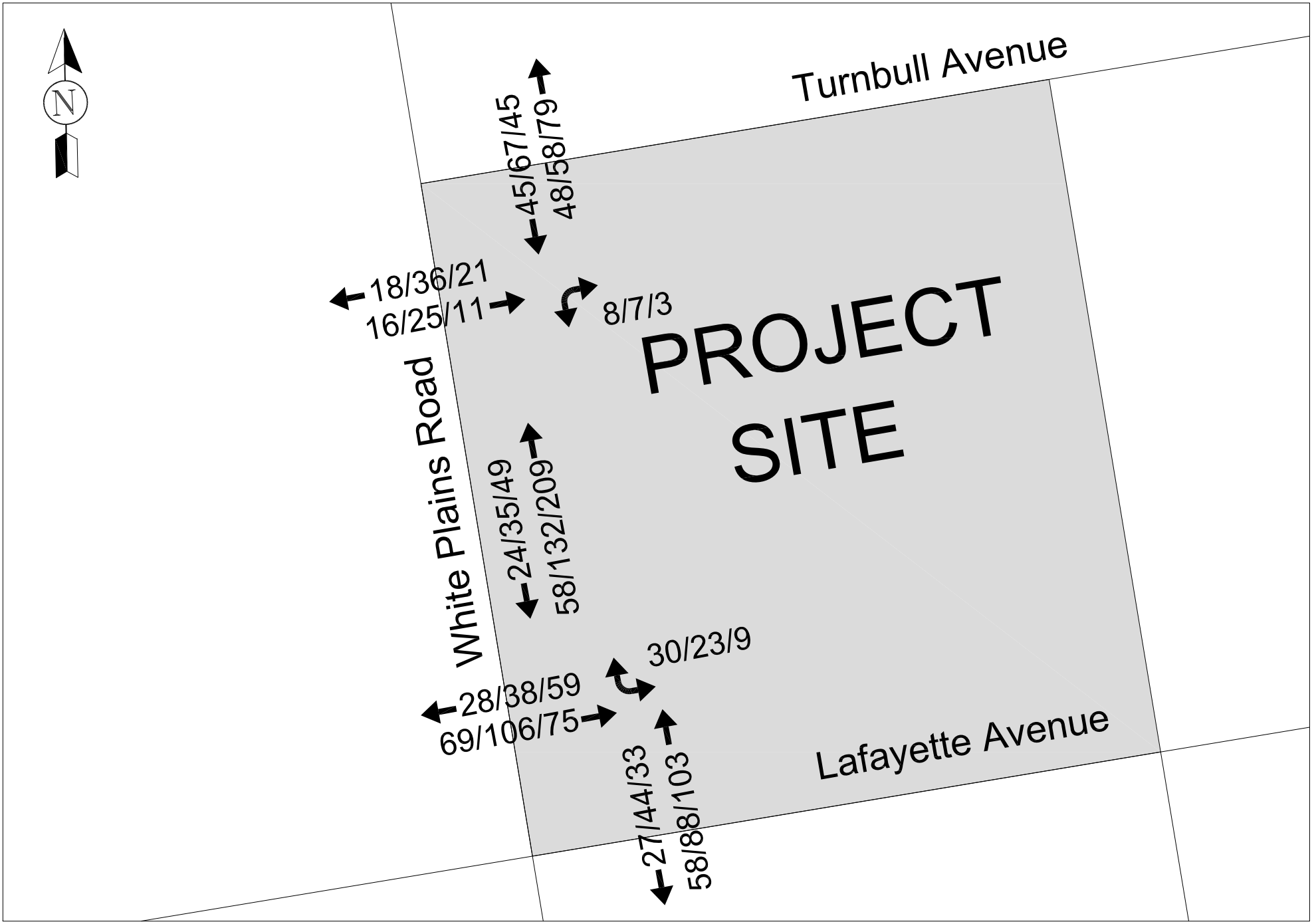
Table J-20: 2020 No-Action Conditions Corner Area Analysis

Location	Weekday Midday		Weekday PM		Saturday Midday	
	Average Pedestrian Space (sf/ped)	LOS	Average Pedestrian Space (sf/ped)	LOS	Average Pedestrian Space (sf/ped)	LOS
Turnbull Ave. & White Plains Rd. (SE corner)	490.7	A	300.8	A	362.9	A
Lafayette Ave. & White Plains Rd. (NE corner)	731.2	A	537.6	A	507.2	A

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

As discussed in Section IV, "Level 1 Screening Assessment," the proposed project is expected to generate 263, 685, 481, and 531 pedestrian trips (bus only, bus-to-subway, and walk-only; in and out combined) in the weekday AM, midday, and PM and Saturday midday peak hours, respectively. Based on the Level 2 screening assessment, project-generated pedestrian trips are expected to exceed 200 at the three pedestrian analysis locations in the weekday midday and PM and Saturday midday peak hour (refer to Figures J-4 and J-5). Figure J-12 shows the resultant total With-Action pedestrian volumes at the analyzed pedestrian elements for the weekday midday and PM and Saturday midday peak hours.

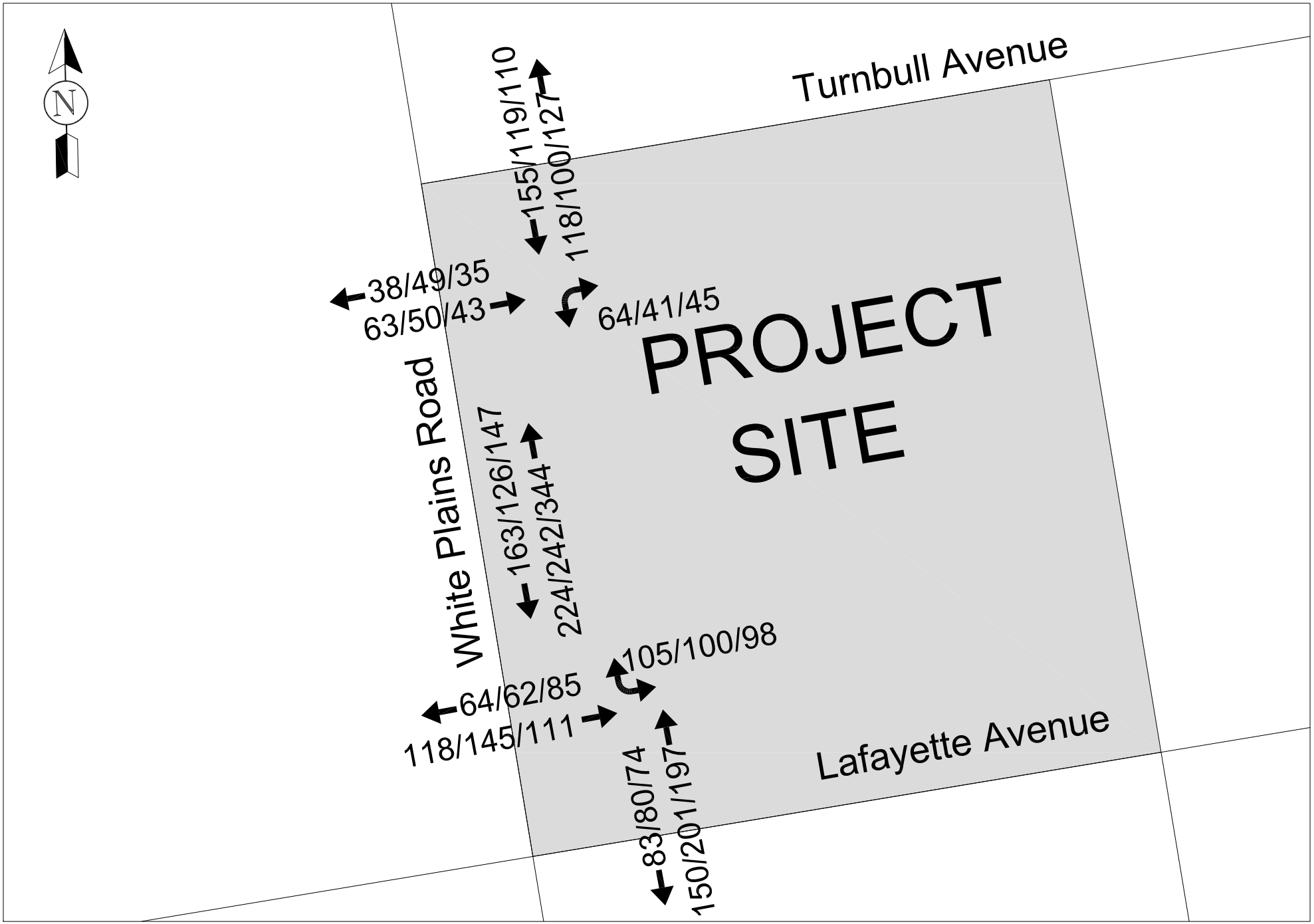
Tables J-21 and J-22 show the forecasted With-Action average pedestrian space (in square feet per pedestrian) and LOS at analyzed sidewalks and corner areas, respectively. Peak 15-minute volumes are also provided for all analyzed locations. As shown in Tables J-21 and J-22, all analyzed pedestrian elements are expected to continue to operate at LOS B or better in the 2020 With-Action condition, with the exception of the analyzed sidewalk in the weekday midday peak period, which would deteriorate from LOS B to LOS C. However, as the average pedestrian space at this location would remain above 44.3 sf per pedestrian, no significant adverse impacts would result, in accordance with *CEQR Technical Manual* criteria.



1965 Lafayette Avenue

Figure J-11

2020 No-Action Weekday Midday/PM/Saturday Midday Pedestrian Volumes



1965 Lafayette Avenue

Figure J-12

2020 With-Action Weekday Midday/PM/Saturday Midday Pedestrian Volumes

Table J-21: 2020 With-Action Conditions Sidewalk Analysis

Location	Effective Width (ft.)	Peak Hour Volumes			Average Pedestrian Space (sf/ped)			Platoon-Adjusted LOS		
		Weekday Midday	Weekday PM	Saturday Midday	Weekday Midday	Weekday PM	Saturday Midday	Weekday Midday	Weekday PM	Saturday Midday
East sidewalk of White Plains Road btwn. Lafayette & Turnbull Aves.	4.0	387	368	491	89.4	94.1	104.0	C	B	B

Table J-22: 2020 With-Action Conditions Corner Area Analysis

Location	Weekday Midday		Weekday PM		Saturday Midday	
	Average Pedestrian Space (sf/ped)	LOS	Average Pedestrian Space (sf/ped)	LOS	Average Pedestrian Space (sf/ped)	LOS
Turnbull Ave. & White Plains Rd. (SE corner)	146.6	A	153.1	A	138.8	A
Lafayette Ave. & White Plains Rd. (NE corner)	287.6	A	255.5	A	225.3	A

X. VEHICULAR AND PEDESTRIAN SAFETY EVALUATION

Under *CEQR Technical Manual* guidelines, an evaluation of vehicular and pedestrian safety is needed for locations within the traffic and pedestrian study areas that have been identified as high accident locations. These are defined as locations where 48 or more total reportable and non-reportable crashes or five or more pedestrian/bicyclist injury crashes have occurred in any consecutive 12 months of the most recent three-year period for which data are available. (Reportable accidents are defined as those involving injuries, fatalities, and/or $1,000 or more in property damage.) Additional pedestrian safety measures are also evaluated in the area due to the addition of a new school.

Table J-23 shows summary accident data for the years 2012 through 2014 that were obtained from DOT. This is the most recent three-year period for which data is available. The table shows the total number of crashes each year and the number of crashes each year involving pedestrians and cyclists at study area intersections. As shown in Table J-23, one study area intersection was identified as a high crash location: the intersection of White Plains Road and Story Avenue. As presented in Table J-23, this intersection experienced a total of six combined pedestrian/bicycle injury crashes in 2013; four of the crashes involved pedestrians with two involving bicycles. All but one of the pedestrian/bicycle injury crashes that occurred in 2013 occurred during night, dawn, or dusk, when lighting conditions are the poorest; two of the crashes involved pedestrians/bicycles crossing against the signal. However, it should be noted that subsequent to 2013, the number of lanes along this segment of White Plains Road was reduced from five to four, and a leading pedestrian interval (LPI) was incorporated into the signal timing at this intersection (refer to Table J-12); these measures were developed in response to the corridor being identified as "High Crash Corridor" in the Vision Zero plan. Reducing the number of vehicle travel lanes and the incorporation of LPIs generally improve pedestrian safety conditions.

Table J-23: Accident Data Summary 2012 - 2014

Intersection		Pedestrian Injury Crashes			Bicycle Injury Crashes			Total Pedestrian/Bicycle Injury Crashes			Total Crashes (Reportable + Non-Reportable)		
North-South Roadway	East-West Roadway	2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014
White Plains	Bruckner	2	2	1	0	0	0	2	2	1	22	22	19

Road	Boulevard WB												
	Story Avenue	2	4	2	0	2	1	2	6*	3	4	12	8
	Lafayette Avenue	0	3	0	2	0	0	2	3	0	4	9	2
	Bruckner Boulevard EB	0	1	0	0	2	0	0	3	0	0	5	5
	Turnbull Avenue	0	0	1	0	0	0	0	0	1	1	0	3

Source: NYSDMV/DOT
Notes:
* Denotes High Crash Location.

As discussed in Section V, "Level 2 Screening Assessment," above, the proposed project is not expected to generate a significant amount of pedestrian volumes at the intersection of Story Avenue and White Plains Road in any peak hour. Furthermore, as presented in Figure J-1, less than one-fifth of all vehicle trips generated by the proposed project at this intersection would be turning movements, with the majority (four-fifths) comprising through movements that are less likely to exacerbate pedestrian/bicycle crash conditions. In addition, while the proposed project would include signal timing and street geometry changes at this intersection, the existing seven-second LPI would remain (refer to Table J-11). Lastly, as noted above, the majority of the pedestrian/bicycle injuries that occurred at the intersection of Story Avenue and White Plains Road occurred during periods of poor light conditions (in the overnight, evening, and dawn hours), when project-generated pedestrian and vehicle volumes are expected to be significantly lower than those analyzed for the AM, midday, and PM peak hours. As such, the proposed project is not expected to significantly exacerbate existing high crash conditions at the intersection of Story Avenue and White Plains Road.

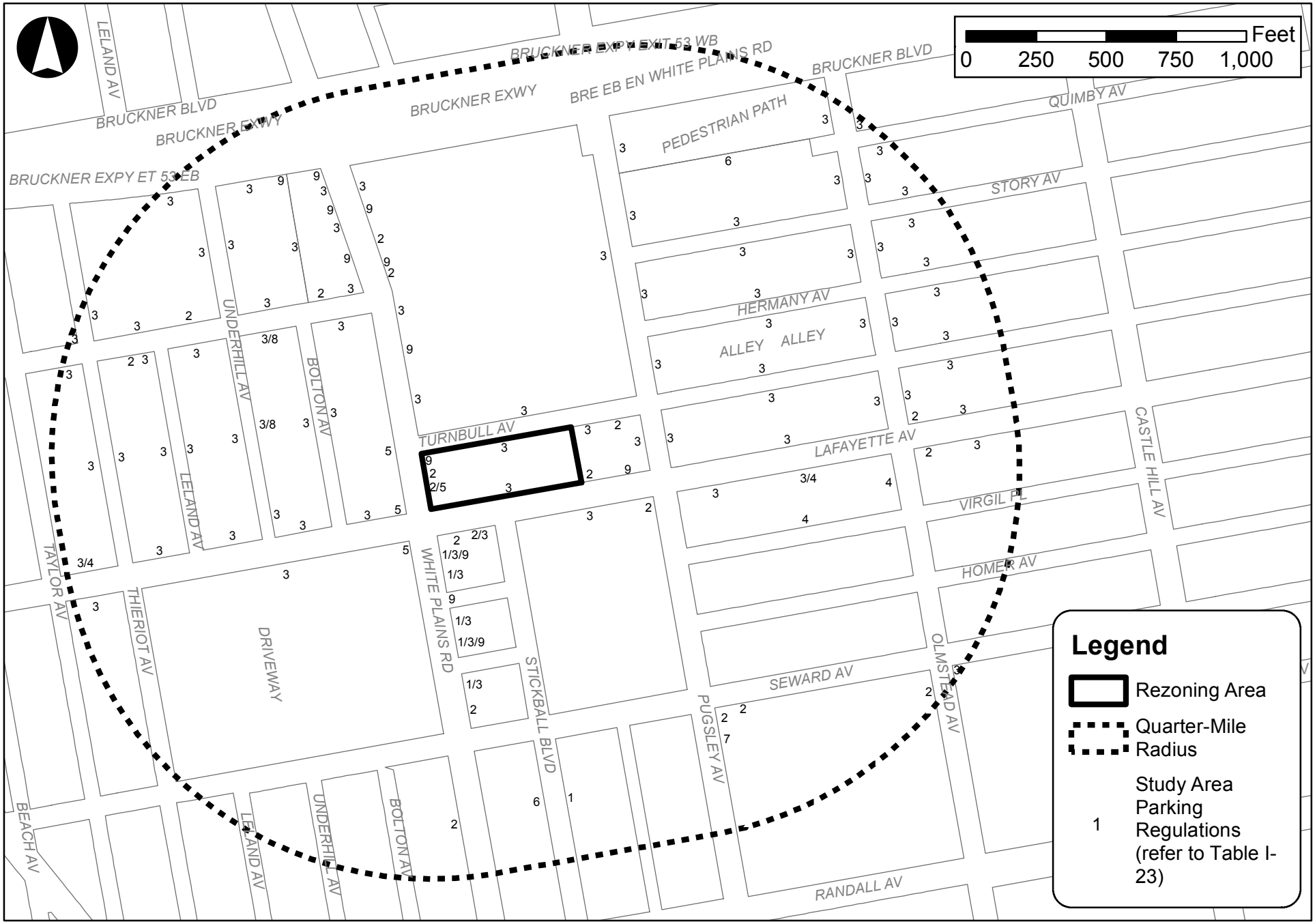
XI. DETAILED PARKING ANALYSIS

Existing Conditions

As presented in Section V, "Level 2 Screening Assessment," project-generated parking demand is expected to exceed the available accessory parking capacity proposed in the overnight hours. As such, a detailed overnight parking inventory of the area surrounding the rezoning area was conducted for a typical weekday overnight period. The parking inventory encompassed a ¼-mile radius (an approximately five-minute walk) form the rezoning area, as recommended in the *CEQR Technical Manual*. As shown in Figure J-13, the ¼-mile study area is generally bounded by Bruckner Boulevard/the Bruckner Expressway to the north, Taylor Avenue to the west, mid-block between Seward and Randall Avenues to the south, and mid-block between Olmstead and Castle Avenues to the east.

On-street parking regulations, capacity, and occupancy were inventoried for the study area on a block-by-block basis. As shown in Figure J-13 and Table J-24, alternate side parking for street cleaning is regulated on many streets, with several streets within the study area having no posted parking regulations on either side of the street.

Table J-25, below, presents the on-street parking occupancy within a ¼-mile of the rezoning area, based on an overnight parking inventory survey conducted on November 16, 2016. As indicated in the table, there are approximately 1,762 parking spaces within a ¼ mile of the rezoning area, 79.1 percent of which were occupied in the overnight hours.



1965 Lafayette Avenue

Figure J-13
Study Area Parking Regulations

Table J-24: Study Area Parking Regulations

Map No.[1]	Regulation
1	Back In Angle Parking Only
2	Bus Stop – No Standing
3	Alternate Side Parking
4	No Parking 7AM-4PM School Days
5	No Parking 8AM-6PM Mon – Fri
6	No Parking Anytime
7	No Standing – Handicap Express Bus
8	No Standing 7AM-4PM School Days
9	No Standing Anytime

Notes:
[1] Refer to Figure J-13.

Table J-25: 2016 Existing On-Street Parking Conditions

Study Area On-Street Parking Spaces	Occupied Parking Spaces	Available Parking Spaces	Utilization (%)
1,762	1,394	368	79.1

The Future without the Proposed Actions (No-Action Conditions)

Under the 2020 No-Action condition, background growth in the study area is expected to increase the demand for on-street parking. The same background growth rate assumed for traffic—0.25 percent per year for the 2016-2020 period—was applied to determine 2020 No-Action parking demand. As a result of this increased demand, on-street parking occupancy is expected to reach 79.9 percent in the ¼-mile study area during the overnight hours, decreasing the number of available spaces by 14 spaces to 354 (see Table J-26).

Table J-26: 2020 No-Action On-Street Parking Conditions

Study Area On-Street Parking Spaces	Occupied Parking Spaces	Available Parking Spaces	Utilization (%)
1,762	1,408	354	79.9

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

As shown earlier in Section V, "Level 2 Screening Assessment," the proposed project is expected to generate a peak overnight parking demand of 175 spaces (refer to Tables J-3a and J-3b). With 48 accessory parking spaces provided as part of the proposed project, this peak overnight demand would generate an overflow demand of 127 spaces in the overnight period. As indicated in Table J-27, peak parking demand could be absorbed by available on-street spaces within the ¼-mile study area, with a With-Action overnight on-street parking utilization rate of 87.1 percent.

Table J-27: 2020 With-Action On-Street Parking Conditions

Study Area On-Street Parking Spaces	Occupied Parking Spaces	Available Parking Spaces	Utilization (%)
1,762	1,535	227	87.1

ATTACHMENT K

AIR QUALITY

I. INTRODUCTION

Air quality, or the quality of the surrounding air, may be affected by air pollutants produced by motor vehicles, referred to as "mobile sources"; by fixed facilities, usually referenced as "stationary sources"; or by a combination of both. Under City Environmental Quality Review (CEQR), an air quality assessment determines both a proposed project's effects on ambient air quality, as well as the effects of ambient air quality on the project. Proposed projects may have an effect on air quality during operation and/or construction.

Under the proposed actions, an existing accessory parking lot and basketball court on the western portion of Block 3672, Lot 1 in the Soundview neighborhood of the Bronx would be redeveloped into a predominantly residential property. The proposed project would be located adjacent to an existing 21-story residential building that occupies the central portion of Block 3672, Lot 1. This attachment evaluates the potential for air quality impacts due to emissions from additional traffic, parking facilities, and emissions from existing and proposed boiler stacks.

II. PRINCIPAL CONCLUSIONS

Based on the information and analyses provided in this attachment, no significant adverse impacts are projected as a result of the proposed project. This includes the effects of the proposed project on the surrounding community, the effects of the surrounding community on the proposed project, and potential project-on-project impacts. Based on the results of the detailed analysis, summarized below, no significant adverse impacts are projected.

A screening analysis was carried out for carbon monoxide (CO) and particulate patter (PM) from additional motor vehicles. The results showed that the project would not warrant a detailed analysis of potential CO mobile source emission impacts, but modeling of traffic air quality was warranted for $PM_{2.5}$ and PM_{10} at the worst-case intersection of Turnbull Avenue and White Plains Road. Modeling was carried out with MOVES2014a and CAL3QHCR. The results showed no potential for impacts. In addition, based on the screening and results of the detailed garage analysis for the proposed project, no impacts are anticipated for CO or fine particulates.

Since the proposed project (1) is on the same lot as an existing structure of similar or greater height; and (2) comprises two abutting structures, the proposed project's heating/hot water, ventilation, and air conditioning (HVAC) stacks were analyzed using AERMOD modeling to determine the potential for project-on-existing and/or project-on-project stationary source impacts. Based on the results of the detailed analysis, no significant adverse impacts are projected provided that the development uses natural gas as the fuel for HVAC. To ensure that the proposed project uses natural gas as fuel for HVAC, and (E) designation would be assigned to the project site. Lastly, as two residential complexes with state permits were identified within 1,000 feet of the rezoning area, an existing-on-project (large combustion emission source) analysis was undertaken to determine the potential for significant adverse impacts on the

proposed project. Based on the results of this detailed analysis, no significant adverse impacts would result.

III. SCREENING ASSESSMENT

As presented in Attachment B, "Supplemental Screening," preliminary assessments were carried out for traffic air quality, parking, HVAC, and air toxics. A summary of the findings of this preliminary assessment is provided below.

Mobile Source Air Quality

Traffic

The mobile source analysis outlined in the *CEQR Technical Manual* considers actions that add new vehicles to roadways or change traffic patterns, either of which may have significant adverse air quality impacts. Screening analyses were carried out for CO and $PM_{2.5}$ to determine whether the project-generated increases in traffic had the potential to cause a significant impact. For the preliminary CO screening assessment, the *CEQR Technical Manual* indicates that a more detailed mobile source analysis may be warranted for a project located in the Bronx if it would generate 170 or more incremental vehicle trips at any intersection. For the preliminary PM assessment, the screening is based on the number of heavy duty diesel vehicles (HDDVs) or their equivalent in vehicular emissions generated by the projected traffic increment. The determination of HDDV equivalents is based on the vehicle increment, vehicle mix, and roadway classification of the intersection.

CO Screening

As noted above, for this area of the City, the threshold volume for modeling CO concentrations using MOVES2014a and CAL3QHC or CAL3QHCR is an increment of 170 vehicles through an intersection during a peak traffic hour. The highest incremental traffic volumes generated by the proposed project at an existing intersection is 113 vehicles at the intersection of Turnbull Avenue and White Plains Road (refer to Attachment J, "Transportation," and Table K-2, below). As such, the proposed project does not trigger the 170-vehicle threshold, and no CO modeling is required.

PM Screening

Table K-1, shows the New York State Department of Transportation (NYSDOT) functional classifications for the roadways within the project area. As presented in Table K-1, all are urban roads. For urban areas, the classifications are: principal arterial (interstate), principal arterial (other freeway/expressway), principal arterial (other), minor arterial, major collection, minor collector, and local.

Based on Table K-1, the roadways within the study area include local streets, collectors, and arterials. For air quality screening purposes, local roads are treated as paved roads with average daily traffic of fewer than 5,000 vehicles.

Table K-2 shows the No-Action, With-Action, and incremental (project-generated) traffic volumes for the study area intersections, consistent with the information provided in Attachment J, "Transportation." As

presented in Table K-2, the proposed project would generate a maximum of 79 auto trips during the weekday AM period, 73 during the weekday midday period, 99 during the weekday PM period, and 89 during the Saturday midday period at the existing study area intersections. The highest intersection increment would be at Turnbull Avenue and White Plains Road, with 99 vehicles in the weekday PM period.

Table K-1: DOT Functional Classifications within Project Area

Roadway	From	To	NYS Urban Code	Urban Classification
Lafayette Ave	Metcalf Ave	Zerega Ave	17	Collector
Turnbull Ave	White Plains R	Pugsley Ave	17	Collector
Turnbull Ave	Pugsley Ave	Zerega Ave	19	Local Street
Story Ave	Metcalf Ave	Pugsley Ave	16	Minor Arterial
Brucknr Blv Sw	Zerega Ave	White Plains Rd	14	Principal Arterial
Brucknr Blv Sw	White Plains Rd	Bronx River Pk	14	Principal Arterial
Bruckner Blv En	Bronx R Pkwy	White Plains R	14	Principal Arterial
Bruckner Blv En	White Plains R	Zerega Ave	14	Principal Arterial
White Plains Rd	Sound View Ave	Turnbull Ave	19	Local Street
White Plains Rd	Turnbull Ave	Bruckner Blvd NB	17	Collector
White Plains Rd	Bruckner Blvd NB	Westchester Ave	16	Minor Arterial
Pugsley Ave	Seward Ave	Bruckner Blvd	17	Collector

Source: New York State Functional Class Maps.

Using the information presented in Table K-2, a $PM_{2.5}$ screening analysis was conducted using the spreadsheet referenced on page 17-12 of the *CEQR Technical Manual*. The algorithm uses traffic volume according to vehicular class and determines the number of HDDVs that would generate equivalent emissions. The equivalent number of HDDVs varies by type of road. Based on guidance from the New York City Department of Environmental Protection (DEP), the minor leg of an intersection determines its classification as a local road, collector, arterial, or expressway. A more detailed analysis is required if a proposed action would meet or exceed the thresholds shown below:

- 12 HDDV for paved roads with average daily traffic fewer than 5,000 vehicles;
- 19 HDDV for collector-type roads;
- 23 HDDV for principal and minor arterial roads; and
- 23 HDDV for expressways and limited-access roads.

As shown in Table K-2, the intersection with the highest increment would be Turnbull Avenue and White Plains Road. The equivalent truck calculations showed that the increment is equivalent to 20 diesel trucks on a collector road (Turnbull Avenue, White Plains Road), which fails the screen. Therefore, this intersection requires a more detailed analysis of $PM_{2.5}$ and PM_{10} using MOVES2014a and CAL3QHCR. Although other intersections would also fail the screen, the intersection of Turnbull Avenue and White Plains Road would be a worst-case because it has the highest increment. Therefore, the following intersection was modeled as a worst-case for PM_{10} and $PM_{2.5}$ for the peak PM period: Turnbull Avenue @ White Plains Road. This is presented under Section V, "Detailed Assessment."

Table K-2: 2020 Traffic Volumes

Intersection	Project Increment	Urban Classification
Weekday AM		
Bruckner Blvd. N./White Plains Blvd.	45	Arterial/collector
Bruckner Blvd. S./White Plains Blvd.	64	Arterial/collector
Story Avenue/White Plains Blvd.	74	Arterial/collector
Bruckner Plaza/White Plains Blvd.	74	Local/collector[1]
Turnbull Avenue/White Plains Blvd.	79	Collector/collector
Weekday Midday		
Bruckner Blvd. N./White Plains Blvd.	36	Arterial/collector
Bruckner Blvd. S./White Plains Blvd.	55	Arterial/collector
Story Avenue/White Plains Blvd.	62	Arterial/collector
Bruckner Plaza/White Plains Blvd.	61	Local/collector[1]
Turnbull Avenue/White Plains Blvd.	72	Collector/collector
Weekday PM		
Bruckner Blvd. N./White Plains Blvd.	43	Arterial/collector
Bruckner Blvd. S./White Plains Blvd.	75	Arterial/collector
Story Avenue/White Plains Blvd.	89	Arterial/collector
Bruckner Plaza/White Plains Blvd.	89	Local/collector[1]
Turnbull Avenue/White Plains Blvd.	99	Collector/collector
Saturday Midday		
Bruckner Blvd. N./White Plains Blvd.	42	Arterial/collector
Bruckner Blvd. S./White Plains Blvd.	69	Arterial/collector
Story Avenue/White Plains Blvd.	82	Arterial/collector
Bruckner Plaza/White Plains Blvd.	82	Local/collector[1]
Turnbull Avenue/White Plains Blvd.	90	Collector/collector

Note:
[1] No traffic increment would occur on Bruckner Plaza as the local road.

Parking Facilities

As described in Attachment A, "Proposed Project," the proposed project would include 67 enclosed below-grade accessory parking spaces. In addition, in conjunction with the proposed project, 42 accessory surface parking spaces would be striped to the east of the proposed project buildings, which would be accessory to the existing Mitchell Lama building on Block 3672, Lot 1 (partially replacing the existing 103-space surface lot used by residents of the existing building today), for a total of 109 accessory parking spaces to be located within or adjacent to the proposed project. Based on the current protocol used by DCP, a proposed action would require analysis of a parking facility if 85 or more spaces are provided. As a worst-case analysis, the 67-space garage was analyzed as a facility with 109 spaces (the combined total of the 67 enclosed spaces and 42 surface spaces). The detailed garage analysis is presented below under Section V, "Detailed Assessment."

Stationary Source Air Quality

Actions can result in stationary source air quality impacts when they create new stationary sources of pollutants that can affect surrounding uses (such as exhaust from boiler stack(s) used for heating/hot water, ventilation, or air conditioning systems); when they locate new sensitive uses (schools, hospitals, residences) near such stationary sources; and when new emission sources are located within a short distance of each other. Air quality impacts from HVAC sources are unlikely at distances of 400 feet or more, but a large or major emission source within 1,000 feet warrants further evaluation.

Heating Ventilation and Air Conditioning (HVAC)

The HVAC analysis evaluates three types of conditions: (1) the potential for emissions from existing buildings to adversely affect the proposed project; (2) the potential for the proposed project to adversely affect existing buildings of similar or greater height; and (3) the potential for future buildings to cause project-on-project impacts among themselves.

Existing-on-Project Impacts (Large Combustion Emission Sources)

A review of existing land uses was conducted to determine whether there are any large or major combustion emission sources within 1,000 feet of the rezoning area. Using the New York State Facility and Title V New York State Department of Environmental Conservation (NYSDEC) permit database, two facilities were identified as being "Large" emission sources – one located at the 755 White Plains Road apartment building complex (Block 3600, Lot 4), and the second located at 2001 Story Avenue (Block 3681, Lot 1). The permit for the facility at 755 White Plains Road (NYSDEC Permit #2-6007-00360/00003) was issued to Stevenson Commons Associates LP, and the permit for facility at 2001 Story Avenue (NYSDEC Permit #2-6007-00356/00001) was issued to Boulevard Story LLC. Both facilities permit the operation of residential combustion boilers.

In addition, one other large emission source, which has a DEP permit (Permit #CB036512), was identified as being nearby. This facility is also located at 755 White Plains Road (Block 3600, Lot 4), was issued for the same Stevenson Common Associates LP, and includes two boilers.

Emissions from these permitted sources, which include a combined seven boilers, could potentially impact the proposed project, individually and/or cumulatively. Therefore, a cumulative impact assessment is warranted to estimate whether the potential impacts of all of these emissions combined on the proposed project is significant. The analysis, which is provided in Section V, "Detailed Assessment," below, was conducted following the procedures and methodologies prescribed in the *CEQR Technical Manual*.

Project-on-Existing Impacts

The proposed project would use fossil fuels for HVAC purposes. Emissions from the HVAC system of the proposed project may affect air quality levels at other nearby existing land uses. According to *CEQR Technical Manual* guidelines, the impacts of these emissions would be a function of fuel type, stack height, building size, and location of each emissions source relative to nearby sensitive land uses.

As presented in Attachment A, "Project Description," the proposed project would comprise two attached buildings, both rising to maximum heights of 14 stories (137 feet, 8 inches): the affordable senior housing

building would comprise a total of 102,699 gsf of floor area, and the affordable family housing building would comprise a total of 281,572 gsf of floor area. The heated area to be serviced by the HVAC units for each building would be approximately 99,011 for the senior housing and 253,795 for the family housing.

Based on a boiler stack height of three feet, the release height for boiler emissions for both buildings would be approximately 141 feet. The nearest building of similar or greater height would be the existing 21-story Mitchell Lama building, which would be approximately 60 feet to the east of the senior housing building (at its closest point) and approximately 130 feet east of the proposed project's family housing building (at its closest point). Because the Mitchell-Lama building is on the same lot as the proposed project, the potential for HVAC air quality impacts cannot be screened using the nomographs in the *CEQR Technical Manual.* According to the protocol required by the New York City Department of City Planning (DCP), the building must be analyzed using the U.S. Environmental Protection Agency's (EPA's) AERSCREEN or AERMOD models. The modeled results are discussed in Section V, "Detailed Assessment."

The next closest building of similar or greater height is a 24-story building located 160 feet southwest of the rezoning area (at 1850 Lafayette Avenue), as a worst-case analysis, AERMOD was carried out for the closest building (the existing Mitchell Lama building on Block 3672, Lot 1). If no impacts occur for this building, none would be projected for the building at 1850 Lafayette Avenue.

Project-on-Project Impacts

As described in Attachment A, "Project Description," the proposed project would be comprised of two buildings. Each building would have their own boilers. As no screening analysis can be used because the two buildings are adjacent to each other, an analysis of the boiler stacks' effects on windows of the two buildings was carried out using AERMOD, the results of which are discussed in Section V, "Detailed Assessment."

Air Toxics and Odors

As presented in Attachment C, "Land Use, Zoning, and Public Policy," land uses in the vicinity of the rezoning area comprise a variety of commercial, residential, and institutional uses. According to the *CEQR Technical Manual*, existing facilities with the potential to cause adverse air quality impacts are those that would require permitting under City, state and federal regulations. The *CEQR Technical Manual* lists the following types of uses as a source of concern for the residential uses that would occur under the proposed actions:

- Large emission sources (e.g., solid waste or medical waste incinerators, cogeneration facilities, asphalt and concrete plants, or power generating plants) within 1,000 feet,
- Medical, chemical, or research laboratories nearby,
- Manufacturing or processing facilities within 400 feet, and/or
- Odor-producing facilities within 1,000 feet.

As part of the air toxics analysis, on-line searches of the NYSDEC's Air Permit Facilities Registry and the EPA's Facility Registry System for permitted facilities, as well as an on-line search of data provided by the New York City Department of Buildings (DOB), New York City's Open Accessible Space Information System Cooperative (OASIS), and available aerial photos provided by Google and Bing, were carried out. No large emission sources or medical, chemical, or research laboratories were identified within the search radii, no

odor-producing facilities were found, and no industrial sites were identified with 400 feet of the rezoning area. Therefore, no further assessment is needed.

IV. METHODOLOGY

Standards and Guidelines

National Ambient Air Quality Standards

National Ambient Air Quality Standards (NAAQS) were promulgated by the EPA for six major pollutants, deemed criteria pollutants, because threshold criteria can be established for determining adverse effects on human health. They consist of primary standards, established to protect public health, and secondary standards, established to protect plants and animals and to prevent economic damage. The six pollutants are:

- Carbon Monoxide (CO), which is a colorless, odorless gas produced from the incomplete combustion of gasoline and other fossil fuels.
- Lead (Pb), which is a heavy metal principally associated with industrial sources.
- Nitrogen dioxide (NO_2), which is formed by chemical conversion from nitric oxide (NO) emitted primarily by industrial furnaces, power plants, and motor vehicles.
- Ozone (O_3), which is a principal component of smog formed through a series of chemical reactions between hydrocarbons and nitrogen oxides in the presence of sunlight.
- Inhalable Particulates (PM_{10}/$PM_{2.5}$), which are primarily generated by diesel fuel combustion, brake and tire wear on motor vehicles, and the disturbance of dust on roadways. The PM_{10} standard covers those particulates with diameters of ten micrometers or less. The $PM_{2.5}$ standard covers particulates with diameters of 2.5 micrometers or less.
- Sulfur dioxides (SO_2), which are heavy gases primarily associated with the combustion of sulfur-containing fuels such as coal and oil.

Table K-3 shows the New York and National Ambient Air Quality Standards.

NYC de Minimis Criteria and Interim Guidelines

For carbon monoxide from mobile sources, New York City's *de minimis* criteria are used to determine the significance of the incremental increases in CO concentrations that would result from a proposed action. These set the minimum change in an eight-hour average carbon monoxide concentration that would constitute a significant environmental impact. According to these criteria, significant impacts are defined as follows:

- An increase of 0.5 parts per million (ppm) or more in the maximum eight-hour average carbon monoxide concentration at a location where the predicted No-Action eight-hour concentration is equal to or above eight ppm.
- An increase of more than half the difference between the baseline (i.e., No-Action) concentrations and the eight-hour standard, where No-Action concentrations are below eight ppm.

Table K-3: National and New York State Ambient Air Quality Standards

Pollutant	Averaging Period	Standard
Sulfur Dioxide	One-hour average[e]	196 µg/m^3 (75 ppb)
	Three-hour average	1300 µg/m^3 (0.50 ppm)
Inhalable Particulates	24-hour average[a]	150 µg/m^3
Inhalable Particulates ($PM_{2.5}$)	Three-year average annual mean	12 µg/m^3
	Maximum 24-hour three-year average[d]	35 µg/m^3
Ozone	Maximum daily eight-hour average[b]	0.075 ppm
Carbon Monoxide	Eight-hour average[a]	9 ppm
	One-hour average[a]	35 ppm
Nitrogen Dioxide	12-month arithmetic mean	100 µg/m^3 (53 ppb)
	One-hour average[e]	188 µg/m^3 (100 ppb)
Lead	Quarterly mean	1.5 µg/m^3

Notes:
ppm = parts per million; µg/m^3 = micrograms per cubic meter.
[a] Not to be exceeded more than once a year.
[b] Three-year average of the annual fourth highest maximum eight-hour average concentration effective May 27, 2008.
[c] Not to be exceeded by the 98th percentile of 24-hour $PM_{2.5}$ concentrations in a year (averaged over three years).
[d] Three-year average of the 98th percentile of the daily maximum one-hour average, effective January 22, 2010.
[e] Three-year average of the 99th percentile of the daily maximum one-hour average, final rule signed June 2, 2010.
Sources: NYSDEC; New York State Ambient Air Quality Development Report, 2015.

For $PM_{2.5}$ analyses at the microscale level, the City's *de minimis* criteria for developing significance are:

- Predicted increase of more than half the difference between the background concentration and the 24-hour standard;
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.1 µg/m^3 at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately one square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations); or
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.3 µg/m^3 at a discrete or ground-level receptor location.

Based on the NYSDEC's annual air quality report (2015), which lists a background value of 25.78 µg/m^3 for $PM_{2.5}$ for the Bronx (Botanical Gardens), the *de minimis* criterion for the 24-hour concentration of $PM_{2.5}$ would be 4.6 µg/m^3. If the project increment is greater than this value, an impact would occur.

New York State Short-Term and Annual Guideline Concentrations

The NYSDEC has established short-term guideline concentrations (SGCs) and annual guideline concentrations (AGCs) for certain toxic or carcinogenic non-criteria pollutants for which EPA has no established standards. They are maximum allowable one-hour and annual guideline concentrations, respectively, that are considered acceptable concentrations below which there should be no adverse effects on the health of the general public.

SGCs are intended to protect the public from acute, short-term effects of pollutant exposures, and AGCs are intended to protect the public from chronic, long-term effects of the exposures. However, DEP

considers that, for pollutants for which the NYSDEC-established AGC is based on a health risk criteria (i.e., a one-in-a-million cancer risk), impacts less than ten times the AGC are not considered significant. This is because the NYSDEC developed the AGCs for these pollutants by reducing the health risk criteria by a factor of ten as an added safety measure. In determining potential impacts, therefore, DEP considers concentrations within ten times the AGC to be acceptable. Pollutants with no known acute effects have no SGC criteria, but do have AGC criteria. NYSDEC DAR-1 (October 18, 2010) contains the most recent compilation of the SGC and AGC guideline concentrations.

No NAAQs, SGCs, or AGCs exist for emissions of pollutants that are grouped together such as total solid particulates, total hydrocarbons, or total organic solvents. Therefore, as recommended by DEP, all solid particulates are assumed to be PM_{10}. For total organic solvents or total hydrocarbons, the SGCs and AGCs for specific compounds should be obtained and used in an analysis.

State Implementation Plan (SIP)

The Clean Air Act (CAA), as amended in 1990, (1) defines non-attainment areas (NAAs) as geographic regions that have been designated as not meeting one or more of the NAAQS; and (2) requires states to submit to the EPA a State Implementation Plan (SIP) delineating how the state plans to achieve the NAAQS, followed by a plan for maintaining attainment status once the area is in attainment. Bronx County is part of the New York City CO maintenance area and a marginal non-attainment area for ozone. Previously, it was an NAA for $PM_{2.5}$. As of April 18, 2014, the EPA redesignated Bronx, Kings, New York, Queens, and Richmond counties as $PM_{2.5}$ maintenance areas. A SIP to address non-attainment of the 2008 ozone NAAQS was due in 2015. The state is also working with the EPA to formulate standard practices for regional haze and $PM_{2.5}$.

Background Concentrations

For SO_2, NO_2, and PM_{10}, the background concentrations were obtained from NYSDEC's annual report for 2015 as follows:

- 36.8 $\mu g/m^3$ for the one-hour SO_2 concentration (IS52),
- 34.6 $\mu g/m^3$ for the annual NO_2 average (IS52),
- 110.4 $\mu g/m^3$ for the one-hour NO_2 average (Botanical Gardens),
- 39 $\mu g/m^3$ for the 24-hour PM_{10} average (IS52),
- 25.8 $\mu g/m^3$ for the 24-hour $PM_{2.5}$ average (Botanical Gardens),
- 9.3 $\mu g/m^3$ for the annual $PM_{2.5}$ average (Botanical Gardens),
- 3.0 ppm for the one-hour CO average (Botanical Gardens), and
- 1.7 ppm for the eight-hour CO average (Botanical Gardens).

Mobile Source Modeling

The EPA's CAL3QHCR model was used to determine future PM_{10} and $PM_{2.5}$ concentrations from vehicular traffic. CAL3QHCR is a Gaussian dispersion model that determines pollutant concentrations at specified receptor points. It accounts for pollutant emissions from both free-flowing vehicles and vehicles idling at signalized intersections. However, following EPA guidance, the queuing algorithm is not used with the CAL3QHCR model. Therefore, average speeds that included intersection delay were calculated for the roadway links.

Inputs to the model include coordinates for receptors and free-flow approach and departure links, as well as peak hour traffic volumes, speeds, and vehicular emission factors for each link. MOVES2014a was used to obtain pollutant emission factors for free-flow links in grams/vehicle-mile. The vehicular mix and speeds used in MOVES2014a were obtained from data utilized in Attachment J, "Transportation." Inputs pertaining to inspection/maintenance, anti-tampering programs, age distribution, meteorology, etc., were obtained from DEP. The pollutant processes included running exhaust and crankcase running exhaust, as well as brake and tire wear for PM_{10} and $PM_{2.5}$.

MOVES2014a was run for January 1st for the proposed project's 2020 analysis year for the weekday PM peak period for the garage analysis and the Saturday midday period for the intersection analysis. Post-processing was carried out to obtain emission factors for use in a Tier I analysis with CAL3QHCR. A Tier I analysis assumes that the traffic is the same for every hour of the day. A more refined Tier II analysis would use traffic volumes and emission factors specific to each hour of the day.

Fugitive dust from re-entrainment of dust was calculated using the formulas from Section 13.2.1-3 of EPA's AP-42 Document. The formulas were based on an average fleet weight that varied according to the vehicular mix for a given roadway and a silt loading factor of 0.4 g/m^2 for paved roads with fewer than 5,000 average daily traffic volumes (ADT) and 0.16 g/m^2 for collectors, as recommended by the *CEQR Technical Manual*. The resulting fugitive dust emissions for PM_{10} and $PM_{2.5}$ were added to the 24-hour emission factors calculated by MOVES2014a.

As noted above, all links were set up as free-flowing traffic links in CAL3QHCR. Free-flow links were modeled for a distance of 1,000 feet from the modeled intersection in each direction. The mixing zone for free-flow links was equal to the width of the traveled way plus an additional ten feet (three meters) on each side of the travel lanes. Idle emissions were treated as a link with a length of 0 feet, and the emission factor was obtained as grams per hour.

Sensitive receptors are homes, parks, schools, or other land uses where people congregate and which would be sensitive to air quality impacts. For the purposes of the air quality analysis, any point to which the public has continuous access can be deemed a sensitive receptor site. Numerous receptor points are typically modeled at each intersection to identify the points of maximum potential pollutant concentrations. Receptor points were modeled on the corners of the analyzed intersection, and at twenty-foot intervals for a distance of 350 feet along both sides of each intersection leg. Receptors for the 24-hour averaging periods of PM_{10} and $PM_{2.5}$ were placed at mid-sidewalk and outside the air quality mixing zone. Receptors for $PM_{2.5}$ for the annual period were placed outside the air quality mixing zone and at least fifteen meters from the roadway.

CAL3QHCR was run with five years of meteorological data (2010 – 2014) from LaGuardia Airport. A surface roughness of 175 centimeters (cm) was used in the modeling. A Tier I analysis was used, which assumes that a set of worst-case peak-hour traffic inputs are the same for all 24 hours of the day. This is a very conservative analysis, as the traffic volumes and speeds would show less congestion during off-peak hours.

CAL3QHCR provides maximum 24-hour and annual concentrations for fine particulates. The 24-hour results for PM_{10} were added to background concentrations and compared with the NAAQS. For $PM_{2.5}$, the modeled 24-hour and annual concentrations were averaged for the five-year meteorological period. The averages were compared with the NAAQS, and 24-hour and annual impacts were determined from the

differences between the modeled NO-Action and With-Action concentrations. The differences were compared with the DEP *de minimis* criteria.

Stationary Source Modeling

AERMOD, designed to support the EPA's regulatory modeling programs, is a steady-state Gaussian plume model with three separate components: AERMOD (a dispersion model), AERMAP (a terrain preprocessor), and AERMET (a meteorological preprocessor). AERMOD can handle emissions from point, line, area, and volume sources. The model is run with five years of meteorological data that include surface mixing height, wind speed, stability class, temperature, and wind direction.

Urban/Rural

The nearest major airport (LaGuardia) and the site are in urban locations. Therefore AERMOD's URBAN option was selected. The population used for the urban area was 8,000,000, and the default urban surface roughness length of 1.0 meter was used for the site.

Pollutants

Pollutants included NO_2 (one-hour, annual) and $PM_{2.5}$ (24-hour, annual) from natural gas, and SO_2 (one-hour), PM_{10} (24-hour), and $PM_{2.5}$ (24-hour, annual) from No. 2 fuel oil. No modeling of the three-hour concentration for SO_2 was done because the NAAQS is much higher than for the one-hour concentration. If no impacts are modeled for the one-hour period, none would occur for the three-hour period.

- Emission factors for natural gas were based on an annual consumption rate of 45.2 cubic feet of natural gas per sf for a residential structure, as indicated in the *CEQR Technical Manual.* The annual consumption of natural gas, in cubic feet, was converted to pounds using a multiplier of 100 for an uncontrolled NO_x boiler as recommended in Table 1.4-1 of EPA's AP-42 publication for external combustion sources.
- $PM_{2.5}$ from natural gas was calculated using 7.6 pound (lbs) per one million cubic feet.
- The SO_2 emission factors for No. 2 oil assumed the use of low sulfur No. 2 oil with a sulfur content of 0.0015 percent, and an emission factor of 0.213 lbs per 1000 gallons of oil.
- PM_{10} from No. 2 oil used an emission factor of 2.38 lbs per 1,000 gallons of fuel.
- $PM_{2.5}$ from No. 2 oil used an emission factor of 2.13 lbs per 1,000 gallons of fuel.

The resulting annual emissions were converted to hourly emission rates in grams per second based on 2,400 hours per year of use for heating. AERMOD's EMISFACT option specifying the winter period was used to model the emissions.

Meteorological Data

The model was run with data from LaGuardia Airport for 2010 through 2014. The upper air station used with LaGuardia is Brookhaven. An elevation of 3.4 meters was used. Hourly ozone values for use in modeling NO_2 were obtained from the Queens College 2 monitor for 2010 through 2014.[1]

[1] For the existing-on-project (large combustion emission source) analysis, which was conducted subsequent to the project-on-existing/project-on-project HVAC analyses, 2011-2015 meteorological data were utilized. As AERMOD

Project-on-Project & Project-on-Existing

Model Parameters

- The model was run with flat terrain. All buildings and receptors were placed at an elevation of zero (0), which is the standard approach.
- The one-hour and annual NO_x emissions were run with the PVMRM method and ozone files.
- AERMOD was run using concatenated meteorological data sets for 2010 through 2014. The same hourly emission factors were used for both short-term and annual averaging periods.

Stack Parameters

The EPA defines good engineering practice (GEP) stack height as the height necessary to insure that emissions from a building's stack do not result in excessive concentrations of any air pollutant in the immediate vicinity of the source as a result of atmospheric downwash, eddies, or wakes that may be created by the source itself, nearby structures, or nearby terrain obstacles.

- The Building Profile Input Program (BPIP) was run in conjunction with AERMOD.
- The model was run both with and without building downwash to determine which condition would provide worst-case results.
- British thermal units (Btus) for the source buildings were calculated as 60.3 thousand Btu per square foot (sf) of heated area.
- Per guidance from DCP, the stack parameters are based on the DEP CA Permit database and the heat input (with units of 10^6 Btu) of the boilers. Based on the square footage of the areas to be heated in the buildings, the calculated Btu ratings of the boilers were calculated to be 2.67 MMBtu per hour for the senior housing building and 6.20 MMBtu per hour for the family housing building. For boilers of this size, the stacks were assigned an exhaust temperature of 300.0° F[2] and inside stack diameters of 1.0 feet for the senior housing building and 1.5 feet for the family housing building. The average exhaust velocity provided by the CA database was 7.2 meters per second (m/s) for the family housing building and 7.8 m/s for the senior housing building.
- Stacks were assumed to be three feet higher than the roof or mechanical bulkhead. They were placed as close as feasible to the receptor building, but at least ten feet from the edge of the roof.
- For NO_2, the PVMRM option was used with an equilibrium ratio of 0.9, and an in-stack ratio of 0.5.

Receptors

Receptors were placed across the facades at window height on all floors. Receptors were also placed on the sidewalks in front of the receptor buildings at a height of 1.8 meters, as well as the proposed outdoor recreation areas.

utilized five consecutive years of data for the analysis, the utilization of this alternate data source does not significant affect the results.

[2] Preliminary runs show this results in higher concentrations than the 293^o shown in the *CEQR Technical Manual.*

Large Combustion Emission Sources

Permits

Stevenson Commons Associated LP (NYSDEC Permit ID: 2-6007-00360/00003)

This permit is for four units: two boilers with a heat capacity of 16.6 MMBtu/hour, each firing residual fuel No. 6 fuel oil that are associated with 755 White Plains Road property (Building 755 WPRD); and two boilers rated at 10.8 MMBtu/hour, each firing residual fuel number 6 fuel oil that are associated with 1850 Lafayette Avenue property (Building 1850 LA). According to the permit, the sulfur content of the oil is 0.3 percent by weight. The permit limits annual NO_x emissions to 24.9 tons per year.

Emission Sources

The facility under the 2-6007-00360 permit has two emission points (PT001 and PT002), with each point associated with two boilers.

- PT001 is located on Building 755 WPRD with UTM coordinates of 596.2 km (NYTME) and 4519.5 km (NYTMN) for projection zone 18, and includes the combined emissions from two boilers rated at 16.6 MMBtu/hr each. The stack diameter is 18 inches and its elevation is 250 feet.
- PT002 is located on Building 1850 LA with UTM coordinates of 596.2 km (NYTME) and 4519.5 km (NYTMN), and includes the combined emissions from two boilers rated at 10.8 MMBtu/hour. The stack diameter is 17 inches and its elevation is 265 feet.

Because the coordinates of PT001 and PT002 are in rounded kilometers (and not in meters, which is necessary for modeling analysis) and are the same for two emissions points on the different buildings, they could not be used to locate the stacks with necessary modeling precision. Therefore, coordinates of these emission sources were obtained from the Google Earth Pro map, in the UTM projection system and transferred to a GIS PLUTO shapefile, which included the emissions sources within 1,000 feet of the proposed project and used as base map for AERMOD modeling. The distance from the proposed project to the nearest boundary of Block 3600, Lot 4 is approximately 370 feet and the distance to the boundary of the Block 3681, Lot 1, where the facility under NYSDEC permit 2-6007-00356 is located, is approximately 950 feet.

Boulevard Story LLC (NYSDEC Permit ID: 2-6007-00356/00001)

This permit is for a combustion installation consisting of three residential boilers, each with a heat capacity of 14.7 MMBtu/hour. This facility, which also uses residual fuel oil No. 6 with 0.3 percent sulfur by weight, has one emission exhaust point, which is located on a building entitled as the "BMANOR" building in the permit.

The State permit was issued in 1993 and then modified in 2003, but listed with no expiration date. However, according to DEP boiler permit database, a permit (# CA 231573) for the MANOR building boiler (at 2001 Story Avenue) was also filed with DEP and includes the same three boilers with the same heat input. This permit however, was cancelled on April 30th, 2005.

The current permit for the 2001 Story Avenue building boiler is DEP permit # CB602803, which also covers three new boilers but with less heat input -- 11.92 MMBtu/hour firing fuel oil No. 2. It appears that this permit was filed as an amendment to the cancelled permit and it expires on August 26th, 2017.

As such, it is unclear whether this facility continues to operate under the State or DEP permit, and/or which permit is applicable. However, for the purpose of this analysis, the State permit data and stack parameters were used.

According to the State permit, the facility, which has one emission exhaust point associated with three boilers, has UTM coordinates 596.533 km (NYTME) and 4519.923 km (NYTMN) for projection zone 18. The stack is 132 feet tall and the diameter is 24 inches. Even though these coordinates appear to be precise, for consistency purposes, the NYTMN coordinate, as measured using on GIS shapefile, using the same approach using Google UTM coordinates was applied to approximate the stack location.

DEP Permit CB036512 (Expiration Date – December 3rd, 2018)

The DEP permit is for a facility located at 755 White Plains Road (e.g., on the same block and lot (Block 3600, Lot 4) as the State facility under the NYSDEC Permit #2-6007-00360). The DEP permit was issued for the same Stevenson Common Associates LP. This facility is for the operation of two Federal PLW 16.6 MMBtu/hour boilers firing natural gas. The stack elevation is 250 feet and the stack diameter is 30 inches by 60 inches (which was converted into an equivalent circular diameter). The stack exit temperature is 400 deg-F and the exit velocity is 16.9 feet per second. The UTM coordinates for this emission source were assigned using the same procedures previously discussed.

Emission Rates

Because none of the permits contain emission data, uncontrolled emission factors to estimate short-term and annual pollutant emission rates were obtained from the EPA AP-42 document for the boilers with less than 100 MMBtu/hour heat input. The values used are as follows:

Fuel Oil No. 6

- $PM_{2.5}$: combined 2.21 lb/10^3 gal or 1.47E-02 lb/MMBtu which includes 1.5 lb/10^3 gal condensable particles less than 1 micron in diameter, Table 1.3-2 “Condensable Particulate Matter Emission Factors for Oil Combustion”, and 0.706 lb/10^3 gal of $PM_{2.5}$ particles from Table 1.3-7 “Cumulative particulate size distribution and size-specific emission factors for uncontrolled commercial boilers burning residual or distillate oil”, (1.92A where A=1.12S+0.37 (for residual oil No. 6);
- PM_{10}: 5.977 lb/10^3 gallon (or 3.98E-02 lb/MMBtu), which include only filterable particles (Table 1.3-1, 9.19(S)+3.22);
- NO_x: 55 lb/10^3 gal or 3.67E-01 lb/MMBtu (Table 1.3-1);
- SO_2: 47.1 lb/10^3 gal or 3.14E-01 lb/MMBtu (Based on 157(S) lb/10^3 gal where S = 0.3% sulfur content in fuel (EPA AP-42 Fuel Oil Combustion, Table 1.3-1 with fuel oil # 6 heating value of 150 MMBtu/10^3 gal); and
- CO: 5 lb/10^3 gal or 0.033 lb/MMBtu, Table 1.3-1.

Natural Gas

- $PM_{2.5}$: 7.6 lb/10^6 standard cubic feet (scf) or 7.6E-03 lb/MMBtu, which includes filterable and condensable particles (e.g., filterable of 1.9E-03 lb/MMBtu and condensable of 5.7E-03 lb/MMBtu), EPA AP-42 Natural Gas Combustion, Table 1.4-2;
- PM_{10}: 1.9 lb/10^6 scf or 1.9E-03 lb/MMBtu, which include only filterable particles, Table 1.4-2;
- NO_x: 100 lb/10^6 scf or 1.0E-01 lb/MMBtu, Table 1.4-1;
- SO_2: 0.6 lb/10^6 scf or 6.0E-04 lb/MMBtu, Table 1.4-2; and
- CO: 84 lb/10^6 scf or 8.4E-03 lb/MMBtu, Table 1.4-1.

The stacks height and diameter for the facilities permitted under 2-6007-00360 and 2-6007-00356 were obtained from these permits, while exit velocities were estimated based on values obtained from DEP "CA Permit" database for the corresponding boiler sizes (i.e., rated heat input or million BTUs per hour) and stack exit temperature was assumed to be 300°F (423°K), which is appropriate for boilers. For the facility permitted under DEP permit CB036512, all stack parameters were obtained from permit.

Stack parameter data used in this existing-on-project (large combustion source) analysis are provided in Table K-4.

Table K-4: Stack Parameter Data

	Boiler Capacity	Stack Height		Diameter		Temp.	Velocity
Permit No.	**MMBtu/hr**	**feet**	**meters**	**feet**	**meters**	**deg K**	**m/sec**
State Permits							
#2-6007-00360	33.2	250	76.20	1.50	0.46	423	6.4
	21.6	265	80.77	1.42	0.43	423	6.4
#2-6007-00356	44.1	132	40.23	2.00	0.61	423	6.4
DEP Permit							
#CB036512	33.2	250	76.20	3.81*	1.16	478	5.2

Notes:
* Equivalent diameter based on a 30" x 60" shaft.

Data on emission factors obtained from AP-42 tables, along with equations and calculated emission rates, are provided in Tables K-5 through K-7. For State Permit #2-6007-00360, annual NO_x emission rates were adjusted based on the permitted NO_x emission limit of 24.9 tons a year.

Emission rates for facilities under State Permit #2-6007-00360 and DEP permit #CB0365512 were estimated based on the total boiler heat inputs while for the facility under State Permit #2-6007-00356 (due to uncertainty with current boiler status and its capacity), emission rates were based on annual fuel usage corresponding to total building floor area serviced by that facility, which was conservatively assumed to be equal to the whole Lot 1 size of 421,833 gross square feet (gsf). The boiler size was estimated based on assumption that all fuel would be consumed during the 100-days (or 2,400-hour) heating season.

Table K-5: Estimated Pollutant Emission Rates with Fuel Oil No. 6 under State Facility Permit #2-6007-00360

Pollutant Emission Factors (lb/MMBtu)	Number of Boilers	Boiler Heat Input (MMBtu/hr)	Peak Short-Term Emission Rates		Annual Emission Rates	
			lb/hr	g/sec	lb/year	g/sec
Permit #2-6007-00360 Boilers			**$PM_{2.5}$ Emission Rates**			
			lb/hr	**g/sec**	**lb/year**	**g/sec**
1.47E-02	2	16.6	4.88E-01	6.15E-02	4,275	6.15E-02
1.47E-02	2	10.8	3.18E-01	4.00E-02	2,781	4.00E-02
Permit #2-6007-00360 Boilers			**PM_{10} Emission Rates**			
			lb/hr	**g/sec**	**lb/year**	**g/sec**
3.98E-02	2	16.6	1.32E+00	1.66E-01	11,575	1.66E-01
3.98E-02	2	10.8	8.60E-01	1.08E-01	7,531	1.08E-01
Permit #2-6007-00360 Boilers			**NOx Emission Rates**			
			lb/hr	**g/sec**	**lb/year**	**g/sec**
3.67E-01	2	16.6	1.22E+01	1.54E+00	29,880	4.30E-01
3.67E-01	2	10.8	7.93E+00	9.99E-01	19,920	2.87E-01
Permit #2-6007-00360 Boilers			**SO_2 Emission Rates**			
			lb/hr	**g/sec**	**lb/year**	**g/sec**
3.14E-01	2	16.6	1.04E+01	1.31E+00	91,321	1.31E+00
3.14E-01	2	10.8	6.78E+00	8.55E-01	59,414	8.55E-01
Permit #2-6007-00360 Boilers			**CO Emission Rates**			
			lb/hr	**g/sec**	**lb/year**	**g/sec**
3.3E-02	2	16.6	1.10E+00	1.38E-01	9,597	1.38E-01
3.3E-02	2	10.8	7.13E-01	8.98E-02	6,244	8.98E-02

Table K-6: Estimated Pollutant Emission rates with Fuel Oil No. 6 under State Facility Permit #2-6007-00356

Pollutant Emission Factors (lb/10^3 gal)	Annual Fuel Usage (gal/yr)	Boiler Heat Input (MMBtu/hr)	Peak Short-Term Emission Rates		Annual Emission Rates	
			lb/hr	g/sec	lb/year	g/sec
2.21	143,423	8.96	**$PM_{2.5}$ Emission Rates**			
			lb/hr	**g/sec**	**lb/year**	**g/sec**
			1.32E-01	1.66E-02	317	4.56E-03
5.98	143,423	8.96	**PM_{10} Emission Rates**			
			lb/hr	**g/sec**	**lb/year**	**g/sec**
			3.57E-01	4.50E-02	857	1.23E-02
55	143,423	8.96	**NOx Emission Rates**			
			lb/hr	**g/sec**	**lb/year**	**g/sec**
			3.28E+00	4.14E-01	7,888	1.13E-01
47.1	143,423	8.96	**SO_2 Emission Rates**			
			lb/hr	**g/sec**	**lb/year**	**g/sec**
			2.82E+00	3.55E-01	6,755	9.72E-02
5.0	143,423	8.96	**CO Emission Rates**			
			lb/hr	**g/sec**	**lb/year**	**g/sec**
			2.99E-01	3.76E-02	717	1.03E-02

Table K-7: Estimated Pollutant Emission rates with Natural Gas under DEP Permit #CB036512

Pollutant Emission Factors (lb/MMBtu)	Number of Boilers	Boiler Heat Input (MMBtu/hr)	Peak Short-term Emission Rates		Annual Emission Rates	
			lb/hr	g/sec	lb/year	g/sec
Permit #CB036512 Boilers			**$PM_{2.5}$ Emission Rates**			
			lb/hr	**g/sec**	**lb/year**	**g/sec**
7.6E-03	2	16.6	2.52E-01	3.18E-02	2.21E+03	3.18E-02
Permit #CB036512 Boilers			**PM_{10} Emission Rates**			
			lb/hr	**g/sec**	**lb/year**	**g/sec**
1.9E-03	2	16.6	6.31E-02	7.95E-03	5.53E+02	7.95E-03
Permit #CB036512 Boilers			**NOx Emission Rates**			
			lb/hr	**g/sec**	**lb/year**	**g/sec**
1.0E-01	2	16.6	3.32E+00	4.18E-01	2.91E+04	4.18E-01
Permit #CB036512 Boilers			**SO_2 Emission Rates**			
			lb/hr	**g/sec**	**lb/year**	**g/sec**
6.0E-04	2	16.6	1.99E-02	2.51E-03	1.74E+02	2.51E-03
Permit #CB036512 Boilers			**CO Emission Rates**			
			lb/hr	**g/sec**	**lb/year**	**g/sec**
8.4E-02	2	16.6	2.79E+01	3.51E-01	2.44E+04	3.51E-01

Model Parameters

The one-hour NO_2 NAAQS standard of 0.100 ppm (188 ug/m^3) is the three-year average of the 98th percentile of daily maximum one-hour average concentrations in a year. For determining compliance with this standard, the EPA has developed a modeling approach for estimating one-hour NO_2 concentrations that is comprised of 3 tiers: Tier 1, the most conservative approach, assumes a full (100 percent) conversion of NOx to NO_2; Tier 2 applies a conservative ambient NOx/NO_2 ratio of 80 percent to the NOx estimated concentrations; and Tier 3, which is the most precise approach, employs AERMOD's PVMRM module. The PVMRM accounts for the chemical transformation of NO emitted from the stack to NO_2 within the source plume using hourly ozone background concentrations. When Tier 3 is utilized, AERMOD generates eighth highest daily maximum one-hour NO_2 concentrations or total one-hour NO_2 concentrations if hourly NO_2 background concentrations are added within the model, and averages these values over the numbers of the years modeled. Total estimated concentrations are generated in the statistical form of the one-hour NO_2 NAAQS format and can be directly compared with the one-hour NO_2 NAAQS standard.

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

A cumulative impact assessment was conducted with the latest version of EPA's AERMOD dispersion model 7.12 (EPA version 16216r). In accordance with *CEQR Technical Manual* guidance, this analysis was conducted assuming stack tip downwash, urban dispersion surface roughness length, and elimination of calms. AERMOD's PVMRM module was utilized for one-hour NO_2 analysis to account for NOx to NO_2 conversion. Analyses were conducted with and without the effects of wind flow around the buildings (i.e., with and without downwash) utilizing AERMOD Building Profile Input Program (BPIP) algorithm, and both results are reported.

Receptors

Receptors, which, for this analysis, are the operable windows of the proposed project, were placed around all facades of the proposed buildings in ten-foot increments on all floor levels starting at ten feet above the ground and extending up to the upper windows level. More than 1,400 receptors were considered for the analysis to ensure that the maximum impacts are estimated.

V. DETAILED ASSESSMENT

The Future without the Proposed Actions (No-Action Condition)

In the future without the proposed actions, the rezoning area's existing R6 zoning would remain in place. As the existing Mitchell Lama residential building on Block 3672, Lot 1 maximizes the residential FAR permitted in R6 districts pursuant to Height Factor regulations, no new development is expected to occur in the 2020 future without the proposed actions. Therefore, in the No-Action condition, the development site would continue to be occupied by a 103-space paved surface parking lot accessory to the existing Mitchell Lama residential building, in addition to a privately-owned basketball court, also accessory to the existing Mitchell Lama residential building. The eastern portion of the rezoning ara would continue to be occupied by the existing 353-unit affordable Mitchell Lama residential building, as well as private open space areas accessory to the existing Mitchell Lama residential building.

Traffic Air Quality

Traffic air quality at the worst-case intersection of Turnbull Avenue and White Plains Road was analyzed for the No-Action condition for purposes of comparison with the With-Action condition. The EPA's MOVES2014a model was used to obtain emission factors and CAL3QHCR was used to obtain pollutant concentrations as described in the Methodology section. Table K-8 shows the results for PM_{10}. The highest concentration was on White Plains Road (northbound) between Story Avenue and Bruckner Boulevard.

Table K-8: Mobile Source PM_{10} ($\mu g/m^3$), 2020 No-Action Conditions

Intersection	Receptor ID	Total ($\mu g/m^3$)*	NAAQS ($\mu g/m^3$)
White Plains Road/ Turnbull Avenue	54	69.8	150

Notes:
*****Includes background concentrations
Source: Sandstone Environmental Associates, Inc.

Table K-9 shows the modeled results for $PM_{2.5}$. The highest modeled values for the 24-hour and annual concentrations were on White Plans Road (northbound) between Story Avenue and Bruckner Boulevard.

Table K-9: Mobile Source $PM_{2.5}$ ($\mu g/m^3$), 2020 No-Action Conditions

Period	Intersection	Receptor ID	Total ($\mu g/m^3$)*	NAAQS
24-Hour	White Plains Road/ Turnbull Ave.	54	33.8	35
Annual		53	10.05	12

Notes:
*Includes background concentrations
Source: Sandstone Environmental Associates, Inc.

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

In the future with the proposed actions, the western portion of the rezoning area would be redeveloped with a predominantly residential development comprising a total of 384,271 gsf of floor area. The proposed project would consist of two attached buildings, each rising to a maximum building height of 14 stories high (137 feet, 8 inches). The proposed project's enclosed below-grade 48-space accessory parking garage would be accessed via a driveway on Turnbull Avenue.

Traffic Air Quality

Traffic air quality modeling was carried out using MOVES2014a for emission factors and CAL3QHCR for the dispersion model as described in Section IV, "Methodology." Tables K-10 and K-11 show the results of the CAL3QHCR modeling for PM_{10} and $PM_{2.5}$. For PM_{10}, the 24-hour results were added to background concentrations and compared with the NAAQS of 150 $\mu g/m^3$. For $PM_{2.5}$, the results were compared to the results under No-Action conditions, and the incremental changes were compared to the City's *de minimis* criteria of 4.6 $\mu g/m^3$ for the 24-hour averaging period and 0.1 for the annual period. Regardless of which receptor has the highest concentration under With-Action conditions, the comparison is made using the worst case receptor for No-Action conditions. As presented in Tables K-10 and K-11, the proposed actions would not result in exceedances of these impact thresholds; therefore, no significant adverse traffic air quality impacts are projected.

Table K-10: Mobile Source PM_{10} ($\mu g/m^3$), 2020 With Action Conditions

Intersection	Receptor ID	24-Hour Total Value ($\mu g/m^3$)*	NAAQS ($\mu g/m^3$)
White Plains Road/ Turnbull Ave.	54	69.9	150

Notes:
*Includes background concentrations
Source: Sandstone Environmental Associates, Inc.

Table K-11: Mobile Source $PM_{2.5}$ ($\mu g/m^3$), 2020 With-Action Conditions

Time Period	Intersection	Receptor	No-Action Concentration*	With-Action Concentration*	Difference	*De Minimis*
24-Hour	White Plains Road/ Turnbull Ave.	54	33.8	34.2	0.4	4.6
Annual		53	10.05	10.09	0.04	0.1

Notes:
*Includes background concentrations
Source: Sandstone Environmental Associates, Inc.

Garage Analysis

In the future with the proposed actions, the proposed 67-space accessory parking garage would be developed with access to/from Turnbull Avenue. The ramp would be approximately 62 feet long. The 67 enclosed accessory parking spaces would be located in an approximately 29,677 sf cellar level garage. Vehicles would enter through a curb cut on the south side of Turnbull Avenue and drive down the entrance ramp to the queuing area at the below-grade parking level.

The garage analysis was based on the guidelines provided in the *CEQR Technical Manual Appendices*. Per guidance from DEP, a persistence factor of 0.40 was used to convert one-hour values to 24-hour $PM_{2.5}$ values, and a persistence facto of 0.08 was used to convert the one-hour values to annual values. EPA's MOVES2014a emissions model was used to obtain emission factors for hot (entering) and cold (exiting) vehicles, as well as idling vehicles. Exiting vehicles were assumed to idle for one minute before departing, and speeds within the facility were five miles per hour (mph).

As a conservative analysis, the cars accessing the 42-space parking lot were combined with the garage volumes and treated as if all vehicles were accessing the garage. Based on the traffic study, the worst-case period for garage emissions would be from 4:00-5:00 PM on a weekday, with 70 incoming vehicles and 42 exiting vehicles. As a worst-case analysis, the peak number of incoming vehicles (70) was combined with the highest number of exiting vehicles, (70) projected for the 8:00 to 9:00 AM period. This would result in a worst-case total of 140 vehicles access accessing the garage within a one-hour period. A ramp/driveway distance of approximately 62 feet was added to represent the distance from the garage entrance at-grade to the cellar level parking garage. For analysis purposes, the exhaust vent for the garage was placed above the Turnbull Avenue entrance, 12 feet above street level. Receptor points included the near and far sidewalks and a window five feet above the vent. Table K-12 shows the results of the garage analysis based on the methodology presented above. As presented in Table K-12, no significant adverse impacts would occur.

Table K-12: Pollutant Concentrations from the Proposed Project's Accessory Parking Garage

Vent above Turnbull Avenue Entrance						
$PM_{2.5}$ Concentrations	**Near Sidewalk**		**Far Sidewalk**		**Window Above**	
Distance to Vent (ft.)	7.5		34.5		0	
Vent Height (ft.)	12.0		12.0		12.0	
Receptor Height (ft.)	6.0		6.0		17.0	
Averaging Period	24-Hour	Annual	24-Hour	Annual	24-Hour	Annual
Garage $PM_{2.5}$ (µg/m3)	1.029	0.206	0.817	0.164	1.115	0.223
Line Source (µg/m^3)	N/A	N/A	0.478	0.076	N/A	N/A
Background Value (µg/m^3)	N/A	N/A	N/A	N/A	N/A	N/A
Total Concentration (µg/m^3)	1.029	0.206	1.295	0.240	1.115	0.223
De Minimis (µg/m^3)	4.6	0.3	4.6	0.3	4.6	0.3
Impact	**No**		**No**		**No**	

Source: Sandstone Environmental Associates, Inc.

HVAC Analysis

As presented in Section III, "Screening Assessment," the existing Mitchell Lama building on Block 3672, Lot 1 is the closest building of similar or greater height to the proposed project's buildings. Because it is on the same lot as the proposed project, it was modeled with AERMOD. If no significant adverse impacts are identified at this location, no significant adverse impacts would be anticipated at receptor buildings located further from the proposed project. For modeling purposes, the stacks were placed on the rooftops near the eastern sides of the buildings, approximately ten feet from the edges of the roofs. These locations were the closest to the Mitchell Lama building. A project-on-project analysis of the stacks from the two proposed buildings on the receptor points associated with that building also was carried out. The analysis was cumulative, with both stacks assumed to be operating at the same time.

Fuel Oil #2

New development in New York City may use ultra-low sulfur home heating oil No. 2 (ULSHO #2), which is limited to 0.0015 percent sulfur. For fuel oil No. 2, the pollutants of concern were one-hour SO_2, 24-hour PM_{10}, and 24-hour and annual $PM_{2.5}$. The worst-case modeled results for all pollutants are summarized in Tables K-13 and K-14 and are based on the two proposed buildings having separate HVAC systems. As shown in the tables, the proposed actions would exceed the *de minimis* for 24-hour $PM_{2.5}$ concentrations at the Mitchell Lama Building. All other modeled scenarios are within the NAAQS and *de minimis* guidelines.

Table K-13: Project on Existing Buildings, Pollutant Concentrations, Fuel Oil No. 2

	Total Concentrations* (µg/m³)				Increment	
Project on Existing Buildings Scenario	**One-Hour SO_2**	**24-Hour PM_{10}**	**24-Hour $PM_{2.5}$**	**Annual $PM_{2.5}$**	**24-Hr $PM_{2.5}$**	**Annual $PM_{2.5}$**
Proposed Project on Existing Mitchell Lama Building	38.1	44.1	30.8	9.6	4.995	0.267
NAAQS (µg/m³)	196	150	35	12		
De Minimis					4.6	0.3
Results	Passes	Passes	Passes	Passes	Fails	Passes

Notes:
*Includes background concentrations
Source: Sandstone Environmental Associates, Inc.

Table K-14: Project on Project, Pollutant Concentrations, Fuel Oil No. 2

	Total Concentrations* (µg/m³)				Increment	
Project on Project Scenario	**One-Hour SO_2**	**24-Hour PM_{10}**	**24-Hour $PM_{2.5}$**	**Annual $PM_{2.5}$**	**24-Hr $PM_{2.5}$**	**Annual $PM_{2.5}$**
Buildings A and B on Buildings A and B	37.5	41.2	28.2	9.4	2.4	0.1
NAAQS (µg/m³)	196	150	35	12		
De Minimis					4.6	0.3
Results	Passes	Passes	Passes	Passes	Passes	Passes

Notes:
*Includes background concentrations
Source: Sandstone Environmental Associates, Inc.

Natural Gas

AERMOD modeling also was carried out for natural gas using the same assumptions as for No. 2 oil. For natural gas, the pollutants of interest are NO_2 and $PM_{2.5}$ from NO_2. Table K-15 and K-16 show the results. As presented in the tables, no potential impacts are projected with the use of natural gas.

Table K-15: Project on Existing Buildings, Pollutant Concentrations, Natural Gas

Project on Existing Buildings Scenario	Total Concentrations* (µg/m³)				Increment	
	One-Hour NO_2	Annual NO_2	24-Hr $PM_{2.5}$	Annual $PM_{2.5}$	24-Hr $PM_{2.5}$	Annual $PM_{2.5}$
Proposed Project on Existing Mitchell Lama Building	171.6	36.0	29.6	9.5	3.8	0.2
NAAQS (µg/m³)	188	100	35	12		
De Minimis					4.6	0.3
Results	Passes	Passes	Passes	Passes	Passes	Passes

Notes:
*Includes background concentrations
Source: Sandstone Environmental Associates, Inc.

Table K-16: Project on Project, Pollutant Concentrations, Natural Gas

Project on Project Scenario	Total Concentrations* (µg/m³)				Increment	
	One-Hour NO_2	Annual NO_2	24-Hr $PM_{2.5}$	Annual $PM_{2.5}$	24-Hr $PM_{2.5}$	Annual $PM_{2.5}$
Buildings A and B on Buildings A and B	142.7	35.0	27.6	9.4	1.8	0.1
NAAQS (µg/m³)	188	100	35	12		
De Minimis					4.6	0.3
Results	Passes	Passes	Passes	Passes	Passes	Passes

Notes:
*Includes background concentrations
Source: Sandstone Environmental Associates, Inc.

Based on the results of AERMOD modeling of the proposed project on the existing Mitchell Lama building, an (E) designation is recommended. The text of the (E) designation is shown below:

Affordable Senior Building: Any new residential and/or commercial development on the above-referenced property must use natural gas for HVAC systems and ensure that the heating, ventilation and air conditioning stack release height is at least 141 feet above ground level, and is no more than 181.5 feet from White Plains Road to avoid any potential significant adverse air quality impacts.

Affordable Family Building: Any new residential and/or commercial development on the above-referenced property must use natural gas for HVAC systems and ensure that the heating, ventilation and air conditioning stack release height is at least 141 feet above ground level, and is no more than 122 feet from White Plains Road to avoid any potential significant adverse air quality impacts.

Existing-on-Project HVAC Analysis (Large Combustion Emission Sources)

As presented in Section III, "Screening Assessment," Emissions from permitted sources at 755 White Plains Road (Block 3600, Lot 4) and 2001 Story Avenue (Block 3681, Lot 1), which include seven boilers, could potentially impact the proposed project -- individually and/or cumulatively. Therefore, a cumulative

impact assessment was conducted to estimate whether the potential impacts of all of these emissions combined on the proposed project is significant. Potential cumulative impacts of the $PM_{2.5}$, PM_{10}, NO_2, SO_2, and CO emissions on the proposed project, combined, were estimated and compared with the 24-hour/annual $PM_{2.5}$ CEQR significant impact criteria, the one-hour/annual NO_2, one-hour SO_2, 24-hour PM_{10}, and 8-hour CO NAAQS. Potential impact and contribution of each emission source to the total concentrations are directly proportional to strength (e.g., emission rate) of the source, its proximity to the development site, and height of stacks relative to receptor elevations. Building downwash could also play significant role in estimated concentration.

Results of the cumulative dispersion analysis show that without building downwash effects, the most significant contributor to the total concentration is emission source under State Facility permit #2-6007-00356 (Block 2681, Lot 1), even though it has an emission rate at least five times lower than the emission rate for State Facility permit #2-6007-00360 and is located further from the proposed project than the sources under State Facility permit #2-6007-00360 and the DEP permit at nearby Block 3600, Lot 4. This is due to the fact that the stacks associated with State Facility permit #2-6007-00360 and DEP Permit #CB036512 are much taller (250 feet or more) than the stack under Permit #2-6007-00356, which is only 132 feet tall. Therefore, impacts of the plumes from these taller stacks are significantly lower on the proposed project, where the uppermost windows receptors are located approximately five feet below the roof of the proposed buildings. The differences between plume centerlines of these taller stack emissions (i.e., where the highest impacts are likely to occur), and the receptors on the proposed project is more than 120 feet.

However, dispersion conditions are quite different when building downwash effect is involved. In this case, downwash effect from the taller buildings on Block 3600, Lot 4 significantly reduces plume height and the highest impact occurs at a lower level (e.g., ten feet vs. 130 feet). In addition, impacts are higher than without downwash. For instance, the estimated cumulative one-hour SO_2 concentration without downwash is 33.8 $\mu g/m^3$, while it is 122 $\mu g/m^3$ with downwash.

$PM_{2.5}$

The results of the $PM_{2.5}$ analysis are that the maximum 24-hour impact is estimated to be 2.49 $\mu g/m^3$, and the maximum annual average impact is estimated to be 0.24 $\mu g/m^3$. These values are less than the significant impact criteria of 4.6 $\mu g/m^3$ and 0.3 $\mu g/m^3$, respectively. Therefore, PM_{25} emissions from the two State Facilities and the facility under DEP permit would not cause a significant air quality impact on the proposed project.

One-Hour NO_2

The Tier 1 NO_2 analysis was not sufficient to demonstrate compliance with the one-hour NO_2 NAAQS of 188 $\mu g/m^3$. Therefore, a Tier 3 analysis was conducted.

The result of the one-hour NO_2 cumulative impact analysis on the proposed project with the Tier 3 approach employing PVMRM AERMOD module is that the one-hour NO_2 8th highest daily one-hour concentration (with added background hourly concentrations internally within the model) averaged over five years is 118.5 $\mu g/m^3$. The maximum average annual NO_2 total concentration is estimated to be 38.6 $\mu g/m^3$ (with a maximum impact of 4.0 $\mu g/m^3$ and a background value of 34.6 $\mu g/m^3$). Both the one-hour and annual NO_2 concentrations are less than the one-hour and annual NO_2 NAAQS of 188 $\mu g/m^3$ and 100

µg/m^3, respectively. Therefore, one-hour and annual NO_2 emissions from the two State Facilities and the facility under DEP permit would not cause a significant air quality impact on proposed project.

One-Hour SO_2

The results of the one-hour SO_2 analysis is that the maximum one-hour SO_2 impact is estimated to be 122.1 µg/m^3 and the total one-hour SO_2 fourth highest daily one-hour averaged concentration, including a background value of 36.8 µg/m^3, is estimated to be 158.9 µg/m^3, which is less than the one-hour SO_2 NAAQS of 196 µg/m^3. Therefore, one-hour SO_2 combined emissions from the two State Facilities permits and the facility under DEP permit would not cause a significant air quality impact on the proposed project.

24-hour PM_{10}

The result of the 24-hour PM_{10} analysis is that the maximum 24-hour PM_{10} impact is 6.43 µg/m^3. The maximum total 24-hour PM_{10} concentration, including background value of 39 µg/m^3, is estimated to be 45.4 µg/m^3, which is less than the 24-hour PM_{10} NAAQS of 150 µg/m^3. Therefore, the 24-hour PM_{10} emissions from the two State Facilities permits and the facility under DEP permit would not cause a significant air quality impact on the proposed project.

Eight-Hour CO

The result of the CO analysis is that the maximum 8-hour CO total concentration, including the background concentration, is less than the eight-hour CO NAAQS of 9 ppm. Therefore, the CO emissions from the two State Facilities permits and the facility under DEP permit would not cause a significant air quality impact on the proposed project.

A summary of the results for all averaging time periods, with and without downwash effect, are presented in Table K-17. As presented in Table K-17, no significant impacts of the 24-hour/annual $PM_{2.5}$ emissions from the two State Facilities Permits and the facility under DEP permit or exceedances of the one-hour/annual NO_2, one-hour SO_2, 24-hour $PM_{10,}$ and eight-hour CO NAAQS on the proposed project are predicted.

Table K-17: Summary of Existing-on-Project (Large Combustion Source) Analysis Results

Pollutant	Modeled Concentration[1] (ug/m^3)	Background Concentration (ug/m^3)	Total Concentration (ug/m^3)	Evaluation Criteria (ug/m^3)
$PM_{2.5}$				
24-hr $PM_{2.5}$	2.49/0.55	-	2.49	4.6 (*CEQR Criteria)*
Annual $PM_{2.5}$	0.24/0.0.04	-	0.24	0.3 (*CEQR Criteria*)
NO_2				
1-hr NO_2[(2)]	118.5/117.3		118.5	188 (NAQQS)
Annual NO_2	4.0/0.74	34.6	38.6	100 (NAAQS
SO_2				
1-hr SO_2	122.1/33.8	36.8	158.9	196 (NAQQS)
PM_{10}				
24-hr PM_{10}	6.43/1.49	39	45.4	150 (NAQQS)
CO				
8-hr CO	<0.1 (ppm)	1.2 (ppm)	1.2 (ppm)	9 ppm

Notes:

[1] Modeled concentrations with/without downwash effects.

[2] The one-hour NO_2 background concentrations using the Tier 3 approach were added to estimated impacts on an hour-by-hour basis within the dispersion model.

ATTACHMENT L

NOISE

I. INTRODUCTION

The applicant, Park Lane Residences Co., is seeking a series of discretionary actions to facilitate the development of two attached predominantly residential apartment buildings at 1965 Lafayette Avenue (Bronx Block 3672, p/o Lot 1) in the Soundview neighborhood of Bronx Community District (CD) 9. The proposed project would comprise a total of approximately 384,271 gross square foot (gsf) of floor area consisting of 425 affordable residential units and 19,938 gsf of commercial floor area. The proposed project is expected to be completed and occupied by 2020.

As discussed in Attachment J, "Transportation," the proposed actions would change traffic patterns and volumes in the general vicinity of the rezoning area. Since traffic is a main source of ambient noise, this could lead to changes in the ambient noise levels. According to the 2014 *City Environmental Quality Review* (CEQR) *Technical Manual*, if existing noise passenger car equivalent (PCE) values are increased by 100 percent or more due to a proposed project (which is equivalent to an increase of 3.0 dBA or more) a detailed analysis is generally warranted. Conversely, if existing noise PCE values are not increased by 100 percent or more it is likely that the proposed project would not cause a significant adverse vehicular noise impact, and therefore no further vehicular noise analysis is needed.

The noise analysis for the proposed actions was carried out in compliance with *CEQR Technical Manual* guidelines and consists of two parts: (1) a screening analysis to determine whether traffic generated by the proposed action would have the potential to result in significant noise impacts on existing sensitive receptors; and (2) an analysis to determine the level of building attenuation necessary to ensure that the proposed project's interior noise levels satisfy applicable interior noise criteria. This attachment does not include an analysis of mechanical equipment because such mechanical equipment would be designed to meet all applicable noise regulations and, therefore, would not result in adverse noise impacts.

II. PRINCIPAL CONCLUSIONS

Noise from the increased traffic volumes generated by the proposed project would not cause significant adverse noise impacts, as the noise levels increases adjacent to existing sensitive receptors would fall well below the applicable *CEQR Technical Manual* significant adverse impact threshold (3.0 dBA). In addition, noise generated by the proposed project's basketball court would not result in notable increases in noise levels at nearby sensitive receptors, with a maximum increase of 1.7 dBA predicted along the western façade of the existing Mitchell Lama building.

Based on the noise analysis presented herein, the maximum predicted L_{10} noise levels adjacent to the proposed project are expected to be 68.4 along the site's Turnbull Avenue frontage, 69.5 along the site's Lafayette Avenue frontage, and 73.3 dBA along the site's White Plains Road frontage. Accounting for noise generated by the proposed project's basketball court, the maximum predicted L_{10} noise levels on the proposed project buildings' facades fronting the court would be 69.5 dBA. To ensure acceptable interior noise levels for the proposed project's residential uses, 31 dBA of attenuation is needed along the

proposed project's White Plains Road frontage; no additional window/wall attenuation would be required outside of standard modern construction practices along the proposed project's remaining facades in order to maintain interior noise levels of 45 dBA or lower for the proposed project's residential uses. The noise attenuation specifications for the proposed project would be mandated through the assignment of an (E) designation. With implementation of the attenuation levels required pursuant to the (E) designation, the proposed project would provide sufficient attenuation to achieve the *CEQR Technical Manual* interior noise level guidelines of 45 dBA for residential uses. Therefore, the proposed actions would not result in any significant adverse noise impacts related to building attenuation requirements.

III. NOISE FUNDAMENTALS

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

"A"-Weighted Sound Levels (dBA)

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

Community Response to Changes in Noise Levels

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

Noise Descriptors Used in Impact Assessment

Because the sound pressure level unit (dBA) describes a noise level at just one moment and very few noises are constant, other ways of describing noise over extended periods of time have been developed.

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

Table L-1: Common Noise Levels

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

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

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

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

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

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

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

The Day-Night sound level (L_{dn}) describes a receptor's cumulative noise exposure from all events over 24 hours. It may be thought of as a noise dose totaled after increasing all nighttime L_{eq} noise levels between 10 PM and 7 AM by 10 dBA to reflect the greater intrusiveness of noise experienced during these hours. Pursuant to Federal Transit Authority (FTA) noise impact analysis methodology, the L_{dn} is adopted to assess noise generated by trains.[1] However, because the L_{dn} descriptor tends to average out high hourly values over 24 hours, the *CEQR Technical Manual* recommends that the L_{eq} descriptor be used for purposes of impact analysis.

Applicable Noise Codes and Impact Criteria

New York City Noise Code

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

CEQR Technical Manual Noise Standards

The New York City Department of Environmental Protection (DEP) has set external noise exposure standards. These standards are shown in Table L-3.

Noise Exposure is classified into four categories: acceptable, marginally acceptable, marginally unacceptable, and clearly unacceptable. The standards shown are based on maintaining an interior noise level for the worst-case hour L_{10} of less than or equal to 45 dBA. Attenuation requirements are shown in Table L-4.

Impact Criteria

In addition, the *CEQR Technical Manual* uses the following criteria to determine whether a proposed residential and/or community facility development would be subject to a significant adverse noise impact:

- If the No-Action levels are less than 60 dBA $L_{eq(1)}$ and the analysis period is not a nighttime period, the threshold for a significant impact would be an increase of at least five dBA $L_{eq(1)}$ (for the 5 dBA threshold to be valid, the resultant With-Action condition noise level would have to be equal to or less than 65 dBA);

[1] "Transit Noise and Vibration Impact Assessment", 2006, FTA, Office of Planning and Environment.

- If the No-Action noise level is equal to or greater than 62 dBA $L_{eq(1)}$ or if the analysis period is a nighttime period (defined under CEQR standards as being between 10 PM and 7 AM), the incremental significant impact threshold would be three dBA $L_{eq(1)}$;
- If the No-Action noise level is 61 dBA $L_{eq(1)}$, the maximum incremental increase would be four dBA, since an increase higher than this would result in a noise level higher than the 65 dBA $L_{eq(1)}$ threshold.

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

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

Source: DEP (adopted policy 1983).

Notes:

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

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

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

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

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

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

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

Sources: DEP; *CEQR Technical Manual*

Notes:

[A] The above composite window-wall attenuation values are for residential dwellings. Commercial office spaces and meeting rooms would be 5 dBA less in each category. All the above categories require a closed window situation and hence an alternate means of ventilation.

[B] Required attenuation values increase by one dBA increments for L_{10} values greater than 80 dBA.

IV. NOISE PREDICTION METHODOLOGY

Future noise levels resulting from traffic were calculated with a proportional modeling technique used as a screening tool to estimate changes in noise levels. The proportional modeling technique is an analysis methodology recommended for analysis purposes in the *CEQR Technical Manual*.

Proportional Modeling

Proportional modeling was used to determine No-Action and With-Action noise levels along the rezoning area's Turnbull Avenue, Lafayette Avenue, and White Plains Road frontages, as discussed in more detail below. Proportional modeling is one of the techniques recommended in the *CEQR Technical Manual* for mobile source analysis.

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

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

where:

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

Sound levels are measured in decibels and therefore increase logarithmically with sound source strength. In this case, the sound source is traffic volumes measured in PCEs. For example, assume that traffic is the dominant noise source at a particular location. If the existing traffic volume on a street is 100 PCEs and if the future traffic volumes were increased by 50 PCEs to a total of 150 PCEs, the noise level would increase by 1.8 dBA. Similarly, if the future traffic were increased by 100 PCEs, or doubled to a total of 200 PCEs, the noise level would increase by 3.0 dBA.

To calculate the No-Action and With-Action PCE values, an annual background growth rate of 0.25 percent for the 2020 analysis year was added to the PCE noise values based on existing counted vehicles.[2] Traffic assignments presented in Attachment J, "Transportation" were utilized for vehicles generated in the With-Action condition.

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

V. EXISTING NOISE LEVELS

Selection of Noise Receptor Locations

The rezoning area comprises the western portion of Bronx Block 3672, Lot 1 in the Soundview neighborhood of Bronx CD 9. The rezoning area fronts Turnbull Avenue to the north, Lafayette Avenue to the south, and White Plains Road to the west. The eastern portion of the rezoning area is currently occupied by a 353 DU residential building (a sensitive receptor), which will remain in the future with and without the proposed actions, while the western portion of the rezoning area (the "development site"), which is currently occupied by surface accessory parking lots will be developed with a new predominantly residential buildings in the future with the proposed actions (refer to Figure L-1). Sensitive community facility uses are also present to the south of the rezoning area along Lafayette Avenue; there are no sensitive receptors located to the north or west of the rezoning area (along Turnbull Avenue and White Plains Road, respectively), as these blocks are currently occupied by commercial (retail) uses (refer to Figure C-3 in Attachment C, "Land Use, Zoning, and Public Policy."

As vehicles are the main source of noise in the surrounding area, noise monitoring was conducted along the rezoning area's three street frontages. The Turnbull Avenue monitoring location was used to determine the potential for significant adverse impacts at the existing Mitchell Lama building on the eastern portion of the rezoning area and to determine the need for attenuation on the proposed project's Turnbull Avenue facade; the Lafayette Avenue monitoring location was used to determine the potential for significant adverse impacts at the existing Mitchell Lama building and the existing community facility uses to the south of the rezoning area and to determine the need for attenuation on the proposed project's Lafayette Avenue façade; and the White Plains Road monitoring location was used to determine the need for attenuation on the proposed project's White Plains Road façade.

Noise Monitoring

Noise monitoring at the receptor locations was carried out on Tuesday, September 13 and Thursday, October 13, 2016. The weather on Tuesday, September 13 was partly cloudy with temperatures in the 70s and the weather on Thursday, October 13 was mostly cloudy with temperatures in the 60s. Twenty-minute spot measurements of existing noise levels were performed at each receptor location for the AM, midday, and PM noise analysis time periods to establish existing noise levels. For the purpose of this analysis, during the noise recordings, vehicles were counted and classified.

In addition, as there is an existing public school located to the south of the rezoning area (at 1960 Pugsley Avenue, Block 3604, Lot 39), supplemental monitoring was conducted along this frontage (receptor location 2) during the school PM dismissal/bus departure peak hour (2:30-3:30 PM) to determine whether higher (worst-case) noise levels occurred outside of the proposed project's identified AM, midday, and PM peak hours.[3]

[3] The monitored L_{eq} during the school PM peak hour was 65.9 dBA, which is greater than the L_{eq} measured at receptor location 2 during the AM and midday peak hours (64.8 dBA and 64.6 dBA, respectively) but lower than the L_{eq} measured during the PM peak hour (66.7 dBA). Therefore, the noise levels monitored during the school PM peak hour were not used for noise analysis at receptor location 2.

Rezoning Area Development Site (1) Noise Receptor Location

1965 Lafayette Avenue

Figure L-1
Noise Receptor Locations

Equipment Used During Noise Monitoring

The instrumentation used for the measurements was a Brüel & Kjær Type 4189 ½-inch microphone connected to a Brüel & Kjær Model 2250 Type 1 (as defined by ANSI) sound level meter. This assembly was mounted at a height of five feet above the ground surface on a tripod and at least six feet away from any sound-reflecting surfaces to avoid major interference with source sound level that was being measured. The meter was calibrated before and after readings with a Brüel & Kjær Type 4231 sound-level calibrator using the appropriate adaptor. The data were digitally recorded by the sound level meter and displayed at the end of the measurement period in units of dBA. Measured quantities included L_{eq}, L_1, L_{10}, L_{50}, and L_{90}. A windscreen was used during all sound measurements except for calibration. Only traffic-related noise was measured; noise from other sources (e.g., emergency sirens, aircraft flyovers, etc.) was excluded from the measured noise levels. Weather conditions were noted to ensure a true reading as follows: wind speed under 12 mph; relative humidity under 90 percent; and temperature above 14°F and below 122°F (pursuant to ANSI Standard S1.13-2005).

Existing Noise Levels at Noise Monitoring Locations

Noise monitoring results for the three receptor locations are shown above in Table L-5. As indicated in the table, existing L_{eq} noise levels at receptor location 1 range from 62.3 dBA to 64.3 dBA in the weekday peak hours, with the highest monitored L_{eq} noise levels during the PM peak hour. Existing L_{eq} noise levels at receptor location 2 range from 64.6 dBA to 66.7 dBA in the weekday peak hours, with the highest monitored L_{eq} noise levels during the PM peak hour. Existing L_{eq} noise levels at receptor location 3 range from 68.6 to 70.2 in the weekday peak hours, with the highest monitored L_{eq} noise levels during the midday peak hour. In terms of CEQR noise exposure categories, the existing L_{10} noise levels at receptor locations 1 and 2 fall within the Marginally Acceptable category, while existing L_{10} noise levels at receptor location 3 fall within the Marginally Unacceptable (II) category in one or more peak hour.

Table L-5: Existing Noise Levels at Monitoring Locations (in dBA)

Receptor	Location	Time	L_{eq}	L_{max}	L_{min}	L_1	L_{10}	L_{50}	L_{90}	CEQR Noise Exposure Category
1	Turnbull Ave. btwn. White Plains Rd. & Pugsley Ave.	AM	63.3	83.7	54.9	71.5	**65.8**	60.8	57.8	Marginally Acceptable
		MD	62.3	92.1	52.3	69.5	64.8	59.0	55.2	
		PM	64.3	87.0	54.8	74.1	65.5	60.0	57.3	
2	Lafayette Ave. btwn. White Plains Rd. & Pugsley Ave.	AM	64.8	82.0	52.8	74.2	67.7	61.7	56.8	Marginally Acceptable
		MD	64.6	84.9	54.0	72.7	67.8	61.9	57.5	
		PM	66.7	82.5	56.8	75.3	**69.5**	64.5	60.8	
3	White Plains Rd. btwn. Lafayette Ave. & Turnbull Ave.	AM	68.6	86.4	55.6	79.2	71.6	63.5	59.6	Marginally Unacceptable (II)
		MD	70.2	87.6	53.5	80.9	**73.2**	65.5	59.6	
		PM	69.2	92.2	54.6	79.4	72.2	65.0	59.5	

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

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

As outlined in Attachment A, "Project Description," in the 2020 No-Action condition, it is expected that the existing rezoning area uses would remain. Future No-Action noise levels at the three receptor locations were calculated using the noise prediction methodology described above in Section IV.

Table L-6 compares the future No-Action and existing noise levels at the receptors. As indicated in Table L-6, noise levels at each receptor location are expected to minimally increase (by 0.00 and 0.06 dBA) in the 2020 No-Action condition as a result of general background growth in the area. Therefore, L_{10} noise levels at receptor locations 1 and 2 would remain within the Marginally Acceptable category, and L_{10} noise levels at receptor location 3 would remain within the Marginally Unacceptable (II) category.

Table L-6: Future No-Action Noise Levels at Receptor Locations (in dBA)

Receptor	Location	Time	Existing L_{eq}	No-Action L_{eq}	Change in L_{eq} from Existing Conditions	No-Action L_{10}[1]	CEQR Noise Exposure Category
1	Turnbull Ave. btwn. White Plains Rd. & Pugsley Ave.	AM	63.3	63.3	0.00	**65.8**	Marginally Acceptable
		MD	62.3	62.3	0.00	64.8	
		PM	64.3	64.3	0.00	65.5	
2	Lafayette Ave. btwn. White Plains Rd. & Pugsley Ave.	AM	64.8	64.9	0.06	67.7	Marginally Acceptable
		MD	64.6	64.6	0.01	67.8	
		PM	66.7	66.7	0.01	**69.5**	
3	White Plains Rd. btwn. Lafayette Ave. & Turnbull Ave.	AM	68.6	68.6	0.04	71.7	Marginally Unacceptable (II)
		MD	70.2	70.2	0.02	**73.2**	
		PM	69.2	69.2	0.04	72.3	

Notes:

[1] No-Action L_{10} values calculated by adding the difference between the measured L_{10} and L_{eq} to the calculated L_{eq}. Highest L_{10} value at each receptor location indicated in **bold.**

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

In the future with the proposed actions, the western portion of the rezoning area would be developed with two attached predominantly residential buildings comprising a total of approximately 384,271 gsf of floor area, including 425 affordable residential units, as well as ground floor commercial floor area. Future With-Action noise levels at the receptors were calculated using the noise prediction methodology described above and the traffic assignments presented in Attachment J, "Transportation." As incremental vehicle volumes along Lafayette and Turnbull Avenues would be substantially higher along the proposed building's frontage than they would be to the east (adjacent to the existing 353-unit Mitchell Lama building that currently occupies the eastern portion of the rezoning area), With-Action noise levels were calculated separately for these two segments of the roadways based on the traffic assignements presented in Attachment J.

As shown in Table L-7, in the future with the proposed actions the maximum projected L_{10} noise level along the development site's Turnbull Avenue, Lafayette Avenue, and White Plains Road street frontages would be 68.4 dBA, 69.5 dBA, and 73.3 dBA, respectively. The receptor locations on Turnbull and Lafayette Avenue (1a and 2a) would fall within the Marginally Acceptable CEQR noise exposure category, while the White Plains Road receptor (receptor location 3) would fall within the Marginally Unacceptable (II) CEQR noise exposure category in one or more peak hours, as under existing and No-Action conditions.

Along the existing Mitchell Lama building's street frontages, the maximum projected L_{10} noise levels would be 66.0 dBA (on Turnbull Avenue – receptor location 1b) and 69.5 dBA (on Lafayette Avenue – receptor location 2b) (refer to Table L-7). As under existing and No-Action conditions, future With-Action noise levels at these receptors would fall within the CEQR Marginally Acceptable noise exposure category.

As noise levels along the Mitchell Lama building's street frontages (receptor locations 1b and 2b) and along the Lafayette Avenue community facility frontages (receptor locations 2a and 2b) would increase

by less than 3.0 dBA, no significant adverse noise impacts to these existing sensitive receptors would occur.

Table L-7: Future With-Action Noise Levels at Receptor Locations (in dBA)

Receptor	Location	Time	No-Action L_{eq}	With-Action L_{eq}	Change in L_{eq} from No-Action Conditions	With-Action L_{10}[1]	CEQR Noise Exposure Category
1a	Midpoint of development site's Turnbull Ave. frontage	AM	63.3	63.9	0.6	66.4	Marginally Acceptable
		MD	62.3	65.9	3.6	**68.4**	
		PM	64.3	67.0	2.7	68.2	
1b	Midpoint of existing Mitchell Lama building's Turnbull Ave. frontage	AM	63.3	63.3	0.1	65.9	Marginally Acceptable
		MD	62.3	63.5	1.2	66.1	
		PM	64.3	64.8	0.5	**66.0**	
2a	Midpoint of development site's Lafayette Ave. frontage	AM	64.9	64.9	0.0	67.8	Marginally Acceptable
		MD	64.6	64.7	0.0	67.8	
		PM	66.7	66.7	0.0	**69.5**	
2b	Midpoint of existing Mitchell Lama building's Lafayette Ave. frontage	AM	64.9	64.9	0.0	67.8	Marginally Acceptable
		MD	64.6	64.7	0.0	67.8	
		PM	66.7	66.7	0.0	**69.5**	
3	White Plains Rd. btwn. Lafayette Ave. & Turnbull Ave.	AM	68.6	68.7	0.0	71.7	Marginally Unacceptable (II)
		MD	70.2	70.3	0.0	**73.3**	
		PM	69.2	69.3	0.0	72.3	

Notes:

[1] With-Action L_{10} values calculated by adding the difference between the measured L_{10} and L_{eq} to the calculated L_{eq}. Highest L_{10} value at each receptor location indicated in **bold.**

While noise levels along the development site's northern (Turnbull Avenue) frontage would increase by more than 3.0 dBA in the midday peak hour, and would therefore be perceptible, as there are no existing or No-Action sensitive receptors adjacent to this location, no existing or planned sensitive receptors would experience a noticeable noise increase. Furthermore, noise levels at this location would continue to be classified as "Marginally Acceptable" as under existing and No-Action conditions. As such, no significant adverse noise impacts would result in the future with the proposed actions.

Basketball Court Noise

While people are not usually thought of as stationary noise, children in playgrounds or spectators at outdoor sporting events or concerts can introduce additional sources of noise within communities. According to the *CEQR Technical Manual*, noise generated by children in playgrounds or people using parks is considered a stationary source of noise.

As described in Attachment A, "Project Description," in conjunction with the proposed actions, the existing basketball court that is currently located on the development site at the southeast corner of Turnbull Avenue and White Plains Road would be replaced by a new basketball court to be located at the southeastern corner of the development site, along Lafayette Avenue, which would abut portions of the south façade of the proposed affordable senior housing building and portions of the east façade of the proposed affordable family housing building (refer to Figure A-6 in Attachment A, "Project Description"). The basketball court would be open to residents of the proposed project buildings, as well as the existing residents of the Mitchell Lama building. As under existing conditions, it is anticipated that the new basketball court would be closed in the winter and would be open in the remaining months between 9:00 AM and 7:00 PM.

As the new proposed basketball court would be located closer to the existing Mitchell Lama building (approximately 60 feet from the building's western façade, at its closest point) than under existing and No-Action conditions, as well as being in close proximity to the proposed project buildings, a basketball court noise analysis was conducted to determine (1) the potential for impacts at the existing Mitchell Lama building; and (2) the need for additional attenuation requirements for the facades of the proposed project buildings that would front the basketball court/play area.

Based upon noise monitoring conducted at two basketball courts in April 2017, the maximum L_{eq} noise level at the boundary of the basketball court would be 61.18 dBA. Accounting for noise generated by the proposed basketball court, and conservatively applying the monitored value from the edge of the court (with no reduction in noise levels with distance, assumed) the maximum predicted L_{10} noise levels along the western façade of the existing Mitchell Lama building would be 69.5 dBA, which is 1.7 dBA more than the No-Action L_{10} midday noise levels at receptor location 2b. As the increase in noise level would be less than 3 dBA, the increase would not be considered perceptible, and no significant adverse noise impacts would result.

Applying this same methodology, the maximum predicted L_{10} value along the portions of the proposed project buildings fronting the basketball court would also be 69.5 dBA, which falls within the Marginally Acceptable noise exposure category.

VIII. BUILDING ATTENUATION REQUIREMENTS

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

As described above and presented in Table L-7, the maximum predicted L_{10} noise levels adjacent to the proposed buildings are expected to be 69.3 along the site's Turnbull Avenue frontage, 69.6 along the site's Lafayette Avenue frontage, and 73.3 dBA along the site's White Plains Road frontage. Accounting for noise generated by the proposed project's basketball court, the maximum predicted L_{10} noise levels on the proposed project buildings' facades fronting the court would be 69.5 dBA. As presented in Table L-4, to ensure acceptable interior noise levels for the proposed project's residential uses, 31 dBA of attenuation is needed along the proposed project's White Plains Road frontage; no additional window/wall attenuation would be required outside of standard modern construction practices along the proposed project's remaining facades in order to maintain interior noise levels of 45 dBA or lower for the proposed project's residential uses.

The noise attenuation specifications for the proposed project would be mandated through the assignment of an (E) designation to Bronx Block 3672, Lot 1. The text of the (E) designation is as follows:

> **To ensure an acceptable interior noise environment, the future residential and community facility uses must provide a minimum of 31 dBA composite building façade attenuation with windows closed along White Plains Road, in order to maintain an interior noise level of 45 dBA. The minimum required composite building façade attenuation for future commercial**

uses would be five dBA less than that for residential uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided.

With implementation of the attenuation levels outlined above, the proposed project would provide sufficient attenuation to achieve the *CEQR Technical Manual* interior noise level guidelines of 45 dBA for residential uses. Therefore, the proposed actions would not result in any significant adverse noise impacts related to building attenuation requirements.

APPENDIX I

AGENCY 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:
Address: 1965 LAFAYETTE AVENUE, **BBL:** 2036720001
Date Received: 8/23/2016

[X**] No architectural significance**

[X**] No archaeological significance**

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

[ ] Listed on National Register of Historic Places

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

[ ] May be archaeologically significant; requesting additional materials

Gina Santucci 8/25/2016

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 31730_FSO_DNP_08252016.doc

NYC Environmental Protection

Vincent Sapienza, P.E.
Acting Commissioner

Angela Licata
Deputy Commissioner of Sustainability

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
Fax (718) 595-4479
alicata@dep.nyc.gov

March 08, 2017

Robert Dobruskin
Director, Environmental Assessment and Review Division
New York City Department of City Planning
120 Broadway, 31st Floor
New York, NY 10271

Re: 1965 Lafayette Avenue
Block 3672, p/o Lot 1
CEQR # 77DCP463X
Bronx, NY

Dear Mr. Dobruskin:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the February 2017 Environmental Assessment Statement prepared by Philip Habib & Associates and the October 2016 Phase I Environmental Site Assessment Report (Phase I) prepared by GZA GeoEnvironmental, Inc. on behalf of Park Lane Residences Co. (applicant) for the above referenced project. It is our understanding that the applicant is seeking a series of discretionary actions from the New York City Department of City Planning (DCP) to facilitate the development of two attached predominantly residential apartment buildings at 1965 Lafayette Avenue in the Bronx. The proposed project would comprise a combined approximately 384,271 gross square foot (gsf) of floor area, including approximately 425 affordable residential units and approximately 19,938 gsf of local retail, as well as accessory parking. Specifically, the applicant is seeking (1) a zoning map amendment to rezoning an approximately 107,890-sf rezoning area from R6 to R8 with a C2-4 commercial overlay along White Plains Road; (2) a text amendment to establish the rezoning area as an Mandatory Inclusionary Housing designated area; (3) public financing from the New York City Department of Housing Preservation and Development (HPD) and/or the New York City Housing Development Corporation; and (4) additional HPD and New York State Department of Homes and Community Renewal approvals to facilitate development in the rezoning area in consideration of existing Mitchell Lama site controls. It is anticipated that the proposed project would include approximately 425 units affordable to households at a mix of income levels, including 292 affordable family units (to be located in the 281,572- gsf family housing building, in addition to the proposed retail and accessory parking uses) and 133 affordable senior housing units (to be located in the 102,699-gsf senior housing building, in addition to the accessory parking uses). The rezoning area is located on the western portion of the block bounded by Turnbull Avenue to the north, Lafayette Avenue to the south, and White Plains Road to the west. The rezoning area is currently occupied by a 21-story affordable residential

building, surface accessory parking, and private open space uses. The site is located in the Soundview neighborhood of Bronx Community District 9.

The October 2016 Phase I report revealed that historical on-site and surrounding area land uses consisted of a variety of residential and commercial uses including commercial properties, residential buildings, Cornell Station Post Office, Adlai Stevenson School, a shopping strip mall, apartment complexes, a farmhouse, auto service, a bank, churches, dry cleaners, etc. It should be noted that the subject site and vicinity areas were originally located in a river and wetland system. This may indicate the presence of historic fill, which is considered a historic environmental concern. There is a No. 2 fuel oil aboveground storage tank (AST) and an abandoned 20,000 gallon underground storage tank (UST) located in the existing building on Lot 1. that once contained No. 6 fuel oil. The New York State Department of Environmental Conservation database identified 26 leaking storage tank sites within approximately 0.5 miles; 9 UST sites, 6 AST sites within approximately 0.25 miles; 12 NY Spills sites within approximately 0.125 miles; and 1 manufactured gas plant site within approximately 1 mile of the subject property.

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

- DCP should inform the applicant that based on the historical on-site and/or surrounding area land uses, a Phase II Environmental Site Assessment (Phase II) is necessary to adequately identify/characterize the surface and subsurface soils of the subject parcel. A Phase II Investigative Protocol/Work Plan summarizing the proposed drilling, soil, groundwater, and soil vapor sampling activities should be submitted to DEP for review and approval. The Work Plan should include blueprints and/or site plans displaying the current surface grade and sub-grade elevations and a site map depicting the proposed soil, groundwater, and soil vapor sampling locations. Soil and groundwater samples should be collected and analyzed by a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for the presence of volatile organic compounds (VOCs) by United States Environmental Protection Agency (EPA) Method 8260, semi-volatile organic compounds by EPA Method 8270, pesticides by EPA Method 8081, polychlorinated biphenyls by EPA Method 8082, and Target Analyte List metals (filtered and unfiltered for groundwater samples). The soil vapor sampling should be conducted in accordance with NYSDOH's October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York. The soil vapor samples should be collected and analyzed by a NYSDOH ELAP certified laboratory for the presence of VOCs by EPA Method TO-15. An Investigative Health and Safety Plan (HASP) should also be submitted to DEP for review and approval.

Future correspondence and submittals related to this project should include the following CEQR number **77DCP463X**. If you have any questions, you may contact Mohammad Khaja-Moinuddin at (718) 595-4445.

Sincerely,

Wei Yu

Wei Yu
Acting Deputy Director, Hazardous Materials

c: R. Weissbard
M. Khaja-Moinuddin
T. Estesen
M. Wimbish
O. Abinader – DCP
C. Lee – DCP

NYC Environmental Protection

Vincent Sapienza, P.E.
Acting Commissioner

Anastasios Georgelis, P.E.
Acting Deputy Commissioner
Bureau of Water and
Sewer Operations

59-17 Junction Boulevard
Flushing, NY 11373

watersewerplanning@dep.nyc.gov

MEMORANDUM

To: Mitchell Wimbish
Terrell Estesen
BEPA

From: Guo Zhan Wu
BWSO

Subject: CEQR #77DCP463X
1965 Lafayette Ave, Block: 3672, Lot: p/o 1
Borough of the Bronx

Date: April 4, 2017

This is in reference to the Draft Environmental Impact Statement received by BWSO on March 8th, 2017 via e-mail. Please be advised of the following comments.

1. On page I-7 of Attachment I: Water and Sewer Infrastructure, it is proposed that the sanitary sewer discharge will be controlled during the site connection approval process. This is incorrect; the sanitary discharge rate will not be controlled with retention or detention.

2. The proposed rezoning results in an increase of 120% for the sanitary flow in the adjacent sewers. Therefore, there will be a need to amend the existing drainage plan. In addition, a hydraulic analysis of the existing sewer system may be needed at the time of submittal of the site connection proposal application to determine whether the existing sewer system is capable of supporting higher density development and related increase in wastewater flow, or whether there will be a need to upgrade the existing sewer system.

C: Jannine McColgan, P.E., Director, Water & Sewer Planning
Ketki Patel, P.E., Chief, Drainage Review
Lillian Cheng, P.E., Drainage and Modeling
Gareth King, Review Engineer
File; GK/gk

APPENDIX II

WRP CONSISTENCY ASSESSMENT FORM

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

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

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

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

A. APPLICANT INFORMATION

Name of Applicant: Park Lane Residence Co.

Name of Applicant Representative: Joshua Siegel

Address: c/o Starrett Properties, 70 East 55th Street, 7th Floor, New York

Telephone: +1 (212) 527-9903 Email: j.siegel@dvln.com

Project site owner (if different than above): _____

B. PROPOSED ACTIVITY

If more space is needed, include as an attachment.

1. Brief description of activity

The applicant, Park Lane Residences Company, L.P., is seeking a series of discretionary actions to facilitate the development of two attached predominantly residential apartment buildings at 1965 Lafayette Avenue (Bronx Block 3672, p/o Lot 1) in the Soundview neighborhood of Bronx Community District (CD) 9. The proposed project would comprise a total of approximately 384,271 gross square foot (gsf) of floor area, including approximately 425 affordable residential units and approximately 19,938 gsf of local retail, as well as accessory parking. Specifically, the applicant is seeking (1) a zoning map amendment to rezoning the approximately 107,890-sf rezoning area from R6 to R8 with a C2-4 commercial overlay along White Plains Road; (2) a text amendment to establish the rezoning area as an Mandatory Inclusionary Housing (MIH) designated area; (3) public financing from the New York City Department of Housing Preservation and Development (HPD) and/or the New York City Housing Development Corporation (HDC); and (4) additional HPD and New York State Department of Housing and Community Renewal (DHCR) approvals to facilitate development in the rezoning area in consideration of existing Mitchell Lama site controls. While the specific public financing source(s) will inform the affordability levels and number/type of the units, it is anticipated that the proposed project would include approximately 425 units affordable to households at a mix of income levels, including 292 affordable family units (to be located in the proposed family housing building, in addition to the proposed local retail and accessory parking uses) and 133 affordable senior housing units (to be located in the proposed senior housing building). The proposed project is expected to be completed and occupied by 2020.

2. Purpose of activity

The proposed action is intended to facilitate a new affordable residential development on the proposed development site.

The proposed zoning map change is needed to permit construction of the proposed project. Under the existing R6 zoning, no additional development can occur within the rezoning area despite the fact that the much of the rezoning area is unbuilt and comprised of open surface parking lots. The proposed action would allow the applicant to maximize the use of its property, allowing for additional residential development in an area well-suited to this type of development.

In addition, mapping the rezoning area as an MIH-designated area, in conjunction with the requested HPD and HDC financing, would promote the creation of permanently affordable housing. The proposed project is expected to provide approximately 425 units of affordable housing and would, according to the applicant, help to address the continuing need for affordable housing, including both senior and family units, for a range of household income levels in Soundview and the surrounding neighborhoods.

C. PROJECT LOCATION

Borough: Bronx Tax Block/Lot(s): Block 3672, p/o Lot 1

Street Address: 1965 Lafayette Avenue

Name of water body (if located on the waterfront): N/A - not a waterfront site.

D. REQUIRED ACTIONS OR APPROVALS

Check all that apply.

City Actions/Approvals/Funding

City Planning Commission ☑ Yes ☐ No

☐	City Map Amendment	☐	Zoning Certification	☐	Concession
☑	Zoning Map Amendment	☐	Zoning Authorizations	☐	UDAAP
☑	Zoning Text Amendment	☐	Acquisition – Real Property	☐	Revocable Consent
☐	Site Selection – Public Facility	☐	Disposition – Real Property	☐	Franchise
☐	Housing Plan & Project	☐	Other, explain:		
☐	Special Permit				

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

Board of Standards and Appeals ☐ Yes ☑ No

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

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

Other City Approvals

☐	Legislation	☑	Funding for Construction, specify: Possible HPD financing
☐	Rulemaking	☐	Policy or Plan, specify:
☐	Construction of Public Facilities	☐	Funding of Program, specify:
☐	384 (b) (4) Approval	☐	Permits, specify:
☑	Other, explain: approval to allow for new development in the rezoning area		

State Actions/Approvals/Funding

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

Federal Actions/Approvals/Funding

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

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

E. LOCATION QUESTIONS

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

   ☐ Significant Maritime and Industrial Area (SMIA) (*2.1*)

   ☐ Special Natural Waterfront Area (SNWA) (*4.1*)

   ☐ Priority Martine Activity Zone (PMAZ) (*3.5*)

   ☐ Recognized Ecological Complex (REC) (*4.4*)

   ☐ West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA) (*2.2, 4.2*)

F. WRP POLICY ASSESSMENT

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

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

Assessment Will Be Provided in EIS

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

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

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

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

G. CERTIFICATION

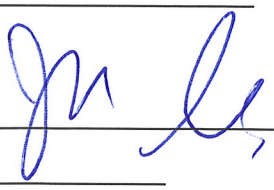
The applicant or agent must certify that the proposed activity is consistent with New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification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

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

Applicant/Agent's Name: Josha Siegel, Park Lane Residence Co.

Address: c/o Starrett Properties, 70 East 55th Street, 7th Floor, New York

Telephone: +1 (212) 527-9903 Email: jsiegel@dvln.com

Applicant/Agent's Signature: 

Date: 3/7/17

APPENDIX III

HAZARDOUS MATERIALS

Proactive by Design

PHASE I ENVIRONMENTAL SITE ASSESSMENT

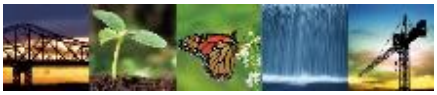
1965 Lafayette Avenue
Bronx, New York 10473

October 14, 2016
File No. 12.0076490.00

PREPARED FOR:
Park Lane Residence Co.
New York, NY

GZA GeoEnvironmental, Inc.
55 Lane Road, Suite 407 | Fairfield, New Jersey 07004
973-774-3300

27 Offices Nationwide
www.gza.com



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October 14, 2016
File No. 12.0076490.00

Rafi Hovsepian
Park Lane Residence Co.
70 East 55th Street
New York, New York 10022

Re: Phase I Environmental Site Assessment
1965 Lafayette Avenue
Bronx, New York 10473

Dear Rafi:

Pursuant to our proposal dated August 31, 2016, GZA is pleased to submit the appended Phase I Environmental Site Assessment Report for the above-referenced property ("Site"). GZA completed this Phase I Environmental Site Assessment in general conformance with the guidelines described in ASTM International's Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process - E1527-13.

We hope this satisfies your present needs. If you need additional information, please contact David Winslow at (973) 774-3307.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

David Winslow, PhD, P.G.
Senior Vice President/Project Manager

Benjamin Alter, PG
Consultant Reviewer

Jessica Skowronski, ASP
Scientist II

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EXECUTIVE SUMMARY

Park Lane Residence Co. (also referred to herein as "Client" or "User") retained GZA GeoEnvironmental, Inc. (GZA) to perform a Phase I Environmental Site Assessment (ESA) of the property located at 1965 Lafayette Avenue, Bronx, NY (hereafter referred to as the "Site").

This Phase I ESA was performed in general conformance with the scope and limitations of ASTM International's Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process – E1527-13 (ASTM E1527-13), and included our visual observation of the Site; a review of historical information, environmental databases, and information provided by the User; and interviews with current Site representatives. Limiting conditions and/or deviations from ASTM E1527-13 are described in **Section 1.4** of this Phase I ESA Report.

The Site consists of a 21 story building covering 400,932 square feet located on a 3.62-acre lot. The Site is also known as Block 3672 Lot 1. There are two parking lots on the east and west sides of the building and two swimming pools on the north side of the building. The Site is fenced along its perimeter.

GZA's findings are as follows:

Recognized Environmental Conditions (REC) and Controlled Recognized Environmental Conditions (CREC)

- This Phase I ESA revealed no evidence of RECs in connection with the Site.

Historic Recognized Environmental Conditions (HREC)

- This Phase I ESA revealed no evidence of HRECs in connection with the Site.

De Minimis Conditions

- This Phase I ESA revealed no de minimis conditions in connection with the Site.

Data Gaps and Their Significance

- GZA identified the following data gap in the historic record: 1941-1946. GZA does not consider this data gap to be significant because the Site was not yet developed in this time period.

1.0 INTRODUCTION

This Phase I Environmental Site Assessment Report (Phase I ESA Report) presents the field observations, results, and opinions of a Phase I ESA conducted by GZA GeoEnvironmental, Inc. (GZA) for Park Lane Residence Company (also referred to herein as "Client" or "User") at property identified as 1965 Lafayette Avenue, Bronx, New York (hereafter referred to as the "Site). GZA prepared this Phase I ESA Report in conformance with the limitations presented in **Section 14.0** and with the terms and conditions of our proposal dated August 31, 2016, which are included in **Appendix A**. This Phase I ESA Report is subject to modification if GZA or any other party develops subsequent information.

1.1 REASON FOR PERFORMING THE PHASE I ENVIRONMENTAL SITE ASSESSMENT

GZA understands that this Phase I ESA was requested as part of environmental due diligence in support of the refinancing of the Site. We understand that this Phase I ESA is not funded with a federal grant under the US Environmental Protection Agency (EPA) Brownfield Assessment and Characterization Program or the US Small Business Administration, and that an evaluation of controlled substances at the Site is not required.

1.2 PROJECT OBJECTIVES

We designed the Scope of Services described below in general conformance with ASTM International's Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process – E1527-13 (ASTM E1527-13). The objectives of this Phase I ESA were:

- To render an opinion as to whether surficial or historical evidence indicates the presence of recognized environmental conditions (RECs) that could result in the presence of hazardous substances or petroleum products in the environment, as defined in ASTM E1527-13; and

- To permit the User of this Phase I ESA to satisfy one of the requirements for qualifying for certain Landowner Liability Protections under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

1.3 DEFINITIONS

As defined in ASTM E1527-13:

- A REC indicates "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 "Controlled REC" (CREC) applies to a site that has reached regulatory closure with the implementation of an engineering control, such as an impermeable cap, and/or an institutional control, such as a deed restriction or property use restriction.

- A "historic recognized environmental condition" (HREC) is "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering

controls.)" A HREC typically is not a REC. However, if regulatory standards have changed since the HREC achieved closure, and the data used to close the case indicate the occurrence of chemical constituents that are above their respective regulatory standard(s), then we will identify the HREC as a REC in the conclusions Section of this Phase I ESA Report.

- A "*de minimis*" condition, as defined by ASTM E1527-13, is "a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." ASTM E1527-13 does not consider *de minimis* conditions RECs.

- A data gap refers to a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. Data gaps may result from incompleteness in any of the activities required by this practice. A data gap is only significant if other information and/or professional experience raises reasonable concerns involving the data gap.

1.4 SCOPE OF SERVICES

GZA's Scope of Services consisted of the following activities:

- A review of federal and State regulatory agency databases for the Site and the minimum search distance from the Site;

- Contact with certain local regulatory agencies to inquire about environmental conditions at the Site and in its vicinity;

- A review of the Site history through available Standard Historical Sources;

- A Site reconnaissance to observe current Site conditions for evidence of recognized environmental conditions;

- The completion of a reconnaissance of the Site vicinity;

- A review of adjoining properties to identify the use of hazardous substances or petroleum products;

- Interview(s) with the Key Site Manager, as well as certain other available occupants and major tenants, regarding the current and past Site usage and facility operations; and

- The preparation of this Phase I ESA Report of our findings.

Deviations of this Phase I ESA from ASTM E1527-13 include:

- There were no deviations to the ASTM E1527-13 standard.

Limitations to GZA's assessment included the following:

- GZA only accessed two of the 353 apartments on the Site.

This Phase I ESA does not include an evaluation of environmental issues or conditions that ASTM E1527-13 considers non-scope considerations.

2.0 DESCRIPTION OF SITE AND VICINITY

GZA obtained the following information resulting from its Site reconnaissance, its research, and from interviews with people knowledgeable about the Site. Photographs depicting Site conditions during GZA's reconnaissance are presented in **Appendix B**.

2.1 SITE LOCATION

The Site is located in Bronx, New York in an area zoned mainly for residential (R6) properties. The Site is identified as Block 3672 Lot 1 on the New York City Tax Map. The Site is bounded by commercial properties on White Plains Road to the west, residential homes on Pugsley Avenue to the east, a shopping strip mall to the north and by a school on Lafayette Avenue to the south. A topographic map showing the location of the Site is provided as **Figure 1**.

2.2 DESCRIPTIONS OF SITE AND SITE BUILDINGS

The Site is rectangular shaped lot and has an area of 157,850 square feet. The property is improved with a 21-story building with 353 one, two and three bedroom separate apartments. On the basement level there is a recreation room with a small detached kitchen, several storage rooms, a boiler room, a trash compactor room, a laundry room, maintenance rooms, offices, locker rooms and common bathrooms. There are two swimming pools outside the north side of the building and two parking lots on the east and west side of the building. A Site Plan is presented on **Figure 2**.

Information regarding the Site building is provided in the table below.

Feature	Description
Year of Construction	1969
Square Footage	400,932
# Stories/Basement	21, with basement
Foundation Type	Concrete block
Building Superstructure	Concrete
Roof Construction	Flat roof
Roof Covering	Stones
Exterior Wall Finishes	Brick
Floor Superstructure	Concrete
Interior Wall Finishes	Plaster
Floor Coverings	Terrazzo in front entrance, vinyl tile
Interior Ceiling Finishes	Acoustical ceiling tiles and popcorn finishes
Heating/Cooling Systems	Boiler, A/C window units
Vertical Conveyances	Two elevators
Other Relevant Building Features	None

The following entities provide utilities to the Site:

Service	Provider
Electricity	Consolidated Edison of New York
Natural Gas	Consolidated Edison of New York
Drinking Water	New York City
Sanitary Sewer Services	New York City
Other Services	None

2.3 CURRENT SITE USE

At the time of GZA's Site reconnaissance, PACLA Apartments was using the Site for multi-family apartment units.

2.4 ADJOINING PROPERTIES

The following table lists the properties that adjoin the Site and describes their current use.

Direction	Street Address/Location	Name (as applicable) and Current Use
North	1937 Turnbull Avenue	Commercial properties
South	1950 Lafayette Avenue, 1980 Lafayette Avenue	Cornell Station post office, Adlai Stevenson School
East	2001 Lafayette Avenue, 2004 Turnbull Avenue	Residential
West	845 White Plains Road	Commercial properties

2.5 VICINITY PROPERTIES

As part of this Phase I ESA, GZA performed a reconnaissance from public properties of the Site vicinity within 1/4 mile of the Site. The Site vicinity is primarily a mix of residential and commercial with a school and several strip malls within the vicinity.

3.0 ENVIRONMENTAL SETTING

Section 3.0 provides information regarding the general physiographic, hydrogeologic, hydrologic, and soil conditions in the area of the Site.

3.1 REGIONAL PHYSIOGRAPHY

Based on a review of the U.S. Geological Survey topographic map United States Geological Survey (USGS) 7.5 Minute Series 2016 topographic maps of the Flushing, New York Quadrangle, the Site is situated at an approximate elevation of 11 feet above mean sea level. The topographic gradient near the Site slopes gently to the south-southeast. The nearest water body is Pugsley Creek, which is located approximately 0.6 miles south-southeast of the Site.

3.2 GEOLOGIC, HYDROGEOLOGIC, AND HYDROLOGIC CONDITIONS

Soil information provided by the Soil Conservation Service STATSGO database classifies soils in the vicinity of the Site as "urban land." Urban land is defined as land with buildings, roads, driveways, parking lots, or other

manmade structures. Urban land refers to soils that have been altered or filled by human activities making them unidentifiable from the native conditions (e.g., urban fill).

According to the USGS Bedrock Geologic Maps of Bronx County (Charles Baskerville, 1992), Bronx County is underlain by high grade metamorphic bedrock consisting of a sequence of Cambrian and Ordovician gneiss, schistose-gneiss, and marble. The bedrock beneath the Site is expected to be the Cambrian-Ordovician Hartland schist and located approximately 30 feet below grade.

Based on local topography and surface water flow patterns the inferred direction of groundwater flow is to the south-southeast. However, the localized direction of groundwater flow near the Site might vary because of underground utilities, subsurface preferential pathways, variations in weather or heterogeneous geological and/or anthropogenic conditions. We subsequently refer to upgradient and downgradient properties in this Phase I ESA Report based on the inferred direction of groundwater flow to the south-southeast.

4.0 HISTORICAL USE INFORMATION

The Site history was developed from "Standard Historical Sources" as defined in ASTM E1527-13, available files at the EDR. We include a historical summary at the end of **Section 4.0** of this report. Specific information obtained from standard historical sources is contained in following subsections, and **Appendix C** includes copies of relevant historic documents.

4.1 AERIAL PHOTOGRAPH REVIEW

GZA reviewed historical aerial photographs provided by EDR. The table below contains GZA's description of the Site and vicinity properties as shown in the aerial photographs.

Year	Scale	Description of Site	Description of Vicinity
1951	1" = 500'	The Site appears undeveloped.	The immediate vicinity appears undeveloped. There are some residential properties to the north and to the east.
1954	1" = 500'	The Site appears consistent with 1951 conditions.	The vicinity appears consistent with 1951 conditions, except for what appears to be a farmhouse surrounded by a possible farm.
1961	1" = 500'	The Site appears consistent with 1954 conditions.	The vicinity appears consistent with 1954 conditions, except for a small increase in residential dwellings.
1966	1" = 500'	The Site appears consistent with 1961 conditions.	The adjoining property to the north appears as a large commercial development.
1974	1" = 500'	The Site appears consistent with current conditions.	There is an increase in residential dwellings and apartment complexes. There is a school adjoining the Site to the south.
1980	1" = 500'	The Site appears consistent with current conditions.	The vicinity appears consistent with current conditions except for the undeveloped adjoining lot to the west.
1985	1" = 500'	The Site appears consistent with current conditions.	The vicinity appears consistent with 1980 conditions.
1995-2011	1" = 500'	The Site appears consistent with current conditions.	The vicinity appears consistent with current conditions.

4.2 FIRE INSURANCE MAPS

GZA reviewed historic fire insurance maps provided by EDR. The table below contains GZA's description of the Site and vicinity properties as shown in the historic fire insurance maps.

Year	Description of Site	Description of Vicinity
1919, 1929, 1950	The Site appears undeveloped.	The vicinity appears mostly undeveloped, but platted out, with roads present.
1977, 1981	The Site is fully developed consistent with current conditions.	The shopping facility to the north, the school and post office to the south are present. There are residential properties to the east. The western adjoining parcel is not shown on the map.
1986, 1988	The Site is fully developed consistent with current conditions, except for the addition of the parking area on the east side of the parcel.	A small shopping area appears on the map southwest of the Site.
1991 - 2007	The Site appears consistent with current conditions.	The vicinity appears consistent with current conditions.

4.3 PROPERTY TAX FILES

GZA reviewed property tax files available at New York City Department of Finance ACRIS. The files indicated Park Lane Corporation purchased the property on December 18, 2012 from PACLA Apartments Inc. The City of New York sold the Site to PACLA Apartments on May 16, 1969.

4.4 RECORDED LAND TITLE RECORDS

No abstract of title was provided to GZA for review. General information regarding the history of ownership was obtained through information that was reviewed in deeds made available at the New York City Department of Finance, Office of the City Register online deeds search. Records indicated that the current owner for the Site is Park Lane Corporation.

4.5 HISTORIC USGS TOPOGRAPHIC MAPS

GZA reviewed historic USGS topographic maps provided by EDR. The table below contains GZA's description of the Site and vicinity properties as shown on the historic topographic maps.

Year	Description of Site	Description of Vicinity
1897, 1898, 1900,	The Site is in a wetland river system.	The vicinity is in a wetland river system.
1947	The Site is in a wetland system.	The vicinity is in a wetland system.
1955	The Site appears undeveloped.	The vicinity appears undeveloped.
1966	The Site appears undeveloped except for the road to the north which now appears on the map.	The vicinity appears undeveloped except for the Einstein School located two blocks to the west.
1979, 1995	The Site is consistent with current conditions.	The vicinity appears consistent with current conditions.
2013	No Site features appear on the map with the exception of the road system.	No vicinity features appear on the map except for the road system.

The Site and vicinity areas were originally located in a river and wetland system. This may indicate the presence of historic fill, which is considered a historic environmental concern.

4.6 CITY DIRECTORIES

GZA reviewed an historic city directory abstract provided by EDR. It covers the years 1927, 1931, 1940, 1949, 1956, 1961, 1965, 1971, 1976, 1983, 1993, 2000, 2005, 2008, and 2013. The table below contains GZA's description of the Site and adjoining properties as presented in the abstract.

Year(s)	Listings for Site
1971	Park Lane Bros & Eken Inc, Wachtel Plumbing Inc.
1976-2005	Residential listings
2008	Grenadier Realty Corp
2013	Grenadier Realty Corp, Yubi Clothing Co, Yubi Entertainmant

Year(s)	Listings for 1980 Lafayette Avenue, adjoining property to the south
1971	H Sand and Co, Mars Associates Contractors
1976	NY City of All Day Neighborhood Schools Central Office, Residential
1993	I have a Dream Foundation, Pius xxi Stevenson High School, NY Junior Tennis Leaugue, Residential
2000	NYC Board of Education, Temco Services Industry, Pius xxi Stevenson High School, Pathways for Youth
2005	NYC Board of Education, Temco Services Industry, NYC Teachers Consortium, Pius xxi Stevenson High School, Pathways for Youth
2008	NYC Board of Education, Temco Services Industry, Bronx Guild, NYC Teachers Consortium, Adlai E Stevenson High School
2013	Temco Service Industries, City of New York, Bronx Community High School, Antonia Pantoja Prep School

Year(s)	Listings for 2001 Lafayette Avenue and 2004 Turnbull Avenue, adjoining property to the east
	No listings

Year(s)	Listings for 1937 Turnbull Avenue, adjoining property to the north
1965	Residential
2000	The Gasoline Stop
2005-2013	The Children's Place

Year(s)	Listings for 845 White Plains Road, adjoining property to the west
2005	Old Navy, Seamans Furniture, FC Bruckner Associates, E&3 Lawrence Corp, CM Fragrance, Conway Stores, Danice Stores, H Delmonte
2008	Old Navy, Seamans Furniture, FC Bruckner Associates, Danice Stores, Jimmy Jazz, Cell 2000

4.7 BUILDING DEPARTMENT RECORDS

GZA reviewed records available on the New York City Department of Buildings (DOB) web site. According to the web site, the Site building was constructed in 1972. The DOB issued a permit for the closure of a 20,000-gallon UST on October 22, 2012. This UST is discussed in Section 6.0.

4.8 OTHER LAND USE RECORDS

GZA requested access to records available at the State and local municipalities through a Freedom of Information Act (FOIA) request. These records were not available within the timeframe allotted for this Phase I ESA.

4.9 SITE AND AREA HISTORY SUMMARY

The history of the Site included minimal changes to its use and its features. Based on topographic maps from 1897 through 1947, the Site was located in a river and wetland system. This may indicate the presence of historic fill, which is listed as a historical environmental concern. The Site building was constructed in 1972, and the Site has been consistent with 1972 conditions since then.

From 1969, the surrounding area was urbanized with residential dwellings along Lafayette and Pugsley Avenue. Sometime between 1932 and 1963, the number of schools and churches in the neighborhood increase.

5.0 PREVIOUS SITE INVESTIGATIONS

The Client provided to GZA a Phase I ESA report prepared by IVI Due Diligence Services and dated April 16, 2007. The report did not reveal any recognized environmental conditions associated with the Site. The Client also provided to GZA a UST removal affidavit prepared by Ace Accurate Contracting Services, LLC, dated October 30, 2013. The letter affidavit was provided to the New York City Fire Department regarding closure procedures for the 20,000-gallon fuel oil UST. The UST closure is discussed in Section 6.0.

6.0 SITE RECONNAISSANCE

The purpose of GZA's Site reconnaissance was to observe current Site conditions for evidence of recognized environmental conditions that could result in the presence of hazardous substances or petroleum products in the environment at the Site. GZA Scientist II, Jessica Skowronski, conducted a Site reconnaissance at the Site on September 9, 2016. Rafi Hovsepian, Asset Manager, Park Lane and Raoul Mendez, Assistant Superintendent of Park Lane Residences, accompanied GZA during the Site reconnaissance. There were no limitations associated with the Sirte reconnaissance. GZA documented its observations and photo-documented pertinent features and/or areas of environmental concern, which we reference in this Phase I ESA Report. Selected photographs are included in **Appendix B**, and **Figure 2** - **Site Plan**, depicts pertinent Site features.

The following tables list features that we identified at the Site. A discussion of each feature identified follows each table below.

Bulk Storage Tanks and Appurtenances:

Site Feature	Currently Exists?
Aboveground storage tanks (ASTs) and associated piping	Yes
Underground storage tanks (USTs) and associated piping	Yes
Silos	No
Rail car or tank truck loading and unloading	No

Site Feature	Currently Exists?
Storage tank filling areas	No
Above-ground or below-ground pumping stations, sumps, pits, and associated piping	No

There is a No. 2 fuel oil AST on the basement level used as a back-up fuel source. The AST is in a contained area and no visible staining was observed. The tank is filled from an outside port on the northern side of the building.

An abandoned 20,000-gallon UST that once contained no. 6 fuel oil is located beneath a concrete pad on the north side of the Site adjacent to the swimming area. The tank was closed in-place in 2012 in accordance with the NYSDEC technical regulations. During closure activities, John Mulholland, Director of Field Operations for the property management company, Grenadier Realty Corp., did not notice evidence of a release from the UST. An affidavit letter with closure procedures was sent to the New York City Fire Department on October 30, 2013. Prior to the tank closure, the tank passed a tightness test on June 20, 2012. Documentation is included in **Appendix G**.

Storage and Staging Areas:

Site Feature	Currently Exists?
Storage pads, including drum and/or waste storage	No
Surface impoundments and lagoons	No
Dumpsters	No
Hazardous material storage or handling areas	No

Drainage Systems and Areas:

Site Feature	Currently Exists?
Floor drains, trenches, sumps and associated piping	Yes
Oil/water separators	No
Process area sinks and piping which receive process waste	No
Roof leaders when process operations vent to the roof	Yes
Storm water drains, grates and associated piping	No
Drainage swales and culverts	No
Storm water detention ponds	No
Surface water bodies and fire ponds	No

Several floor drains were observed in the bathrooms, the recreation kitchen area and in the trash compactor room where regular apartment maintenance cleaning occurs. No staining was observed in any of the floor drains except for the wash down drain in the trash compactor room. The Site Manager, Kevin Williams, indicated that the staff clean and wash window blinds, stoves and refrigerators in that area and that the staining was due to the use of oven cleaner. Based on the testimony of the Site Manager and since the drain is connected to the municipal sewer system, the drain usage is not anticipated to impact the Site.

There are 17 exhaust fans on the roof of the building. These fans are for venting the boiler room. According to the assistant superintendent the fans were replaced in the past two years. No staining was observed around the fans or in the general area.

Discharge and Disposal Areas:

Site Feature	Currently Exists?
Waste water disposal systems including septic systems, leach fields, seepage pits, or dry wells	No
Landfills	No
Sprayfields or landfarms	No
Incinerators	No
Historic fill or any other fill material	No
Open pipe discharges	No
Evidence of dumping	No

Other Site Features, including:

Site Feature	Currently Exists?
Electrical transformers or capacitors	No
Generators	No
Hydraulic equipment (e.g., lifts, elevators, compactors, loading dock lifts)	Yes
Waste treatment areas	No
Discoloration, staining or spillage	No
Areas of stressed vegetation	No
Compressor vent discharges	No
Non-contact cooling water discharges	No
Active or inactive production wells	No
Monitoring wells, former boreholes, or other evidence of former environmental investigations	No

There is a hydraulically-operated trash compactor in the basement of the building. No staining or other evidence of a release was observed in this area.

There are two hydraulically-operated elevators that service the tenants of the building. No staining was observed around the elevator hydraulic equipment.

7.0 REGULATORY DATABASE REVIEW

GZA developed the information in this section based on public information obtained from various federal, state, and local agencies that maintain environmental regulatory databases.

7.1 FEDERAL AND STATE ENVIRONMENTAL RECORD SOURCES

GZA obtained data from federal and state databases contained in a report dated September 2, 2016 provided by EDR, a professional data search company. The following table indicates the databases provided in EDR's database report, the minimum search distances from the Site utilized by GZA in evaluating that database, and the number of properties that appear on the database within the minimum search distances used. Descriptions of the federal and state databases and the dates that EDR accessed the federal and state databases are provided in EDR's report (see **Appendix D**).

Federal and State List	Approximate Minimum Search Distance*	Site and Adjoining Properties	# Sites Within Search Distance	# Open Cases	# Cases Open and Upgradient
NPL	*1 mile*	0	0	0	0
Delisted NPL	*½ mile*	0	0	0	0
SEMS	*½ mile*	0	0	0	0
SEMS ARCHIVE	*½ mile*	1	0	0	0
RCRIS CORRACTS	*1 mile*	0	0	0	0
RCRIS-TSD	*½ mile*	0	0	0	0
RCRIS-LQG/SQG	*Site and adjoining properties*	3	0		
Federal IC/EC Registries	*Site only*	0	0		
ERNS	*Site only*	0	0		
State Equivalent CERCLIS	*½ mile*	0	0	0	0
State Landfill and/or Solid Waste Disposal Site	*½ mile*	0	0	0	0
Leaking Underground Storage Tanks (LUSTs)	*½ mile*	1	25	0	0
Registered USTs	*Site and adjoining properties*	4	0		
State IC/EC Registries	*Site only*	0	0		
Voluntary/Brownfield Cleanup Program Sites	*½ mile*	0	0	0	0
NY SPILLS	*1 mile*	12	0	0	0

* The approximate minimum search distance indicates the minimum distance measured from the nearest Site boundary for which EDR performed the database review.

7.2 LISTINGS FOR SITE AND ADJOINING PROPERTIES

The UST and AST databases list the Site. The UST database lists the Site as having one closed-in place UST. The AST database lists the Site as having a 5,000-gallon AST. It is discussed in Section 6.0. The Site is not listed on any databases as having a release, therefore not anticipated to impact the Site.

The Adlai Stevenson School, which adjoins the Site to the south at 1980 Lafayette Avenue, has a registered 20,000-gallon AST that contains #2 fuel oil. No releases have been reported from this AST. It is also listed as a RCRA Small Quantity Generator, generating lead and mercury listed wastes. There have been no reported releases from this property, and metallic wastes do not migrate far from the point of origin when released. The AST and hazardous waste generation are not expected to impact the Site, and the EP has determined that no file review is warranted since there have been no confirmed releases from the Site.

Cornell Station, which adjoins the Site to the south at 1950 Lafayette Avenue, has a registered 2,500-gallon UST that contains #2 heating oil for on-site consumption. It was installed in 1992 with leak detection and fiberglass secondary containment. There have been no reported releases from this property and the EP has determined that no file review is warranted.

7.3 LISTINGS FOR OTHER VICINITY PROPERTIES

There are no vicinity properties upgradient of the Site, is located within the approximate minimum search distance from the Site, with open cases.

7.4 EVALUATION OF UNMAPPED PROPERTIES

GZA also reviewed the list of orphan sites, which are properties with insufficient address information to allow the mapping software to plot a location. Based on the incomplete descriptions provided in the database summary, it does not appear that any of the listed properties could impact the Site.

8.0 INTERVIEWS

Jessica Skowronski interviewed the following people as part of this Phase I ESA. The information that each interviewee provided is discussed and referenced within the text of this Phase I ESA Report.

- Rafi Hovsepian, Asset Manager, Park Lane Residence Co.
- Raoul Mendez, Assistant Super Intendant, Park Lane Residence Co.

9.0 USER-PROVIDED INFORMATION

GZA requested information from the Client regarding title information, environmental liens, Activity and Use Limitations, and specialized knowledge or commonly known information regarding the Site and, if applicable, the reason for a significantly discounted purchase price. Provided in **Appendix E** is a copy of the User Questionnaire.

10.0 NON-ASTM E1527-13 CONSIDERATIONS

This Phase I ESA does not include an evaluation of environmental issues or conditions that ASTM E1527-13 stipulates as non-scope considerations.

11.0 FINDINGS AND CONCLUSIONS

GZA performed a Phase I ESA in general conformance with the scope and limitation of ASTM E1527-13 for the property located at 1965 Lafayette Avenue, Bronx, New York. Any exceptions to, or deletions from, this practice are described in **Section 1.4** of this Phase I ESA Report.

11.1 RECOGNIZED ENVIRONMENTAL CONDITIONS (RECS)

In GZA's opinion, this Phase I ESA revealed no evidence of RECs in connection with the Site.

11.2 CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITIONS (CRECS)

In GZA's opinion, this Phase I ESA revealed no evidence of CRECs in connection with the Site.

11.3 HISTORIC RECOGNIZED ENVIRONMENTAL CONDITIONS (HRECS)

In GZA's opinion, this Phase I ESA revealed no evidence of HRECs in connection with the Site.

11.4 *DE MINIMIS* CONDITIONS

This Phase I ESA revealed no evidence of *de minimis* conditions in connection with the Site.

11.5 DATA GAPS AND THEIR SIGNIFICANCE

GZA identified the following data gap in the historic record: 1941-1946. GZA does not consider this data gap to be significant because the Site was not yet developed in this time period.

11.6 ENVIRONMENTAL CONCERNS

GZA identified the following environmental concern regarding the Site.

The area including and surrounding the Site was located in a river and wetland system. Since the material used to fill the area to grade is unknown, GZA considers this a historic environmental concern.

11.7 NON-ASTM E1527-13 CONSIDERATIONS

No non-ASTM E1527-13 considerations were evaluated as part of GZA's Scope of Services.

12.0 REFERENCES

- Bedrock and Engineering Geologic Maps of New York County and Parts of Bronx County, New York, 1994 Baskerville Map.
- Environmental Data Resources, Inc., dated June 1, 2016. The EDR Radius Map Report with Geocheck™, Shelton, CT.
- New York City Department of Finance ACRIS; property tax assessment information (http://nycprop.nyc.gov/nycproperty/nynav/jsp/selectbbl.jsp).
- New York City Department of Buildings (DOB) web site.
- U.S. Department of the Interior Geological Survey, Flushing, NY, 2016. Quadrangle 7.5 Minute Series (Topographic) Map.

13.0 ENVIRONMENTAL PROFESSIONAL OPINION

I declare, to the best of my professional knowledge and belief, that I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 12; 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; and that I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312. The signature of the Environmental Professional is contained on the cover letter of this Phase I ESA Report. The qualifications of the Environmental Professional are provided in **Appendix F**.

14.0 LIMITATIONS

GZA prepared this Phase I ESA Report on behalf of, and for the exclusive use of Park Lane Residence Corp. for the stated purposes for the Site identified in this Phase I ESA Report. Use of this Phase I ESA Report, in whole or in part, at other locations, or for other purposes, might lead to inappropriate conclusions, and we do not accept any responsibility for the consequences of such use. Further, reliance by any party not identified in the agreement, for any use, shall be at that party's sole risk, and without any liability to GZA.

GZA performed its services to render an opinion on the presence of RECs in connection with the Site. We performed our services using that degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. We make no warranty, express or implied.

Our findings and conclusions are based on the work conducted as part of the Scope of Services set forth in this Phase I ESA Report, and reflect our professional judgment. Our findings and conclusions should not be considered as scientific certainties or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work.

No environmental site assessment can eliminate the uncertainty of the possible presence of RECs. This Phase I ESA Report was prepared to help reduce, not to eliminate, such uncertainties. Consistent with ASTM E1527-13, we developed our opinions in light of the constraints imposed by time and budget.

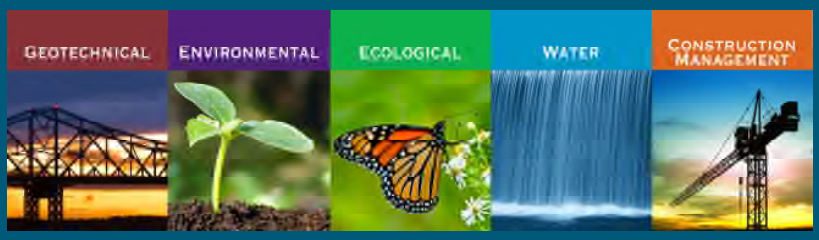
As indicated within this Phase I ESA Report, we observed conditions at the Site and at adjoining properties for evidence of RECs at the Site. Where access to portions of the Site or to structures on the Site was unavailable or limited, GZA renders no opinion as to the presence of hazardous substances, hazardous waste, or petroleum products, or to the presence of indirect evidence relating to these materials, in those portions of the Site or structure. In addition, GZA renders no opinion as to the presence of hazardous substances, hazardous waste, or petroleum products, or to the presence of indirect evidence relating to these materials, where direct observation of the interior walls, floors, and/or ceilings of a structure on the Site was obstructed by objects and/or coverings on and/or over such surfaces. We based our opinions on such limited observations. Additionally, some activities or events impacting environmental conditions at the Site or on adjoining properties might have been transient and not observable at the time of GZA's Site reconnaissance.

We relied upon information made available by federal, state, and local authorities, the Key Site Manager, and others. We did not attempt to independently verify the accuracy or completeness of that information. We noted inconsistencies in this information within the Report.

The lender, seller, buyer, or other parties that might become involved with the Site might develop additional opinions or information regarding the presence or absence of RECs at the Site. Such additional opinions or information might not fully support the opinions provided in this Phase I ESA Report. In the event such additional opinions or information is developed, we recommend retaining GZA to review this material so that we have the opportunity to evaluate and modify, as necessary, the opinions provided in this Phase I ESA Report.

Unless otherwise specified within this Phase I ESA Report, we have rendered no opinion on the compliance of Site conditions or activities with federal, state, and local codes, laws, or regulations.

GZA based the opinions expressed in this Phase I ESA Report on conditions observed during the course of our work on this Site; these conditions might change over time. ASTM E1527-13 specifies that observations and opinions are only valid for 180 days from the date the underlying information is developed. After 180 days, portions of this Phase I ESA Report may need to be updated.



GZA GeoEnvironmental, Inc.

APPENDIX IV

TRANSPORTATION PLANNING FACTORS MEMORANDUM

Philip Habib & Associates

Engineers and Planners • 102 Madison Avenue • New York, NY 10016 • 212 929 5656 • 212 929 5605 (fax)

TRANSPORTATION PLANNING FACTORS MEMO

To: New York City Department of City Planning (NYCDCP)
From: Philip Habib & Associates
Date: March 23, 2017
Re: 1965 Lafayette Avenue (#1657)

This memorandum summarizes the transportation planning factors to be used for an environmental assessment analysis of traffic, parking, transit, and pedestrian conditions for the proposed redevelopment of the a site located on a portion of Block 3672, Lot 1, in the Soundview neighborhood of Bronx Community District 9 (see Figure 1 for project location).

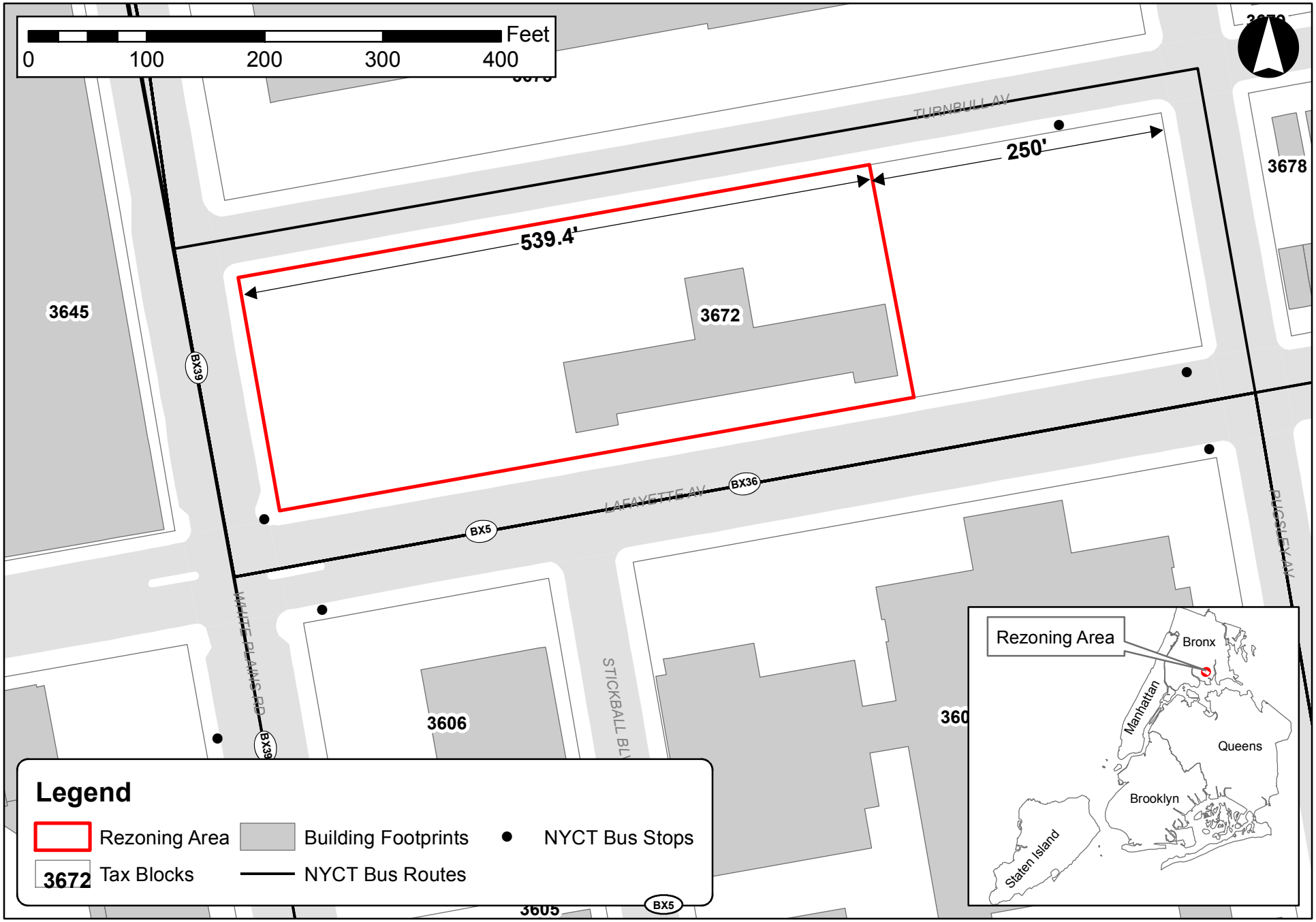
As shown in Figure 1, the redevelopment would be located on the western end of Block 3672, Lot 1. The site is located at 1965 Lafayette Avenue with frontage on White Plain Road on the west, Turnbull Avenue on the north, and Lafayette Avenue on the south. The site currently consists of a 103-space accessory parking lot and a private basketball court for the residents of the adjacent Park Lane Apartments. Vehicular access to the existing parking lot is provided via a curb-cut located on Lafayette Avenue.

In the Reasonable Worst Case Development Scenario (RWCDS), the proposed development site would be redeveloped with 425 affordable residential dwelling units (DUs), including 292 affordable family units and 133 affordable senior housing units and 19,938 gsf of local retail space. The proposed project would also include 71 enclosed below-grade parking spaces, which would be accessed via a vehicle entry on Turnbull Avenue, in addition to 42 surface parking spaces, which would be located to the east of the proposed building and would be accessible from both Lafayette and Turnbull Avenues, and would be accessory to the existing Park Lane Apartments.

The project exceeds the applicable development density thresholds specified in Table 16-1 of the 2014 *City Environmental Quality Review* (CEQR) *Technical Manual* and therefore a screening assessment is necessary to determine if detailed analyses of traffic and parking, transit, and pedestrians are warranted. Per 2014 *CEQR Technical Manual* guidelines, the screening assessment consists of a two-level process including a Level 1 Project Trip Generation Screening Assessment and a Level 2 Project-generated Trip Assignment Screening Assessment.

Project Area

The rezoning area occupies the western portion of Block 3672, Lot 1, with approximately 539 feet of street frontage on is Turnbull Avenue (to the north) and Lafayette Avenue (to the south) and approximately 200 feet of street frontage on White Plains Road (to the west). The rezoning area is currently occupied by the



1965 Lafayette Avenue

Figure 1
Project Location

353-unit Park Lane Apartments, which occupies the central portion of the block and is surrounded by surface accessory parking and private open space uses.

The remainder of Block 3672, Lot 1 is occupied by approximately 122 parking spaces (on the eastern end of the block) accessory to the Park Lane Apartments. The 122-space accessory lot is accessible to vehicles via an entry/exit on Lafayette Avenue, with a separate pedestrian entry provided to the north (on Turnbull Avenue). Adjacent land uses include a mix of residential, community facility, and retail uses, including the Shops at Bruckner Boulevard Shopping Center north of the rezoning area and a public school building occupied by the Millennium Arts Academy, Pablo Neruda Academy, Bronx Compass High School, and the Bronx Guild High School located to the south of the rezoning area.

White Plains Road is a major two- to four- lane north-south corridor running from Bronx River Avenue in the Shorehaven area along the East River to the border with Westchester County at East 243rd Street, where it continues as West 1st Street in the city of Mount Vernon. It is a designated local truck route north of the Bruckner Expressway. The Bx39 bus route runs along its entire length north of Soundview Avenue, and the Bx36 runs along White Plains Road in the vicinity of the rezoning area. The Bx5 bus travels along White Plains Road in the vicinity of the rezoning area between Story Avenue and Lafayette Avenue. White Plains Road provides the most direct vehicular connection between the rezoning area and the Bruckner Expressway.

Lafayette Avenue is an east-west corridor that runs in four sections. In the Soundview area of the Bronx, it runs from Soundview Park in the west to Zerega Avenue in the east with two lanes and a hatched median. In the vicinity of the rezoning area, the Bx5 bus runs along Lafayette Avenue between White Plains Road and Castle Hill Avenue, and the Bx36 runs along Lafayette Avenue between White Plains Road and Pugsley Avenue. There is a Class II bicycle lane on Lafayette Avenue between Metcalf and Zerega Avenues.

Pugsley Avenue is a two-lane north-south corridor that runs in three sections; the southernmost section runs east of the rezoning aera from Bruckner Boulevard to Lacombe Avenue.

Story Avenue is a two-lane east-west corridor in the Soundview area of the Bronx that runs from Bronx River Avenue in the west to Zerega Avenue in the east. The Bx5 bus runs along Story Avenue west of White Plains Road. Story Avenue provides the most direct vehicular connection between the rezoning areea and the Bronx River Parkway.

The Bruckner Expressway is a six- to eight-lane east-west limited access highway that carries Interstate 278 between the Triborough Bridge (with connections to Queens, Brooklyn, and Staten Island) and the Bruckner Interchange with the Cross Bronx Expressway and the Hutchinson River Parkway. The Bruckner Expressway continues east carrying Interstate 95 to the Bronx and Pelham Parkway, where it continues north as the New England Thruway. In the vicinity of the rezoning area, Exit 53 provides a connection from the Bruckner Expressway to White Plains Road. Bruckner Boulevard runs parallel to the Bruckner Expressway and acts as a service road. Bruckner Boulevard is a local truck route and the Bruckner Expressway is a through truck route.

The Bronx River Parkway is a four- to six-lane north-south limited access parkway that runs from Story Avenue in the Bronx to NY State Route 22 in Westchester County near the Kensico Dam. Trucks are not permitted on the Bronx River Parkway.

The nearest subway station to the rezoning area is the Parkchester station on the IRT Pelham Bay Line serving the 6 train at all times. This station is located at the Hugh J. Grant Circle at Westchester, Virginia, and Metropolitan Avenues above the Cross Bronx Expressway. The station is approximately one mile north of the rezoning area and is accessed via White Plains Road, which runs north-south one block west of the station. The Bx36 and Bx39 buses also provide transit connections to this subway station from the rezoning area. As noted above, the Bx5 is an additional bus route in the vicinity of the rezoning area.

Transportation Planning Assumptions & Travel Demand Forecasts

In order to conduct a Level 1 Trip Generation Screening Assessment for the RWCDS, a travel demand forecast was conducted for a typical peak hour during four time periods: weekday AM, weekday midday, weekday PM, and Saturday midday. Trips to and from the rezoning area were generated using various assumptions, including daily trip generation rates, mode choice, and hourly and directional patterns.

Table 1 provides the transportation planning assumptions, which were based on standard criteria as per the 2014 *CEQR Technical Manual*, census data, and studies that have been used in previous environmental review documents for projects with similar uses. Table 2 provides the overall resulting trip generation for the program for all peak hours, including person trips for each travel mode and total vehicles trips (including autos, taxis, and trucks). The following sections provide descriptions of the planning factors utilized for each of the proposed project's uses for the weekday and Saturday peak hours, as shown in Table 1.

<u>Residential – Family Units</u>

The forecast of travel demand for the affordable family residential units used a weekday trip generation rate of 8.075 person trips per DU, a Saturday trip generation rate of 9.6 person trips per DU, and temporal distributions of 10.0 percent, 5.0 percent, 11.0 percent, and 8.0 percent for the weekday AM, midday, and PM, and Saturday midday peak hours, respectively, as per the 2014 *CEQR Technical Manual*. The family units' modal split estimated 34.0 percent, 0.0 percent, 33.0 percent, 26.0 percent, and 7.0 percent for private auto, taxi, bus-to-subway, bus-only, and walk-only modes, respectively, as per the 2010-2014 American Community Survey (ACS) Means of Transportation to Work Table for Bronx Census Tracts 16, 38, 42, 74, and 98 for renter-occupied units. The auto occupancy rate of 1.14 persons per auto was based on this source for all family units, as renter-occupied data is not available. Directional splits and the taxi occupancy rate of 1.40 persons per taxi were based on the 2012 *Soundview Partners Apartments EA*. Truck trip generation rates were based on the 2014 *CEQR Technical Manual*.

<u>Residential – Senior Units</u>

The forecast of travel demand for the affordable senior residential units was primary based on the 2012 *Soundview Partners Apartments EA*, which similarly included affordable senior housing units and was located in the Soundview neighborhood, updated to reflect revised factors from the 9th Edition of the *Institute for Transportation Engineers* (ITE) *Trip Generation Manual*. Based on these data, the proposed project's affordable residential senior units used a weekday trip generation rate of 4.599 person trips per DU, a Saturday trip generation rate of 3.489 person trips per DU, and temporal distributions of 5.8 percent, 9.0 percent, 7.3 percent, and 11.9 percent for the weekday AM, midday, and PM, and Saturday midday peak hours, respectively. The modal split assumptions used for the family units were similarly applied to the proposed affordable senior units. Truck trip generation rates were based on the 2014 *CEQR Technical Manual*.

Table 1: Transportation Planning Factors

Land Use:	**Residential - Family**		**Local Retail**		**Residential - Senior**	
Size/Units:	292 DU		19,938 gsf		133 DU	
Trip Generation:	(1)		(1)		(6,7)	
Weekday	8.075		205.0		4.599	
Saturday	9.600		240.0		3.489	
	per DU		per 1,000 gsf		per DU	
Temporal Distribution:	(1)		(1)		(6)	
AM	10.0%		3.0%		5.8%	
MD	5.0%		19.0%		9.0%	
PM	11.0%		10.0%		7.3%	
SatMD	8.0%		10.0%		11.9%	
	(2)		(4)		(2)	
Modal Splits:	All Periods		All Periods		All Periods	
Auto	34.0%		7.3%		34.0%	
Taxi	0.0%		1.7%		0.0%	
Bus-to-Subway	33.0%		3.7%		33.0%	
Bus Only	26.0%		8.7%		26.0%	
Walk/Other	7.0%		78.6%		7.0%	
	100.0%		100.0%		100.0%	
	(3)		(5)		(7)	
In/Out Splits:	In	Out	In	Out	In	Out
AM	16.0%	84.0%	63%	37%	36.0%	64.0%
MD	50.0%	50.0%	55%	45%	50.0%	50.0%
PM	67.0%	33.0%	47%	53%	60.0%	40.0%
Sat MD	53.0%	47.0%	50%	50%	53.0%	47.0%
Vehicle Occupancy:	(2,3)		(5)		(7)	
	All Periods		All Periods		All Periods	
Auto	1.14		1.40		1.27	
Taxi	1.4		1.65		1.4	
Truck Trip Generation:	(1)		(1)		(1)	
Weekday	0.06		0.35		0.06	
Saturday	0.02		0.04		0.02	
	per DU		per 1,000 sf		per DU	
	(1)		(1)		(1)	
AM	12.0%		8.0%		12.0%	
MD	9.0%		11.0%		9.0%	
PM	2.0%		2.0%		2.0%	
Sat MD	9.0%		11.0%		9.0%	
	In	Out	In	Out	In	Out
AM/MD/PM	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%

Notes :

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

(2) Based on 2010-2014 *American Community Survey (ACS)* Means of Transportation to Work Table for Bronx Census Tracts 16, 38, 42, 74, and 98 for rental units.

(3) Based on *Soundview EAS*.

(4) Based on 2015 NYCDOT Trip Generation and Mode Choice Survey.

(5) Based on *Gateway Estates II FEIS*.

(6) Based on the *Institute for Transportation Engineers (ITE) Trip Generation Manual 9th Edition*, Land Use 252, Senior Housing (attached). Weekday midday temporal distributions assumed a ratio of Saturday peak hour trips to weekday daily trips.

(7) Based on *Soundview Partners Apartments EA*.

Table 2: Travel Demand Forecast

Land Use:		Residential – Family		Local Retail*		Residential – Senior		Total	
Size/Units:		292	DU	19,938	gsf	133	DU		
Peak Hour Person Trips:									
	AM	236		92		36		364	
	MD	118		584		56		758	
	PM	260		308		46		614	
	Sat MD	226		360		56		642	
Person Trips:									
		In	Out	In	Out	In	Out	In	Out
AM	Auto	13	67	4	2	4	8	21	77
	Taxi	0	0	1	1	0	0	1	1
	Bus-to-Subway	12	65	2	1	4	8	18	74
	Bus Only	10	52	5	3	3	6	18	61
	Walk/Other	3	14	46	27	1	2	50	43
	Total	38	198	58	34	12	24	108	256
		In	Out	In	Out	In	Out	In	Out
MD	Auto	20	20	23	19	10	10	53	49
	Taxi	0	0	5	4	0	0	5	4
	Bus-to-Subway	20	20	12	10	9	9	41	39
	Bus Only	15	15	28	23	7	7	50	45
	Walk/Other	4	4	253	207	2	2	259	213
	Total	59	59	321	263	28	28	408	350
		In	Out	In	Out	In	Out	In	Out
PM	Auto	59	29	11	12	9	6	79	47
	Taxi	0	0	2	3	0	0	2	3
	Bus-to-Subway	58	29	5	6	9	6	72	41
	Bus Only	45	22	13	14	7	5	65	41
	Walk/Other	12	6	114	128	2	2	128	136
	Total	174	86	145	163	27	19	346	268
		In	Out	In	Out	In	Out	In	Out
Sat MD	Auto	41	36	13	13	10	8	64	57
	Taxi	0	0	3	3	0	0	3	3
	Bus-to-Subway	40	35	7	7	10	9	57	51
	Bus Only	31	28	16	16	8	7	55	51
	Walk/Other	8	7	141	141	2	2	151	150
	Total	120	106	180	180	30	26	330	312
Vehicle Trips :									
		In	Out	In	Out	In	Out	In	Out
AM	Auto (Total)	11	59	3	1	3	6	17	66
	Taxi	0	0	1	1	0	0	1	1
	Taxi Balanced	0	0	2	2	0	0	2	2
	Truck	1	1	0	0	0	0	1	1
	Total	12	60	5	3	3	6	20	69
		In	Out	In	Out	In	Out	In	Out
MD	Auto (Total)	18	18	16	14	8	8	42	40
	Taxi	0	0	3	2	0	0	3	2
	Taxi Balanced	0	0	5	5	0	0	5	5
	Truck	1	1	0	0	0	0	1	1
	Total	19	19	21	19	8	8	48	46
		In	Out	In	Out	In	Out	In	Out
PM	Auto (Total)	52	25	8	9	7	5	67	39
	Taxi	0	0	1	2	0	0	1	2
	Taxi Balanced	0	0	3	3	0	0	3	3
	Truck	0	0	0	0	0	0	0	0
	Total	52	25	11	12	7	5	70	42
		In	Out	In	Out	In	Out	In	Out
Sat MD	Auto (Total)	36	32	9	9	8	6	53	47
	Taxi	0	0	2	2	0	0	2	2
	Taxi Balanced	0	0	4	4	0	0	4	4
	Truck	0	0	0	0	0	0	0	0
	Total	36	32	13	13	8	6	57	51

	Total Vehicle Trips			Total Pedestrian Trips**		
	In	Out	Total	In	Out	Total
AM	20	69	89	86	178	264
MD	48	46	94	350	297	647
PM	70	42	112	265	218	483
Sat MD	57	51	108	263	252	515

*assumes 25% linked trip credit

** includes trips from subway-to-bus, bus only and walk/other.

Local Retail

The forecast of travel demand for the local retail use used a weekday trip generation rate of 205.0 person trips per 1,000 gsf, a Saturday trip generation rate of 240.0 person trips per 1,000 gsf, and temporal distributions of 3.0 percent, 19.0 percent, 10.0 percent, and 10.0 percent for the weekday AM, midday, and PM and Saturday midday peak hours, respectively, as per the 2014 *CEQR Technical Manual*. The local retail modal split of 7.3 percent, 1.7 percent, 3.7 percent, 8.7 percent, and 78.6 percent for private auto, taxi, bus-to-subway, bus-only, and walk-only modes, respectively, was based on a 2015 New York City Department of Transportation (DOT) Trip Generation and Mode Choice Survey. The vehicle occupancy rates of 1.40 persons per auto and 1.65 persons per taxi, as well as the directional splits were based on the 2009 *Gateway Estates II FEIS*. Truck trip generation rates were based on the 2014 *CEQR Technical Manual*. It was also assumed that 25.0 percent of local retail trips would be linked and not new to the study area.

Travel Demand Forecast and Assignment

Table 2 provides an overall travel demand forecast for the proposed project for the weekday AM, midday, and PM, and Saturday midday peak hours. As shown in Table 2, the proposed project would generate 89, 94, 112, and 109 incremental vehicle trips (in and out combined) in the weekday AM, midday, and PM, and Saturday midday peak hours, respectively; 92, 80, 113, and 107 subway trips (in and out combined) in the weekday AM, midday, and PM, and Saturday midday peak hours, respectively; 171, 175, 219, and 213 bus trips (in and out combined, including trips to and from the Parkchester subway station) in the weekday AM, midday, and PM and Saturday midday peak hours, respectively; and 264, 647, 483, and 514 total pedestrian trips (in and out combined, including walk-only and trips to/from public transit) in the weekday AM, midday, and PM, and Saturday midday peak hours, respectively.

As shown in Table 2, the RWCDS would generate 50 or more vehicle trips, 50 or more bus trips, and more than 200 pedestrian trips in all four peak hours, and therefore a Level 2 screening analysis for traffic, bus, and pedestrians would be warranted. However, it would not generate more than 200 subway trips in any one peak hour and therefore a Level 2 screening assessment for the subway mode would not be warranted.

Traffic

As indicated in Table 2 and discussed above, the travel demand forecast indicates that the proposed project would generate a project increment of approximately 89, 94, 112, and 109 vehicle trips (in and out combined) in the weekday AM, midday, and PM and Saturday midday peak periods, respectively, thereby warranting a Level 2 vehicle trip assignment for all four peak hours. The residential vehicle trips were assigned to portals based on 2006-2010 ACS Journey-to-Work origin-destination data for Bronx Census Tracts 16, 38, 42, 74, and 98, while local retail trips were distributed evenly to the local traffic network. While it is anticipated that some auto trips would park in nearby on- and off-street parking facilities, which would disperse auto trips over the local traffic network, for conservative analysis purposes, all auto trips were assigned to the garage entrance/exit. Specifically, auto trips generated by the proposed project were assigned to/from the proposed accessory parking garage entry/exit on the south side of Turnbull Avenue between White Plains Road and Pugsley Avenue, taxi trips were assigned to all three frontages, and truck trips were assigned to White Plains Road via Lafayette Avenue. It should also be noted that, as the layout of the parking spaces accessory to the existing Mitchell-Lama building

would change in the future with the proposed project, peak hour vehicle in-out counts were conducted at the existing parking entry/exit; the vehicle assignment accounts for the resultant traffic diversions.

The peak hour vehicle assignment is shown in Figure 2. As shown in Figure 2, four signalized intersections would exceed the 2014 *CEQR Technical Manual* 50 vehicle trip per hour threshold, and therefore would require a detailed traffic analysis. The intersections selected for analysis are included in a list below and shown on a map in Figure 3:

- Bruckner Boulevard South and White Plains Road (signalized)
- Story Avenue and White Plains Road (signalized)
- Shops at Bruckner Plaza Entrance/Exit and White Plains Road (signalized)
- Turnbull Avenue and White Plains Road (signalized)

Parking

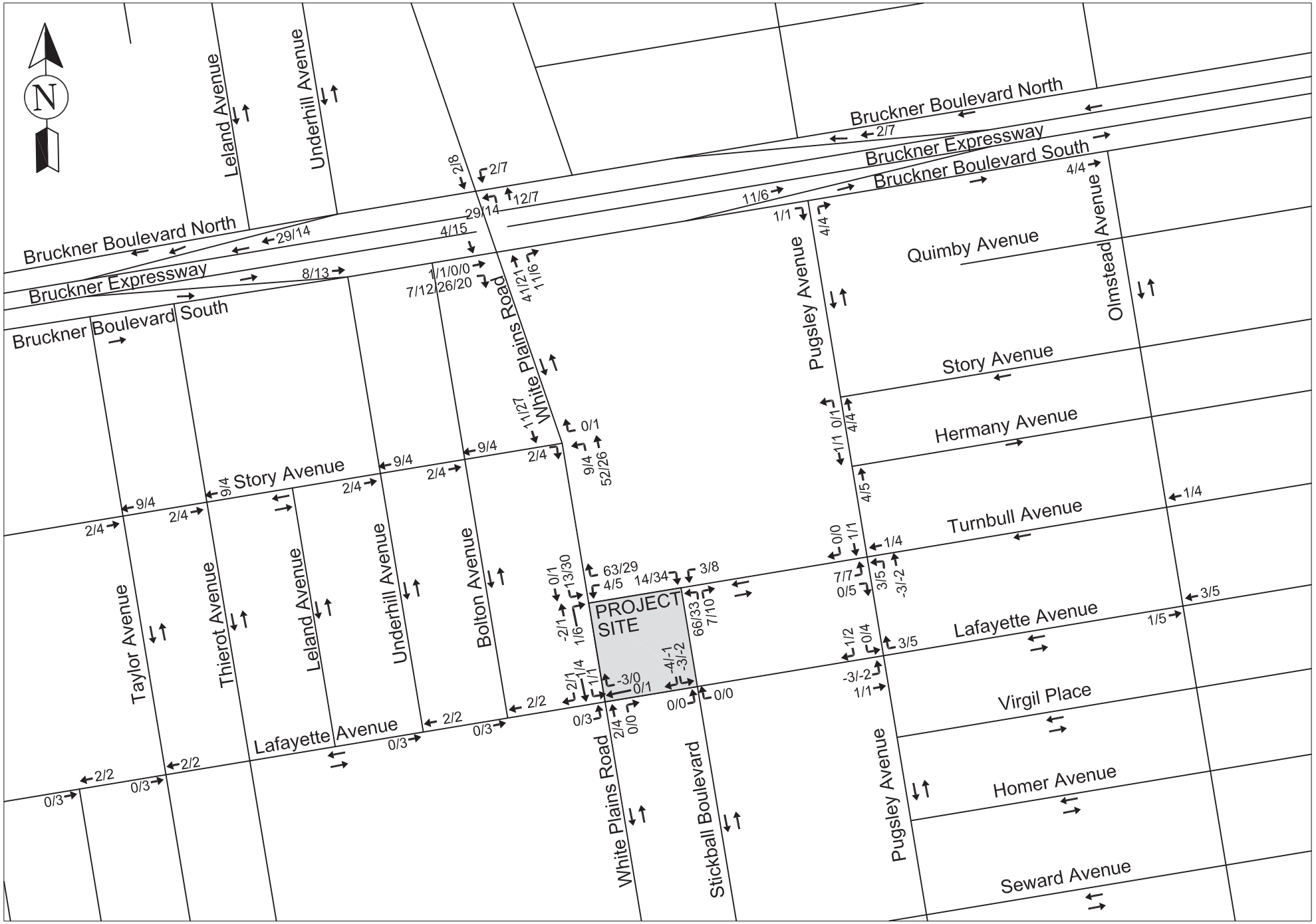
As the proposed project is predominantly residential, it is anticipated that parking demand would peak in the overnight periods. For the proposed 292 affordable family units, 2010-2014 ACS Vehicles Available data for renter-occupied households in Bronx Census Tracts 16, 38, 42, 74, and 98 were utilized, which indicates an auto ownership rate of 0.531 autos per household. To account for the lower auto-ownership rate exhibited by senior affordable housing units, data from the New York City Department of City Planning's *Zoning for Quality and Affordability EAS* were utilized, which indicated that senior affordable housing units located more than a half-mile from transit typically have an auto ownership rate equivalent to less than one-third of that of affordable family units. Accordingly, an auto ownership rate of 0.149 autos per household was used for the 133 proposed affordable senior units. Therefore, the proposed project would generate an overnight demand of approximately 175 vehicles.

Tables 3a and 3b show the hourly parking accumulation for the proposed project for a typical weekday and Saturday based on the hourly temporal distributions from the *West Harlem Rezoning FEIS*. As shown in the tables, during the midday, the parking demand from the proposed project would drop to 51 vehicles on a weekday and no vehicles on a Saturday. With 71 parking spaces to be accessory to the proposed project, the greatest deficit of approximately 104 spaces would occur during the overnight period. As project-generated parking demand is expected to exceed the proposed on-site accessory parking supply, an off-site parking analysis would be required within ¼-mile of the rezoning area during the overnight period.

Transit

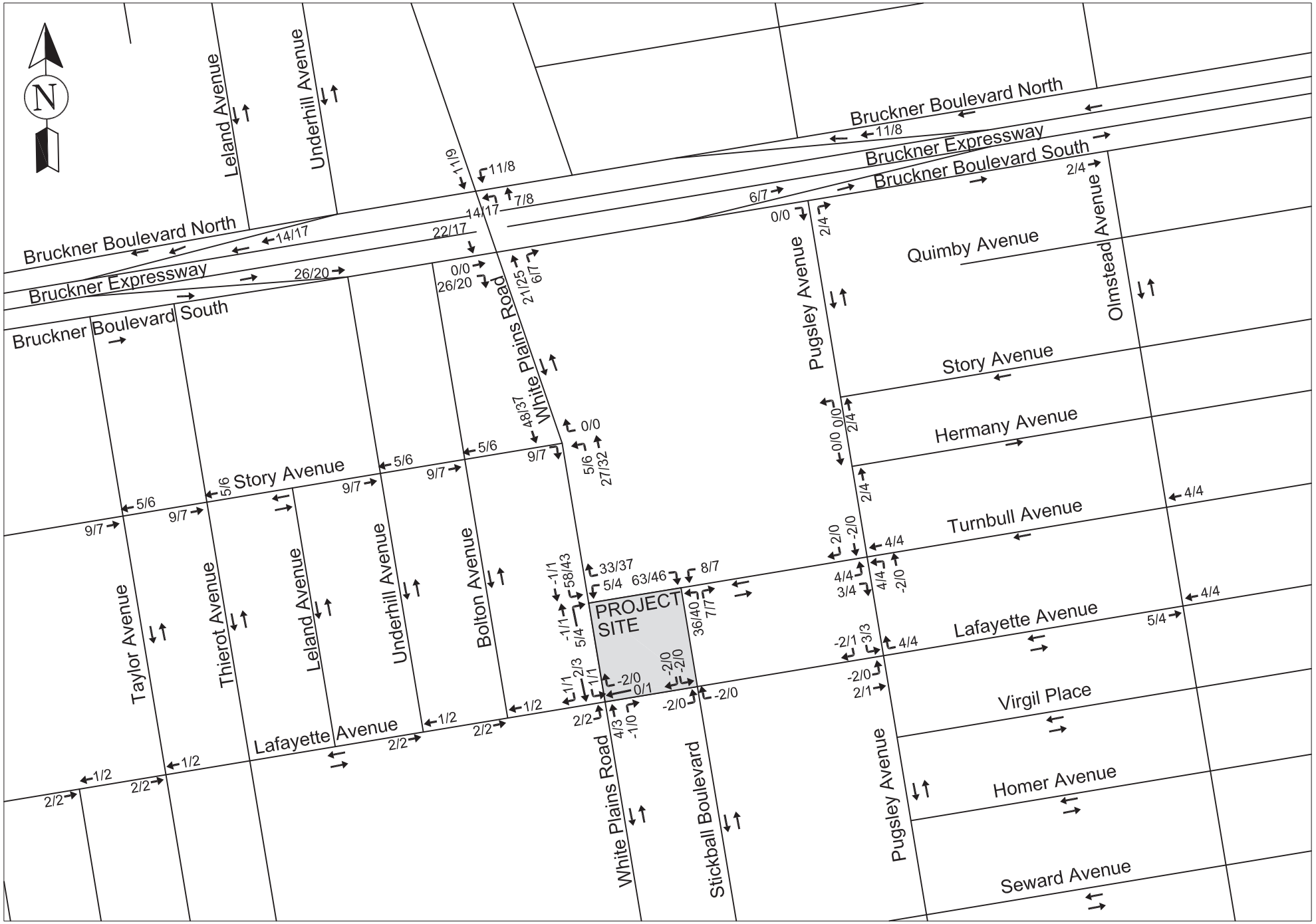
According to the general thresholds used by the Metropolitan Transportation Authority (MTA) specified in the 2014 *CEQR Technical Manual*, detailed transit analyses are not required if the proposed project is projected to result in less than 200 peak hour rail or 50 peak hour bus transit riders, because a proposed development that generates such a low number of transit riders is unlikely to create a significant adverse impact on the current transit facilities.

As shown above in Table 2, the approximate net hourly subway trips generated by the proposed project would be 92, 80, 113, and 107 (in and out combined) trips in the weekday AM, midday, and PM and Saturday midday peak hours, respectively. As there would be fewer than 200 project-generated subway trips in all peak hours, a detailed subway analysis would not be warranted as significant impacts would be unlikely.



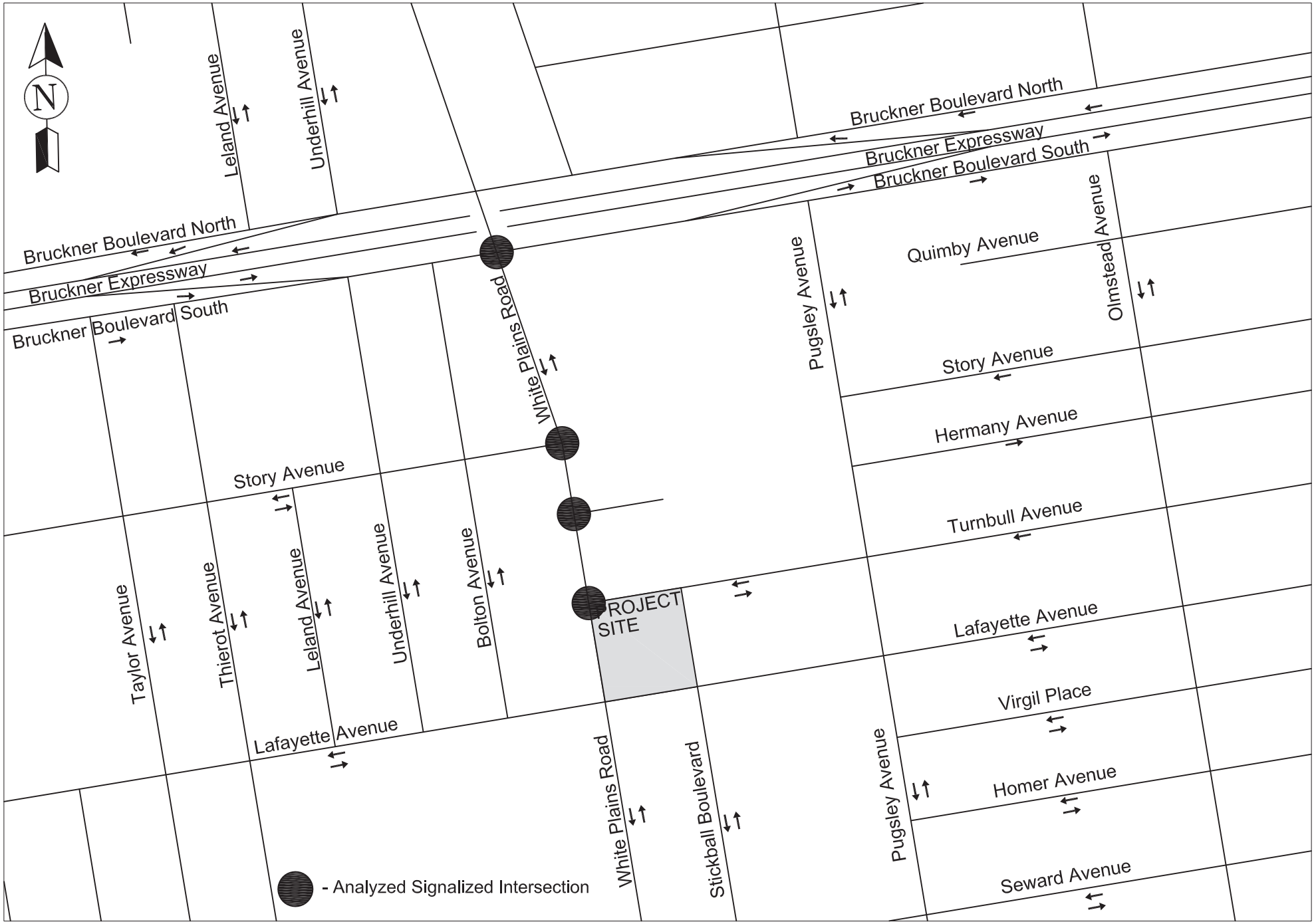
1965 Lafayette Avenue

Figure 2a
AM/Midday Peak Hour Traffic Assignments



1965 Lafayette Avenue

Figure 2b
PM/Saturday Midday Peak Hour Traffic Assignments



1965 Lafayette Avenue

Figure 3
Traffic Analysis Locations

Table 3a: Weekday Parking Accumulation

	Family Housing		Local Retail		Senior Housing		Accumulation
	292	du	19,938	gsf	133	du	
	In	Out	In	Out	In	Out	
12-1	1	1	0	0	0	0	**175**
1-2	1	1	0	0	0	0	**175**
2-3	1	1	0	0	0	0	**175**
3-4	1	1	0	0	0	0	**175**
4-5	1	1	0	0	0	0	**175**
5-6	3	7	0	0	1	2	**170**
6-7	6	21	0	0	1	4	**152**
7-8	7	22	0	0	2	6	**133**
8-9	11	59	3	1	3	6	**84**
9-10	13	19	2	1	3	5	**77**
10-11	13	22	6	3	3	6	**68**
11-12	14	19	6	6	3	5	**61**
12-1	18	18	16	14	8	8	**63**
1-2	18	18	7	7	4	5	**62**
2-3	19	18	7	5	5	5	**65**
3-4	27	16	6	6	7	4	**79**
4-5	46	26	6	7	11	7	**102**
5-6	52	25	8	9	7	5	**130**
6-7	35	18	4	8	9	5	**147**
7-8	32	14	4	7	8	3	**167**
8-9	19	9	3	4	4	2	**178**
9-10	6	7	2	2	1	2	**176**
10-11	4	5	0	0	1	1	**175**
11-12	4	4	0	0	1	1	**175**
Total	352	352	80	80	82	82	

Table 3b: Saturday Parking Accumulation

	Family Housing		Local Retail		Senior Housing		Accumulation
	292	du	19,938	gsf	133	gsf	
	In	Out	In	Out	In	Out	
12-1	1	1	0	0	0	0	**175**
1-2	1	1	0	0	0	0	**175**
2-3	1	1	0	0	0	0	**175**
3-4	1	1	0	0	0	0	**175**
4-5	1	1	0	0	0	0	**175**
5-6	3	9	0	0	0	1	**168**
6-7	7	25	0	0	1	4	**147**
7-8	9	34	1	0	1	6	**118**
8-9	10	36	3	3	1	7	**86**
9-10	12	34	3	2	2	5	**62**
10-11	13	34	7	4	2	5	**41**
11-12	14	29	7	7	2	4	**24**
12-1	25	30	19	19	3	7	**15**
1-2	36	32	9	9	8	6	**21**
2-3	38	34	10	7	5	5	**28**
3-4	32	32	7	7	5	2	**31**
4-5	30	30	8	8	4	5	**30**
5-6	52	24	10	10	9	1	**66**
6-7	44	12	5	9	6	2	**98**
7-8	42	6	5	8	6	1	**136**
8-9	26	7	4	5	4	1	**157**
9-10	11	2	2	2	2	1	**167**
10-11	6	2	0	0	1	0	**172**
11-12	4	2	0	0	1	0	**175**
Total	419	419	100	100	63	63	

As shown in Table 2, the approximate hourly public bus trips generated by the proposed project would be 171, 175, 219, and 213 trips in the weekday AM, midday, and PM, and Saturday midday peak hours, respectively. This includes trips that would use the bus to access the subway, as well as bus-only trips. According to the *CEQR Technical Manual*, a detailed analysis of bus conditions is generally not required if a proposed project is projected to result in fewer than 50 peak hour person trips assigned to a single bus line (in a single direction), as this level of new demand is considered unlikely to result in significant adverse impacts. As such, preliminary assignments of project-generated weekday AM and M peak hour bus person trips were prepared. Although the total number of bus person-trips would exceed 200 in the weekday midday and Saturday midday peak hours, these trips would be off-peak when the bus system typically has ample capacity. As such, these off-peak periods are not analyzed and no bus impacts are anticipated in these periods.

As noted above, the rezoning area is served by several bus routes, and bus trips were assigned to bus stops based on the anticipated ridership of each bus route. Specifically, project-generated bus trips were distributed as follows:

- Nineteen percent of bus-only trips would be expected to use the Bx5 local bus. Eastbound trips would board or alight on the south side of Lafayette Avenue between White Plains Road and Pugsley Avenue, and westbound trips would board or alight on the east side of White Plains Road between Lafayette and Turnbull Avenues. Given the rezoning area's location along the Bx5 route, it was assumed that trips would be split evenly by direction.
- Fifty-three percent of bus-only trips and 65 percent of bus-to-subway trips would be expected to use the Bx36 local bus to or from points north. Inbound (southbound) trips would alight on the south side of Lafayette Avenue between White Plains Road and Pugsley Avenue, and outbound (northbound) trips would board on the east side of White Plains Road between Lafayette and Turnbull Avenues.
- Twenty-eight percent of bus-only trips and 35 percent of bus-to-subway would be expected to use the Bx39 local bus. Southbound trips would board or alight on the west side of White Plains Road between Story and Turnbull Avenues, and northbound trips would board or alight on the east side of White Plains Road between Lafayette and Turnbull Avenues. Given the rezoning area's location along the Bx39 route, it was assumed 90 percent of bus-only trips and all bus-to-subway trips would travel to or from points north.

Table 4 provides the bus route assignment of project-generated bus person-trips for the weekday AM and PM peak hours. As shown in Table 4, based on the bus route distribution outlined above, the Bx36 bus would experience an increase of 80 northbound trips in the weekday AM peak hour and 82 southbound trips in the weekday PM peak hour. Therefore, a detailed bus analysis of the Bx36 bus route is warranted for both peak hours.

Table 4: Bus Route Assignments

Route	Inbound		Outbound	
	AM	PM	AM	PM
Bx5 to/from Points East	2	7	6	4
Bx5 to/from Points West	1	6	6	3
Bx36 to/from Points North (Including Subway)	22	82	80	49
Bx39 to/from Points North (Including Subway)	11	40	41	24
Bx39 to/from Points South	0	1	2	1
Total	**36**	**136**	**135**	**81**

Pedestrians

Analyses of pedestrian conditions focuses on elements where a substantial number of trips are generated by an action. These elements include sidewalks, street corner areas, and crosswalks. The number of pedestrian trips generated includes the number of bus, subway, and walk-only trips. According to the 2014 *CEQR Technical Manual*, detailed pedestrian analyses are not required if the proposed action is projected to result in less than 200 peak hour pedestrian trips on any single element. As shown in Table 2, the proposed project would generate 264, 647, 483, and 514 pedestrian trips (bus only, bus-to-subway, and walk-only; in and out combined) in the weekday AM, midday, and PM, and Saturday midday peak hours, respectively. Bus only, bus-to-subway, and walk-only trips would each have a different assignment

pattern. Subway and bus trips would be assigned as described above. Walk-only trips were assigned evenly through the local street network, with residential, local retail, and community facility "walk-only" trips originating/ending at their respective entrance/exit locations based on the proposed site plan.

A preliminary assignment of weekday AM and midday pedestrian trips is shown in Figure 4, and a preliminary assignment of weekday PM and Saturday midday pedestrian trips is shown in Figure 5. As shown in Figures 4 and 5, the following pedestrian elements would experience an increase of 200 or more pedestrian trips in any one peak hour thereby warranting detailed analyses:

SIDEWALKS

- East sidewalk on White Plains Road between Lafayette and Turnbull Avenues

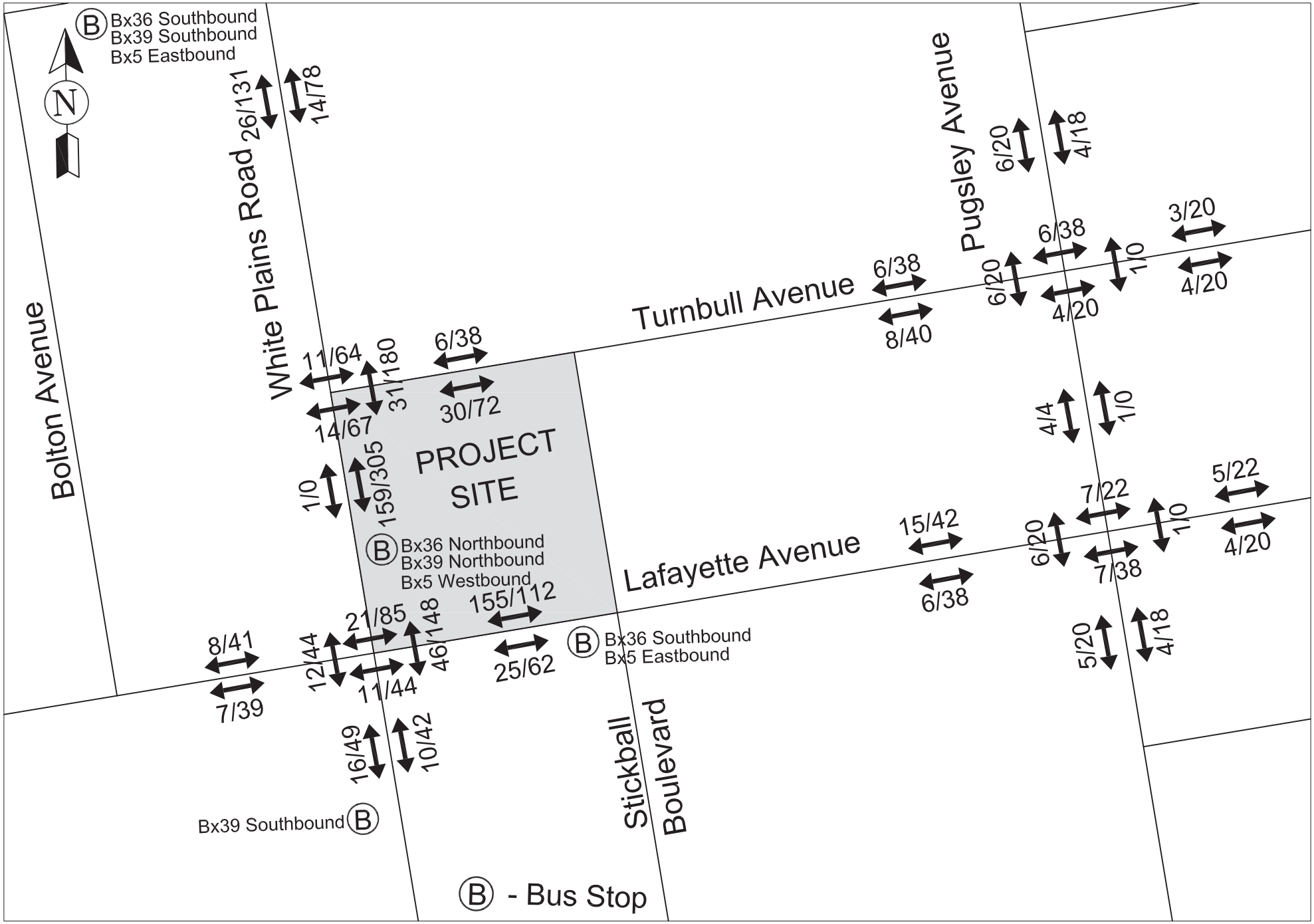
CORNER AREAS

- Lafayette Avenue and White Plains Road – Northeast Corner
- Turnbull Avenue and White Plains Road – Southeast Corner

At these locations, a detailed pedestrian analysis (as shown in Figure 6) would be warranted in the weekday midday, PM, and Saturday midday peak hours. As no study area pedestrian elements are expected to experience 200 or more incremental pedestrian trips in the weekday AM peak hour, an AM peak hour pedestrian impact analysis is not warranted, and no significant adverse pedestrian impacts are anticipated during this period.

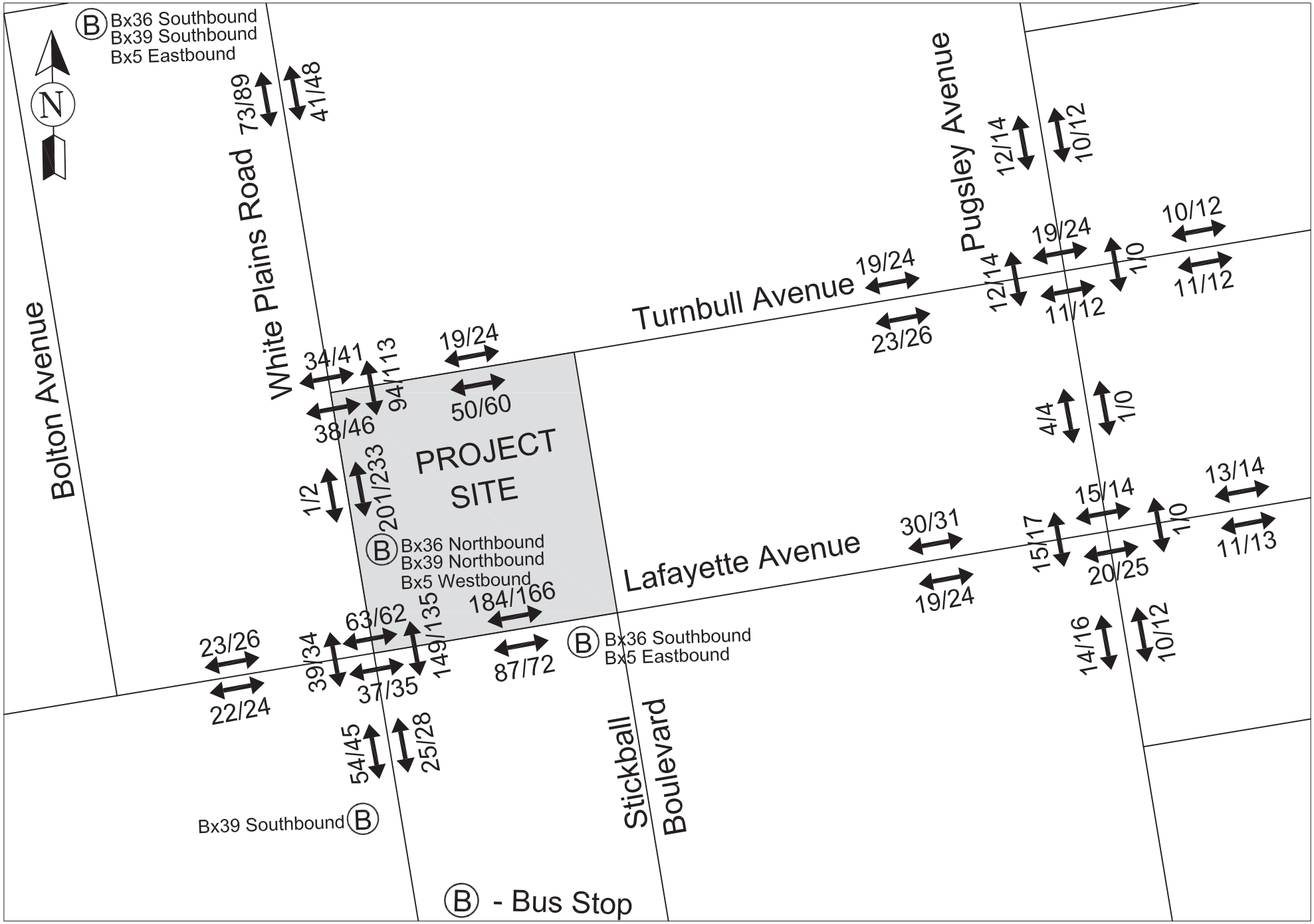
Conclusion

A transportation forecast and assignment have been proposed for the proposed project. After performing preliminary screening of traffic, parking, transit, and pedestrian conditions, it has been determined that detailed transportation analyses of traffic, parking, bus, and pedestrians are warranted as per 2014 *CEQR Technical Manual* criteria. The subway conditions do not exceed 2014 *CEQR Technical Manual* thresholds requiring detailed analysis and therefore significant adverse impacts are not expected for this mode.



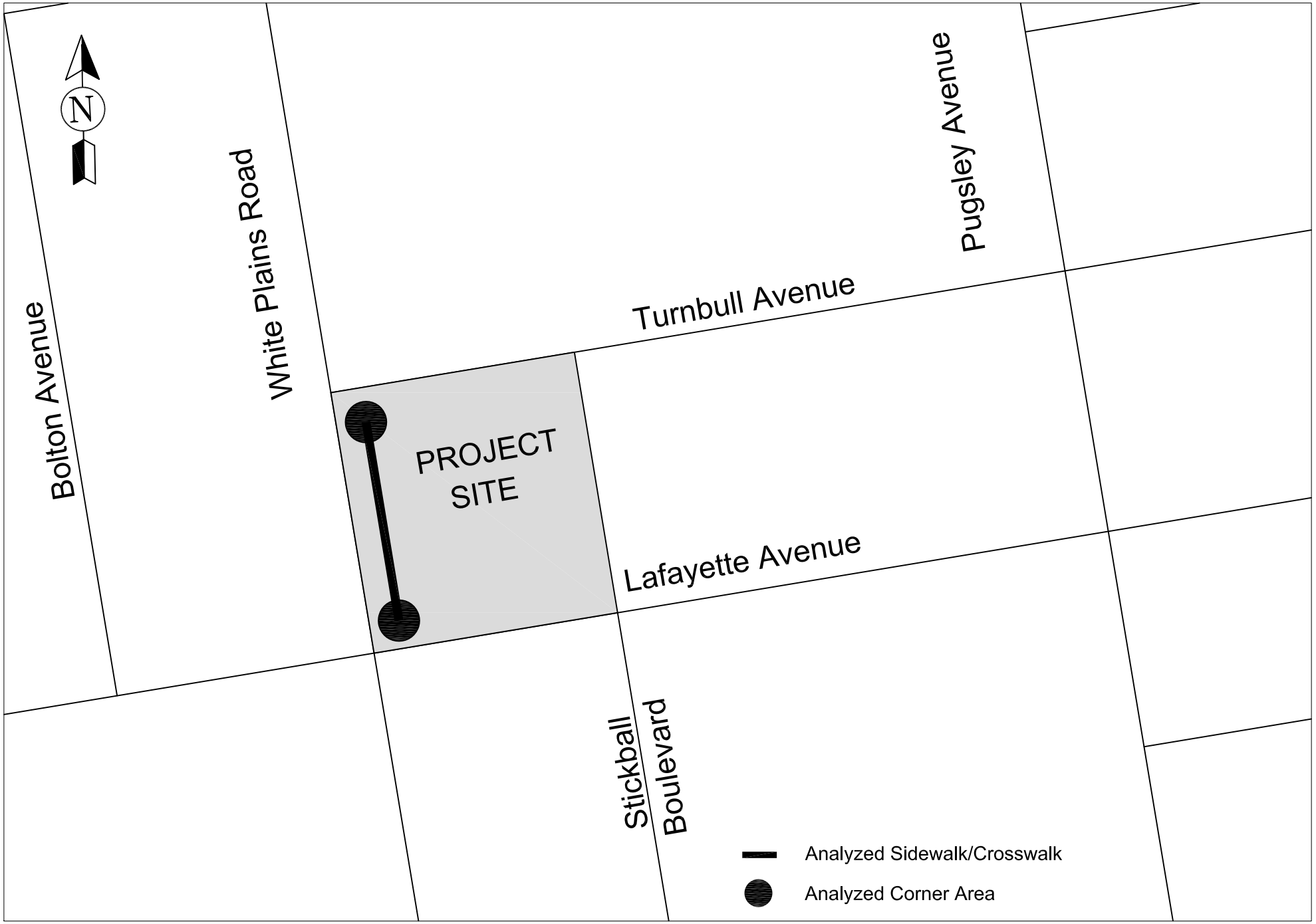
1965 Lafayette Avenue

Figure 4
AM/Midday Peak Hour Pedestrian Assignments



1965 Lafayette Avenue

Figure 5
PM/Saturday Peak Hour Pedestrian Assignments



1965 Lafayette Avenue

Figure 6
Pedestrian Analysis Locations

APPENDIX V

RESTRICTIVE DECLARATION & COMMITMENT LETTER

PACLA APARTMENTS, INC.
PARK LANE RESIDENCE CO.
c/o Starrett Companies LLC
70 East 55th Street, 7th Floor
New York, New York 10022

May 31, 2017

New York City Department of City Planning
120 Broadway, 31st Floor
New York, New York 10271

Re: 1965 Lafayette Avenue
CEQR No. 17DCP172X
ULURP Nos. I170392ZMX and N170393ZRX
Bronx, Community District 9

Dear Mrs. Laremont and Mr. Dobruskin:

I, Joshua Siegel, am an officer both of Pacla Apartments, Inc., the legal owner (the "Declarant") of the property located at 1965 Lafayette Avenue (Block 3672, p/o Lot 1) in the Bronx, Community District 9 (the "Subject Property"), and Park Lane Residence Co., the equitable owner of the Subject Property (the "Applicant").

The Applicant has applied for the following actions from the City Planning Commission: (1) an amendment to zoning map 7a to (a) rezone the westernmost 200 feet the Subject Property from R6 to R8 with a C2-4 overlay, and (b) rezone the remainder of the Subject Property from R6 to R8 (I170392ZMX); and (2) a zoning text amendment to designate the Rezoning Area as a Mandatory Inclusionary Housing area permitting MIH Option 1 and Option 2 (N170393ZRX) (collectively, the "ULURP Application").

I understand that in connection with the environmental review for the ULURP Application (CEQR No. 17DCP172X; the "CEQR Application"), a traffic analysis identified the intersection of Story Avenue and White Plains Road as a location where additional capacity would be needed to accommodate project traffic. Accordingly, Declarant desires to ensure the implementation of certain traffic improvement measures identified in the CEQR Application through a restrictive declaration (the "Declaration"), attached hereto as Exhibit A. The attached Declaration has been prepared but cannot be executed until all parties in interest to the Subject Property have either executed the Declaration or waived their right to do so and subordinated their interest in the Subject Property thereto.

I understand that, once all parties in interest to the Subject Property, other than the Declarant, have either executed the Declaration or waived their right to do so and subordinated their interest in the Subject Property thereto, I or an individual authorized to act on behalf of the Declarant will execute a restrictive declaration in the form of the attached (or other form if so advised by the Department of City Planning ("DCP") and subject to DCP approval). I understand further that, after obtaining approval from DCP as to the content and form of the executed restrictive declaration, I will cause the restrictive declaration to be recorded against the Subject Property, with proof of recording submitted to DCP, no less than eight business days prior to the date of the scheduled public hearing on the ULURP Application by the City Planning Commission. I agree that if DCP has not received such proof of recording by the eighth business day prior to the scheduled public hearing, the Applicant will withdraw the ULURP and CEQR Applications, or DCP will withdraw and/or terminate the ULURP and CEQR Applications on the Applicant's behalf at that time.

Within three business days of receipt of such proof of recording, DCP will review the submitted materials for completeness, identify any problems with the proof of recording that warrant correction, and communicate said problems to the Declarant to correct prior to the public hearing.

[SIGNATURES FOLLOW ON NEXT PAGE]

Respectfully,

PACLA APARTMENTS, INC.,
a corporation organized pursuant to the provisions of the Limited Profit Housing Companies Law (Article II of the Private Housing Finance Law of the State of New York)

By: _____
Name: David Goldberg
Title: Vice President

PARK LANE RESIDENCE CO.,
a New York limited partnership

By: _____
Name: David Goldberg
Title: Vice President

EXHIBIT A

THE DECLARATION

[See Attached]

DECLARATION

This **DECLARATION** made as of _____ ____, 2017, by **PACLA APARTMENTS, INC.**, a corporation organized pursuant to the provisions of the Limited Profit Housing Companies Law (Article II of the Private Housing Finance Law of the State of New York), having an address at c/o Starrett Companies LLC, 70 East 55th Street, 7th Floor, New York, New York 10022 ("Declarant");

WITNESSETH

WHEREAS, Declarant is fee owner of certain real property located in the County of the Bronx, City and State of New York, designated for real property tax purposes as Block 3672, Lot 1 (the "Subject Property") and is more particularly described in **Exhibit A,** annexed hereto and made part hereof; and

WHEREAS Royal Abstract of New York LLC has certified, pursuant to that certain Certification Pursuant to Zoning Lot Subdivision C of Section 12-10 of the Zoning Resolution of December 15, 1961 of the City of New York – As Amended Effective August 18, 1977, dated _____ ____, 2017, annexed hereto as **Exhibit B** and made a part hereof, identifying the parties-in-interest ("Parties-in-Interest"), as that term is defined in subdivision (e) of the definition of "zoning lot" set forth in Section 12-10 of the Zoning Resolution of the City of New York, to the Subject Property; and

WHEREAS, all Parties-in-Interest to the Subject Property have either executed this Declaration or waived their right to do so and subordinated their interest in the Subject Property to this Declaration, such waivers and subordinations annexed hereto as **Exhibit C** and made a part hereof; and

WHEREAS, Declarant has submitted an application to the New York City Planning Commission (the "Commission") dated May 3, 2017 for an amendment to zoning map 7a (the "Zoning Map Amendment") to rezone the westernmost 200 feet of the Subject Property from R6 to R8 with a C2-4 overlay and to rezone the middle 339.36 feet of the Subject Property from R6 to R8 (ULURP No. 170392 ZMX), and a zoning text amendment (the "Zoning Text Amendment") to designate a portion of the Subject Property as a Mandatory Inclusionary Housing area permitting MIH Option 1 and Option 2 (ULURP No. N 170393 ZRX) (such Zoning Text Amendment and, together with the Zoning Map Amendment, the "Proposed Actions");

WHEREAS, the Proposed Actions would facilitate the development of two buildings containing 425 units of affordable housing, including 292 affordable family units and 133 affordable senior units, and ground-floor retail space, and having a total floor area of 344,121 zoning square feet (the "Proposed Development"); and

WHEREAS, in connection with the Proposed Actions, Declarant submitted an Environmental Assessment Statement, dated February 1, 2017 and designated CEQR No. 17DCP172X (the "EAS"), for review by the New York City Department of City Planning ("DCP"), acting on behalf of the Commission as lead agency, pursuant to the State Environmental Quality Review Act ("SEQRA") and the City Environmental Quality Review ("CEQR") (the "CEQR Application"); and

WHEREAS, in conjunction with review of the CEQR Application, a traffic analysis of the Proposed Action identified the intersection of Story Avenue and White Plains Road as a location where additional capacity would be needed to accommodate project traffic; and

WHEREAS, in consultation with the New York City Department of Transportation ("DOT"), Declarant desires to improve access to the Subject Property; and

WHEREAS, Declarant desires to provide for certain traffic improvement measures identified in the CEQR Application that are required to facilitate traffic flow to and from the site; and

WHEREAS, Declarant desires to restrict the manner in which the Subject Property may be developed or redeveloped by having the implementation of such traffic improvement measures performed to the satisfaction of DOT be a condition to any development of the Subject Property that is facilitated by the Proposed Actions; and

WHEREAS, Declarant intends this Declaration to be binding upon all successors and assigns; and

WHEREAS, Declarant intends this Declaration to benefit all land owners and tenants, including the City of New York (the "City"), without consenting to the enforcement of this Declaration by any party or entity other than the City.

NOW, THEREFORE, Declarant hereby declares and agrees that the Subject Property shall be held, sold, transferred, and conveyed subject to the restrictions and obligations which are for the purpose of protecting the value and desirability of the Subject Property and which shall run with the land, binding the successors and assigns of Declarant so long as they have any right, title, or interest in the Subject Property or any part thereof:

1. Prior to the issuance of the first temporary or permanent certificate of occupancy for any portion of the Proposed Development ("TCO"), Declarant agrees to notify DOT of such impending issuance and request that DOT implement the following traffic improvement measures, as such measures may be reasonably adjusted by DOT to reflect then-current conditions:

    a) Transferring one second of green time at the intersection of Story Avenue and White Plains Road from the NB/SB signal phase to the EB/WB signal phase in the weekday AM and PM and Saturday midday peak hours; and

    b) The curb lane on the southbound approach of White Plains Road at Story Avenue would be converted from a parking lane to a right turn lane.

2. Declarant agrees that no application for a TCO for the Proposed Development shall be made to, and no TCO may be accepted from, the Department of Buildings unless and until Declarant has notified DOT in accordance with Paragraph 1 hereof.

3. Declarant represents and warrants with respect to the Subject Property that no restrictions of record, nor any present or presently existing estate or interest in the Subject Property, nor any lien, encumbrance, obligation, or covenant of any kind preclude, presently or

potentially, the imposition of the obligations and agreements of this Declaration.

4. Declarant acknowledges that the City is an interested party to this Declaration and consents to the enforcement solely by the City, administratively or at law or at equity, of the obligations, restrictions, and agreements pursuant to this Declaration.

5. The provisions of this Declaration shall inure to the benefit of and be binding upon the respective successors and assigns of Declarant, and references to Declarant shall be deemed to include such successors and assigns as well as successors to their interest in the Subject Property. References in this Declaration to agencies or instrumentalities of the City shall be deemed to include agencies or instrumentalities succeeding to the jurisdiction thereof.

6. The City and any other party relying on this Declaration will look solely to the fee estate interest of Declarant in the Subject Property for the collection of any money judgment recovered against Declarant, and no other property of Declarant shall be subject to levy, execution, or other enforcement procedure for the satisfaction of the remedies of the City or any other person or entity with respect to this Declaration, and Declarant shall have no personal liability under this Declaration.

7. The obligations, restrictions, and agreements herein shall be binding on Declarant or other parties in interest only for the period during which Declarant and any such party in interest holds an interest in the Subject Property; provided, however, that the obligations, restrictions, and agreements contained in this Declaration may not be enforced against the holder of any mortgage unless and until such holder succeeds to the fee interest of the Declarant by way of foreclosure or deed in lieu of foreclosure.

8. Declarant shall indemnify the City, its respective officers, employees, and agents from all claims, actions, or judgments for loss, damage, or injury, including death or property damage of whatsoever kind or nature, arising from Declarant's performance of its obligations under this Declaration including, without limitation, the negligence or carelessness of the Declarant, its agents, servants, or employees in undertaking such obligations; provided, however, that should such a claim be made or action brought, Declarant shall have the right to defend such claim or action with attorneys reasonably acceptable to the City.

9. If Declarant is found by a court of competent jurisdiction to have been in default in the performance of its obligations under this Declaration, and such finding is upheld on a final appeal by a court of competent jurisdiction or by other proceeding or the time for further review of such finding or appeal has lapsed, Declarant shall indemnify and hold harmless the City from and against all reasonable legal and administrative expenses arising out of or in connection with the enforcement of Declarant's obligations under this Declaration as well as any reasonable legal and administrative expenses arising out of or in connection with the enforcement of any judgment obtained against Declarant, including but not limited to the cost of undertaking the modification of the traffic signal and/or parking regulations.

10. Declarant shall cause every individual or entity that between the date hereof and the date of recordation of this Declaration that becomes a Party-in-Interest with respect to all or any

portion of the Subject Property to waive its right to execute this Declaration and subordinate its interest in the Subject Property to this Declaration. Any mortgage or other lien encumbering the Subject Property after the recording date of this Declaration shall be subject and subordinate hereto as provided herein. Such waivers and subordination shall be attached to this Declaration as exhibits and recorded in the Office of the City Register, Bronx County.

11. This Declaration and the provisions hereof shall become effective as of the date of this Declaration, subject to the terms of Paragraph 18 hereof. Declarant shall record or shall cause this Declaration to be recorded in the Office of the City Register, Bronx County, indexing it against the Subject Property within 5 business days of the date hereof and shall, if requested, promptly deliver to the DOT and DCP a certified copy of this Declaration as recorded.

12. This Declaration may be amended or modified by Declarant only with the approval of DCP in consultation with DOT or the agencies succeeding to their jurisdiction and no other approval or consent shall be required from any other public body, private person, or legal entity of any kind.

13. Declarant expressly acknowledges that this Declaration is an essential element of DOT's review of the CEQR Application and the effectuation of the determination of significance pursuant to the SEQRA Regulations, Title 6 New York Code of Rules and Regulations Part 617.7.

14. Declarant acknowledges that the satisfaction of the obligations set forth in this Declaration does not relieve Declarant of any additional requirements imposed by federal, state, or local laws.

15. This Declaration shall be governed by and construed in accordance with the laws of the State of New York.

16. Wherever in this Declaration, the certification, consent, approval, notice, or other action of Declarant or the City is required or permitted, such certification, consent, approval, notice, or other action shall not be unreasonably withheld or delayed.

17. In the event that any provision of this Declaration is deemed, decreed, adjudged, or determined to be invalid or unlawful by a court of competent jurisdiction, such provision shall be severable and the remainder of this Declaration shall continue to be in full force and effect.

18. This Declaration and its obligations and agreements are in contemplation of Declarant receiving approval relating to the Proposed Actions. In the event that Declarant withdraws the applications for the Proposed Actions before a final determination or the application for the Proposed Actions is not approved, the obligations and agreements pursuant to this Declaration shall have no force and effect and this Declaration shall be deemed cancelled without the necessity for any future filings by either party.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, Declarant has executed this Declaration as of the day and year first above set forth.

DECLARANT:

PACLA APARTMENTS, INC.,
a corporation organized pursuant to the provisions of the Limited Profit Housing Companies Law (Article II of the Private Housing Finance Law of the State of New York)

By:_____
Name:
Title:

CERTIFICATE OF ACKNOWLEDGMENT

STATE OF NEW YORK)
) .ss.:
COUNTY OF NEW YORK)

On the __ day of _____ in the year 2017 before me, the undersigned, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

_____
Notary Public

Exhibit A

The Subject Property

ALL that certain lot, place or parcel of land, situate, lying and being in the Borough and County of the Bronx, City and State of New York, bounded and described an follows:

BEGINNING at the corner formed by the intersection of the northerly side of Lafayette Avenue with the easterly side of White Plains Road; running

thence Northerly along the easterly side of White Plains Road 200.03 feet to the southerly side of Turnbull Avenue;

thence Easterly along the southerly side of Turnbull Avenue 789.36 feet to the westerly side of Pugsley Avenue;

thence Southerly along the westerly aide of Pugsley Avenue 200.93 feet to the northerly side of Lafayette Avenue;

thence Westerly along the northerly ride of Lafayette Avenue 789.37 feet to the easterly side of White Plains Road the point or place of BEGINNING.

Exhibit B

Certification of Parties-in-Interest

[See Attached]

Exhibit C

Waivers and Subordinations

[See Attached]